# **CHAPTER**

33

**LIGHTS** 



#### CHAPTER 33 LIGHTS

Subject/Page	Date	COC	Subject/Pag	ge Date	COC	Subject/Pag	je Date	COC
33-EFFECTIV	E PAGES		33-11-00	(cont)		33-13-00	(cont)	
1 thru 9	SEP 05/2018		208	Sep 05/2017		212	Sep 05/2016	
10	BLANK		209	Sep 05/2017		213	Sep 05/2016	
33-CONTENT	S		210	Sep 05/2017		214	Sep 05/2016	
1	Sep 05/2017		211	Sep 05/2017		215	Sep 05/2016	
2	May 05/2016		212	BLANK		216	Jan 05/2018	
3	Jan 05/2017		33-11-00			217	Jan 05/2018	
4	Jan 05/2017		501	Jan 05/2015		218	Sep 05/2016	
5	Jan 05/2018		502	May 05/2015		219	Sep 05/2016	
6	May 05/2017		503	Jan 05/2015		220	Sep 05/2017	
7	Jan 05/2016		504	Jan 05/2015		221	Jan 05/2018	
8	Jan 05/2016		33-11-01			222	Jan 05/2018	
9	Jan 05/2016		201	Jul 25/2018		223	Sep 05/2017	
10	Sep 05/2017		202	Sep 05/2016		224	May 05/2016	
11	Jan 05/2018		203	Jul 25/2018		225	Sep 05/2016	
12	Jan 05/2016		204	Jul 25/2018		226	Sep 05/2016	
13	Jan 05/2016		33-11-03			33-13-00		
14	Sep 05/2017		201	Sep 05/2017		501	May 05/2015	
15	Jan 05/2017		202	Sep 05/2017		502	May 05/2015	
16	Jan 05/2017		203	Sep 05/2016		503	May 05/2015	
17	Jan 05/2017		204	Sep 05/2016		504	Jan 05/2015	
18	Jan 05/2018		205	Sep 05/2017		505	Jan 05/2015	
19	Jan 05/2017		206	Jan 05/2015		506	May 05/2015	
20	Sep 05/2017		207	Sep 05/2016		507	May 05/2015	
21	Jan 05/2017		208	Sep 05/2017		508	BLANK	
22	BLANK		33-13-00			33-13-01		
33-00-00			201	Sep 05/2017		201	Sep 05/2017	
901	Jan 05/2015		202	Sep 05/2017		202	Jan 05/2015	
902	Jan 05/2015		203	Sep 05/2017		203	Sep 05/2016	
33-11-00			204	Sep 05/2016		204	Sep 05/2016	
201	Sep 05/2017		205	May 05/2017		205	Sep 05/2017	
202	Sep 05/2017		206	Sep 05/2017		206	Sep 05/2017	
203	Sep 05/2017		207	Sep 05/2017		33-13-02		
204	Sep 05/2017		208	Sep 05/2015		201	Sep 05/2017	
205	Sep 05/2017		209	Sep 05/2015		202	Sep 05/2017	
206	Sep 05/2017		210	Sep 05/2017		203	Sep 05/2017	
207	Sep 05/2017		211	Sep 05/2015		204	Sep 05/2016	

 $\mbox{A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change} \label{eq:added}$ 



#### CHAPTER 33 LIGHTS

Subject/Pag	je Date	COC	Subject/Page	Date	coc	Subject/Page	Date	COC
33-13-02	(cont)		33-14-05			33-20-00		
205	Sep 05/2017		201	Sep 05/2017		501	Sep 05/2017	
206	Sep 05/2017		202	Sep 05/2017		502	Sep 05/2017	
207	Sep 05/2017		203	Sep 05/2016		33-21-00		
208	Sep 05/2017		204	Sep 05/2016		501	May 05/2017	
209	Sep 05/2017		33-14-06			502	May 05/2017	
210	Sep 05/2017		201	Sep 05/2017		503	May 05/2017	
211	Sep 05/2017		202	Sep 05/2017		504	May 05/2017	
212	Sep 05/2017		203	Sep 05/2016		505	May 05/2017	
213	Sep 05/2017		204	Sep 05/2016		506	BLANK	
214	Sep 05/2017		33-16-00			33-21-01		
215	Sep 05/2017		201	Jan 05/2018		201	May 05/2018	
216	BLANK		202	Jan 05/2018		202	May 05/2018	
33-14-00			203	Sep 05/2016		203	Sep 05/2016	
501	Jan 05/2015		204	Sep 05/2016		204	Sep 05/2016	
502	Jan 05/2015		205	Jan 05/2018		205	Jan 05/2018	
33-14-02			206	Jan 05/2018		206	Jan 05/2018	
201	Sep 05/2017		207	Jan 05/2018		207	May 05/2018	
202	Jan 05/2015		208	Sep 05/2016		208	May 05/2018	
203	Sep 05/2016		209	Sep 05/2016		209	Jan 05/2018	
204	Sep 05/2016		210	Jan 05/2018		210	Sep 05/2016	
33-14-03			211	Sep 05/2017		211	Jan 05/2018	
201	Sep 05/2017		212	BLANK		212	Jan 05/2018	
202	Sep 05/2017		33-16-00			213	Jan 05/2018	
203	Sep 05/2016		501	May 05/2015		214	Jan 05/2018	
204	Sep 05/2016		502	BLANK		215	Jan 05/2018	
33-14-04			33-20-00			216	May 05/2018	
201	May 05/2018		201	Sep 05/2017		217	Jan 05/2018	
202	May 05/2018		202	Sep 05/2017		218	Jan 05/2018	
203	Sep 05/2016		203	Sep 05/2017		219	Jan 05/2018	
204	Sep 05/2016		204	Sep 05/2017		220	Jan 05/2018	
205	May 05/2018		205	Sep 05/2017		33-21-02		
206	May 05/2018		206	Sep 05/2017		201	Jan 05/2018	
207	Sep 05/2016		207	Sep 05/2017		202	Jan 05/2018	
208	Sep 05/2016		208	BLANK		203	Sep 05/2016	
						204	Sep 05/2016	

A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change



#### CHAPTER 33 LIGHTS

Subject/Page	Date	COC	Subject/Pa	ge Date	coc	Subject/Page	Date	coc
33-21-03			33-22-02	(cont)		33-22-06		
201	May 05/2017		205	May 05/2017		201	Sep 05/2017	
202	Jan 05/2018		206	May 05/2017		202	Sep 05/2017	
203	May 05/2018		207	Sep 05/2017		203	Sep 05/2017	
204	Jan 05/2018		208	Sep 05/2017		204	Sep 05/2016	
205	May 05/2017		209	May 05/2017		205	Sep 05/2016	
206	May 05/2017		210	Sep 05/2017		206	Sep 05/2017	
207	May 05/2017		33-22-03			207	Sep 05/2017	
208	May 05/2017		201	Sep 05/2017		208	Sep 05/2016	
209	May 05/2017		202	Sep 05/2017		209	Sep 05/2016	
210	BLANK		203	Sep 05/2016		210	Sep 05/2017	
33-21-07			204	Sep 05/2016		211	Sep 05/2017	
201	Jan 05/2018		205	Sep 05/2017		212	Sep 05/2017	
202	Jan 05/2018		206	Sep 05/2017		213	Sep 05/2017	
203	Sep 05/2016		207	Sep 05/2016		214	BLANK	
204	Jan 05/2018		208	Sep 05/2016		33-23-00		
33-22-00			33-22-04	•		201	Sep 05/2017	
501	Sep 05/2016		201	Sep 05/2017		202	Jan 05/2016	
502	Jan 05/2015		202	Sep 05/2017		203	Sep 05/2017	
503	Jan 05/2015		203	Sep 05/2016		204	Sep 05/2017	
504	BLANK		204	Sep 05/2016		205	Sep 05/2017	
33-22-01			33-22-05	33p 33/23 13		206	Sep 05/2016	
201	Jan 05/2018		201	Sep 05/2017		207	Sep 05/2016	
202	Jan 05/2018		202	Sep 05/2017		208	Sep 05/2016	
203	Sep 05/2016		203	Sep 05/2016		209	Sep 05/2017	
204	Jan 05/2018		204	Sep 05/2016		210	Sep 05/2017	
205	Jan 05/2018		205	Sep 05/2017		211	Sep 05/2017	
206	Jan 05/2015		206	Sep 05/2017		212	Sep 05/2016	
207	Sep 05/2016					213	Sep 05/2016	
208	Sep 05/2016		207	Sep 05/2016 Sep 05/2016		214	Sep 05/2017	
209	Jan 05/2018		208	•		215	Jan 05/2018	
210	BLANK		209	Sep 05/2017		216	Jan 05/2018	
33-22-02			210	Sep 05/2017		217	Sep 05/2016	
201	Sep 05/2017		211	Sep 05/2016		218	Sep 05/2016	
202	Sep 05/2017		212	Sep 05/2016		219	Sep 05/2017	
203	May 05/2017		213	Sep 05/2017		220	Sep 05/2016	
204	May 05/2017		214	Sep 05/2017		221	Sep 05/2017	

 $\mbox{A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change} \label{eq:added}$ 



#### CHAPTER 33 LIGHTS

Subject/Pag	ge Date	COC	Subject/Pag	ge Date	COC	Subject/Page	Date	COC
33-23-00	(cont)		33-25-01	(cont)		33-26-00		
222	BLANK		205	Jan 05/2018		501	Jan 05/2015	
33-23-00			206	BLANK		502	Jan 05/2015	
501	Jan 05/2015		33-25-02			33-27-00		
502	Jan 05/2015		201	Jan 05/2018		201	Jan 05/2018	
33-24-00			202	Jan 05/2018		202	May 05/2017	
201	Sep 05/2016		203	Sep 05/2016		203	Sep 05/2016	
202	Sep 05/2017		204	Sep 05/2016		204	Sep 05/2016	
203	Sep 05/2017		205	Jan 05/2018		205	Sep 05/2016	
204	Sep 05/2017		206	Jan 05/2018		206	Sep 05/2016	
205	Jan 05/2018		33-26-00			207	Jan 05/2018	
206	Jan 05/2018		201	Jan 05/2018		208	Jan 05/2018	
207	Jan 05/2016		202	Jan 05/2015		209	Jan 05/2018	
208	Jan 05/2016		203	Sep 05/2016		210	Sep 05/2017	
209	Jan 05/2016		204	Sep 05/2016		211	Sep 05/2016	
210	Jan 05/2018		205	Sep 05/2017		212	Sep 05/2016	
211	Jan 05/2018		206	Jan 05/2018		33-27-00		
212	Jan 05/2018		207	Sep 05/2017		501	Jan 05/2015	
213	Sep 05/2016		208	Jan 05/2018		502	Jan 05/2015	
214	Sep 05/2016		209	Jan 05/2015		33-28-00		
215	Sep 05/2016		210	Sep 05/2016		201	Sep 05/2017	
216	Jan 05/2018		211	Sep 05/2016		202	Jan 05/2015	
217	Jan 05/2018		212	Sep 05/2017		203	Sep 05/2016	
218	Sep 05/2016		213	Jan 05/2018		204	Sep 05/2016	
33-24-00			214	Sep 05/2016		205	Sep 05/2016	
501	Sep 05/2016		215	Sep 05/2016		206	BLANK	
502	Jan 05/2015		216	Jan 05/2018		33-28-00		
33-25-00			217	Sep 05/2017		501	Jan 05/2015	
501	Jan 05/2015		217	Sep 05/2017		502	Jan 05/2015	
502	Jan 05/2015		219	Sep 05/2016		33-29-00		
503	Jan 05/2015			-		501	Jan 05/2015	
504	BLANK		220	Jan 05/2018		502	Jan 05/2015	
33-25-01			221	Jan 05/2018		33-29-03		
201	Jan 05/2018		222	Sep 05/2017		201	Sep 05/2017	
202	Jan 05/2018		223	Sep 05/2016		202	Jan 05/2015	
203	Sep 05/2016		224	Jan 05/2018		203	Jan 05/2015	
204	Jan 05/2018					204	Sep 05/2017	

A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change



#### CHAPTER 33 LIGHTS

Subject/Pag	ge Date	COC	Subject/Pa	ge Date	coc	Subject/Pag	ge Date	COC
33-29-03	(cont)		33-31-01	(cont)		33-37-00	(cont)	
205	Jan 05/2015		215	Jan 05/2018		207	Sep 05/2017	
206	Sep 05/2017		216	Jan 05/2018		208	Sep 05/2016	
207	Jan 05/2015		33-31-02			209	Sep 05/2016	
208	Jan 05/2015		201	Jan 05/2018		210	Sep 05/2016	
209	Sep 05/2017		202	Jan 05/2018		211	Sep 05/2016	
210	Sep 05/2017		203	Jan 05/2018		212	Sep 05/2017	
211	Sep 05/2017		204	Jan 05/2018		213	Sep 05/2017	
212	Sep 05/2017		205	Jan 05/2018		214	Sep 05/2017	
213	Sep 05/2017		206	Jan 05/2018		33-37-00		
214	Sep 05/2017		207	Jan 05/2018		501	Sep 05/2017	
215	Sep 05/2017		208	Jan 05/2018		502	Sep 05/2017	
216	Sep 05/2017		209	Jan 05/2018		503	Sep 05/2017	
33-31-00			210	Jan 05/2018		504	BLANK	
501	Sep 05/2017		211	Jan 05/2018		33-41-00		
502	Sep 05/2017		212	Jan 05/2018		201	Jan 05/2016	
503	Sep 05/2017		213	Jan 05/2018		202	Sep 05/2017	
504	Sep 05/2017		214	Jan 05/2018		203	Jan 05/2016	
505	Sep 05/2017		215	Jan 05/2018		204	Sep 05/2017	
506	Sep 05/2017		216	Jan 05/2018		205	Sep 05/2017	
507	Sep 05/2017		217	Jan 05/2018		206	Sep 05/2017	
508	Sep 05/2017		218	Jan 05/2018		207	Sep 05/2016	
33-31-01			219	Sep 05/2016		208	Sep 05/2016	
201	Jan 05/2018		220	Sep 05/2016		209	Sep 05/2017	
202	Jan 05/2018		221	Sep 05/2016		210	Sep 05/2017	
203	Sep 05/2016		222	Jan 05/2018		211	Sep 05/2016	
204	Sep 05/2016		223	Jan 05/2018		212	Sep 05/2017	
205	Sep 05/2016		224	Jan 05/2018		213	Jan 05/2016	
206	Sep 05/2016		225	Jan 05/2018		214	Jan 05/2016	
207	Sep 05/2016		226	Jan 05/2018		215	Sep 05/2016	
208	Sep 05/2016		33-37-00			216	Sep 05/2016	
209	Sep 05/2016		201	Jan 05/2016		33-41-00		
210	Sep 05/2016		202	Sep 05/2017		501	Jan 05/2015	
211	Sep 05/2016		203	Jan 05/2016		502	BLANK	
212	Jan 05/2018		204	Sep 05/2016		33-42-00		
213	Jan 05/2018		205	Sep 05/2017		501	Jan 05/2015	
214	Jan 05/2018		206	Sep 05/2017		502	Jul 25/2018	

 $\mbox{A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change} \label{eq:added}$ 



#### CHAPTER 33 LIGHTS

Subject/Pag	ge Date	COC	Subject/Pa	ge Date	COC	Subject/Pag	je Date	coc
33-42-00	(cont)		33-42-02	(cont)		33-42-04	(cont)	
503	Jul 25/2018		211	Sep 05/2016		203	Jan 05/2016	
504	Sep 05/2016		212	Jan 05/2018		204	Jan 05/2018	
505	Jul 25/2018		213	Jan 05/2018		205	Jan 05/2018	
506	May 05/2015		214	Jan 05/2018		206	Jan 05/2018	
507	Sep 05/2017		215	Sep 05/2016		207	Jan 05/2018	
508	May 05/2015		216	Sep 05/2016		208	Sep 05/2016	
509	May 05/2015		217	Sep 05/2016		209	Sep 05/2016	
510	May 05/2015		218	Sep 05/2016		210	Jan 05/2018	
33-42-01			219	Jan 05/2018		211	Jan 05/2018	
201	Jan 05/2018		220	Jan 05/2018		212	Sep 05/2016	
202	Sep 05/2017		221	Sep 05/2016		213	Sep 05/2016	
203	Sep 05/2017		222	Sep 05/2016		214	Jan 05/2018	
204	Jan 05/2018		33-42-03			215	Jan 05/2018	
205	Jan 05/2018		201	Jan 05/2016		216	Sep 05/2016	
206	Sep 05/2016		202	Sep 05/2017		217	Sep 05/2016	
207	Sep 05/2016		203	Sep 05/2016		218	BLANK	
208	Jan 05/2018		204	Sep 05/2017		33-42-05		
209	Sep 05/2017		205	May 05/2018		201	Sep 05/2017	
210	Sep 05/2016		206	May 05/2018		202	Sep 05/2017	
211	Sep 05/2016		207	Sep 05/2016		203	Sep 05/2017	
212	Jan 05/2018		208	Sep 05/2016		204	Sep 05/2016	
213	Sep 05/2017		209	May 05/2018		205	Sep 05/2016	
214	Sep 05/2016		210	May 05/2018		206	BLANK	
215	Sep 05/2016		211	Sep 05/2016		33-43-00		
216	BLANK		212	Sep 05/2016		201	Sep 05/2017	
33-42-02			213	May 05/2018		202	Sep 05/2017	
201	Jan 05/2018		214	Sep 05/2017		203	Sep 05/2017	
202	Jan 05/2018		215	Sep 05/2016		204	Sep 05/2017	
203	Jan 05/2018		216	Sep 05/2016		205	Sep 05/2017	
204	Jan 05/2018		217	May 05/2018		206	Sep 05/2017	
205	Jan 05/2018		218	May 05/2018		207	Sep 05/2016	
206	Jan 05/2018		219	Sep 05/2016		208	BLANK	
207	Jan 05/2018		220	Sep 05/2016		33-43-00	DE WILL	
208	Sep 05/2016		33-42-04				lan 05/2015	
209	Sep 05/2016		201	Jan 05/2018		501	Jan 05/2015	
210	Sep 05/2016		202	Jan 05/2018		502	Jan 05/2015	

 $\mbox{A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change} \label{eq:added}$ 



#### CHAPTER 33 LIGHTS

Subject/Page	Date	COC	Subject/Pa	ge Date	coc	Subject/Pag	je Date	COC
33-43-00			33-43-03	(cont)		33-44-01	(cont)	
801	Sep 05/2017		208	Sep 05/2016		209	Jan 05/2018	
802	Sep 05/2017		209	Sep 05/2016		210	Sep 05/2017	
33-43-01			210	BLANK		211	Sep 05/2017	
201	Sep 05/2017		33-43-04			212	May 05/2017	
202	Jan 05/2015		201	Jan 05/2018		213	Jan 05/2017	
203	Sep 05/2016		202	Jan 05/2015		214	Jan 05/2017	
204	Sep 05/2016		203	Sep 05/2016		215	Jan 05/2017	
205	Sep 05/2017		204	Sep 05/2016		216	BLANK	
206	Sep 05/2017		205	Jan 05/2018		33-44-02		
207	Jan 05/2015		206	Jan 05/2018		201	Jan 05/2018	
208	Sep 05/2016		207	Sep 05/2016		202	Sep 05/2017	
209	Sep 05/2016		208	Sep 05/2016		203	Sep 05/2016	
210	Jan 05/2015		33-43-05			204	Sep 05/2016	
211	Jan 05/2015		601	Sep 05/2015		205	Jan 05/2018	
212	BLANK		602	Sep 05/2016		206	Sep 05/2017	
33-43-02			33-44-00			207	Sep 05/2016	
201	Sep 05/2017		201	Jan 05/2016		208	Sep 05/2016	
202	May 05/2018		202	Sep 05/2017		209	Jan 05/2018	
203	Sep 05/2016		203	Jan 05/2016		210	Sep 05/2017	
204	Sep 05/2016		204	Sep 05/2017		211	Sep 05/2017	
205	Sep 05/2017		205	Jan 05/2016		212	Sep 05/2016	
206	Sep 05/2017		206	BLANK		213	Sep 05/2016	
207	Sep 05/2017		33-44-00			214	BLANK	
208	May 05/2017		501	Sep 05/2017		33-44-03		
209	May 05/2017		502	Sep 05/2017		201	Jan 05/2018	
210	Sep 05/2017		503	Sep 05/2017		202	Jan 05/2018	
211	Sep 05/2017		504	BLANK		203	Jan 05/2018	
212	BLANK		33-44-01			204	Sep 05/2016	
33-43-03			201	May 05/2017		205	Jan 05/2018	
201	May 05/2017		202	Jan 05/2015		206	Jan 05/2018	
202	Jan 05/2018		203	Sep 05/2016		207	Jan 05/2018	
203	Sep 05/2017		204	Sep 05/2016		208	Sep 05/2016	
204	Jan 05/2018		205	May 05/2017		209	Sep 05/2016	
205	Jan 05/2018		206	Jan 05/2015		210	Jan 05/2018	
206	May 05/2017		207	Sep 05/2016		211	Jan 05/2018	
207	Jan 05/2018		208	Sep 05/2016		212	Jan 05/2018	

A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change



#### CHAPTER 33 LIGHTS

Subject/Pag	ge Date	COC	Subject/Page	Date	COC	Subject/Page	Date	coc
33-44-03	(cont)		33-47-00			33-51-00		
213	Jan 05/2018		201	Jan 05/2016		501	May 05/2015	
214	Jan 05/2018		202	Sep 05/2017		502	May 05/2015	
33-44-03			203	Sep 05/2017		503	Jan 05/2015	
801	Sep 05/2017		204	Jan 05/2018		504	May 05/2018	
802	Sep 05/2017		205	Jan 05/2018		505	Jul 25/2018	
33-44-04			206	Jan 05/2018		506	May 05/2018	
201	Jan 05/2018		207	Jan 05/2018		507	May 05/2018	
202	Jan 05/2018		208	Jan 05/2018		508	Sep 05/2016	
203	Sep 05/2016		209	Jan 05/2018		33-51-01		
204	Sep 05/2016		210	Jan 05/2018		201	Sep 05/2017	
205	Jan 05/2018		211	Jan 05/2018		202	Jan 05/2015	
206	Jan 05/2018		212	Jan 05/2018		203	Sep 05/2016	
207	Sep 05/2016		213	Jan 05/2018		204	Sep 05/2016	
208	Sep 05/2016		214	Jan 05/2018		205	Sep 05/2016	
209	Jan 05/2018		215	Jan 05/2018		206	Sep 05/2017	
210	Jan 05/2018		216	May 05/2018		207	Sep 05/2017	
211	Sep 05/2016		217	Jan 05/2018		208	BLANK	
212	Sep 05/2016		218	Jul 25/2018		33-51-03		
213	Sep 05/2016		219	Jul 25/2018		201	Jul 25/2018	
214	BLANK		220	Jan 05/2018		202	Sep 05/2016	
33-45-00			221	Jan 05/2018		203	Sep 05/2016	
201	Sep 05/2017		222	Jan 05/2018		204	Jul 25/2018	
202	Sep 05/2017		223	Jan 05/2018		205	Jan 05/2015	
203	Sep 05/2016		224	Jan 05/2018		206	Sep 05/2016	
204	Sep 05/2017		225	Jan 05/2018		207	Sep 05/2016	
205	Sep 05/2017		226	Jan 05/2018		208	BLANK	
206	Sep 05/2017		227	Jan 05/2018		33-51-04		
207	Sep 05/2017		228	Jan 05/2018		201	Jan 05/2015	
207	•		229	Jan 05/2018		202	May 05/2018	
	Sep 05/2016		230	BLANK		203	May 05/2018	
209	Sep 05/2017		33-47-00			204	Sep 05/2016	
210	Sep 05/2017		501	Jan 05/2015		33-51-05		
211	Sep 05/2017		502	BLANK		201	Sep 05/2017	
212	Sep 05/2017		33-50-00			202	Sep 05/2017	
213	Sep 05/2016		201	Jan 05/2015		203	Sep 05/2017	
214	Sep 05/2016		202	Jan 05/2015		204	Sep 05/2017	

A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change



#### CHAPTER 33 LIGHTS

Subject/Pag	e Date	coc	Subject/Pa	ge Date	COC	Subject/Page	Date	COC
33-51-05	(cont)		33-51-06	(cont)				
205	Sep 05/2017		204	Sep 05/2016				
206	Sep 05/2017		205	Sep 05/2017				
207	Sep 05/2017		206	Sep 05/2017				
208	Sep 05/2017		207	Sep 05/2017				
209	Sep 05/2017		208	May 05/2016				
210	Sep 05/2017		209	Jan 05/2016				
211	Sep 05/2017		210	Jan 05/2016				
212	Sep 05/2017		33-51-07					
33-51-05			201	Sep 05/2017				
401	May 05/2015		202	Sep 05/2016				
402	Sep 05/2016		203	Sep 05/2016				
403	Sep 05/2016		204	BLANK				
404	Sep 05/2017							
405	Jan 05/2017							
406	Sep 05/2016							
407	Sep 05/2016							
408	Sep 05/2017							
409	Jan 05/2015							
410	BLANK							
33-51-05								
501	Sep 05/2017							
502	Sep 05/2017							
503	Sep 05/2017							
504	Sep 05/2017							
505	Sep 05/2017							
506	Sep 05/2017							
33-51-05								
601	May 05/2015							
602	BLANK							
33-51-05								
701	Sep 05/2017							
702	BLANK							
33-51-06								
201	Sep 05/2017							
202	Sep 05/2017							
203	Sep 05/2016							

A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	SUBJECT	CONF PAGE	<u>EFFECT</u>
LIGHTS - DDG MAINTENANCE PROCEDURES	33-00-00	901	ARO ALL
MMEL 33-24-1 (DDG) Preparation - Passenger Information Signs (No Smoking/Fasten Seat Belt/Return To Seat) Inoperative TASK 33-00-00-040-801		901	ARO ALL
MMEL 33-24-1 (DDG) Restoration - Passenger Information Signs (No Smoking/Fasten Seat Belt/Return To Seat) Inoperative TASK 33-00-00-440-801		902	ARO ALL
FLIGHT DECK LIGHTING - MAINTENANCE PRACTICES	33-11-00	201	ARO ALL
Flight Deck Lighting - Deactivation TASK 33-11-00-040-806		201	ARO ALL
Flight Deck Lighting - Activation TASK 33-11-00-440-806		207	ARO ALL
FLIGHT COMPARTMENT ILLUMINATION - ADJUSTMENT/TEST	33-11-00	501	ARO ALL
Flight Compartment Illumination - Operational Test		501	ARO ALL
TASK 33-11-00-710-801			
Flight Compartment Illumination - Operational Test of the Dome and Floodlight Standby Relays TASK 33-11-00-710-802		502	ARO ALL
Flight Compartment Illumination - Operational Test During Towing Operations TASK 33-11-00-710-803		504	ARO ALL
DOME LIGHTS - MAINTENANCE PRACTICES	33-11-01	201	ARO ALL
Dome Light - Lamp Removal TASK 33-11-01-000-801		201	ARO ALL
Dome Light - Lamp Installation TASK 33-11-01-400-801		204	ARO ALL
FLOODLIGHTS - MAINTENANCE PRACTICES	33-11-03	201	ARO ALL
Floodlight, Panel or Glareshield - Light Assembly Replacement TASK 33-11-03-960-801		201	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	<b>SUBJECT</b>	CONF PAGE	<u>EFFECT</u>
Floodlight, Aisle Stand - Lamp Replacement TASK 33-11-03-960-802		205	ARO ALL
INTEGRAL PANEL LIGHTS - MAINTENANCE PRACTICES	33-13-00	201	ARO ALL
Integral Panel Light - Lightplate Replacement TASK 33-13-00-960-801		201	ARO ALL
Integral Panel Light - Pushbutton Switch Replacement TASK 33-13-00-960-802		206	ARO ALL
Integral Panel Light - Annunciator Replacement TASK 33-13-00-960-803		216	ARO ALL
Integral Panel Light - Push-button Switch Guard Removal/Installation TASK 33-13-00-960-804		220	ARO ALL
INTEGRAL PANEL LIGHTS - ADJUSTMENT/TEST	33-13-00	501	ARO ALL
Integral Panel Lights - Operational Test TASK 33-13-00-710-801		501	ARO ALL
Integral Panel Lights - Functional Test TASK 33-13-00-720-801		502	ARO ALL
Integral Panel Lights - Operational Test of the Captain's Standby Relay TASK 33-13-00-720-802		506	ARO ALL
Integral Panel Lights - Operational Test of the Glareshield Standby Relay TASK 33-13-00-720-803		507	ARO ALL
MASTER BRIGHT CONTROL - MAINTENANCE PRACTICES	33-13-01	201	ARO ALL
Master Bright Control - Card Removal TASK 33-13-01-000-801		201	ARO ALL
Master Bright Control - Card Installation TASK 33-13-01-400-801		205	ARO ALL
RELAYS/DIMMER CONTROL UNITS - MAINTENANCE PRACTICES	33-13-02	201	ARO ALL
Dimmer Control Unit (DCU) - Replacement of a Component in the Forward Instrument Panel TASK 33-13-02-960-801		201	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION			
SUBJECT	<b>SUBJECT</b>	CONF F	PAGE	<b>EFFECT</b>
Relay/Dimmer Control Unit (DCU) - Replacement of a Component in the Aisle Stand TASK 33-13-02-960-802			205	ARO ALL
Dimmer Control Unit (DCU) - Replacement of a Component in the Overhead Dimmer Panel TASK 33-13-02-960-803			213	ARO ALL
FLIGHT COMPARTMENT MISCELLANEOUS LIGHTS - ADJUSTMENT/TEST	33-14-00		501	ARO ALL
Flight Compartment Miscellaneous Lights - Operational Test TASK 33-14-00-710-801			501	ARO ALL
MAP LIGHTS - MAINTENANCE PRACTICES	33-14-02		201	ARO ALL
Map Light - Lamp Replacement TASK 33-14-02-960-801			201	ARO ALL
UTILITY LIGHTS - MAINTENANCE PRACTICES	33-14-03		201	ARO ALL
Utility Light - Lamp Replacement TASK 33-14-03-960-801			201	ARO ALL
FLOOR LIGHTS - MAINTENANCE PRACTICES	33-14-04		201	ARO ALL
Floor Light - Light Assembly Replacement TASK 33-14-04-960-801			201	ARO ALL
Floor Light - Transformer Replacement TASK 33-14-04-960-802			205	ARO ALL
CHART LIGHTS - MAINTENANCE PRACTICES	33-14-05		201	ARO ALL
Chart Light - Lamp Replacement TASK 33-14-05-960-801			201	ARO ALL
WORKTABLE LIGHTS - MAINTENANCE PRACTICES	33-14-06		201	ARO ALL
Worktable Light - Lamp Replacement TASK 33-14-06-960-801			201	ARO ALL
MASTER DIM AND TEST - MAINTENANCE PRACTICES	33-16-00		201	ARO ALL
Master Dim and Test - Card Removal TASK 33-16-00-000-801			201	ARO ALL
Master Dim and Test - Card Installation TASK 33-16-00-400-801			205	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
<u>SUBJECT</u>	<b>SUBJECT</b>	CONF PAGE	<b>EFFECT</b>
Master Dim and Test - Card File (P29 Panel) Removal		206	ARO ALL
TASK 33-16-00-000-802			
Master Dim and Test - Card File (P29 Panel) Installation TASK 33-16-00-400-802		210	ARO ALL
MASTER DIM AND TEST - ADJUSTMENT/TEST	33-16-00	501	ARO ALL
Master Dim and Test - Operational Test TASK 33-16-00-710-801		501	ARO ALL
PASSENGER COMPARTMENT LIGHTS - MAINTENANCE PRACTICES	33-20-00	201	ARO ALL
Passenger Compartment Lights - Deactivation TASK 33-20-00-040-801		201	ARO ALL
Passenger Compartment Lights - Activation TASK 33-20-00-440-801		203	ARO ALL
Passenger Compartment Lights - Index TASK 33-20-00-970-801		204	ARO ALL
PASSENGER COMPARTMENT LIGHTS - ADJUSTMENT/TEST	33-20-00	501	ARO ALL
Passenger Compartment Lights - Operational Test Using the Cabin/Utility Switch TASK 33-20-00-710-801		501	ARO ALL
PASSENGER COMPARTMENT ILLUMINATION - ADJUSTMENT/TEST	33-21-00	501	ARO ALL
Passenger Compartment Illumination - Operational Test TASK 33-21-00-710-801		501	ARO ALL
INDIRECT CEILING LIGHTS - MAINTENANCE PRACTICES	33-21-01	201	ARO ALL
Indirect Ceiling Light - Lamp Replacement TASK 33-21-01-960-801		201	ARO 001-006
Indirect Ceiling Light - Light Assembly Replacement TASK 33-21-01-960-802		205	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	SUBJECT C	ONF PAGE	<u>EFFECT</u>
Indirect Ceiling Light - Light Shield Fastener Identification and Removal TASK 33-21-01-000-801		216	ARO ALL
Indirect Ceiling Lights - Light Block Installation TASK 33-21-01-420-801		220	ARO ALL
NIGHT LIGHTS - MAINTENANCE PRACTICES	33-21-02	201	ARO ALL
Night Light - Lamp Replacement TASK 33-21-02-960-801		201	ARO ALL
SIDEWALL LIGHTS - MAINTENANCE PRACTICES	33-21-03	201	ARO ALL
Sidewall Light - Light Assembly Replacement TASK 33-21-03-960-802		201	ARO ALL
Sidewall Light - Light Block Installation TASK 33-21-03-420-801		209	ARO ALL
LIGHTING CONTROLLER - MAINTENANCE PRACTICES	33-21-07	201	ARO ALL
Area Lighting Controller Replacement TASK 33-21-07-960-802		201	ARO ALL
PASSENGER LOADING LIGHTS - ADJUSTMENT/TEST	33-22-00	501	ARO ALL
Passenger Loading Lights - Operational Test TASK 33-22-00-710-801		501	ARO ALL
Passenger Loading Lights - Operational Test in Special Areas TASK 33-22-00-710-802		503	ARO ALL
ATTENDANT WORK LIGHTS - MAINTENANCE PRACTICES	33-22-01	201	ARO ALL
Attendant Work Light - Lamp Replacement TASK 33-22-01-960-801		201	ARO ALL
Attendant Work Light - Light Beam Adjustment TASK 33-22-01-820-801		205	ARO ALL
DIRECT CEILING LIGHTS - MAINTENANCE PRACTICES	33-22-02	201	ARO ALL
Direct Ceiling Light - Lamp Replacement TASK 33-22-02-960-801		201	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	<u>SUBJECT</u>	CONF PAGE	<b>EFFECT</b>
Direct Ceiling Light - Ballast Replacement TASK 33-22-02-960-802		207	ARO ALL
ENTRY LIGHTS - MAINTENANCE PRACTICES	33-22-03	201	ARO ALL
Entry Light - Lamp Replacement TASK 33-22-03-960-801		201	ARO ALL
Entry Light - Ballast Replacement TASK 33-22-03-960-802		205	ARO ALL
STANDBY (ETOPS) LIGHTS - MAINTENANCE PRACTICES	33-22-04	201	ARO ALL
Standby (ETOPS) Light - Lamp Replacement TASK 33-22-04-960-801		201	ARO ALL
CLOSET LIGHTS - MAINTENANCE PRACTICES	33-22-05	201	ARO ALL
Closet Light - Lamp Replacement TASK 33-22-05-960-801		201	ARO ALL
Closet Light - Fuse Replacement TASK 33-22-05-960-802		205	ARO ALL
Closet Light - Light Assembly Replacement TASK 33-22-05-960-803		209	ARO ALL
Closet Light - Transformer Replacement TASK 33-22-05-960-804		213	ARO ALL
ATTENDANT SWITCH PANEL (ASP) - MAINTENANCE PRACTICES	33-22-06	201	ARO ALL
Attendant Switch Panel (ASP) - Panel Replacement TASK 33-22-06-960-801		201	ARO ALL
Attendant Switch Panel (ASP) - Lens Cap Replacement TASK 33-22-06-960-804		206	ARO ALL
Attendant Switch Panel (ASP) - Switch Replacement TASK 33-22-06-960-805		210	ARO ALL
READING LIGHTS - MAINTENANCE PRACTICES	33-23-00	201	ARO ALL
Reading Light - Deactivation TASK 33-23-00-040-801		201	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	<b>SUBJECT</b>	CONF PAGE	<b>EFFECT</b>
Reading Light - Activation TASK 33-23-00-440-801		203	ARO ALL
Reading Light - Lamp Replacement TASK 33-23-00-960-801		204	ARO ALL
Reading Light - Light Assembly Replacement TASK 33-23-00-960-802		209	ARO ALL
Reading Light - Light Beam Adjustment TASK 33-23-00-820-801		215	ARO ALL
READING LIGHTS - ADJUSTMENT/TEST	33-23-00	501	ARO ALL
Reading Lights - Operational Test TASK 33-23-00-710-801		501	ARO ALL
INFORMATION SIGNS - MAINTENANCE PRACTICES	33-24-00	201	ARO ALL
Information Signs - Deactivation TASK 33-24-00-040-801		201	ARO ALL
Information Signs - Activation TASK 33-24-00-440-801		203	ARO ALL
Information Sign - Lamp Replacement TASK 33-24-00-960-801		205	ARO ALL
Information Sign - Light Assembly Replacement TASK 33-24-00-960-802		210	ARO ALL
Information Sign - PCB Assembly Replacement TASK 33-24-00-960-803		216	ARO ALL
INFORMATION SIGNS - ADJUSTMENT/TEST	33-24-00	501	ARO ALL
Information Signs - Operational Test TASK 33-24-00-710-801		501	ARO ALL
LAVATORY CALL LIGHTS AND MASTER CALL LIGHT MODULES - ADJUSTMENT/TEST	33-25-00	501	ARO ALL
Lavatory Call Lights - Operational Test TASK 33-25-00-710-801		501	ARO ALL
Master Call Light Modules - Operational Test TASK 33-25-00-710-802		502	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	SUBJECT COL	NF PAGE	<u>EFFECT</u>
LAVATORY CALL LIGHTS - MAINTENANCE PRACTICES	33-25-01	201	ARO ALL
Lavatory Call Light - Lamp Replacement TASK 33-25-01-960-801		201	ARO ALL
Lavatory Call Switch - Lamp Replacement TASK 33-25-01-960-802		205	ARO ALL
MASTER CALL LIGHT MODULES - MAINTENANCE PRACTICES	33-25-02	201	ARO ALL
Master Call Light Module - Lamp Replacement TASK 33-25-02-960-801		201	ARO ALL
Master Call Light Module - Light Assembly Replacement TASK 33-25-02-960-802		205	ARO ALL
LAVATORY LIGHTS AND SIGNS - MAINTENANCE PRACTICES	33-26-00	201	ARO ALL
Lavatory-Occupied Sign - Lamp Replacement TASK 33-26-00-960-801		201	ARO ALL
Lavatory-Occupied Sign - Light Assembly Replacement TASK 33-26-00-960-802		205	ARO ALL
Lavatory Lock-Door Sign - Light Assembly Replacement TASK 33-26-00-960-803		207	ARO ALL
Lavatory Dome Light - Lamp/Light Assembly Replacement TASK 33-26-00-960-804		212	ARO ALL
Lavatory Fluorescent Light Assembly - Lamp Replacement TASK 33-26-00-960-805		216	ARO ALL
Lavatory Ballast - Replacement TASK 33-26-00-960-806		220	ARO ALL
LAVATORY LIGHTS AND SIGNS - ADJUSTMENT/TEST	33-26-00	501	ARO ALL
Lavatory Lights and Signs - Operational Test TASK 33-26-00-710-801		501	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	<u>SUBJECT</u>	CONF PAGE	<b>EFFECT</b>
GALLEY LIGHTS - MAINTENANCE PRACTICES	33-27-00	201	ARO ALL
Galley Light - Lamp Replacement, Fluorescent TASK 33-27-00-960-801		201	ARO ALL
Galley Light - Lamp Replacement, Incandescent TASK 33-27-00-960-802		207	ARO ALL
Galley Light - Lamp Replacement, Standby TASK 33-27-00-960-803		208	ARO ALL
Galley Light - Ballast Replacement TASK 33-27-00-960-804		209	ARO ALL
GALLEY LIGHTS - ADJUSTMENT/TEST	33-27-00	501	ARO ALL
Galley Lights - Operational Test TASK 33-27-00-710-801		501	ARO ALL
PASSENGER CALL LIGHT - MAINTENANCE PRACTICES	33-28-00	201	ARO ALL
Passenger Call Light - Lamp Replacement TASK 33-28-00-960-801		201	ARO ALL
PASSENGER CALL LIGHT - ADJUSTMENT/TEST	33-28-00	501	ARO ALL
Passenger Call Light - Operational Test TASK 33-28-00-710-801		501	ARO ALL
CREW REST LIGHTS - ADJUSTMENT/TEST	33-29-00	501	ARO ALL
Flight Crew Rest (FCR) Lights - Operational Test TASK 33-29-00-710-812		501	ARO ALL
FLIGHT CREW REST (FCR) LIGHTS - MAINTENANCE PRACTICES	33-29-03	201	ARO ALL
FCR Area/Reading Light - Lamp Replacement TASK 33-29-03-710-801		201	ARO ALL
FCR Step/Handle Light - Lamp Replacement TASK 33-29-03-710-802		204	ARO ALL
FCR Night Light - Lamp Replacement TASK 33-29-03-710-803		206	ARO ALL
FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement TASK 33-29-03-710-804		209	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

CUBIECT	SECTION	CONE DACE	EEEECT
SUBJECT  FCR Lavatory-Occupied Sign - Lamp Replacement	SUBJECT	212	EFFECT ARO ALL
TASK 33-29-03-710-805			
FCR Call Light/Reset Switch - Lamp Replacement TASK 33-29-03-710-806		214	ARO ALL
SERVICE AND CARGO LOADING LIGHTS - ADJUSTMENT/TEST	33-31-00	501	ARO ALL
Service and Cargo Loading Lights - Operational Test of the Wheel Well Lights TASK 33-31-00-710-801		501	ARO ALL
Service and Cargo Loading Lights - Operational Test of the Air Conditioning Compartment Lights TASK 33-31-00-710-802		502	ARO ALL
Service and Cargo Loading Lights - Operational Test of the APU and Tailcone Compartment Lights TASK 33-31-00-710-803		503	ARO ALL
Service and Cargo Loading Lights - Operational Test of the Forward and Main Equipment Center Lights  TASK 33-31-00-710-804		504	ARO ALL
Service and Cargo Loading Lights - Operational Test of the Cargo Loading Lights TASK 33-31-00-710-805		506	ARO ALL
SERVICE LIGHTS - MAINTENANCE PRACTICES	33-31-01	201	ARO ALL
Service Light, Wheel Well - Lamp Replacement TASK 33-31-01-960-801		201	ARO ALL
Service Light, Air Conditioning Compartment - Lamp Replacement TASK 33-31-01-960-802		212	ARO ALL
Service Light, APU and Tailcone Compartment - Lamp Replacement TASK 33-31-01-960-803		213	ARO ALL
Service Light, Forward and Main Equipment Center - Lamp Replacement TASK 33-31-01-960-804		215	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	<b>SUBJECT</b>	CONF PAGE	<b>EFFECT</b>
CARGO LOADING LIGHTS - MAINTENANCE PRACTICES	33-31-02	201	ARO ALL
Cargo Loading Lights, Body-Mounted and Door-Mounted - Deactivation TASK 33-31-02-040-801		201	ARO ALL
Cargo Loading Lights, Body-Mounted and Door-Mounted - Activation TASK 33-31-02-440-801		205	ARO ALL
Cargo Loading Light, Body-Mounted - Lamp Replacement TASK 33-31-02-960-803		206	ARO ALL
Cargo Loading Light, Body Mounted - Lampholder and Light Assembly Replacement TASK 33-31-02-960-804		215	ARO ALL
Cargo Loading Light, Door-Mounted - Lamp Replacement TASK 33-31-02-960-801		222	ARO ALL
Cargo Loading Light, Door-Mounted - Light Assembly and Lampholder Replacement TASK 33-31-02-960-802		223	ARO ALL
INTERIOR CARGO LIGHTS - MAINTENANCE PRACTICES	33-37-00	201	ARO ALL
Lower Lobe Cargo Lights - Deactivation TASK 33-37-00-040-801		201	ARO ALL
Lower Lobe Cargo Lights - Activation TASK 33-37-00-440-801		205	ARO ALL
Interior Cargo Light - Lamp Replacement TASK 33-37-00-960-801		206	ARO ALL
Interior Cargo Light - Light Assembly Replacement TASK 33-37-00-960-802		212	ARO ALL
Interior Cargo Light - Lens Assembly Replacement TASK 33-37-00-960-803		213	ARO ALL
INTERIOR CARGO LIGHTS - ADJUSTMENT/TEST	33-37-00	501	ARO ALL
Interior Cargo Lights - Operational Test TASK 33-37-00-710-801		501	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	<b>SUBJECT</b>	CONF PAGE	<u>EFFECT</u>
WING ILLUMINATION LIGHTS - MAINTENANCE PRACTICES	33-41-00	201	ARO ALL
Wing Illumination Lights - Deactivation TASK 33-41-00-040-801		201	ARO ALL
Wing Illumination Lights - Activation TASK 33-41-00-440-801		204	ARO ALL
Wing Illumination Light - Lamp Replacement TASK 33-41-00-960-801		205	ARO ALL
Wing Illumination Light - Transformer Replacement TASK 33-41-00-960-802		209	ARO ALL
Wing Illumination Light - Light Assembly Replacement TASK 33-41-00-960-803		213	ARO ALL
WING ILLUMINATION LIGHTS - ADJUSTMENT/TEST	33-41-00	501	ARO ALL
Wing Illumination Lights - Operational Test TASK 33-41-00-710-801		501	ARO ALL
LANDING, RUNWAY TURNOFF AND TAXI LIGHTS - ADJUSTMENT/TEST	33-42-00	501	ARO ALL
Landing, Runway Turnoff, and Taxi Lights - Operational Tests TASK 33-42-00-710-801		501	ARO ALL
Wing Landing Lights - Operational Test of the Dim/Bright Relays TASK 33-42-00-710-802		502	ARO ALL
Landing, Runway Turnoff, and Taxi Lights - System Tests TASK 33-42-00-720-802		505	ARO ALL
NOSE GEAR LANDING LIGHTS - MAINTENANCE PRACTICES	33-42-01	201	ARO ALL
Nose Gear Landing Light - Deactivation TASK 33-42-01-040-801		201	ARO ALL
Nose Gear Landing Light - Activation TASK 33-42-01-440-801		202	ARO ALL
Nose Gear Landing Light - Lamp Replacement TASK 33-42-01-960-801		203	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

SUBJECT	SUBJECT	CONF PAGE	EFFECT
Nose Gear Landing Light - Light Beam Adjustment TASK 33-42-01-820-801	<u>0000001</u>	208	ARO ALL
Nose Gear Landing Light - Transformer Replacement TASK 33-42-01-960-802		212	ARO ALL
WING LANDING LIGHTS - MAINTENANCE PRACTICES	33-42-02	201	ARO ALL
Wing Landing Light - Deactivation TASK 33-42-02-040-801		201	ARO ALL
Wing Landing Light - Activation TASK 33-42-02-440-801		203	ARO ALL
Wing Landing Light - Lamp Replacement TASK 33-42-02-960-801		204	ARO ALL
Wing Landing Light - Light Beam Adjustment TASK 33-42-02-820-801		212	ARO ALL
Wing Landing Light - Transformer Replacement TASK 33-42-02-960-802		219	ARO ALL
TAXI LIGHTS - MAINTENANCE PRACTICES	33-42-03	201	ARO ALL
Taxi Lights - Deactivation TASK 33-42-03-040-801		201	ARO ALL
Taxi Lights - Activation TASK 33-42-03-440-801		204	ARO ALL
Taxi Light - Lamp Replacement TASK 33-42-03-960-801		205	ARO ALL
Taxi Light - Light Beam Adjustment TASK 33-42-03-820-801		209	ARO ALL
Taxi Light - Transformer Replacement TASK 33-42-03-960-802		213	ARO ALL
Taxi Light - Light Assembly Removal/Installation TASK 33-42-03-960-803		217	ARO ALL
RUNWAY TURNOFF LIGHTS - MAINTENANCE PRACTICES	33-42-04	201	ARO ALL
Runway Turnoff Lights - Deactivation TASK 33-42-04-040-801		201	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

SUBJECT	SUBJECT	CONF PAGE	EFFECT
Runway Turnoff Lights - Activation TASK 33-42-04-440-801	<u>oobozor</u>	204	ARO ALL
Runway Turnoff Light - Lamp Replacement TASK 33-42-04-960-801		205	ARO ALL
Runway Turnoff Light - Light Beam Adjustment TASK 33-42-04-820-801		210	ARO ALL
Runway Turnoff Light - Transformer Replacement TASK 33-42-04-960-802		214	ARO ALL
WING LANDING AND RUNWAY TURNOFF LIGHT LENS - MAINTENANCE PRACTICES	33-42-05	201	ARO ALL
Wing Landing and Runway Turnoff Light Lens - Temporary Repair TASK 33-42-05-350-801		201	ARO ALL
POSITION (NAVIGATION) LIGHTS - MAINTENANCE PRACTICES	33-43-00	201	ARO ALL
Wing Position (Navigation) Lights - Deactivation TASK 33-43-00-040-801		201	ARO ALL
Wing Position (Navigation) Lights - Activation TASK 33-43-00-440-801		202	ARO ALL
Wing Position (Navigation) Lights - Lens Replacement TASK 33-43-00-960-801		204	ARO ALL
POSITION (NAVIGATION) LIGHTS - ADJUSTMENT/TEST	33-43-00	501	ARO ALL
Position Lights - Operational Test TASK 33-43-00-710-801		501	ARO ALL
Position Lights - Operational Test During Towing Operations TASK 33-43-00-710-802		502	ARO ALL
POSITION (NAVIGATION) LIGHTS - REPAIRS	33-43-00	801	ARO ALL
Wing Position (Navigation) Lights - Lens Repairs TASK 33-43-00-300-801		801	ARO ALL
FORWARD POSITION LIGHTS - MAINTENANCE PRACTICES	33-43-01	201	ARO ALL
Forward Position Light - Lamp Replacement TASK 33-43-01-960-801		201	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

SUBJECT	SUBJECT	CONF PAGE	<u>EFFECT</u>
Forward Position Light - Assembly Replacement TASK 33-43-01-960-803		205	ARO ALL
Forward Position Light - Disconnect the Electrical Connector TASK 33-43-01-020-801		206	ARO ALL
Forward Position Light - Connect the Electrical Connector TASK 33-43-01-420-801		210	ARO ALL
REAR POSITION LIGHTS - MAINTENANCE PRACTICES	33-43-02	201	ARO ALL
Rear Position Light - Lamp Replacement TASK 33-43-02-960-801		201	ARO ALL
Rear Position Light - Light Assembly Replacement TASK 33-43-02-960-802		205	ARO ALL
Rear Position Light - Disconnect the Electrical Connector TASK 33-43-02-020-801		210	ARO ALL
Rear Position Light - Connect the Electrical Connector TASK 33-43-02-420-801		210	ARO ALL
POSITION LIGHT TRANSFORMERS - MAINTENANCE PRACTICES	33-43-03	201	ARO ALL
Position Light Transformer, Wing - Replacement TASK 33-43-03-960-801		201	ARO ALL
Position Light Transformer, Tailcone - Replacement TASK 33-43-03-960-802		206	ARO ALL
TAILCONE POSITION LIGHT - MAINTENANCE PRACTICES	33-43-04	201	ARO ALL
Tailcone Position Light - Lamp Replacement TASK 33-43-04-960-801		201	ARO ALL
Tailcone Position Light - Light Assembly Replacement TASK 33-43-04-960-802		205	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	<u>SUBJECT</u>	CONF PAGE	<b>EFFECT</b>
WING POSITION AND ANTI-COLLISION LIGHT LENS - INSPECTION/CHECK	33-43-05	601	ARO ALL
Inspect the Wing Position and Anti-Collision Light Lens TASK 33-43-05-200-801		601	ARO ALL
ANTI-COLLISION LIGHTS - MAINTENANCE PRACTICES	33-44-00	201	ARO ALL
Anti-Collision Lights - Deactivation TASK 33-44-00-040-801		201	ARO ALL
Anti-Collision Lights - Activation TASK 33-44-00-440-801		204	ARO ALL
ANTI-COLLISION LIGHTS - ADJUSTMENT/TEST	33-44-00	501	ARO ALL
Anti-Collision Lights - Operational Test TASK 33-44-00-710-801		501	ARO ALL
Anti-Collision Lights - Operational Test With the Cabin/Utility Switch TASK 33-44-00-710-802		502	ARO ALL
UPPER BODY ANTI-COLLISION LIGHT (BEACON) - MAINTENANCE PRACTICES	33-44-01	201	ARO ALL
Upper Body Anti-Collision Light - Lamp Assembly Replacement TASK 33-44-01-960-801		201	ARO ALL
Upper Body Anti-Collision Light - Light Assembly Replacement TASK 33-44-01-960-802		205	ARO ALL
Upper Body Anti-Collision Light - Lens Assembly Replacement TASK 33-44-01-960-803		209	ARO ALL
Upper Body Anti-Collision Light - Power Supply Replacement TASK 33-44-01-960-804		210	ARO ALL
LOWER ANTI-COLLISION LIGHT (BEACON) - MAINTENANCE PRACTICES	33-44-02	201	ARO ALL
Lower Body Anti-Collision Light - Lamp Assembly Replacement TASK 33-44-02-960-801		201	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

SUBJECT	SUBJECT	CONF PAGE	<b>EFFECT</b>
Lower Body Anti-Collision Light - Light Assembly Replacement TASK 33-44-02-960-802		205	ARO ALL
Lower Body Anti-Collision Light - Lens Assembly Replacement TASK 33-44-02-960-803		209	ARO ALL
Lower Body Anti-Collision Light - Power Supply Replacement TASK 33-44-02-960-804		210	ARO ALL
WING ANTI-COLLISION LIGHTS (STROBE) - MAINTENANCE PRACTICES	33-44-03	201	ARO ALL
Wing Anti-Collision Light - Lamp Assembly Replacement TASK 33-44-03-960-801		201	ARO ALL
Wing Anti-Collision Light - Power Supply Replacement TASK 33-44-03-960-802		206	ARO ALL
Wing Anti-Collision Lights - Disconnect the Electrical Connector TASK 33-44-03-020-801		210	ARO ALL
Wing Anti-Collision Lights - Connect the Electrical Connector TASK 33-44-03-420-801		210	ARO ALL
Wing Anti-Collision Lights - Lens Replacement TASK 33-44-03-960-804		211	ARO ALL
WING ANTI-COLLISION LIGHTS (STROBES) - REPAIRS	33-44-03	801	ARO ALL
Wing Anti-Collision Lights - Lens Repairs TASK 33-44-03-300-802		801	ARO ALL
TAILCONE ANTI-COLLISION LIGHT (STROBE) - MAINTENANCE PRACTICES	33-44-04	201	ARO ALL
Tailcone Anti-Collision Light - Lamp Assembly Replacement TASK 33-44-04-960-801		201	ARO ALL
Tailcone Anti-Collision Light - Light Assembly Replacement TASK 33-44-04-960-803		205	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	<b>SUBJECT</b>	CONF PAGE	<b>EFFECT</b>
Tailcone Anti-Collision Light - Power Supply Replacement TASK 33-44-04-960-802		209	ARO ALL
LOGO LIGHTS - MAINTENANCE PRACTICES	33-45-00	201	ARO ALL
Logo Lights - Deactivation TASK 33-45-00-040-801		201	ARO ALL
Logo Lights - Activation TASK 33-45-00-440-801		204	ARO ALL
Logo Light - Lamp Replacement TASK 33-45-00-960-801		205	ARO ALL
Logo Light - Light Assembly Replacement TASK 33-45-00-960-802		210	ARO ALL
CAMERA LIGHTS - MAINTENANCE PRACTICES	33-47-00	201	ARO ALL
Camera Light - Deactivation TASK 33-47-00-040-801		201	ARO ALL
Camera Lights - Activation TASK 33-47-00-440-801		202	ARO ALL
Camera Light - Lamp Replacement TASK 33-47-00-710-802		204	ARO ALL
Camera Light, NLG - Light Assembly Replacement TASK 33-47-00-710-803		208	ARO ALL
Camera Light, MLG - Transformer Replacement TASK 33-47-00-710-804		211	ARO ALL
Camera Light, MLG - Light Assembly Replacement TASK 33-47-00-900-801		216	ARO ALL
Camera Light, MLG - Lens Assembly Replacement TASK 33-47-00-900-802		223	ARO ALL
Camera Light, MLG - Socket Assembly Replacement TASK 33-47-00-900-803		225	ARO ALL



#### CHAPTER 33 LIGHTS

**CHAPTER SECTION** SUBJECT CONF PAGE **SUBJECT EFFECT CAMERA LIGHTS - ADJUSTMENT/TEST** 33-47-00 501 ARO ALL Camera Lights - Operational Test 501 ARO ALL TASK 33-47-00-710-801 **EMERGENCY LIGHTS - MAINTENANCE** 33-50-00 201 **ARO ALL PRACTICES** Emergency Lights - Index 201 ARO ALL TASK 33-50-00-970-801 **EMERGENCY LIGHTS - ADJUSTMENT/TEST** 33-51-00 501 **ARO ALL Emergency Lights - Operational Test** 501 ARO ALL TASK 33-51-00-710-801 Emergency Lights - Operational Test with the Test 501 ARO ALL **Switches** TASK 33-51-00-710-802 Emergency Lights - Operational Test with the 502 ARO ALL **Control Switches** TASK 33-51-00-710-803 **Emergency Lights - Functional Test** 504 **ARO ALL** TASK 33-51-00-720-801 **EXIT SIGNS - MAINTENANCE PRACTICES** 33-51-01 201 **ARO ALL** Exit Sign - Lamp Replacement 201 ARO ALL TASK 33-51-01-960-801 Exit Sign - Light Assembly Replacement 206 ARO ALL TASK 33-51-01-960-802 **AREA LIGHTS - MAINTENANCE PRACTICES** 33-51-03 201 **ARO ALL** Area Light - Lamp Replacement 201 **ARO ALL** TASK 33-51-03-960-801 Area Light - Light Assembly Replacement 204 **ARO ALL** TASK 33-51-03-960-802 SLIDE/OVERWING LIGHTS - MAINTENANCE 33-51-04 201 **ARO ALL PRACTICES** 

### 33-CONTENTS

ARO ALL

201

Slide/Overwing Light - Lamp Replacement

TASK 33-51-04-960-801



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

	SECTION		
SUBJECT	SUBJECT	CONF PAGE	<b>EFFECT</b>
FLOOR PROXIMITY LIGHTS - MAINTENANCE PRACTICES	33-51-05	201	ARO ALL
Floor Proximity Light - Lamp Replacement TASK 33-51-05-960-801		201	ARO ALL
Floor Proximity Light - Light Assembly Replacement TASK 33-51-05-960-802		206	ARO ALL
Floor Proximity Light - Photoluminescent Light Strips Charging TASK 33-51-05-860-801		211	ARO ALL
FLOOR PROXIMITY LIGHTS - REMOVAL/INSTALLATION	33-51-05	401	ARO ALL
Aisle Light Strip Removal TASK 33-51-05-000-801		401	ARO ALL
Aisle Light Strip Installation TASK 33-51-05-400-801		404	ARO ALL
Galley Light Strip Removal TASK 33-51-05-000-802		405	ARO ALL
Galley Light Strip Installation TASK 33-51-05-400-802		408	ARO ALL
FLOOR PROXIMITY LIGHTS - ADJUSTMENT/TEST	33-51-05	501	ARO ALL
Cabin Light Intensity Test TASK 33-51-05-720-801		501	ARO ALL
FLOOR PROXIMITY LIGHTS - INSPECTION/CHECK	33-51-05	601	ARO ALL
Photoluminescent Floor Proximity Light Strip Inspection TASK 33-51-05-210-801		601	ARO ALL
FLOOR PROXIMITY LIGHTS - CLEANING/PAINTING	33-51-05	701	ARO ALL
Photoluminescent Floor Proximity Light Strip Cleaning TASK 33-51-05-100-801		701	ARO ALL
POWER SUPPLIES - MAINTENANCE PRACTICES	33-51-06	201	ARO ALL
Power Supply - Fuse Replacement TASK 33-51-06-960-801		201	ARO ALL



#### CHAPTER 33 LIGHTS

CHAPTER SECTION

SUBJECT CONI	PAGE	<b>EFFECT</b>
	205	ARO ALL
	206	ARO ALL
	208	ARO ALL
	209	ARO ALL
33-51-07	201	ARO ALL
	201	ARO ALL
		206 208 209 33-51-07 201



#### **LIGHTS - DDG MAINTENANCE PROCEDURES**

#### 1. General

- A. This procedure has the maintenance tasks for the Master Minimum Equipment List (MMEL) maintenance requirements as shown in the Dispatch Deviations Guide (DDG). These tasks prepare the airplane for flight with certain systems/components inoperative.
- B. This procedure also has the tasks that put the airplane back to its usual condition.
- C. These are the tasks for the components in the lights system:
  - (1) MMEL 33-24-1 (DDG) Preparation Passenger Information Signs (No Smoking/Fasten Seat Belt/Return To Seat) Inoperative
  - (2) MMEL 33-24-1 (DDG) Restoration Passenger Information Signs (No Smoking/Fasten Seat Belt/Return To Seat) Inoperative

#### TASK 33-00-00-040-801

# 2. MMEL 33-24-1 (DDG) Preparation - Passenger Information Signs (No Smoking/Fasten Seat Belt/Return To Seat) Inoperative

#### A. General

- (1) This procedure is for passenger seats, cabin attendant seats and lavatories where the No Smoking/Fasten Seat Belt/Return To Seat (NS/FSB/RTS) sign does not operate.
- (2) A sign is inoperative for a seat if a person with normal vision sits in the seat and cannot read the applicable NO SMOKING and FASTEN SEAT BELT sign. In tests that Boeing did for the FAA, a sign was "easy to read" if a person could see enough of the sign to identify it. For example, NO SMOK and FASTEN SEAT B were "easy to read."

#### B. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

SUBTASK 33-00-00-040-001

(1) Do these steps at each passenger seat, cabin attendant seat or lavatory where the NS/FSB/RTS sign does not operate:

NOTE: The installation of placards, tape and rope must not prevent access for crewmembers to use or inspect seats or lavatories.

- (a) If necessary, attach tapes or ropes across the seat or lavatory door to show that the area is not available.
  - 1) Make sure that the tape or rope is a color that is easy to see against the color of the seat or lavatory door.
- (b) Put DO NOT OCCUPY placards at applicable locations to show that the seat or lavatory is not available.
  - 1) Make sure that the placards are easy to see.

 END	OF	<b>TASK</b>	
	•	.,	

33-00-00

ARO ALL

EFFECTIVITY



#### TASK 33-00-00-440-801

3. MMEL 33-24-1 (DDG) Restoration - Passenger Information Signs (No Smoking/Fasten Seat Belt/ **Return To Seat) Inoperative** 

#### A. General

This procedure puts the airplane back to its usual condition after operation with No (1) Smoking/Fasten Seat Belt/Return To Seat (NS/FSB/RTS) signs Inoperative.

#### References B.

Reference	Title
33-24-00-710-801	Information Signs - Operational Test (P/B 501)
33-24-00-960-801	Information Sign - Lamp Replacement (P/B 201)
33-24-00-960-802	Information Sign - Light Assembly Replacement (P/B 201)

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

- EFFECTIVITY

**ARO ALL** 

SUBTASK 33-00-00-900-001

- (1) Replace the lamp or light assembly in the NS/FSB/RTS information sign. These are the tasks:
  - Information Sign Light Assembly Replacement, TASK 33-24-00-960-802 or Information Sign - Lamp Replacement, TASK 33-24-00-960-801.

#### SUBTASK 33-00-00-710-001

(2) Do this task: Information Signs - Operational Test, TASK 33-24-00-710-801.

(3) Remove the DO NOT OCCUPY placards, ropes and tapes from each passenger seat, cabin attendant seat or lavatory.

— END OF TASK ——

33-00-00

Page 902 Jan 05/2015

D633W101-ARO



#### FLIGHT DECK LIGHTING - MAINTENANCE PRACTICES

#### 1. General

- A. This procedure has these tasks:
  - (1) Flight Deck Lighting Deactivation
  - (2) Flight Deck Lighting Activation

#### TASK 33-11-00-040-806

#### 2. Flight Deck Lighting - Deactivation

#### A. General

- (1) This task removes electrical power from the following Flight Deck Lights:
  - (a) Pilot's Dome Lighting
  - (b) Forward/Aisle Panel Flood Lighting
  - (c) Integral Panel Lighting
    - 1) Forward Panel Lighting
    - 2) Overhead Panel Lighting
    - Aisle Stand Panel Lighting

#### **B.** Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right

#### C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### D. Procedure

SUBTASK 33-11-00-010-006

(1) Open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 33-11-00-860-024

- (2) Remove the electrical power from the Pilot's Dome Lighting.
  - (a) At the P5 Pilot's overhead panel, rotate the panel brightness control full clockwise. The Pilot's Dome Lights state should go to the full bright condition.

33-11-00

ARO ALL

Page 201 Sep 05/2017





BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(b) Open these circuit breakers and install safety tags:

#### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
-----	------------	---------------	-------------

H 2 C33403 DOME LIGHTS

#### Right Power Management Panel, P210

Row Col Number Name

E 22 C33402 DOME LTS BACKUP

#### Standby Power Management Panel, P310

Row Col Number Name

F 3 C33612 STBY DOME LTS

#### SUBTASK 33-11-00-860-025

- (3) Remove the electrical power from the Forward/Aisle Panel Flood Lighting.
  - (a) At the P13 Panel, port side (Captain's side) rotate the Flood Light brightness control (inner knob) full clockwise. The Captain's Panel Flood Lights (on the P7 panel) state should go to the full bright condition.
  - (b) At the P14 panel, starboard side (First Officer's side) rotate the Flood Light brightness control (inner knob) full clockwise. The First Officer's Panel Flood Lights (on the P7 panel) state should go to the full bright condition.
  - (c) At the P5 panel, find the Glareshield PNL/FLOOD knob and rotate the Flood Light brightness control (inner knob) full clockwise. The Glareshield panel Flood Lights (on the P55 panel) state should go to the full bright condition.
  - (d) At the P8 panel, set the switch for the Aisle Stand Panel Flood Light to the on mode. The Aisle Stand Panel Flood Light (on the P11 panel) state should go to the full bright condition.



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(e) Open these circuit breakers and install safety tags:

#### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

#### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	25	C33411	GSHLD INST & PNL LTS

ARO ALL 33-11-00



#### Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-11-00-860-026

- (4) Remove the electrical power from the Integral Panel Lighting.
  - (a) Forward Panel Lighting
    - 1) At the P13 Panel, port side (Captain's side) rotate the Panel Light brightness control (outer knob) full clockwise. The Captain's Panel Lights (P1, P2, P13, P15) state should go to the full bright condition.
    - 2) At the P5 Panel, find the Glareshield PNL/FLOOD knob and rotate the Panel Light brightness control (outer knob) full clockwise. The Glareshield Panel Lights (P7, P55) state should go to the full bright condition.
    - 3) At the P14 Panel, starboard side (First Officer's side) rotate the Panel Light brightness control (outer knob) full clockwise. The First Officer's Panel Flood Lights (P2, P3, P14, P16) state should go to the full bright condition.
  - (b) Overhead Panel Lighting
    - 1) At the P5 Panel, find the OVHD/CB Panel Light brightness control knob and rotate both inner and outer knobs fully clockwise. The P5 and P11 Panel Lights state should go to the full bright condition.
  - (c) Aisle Stand Panel Lighting
    - 1) On the aft portion of the Aisle Stand, find the Aisle Stand Panel brightness control knob and rotate the outer knob fully clockwise. The P8, P9 and P10 Panel Lights state should go to the full bright condition.



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(d) Open these circuit breakers and install safety tags:

#### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

#### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	GSHLD INST & PNL LTS

#### Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

33-11-00

ARO ALL



# E. Flight Deck Lighting - Tryout

NOTE: This tryout is to make sure that the Flight Deck Lighting is in a zero energy state.

SUBTASK 33-11-00-700-019

(1) Pilot's Dome Lights



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(a) Make sure that these circuit breakers are open and have safety tags:

# **Ground Service/Handling Power Panel, P320**

		,	,
Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	2	C33403	DOME LIGHTS

### Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	22	C33402	DOME LTS BACKUP

# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	3	C33612	STBY DOME LTS

- (b) At the overhead panel, P5, do the following steps:
  - 1) Set the switch for the Pilot's Dome Lights to the ON mode.
  - 2) Make sure that the panel brightness control is turned at full clockwise.
    - a) Make sure that the none of the Pilot's Dome Lights come on.

SUBTASK 33-11-00-700-020

(2) Forward/Aisle Panel Flood Lighting



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(a) Make sure that these circuit breakers are open and have safety tags:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	25	C33411	GSHLD INST & PNL LTS

ARO ALL 33-11-00



### Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

- (b) At the Captain's outboard panel, P13, do the following steps:
  - 1) Set the switch for the Forward Panel Flood Lighting Lights to the ON mode.
  - 2) Make sure that the Forward Panel Flood Lighting brightness control, inner knob, is turned at full clockwise.
    - a) Make sure that the none of the Captain's outboard panel flood lights on the Glareshield Panel, P7, come on.
- (c) At the First Officer's outboard panel, P14, do the following steps:
  - 1) Set the switch for the Forward Panel Flood Lighting Lights to the ON mode.
  - 2) Make sure that the Forward Panel Flood Lighting brightness control, inner knob, is turned at full clockwise.
    - a) Make sure that the none of the First Officer's outboard panel flood lights on the Glareshield Panel, P7, come on.
- (d) At the overhead panel, P5, do the following steps:
  - 1) Set the switch for the Glareshield panel flood lights to the ON mode.
  - 2) Make sure that the Glareshield flood light brightness control, inner knob, is turned at full clockwise.
    - a) Make sure that the none of the Glareshield panel flood lights on the Glareshield Center Panel, P55, come on.
- (e) At the panel, P8, do the following steps:
  - 1) Make sure that the switch for the Aisle Stand Panel floodlight is in the on mode.
    - a) Make sure that the Aisle Stand Panel floodlight on the Panel, P11, does not come on.

#### SUBTASK 33-11-00-700-021

(3) Integral Panel Lighting



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(a) Make sure that these circuit breakers are open and have safety tags:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	GSHLD INST & PNL LTS

ARO ALL



# Standby Power Management Panel, P310

Row	Col	Number	<u>Name</u>
Α	2	C33407	STBY INST LTS

- (b) Forward Panel Lighting
  - 1) At the Captain's outboard panel, P13, do the following steps:
    - a) Set the switch for the Forward Panel Lighting Lights to the ON mode.
    - Make sure that the Forward Panel Lighting brightness control, outer knob, is turned at full clockwise.
    - c) Make sure that none of the following panel lights come on:
      - <1> P1
      - <2> P2
      - <3> P13
      - <4> P15
  - 2) At the First Officer's outboard panel, P14, do the following steps:
    - a) Set the switch for the Forward Panel Lighting Lights to the ON mode.
    - b) Make sure that the Forward Panel Lighting brightness control, outer knob, is turned at full clockwise.
    - c) Make sure that the none of the following panel lights come on:
      - <1> P2
      - <2> P3
      - <3> P14
      - <4> P16
  - 3) At the overhead panel, P5, do the following steps:
    - a) Set the switch for the Glareshield panel lights to the ON mode.
    - b) Make sure that the Glareshield light brightness control, outer knob, is turned at full clockwise.
    - c) Make sure that the none of the following panel lights come on:
      - <1> P7
      - <2> P55
- (c) Overhead Panel Lighting
  - 1) At the Pilot's overhead panel, P5, do the following steps:
    - Set the switch for the Overhead Panel Lighting to the ON mode.
    - b) Make sure that the Overhead Panel Lighting brightness control, inner knob and outer knob, are both turned at full clockwise.
    - c) Make sure that none of the following panel lights come on:
      - <1> P5
      - <2> P11
- (d) Aisle Panel Lighting
  - 1) At the Aft Aisle Stand Panel, P8, do the following steps:
    - a) Set the switch for the Aisle Stand Lighting to the ON mode.

ARO ALL



- b) Make sure that the Aisle Stand Panel Lighting brightness control, outer knob, is turned at full clockwise.
- c) Make sure that none of the following panel lights come on:

<1> P8

<2> P9

<3> P10

----- END OF TASK -----

#### TASK 33-11-00-440-806

# 3. Flight Deck Lighting - Activation

### A. General

- (1) This task adds electrical power to the following Flight Deck Lights:
  - (a) Pilot's Dome Lighting
  - (b) Forward/Aisle Panel Flood Lighting
  - (c) Integral Panel Lighting
    - 1) Forward Panel Lighting
    - 2) Overhead Panel Lighting
    - 3) Aisle Stand Panel Lighting

### **B.** Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right

### C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

# D. Procedure

SUBTASK 33-11-00-860-027

(1) Add electrical power to the Pilot's Dome Lighting.



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(a) Remove the safety tags and close these circuit breakers:

# **Ground Service/Handling Power Panel, P320**

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	2	C33403	DOME LIGHTS

# Right Power Management Panel, P210

Row	Col	<u>Number</u>	<u>Name</u>
F	22	C33402	DOME LTS BACKUP

ARO ALL



# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	3	C33612	STBY DOME LTS

- (b) At the overhead panel, P5, do these steps:
  - 1) Set the switch for the Pilot's Dome Lights to the ON mode.
  - 2) Rotate the panel brightness control full clockwise.
    - a) Make sure that the Pilot's Dome Lights go to the full bright condition.
  - 3) Set the switch to the usual mode.

#### SUBTASK 33-11-00-860-028

(2) Add electrical power to the Forward/Aisle Panel Flood Lighting.



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(a) Remove the safety tags and close these circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	25	C33411	GSHLD INST & PNLLTS

### Standby Power Management Panel, P310

Row	Col	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

- (b) At the Captain's outboard panel, P13, do the following steps:
  - 1) Set the switch for the Forward Panel Flood Lighting Lights to the ON mode.
  - 2) Make sure that the Forward Panel Flood Lighting brightness control, inner knob, is turned at full clockwise.
    - a) Make sure that the Captain's outboard panel flood lights on the Glareshield Panel, P7, go to the full bright condition.
  - 3) Set the switch to the usual mode.
- (c) At the First Officer's outboard panel, P14, do the following steps:
  - 1) Set the switch for the Forward Panel Flood Lighting Lights to the ON mode.
  - 2) Make sure that the Forward Panel Flood Lighting brightness control, inner knob, is turned at full clockwise.
    - Make sure that the First Officer's outboard panel flood lights on the Glareshield Panel, P7, go to the full bright condition.
  - 3) Set the switch to the usual mode.

33-11-00

Page 208 Sep 05/2017



- (d) At the overhead panel, P5, do the following steps:
  - 1) Set the switch for the Glareshield panel flood lights to the ON mode.
  - Make sure that the Glareshield flood light brightness control, inner knob, is turned at full clockwise.
    - a) Make sure that the Glareshield panel flood lights on the Glareshield Center Panel, P55, go to the full bright condition.
  - 3) Set the switch to the usual mode.
- (e) At the panel, P8, do the following steps:
  - 1) Make sure that the switch for the Aisle Stand Panel floodlight is in the on mode.
    - Make sure that the Aisle Stand Panel floodlight on the Panel, P11, goes to the full bright condition.
  - 2) Set the switch to the usual mode.

#### SUBTASK 33-11-00-860-029

(3) Add electrical power to the Integral Panel Lighting.



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(a) Remove the safety tags and close these circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	GSHLD INST & PNL LTS

# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

- (b) Forward Panel Lighting
  - 1) At the Captain's outboard panel, P13, do the following steps:
    - a) Set the switch for the Forward Panel Lighting Lights to the ON mode.
    - b) Make sure that the Forward Panel Lighting brightness control, outer knob, is turned at full clockwise.
    - c) Make sure that the following panel lights come on:

<1> P1 <2> P2 <3> P13

ARO ALL



- <4> P15
- d) Set the switch to the usual mode.
- 2) At the First Officer's outboard panel, P14, do the following steps:
  - a) Set the switch for the Forward Panel Lighting Lights to the ON mode.
  - b) Make sure that the Forward Panel Lighting brightness control, outer knob, is turned at full clockwise.
  - c) Make sure that the following panel lights come on:
    - <1> P2
    - <2> P3
    - <3> P14
    - <4> P16
  - d) Set the switch to the usual mode.
- 3) At the overhead panel, P5, do the following steps:
  - a) Set the switch for the Glareshield panel lights to the ON mode.
  - b) Make sure that the Glareshield light brightness control, outer knob, is turned at full clockwise.
  - c) Make sure that the following panel lights come on:
    - <1> P7
    - <2> P55
  - d) Set the switch to the usual mode.
- (c) Overhead Panel Lighting
  - 1) At the Pilot's overhead panel, P5, do the following steps:
    - a) Set the switch for the Overhead Panel Lighting to the ON mode.
    - b) Make sure that the Overhead Panel Lighting brightness control, inner knob and outer knob, are both turned at full clockwise.
    - c) Make sure that the following panel lights come on:
      - <1> P5
      - <2> P11
    - d) Set the switch to the usual mode.
- (d) Aisle Panel Lighting
  - 1) At the Aft Aisle Stand Panel, P8, do the following steps:
    - a) Set the switch for the Aisle Stand Lighting to the ON mode.
    - b) Make sure that the Aisle Stand Panel Lighting brightness control, outer knob, is turned at full clockwise.
    - c) Make sure that the following panel lights come on:
      - <1> P8
      - <2> P9
      - <3> P10
    - d) Set the switch to the usual mode.

ARO ALL



### SUBTASK 33-11-00-410-006

(4) Close this access panel:

Number Name/Location

117AL Main Equipment Center Access Door

----- END OF TASK -----

ARO ALL



### FLIGHT COMPARTMENT ILLUMINATION - ADJUSTMENT/TEST

### 1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
  - (1) Flight Compartment Illumination Operational Test
  - (2) Flight Compartment Illumination Operational Test of the Dome and Floodlight Standby Relays
  - (3) Flight Compartment Illumination Operational Test During Towing Operations
- C. Flight compartment illumination includes the dome lights, but not the emergency lamp installed in some light assemblies. It also includes the floodlights for the control panels and aisle stand.

#### TASK 33-11-00-710-801

### 2. Flight Compartment Illumination - Operational Test

# A. General

- (1) This test makes sure the dome lights and floodlights operate during usual conditions.
- (2) Flight compartment illumination includes the dome lights, but not the emergency lamp installed in some light assemblies. It also includes the floodlights for the glareshield, forward and center panels, and aisle stand.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-11-11	Wiring Diagram Manual
WDM 33-11-12	Wiring Diagram Manual

### C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

### D. Procedure

#### SUBTASK 33-11-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-11-00-710-001

- (2) Do a test of the dome lights and floodlights with the storm switch:
  - (a) At the overhead panel, P5, set the storm switch to the on mode.
    - 1) Make sure the lights come on at maximum intensity.
  - (b) Set the storm switch to the off mode.
    - 1) Make sure the lights go back to the initial lighting intensity.

### SUBTASK 33-11-00-710-002

- (3) Do a test of the dome lights (WDM 33-11-11):
  - (a) At the overhead panel, P5, slowly set the switch for the dome lights from the dim to the bright mode.
    - 1) Make sure the intensity of the lights changes from dim to bright.
    - 2) Set the switch to its usual mode.

ARO ALL



#### SUBTASK 33-11-00-710-003

- (4) Do a test of the floodlights (WDM 33-11-12):
  - (a) At the P5 panel, slowly set the switch for the glareshield floodlights from the dim to the bright mode.

NOTE: Use the inner knob.

- 1) Make sure the intensity of the lights changes from dim to bright.
- 2) Set the switch to the usual mode.
- (b) At the auxiliary panels, P13 and P14, slowly set each switch for the panel floodlights from the dim to the bright mode.

NOTE: Use the inner knob.

- 1) Make sure the intensity of the lights changes from dim to bright.
- 2) Set each switch to the usual mode.
- (c) At the aisle stand panel, P8, slowly set the switch for the aisle stand floodlight from the dim to the bright mode.

NOTE: Use the inner knob.

- 1) Make sure the intensity of the light changes from dim to bright.
- 2) Set the switch to the usual mode.



# TASK 33-11-00-710-802

3. Flight Compartment Illumination - Operational Test of the Dome and Floodlight Standby Relays

NOTE: This procedure is a scheduled maintenance task.

# A. General

(1) This test makes sure the standby relays operate.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-11-11	Wiring Diagram Manual

#### C. Location Zones

Zone	Area	
211	Flight Compartment, Left	
212	Flight Compartment, Right	

#### D. Procedure

SUBTASK 33-11-00-860-003

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-11-00-710-004

(2) Do a test of these standby relays (WDM 33-11-11):

### Table 501/33-11-00-993-801

RELAY	LIGHT
K33012	DOME LIGHTS

ARO ALL



# Table 501/33-11-00-993-801 (Continued)

RELAY	LIGHT
K33017	PANEL FLOODLIGHTS GLARESHIELD FLOODLIGHTS
K33018	AISLE STAND FLOODLIGHT

- (a) At the overhead panel, P5, make sure the storm switch is in the off position.
- (b) At the P5 panel, set the switch for the dome lights to the bright position.
- (c) At the aisle stand panel, P8, set the switch for the aisle stand floodlight to the bright position.
  - 1) At the forward panel, P13, set the switch for the Capt Pnl/Flood to the bright position.
  - 2) AT the forward panel, P14, set the switch for the F/O Pnl/Flood to the bright position.
  - 3) At the overhead panel, P5, Set the switch for the glareshiled Pnl/Flood to the bright position.
- (d) Make sure all lights in the above table are on.
- (e) Open these circuit breakers:

### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	2	C33403	DOME LIGHTS

# Right Power Management Panel, P210

Row	Col	Number	<u>Name</u>
Е	22	C33402	DOME LTS BACKUP

- 1) Make sure the dome lights stay on.
- (f) Open this circuit breaker and install safety tag:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS

- 1) Make sure the floodlights for the panel, glareshield, and aisle stand stay on.
- (g) Remove the safety tags and close these circuit breakers:

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	2	C33403	DOME LIGHTS

# Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS

# **Right Power Management Panel, P210**

Row	Col	<u>Number</u>	<u>Name</u>
Е	22	C33402	DOME LTS BACKUP

ARO ALL



(h) At the P8 panel, set the switch for the aisle stand floodlight to the usual position.

——— END OF TASK ———

#### TASK 33-11-00-710-803

# 4. Flight Compartment Illumination - Operational Test During Towing Operations

#### A. General

(1) This test makes sure the selected floodlights operate during towing operations.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
24-22-00-860-806	Remove Electrical Power (P/B 201)
WDM 33-11-12	Wiring Diagram Manual

### C. Location Zones

Zone	Area	
211	Flight Compartment, Left	
212	Flight Compartment, Right	

#### D. Procedure

SUBTASK 33-11-00-860-005

(1) Do this task: Remove Electrical Power, TASK 24-22-00-860-806.

NOTE: To operate the lights during towing operations, AC power must be removed from the airplane. The main battery will supply the electrical power that is necessary.

#### SUBTASK 33-11-00-860-006

(2) At the overhead panel, P5, set the BATTERY switch to the off mode.

SUBTASK 33-11-00-710-005

- (3) Do a test of the floodlights during towing operations (WDM 33-11-12 thru 33-11-14):
  - (a) At the maintenance panel, P61, set the TOW switch to the on mode.
    - 1) Make sure the floodlights on the bottom of the glareshield panel, P7, come on.

NOTE: The floodlights installed in the center glareshield panel, P55, and above the aisle stand in the overhead circuit breaker panel, P11, stay off.

- (b) At the P61 panel, set the TOW switch to the off mode.
  - 1) Make sure all floodlights go off.

# E. Put the Airplane Back to Its Usual Condition

SUBTASK 33-11-00-860-008

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

	<b>END</b>	OF 1	<b>TASK</b>	
--	------------	------	-------------	--

33-11-00

ARO ALL

EFFECTIVITY

Page 504 D633W101-ARO Jan 05/2015



# **DOME LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has these tasks:
  - (1) Dome Light Lamp Removal.
  - (2) Dome Light Lamp Installation.
- B. This procedure removes and installs only the primary lamp in the dome light assemblies. Some dome light assemblies have two lamps.
  - (1) The secondary lamp, when installed, is part of the emergency lighting system. To replace the secondary lamp, do this task: Emergency Dome Light - Lamp Replacement, TASK 33-51-07-960-801.

### TASK 33-11-01-000-801

# 2. Dome Light - Lamp Removal

(Figure 201)

#### A. References

Reference	Title
WDM 33-11-11	Wiring Diagram Manual

### B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

### C. Procedure

SUBTASK 33-11-01-860-001

(1) Open these circuit breakers and install safety tags:

(WDM 33-11-11)

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	2	C33403	DOME LIGHTS

# **Right Power Management Panel, P210**

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	22	C33402	DOME LTS BACKUP

### Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	3	C33612	STBY DOME LTS

SUBTASK 33-11-01-010-001

(2) Remove the cover [1] and four screws [2].

SUBTASK 33-11-01-010-002

(3) Remove the lens assembly [3].

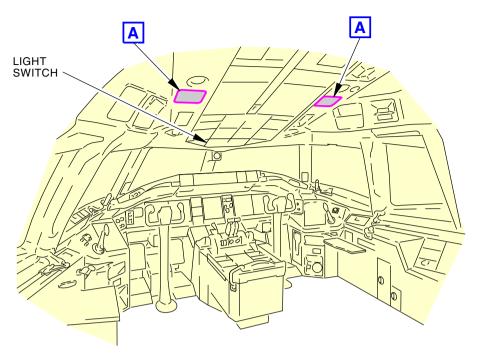
SUBTASK 33-11-01-020-001

(4) Carefully remove the primary lamp [4].

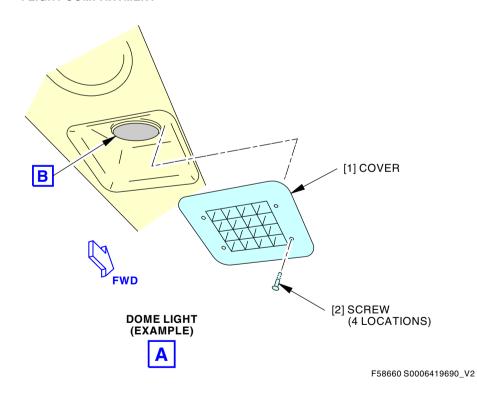
----- END OF TASK -----

ARO ALL





#### **FLIGHT COMPARTMENT**



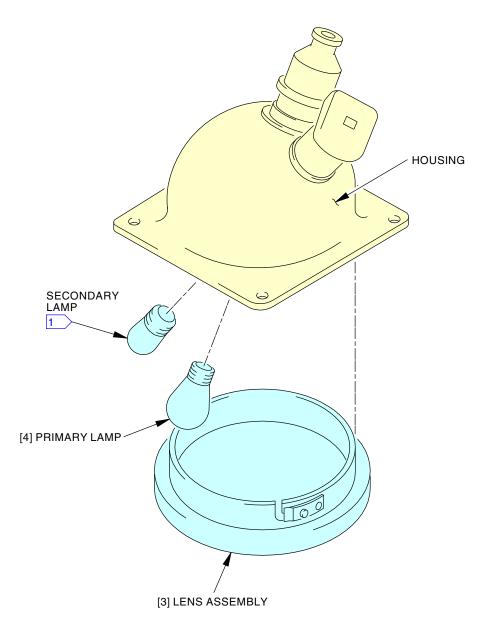
Dome Light - Lamp Installation Figure 201/33-11-01-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-11-01

Page 202 Sep 05/2016





DOME LIGHT ASSEMBLY (EXAMPLE)



1 INSTALLED IN SOME DOME LIGHT ASSEMBLIES.

E03910 S0006419691\_V3

Dome Light - Lamp Installation Figure 201/33-11-01-990-801 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-11-01

Page 203 Jul 25/2018



#### TASK 33-11-01-400-801

# 3. Dome Light - Lamp Installation

(Figure 201)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-11-11	Wiring Diagram Manual

### **B.** Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

#### C. Procedure

SUBTASK 33-11-01-420-001

(1) Install the new primary lamp [4].

SUBTASK 33-11-01-410-001

(2) Install the lens assembly [3].

SUBTASK 33-11-01-410-002

(3) Install the cover [1] and four screws [2].

SUBTASK 33-11-01-860-002

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

### SUBTASK 33-11-01-860-003

(5) Remove the safety tags and close these circuit breakers:

(WDM 33-11-11)

# **Ground Service/Handling Power Panel, P320**

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	2	C33403	DOME LIGHTS

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	22	C33402	DOME LTS BACKUP

# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	3	C33612	STBY DOME LTS

#### SUBTASK 33-11-01-710-001

- (6) Do a test of the new primary lamp [4].
  - (a) At the overhead panel, P5, set the switch for the dome light to the on mode.
    - 1) Make sure the new primary lamp [4] comes on.
  - (b) Set the switch to the usual mode.

——— END OF TASK ———		<b>FND</b>	OF TA	SK —	
---------------------	--	------------	-------	------	--

33-11-01

ARO ALL



# **FLOODLIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has these tasks:
  - (1) Floodlight, Panel or Glareshield Light Assembly Replacement
  - (2) Floodlight, Aisle Stand Lamp Replacement

#### TASK 33-11-03-960-801

# 2. Floodlight, Panel or Glareshield - Light Assembly Replacement

(Figure 201)

### A. General

(1) When you replace the light assembly, do not discard it. It is possible to replace its lamps in a shop.

NOTE: Onboard repair of lightplates is not recommended. Replacement of the complete lightplate assembly is the preferred maintenance practice. Instructions for lamp replacement can be found in Chapter 20-11-05 or the lightplate vendor's manual.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-11-12	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

### D. Procedure

SUBTASK 33-11-03-860-001

(1) Open these circuit breakers and install safety tags:

(WDM 33-11-12)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	25	C33411	GSHLD INST & PNL LTS

# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

SUBTASK 33-11-03-960-001

- (2) Do these steps to replace the light assembly:
  - (a) Loosen the fasteners [2] or fasteners [4].

ARO ALL



- (b) If there is an electrical wire [3] attached to the light assembly, disconnect it at the connector.
  - 1) Pull out the electrical wire for access to the connector.
- (c) Replace the light assembly [1] or light assembly [5].
- (d) When it is applicable, connect the electrical wire [3].
  - 1) Put the electrical wire back in the panel.
- (e) Tighten the fasteners [2] or fasteners [4].

#### SUBTASK 33-11-03-860-003

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-11-03-860-004

(4) Remove the safety tags and close these circuit breakers:

(WDM 33-11-12)

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	25	C33411	<b>GSHLD INST &amp; PNL LTS</b>

### Standby Power Management Panel, P310

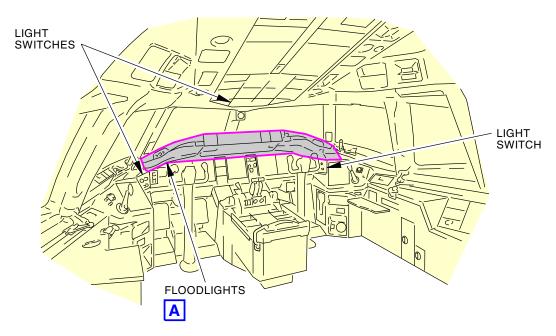
Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

### SUBTASK 33-11-03-710-001

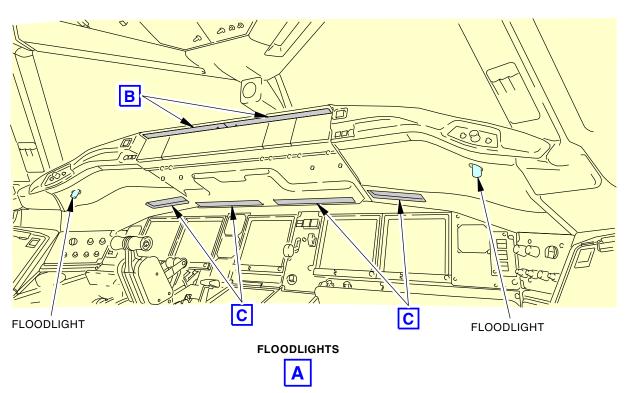
- (5) Do a test of the new light assembly.
  - (a) At the applicable panel, P5, P13, or P14, set the switch for the panel or glareshield floodlight to the on mode.
    - 1) Make sure the new light assembly comes on.
  - (b) Set the switch to the usual mode.

FND	OF:	TASK	





### **FLIGHT COMPARTMENT**



F58683 S0006419697\_V2

# Floodlight, Panel or Glareshield - Light Assembly Replacement Figure 201/33-11-03-990-801 (Sheet 1 of 2)

EFFECTIVITY

ARO ALL

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

33-11-03

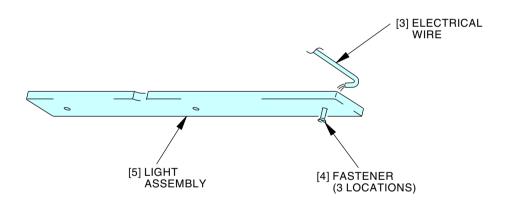
Page 203 Sep 05/2016





# FLOODLIGHT, GLARESHIELD (EXAMPLE)





# FLOODLIGHT, PANEL (EXAMPLE)



E04220 S0006419698\_V2

Floodlight, Panel or Glareshield - Light Assembly Replacement Figure 201/33-11-03-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-11-03

Page 204 Sep 05/2016



#### TASK 33-11-03-960-802

3. Floodlight, Aisle Stand - Lamp Replacement

(Figure 202)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-11-12	Wiring Diagram Manual

### **B.** Location Zones

Zone	Area	
211	Flight Compartment, Left	
212	Flight Compartment, Right	

#### C. Procedure

#### SUBTASK 33-11-03-860-002

(1) Open these circuit breakers and install safety tags:

(WDM 33-11-12)

### Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS

# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-11-03-960-002

- (2) Do these steps to replace the lamp:
  - (a) Loosen the fasteners [10] and remove the cover [9].
  - (b) Loosen the fasteners [8] and remove the plate [7].
  - (c) Replace the lamp [6].
    - 1) Push the lamp in and turn it to the counter clockwise direction to remove it.
  - (d) Install the plate [7] and tighten the fasteners [8].
  - (e) Install the cover [9] and tighten the fasteners [10].

### SUBTASK 33-11-03-860-006

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-11-03-860-007

(4) Remove the safety tags and close these circuit breakers:

(WDM 33-11-12)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS

### Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

ARO ALL

33-11-03

Page 205 Sep 05/2017



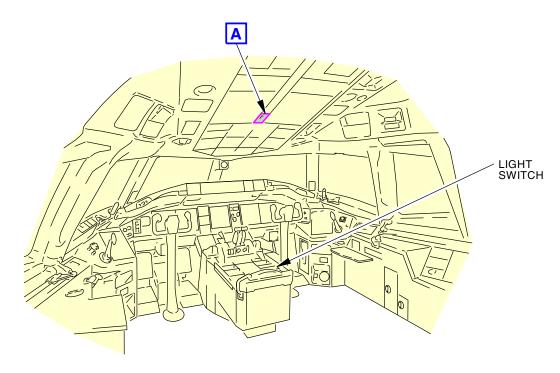
#### SUBTASK 33-11-03-710-002

- (5) Do a test of the new lamp.
  - (a) At the aisle stand panel, P8, set the switch for the aisle stand floodlight to the on mode.
    - 1) Make sure the new lamp comes on.
  - (b) Set the switch to the usual mode.

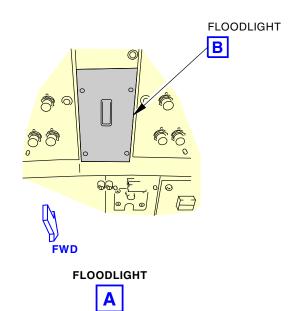
END	OF T	<b>TASK</b>	
	OF I	ASN	

ARO ALL





# FLIGHT COMPARTMENT



F58691 S0006419700\_V2

Floodlight, Aisle Stand - Lamp Replacement Figure 202/33-11-03-990-802 (Sheet 1 of 2)

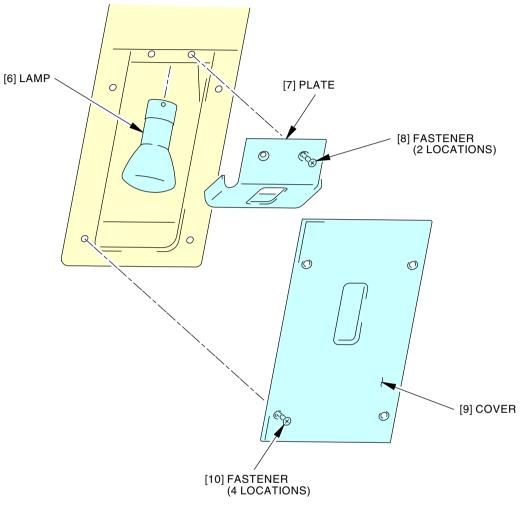
ARO ALL

D633W101-ARO

33-11-03

Page 207 Sep 05/2016







**FLOODLIGHT** 



E04057 S0006419701\_V3

Floodlight, Aisle Stand - Lamp Replacement Figure 202/33-11-03-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-11-03

Page 208 Sep 05/2017



# **INTEGRAL PANEL LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has these tasks:
  - (1) Integral Panel Light Lightplate Replacement
  - (2) Integral Panel Light Pushbutton Switch Replacement
  - (3) Integral Panel Light Annunciator Replacement
  - (4) Integral Panel Light Pushbutton Switch Guard Removal/Installation

#### TASK 33-13-00-960-801

# 2. Integral Panel Light - Lightplate Replacement

(Figure 201)

### A. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
31-12-11	OVERHEAD PANEL	
WDM 33-13-11	Wiring Diagram Manual	
WDM 33-13-19	Wiring Diagram Manual	

### B. Tools/Equipment

Reference	Description	
STD-1176	Cover - Windshield Blackout Screen	

### C. Location Zones

Zone	Area	
211	Flight Compartment, Left	
212	Flight Compartment, Right	

### D. Procedure

NOTE: See OVERHEAD PANEL, SUBJECT 31-12-11 for correct labels or placards for components on lightplate.

#### SUBTASK 33-13-00-860-011

(1) Open these circuit breakers and install safety tags:

(WDM 33-13-11 thru WDM 33-13-19)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	<b>GSHLD INST &amp; PNL LTS</b>

ARO ALL



### Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-13-00-960-001

(2) Do these steps to replace the lightplate [2]:

NOTE: When you remove the lightplate [2], do not discard it.

NOTE: Onboard repair of lightplates is not recommended. Replacement of the complete lightplate assembly is the preferred maintenance practice. Instructions for lamp replacement can be found in Chapter 20-11-05 or the lightplate vendor's manual.

- (a) If a knob [3] or switch prevents the removal of the lightplate [2], remove the knob [3].
- (b) Loosen the fasteners [1] on the face of the lightplate [2].

NOTE: Do not remove the fasteners that hold the panel or module in its position.

- (c) Replace the lightplate [2].
  - ON AN OVERHEAD CIRCUIT BREAKER LIGHTPLATE;
     Make sure the lightplate [2] includes the circuit breaker labels.



DO NOT TIGHTEN THE LIGHTPLATE FASTENERS TOO MUCH. IF YOU DO, IT CAN CAUSE DAMAGE.

- (d) Tighten the fasteners [1] on the face of the lightplate [2].
- (e) If a knob [3] or switch was removed, install knob [3].

#### SUBTASK 33-13-00-860-030

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

### SUBTASK 33-13-00-860-016

EFFECTIVITY

**ARO ALL** 

(4) Remove the safety tags and close these circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	<b>GSHLD INST &amp; PNL LTS</b>

# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

33-13-00

Page 202 D633W101-ARO Sep 05/2017



#### SUBTASK 33-13-00-940-004

(5) If it is necessary, put a windshield cover, STD-1176 on the windshield.

NOTE: When the test is done during the day, the changes in light intensity are not easy to see.

#### SUBTASK 33-13-00-710-006

(6) FOR A CIRCUIT BREAKER PANEL LIGHTPLATE;

Do this test:

(a) At the overhead panel, P5, slowly set the switch for the lightplate [2] from the dim to the bright mode.

NOTE: Use the inner knob of the switch for the overhead/circuit breaker lights.

- 1) Make sure the new lightplate [2] comes on.
- 2) Make sure the intensity of the light changes from dim to bright.
- (b) Set the switch to the usual mode.

# SUBTASK 33-13-00-710-002

(7) FOR ALL OTHER LIGHTPLATES;

Do this test:

- (a) At the overhead panel, P5, set the switch for the master bright control to the on mode, then slowly set the switch from the dim to the bright mode.
  - 1) Make sure the new lightplate [2] comes on.
  - 2) Make sure the intensity of the light changes from dim to bright.
- (b) Set the switch to the usual mode.

#### SUBTASK 33-13-00-940-005

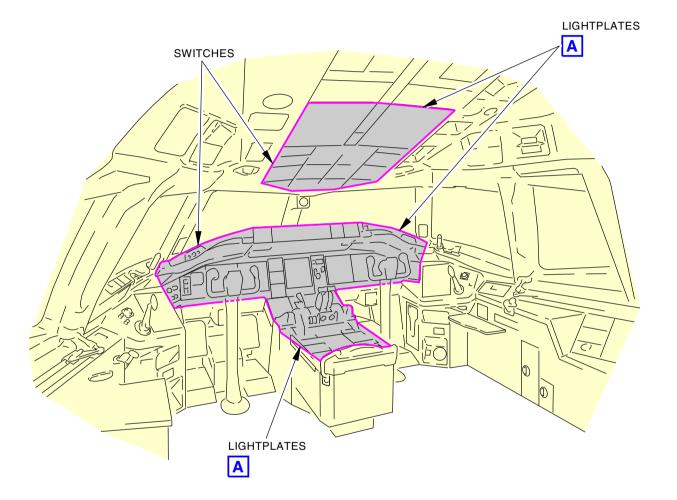
(8) If a windshield cover, STD-1176 was used on the windshield, remove it.

------ END OF TASK ------

33-13-00

EFFECTIVITY -





### FLIGHT COMPARTMENT

F58911 S0006419706\_V2

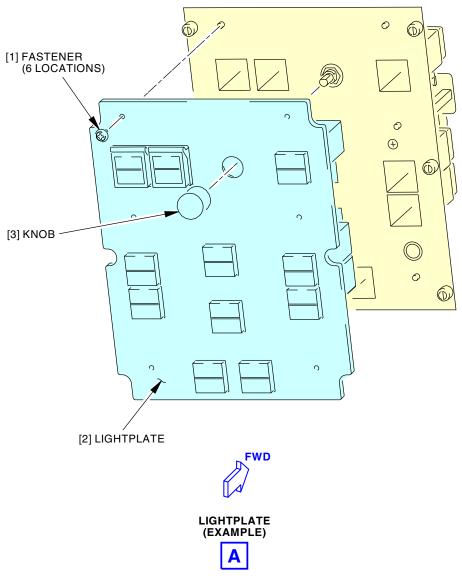
Integral Panel Light - Lightplate Replacement Figure 201/33-13-00-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-13-00

Page 204 Sep 05/2016





E11255 S0006419707\_V2

Integral Panel Light - Lightplate Replacement Figure 201/33-13-00-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-13-00

Page 205 May 05/2017



#### TASK 33-13-00-960-802

# 3. Integral Panel Light - Pushbutton Switch Replacement

(Figure 202)

### A. General

- (1) Each pushbutton switch has four main components: cap module, switch module, housing, and mounting sleeve. This task replaces the cap module [23] and switch module [21], which are removed and installed as one unit. This procedure refers to the unit as the switch. It is usually not necessary to replace the housing [25] and the mounting sleeve [26].
- (2) Each pushbutton switch has LEDS that are supplied with power from the instrument and panel lighting circuit breakers. The pushbutton switch also operates or sends signals to different airplane systems. The tables in WDM 33-13-11 thru WDM 33-13-19 show the schematics that are necessary to find the electrical circuits of the airplane system related to each switch.

#### B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-13-11	Wiring Diagram Manual	
WDM 33-13-19	Wiring Diagram Manual	
WDM 33-16-11	Wiring Diagram Manual	
WDM 33-16-18	Wiring Diagram Manual	

### C. Tools/Equipment

Reference	Description
STD-1176	Cover - Windshield Blackout Screen

#### D. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

### E. Procedure

SUBTASK 33-13-00-860-012

(1) Open the applicable instrument and panel light circuit breakers and attach the DO-NOT CLOSE tag:

(WDM 33-13-11 thru WDM 33-13-19)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	<b>GSHLD INST &amp; PNL LTS</b>

ARO ALL



### Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

SUBTASK 33-13-00-860-013



OPEN THE SYSTEM CIRCUIT BREAKERS THAT SUPPLY POWER TO THE PUSHBUTTON SWITCH. DURING THE REPLACEMENT OF A PUSHBUTTON SWITCH, THE ACCIDENTAL OPERATION OF AN AIRPLANE SYSTEM CAN OCCUR AND CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

- (2) Open the circuit breakers to the applicable airplane system controlled by the pushbutton switch and attach DO-NOT-CLOSE tags (WDM 33-13-11 thru WDM 33-13-19).
  - (a) When applicable, also open the circuit breaker for the dim and test system and attach the DO-NOT CLOSE tag:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
N	24	C33607	MD & T CHANNEL 2
Ν	25	C33605	MD & T CHANNEL 1

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	3	C33604	MD & T CHANNEL 5
M	4	C33606	MD & T CHANNEL 6

# Standby Power Management Panel, P310

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	3	C33610	MD & T CHANNEL 3
F	4	C33611	MD & T CHANNEL 4

#### SUBTASK 33-13-00-860-031

- (3) Before you remove the pushbutton switch, do the following check to determine which pushbutton switch is installed.
  - (a) Pull the cap module [23] away from the switch module [21] to see if it disengages from the switch module [21].
    - NOTE: Do not use more than 5 lbf (22 N) to remove the cap module [23].
  - (b) If the cap module [23] does not release from the switch module [21], then do the replacement steps for P/N 09–530–0XXX below.
  - (c) If the cap module [23] releases from the switch module [21], then do the replacement steps for P/N 32500–XXX below.

### SUBTASK 33-13-00-960-002



DO NOT REMOVE THE SWITCH/CAP MODULE ASSEMBLY WHILE THE SWITCH IS IN THE LATCHED POSITION. DO NOT PULL THE CAP WHILE IT IS IN THE LATCHED POSITION. DO NOT APPLY MORE THAN 13 LBF (58 N) OF FORCE TO THE SWITCH/CAP MODULE ASSEMBLY. THIS CAN CAUSE PERMANENT DAMAGE TO THE LATCH MECHANISM.

(4) P/N 09-530-0XXX;

Do these steps to replace the pushbutton switch:

ARO ALL



- (a) Pull out the cap module [23] approximately 1/2 inch.
- (b) Turn the cap module [23] approximately 22 degrees counterclockwise.
- (c) Remove the switch module [21] and cap module [23], from the housing [25].
  - NOTE: Pull the switch out straight to make sure you do not bend the pins to the connector.
- (d) If a P/N 32500–XXX pushbutton switch will be installed, then follow the installation steps in the P/N 32500–XXX procedure below.
- (e) Prepare the new switch for the installation.
  - 1) To remove the Cap Module from the Switch Module do these steps:
    - a) Grip the Switch/Cap Module Assembly in one hand with the base of the Switch Module facing upward.
    - b) Insert a flat blade screwdriver into the inner shaft recess.
    - c) Rotate the inner shaft approximately 90 degrees either direction, aligning the screwdriver slot in the recess with the lines marked "UNL" (unlocked).
    - d) The Cap Module will gently spring free from the Switch Module.
  - 2) To attach the Cap Module to the Switch Module do these steps:
    - a) Grip the appropriate Switch Module in one hand.
    - b) View the Module from the pin side. Using the screwdriver, rotate the inner shaft so the slot is aligned with the lines marked "UNL" (unlocked). This aligns the inner shaft with the Cap Lock inside the Cap Module.
    - Rotate the Locking Collar so that the Module Label is centered to the top surface.
    - d) Align the top of the Switch Module with the top of the Cap Module.
    - e) Slide the Cap Module entirely into the Switch Module. Keys in the Cap Assembly will slide in grooves in the Switch Module and also only allow installation in one position.
    - f) Slightly compress the cap into the Switch Module and rotate the assembly so the contact pin side is up.
    - g) Insert a flat blade screwdriver into the inner shaft slot and rotate the shaft 90 degrees, aligning the shaft slot with the lines marked "LKD" (locked), while holding the Cap Module and Switch Module together.
    - h) Check that the Cap Module and Switch Module are locked together.
  - 3) Prepare the Push Button Switch to install in the housing:
    - a) Pull out the cap module [23] until the green lines come into view.
    - b) Turn the cap module [23] approximately 22 degrees counterclockwise.
      - NOTE: The white line on the top of the Cap Module must align with the white line on the top of the Switch Module.
- (f) Install the switch module [21] and cap module [23], in the housing [25].
  - <u>NOTE</u>: The position of the cap module will stop the full installation of the switch.
- (g) Turn the cap module [23] approximately 22 degrees clockwise.
- (h) Push the switch module [21] and cap module [23], to install it fully.
  - <u>NOTE</u>: Push the switch in straight to make sure you do not bend the pins to the connector.

ARO ALL



#### SUBTASK 33-13-00-960-004

(5) P/N 32500-XXX;

Do these steps to replace the pushbutton switch:

NOTE: Do not discard the switch. Refer to vendor instructions for possible shop repair.

- (a) With the cap module [23] in the fully extended OFF position, pull the cap module [23] away from the switch module [21].
  - NOTE: The cap module [23] should release from the switch module [21] and remain connected to the switch module [21] by ribbon wires.
- (b) Loosen the two mounting screws, located at the top and bottom of the switch module [21] until they are at the full counterclockwise end of travel.
- (c) Pull the cap module [23] to disengage the switch module [21] from the housing [25].
  - NOTE: Pull the switch module [21] out straight to make sure you do not bend the pins to the connector.
  - 1) Use the gripping surfaces of the cap module [23] to extract the switch module [21] from the housing [25].
- (d) Prepare the new pushbutton switch to install in the housing:
  - 1) Make sure the cap module [23] is disconnected from the switch module [21] to allow access to the two mounting screws.
  - 2) Loosen the two mounting screws on the new switch module [21] until they are at the full counterclockwise end of travel.
- (e) Align the top of the switch module [21] assembly with the top of the mounting sleeve [26]
- (f) Install the switch module [21] into the mounting sleeve [26] until it is fully seated.
  - NOTE: Push the switch module [21] in straight to make sure you do not bend the connector pins.
- (g) Torque the two mounting screws to 16-20 inch-ounces.
- (h) Install the cap module [23] into the switch module [21] and press down until the cap module [23] is fully engaged.

NOTE: Make sure that the cap module [23] alignment arms are aligned with the switch module [21] slots on the right side of the switch module [21].

#### SUBTASK 33-13-00-860-018

(6) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-13-00-860-019

(7) Remove the DO-NOT CLOSE tag and close the applicable instrument and panel light circuit breakers:

### Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

ARO ALL



# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	GSHLD INST & PNL LTS

### Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-13-00-860-020

- (8) Remove the DO-NOT-CLOSE tags and close the circuit breakers to the applicable airplane system controlled by the pushbutton switch.
  - (a) When a master dim and test circuit breaker was opened, remove the DO-NOT-CLOSE tag and close the applicable circuit breaker:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
N	24	C33607	MD & T CHANNEL 2
N	25	C33605	MD & T CHANNEL 1

# Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	3	C33604	MD & T CHANNEL 5
M	4	C33606	MD & T CHANNEL 6

# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	3	C33610	MD & T CHANNEL 3
F	4	C33611	MD & T CHANNEL 4

#### SUBTASK 33-13-00-940-006

(9) If it is necessary, put a windshield cover, STD-1176 on the windshield.

NOTE: When the test is done during the day, the changes in light intensity are not easy to see.

#### SUBTASK 33-13-00-710-003



DO NOT USE OPTION 1 TO DO A TEST OF THE PUSHBUTTON SWITCH IF IT OPERATES A SYSTEM WHERE SAFETY PRECAUTIONS ARE NECESSARY. THE ACCIDENTAL OPERATION OF THE SYSTEM CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(10) OPTION 1: Do a test of the new pushbutton switch.

NOTE: OPTION 1 can be used for all pushbutton switches connected to the master bright control system (WDM 33-13-11 thru WDM 33-13-19). The test makes sure the LEDs in the pushbutton switch come on. It is not a check of the related airplane system.

- (a) Set the pushbutton switch to the on mode.
- (b) At the overhead panel, P5, set the switch for the master bright control to the on position, then slowly set the switch from the dim to the bright mode.
  - 1) Make sure the new pushbutton switch comes on.
  - Make sure the intensity of the light changes from dim to bright.

ARO ALL 33-13-00



- (c) Set the switch for the master bright control to the usual mode.
- (d) Set the pushbutton switch to the usual mode.

### SUBTASK 33-13-00-710-004

- (11) OPTION 2: Do a test of the new pushbutton switch.
  - NOTE: Use OPTION 2 only when the pushbutton switch is connected to the master dim and test system (WDM 33-16-11 thru WDM 33-16-18). The test makes sure the LEDs in the pushbutton switch come on. It is not a check of the related airplane system.
  - (a) Make sure the pushbutton switch is in its usual mode.
  - (b) At the overhead panel, P5, set and hold the switch for the indicator lights to the test mode.
    - Make sure the new pushbutton switch comes on brightly for approximately 10 seconds.
    - 2) Make sure the intensity of the light changes from bright to dim after approximately
  - (c) Release the switch for the indicator lights.

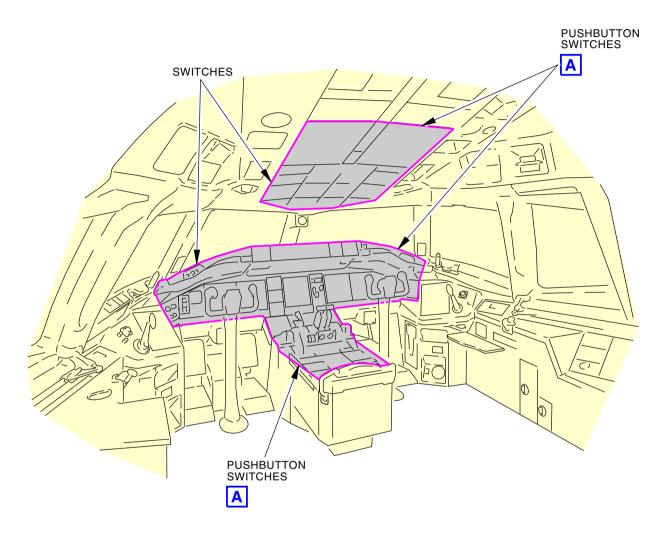
SUBTASK 33-13-00-940-007

(12) If a windshield cover, STD-1176 was used on the windshield, remove it.

----- END OF TASK -----

ARO ALL 33-13-00





FLIGHT COMPARTMENT

F58964 S0006419709\_V2

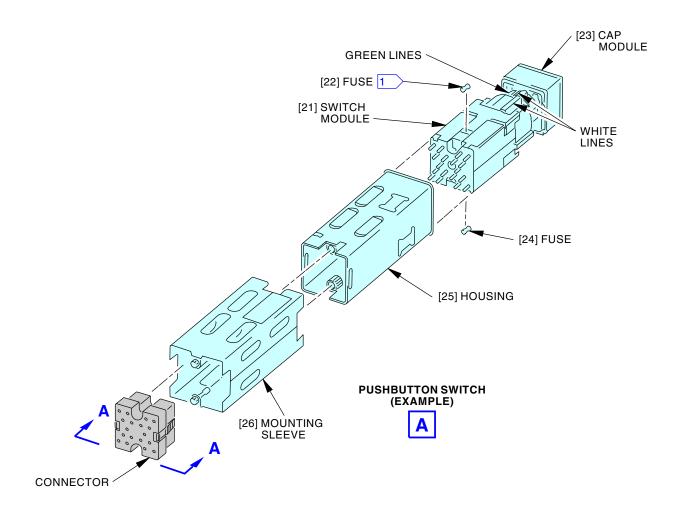
Integral Panel Light - Pushbutton Switch Replacement Figure 202/33-13-00-990-802 (Sheet 1 of 4)

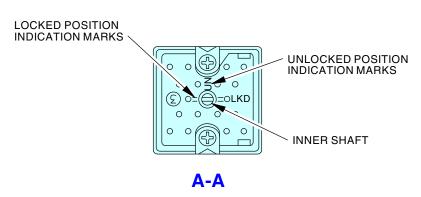
ARO ALL
D633W101-ARO

33-13-00

Page 212 Sep 05/2016







1

INSTALLED ON SOME PUSHBUTTON SWITCHES

E10872 S0006419710\_V3

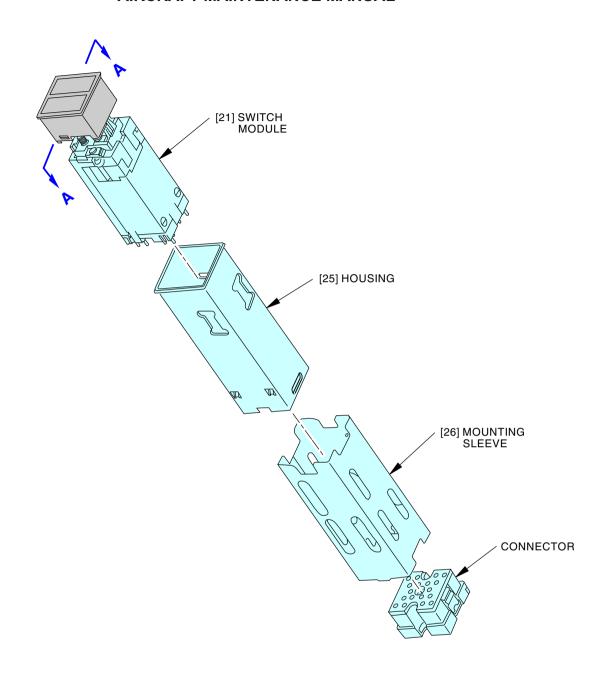
Integral Panel Light - Pushbutton Switch Replacement Figure 202/33-13-00-990-802 (Sheet 2 of 4)

ARO ALL
D633W101-ARO

33-13-00

Page 213 Sep 05/2016





PUSHBUTTON SWITCH (EXAMPLE)

NOTE:

32500 SERIES ONLY

Α

2274053 S0000511309\_V2

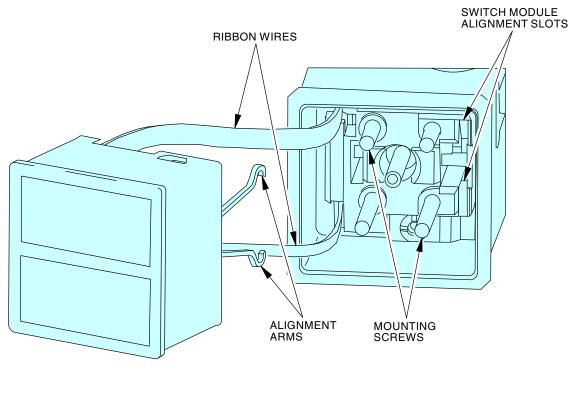
Integral Panel Light - Pushbutton Switch Replacement Figure 202/33-13-00-990-802 (Sheet 3 of 4)

ARO ALL
D633W101-ARO

33-13-00

Page 214 Sep 05/2016





A-A

NOTE:

32500 SERIES ONLY

2274194 S0000512539\_V2

Integral Panel Light - Pushbutton Switch Replacement Figure 202/33-13-00-990-802 (Sheet 4 of 4)

ARO ALL
D633W101-ARO

33-13-00

Page 215 Sep 05/2016



#### TASK 33-13-00-960-803

## 4. Integral Panel Light - Annunciator Replacement

(Figure 203)

## A. General

- (1) Each annunciator has four main components: display module, housing, mounting sleeve, and connector. This task replaces only the display module [41], referred to as the annunciator. It is usually not necessary to replace the housing [42], mounting sleeve [44], and connector [43].
- (2) The annunciators are powered by the master dim and test circuit breakers. The tables in WDM 33-16-11 thru WDM 33-16-18 supply the references to the airplane systems connected to each annunciator.

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-16-11	Wiring Diagram Manual
WDM 33-16-18	Wiring Diagram Manual

## C. Tools/Equipment

Reference	Description
STD-1176	Cover - Windshield Blackout Screen

## D. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

## E. Procedure

SUBTASK 33-13-00-860-014

(1) Open these circuit breakers and install safety tags:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	24	C33607	MD & T CHANNEL 2
N	25	C33605	MD & T CHANNEL 1

## **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	3	C33604	MD & T CHANNEL 5
M	4	C33606	MD & T CHANNEL 6

## Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	3	C33610	MD & T CHANNEL 3
F	4	C33611	MD & T CHANNEL 4

## SUBTASK 33-13-00-960-003

(2) Do these steps to replace the annunciator:

NOTE: Do not discard the display module. In a shop, use the vendor manual to isolate the failure and make possible repairs. The vendor manual includes special tools and instructions for Electrostatic Discharge Sensitive components.

ARO ALL



- (a) Pull the display module [41] out from the housing [42].
- (b) Replace the display module [41].
- (c) Put the new display module [41] in the housing [42].
  - 1) Push it into its position.

#### SUBTASK 33-13-00-860-022

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-13-00-860-023

(4) Remove the safety tags and close these circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	24	C33607	MD & T CHANNEL 2
Ν	25	C33605	MD & T CHANNEL 1

# Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	3	C33604	MD & T CHANNEL 5
M	4	C33606	MD & T CHANNEL 6

## Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	3	C33610	MD & T CHANNEL 3
F	4	C33611	MD & T CHANNEL 4

#### SUBTASK 33-13-00-940-008

(5) If it is necessary, put a windshield cover, STD-1176 on the windshield.

NOTE: When the test is done during the day, the changes in light intensity are not easy to see.

#### SUBTASK 33-13-00-710-005

- (6) Do a test of the new annunciator.
  - (a) At the overhead panel, P5, set and hold the switch for the indicator lights to the test position.
    - 1) Make sure the annunciator comes on brightly for approximately 10 seconds.
    - 2) Make sure the light changes from bright to dim after approximately 10 seconds.
  - (b) Release the switch.

#### SUBTASK 33-13-00-940-009

(7) If a windshield cover, STD-1176 was used on the windshield, remove it.

	OF T	V G K	
	OF I	AON.	

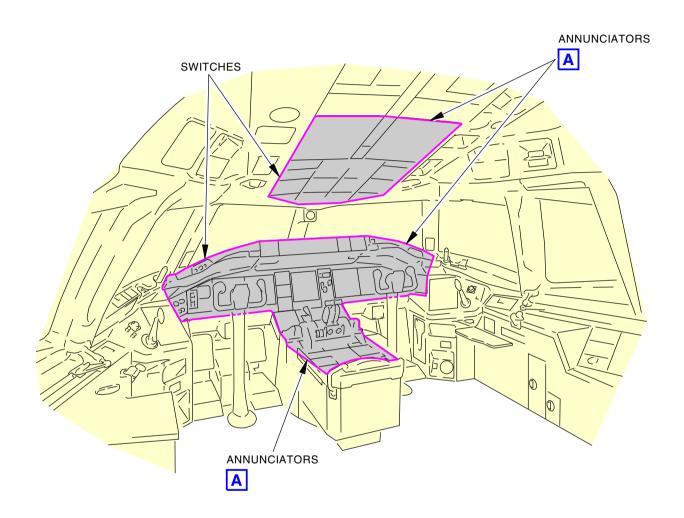
33-13-00

ARO ALL

EFFECTIVITY -



# **AIRCRAFT MAINTENANCE MANUAL**



## **FLIGHT COMPARTMENT**

F58967 S0006419713\_V2

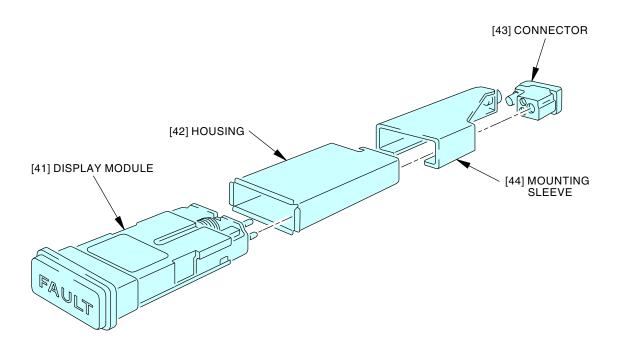
Integral Panel Light - Annunciator Replacement Figure 203/33-13-00-990-803 (Sheet 1 of 2)

- EFFECTIVITY ARO ALL D633W101-ARO

33-13-00

Page 218 Sep 05/2016





ANNUNCIATOR (EXAMPLE)

E10512 S0006419714\_V2

Integral Panel Light - Annunciator Replacement Figure 203/33-13-00-990-803 (Sheet 2 of 2)

ARO ALL

33-13-00

Page 219 Sep 05/2016



#### TASK 33-13-00-960-804

5. Integral Panel Light - Push-button Switch Guard Removal/Installation

(Figure 204)

#### A. General

(1) Each push-button switch has LEDS that are supplied with power from the instrument and panel lighting circuit breakers. The push-button switch also operates or sends signals to different airplane systems. The tables in WDM 33-13-11 through WDM 33-13-19 show the schematics that are necessary to find the electrical circuits of the airplane system related to each switch.

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-13-11	Wiring Diagram Manual
WDM 33-13-18	Wiring Diagram Manual
WDM 33-13-19	Wiring Diagram Manual
WDM 33-16-11	Wiring Diagram Manual
WDM 33-16-18	Wiring Diagram Manual
WDM 33-16-XX	Wiring Diagram Manual

## C. Tools/Equipment

Reference	Description
STD-1176	Cover - Windshield Blackout Screen

## D. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

## E. Procedure

SUBTASK 33-13-00-860-025

(1) Open the applicable instrument and panel light circuit breakers for the push-button switch and attach the DO-NOT-CLOSE tag:

(WDM 33-13-11 through WDM 33-13-19)

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

## **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	GSHLD INST & PNLLTS

# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STRY INSTITS

ARO ALL



#### SUBTASK 33-13-00-860-026



OPEN THE SYSTEM CIRCUIT BREAKERS THAT SUPPLY POWER TO THE PUSH-BUTTON SWITCH. DURING THE REPLACEMENT OF A PUSH-BUTTON SWITCH, THE ACCIDENTAL OPERATION OF AN AIRPLANE SYSTEM CAN OCCUR AND CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(2) Open the circuit breakers to the applicable airplane system controlled by the push-button switch and attach DO-NOT-CLOSE tags (WDM 33-13-11 through WDM 33-13-18).

<u>NOTE</u>: The table in the above referenced schematic identifies a HOME WIRE LIST for each push-button switch.

(a) When applicable, also open the circuit breaker for the dim and test system and attach the DO-NOT-CLOSE tag:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	24	C33607	MD & T CHANNEL 2
Ν	25	C33605	MD & T CHANNEL 1

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	3	C33604	MD & T CHANNEL 5
M	4	C33606	MD & T CHANNEL 6

# Standby Power Management Panel, P310

Row	Col	<u>Number</u>	<u>Name</u>
В	3	C33610	MD & T CHANNEL 3
F	4	C33611	MD & T CHANNEL 4

NOTE: On the home schematic for the push-button switch, a reference to WDM 33-16-XX will show, but not always. When the reference appears, use it to identify the master dim and test circuit breaker that must also be opened.

#### SUBTASK 33-13-00-010-001

- (3) Get access behind the module/panel.
  - (a) Loosen the fasteners that hold the module/panel in its position.

NOTE: Do not disassemble the lightplate from the module/panel. Do not disconnect the electrical connectors from the airplane wiring. These steps are not necessary to do this task.

## SUBTASK 33-13-00-020-001

- (4) Do these steps to remove the guard:
  - (a) Disconnect the electrical connector [68] from the push-button switch.

<u>NOTE</u>: The electrical connector engages the pins on the switch module. The two retaining tabs on the sides of the electrical connector secure it to the housing.

- (b) Loosen the screws [66] on the mounting sleeve [65] to release the housing [62].
- (c) On the face of the module/panel, lift the cover on the guard [61] and pull out the push-button switch.

NOTE: The switch module [64] and housing [62] will come out together.

ARO ALL



(d) Remove the guard [61].

#### SUBTASK 33-13-00-420-001

- (5) Do these steps to install the guard:
  - (a) Move the guard [61] on to the housing [62].
    - 1) Make sure the switch module [64] is in the housing.
    - 2) Hold the cover of the guard in the up position.
    - 3) Make sure the top of the switch module aligns with the top of the guard.
  - (b) On the face of the module/panel, put the switch module [64] and housing [62] (with the guard around it) into the opening.
    - 1) Hold the switch components against the face of the module/panel.
  - (c) Behind the module/panel, move the mounting sleeve [65] on to the housing [62].
  - (d) To connect the housing [62], tighten the screws [66] on the mounting sleeve [65].
    - NOTE: When you do this step, you also tighten the guard against the face of the module/panel.
  - (e) Connect the electrical connector [68] to the switch module [64] and housing [62].
    - 1) Align the electrical connector with the pins on the switch module [64].
    - 2) Make sure the two retaining tabs [67] on the side of the electrical connector are fully engaged with the slots [63] in the housing.

#### SUBTASK 33-13-00-860-027

(6) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-13-00-860-028

(7) Remove the DO-NOT-CLOSE tag and close the applicable instrument and panel light circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	GSHLD INST & PNL LTS

## Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-13-00-860-029

(8) Remove the DO-NOT-CLOSE tags and close the circuit breakers to the applicable airplane system controlled by the push-button switch.

ARO ALL



(a) When a master dim and test circuit breaker was opened, remove the DO-NOT-CLOSE tag and close the applicable circuit breaker:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	24	C33607	MD & T CHANNEL 2
Ν	25	C33605	MD & T CHANNEL 1

## **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	3	C33604	MD & T CHANNEL 5
M	4	C33606	MD & T CHANNEL 6

## **Standby Power Management Panel, P310**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	3	C33610	MD & T CHANNEL 3
F	4	C33611	MD & T CHANNEL 4

#### SUBTASK 33-13-00-940-010

(9) If it is necessary, put a windshield cover, STD-1176 on the windshield.

NOTE: When the test is done during the day, the changes in light intensity are not easy to see.

#### SUBTASK 33-13-00-710-007



DO NOT USE OPTION 1 TO DO A TEST OF THE PUSH-BUTTON SWITCH IF IT OPERATES A SYSTEM WHERE SAFETY PRECAUTIONS ARE NECESSARY. THE ACCIDENTAL OPERATION OF THE SYSTEM CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(10) OPTION 1: Do a test of the installation.

NOTE: OPTION 1 can be used for all push-button switches connected to the master bright control system (WDM 33-13-11WDM 33-13-11 through WDM 33-13-19). The test makes sure the LEDs in the push-button switch come on. It is not a check of the related airplane system.

- (a) Set the push-button switch to the on mode.
- (b) At the overhead panel, P5, set the switch for the master bright control to the on position, then slowly set the switch from the dim to the bright mode.
  - Make sure the push-button switch comes on.
  - 2) Make sure the intensity of the light changes from dim to bright.
- (c) Set the switch for the master bright control to the usual mode.
- (d) Set the push-button switch to the usual mode.

## SUBTASK 33-13-00-710-008

(11) OPTION 2: Do a test of the installation.

NOTE: Use OPTION 2 only when the push-button switch is connected to the master dim and test system (WDM 33-16-11 through WDM 33-16-18). The test makes sure the LEDs in the push-button switch come on. It is not a check of the related airplane system.

- (a) Make sure the push-button switch is in its usual mode.
- (b) At the overhead panel, P5, set and hold the switch for the indicator lights to the test mode.

ARO ALL



- 1) Make sure the push-button switch comes on brightly for approximately 10 seconds.
- 2) Make sure the intensity of the light changes from bright to dim after approximately 10 seconds.
- (c) Release the switch for the indicator lights.

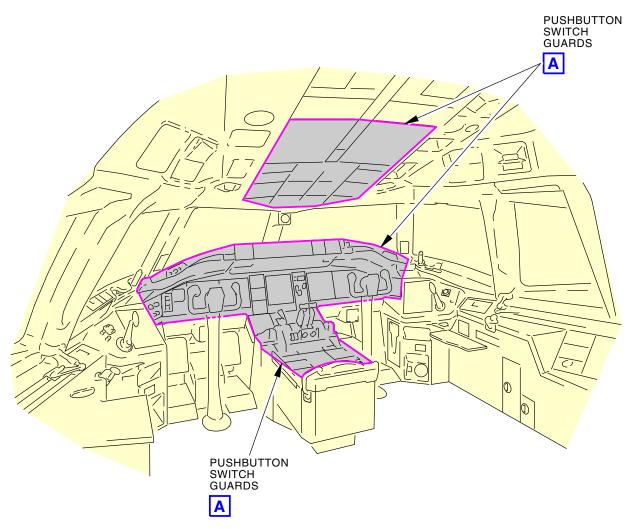
SUBTASK	33-13-00-940-0	11

(12) If a windshield cover, STD-1176 was used on the windshield, remove it.

----- END OF TASK -----

ARO ALL





FLIGHT COMPARTMENT

F59208 S0006419716\_V2

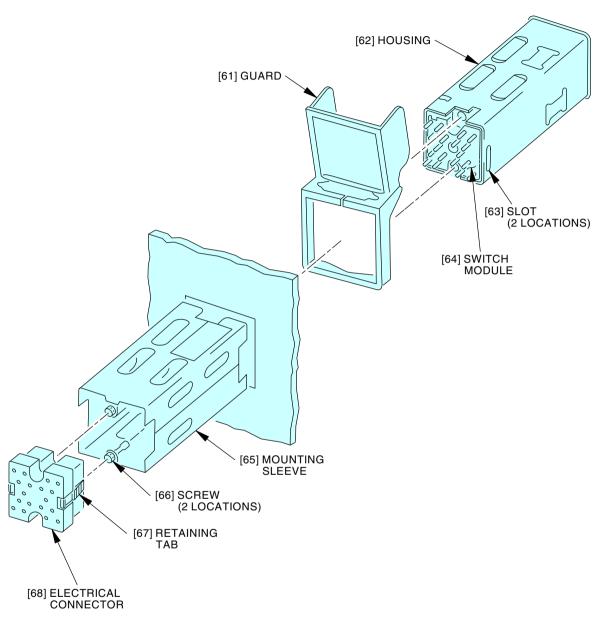
Integral Panel Light - Push-button Switch Guard Installation Figure 204/33-13-00-990-804 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-13-00

Page 225 Sep 05/2016





PUSHBUTTON SWITCH (EXAMPLE)



F59212 S0006419717\_V2

Integral Panel Light - Push-button Switch Guard Installation Figure 204/33-13-00-990-804 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-13-00

Page 226 Sep 05/2016



## **INTEGRAL PANEL LIGHTS - ADJUSTMENT/TEST**

## 1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
  - (1) Integral Panel Lights Operational Test
  - (2) Integral Panel Lights Functional Test
  - (3) Integral Panel Lights Operational Test of the Captain's Standby Relay
  - (4) Integral Panel Lights Operational Test of the Glareshield Standby Relay

## TASK 33-13-00-710-801

## 2. Integral Panel Lights - Operational Test

## A. General

- (1) This test makes sure the switch for the master bright control changes the intensity of the integral panel lights.
- (2) In this procedure, the integral panel lights are also referred to as the instrument and panel lights.

#### B. References

Title
Supply Electrical Power (P/B 201)
System Schematics Manual
System Schematics Manual
System Schematics Manual
Wiring Diagram Manual
Wiring Diagram Manual
Wiring Diagram Manual

## C. Tools/Equipment

Reference	Description
STD-1176	Cover - Windshield Blackout Screen

## D. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

## E. Procedure

## SUBTASK 33-13-00-860-003

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-13-00-940-001

(2) On a bright day, put a windshield cover, STD-1176 on the windshield to make it easier to do this test.

## SUBTASK 33-13-00-710-001

(3) Make sure the switch for the master bright control changes the intensity of the instrument and panel lights:

ARO ALL



- (a) At the overhead panel, P5, set the switch for the master bright control to the on mode, then slowly set the outer knob from the dim to the bright mode.
  - 1) Make sure these lights change from dim to bright:
    - a) Captain's instrument and panel lights on P1, P2, and P13 (WDM 33-13-11)
    - b) First officer and observer instrument and panel lights on P2, P3, P14, and P18 (when installed) (WDM 33-13-13)
    - Glareshield instrument and panel lights on P7, P55, and standby compass (SSM 33-13-12)
    - d) Overhead panel instrument and panel lights on P5 (SSM 33-13-15)
    - e) Aisle stand instrument and panel lights on P8, P9, and P10 (SSM 33-13-18 and WDM 33-13-19)
- (b) Set the switch to the off mode.

SUBTASK 33-13-00-940-002

(4) If a windshield cover, STD-1176 was used on the windshield, remove it.



## TASK 33-13-00-720-801

3. Integral Panel Lights - Functional Test

## A. General

- (1) In this procedure, the integral panel lights are also referred to as the instrument and panel lights.
- (2) This test makes sure these items operate correctly:
  - (a) Captain's instrument and panel lights
  - (b) First officer and observer instrument and panel lights
  - (c) Glareshield instrument and panel lights
  - (d) Overhead circuit breaker panel lights
  - (e) Overhead panel instrument and panel lights
  - (f) Aisle stand instrument and panel lights
  - (g) Master bright control
  - (h) Aisle stand instrument and panel lights connected to the automatic brightness control

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-13-11	Wiring Diagram Manual
WDM 33-13-13	Wiring Diagram Manual
WDM 33-13-14	Wiring Diagram Manual
WDM 33-13-15	Wiring Diagram Manual
WDM 33-13-18	Wiring Diagram Manual
WDM 33-13-19	Wiring Diagram Manual

## C. Tools/Equipment

Reference	Description	
STD-1081	Flashlight - Explosion Proof	

ARO ALL



## (Continued)

Reference	Description
STD-1176	Cover - Windshield Blackout Screen

#### D. Consumable Materials

Reference	Description	Specification
G00270	Tape - Scotch Flatback Masking 250	ASTM D6123
		(Supersedes A-A-883)

#### E. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

#### F. Procedure

#### SUBTASK 33-13-00-860-005

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-13-00-940-003

(2) On a bright day, put a windshield cover, STD-1176 on the windshield to make it easier to do this test.

#### SUBTASK 33-13-00-860-001

(3) At the overhead panel, P5, set the switch for the master bright control to the off mode.

#### SUBTASK 33-13-00-720-001

(4) Do a test of the captain's instrument and panel lights (WDM 33-13-11):

NOTE: Use the table in the referenced WDM to identify the lights.

(a) At the forward left auxiliary panel, P13 panel, slowly set the switch from the dim to the bright mode.

NOTE: Use the outer knob of the switch for the panel/flood lights to operate the lights on the P1, P2, and P13 panels.

- 1) Make sure the intensity of the lights changes from dim to bright.
- (b) Set the switch to the middle position.

#### SUBTASK 33-13-00-720-002

(5) Do a test of the first officer and observer instrument and panel lights (WDM 33-13-13):

<u>NOTE</u>: Use the table in the referenced WDM to identify the lights.

(a) At the forward right auxiliary panel, P14, slowly set the switch from the dim to the bright mode.

NOTE: Use the outer knob of the switch for the panel/flood lights to operate the lights on the P2, P3, P14, and P18 (when installed) panels.

- 1) Make sure the intensity of the lights changes from dim to bright.
- (b) Set the switch to the middle position.

#### SUBTASK 33-13-00-720-003

(6) Do a test of the glareshield instrument and panel lights (WDM 33-13-13):

NOTE: Use the table in the referenced WDM to identify the lights.

ARO ALL 33-13-00



(a) At the overhead panel, P5, slowly set the switch from the dim to the bright mode.

NOTE: Use the outer knob of the switch for the glareshield panel/flood lights to operate the lights on the P7 and P55 panels and the Standby Compass.

- 1) Make sure the intensity of the lights changes from dim to bright.
- (b) Set the switch to the middle position.

#### SUBTASK 33-13-00-720-004

(7) Do a test of the overhead circuit breaker panel lights (WDM 33-13-14):

NOTE: Use the table in the referenced WDM to identify the lights.

(a) At the P5 panel, slowly set the switch from the dim to the bright mode.

NOTE: Use the inner knob of the switch for the overhead/circuit breaker lights to operate the lights on the P11 panel.

- 1) Make sure the intensity of the lights changes from dim to bright.
- (b) Set the switch to the middle position.

#### SUBTASK 33-13-00-720-005

(8) Do a test of the overhead panel instrument and panel lights (WDM 33-13-15):

NOTE: Use the table in the referenced WDM to identify the lights.

(a) At the P5 panel, slowly set the switch for the switch from the dim to the bright mode.

NOTE: Use the outer knob of the switch for the overhead/circuit breaker lights to operate the lights on the P5 panel.

- 1) Make sure the intensity of the lights changes from dim to bright.
- (b) Set the switch to the middle position.

#### SUBTASK 33-13-00-720-006

(9) Do a test of the aisle stand instrument and panel lights (WDM 33-13-18 WDM 33-13-19):

NOTE: Use the table in the referenced WDM to identify the lights.

(a) At the aft aisle stand panel, P8, slowly set the switch from the dim to the bright mode.

NOTE: Use the outer knob of the switch for the panel/flood lights to operate the lights on the P8, P9, and P10 panels.

- 1) Make sure the intensity of the lights changes from dim to bright.
- (b) Set the switch to the middle position.

## SUBTASK 33-13-00-720-007

(10) Do a test of the master bright control (WDM 33-13-11 thru WDM 33-13-19):

NOTE: Use the table in the referenced WDM to identify the lights.

- (a) At the P5 panel, set the switch for the master bright control to the on mode. Then slowly set the outer knob from the dim to the bright mode. The switch operates the lights on the P1, P2, P3, P5, P7, P8, P9, P10, P13, P14, P18 (when installed), and P55 panels and the Standby Compass.
  - 1) Make sure the intensity of the lights changes from dim to bright.
- (b) Set the outer knob to the middle position, then set the switch to the off mode.

## SUBTASK 33-13-00-720-008

(11) Do a test of the aisle stand lights connected to the automatic brightness control (WDM 33-13-18) (WDM 33-13-19):

ARO ALL



- (a) At the P5 panel, set the switch for the master bright control to the on mode. Then set the outer knob to the dim mode.
- (b) At the P8 panel, set the outer knob of the switch for the aisle stand panel/flood lights to the dim mode.
- (c) Apply Scotch Flatback Masking Tape 250, G00270, over the light sensors at these locations:
  - 1) At the control stand panel, P10, on the left stabilizer position indicator
  - 2) At the P10 panel, on the right stabilizer position indicator
  - 3) At the P8 panel, on the rudder position indicator
  - 4) On the top of the P7 panel on the right side
  - 5) On the top of the P7 panel on the left side
- (d) At the P10 panel, lift the Scotch Flatback Masking Tape 250, G00270, and point a explosion proof flashlight, STD-1081 at the light sensor on the left stabilizer position indicator.
  - 1) Make sure the left stabilizer position indicator becomes brighter.
  - 2) Put the Scotch Flatback Masking Tape 250, G00270, back on the sensor.
- (e) At the P10 panel, lift the Scotch Flatback Masking Tape 250, G00270, and point a explosion proof flashlight, STD-1081 at the light sensor on the right stabilizer position indicator.
  - 1) Make sure the right stabilizer position indicator becomes brighter.
  - 2) Put the Scotch Flatback Masking Tape 250, G00270, back on the sensor.
- (f) At the P8 panel, lift the Scotch Flatback Masking Tape 250, G00270, and point a explosion proof flashlight, STD-1081 at the light sensor on the rudder position indicator.
  - 1) Make sure the rudder position indicator becomes brighter.
  - 2) Put the Scotch Flatback Masking Tape 250, G00270, back on the sensor.
- (g) On the top of the P7 panel, lift the Scotch Flatback Masking Tape 250, G00270, and point a explosion proof flashlight, STD-1081 at the light sensor on the right side.
  - 1) Make sure the radio tuning panels and TCAS/ATC control panel on the P8 panel become brighter.
  - 2) Put the Scotch Flatback Masking Tape 250, G00270, back on the sensor.
- (h) At the P7 panel, lift the Scotch Flatback Masking Tape 250, G00270, and point a explosion proof flashlight, STD-1081 at the light sensor on the left side.
  - 1) Make sure the radio tuning panels and TCAS/ATC control panel on the P8 panel become brighter.
- (i) Remove the Scotch Flatback Masking Tape 250, G00270, from the light sensors at these locations:
  - 1) On the left stabilizer position indicator
  - 2) On the right stabilizer position indicator
  - 3) On the rudder position indicator
  - On the top of the P7 panel on the right side
  - 5) On the top of the P7 panel on the left side
- (j) At the P5 panel, set the outer knob of the switch for the master bright control to the middle position. Then set the switch to the off position.

ARO ALL



(k) At the P8 panel, set the outer knob of the switch for the aisle stand panel/floodlights to the middle position.

SUBTASK 33-13-00-860-002

(12) If a windshield cover, STD-1176 was used on the windshield, remove it.

----- END OF TASK -----

## TASK 33-13-00-720-802

## 4. Integral Panel Lights - Operational Test of the Captain's Standby Relay

NOTE: This procedure is a scheduled maintenance task.

#### A. General

(1) This test makes sure the standby relay for the captain's instrument and panel lights operates correctly.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-13-11	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

#### D. Procedure

SUBTASK 33-13-00-860-007

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-13-00-720-009

- (2) Do a test of the standby relay, K33005, for the captain's instrument and panel lights:
  - (a) Make sure the captain's instrument and panel lights are on (WDM 33-13-11).

NOTE: The tables in the SSM 33-13-11 identifies the lights.

(b) Open this circuit breaker and install safety tag:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	1	C33405	CAPT INST & PNL LTS

1) Make sure this light stays on:

NOTE: Only lights supplied with electrical power at reference point (REF PT) LA5 in the SSM table stay on.

- a) Integrated Standby Flight Display (ISFD)
- 2) Make sure all other captain's instrument and panel lights go off.
- (c) Remove the safety tag and close this circuit breaker:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	1	C33405	CAPT INST & PNL LTS

------ END OF TASK ------

ARO ALL



#### TASK 33-13-00-720-803

# 5. Integral Panel Lights - Operational Test of the Glareshield Standby Relay

NOTE: This procedure is a scheduled maintenance task.

## A. General

 This test makes sure the standby relay for the glareshield instrument and panel lights operates correctly.

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-13-12	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

#### D. Procedure

· EFFECTIVITY ·

**ARO ALL** 

#### SUBTASK 33-13-00-860-009

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-13-00-720-010

- (2) Do a test of the standby relay, K33008, for the glareshield instrument and panel lights:
  - (a) Make sure the glareshield instrument and panel lights are on (WDM 33-13-12).NOTE: The table in the SSM 33-13-12 identifies the lights.
  - (b) Open this circuit breaker and install safety tag:

## **Right Power Management Panel, P210**

Row	<u>Col</u>	Number	<u>Name</u>
G	25	C33411	GSHLD INST & PNL LTS

1) Make sure the standby compass stays on.

NOTE: Only lights supplied with electrical power at reference point (REF PT) LC3 in the SSM table stay on.

2) Make sure all other glareshield instrument and panel lights go off.

END OF TASK ——

(c) Remove the safety tag and close this circuit breaker:

# Right Power Management Panel, P210

Row	Col	<u>Number</u>	<u>Name</u>
G	25	C33411	GSHLD INST & PNL LTS



## **MASTER BRIGHT CONTROL - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has these tasks:
  - (1) Master Bright Control Card Removal
  - (2) Master Bright Control Card Installation
- B. In this procedure, the master bright control card refers to a printed circuit board in the master dim and test card file, P29. The card is Electrostatic Discharge Sensitive (ESDS).
- C. Three master dim and test cards are also in the P29 panel for the power/control of the master dim and test system. When a failure is isolated to one of these cards, refer to the Master Dim and Test -Maintenance Practices for the removal (TASK 33-16-00-000-801) and installation (TASK 33-16-00-400-801) instructions.

#### TASK 33-13-01-000-801

## 2. Master Bright Control - Card Removal

(Figure 201)

## A. References

Reference	Title
20-41-01-000-801	ESDS Handling for Printed Circuit Board Removal (P/B 201)
WDM 33-13-11	Wiring Diagram Manual

#### B. Location Zones

Zone	Area
211	Flight Compartment, Left

#### C. Procedure

SUBTASK 33-13-01-860-001

(1) Open this circuit breaker and install safety tag:

(WDM 33-13-11)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
N	23	C33613	MASTER BRT CTRL & MASTER BRT OVRD RLY

SUBTASK 33-13-01-010-001

(2) Open the crew closet door for access to the master dim and test card file, P29.

SUBTASK 33-13-01-840-001



DO NOT TOUCH THE CARD BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CARD

- (3) Before you touch the card, do this task: ESDS Handling for Printed Circuit Board Removal, TASK 20-41-01-000-801.
  - (a) After you connect the strap to the electrostatic ground jack, loosen the fasteners and open the access door.

ARO ALL



SUBTASK 33-13-01-020-001

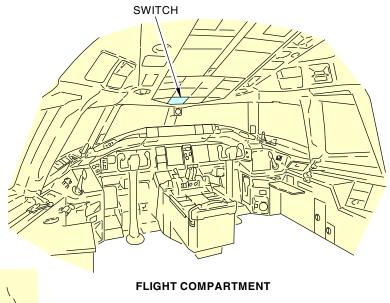
(4) Remove the card.

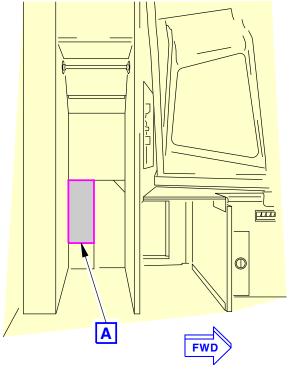
NOTE: When you remove the card, do not discard it. In a shop, use the automated test equipment to isolate the problem and the component maintenance manual to do the repairs.

------ END OF TASK ------

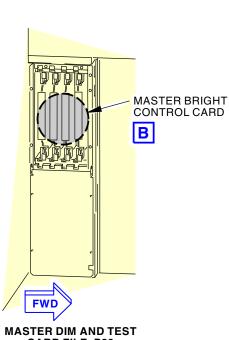
ARO ALL







**CREW CLOSET** 



CARD FILE, P29



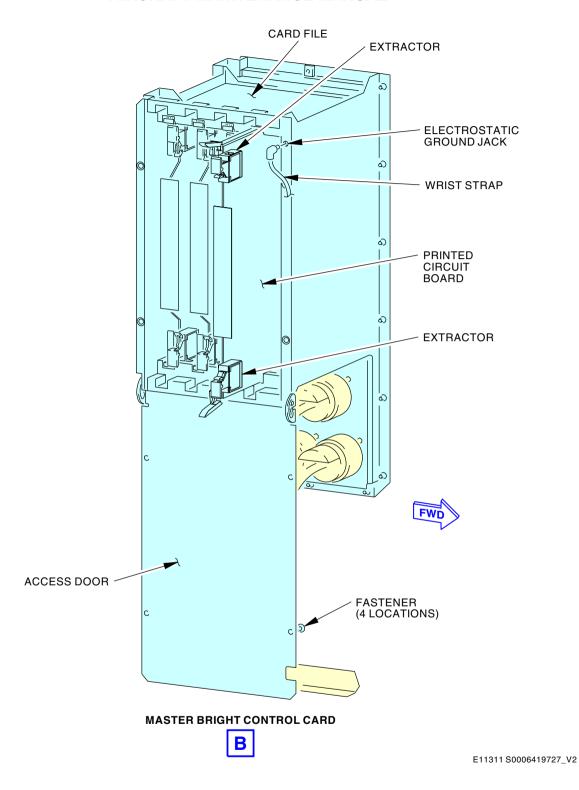
F58082 S0006419726\_V2

Master Bright Control - Card Installation Figure 201/33-13-01-990-801 (Sheet 1 of 2)

ARO ALL D633W101-ARO 33-13-01

Page 203 Sep 05/2016





Master Bright Control - Card Installation Figure 201/33-13-01-990-801 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-13-01

Page 204 Sep 05/2016



#### TASK 33-13-01-400-801

3. Master Bright Control - Card Installation

(Figure 201)

## A. References

Reference	Title
20-41-01-400-801	ESDS Handling for Printed Circuit Board Installation (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-13-11	Wiring Diagram Manual

## B. Tools/Equipment

Reference	Description
STD-1176	Cover - Windshield Blackout Screen

## C. Location Zones

Zone	Area
211	Flight Compartment, Left

D. Procedure

SUBTASK 33-13-01-840-002



DO NOT TOUCH THE CARD BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CARD

(1) Before you touch the card, do this task: ESDS Handling for Printed Circuit Board Installation, TASK 20-41-01-400-801.

#### SUBTASK 33-13-01-420-001

- (2) Install the new card.
  - (a) Close the access door and tighten the fasteners before you disconnect the strap from the electrostatic ground jack.

#### SUBTASK 33-13-01-410-001

(3) Close the crew closet door.

## SUBTASK 33-13-01-860-003

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-13-01-860-002

(5) Remove the safety tag and close this circuit breaker:

(WDM 33-13-11)

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	23	C33613	MASTER BRT CTRL & MASTER BRT OVRD RLY

#### SUBTASK 33-13-01-940-001

(6) If it is necessary, put a windshield cover, STD-1176 on the windshield.

NOTE: When the test is done during the day, the changes in light intensity are not easy to see.

SUBTASK 33-13-01-710-001

(7) Do a test of the new card.

33-13-01

Page 205 Sep 05/2017



- (a) At the overhead panel, P5, set the switch for the master bright control to the on mode, then slowly set the switch from the dim to the bright mode.
  - 1) Make sure the integral panel lights come on.
  - 2) Make sure the intensity of the lights changes from dim to bright.
- (b) Set the switch for the master bright control to the usual position.

SUBTASK 33-13-01-940-002

(8) If a windshield cover, STD-1176 was used on the windshield, remove it.

——— END OF TASK ———

ARO ALL



#### **RELAYS/DIMMER CONTROL UNITS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has these tasks:
  - (1) Dimmer Control Unit (DCU) Replacement of a Component in the Forward Instrument Panel
  - (2) Relay/Dimmer Control Unit (DCU) Replacement of a Component in the Aisle Stand
  - (3) Dimmer Control Unit (DCU) Replacement of a Component in the Overhead Dimmer Panel
- B. Use these instructions to replace the relays and dimmer control units (DCUs) installed in the forward instrument panel, the aisle stand, and the overhead dimmer panel.

#### TASK 33-13-02-960-801

2. <u>Dimmer Control Unit (DCU) - Replacement of a Component in the Forward Instrument Panel</u> (Figure 201)

#### A. References

Reference	Title
20-41-01-000-802	Conductive Dust Cap and Connector Cover Installation (P/B 201)
20-41-01-400-802	Conductive Dust Cap and Connector Cover Removal (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
31-61-01-000-801	Display Unit Removal (P/B 401)
31-61-01-400-801	Display Unit Installation (P/B 401)
31-61-05-000-801	Instrument Source Select Panel Removal (P/B 401)
31-61-05-400-801	Instrument Source Select Panel Installation (P/B 401)
WDM 33-13-11	Wiring Diagram Manual
WDM 33-13-13	Wiring Diagram Manual

## B. Tools/Equipment

Reference	Description	
STD-1176	Cover - Windshield Blackout Screen	

#### C. Location Zones

Zone	Area	
211	Flight Compartment, Left	
212	Flight Compartment, Right	

## D. Procedure

NOTE: Use this task to replace these dimmer control units:

T33006: Captain's Instrument and Panel Lights
T33007: F/O Instrument and Panel Lights
T33010: F/O Instrument and Panel Light

T33024: Captain's Instrument and Panel Lights

## SUBTASK 33-13-02-020-001

(1) To remove the applicable instrument source select panel, do this task: Instrument Source Select Panel Removal, TASK 31-61-05-000-801.

NOTE: It may not be necessary to disassemble the clock from the instrument source select panel.

ARO ALL



- (a) Remove electrical power from the clock, disconnect the electrical connector, and put on the protective covers.
  - Do all the applicable steps in the specified procedures: Conductive Dust Cap and Connector Cover Installation, TASK 20-41-01-000-802 and Instrument Source Select Panel Removal, TASK 31-61-05-000-801.

#### SUBTASK 33-13-02-020-002

(2) To remove the applicable display unit, do this task: Display Unit Removal, TASK 31-61-01-000-801.

#### SUBTASK 33-13-02-860-001

(3) To remove power from the Dimmer Control Unit (DCU), open the applicable circuit breakers and attach the DO-NOT-CLOSE tag:

(WDM 33-13-11) and (WDM 33-13-13)

## Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	1	C33405	CAPT INST & PNL LTS

## Right Power Management Panel, P210

Row	<u>Col</u>	Number	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS

## Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-13-02-960-001

(4) Do these steps to replace the DCU:

<u>NOTE</u>: When you remove a DCU, do not discard it. Refer to the vendor manual for possible repairs. Do the repairs in a shop.

- (a) Loosen the fasteners [2] on the bracket.
- (b) Disconnect the two electrical connectors [1].
- (c) Pull the bracket [4] out from the forward instrument panel.
- (d) Loosen the fasteners [5] on the DCU.
- (e) Replace the dimmer control unit [6].
- (f) Tighten the fasteners [5] on the DCU.
- (g) Put the bracket [4] in the forward instrument panel and connect the electrical connectors [1].
- (h) Put the bracket [4] back in its usual position.
  - 1) Align the bracket with the guide pins [3].
- (i) Tighten the fasteners [2] on the bracket.

#### SUBTASK 33-13-02-860-002

EFFECTIVITY

**ARO ALL** 

(5) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).



#### SUBTASK 33-13-02-860-003

(6) To supply electrical power to the DCU, remove the DO-NOT-CLOSE tag and close the applicable circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	1	C33405	CAPT INST & PNL LTS

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS

# **Standby Power Management Panel, P310**

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-13-02-940-001

(7) If it is necessary, put a windshield cover, STD-1176, on the windshield.

<u>NOTE</u>: When the test is done during the day, the changes in light intensity are not easy to see.

#### SUBTASK 33-13-02-710-001

- (8) Do a test of the new DCU.
  - (a) At the Pilot's Overhead Panel, P5, set the switch for the master bright control to the on mode, then slowly set the outer knob from the dim to the bright mode.
    - 1) Make sure the lights connected to the DCU come on (WDM 33-13-11) and (WDM 33-13-13).
    - Make sure the intensity of the lights changes from dim to bright.
  - (b) Set the outer knob to the middle position, then set the switch to the off mode.

#### SUBTASK 33-13-02-420-001

(9) To install the display unit, do this task: Display Unit Installation, TASK 31-61-01-400-801.

#### SUBTASK 33-13-02-420-002

(10) To install the instrument source select panel, do this task: Instrument Source Select Panel Installation, TASK 31-61-05-400-801.

NOTE: It may not be necessary to assemble the clock in the instrument source select panel.

- (a) Remove the protective covers, connect the electrical connector and supply electrical power to the clock.
  - Do all the applicable steps in the referenced procedures: Conductive Dust Cap and Connector Cover Removal, TASK 20-41-01-400-802 and Instrument Source Select Panel Installation, TASK 31-61-05-400-801.

## SUBTASK 33-13-02-940-002

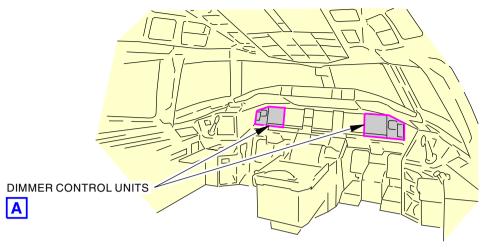
(11) If a windshield cover, STD-1176, was used on the windshield, remove it.

 <b>END</b>	OF T	VSK	
	UF I	AON	

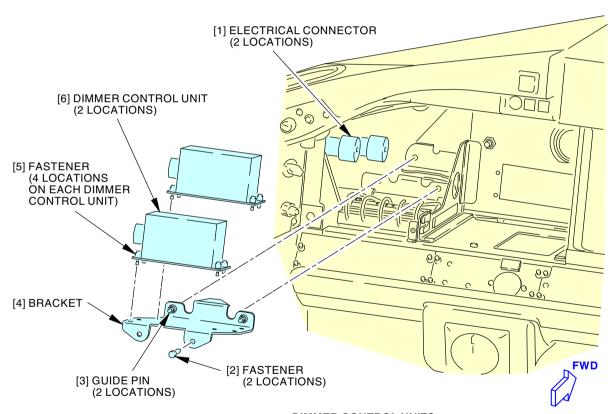
33-13-02

Page 203 ARO Sep 05/2017





## **FLIGHT COMPARTMENT**



DIMMER CONTROL UNITS
WITH INSTRUMENT SOURCE SELECT PANEL AND OUTER DISPLAY UNIT REMOVED
(LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE)



E81358 S0006419733\_V2

Dimmer Control Unit - Replacement of a Component in the Forward Panel Figure 201/33-13-02-990-801

ARO ALL

33-13-02

Page 204 Sep 05/2016



#### TASK 33-13-02-960-802

3. Relay/Dimmer Control Unit (DCU) - Replacement of a Component in the Aisle Stand (Figure 202)

## A. General

(1) There are two different procedures to get access to the components in the aisle stand. Use Procedure I for the components installed in the top part of the aisle stand. Use Procedure II for the lower components that can be reached from the forward equipment center.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
33-11-00-710-803	Flight Compartment Illumination - Operational Test During Towing Operations (P/B 501)
34-61-02-020-801	Control Display Unit (CDU) Removal (P/B 401)
34-61-02-420-801	Control Display Unit (CDU) Installation (P/B 401)
WDM 33-13-11	Wiring Diagram Manual
WDM 33-13-18	Wiring Diagram Manual
WDM 33-13-19	Wiring Diagram Manual

## C. Tools/Equipment

Reference	Description
STD-1176	Cover - Windshield Blackout Screen

#### D. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

## E. Access Panels

Number	Name/Location	
112AL	Forward Access Door	

## F. Procedure I

NOTE: Use this procedure to replace these dimmer control units:

T33008: Aisle Stand Instrument and Panel Lights

T33011: Aisle Stand Instrument and Panel Lights

## SUBTASK 33-13-02-010-001

(1) To remove the applicable control display unit, do this task: Control Display Unit (CDU) Removal, TASK 34-61-02-020-801.

#### SUBTASK 33-13-02-860-004

(2) To remove power from the Dimmer Control Unit (DCU), open the applicable circuit breakers and attach the DO-NOT-CLOSE tag:

(WDM 33-13-18) and (WDM 33-13-19)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS

ARO ALL



(Continued)

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	1	C33405	CAPT INST & PNL LTS

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	GSHLD INST & PNL LTS

## Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-13-02-960-002

(3) Do these steps to replace the DCU (View A, Figure 202):

NOTE: When you remove a DCU, do not discard it. Refer to the vendor manual for possible repairs. Do the repairs in a shop.

- (a) Disconnect the electrical connector [7].
- (b) Loosen the fasteners [8].
- (c) Replace the dimmer control unit [9].
- (d) Tighten the fasteners [8].
- (e) Connect the electrical connector [7].

#### SUBTASK 33-13-02-860-005

(4) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

## SUBTASK 33-13-02-860-006

· EFFECTIVITY ·

ARO ALL

(5) To supply electrical power to the DCU, remove the DO-NOT-CLOSE tag and close the applicable circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

## **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	25	C33406	F/O INST & PNL LTS
G	25	C33411	GSHLD INST & PNL LTS

## Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS



#### SUBTASK 33-13-02-940-003

(6) If it is necessary, put a windshield cover, STD-1176, on the windshield.

NOTE: When the test is done during the day, the changes in light intensity are not easy to see.

#### SUBTASK 33-13-02-710-002

- (7) Do a test of the new DCU.
  - (a) At the Pilot's Overhead Panel, P5, set the switch for the master bright control to the on mode, then slowly set the outer knob from the dim to the bright mode.
    - Make sure the lights connected to the DCU come on (WDM 33-13-18) and (WDM 33-13-19).
    - 2) Make sure the intensity of the lights changes from dim to bright.
  - (b) Set the outer knob to the middle position, then set the switch to the off mode.

#### SUBTASK 33-13-02-410-001

(8) To install the control display unit, do this task: Control Display Unit (CDU) Installation, TASK 34-61-02-420-801.

#### SUBTASK 33-13-02-940-004

(9) If a windshield cover, STD-1176, was used on the windshield, remove it.

#### G. Procedure II

NOTE: Use this procedure to replace these relays and dimmer control units:

K33005: Captain's Standby Dim Control Relay

K33008: Glareshield Standby Relay

K33047: Flight Deck Lights Tow Transfer Relay

T33009: Glareshield Instrument and Panel Lights

T33012: Aisle Stand Instrument and Panel Lights

T33013: Aisle Stand Instrument and Panel Lights

T33014: Aisle Stand Instrument and Panel Lights

T33044: Glareshield Instrument and Panel Lights

## SUBTASK 33-13-02-860-007

(1) Open these circuit breakers and install safety tags:

(WDM 33-13-11 thru WDM 33-13-19)

## Ground Service/Handling Power Panel, P320

Row	Col	<u>Number</u>	<u>Name</u>
K	2	C33495	TOW F/D LIGHTS

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	25	C33411	GSHLD INST & PNL LTS

ARO ALL



## Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-13-02-010-002

(2) Open this access panel:

<u>Number</u>	Name/Location
112AL	Forward Access Door

#### SUBTASK 33-13-02-960-003

- (3) Do these steps to replace a relay:
  - (a) Remove the screws [10].
  - (b) Replace the relay [11].
  - (c) Install the screws [10].

#### SUBTASK 33-13-02-960-004

(4) Do these steps to replace a DCU:

NOTE: When you remove a DCU, do not discard it. Refer to the vendor manual for possible repairs. Do the repairs in a shop.

- (a) Disconnect the electrical connector [12].
- (b) Loosen the fasteners [13].
- (c) Replace the dimmer control unit [14].
- (d) Tighten the fasteners [13].
- (e) Connect the electrical connector [12].

## SUBTASK 33-13-02-410-002

(5) Close this access panel:

<u>Number</u>	Name/Location
112AL	Forward Access Door

#### SUBTASK 33-13-02-860-008

(6) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

## SUBTASK 33-13-02-860-009

(7) Remove the safety tags and close these circuit breakers:

## Ground Service/Handling Power Panel, P320

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
K	2	C33495	TOW F/D LIGHTS

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	4	C33492	AISLE STAND INST & PNL LTS
Н	1	C33405	CAPT INST & PNL LTS

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	25	C33411	<b>GSHLD INST &amp; PNL LTS</b>

ARO ALL



## Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-13-02-940-005

(8) If it is necessary, put a windshield cover, STD-1176, on the windshield.

NOTE: When the test is done during the day, the changes in light intensity are not easy to see.

#### SUBTASK 33-13-02-710-004

(9) FOR K33047 ONLY;

Do this test of the new relay.

(a) Do this task: Flight Compartment Illumination - Operational Test During Towing Operations, TASK 33-11-00-710-803.

#### SUBTASK 33-13-02-710-003

(10) FOR ALL OTHER RELAYS/DCUs;

Do this test of the new relay/DCU.

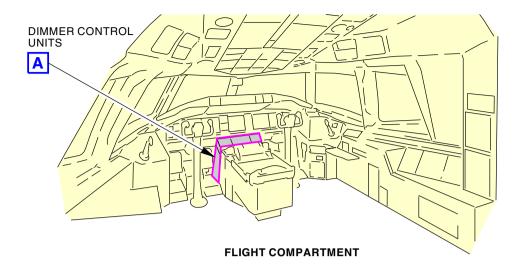
- (a) At the overhead panel, P5, set the switch for the master bright control to the on mode, then slowly set the outer knob from the dim to the bright mode.
  - Make sure the lights connected to the relay/DCU come on (WDM 33-13-11 thru WDM 33-13-19):
  - 2) Make sure the intensity of the lights changes from dim to bright.
- (b) Set the outer knob to the middle position, then set the switch to the off mode.

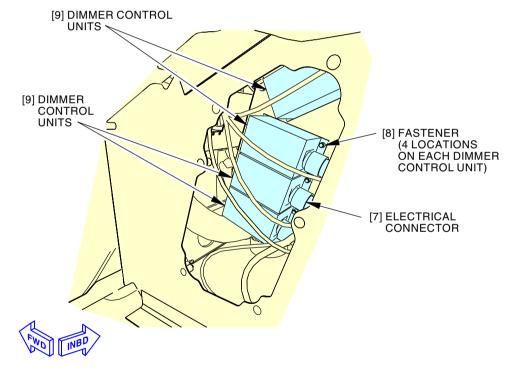
#### SUBTASK 33-13-02-940-006

(11) If a windshield cover, STD-1176, was used on the windshield, remove it.

----- END OF TASK -----







DIMMER CONTROL UNIT (LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE)



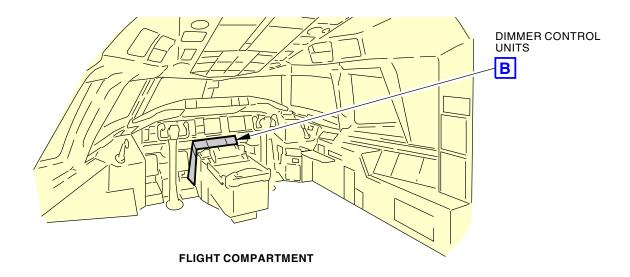
2396466 S0000553481\_V3

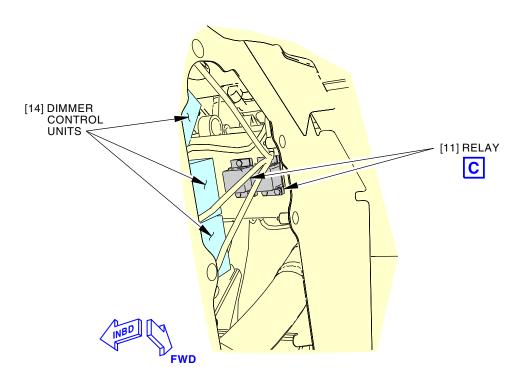
Relay/Dimmer Control Unit - Replacement of a Component in the Aisle Stand Figure 202/33-13-02-990-802 (Sheet 1 of 3)

ARO ALL

33-13-02







DIMMER CONTROL UNIT AND RELAY (RIGHT SIDE IS SHOWN, LEFT SIDE IS OPPOSITE)



2396544 S0000553482\_V3

Relay/Dimmer Control Unit - Replacement of a Component in the Aisle Stand Figure 202/33-13-02-990-802 (Sheet 2 of 3)

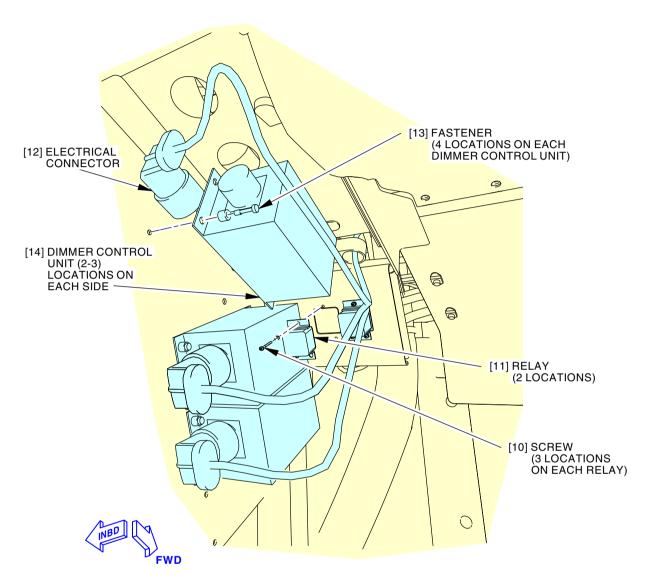
ARO ALL

D633W101-ARO

33-13-02

Page 211 Sep 05/2017





RELAY/DIMMER CONTROL UNIT (CONTROL DISPLAY UNIT AND RELAY REMOVED)



2396545 S0000553483\_V4

Relay/Dimmer Control Unit - Replacement of a Component in the Aisle Stand Figure 202/33-13-02-990-802 (Sheet 3 of 3)

ARO ALL

33-13-02

Page 212 Sep 05/2017



#### TASK 33-13-02-960-803

4. <u>Dimmer Control Unit (DCU)</u> - Replacement of a Component in the Overhead Dimmer Panel (Figure 203)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-11-12	Wiring Diagram Manual
WDM 33-13-14	Wiring Diagram Manual
WDM 33-13-15	Wiring Diagram Manual
Location Zones	
7	

Zone Are

Zone Area

223 Area Above Passenger Compartment Ceiling, Left - Section 41

### C. Procedure

B.

NOTE: Use this procedure to replace these dimmer control units:

T33016: Overhead Circuit Breaker Panel Lights

T33017: Glareshield Panel Floodlights

T33020: Overhead Instrument and Panel Lights T33021: Overhead Instrument and Panel Lights

T33025: Captain Panel Floodlights
T33026: First Officer Panel Floodlights

#### SUBTASK 33-13-02-860-010

(1) To remove power from the Dimmer Control Unit (DCU), open the applicable circuit breakers and attach the DO-NOT-CLOSE tag:

(WDM 33-11-12), (WDM 33-13-14) and (WDM 33-13-15)

### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS

### Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-13-02-020-003

- (2) Release the four camloc fasteners on the aft side of the Overhead Dimmer Panel, P96.
  - (a) Lower the aft edge of the Overhead Dimmer Panel, P96.

#### SUBTASK 33-13-02-960-005

(3) Do these steps to replace the DCU:

NOTE: When you remove a DCU, do not discard it. Refer to the vendor manual for possible repairs. Do the repairs in a shop.

- (a) Disconnect the electrical connector [15].
- (b) Loosen the fasteners [16].
- (c) Replace the dimmer control unit [17].

ARO ALL

33-13-02



- (d) Tighten the fasteners [16].
- (e) Connect the electrical connector [15].

#### SUBTASK 33-13-02-860-011

(4) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-13-02-860-012

(5) To supply electrical power to the DCU, remove the DO-NOT-CLOSE tag and close the applicable circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	26	C33412	OVHD CB PNL LTS
F	4	C33410	OVHD INST & PNL LTS/FWD PNL FLOOD LTS

## Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	2	C33407	STBY INST LTS

#### SUBTASK 33-13-02-710-005

- (6) Do a test of the new dimmer control unit [17].
  - (a) If necessary, set the switch for the master bright control to the on mode.
  - (b) Slowly adjust the light from the dim to the bright mode.
    - Make sure the lights connected to the dimmer control unit [17] come on (WDM 33-11-12), (WDM 33-13-14) and (WDM 33-13-15).
    - 2) Make sure the intensity of the lights changes from dim to bright.
  - (c) Set the light to the desired lighting condition.
  - (d) If necessary, set the switch to the off mode.

### D. Put the Airplane Back to Its Usual Condition

SUBTASK 33-13-02-420-003

(1) Put the Overhead Dimmer Panel, P96, to the fully closed position.

SUBTASK 33-13-02-020-004

(2) Loosen the six hinge fasteners on the forward side of the Overhead Dimmer Panel, P96.

SUBTASK 33-13-02-420-004

(3) Close the four camloc fasteners on the aft side of the Overhead Dimmer Panel, P96.

SUBTASK 33-13-02-420-005

(4) Tighten the six hinge fasteners on the forward side of the Overhead Dimmer Panel, P96.

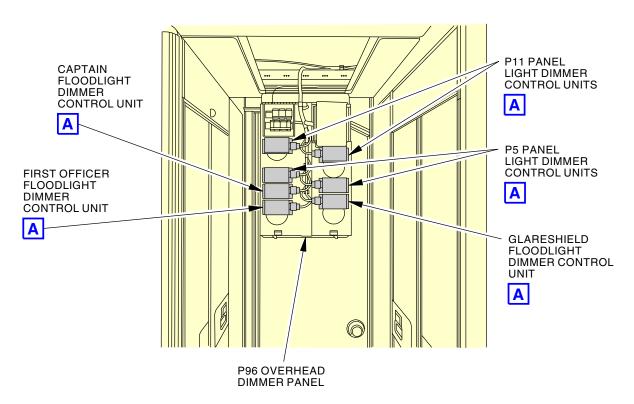
<b>FND</b>	OF 1	<b>TASK</b>	

33-13-02

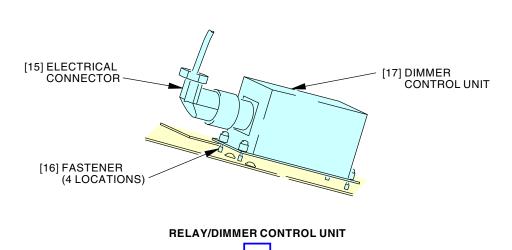
ARO ALL

· EFFECTIVITY





# CEILING AREA AISLE TO FLIGHT COMPARTMENT



2242699 S0000501820\_V3

Dimmer Control Unit - Replacement of a Component in the Overhead Dimmer Panel Figure 203/33-13-02-990-803

ARO ALL
D633W101-ARO

33-13-02

Page 215 Sep 05/2017



#### FLIGHT COMPARTMENT MISCELLANEOUS LIGHTS - ADJUSTMENT/TEST

### 1. General

- A. This procedure has one task:
  - (1) Flight Compartment Miscellaneous Lights Operational Test
- B. These lights are included in the procedure:
  - (1) Map lights
  - (2) Utility lights
  - (3) Floor lights
  - (4) Chart and worktable lights

#### TASK 33-14-00-710-801

### 2. Flight Compartment Miscellaneous Lights - Operational Test

### A. General

(1) This test makes sure the flight compartment miscellaneous lights operate.

### B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-14-11	Wiring Diagram Manual	
WDM 33-14-12	Wiring Diagram Manual	

#### C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

### D. Procedure

#### SUBTASK 33-14-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

### SUBTASK 33-14-00-710-001

- (2) Do a test of each map light (WDM 33-14-11):
  - (a) At the adjacent control panel, P7, 17, or P18, set the switch for the map light from the dim to the bright mode.

NOTE: To operate the switch, carefully pull it out then turn it.

- 1) Make sure the intensity of the light changes from dim to bright.
- (b) Set the switch to its usual mode.

### SUBTASK 33-14-00-710-002

- (3) Do a test of the utility light (WDM 33-14-11):
  - (a) At the back of the light, slowly set the switch from the dim to the bright mode.

NOTE: Use the knob, not the push-button switch.

- 1) Make sure the intensity of the light changes from dim to bright.
- (b) Set the switch to the off mode.
  - 1) Make sure the light goes off.

ARO ALL



- (c) Push and hold the switch to the on mode.
  - NOTE: Use the push-button switch, not the knob.
  - 1) Make sure the light comes on.
- (d) Turn the lens to align the red dot on the lens with the white dot on the light assembly.
  - 1) Make sure the light becomes red.
- (e) Turn the lens to align the white dot on the lens with the white dot on the light assembly.
  - 1) Make sure the light becomes clear.
- (f) Release the switch.
  - 1) Make sure the light goes off.

#### SUBTASK 33-14-00-710-003

- (4) Do a test of the floor lights (WDM 33-14-12):
  - (a) At the aisle stand panel, P8, set the switch for the floor lights to the dim mode.
    - 1) Make sure the lights come on dimly.
  - (b) Set the switch to the bright mode.
    - 1) Make sure the lights come on brightly.
  - (c) Set the switch to the off mode.
    - 1) Make sure the lights go off.

#### SUBTASK 33-14-00-710-004

- (5) Do a test of each chart and worktable light (WDM 33-14-12).
  - (a) At the applicable auxiliary panel, P13 or P14, pull out then slowly set the switch for the light from the dim to the bright mode.
    - 1) Make sure the intensity of the light changes from dim to bright.
  - (b) Set the switch to the usual mode.

 ENID	<b>∩</b> E	<b>TASK</b>	
	UГ	IASN	

33-14-00

**EFFECTIVITY** 



### **MAP LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has one task:
  - (1) Map Light Lamp Replacement

### TASK 33-14-02-960-801

# 2. Map Light - Lamp Replacement

(Figure 201)

## A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-14-11	Wiring Diagram Manual

### **B.** Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

### C. Procedure

SUBTASK 33-14-02-860-001

(1) Open this circuit breaker and install safety tag:

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	22	C33501	UTIL & MAP LTS

#### SUBTASK 33-14-02-960-001

- (2) Do these steps to replace the lamp:
  - (a) Remove the cover [2].
    - 1) Turn the lens assembly to disengage it.
  - (b) Replace the lamp [1].
  - (c) Install the cover [2].

### SUBTASK 33-14-02-860-003

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: (TASK 24-22-00-860-805).

#### SUBTASK 33-14-02-860-002

(4) Remove the safety tag and close this circuit breaker:

(WDM 33-14-11)

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	22	C33501	UTIL & MAP LTS

#### SUBTASK 33-14-02-710-001

- (5) Do a test of the new lamp.
  - (a) Set the switch for the map light to the on mode.
    - 1) Make sure the new lamp comes on.

ARO ALL

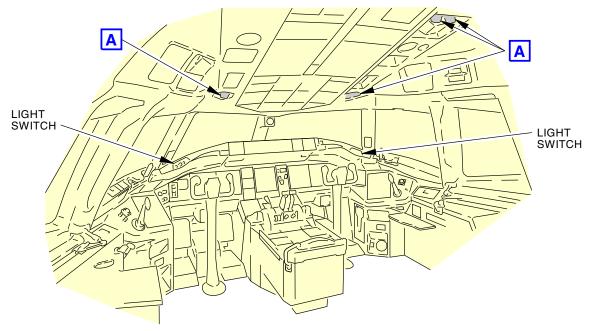


(b) Set the switch to the usual position.

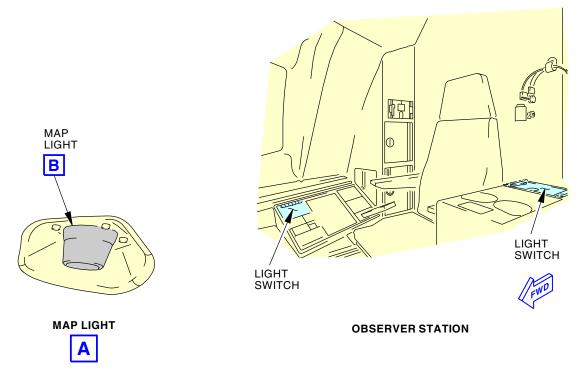
----- END OF TASK -----

ARO ALL









F58537 S0006419746\_V2

Map Light - Lamp Replacement Figure 201/33-14-02-990-801 (Sheet 1 of 2)

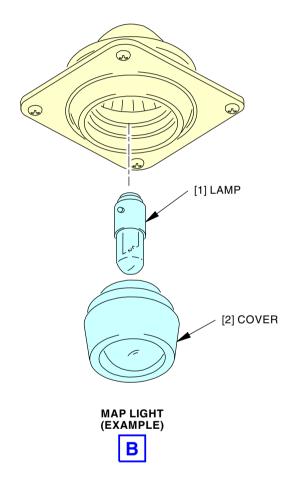
ARO ALL

D633W101-ARO

33-14-02

Page 203 Sep 05/2016





D01977 S0006419747\_V2

Map Light - Lamp Replacement Figure 201/33-14-02-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-14-02

Page 204 Sep 05/2016



### **UTILITY LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has one task:
  - (1) Utility Light Lamp Replacement

### TASK 33-14-03-960-801

# 2. Utility Light - Lamp Replacement

(Figure 201)

## A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-14-11	Wiring Diagram Manual

### **B.** Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

### C. Procedure

SUBTASK 33-14-03-860-001

(1) Open this circuit breaker and install safety tag:

(WDM 33-14-11)

# Right Power Management Panel, P210

Row	<u>Col</u>	Number	<u>Name</u>
G	22	C33501	UTIL & MAP LTS

#### SUBTASK 33-14-03-960-001

- (2) Do these steps to replace the lamp:
  - (a) Remove the retainer [3].
  - (b) Remove the lens [2].
  - (c) Replace the lamp [1].
  - (d) Install the lens [2].
  - (e) Install the retainer [3].

#### SUBTASK 33-14-03-860-003

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

### SUBTASK 33-14-03-860-002

(4) Remove the safety tag and close this circuit breaker:

(WDM 33-14-11)

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	Name
G	22	C33501	UTIL & MAP LTS

### SUBTASK 33-14-03-710-001

- (5) Do a test of the new lamp.
  - (a) Set the switch for the utility light to the on mode.

ARO ALL

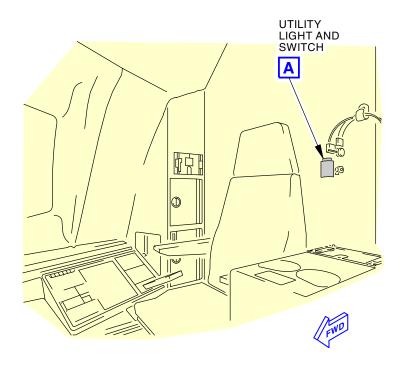


- 1) Make sure the new lamp comes on.
- (b) Set the switch to the usual mode.

----- END OF TASK -----

ARO ALL





**OBSERVER STATION** 

F58542 S0006419751\_V2

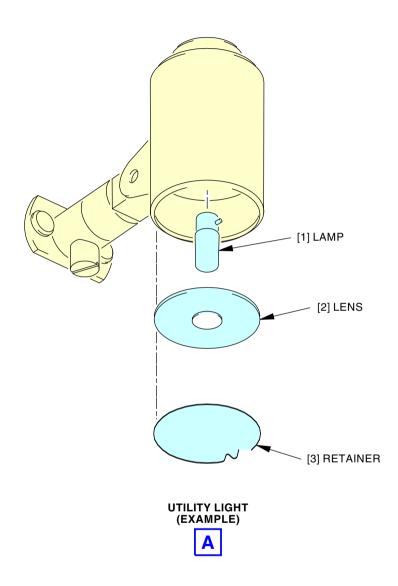
Utility Light - Lamp Replacement Figure 201/33-14-03-990-801 (Sheet 1 of 2)

ARO ALL

33-14-03

Page 203 Sep 05/2016





C97416 S0006419752\_V2

Utility Light - Lamp Replacement Figure 201/33-14-03-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-14-03

Page 204 Sep 05/2016



### FLOOR LIGHTS - MAINTENANCE PRACTICES

### 1. General

- A. This procedure has these tasks:
  - (1) Floor Light Light Assembly Replacement
  - (2) Floor Light Transformer Replacement

#### TASK 33-14-04-960-801

### 2. Floor Light - Light Assembly Replacement

(Figure 201)

### A. General

(1) When you replace the light assembly, do not discard it. It is possible to replace its lamps in a shop. Refer to the Illustrated Parts Catalog (IPC) for the lamp part numbers.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-14-12	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

### D. Procedure

## SUBTASK 33-14-04-860-001

(1) Open this circuit breaker and install safety tag:

(WDM 33-14-12)

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	21	C33503	CHART, WORKTABLE & FLOOR LTS

#### SUBTASK 33-14-04-960-001

- (2) Do these steps to replace the light assembly [1]:
  - (a) Loosen the fasteners [3].
  - (b) Disconnect the electrical wire [2] at the connector.
    - 1) Pull out the electrical wire [2] for access to the connector.
  - (c) Replace the light assembly [1].
  - (d) Connect the electrical wire [2].
    - 1) Put the electrical wire [2] back in the panel.
  - (e) Tighten the fasteners [3].

### SUBTASK 33-14-04-860-003

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

### SUBTASK 33-14-04-860-002

(4) Remove the safety tag and close this circuit breaker:

(WDM 33-14-12)

ARO ALL



# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	21	C33503	CHART, WORKTABLE & FLOOR LTS

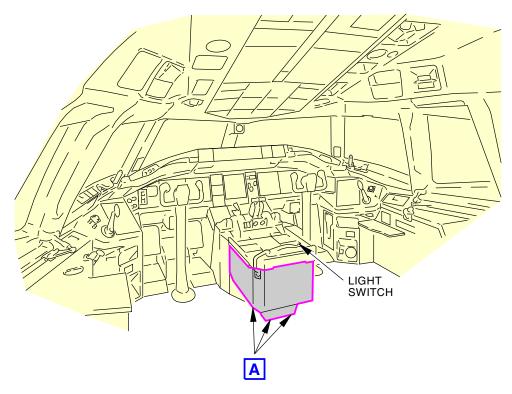
#### SUBTASK 33-14-04-710-001

- (5) Do a test of the new lamp.
  - (a) Set the switch for the floor light to the bright mode.
    - 1) Make sure the new light assembly comes on brightly.
  - (b) Set the switch to the usual mode.

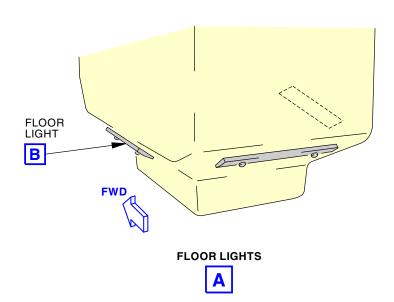
END	OF TA	SK
-----	-------	----

ARO ALL





**FLIGHT COMPARTMENT** 



F58559 S0006419756\_V2

Floor Light - Light Assembly Replacement Figure 201/33-14-04-990-801 (Sheet 1 of 2)

EFFECTIVITY

ARO ALL

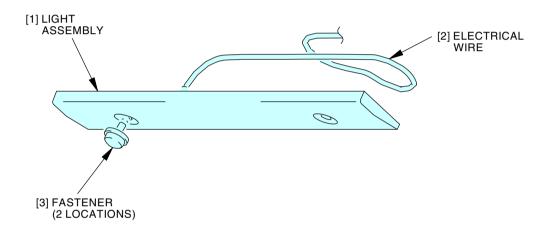
D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

33-14-04

Page 203 Sep 05/2016





FLOOR LIGHT (EXAMPLE)



E04867 S0006419757\_V2

Floor Light - Light Assembly Replacement Figure 201/33-14-04-990-801 (Sheet 2 of 2)

ARO ALL

33-14-04

Page 204 Sep 05/2016



#### TASK 33-14-04-960-802

### 3. Floor Light - Transformer Replacement

(Figure 202)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-14-12	Wiring Diagram Manual

### **B.** Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

### C. Procedure

#### SUBTASK 33-14-04-860-005

(1) Open this circuit breaker and install safety tag:

(WDM 33-14-12)

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	21	C33503	CHART, WORKTABLE & FLOOR LTS

#### SUBTASK 33-14-04-010-001

Get access to the transformer [21].

<u>NOTE</u>: The transformer is attached to a bracket on the outboard side of the emergency equipment stowage area.

- (a) Open the closet door.
- (b) Remove the large access panel at the rear of the closet.

#### SUBTASK 33-14-04-960-002

- (3) Do these steps to replace the transformer [21]:
  - (a) Disconnect the electrical wires.
  - (b) Loosen the fasteners [22].
  - (c) Replace the transformer [21].
  - (d) Tighten the fasteners [22].
  - (e) Connect the electrical wires.

### SUBTASK 33-14-04-410-001

- (4) Install the large panel at the rear of the closet.
  - (a) Close the closet door.

### SUBTASK 33-14-04-860-006

(5) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-14-04-860-007

(6) Remove the safety tag and close this circuit breaker:

(WDM 33-14-12)



# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	21	C33503	CHART, WORKTABLE & FLOOR LTS

#### SUBTASK 33-14-04-710-002

- (7) Do a test of the new transformer [21].
  - (a) At the aisle stand panel, P8, set the switch for the floor light to the bright mode.
    - 1) Make sure the light comes on brightly.
  - (b) Set the switch to the dim mode.
    - 1) Make sure the light becomes dim.
  - (c) Set the switch to the usual mode.

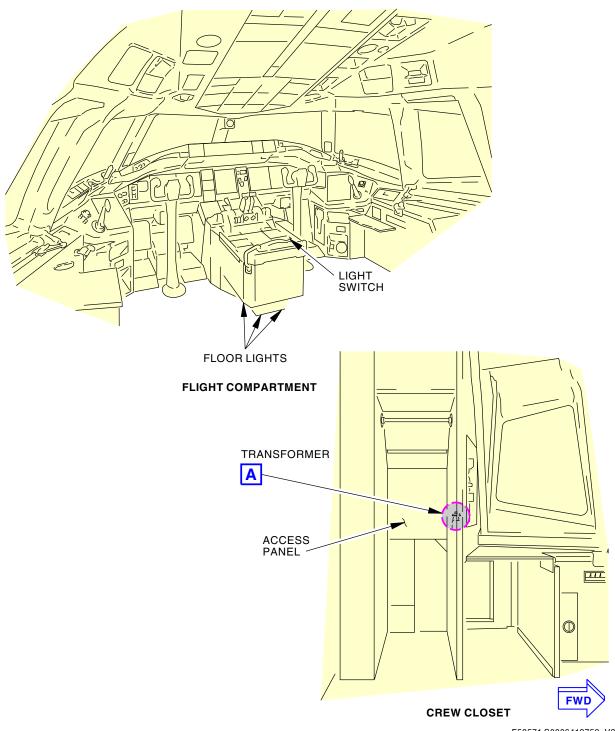


ARO ALL

33-14-04

Page 206 May 05/2018





F58571 S0006419759\_V2

Floor Light - Transformer Replacement Figure 202/33-14-04-990-802 (Sheet 1 of 2)

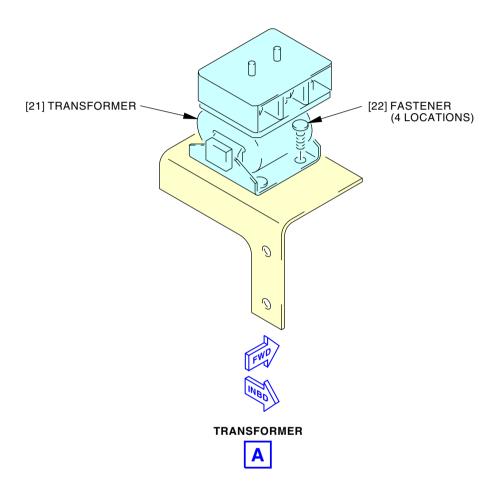
ARO ALL

D633W101-ARO

33-14-04

Page 207 Sep 05/2016





E05587 S0006419760\_V2

Floor Light - Transformer Replacement Figure 202/33-14-04-990-802 (Sheet 2 of 2)

ARO ALL

33-14-04

Page 208 Sep 05/2016



### **CHART LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has one task:
  - (1) Chart Light Lamp Replacement

### TASK 33-14-05-960-801

# 2. Chart Light - Lamp Replacement

(Figure 201)

## A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-14-12	Wiring Diagram Manual

### B. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

# C. Procedure

### SUBTASK 33-14-05-860-001

(1) Open this circuit breaker and install safety tag:

(WDM 33-14-12)

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	21	C33503	CHART, WORKTABLE & FLOOR LTS

SUBTASK 33-14-05-010-001



BLOCK OUT SNOW AND RAIN OR COVER THE FLIGHT COMPARTMENT INSTRUMENTS. IF THEY BECOME WET, DAMAGE TO THE EQUIPMENT CAN OCCUR.

(2) Open the window for access to the chart light.

## SUBTASK 33-14-05-960-001

- (3) Do these steps to replace the lamp:
  - (a) Lift off the rubber cap [1].
  - (b) Remove the top of the light assembly [2].
  - (c) Replace the lamp [3].
  - (d) Install the top of the light assembly [2].
  - (e) Put on the rubber cap [1].

#### SUBTASK 33-14-05-860-003

(4) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

### SUBTASK 33-14-05-860-002

(5) Remove the safety tag and close this circuit breaker:

(WDM 33-14-12)

ARO ALL



# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	21	C33503	CHART, WORKTABLE & FLOOR LTS

#### SUBTASK 33-14-05-710-001

- (6) Do a test of the new lamp.
  - (a) At the applicable auxiliary panel, P13 or P14, pull out then slowly set the switch for the chart light from the dim to the bright mode.
    - 1) Make sure the intensity of the new lamp changes from dim to bright.
  - (b) Set the switch to the usual mode.

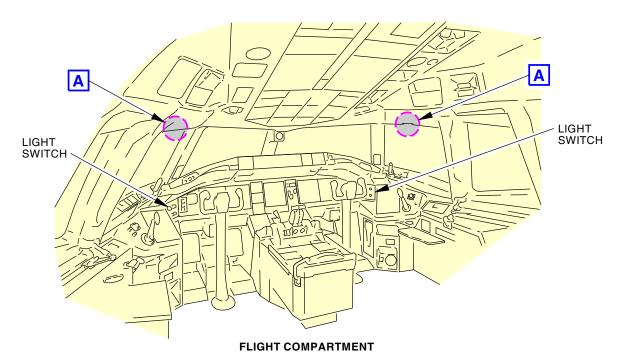
#### SUBTASK 33-14-05-410-001

(7) Close the window.

----- END OF TASK -----

ARO ALL





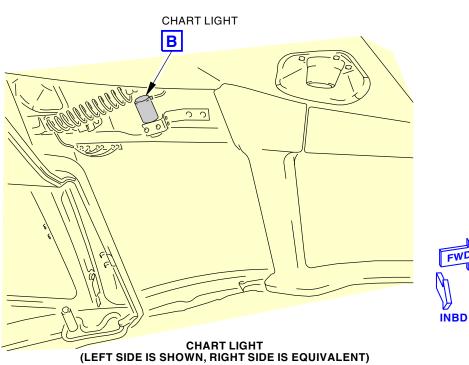


Chart Light - Lamp Replacement Figure 201/33-14-05-990-801 (Sheet 1 of 2)

ARO ALL l D633W101-ARO 33-14-05

F58597 S0006419764\_V2

Page 203 Sep 05/2016



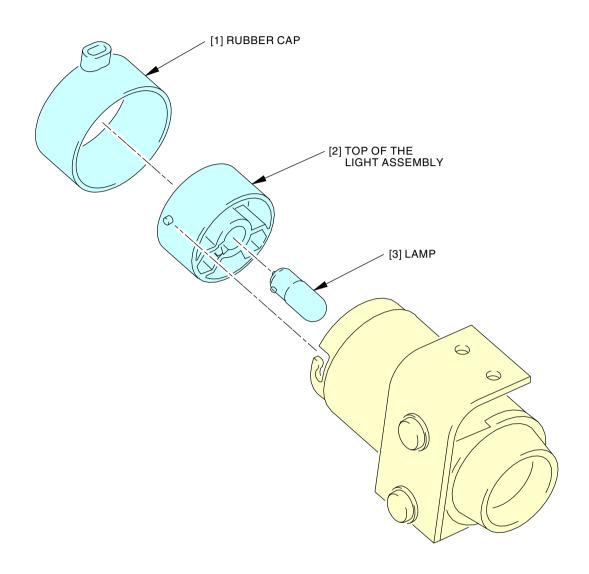


CHART LIGHT (EXAMPLE)

E02854 S0006419765\_V2

Chart Light - Lamp Replacement Figure 201/33-14-05-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-14-05

Page 204 Sep 05/2016



### **WORKTABLE LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has one task:
  - (1) Worktable Light Lamp Replacement

### TASK 33-14-06-960-801

# 2. Worktable Light - Lamp Replacement

(Figure 201)

## A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-14-12	Wiring Diagram Manual

### **B.** Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

# C. Procedure

SUBTASK 33-14-06-860-001

(1) Open this circuit breaker and install safety tag:

(WDM 33-14-12)

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	21	C33503	CHART, WORKTABLE & FLOOR LTS

### SUBTASK 33-14-06-960-001

- (2) Do these steps to replace the lamp.
  - (a) Pull the cover [2] away from the light assembly.

NOTE: It is not necessary to turn the cover.

- (b) Replace the lamp [1].
- (c) Carefully push the cover [2] into its position.

NOTE: Do not use too much force. Turn the cover until it aligns correctly with the light assembly before you push on it.

#### SUBTASK 33-14-06-860-003

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

# SUBTASK 33-14-06-860-002

(4) Remove the safety tag and close this circuit breaker:

(WDM 33-14-12)

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	21	C33503	CHART, WORKTABLE & FLOOR LTS

#### SUBTASK 33-14-06-710-001

(5) Do a test of the new lamp.

ARO ALL

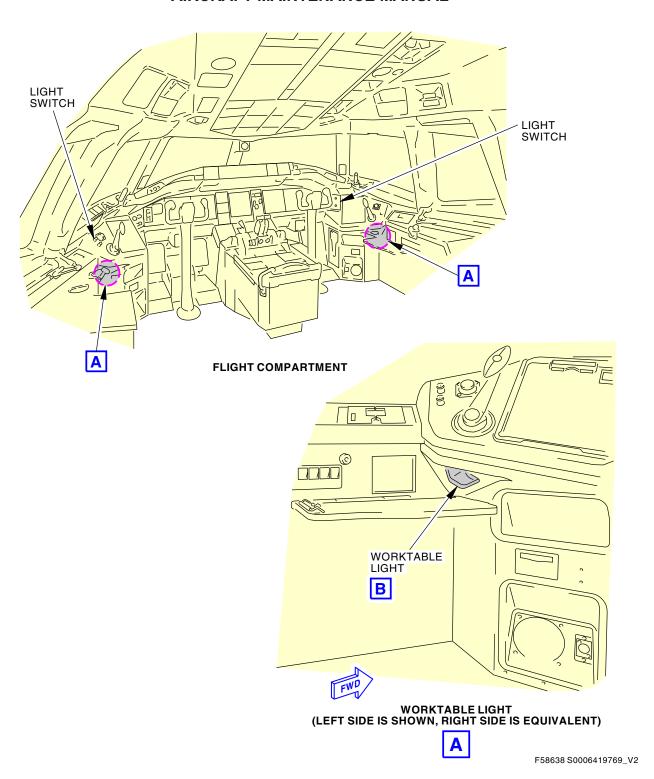


- (a) At the applicable auxiliary panel, P13 or P14, set the switch for the worktable light to the on mode.
  - 1) Make sure the new lamp comes on.
- (b) Set the switch to the usual mode.

——— END OF TASK ———

ARO ALL





Worktable Light - Lamp Replacement Figure 201/33-14-06-990-801 (Sheet 1 of 2)

EFFECTIVITY

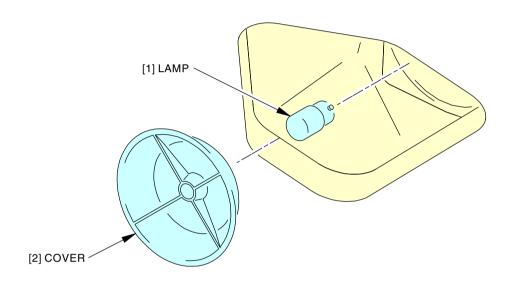
ARO ALL

Page 203

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





WORKTABLE LIGHT (EXAMPLE)



E04325 S0006419770\_V2

Worktable Light - Lamp Replacement Figure 201/33-14-06-990-801 (Sheet 2 of 2)

ARO ALL

33-14-06

Page 204 Sep 05/2016



### **MASTER DIM AND TEST - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has these tasks:
  - (1) Master Dim and Test Card Removal
  - (2) Master Dim and Test Card Installation
  - (3) Master Dim and Test Card File (P29 Panel) Removal
  - (4) Master Dim and Test Card File (P29 Panel) Installation
- B. In this procedure, the master dim and test card refers to one of three printed circuit boards in the master dim and test card file, P29. Each card is Electrostatic Discharge Sensitive (ESDS).
- C. A fourth card is also in the P29 panel for the power/control of the master bright control system. When a failure is isolated to this card, refer to the Master Bright Control Maintenance Practices for the removal (TASK 33-13-01-000-801) and installation (TASK 33-13-01-400-801) instructions.
- The master dim and test card file, P29, is an ESDS metal encased unit installed in the lower half of the crew closet.

### TASK 33-16-00-000-801

### 2. Master Dim and Test - Card Removal

(Figure 201)

### A. References

Reference	Title
20-41-01-000-801	ESDS Handling for Printed Circuit Board Removal (P/B 201)
WDM 33-16-11	Wiring Diagram Manual
WDM 33-16-18	Wiring Diagram Manual

### B. Location Zones

Zone	Area
211	Flight Compartment, Left

#### C. Procedure

SUBTASK 33-16-00-860-003

(1) Open these circuit breakers and install safety tags:

(WDM 33-16-11 thru WDM 33-16-18)

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	24	C33607	MD & T CHANNEL 2
Ν	25	C33605	MD & T CHANNEL 1

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	3	C33604	MD & T CHANNEL 5
M	4	C33606	MD & T CHANNEL 6

### Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	3	C33610	MD & T CHANNEL 3

ARO ALL

33-16-00



(Continued)

Standby Power Management Panel, P310

Row Col Number Name

F 4 C33611 MD & T CHANNEL 4

#### SUBTASK 33-16-00-010-001

(2) Open the crew closet door for access to the master dim and test card file, P29.

SUBTASK 33-16-00-840-001



DO NOT TOUCH THE CARDS BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CARDS.

- (3) Before you touch the card, do this task: ESDS Handling for Printed Circuit Board Removal, TASK 20-41-01-000-801.
  - (a) After you connect the strap to the electrostatic ground jack, loosen the fasteners and open the access door.

#### SUBTASK 33-16-00-020-002

(4) Remove the card.

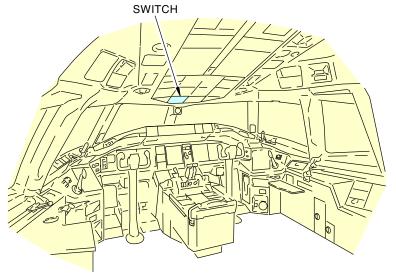
NOTE: When you remove the card, do not discard it. In a shop, use the automated test equipment to isolate the problem and the component maintenance manual to do the repairs.

----- END OF TASK -----

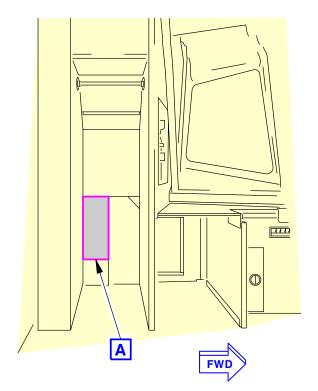
33-16-00

· EFFECTIVITY

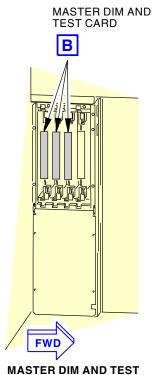




### **FLIGHT COMPARTMENT**



**CREW CLOSET** 



MASTER DIM AND TEST CARD FILE, P29

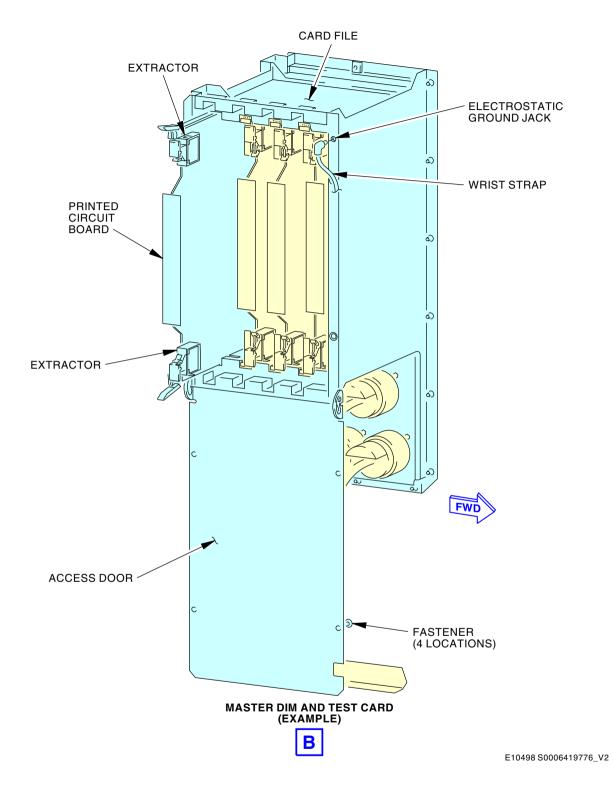


F58106 S0006419775\_V2

**Master Dim and Test - Card Installation** Figure 201/33-16-00-990-801 (Sheet 1 of 2)

ARO ALL l D633W101-ARO 33-16-00





Master Dim and Test - Card Installation Figure 201/33-16-00-990-801 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-16-00

Page 204 Sep 05/2016



#### TASK 33-16-00-400-801

## 3. Master Dim and Test - Card Installation

(Figure 201)

#### A. References

Reference	Title
20-41-01-400-801	ESDS Handling for Printed Circuit Board Installation (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-16-11	Wiring Diagram Manual
WDM 33-16-18	Wiring Diagram Manual

## B. Tools/Equipment

Reference	Description
STD-1176	Cover - Windshield Blackout Screen

#### C. Location Zones

Zone	Area
211	Flight Compartment, Left

## D. Procedure

SUBTASK 33-16-00-840-002



DO NOT TOUCH THE CARDS BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CARDS.

(1) Before you touch the card, do this task: ESDS Handling for Printed Circuit Board Installation, TASK 20-41-01-400-801.

# SUBTASK 33-16-00-420-002

- (2) Install the new card.
  - (a) Close the access door and tighten the fasteners before you disconnect the strap from the electrostatic ground jack.

#### SUBTASK 33-16-00-410-001

(3) Close the crew closet door.

#### SUBTASK 33-16-00-860-007

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

# SUBTASK 33-16-00-860-004

(5) Remove the safety tags and close these circuit breakers:

(WDM 33-16-11 thru WDM 33-16-18)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	24	C33607	MD & T CHANNEL 2
Ν	25	C33605	MD & T CHANNEL 1

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	3	C33604	MD & T CHANNEL 5

ARO ALL

33-16-00



(Continued)

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	4	C33606	MD & T CHANNEL 6

# **Standby Power Management Panel, P310**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	3	C33610	MD & T CHANNEL 3
F	4	C33611	MD & T CHANNEL 4

#### SUBTASK 33-16-00-940-003

(6) On a bright day, put a windshield cover, STD-1176 on the windshield to make it easier to do this test.

#### SUBTASK 33-16-00-710-002

- (7) Do a test of the new card.
  - (a) At the overhead panel, P5, set and hold the switch for the indicator lights to the test mode.
    - 1) Make sure the applicable lights come on brightly for approximately 10 seconds.
    - 2) Make sure the lights become dim after approximately 10 seconds.
  - (b) Release the switch.

#### SUBTASK 33-16-00-940-004

(8) If a windshield cover, STD-1176 was used on the windshield, remove it.



# TASK 33-16-00-000-802

# 4. Master Dim and Test - Card File (P29 Panel) Removal

(Figure 202)

# A. References

Reference	Title
20-41-01-000-801	ESDS Handling for Printed Circuit Board Removal (P/B 201)
20-41-01-000-802	Conductive Dust Cap and Connector Cover Installation (P/B 201)
WDM 33-13-11	Wiring Diagram Manual
WDM 33-16-18	Wiring Diagram Manual

#### B. Location Zones

Zone	Area
211	Flight Compartment, Left

## C. Procedure

#### SUBTASK 33-16-00-860-005

(1) Open these circuit breakers and install safety tags:

(WDM 33-13-11 thru WDM 33-16-18)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
N	23	C33613	MASTER BRT CTRL & MASTER BRT OVRD RLY

ARO ALL

33-16-00



(Continued)

# Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	24	C33607	MD & T CHANNEL 2
Ν	25	C33605	MD & T CHANNEL 1

## **Right Power Management Panel, P210**

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	3	C33604	MD & T CHANNEL 5
M	4	C33606	MD & T CHANNEL 6

# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	3	C33610	MD & T CHANNEL 3
F	4	C33611	MD & T CHANNEL 4

#### SUBTASK 33-16-00-010-002

(2) Open the crew closet door for access to the card file.

SUBTASK 33-16-00-840-003



DO NOT TOUCH THE CARD FILE BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CARD FILE.

(3) Before you touch the card file, do this task: ESDS Handling for Printed Circuit Board Removal, TASK 20-41-01-000-801.

# SUBTASK 33-16-00-020-001

- (4) Do these steps to remove the card file:
  - (a) Disconnect the electrical connectors [6].
  - (b) Install the covers on the electrical connectors (TASK 20-41-01-000-802).
  - (c) Remove the nut [5] and washer [4].
  - (d) Remove the bonding jumper [3].
  - (e) Remove the fasteners [2] and collars [1].
  - (f) Remove the card file [7].

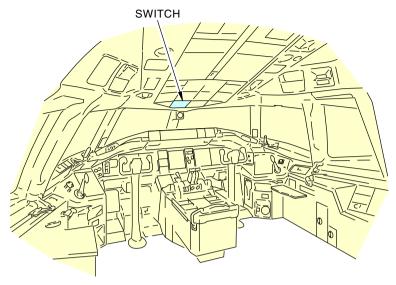
END	OF	TAG	SK	

33-16-00

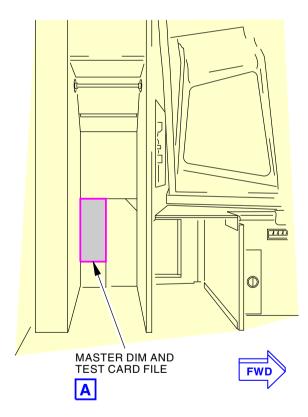
ARO ALL

EFFECTIVITY -





FLIGHT COMPARTMENT



**CREW CLOSET** 

F58111 S0006419779\_V2

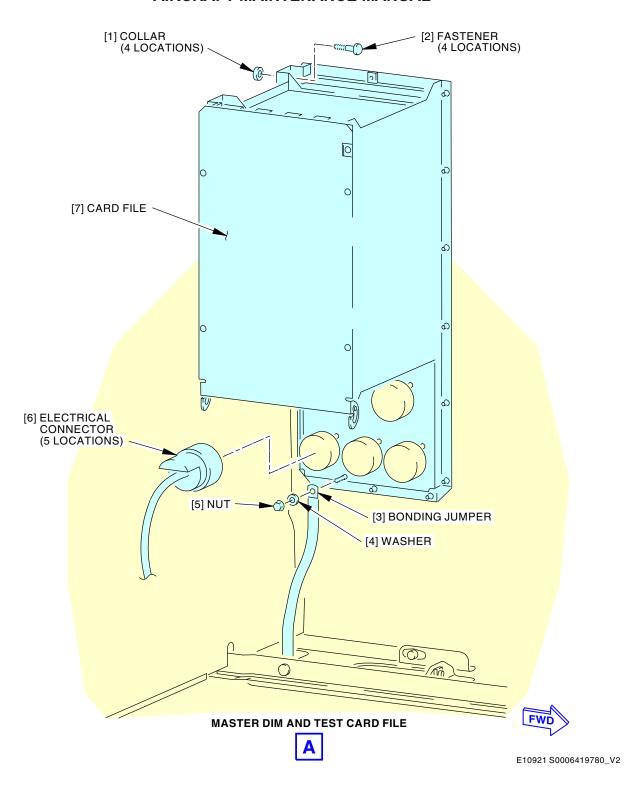
Master Dim and Test - Card File, P29, Installation Figure 202/33-16-00-990-802 (Sheet 1 of 2)

ARO ALL

33-16-00

Page 208 Sep 05/2016





Master Dim and Test - Card File, P29, Installation Figure 202/33-16-00-990-802 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

33-16-00

Page 209 Sep 05/2016



#### TASK 33-16-00-400-802

5. Master Dim and Test - Card File (P29 Panel) Installation

(Figure 202)

#### A. References

Reference	Title
20-41-01-400-801	ESDS Handling for Printed Circuit Board Installation (P/B 201)
20-41-01-400-802	Conductive Dust Cap and Connector Cover Removal (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-13-11	Wiring Diagram Manual
WDM 33-13-19	Wiring Diagram Manual
WDM 33-16-18	Wiring Diagram Manual

## B. Tools/Equipment

10015/Equipment	
Reference	Description
STD-1176	Cover - Windshield Blackout Screen

#### C. Location Zones

Zone	Area
211	Flight Compartment, Left

#### D. Procedure

SUBTASK 33-16-00-860-009

(1) Make sure the new card file includes the applicable cards.

SUBTASK 33-16-00-840-004



DO NOT TOUCH THE CARD FILE BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE CARD FILE.

(2) Before you touch the card file, do this task: ESDS Handling for Printed Circuit Board Installation, TASK 20-41-01-400-801.

#### SUBTASK 33-16-00-420-001

- (3) Do these steps to install the new card file:
  - (a) Install the card file [7] with the collars [1] and fasteners [2].
  - (b) Install the bonding jumper [3].
  - (c) Install the washer [4] and nut [5].
  - (d) Remove the covers from the electrical connectors (TASK 20-41-01-400-802).
  - (e) Connect the electrical connectors [6].

#### SUBTASK 33-16-00-410-002

(4) Close the crew closet door.

#### SUBTASK 33-16-00-860-010

(5) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-16-00-860-006

(6) Remove the safety tags and close these circuit breakers:

(WDM 33-13-11 thru WDM 33-16-18)

ARO ALL

33-16-00



## Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
Ν	23	C33613	MASTER BRT CTRL & MASTER BRT OVRD RLY
Ν	24	C33607	MD & T CHANNEL 2
N	25	C33605	MD & T CHANNEL 1

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	3	C33604	MD & T CHANNEL 5
M	4	C33606	MD & T CHANNEL 6

# Standby Power Management Panel, P310

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	3	C33610	MD & T CHANNEL 3
F	4	C33611	MD & T CHANNEL 4

#### SUBTASK 33-16-00-940-005

(7) On a bright day, put a windshield cover, STD-1176 on the windshield to make it easier to do this test.

#### SUBTASK 33-16-00-710-003

- (8) Do a test of the new card file.
  - (a) At the overhead panel, P5, set and hold the switch for the indicator lights to the test mode.
    - 1) Make sure the applicable lights come on brightly for approximately 10 seconds.
    - 2) Make sure the lights become dim after approximately 10 seconds.
  - (b) Release the switch for the indicator lights.
  - (c) At the overhead panel, P5, set the switch for the master bright control to the on mode, then slowly set the switch from the dim to the bright mode.
    - 1) Make sure the integral panel lights come on (WDM 33-13-11 thru WDM 33-13-19).
    - 2) Make sure the intensity of the lights changes from dim to bright.
  - (d) Set the switch for the master bright control to the usual mode.

#### SUBTASK 33-16-00-940-006

(9) If a windshield cover, STD-1176 was used on the windshield, remove it.

	OF TA	\ CIZ	
	U = 1	45N -	

33-16-00

ARO ALL

EFFECTIVITY -

Page 211 Sep 05/2017



## **MASTER DIM AND TEST - ADJUSTMENT/TEST**

## 1. General

A. This procedure contains scheduled maintenance task data.

#### TASK 33-16-00-710-801

# 2. Master Dim and Test - Operational Test

NOTE: This procedure is a scheduled maintenance task.

#### A. General

(1) This test makes sure the master dim and test system operates.

#### B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-16-11	Wiring Diagram Manual	
WDM 33-16-18	Wiring Diagram Manual	

## C. Tools/Equipment

Reference	Description
STD-1176	Cover - Windshield Blackout Screen

#### D. Location Zones

Zone	Area	
211	Flight Compartment, Left	
212	Flight Compartment, Right	

#### E. Procedure

SUBTASK 33-16-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-16-00-940-001

(2) On a bright day, put a windshield cover, STD-1176 on the windshield to make it easier to do this test.

#### SUBTASK 33-16-00-710-001

- (3) Do a test of the lamps and LEDs in the indicator lights:
  - (a) At the overhead panel, P5, set and hold the switch for the indicator lights to the test mode.

NOTE: The test will not operate correctly if the switch is held for less than 10 seconds.

 Make sure the applicable indicator lights come on brightly for approximately 10 seconds, then become dim (WDM 33-16-11 thru WDM 33-16-18).

NOTE: Use the tables in SSM 33-16-00 for a list of the indicator lights. As shown in the table, some indicator lights do not come on during the test mode, while others come on brightly but do not become dim.

(b) When the test is done, release the switch.

#### SUBTASK 33-16-00-940-002

(4) If a windshield cover, STD-1176 was used on the windshield, remove it.

——— FND OF TASK ———				
	ENID	OF TA	CIZ	

ARO ALL

33-16-00



# PASSENGER COMPARTMENT LIGHTS - MAINTENANCE PRACTICES

## 1. General

- A. This procedure has these tasks:
  - (1) Passenger compartment lights Deactivation
  - (2) Passenger compartment lights Activation
  - (3) Passenger compartment lights Index

## TASK 33-20-00-040-801

## 2. Passenger Compartment Lights - Deactivation

# A. General

(1) This task removes electrical power to the passenger compartment lights.

# B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

# C. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

#### D. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
200	Upper Half of Fuselage
211	Flight Compartment, Left
212	Flight Compartment, Right

## E. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### F. Procedure

SUBTASK 33-20-00-010-001

(1) Open this access door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 33-20-00-860-003



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Open these circuit breakers and install safety tags:

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R

ARO ALL



(Continued)

# Ground Service/Handling Power Panel, P320

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

# Left Power Management Panel, P110

Row	Col	<u>Number</u>	<u>Name</u>
Α	15	C23437	OEU ZONE1 MAIN BUS
D	15	C23445	OEU ZONE3 RIGHT MAIN BUS
D	16	C23441	OEU ZONE3 LEFT MAIN BUS
Е	16	C23443	OEU ZONE3 CENTER MAIN BUS
L	8	C23660	AREA LIGHTING CONT 1

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	10	C23414	OEU ZONE2 LEFT MAIN BUS
L	16	C23661	AREA LIGHTING CONT 2

# G. Passenger Compartment Lights - Tryout

NOTE: This tryout is to make sure that the passenger compartment lights are in a zero energy state.

#### SUBTASK 33-20-00-860-010

(1) Make sure that electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-20-00-700-001

- (2) Do a test of the passenger compartment lights, use the cabin/utility switch:
  - (a) Set the cabin/utility switch, on the P5 overhead panel, to the ON position.
  - (b) At the Cabin System Control Panel (CSCP), set all passenger compartment lights to the ON mode.
    - 1) Select CABIN MAINTENANCE from the CSCP menu.
    - 2) On the main menu, touch CABIN TESTS.
    - 3) When the screen changes, touch LAMPS TEST.
    - 4) On the lamp test menu, make the applicable selections.
    - 5) Make sure that the passenger compartment lights do not come on.
  - (c) Set the cabin/utility switch to the OFF position.
  - (d) Install a DO NOT OPERATE tag, STD-858, on the cabin/utility switch.

### SUBTASK 33-20-00-860-006

- (3) Put the CSCP back to its usual condition.
  - (a) On the lamp test menu, touch MAIN MENU.
  - (b) If a note appears on the screen, read it, then follow the instructions.

ARO ALL



(c) If the cabin maintenance menus are not necessary, touch EXIT.

----- END OF TASK -----

#### TASK 33-20-00-440-801

- 3. Passenger Compartment Lights Activation
  - A. General
    - (1) This task adds electrical power to the passenger compartment lights.
  - B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

D. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
200	Upper Half of Fuselage
211	Flight Compartment, Left
212	Flight Compartment, Right

#### E. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

## F. Procedure

SUBTASK 33-20-00-860-007

(1) Make sure that electrical power is supplied to the airplane (TASK 24-22-00-860-805).

SUBTASK 33-20-00-860-008



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Remove the safety tags and close these circuit breakers:

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
- 1	10	C33421	CARIN LTS MID AFT I

ARO ALL



# Left Power Management Panel, P110

Row	Col	<u>Number</u>	<u>Name</u>
Α	15	C23437	OEU ZONE1 MAIN BUS
D	15	C23445	OEU ZONE3 RIGHT MAIN BUS
D	16	C23441	OEU ZONE3 LEFT MAIN BUS
E	16	C23443	OEU ZONE3 CENTER MAIN BUS
L	8	C23660	AREA LIGHTING CONT 1

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	10	C23414	OEU ZONE2 LEFT MAIN BUS
L	16	C23661	AREA LIGHTING CONT 2

#### SUBTASK 33-20-00-410-001

(3) Close this access door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### SUBTASK 33-20-00-700-002

- (4) Do a test of the passenger compartment lights, use the cabin/utility switch:
  - (a) Remove the DO NOT OPERATE tag, STD-858, on the cabin/utility switch.
  - (b) Set the cabin/utility switch on the P5 overhead panel, to the ON position.
  - (c) At the Cabin System Control Panel (CSCP), set all passenger compartment lights to the ON mode.
    - 1) Select CABIN MAINTENANCE from the CSCP menu.
    - 2) On the main menu, touch CABIN TESTS.
    - 3) When the screen changes, touch LAMPS TEST.
    - 4) On the lamp test menu, make the applicable selections.
    - 5) Make sure that the passenger compartment lights come on.
  - (d) Set the cabin/utility switch to the OFF position.

## SUBTASK 33-20-00-860-009

- (5) Put the CSCP back to its usual condition.
  - (a) On the lamp test menu, touch MAIN MENU.
  - (b) If a note appears on the screen, read it, then follow the instructions.
  - (c) If the cabin maintenance menus are not necessary, touch EXIT.



## TASK 33-20-00-970-801

# 4. Passenger Compartment Lights - Index

## A. References

Reference	Title
33-21-01-960-801	Indirect Ceiling Light - Lamp Replacement (P/B 201)
33-21-01-960-802	Indirect Ceiling Light - Light Assembly Replacement (P/B 201)
33-21-02-960-801	Night Light - Lamp Replacement (P/B 201)

ARO ALL

33-20-00

Page 204 Sep 05/2017



# (Continued)

33-21-03-960-802   Sidewall Light - Light Assembly Replacement (P/B 201)   33-21-07-960-802   Area Lighting Controller Replacement (P/B 201)   33-22-01-960-801   Attendant Work Light - Lamp Replacement (P/B 201)   33-22-02-960-802   Direct Ceiling Light - Lamp Replacement (P/B 201)   33-22-03-960-802   Direct Ceiling Light - Ballast Replacement (P/B 201)   33-22-03-960-802   Entry Light - Lamp Replacement (P/B 201)   33-22-03-960-801   Entry Light - Ballast Replacement (P/B 201)   33-22-04-960-801   Standby (ETOPS) Light - Lamp Replacement (P/B 201)   33-22-05-960-801   Closet Light - Lamp Replacement (P/B 201)   33-22-06-960-801   Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)   33-22-06-960-805   Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)   33-23-00-960-802   Reading Light - Lamp Replacement (P/B 201)   33-24-00-960-802   Reading Light - Light Assembly Replacement (P/B 201)   33-24-00-960-802   Information Sign - Light Assembly Replacement (P/B 201)   33-25-01-960-801   Lavatory Call Light - Lamp Replacement (P/B 201)   33-25-01-960-802   Lavatory Call Switch - Lamp Replacement (P/B 201)   33-25-02-960-802   Master Call Light Module - Light Assembly Replacement (P/B 201)   33-25-02-960-802   Master Call Light Module - Light Assembly Replacement (P/B 201)   33-26-00-960-802   Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)   33-26-00-960-802   Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)   33-26-00-960-804   Lavatory Dome Light - Lamp Replacement (P/B 201)   33-26-00-960-804   Lavatory Dome Light - Lamp Replacement (P/B 201)   33-27-00-960-804   Lavatory Ballast - Replacement (P/B 201)   33-27-00-960-805   Calley Light - Lamp Replacement (P/B 201)   33-27-00-960-806   Lavatory Ballast - Replacement (P/B 201)   33-27-00-960-801   Galley Light - Lamp Replacement (P/B 201)   33-27-00-960-801   Galley Light - Lamp Replacement (P/B 201)   33-27-00-960-801   Galley Light - Lamp Replacement (P/B 201)   33-29-03-710-801   FCR Area/Reading Light - Lamp Rep	Reference	Title
33-22-01-960-801         Attendant Work Light - Lamp Replacement (P/B 201)           33-22-02-960-801         Direct Ceiling Light - Lamp Replacement (P/B 201)           33-22-02-960-802         Direct Ceiling Light - Lamp Replacement (P/B 201)           33-22-03-960-801         Entry Light - Lamp Replacement (P/B 201)           33-22-04-960-801         Standby (ETOPS) Light - Lamp Replacement (P/B 201)           33-22-05-960-801         Closet Light - Lamp Replacement (P/B 201)           33-22-06-960-805         Attendant Switch Panel (ASP) - Panel Replacement (P/B 201)           33-22-06-960-805         Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)           33-22-06-960-805         Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)           33-22-06-960-801         Reading Light - Lamp Replacement (P/B 201)           33-23-00-960-802         Reading Light - Lamp Replacement (P/B 201)           33-24-00-960-801         Information Sign - Lamp Replacement (P/B 201)           33-25-01-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-801         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-26-00-960-802         Lavatory Gocupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Gocupied Sign - Lamp Replacement (P/B 201) </td <td>33-21-03-960-802</td> <td>Sidewall Light - Light Assembly Replacement (P/B 201)</td>	33-21-03-960-802	Sidewall Light - Light Assembly Replacement (P/B 201)
33-22-02-960-801         Direct Ceiling Light - Lamp Replacement (P/B 201)           33-22-03-960-802         Direct Ceiling Light - Ballast Replacement (P/B 201)           33-22-03-960-801         Entry Light - Lamp Replacement (P/B 201)           33-22-03-960-802         Entry Light - Lamp Replacement (P/B 201)           33-22-04-960-801         Standby (ETOPS) Light - Lamp Replacement (P/B 201)           33-22-06-960-801         Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)           33-22-06-960-805         Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)           33-23-00-960-801         Reading Light - Lamp Replacement (P/B 201)           33-23-00-960-802         Reading Light - Lamp Replacement (P/B 201)           33-24-00-960-801         Information Sign - Lamp Replacement (P/B 201)           33-25-01-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-803         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-01-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Lamp Replacement (P/B 201)           33-26-00-960-803         Lavatory Cocupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-804         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Ballast - Replacement, Fluorescent (P/B 201)	33-21-07-960-802	Area Lighting Controller Replacement (P/B 201)
33-22-02-960-802         Direct Ceiling Light - Ballast Replacement (P/B 201)           33-22-03-960-801         Entry Light - Lamp Replacement (P/B 201)           33-22-03-960-802         Entry Light - Ballast Replacement (P/B 201)           33-22-04-960-801         Standby (ETOPS) Light - Lamp Replacement (P/B 201)           33-22-06-960-801         Attendant Switch Panel (ASP) - Panel Replacement (P/B 201)           33-22-06-960-805         Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)           33-23-00-960-801         Reading Light - Lamp Replacement (P/B 201)           33-23-00-960-802         Reading Light - Lamp Replacement (P/B 201)           33-24-00-960-801         Information Sign - Lamp Replacement (P/B 201)           33-24-00-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-801         Lavatory Call Switch - Lamp Replacement (P/B 201)           33-25-01-960-802         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Bilast - Replacement (P/B 201)           33-26-00-960-805         Lavatory Bilast - Replacement (P/B 201)	33-22-01-960-801	Attendant Work Light - Lamp Replacement (P/B 201)
33-22-03-960-801         Entry Light - Lamp Replacement (P/B 201)           33-22-03-960-802         Entry Light - Ballast Replacement (P/B 201)           33-22-04-960-801         Standby (ETOPS) Light - Lamp Replacement (P/B 201)           33-22-06-960-801         Closet Light - Lamp Replacement (P/B 201)           33-22-06-960-805         Attendant Switch Panel (ASP) - Panel Replacement (P/B 201)           33-23-00-960-801         Reading Light - Lamp Replacement (P/B 201)           33-23-00-960-802         Reading Light - Lamp Replacement (P/B 201)           33-24-00-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-802         Lavatory Call Light Lamp Replacement (P/B 201)           33-25-01-960-801         Lavatory Call Switch - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Lamp Replacement (P/B 201)           33-26-00-960-803         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-27-00-960-806         Lavatory Ballast - Replacement, Fluore	33-22-02-960-801	Direct Ceiling Light - Lamp Replacement (P/B 201)
33-22-03-960-802         Entry Light - Ballast Replacement (P/B 201)           33-22-04-960-801         Standby (ETOPS) Light - Lamp Replacement (P/B 201)           33-22-05-960-801         Attendant Switch Panel (ASP) - Panel Replacement (P/B 201)           33-22-06-960-805         Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)           33-23-00-960-801         Reading Light - Lamp Replacement (P/B 201)           33-23-00-960-802         Reading Light - Light Assembly Replacement (P/B 201)           33-24-00-960-802         Information Sign - Lamp Replacement (P/B 201)           33-24-00-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-801         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-01-960-802         Lavatory Call Switch - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Lamp Replacement (P/B 201)           33-26-00-960-803         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-804         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Ballast - Replacement (P/B 201)           33-26-00-960-805         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-806         Galley Light - Lamp Replacement (P/B 201) </td <td>33-22-02-960-802</td> <td>Direct Ceiling Light - Ballast Replacement (P/B 201)</td>	33-22-02-960-802	Direct Ceiling Light - Ballast Replacement (P/B 201)
33-22-04-960-801         Standby (ETOPS) Light - Lamp Replacement (P/B 201)           33-22-05-960-801         Closet Light - Lamp Replacement (P/B 201)           33-22-06-960-801         Attendant Switch Panel (ASP) - Panel Replacement (P/B 201)           33-22-06-960-805         Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)           33-23-00-960-801         Reading Light - Light Assembly Replacement (P/B 201)           33-24-00-960-802         Reading Light - Light Assembly Replacement (P/B 201)           33-24-00-960-801         Information Sign - Lamp Replacement (P/B 201)           33-25-01-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-802         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-01-960-802         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-804         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Fluorescent Light Assembly Replacement (P/B 201)           33-26-00-960-806         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-27-00-960-8	33-22-03-960-801	Entry Light - Lamp Replacement (P/B 201)
33-22-05-960-801         Closet Light - Lamp Replacement (P/B 201)           33-22-06-960-801         Attendant Switch Panel (ASP) - Panel Replacement (P/B 201)           33-22-06-960-805         Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)           33-23-00-960-801         Reading Light - Lamp Replacement (P/B 201)           33-23-00-960-802         Reading Light - Light Assembly Replacement (P/B 201)           33-24-00-960-802         Information Sign - Lamp Replacement (P/B 201)           33-25-01-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-801         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-01-960-802         Lavatory Call Switch - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-804         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-806         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Incandescent (P/B 201)           33-27-00-960-802	33-22-03-960-802	Entry Light - Ballast Replacement (P/B 201)
33-22-06-960-801         Attendant Switch Panel (ASP) - Panel Replacement (P/B 201)           33-22-06-960-805         Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)           33-23-00-960-801         Reading Light - Lamp Replacement (P/B 201)           33-23-00-960-802         Reading Light - Light Assembly Replacement (P/B 201)           33-24-00-960-801         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-802         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-02-960-802         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-801         Lavatory Doccupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-802         Lavatory Dome Light - Lamp Replacement (P/B 201)           33-26-00-960-803         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Billast - Replacement (P/B 201)           33-26-00-960-805         Lavatory Billast - Replacement (P/B 201)           33-27-00-960-806         Lavatory Billast - Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Repl	33-22-04-960-801	Standby (ETOPS) Light - Lamp Replacement (P/B 201)
33-22-06-960-805         Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)           33-23-00-960-801         Reading Light - Lamp Replacement (P/B 201)           33-23-00-960-802         Reading Light - Light Assembly Replacement (P/B 201)           33-24-00-960-801         Information Sign - Lamp Replacement (P/B 201)           33-25-01-960-801         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-01-960-802         Lavatory Call Switch - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-02-960-802         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-801         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-802         Lavatory Dock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly - Lamp Replacement (P/B 201)           33-26-00-960-805         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-806         Lavatory Ballast - Replacement, Fluorescent (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Incandescent (P/B 201)           33-27-00-960-803	33-22-05-960-801	Closet Light - Lamp Replacement (P/B 201)
33-23-00-960-801         Reading Light - Lamp Replacement (P/B 201)           33-23-00-960-802         Reading Light - Light Assembly Replacement (P/B 201)           33-24-00-960-801         Information Sign - Lamp Replacement (P/B 201)           33-24-00-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-801         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-804         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-806         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-802         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement (P/B 201)           33-27-00-960-802         Galley Light - Lamp Replacem	33-22-06-960-801	Attendant Switch Panel (ASP) - Panel Replacement (P/B 201)
33-23-00-960-802         Reading Light - Light Assembly Replacement (P/B 201)           33-24-00-960-801         Information Sign - Lamp Replacement (P/B 201)           33-24-00-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-801         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-02-960-802         Lavatory Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-801         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-802         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-27-00-960-806         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-802         Galley Light - Lamp Replacement, Standby (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Standby (P/B 201)           33-29-03-71	33-22-06-960-805	Attendant Switch Panel (ASP) - Switch Replacement (P/B 201)
33-24-00-960-801         Information Sign - Lamp Replacement (P/B 201)           33-24-00-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-801         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-02-960-802         Lavatory Call Switch - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-801         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-802         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-27-00-960-806         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-803         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-803         Galley Light - Lamp Replacement (P/B 201)           33-29-03-710-801	33-23-00-960-801	Reading Light - Lamp Replacement (P/B 201)
33-24-00-960-802         Information Sign - Light Assembly Replacement (P/B 201)           33-25-01-960-801         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-02-960-802         Lavatory Call Switch - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-803         Lavatory Cocupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-26-00-960-806         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-802         Galley Light - Lamp Replacement, Incandescent (P/B 201)           33-27-00-960-803         Galley Light - Lamp Replacement (P/B 201)           33-29-03-710-801         FCR Area/Reading Light - Lamp Replacement (P/B 201)           33-29-03-710-802         FCR Step/Handle Light - Lamp Replacement (P/B 201)           33-29-03-710-803	33-23-00-960-802	Reading Light - Light Assembly Replacement (P/B 201)
33-25-01-960-801         Lavatory Call Light - Lamp Replacement (P/B 201)           33-25-01-960-802         Lavatory Call Switch - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-801         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-802         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Pluorescent Light Assembly - Lamp Replacement (P/B 201)           33-26-00-960-806         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-802         Galley Light - Lamp Replacement, Incandescent (P/B 201)           33-27-00-960-803         Galley Light - Lamp Replacement, Standby (P/B 201)           33-28-00-960-804         Galley Light - Lamp Replacement (P/B 201)           33-29-03-710-801         FCR Area/Reading Light - Lamp Replacement (P/B 201)           33-29-03-710-802         FCR Step/Handle Light - Lamp Replacement (P/B 201)           33-29-03-710-804 <t< td=""><td>33-24-00-960-801</td><td>Information Sign - Lamp Replacement (P/B 201)</td></t<>	33-24-00-960-801	Information Sign - Lamp Replacement (P/B 201)
33-25-01-960-802         Lavatory Call Switch - Lamp Replacement (P/B 201)           33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-801         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-802         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-26-00-960-806         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-802         Galley Light - Lamp Replacement, Incandescent (P/B 201)           33-27-00-960-803         Galley Light - Lamp Replacement (P/B 201)           33-29-03-804         Galley Light - Ballast Replacement (P/B 201)           33-29-03-710-801         FCR Area/Reading Light - Lamp Replacement (P/B 201)           33-29-03-710-802         FCR Step/Handle Light - Lamp Replacement (P/B 201)           33-29-03-710-804         FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)           33-29-03-710-805	33-24-00-960-802	Information Sign - Light Assembly Replacement (P/B 201)
33-25-02-960-801         Master Call Light Module - Lamp Replacement (P/B 201)           33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-801         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-802         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-26-00-960-806         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-802         Galley Light - Lamp Replacement, Incandescent (P/B 201)           33-27-00-960-803         Galley Light - Lamp Replacement, Standby (P/B 201)           33-28-00-960-801         Passenger Call Light - Lamp Replacement (P/B 201)           33-29-03-710-801         FCR Area/Reading Light - Lamp Replacement (P/B 201)           33-29-03-710-802         FCR Step/Handle Light - Lamp Replacement (P/B 201)           33-29-03-710-804         FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)           33-29-03-710-805         FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           3	33-25-01-960-801	Lavatory Call Light - Lamp Replacement (P/B 201)
33-25-02-960-802         Master Call Light Module - Light Assembly Replacement (P/B 201)           33-26-00-960-801         Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-26-00-960-802         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Dome Light - Lamp/Light Assembly - Lamp Replacement (P/B 201)           33-26-00-960-806         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-802         Galley Light - Lamp Replacement, Incandescent (P/B 201)           33-27-00-960-803         Galley Light - Lamp Replacement, Standby (P/B 201)           33-27-00-960-804         Galley Light - Ballast Replacement (P/B 201)           33-28-00-960-801         Passenger Call Light - Lamp Replacement (P/B 201)           33-29-03-710-801         FCR Area/Reading Light - Lamp Replacement (P/B 201)           33-29-03-710-802         FCR Step/Handle Light - Lamp Replacement (P/B 201)           33-29-03-710-803         FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)           33-29-03-710-805         FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)	33-25-01-960-802	Lavatory Call Switch - Lamp Replacement (P/B 201)
(P/B 201)  33-26-00-960-801	33-25-02-960-801	Master Call Light Module - Lamp Replacement (P/B 201)
33-26-00-960-802         Lavatory-Occupied Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-803         Lavatory Lock-Door Sign - Light Assembly Replacement (P/B 201)           33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-26-00-960-806         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-802         Galley Light - Lamp Replacement, Incandescent (P/B 201)           33-27-00-960-803         Galley Light - Lamp Replacement, Standby (P/B 201)           33-27-00-960-804         Galley Light - Ballast Replacement (P/B 201)           33-28-00-960-801         Passenger Call Light - Lamp Replacement (P/B 201)           33-29-03-710-801         FCR Area/Reading Light - Lamp Replacement (P/B 201)           33-29-03-710-802         FCR Step/Handle Light - Lamp Replacement (P/B 201)           33-29-03-710-803         FCR Night Light - Lamp Replacement (P/B 201)           33-29-03-710-804         FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)           33-29-03-710-805         FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-29-03-710-806         FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-25-02-960-802	
(P/B 201)  33-26-00-960-803	33-26-00-960-801	Lavatory-Occupied Sign - Lamp Replacement (P/B 201)
(P/B 201)  33-26-00-960-804	33-26-00-960-802	
33-26-00-960-804         Lavatory Dome Light - Lamp/Light Assembly Replacement (P/B 201)           33-26-00-960-805         Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)           33-26-00-960-806         Lavatory Ballast - Replacement (P/B 201)           33-27-00-960-801         Galley Light - Lamp Replacement, Fluorescent (P/B 201)           33-27-00-960-802         Galley Light - Lamp Replacement, Incandescent (P/B 201)           33-27-00-960-803         Galley Light - Lamp Replacement, Standby (P/B 201)           33-27-00-960-804         Galley Light - Ballast Replacement (P/B 201)           33-28-00-960-801         Passenger Call Light - Lamp Replacement (P/B 201)           33-29-03-710-801         FCR Area/Reading Light - Lamp Replacement (P/B 201)           33-29-03-710-802         FCR Step/Handle Light - Lamp Replacement (P/B 201)           33-29-03-710-803         FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)           33-29-03-710-805         FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)           33-29-03-710-806         FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-26-00-960-803	
33-26-00-960-805       Lavatory Fluorescent Light Assembly - Lamp Replacement (P/B 201)         33-26-00-960-806       Lavatory Ballast - Replacement (P/B 201)         33-27-00-960-801       Galley Light - Lamp Replacement, Fluorescent (P/B 201)         33-27-00-960-802       Galley Light - Lamp Replacement, Incandescent (P/B 201)         33-27-00-960-803       Galley Light - Lamp Replacement, Standby (P/B 201)         33-28-00-960-804       Galley Light - Ballast Replacement (P/B 201)         33-28-00-960-801       Passenger Call Light - Lamp Replacement (P/B 201)         33-29-03-710-801       FCR Area/Reading Light - Lamp Replacement (P/B 201)         33-29-03-710-802       FCR Step/Handle Light - Lamp Replacement (P/B 201)         33-29-03-710-803       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-804       FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)         33-29-03-710-805       FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-26-00-960-804	
33-26-00-960-806       Lavatory Ballast - Replacement (P/B 201)         33-27-00-960-801       Galley Light - Lamp Replacement, Fluorescent (P/B 201)         33-27-00-960-802       Galley Light - Lamp Replacement, Incandescent (P/B 201)         33-27-00-960-803       Galley Light - Lamp Replacement, Standby (P/B 201)         33-27-00-960-804       Galley Light - Ballast Replacement (P/B 201)         33-28-00-960-801       Passenger Call Light - Lamp Replacement (P/B 201)         33-29-03-710-801       FCR Area/Reading Light - Lamp Replacement (P/B 201)         33-29-03-710-802       FCR Step/Handle Light - Lamp Replacement (P/B 201)         33-29-03-710-803       FCR Night Light - Lamp Replacement (P/B 201)         33-29-03-710-804       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-805       FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)         33-29-03-710-806       FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-26-00-960-805	Lavatory Fluorescent Light Assembly - Lamp Replacement
33-27-00-960-801       Galley Light - Lamp Replacement, Fluorescent (P/B 201)         33-27-00-960-802       Galley Light - Lamp Replacement, Incandescent (P/B 201)         33-27-00-960-803       Galley Light - Lamp Replacement, Standby (P/B 201)         33-27-00-960-804       Galley Light - Ballast Replacement (P/B 201)         33-28-00-960-801       Passenger Call Light - Lamp Replacement (P/B 201)         33-29-03-710-801       FCR Area/Reading Light - Lamp Replacement (P/B 201)         33-29-03-710-802       FCR Step/Handle Light - Lamp Replacement (P/B 201)         33-29-03-710-803       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-804       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-805       FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)         5CR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-26-00-960-806	,
33-27-00-960-802       Galley Light - Lamp Replacement, Incandescent (P/B 201)         33-27-00-960-803       Galley Light - Lamp Replacement, Standby (P/B 201)         33-27-00-960-804       Galley Light - Ballast Replacement (P/B 201)         33-28-00-960-801       Passenger Call Light - Lamp Replacement (P/B 201)         33-29-03-710-801       FCR Area/Reading Light - Lamp Replacement (P/B 201)         33-29-03-710-802       FCR Step/Handle Light - Lamp Replacement (P/B 201)         33-29-03-710-803       FCR Night Light - Lamp Replacement (P/B 201)         33-29-03-710-804       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-805       FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)         50-03-710-806       FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-27-00-960-801	·
33-27-00-960-803       Galley Light - Lamp Replacement, Standby (P/B 201)         33-27-00-960-804       Galley Light - Ballast Replacement (P/B 201)         33-28-00-960-801       Passenger Call Light - Lamp Replacement (P/B 201)         33-29-03-710-801       FCR Area/Reading Light - Lamp Replacement (P/B 201)         33-29-03-710-802       FCR Step/Handle Light - Lamp Replacement (P/B 201)         33-29-03-710-803       FCR Night Light - Lamp Replacement (P/B 201)         33-29-03-710-804       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-805       FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)         5CR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-27-00-960-802	Galley Light - Lamp Replacement, Incandescent (P/B 201)
33-27-00-960-804       Galley Light - Ballast Replacement (P/B 201)         33-28-00-960-801       Passenger Call Light - Lamp Replacement (P/B 201)         33-29-03-710-801       FCR Area/Reading Light - Lamp Replacement (P/B 201)         33-29-03-710-802       FCR Step/Handle Light - Lamp Replacement (P/B 201)         33-29-03-710-803       FCR Night Light - Lamp Replacement (P/B 201)         33-29-03-710-804       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-805       FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)         33-29-03-710-806       FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-27-00-960-803	
33-29-03-710-801       FCR Area/Reading Light - Lamp Replacement (P/B 201)         33-29-03-710-802       FCR Step/Handle Light - Lamp Replacement (P/B 201)         33-29-03-710-803       FCR Night Light - Lamp Replacement (P/B 201)         33-29-03-710-804       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-805       FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)         33-29-03-710-806       FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-27-00-960-804	
33-29-03-710-802       FCR Step/Handle Light - Lamp Replacement (P/B 201)         33-29-03-710-803       FCR Night Light - Lamp Replacement (P/B 201)         33-29-03-710-804       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-805       FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)         33-29-03-710-806       FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-28-00-960-801	Passenger Call Light - Lamp Replacement (P/B 201)
33-29-03-710-802       FCR Step/Handle Light - Lamp Replacement (P/B 201)         33-29-03-710-803       FCR Night Light - Lamp Replacement (P/B 201)         33-29-03-710-804       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-805       FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)         33-29-03-710-806       FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-29-03-710-801	
33-29-03-710-803       FCR Night Light - Lamp Replacement (P/B 201)         33-29-03-710-804       FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201)         33-29-03-710-805       FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201)         33-29-03-710-806       FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-29-03-710-802	
33-29-03-710-804 FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement (P/B 201) 33-29-03-710-805 FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201) 33-29-03-710-806 FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-29-03-710-803	
33-29-03-710-805 FCR Lavatory-Occupied Sign - Lamp Replacement (P/B 201) 33-29-03-710-806 FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-29-03-710-804	FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement
33-29-03-710-806 FCR Call Light/Reset Switch - Lamp Replacement (P/B 201)	33-29-03-710-805	•
- · · · · · · · · · · · · · · · · · · ·	33-29-03-710-806	
	33-50-00-970-801	

ARO ALL



#### B. Procedure

NOTE: Components in the emergency lighting system are not included here. Refer to the Emergency Lights - Index (TASK 33-50-00-970-801).

#### SUBTASK 33-20-00-970-001

(1) If it is necessary to replace a lamp, use the applicable task that follows:

#### ARO 001-006

(a) Indirect Ceiling Light - Lamp Replacement (TASK 33-21-01-960-801)

## **ARO ALL**

- (b) Night Light Lamp Replacement (TASK 33-21-02-960-801)
- (c) Attendant Work Light Lamp Replacement (TASK 33-22-01-960-801)
- (d) Direct Ceiling Light Lamp Replacement (TASK 33-22-02-960-801)
- (e) Entry Light Lamp Replacement (TASK 33-22-03-960-801)
- (f) Standby (ETOPS) Light Lamp Replacement (TASK 33-22-04-960-801)
- (g) Closet Light Lamp Replacement (TASK 33-22-05-960-801)
- (h) Reading Light Lamp Replacement (TASK 33-23-00-960-801)
- (i) Information Sign Lamp Replacement (TASK 33-24-00-960-801)
- (j) Lavatory Call Light Lamp Replacement (TASK 33-25-01-960-801)
- (k) Lavatory Call Switch Lamp Replacement (TASK 33-25-01-960-802)
- (I) Master Call Light Module Lamp Replacement (TASK 33-25-02-960-801)
- (m) Lavatory-Occupied Sign Light Assembly Replacement (TASK 33-26-00-960-804)
- (n) Lavatory Fluorescent Light Assembly Lamp Replacement (TASK 33-26-00-960-805)
- (o) Lavatory-Occupied Sign Lamp Replacement (TASK 33-26-00-960-801)
- (p) Galley Light Lamp Replacement, Fluorescent (TASK 33-27-00-960-801)
- (g) Galley Light Lamp Replacement, Standby (TASK 33-27-00-960-803)
- (r) Galley Light Lamp Replacement, Incandescent (TASK 33-27-00-960-802)
- (s) Passenger Call Light Lamp Replacement (TASK 33-28-00-960-801)
- (t) For the Flight Crew Rest (FCR), use these tasks:
  - 1) FCR Area/Reading Light Lamp Replacement (TASK 33-29-03-710-801)
  - 2) FCR No-Smoking/Fasten-Seat-Belt Sign Lamp Replacement (TASK 33-29-03-710-804)
  - 3) FCR Lavatory-Occupied Sign Lamp Replacement (TASK 33-29-03-710-805)
  - 4) FCR Call Reset Switch Lamp Replacement (TASK 33-29-03-710-806)
  - 5) FCR Night Light Lamp Replacement (TASK 33-29-03-710-803)
  - 6) FCR Step/Handle Light Lamp Replacement (TASK 33-29-03-710-802)

#### SUBTASK 33-20-00-970-002

- (2) If it is necessary to replace a light assembly, use the applicable task that follows:
  - (a) Indirect Ceiling Light Light Assembly Replacement (TASK 33-21-01-960-802)
  - (b) Sidewall Light Light Assembly Replacement (TASK 33-21-03-960-802)
  - (c) Reading Light Light Assembly Replacement (TASK 33-23-00-960-802)

ARO ALL



- (d) Information Sign Light Assembly Replacement (TASK 33-24-00-960-802 or TASK 33-24-00-960-801)
- (e) Master Call Light Module Light Assembly Replacement (TASK 33-25-02-960-802)
- (f) Lavatory-Occupied Sign Light Assembly Replacement (TASK 33-26-00-960-802)
- (g) Lavatory Dome Light Lamp/Light Assembly Replacement (TASK 33-26-00-960-804)
- (h) Lavatory Lock-Door Sign Light Assembly Replacement (TASK 33-26-00-960-803)

#### SUBTASK 33-20-00-970-003

- (3) If it is necessary to replace a ballast, use the applicable task that follows:
  - NOTE: The ballast for the indirect ceiling light or sidewall light is part of the light assembly. If the ballast does not operate, replace the light assembly. The light assembly can be repaired in a shop.
  - (a) Direct Ceiling Light Ballast Replacement (TASK 33-22-02-960-802)
  - (b) Entry Light Ballast Replacement (TASK 33-22-03-960-802)
  - (c) Lavatory Ballast Replacement (TASK 33-26-00-960-806)
  - (d) Galley Light Ballast Replacement (TASK 33-27-00-960-804)

#### SUBTASK 33-20-00-970-004

- (4) If it is necessary to replace an attendant switch panel (ASP) or its components, use the applicable task that follows:
  - (a) Attendant Switch Panel (ASP) Panel Replacement (TASK 33-22-06-960-801)
  - (b) Attendant Switch Panel (ASP) Switch Replacement (TASK 33-22-06-960-805)

#### SUBTASK 33-20-00-960-001

(5) If it is necessary to replace the applicable area lighting controller, do this task: Area Lighting Controller Replacement, TASK 33-21-07-960-802.

------ END OF TASK ------

ARO ALL 33-20-00



### PASSENGER COMPARTMENT LIGHTS - ADJUSTMENT/TEST

#### 1. General

- A. This procedure has one task:
  - (1) Passenger Compartment Lights Operational Test Using the Cabin/Utility Switch

## TASK 33-20-00-710-801

# 2. Passenger Compartment Lights - Operational Test Using the Cabin/Utility Switch

#### A. General

(1) This test makes sure the cabin/utility switch on the overhead panel, P5, correctly operates selected passenger compartment lights.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-21-1x	Wiring Diagram Manual
WDM 33-22-3X	Wiring Diagram Manual
WDM 33-22-40	Wiring Diagram Manual
WDM 33-22-41	Wiring Diagram Manual
WDM 33-22-45	Wiring Diagram Manual
WDM 33-23-1x	Wiring Diagram Manual
WDM 33-27-1X	Wiring Diagram Manual

### C. Procedure

SUBTASK 33-20-00-860-001

(1) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-20-00-710-001

- (2) Do a test of the passenger compartment lights using the cabin/utility switch:
  - (a) Set the cabin/utility switch to the ON position.
  - (b) At the CSCP (Cabin Systems Control Panel), set all passenger compartment lights to the on mode.
    - 1) On the CABIN MAINTENANCE menu, touch CABIN TESTS.
    - 2) When the screen changes, touch LAMP TESTS.
    - 3) On the LAMP TEST menu, make the applicable selections.
    - 4) Make sure that the sidewall and the ceiling lights in the passenger compartment come on.
  - (c) Set the cabin/utility switch to the OFF position.
    - Make sure that the sidewall and the ceiling lights in the passenger compartment go
      off
    - Make sure these lights are on:
      - a) Night lights (WDM 33-21-1x)
      - b) Attendant work lights (WDM 33-22-3X, WDM 33-22-40)
      - c) Reading lights (WDM 33-23-1x)

ARO ALL



- d) Supplemental lights (WDM 33-27-1X)(WDM 33-22-41 thru WDM 33-22-45)
   NOTE: Supplemental lights are also referred to as standby lights or ETOPS lights.
- (d) Set the cabin/utility switch back to the ON position.

#### SUBTASK 33-20-00-860-002

- (3) Put the CSCP back to its usual condition.
  - (a) On the LAMP TEST menu, touch MAIN MENU.
  - (b) If a note appears on the screen, read it, then follow the instructions.
  - (c) If the CABIN MAINTENANCE menus are not necessary, touch EXIT.

	<b>END</b>	OF '	<b>TASK</b>	
--	------------	------	-------------	--

ARO ALL



### PASSENGER COMPARTMENT ILLUMINATION - ADJUSTMENT/TEST

## 1. General

- A. This procedure has one task:
  - (1) Passenger Compartment Illumination Operational Test

## TASK 33-21-00-710-801

# 2. Passenger Compartment Illumination - Operational Test

#### A. General

- (1) This test makes sure these lights operate:
  - (a) Indirect ceiling lights
  - (b) Night lights
  - (c) Sidewall lights

## ARO 016-999; ARO 001-015 POST SB 777-23-0367

- (2) Some or all of the following conditions may occur following a light fixture cold start for either the indirect ceiling lights or the sidewall lights:
  - (a) Unintended response of fluorescent tubes
  - (b) Light fixtures stop communicating with the Area Lighting Controller (ALC), that is they may appear stuck, in the middle of a scene
  - (c) Fluorescent tubes turn off
  - (d) Unintended response of Color LEDs
  - (e) Passenger compartment illumination does not respond to commands and remains at current lighting setting.

## ARO 001-015 PRE SB 777-23-0367

- (3) Some or all of the following conditions may occur for either the indirect ceiling lights or the sidewall lights:
  - (a) Unintended response of fluorescent tubes
  - (b) Light fixtures stop communicating with the Area Lighting Controller (ALC), that is they may appear stuck, in the middle of a scene
  - (c) Fluorescent tubes turn off
  - (d) Unintended response of Color LEDs
  - (e) Passenger compartment illumination does not respond to commands and remains at current lighting setting.

# **ARO ALL**

- (4) If any of the above conditions occur after a cold start of light fixtures with color LEDs, ensure that the lights are on and then run a lighting scene that turns the fluorescent tubes off.
  - (a) If some lights fixtures do not turn off, cycle power to the ALCs and light fixtures and then repeat the tube turn off scene.

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-21-11	Wiring Diagram Manual

ARO ALL



# (Continued)

Reference	Title
WDM 33-21-47	Wiring Diagram Manual

## C. Location Zones

Zone	Area				
200	Upper Half of Fuselage				

# D. Procedure

#### SUBTASK 33-21-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-21-00-710-011

- (2) Test the ALC and CSCP/CACP light switches at the Attendant Switch Panel (ASP) of door 1 Right, do the following steps:
  - (a) Make sure that these circuit breakers are closed:

# Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
Α	16	C23400	CAB SYS MGMT UNIT
F	1	C23415	ZONE MGMT UNIT 1
Н	4	C23419	ZONE MGMT UNIT 3
L	8	C23660	AREA LIGHTING CONT 1

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	9	C23444	AREA CONTROL PANELS
Е	25	C23417	ZONE MGMT UNIT 2
G	23	C23463	ZONE MGMT UNIT 4
L	16	C23661	AREA LIGHTING CONT 2

(b) Make sure that these circuit breakers are closed:

# Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	6	C23632	PAX ADRS CTRL PRI
F	7	C23633	PAX ADRS CTRL SEC

(c) Make sure that these circuit breakers are closed:

# **Ground Service/Handling Power Panel, P320**

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

ARO ALL 33-21-00



(d) Make sure the CSCP and all CACP's have power.

NOTE: The touch screens will be illuminated and operational.

#### ARO 016-999; ARO 001-015 POST SB 777-23-0367

(e) Press the CSCP/CACP power switch on the Attendant Switch Panel (ASP) at Door 1 Right.

NOTE: The cabin lights will dim after the switch is pressed.

#### ARO 001-015 PRE SB 777-23-0367

(f) Press the CSCP/CACP power switch on the Attendant Switch Panel (ASP) at Door 1 Right.

NOTE: The cabin lights will dim after the switch is pressed if a scene has not been run since the system was last powered up.

#### **ARO ALL**

- (g) Make sure that the OFF light comes on.
- (h) Make sure that the CSCP and all the CACP screens are blank.
- (i) Touch the CSCP and CACP screens.
  - 1) Make sure that the screens do not come on.
- (j) Press the CSCP/CACP power switch on the ASP at Door 1 Right.
- (k) Make sure the OFF light does not come on.
- (I) Make sure that the CSCP/CACP panels go back to their usual menus after initialization.
- (m) Use the CSCP to do the Scene Selection:
  - 1) Touch these selections on the CSCP:
    - a) CABIN CONTROLS
    - b) CABIN LIGHTING
    - c) ALL AREAS
    - d) STANDARD SCENE HIGH (OR EQUIVALENT)
    - e) START SCENE
- (n) Press the ALC power switch on the ASP at Door 1 Right.
- (o) Make sure that the OFF light comes on.
- (p) Make sure that the main cabin indirect lights go to the default dim state after approximately 15 minutes.
- (q) Press the ALC power switch on the ASP at Door 1 Right.
- (r) Make sure that the OFF light does not come on.
- (s) Make sure that the main cabin indirect lights return to the HIGH or FULL bright state after the system is initialized again.

## ARO 007-999

SUBTASK 33-21-00-710-012

(3) Do a test of the indirect ceiling lights (WDM 33-21-11>>thru WDM 33-21-47>>):

ARO ALL



## ARO 007-999 (Continued)

- (a) At the CSCP, select the Cabin Maintenance menu (enter password as required).
  - NOTE: Select CABIN MAINTENANCE from the CABIN SYSTEM CONTROL PANEL menu. Then select CABIN TESTS. When the screen changes, touch LAMP TESTS.
- (b) Set the Indirect Ceiling lights to the bright mode.
  - 1) Make sure the lights come on white and bright.
- (c) Set the Indirect Ceiling lights to the off mode.
  - 1) Make sure the lights go off.
- (d) Set the Indirect Ceiling lights to the dim mode.
  - Make sure that the lights cycle continuously from Red to Green to Blue to White at medium brightness.

#### ARO ALL

#### SUBTASK 33-21-00-710-002

- (4) Do a test of the night lights (WDM 33-21-11 thru WDM 33-21-47):
  - (a) At the CSCP, set the lights to the on mode.
    - NOTE: Select CABIN MAINTENANCE from the CABIN SYSTEM CONTROL PANEL menu. Then select CABIN TESTS. When the screen changes, touch LAMPS TEST. On the pages associated with that menu, make the applicable selection.
    - 1) Make sure the lights come on.
      - NOTE: The indirect ceiling light must be off to see the night lights.
  - (b) Set the lights to the off mode.
    - Make sure the lights go off.

# ARO 001-006

#### SUBTASK 33-21-00-710-008

- (5) Do a test of the sidewall lights (WDM 33-21-11 thru WDM 33-21-47):
  - (a) At the CSCP, select the Cabin Maintenance menu (enter password as required).
    - NOTE: Select CABIN MAINTENANCE from the CABIN SYSTEM CONTROL PANEL menu. Then select CABIN TESTS. When the screen changes, touch LAMP TESTS.
  - (b) Set the lights to the bright mode.
    - 1) Make sure all the fluorescent lights come on brightly.
  - (c) Set the lights to the off mode.
    - 1) Make sure the fluorescent lights go off.
  - (d) Select the dim mode.
    - 1) Make sure the fluorescent bulbs go to dim and remain there.
    - Make sure that the Color Lighting Modules (CLM) in the fixtures cycle from Red to Green to Blue to Yellow every few seconds and repeat.
  - (e) Select ALL OFF on the screen.
    - Make sure all the Indirect Sidewall light fixtures are off.

ARO ALL 33-21-00



#### ARO 007-999

SUBTASK 33-21-00-710-013

- (6) Do a test of the sidewall lights (WDM 33-21-11>>thru WDM 33-21-47>>):
  - (a) At CSCP, select the Cabin Maintenance menu (enter password as required).
    - NOTE: Select CABIN MAINTENANCE from the CABIN SYSTEM CONTROL PANEL menu. Then select CABIN TESTS. When the screen changes, touch LAMP TESTS.
  - (b) Set the lights to the bright mode.
    - 1) Make sure the lights come on white and bright.
  - (c) Set the lights to the off mode.
    - 1) Make sure the lights go off.
  - (d) Set the Indirect to the dim mode.
    - Make sure that the lights cycle continuously from Red to Green to Blue to White at medium brightness.

#### **ARO ALL**

SUBTASK 33-21-00-860-002

- (7) Put the CSCP back to its usual condition.
  - NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

——— END OF TASK ———



### **INDIRECT CEILING LIGHTS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has these tasks:
  - (1) Indirect Ceiling Light Lamp Replacement
    - NOTE: LED indirect lights are not replaceable item. If it fails, replace the fixture with new one.
  - (2) Indirect Ceiling Light Light Assembly Replacement
  - (3) Indirect Ceiling Light Light Shield Fastener Identification and Removal
  - (4) Indirect Ceiling Lights Light Block Installation
- B. If there is a problem with the ballast, replace the light assembly.

## ARO 001-006

## TASK 33-21-01-960-801

2. Indirect Ceiling Light - Lamp Replacement

(Figure 201)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-21-11	Wiring Diagram Manual
WDM 33-21-47	Wiring Diagram Manual

## **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

# C. Procedure

SUBTASK 33-21-01-960-001



DO NOT TOUCH THE SOCKETS OF THE METAL ENDS OF THE LAMP. WHEN YOU SUPPLY ELECTRICAL POWER TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp [1] (WDM 33-21-11 thru WDM 33-21-47):
  - (a) Remove the lamp [1].
    - 1) Push the lever [2] on the end of the light assembly [3] to eject the lamp [1].
  - (b) Do these steps to install the new lamp [1].
    - 1) Put the lamp [1] in the fixture with the pins over the contacts in the lamp holders.
    - 2) Push down on the ends of the lamp [1] to make sure it is installed correctly.

#### SUBTASK 33-21-01-860-020

(2) If the chassis connector is used, make sure to use it again during installation.

NOTE: The P2 ground connector is usually used on the front and aft lights of the "light chain".

## SUBTASK 33-21-01-860-001

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-21-01-710-001

(4) Do a test of the new lamp [1].

ARO ALL



# ARO 001-006 (Continued)

- (a) At the Cabin System Control Panel (CSCP), do the following steps:
  - 1) On the panel screen, make the following selections:
    - a) CABIN MAINTENANCE
    - b) CABIN TESTS
    - c) LAMPS TEST
    - d) Set the sidewall lights to the bright mode.
      - <1> Make sure the light comes on brightly.
    - e) Set the sidewall lights to the dim mode.
      - <1> Make sure the light changes to dim.
    - f) Set the sidewall lights to the off mode.
      - <1> Make sure the light goes off.

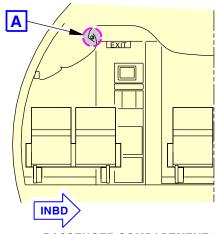
#### SUBTASK 33-21-01-860-006

- (5) Put the CSCP back to its usual condition.
  - (a) On the LAMPS TEST menu, select MAIN MENU
    - 1) If a note appears on the screen, read it, then follow the instructions.
  - (b) If the cabin maintenance menus are not necessary, select EXIT.

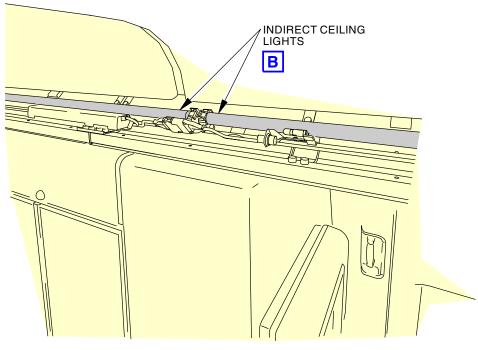
------ END OF TASK ------

ARO ALL





PASSENGER COMPARTMENT (VIEW IN THE FORWARD DIRECTION)



INDIRECT CEILING LIGHTS (LEFT SIDE IS SHOWN, RIGHT SIDE IS EQUIVALENT)



NOTE:

LIGHTSHIELDS NOT SHOWN FOR CLARITY.

D62798 S0000160259\_V2

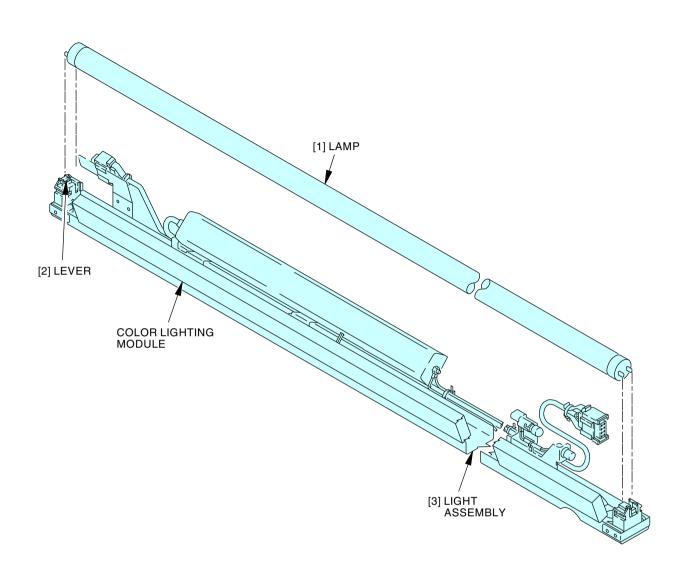
Indirect Ceiling Lights - Lamp Replacement Figure 201/33-21-01-990-807 (Sheet 1 of 2)

ARO 001-006

33-21-01

Page 203 Sep 05/2016





INDIRECT CEILING LIGHT (EXAMPLE)



D62576 S0000160171\_V2

Indirect Ceiling Lights - Lamp Replacement Figure 201/33-21-01-990-807 (Sheet 2 of 2)

ARO 001-006

33-21-01

Page 204 Sep 05/2016



## **ARO ALL**

#### TASK 33-21-01-960-802

3. Indirect Ceiling Light - Light Assembly Replacement

(Figure 202 or Figure 203)

## A. References

Reference	Title
23-39-00-400-808	Operational Program Software Installation (Phase II) (P/B 201)
23-39-00-470-801	Operational Program Software Installation (Phase II) (P/B 201)
23-39-00-700-802	Operational Program Software and Database Verification Test (P/B 201)
23-39-00-700-804	Operational Program Software and Database Verification Test (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-21-06-000-801	Main Ceiling Panel - Removal (P/B 401)
25-21-06-400-801	Main Ceiling Panel - Installation (P/B 401)
WDM 33-21-11	Wiring Diagram Manual
WDM 33-21-1X thru 33-21-41X	Wiring Diagram Manual
WDM 33-21-47	Wiring Diagram Manual

#### **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

## C. Procedure

SUBTASK 33-21-01-860-003

(1) Open the applicable circuit breaker for the indirect ceiling light and attach the DO-NOT-CLOSE tag:

(WDM 33-21-11 thru WDM 33-21-47)

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

#### SUBTASK 33-21-01-020-002

(2) If necessary, remove the adjacent ceiling panel (Main Ceiling Panel - Removal, TASK 25-21-06-000-801).

## SUBTASK 33-21-01-020-005

(3) If necessary, remove the light shield [26].

NOTE: Although light shield removal is recommended, it is possible to replace most light assemblies without doing these steps.

ARO ALL



- (a) Open the adjacent stow bins.
- (b) To remove the fasteners [25], do this task: Indirect Ceiling Light Light Shield Fastener Identification and Removal, TASK 33-21-01-000-801.

NOTE: Some of the fasteners along the length of the stow bins are used to install the light shield. Other fasteners install the stow bins and should not be removed.

1) For a light shield [26] at a transition area, also do these steps:

NOTE: There is a rigid area below one of the fasteners at each transition area. Access to the fasteners is not easy.

- a) Remove the two brackets that hold the trim strip in its position.
  - <1> If a cover is installed on the brackets, remove it first.
- b) Pull the trim strip loose for minimum access to the light shield fastener.
  - <1> Do not pull the trim strip off.
- c) Loosen the fastener with an offset screw driver.
- 2) Remove the light shield [26].

#### SUBTASK 33-21-01-960-011



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LAMP, ELECTRICAL SHOCK CAN OCCUR. THIS CAN CAUSE INJURIES TO PERSONNEL.

- (4) Do these steps to replace the light assembly [3]:
  - (a) Disconnect the electrical connector [23].
  - (b) Remove the fasteners [21], fastener [24], washers [22] and washers [28].
  - (c) Remove the light assembly [3].
  - (d) If a termination plug is installed on the removed light assembly then remove the plug.
    - 1) Put the termination plug on the light assembly [3] that will be installed.

NOTE: A termination plug will be installed on the last lighting fixture in the area light control zone (WDM 33-21-1X thru 33-21-41X).

- (e) Put the new light assembly [3] in its position.
- (f) Install the fasteners [21], fastener [24], washers [22] and washers [28].
  - 1) Make sure the electrical wires do not rub between the light assembly [3] and the stow bin.
    - a) Put the electrical wires through the routing in the bottom of the light assembly [3].
- (g) Connect the electrical connector [23].

#### SUBTASK 33-21-01-960-012



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LAMP, ELECTRICAL SHOCK CAN OCCUR. THIS CAN CAUSE INJURIES TO PERSONNEL.

(5) Do these steps to replace the light assembly [3]:

NOTE: This is for the segmented ceiling light assemblies in the first class cabin.

(a) Disconnect the electrical connectors [23].

ARO ALL

33-21-01

Page 206 Jan 05/2018



- (b) Remove the screws [31] and washers [32].
- (c) Remove the light assembly [3] and tray [30].
- (d) Remove the light assembly [3] from the tray [30]:
  - 1) Pull the light assembly [3] from the retainer clips [29] to remove from the tray [30]. NOTE: There are two clips per light.
  - 2) Remove the jumper assemblies [35].
  - 3) Remove the screws [33] and washers [34].
  - 4) Carefully remove the light assembly [3] from the tray [30].
- (e) Install the light assembly [3] to the tray [30]:
  - 1) Carefully put the light assembly [3] into its position on the tray [30].
  - 2) Put the wires around the supports.
  - 3) Install the screws [33] and washers [34].
  - 4) Install the jumper assemblies [35].
  - 5) Push the light assembly [3] onto the retainer clips [29] to attach to the tray [30]. <a href="NOTE">NOTE</a>: There are two clips for each light.
- (f) Put the new light assembly [3] and tray [30] into its position.
- (g) Install the screws [31] and washers [32].
- (h) Connect the electrical connector [23].

#### SUBTASK 33-21-01-860-021

(6) If the chassis connector is used, make sure to use it again during installation.

NOTE: The P2 ground connector is usually used on the front and aft lights of the "light chain".

#### SUBTASK 33-21-01-860-004

(7) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

## SUBTASK 33-21-01-860-005

(8) Remove the safety tags and close these circuit breakers:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

#### SUBTASK 33-21-01-710-009

(9) Do these tasks:

## ARO 001-015 PRE SB 777-23-0369

- (a) Operational Program Software Installation (Phase II), TASK 23-39-00-400-808.
  - 1) Do subtask 23-39-00-420-027 and install the OPS for the LF.

ARO ALL



## ARO 016-999; ARO 001-015 POST SB 777-23-0369

- (b) Operational Program Software Installation (Phase II), TASK 23-39-00-470-801
  - 1) Install the OPS for the LF.

## **ARO ALL**

- (c) Operational Program Software and Database Verification Test, TASK 23-39-00-700-802 or Operational Program Software and Database Verification Test, TASK 23-39-00-700-804.
  - 1) Verify the correct OPS software part number is installed on the replaced LF(s).

#### SUBTASK 33-21-01-710-002

- (10) Do a test of the new light assembly [3].
  - (a) At the Cabin System Control Panel (CSCP), do the following steps:
    - 1) On the panel screen, make the following selections:
      - a) CABIN MAINTENANCE
      - b) CABIN TESTS
      - c) LAMPS TEST
      - d) Set the sidewall lights to the bright mode.
        - <1> Make sure the light comes on brightly.
      - e) Set the sidewall lights to the dim mode.
        - <1> Make sure the light changes to dim.
      - f) Set the sidewall lights to the off mode.
        - <1> Make sure the light goes off.

## SUBTASK 33-21-01-860-008

- (11) Put the CSCP back to its usual condition.
  - (a) On the lamp test menu, touch MAIN MENU.
    - 1) If a note appears on the screen, read it, then follow the instructions.
  - (b) If the cabin maintenance menus are not necessary, select EXIT.

# SUBTASK 33-21-01-420-001

(12) If necessary, install the adjacent ceiling panel (Main Ceiling Panel - Installation, TASK 25-21-06-400-801).

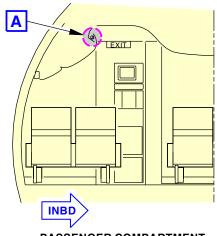
#### SUBTASK 33-21-01-420-004

- (13) If necessary, install the light shield [26].
  - (a) Put the light shield in its position.
  - (b) Install the fasteners [25] for the light shield [26].
    - 1) For a light shield [26] at a transition area, also do the following steps:
      - a) Tighten the fastener with an offset screw driver.
      - b) Move the trim strip to its usual position.
      - c) Install the two brackets that hold the trim strip in its position.
        - <1> If there was a cover on the brackets, install it.
  - (c) Close the stow bins.

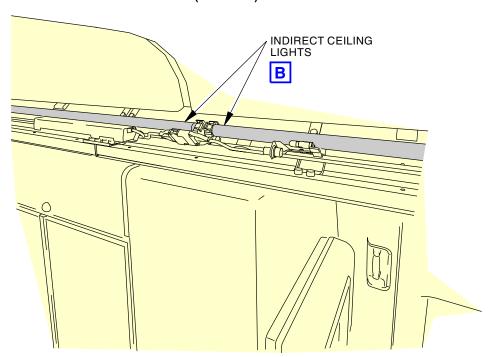
	<b>END</b>	OF	TASK	
--	------------	----	------	--

ARO ALL





PASSENGER COMPARTMENT (EXAMPLE)



INDIRECT CEILING LIGHTS (LEFT SIDE IS SHOWN, RIGHT SIDE IS EQUIVALENT)



NOTE:

LIGHTSHIELDS NOT SHOWN FOR CLARITY.

W47110 S0000123572\_V3

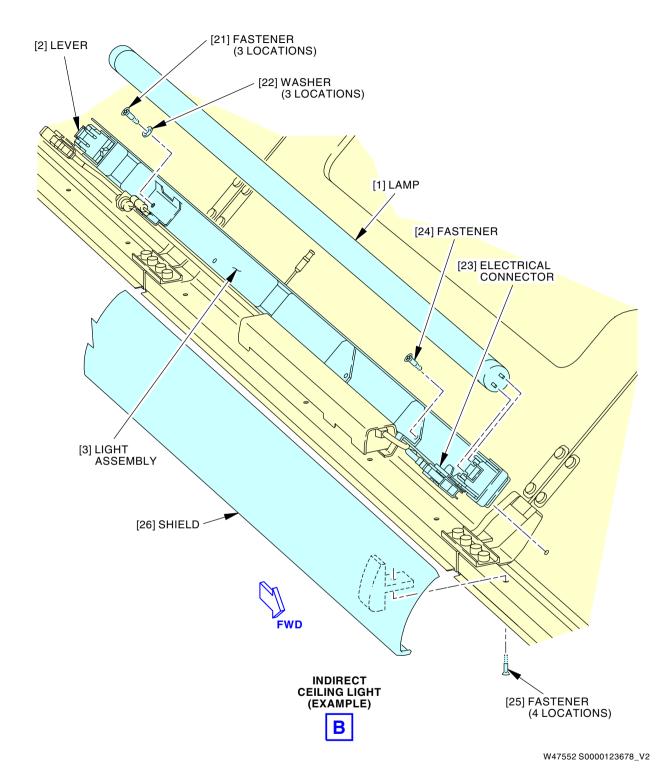
Indirect Ceiling Light - Light Assembly Replacement Figure 202/33-21-01-990-808 (Sheet 1 of 2)

ARO ALL

33-21-01

Page 209 Jan 05/2018





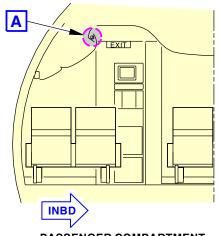
Indirect Ceiling Light - Light Assembly Replacement Figure 202/33-21-01-990-808 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

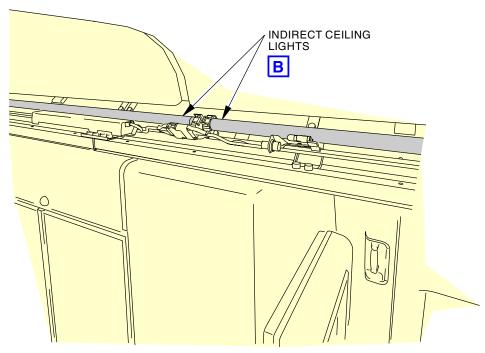
33-21-01

Page 210 Sep 05/2016





PASSENGER COMPARTMENT (EXAMPLE)



INDIRECT CEILING LIGHTS (LEFT SIDE IS SHOWN, RIGHT SIDE IS EQUIVALENT)



NOTE:

LIGHTSHIELDS NOT SHOWN FOR CLARITY.

W47110 S0000123572\_V3

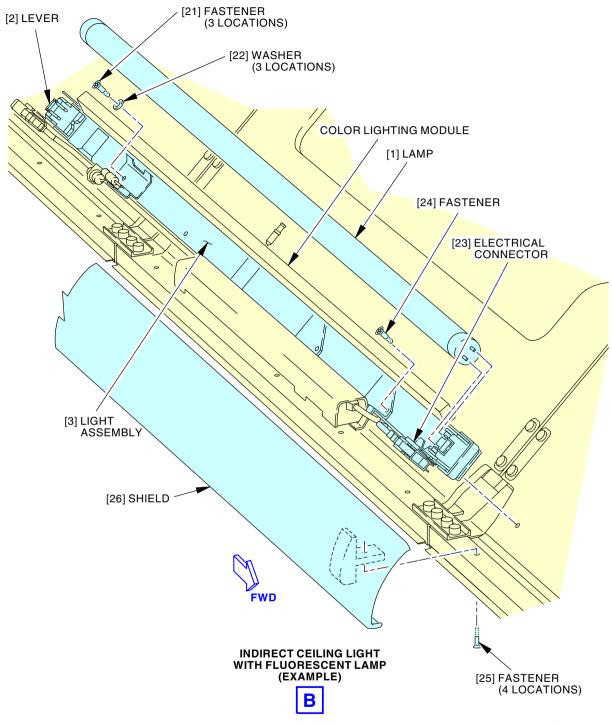
Indirect Ceiling Light - Light Assembly Replacement Figure 203/33-21-01-990-813 (Sheet 1 of 5)

ARO ALL

33-21-01

Page 211 Jan 05/2018





D62700 S0000160202\_V3

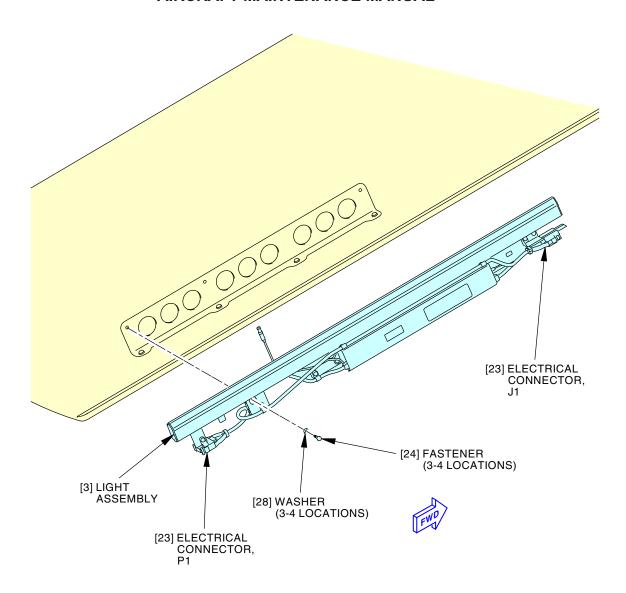
Indirect Ceiling Light - Light Assembly Replacement Figure 203/33-21-01-990-813 (Sheet 2 of 5)

ARO ALL
D633W101-ARO

33-21-01

Page 212 Jan 05/2018





COLOR ENHANCED LIGHTING SYSTEM (CELS)
- INDIRECT CEILING LIGHT
(EXAMPLE)



NOTE:

THE LIGHT ASSEMBLY LENGTH, FASTENER QUANTITY AND ADJACENT STRUCTURE CAN BE DIFFERENT.

2324160 S0000527466\_V3

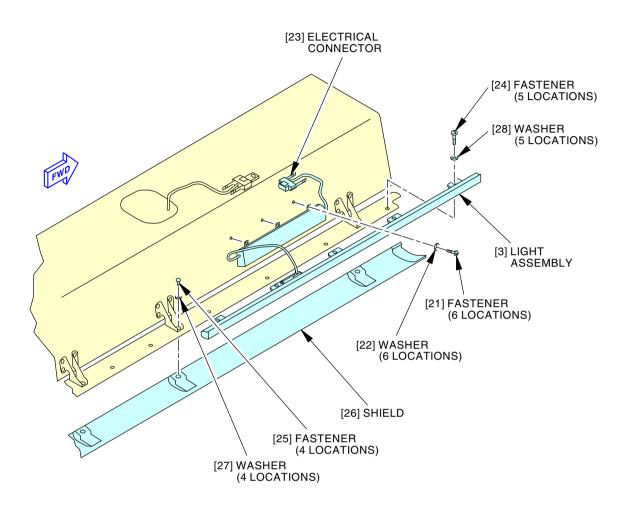
Indirect Ceiling Light - Light Assembly Replacement Figure 203/33-21-01-990-813 (Sheet 3 of 5)

ARO ALL
D633W101-ARO

33-21-01

Page 213 Jan 05/2018





COLOR ENHANCED LIGHTING SYSTEM (CELS)
- INDIRECT COLOR LED LIGHT (ICLL)
(EXAMPLE)



NOTE:

NOT INSTALLED IN THE TYPICAL INDIRECT CEILING LIGHT LOCATIONS

1323838 S0000233476\_V3

Indirect Ceiling Light - Light Assembly Replacement Figure 203/33-21-01-990-813 (Sheet 4 of 5)

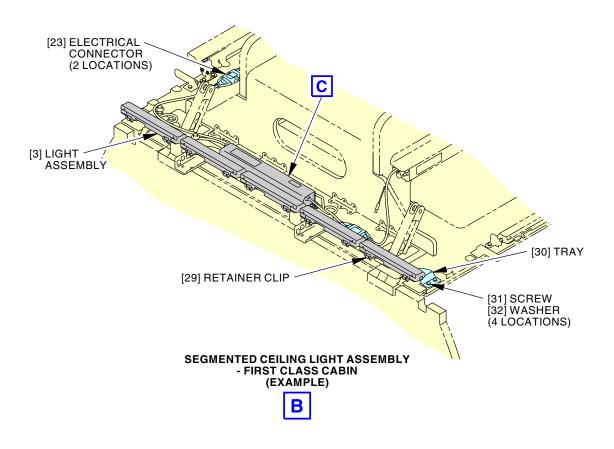
ARO ALL

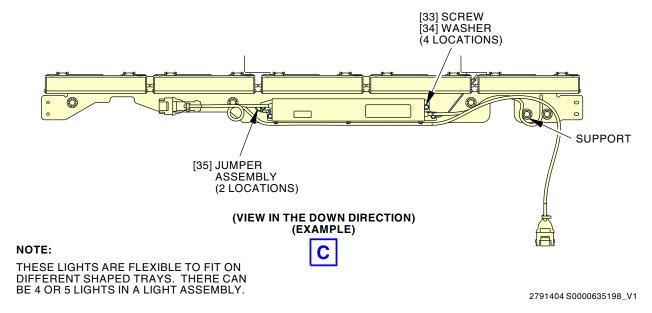
33-21-01

Page 214 Jan 05/2018

D633W101-ARO







# Indirect Ceiling Light - Light Assembly Replacement Figure 203/33-21-01-990-813 (Sheet 5 of 5)

EFFECTIVITY

ARO ALL

Page 215

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



#### TASK 33-21-01-000-801

4. <u>Indirect Ceiling Light - Light Shield Fastener Identification and Removal</u>

(Figure 204)

### A. Tools/Equipment

Reference	Description
STD-600	Mirror - Inspection
STD-1294	Measurer - Tape (or similar)

#### **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

#### SUBTASK 33-21-01-970-001

(1) Do these steps to find the location of each light shield fastener [25]:

Use a tape measurer, STD-1294 to find fastener locations.

- (a) If the forward end of the light shield [26] aligns with the forward end of a stow bin, then measure approximately 3.5 in. (88.9 mm) to find the first fastener location.
  - 1) If the aft end of the light shield [26] aligns with the aft end of a stow bin, then measure approximately 3.5 in. (88.9 mm) from the aft end of the light shield [26] to find the last fastener location.
  - 2) If the aft end of the light shield [26] does not align with the aft end of a stow bin, then measure approximately 10.5 in. (266.7 mm) from the aft end of the light shield [26] to find the last fastener location.
  - 3) For a 42-inch Light Shield, measure 14 in. (356 mm) aft of the first fastener to find the second one.
    - a) If you did not find one, measure 21 in. (533 mm) aft of the first fastener.
  - 4) For a 63-inch Light Shield, measure 28 in. (711 mm) aft of the first fastener.
  - 5) For an 84-inch Light Shield, measure 28 in. (711 mm) aft of the first one.
    - a) For the third fastener, measure 21 in. (533 mm) aft of the second one.
- (b) If the forward end of the light shield [26] does not align with the forward end of a stow bin, then measure approximately 10.5 in. (267 mm) to find the first fastener location.
  - 1) Measure approximately 3.5 in. (89 mm) from the aft end of the light shield [26] to find the last fastener location.
  - 2) For a 63-inch Light Shield, measure 21 in. (533 mm) aft of the first fastener to find the second one.
  - 3) For an 84-inch Light shield, measure 21 in. (533 mm) aft.
  - 4) For an 84-inch Light Shield, measure 21 in. (533 mm) aft of the first fastener to find the second one.
    - a) For the third fastener, measure 21 in. (533 mm) aft of the second one.

## SUBTASK 33-21-01-210-001

(2) Use a inspection mirror, STD-600 to make sure each fastener extends to the bracket on the outboard side of the light shield [26].

SUBTASK 33-21-01-020-006

(3) Remove each fastener [25].

ARO ALL



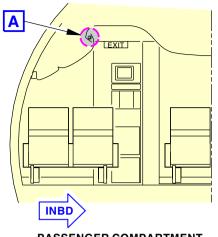
SUBTASK 33-21-01-930-001

(4)	Make a permanent mark around each fastener hole.
-----	--

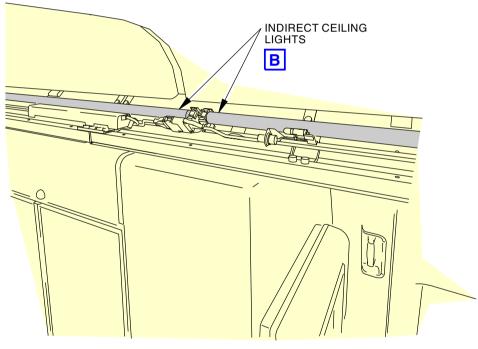
----- END OF TASK -----

ARO ALL





PASSENGER COMPARTMENT (VIEW IN THE FORWARD DIRECTION)



INDIRECT CEILING LIGHTS (LEFT SIDE IS SHOWN, RIGHT SIDE IS EQUIVALENT)



NOTE:

LIGHTSHIELDS NOT SHOWN FOR CLARITY.

D62707 S0000160265\_V2

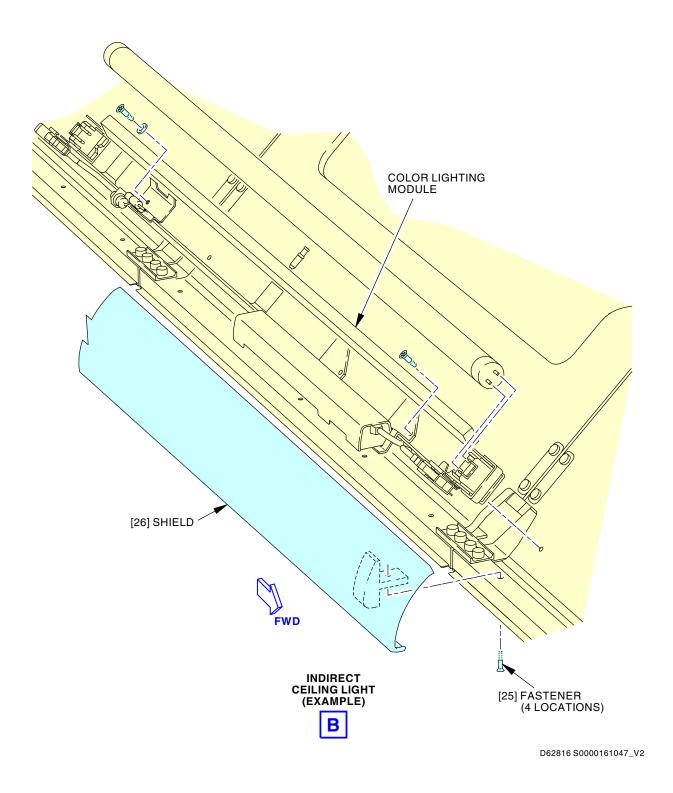
Indirect Ceiling Light - Light Shield Fastener Identification and Removal Figure 204/33-21-01-990-810 (Sheet 1 of 2)

ARO ALL

33-21-01

Page 218 Jan 05/2018





Indirect Ceiling Light - Light Shield Fastener Identification and Removal Figure 204/33-21-01-990-810 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

Page 219
D633W101-ARO
ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



#### TASK 33-21-01-420-801

### 5. Indirect Ceiling Lights - Light Block Installation

#### A. Consumable Materials

Reference	Description	Specification
G00291	Tape - Aluminum Foil, Scotch 425	AMS-T-23397 / L-T-80
G50814	Tube - Flexible, Flame-Retardant, General	AMS-DTL-23053/5
	Purpose, Polyolefin Tubing (Tyco Electronics	Class 2
	RNF-100 Type 2)	

#### B. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

#### SUBTASK 33-21-01-420-005

- (1) For flourescent tubes, do the following steps:
  - (a) Install 7.40  $\pm$ 0.12 in. (18.80  $\pm$ 0.31 cm) of RNF-100 heat-shrink tubing, G50814 over the lamp and metal end cap.
  - (b) Heat shrink the outer edge of the metal cap first.
    - 1) Make sure the RNF-100 heat-shrink tubing, G50814 does not extend beyond the outer edge of the metal cap.
  - (c) While the RNF-100 heat-shrink tubing, G50814 shrinks, adjust the RNF-100 heat-shrink tubing, G50814 so that it is flush with the outer edge of the metal cap.
    - 1) If necessary, trim the excess RNF-100 heat-shrink tubing, G50814.

#### SUBTASK 33-21-01-420-006

· EFFECTIVITY

**ARO ALL** 

- (2) For LED strips, do the following steps:
  - (a) Install 6.90 ±0.12 in. (17.53 ±0.31 cm) of Scotch 425 Aluminum Foil Tape, G00291, centered on the width of the LED strip.
    - 1) Center the Scotch 425 Aluminum Foil Tape, G00291 on the width of the LED strip.
  - (b) Fold the Scotch 425 Aluminum Foil Tape, G00291 over each side of the LED strip to a length of 0.25 in. (0.64 cm).



33-21-01

Page 220 D633W101-ARO Jan 05/2018



#### **NIGHT LIGHTS - MAINTENANCE PRACTICES**

#### 1. General

- A. This procedure has this task:
  - (1) Night Light Lamp Replacement
- B. A night light is installed on the end of some indirect ceiling light assemblies.

#### TASK 33-21-02-960-801

## 2. Night Light - Lamp Replacement

(Figure 201)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-21-11	Wiring Diagram Manual
WDM 33-21-47	Wiring Diagram Manual

#### B. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

SUBTASK 33-21-02-960-001



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LAMP, ELECTRICAL SHOCK CAN OCCUR. THIS CAN CAUSE INJURIES TO PERSONNEL.

- (1) Do these steps to replace the lamp [1] (WDM 33-21-11 thru WDM 33-21-47).
  - (a) Reach over the light shield for access to the lamp [1].

NOTE: Do not remove the light shield.

(b) Replace the lamp [1].

#### SUBTASK 33-21-02-860-003

(2) If the chassis connector is used, make sure to use it again during installation.

NOTE: The P2 ground connector is usually used on the front and aft lights of the "light chain".

#### SUBTASK 33-21-02-860-001

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-21-02-710-001

- (4) Do a test of the new lamp.
  - (a) At the cabin system control panel (CSCP), set the night lights to the on mode.
    - 1) On the CABIN MAINTENANCE main menu, touch CABIN TESTS.
    - 2) On the CABIN TESTS menu, touch LAMPS TEST.
    - 3) On the LAMPS TEST menu, make the applicable selection.
    - 4) Make sure the new lamp comes on.
  - (b) Set the light to the off mode.

ARO ALL



1) Make sure the light goes off.

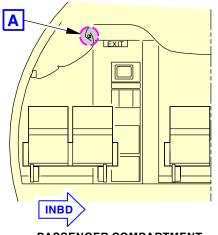
#### SUBTASK 33-21-02-860-002

- (5) Put the CSCP back to its usual condition.
  - (a) On the lamp test menu, touch MAIN MENU.
  - (b) If a note appears on the screen, read it, then follow the instructions.
  - (c) In the cabin maintenance menus are not necessary, touch EXIT.

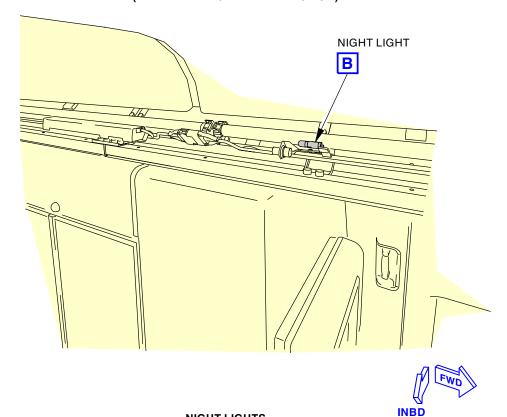
——— END OF TASK ———

ARO ALL





PASSENGER COMPARTMENT (VIEW IN THE FORWARD DIRECTION)



NIGHT LIGHTS (LEFT SIDE IS SHOWN, RIGHT SIDE IS EQUIVALENT)

NOTE:

LIGHTSHIELDS NOT SHOWN FOR CLARITY.



W48229 S0000124915\_V2

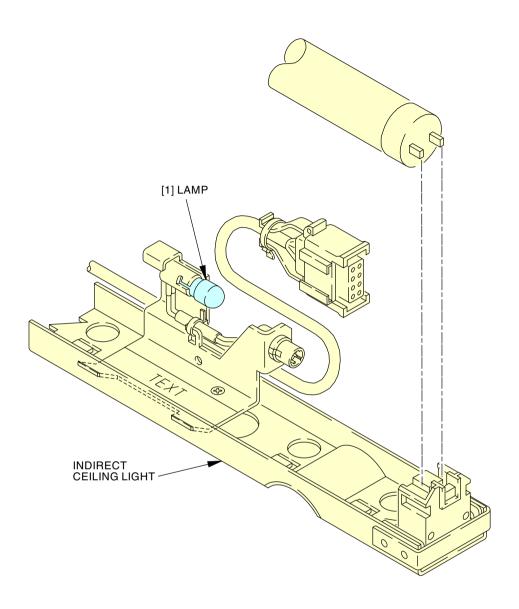
Night Light - Lamp Replacement Figure 201/33-21-02-990-802 (Sheet 1 of 2)

ARO ALL

33-21-02

Page 203 Sep 05/2016





NIGHT LIGHT (EXAMPLE)



W46358 S0000123689\_V2

Night Light - Lamp Replacement Figure 201/33-21-02-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-21-02

Page 204 Sep 05/2016



### **SIDEWALL LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has these tasks:
  - (1) Sidewall Light Light Assembly Replacement
  - (2) Sidewall Light Light Block Installation
- B. If there is a problem with the ballast, replace the light assembly.

#### TASK 33-21-03-960-802

## 2. Sidewall Light - Light Assembly Replacement

(Figure 201)

### A. References

Reference	Title
23-39-00-400-808	Operational Program Software Installation (Phase II) (P/B 201)
23-39-00-470-801	Operational Program Software Installation (Phase II) (P/B 201)
23-39-00-700-802	Operational Program Software and Database Verification Test (P/B 201)
23-39-00-700-804	Operational Program Software and Database Verification Test (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-21-11	Wiring Diagram Manual
WDM 33-21-1X	Wiring Diagram Manual
WDM 33-21-47	Wiring Diagram Manual

#### B. Consumable Materials

Reference	Description	Specification
A00016	Adhesive - Pressure Sensitive Film For Interior	BMS5-91
	Non-Structural Bonding	

### C. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

#### D. Procedure

SUBTASK 33-21-03-860-001

- (1) Open the applicable circuit breaker for the sidewall light and attach the DO-NOT-CLOSE tag (WDM 33-21-11 thru WDM 33-21-47):
  - (a) Open these circuit breakers and install safety tags:

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L

ARO ALL



(Continued)

### Ground Service/Handling Power Panel, P320

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
L	10	C33421	CABIN LTS MID AFT L

#### SUBTASK 33-21-03-960-002

- (2) Do these steps to replace the light assembly [1]:
  - (a) Open the adjacent panels.
  - (b) Disconnect the electrical connector [21].
  - (c) Remove the screws [23] and washers [22].
    - If a gap cover is attached to the end of the light assembly [1], remove the gap cover from the light assembly [1].
      - a) Make a note of the removal sequence.
  - (d) Remove the light assembly [1] and the filler panel [25], if one is attached.
  - (e) Remove the moisture barrier from the light assembly [1] and retain for later installation.
    - 1) Note the locations of the moisture barriers at different locations.
  - (f) If a termination plug is installed on the removed light assembly [1] then remove the plug.
    - 1) Put the termination plug on the light assembly [1] that will be installed.
      - NOTE: A termination plug will be installed on the last lighting fixture in the area light control zone (WDM 33-21-1X).
  - (g) Install the new light assembly [1] and the filler panel [25], if one is attached.
  - (h) Install the moisture barrier.
    - 1) Install moisture barrier with adhesive, A00016, 1 in. (25 mm) wide per BAC5801.
    - 2) Overlap and bond adjacent moisture barriers to each other using adhesive, A00016, Type II per BAC5801 as required.
    - For the light assembly [1] with filler panel attach fabric with adhesive, A00016, 1 in. (25 mm) wide per BAC5801 under outboard of the light ballast [24].
    - 4) For the light assembly [1] without filler panel attach fabric with adhesive, A00016, 1 in. (25 mm) wide per BAC5801 to bin strongback and under outboard of light ballast [24].
    - Ensure that the light ballast vents are not blocked by adhesive tape or fabric.
    - 6) Tuck fabric behind the sidewall to divert moisture outboard.
      - a) Avoid wire bundles and standoffs as much as possible.
  - (i) Install the washers [22] and screws [23].
    - 1) If a gap cover was removed from the old light assembly [1], attach it to the new light assembly [1].
    - 2) Align the ends of the light assembly [1] to be level with the adjacent light assemblies [1].
  - (j) Connect the electrical connector [21].
  - (k) Close the adjacent panels.

#### SUBTASK 33-21-03-860-003

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL



#### SUBTASK 33-21-03-860-004

(4) Remove the safety tags and close these circuit breakers:

### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

#### SUBTASK 33-21-03-710-005

(5) Do these tasks:

## ARO 001-015 PRE SB 777-23-0369

(a) Operational Program Software Installation (Phase II), TASK 23-39-00-400-808NOTE: It is only necessary to install the OPS for the LF.

#### ARO 016-999; ARO 001-015 POST SB 777-23-0369

(b) Operational Program Software Installation (Phase II), TASK 23-39-00-470-801NOTE: It is only necessary to install the OPS for the LF.

#### **ARO ALL**

- (c) Operational Program Software and Database Verification Test, TASK 23-39-00-700-802 or Operational Program Software and Database Verification Test, TASK 23-39-00-700-804.
  - 1) Verify the correct OPS software part number is installed on the replaced LF(s).

### SUBTASK 33-21-03-710-002

- (6) Do a test of the new light assembly [1].
  - (a) At the Cabin System Control Panel (CSCP), do the following steps:
    - 1) On the panel screen, make the following selections:
      - a) CABIN MAINTENANCE
      - b) CABIN TESTS
      - c) LAMPS TEST
      - d) Set the sidewall lights to the bright mode.
        - <1> Make sure the light comes on brightly.
      - e) Set the sidewall lights to the dim mode.
        - <1> Make sure the light changes to dim.
      - Set the sidewall lights to the off mode.
        - <1> Make sure the light goes off.

#### SUBTASK 33-21-03-860-006

- (7) Put the CSCP back to its usual condition.
  - (a) On the LAMPS TEST menu, select MAIN MENU

ARO ALL

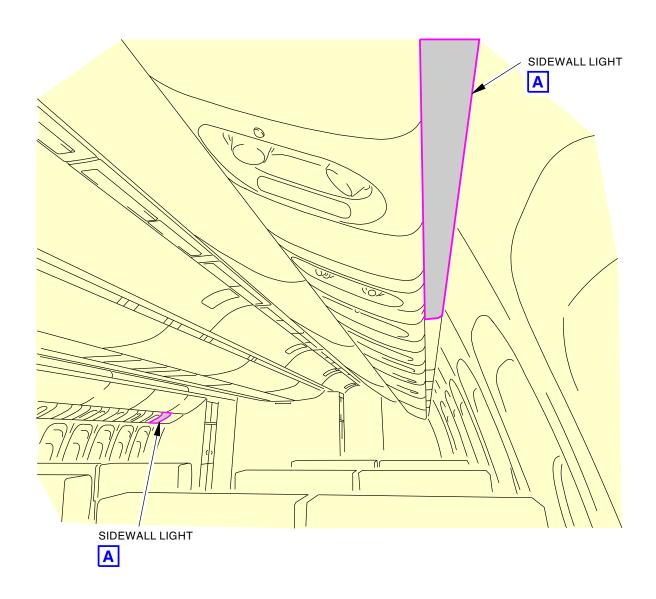


- 1) If a note appears on the screen, read it, then follow the instructions.
- (b) If the cabin maintenance menus are not necessary, select EXIT.

——— END OF TASK ———

ARO ALL





# PASSENGER COMPARTMENT (VIEW IN THE FORWARD DIRECTION)

W46832 S0000123831\_V2

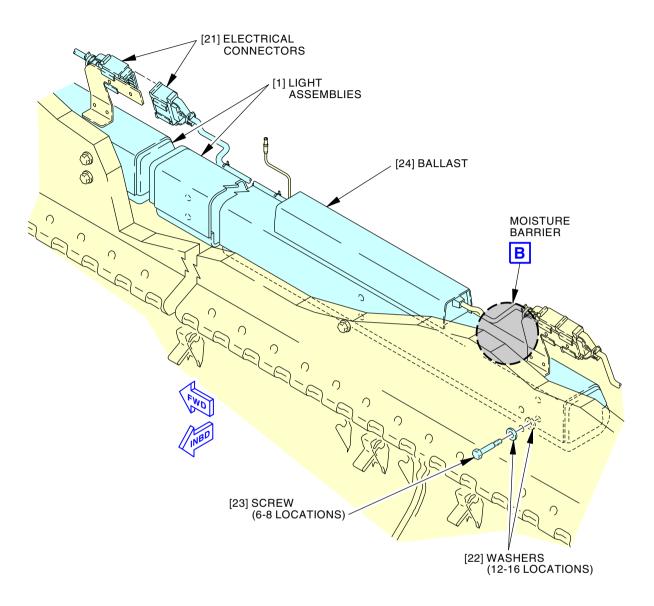
Sidewall Light - Light Assembly Replacement Figure 201/33-21-03-990-804 (Sheet 1 of 4)

ARO ALL
D633W101-ARO

33-21-03

Page 205 May 05/2017





SIDEWALL LIGHT WITHOUT FILLER PANEL (EXAMPLE)



W46613 S0000123854\_V3

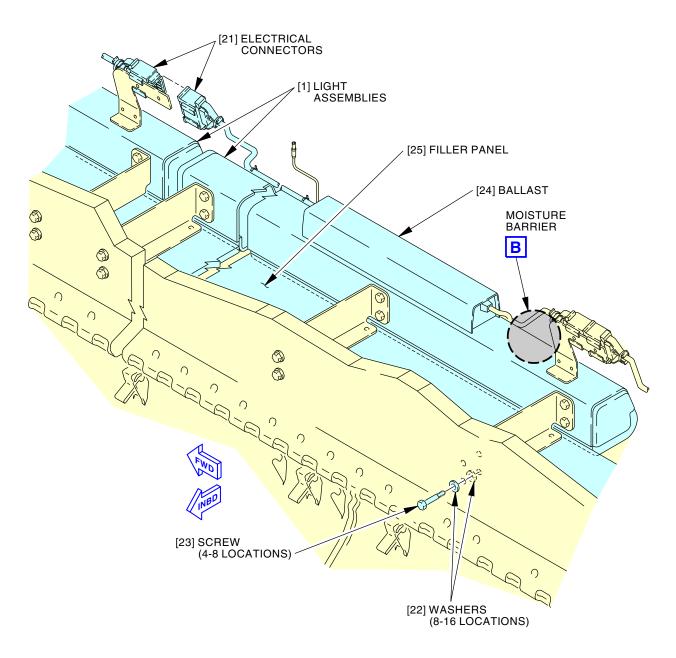
Sidewall Light - Light Assembly Replacement Figure 201/33-21-03-990-804 (Sheet 2 of 4)

ARO ALL

33-21-03

Page 206 May 05/2017





SIDEWALL LIGHT WITH FILLER PANEL (EXAMPLE)



W46868 S0000123855\_V3

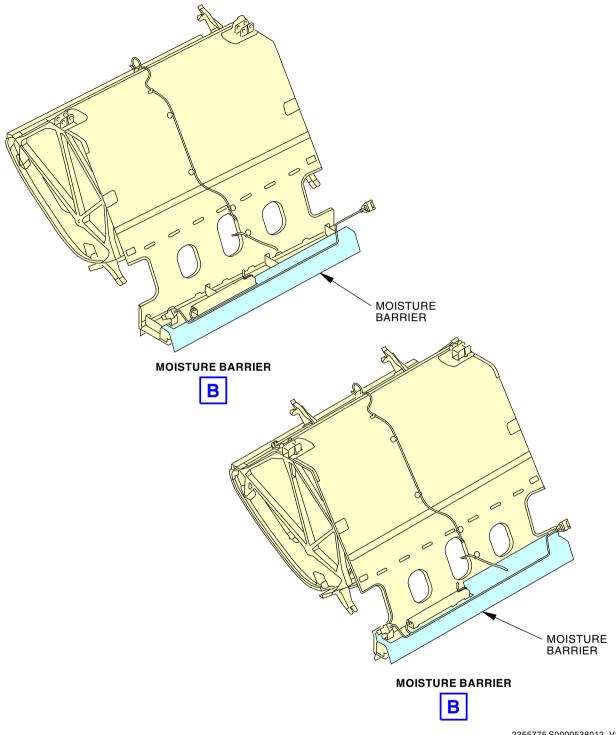
Sidewall Light - Light Assembly Replacement Figure 201/33-21-03-990-804 (Sheet 3 of 4)

ARO ALL
D633W101-ARO

33-21-03

Page 207 May 05/2017





2355775 S0000538012\_V2

Sidewall Light - Light Assembly Replacement Figure 201/33-21-03-990-804 (Sheet 4 of 4)

- EFFECTIVITY ARO ALL D633W101-ARO 33-21-03

Page 208 May 05/2017



#### TASK 33-21-03-420-801

### 3. Sidewall Light - Light Block Installation

#### A. Consumable Materials

Reference	Description	Specification
G00291	Tape - Aluminum Foil, Scotch 425	AMS-T-23397 / L-T-80
G50814	Tube - Flexible, Flame-Retardant, General	AMS-DTL-23053/5
	Purpose, Polyolefin Tubing (Tyco Electronics	Class 2
	RNF-100 Type 2)	

#### **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

#### SUBTASK 33-21-03-420-001

- (1) For flourescent tubes, do the following steps:
  - (a) Install 7.40 ±0.12 in. (18.80 ±0.31 cm) of RNF-100 heat-shrink tubing, G50814 over the lamp and metal end cap.
  - (b) Heat shrink the outer edge of the metal cap first.
    - 1) Make sure the RNF-100 heat-shrink tubing, G50814 does not extend beyond the outer edge of the metal cap.
  - (c) While the RNF-100 heat-shrink tubing, G50814 shrinks, adjust the RNF-100 heat-shrink tubing, G50814 so that it is flush with the outer edge of the metal cap.
    - 1) If necessary, trim the excess RNF-100 heat-shrink tubing, G50814.

#### SUBTASK 33-21-03-420-002

- (2) For LED strips, do the following steps:
  - (a) Install 6.90 ±0.12 in. (17.53 ±0.31 cm) of Scotch 425 Aluminum Foil Tape, G00291, centered on the width of the LED strip.
    - 1) Center the Scotch 425 Aluminum Foil Tape, G00291 on the width of the LED strip.
  - (b) Fold the Scotch 425 Aluminum Foil Tape, G00291 over each side of the LED strip to a length of 0.25 in. (0.64 cm).



33-21-03

**ARO ALL** 

EFFECTIVITY -



### **LIGHTING CONTROLLER - MAINTENANCE PRACTICES**

#### 1. General

- A. This procedure contains:
  - (1) Area Lighting Controller Replacement

#### TASK 33-21-07-960-802

### 2. Area Lighting Controller Replacement

(Figure 201)

### A. References

Reference	Title
23-39-00-700-802	Operational Program Software and Database Verification Test (P/B 201)
23-39-00-700-804	Operational Program Software and Database Verification Test (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
24-22-00-860-806	Remove Electrical Power (P/B 201)
25-21-06-000-801	Main Ceiling Panel - Removal (P/B 401)
25-21-06-400-801	Main Ceiling Panel - Installation (P/B 401)
33-21-00-710-801	Passenger Compartment Illumination - Operational Test (P/B 501)
WDM 23-33-16	Wiring Diagram Manual
WDM 33-21-11	Wiring Diagram Manual

#### **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

SUBTASK 33-21-07-860-001

(1) Open the applicable circuit breakers for the Area Lighting Controller and attach a DO-NOT-CLOSE tag:

WDM 23-33-16

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
L	8	C23660	AREA LIGHTING CONT 1

### **Right Power Management Panel, P210**

Row	Col	<u>Number</u>	<u>Name</u>	
L	16	C23661	AREA LIGHTING CONT 2	

#### SUBTASK 33-21-07-010-002

(2) Use the WDM 33-21-11 to locate the applicable Area Light Controller (ALC).

#### SUBTASK 33-21-07-010-001

- (3) Gain access to the ALC.
  - (a) To remove the ceiling panel, do this task: Main Ceiling Panel Removal, TASK 25-21-06-000-801.

ARO ALL



#### SUBTASK 33-21-07-960-001

- (4) Do these steps to replace the area light controller [1]:
  - (a) Disconnect the electrical connectors [2] from the area light controller [1].
  - (b) While supporting the area light controller [1] itself, carefully remove the four bolts [3] and washers [4] attaching it to the mounting plate.

NOTE: It is advisable to have two persons available to remove the ALC. It weighs about 8 pounds and could be difficult for one person to accomplish.

- (c) Remove the area light controller [1].
- (d) Position the new ALC on the mounting plate.

NOTE: It is advisable to have two persons available to install the ALC. It weighs about 8 pounds and could be difficult for one person to accomplish.

- (e) Install and tighten the four bolts [3] and washers [4].
- (f) Connect the electrical connectors [2].

#### SUBTASK 33-21-07-860-002

(5) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-21-07-860-003

(6) Remove the safety tags and close these circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
L	8	C23660	AREA LIGHTING CONT 1

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
L	16	C23661	AREA LIGHTING CONT 2

#### SUBTASK 33-21-07-710-001

- (7) Do a test of the new ALC.
  - (a) Operational Program Software and Database Verification Test, TASK 23-39-00-700-802 or Operational Program Software and Database Verification Test, TASK 23-39-00-700-804
  - (b) Passenger Compartment Illumination Operational Test, TASK 33-21-00-710-801

### SUBTASK 33-21-07-410-001

(8) To install the ceiling panel, do this task: Main Ceiling Panel - Installation, TASK 25-21-06-400-801.

#### SUBTASK 33-21-07-040-001

**EFFECTIVITY** 

**ARO ALL** 

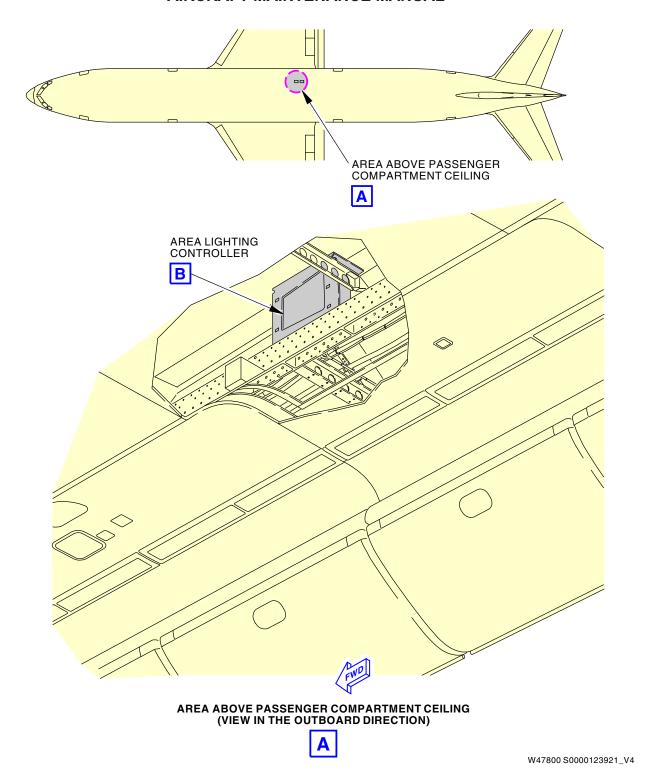
(9) If necessary, remove electrical power (TASK 24-22-00-860-806).

	_		
		TASK	
	UL	IASN	

33-21-07

Page 202 D633W101-ARO Jan 05/2018





Area Lighting Controller Replacement Figure 201/33-21-07-990-801 (Sheet 1 of 2)

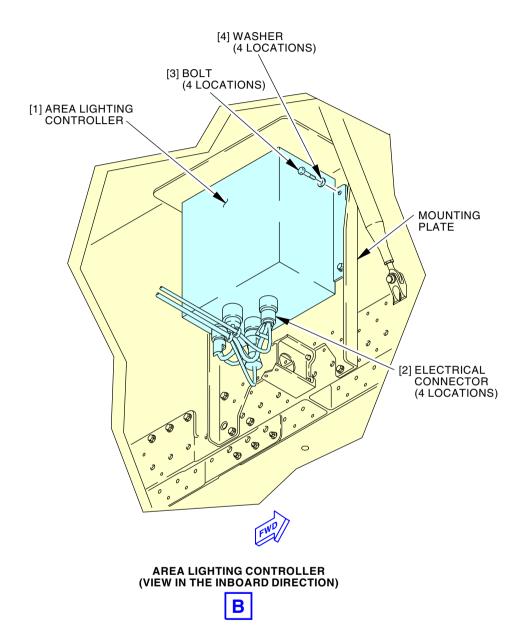
ARO ALL

D633W101-ARO

33-21-07

Page 203 Sep 05/2016





2775431 S0000628627\_V1

Area Lighting Controller Replacement Figure 201/33-21-07-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-21-07

Page 204 Jan 05/2018



#### PASSENGER LOADING LIGHTS - ADJUSTMENT/TEST

### 1. General

- A. This procedure has these tasks:
  - (1) Passenger Loading Lights Operational Test
  - (2) Passenger Loading Lights Operational Test in Special Areas

#### TASK 33-22-00-710-801

### 2. Passenger Loading Lights - Operational Test

#### A. General

- (1) This test makes sure the passenger loading lights operate. These lights are included in the test:
  - (a) Attendant work lights
  - (b) Direct ceiling lights
  - (c) Entry lights
  - (d) Standby (ETOPS) lights
  - (e) Closet lights
- (2) In the test of the standby (ETOPS) lights, the galley standby (ETOPS) lights (WDM 33-22-41 and WDM 33-27-15) are also included. In some documents, this light is also referred to as a supplemental night light.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-22-11	Wiring Diagram Manual
WDM 33-22-21	Wiring Diagram Manual
WDM 33-22-25	Wiring Diagram Manual
WDM 33-22-3X	Wiring Diagram Manual
WDM 33-22-40	Wiring Diagram Manual
WDM 33-22-41	Wiring Diagram Manual
WDM 33-22-45	Wiring Diagram Manual
WDM 33-27-15	Wiring Diagram Manual

### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

SUBTASK 33-22-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-22-00-710-001

- (2) Do a test of the attendant work lights (WDM 33-22-3X thru WDM 33-22-40):
  - (a) At the cabin system control panel (CSCP), set the attendant work lights to the on mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.

ARO ALL



- 1) Make sure the lights come on.
- (b) Set the lights to the off mode.
  - Make sure the lights go off.

#### SUBTASK 33-22-00-710-003

- (3) Do a test of the direct ceiling lights (WDM 33-22-41 thru WDM 33-22-45):
  - (a) Make sure the door to the flight compartment is closed and the engines are off.
    - NOTE: When the engines are on and the flight compartment door is open, the direct ceiling light aft of the flight compartment door will not come on.
  - (b) At the cabin system control panel (CSCP), set the fluorescent and incandescent direct ceiling lights to the bright mode.
    - NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.
    - 1) Make sure the lights come on brightly.
  - (c) At the CSCP, set the lights to the dim mode.
    - 1) Make sure the fluorescent lights change to dim.
    - 2) Make sure the incandescent lights remain bright.
  - (d) Set the lights to the off mode.
    - 1) Make sure the lights go off.

#### SUBTASK 33-22-00-710-008

- (4) Do a test of the entry lights (WDM 33-22-11):
  - (a) At the cabin system control panel (CSCP), set the entry way lights to the on mode.
    - NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMPS TEST. On the lamp test menu, make the applicable selection.
    - 1) Make sure the lights come on.
  - (b) Set the lights to the off mode.
    - 1) Make sure the lights go off.

#### SUBTASK 33-22-00-710-005

- (5) Do a test of the standby (ETOPS) lights (WDM 33-22-41 and WDM 33-27-15):
  - (a) At the cabin system control panel (CSCP), set the standby lights to the on mode.
    - NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, use the NIGHT selection to control the standby lights.
    - 1) Make sure the lights come on.
  - (b) Set the lights to the off mode.
    - 1) Make sure the lights go off.

#### SUBTASK 33-22-00-710-002

EFFECTIVITY

**ARO ALL** 

- (6) Do a test of the closet lights (WDM 33-22-21 thru WDM 33-22-25):
  - NOTE: Closets can have one or more lights. Some closets have no lights.
  - (a) At each applicable closet, set the switch for the closet light to the on mode.
    - 1) Make sure the light comes on.



- (b) Set the switch to the off mode.
  - 1) Make sure the light goes off.

#### SUBTASK 33-22-00-860-002

(7) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch FXIT

----- END OF TASK -----

#### TASK 33-22-00-710-802

3. Passenger Loading Lights - Operational Test in Special Areas

#### A. General

- (1) This test makes sure the lights in special areas of the passenger compartment operate. Special areas can include purser stations, prayer rooms, business communications centers, video control centers and other areas with lights that are not tested in the usual Operational Test (TASK 33-22-00-710-801).
- B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Procedure

EFFECTIVITY -

**ARO ALL** 

SUBTASK 33-22-00-860-003

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

------ END OF TASK ------



### ATTENDANT WORK LIGHTS - MAINTENANCE PRACTICES

### 1. General

- A. This procedure has these tasks:
  - (1) Attendant Work Light Lamp Replacement
  - (2) Attendant Work Light Light Beam Adjustment

#### TASK 33-22-01-960-801

### 2. Attendant Work Light - Lamp Replacement

(Figure 201)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-22-31	Wiring Diagram Manual
WDM 33-22-38	Wiring Diagram Manual

#### **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

SUBTASK 33-22-01-960-001



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp [1] (WDM 33-22-31 thru WDM 33-22-38):
  - (a) Remove the lens assembly [3].

NOTE: With two fingers, push together the inner and outer sides of the lens assembly. At the same time, turn the lens assembly counterclockwise to disengage it.

- (b) Replace the lamp [1].
- (c) Install the lens assembly [3].

#### SUBTASK 33-22-01-860-002

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power. TASK 24-22-00-860-805

#### SUBTASK 33-22-01-710-001

- (3) Do a test of the new lamp [1].
  - (a) Set the attendant work light to the on mode.
    - WHEN THERE IS AN ADJACENT SWITCH;
       Set the switch for the light to the on mode.
    - 2) WHEN THERE IS NO ADJACENT SWITCH;

EFFECTIVITY 33-22-01



Set the light to the on mode at the cabin system control panel (CSCP).

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, use the selection for ATTENDANT WORK or SPECIAL FUNCTION to operate the attendant work lights.

- (b) Make sure the new lamp [1] comes on.
  - 1) If it is necessary to adjust the direction of the light beam, do this task: Attendant Work Light Light Beam Adjustment, TASK 33-22-01-820-801.
- (c) Set the light to the off mode.
  - 1) Make sure the light goes off.

#### SUBTASK 33-22-01-860-001

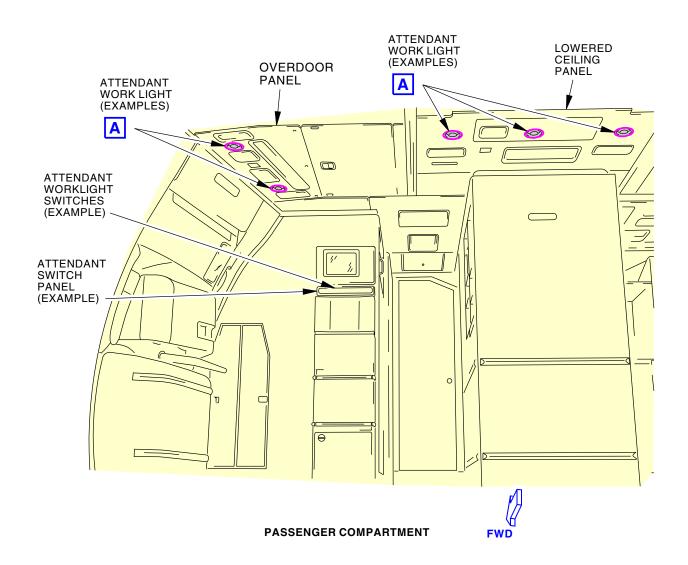
(4) If the CSCP was used, put it back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

----- END OF TASK -----

— EFFECTIVITY — 33-22-01





F55969 S0006419830\_V2

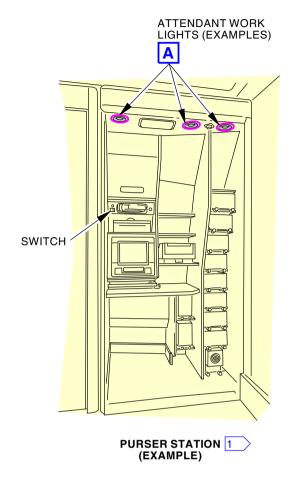
Attendant Work Light - Lamp Replacement Figure 201/33-22-01-990-801 (Sheet 1 of 2)

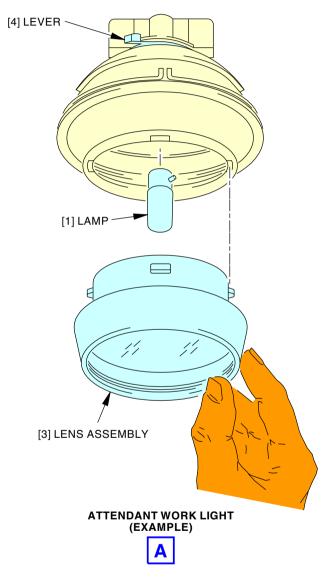
ARO ALL
D633W101-ARO

33-22-01

Page 203 Sep 05/2016







1 INSTALLED ON SOME AIRPLANES

C73335 S0006419831\_V3

Attendant Work Light - Lamp Replacement Figure 201/33-22-01-990-801 (Sheet 2 of 2)

ARO ALL

33-22-01

Page 204 Jan 05/2018



#### TASK 33-22-01-820-801

### 3. Attendant Work Light - Light Beam Adjustment

(Figure 202)

#### A. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
25-21-07-000-801	Lowered Ceiling Panel Removal (P/B 401)	
25-21-07-400-801	Lowered Ceiling Panel Installation (P/B 401)	
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)	
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)	
Location Zones		
Zone Area		

# 200 C. Procedure

B.

#### SUBTASK 33-22-01-860-003

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-22-01-860-004

(2) Set the attendant work light to the on mode.

Upper Half of Fuselage

- (a) WHEN THERE IS AN ADJACENT SWITCH; Set the switch for the light to the on mode.
- (b) WHEN THERE IS NO ADJACENT SWITCH;

Set the light to the on mode at the cabin system control panel (CSCP).

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, use the selection for ATTENDANT WORK or SPECIAL FUNCTION to operate the attendant work lights.

#### SUBTASK 33-22-01-820-001

- (3) Do these steps to adjust the direction of the light beam:
  - (a) For access to the top of the light assembly [2], lower the applicable panel (TASK 25-21-08-000-801) (TASK 25-21-07-000-801).
  - (b) Move the lever [4] on top of the light assembly [2] to the ADJUST position.
  - (c) Close the applicable panel (TASK 25-21-08-400-801) (TASK 25-21-07-400-801).
  - (d) Adjust the lens assembly [3] until the center of the light beam is satisfactory.
  - (e) Open the applicable panel (TASK 25-21-08-000-801) (TASK 25-21-07-000-801).
  - (f) Move the lever [4] on top of the light assembly [2] to one of the LOCK positions.
  - (g) Close the applicable panel (TASK 25-21-08-400-801) (TASK 25-21-07-400-801).

#### SUBTASK 33-22-01-860-005

(4) Set the light to the off mode.



#### SUBTASK 33-22-01-860-006

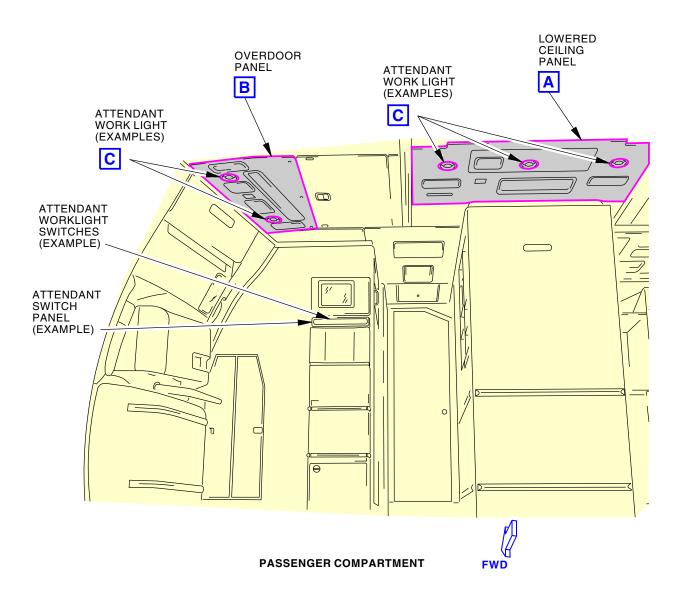
(5) If the CSCP was used, put it back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

------ END OF TASK ------

ARO ALL





F55996 S0006419833\_V2

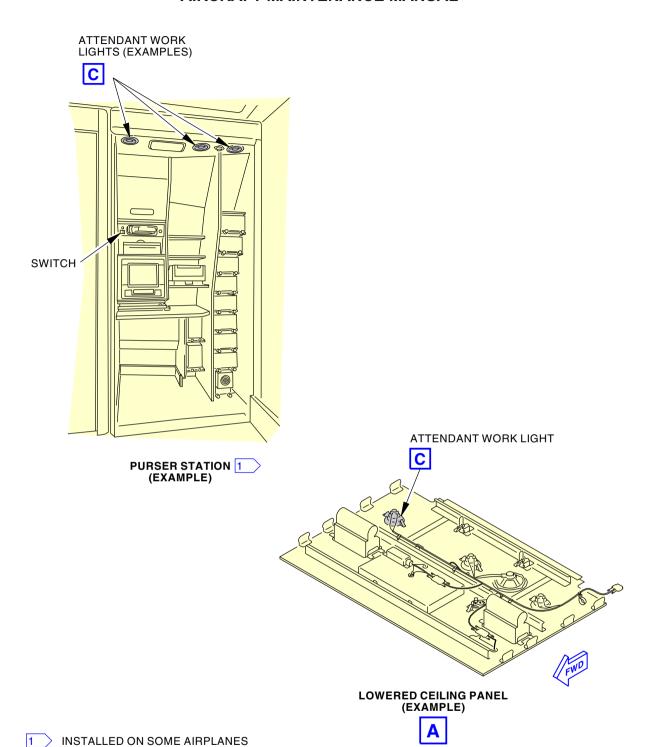
# Attendant Work Light - Light Beam Adjustment Figure 202/33-22-01-990-802 (Sheet 1 of 3)

ARO ALL
D633W101-ARO

33-22-01

Page 207 Sep 05/2016





F56044 S0006419834\_V2

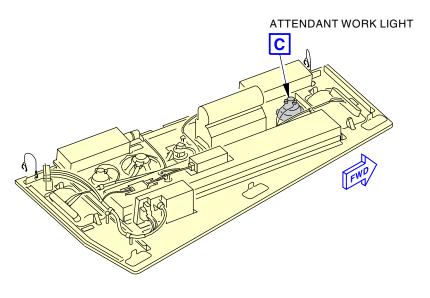
Attendant Work Light - Light Beam Adjustment Figure 202/33-22-01-990-802 (Sheet 2 of 3)

ARO ALL

33-22-01

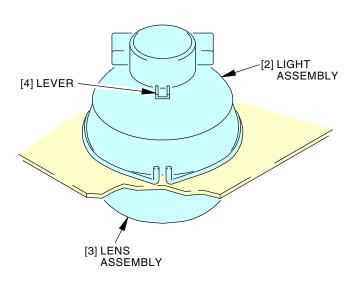
Page 208 Sep 05/2016





OVERDOOR PANEL (EXAMPLE)





ATTENDANT WORK LIGHT (EXAMPLE)



F56049 S0006419835\_V3

Attendant Work Light - Light Beam Adjustment Figure 202/33-22-01-990-802 (Sheet 3 of 3)

ARO ALL

33-22-01

Page 209 Jan 05/2018

l D633W101-ARO



#### **DIRECT CEILING LIGHTS - MAINTENANCE PRACTICES**

#### 1. General

- A. This procedure has these tasks:
  - (1) Direct Ceiling Light Lamp Replacement
  - (2) Direct Ceiling Light Ballast Replacement
- B. Fluorescent direct ceiling lights have ballasts. The incandescent direct ceiling lights do not.

#### TASK 33-22-02-960-801

### 2. Direct Ceiling Light - Lamp Replacement

(Figure 201)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-21-07-000-801	Lowered Ceiling Panel Removal (P/B 401)
25-21-07-400-801	Lowered Ceiling Panel Installation (P/B 401)
WDM 33-22-41	Wiring Diagram Manual
WDM 33-22-44	Wiring Diagram Manual
1	

#### **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

SUBTASK 33-22-02-960-001



DO NOT TOUCH THE SOCKETS OF THE METAL ENDS OF THE LAMP. WHEN YOU SUPPLY ELECTRICAL POWER TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp (WDM 33-22-41 thru WDM 33-22-44):
  - (a) FOR THE FLUORESCENT DIRECT CEILING LIGHTS;

Do these steps:

- 1) Use the release holes [3] to lower the lens assembly [4].
- 2) Eject the lamp [1] with the release lever [2].
- 3) Install the new lamp [1].
  - a) When installing the new lamp [1], firmly press both ends of the lamp near the holders.
  - b) Fully seat both lamp pins into the lamp holder.

NOTE: You should hear an audible click and the release levers [2] will pop out.

NOTE: When properly inserted, the pin contacts should not be visible when looking past the lamp release levers [2] into the pin contact entry slots.

NOTE: If the fluorescent lamp contact pin is not installed correctly, arcing and overheating can occur in the lamp holder.

4) Lift the lens assembly [4] to its usual position.

ARO ALL



(b) FOR THE INCANDESCENT DIRECT CEILING LIGHTS;

Do these steps:

1) Remove the lens assembly [6].

NOTE: With two fingers, push together the inner and outer sides of the lens assembly. At the same time, turn the lens assembly counterclockwise to disengage it.

- 2) Replace the lamp [7].
- 3) Install the lens assembly [6].

#### SUBTASK 33-22-02-860-001

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-22-02-710-001

- (3) Do a test of the new lamp.
  - (a) At the cabin system control panel (CSCP), set the direct ceiling lights to the bright mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.

1) Make sure the new lamp comes on brightly.

NOTE: To do a test of the direct ceiling light in the forward ceiling panel, close the flight compartment door. When the engines are on and the flight compartment door is open, this light will not come on.

2) FOR THE INCANDESCENT DIRECT CEILING LIGHTS;

If it is necessary to adjust the direction of the light beam, do these steps:

- a) Lower the ceiling panel (TASK 25-21-07-000-801) to get access to the top of the light.
- b) Move the lever [5] on top of the light assembly to the ADJUST position. Release and lock the position of the light.
- c) Install the ceiling panel (TASK 25-21-07-400-801).
- d) Adjust the direction of the lens assembly until the light beam is satisfactory.
- e) Lower the ceiling panel (TASK 25-21-07-000-801).
- f) Move the lever [5] to one of the LOCK positions.
- g) Install the ceiling panel (TASK 25-21-07-400-801).
- (b) Set the lights to the dim mode.
  - 1) FOR THE FLUORESCENT DIRECT CEILING LIGHTS:

Make sure the lamp changes to dim.

2) FOR THE INCANDESCENT DIRECT CEILING LIGHTS;

Make sure the lamp stays bright.

- (c) Set the lights to the off mode.
  - 1) Make sure the lamp goes off.

33-22-02

**EFFECTIVITY** 



#### SUBTASK 33-22-02-860-004

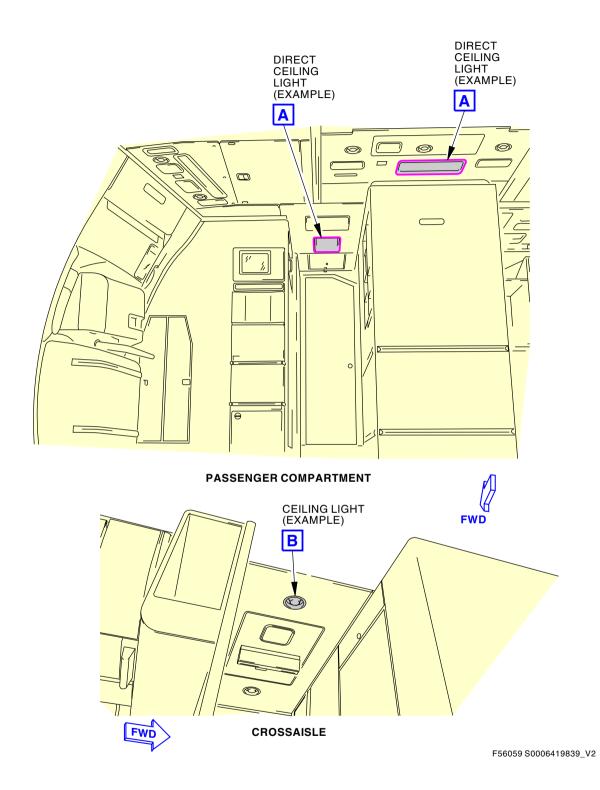
(4) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

----- END OF TASK -----

ARO ALL





Direct Ceiling Light - Lamp Replacement Figure 201/33-22-02-990-801 (Sheet 1 of 3)

EFFECTIVITY

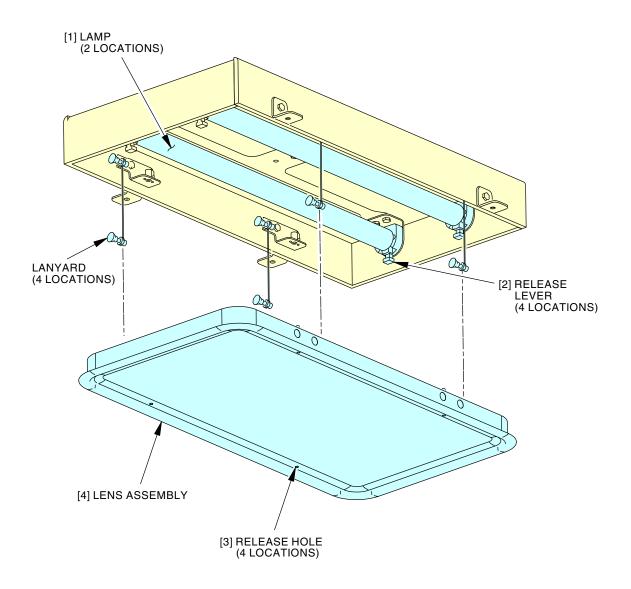
ARO ALL

Page 204

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





# DIRECT CEILING LIGHT (EXAMPLE)



C73893 S0006419840\_V2

Direct Ceiling Light - Lamp Replacement Figure 201/33-22-02-990-801 (Sheet 2 of 3)

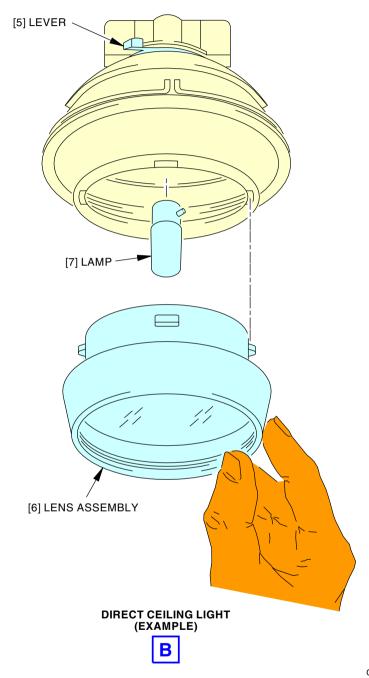
ARO ALL

D633W101-ARO

33-22-02

Page 205 May 05/2017





C78466 S0006419841\_V2

Direct Ceiling Light - Lamp Replacement Figure 201/33-22-02-990-801 (Sheet 3 of 3)

ARO ALL

D633W101-ARO

33-22-02

Page 206 May 05/2017



#### TASK 33-22-02-960-802

## 3. Direct Ceiling Light - Ballast Replacement

(Figure 202)

## A. General

(1) When you replace the ballast, to not discard it. Refer to the vendor instructions for possible repairs.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-21-07-000-801	Lowered Ceiling Panel Removal (P/B 401)
25-21-07-400-801	Lowered Ceiling Panel Installation (P/B 401)
WDM 33-22-41	Wiring Diagram Manual
WDM 33-22-44	Wiring Diagram Manual

#### C. Location Zones

Location	201103
Zone	Area
200	Upper Half of Fuselage

### D. Procedure

#### SUBTASK 33-22-02-860-002

(1) Open this circuit breaker and install safety tag:

(WDM 33-22-41 thru WDM 33-22-44)

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	10	C33433	ENTRY/DIR CLG LTS

### SUBTASK 33-22-02-960-002

- (2) Do these steps to replace the ballast:
  - (a) For access to the ballast, lower the applicable ceiling panel (TASK 25-21-07-000-801) or open the adjacent access panel.
  - (b) Disconnect the electrical connector [10].
  - (c) Loosen the fasteners [8].
  - (d) Replace the ballast [9].
  - (e) Tighten the fasteners [8].
  - (f) Connect the electrical connector [10].
  - (g) Install the applicable ceiling panel (TASK 25-21-07-400-801) or close the adjacent access panel.

#### SUBTASK 33-22-02-860-003

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

ARO ALL 33-22-02



#### SUBTASK 33-22-02-860-006

(4) Remove the safety tag and close this circuit breaker:

## **Ground Service/Handling Power Panel, P320**

		•	,
Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	10	C33433	ENTRY/DIR CLG LTS

#### SUBTASK 33-22-02-710-002

- (5) Do a test of the new ballast.
  - (a) At the cabin system control panel (CSCP), set the direct ceiling lights to the bright mode.
    - NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.
    - 1) Make sure the light connected to the new ballast comes on brightly.
      - NOTE: To do a test of the direct ceiling light in the forward ceiling panel, close the flight compartment door. When the engines are on and the flight compartment door is open, this light will not come on.
  - (b) Set the lights to the dim mode.
    - 1) Make sure the light changes to dim.
  - (c) Set the lights to the off mode.
    - 1) Make sure the light goes off.

#### SUBTASK 33-22-02-860-005

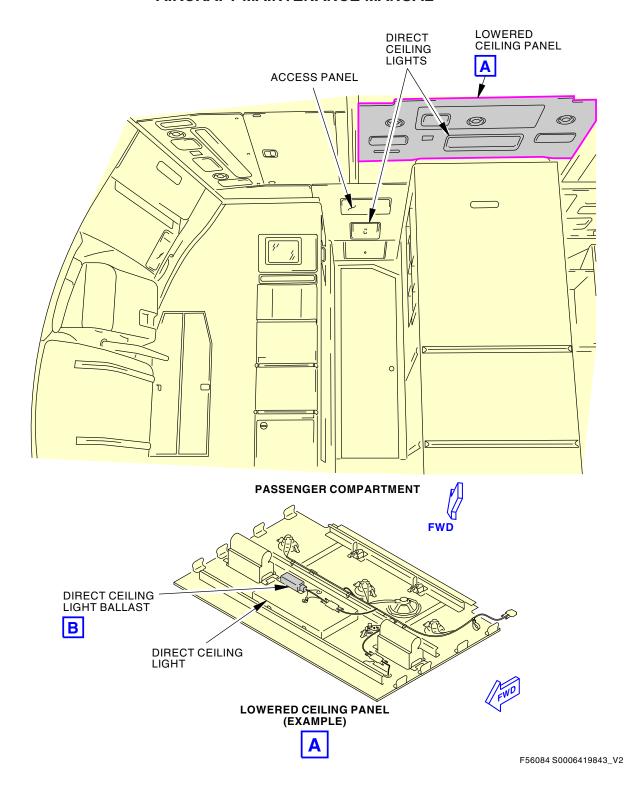
**ARO ALL** 

(6) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

——— END OF TASK ———





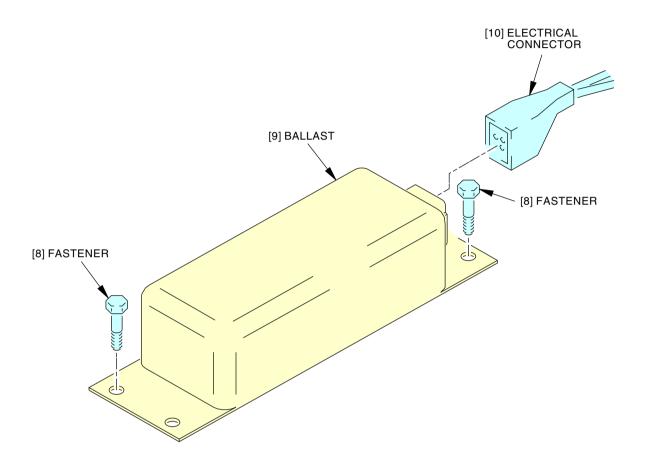
Direct Ceiling Light - Ballast Replacement Figure 202/33-22-02-990-802 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-22-02

Page 209 May 05/2017





# DIRECT CEILING LIGHT BALLAST (EXAMPLE)



33211803

C73259 S0006419844\_V3

Direct Ceiling Light - Ballast Replacement Figure 202/33-22-02-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-22-02

Page 210 Sep 05/2017



## **ENTRY LIGHTS - MAINTENANCE PRACTICES**

## 1. General

- This procedure has these tasks:
  - (1) Entry Light Lamp Replacement
  - Entry Light Ballast Replacement

#### TASK 33-22-03-960-801

## 2. Entry Light - Lamp Replacement

(Figure 201)

## A. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-22-11	Wiring Diagram Manual	
Location Zones		

#### B.

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

SUBTASK 33-22-03-010-001

(1) Open this circuit breaker and install safety tag:

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	10	C33433	ENTRY/DIR CLG LTS

SUBTASK 33-22-03-960-001



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- Do these steps to replace the lamp (WDM 33-22-11):
  - (a) Use the release holes [3] to lower the lens assembly [4].
  - (b) Eject the lamp [1] with the release lever [2].
  - (c) Install the new lamp [1].
  - (d) Put the lens assembly [4] back in its usual position.

## SUBTASK 33-22-03-860-001

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

## SUBTASK 33-22-03-410-001

Remove the safety tag and close this circuit breaker:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	10	C33433	ENTRY/DIR CLG LTS

SUBTASK 33-22-03-710-003

(5) Do a test of the new lamp.

EFFECTIVITY **ARO ALL** 



- (a) At the Cabin System Control Panel (CSCP), set the entry way lights to the on mode.
  - 1) Use the cabin maintenance menus.
    - a) On the main menu, touch CABIN TESTS.
    - b) When the screen changes, touch LAMPS TEST.
    - c) On the lamp test menu, make the applicable selection.
  - 2) Make sure the lights come on.
- (b) Set the lights to the off mode.
  - 1) Make sure the lights go off.

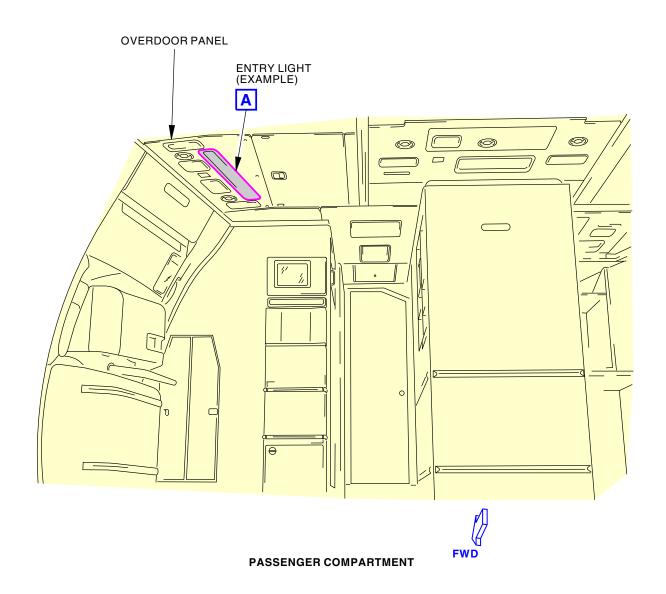
#### SUBTASK 33-22-03-860-005

- (6) Put the CSCP back to its usual condition.
  - (a) On the lamp test menu, touch MAIN menu.
    - 1) If a note appears on the screen, read it, then follow the instructions.
    - 2) If the cabin maintenance menus are not necessary, touch EXIT.

----- END OF TASK -----

ARO ALL





F56064 S0006419848\_V2

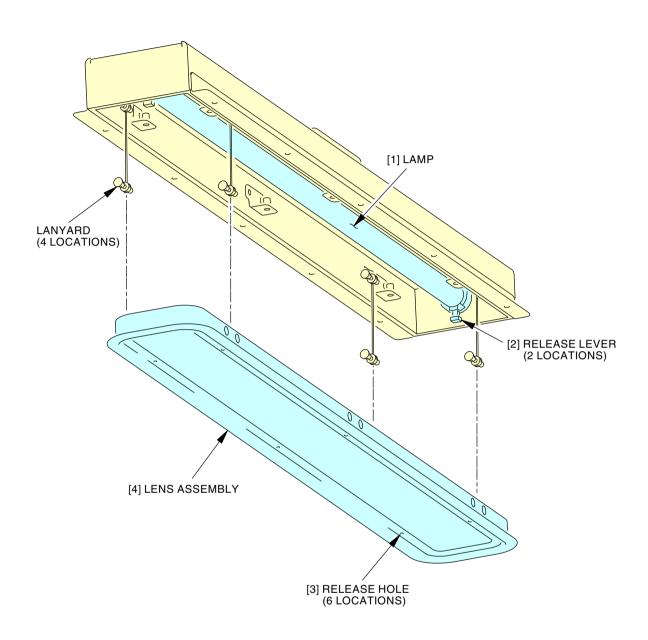
Entry Light - Lamp Replacement Figure 201/33-22-03-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-22-03

Page 203 Sep 05/2016





ENTRY LIGHT (EXAMPLE)



C73939 S0006419849\_V2

Entry Light - Lamp Replacement Figure 201/33-22-03-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-22-03

Page 204 Sep 05/2016



### TASK 33-22-03-960-802

## 3. Entry Light - Ballast Replacement

(Figure 202)

### A. General

(1) When you replace the ballast, to not discard it. Refer to the vendor instructions for possible repairs.

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
WDM 33-22-11	Wiring Diagram Manual

## C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

SUBTASK 33-22-03-860-002

(1) Open this circuit breaker and install safety tag:

(WDM 33-22-11)

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	10	C33433	ENTRY/DIR CLG LTS

#### SUBTASK 33-22-03-960-002

- (2) Do these steps to replace the ballast.
  - (a) Open the overdoor panel (TASK 25-21-08-000-801).
  - (b) Disconnect the electrical connector [23].
  - (c) Loosen the fasteners [21].
  - (d) Replace the ballast [22].
  - (e) Tighten the fasteners [21].
  - (f) Connect the electrical connector [23].
  - (g) Close the overdoor panel (TASK 25-21-08-400-801).

#### SUBTASK 33-22-03-860-003

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-22-03-860-004

(4) Remove the safety tag and close this circuit breaker:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	10	C33433	ENTRY/DIR CLG LTS

#### SUBTASK 33-22-03-710-004

- (5) Do a test of the new ballast.
  - (a) At the Cabin System Control Panel (CSCP), set the entry lights to the on mode.

ARO ALL



- Use the cabin maintenance menus.
  - a) On the main menu, touch CABIN TESTS.
  - b) When the screen changes, touch LAMPS TEST.
  - c) On the lamp test menu, make the applicable selection.
- 2) Make sure the lights connected to the new ballast come on.
- (b) Set the lights to the off mode.
  - 1) Make sure the lights go off.

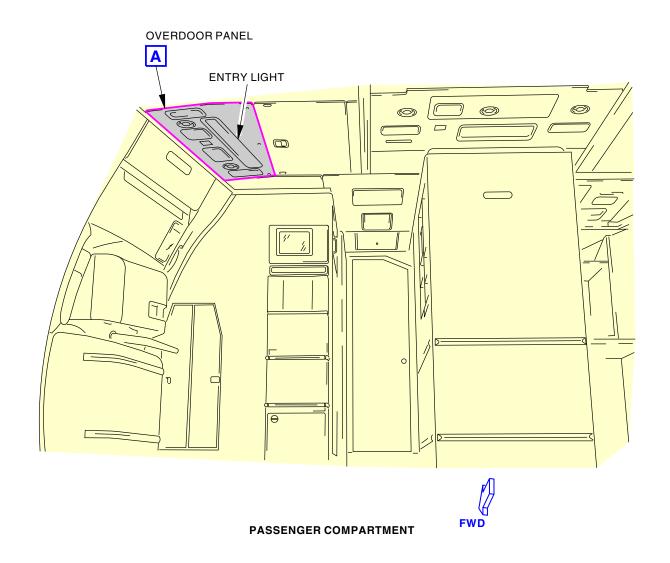
#### SUBTASK 33-22-03-860-006

- (6) Put the CSCP back to its usual condition.
  - (a) On the lamp test menu, touch MAIN menu.
    - 1) If a note appears on the screen, read it, then follow the instructions.
    - 2) If the cabin maintenance menus are not necessary, touch EXIT.

----- END OF TASK -----

ARO ALL





F56088 S0006419851\_V2

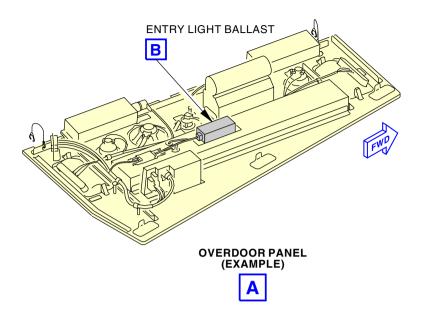
Entry Light - Ballast Replacement Figure 202/33-22-03-990-802 (Sheet 1 of 2)

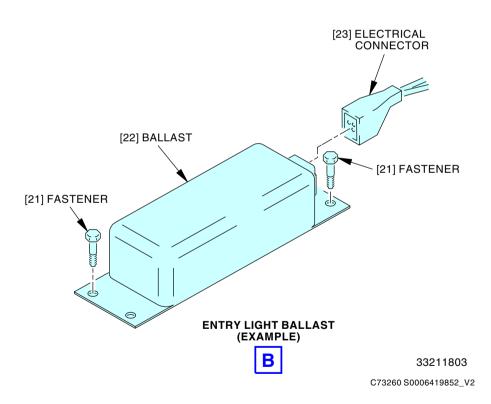
ARO ALL
D633W101-ARO

33-22-03

Page 207 Sep 05/2016







Entry Light - Ballast Replacement Figure 202/33-22-03-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-22-03

Page 208 Sep 05/2016



## STANDBY (ETOPS) LIGHTS - MAINTENANCE PRACTICES

## 1. General

- A. This procedure has one task:
  - (1) Standby (ETOPS) Light Lamp Replacement

#### TASK 33-22-04-960-801

## 2. Standby (ETOPS) Light - Lamp Replacement

(Figure 201)

## A. General

(1) The standby (ETOPS) lights are installed in some light assemblies in the passenger loading areas and in the galley areas. The maintenance instructions are the same for two locations.

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-22-41	Wiring Diagram Manual

## C. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

## D. Procedure

#### SUBTASK 33-22-04-860-004

(1) Open these circuit breakers and install safety tags:

(WDM 33-22-41)

## Ground Service/Handling Power Panel, P320

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	4	C33460	FWD & DR 2 GLY LTS
Н	3	C33459	AFT GLY LTS
Н	10	C33433	ENTRY/DIR CLG LTS

SUBTASK 33-22-04-960-001



DO NOT TOUCH THE SOCKETS OF THE METAL ENDS OF THE LAMP. WHEN YOU SUPPLY ELECTRICAL POWER TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (2) Do these steps to replace the lamp:
  - (a) Use the release holes [2] to lower the lens assembly [3].
  - (b) Replace the lamp [1].
  - (c) Put the lens assembly [3] back in its usual position.

#### SUBTASK 33-22-04-860-001

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL



#### SUBTASK 33-22-04-860-003

(4) Close these circuit breakers:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	4	C33460	FWD & DR 2 GLY LTS
Н	3	C33459	AFT GLY LTS
Н	10	C33433	ENTRY/DIR CLG LTS

#### SUBTASK 33-22-04-710-002

- (5) Do a test of the new lamp.
  - (a) At the cabin system control panel (CSCP), set the standby lights to the on mode.
    - 1) Make these selections from the CABIN MAINTENANCE menu.
      - a) CABIN TESTS
      - b) ENGINEERING TESTS
      - c) COMMAND OUTPUT
      - d) OVERHEAD ELECTRONICS UNIT (OEU)
    - 2) Make these selections from the OVERHEAD ELECTRONICS UNIT (OEU) menu.

#### Table 201/33-22-04-993-801

Zone Mgmt. Unit	All
Column	All
Overhead Electronic Unit	All
Port	5 Ground

- 3) Make sure that the new lamp comes on.
- (b) Set the lights to the off mode.
  - 1) Make these selections from the OVERHEAD ELECTRONICS UNIT (OEU) menu.

## Table 202/33-22-04-993-802

Zone Mgmt. Unit	All
Column	All
Overhead Electronic Unit	All
Port	5 Open

2) Make sure that the lamp goes off.

#### SUBTASK 33-22-04-860-002

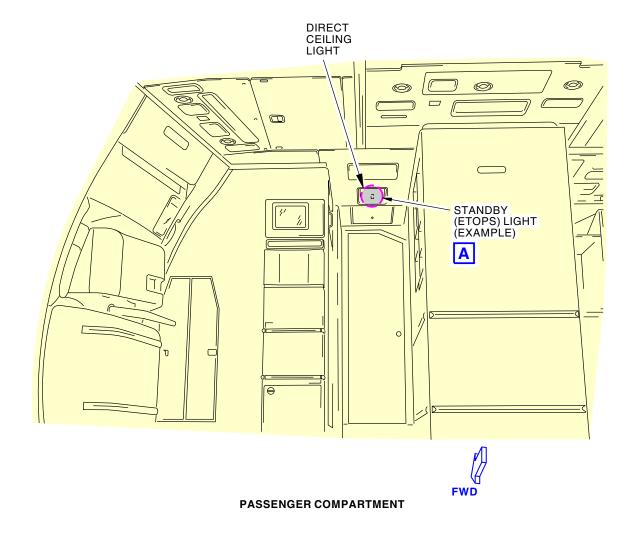
(6) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN menu. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

END	OF TA	OIZ	
-NI	OF TA	1SK	

ARO ALL





F55994 S0006419856\_V2

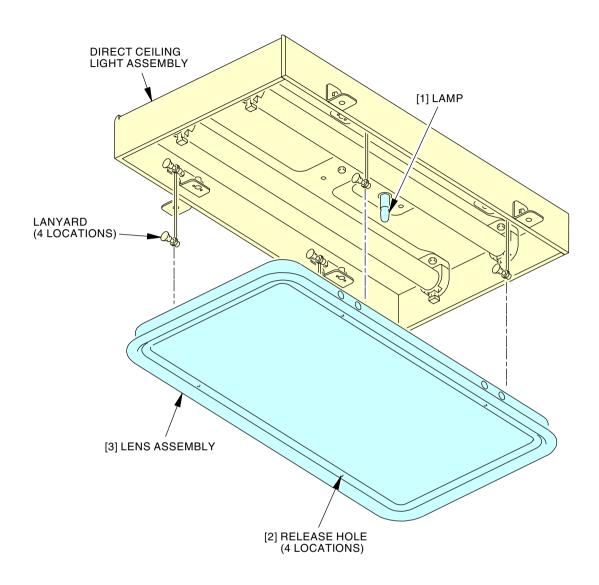
Standby (ETOPS) Light - Lamp Replacement Figure 201/33-22-04-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-22-04

Page 203 Sep 05/2016





STANDBY (ETOPS) LIGHT (EXAMPLE)



C73940 S0006419857\_V2

Standby (ETOPS) Light - Lamp Replacement Figure 201/33-22-04-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-22-04

Page 204 Sep 05/2016



## **CLOSET LIGHTS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has the following tasks:
  - (1) Closet Light Lamp Replacement.
  - (2) Closet Light Fuse Replacement.
  - (3) Closet Light Light Assembly Replacement.
  - (4) Closet Light Transformer Replacement.

#### TASK 33-22-05-960-801

## 2. Closet Light - Lamp Replacement

(Figure 201)

## A. References

Referen	ce	Title
24-22-00	-860-805	Supply Electrical Power (P/B 201)
WDM 33	-22-21	Wiring Diagram Manual
WDM 33	-22-23	Wiring Diagram Manual
WDM 33	-22-25	Wiring Diagram Manual
Location	Zones	
Zone	Area	
200	Upper Half of Fuselage	

## C. Procedure

В.

SUBTASK 33-22-05-860-011

(1) Open these circuit breakers and install safety tags:

(WDM 33-22-21 thru WDM 33-22-23)

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

SUBTASK 33-22-05-960-001



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LAMP, ELECTRICAL SHOCK CAN OCCUR. THIS CAN CAUSE INJURIES TO PERSONNEL.

- (2) Do these steps to replace the lamp [2] (WDM 33-22-21 thru WDM 33-22-25):
  - (a) Pull off the cover [1].
  - (b) Replace the lamp [2].

ARO ALL



(c) Put on the cover [1].

#### SUBTASK 33-22-05-860-001

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-22-05-860-012

(4) Remove the safety tags and close these circuit breakers:

## **Ground Service/Handling Power Panel, P320**

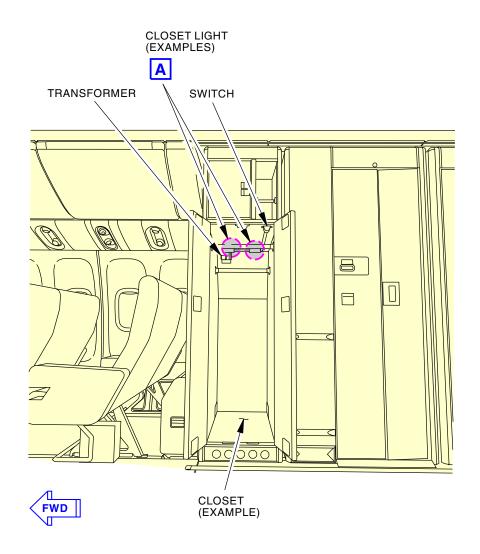
Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

#### SUBTASK 33-22-05-710-001

- (5) Do a test of the new lamp.
  - (a) Set the switch to the ON mode.
    - 1) Make sure the new lamp comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the lamp goes off.







## PASSENGER COMPARTMENT

F56046 S0006419861\_V2

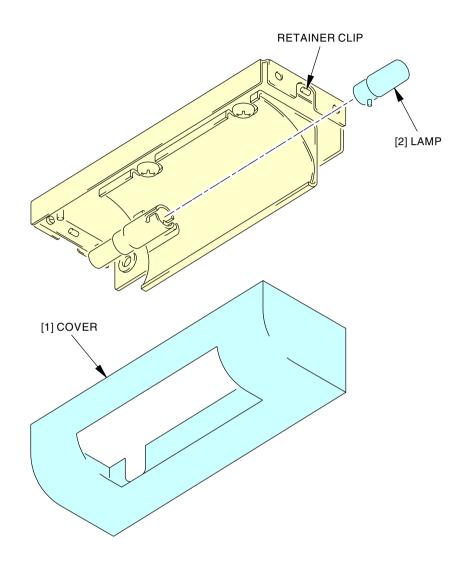
Closet Light - Lamp Replacement Figure 201/33-22-05-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-22-05

Page 203 Sep 05/2016





CLOSET LIGHT (EXAMPLE)



10-0341A

C73326 S0006419862\_V2

Closet Light - Lamp Replacement Figure 201/33-22-05-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-22-05

Page 204 Sep 05/2016



#### TASK 33-22-05-960-802

## 3. Closet Light - Fuse Replacement

(Figure 202)

### A. References

	Reference	9	Title
	24-22-00-860-805		Supply Electrical Power (P/B 201)
	WDM 33-22-21		Wiring Diagram Manual
	WDM 33-22-23		Wiring Diagram Manual
B.	Location Zones		
	Zone	Area	
	200	Upper Half of Fus	elage

## C. Procedure

#### SUBTASK 33-22-05-860-002

(1) Open these circuit breakers and install safety tags:

(WDM 33-22-21 thru WDM 33-22-23)

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

### SUBTASK 33-22-05-960-002

- (2) Do these steps to replace the fuse [25]:
  - (a) Remove the screw [24] from the cover [23] of the transformer [21].
  - (b) Loosen (but do not remove) the screw [22].

NOTE: Let the cover [23] hang from the transformer.

- (c) Replace the fuse [25].
- (d) Put the cover [23] in its usual position and install the screw [24].
- (e) Tighten the screw [22].

## SUBTASK 33-22-05-860-003

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-22-05-860-008

(4) Remove the safety tags and close these circuit breakers:

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CARIN LTS MID FWD R

ARO ALL

33-22-05

Page 205 Sep 05/2017



(Continued)

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

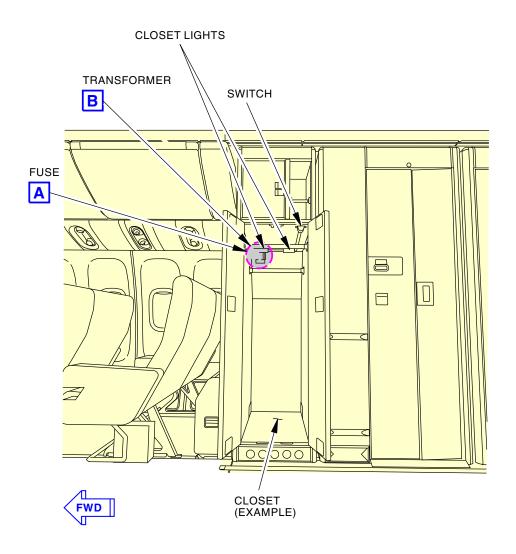
#### SUBTASK 33-22-05-710-002

- (5) Do a test of the new fuse.
  - (a) Set the switch to the ON mode.
    - 1) Make sure the closet light comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the closet light goes off.

----- END OF TASK -----

ARO ALL 33-22-05





## PASSENGER COMPARTMENT

F56054 S0006419864\_V2

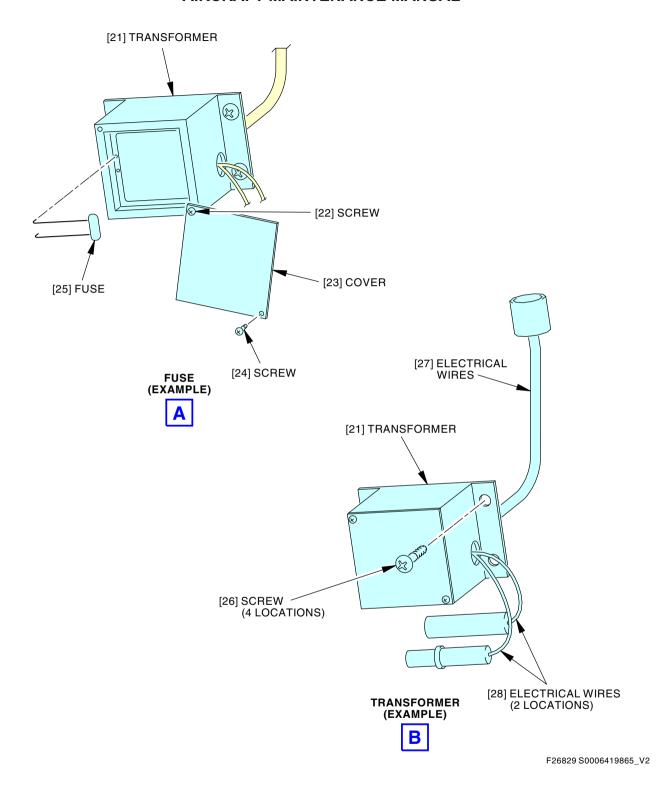
Closet Light - Fuse/Transformer Replacement Figure 202/33-22-05-990-802 (Sheet 1 of 2)

ARO ALL

33-22-05

Page 207 Sep 05/2016





Closet Light - Fuse/Transformer Replacement Figure 202/33-22-05-990-802 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

Page 208

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



#### TASK 33-22-05-960-803

## 4. Closet Light - Light Assembly Replacement

(Figure 203)

## A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-22-21	Wiring Diagram Manual
WDM 33-22-23	Wiring Diagram Manual
Location Zones	
Zone Area	

# 200 C. Procedure

B.

## SUBTASK 33-22-05-860-004

(1) Open these circuit breakers and install safety tags:

(WDM 33-22-21 thru WDM 33-22-23)

Upper Half of Fuselage

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

#### SUBTASK 33-22-05-960-003

- (2) Do these steps to replace the light assembly [43]:
  - (a) Remove the cover [1].
  - (b) Move away the sleeve [45] for access to the electrical wires [46].
  - (c) Remove the screws [41] and lift off the electrical wires [46].
  - (d) Remove the screws [42] from the light assembly [43].
  - (e) Pull the electrical wires [46] away from the light assembly [43].

NOTE: The electrical connector [44] remains connected.

- (f) Put the electrical wires [46] into the new light assembly [43].
- (g) Install the screws [42] on the new light assembly [43].
- (h) Connect the electrical wires [46] with their screws [41].
- (i) Move the sleeve [45] over the electrical wire [46] connection.
- (j) Install the cover [1].

#### SUBTASK 33-22-05-860-005

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL



#### SUBTASK 33-22-05-860-009

(4) Remove the safety tags and close these circuit breakers:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

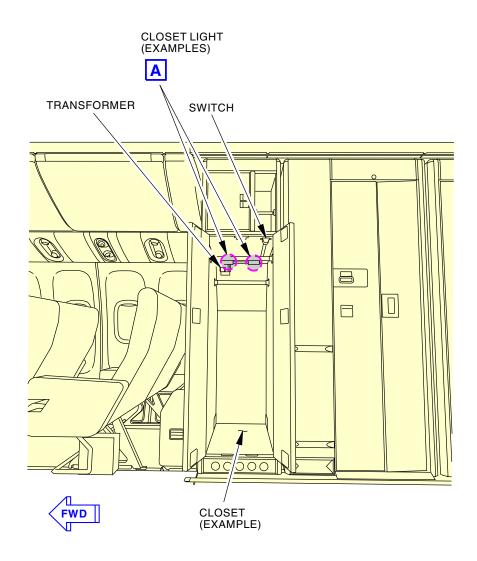
#### SUBTASK 33-22-05-710-003

- (5) Do a test of the new light assembly.
  - (a) Set the switch to the ON mode.
    - 1) Make sure the closet light comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the closet light goes off.

——— END OF TASK ———

ARO ALL 33-22-05





## PASSENGER COMPARTMENT

F56052 S0006419867\_V2

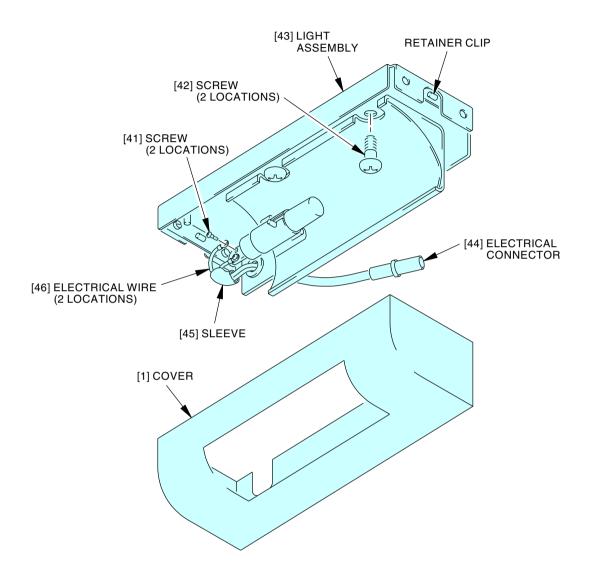
Closet Light - Light Assembly Replacement Figure 203/33-22-05-990-803 (Sheet 1 of 2)

ARO ALL

33-22-05

Page 211 Sep 05/2016





CLOSET LIGHT (EXAMPLE)



F26952 S0006419868\_V2

Closet Light - Light Assembly Replacement Figure 203/33-22-05-990-803 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-22-05

Page 212 Sep 05/2016



#### TASK 33-22-05-960-804

## 5. Closet Light - Transformer Replacement

(Figure 202)

### A. References

	Reference		Title
	24-22-00-8	60-805	Supply Electrical Power (P/B 201)
	25-24-01 P	/B 401	CLOSETS - REMOVAL/INSTALLATION
	WDM 33-2	2-21	Wiring Diagram Manual
	WDM 33-2	2-23	Wiring Diagram Manual
3.	. Location Zones		
	Zone	Area	
	200	200 Upper Half of Fuselage	

## C. Procedure

В

#### SUBTASK 33-22-05-860-006

(1) Open these circuit breakers and install safety tags:

(WDM 33-22-21 thru WDM 33-22-23)

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

#### SUBTASK 33-22-05-960-004

- (2) Do these steps to replace the transformer [21]:
  - (a) If the transformer [21] is installed on top of a closet, open the adjacent ceiling panel for access to the component and its electrical wires.
  - (b) Disconnect the electrical wires [27] and electrical wire [28].
    - 1) If the transformer is in the closet, look for electrical connectors in covered tracks adjacent to the transformer.
    - 2) If the electrical connectors are behind the closet, carefully pull the electrical wires into the closet until you can get access to the electrical connectors.
      - a) If you cannot reach the electrical connectors, cut and splice the electrical wires or remove the applicable closet (PAGEBLOCK 25-24-01/401).
  - (c) Remove the screws [26].
  - (d) Replace the transformer [21].
  - (e) Install the screws [26].
  - (f) Connect the electrical wires [27] and electrical wires [28]:
    - If the electrical connectors are installed in covered tracks, put the electrical wires back in the track and attach the cover.

ARO ALL



- 2) If the electrical connectors are installed behind the closet, push the loose electrical wires behind the closet.
  - a) If it was necessary to remove the closet, install it (PAGEBLOCK 25-24-01/401).
- (g) If the transformer [21] is installed on top of a closet, close the adjacent ceiling panel.

#### SUBTASK 33-22-05-860-007

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-22-05-860-010

(4) Remove the safety tags and close these circuit breakers:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

#### SUBTASK 33-22-05-710-004

- (5) Do a test of the new transformer.
  - (a) Set the switch to the ON mode.
    - 1) Make sure the closet light comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the closet light goes off.

----- END OF TASK -----

33-22-05

- EFFECTIVITY ·



## ATTENDANT SWITCH PANEL (ASP) - MAINTENANCE PRACTICES

## 1. General

- A. This procedure has these tasks:
  - (1) Attendant Switch Panel (ASP) Panel Replacement
  - (2) Attendant Switch Panel (ASP) Lens Cap Replacement
  - (3) Attendant Switch Panel (ASP) Switch Replacement

#### TASK 33-22-06-960-801

2. Attendant Switch Panel (ASP) - Panel Replacement

(Figure 201)

## A. References

Title
Supply Electrical Power (P/B 201)
Wiring Diagram Manual

## **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

SUBTASK 33-22-06-860-011

(1) Make sure all switches on the Attendant Switch Panel (ASP) are set to the OFF mode.

NOTE: The light in the ATTENDANT WORK LIGHT switch comes on when the ATTENDANT WORK lights are set to the OFF mode.

#### SUBTASK 33-22-06-860-012

(2) Open this circuit breaker and install safety tag:

(WDM 33-22-31 thru WDM 33-22-38)

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	5	C33628	PAX MASTER CALL LT

## SUBTASK 33-22-06-860-001

- (3) When the emergency evacuation control panel is on the ASP, do this step:
  - (a) Open this circuit breaker and install safety tag:

(WDM 25-63-11 thru WDM 25-63-14)

## Standby Power Management Panel, P310

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
K	4	C25604	EMER EVAC SIG

### SUBTASK 33-22-06-860-002

(4) When the ground service switch is on the ASP, do these steps:

ARO ALL



- (a) Make sure the primary external power is removed from the ground service bus (WDM 24-22-41):
  - Make sure the PWR NOT IN USE light is on at the primary external power receptacle, on the P30 external power panel.

#### SUBTASK 33-22-06-960-001

- (5) Do these steps to replace the panel [5]:
  - (a) Loosen the fasteners [1] on each side of the panel [5].
  - (b) Pull off the panel [5].
  - (c) Do these steps to remove the electrical connector [3]:
    - 1) On the bottom of the panel [5], remove one screw [6] that holds the bracket in its position and loosen the other.
    - 2) Turn the bracket [4] to get access to the electrical connector [3].
    - 3) Loosen the fasteners [2] and disconnect the electrical connector [3].
  - (d) Remove the panel [5].
    - Do not discard the used panel [5].
      - NOTE: In a shop, refer to the vendor instructions for possible repairs.
    - 2) Turn the bracket [4] back to its initial position.
    - 3) Install and tighten the screws [6] that hold the bracket [4] in its position.
  - (e) Install the new panel [5].
    - 1) On the bottom of the panel [5], remove one screw [6] that holds the bracket [4] in its position and loosen the other.
    - 2) Turn the bracket [4] to get access to the electrical connector [3].
  - (f) Do these steps to install the electrical connector [3]:
    - 1) Connect the electrical connector [3] and tighten the fasteners [2].
    - 2) Turn the bracket [4] back to its initial position.
    - 3) On the bottom of the panel [5], install and tighten the screws [6] than hold the bracket [4] in its position.
  - (g) Tighten the fasteners [1] on the side of the panel [5].

#### SUBTASK 33-22-06-860-013

(6) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-22-06-860-003

(7) Remove the safety tags and close these circuit breakers:

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	5	C33628	PAX MASTER CALL LT

## Standby Power Management Panel, P310

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
K	4	C25604	EMER EVAC SIG

#### SUBTASK 33-22-06-710-001

(8) Do a test of the new panel.

ARO ALL



(a) Make sure the light in the ATTENDANT WORK LIGHT switch comes on.

NOTE: The light comes on when electrical power is supplied to the airplane. Other lights in the switches on the ASP will be off when their related system is set to the OFF mode.

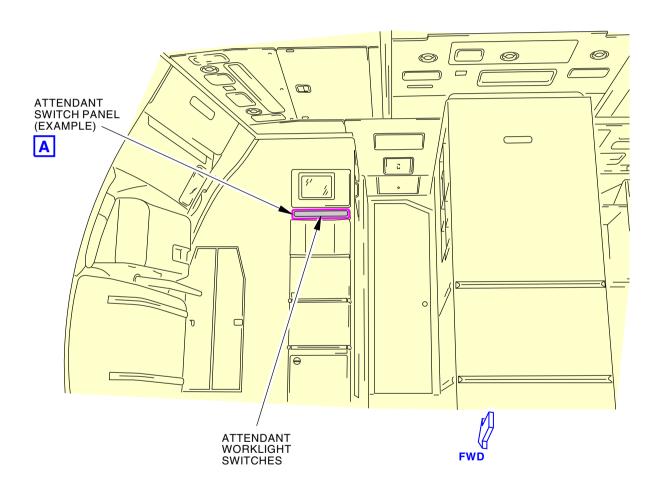
#### SUBTASK 33-22-06-860-004

- (9) If it is necessary to put back the primary external power to the ground service bus, do these steps:
  - (a) At the ASP, set the GROUND SERVICE switch to the ON mode.
    - 1) Make sure the light in the switch comes on.
  - (b) Make sure the PWR NOT IN USE light goes off at the primary external power receptacle, on the P30 external power panel.



ARO ALL 33-22-06





### PASSENGER COMPARTMENT

F55999 S0006419873\_V2

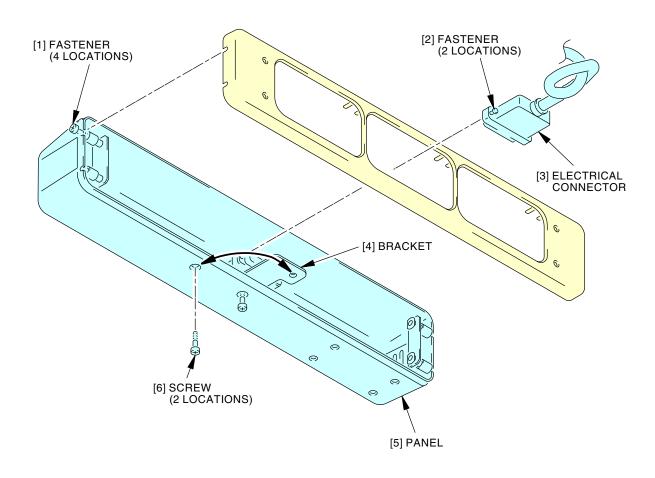
Attendant Switch Panel (ASP) - Panel Replacement Figure 201/33-22-06-990-804 (Sheet 1 of 2)

ARO ALL

33-22-06

Page 204 Sep 05/2016





ATTENDANT SWITCH PANEL (EXAMPLE)



E16771 S0006419874\_V2

Attendant Switch Panel (ASP) - Panel Replacement Figure 201/33-22-06-990-804 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-22-06

Page 205 Sep 05/2016



#### TASK 33-22-06-960-804

Attendant Switch Panel (ASP) - Lens Cap Replacement

(Figure 202)

#### General

- (1) The switch has four main components: lens cap, switch module, housing, and connector. This task replaces the lens cap.
  - If it is necessary to replace the connector or the housing, do the task to replace the panel. Then, in a shop, use the vendor instructions to repair these components.
  - If it is necessary to replace the switch module, do this task: Attendant Switch Panel (ASP) - Switch Replacement, TASK 33-22-06-960-805.

#### References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
<b>Location Zones</b>		

ZOHE	Alea
200	Upper Half of Fuselage

#### **Procedure**

C.

SUBTASK 33-22-06-860-016

Make sure the switch is in the OFF mode.

NOTE: The light in the ATTENDANT WORK LIGHT switch comes on when the ATTENDANT WORK lights are set to the OFF mode.

#### SUBTASK 33-22-06-960-004

- Do these steps to replace the lens cap [21]:
  - (a) Pull the lens cap [21] out from the panel.
  - (b) Disconnect the lanyard [22] from lens cap [21].
    - NOTE: Use your fingers to lift it away.
  - (c) Attach the lanyard [22] to the new lens cap [21].
  - (d) Push the lens cap [21] back into its position.

NOTE: You will hear a click when the lens cap [21] is fully engaged.

Push the switch on and off approximately 3 times until the switch operation feels smooth and the height of the lens cap [21] looks correct.

#### SUBTASK 33-22-06-860-017

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-22-06-710-008

- For an ATTENDANT WORK LIGHT switch, do this test of the new lens cap:
  - Make sure the light comes on.

NOTE: The light in the ATTENDANT WORK LIGHT switch comes on when the ATTENDANT WORK lights are set to the OFF mode.

#### SUBTASK 33-22-06-710-009

**ARO ALL** 

- For most switches but not the ATTENDANT WORK LIGHT switch, do this test of the new lens cap:
  - (a) Set the switch to the ON mode.

33-22-06 EFFECTIVITY



- 1) Make sure the light comes on.
- (b) Set the switch to the OFF mode.
  - 1) Make sure the light goes off.

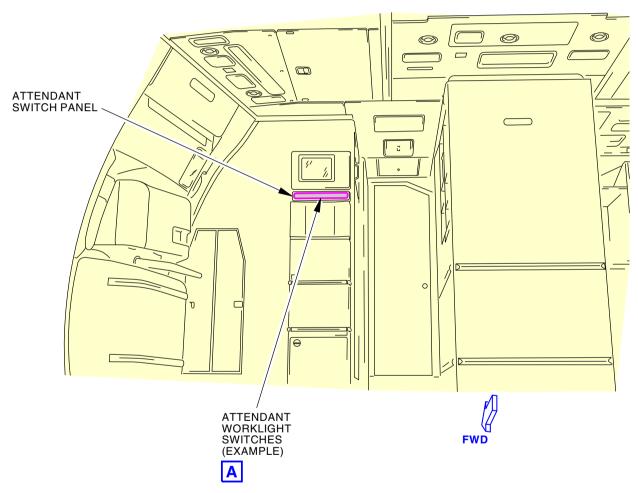
#### SUBTASK 33-22-06-710-010

- (6) If it is necessary to put back the primary external power to the ground service bus, do these steps:
  - (a) At the ASP, set the GROUND SERVICE switch to the ON mode.
    - 1) Make sure the light in the switch comes on.
  - (b) Make sure the PWR NOT IN USE light goes off at the primary external power receptacle, on the P30 external power panel.



ARO ALL 33-22-06





PASSENGER COMPARTMENT

F56007 S0006419875\_V2

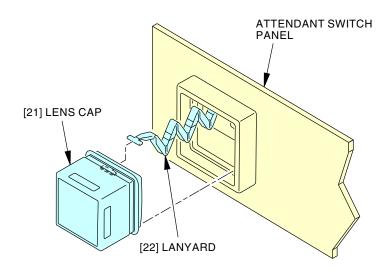
Attendant Switch Panel (ASP) - Lens Cap/Switch Replacement Figure 202/33-22-06-990-802 (Sheet 1 of 2)

ARO ALL

33-22-06

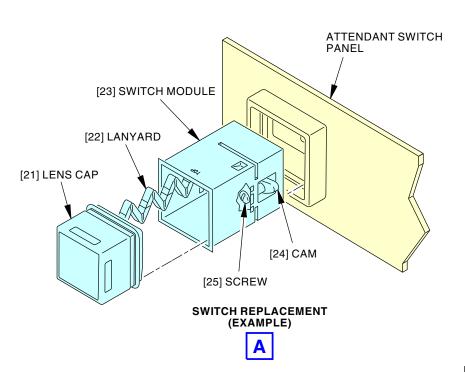
Page 208 Sep 05/2016





## LENS CAP REPLACEMENT (EXAMPLE)





F24282 S0006419876\_V2

Attendant Switch Panel (ASP) - Lens Cap/Switch Replacement Figure 202/33-22-06-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-22-06

Page 209 Sep 05/2016



#### TASK 33-22-06-960-805

### 4. Attendant Switch Panel (ASP) - Switch Replacement

(Figure 202)

#### A. General

- (1) The switch has four main components: lens cap, switch module, housing, and connector. This task replaces the switch module.
  - (a) If it is necessary to replace the connector or the housing, do this task: Attendant Switch Panel (ASP) Panel Replacement, TASK 33-22-06-960-801.

Then, in a shop, use the vendor instructions to repair these components.

(b) If it is necessary to replace the lens cap only, do this task: Attendant Switch Panel (ASP) - Lens Cap Replacement, TASK 33-22-06-960-804.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 24-41-11	Wiring Diagram Manual
WDM 25-63-11	Wiring Diagram Manual
WDM 25-63-14	Wiring Diagram Manual
WDM 33-22-31	Wiring Diagram Manual
WDM 33-22-38	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

SUBTASK 33-22-06-860-018

(1) Make sure the switch is set to the OFF mode.

NOTE: The light in the ATTENDANT WORK LIGHT switch comes on when the ATTENDANT WORK lights are set to the OFF mode.

#### SUBTASK 33-22-06-860-019

(2) Open this circuit breaker and install safety tag:

(WDM 33-22-31 thru WDM 33-22-38)

#### **Right Power Management Panel, P210**

Row	<u>Col</u>	Number	Name
М	5	C33628	PAX MASTER CALL LT

#### SUBTASK 33-22-06-860-020

(3) For a switch in the emergency evacuation control panel, open this circuit breaker and install safety tag:

(WDM 25-63-11 thru WDM 25-63-14)

#### Standby Power Management Panel, P310

Row	Col	<u>Number</u>	<u>Name</u>
K	4	C25604	EMER EVAC SIG

SUBTASK 33-22-06-860-021

(4) For the GROUND SERVICE switch, do this steps:

ARO ALL



- (a) Make sure the primary external power is removed from the ground service bus (WDM 24-41-11):
  - 1) Make sure the PWR NOT IN USE light is on at the primary external power receptacle, on the P30 external power panel.

#### SUBTASK 33-22-06-960-005

- (5) Do these steps to replace the switch:
  - (a) Pull the lens cap [21] out from the panel.
  - (b) Turn the lens cap [21] away from the switch module [23] for access to the screw [25].
  - (c) Loosen the screw [25] to retract the cam [24].
  - (d) Pull the switch module [23] out from the panel.
  - (e) Before you install the new switch, pull the lens cap [21] out from the switch module [23]. NOTE: The lens cap [21] is connected to the switch module [23] by a lanyard [22].
    - 1) Do not disconnect the lanyard [22].
    - 2) Loosen the screw [25] to retract the cam [24].
  - (f) Put the switch module [23] into the panel.
    - NOTE: The label on top of the switch module [23] aligns with the top of the opening.
  - (g) Turn the lens cap [21] away from the switch module [23] for access to the screw [25].
  - (h) Tighten the screw [25] to lock the switch module [23] in its housing.
    - NOTE: As you turn the screw [25] clockwise, the cam is moved into an opening in the housing.
  - (i) Push the lens cap [21] back into its position.
    - NOTE: You will hear a click when the lens cap [21] is fully engaged.
    - 1) Push the switch on and off approximately 3 times until the switch operation feels smooth and the height of the lens cap [21] looks correct.

#### SUBTASK 33-22-06-860-022

(6) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-22-06-860-023

(7) Remove the safety tags and close these circuit breakers:

#### Right Power Management Panel, P210

Row	<u>Col</u>	Number	<u>Name</u>
М	5	C33628	PAX MASTER CALL LT

#### **Standby Power Management Panel, P310**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
K	4	C25604	EMER EVAC SIG

#### SUBTASK 33-22-06-710-011

- (8) For an ATTENDANT WORK LIGHT switch, do this test of the new switch:
  - (a) Make sure the light in the switch comes on.

NOTE: The light in the ATTENDANT WORK LIGHT switch comes on when the ATTENDANT WORK lights are set to the OFF mode.

ARO ALL



#### SUBTASK 33-22-06-710-014

- (9) For an Area Lighting Controller (ALC) or Cabin System Control Panel (CSCP)/Cabin Area Control Panel (CACP) LIGHT switch, do this test of a new switch:
  - (a) Make sure that these circuit breakers are closed:

#### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
Α	16	C23400	CAB SYS MGMT UNIT
F	1	C23415	ZONE MGMT UNIT 1
Н	4	C23419	ZONE MGMT UNIT 3
L	8	C23660	AREA LIGHTING CONT 1

### Right Power Management Panel, P210

Row	<u>Col</u>	Number	<u>Name</u>
D	9	C23444	AREA CONTROL PANELS
Е	25	C23417	ZONE MGMT UNIT 2
G	23	C23463	ZONE MGMT UNIT 4
L	16	C23661	AREA LIGHTING CONT 2

(b) Make sure that these circuit breakers are closed:

## Standby Power Management Panel, P310

Row	Col	<u>Number</u>	<u>Name</u>
F	6	C23632	PAX ADRS CTRL PRI
F	7	C23633	PAX ADRS CTRL SEC

(c) Make sure that these circuit breakers are closed:

#### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	2	C33416	CABIN LTS FWD R
G	3	C33422	CABIN LTS AFT R
Н	4	C33418	CABIN LTS MID FWD R
Н	9	C33420	CABIN LTS MED AFT R
L	2	C33417	CABIN LTS FWD L
L	6	C33419	CABIN LTS MID FWD L
L	7	C33423	CABIN LTS AFT L
L	10	C33421	CABIN LTS MID AFT L

(d) Make sure the CSCP and all CACP's have power.

NOTE: The touch screens will be illuminated and operational.

(e) Press the CSCP/CACP power switch on the Attendant Switch Panel (ASP) at Door 1 Right.

NOTE: The cabin lights will dim after the switch is pressed.

- (f) Make sure that the OFF light comes on.
- (g) Make sure that the CSCP and all the CACP screens are blank.
- (h) Touch the CSCP and CACP screens.
  - 1) Make sure that the screens do not come on.
- (i) Press the CSCP/CACP power switch on the ASP at Door 1 Right.
- (j) Make sure the OFF light does not come on.

ARO ALL



- (k) Make sure that the CSCP/CACP panels go back to their usual menus after initialization.
- (I) Use the CSCP to do the Scene Selection:
  - 1) Touch these selections on the CSCP:
    - a) CABIN CONTROLS
    - b) CABIN LIGHTING
    - c) ALL AREAS
    - d) STANDARD SCENE HIGH (OR EQUIVALENT)
    - e) START SCENE
- (m) Press the ALC power switch on the ASP at Door 1 Right.
- (n) Make sure that the OFF light comes on.
- (o) Make sure that the main cabin indirect lights go to the default dim state after approximately 15 minutes.
- (p) Press the ALC power switch on the ASP at Door 1 Right.
- (q) Make sure that the OFF light does not come on.
- (r) Make sure that the main cabin indirect lights return to the HIGH or FULL bright state after the system is initialized again.

#### SUBTASK 33-22-06-710-012

- (10) For most switches but not the ATTENDANT WORK LIGHT switch, do this test of the new lamp:
  - (a) Set the switch to the ON mode.
    - 1) Make sure the light in the switch comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the light goes off.

#### SUBTASK 33-22-06-710-013

- (11) If it is necessary to put back the primary external power to the ground service bus, do these steps:
  - (a) At the ASP, set the GROUND SERVICE switch to the ON mode.
    - 1) Make sure the light in the switch comes on.
  - (b) Make sure the PWR NOT IN USE light goes off at the primary external power receptacle, on the P30 external power panel.

	OF TA		
	( ) <del>-</del>   1 /	$I \sim K$	



#### **READING LIGHTS - MAINTENANCE PRACTICES**

#### 1. General

- A. This procedure has these tasks:
  - (1) Reading Light Deactivation
  - (2) Reading Light Activation
  - (3) Reading Light Lamp Replacement
  - (4) Reading Light Assembly Replacement
  - (5) Reading Light Beam Adjustment

#### TASK 33-23-00-040-801

## 2. Reading Light - Deactivation

## A. General

(1) This task removes electrical power from the Reading Lights.

#### **B.** Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
200	Upper Half of Fuselage

#### C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### D. Procedure

SUBTASK 33-23-00-010-002

(1) Open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 33-23-00-860-021



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Open these circuit breakers and install safety tags:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	15	C23437	OEU ZONE1 MAIN BUS
С	20	C23464	OEU ZONE 4 R MAIN BUS
D	15	C23445	OEU ZONE3 RIGHT MAIN BUS
D	16	C23441	OEU ZONE3 LEFT MAIN BUS
Ε	16	C23443	OEU ZONE3 CENTER MAIN BUS
Ε	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS

ARO ALL



## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	10	C23414	OEU ZONE2 LEFT MAIN BUS
D	10	C23416	OEU ZONE2 CENTER MAIN BUS
E	10	C23418	OEU ZONE2 RIGHT MAIN BUS

#### E. Reading Light - Tryout

NOTE: This tryout is to make sure that the Reading Lights are in a zero energy state.

#### SUBTASK 33-23-00-860-024

(1) Make sure that these circuit breakers are open and have safety tags:

## Left Power Management Panel, P110

Row	Col	<u>Number</u>	<u>Name</u>
Α	15	C23437	OEU ZONE1 MAIN BUS
С	20	C23464	OEU ZONE 4 R MAIN BUS
D	15	C23445	OEU ZONE3 RIGHT MAIN BUS
D	16	C23441	OEU ZONE3 LEFT MAIN BUS
Е	16	C23443	OEU ZONE3 CENTER MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	10	C23414	OEU ZONE2 LEFT MAIN BUS
D	10	C23416	OEU ZONE2 CENTER MAIN BUS
Ε	10	C23418	OEU ZONE2 RIGHT MAIN BUS

#### SUBTASK 33-23-00-860-022

(2) ON AIRPLANES WITH A POWER CONTROL SWITCH FOR THE VIDEO ENTERTAINMENT SYSTEM;

Set the power control switch in the purser station to the on mode.

#### SUBTASK 33-23-00-700-001

- (3) At the Cabin System Control Panel, do the following steps:
  - (a) On the panel screen, make the following selections:
    - 1) CABIN MAINTENANCE
    - 2) CABIN TESTS
    - 3) START ALL TEST
    - 4) CONTINUE
  - (b) On the ALL TEST FAULTS REVIEW screen, make the following selections:
    - 1) ALL UNITS
    - 2) CONTINUE
  - (c) Make sure that the following maintenance message(s) appear:
    - 1) 23-03401
    - 2) 23-03402
    - 3) 23-03410

ARO ALL



- (d) Set the reading lights to the ON mode.
  - 1) Make sure the lights do not come on.



#### TASK 33-23-00-440-801

- 3. Reading Light Activation
  - A. General
    - (1) This task adds electrical power to the Reading Lights.
  - B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

#### C. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
200	Upper Half of Fuselage

#### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### E. Procedure

SUBTASK 33-23-00-860-025

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 33-23-00-860-026



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Remove the safety tags and close these circuit breakers:

## Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	15	C23437	OEU ZONE1 MAIN BUS
С	20	C23464	OEU ZONE 4 R MAIN BUS
D	15	C23445	OEU ZONE3 RIGHT MAIN BUS
D	16	C23441	OEU ZONE3 LEFT MAIN BUS
E	16	C23443	OEU ZONE3 CENTER MAIN BUS
E	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	10	C23414	OEU ZONE2 LEFT MAIN BUS
D	10	C23416	OEU ZONE2 CENTER MAIN BUS
Ε	10	C23418	OEU ZONE2 RIGHT MAIN BUS

ARO ALL



#### SUBTASK 33-23-00-700-003

- (3) At the Cabin System Control Panel, do the following steps:
  - (a) On the control panel screen, make the following selections:
    - 1) CABIN MAINTENANCE
    - 2) CABIN TESTS
    - 3) START ALL TEST
    - 4) CONTINUE
  - (b) On the ALL TEST FAULTS REVIEW screen, make the following selections:
    - 1) ALL UNITS
    - 2) CONTINUE
  - (c) Make sure that no maintenance messages appear.
  - (d) Set the reading lights to the ON mode.
    - 1) Make sure the lights come on.
    - 2) Set the reading lights to the OFF mode.
  - (e) Put the Cabin System Control Panel back to its usual condition.

#### SUBTASK 33-23-00-860-030

(4) ON AIRPLANES WITH A POWER CONTROL SWITCH FOR THE VIDEO ENTERTAINMENT SYSTEM;

Set the power control switch in the purser station to the usual mode.

#### SUBTASK 33-23-00-410-002

(5) Close this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door
	——— END OF TASK ———

## TASK 33-23-00-960-801

4. Reading Light - Lamp Replacement

(Figure 201)

- A. General
  - (1) The reading lights included in this procedure are installed in overhead panels.
- B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-23-11	Wiring Diagram Manual

C. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

ARO ALL



#### D. Procedure

SUBTASK 33-23-00-960-001



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LAMP, ELECTRICAL SHOCK CAN OCCUR. THIS CAN CAUSE INJURIES TO PERSONNEL.

- (1) Do these steps to replace the lamp (WDM 33-23-11):
  - (a) Remove the lens assembly [1].
    - 1) Push the inner and outer sides of the lens assembly together with two fingers.
    - 2) At the same time, turn the lens assembly counterclockwise to disengage it.
  - (b) Replace the lamp [2].
  - (c) Install the lens assembly [1].
    - 1) Push the inner and outer sides of the lens assembly together with two fingers.
    - 2) At the same time, turn the lens assembly counterclockwise to disengage it.
    - 3) Pull the outer side of the lens downward softly to make sure that the lens is engaged appropriately.

#### SUBTASK 33-23-00-860-003

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-23-00-860-012

(3) ON AIRPLANES WITH A POWER CONTROL SWITCH FOR THE VIDEO ENTERTAINMENT SYSTEM;

Set the power control switch in the purser station to the on mode.

#### SUBTASK 33-23-00-710-001

- (4) Do a test of the new lamp.
  - (a) At the applicable passenger control unit (PCU), set the reading light to the on mode.
    - 1) Make sure the lamp comes on.
      - a) If it is necessary to adjust the direction of the light beam, do this task: Reading Light - Light Beam Adjustment, TASK 33-23-00-820-801.

NOTE: Do only the applicable steps in the task.

- (b) Set the reading light to the off mode.
  - 1) Make sure the lamp goes off.

#### SUBTASK 33-23-00-860-013

(5) ON AIRPLANES WITH A POWER CONTROL SWITCH FOR THE VIDEO ENTERTAINMENT SYSTEM;

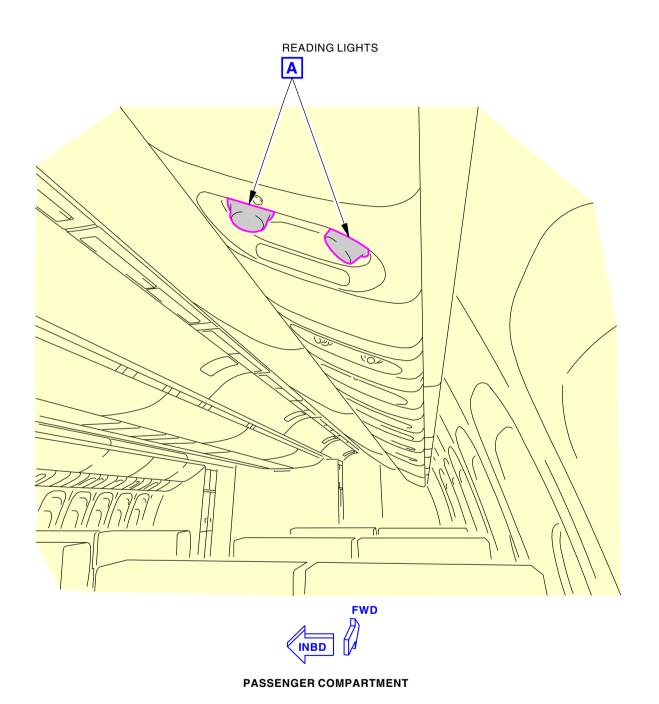
Set the power control switch in the purser station to the usual mode.

	END OF '	TASK —	
--	----------	--------	--

33-23-00

EFFECTIVITY .





E18611 S0006419887\_V2

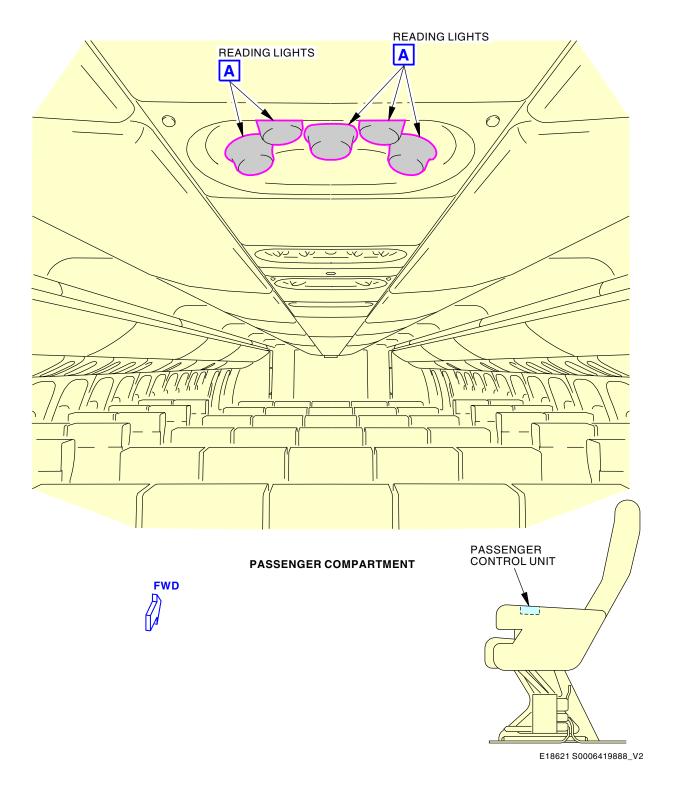
Reading Light - Lamp Replacement Figure 201/33-23-00-990-802 (Sheet 1 of 3)

ARO ALL
D633W101-ARO

33-23-00

Page 206 Sep 05/2016





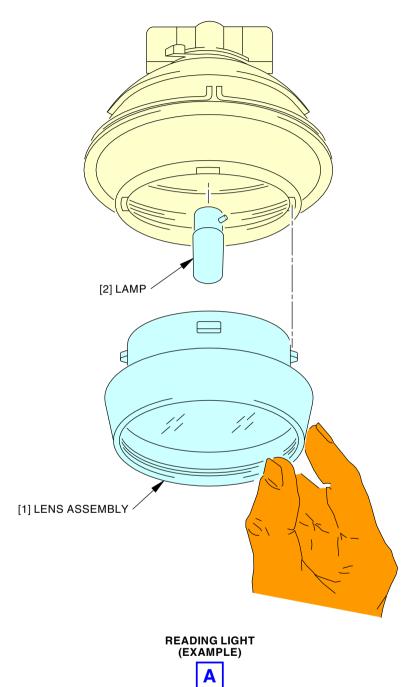
Reading Light - Lamp Replacement Figure 201/33-23-00-990-802 (Sheet 2 of 3)

ARO ALL

33-23-00

Page 207 Sep 05/2016





E21332 S0006419889\_V2

Reading Light - Lamp Replacement Figure 201/33-23-00-990-802 (Sheet 3 of 3)

ARO ALL

D633W101-ARO

33-23-00

Page 208 Sep 05/2016



#### TASK 33-23-00-960-802

## 5. Reading Light - Light Assembly Replacement

(Figure 202)

#### A. General

(1) The reading lights included in this procedure are installed in overhead panels.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-23-01-010-801	Passenger Service Unit (PSU) Opening (P/B 201)
25-23-01-410-801	Passenger Service Unit (PSU) Closing (P/B 201)
WDM 23-33-3X	Wiring Diagram Manual
WDM 23-33-5X	Wiring Diagram Manual
WDM 33-23-11	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

SUBTASK 33-23-00-860-004

(1) Open these circuit breakers and install safety tags:

(WDM 23-33-3X thru WDM 23-33-5X WDM 33-23-11)

#### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	15	C23437	OEU ZONE1 MAIN BUS
С	20	C23464	OEU ZONE 4 R MAIN BUS
D	15	C23445	OEU ZONE3 RIGHT MAIN BUS
D	16	C23441	OEU ZONE3 LEFT MAIN BUS
E	16	C23443	OEU ZONE3 CENTER MAIN BUS
E	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	10	C23414	OEU ZONE2 LEFT MAIN BUS
D	10	C23416	OEU ZONE2 CENTER MAIN BUS
F	10	C23418	OFU ZONE2 RIGHT MAIN BUS

#### SUBTASK 33-23-00-010-001

(2) For access to the top of the light assembly, open the passenger service unit (PSU) (TASK 25-23-01-010-801).

#### SUBTASK 33-23-00-960-002

- (3) Do these steps to replace the light assembly:
  - (a) Disconnect the electrical connectors [4].
  - (b) Remove the retaining ring [5].
    - 1) Push apart the ends of the retaining ring [5] to loosen it from the light assembly [3].

ARO ALL



- 2) Prepare to catch the light assembly when it falls from the panel.
- (c) Replace the light assembly [3].
  - 1) Make sure a lamp is installed in the light assembly (TASK 33-23-00-960-801).
  - 2) Put the light assembly into its position from below the panel.
  - 3) Make sure the notch on the light assembly aligns with the notch on the panel.
    - NOTE: The notches can be seen from the top side of the panel.
- (d) Install the retaining ring [5] around the light assembly [3].
  - NOTE: Use pliers to pull together the ends of the retaining ring. The retaining ring must be tight to hold the light assembly in its position.
- (e) Connect the electrical connectors [4].

#### SUBTASK 33-23-00-860-005

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-23-00-860-006

(5) Remove the safety tags and close these circuit breakers:

#### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Α	15	C23437	OEU ZONE1 MAIN BUS
С	20	C23464	OEU ZONE 4 R MAIN BUS
D	15	C23445	OEU ZONE3 RIGHT MAIN BUS
D	16	C23441	OEU ZONE3 LEFT MAIN BUS
Е	16	C23443	OEU ZONE3 CENTER MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS

#### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	10	C23414	OEU ZONE2 LEFT MAIN BUS
D	10	C23416	OEU ZONE2 CENTER MAIN BUS
Е	10	C23418	OEU ZONE2 RIGHT MAIN BUS

#### SUBTASK 33-23-00-860-014

(6) ON AIRPLANES WITH A POWER CONTROL SWITCH FOR THE VIDEO ENTERTAINMENT SYSTEM;

Set the power control switch in the purser station to the on mode.

#### SUBTASK 33-23-00-710-002

- (7) Do a test of the new light assembly.
  - (a) At the applicable passenger control unit (PCU), set the reading light to the on mode.
    - 1) Make sure the light comes on.
      - a) If it is necessary to adjust the direction of the light beam, do this task: Reading Light - Light Beam Adjustment, TASK 33-23-00-820-801

NOTE: Do only the applicable steps in the task.

- (b) Set the reading light to the off mode.
  - 1) Make sure the light goes off.

ARO ALL



#### SUBTASK 33-23-00-410-001

(8) Close the PSU (TASK 25-23-01-410-801).

#### SUBTASK 33-23-00-860-015

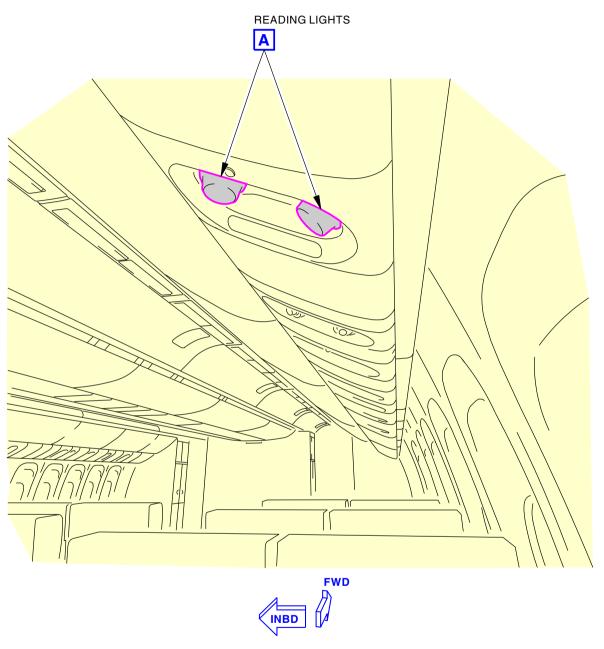
(9) ON AIRPLANES WITH A POWER CONTROL SWITCH FOR THE VIDEO ENTERTAINMENT SYSTEM;

Set the power control switch in the purser station to the usual mode.

----- END OF TASK -----

ARO ALL





PASSENGER COMPARTMENT

F67556 S0006419891\_V2

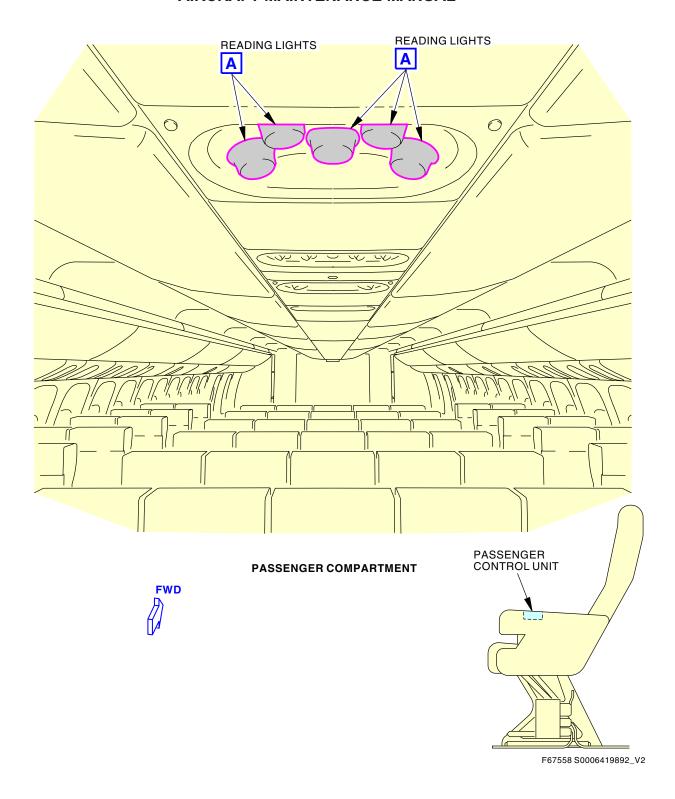
Reading Light - Light Assembly Replacement Figure 202/33-23-00-990-803 (Sheet 1 of 3)

ARO ALL
D633W101-ARO

33-23-00

Page 212 Sep 05/2016





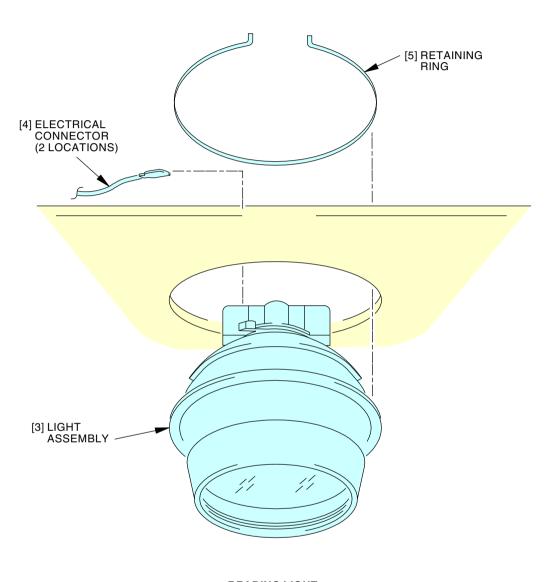
Reading Light - Light Assembly Replacement Figure 202/33-23-00-990-803 (Sheet 2 of 3)

ARO ALL
D633W101-ARO

33-23-00

Page 213 Sep 05/2016





READING LIGHT (EXAMPLE)



E24193 S0006419893\_V3

Reading Light - Light Assembly Replacement Figure 202/33-23-00-990-803 (Sheet 3 of 3)

ARO ALL
D633W101-ARO

33-23-00

Page 214 Sep 05/2017



#### TASK 33-23-00-820-801

#### 6. Reading Light - Light Beam Adjustment

(Figure 203)

#### A. General

(1) The reading lights included in this procedure are installed in overhead panels.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-23-01-010-801	Passenger Service Unit (PSU) Opening (P/B 201)
25-23-01-410-801	Passenger Service Unit (PSU) Closing (P/B 201)

#### C. Location Zones

Location Longs		
Zone	Area	
200	Upper Half of Fuselage	

#### D. Procedure

SUBTASK 33-23-00-860-007

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-23-00-860-016

(2) ON AIRPLANES WITH A POWER CONTROL SWITCH FOR THE VIDEO ENTERTAINMENT SYSTEM;

Set the power control switch in the purser station to the on mode.

#### SUBTASK 33-23-00-860-001

(3) At the applicable passenger control unit (PCU), set the reading light to the on mode.

#### SUBTASK 33-23-00-820-001

- (4) Do these steps to adjust the direction of the light beam:
  - (a) If the reading light is in a locked position, do these steps:
    - 1) For access to the top of the light assembly, open the PSU (TASK 25-23-01-010-801).
    - 2) Move the lever [6] on top of the light assembly to the ADJUST position.
    - 3) Close the PSU (TASK 25-23-01-410-801).
  - (b) Adjust the lens assembly [1] until the center of the light beam is on the target point [7] or target point [8].
    - 1) Use the correct seat configuration to do the adjustment (Figure 203).
  - (c) If the reading light was in a locked position, do these steps:
    - 1) Open the PSU (TASK 25-23-01-010-801).
    - 2) Move the lever [6] on top of the light assembly to one of the LOCK positions.
    - 3) Close the PSU (TASK 25-23-01-410-801).

#### SUBTASK 33-23-00-860-002

(5) Set the reading light to the off mode.

#### SUBTASK 33-23-00-860-017

(6) ON AIRPLANES WITH A POWER CONTROL SWITCH FOR THE VIDEO ENTERTAINMENT SYSTEM;

ARO ALL

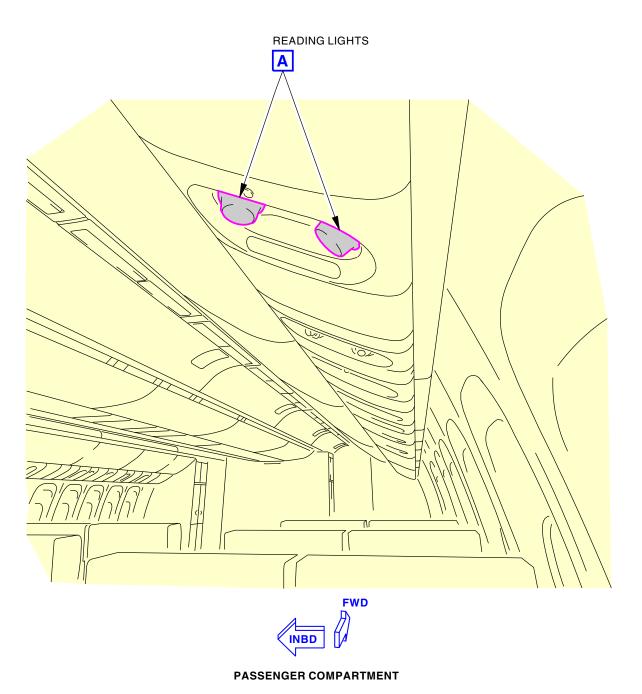


Set the power control switch in the purser station to the usual mode.

—— END OF TASK ———

ARO ALL





F67565 S0006419895\_V2

Reading Light - Light Beam Adjustment Figure 203/33-23-00-990-804 (Sheet 1 of 5)

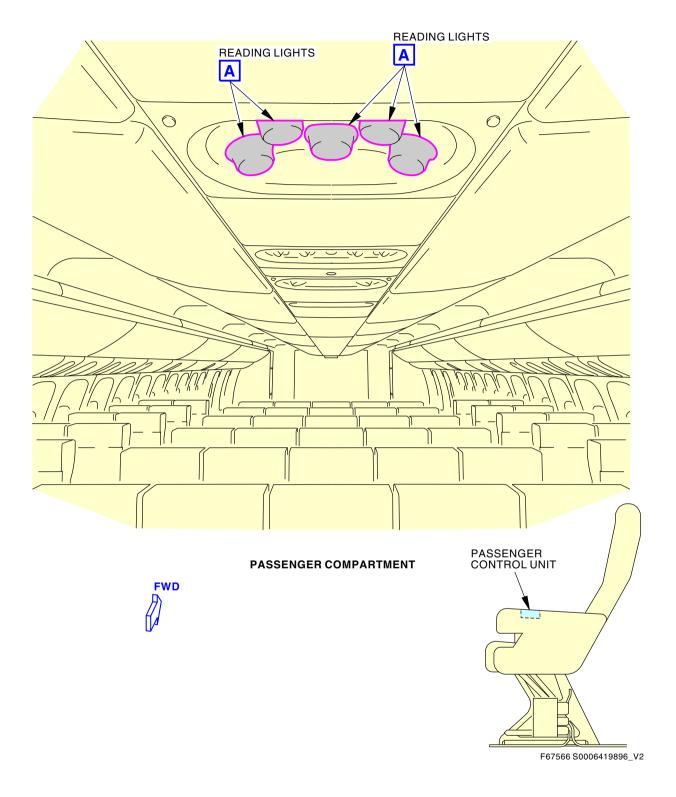
ARO ALL

D633W101-ARO

33-23-00

Page 217 Sep 05/2016





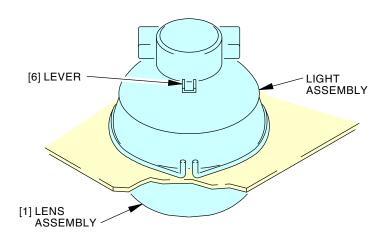
Reading Light - Light Beam Adjustment Figure 203/33-23-00-990-804 (Sheet 2 of 5)

ARO ALL
D633W101-ARO

33-23-00

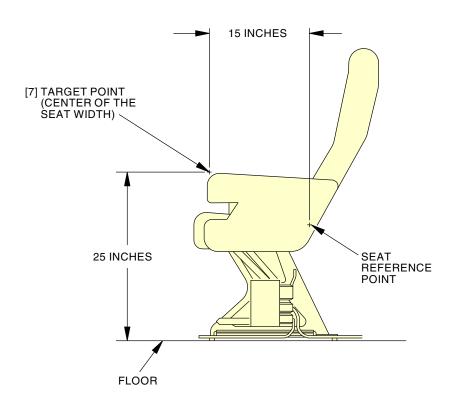
Page 218 Sep 05/2016





## READING LIGHT (EXAMPLE)





E29146 S0006419897\_V3

Reading Light - Light Beam Adjustment Figure 203/33-23-00-990-804 (Sheet 3 of 5)

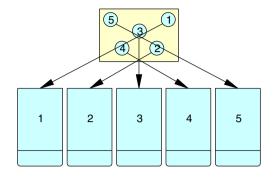
ARO ALL

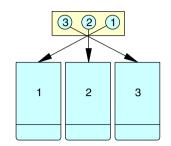
D633W101-ARO

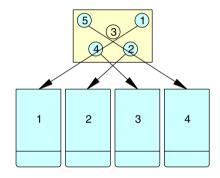
33-23-00

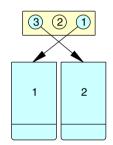
Page 219 Sep 05/2017

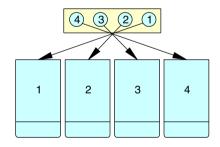


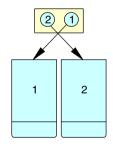












E24034 S0006419898\_V2

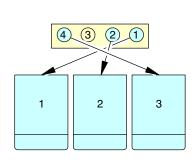
Reading Light - Light Beam Adjustment Figure 203/33-23-00-990-804 (Sheet 4 of 5)

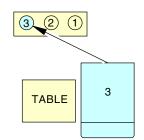
ARO ALL

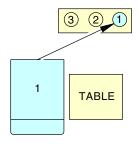
33-23-00

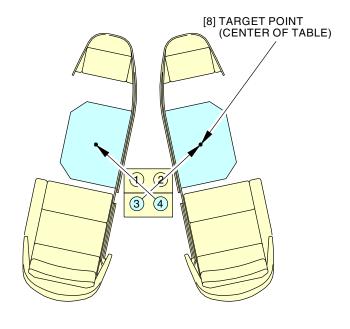
Page 220 Sep 05/2016

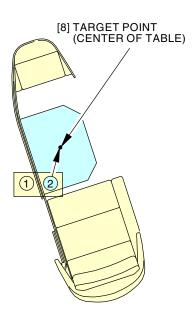












G53908 S0006419899\_V3

Reading Light - Light Beam Adjustment Figure 203/33-23-00-990-804 (Sheet 5 of 5)

ARO ALL
D633W101-ARO

33-23-00

Page 221 Sep 05/2017



#### **READING LIGHTS - ADJUSTMENT/TEST**

#### 1. General

- A. This procedure has one task:
  - (1) Reading Lights Operational Test

#### TASK 33-23-00-710-801

## 2. Reading Lights - Operational Test

#### A. General

(1) The reading lights included in this procedure are installed in overhead panels.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
33-23-00-820-801	Reading Light - Light Beam Adjustment (P/B 201)
WDM 33-23-11	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

SUBTASK 33-23-00-860-008

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

### SUBTASK 33-23-00-860-010

(2) ON AIRPLANES WITH A POWER CONTROL SWITCH FOR THE VIDEO ENTERTAINMENT SYSTEM:

Set the power control switch in the purser station to the on mode.

#### SUBTASK 33-23-00-710-003

- (3) Do a test of the reading lights (WDM 33-23-11):
  - (a) At the cabin system control panel (CSCP), set the reading lights to the on mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.

- Make sure the lights come on.
  - a) If it is necessary to adjust the direction of the light beam, do this task: Reading Light - Light Beam Adjustment, TASK 33-23-00-820-801.

NOTE: Do only the applicable steps.

- (b) Set the lights to the off mode.
  - 1) Make sure the lights go off.

#### SUBTASK 33-23-00-860-009

(4) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

ARO ALL



Ş١	IRΤΔ	SK	33-23	.00-8	360-0	11

(5) ON AIRPLANES WITH A POWER CONTROL SWITCH FOR THE VIDEO ENTERTAINMENT SYSTEM;

Set the power control switch in the purser station to the usual mode.

----- END OF TASK -----

ARO ALL



#### **INFORMATION SIGNS - MAINTENANCE PRACTICES**

#### 1. General

- A. This procedure contains the following information:
  - (1) Information Signs Deactivation
  - (2) Information Signs Activation
  - (3) Information Sign Lamp Replacement for the following selected signs:
    - (a) The electronic devices off/fasten-seat-belt signs in the PSUs.
    - (b) The electronic devices off/fasten-seat-belt signs on closets and lavatories.
    - (c) The no-smoking/fasten-seat-belt signs on closets, and lavatories.
  - (4) Information Sign Light Assembly Replacement for the following selected signs:
    - (a) The no-smoking/fasten-seat-belt signs on closets, and lavatories.
    - (b) The electronic devices off/fasten-seat-belt signs in the PSUs.
- B. This procedure does not contain the following information:
  - (1) Lamp replacement procedures for the signs spaced along the center PCUs that have the nosmoking/fasten-seat-belt symbols on the left and right ends of the lavatory-occupied sign. For those signs, do this task: Lavatory-Occupied Sign - Lamp Replacement, TASK 33-26-00-960-801
    - NOTE: Do only the applicable steps in the task.
  - (2) Lamp replacement procedures for the signs spaced along the center PCUs that have the electronic devices off/fasten-seat-belt symbols on the left and right ends of the lavatory-occupied sign. For those signs, do this task: Lavatory-Occupied Sign Lamp Replacement, TASK 33-26-00-960-801
    - NOTE: Do only the applicable steps in the task.
  - (3) Lamp replacement in the lavatory door-lock signs. For those signs, do this task: (TASK 33-26-00-960-803)

### TASK 33-24-00-040-801

#### 2. Information Signs - Deactivation

#### A. General

- (1) This task removes electrical power from these Informational Signs (as applicable):
  - (a) No smoking signs
  - (b) Electronic devices off signs
  - (c) Fasten seat belt signs
  - (d) Return to seat signs
  - (e) No cell phone signs

#### B. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
200	Upper Half of Fuselage
211	Flight Compartment, Left

ARO ALL

33-24-00



# (Continued)

Zone	Area
212	Flight Compartment, Right

#### C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

### D. Procedure

SUBTASK 33-24-00-010-001

(1) Open this access panel:

Number Name/Location

117AL Main Equipment Center Access Door

SUBTASK 33-24-00-860-016



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Open these circuit breakers and install safety tags:

### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C23420	OEU ZONE2 XFER BUS

# E. Information Signs - Tryout

NOTE: This tryout is to make sure that the Information Signs are in a zero energy state.

SUBTASK 33-24-00-860-017



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

1) Make sure that these circuit breakers are open and have safety tags:

# Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
E	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS

ARO ALL



(Continued)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

### Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C23420	OEU ZONE2 XFER BUS

#### SUBTASK 33-24-00-700-002

- (2) At the Cabin System Control Panel, do the following steps:
  - (a) On the panel screen, make the following selections:
    - 1) CABIN MAINTENANCE
    - 2) CABIN TESTS
    - 3) START ALL TEST
    - 4) CONTINUE
  - (b) On the ALL TEST FAULTS REVIEW screen, make the following selections:
    - 1) ALL UNITS
    - 2) CONTINUE
  - (c) Make sure that the following maintenance message(s) appear:
    - 1) 23-03401
    - 2) 23-03402
    - 3) 23-03410

#### SUBTASK 33-24-00-700-001

- (3) At the overhead panel, P5, do the following steps:
  - (a) Set the PASS SIGNS/Informational Signs switches to the ON mode.
    - 1) Make sure that the lights do not come on.

——— END OF TASK ———		<b>END</b>	OF TA	SK —	
---------------------	--	------------	-------	------	--

#### TASK 33-24-00-440-801

# 3. Information Signs - Activation

#### A. General

- (1) This task adds electrical power to the following Informational Signs (as applicable).
  - (a) No smoking signs
  - (b) Electronic devices off signs
  - (c) Fasten seat belt signs
  - (d) Return to seat signs
  - (e) No cell phone signs

# B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

ARO ALL



#### C. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
200	Upper Half of Fuselage
211	Flight Compartment, Left
212	Flight Compartment, Right

#### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### E. Procedure

#### SUBTASK 33-24-00-860-018

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 33-24-00-860-019



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

2) Remove the safety tags and close these circuit breakers:

# Left Power Management Panel, P110

Row	Col	<u>Number</u>	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
E	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	24	C23420	OFU ZONE2 XFER BUS

#### SUBTASK 33-24-00-700-003

- (3) At the Cabin System Control Panel, do the following steps:
  - (a) On the panel screen, make the following selections:
    - 1) CABIN MAINTENANCE
    - 2) CABIN TESTS
    - 3) START ALL TEST
    - 4) CONTINUE
  - (b) On the ALL TEST FAULTS REVIEW screen, make the following selections:
    - 1) ALL UNITS
    - 2) CONTINUE
  - (c) Make sure that no maintenance messages appear.

ARO ALL



#### SUBTASK 33-24-00-700-004

- (4) At the overhead panel, P5, do the following steps:
  - (a) Set the PASS SIGNS switches to the ON mode.
    - 1) Make sure that the lights come on.
  - (b) Set the PASS SIGNS/Informational Signs switches to there usual condition.

#### SUBTASK 33-24-00-860-020

(5) Put the Cabin System Control Panel back to its usual condition.

#### SUBTASK 33-24-00-410-001

(6) Close this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### TASK 33-24-00-960-801

# 4. Information Sign - Lamp Replacement

(Figure 201)

#### A. General

(1) This task includes the overdoor monitor signs, lowered ceiling mounted signs, and the no-smoking/fasten-seat-belt signs in the PSUs.

– END OF TASK —

- (2) This task includes the overdoor monitor signs, lowered ceiling mounted signs, and the electronic devices off/fasten-seat-belt signs in the PSUs.
- (3) This task does not include the return-to-seat signs in the lavatories. These light assemblies have LEDS; they do not have lamps. When these signs do not operate correctly, replace the light assembly (TASK 33-24-00-960-802 or TASK 33-24-00-960-801).

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-24-11	Wiring Diagram Manual
WDM 33-24-34	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

SUBTASK 33-24-00-960-001



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LAMP, ELECTRICAL SHOCK CAN OCCUR. THIS CAN CAUSE INJURIES TO PERSONNEL.

- (1) Do these steps to replace the lamp (WDM 33-24-11 thru WDM 33-24-34):
  - (a) Remove the lens assembly [2].
    - 1) Use the top or bottom slots to release the lens assembly.
  - (b) Replace the lamp [1].

ARO ALL



#### SUBTASK 33-24-00-860-002

(2) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-24-00-710-003

- (3) Do a test of the new lamp.
  - (a) Make sure that the No Smoking light is ON when airplane power in ON.
  - (b) At the Cabin System Control Panel (CSCP), set the applicable sign to the on mode.
    - 1) On the CABIN MAINTENANCE main menu, touch CABIN TESTS.
    - 2) On the CABIN TESTS menu, touch LAMPS TEST.
    - 3) On the LAMPS TEST menu, make the applicable selection.
      - use the SPECIAL FUNCTION selection on the lamp test menu to operate the sign.
    - 4) Make sure the lamp comes on.
  - (c) Set the sign to the off mode.
    - 1) Make sure the lamp goes off.
  - (d) Install the lens assembly [2].

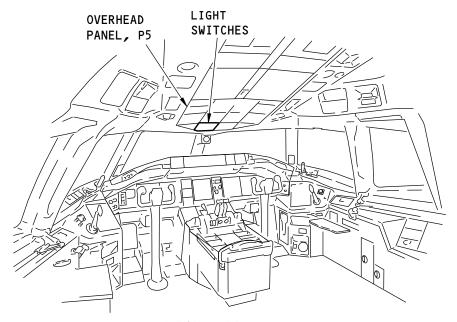
NOTE: Do not apply force. Make sure the top side of the lens assembly is installed in the top side of the panel.

#### SUBTASK 33-24-00-860-005

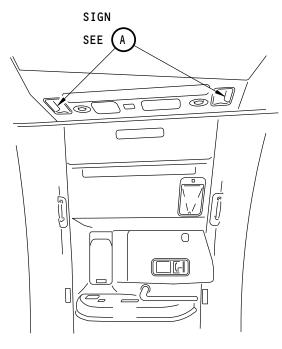
- (4) Put the CSCP back to its usual condition.
  - (a) On the lamp test menu, touch MAIN MENU.
  - (b) If a note appears on the screen, read it, then follow the instructions.
  - (c) In the cabin maintenance menus are not necessary, touch EXIT.

——— END OF TASK ———





FLIGHT COMPARTMENT



OVERDOOR PANEL (EXAMPLE)

W85027 S0000130782\_V1

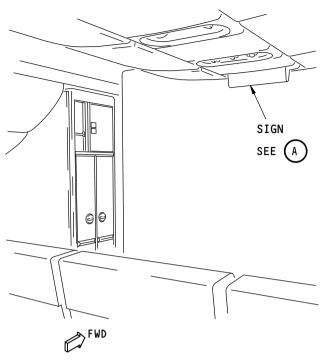
Information Sign - Lamp Replacement Figure 201/33-24-00-990-801 (Sheet 1 of 3)

ARO ALL
D633W101-ARO

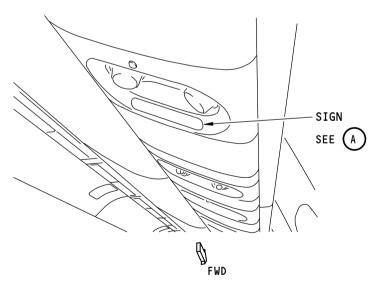
33-24-00

Page 207 Jan 05/2016





LAVATORY SIGN (EXAMPLE)



PSU READING LIGHT PANEL (EXAMPLE)

E22516 S0006419914\_V1

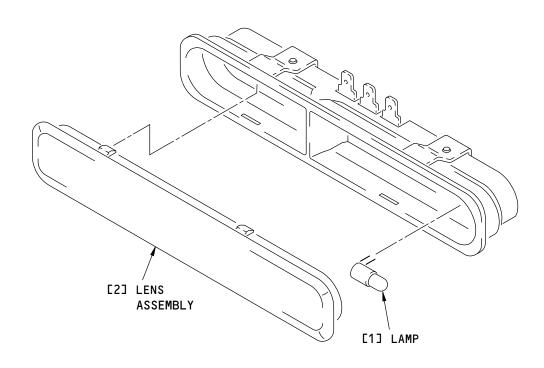
Information Sign - Lamp Replacement Figure 201/33-24-00-990-801 (Sheet 2 of 3)

ARO ALL
D633W101-ARO

33-24-00

Page 208 Jan 05/2016





# INFORMATION SIGN (EXAMPLE)



E24509 S0006419915\_V1

Information Sign - Lamp Replacement Figure 201/33-24-00-990-801 (Sheet 3 of 3)

ARO ALL

33-24-00

Page 209 Jan 05/2016

l D633W101-ARO



#### TASK 33-24-00-960-802

# 5. Information Sign - Light Assembly Replacement

(Figure 202)

#### A. General

(1) This task includes the return-to-seat sign in the lavatories, the no-smoking/fasten seat belt, and the no-smoking/fasten-seat-belt/return-to-seat signs that are not in the lavatory.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
33-24-00-710-801	Information Signs - Operational Test (P/B 501)

### C. Tools/Equipment

Reference	Description
STD-1178	Skin Wedge - a commercially available hand tool or made from a 1
	1/2 inch putty knife with rounded corners and between 0.020 and
	0.035 inches thick.

#### D. Consumable Materials

Reference	Description	Specification
A00230	Compound - Electrical Insulating Coating	BMS5-37

#### E. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### F. Procedure

SUBTASK 33-24-00-860-003

(1) Open the applicable circuit breakers and install safety tags: (WDM 33-24-11 thru 33-24-34)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	24	C23420	OEU ZONE2 XFER BUS

#### SUBTASK 33-24-00-960-003

- (2) Do these steps to replace the light assembly in a Lavatory:
  - (a) Open the mirror.
    - 1) Use a skin wedge, STD-1178 to lift the latch on the side of the mirror.
  - (b) Remove the screws [24] and washers [25] that hold the light assembly [23] in its position.
  - (c) Remove the sealant around the wiring that leads into the light assembly [23].
  - (d) Disconnect the electrical wires [26].

ARO ALL



- 1) Remove the screws [28] and washers [27].
- (e) Replace the light assembly [23].

NOTE: Do not discard the light assembly. In a shop, use the vendor instructions for possible repairs.

- (f) Connect the electrical wires [26].
  - 1) Install the washers [27] and screws [28].
- (g) Install the washers [25] and screws [24] that hold the light assembly [23] in its position.
- (h) Fill the space around the wiring with a silicone rubber compound, A00230.
- (i) Close the mirror.
  - 1) To make sure it closes, push along the length of the mirror on the side that latches.

#### SUBTASK 33-24-00-960-004

- (3) Do these steps to replace the light assembly for signs not in the lavatories:
  - (a) Remove the light assembly [21] from the panel.

NOTE: It is not necessary to remove the lens assembly. With the lens assembly attached, move the bottom of the light assembly away from the panel.

- (b) Disconnect the electrical wires [22].
- (c) Replace the light assembly [21].
  - 1) Make sure the lamps are installed in the new light assembly [21] (TASK 33-24-00-960-801).
  - 2) Make sure the light assembly [21] is attached correctly.
- (d) Connect the electrical wires [22].
- (e) Install the light assembly [21].
  - 1) Move the top of the light assembly into the panel first, then push on the face of the lens assembly.

#### SUBTASK 33-24-00-860-004

(4) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-24-00-860-007

(5) Remove the safety tags and close the applicable circuit breakers:

#### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

# **Right Power Management Panel, P210**

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C23420	OEU ZONE2 XFER BUS

#### SUBTASK 33-24-00-710-004

(6) Do an operational test of the new information sign light assembly:

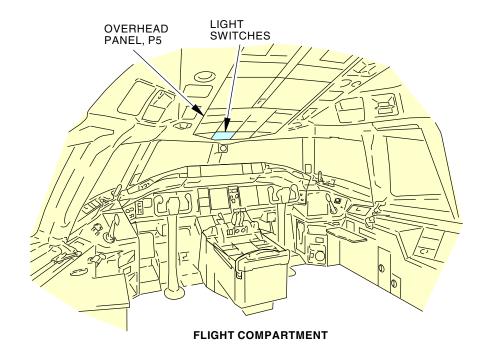
ARO ALL

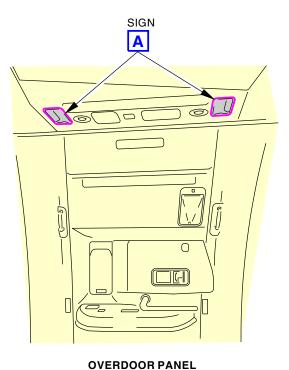


(a)	Do this task: Information Signs - Operational Test, TASK 33-24-00-710-801.
	——— END OF TASK ———

ARO ALL







W85049 S0000131386\_V2

Information Sign - Light Assembly Replacement Figure 202/33-24-00-990-802 (Sheet 1 of 3)

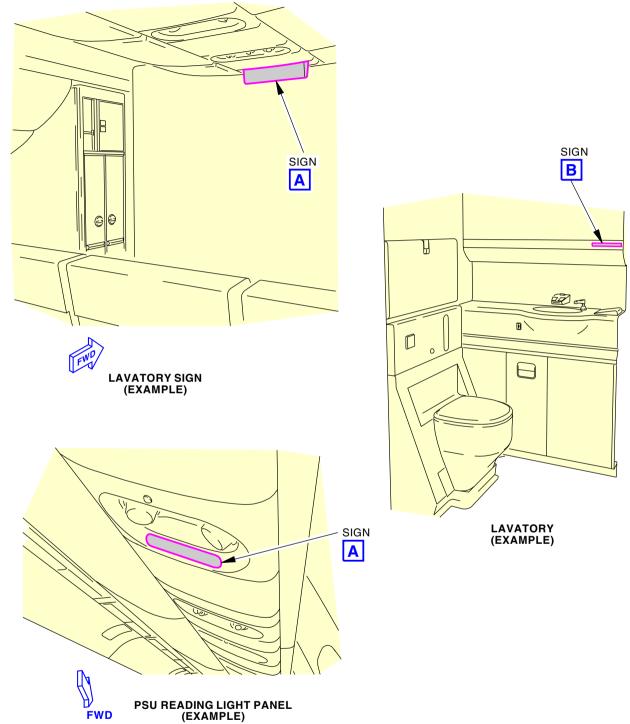
(EXAMPLE)

ARO ALL
D633W101-ARO

33-24-00

Page 213 Sep 05/2016





F68233 S0006419918\_V2

Information Sign - Light Assembly Replacement Figure 202/33-24-00-990-802 (Sheet 2 of 3)

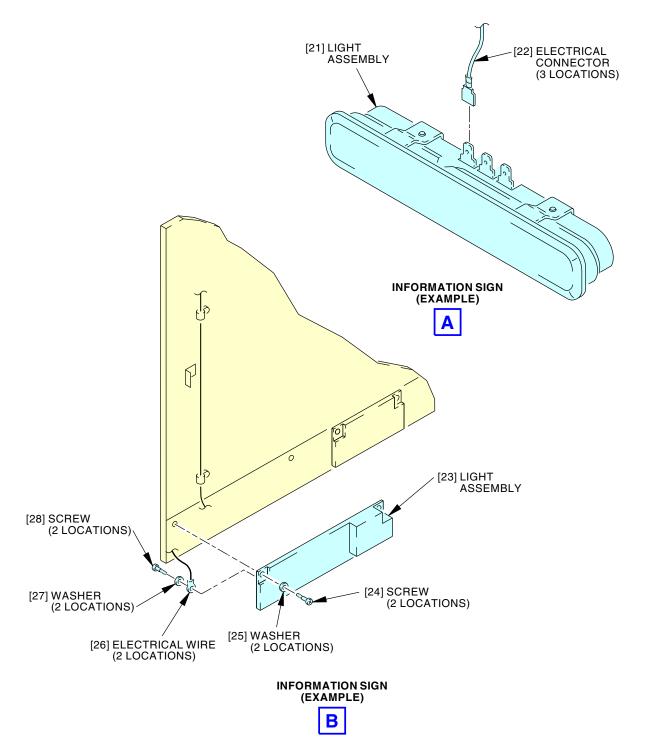
ARO ALL

D633W101-ARO

33-24-00

Page 214 Sep 05/2016





E30134 S0006419919\_V2

Information Sign - Light Assembly Replacement Figure 202/33-24-00-990-802 (Sheet 3 of 3)

ARO ALL

D633W101-ARO

33-24-00

Page 215 Sep 05/2016



#### TASK 33-24-00-960-803

### 6. Information Sign - PCB Assembly Replacement

(Figure 203)

#### A. General

(1) This task includes the return-to-seat sign in the lavatories, the no-smoking/fasten seat belt, and the no-smoking/fasten-seat-belt/return-to-seat signs that are not in the lavatory.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
33-24-00-710-801	Information Signs - Operational Test (P/B 501)

### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

### D. Procedure

SUBTASK 33-24-00-860-011

(1) Open the applicable circuit breakers and install safety tags: (WDM 33-24-11 thru 33-24-34)

# Left Power Management Panel, P110

Row	Col	<u>Number</u>	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	24	C23420	OEU ZONE2 XFER BUS

#### SUBTASK 33-24-00-960-006

- (2) Do these steps to replace the PCB assembly [41]:
  - (a) Remove the mounting spring [43] from the housing [44].
  - (b) Remove the insulator [42] from the housing [44].
  - (c) Replace the PCB assembly [41].
  - (d) Install the new PCB assembly [41].
  - (e) Install the insulator [42] to the housing [44].
  - (f) Install the mounting spring [43] to the housing [44].

#### SUBTASK 33-24-00-860-013

EFFECTIVITY

**ARO ALL** 

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

33-24-00

Page 216 D633W101-ARO Jan 05/2018



#### SUBTASK 33-24-00-860-014

(4) Remove the safety tags and close the applicable circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
Ε	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	24	C23420	OEU ZONE2 XFER BUS

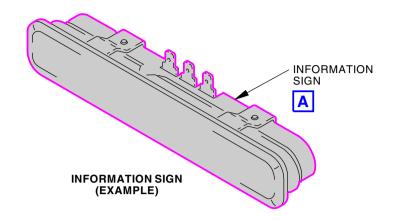
#### SUBTASK 33-24-00-710-016

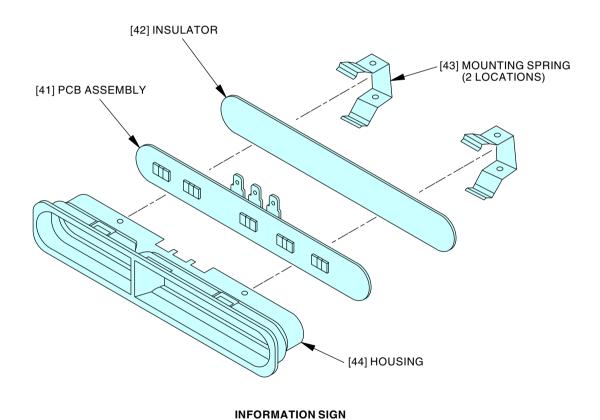
- (5) Do an operational test of the new information sign light assembly:
  - (a) Do this task: Information Signs Operational Test, TASK 33-24-00-710-801.

——— END OF TASK ———

ARO ALL 33-24-00







1678117 S0000306794\_V2

Information Sign - PCB Assembly Replacement Figure 203/33-24-00-990-803

ARO ALL
D633W101-ARO

33-24-00

Page 218 Sep 05/2016



### **INFORMATION SIGNS - ADJUSTMENT/TEST**

#### 1. General

- A. This procedure has one task:
  - (1) Information Signs Operational Test
- B. Information signs include these signs (as applicable):
  - · no-smoking signs
  - · fasten-seat-belt signs
  - · return-to-seat signs
  - · electronics devices off signs
  - · no cell phone signs
- C. The lavatory occupied signs are not included here.
  - (1) Refer to the Lavatory Lights and Signs (TASK 33-26-00-710-801).
- D. When the information signs come on and go off, you will hear a chime. The chime is not included here; refer to this task:Passenger Address System System Test, TASK 23-31-00-730-801

#### TASK 33-24-00-710-801

# 2. Information Signs - Operational Test

#### A. General

(1) This test makes sure that the No Electronics and Seat Belt switches on the P5 panel control the electronic devices off, fasten seat belt, and return to seat signs (WDM 33-24-11 thru WDM 33-24-35).

NOTE: The No Smoking signs are on when aircraft power is ON.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
27-58-00-710-801	Flap Position Indication System - Operational Test (P/B 501)
35-21-00-710-801	Oxygen Box Door Latch/Actuator Operational Test (P/B 501)
WDM 33-24-11	Wiring Diagram Manual
WDM 33-24-21	Wiring Diagram Manual
WDM 33-24-35	Wiring Diagram Manual
1	

### C. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

#### D. Procedure

SUBTASK 33-24-00-860-001

(1) Make sure that electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 33-24-00-710-007

(2) Do a test of the no smoking signs (WDM 33-24-11 thru WDM 33-24-35):

ARO ALL



(a) Make sure that the no smoking signs are on when power is applied to the airplane.

NOTE: The signs can be found at the reading light panels, overdoor panels and fairings, ceiling panels, attendant/purser stations, galleys, lavatories, lavatory-occupied signs, and crew rests (when installed).

NOTE: The "NO SMOKING ON" memo message is not displayed on the EICAS.

#### SUBTASK 33-24-00-710-002

- (3) Do a test of the fasten seat belt and return to seat signs (WDM 33-24-21 thru WDM 33-24-35):
  - (a) At the overhead panel, P5, set the switch for the seat belts to the on mode.
    - 1) Make sure that the fasten seat belt and return to seat signs come on.

NOTE: The signs can be found at the reading light panels, overdoor panels and fairings, ceiling panels, attendant/purser stations, galleys, lavatories, lavatory-occupied signs, and crew rests (when installed).

NOTE: On some airplanes, the return to seat signs will flash.

- (b) Set the switch to the off mode.
  - Make sure that the fasten seat belt and return to seat signs go off.
     NOTE: Return to seat signs that flash will not go off. They will become dim.
- (c) Set the switch to the automatic mode.
  - 1) Make sure the following:
    - Make sure that the PASS OXY "ON" switch/light on the P5 panel is not on (Oxygen Box Door Latch/Actuator Operational Test, TASK 35-21-00-710-801).
    - b) Make sure the EICAS shows that the landing gear is down and locked.
    - c) Make sure the flap control lever is not in the UP position (Flap Position Indication System Operational Test, TASK 27-58-00-710-801).
  - 2) Make sure that the fasten seat belt and return to seat signs come on. NOTE: On some airplanes, the return to seat signs will flash.
- (d) Set the switch to the usual mode.

#### SUBTASK 33-24-00-710-011

- (4) Do a test of the electronic devices off signs (WDM 33-24-21 thru WDM 33-24-35):
  - (a) At the overhead panel P5, set the switches for the no electronics to the on mode.
    - 1) Make sure that the electronic devices off signs come on.
  - (b) Set the switches to the off mode.
    - 1) Make sure that the electronic devices off signs go off.
  - (c) Set the switches to the automatic mode.
    - 1) Make sure that the electronic devices off signs come on.
  - (d) Set the switches to the usual mode.

	<b>END</b>	OF	TASK	
--	------------	----	------	--

33-24-00

EFFECTIVITY



#### LAVATORY CALL LIGHTS AND MASTER CALL LIGHT MODULES - ADJUSTMENT/TEST

### 1. General

- A. This procedure has these tasks:
  - (1) Lavatory Call Lights Operational Test
  - (2) Master Call Light Modules Operational Test

#### TASK 33-25-00-710-801

# 2. Lavatory Call Lights - Operational Test

#### A. General

- (1) This task makes sure the lavatory call lights operate.
- (2) The lavatory call lights include these components:
  - (a) A call switch installed in each lavatory
  - (b) A second call switch installed in each lavatory for handicapped persons
  - (c) A call light/reset switch installed out of each lavatory above the lavatory door

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-25-11	Wiring Diagram Manual
WDM 33-25-13	Wiring Diagram Manual
Leastion Zenes	

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

### D. Procedure

SUBTASK 33-25-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-25-00-710-001

- (2) Do a test of the lavatory call light system (WDM 33-25-11 thru WDM 33-25-13):
  - (a) In each lavatory, set the call switch to the on mode.
    - 1) Make sure the light in the call switch comes on.
    - 2) Outside the lavatory above the lavatory door, make sure the light in the call light/reset switch comes on.
  - (b) Set the call light/reset switch to the off mode.
    - 1) Make sure the light in the call light/reset switch goes off.
    - 2) In the lavatory, make sure the light in the call switch goes off.

END	OF TA	SK —	

33-25-00

**ARO ALL** 

**EFFECTIVITY** 



#### TASK 33-25-00-710-802

### 3. Master Call Light Modules - Operational Test

#### A. General

- (1) This test makes sure the master call light modules operate.
- (2) The test includes all passenger, cabin interphone (crew), and lavatory master call lights. It does not include the call light systems.
  - (a) When it is necessary to do a test of the passenger call light system, do this task: Passenger Call Light Operational Test, TASK 33-28-00-710-801.
  - (b) When it is necessary to do a test the cabin interphone (crew) system, do this task: Cabin Interphone System Operational Test, TASK 23-42-00-710-801.
  - (c) When it is necessary to do a test of the lavatory call light system, do this task: Lavatory Call Lights Operational Test, TASK 33-25-00-710-801.
- (3) Most master call light modules are installed on emergency exit signs.
  - (a) When it is necessary to do a test the emergency exit sign, do this task: Emergency Lights Operational Test with the Test Switches, TASK 33-51-00-710-802.

#### B. References

Reference	Title
23-42-00-710-801	Cabin Interphone System - Operational Test (P/B 501)
24-22-00-860-805	Supply Electrical Power (P/B 201)
33-28-00-710-801	Passenger Call Light - Operational Test (P/B 501)
33-51-00-710-802	Emergency Lights - Operational Test with the Test Switches (P/B 501)
WDM 33-25-11	Wiring Diagram Manual
WDM 33-25-15	Wiring Diagram Manual

#### C. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

#### D. Procedure

#### SUBTASK 33-25-00-860-002

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

### SUBTASK 33-25-00-710-002

- (2) Do a test of the master call light modules (WDM 33-25-11 thru WDM 33-25-15):
  - (a) At the cabin system control panel (CSCP), set the lavatory master call lights to the on mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.

- 1) At each master call light module, make sure all amber/orange lights come on.
- 2) Set the lights to the off mode.
- 3) Make sure the lights go off.
- (b) At the CSCP, set the passenger master call lights to the on mode.
  - 1) At each master call light module, make sure all blue lights come on.

ARO ALL



- 2) Set the lights to the off mode.
- 3) Make sure the lights go off.
- (c) At the CSCP, set the cabin interphone (crew) master call lights to the on mode.
  - 1) At each master call light module, make sure all pink/red lights come on.
  - 2) Set the lights to the off mode.
  - 3) Make sure the lights go off.

#### SUBTASK 33-25-00-860-003

(3) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

——— END OF TASK ———

ARO ALL 33-25-00



# **LAVATORY CALL LIGHTS - MAINTENANCE PRACTICES**

#### 1. General

- A. This procedure has these tasks:
  - (1) Lavatory Call Light Replacement
  - (2) Lavatory Call Switch Lamp Replacement

#### TASK 33-25-01-960-801

# 2. Lavatory Call Light - Lamp Replacement

(Figure 201)

### A. General

- (1) A lavatory call light is installed on each lavatory above the lavatory door. It is also a switch. Use it to set the lavatory call system of each lavatory back to its usual condition.
- (2) If it is necessary to replace the lavatory call switch in the lavatory, do this task: Lavatory Call Switch Lamp Replacement, TASK 33-25-01-960-802.
- (3) If it is necessary to replace the lamp in a master call light module, do this task: Master Call Light Module Lamp Replacement, TASK 33-25-02-960-801.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
33-25-02-960-801	Master Call Light Module - Lamp Replacement (P/B 201)

#### C. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

# D. Procedure

SUBTASK 33-25-01-960-001



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the call light/reset switch:
  - (a) For Airplanes with a Lamp and Lens:
    - 1) Remove the lens [1].

NOTE: For removal the lens need turn it counterclockwise.

- 2) Replace the lamp [2].
- 3) Install the lens [1].
- (b) For Airplanes with an LED/Reset switch assembly:
  - Remove the entire LED/Reset switch assembly [5] by simply pulling it out of the panel, using your fingers and fingernails.

<u>NOTE</u>: The assembly is held in position by springs that compress when the assembly is being pulled out of the panel or pushed into it.

2) Disconnect the LED/Reset switch assembly [5] from the connecting cable and replace it with a new LED/Reset switch assembly [5], re-connecting the connector.

ARO ALL



3) Install the new LED/Reset switch assembly [5] by guiding the cable and assembly back into the hole and pushing it into place.

#### SUBTASK 33-25-01-860-001

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: TASK 24-22-00-860-805

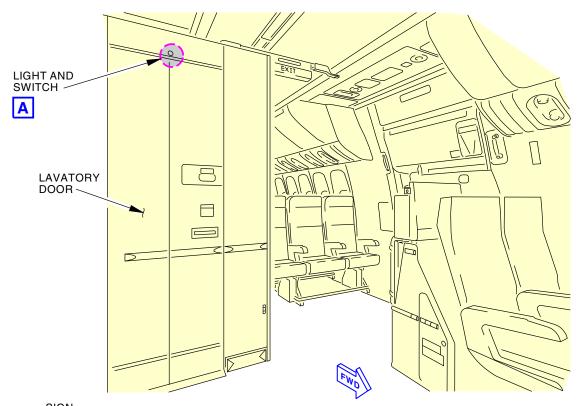
#### SUBTASK 33-25-01-710-001

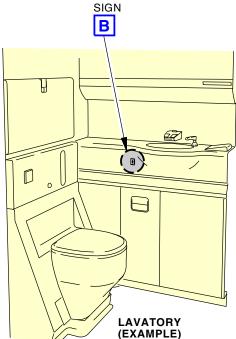
- (3) Do a test of the new lamp.
  - (a) In the lavatory, set the lavatory call switch to the on mode.
    - 1) Make sure the new lamp comes on.
  - (b) Outside the lavatory, push on the lavatory call light to set the light to the off mode.
    - 1) Make sure the new lamp goes off.

----- END OF TASK -----

— EFFECTIVITY — 33-25-01







# PASSENGER COMPARTMENT

F68269 S0006419930\_V2

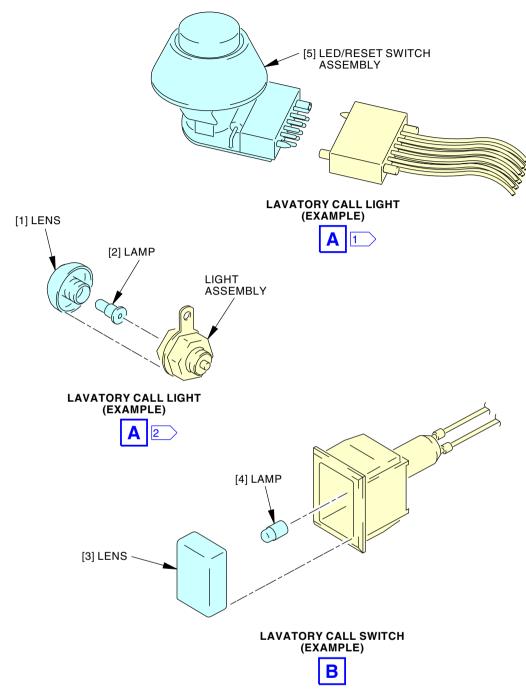
Lavatory Call Light/Switch - Lamp Replacement Figure 201/33-25-01-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-25-01

Page 203 Sep 05/2016





1 AIRPLANES WITH AN INTEGRAL CALL LIGHT/RESET SWITCH
2 AIRPLANES WITH A CALL LIGHT

M34245 S0006419931\_V3

Lavatory Call Light/Switch - Lamp Replacement Figure 201/33-25-01-990-801 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-25-01

Page 204 Jan 05/2018



#### TASK 33-25-01-960-802

### 3. Lavatory Call Switch - Lamp Replacement

(Figure 201)

#### A. General

- (1) A lavatory call switch is in each lavatory below the sink, adjacent to the ATTENDANT CALL label. In a lavatory for handicapped persons, a second lavatory call switch is installed on the wall adjacent to the toilet. The lavatory call light (installed outside the lavatory above the door) is used to set the lavatory call system of each lavatory back to its usual condition.
- (2) If it is necessary to replace the lavatory call light outside the lavatory above the door, do this task: Lavatory Call Light Lamp Replacement, TASK 33-25-01-960-801.
- (3) If it is necessary to replace the lamp in a master call light module, do this task: Master Call Light Module Lamp Replacement, TASK 33-25-02-960-801.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
33-25-02-960-801	Master Call Light Module - Lamp Replacement (P/B 201)

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

### D. Procedure

SUBTASK 33-25-01-960-002



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp:
  - (a) Remove the lens [3].
    - Apply two lengths of tape to opposite sides of the lens. Use a thin tool between the lens and the opening around it to attach the tape to the lens. Pull on the ends of the tape at the same time to remove the lens.
  - (b) Replace the lamp [4].
  - (c) Install the lens [3].

#### SUBTASK 33-25-01-860-002

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: TASK 24-22-00-860-805

#### SUBTASK 33-25-01-710-002

- (3) Do a test of the new lamp.
  - (a) In the lavatory, set the lavatory call switch to the on mode.
    - 1) Make sure the new lamp comes on.
  - (b) Outside the lavatory, push on the lavatory call light to set the lavatory call switch to the off mode.
    - 1) Make sure the new lamp goes off.

	<b>END</b>	<b>OF TASK</b>	
--	------------	----------------	--

ARO ALL



#### **MASTER CALL LIGHT MODULES - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure includes these tasks:
  - (1) Master Call Light Module Lamp Replacement
  - (2) Master Call Light Module Light Assembly Replacement
- B. The master call light modules are installed in the ceiling and on some of the emergency exit signs.

#### TASK 33-25-02-960-801

### 2. Master Call Light Module - Lamp Replacement

(Figure 201)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

### B. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

### C. Procedure

SUBTASK 33-25-02-960-001



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp:
  - (a) Remove the lens [6] and the filter [5].
  - (b) Replace the lamp [4].
  - (c) Install the filter [5] and the lens [6].

NOTE: Do not use force on the lens. Make sure the notches on the lens align with those in the panel.

### SUBTASK 33-25-02-860-001

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-25-02-710-001

- (3) Do a test of the new lamp.
  - (a) At the cabin system control panel (CSCP), set the applicable master call light to the on mode:

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.

- 1) Make sure the new lamp comes on.
- 2) Make sure the light shows the correct color:

ARO ALL



# Table 201/33-25-02-993-801

TYPE OF CALL	COLOR
Passenger call	blue
lavatory call	amber/orange
Cabin interphone	pink/red

- (b) Set the light to the off mode.
  - 1) Make sure the lamp goes off.

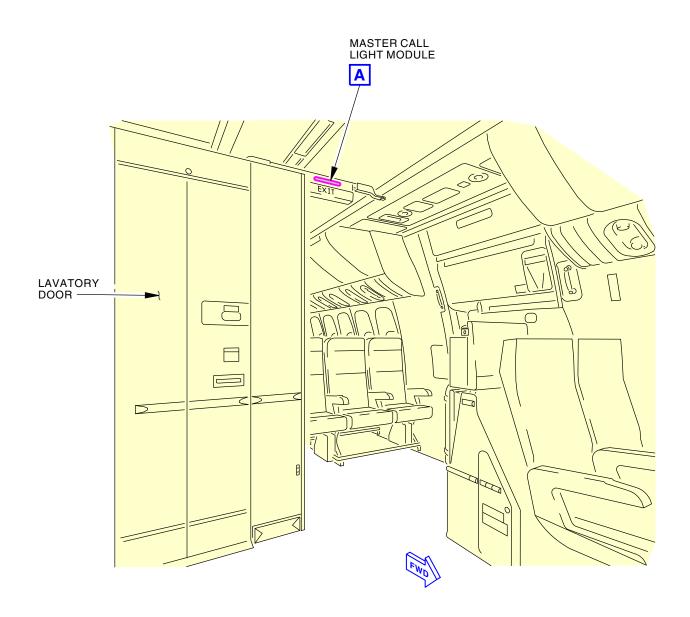
### SUBTASK 33-25-02-860-006

- (4) Put the CSCP back to its usual condition.
  - (a) On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

----- END OF TASK -----

ARO ALL





# PASSENGER COMPARTMENT

F68262 S0006419937\_V2

Master Call Light Module - Lamp/Light Assembly Replacement Figure 201/33-25-02-990-801 (Sheet 1 of 2)

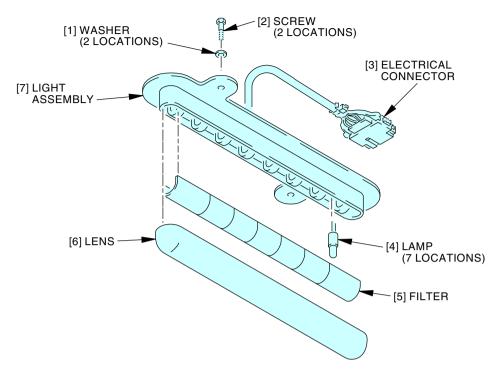
ARO ALL

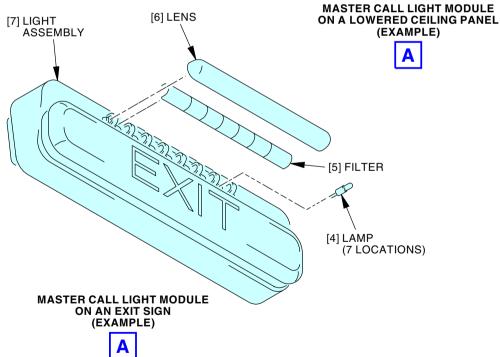
D633W101-ARO

33-25-02

Page 203 Sep 05/2016







E23550 S0006419938\_V2

Master Call Light Module - Lamp/Light Assembly Replacement Figure 201/33-25-02-990-801 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-25-02

Page 204 Sep 05/2016



#### TASK 33-25-02-960-802

### 3. Master Call Light Module - Light Assembly Replacement

(Figure 201)

#### A. References

Title
Supply Electrical Power (P/B 201)
Lowered Ceiling Panel Removal (P/B 401)
Lowered Ceiling Panel Installation (P/B 401)
Exit Sign - Light Assembly Replacement (P/B 201)
Wiring Diagram Manual

#### B. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

#### SUBTASK 33-25-02-900-001

(1) If the master call light module is installed on an emergency exit sign, replace the exit sign (TASK 33-51-01-960-802).

#### SUBTASK 33-25-02-860-003

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-25-02-860-004

(3) At the cabin system control panel (CSCP), set these lights to the off mode (WDM 23-42-21) (WDM 33-25-11 thru WDM 33-25-15) (WDM 33-28-11 thru WDM 33-28-24):

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.

- (a) Passenger master call lights
- (b) Lavatory master call lights
- (c) Cabin interphone (crew) master call lights

#### SUBTASK 33-25-02-010-001

(4) Open the lowered ceiling panel for access to the top of the light assembly (TASK 25-21-07-000-801).

#### SUBTASK 33-25-02-960-002

- (5) Do these steps to replace the light assembly:
  - (a) Disconnect the electrical connector [3].
  - (b) Remove the light assembly [7] from the panel.
    - 1) Remove the screws [2] and washers [1].
  - (c) Remove the lens [6] and filter [5] from the old light assembly.
  - (d) Install the filter [5] and lens [6] on the new light assembly.

ARO ALL



- (e) Install the new light assembly [7] in the panel.
  - 1) Install the washers [1] and screws [2].
- (f) Connect the electrical connector [3].

#### SUBTASK 33-25-02-410-001

(6) Close the lowered ceiling panel (TASK 25-21-07-400-801).

### SUBTASK 33-25-02-710-002

- (7) Do a test of the light assembly.
  - (a) At the CSCP, set all master call lights to the on mode.
    - 1) Make sure the lights come on.
    - 2) Make sure the lights show the correct colors:

### Table 202/33-25-02-993-802

TYPE OF CALL	COLOR
Passenger call	blue
lavatory call	amber/orange
Cabin interphone	pink/red

- (b) Set the lights to the off mode.
  - 1) Make sure the lights go off.

#### SUBTASK 33-25-02-860-007

(8) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

——— END OF TASK ———

ARO ALL



# LAVATORY LIGHTS AND SIGNS - MAINTENANCE PRACTICES

#### 1. General

- A. This procedure has these tasks:
  - (1) Lavatory-Occupied Sign Lamp Replacement
  - (2) Lavatory-Occupied Sign Light Assembly Replacement
  - (3) Lavatory Lock-Door Sign Light Assembly Replacement
  - (4) Lavatory Dome Light Lamp/Light Assembly Replacement
  - (5) Lavatory Fluorescent Light Assembly Lamp Replacement
  - (6) Lavatory Ballast Replacement

#### TASK 33-26-00-960-801

# 2. Lavatory-Occupied Sign - Lamp Replacement

(Figure 201)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-26-21	Wiring Diagram Manual
Location Zanca	

#### B. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

### C. Procedure

SUBTASK 33-26-00-960-001



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

# (1) WHEN THE SIGN IS IN THE FLIGHT COMPARTMENT:

Do these steps to replace the lamp [8] (WDM 33-26-21):

- (a) Pull out the light assembly [7].
- (b) Replace the lamp [8].
- (c) Push the light assembly [7] into its housing.

SUBTASK 33-26-00-960-002



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

# (2) WHEN THE SIGN IS IN THE PASSENGER COMPARTMENT;

Do these steps to replace the lamp (WDM 33-26-21):

- (a) Remove the lens [5].
- (b) Replace the lamp [3].
- (c) Install the lens [5].

ARO ALL

33-26-00



#### SUBTASK 33-26-00-860-020

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-26-00-710-003

- (4) Do a test of the new lamp.
  - (a) At the cabin system control panel (CSCP), set the applicable sign to the on mode.
    - NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selections.
    - 1) Make sure the lamp comes on.
  - (b) Set the sign to the off mode.
    - 1) Make sure the lamp goes off.

#### SUBTASK 33-26-00-860-015

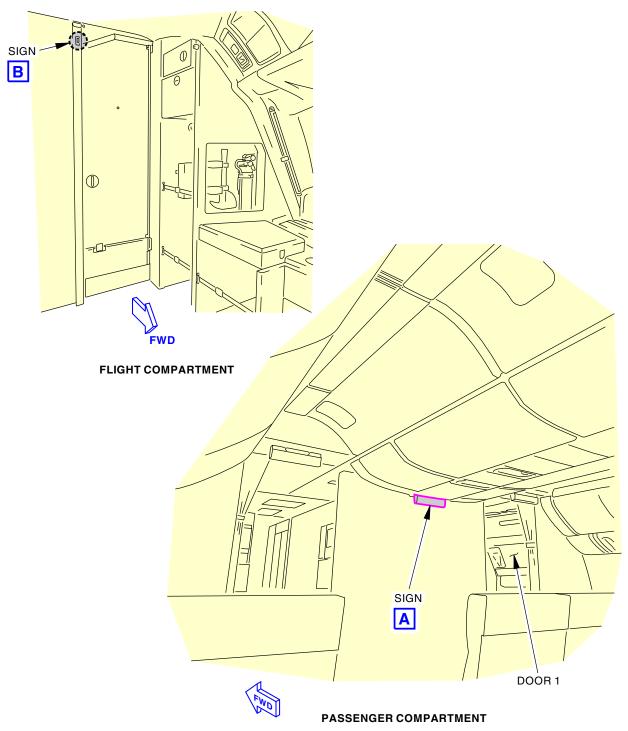
(5) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

----- END OF TASK -----

33-26-00





F68304 S0006419947\_V2

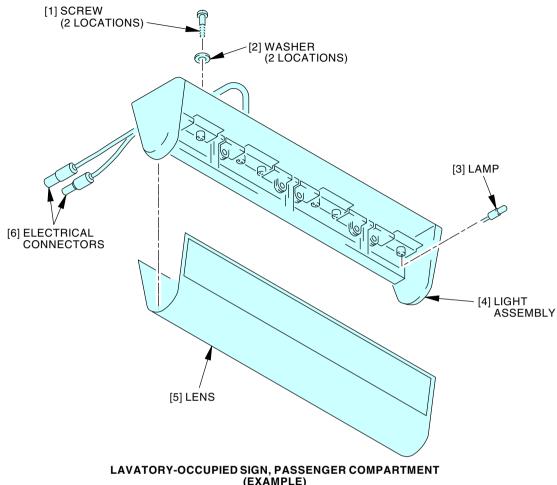
Lavatory-Occupied Sign - Lamp/Light Assembly Replacement Figure 201/33-26-00-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-26-00

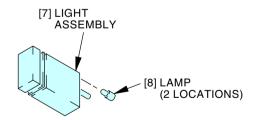
Page 203 Sep 05/2016





(EXAMPLE)





LAVATORY-OCCUPIED SIGN, FLIGHT COMPARTMENT



E33461 S0006419948\_V3

Lavatory-Occupied Sign - Lamp/Light Assembly Replacement Figure 201/33-26-00-990-801 (Sheet 2 of 2)

**EFFECTIVITY ARO ALL** D633W101-ARO

33-26-00

Page 204 Sep 05/2016



## TASK 33-26-00-960-802

# 3. Lavatory-Occupied Sign - Light Assembly Replacement

(Figure 201)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-23-01-010-801	Passenger Service Unit (PSU) Opening (P/B 201)
25-23-01-410-801	Passenger Service Unit (PSU) Closing (P/B 201)
WDM 23-33-25	Wiring Diagram Manual
WDM 23-33-30	Wiring Diagram Manual
WDM 23-33-33	Wiring Diagram Manual
WDM 23-33-36	Wiring Diagram Manual
WDM 23-33-42	Wiring Diagram Manual
WDM 23-33-46	Wiring Diagram Manual
WDM 23-33-51	Wiring Diagram Manual
WDM 23-33-56	Wiring Diagram Manual
WDM 33-26-11	Wiring Diagram Manual
WDM 33-26-21	Wiring Diagram Manual
Location Zones	
7	

# B.

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

SUBTASK 33-26-00-860-005

(1) Open the applicable circuit breakers and install safety tags:

(WDM 33-26-11 thru WDM 33-26-21), (WDM 23-33-25), (WDM 23-33-30 thru WDM 23-33-36WDM 23-33-33), (WDM 23-33-42 thru WDM 23-33-46), (WDM 23-33-51 thru WDM 23-33-56)

## Left Power Management Panel, P110

Row	Col	<u>Number</u>	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C23420	OEU ZONE2 XFER BUS

NOTE: Electrical power is supplied from a 115 VAC transfer bus to an OEU, then to the lavatory-occupied sign. The lavatory circuit breakers do not supply the electrical power to this light.

## SUBTASK 33-26-00-960-003

(2) WHEN THE SIGN IS IN THE FLIGHT COMPARTMENT;

EFFECTIVITY -**ARO ALL** 



Do these steps to replace the sign (WDM 33-26-21):

- (a) Pull out the light assembly [7].
- (b) Push the new light assembly [7] into its housing.

NOTE: Make sure the lamps are installed in the new light assembly.

#### SUBTASK 33-26-00-960-004

(3) WHEN THE SIGN IS IN THE PASSENGER COMPARTMENT;

Do these steps to replace the sign (WDM 33-26-21):

- (a) Open the adjacent passenger service unit (PSU) panel (TASK 25-23-01-010-801).
- (b) Remove the screws [1] and washers [2].
- (c) Disconnect the electrical connecctors [6].
- (d) Replace the light assembly [4].
- (e) Connect the electrical connecctors [6].
- (f) Install the washers [2] and screws [1].
- (g) Close the adjacent PSU panel (TASK 25-23-01-410-801).

#### SUBTASK 33-26-00-860-006

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-26-00-860-007

(5) Remove the safety tags and close the applicable circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	24	C23420	OEU ZONE2 XFER BUS

#### SUBTASK 33-26-00-710-004

- (6) Do a test of the new sign.
  - (a) At the cabin system control panel (CSCP), set the lavatory-occupied sign to the on mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selections.

- 1) Make sure the lights come on.
- (b) Set the sign to the off mode.
  - 1) Make sure the lights go off.

ARO ALL 33-26-00



#### SUBTASK 33-26-00-860-016

(7) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

----- END OF TASK -----

## TASK 33-26-00-960-803

4. Lavatory Lock-Door Sign - Light Assembly Replacement

(Figure 202)

## A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 23-33-25	Wiring Diagram Manual
WDM 23-33-30	Wiring Diagram Manual
WDM 23-33-36	Wiring Diagram Manual
WDM 23-33-42	Wiring Diagram Manual
WDM 23-33-46	Wiring Diagram Manual
WDM 23-33-51	Wiring Diagram Manual
WDM 23-33-56	Wiring Diagram Manual
WDM 33-26-11	Wiring Diagram Manual
WDM 33-26-16	Wiring Diagram Manual

# B. Tools/Equipment

Reference	Description
STD-1178	Skin Wedge - a commercially available hand tool or made from a 1
	1/2 inch putty knife with rounded corners and between 0.020 and
	0.035 inches thick.

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

## D. Procedure

SUBTASK 33-26-00-860-008

(1) Open the applicable circuit breakers and install safety tags:

(WDM 33-26-11), (WDM 23-33-25), (WDM 23-33-30 thru WDM 23-33-36WDM 23-33-42 thru WDM 23-33-46), (WDM 23-33-51 thru WDM 23-33-56)

# **Left Power Management Panel, P110**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
Ε	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
н	7	C23447	OFU ZONES XEER BUS

ARO ALL



## Right Power Management Panel, P210

Row	Col	Number	<u>Name</u>
Ε	24	C23420	OEU ZONE2 XFER BUS

NOTE: Electrical power is supplied from a 115 VAC transfer bus to an OEU, then to the lavatory dome light. The lavatory circuit breakers do not supply the electrical power to this light.

#### SUBTASK 33-26-00-960-005

- (2) Do these steps to replace the light assembly (WDM 33-26-11 thru WDM 33-26-16):
  - (a) Open the mirror.

NOTE: Use a skin wedge, STD-1178 to lift the latch on the side of the mirror.

- (b) Remove the screws [22] and washers [23] that hold the light assembly in its position.
- (c) Disconnect the electrcal wires [24].
  - 1) Remove the screws [26] and washers [25].
- (d) Replace the light assembly [21].

NOTE: Do not discard the light assembly. In a shop, use the vendor instructions for possible repairs.

- (e) Connect the electrcal wires [24].
  - 1) Install the washers [25] and screws [26].
- (f) Install the washers [23] and screws [22] that hold the light assembly in its position.
- (g) Close the mirror.

NOTE: To make sure it closes, push along the length of the mirror on the side that latches.

#### SUBTASK 33-26-00-860-009

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-26-00-860-010

(4) Remove the safety tags and close the applicable circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C23420	OEU ZONE2 XFER BUS

### SUBTASK 33-26-00-710-005

(5) Do a test of the new sign.

— EFFECTIVITY — 33-26-00



- (a) At the cabin system control panel (CSCP), set the lock-door sign to the off mode:
  - NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.
  - 1) Make sure the lights come on.
- (b) Set the sign to the off mode.
  - 1) Make sure the lights go off.

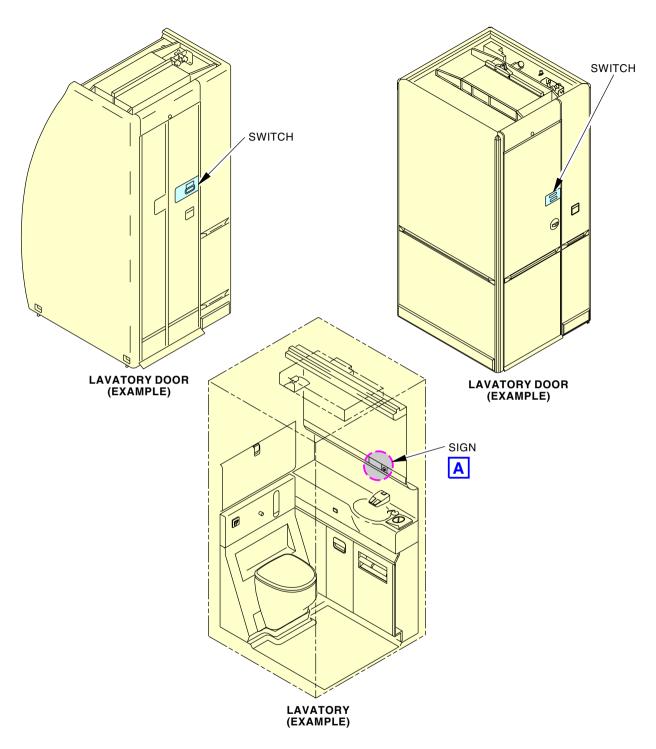
#### SUBTASK 33-26-00-860-017

- (6) Put the CSCP back to its usual condition.
  - NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

——— END OF TASK ———

ARO ALL





F68305 S0006419951\_V2

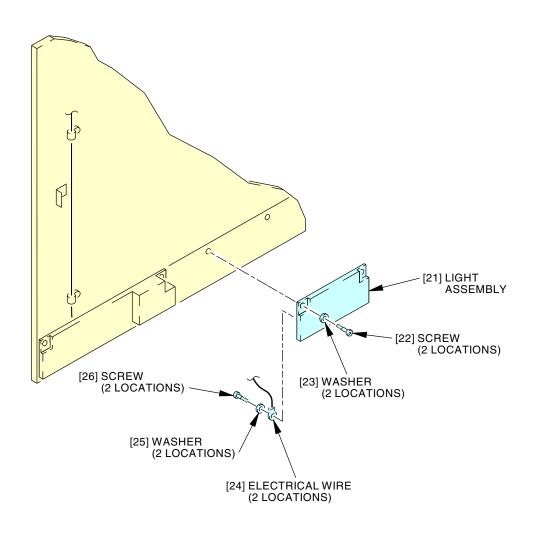
Lavatory Lock-Door Sign - Light Assembly Replacement Figure 202/33-26-00-990-802 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-26-00

Page 210 Sep 05/2016





LOCK-DOOR SIGN (EXAMPLE)



E33214 S0006419952\_V2

Lavatory Lock-Door Sign - Light Assembly Replacement Figure 202/33-26-00-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-26-00

Page 211 Sep 05/2016



#### TASK 33-26-00-960-804

## 5. Lavatory Dome Light - Lamp/Light Assembly Replacement

(Figure 203)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 23-33-25	Wiring Diagram Manual
WDM 23-33-30	Wiring Diagram Manual
WDM 23-33-36	Wiring Diagram Manual
WDM 23-33-42	Wiring Diagram Manual
WDM 23-33-46	Wiring Diagram Manual
WDM 23-33-51	Wiring Diagram Manual
WDM 23-33-56	Wiring Diagram Manual
WDM 33-26-11	Wiring Diagram Manual
WDM 33-26-16	Wiring Diagram Manual
WDM 33-26-21	Wiring Diagram Manual
Location Zones	

## **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

## C. Procedure

#### SUBTASK 33-26-00-860-003

(1) Open the applicable circuit breakers and install safety tags:

(WDM 33-26-11 and WDM 33-26-21), (WDM 23-33-25), (WDM 23-33-30 thru WDM 23-33-36), (WDM 23-33-42 thru WDM 23-33-46), (WDM 23-33-51 thru WDM 23-33-56)

### Left Power Management Panel, P110

Row	Col	<u>Number</u>	<u>Name</u>
С	20	C23464	OEU ZONE 4 R MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	24	C23420	OEU ZONE2 XFER BUS

NOTE: Electrical power is supplied from a 115 VAC transfer bus to an OEU, then to the lavatory dome light. The lavatory circuit breakers do not supply the electrical power to this light.

## SUBTASK 33-26-00-960-006

- (2) If it is necessary to replace the lamp, do these steps (WDM 33-26-11 WDM 33-26-21):
  - (a) Open the access panel.

NOTE: Use the release holes to lower one side of the access panel. The other side is held by hinges.

ARO ALL



- (b) Loosen the fasteners [43] that hold the light assembly in its position.
- (c) Replace the lamp [45].
- (d) Tighten the fasteners [43] that hold the light assembly in its position.
- (e) Close the access panel.

#### SUBTASK 33-26-00-960-007

- (3) If it is necessary to replace the light assembly, do these steps (WDM 33-26-11 thru WDM 33-26-16):
  - (a) Open the access panel.

NOTE: Use the release holes to lower one side of the access panel. The other side is held by hinges.

- (b) Loosen the fasteners [43] that hold the light assembly in its position.
- (c) Disconnect the electrical wires [42].
  - 1) Remove the screws [41] and washers [46].
- (d) Replace the light assembly [44].
- (e) Connect the electrical wires [42].
  - 1) Install the washers [46] and screws [41].
- (f) Tighten the fasteners [43] that hold the light assembly in its position.
- (g) Close the access panel.

#### SUBTASK 33-26-00-860-011

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

## SUBTASK 33-26-00-860-012

(5) Remove the DO-NOT-CLOSE tag and close the applicable circuit breakers:

Remove the safety tags and close the applicable circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	Number	Name
С	20	C23464	OEU ZONE 4 R MAIN BUS
Е	22	C23465	OEU ZONE 4 CTR MAIN BUS
F	2	C23439	OEU ZONE1 XFER BUS
F	24	C23466	OEU ZONE 4 L MAIN BUS
G	6	C23467	OEU ZONE 4 XFER BUS
Н	7	C23447	OEU ZONE3 XFER BUS

## **Right Power Management Panel, P210**

Row	<u>Col</u>	Number	<u>Name</u>
E	24	C23420	OEU ZONE2 XFER BUS

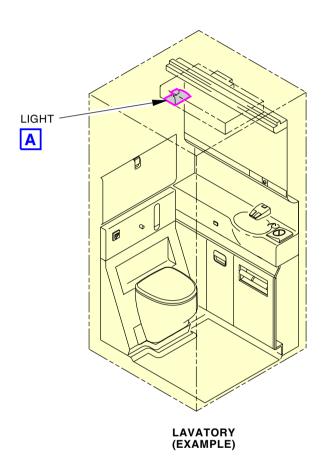
#### SUBTASK 33-26-00-710-006

- (6) Do a test of the replacement.
  - (a) Make sure the dome light comes on.

	$\cap$ E	TASK	

ARO ALL





F68308 S0006419954\_V2

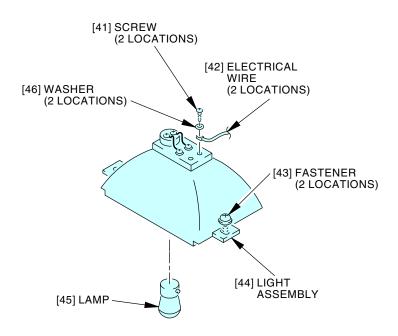
Lavatory Dome Light - Lamp/Light Assembly Replacement Figure 203/33-26-00-990-803 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-26-00

Page 214 Sep 05/2016





DOME LIGHT (EXAMPLE)

E33201 S0006419955\_V2

Lavatory Dome Light - Lamp/Light Assembly Replacement Figure 203/33-26-00-990-803 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-26-00

Page 215 Sep 05/2016



#### TASK 33-26-00-960-805

## 6. Lavatory Fluorescent Light Assembly - Lamp Replacement

(Figure 204)

### A. References

	Reference	Э	Title
24-22-00-860-805		860-805	Supply Electrical Power (P/B 201)
32-09-00-860-801		860-801	Air/Ground Mode Simulation (P/B 201)
	WDM 33-2	26-11	Wiring Diagram Manual
	WDM 33-2	26-16	Wiring Diagram Manual
B.	Location 2	Zones	
	Zone	Area	
	200	Upper Half of Fus	elage

### C. Procedure

SUBTASK 33-26-00-960-008



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp (WDM 33-26-11 thru WDM 33-26-16):
  - (a) Open the mirror.

NOTE: Use a thin tool to lift the latch on the side of the mirror.

(b) Remove the lens [63].

NOTE: Use a tool, equivalent to a screwdriver, in the slots [64] to release the lens. Move the lens straight out to prevent damage to the lavatory walls.

(c) Push the release levers [61] on each end of the lamp to eject lamp.

NOTE: If installed, do not remove the brace of the u-shaped lamp.

- (d) Install the new lamp [62].
  - When installing the new lamp [62], firmly press both ends of the lamp near the holders.
  - 2) Fully seat both lamp pins into the lamp holder.

NOTE: You should hear an audible click and the release levers [61] will pop out.

NOTE: When properly inserted, the pin contacts should not be visible when looking past the lamp release levers [61] into the pin contact entry slots.

NOTE: If the fluorescent lamp contact pin is not installed correctly, arcing and overheating can occur in the lamp holder.

(e) Install the lens [63].

NOTE: Correctly align the lens before you move it back into its position.

(f) Close the mirror.

NOTE: To make sure it closes, push along the length of the mirror on the side that latches

ARO ALL



#### SUBTASK 33-26-00-860-021

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-26-00-860-033



OBEY THE PROCEDURE THAT PUTS THE AIRPLANE IN THE AIR MODE. IF YOU DO THE PROCEDURE INCORRECTLY, INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Put the air/ground system in the air mode. To do this, do this task: Air/Ground Mode Simulation, TASK 32-09-00-860-801.

#### SUBTASK 33-26-00-710-007

- (4) Do a test of the new lamp.
  - (a) At the cabin system control panel (CSCP), set the lavatory fluorescent light assembly to the bright mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.

- 1) Make sure the light comes on brightly.
- (b) Set the light to the dim mode.
  - 1) Make sure the light becomes dim.
- (c) Set the light to the off mode.
  - 1) Make sure the light goes off.

#### SUBTASK 33-26-00-860-018

(5) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

# D. Put the Airplane Back to its Usual Condition

#### SUBTASK 33-26-00-860-031

(1) Put the air/ground system in the ground mode. To do this, do this task: Air/Ground Mode Simulation, TASK 32-09-00-860-801.

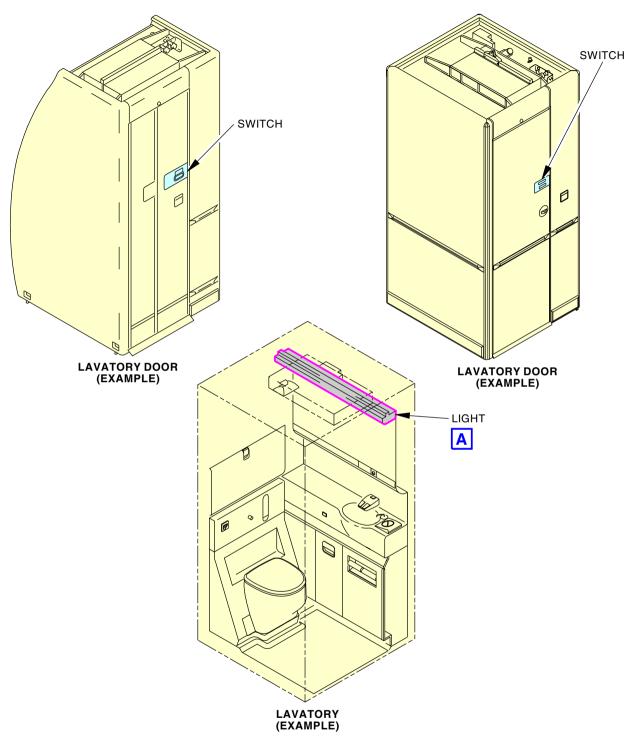
----- END OF TASK -----

33-26-00

ARO ALL

· EFFECTIVITY ·





F68312 S0006419957\_V2

Lavatory Fluorescent Light Assembly - Lamp Replacement Figure 204/33-26-00-990-804 (Sheet 1 of 2)

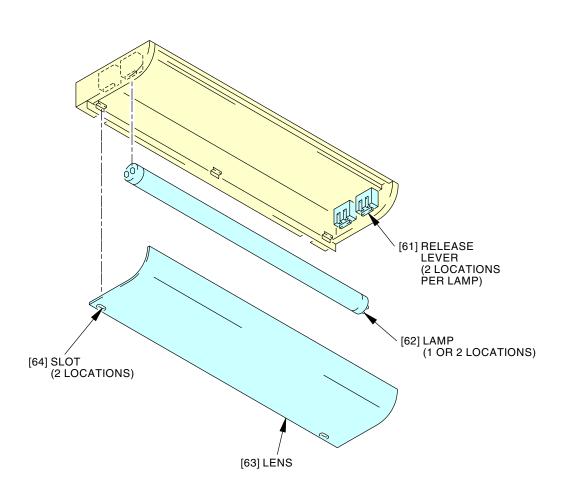
ARO ALL

D633W101-ARO

33-26-00

Page 218 Sep 05/2016





FLUORESCENT LIGHT (EXAMPLE)



E32926 S0006419958\_V2

Lavatory Fluorescent Light Assembly - Lamp Replacement Figure 204/33-26-00-990-804 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-26-00

Page 219 Sep 05/2016



#### TASK 33-26-00-960-806

## 7. Lavatory Ballast - Replacement

(Figure 205)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
32-09-00-860-801	Air/Ground Mode Simulation (P/B 201)
WDM 33-26-11	Wiring Diagram Manual
WDM 33-26-16	Wiring Diagram Manual
WDM 33-26-1X	Wiring Diagram Manual
Location Zones	
Zone Area	

# 200 C. Procedure

B.

#### SUBTASK 33-26-00-860-004

<u>NOTE</u>: Due to ongoing configuration complexities, the following circuit breakers have unusual naming conventions.

C33496 LAV LTS R

Upper Half of Fuselage

C33497 LAV LTS L

"L" does not necessarily mean left and "R" does not necessarily mean right. There will be some left side lavatories connected to LAV LTS R and some right side lavatories connected to LAV LTS L. To determine exactly which lavatories are connected to which circuit breakers see SSM 33-26-11.

(1) Open the applicable circuit breakers for the ballasts and install safety tags:

(WDM 33-26-1X)

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
J	7	C33497	LAV LTS L
J	8	C33496	LAV LTS R

#### SUBTASK 33-26-00-960-009

- (2) Do these steps to replace the ballast:
  - (a) Open the mirror.

NOTE: Use a thin tool to lift the latch on the side of the mirror.

(b) Remove the access panel at the top of the cabinet.

NOTE: After the screws and washers are remove, carefully loosen the area around the flex tubing before you pull away the access panel.

(c) Disconnect the electrical connector [81] at the ballast.

NOTE: Push the metal release lever on the electrical connector.

- (d) Remove the screws [83], washers [82] and bonding jumer [85] from the ballast.
- (e) Replace the ballast [84].

NOTE: Do not discard the used ballast. In a shop, refer to the vendor instructions for possible repairs.

ARO ALL



- (f) Install the washers [82], bonding jumer [85] and the screws [83].
- (g) Connect the electrical connector [81].
- (h) Install the access panel.
- (i) Close the mirror.

NOTE: To make sure it closes, push along the length of the mirror on the side that latches.

#### SUBTASK 33-26-00-860-013

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-26-00-860-034



OBEY THE PROCEDURE THAT PUTS THE AIRPLANE IN THE AIR MODE. IF YOU DO THE PROCEDURE INCORRECTLY, INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Put the air/ground system in the air mode. To do this, do this task: Air/Ground Mode Simulation, TASK 32-09-00-860-801.

#### SUBTASK 33-26-00-860-014

<u>NOTE</u>: Due to ongoing configuration complexities, the following circuit breakers have unusual naming conventions.

C33496 LAV LTS R

C33497 LAV LTS L

"L" does not necessarily mean left and "R" does not necessarily mean right. There will be some left side lavatories connected to LAV LTS R and some right side lavatories connected to LAV LTS L. To determine exactly which lavatories are connected to which circuit breakers see WDM 33-26-11 thru WDM 33-26-16.

(5) Remove the safety tags and close the applicable circuit breakers:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
J	7	C33497	LAV LTS L
J	8	C33496	LAV LTS R

## SUBTASK 33-26-00-710-008

- (6) Do a test of the new ballast.
  - (a) At the cabin system control panel (CSCP), set the lavatory lights to the bright mode:

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.

- 1) Make sure the lavatory fluorescent light comes on brightly.
- (b) Set the light to the off mode.
  - 1) Make sure the light goes off.

33-26-00

Page 221 Jan 05/2018

EFFECTIVITY -



#### SUBTASK 33-26-00-860-019

(7) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

# D. Put the Airplane Back to its Usual Condition

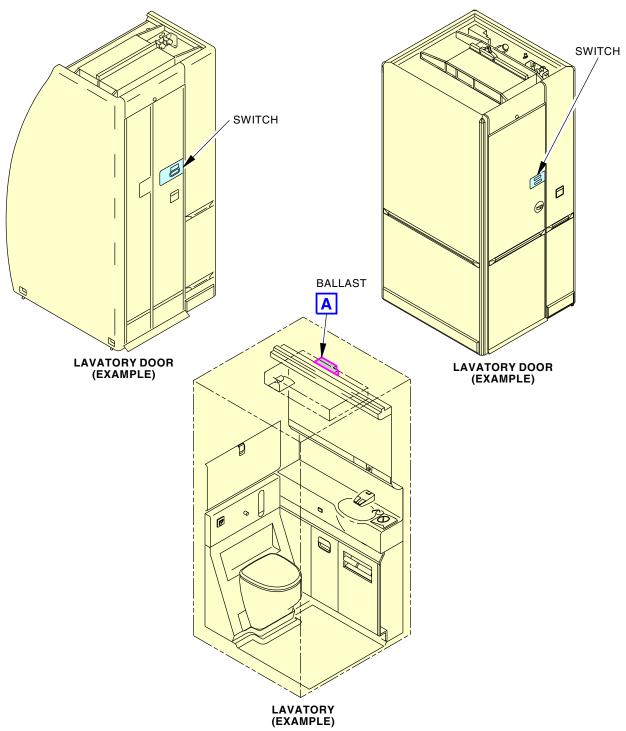
SUBTASK 33-26-00-860-032

(1) Put the air/ground system in the ground mode. To do this, do this task: Air/Ground Mode Simulation, TASK 32-09-00-860-801.

----- END OF TASK -----

ARO ALL





F68324 S0006419960\_V2

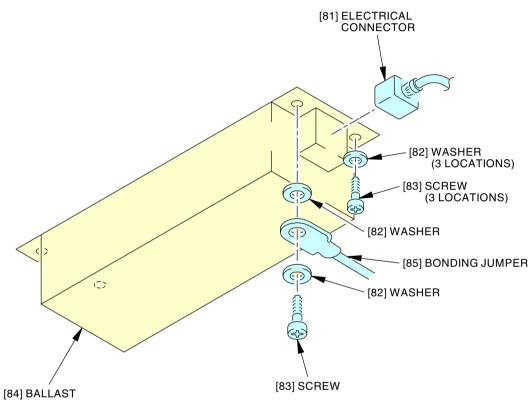
Lavatory Ballast - Replacement Figure 205/33-26-00-990-805 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-26-00

Page 223 Sep 05/2016





BALLAST (EXAMPLE)

E33069 S0006419961\_V3

Lavatory Ballast - Replacement Figure 205/33-26-00-990-805 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-26-00

Page 224 Jan 05/2018



## LAVATORY LIGHTS AND SIGNS - ADJUSTMENT/TEST

### 1. General

- A. This procedure has one task:
  - (1) Lavatory Lights and Signs Operational Test

#### TASK 33-26-00-710-801

# 2. Lavatory Lights and Signs - Operational Test

#### A. General

- (1) This test makes sure the lavatory lights and signs operate.
- (2) In each lavatory, you will find the lavatory dome light, fluorescent lavatory light, and the lock-door sign.
- (3) In the flight compartment, there is a small lavatory-occupied sign.
- (4) All other lavatory-occupied signs are in the passenger compartment. Some signs show only LAVATORY OCCUPIED (or its equivalent). Others show LAVATORY OCCUPIED (or its equivalent) with the no-smoking and fasten-seat-belt signs.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-26-11	Wiring Diagram Manual
WDM 33-26-16	Wiring Diagram Manual

### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

### D. Procedure

SUBTASK 33-26-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-26-00-710-001

- (2) Do a test of the lavatory lights (WDM 33-26-11 thru WDM 33-26-16):
  - (a) At the cabin system control panel (CSCP), set the lavatory dome lights to the off mode.
    - NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, use the selection for SPECIAL FUNCTION to operate the lavatory dome lights.
    - 1) In each lavatory, make sure the lavatory dome light goes off.
  - (b) Set the lavatory dome lights to the on mode.
    - 1) Make sure each lavatory dome light comes on.
  - (c) At the cabin system control panel (CSCP), set the lavatory lights to the bright mode.
    - NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selections.
    - 1) In each lavatory, make sure the fluorescent lavatory light comes on brightly.
  - (d) Set the lavatory lights to the dim mode.

ARO ALL



- 1) Make sure each fluorescent lavatory light changes to dim.
- (e) Set the lavatory lights to the off mode.
  - 1) Make sure each fluorescent lavatory light goes off.

#### SUBTASK 33-26-00-710-002

- (3) Do a test of the lavatory signs (WDM 33-26-11 thru WDM 33-26-16):
  - (a) At the cabin system control panel (CSCP), set the lavatory lock-door signs to the on mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On page 2 of the lamp test menu, make the applicable selections.

- 1) In each lavatory, make sure the lock-door sign comes on.
- (b) Set the lavatory lock-door signs to the off mode.
  - 1) Make sure each lock-door sign goes off.
- (c) Set the lavatory signs to the off mode.
  - 1) Make sure LAVATORY does not show on each lavatory-occupied sign.
- (d) Set the lavatory signs to the on mode.
  - 1) Make sure LAVATORY shows on each lavatory-occupied sign.
- (e) Set the lavatory occupied signs to the on mode.
  - 1) Make sure OCCUPIED shows on each lavatory-occupied sign.
- (f) Set the lavatory occupied signs to the off mode.
  - 1) Make sure OCCUPIED does not show on each lavatory-occupied sign.

#### SUBTASK 33-26-00-860-002

EFFECTIVITY

**ARO ALL** 

(4) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

——— END OF TASK ———



### **GALLEY LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has these tasks:
  - (1) Galley Light Lamp Replacement, Fluorescent
  - (2) Galley Light Lamp Replacement, Incandescent
  - (3) Galley Light Lamp Replacement, Standby
  - (4) Galley Light Ballast Replacement
- B. The galley lights include the fluorescent and incandescent lights in the galley ceilings. Switches in the galley control these lights.
  - (1) In some documents, these lights are also referred to as direct galley lights, direct ceiling lights, supplemental galley lights, and galley work lights. This procedure refers to these lights by the type of lamps they use.
- C. In some of the fluorescent light assemblies, there is also an incandescent galley standby light. To operate this light, use the cabin management system (CMS).
  - (1) In some documents, this light is also referred to as a supplemental night light or ETOPS light. In this procedure, the light is referred to as the galley standby light.

## TASK 33-27-00-960-801

## 2. Galley Light - Lamp Replacement, Fluorescent

(Figure 201)

#### A. General

(1) This task includes only the fluorescent lamps in galley lights installed in the ceiling.

#### B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-27-11	Wiring Diagram Manual	
WDM 33-27-15	Wiring Diagram Manual	

## C. Location Zones

Zone	Area
200	Upper Half of Fuselage

## D. Procedure

SUBTASK 33-27-00-960-001



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp (WDM 33-27-11 thru WDM 33-27-15):
  - (a) Use the release holes [5] to lower the lens assembly [4].
  - (b) Eject the lamp [3] with the release levers [2].
  - (c) Install the new lamp [3].
    - When installing the new lamp [3], firmly press both ends of the lamp near the holders.

ARO ALL

33-27-00



2) Fully seat both lamp pins into the lamp holder.

NOTE: You should hear an audible click and the release levers [2] will pop out.

NOTE: When properly inserted, the pin contacts should not be visible when looking

past the lamp release levers [2] into the pin contact entry slots.

NOTE: If the fluorescent lamp contact pin is not installed correctly, arcing and

overheating can occur in the lamp holder.

(d) Lift the lens assembly [4] to its usual position.

#### SUBTASK 33-27-00-860-006

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

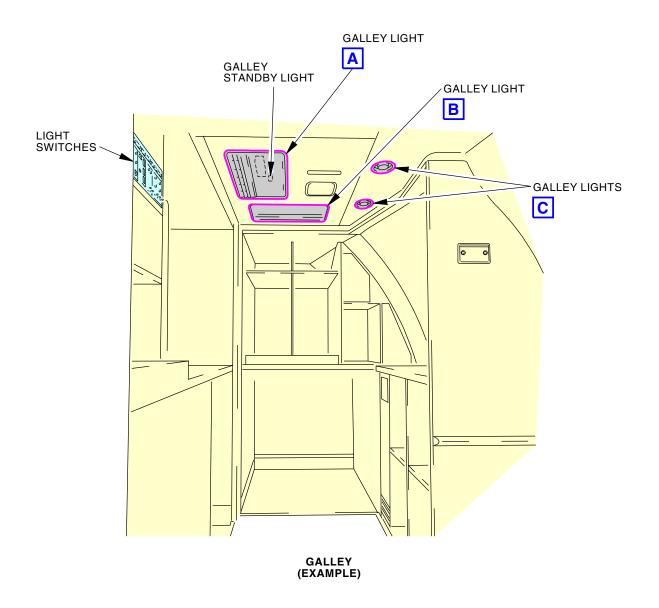
#### SUBTASK 33-27-00-710-003

- (3) Do a test of the new lamp:
  - (a) At the galley, set the switch for the fluorescent galley light to the bright mode.
    - 1) Make sure the lamp comes on brightly.
  - (b) Set the switch to the dim mode.
    - 1) Make sure the lamp becomes dim.
  - (c) Set the switch to the off mode.
    - 1) Make sure the lamp goes off.

----- END OF TASK -----

ARO ALL 33-27-00





F68319 S0006419968\_V2

# Galley Light - Lamp Replacement Figure 201/33-27-00-990-801 (Sheet 1 of 4)

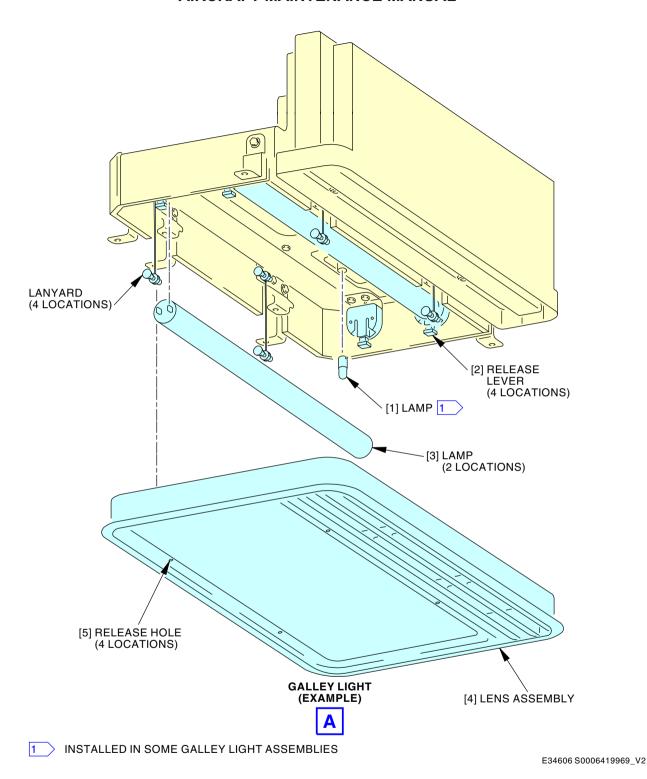
ARO ALL

D633W101-ARO

33-27-00

Page 203 Sep 05/2016





Galley Light - Lamp Replacement Figure 201/33-27-00-990-801 (Sheet 2 of 4)

EFFECTIVITY

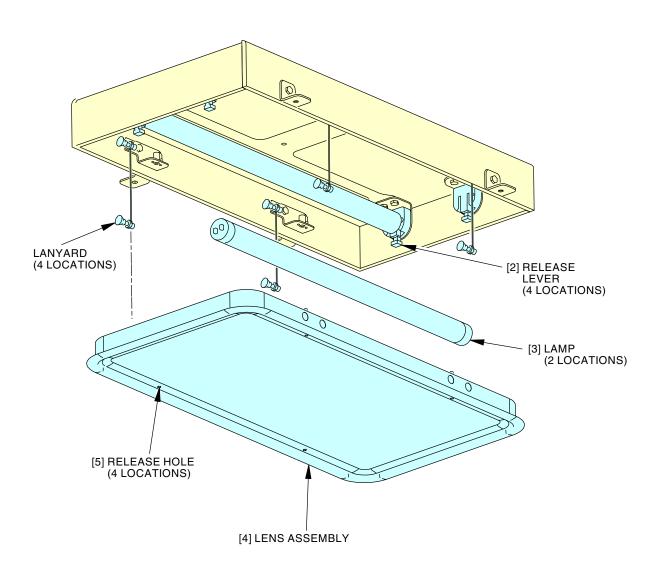
ARO ALL

Page 204

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





GALLEY LIGHT (EXAMPLE)

E33359 S0006419970\_V2

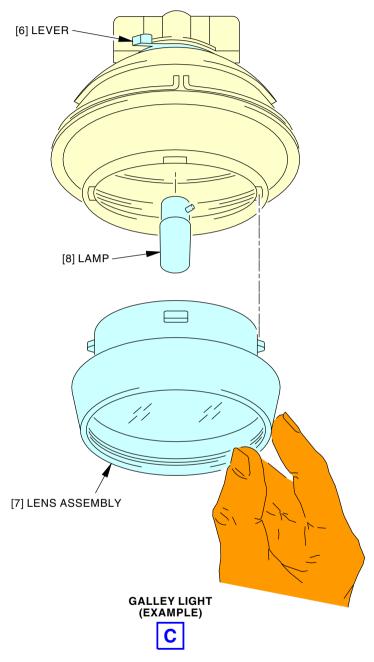
Galley Light - Lamp Replacement Figure 201/33-27-00-990-801 (Sheet 3 of 4)

ARO ALL
D633W101-ARO

33-27-00

Page 205 Sep 05/2016





E33365 S0006419971\_V2

Galley Light - Lamp Replacement Figure 201/33-27-00-990-801 (Sheet 4 of 4)

ARO ALL

D633W101-ARO

33-27-00

Page 206 Sep 05/2016



#### TASK 33-27-00-960-802

## 3. Galley Light - Lamp Replacement, Incandescent

(Figure 201)

#### A. General

- (1) This task includes only the incandescent lamps in galley lights installed in the ceiling.
- (2) The galley standby light is also an incandescent lamp but it is not included here. If it is necessary to replace the lamp, do this task: Galley Light - Lamp Replacement, Standby, TASK 33-27-00-960-803.

#### B. References

Deference	T:41e	
Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
25-21-07-000-801	Lowered Ceiling Panel Removal (P/B 401)	
25-21-07-400-801	Lowered Ceiling Panel Installation (P/B 401)	
WDM 33-27-11	Wiring Diagram Manual	
WDM 33-27-15	Wiring Diagram Manual	
Location Zones		
Zone Area		

# 200 D. Procedure

C.

SUBTASK 33-27-00-960-002



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp (WDM 33-27-11 thru WDM 33-27-15):
  - (a) Remove the lens assembly [7].

Upper Half of Fuselage

NOTE: With two fingers, push together the inner and outer sides of the lens assembly. At the same time, turn the lens assembly counterclockwise to disengage it.

- (b) Replace the lamp [8].
- (c) Install the lens assembly [7].

#### SUBTASK 33-27-00-860-007

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

## SUBTASK 33-27-00-710-004

- (3) Do a test of the new lamp:
  - (a) At the galley, set the switch for incandescent galley light to the on mode.

NOTE: The switch label can identify a supplemental galley light or galley work light.

- 1) Make sure the lamp comes on.
- 2) If it is necessary to adjust the direction of the light beam, do these steps:
  - Open the ceiling panel (TASK 25-21-07-000-801) to get access to the top of the light.
  - b) Move the lever [6] on top of the light assembly to the ADJUST position.

ARO ALL

33-27-00



- c) Close the ceiling panel (TASK 25-21-07-400-801).
- Adjust the direction of the lens assembly until the light beam is on the desired target.
- e) Open the ceiling panel.
- f) Move the lever [6] to one of the LOCK positions.
- g) Close the ceiling panel.
- (b) Set the switch to the off mode.
  - 1) Make sure the lamp goes off.

----- END OF TASK -----

# TASK 33-27-00-960-803

4. Galley Light - Lamp Replacement, Standby

(Figure 201)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-27-11	Wiring Diagram Manual
WDM 33-27-15	Wiring Diagram Manual

#### B. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure

SUBTASK 33-27-00-960-003



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp (WDM 33-27-11 thru WDM 33-27-15):
  - (a) Use the release hole [5] to lower the lens assembly [4].
  - (b) Replace the lamp [1].
  - (c) Lift the lens assembly [4] to its usual position.

#### SUBTASK 33-27-00-860-008

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

## SUBTASK 33-27-00-710-005

- (3) Do a test of the new lamp:
  - (a) At the cabin system control panel (CSCP), set the galley standby lights to the on mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, use the NIGHT selection to control the standby lights.

- 1) Make sure the lamp comes on.
- (b) Set the lights to the off mode.

ARO ALL

33-27-00



1) Make sure the lamp goes off.

#### SUBTASK 33-27-00-860-005

(4) Put the CSCP back to its usual condition.

NOTE: On the same screen, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

----- END OF TASK -----

#### TASK 33-27-00-960-804

# 5. Galley Light - Ballast Replacement

(Figure 202)

# A. General

- (1) This task includes only the ballasts for galley lights installed in the ceiling.
- (2) When you replace the ballast, do not discard it. Refer to the vendor instructions for possible repairs.

# B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-21-07-000-801	Lowered Ceiling Panel Removal (P/B 401)
25-21-07-400-801	Lowered Ceiling Panel Installation (P/B 401)
WDM 33-27-1X	Wiring Diagram Manual

#### C. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

## D. Procedure

**ARO ALL** 

## SUBTASK 33-27-00-860-002

(1) Open each applicable circuit breakers for the galley light ballast and install safety tags:

(WDM 33-27-1X)

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	4	C33460	FWD & DR 2 GLY LTS
Н	3	C33459	AFT GLY LTS

#### SUBTASK 33-27-00-960-004

- (2) Do these steps to replace the ballast:
  - (a) For access to the ballast, lower the ceiling panel (TASK 25-21-07-000-801).
  - (b) Disconnect the electrical connector [23].
  - (c) Loosen the fasteners [21].
  - (d) Replace the ballast [22].
  - (e) Tighten the fasteners [21].
  - (f) Connect the electrical connector [23].
  - (g) Close the ceiling panel (TASK 25-21-07-400-801).

SEFFECTIVITY 33-27-00

Page 209 Jan 05/2018



#### SUBTASK 33-27-00-860-003

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-27-00-860-004

(4) Remove the safety tags and close the applicable circuit breakers:

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	4	C33460	FWD & DR 2 GLY LTS
Н	3	C33459	AFT GLY LTS

#### SUBTASK 33-27-00-710-006

· EFFECTIVITY -

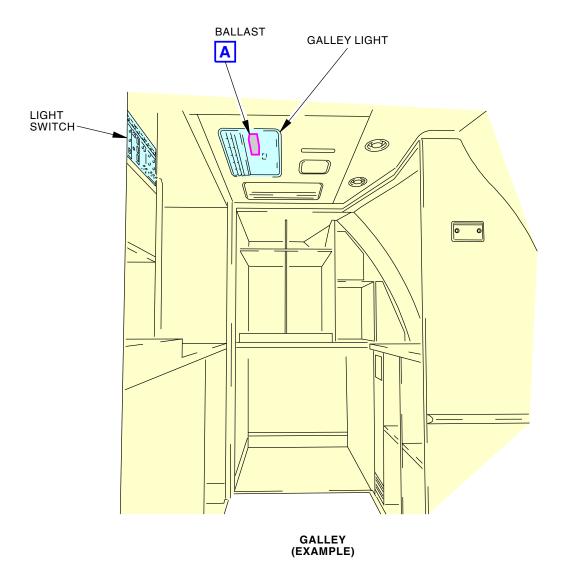
**ARO ALL** 

- (5) Do a test of the new ballast.
  - (a) At the galley, set the switch for the fluorescent galley light to the bright mode.
    - 1) Make sure the light connected to the ballast comes on brightly.
  - (b) Set the switch to the dim mode.
    - 1) Make sure the light becomes dim.
  - (c) Set the switch to the off mode.
    - 1) Make sure the light goes off.

----- END OF TASK -----

33-27-00





F68323 S0006419976\_V2

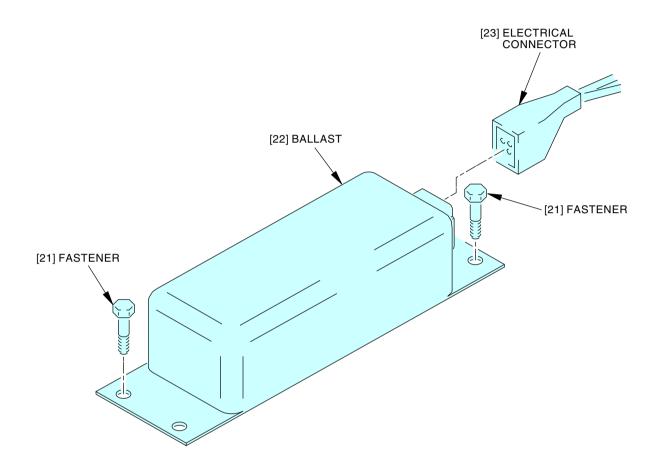
# Galley Light - Ballast Replacement Figure 202/33-27-00-990-802 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-27-00

Page 211 Sep 05/2016





GALLEY LIGHT BALLAST (EXAMPLE)



E33372 S0006419977\_V2

Galley Light - Ballast Replacement Figure 202/33-27-00-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-27-00

Page 212 Sep 05/2016



### **GALLEY LIGHTS - ADJUSTMENT/TEST**

### 1. General

- A. This procedure has one task:
  - (1) Galley Lights Operational Test
- B. The galley lights include the fluorescent and incandescent lights in the galley ceilings. Switches in the galley control these lights.
  - (1) In some documents, these lights are also referred to as direct galley lights, direct ceiling lights, supplemental galley lights, and galley work lights. This procedure refers to these lights by the type of lamps they use.
- C. In some of the fluorescent light assemblies, there is also an incandescent galley standby light. When it is necessary to do a test of this light, do this task: Passenger Loading Lights Operational Test, TASK 33-22-00-710-801.

NOTE: Do the steps for the standby (ETOPS) lights.

#### TASK 33-27-00-710-801

## 2. Galley Lights - Operational Test

#### A. General

(1) This test makes sure the galley lights in the ceiling operate.

# B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-27-11	Wiring Diagram Manual
WDM 33-27-15	Wiring Diagram Manual

## C. Location Zones

Zone	Area
200	Upper Half of Fuselage

## D. Procedure

#### SUBTASK 33-27-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

## SUBTASK 33-27-00-710-001

- (2) Do a test of the fluorescent galley (ceiling) lights (WDM 33-27-11 thru WDM 33-27-15):
  - (a) At each galley, set the switch for the fluorescent galley lights to the bright mode.
    - 1) Make sure the fluorescent lights come on brightly.
  - (b) Set the switch to the dim mode.
    - 1) Make sure the fluorescent lights become dim.
  - (c) Set the switch to the off mode.
    - Make sure the fluorescent lights go off.

#### SUBTASK 33-27-00-710-002

- (3) Do a test of the incandescent galley (spot) lights (WDM 33-27-11 thru WDM 33-27-15):
  - (a) At each galley, set the switch for supplemental galley lights or galley work lights to the on mode.

ARO ALL

33-27-00



- 1) Make sure the incandescent lights come on.
- (b) Set the switch to the off mode.
  - 1) Make sure the incandescent lights go off.

——— END OF TASK ———

ARO ALL

33-27-00



#### PASSENGER CALL LIGHT - MAINTENANCE PRACTICES

#### 1. General

- A. This procedure has this task:
  - (1) Passenger Call Light Lamp Replacement

#### TASK 33-28-00-960-801

## 2. Passenger Call Light - Lamp Replacement

(Figure 201)

## A. General

- (1) This task includes the call lights at the passenger seats. It does not include the call lights for the lavatories (TASK 33-25-01-960-801). It does not include the master call lights on the master call light modules (TASK 33-25-02-960-801).
- (2) The passenger call light is also referred to as the call light and the passenger row call light.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
33-25-01-960-801	Lavatory Call Light - Lamp Replacement (P/B 201)
33-25-02-960-801	Master Call Light Module - Lamp Replacement (P/B 201)

## C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

SUBTASK 33-28-00-960-001



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LAMP, ELECTRICAL SHOCK CAN OCCUR. THIS CAN CAUSE INJURIES TO PERSONNEL.

- (1) Do these steps to replace the lamp:
  - (a) With your fingers, pull off the lens [2].
  - (b) Replace the lamp [1].
  - (c) Push the lens [2] into position.

# SUBTASK 33-28-00-860-001

(2) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-28-00-860-008

(3) Set the power control switch in the purser station to the on mode.

#### SUBTASK 33-28-00-710-001

- (4) Do a test of the new lamp.
  - (a) At the applicable passenger control unit (PCU), set the call light to the on mode.
    - 1) Make sure the new lamp comes on.
  - (b) Set the light to the off mode.
    - 1) Make sure the new lamp goes off.

ARO ALL

33-28-00



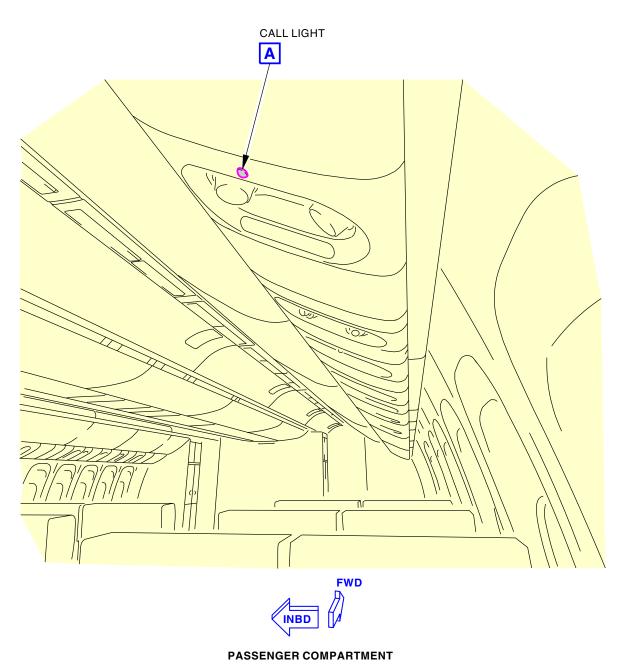
SHR	TASK	33-28.	.00-8	60-009

(-)	•	—— FND OF		
(5)	Set the power control swit	ch in the purser	station to the u	sual mode.

ARO ALL

33-28-00





F68344 S0006419984\_V2

Passenger Call Light - Lamp Replacement Figure 201/33-28-00-990-801 (Sheet 1 of 3)

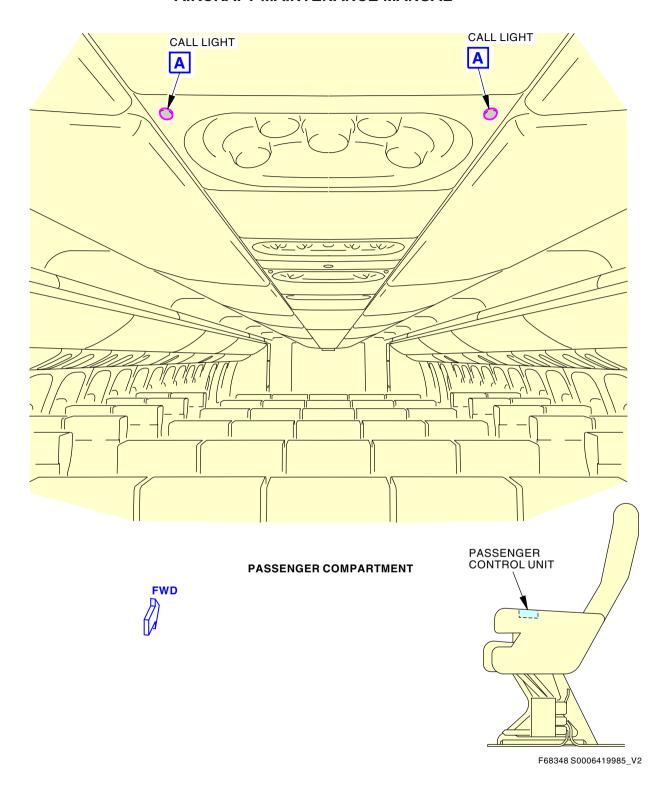
ARO ALL

D633W101-ARO

33-28-00

Page 203 Sep 05/2016





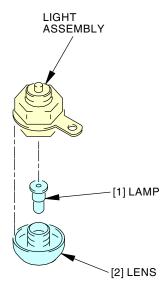
Passenger Call Light - Lamp Replacement Figure 201/33-28-00-990-801 (Sheet 2 of 3)

ARO ALL
D633W101-ARO

33-28-00

Page 204 Sep 05/2016







E18799 S0006419986\_V2

Passenger Call Light - Lamp Replacement Figure 201/33-28-00-990-801 (Sheet 3 of 3)

ARO ALL

33-28-00

Page 205 Sep 05/2016



## PASSENGER CALL LIGHT - ADJUSTMENT/TEST

#### 1. General

- A. This procedure has this task:
  - (1) Passenger Call Light Operational Test

### TASK 33-28-00-710-801

# 2. Passenger Call Light - Operational Test

#### A. General

- (1) This test makes sure the call lights above the passenger seats operate.
- (2) This procedure does not include the call lights for the lavatories (TASK 33-25-00-710-801). It does not include the master call lights on the master call light modules (TASK 33-25-00-710-802).

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
33-25-00-710-801	Lavatory Call Lights - Operational Test (P/B 501)
33-25-00-710-802	Master Call Light Modules - Operational Test (P/B 501)
WDM 33-28-11	Wiring Diagram Manual

## C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

#### SUBTASK 33-28-00-860-004

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-28-00-860-010

(2) Set the power control switch in the purser station to the on mode.

#### SUBTASK 33-28-00-710-003

- (3) Do a test of the passenger call lights (WDM 33-28-11):
  - (a) At the cabin system control panel (CSCP), set the passenger call lights to the on mode.
    - NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the LAMP TEST menu, make the applicable selection.
    - 1) Make sure the lights come on.
  - (b) Set the lights to the off mode.
    - 1) Make sure the lights go off.

## SUBTASK 33-28-00-860-006

(4) Put the CSCP back to its usual condition.

NOTE: On the LAMP TEST menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

ARO ALL

33-28-00



SI	IRT	ΔSK	33-28	-00-8	160 <u>-</u> 0	11

(-)	•	—— FND OF		
(5)	Set the power control swit	ch in the purser	station to the u	sual mode.

ARO ALL

33-28-00



## **CREW REST LIGHTS - ADJUSTMENT/TEST**

## 1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure contains:
  - (1) Flight Crew Rest (FCR) Lights Operational Test

#### TASK 33-29-00-710-812

# 2. Flight Crew Rest (FCR) Lights - Operational Test

# A. General

(1) This test makes sure the lighting system in the FCR operates.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
FIM 23-39 TASK A17	Reduced Power for Fluorescent Lighting - Fault Isolation
WDM 33-29-31	Wiring Diagram Manual

## C. Location Zones

Zone	Area
220	Subzone 220 - Section 41

#### D. Procedure

#### SUBTASK 33-29-00-860-018

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-29-00-710-013

- (2) Do an operational test of the lighting components in the FCR (WDM 33-29-31):
  - (a) If you cannot perform any of the steps in the following operational procedure, check for a "Reduced Power Condition" message on the CSCP.
    - 1) If a "Reduced Power Condition" message is displayed on the CSCP, go to FIM 23-39 TASK A17 and follow the directions to clear the fault.
  - (b) At the cabin system control panel (CSCP), set the no-smoking sign to the on mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selection.

If a no-smoking sign was changed to remain on/off at all times, use the Special Function selection on the lamp test menu to operate the sign.

- 1) Make sure the no-smoking sign comes on.
- (c) At the CSCP, set the fasten-seat-belt sign to the on mode.
  - 1) Make sure the fasten-seat-belt sign comes on.
- (d) At the CSCP, set the lavatory-occupied signs to the on mode.
  - 1) Make sure the lavatory-occupied signs come on.
- (e) At the CSCP, set the no-smoking sign, fasten-seat-belt sign, and lavatory-occupied signs to the off mode.
  - Make sure the no-smoking sign goes off.

ARO ALL



- 2) Make sure the fasten-seat-belt sign goes off.
- 3) Make sure the lavatory-occupied signs go off.
- (f) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

- (g) At each bunk or seat in the FCR, set the switch for the reading light to the on mode.
  - 1) Make sure the reading light comes on.
- (h) Set the switch for the reading light to the off mode.
  - 1) Make sure the reading light goes off.
- (i) For a test of the call light/reset switch, do these steps:
  - 1) Activate a call.

NOTE: For the call light/reset switch installed above the FCR door, activate the call from one of the bunks. If additional call light/reset switches are installed in the FCR, refer to the WDM (WDM 33-29-31) for call activation information.

- a) Make sure the call light/reset switch comes on.
- 2) Push the call light/reset switch to set the light to the off mode.
  - a) Make sure the light in the switch goes off.
- (j) In the FCR, set the switch for the area light to the on mode.
  - 1) Make sure the area light comes on.
  - 2) Make sure the green light in the switch is on.
  - 3) Make sure these lights (when installed/activated) are on:
    - a) Handle light
    - b) Step light
- (k) Set the switch for the area light to the off mode.
  - 1) Make sure the green light in the switch stays on.
  - Make sure these lights (when installed/activated) stay on:
    - a) Handle light
    - b) Step light
  - 3) Make sure the area light goes off.

——— END OF TASK ———

33-29-00

**EFFECTIVITY** 



## FLIGHT CREW REST (FCR) LIGHTS - MAINTENANCE PRACTICES

## 1. General

- A. This procedure has these tasks:
  - (1) FCR Area/Reading Light Lamp Replacement
  - (2) FCR Step/Handle Light Lamp Replacement
  - (3) FCR Night Light Lamp Replacement
  - (4) FCR No-Smoking/Fasten-Seat-Belt Sign Lamp Replacement
  - (5) FCR Lavatory-Occupied Sign Lamp Replacement
  - (6) FCR Call Light/Reset Switch Replacement

#### TASK 33-29-03-710-801

## 2. FCR Area/Reading Light - Lamp Replacement

(Figure 201)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

#### B. Location Zones

Zone	Area	
220	Subzone 220 - Section 41	

#### C. Procedure

SUBTASK 33-29-03-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-29-03-860-002

(2) In the FCR, set the switch for the applicable light to the off mode.

SUBTASK 33-29-03-710-001



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (3) Do these steps to replace the lamp:
  - (a) Remove the lens assembly [2].

NOTE: With two fingers, push together the inner and outer sides of the lens assembly. At the same time, turn the lens assembly counterclockwise to disengage it.

- (b) Replace the lamp [1].
- (c) Install the lens assembly [2].

## SUBTASK 33-29-03-710-002

- (4) Do a test of the new lamp:
  - (a) Set the switch for the applicable light to the on mode.
    - 1) Make sure the light comes on.
  - (b) Set the switch to the off mode.

ARO ALL

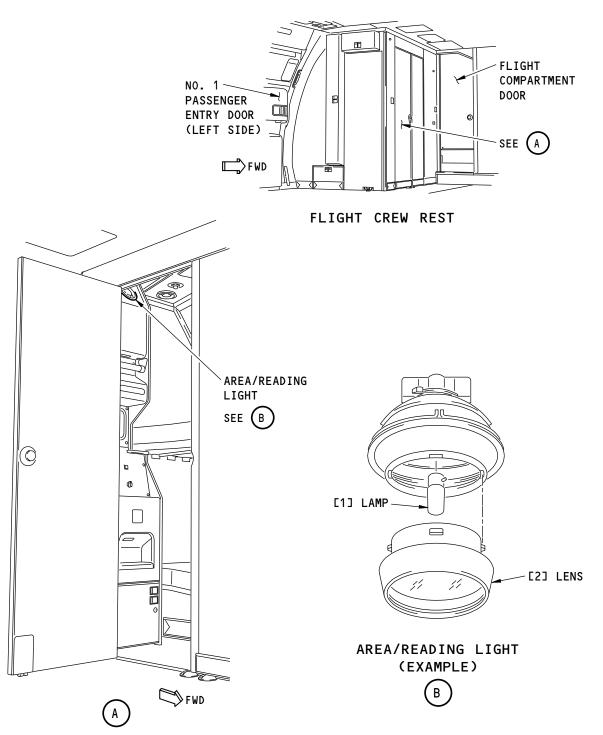


1)	Make	sure	the	light	goes	off.
----	------	------	-----	-------	------	------

----- END OF TASK -----

ARO ALL





G78082 S0006420042\_V1

Flight Crew Rest (FCR) Area/Reading Light - Lamp Replacement Figure 201/33-29-03-990-801

ARO ALL
D633W101-ARO

33-29-03

Page 203 Jan 05/2015



#### TASK 33-29-03-710-802

## 3. FCR Step/Handle Light - Lamp Replacement

(Figure 202)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

#### B. Location Zones

Zone	Area
220	Subzone 220 - Section 41

#### C. Procedure

#### SUBTASK 33-29-03-860-003

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power. TASK 24-22-00-860-805

SUBTASK 33-29-03-710-003



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (2) Do these steps to replace the lamp:
  - (a) Use the CSCP and the OEU selection screen to turn off the power to the step and handle light to be replaced.
  - (b) Loosen the screws [24] around the plate [25] then pull out the night light assembly.
  - (c) Loosen the screws [23] on the front of the lens [22] to release the housing from the plate.
  - (d) Replace the lamp [21].
  - (e) Assemble and hold the housing against the back of the plate [25].
  - (f) Assemble and hold the lens [22] against the front of the plate and tighten its screws [23].
  - (g) Install the light assembly then tighten the screws [24] around the plate.

#### SUBTASK 33-29-03-710-004

- (3) Do a test of the new lamp:
  - (a) Use the CSCP and the OEU selection screen to turn on the power to the step and handle light that was replaced.
    - 1) Make sure the new lamp comes on.

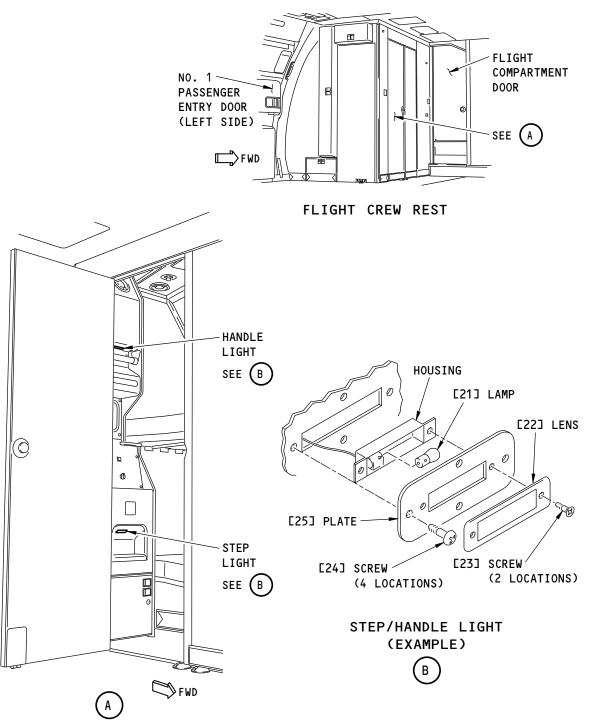
	OF TA	C IZ	

33-29-03

ARO ALL

ANO ALI





G78105 S0006420044\_V1

Flight Crew Rest (FCR) Step/Handle Light - Lamp Replacement Figure 202/33-29-03-990-802

EFFECTIVITY

ARO ALL

Page 205

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



#### TASK 33-29-03-710-803

4. FCR Night Light - Lamp Replacement

(Figure 203)

A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

B. Location Zones

Zone	Area	
220	Subzone 220 - Section 41	

## C. Procedure

#### SUBTASK 33-29-03-860-004

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-29-03-710-005



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (2) Do these steps to replace a lamp in a night light:
  - (a) At the cabin system control panel (CSCP), do these steps to set the night light to the off mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch ENGINEERING TESTS. When the screen changes, touch COMMAND OUTPUT.

- 1) At the COMMAND OUTPUT OVERHEAD ELECTRONICS UNIT (OEU) menu, make this selection:
  - a) Zone Management Unit: 1
  - b) Column: 1
  - c) OEU: 1
  - d) Port: 11 OPEN
- (b) Lift off the lens [42].
- (c) Replace the lamp [41].
- (d) Push the lens [42] back into its position.

#### SUBTASK 33-29-03-710-006

- (3) Do a test of the new lamp:
  - (a) At the CSCP, do these steps to set the night light to the on mode:
    - 1) At the COMMAND OUTPUT OVERHEAD ELECTRONICS UNIT (OEU) menu, make this selection:
      - a) Zone Management Unit: 1
      - b) Column: 1
      - c) OEU: 1
      - d) Port: 11 GROUND
  - (b) Make sure the new lamp comes on.

ARO ALL



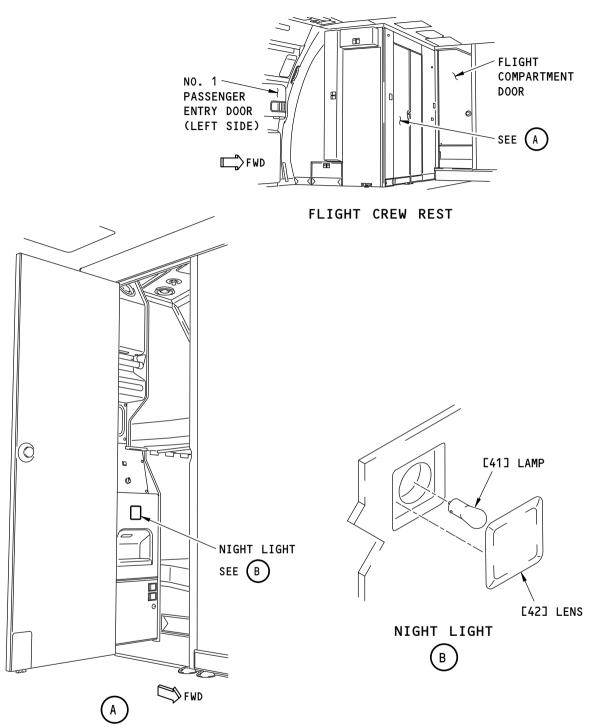
- (c) At the CSCP, set the night light to the off mode:
  - 1) At the COMMAND OUTPUT OVERHEAD ELECTRONICS UNIT (OEU) menu, make this selection:
    - a) Zone Management Unit: 1
    - b) Column: 1
    - c) OEU: 1
    - d) Port: 11 OPEN
- (d) Make sure the night light goes off.
- (e) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. (If a note appears on the screen, read it, then follow the instructions.) If the cabin maintenance menus are not necessary, touch EXIT.

----- END OF TASK -----

ARO ALL





G78107 S0006420046\_V1

Flight Crew Rest (FCR) Night Light - Lamp Replacement Figure 203/33-29-03-990-803

ARO ALL
D633W101-ARO

33-29-03

Page 208 Jan 05/2015



#### TASK 33-29-03-710-804

5. FCR No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement

(Figure 204)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

#### B. Location Zones

2004.1011 201100		
Zone	Area	
220	Subzone 220 - Section 41	

#### C. Procedure

#### SUBTASK 33-29-03-860-005

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-29-03-710-007



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (2) Do these steps to replace a lamp in the no-smoking/fasten-seat-belt sign:
  - (a) Remove the lens [61].

NOTE: Use the top or bottom slots to release the lens assembly.

(b) Replace the lamp [62].

#### SUBTASK 33-29-03-710-008

- (3) Do a test of the new lamp:
  - (a) At the cabin system control panel (CSCP), set the applicable sign to the on mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TEST. On the lamp test menu, make the applicable selection.

If a no-smoking sign was changed to remain on/off at all times, use the SPECIAL FUNCTION selection on the lamp test menu to operate the sign.

- 1) Make sure the new lamp comes on.
- (b) Set the sign to the off mode.
  - 1) Make sure the sign goes off.
- (c) Install the lens [61].

NOTE: Do not apply force.

 Make sure the top side of the lens assembly is installed in the top side of the light assembly.

ARO ALL 33-29-03



#### SUBTASK 33-29-03-860-006

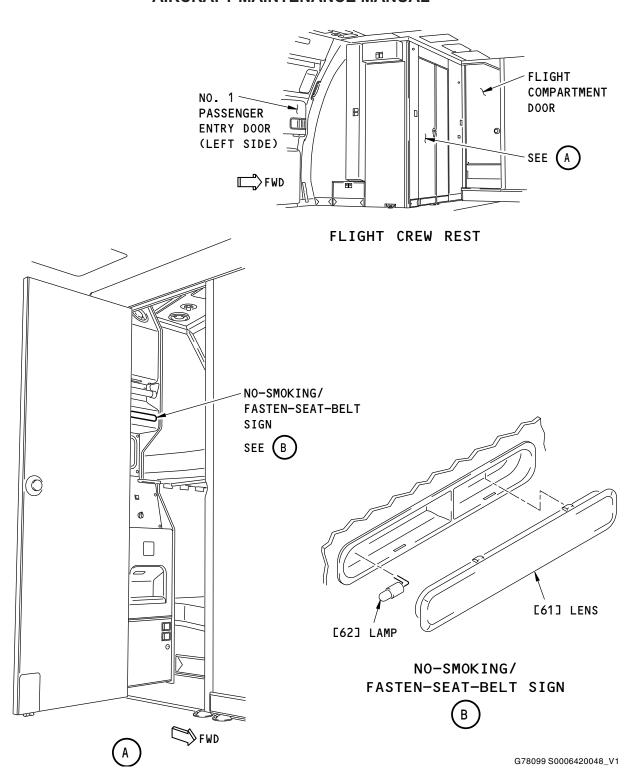
(4) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

------ END OF TASK ------

ARO ALL





Flight Crew Rest (FCR) No-Smoking/Fasten-Seat-Belt Sign - Lamp Replacement Figure 204/33-29-03-990-804

EFFECTIVITY

ARO ALL

Page 211

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



#### TASK 33-29-03-710-805

6. FCR Lavatory-Occupied Sign - Lamp Replacement

(Figure 205)

## A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

#### B. Location Zones

Zone	Area
220	Subzone 220 - Section 41

#### C. Procedure

#### SUBTASK 33-29-03-860-007

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-29-03-710-009



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (2) Do these steps to replace a lamp in the lavatory-occupied sign:
  - (a) Pull out the light assembly [82].
  - (b) Replace the lamp [81].
  - (c) Push the light assembly [82] into its housing.

### SUBTASK 33-29-03-710-010

- (3) Do a test of the new lamp:
  - (a) At the cabin system control panel (CSCP), set the lavatory-occupied sign to the on mode.

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TEST. On the lamp test menu, make the applicable selections.

- 1) Make sure the new lamp comes on.
- (b) Set the sign to the off mode.
  - 1) Make sure the sign goes off.

# SUBTASK 33-29-03-860-008

(4) Put the CSCP back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

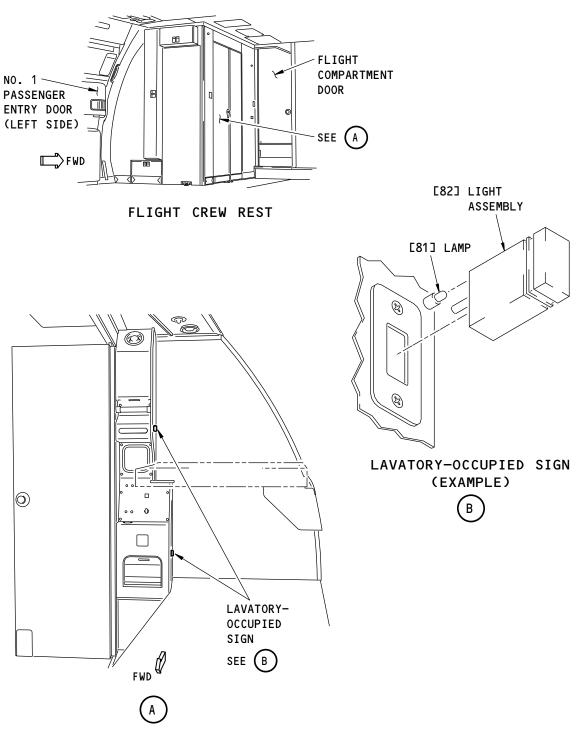
ENID	OE:	LACL	

33-29-03

**ARO ALL** 

EFFECTIVITY





G78283 S0006420050\_V1

Flight Crew Rest (FCR) Lavatory-Occupied Sign - Lamp Replacement Figure 205/33-29-03-990-805

EFFECTIVITY

ARO ALL

Page 213

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



#### TASK 33-29-03-710-806

7. FCR Call Light/Reset Switch - Lamp Replacement

(Figure 206)

#### A. General

(1) In this procedure, the call light is also called the call reset switch.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-29-31	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
220	Subzone 220 - Section 41

#### D. Procedure

#### SUBTASK 33-29-03-860-009

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-29-03-710-011



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (2) Do these steps to replace the light in the call light/reset switch:
  - (a) For Airplanes with a Lamp and Lens:
    - 1) Remove the lens [102]

NOTE: Turn the lens counterclockwise.

- 2) Replace the lamp [101].
- 3) Install the lens [102].
- (b) For Airplanes with an LED/Switch assembly:
  - 1) Remove the entire LED/Switch assembly [103] by simply pulling it out of the panel, using your fingers and fingernails.

NOTE: The assembly is held in position by springs that compress when the assembly is being pulled out of the panel or pushed into it.

- Disconnect the LED/Switch assembly from the connecting cable and replace it with a new LED/Switch assembly [103], re-connecting the connector.
- 3) Install the new LED/Switch assembly by guiding the cable and assembly back into the hole and pushing it into place.

#### SUBTASK 33-29-03-710-012

- (3) Do a test of the new Light:
  - (a) Activate a call.

NOTE: For the call light/reset switch installed above the FCR door, activate the call from one of the bunks. If additional call light/reset switches are installed in the FCR, refer to the WDM (WDM 33-29-31) for call activation information.

ARO ALL

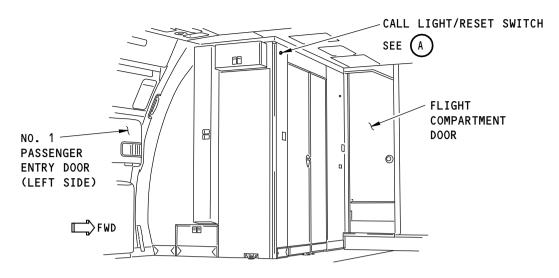


- 1) Make sure the new light in the call light/reset switch comes on.
- (b) Push the call light/reset switch to set the light to the off mode.
  - 1) Make sure the new light goes off.

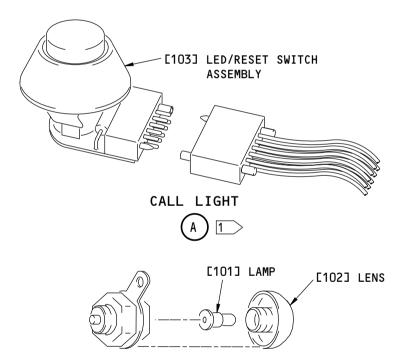
——— END OF TASK ———

ARO ALL





FLIGHT CREW REST



CALL LIGHT

1 AIRPLANES WITH AN INTEGRAL CALL LIGHT/RESET SWITCH

A 2

2 AIRPLANES WITH A CALL LIGHT

M34232 S0006420052\_V1

Flight Crew Rest (FCR) Call Light - Lamp Replacement Figure 206/33-29-03-990-806

ARO ALL
D633W101-ARO

33-29-03

Page 216 Sep 05/2017



## SERVICE AND CARGO LOADING LIGHTS - ADJUSTMENT/TEST

## 1. General

- A. This procedure has these tasks:
  - (1) Service and Cargo Loading Lights Operational Test of the Wheel Well Lights
  - (2) Service and Cargo Loading Lights Operational Test of the Air Conditioning Compartment Lights
  - (3) Service and Cargo Loading Lights Operational Test of the APU and Tailcone Compartment Lights
  - (4) Service and Cargo Loading Lights Operational Test of the Forward and Main Equipment Center Lights
  - (5) Service and Cargo Loading Lights Operational Test of the Cargo Loading Lights

#### TASK 33-31-00-710-801

# 2. Service and Cargo Loading Lights - Operational Test of the Wheel Well Lights

#### A. General

(1) This test makes sure the service lights in the nose and main wheel wells operate.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-31-11	Wiring Diagram Manual

## C. Location Zones

Zone	Area
113	Nose Landing Gear Wheel Well, Left
114	Nose Landing Gear Wheel Well, Right
143	Main Landing Gear Wheel Well, Left
144	Main Landing Gear Wheel Well, Right

## D. Access Panels

Number	Name/Location	
198LR	Aft Wing To Body Fairing Panel	

#### E. Procedure

SUBTASK 33-31-00-860-001

(1) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

SUBTASK 33-31-00-710-001

- (2) Do a test of the wheel well lights (WDM 33-31-11):
  - (a) Open the main landing gear door ground release door for access to the main wheel well electrical service panel, P56.

<u>Number</u>	Name/Location
198LR	Aft Wing To Body Fairing Pane

- (b) At the main wheel well electrical service panel, P56, set the switch for the service lights to the ON mode.
  - 1) Make sure the lights in the left and right main wheel wells come on.
  - 2) Set the switch to the OFF mode.

ARO ALL



- 3) Make sure the lights go off.
- (c) Close this main landing gear door ground release door:

Number Name/Location

198LR Aft Wing To Body Fairing Panel

- (d) At the service and APU shutdown panel, P40, set the switch for the service lights to the ON mode.
  - 1) Make sure the lights in the nose gear wheel well come on.
  - 2) Set the switch to the OFF mode.
  - 3) Make sure the lights go off.



#### TASK 33-31-00-710-802

# 3. Service and Cargo Loading Lights - Operational Test of the Air Conditioning Compartment Lights

#### A. General

(1) This test makes sure the service lights in the environmental control systems (ECS) bay operate.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-31-12	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
135	Environmental Control Systems Bay, Left
136	Environmental Control Systems Bay, Right

## D. Access Panels

Number	Name/Location
195EL	Environmental Control Systems (ECS) Access Door
196ER	Environmental Control Systems (ECS) Access Door

#### E. Procedure

#### SUBTASK 33-31-00-860-002

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

## SUBTASK 33-31-00-710-002

- (2) Do a test of the air conditioning compartment lights (WDM 33-31-12):
  - (a) Open this access panel:

# Number Name/Location 195El Environmental Control Systems (ECS) Ac

195EL Environmental Control Systems (ECS) Access Door

- (b) On the forward wall of the left ECS bay, set the switch for the service lights to the on mode.
  - 1) Make sure the lights in the left ECS bay come on.
  - Set the switch to the off mode.
  - 3) Make sure the lights go off.

ARO ALL



(c) Close this access panel:

Number Name/Location

195EL Environmental Control Systems (ECS) Access Door

(d) Open this access panel:

Number Name/Location

196ER Environmental Control Systems (ECS) Access Door

- (e) On the forward wall in the right ECS bay, set the switch for the service lights to the on mode.
  - 1) Make sure the lights in the right ECS bay come on.
  - 2) Set the switch to the off mode.
  - 3) Make sure the lights go off.
- (f) Close this access panel:

Number Name/Location

196ER Environmental Control Systems (ECS) Access Door

----- END OF TASK -----

## TASK 33-31-00-710-803

# 4. Service and Cargo Loading Lights - Operational Test of the APU and Tailcone Compartment Lights

# A. General

(1) This test makes sure the service lights in the APU and tailcone compartments operate.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-31-13	Wiring Diagram Manual

#### C. Location Zones

Zone	Area	
310	Subzone 310 - Section 48	

# D. Access Panels

Number	Name/Location
311BL	Service Access Door
313AL	Controls Bay Access Door
315AL	Auxiliary Power Unit (APU) Access Door, Left

## E. Procedure

SUBTASK 33-31-00-860-003

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

## SUBTASK 33-31-00-710-003

- (2) Do a test of the APU and tailcone compartment lights (WDM 33-31-13):
  - (a) Open this access panel for access to area aft of the bulkhead:

Number Name/Location
311BL Service Access Door

(b) At the inner side of the access door, set the switch for the service lights to the on mode.

ARO ALL



- 1) Make sure the lights come on.
- 2) Set the switch to the off mode.
- 3) Make sure the lights go off.
- (c) Close this access panel:

Number Name/Location
311BL Service Access Door

(d) Open this access panel for access to the stabilizer torsion box compartment:

Number Name/Location
313AL Controls Bay Access Door

- (e) At the inner side of the access door, set the switch for the service light to the on mode.
  - 1) Make sure the light comes on.
- (f) Set the same switch to the off mode.
  - 1) Make sure the light goes off.
- (g) Close this access panel:

Number Name/Location

313AL Controls Bay Access Door

(h) Open this access panel for access to the APU compartment:

Number Name/Location

315AL Auxiliary Power Unit (APU) Access Door, Left

- (i) On the forward wall of APU compartment, set the switch for the service lights to the on position.
  - 1) Make sure the lights come on.
  - 2) Set the switch to the off mode.
  - 3) Make sure the lights go off.
- (j) Close this access panel:

Number Name/Location

315AL Auxiliary Power Unit (APU) Access Door, Left

----- END OF TASK -----

## TASK 33-31-00-710-804

# 5. Service and Cargo Loading Lights - Operational Test of the Forward and Main Equipment Center Lights

## A. General

- (1) This test makes sure the service lights in the forward and main equipment center operate.
- (2) Use the WDM to make sure the correct lights come on and go off during this test.
- (3) It is faster to do this task with two persons.
- B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-31-14	Wiring Diagram Manual	

ARO ALL



#### C. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well
115	Area Outboard and Above Nose Landing Gear Wheel Well, Left
116	Area Outboard and Above Nose Landing Gear Wheel Well, Right
117	Main Equipment Center, Left
118	Main Equipment Center, Right

## D. Access Panels

Number	Name/Location
112AL	Forward Access Door
117AL	Main Equipment Center Access Door

#### E. Procedure

· EFFECTIVITY ·

**ARO ALL** 

#### SUBTASK 33-31-00-860-004

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-31-00-710-004

- (2) Do a test of the forward and main equipment center lights (WDM 33-31-14):
  - (a) Open this access panel for access to the forward equipment center:

<u>Number</u>	Name/Location
112AL	Forward Access Door

- (b) At the inner side of the access door, 112AL, set the switch for the service lights to the on mode.
  - 1) Make sure the lights in the forward equipment center come on.
- (c) Open this access panel for access to the main equipment center:

# Number Name/Location 117AL Main Equipment Center Access Door

- (d) At the inner side of the access door, 117AL, set the switch for the service lights in the forward equipment center to the off mode.
  - 1) Make sure the lights in the forward equipment center go off.
- (e) Close this access panel:

# Number Name/Location 112AL Forward Access Door

- (f) At the inner side of the access door, 117AL, set the switch for the service lights in the main equipment center to the on mode.
  - 1) Make sure the lights in the main equipment center come on.
- (g) In the left aisle forward of the access door, 117AL, and near the ceiling, set the switch to the off mode.
  - 1) Make sure the lights in the main equipment center go off.
- (h) In the left aisle at the door to the cargo compartment, set the switch to the on mode.

NOTE: The switch is near the door and turned aft.

- 1) Make sure the lights in the main equipment center come on.
- (i) At the access door, 117AL, set the switch to the off mode.



- 1) Make sure the lights in the main equipment center go off.
- (j) Close this access panel:

Number Name/Location

117AL Main Equipment Center Access Door

------ END OF TASK ------

## TASK 33-31-00-710-805

# 6. Service and Cargo Loading Lights - Operational Test of the Cargo Loading Lights

# A. General

- (1) This test makes sure these cargo loading lights operate.
  - (a) Forward cargo loading lights
  - (b) Aft cargo loading lights
  - (c) Bulk cargo loading lights
- (2) Use the WDM to make sure the correct lights come on and go off during this test.
- (3) If it is necessary to do a test of the interior cargo lights, do this task: Interior Cargo Lights Operational Test, TASK 33-37-00-710-801.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
33-37-00-710-801	Interior Cargo Lights - Operational Test (P/B 501)
WDM 33-31-15	Wiring Diagram Manual
WDM 33-31-16	Wiring Diagram Manual
WDM 33-31-99	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
820	Subzone 820 - Cargo Compartment Doors

#### D. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door
152AR	Aft Cargo Door Control Door
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

#### E. Procedure

SUBTASK 33-31-00-860-005

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-31-00-710-005

- (2) Do a test of the forward cargo loading lights (WDM 33-31-15):
  - (a) Open this access panel for access to the forward cargo door control panel, P43:

<u>Number</u>	Name/Location
122AR	Forward Cargo Door Control Door

ARO ALL



- (b) At the P43 panel, set the switch for the exterior light to the on mode.
  - 1) Make sure the light aft of the door comes on.
  - 2) Set the switch to the off mode.
  - 3) Make sure the light goes off.
- (c) Open this access panel:

Number Name/Location

Forward Large Cargo Door

- 1) Make sure the lights in the door come on.
- (d) Close this access panel:

Number Name/Location

821 Forward Large Cargo Door

(e) Close this access panel:

Number Name/Location

122AR Forward Cargo Door Control Door

#### SUBTASK 33-31-00-710-006

- (3) Do a test of the aft cargo loading lights (WDM 33-31-16 through WDM 33-31-99):
  - (a) Open this access panel for access to the aft cargo door control panel, P44:

Number Name/Location

152AR Aft Cargo Door Control Door

- (b) At the P44 panel, set the switch for the exterior light to the on mode.
  - 1) Make sure the light aft of the door comes on.
  - 2) Set the switch to the off mode.
  - 3) Make sure the light goes off.
- (c) Open this applicable access panel:

Number Name/Location

823 Aft Small Cargo Door

- 1) Make sure the lights in the door come on.
- (d) Close this applicable access panel:

Number Name/Location

823 Aft Small Cargo Door

(e) Close this access panel:

Number Name/Location

152AR Aft Cargo Door Control Door

### SUBTASK 33-31-00-710-007

- (4) Do a test of the bulk cargo loading lights (WDM 33-31-16 through WDM 33-31-99):
  - (a) Open this access panel:

NumberName/Location825Bulk Cargo Door

(b) In the bulk cargo compartment, on the forward panel, set the switch for the exterior lights to the on mode.

ARO ALL



- 1) Make sure the lights forward and aft of the door come on.
- 2) Set the switch to the off mode.
- 3) Make sure the lights go off.
- (c) Close this access panel:

NumberName/Location825Bulk Cargo Door

——— END OF TASK ———

ARO ALL



#### **SERVICE LIGHTS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has these tasks:
  - (1) Service Light, Wheel Well Lamp Replacement
  - (2) Service Light, Air Conditioning Compartment Lamp Replacement
  - (3) Service Light, APU and Tailcone Compartment Lamp Replacement
  - (4) Service Light, Forward and Main Equipment Center Lamp Replacement

#### TASK 33-31-01-960-801

## 2. Service Light, Wheel Well - Lamp Replacement

(Figure 201)

## A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-31-11	Wiring Diagram Manual

## **B.** Location Zones

Zone	Area
113	Nose Landing Gear Wheel Well, Left
114	Nose Landing Gear Wheel Well, Right
143	Main Landing Gear Wheel Well, Left
144	Main Landing Gear Wheel Well, Right

#### C. Access Panels

Number	Name/Location
198LR	Aft Wing To Body Fairing Panel

#### D. Procedure

SUBTASK 33-31-01-860-001

- (1) Do one of these steps to remove electrical power from the applicable service light (WDM 33-31-11):
  - (a) Set the applicable switch for the service light to the OFF mode.
    - 1) Open this access panel and use the switch on the main wheel well electrical service panel, P56:

<u>Number</u>	Name/Location
198LR	Aft Wing To Body Fairing Panel

- 2) Use the switch on the service and APU shutdown panel, P40.
- (b) Open these circuit breakers and install safety tags:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	11	C33462	MN WW SVCE LTS
J	11	C33517	NGL WW SVCE LTS

#### SUBTASK 33-31-01-960-006

- (2) Do these steps to replace the lamp [1]:
  - (a) Turn the fastener [4] quarter turn counterclockwise.

ARO ALL



- (b) Open the lens assembly [2].
- (c) Replace the lamp [1].
- (d) Close the lens assembly [2].
- (e) Turn the fastener [4] quarter turn clockwise to tighten.

#### SUBTASK 33-31-01-860-002

- (3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).
  - (a) Remove the safety tags and close these circuit breakers:

# **Ground Service/Handling Power Panel, P320**

Row	Col	<u>Number</u>	<u>Name</u>
Н	11	C33462	MN WW SVCE LTS
J	11	C33517	NGL WW SVCE LTS

#### SUBTASK 33-31-01-710-001

- (4) Do a test of the new lamp:
  - (a) Set the applicable switch for the service light to the ON mode.
    - 1) Use the switch on the P56 main wheel well electrical service panel.
    - 2) Use the switch on the P40 service and APU shutdown panel.
    - 3) Make sure the lamp comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the lamp goes off.

#### SUBTASK 33-31-01-410-001

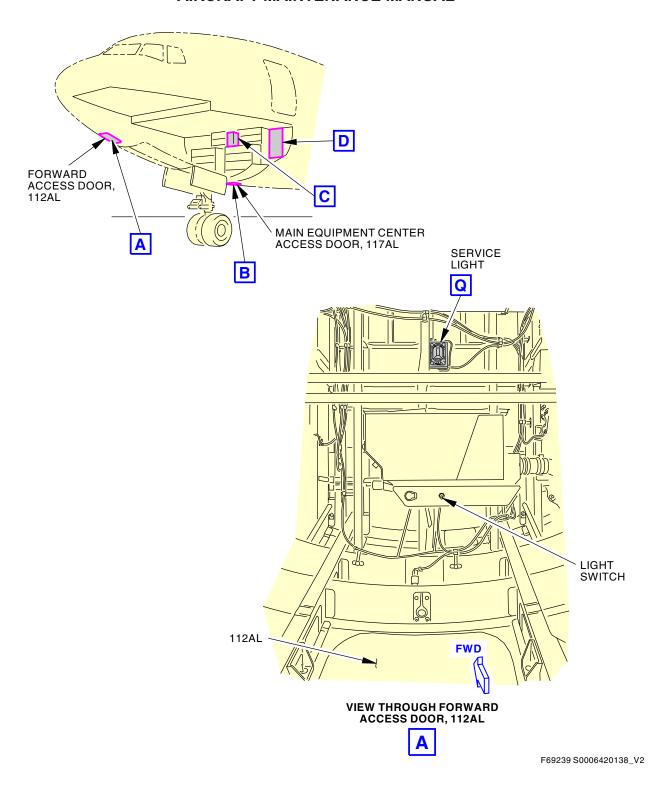
(5) Close the door that was opened:

<u>Number</u>	Name/Location
198LR	Aft Wing To Body Fairing Panel
	——— FND OF TASK ———

33-31-01

EFFECTIVITY



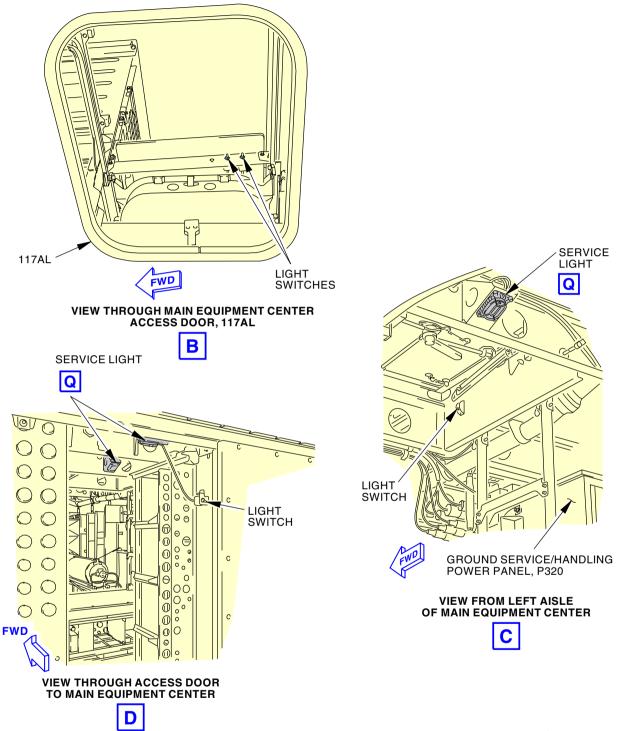


Service Lights - Lamp Replacement Figure 201/33-31-01-990-801 (Sheet 1 of 9)

EFFECTIVITY -ARO ALL D633W101-ARO 33-31-01

Page 203 Sep 05/2016





F69250 S0006420139\_V2

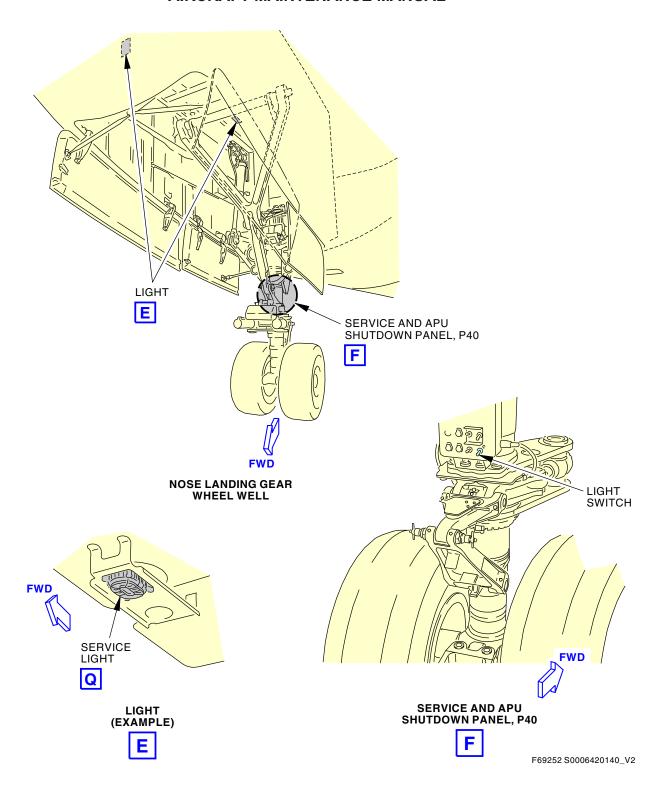
Service Lights - Lamp Replacement Figure 201/33-31-01-990-801 (Sheet 2 of 9)

ARO ALL

33-31-01

Page 204 Sep 05/2016





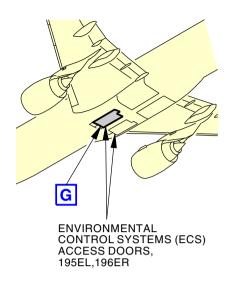
Service Lights - Lamp Replacement Figure 201/33-31-01-990-801 (Sheet 3 of 9)

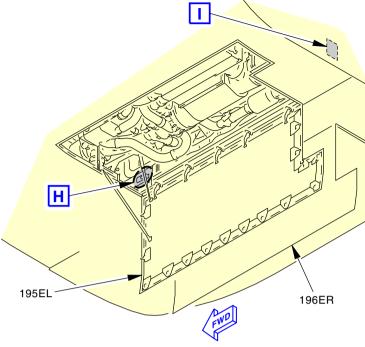
ARO ALL
D633W101-ARO

33-31-01

Page 205 Sep 05/2016

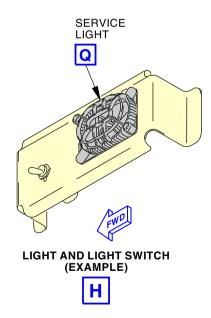


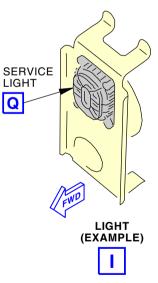




VIEW THROUGH LEFT ENVIRONMENTAL CONTROL SYSTEMS (ECS) ACCESS DOOR, 195EL (RIGHT ENVIRONMENTAL CONTROL SYSTEMS (ECS) ACCESS DOOR, 196ER, IS OPPOSITE)







F69254 S0006420141\_V2

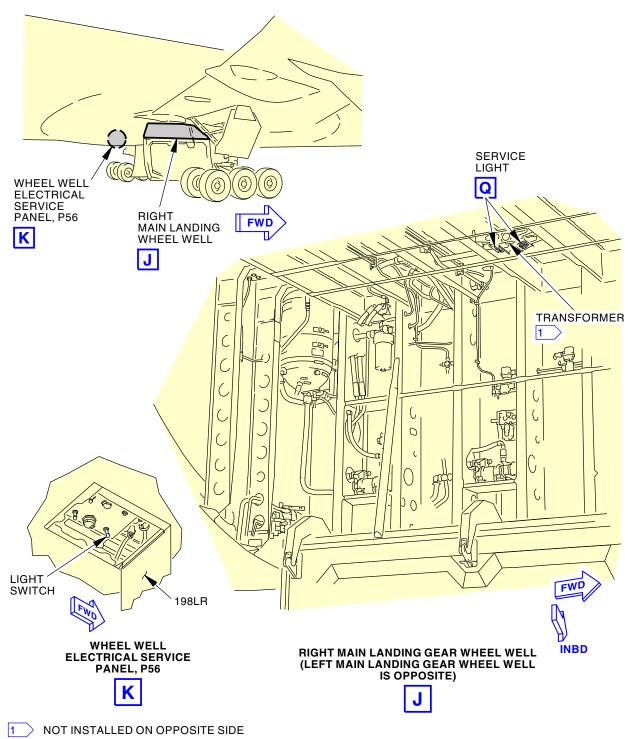
Service Lights - Lamp Replacement Figure 201/33-31-01-990-801 (Sheet 4 of 9)

ARO ALL

33-31-01

Page 206 Sep 05/2016





F69256 S0006420142\_V2

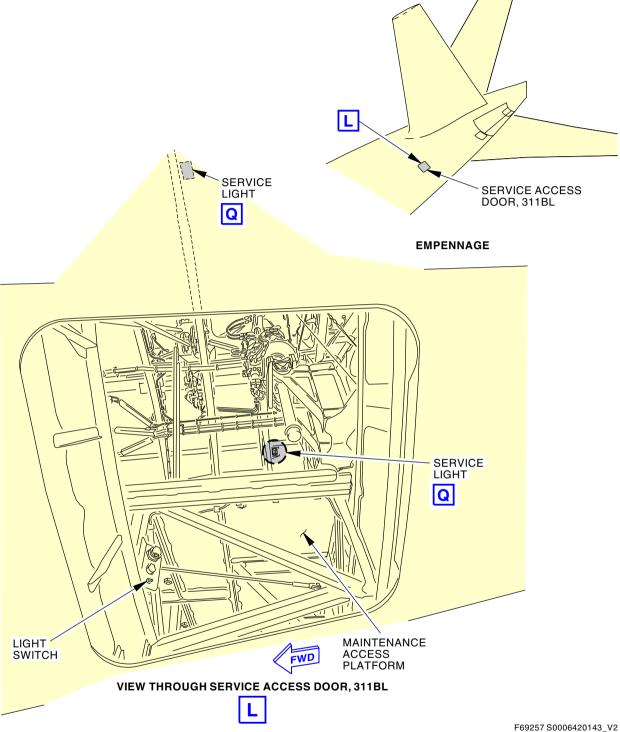
Service Lights - Lamp Replacement Figure 201/33-31-01-990-801 (Sheet 5 of 9)

ARO ALL
D633W101-ARO

33-31-01

Page 207 Sep 05/2016





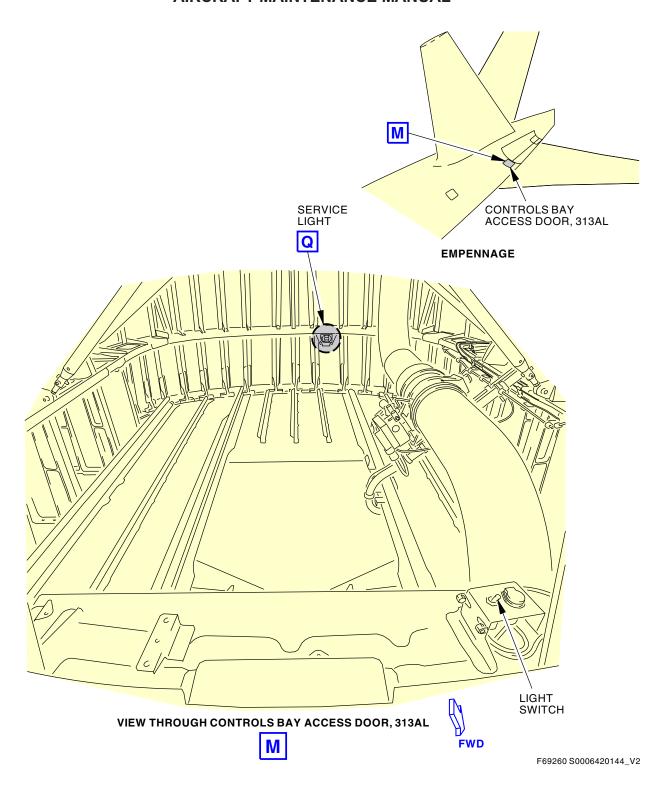
Service Lights - Lamp Replacement Figure 201/33-31-01-990-801 (Sheet 6 of 9)

- EFFECTIVITY ARO ALL

33-31-01

Page 208 Sep 05/2016





Service Lights - Lamp Replacement Figure 201/33-31-01-990-801 (Sheet 7 of 9)

EFFECTIVITY

ARO ALL

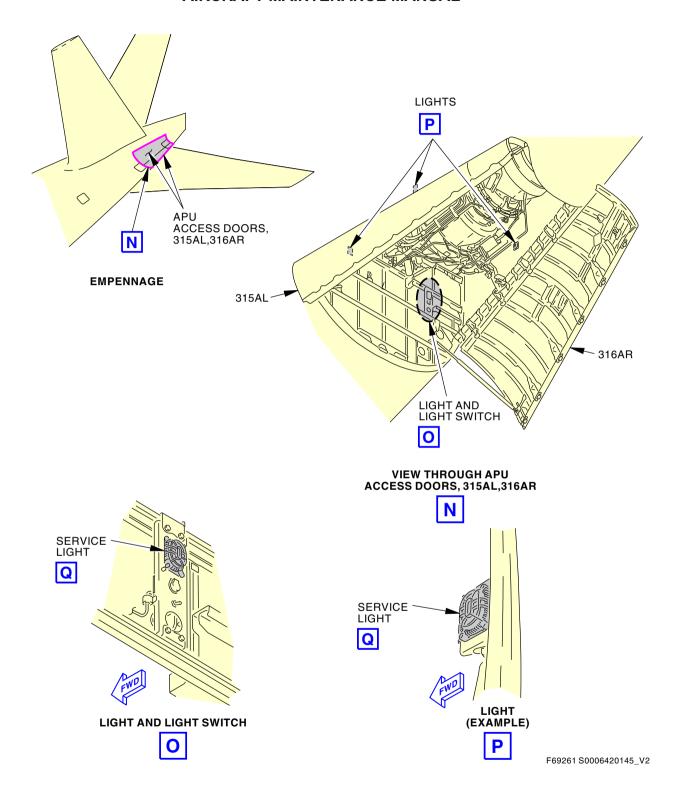
D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

33-31-01

Page 209 Sep 05/2016





Service Lights - Lamp Replacement Figure 201/33-31-01-990-801 (Sheet 8 of 9)

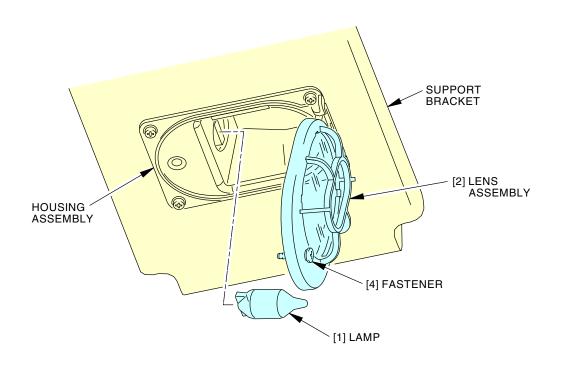
ARO ALL
D633W101-ARO

33-31-01

Page 210 Sep 05/2016



# **AIRCRAFT MAINTENANCE MANUAL**



SERVICE LIGHT (EXAMPLE)



1394167 S0000253245\_V2

Service Lights - Lamp Replacement Figure 201/33-31-01-990-801 (Sheet 9 of 9)

ARO ALL l D633W101-ARO 33-31-01

Page 211 Sep 05/2016



#### TASK 33-31-01-960-802

3. Service Light, Air Conditioning Compartment - Lamp Replacement

(Figure 201)

# A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-31-12	Wiring Diagram Manual

### **B.** Location Zones

Zone	Area
135	Environmental Control Systems Bay, Left
136	Environmental Control Systems Bay, Right

#### C. Access Panels

Number	Name/Location
195EL	Environmental Control Systems (ECS) Access Door
196ER	Environmental Control Systems (ECS) Access Door

### D. Procedure

#### SUBTASK 33-31-01-010-001

(1) For access to the Left or Right Environmental Control Systems Bay, open the applicable access doors:

<u>Number</u>	Name/Location
195EL	Environmental Control Systems (ECS) Access Door
196ER	Environmental Control Systems (ECS) Access Door

### SUBTASK 33-31-01-860-003

- (2) Do one of these steps to remove electrical power from the applicable light (WDM 33-31-12):
  - (a) On the forward wall of the ECS bay, set the switch for the service light to the OFF mode.
  - (b) Open this circuit breaker and install safety tag:

### **FWD Cargo Handling Access Panel, P35**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33007	AIR COND COMPT LIGHTS

### SUBTASK 33-31-01-960-007

- (3) Do these steps to replace the lamp [1]:
  - (a) Turn the fastener [4] quarter turn counterclockwise.
  - (b) Open the lens assembly [2].
  - (c) Replace the lamp [1].
  - (d) Close the lens assembly [2].
  - (e) Turn the fastener [4] quarter turn clockwise to tighten.

### SUBTASK 33-31-01-860-004

(4) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

33-31-01

**ARO ALL** 

· EFFECTIVITY ·

Page 212 Jan 05/2018



(a) Remove the safety tag and close this circuit breaker:

# FWD Cargo Handling Access Panel, P35

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	4	C33007	AIR COND COMPT LIGHTS

#### SUBTASK 33-31-01-710-002

- (5) Do a test of the new lamp:
  - (a) On the forward wall of the ECS bay, set the switch for the service light to the ON mode.
    - 1) Make sure the lamp comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the lamp goes off.

#### SUBTASK 33-31-01-410-002

(6) Close these access doors that was opened:

<u>Number</u>	Name/Location
195EL	Environmental Control Systems (ECS) Access Door
196ER	Environmental Control Systems (ECS) Access Door

# ----- END OF TASK -----

### TASK 33-31-01-960-803

4. Service Light, APU and Tailcone Compartment - Lamp Replacement

(Figure 201)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-31-13	Wiring Diagram Manual

# **B.** Location Zones

Zone	Area	
310	Subzone 310 - Section 48	

### C. Access Panels

Number	Name/Location
311BL	Service Access Door
313AL	Controls Bay Access Door
315AL	Auxiliary Power Unit (APU) Access Door, Left
316AR	Auxiliary Power Unit (APU) Access Door, Right

### D. Procedure

SUBTASK 33-31-01-010-002

(1) For access to the area aft of the bulkhead, open this access panel:

<u>Number</u>	Name/Location
311BL	Service Access Door

SUBTASK 33-31-01-010-003

(2) For access to the stabilizer torsion box compartment, open this access panel:

<u>Number</u>	Name/Location
313AL	Controls Bay Access Door

ARO ALL



#### SUBTASK 33-31-01-010-004



DO NOT TOUCH THE APU GEARBOX HEATERS. THE GEARBOX HEATERS STAY HOT WHEN THE AIRPLANE HAS AC POWER. HOT COMPONENTS CAN BURN YOU.

(3) For access to the APU compartment, open these access panels:

<u>Number</u>	Name/Location
315AL	Auxiliary Power Unit (APU) Access Door, Left
316AR	Auxiliary Power Unit (APU) Access Door, Right

#### SUBTASK 33-31-01-860-005

- (4) Do one of these steps to remove electrical power from the applicable light (WDM 33-31-13):
  - (a) At the access door, set the switch for the service light to the OFF mode.
  - (b) Open this circuit breaker and install safety tag:

# Cargo Handling Accessory Panel - Aft, P39

Row	<u>Col</u>	Number	<u>Name</u>
F	5	C33018	APU COMPT LIGHTS

#### SUBTASK 33-31-01-960-008

- (5) Do these steps to replace the lamp [1]:
  - (a) Turn the fastener [4] quarter turn counterclockwise.
  - (b) Open the lens assembly [2].
  - (c) Replace the lamp [1].
  - (d) Close the lens assembly [2].
  - (e) Turn the fastener [4] quarter turn clockwise to tighten.

# SUBTASK 33-31-01-860-006

- (6) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).
  - (a) Remove the safety tag and close this circuit breaker:

# Cargo Handling Accessory Panel - Aft, P39

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	5	C33018	APU COMPT LIGHTS

### SUBTASK 33-31-01-710-003

- (7) Do this test of the new lamp:
  - (a) At the access door, set the switch for the service light to the ON mode.
    - 1) Make sure the lamp comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the lamp goes off.

### SUBTASK 33-31-01-410-003

(8) Close these access doors that was opened:

<u>Number</u>	Name/Location
311BL	Service Access Door
313AL	Controls Bay Access Door
315AL	Auxiliary Power Unit (APU) Access Door, Left

ARO ALL

33-31-01

Page 214 Jan 05/2018



(Continued)

Number Name/Location

316AR Auxiliary Power Unit (APU) Access Door, Right

----- END OF TASK -----

# TASK 33-31-01-960-804

# 5. Service Light, Forward and Main Equipment Center - Lamp Replacement

(Figure 201)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-31-14	Wiring Diagram Manual

#### B. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well
115	Area Outboard and Above Nose Landing Gear Wheel Well, Left
116	Area Outboard and Above Nose Landing Gear Wheel Well, Right
117	Main Equipment Center, Left
118	Main Equipment Center, Right

# C. Access Panels

Number	Name/Location
112AL	Forward Access Door
117AL	Main Equipment Center Access Door

# D. Procedure

SUBTASK 33-31-01-010-005

(1) For access to the area forward of the nose landing gear wheel well, open this access panel:

<u>Number</u>	Name/Location
112AL	Forward Access Door

# SUBTASK 33-31-01-010-006

(2) For access to the area outboard and above the nose landing gear wheel well and to the main equipment center, open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

### SUBTASK 33-31-01-860-007

- (3) Do one of these steps to remove electrical power from the applicable light (WDM 33-31-14):
  - (a) At the access door, set the switch for the service light to the OFF mode.
  - (b) Open the applicable circuit breaker sand install safety tags:

### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
J	11	C33517	NGL WW SVCE LTS
J	12	C33518	E/E EQUIP CTR LTS

### SUBTASK 33-31-01-960-010

(4) Do these steps to replace the lamp [1]:

ARO ALL



- (a) Turn the fastener [4] quarter turn counterclockwise.
- (b) Open the lens assembly [2].
- (c) Replace the lamp [1].
- (d) Close the lens assembly [2].
- (e) Turn the fastener [4] quarter turn clockwise to tighten.

#### SUBTASK 33-31-01-860-008

- (5) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).
  - (a) Remove the safety tags and close these circuit breakers:

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
J	11	C33517	NGL WW SVCE LTS
J	12	C33518	E/E EQUIP CTR LTS

#### SUBTASK 33-31-01-710-004

- (6) Do this test of the new lamp:
  - (a) At the access door, set the switch for the service light to the ON mode.
    - 1) Make sure the lamp comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the lamp goes off.

### SUBTASK 33-31-01-410-004

(7) Close the doors that was opened:

<u>Number</u>	Name/Location
112AL	Forward Access Door
117AL	Main Equipment Center Access Door

——— END OF TASK ——

ARO ALL 33-31-01



# **CARGO LOADING LIGHTS - MAINTENANCE PRACTICES**

# 1. General

- A. This procedure has these tasks:
  - (1) Cargo Loading Light, Body-Mounted and Door-Mounted Deactivation
  - (2) Cargo Loading Light, Body-Mounted and Door-Mounted Activation
  - (3) Cargo Loading Light, Body-Mounted Lamp Replacement
  - (4) Cargo Loading Light, Body-Mounted Lampholder and Light Assembly Replacement
  - (5) Cargo Loading Light, Door-Mounted Lamp Replacement
  - (6) Cargo Loading Light, Door-Mounted Light Assembly and Lampholder Replacement

#### TASK 33-31-02-040-801

# 2. Cargo Loading Lights, Body-Mounted and Door-Mounted - Deactivation

(Figure 201)

# A. General

(1) This task removes electrical power to the body mounted and door mounted cargo loading lights

### **B.** Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
820	Subzone 820 - Cargo Compartment Doors

### C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

### D. Procedures

SUBTASK 33-31-02-010-005

(1) Open this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

### SUBTASK 33-31-02-010-006

(2) Open these doors:

Name/Location
Forward Large Cargo Door
Aft Small Cargo Door
Bulk Cargo Door

ARO ALL



SUBTASK 33-31-02-860-014



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(3) Open these circuit breakers and install safety tags:

# Cargo Handling Accessory Panel - Aft, P39

Row	Col	Number	<u>Name</u>
F	1	C33017	BULK EXTERIOR CARGO LIGHTS
F	2	C33014	AFT SILL DOOR LIGHTS
F	3	C33015	AFT EXT DOOR LTS
F	4	C33016	AFT EXTERIOR CARGO LIGHT
G	1	C33019	CARGO LTS CTRL-AFT

# **FWD Cargo Handling Access Panel, P35**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	2	C33005	FWD EXTERIOR DOOR LIGHTS
F	3	C33006	FWD EXTERIOR CARGO LIGHT

# E. Cargo Loading Lights - Tryout

NOTE: This tryout is to make sure that the cargo loading lights are in a zero energy state.

#### SUBTASK 33-31-02-700-002

- (1) Do a test of the forward body-mounted, door-mounted and door sill area lights:
  - (a) Toggle the forward cargo external area light switch on the P43 panel.
    - 1) Make sure that the forward fuselage mounted cargo area load light does not come on.
    - 2) Make sure that the forward cargo door mounted lights do not come on.

### SUBTASK 33-31-02-700-003

- (2) Do a test of the aft body-mounted, door-mounted and door sill area lights:
  - (a) Toggle the aft cargo external area light switch on the P44 panel.
    - 1) Make sure that the aft cargo door-mounted lights do not come on.
    - Make sure that the fuselage mounted area light aft of the aft lower lobe cargo door does not come on.

ENID	OE.	TASK	
	UF	IAON	

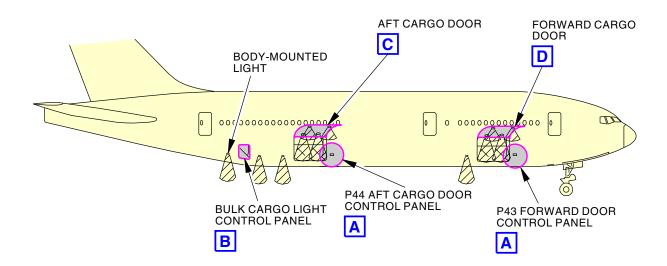
33-31-02

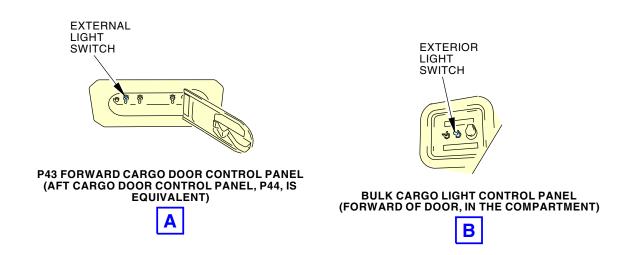
ARO ALL

· EFFECTIVITY

Page 202 Jan 05/2018







2417679 S0000558275\_V2

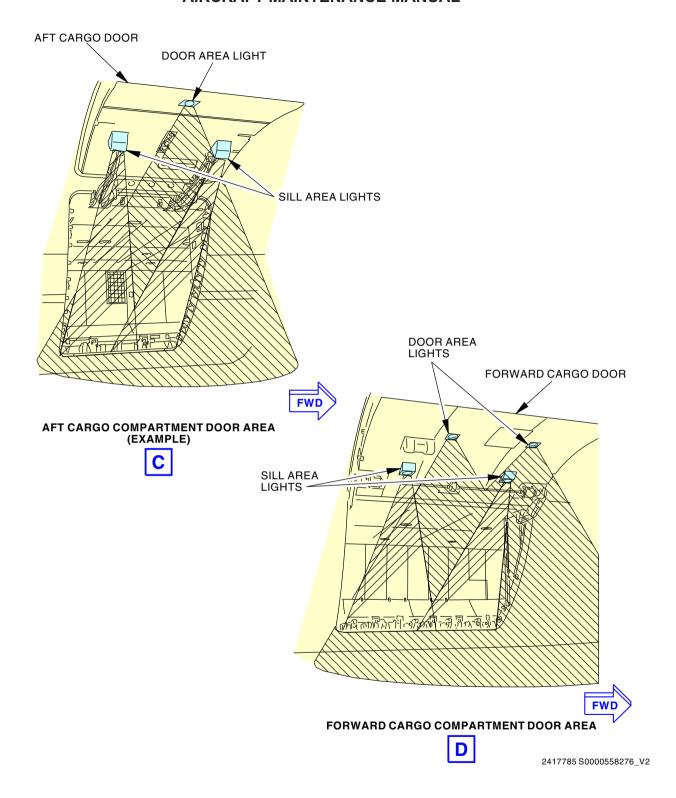
Cargo Loading Lights, Body-Mounted and Door-mounted. Figure 201/33-31-02-990-804 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-31-02

Page 203 Jan 05/2018





Cargo Loading Lights, Body-Mounted and Door-mounted. Figure 201/33-31-02-990-804 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

Page 204

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



# TASK 33-31-02-440-801

3. Cargo Loading Lights, Body-Mounted and Door-Mounted - Activation

(Figure 201)

#### A. General

(1) This task adds electrical power to the body-mounted and door-mounted cargo loading lights.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

#### C. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
820	Subzone 820 - Cargo Compartment Doors

### D. Access Panels

117AL Main Equipment Center Access Door	
821 Forward Large Cargo Door	
823 Aft Small Cargo Door	
825 Bulk Cargo Door	

# E. Procedure

SUBTASK 33-31-02-860-018

(1) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

SUBTASK 33-31-02-860-019



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Remove the safety tags and close these circuit breakers:

# Cargo Handling Accessory Panel - Aft, P39

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	1	C33017	BULK EXTERIOR CARGO LIGHTS
F	2	C33014	AFT SILL DOOR LIGHTS
F	3	C33015	AFT EXT DOOR LTS
F	4	C33016	AFT EXTERIOR CARGO LIGHT
G	1	C33019	CARGO LTS CTRL-AFT

### **FWD Cargo Handling Access Panel, P35**

Row	Col	Number	<u>Name</u>
F	2	C33005	FWD EXTERIOR DOOR LIGHTS
F	3	C33006	FWD EXTERIOR CARGO LIGHT
G	1	C33008	CARGO LTG CTRL-FWD

ARO ALL



#### SUBTASK 33-31-02-410-006

(3) Close this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### SUBTASK 33-31-02-700-006

- (4) Do a test of the forward body-mounted and door-mounted cargo loading lights:
  - (a) Toggle the forward cargo external area light switch on the P43 panel.
    - 1) Make sure that the forward fuselage mounted cargo area load light comes on.
    - 2) Make sure that the forward cargo door mounted lights come on.

#### SUBTASK 33-31-02-700-007

- (5) Do a test of the aft body-mounted and door-mounted cargo loading lights:
  - (a) Toggle the aft cargo external area light switch on the P44 panel.
    - 1) Make sure that the sill area lights on the aft lower lobe cargo door come on.
    - Make sure that the fuselage mounted area light aft of the aft lower lobe cargo door comes on.

#### SUBTASK 33-31-02-410-007

(6) Close these doors:

<u>Number</u>	Name/Location
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

----- END OF TASK -----

# TASK 33-31-02-960-803

# 4. Cargo Loading Light, Body-Mounted - Lamp Replacement

(Figure 202)

#### A. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-31-15	Wiring Diagram Manual	
WDM 33-31-16	Wiring Diagram Manual	

# B. Consumable Materials

Reference	Description	Specification
G01306	Gloves - Lint-free	

# C. Location Zones

Zone	Area
820	Subzone 820 - Cargo Compartment Doors

### D. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door
152AR	Aft Cargo Door Control Door
821	Forward Large Cargo Door

ARO ALL

33-31-02

Page 206 Jan 05/2018



# (Continued)

Number	Name/Location
823	Aft Small Cargo Door
825	Bulk Cargo Door

#### E. Procedure

#### SUBTASK 33-31-02-010-001

(1) Open this access panel:

<u>Number</u>	Name/Location
821	Forward Large Cargo Door

#### SUBTASK 33-31-02-010-002

(2) Open this applicable access panel:

<u>Number</u>	Name/Location
823	Aft Small Cargo Door

#### SUBTASK 33-31-02-860-001

(3) Open these applicable circuit breakers and install safety tags:

(WDM 33-31-15), (WDM 33-31-16)

# Cargo Handling Accessory Panel - Aft, P39

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	1	C33017	BULK EXTERIOR CARGO LIGHTS
F	4	C33016	AFT EXTERIOR CARGO LIGHT

# **FWD Cargo Handling Access Panel, P35**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	3	C33006	FWD EXTERIOR CARGO LIGHT

### SUBTASK 33-31-02-960-001

(4) Do these steps to replace the lamp:

NOTE: Do not touch the new lamp with your hands. Use lint-free gloves, G01306.

- (a) Loosen the fasteners [3].
- (b) Remove the lens assembly [2].
  - 1) Do not remove the lanyard.
- (c) Replace the lamp [1].
  - 1) Push down on the lamp [1] carefully and turn counterclockwise 1/4 turn to remove from the lampholder.
  - 2) Align the tabs of a new lamp [1] with the slots in the lampholder.
  - 3) Push down on the new lamp [1] carefully and turn clockwise 1/4 turn to attach the lamp [1] to the lampholder.
- (d) Install the lens assembly [2].
- (e) Tighten the fasteners [3].

#### SUBTASK 33-31-02-860-002

(5) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL 33-31-02



(a) Remove the safety tags and close these circuit breakers:

# Cargo Handling Accessory Panel - Aft, P39

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	1	C33017	BULK EXTERIOR CARGO LIGHTS
F	4	C33016	AFT EXTERIOR CARGO LIGHT

# FWD Cargo Handling Access Panel, P35

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	3	C33006	FWD EXTERIOR CARGO LIGHT

#### SUBTASK 33-31-02-410-001

(6) Close these doors that were opened:

<u>Number</u>	Name/Location
821	Forward Large Cargo Door
823	Aft Small Cargo Door

#### SUBTASK 33-31-02-710-001

- (7) Do this test of the new lamp:
  - (a) Open this access panel for access to the forward cargo door control panel, P43:

<u>Number</u>	Name/Location
122AR	Forward Cargo Door Control Door

- (b) At the P43 panel, set the switch for the light (exterior) to the on mode.
  - 1) Make sure the lamp comes on.
  - 2) Set the switch to the off mode.
  - 3) Make sure the lamp goes off.
- (c) Close this access panel:

<u>Number</u>	Name/Location
122AR	Forward Cargo Door Control Door

### SUBTASK 33-31-02-710-002

- (8) Do this test of the new lamp:
  - (a) Open this access panel for access to the aft cargo door control panel, P44:

<u>Number</u>	Name/Location
152AR	Aft Cargo Door Control Door

- (b) At the P44 panel, set the switch for the light (exterior) to the on mode.
  - 1) Make sure the lamp comes on.
  - 2) Set the switch to the off mode.
  - 3) Make sure lamp goes off.
- (c) Close this access panel:

<u>Number</u>	Name/Location
152AR	Aft Cargo Door Control Door

# SUBTASK 33-31-02-710-003

(9) Do this test of the new lamp:



(a) Open this access panel:

NumberName/Location825Bulk Cargo Door

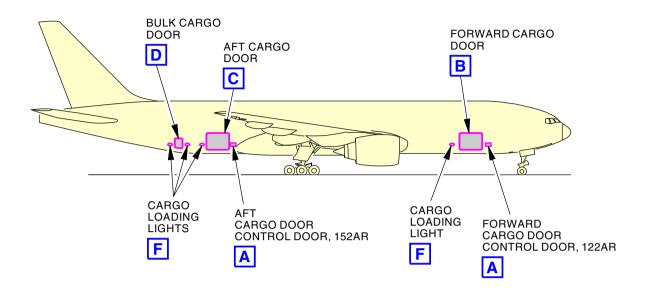
- (b) In the bulk cargo compartment, on the panel forward of the door, set the switch for the light (exterior) to the on mode.
  - 1) Make sure the lamp comes on.
  - 2) Set the switch to the off mode.
  - 3) Make sure the lamp goes off.
- (c) Close this access panel:

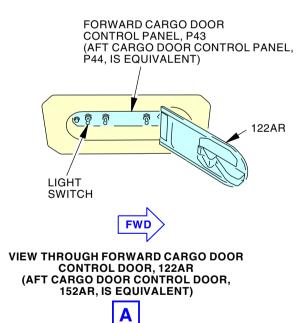
Number Name/Location
Bulk Cargo Door

----- END OF TASK -----

ARO ALL







F69269 S0006420154\_V3

Cargo Loading Lights - Lamp Replacement Figure 202/33-31-02-990-801 (Sheet 1 of 5)

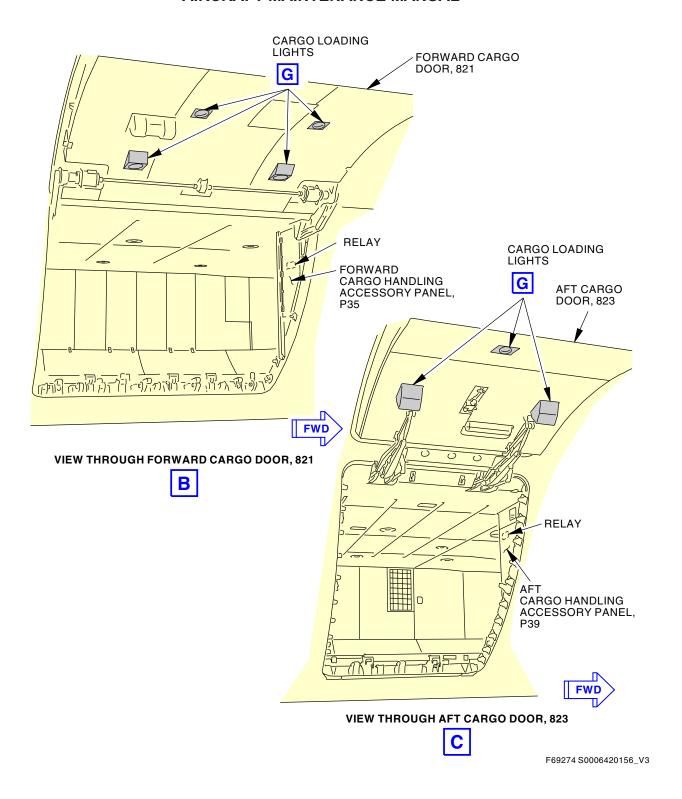
ARO ALL

D633W101-ARO

33-31-02

Page 210 Jan 05/2018





Cargo Loading Lights - Lamp Replacement Figure 202/33-31-02-990-801 (Sheet 2 of 5)

FFFECTIVITY

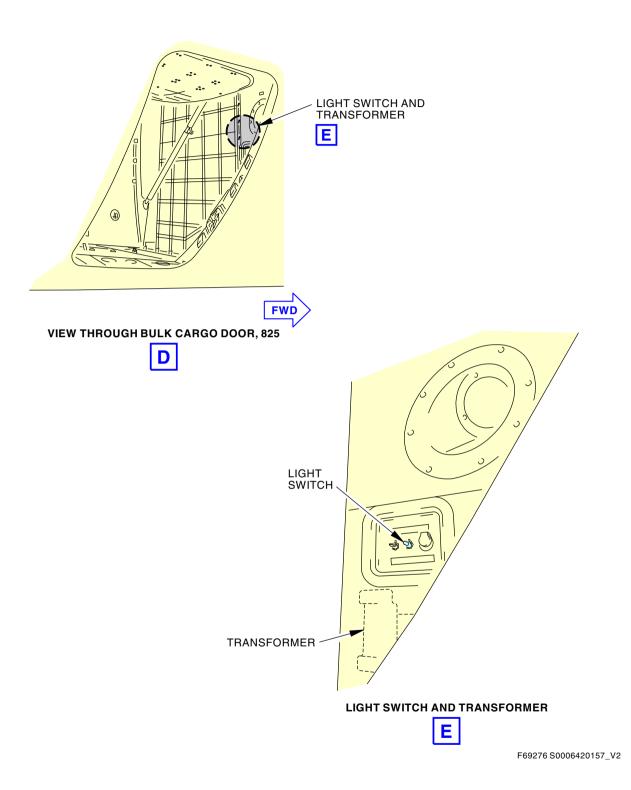
ARO ALL

Page 211

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





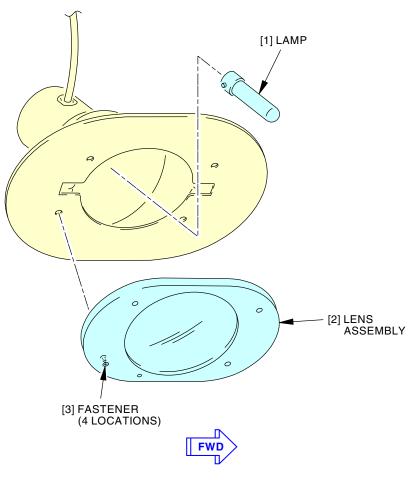
Cargo Loading Lights - Lamp Replacement Figure 202/33-31-02-990-801 (Sheet 3 of 5)

ARO ALL
D633W101-ARO

33-31-02

Page 212 Jan 05/2018





CARGO LOADING LIGHT (BODY-MOUNTED) (EXAMPLE)



E73012 S0006420158\_V2

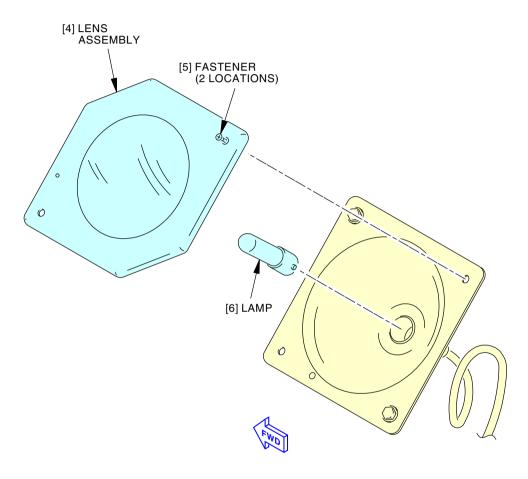
Cargo Loading Lights - Lamp Replacement Figure 202/33-31-02-990-801 (Sheet 4 of 5)

ARO ALL
D633W101-ARO

33-31-02

Page 213 Jan 05/2018





CARGO LOADING LIGHT (DOOR-MOUNTED) (EXAMPLE)



E73182 S0006420159\_V2

Cargo Loading Lights - Lamp Replacement Figure 202/33-31-02-990-801 (Sheet 5 of 5)

ARO ALL

33-31-02

Page 214 Jan 05/2018



### TASK 33-31-02-960-804

# 5. Cargo Loading Light, Body Mounted - Lampholder and Light Assembly Replacement

(Figure 202 and Figure 203)

#### A. General

- (1) This task includes the instructions to replace the cargo loading light, body mounted lampholder assembly.
- (2) This task also includes the instructions to replace the light assembly, if necessary.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

# C. Consumable Materials

Reference	Description	Specification
G01306	Gloves - Lint-free	

### D. Location Zones

Zone	Area
820	Subzone 820 - Cargo Compartment Doors

### E. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door
152AR	Aft Cargo Door Control Door
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

### F. Procedure

SUBTASK 33-31-02-010-007

(1) Open this access panel:

<u>Number</u>	Name/Location
821	Forward Large Cargo Door

SUBTASK 33-31-02-010-008

(2) Open this access panel:

<u>Number</u>	Name/Location
823	Aft Small Cargo Door

SUBTASK 33-31-02-860-011

(3) Open the applicable circuit breakers and install safety tags:

# Cargo Handling Accessory Panel - Aft, P39

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	1	C33017	BULK EXTERIOR CARGO LIGHTS
F	4	C33016	AFT EXTERIOR CARGO LIGHT

# **FWD Cargo Handling Access Panel, P35**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	3	C33006	FWD EXTERIOR CARGO LIGHT

ARO ALL

33-31-02

Page 215 Jan 05/2018



#### SUBTASK 33-31-02-020-001

(4) Do these steps to remove the lamp [1]:

NOTE: Do not touch the new lamp with your hands. Use lint-free gloves, G01306.

- (a) Loosen the fasteners [3].
- (b) Remove the lens assembly [2].
  - 1) Do not remove the lanyard.
- (c) Push down on the lamp [1] carefully and turn counterclockwise (1/4 turn) to remove from the lampholder [10].

#### SUBTASK 33-31-02-020-002

(5) Loosen the screws [9] to remove the reflector assembly [8] and lampholder [10] from the light assembly [7].

#### SUBTASK 33-31-02-020-003

(6) Remove the lampholder screws and terminals from the lampholder [10].

#### SURTASK 33-31-02-020-004

(7) Remove the lampholder [10] from the reflector assembly [8].

#### SUBTASK 33-31-02-420-009

- (8) If necessary, do these steps to replace the light assembly [7]:
  - (a) Disconnect the electrical connector from the light assembly [7].
  - (b) Pull the old light assembly away from the mounting plate.
  - (c) Put the new light assembly on the mounting plate.

#### SUBTASK 33-31-02-420-001

(9) Install the new lampholder [10] on the reflector assembly [8].

# SUBTASK 33-31-02-420-002

(10) Put the terminals on the lampholder [10] and attach with lampholder screws.

#### SUBTASK 33-31-02-420-003

(11) Install the reflector assembly [8] and lampholder [10] into the light assembly [7] and tighten the screws [9].

#### SUBTASK 33-31-02-820-001

(12) Align the tabs of the lamp [1] with the slots in the lampholder [10].

### SUBTASK 33-31-02-420-004

(13) Push down on the lamp [1] carefully and turn clockwise 1/4 turn to attach the lamp [1] to the reflector assembly [8].

#### SUBTASK 33-31-02-420-005

(14) Install the lens assembly [2].

### SUBTASK 33-31-02-420-006

(15) Tighten the fasteners [3].

#### SUBTASK 33-31-02-860-012

(16) Remove the safety tags and close the applicable circuit breakers:

# Cargo Handling Accessory Panel - Aft, P39

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	1	C33017	BULK EXTERIOR CARGO LIGHTS
F	4	C33016	AFT EXTERIOR CARGO LIGHT

ARO ALL



# FWD Cargo Handling Access Panel, P35

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	3	C33006	FWD EXTERIOR CARGO LIGHT

#### SUBTASK 33-31-02-860-013

(17) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-31-02-720-001

- (18) Do this test of the lamp [1]:
  - (a) Open this access panel for access to the forward cargo door control panel P43:

<u>Number</u>	Name/Location
122AR	Forward Cargo Door Control Door

- (b) At the P43 panel, set the switch for the light (exterior) to the ON position.
  - 1) Make sure the lamp comes on.
  - 2) Set the switch to the OFF position.
  - 3) Make sure the lamp goes off.
- (c) Close this access panel:

<u>Number</u>	Name/Location
122AR	Forward Cargo Door Control Door

#### SUBTASK 33-31-02-720-002

- (19) Do this test of the lamp [1]:
  - (a) Open this access panel for access to the forward cargo door control panel. P43:

<u>Number</u>	Name/Location
152AR	Aft Cargo Door Control Door

- (b) At the P44 panel, set the switch for the light (exterior) to the ON position.
  - 1) Make sure the lamp comes on.
  - 2) Set the switch to the OFF position.
  - 3) Make sure the lamp goes off.
- (c) Close this access panel:

<u>Number</u>	Name/Location
152AR	Aft Cargo Door Control Door

#### SUBTASK 33-31-02-720-003

- (20) Do this test of the lamp [1]:
  - (a) Open this access panel:

<u>Number</u>	Name/Location
825	Bulk Cargo Door

- (b) In the bulk cargo compartment, on the panel forward of the door, set the switch for the light (exterior) to the ON position.
  - 1) Make sure the lamp comes on.
  - 2) Set the switch to the OFF position.
  - 3) Make sure the lamp goes off.

ARO ALL



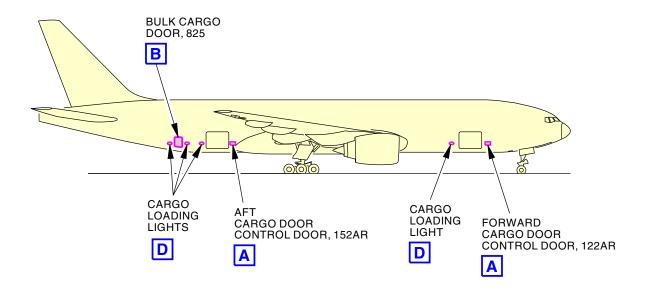
(c) Close this access panel:

NumberName/Location825Bulk Cargo Door

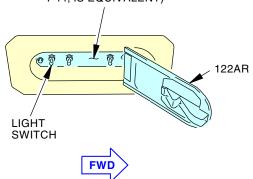
—— END OF TASK ———

ARO ALL





FORWARD CARGO DOOR CONTROL PANEL, P43 (AFT CARGO DOOR CONTROL PANEL, P44, IS EQUIVALENT)



VIEW THROUGH FORWARD CARGO DOOR CONTROL DOOR, 122AR (AFT CARGO DOOR CONTROL DOOR, 152AR, IS EQUIVALENT)



2097760 S0000443864\_V2

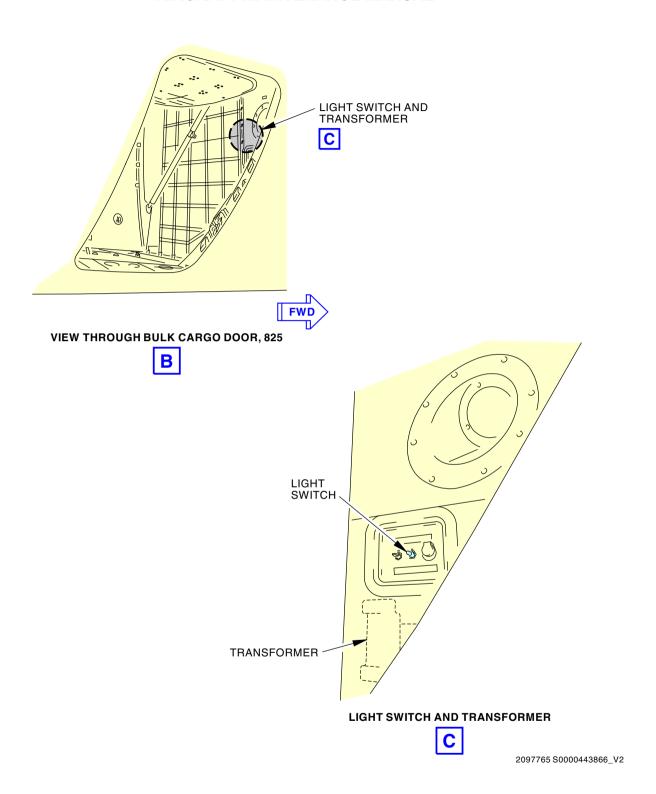
Cargo Loading Lights - Lampholder Replacement Figure 203/33-31-02-990-802 (Sheet 1 of 3)

ARO ALL
D633W101-ARO

33-31-02

Page 219 Sep 05/2016

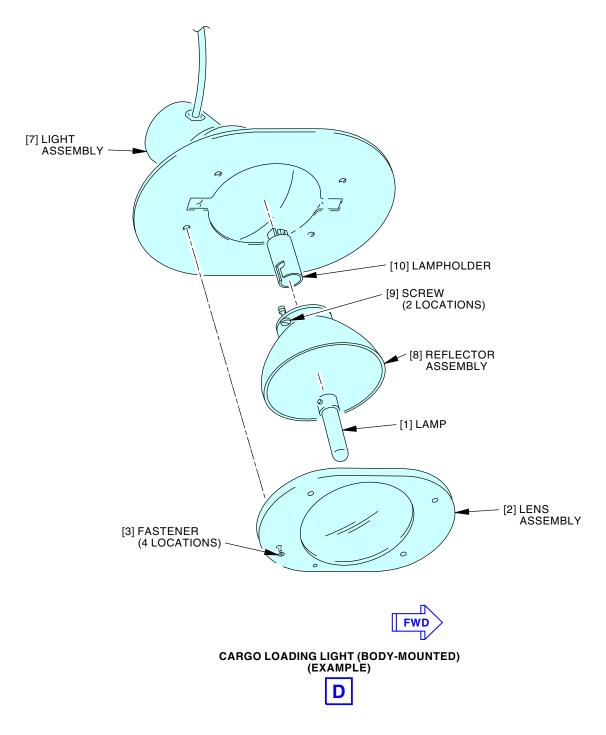




Cargo Loading Lights - Lampholder Replacement Figure 203/33-31-02-990-802 (Sheet 2 of 3)

Page 220
D633W101-ARO
ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





2097880 S0000443867\_V2

Cargo Loading Lights - Lampholder Replacement Figure 203/33-31-02-990-802 (Sheet 3 of 3)

EFFECTIVITY

ARO ALL

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

33-31-02

Page 221 Sep 05/2016



#### TASK 33-31-02-960-801

# 6. Cargo Loading Light, Door-Mounted - Lamp Replacement

(Figure 202)

# A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-31-15	Wiring Diagram Manual
WDM 33-31-16	Wiring Diagram Manual

#### B. Consumable Materials

Reference	Description	Specification
G01306	Gloves - Lint-free	

#### C. Location Zones

Zone	Area
820	Subzone 820 - Cargo Compartment Doors

### D. Access Panels

Number	Name/Location	
821	Forward Large Cargo Door	
823	Aft Small Cargo Door	

### E. Procedure

#### SUBTASK 33-31-02-010-003

(1) Open these applicable cargo doors and go in the cargo compartment:

(WDM 33-31-15), (WDM 33-31-16)

<u>Number</u>	Name/Location
821	Forward Large Cargo Door
823	Aft Small Cargo Door

#### SUBTASK 33-31-02-860-005

(2) For additional light, use the switch by the door to set the interior cargo lights to the on mode.

### SUBTASK 33-31-02-410-002

(3) Close the applicable cargo doors:

<u>Number</u>	Name/Location	
821	Forward Large Cargo Door	
823	Aft Small Cargo Door	

#### SUBTASK 33-31-02-960-002

- (4) Do these steps to replace the lamp:
  - (a) Do not touch the new lamp with your hands. Use lint-free gloves, G01306.
  - (b) Loosen the fasteners [5].
  - (c) Remove the lens assembly [4].
  - (d) Replace the lamp [6].
  - (e) Install the lens assembly [4].
  - (f) Tighten the fasteners [5].

#### SUBTASK 33-31-02-860-003

(5) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL



### SUBTASK 33-31-02-710-004

- (6) Do a test of the new lamp.
  - (a) Open the applicable cargo doors:

<u>Number</u>	Name/Location
821	Forward Large Cargo Door
823	Aft Small Cargo Door

(b) Make sure the lamp comes on.

#### SUBTASK 33-31-02-860-004

(7) If the interior cargo lights are on, use the switch by the cargo door to set the lights to the off. SUBTASK 33-31-02-410-003

(8) Go out of the cargo compartment and close these applicable cargo doors:

<u>Number</u>	Name/Location
821	Forward Large Cargo Door
823	Aft Small Cargo Door

----- END OF TASK -----

### TASK 33-31-02-960-802

7. Cargo Loading Light, Door-Mounted - Light Assembly and Lampholder Replacement (Figure 202 and Figure 204)

### A. General

- (1) This task includes the instructions to replace the cargo loading light, door mounted light assembly.
- (2) This task also includes the instructions to replace the lampholder, if necessary.

### B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-31-15	Wiring Diagram Manual	
WDM 33-31-16	Wiring Diagram Manual	

### C. Location Zones

Zone	Area
820	Subzone 820 - Cargo Compartment Doors

### D. Access Panels

Number	Name/Location	
821	Forward Large Cargo Door	
823	Aft Small Cargo Door	

# E. Prepare for the Replacement

SUBTASK 33-31-02-010-004

(1) Open the applicable cargo doors and go in the cargo compartment:

Number	Name/Location
821	Forward Large Cargo Door
823	Aft Small Cargo Door

ARO ALL

33-31-02



#### SUBTASK 33-31-02-860-006

(2) For more light, use the switch by the door to set the inner cargo lights to the ON mode.

### SUBTASK 33-31-02-410-004

(3) Close the applicable cargo doors:

<u>Number</u>	Name/Location
821	Forward Large Cargo Door
823	Aft Small Cargo Door

#### SUBTASK 33-31-02-860-007

(4) Open these circuit breakers and install safety tags:

(WDM 33-31-15) (WDM 33-31-16)

# Cargo Handling Accessory Panel - Aft, P39

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	2	C33014	AFT SILL DOOR LIGHTS
F	3	C33015	AFT EXT DOOR LTS

### FWD Cargo Handling Access Panel, P35

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	1	C33004	FWD SILL DOOR LIGHTS
F	2	C33005	FWD EXTERIOR DOOR LIGHTS

### F. Procedure

### SUBTASK 33-31-02-960-003

- (1) Do these steps to remove the light assembly [13]:
  - (a) Remove the lens assembly [4].
    - 1) Loosen two fasteners [5].
  - (b) Remove the two hex head fasteners [11] and flat washers [12].
  - (c) Pull the light assembly [13] away from the mounting plate.
  - (d) Disconnect the electrical connector from the light assembly [13].

#### SUBTASK 33-31-02-900-001

- (2) If necessary, do these steps to replace the lampholder [14]:
  - (a) Remove the lamp [6].
  - (b) Move the tubing off the rear of the lampholder [14] along the electrical wiring.
    - 1) Make sure that the wire connections are exposed.
  - (c) Remove the screw [15] and the terminal [16] from the lampholder [14].
  - (d) Push down on the lampholder retaining button [17] and move the lampholder [14] away from the light assembly [13].
  - (e) Remove the lampholder [14] from the light assembly [13].
  - (f) Set the new lampholder [14] in its position on the light assembly [13].
  - (g) Push down on the lampholder retaining button [17] and move the new lampholder [14] into the light assembly [13].
    - 1) Make sure that the lampholder retaining button [17] snaps into its position into the reflector retaining hole [18].
  - (h) Install the terminal [16] with the screw [15] on the lampholder [14].

ARO ALL

33-31-02



- (i) Move the tubing along the electrical wires to the end of the lampholder [14] to cover the electrical wire connections.
- (j) Install the lamp [6].

### SUBTASK 33-31-02-420-007

- (3) Do these steps to install the light assembly [13]:
  - (a) Connect the electrical connector to the light assembly [13].
  - (b) Put the light assembly [13] in the mounting plate.
  - (c) Install the two hex head fasteners [11] and flat washers [12].
  - (d) Install the lens assembly [4].
    - 1) Tighten two fasteners [5].

### G. Put the Airplane Back to Its Usual Condition

SUBTASK 33-31-02-860-008

(1) Make sure that electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-31-02-860-009

(2) Remove the safety tags and close these circuit breakers:

### Cargo Handling Accessory Panel - Aft, P39

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	2	C33014	AFT SILL DOOR LIGHTS
F	3	C33015	AFT EXT DOOR LTS

### FWD Cargo Handling Access Panel, P35

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	1	C33004	FWD SILL DOOR LIGHTS
F	2	C33005	FWD EXTERIOR DOOR LIGHTS

### H. Replacement Test

SUBTASK 33-31-02-710-005

- (1) Do a test of the new light assembly:
  - (a) Open the applicable cargo doors:

<u>Number</u>	Name/Location
821	Forward Large Cargo Door
823	Aft Small Cargo Door

(b) Make sure that the lamp is ON.

#### SUBTASK 33-31-02-860-010

(2) Use the switch by the cargo door to set the inner cargo lights to the OFF mode.

### SUBTASK 33-31-02-410-005

(3) Go out of the cargo compartment and close the applicable cargo doors:

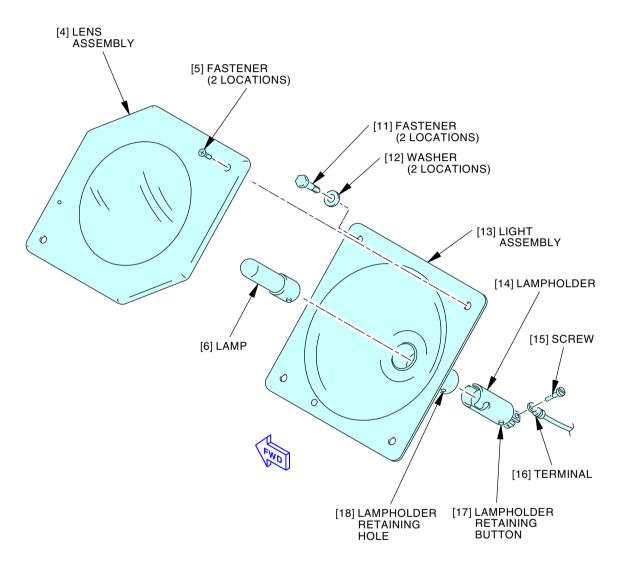
<u>Number</u>	Name/Location
821	Forward Large Cargo Door
823	Aft Small Cargo Door

------ END OF TASK ------

ARO ALL

33-31-02





CARGO LOADING LIGHT (DOOR-MOUNTED) (EXAMPLE)

2297685 S0000520655\_V2

Cargo Loading Lights - Light Assembly and Lampholder Replacement Figure 204/33-31-02-990-803

ARO ALL
D633W101-ARO

33-31-02

Page 226 Jan 05/2018



### **INTERIOR CARGO LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has these tasks:
  - (1) Lower Lobe Cargo Lights Deactivation
  - (2) Lower Lobe Cargo Lights Activation
  - (3) Interior Cargo Light Lamp Replacement
  - (4) Interior Cargo Light Assembly Replacement
  - (5) Interior Cargo Light Lens Assembly Replacement

### TASK 33-37-00-040-801

# 2. Lower Lobe Cargo Lights - Deactivation

(Figure 201)

### A. General

(1) This task removes electrical power from the lower lobe cargo lights.

### B. Location Zones

Zone	Area
100	Lower Half of Fuselage
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
A	

### C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door
122AR	Forward Cargo Door Control Door
152AR	Aft Cargo Door Control Door
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

### D. Procedure

SUBTASK 33-37-00-010-005

(1) Open this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

### SUBTASK 33-37-00-010-006

(2) Open these doors:

<u>Number</u>	Name/Location
122AR	Forward Cargo Door Control Door
152AR	Aft Cargo Door Control Door
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

ARO ALL

33-37-00

Page 201 Jan 05/2016



SUBTASK 33-37-00-860-012



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(3) Open these circuit breakers and install safety tags:

### Cargo Handling Accessory Panel - Aft, P39

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	1	C33019	CARGO LTS CTRL-AFT

### FWD Cargo Handling Access Panel, P35

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	1	C33008	CARGO LTG CTRL-FWD

### Ground Service/Handling Power Panel, P320

Row	Col	<u>Number</u>	<u>Name</u>
Ε	6	C33469	AFT & BULK INT & EXT CARGO LTS
Е	9	C33468	FWD INT & EXT CARGO LTS

# E. Lower Lobe Cargo Lights - Tryout

NOTE: This Tryout is to make sure that the lower lobe cargo lights are in a zero energy state.

### SUBTASK 33-37-00-700-001

- (1) Do this test of the forward lower lobe cargo lights:
  - (a) Toggle the forward internal cargo compartment light switch by the P35 panel or the P43 Panel just forward of the forward lower lobe cargo door.
    - Make sure that the ceiling lights in the forward lower lobe compartment do not come on.

### SUBTASK 33-37-00-700-002

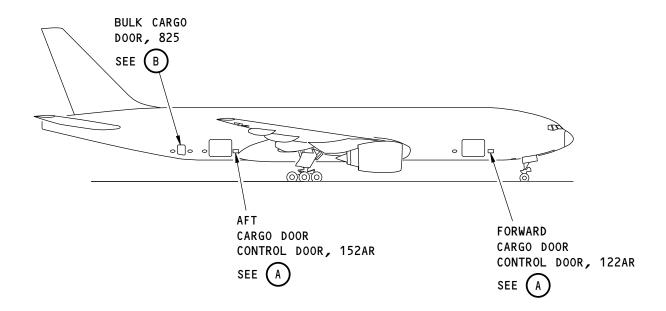
- (2) Do a test of the aft lower lobe cargo lights:
  - (a) Toggle the aft interior cargo compartment light switch on the P44 panel ,P39 panel or on the light switch on the forward side of bulk cargo door opening.
    - 1) Make sure that the ceiling lights in the aft lower lobe compartment do not come on

	OF T		
	( ) <del>-</del> I	$\Delta \sim \kappa$	

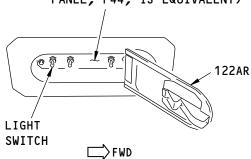
33-37-00

· EFFECTIVITY





FORWARD CARGO DOOR CONTROL PANEL, P43 (AFT CARGO DOOR CONTROL PANEL, P44, IS EQUIVALENT)



# VIEW THROUGH FORWARD CARGO DOOR CONTROL DOOR, 122AR

(AFT CARGO DOOR CONTROL DOOR, 152AR, IS EQUIVALENT)



2417866 S0000558355\_V1

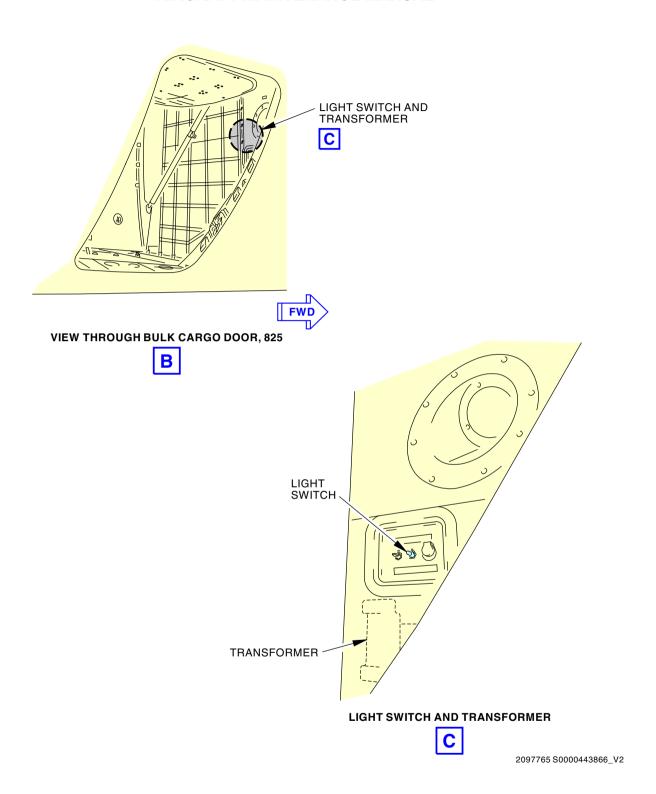
Lower Lobe Cargo Lights Figure 201/33-37-00-990-803 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-37-00

Page 203 Jan 05/2016





Lower Lobe Cargo Lights Figure 201/33-37-00-990-803 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

Page 204

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



### TASK 33-37-00-440-801

# 3. Lower Lobe Cargo Lights - Activation

(Figure 201)

### A. General

(1) This task adds electrical power to the lower lobe cargo lights.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

### C. Location Zones

Zone	Area
100	Lower Half of Fuselage
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right

### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door
122AR	Forward Cargo Door Control Door
152AR	Aft Cargo Door Control Door
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

### E. Procedure

SUBTASK 33-37-00-860-014

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-37-00-860-015



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Remove the safety tags and close these circuit breakers:

### Cargo Handling Accessory Panel - Aft, P39

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	1	C33019	CARGO LTS CTRL-AFT

# FWD Cargo Handling Access Panel, P35

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	1	C33008	CARGO LTG CTRL-FWD

ARO ALL 33-37-00



### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	6	C33469	AFT & BULK INT & EXT CARGO LTS
Е	9	C33468	FWD INT & EXT CARGO LTS

#### SUBTASK 33-37-00-700-003

- (3) Do this test of the forward lower lobe cargo lights:
  - (a) Toggle the forward internal cargo compartment light switch by the P35 panel or the P43 Panel just forward of the forward lower lobe cargo door.
    - 1) Make sure that the ceiling lights in the forward lower lobe compartment come on.

#### SUBTASK 33-37-00-700-004

- (4) Do a test of the aft lower lobe cargo lights:
  - (a) Toggle the aft interior cargo compartment light switch on the P44 panel ,P39 panel or on the light switch on the forward side of bulk cargo door opening.
    - 1) Make sure that the ceiling lights in the aft lower lobe compartment come on

### SUBTASK 33-37-00-410-003

(5) Close these doors:

<u>Number</u>	<u>Name/Location</u>
122AR	Forward Cargo Door Control Door
152AR	Aft Cargo Door Control Door
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

### SUBTASK 33-37-00-410-004

(6) Close this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door
	——— END OF TASK ——
	END OF TACK

### TASK 33-37-00-960-801

4. Interior Cargo Light - Lamp Replacement

(Figure 202)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-37-11	Wiring Diagram Manual
WDM 33-37-22	Wiring Diagram Manual

### B. Location Zones

Zone	Area	
100	Lower Half of Fuselage	

#### C. Procedure

SUBTASK 33-37-00-860-004

(1) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL



SUBTASK 33-37-00-960-001



USE THE CORRECT LAMP ONLY. THE INCORRECT LAMP CAN CAUSE A CARGO FIRE. THIS CAN CAUSE INJURIES, AND DAMAGE TO EQUIPMENT.

- (2) Do these steps to replace the lamp (WDM 33-37-11 thru WDM 33-37-22):
  - (a) Pull off the lens assembly [6] but do not remove the lanyard [5].

NOTE: Each light assembly [1] has a microswitch [2] which sets the light to the OFF mode when the lens assembly [6] is removed.



USE THE CORRECT LAMP ONLY. THE INCORRECT LAMP CAN CAUSE A CARGO FIRE. THIS CAN CAUSE INJURIES, AND DAMAGE TO EQUIPMENT.

- (b) Replace the lamp [7].
- (c) Push the lens assembly [6] back into its position.

#### SUBTASK 33-37-00-710-004

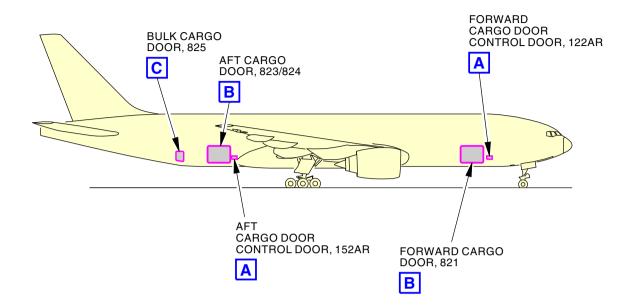
- (3) Do a test of the new lamp [7].
  - (a) If the lamp [7] does not come on when the lens assembly [6] is replaced, set the switch for the interior cargo light to the ON mode.
    - 1) Make sure the lamp comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the lamp goes off.

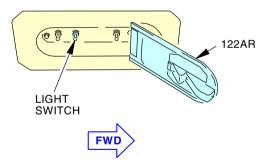
----- END OF TASK -----

33-37-00

· EFFECTIVITY ·







VIEW THROUGH FORWARD CARGO DOOR CONTROL DOOR, 122AR (AFT CARGO DOOR CONTROL DOOR, 152AR, IS EQUIVALENT)



F69294 S0006420165\_V2

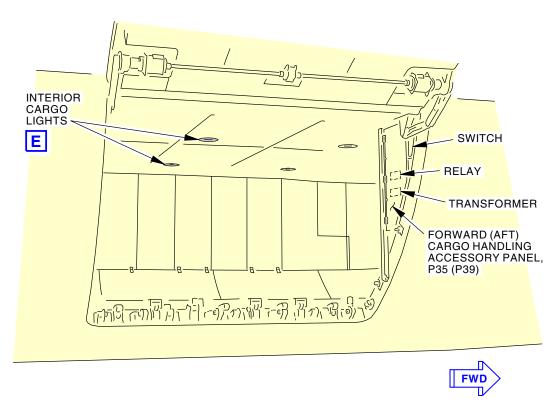
Interior Cargo Lights - Lamp/Light/Lens Assembly Replacement Figure 202/33-37-00-990-801 (Sheet 1 of 4)

ARO ALL
D633W101-ARO

33-37-00

Page 208 Sep 05/2016





VIEW THROUGH FORWARD CARGO DOOR, 821 (AFT CARGO DOOR, 823/824, IS EQUIVALENT)



F69295 S0006420166\_V2

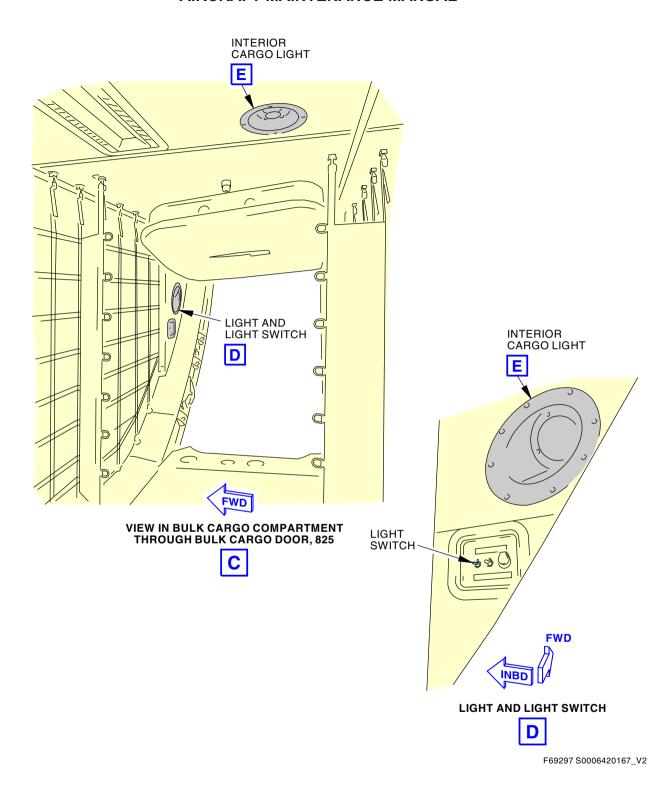
Interior Cargo Lights - Lamp/Light/Lens Assembly Replacement Figure 202/33-37-00-990-801 (Sheet 2 of 4)

ARO ALL

33-37-00

Page 209 Sep 05/2016





Interior Cargo Lights - Lamp/Light/Lens Assembly Replacement Figure 202/33-37-00-990-801 (Sheet 3 of 4)

EFFECTIVITY

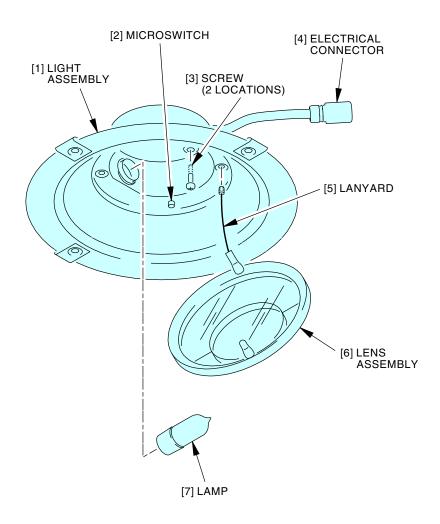
ARO ALL

Page 210

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





INTERIOR CARGO LIGHT (EXAMPLE)



E23885 S0006420168\_V2

Interior Cargo Lights - Lamp/Light/Lens Assembly Replacement Figure 202/33-37-00-990-801 (Sheet 4 of 4)

ARO ALL

D633W101-ARO

33-37-00

Page 211 Sep 05/2016



#### TASK 33-37-00-960-802

### 5. Interior Cargo Light - Light Assembly Replacement

(Figure 202)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-52-09-000-801	Ceiling Liner Removal (P/B 401)
25-52-09-400-801	Ceiling Liner - Installation (P/B 401)
WDM 33-37-11	Wiring Diagram Manual
WDM 33-37-22	Wiring Diagram Manual

### **B.** Location Zones

Zone	Area
100	Lower Half of Fuselage

#### C. Procedure

### SUBTASK 33-37-00-860-002

(1) Open these applicable circuit breakers and install safety tags:

(WDM 33-37-11 thru WDM 33-37-22)

### **Ground Service/Handling Power Panel, P320**

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	6	C33469	AFT & BULK INT & EXT CARGO LTS
Ε	9	C33468	FWD INT & EXT CARGO LTS

### SUBTASK 33-37-00-000-001

(2) Remove the ceiling liner (TASK 25-52-09-000-801).

NOTE: Do only the applicable steps in the task.

### SUBTASK 33-37-00-960-002

- (3) Do these steps to replace the light assembly [1]:
  - (a) Disconnect the electrical connector [4].
  - (b) Pull off the lens assembly [6] but do not remove the lanyard [5].
  - (c) Remove the screws [3] in the top of the light assembly [1].
    - 1) For access to the screws, remove the lamp [7].
  - (d) Replace the light assembly [1].
  - (e) Install the screws [3].



USE THE CORRECT LAMP ONLY. THE INCORRECT LAMP CAN CAUSE A CARGO FIRE. THIS CAN CAUSE INJURIES, AND DAMAGE TO EQUIPMENT.

- (f) Install a new lamp [7] (TASK 33-37-00-960-801):
- (g) Push the lens assembly [6] back into its position.
- (h) Connect the electrical connector [4].

#### SUBTASK 33-37-00-860-005

(4) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL



#### SUBTASK 33-37-00-860-003

(5) Remove the safety tags and close these applicable circuit breakers:

### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	6	C33469	AFT & BULK INT & EXT CARGO LTS
Ε	9	C33468	FWD INT & EXT CARGO LTS

### SUBTASK 33-37-00-710-005

- (6) Do a test of the new light assembly [1].
  - (a) If the light does not come on when the circuit breakers are closed, set the switch for the interior cargo light to the ON mode.
    - 1) Make sure the light comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the light goes off.

### SUBTASK 33-37-00-400-001

(7) Install the ceiling liner (TASK 25-52-09-400-801).

NOTE: Do only the applicable steps in the task.

----- END OF TASK -----

### TASK 33-37-00-960-803

6. Interior Cargo Light - Lens Assembly Replacement

(Figure 202)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-37-11	Wiring Diagram Manual
WDM 33-37-22	Wiring Diagram Manual

### **B.** Location Zones

Zone	Area			
100	Lower Half of Fuselage			

### C. Procedure

### SUBTASK 33-37-00-860-006

(1) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

### SUBTASK 33-37-00-960-003

- (2) Do these steps to replace the lens assembly [6] (WDM 33-37-11 thru WDM 33-37-22):
  - (a) Pull off the lens assembly [6].
    - NOTE: Each light assembly [1] has a microswitch [2] which sets the light to the OFF mode when the lens assembly [6] is removed.
  - (b) Disconnect the lanyard [5] from the light assembly [1].
    - NOTE: The lens assembly [6] stays attached to the lanyard.
  - (c) Replace the lens assembly [6] and lanyard [5].
    - NOTE: A new lanyard will be attached to the new lens assembly [6].
  - (d) Connect the new lanyard [5] to the light assembly [1].

ARO ALL



(e) Push the new lens assembly [6] into its position.

### SUBTASK 33-37-00-710-006

- (3) Do a test of the lens assembly [6].
  - (a) If the lamp does not come on when the lens assembly [6] is replaced, set the switch for the interior cargo light to the ON mode.
    - 1) Make sure the lamp comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the lamp goes off.

----- END OF TASK -----

ARO ALL



### INTERIOR CARGO LIGHTS - ADJUSTMENT/TEST

### 1. General

- A. This procedure has the following task:
  - (1) Interior Cargo Lights Operational Test.

### TASK 33-37-00-710-801

### 2. Interior Cargo Lights - Operational Test

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-37-11	Wiring Diagram Manual
WDM 33-37-12	Wiring Diagram Manual
WDM 33-37-21	Wiring Diagram Manual
WDM 33-37-22	Wiring Diagram Manual

#### B. Location Zones

Zone	Area	
100	Lower Half of Fuselage	

### C. Access Panels

Number	Name/Location
122AR	Forward Cargo Door Control Door
152AR	Aft Cargo Door Control Door
821	Forward Large Cargo Door
823	Aft Small Cargo Door
825	Bulk Cargo Door

### D. Procedure

SUBTASK 33-37-00-860-001

(1) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

SUBTASK 33-37-00-710-001

- (2) Do a test of the forward interior cargo lights (WDM 33-37-11 and WDM 33-37-12):
  - (a) Open these access panels:

<u>Number</u>	Name/Location	
122AR	Forward Cargo Door Control Door	
821	Forward Large Cargo Door	

- 1) Make sure the lights come on.
- 2) If the lights do not come on, set the switch for the lights (interior) to the ON mode.
  - a) Use the switch on the P43 forward cargo door control panel.
- (b) At the P43 forward cargo door control panel, set the switch for the lights (interior) to the OFF mode.
  - 1) Make sure the lights go off.
- (c) Open the access door between the cargo compartment and the main equipment center (E/E DR).
  - 1) Make sure the lights come on.

ARO ALL



- (d) Close the access door.
  - 1) Make sure the lights go off.
- (e) At the P35 forward cargo handling accessory panel, set the switch for the lights (interior) to the ON mode.
  - 1) Make sure the lights come on.
- (f) While in the forward cargo compartment, close this access panel:

Number Name/Location

821 Forward Large Cargo Door

- 1) Make sure the lights go off.
- (g) Open this access panel:

Number Name/Location

821 Forward Large Cargo Door

- 1) Make sure the lights come on.
- (h) While out of the airplane, close this access panel:

Number Name/Location

821 Forward Large Cargo Door

(i) Close this access panel:

Number Name/Location

122AR Forward Cargo Door Control Door

#### SUBTASK 33-37-00-710-002

- (3) Do a test of the aft interior cargo lights (WDM 33-37-21 and WDM 33-37-22):
  - (a) Open this access panel:

Number Name/Location

152AR Aft Cargo Door Control Door

(b) Open this applicable access panel:

Number Name/Location

823 Aft Small Cargo Door

- 1) Make sure the lights come on.
- 2) If the lights do not come on, set the switch for the lights (interior) to the ON mode.
  - a) Use the switch on the P44 aft cargo door control panel.
- (c) At the P44 aft cargo door control panel, set the switch for the lights (interior) to the OFF mode.
  - 1) Make sure the lights go off.
- (d) At the P39 aft cargo handling accessory panel, set the switch for the lights (interior) to the ON mode.
  - 1) Make sure the lights come on.
- (e) While in the aft cargo compartment, close this applicable access panel:

Number Name/Location

823 Aft Small Cargo Door

1) Make sure the lights go off.

33-37-00

Page 502 Sep 05/2017



(f) Open this applicable access panel:

Number Name/Location

823 Aft Small Cargo Door

1) Make sure the lights come on.

(g) While out of the airplane, close this applicable access panel:

Number Name/Location
823 Aft Small Cargo Door

(h) Close this access panel:

Number Name/Location

152AR Aft Cargo Door Control Door

#### SUBTASK 33-37-00-710-003

- (4) Do a test of the bulk interior cargo lights (WDM 33-37-21 and WDM 33-37-22):
  - (a) Open this access panel:

Number Name/Location
825 Bulk Cargo Door

- 1) Make sure the lights come on.
  - a) If the lights do not come on, set the switch for the lights (interior) to the ON mode.
    - <1> Use the switch in the bulk cargo compartment forward of the bulk cargo door.
- (b) In the bulk cargo compartment, set the switch for the lights (interior) to the OFF mode.
  - 1) Make sure the lights go off.
- (c) Set the switch for the lights (interior) to the ON mode.
  - 1) Make sure the lights come on.
- (d) While in the bulk cargo compartment, close this access panel:

Number Name/Location
825 Bulk Cargo Door

- 1) Make sure the lights go off.
- (e) Open this access panel:

Number Name/Location
825 Bulk Cargo Door

- 1) Make sure the lights come on.
- (f) While out of the airplane, close this access panel:

NumberName/Location825Bulk Cargo Door

——— END OF TASK ———

33-37-00

**EFFECTIVITY** 



### WING ILLUMINATION LIGHTS - MAINTENANCE PRACTICES

### 1. General

- A. This procedure has these tasks:
  - (1) Wing illumination lights Deactivation
  - (2) Wing illumination lights Activation
  - (3) Wing illumination light lamp Replacement
  - (4) Wing illumination light transformer Replacement
  - (5) Wing illumination light assembly Replacement

### TASK 33-41-00-040-801

# 2. Wing Illumination Lights - Deactivation

(Figure 201)

### A. General

(1) This task removes power to the wing illumination lights.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-41-11	Wiring Diagram Manual

### C. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

### D. Location Zones

Zone	Area
100	Lower Half of Fuselage
117	Main Equipment Center, Left
211	Flight Compartment, Left
212	Flight Compartment, Right

### E. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

### F. Procedure

SUBTASK 33-41-00-010-002

(1) Open this door:

<u>Number</u>	Name/Location
117AI	Main Equipment Center Access Door

ARO ALL

33-41-00



SUBTASK 33-41-00-860-010



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Open these circuit breakers:

**Ground Service/Handling Power Panel, P320** 

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	5	C33470	WG ILLUM LTS

Right Power Management Panel, P210

Row	<u>Col</u>	Number	<u>Name</u>
M	6	C33608	WG ILLUM LTS CTRI

# G. Wing Illumination Lights - Tryout

NOTE: This tryout is to make sure that the wing illumination lights are in a zero energy state.

### SUBTASK 33-41-00-860-011

(1) Make sure that electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

### SUBTASK 33-41-00-700-001

- (2) Do a test of the wing illumination lights (WDM 33-41-11):
  - (a) At the overhead panel, P5, set the switch for the wing illumination lights to the ON mode.
    - 1) Make sure the lights do not come on.
  - (b) Set the switch to the OFF mode.
  - (c) Install a DO NOT OPERATE tag, STD-858 on the wing illumination light switch.

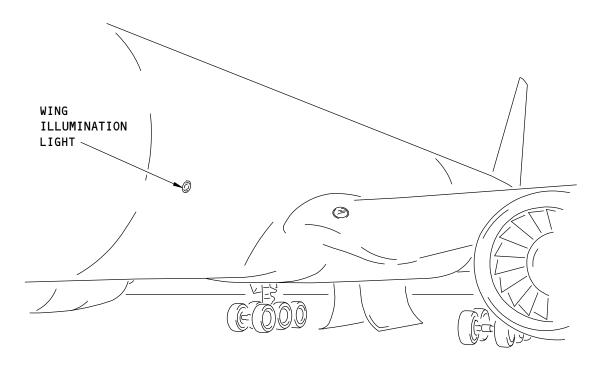
	OF TA	CIZ	
	UE IA	15n —	

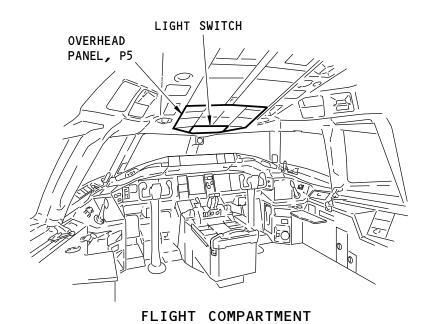
33-41-00

· EFFECTIVITY

**ARO ALL** 







2419423 S0000559053\_V1

Wing Illumination Lights Figure 201/33-41-00-990-805

ARO ALL

D633W101-ARO

33-41-00

Page 203 Jan 05/2016



### TASK 33-41-00-440-801

### 3. Wing Illumination Lights - Activation

(Figure 201)

### A. General

(1) This task adds electrical power to the wing illumination lights.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-41-11	Wiring Diagram Manual

# C. Tools/Equipment

Reference	Description
STD-858	Tag - DO NOT OPERATE

### D. Location Zones

Zone	Area
100	Lower Half of Fuselage
117	Main Equipment Center, Left
211	Flight Compartment, Left
212	Flight Compartment, Right

### E. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

### F. Procedure

SUBTASK 33-41-00-860-013

(1) Make sure that electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 33-41-00-860-014



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Close these circuit breakers:

**Ground Service/Handling Power Panel, P320** 

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	5	C33470	WG ILLUM LTS

### Right Power Management Panel, P210

Row	Col	Number	<u>Name</u>
M	6	C33608	WG ILLUM LTS CTRL

### SUBTASK 33-41-00-440-001

(3) Close this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

ARO ALL

33-41-00

Page 204 Sep 05/2017



#### SUBTASK 33-41-00-700-002

- (4) Do a test of the wing illumination lights (WDM 33-41-11):
  - (a) Remove the DO NOT OPERATE tag, STD-858 from the wing illumination light switch.
  - (b) At the overhead panel, P5, set the switch for the wing illumination lights to the ON mode.
    - 1) Make sure the lights come on.
  - (c) Set the switch to the OFF mode.
    - 1) Make sure the lights go off.

------ END OF TASK ------

### TASK 33-41-00-960-801

### 4. Wing Illumination Light - Lamp Replacement

(Figure 202)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-41-11	Wiring Diagram Manual

### B. Consumable Materials

Reference	Description	Specification
G01306	Gloves - Lint-free	

### C. Location Zones

Zone	Area
100	Lower Half of Fuselage

#### D. Procedure

#### SUBTASK 33-41-00-860-002

(1) Open this applicable circuit breaker and install safety tag:

(WDM 33-41-11)

### Right Power Management Panel, P210

Row	Col	Number	<u>Name</u>
M	6	C33608	WG ILLUM LTS CTRL

### SUBTASK 33-41-00-960-001

- (2) Do these steps to replace the lamp:
  - (a) Loosen the fasteners [5] and remove the lens assembly [1].

NOTE: Do not disconnect the lanyard.

- (b) Loosen the fasteners [4] and remove the retainer [3].
- (c) Replace the lamp [2].
  - 1) Do not touch the new lamp with your hands, use lint-free gloves, G01306.
- (d) Install the retainer [3] and tighten the fasteners [4].
- (e) Install the lens assembly [1] and fasteners [5].

### SUBTASK 33-41-00-860-006

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL

33-41-00



### SUBTASK 33-41-00-860-004

(4) Remove the safety tag and close this applicable circuit breaker:

# Right Power Management Panel, P210

Row	<u>Col</u>	Number	<u>Name</u>
M	6	C33608	WG ILLUM LTS CTRL

#### SUBTASK 33-41-00-710-002

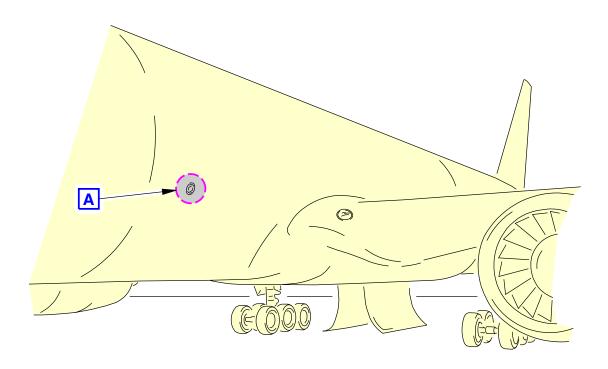
- (5) Do a test of the new lamp.
  - (a) At the P5 overhead panel, set the switch for the wing illumination lights to the ON mode.
    - 1) Make sure the light comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the light goes off.

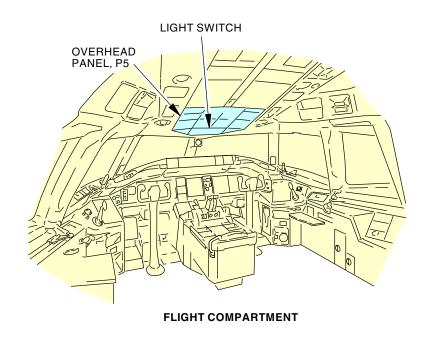
----- END OF TASK -----

ARO ALL

33-41-00







F69630 S0006420179\_V2

Wing Illumination Light - Lamp Replacement Figure 202/33-41-00-990-802 (Sheet 1 of 2)

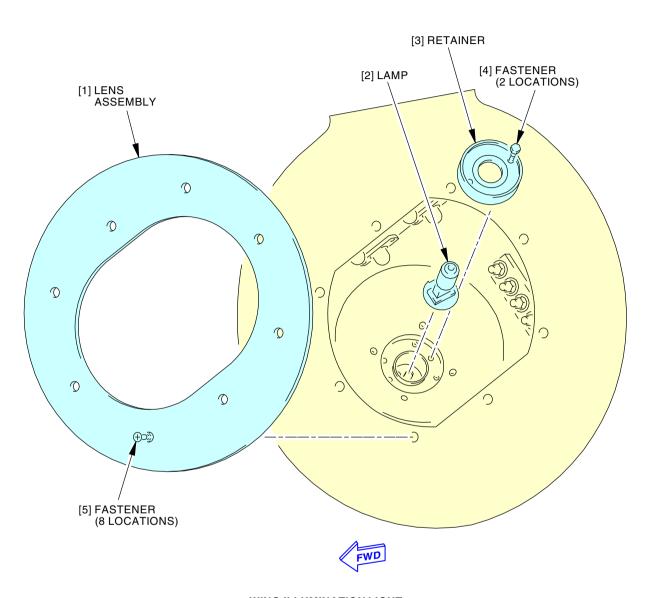
ARO ALL

D633W101-ARO

33-41-00

Page 207 Sep 05/2016





WING ILLUMINATION LIGHT (LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE)



C98466 S0006420180\_V2

Wing Illumination Light - Lamp Replacement Figure 202/33-41-00-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-41-00

Page 208 Sep 05/2016



### TASK 33-41-00-960-802

# 5. Wing Illumination Light - Transformer Replacement

(Figure 203)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-52-06-000-801	Sidewall Liner Removal (P/B 401)
25-52-06-400-801	Sidewall Liner Installation (P/B 401)
WDM 33-41-11	Wiring Diagram Manual

### **B.** Location Zones

Zone	Area	
121	Forward Cargo Compartment, Left	
122	Forward Cargo Compartment, Right	

### C. Procedure

#### SUBTASK 33-41-00-860-003

(1) Open this applicable circuit breaker and install safety tag:

(WDM 33-41-11)

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	6	C33608	WG ILLUM LTS CTRL

#### SUBTASK 33-41-00-010-001

(2) To remove the adjacent sidewall liner, do this task: Sidewall Liner Removal, TASK 25-52-06-000-801.

### SUBTASK 33-41-00-960-002

- (3) Do these steps to replace the transformer:
  - (a) Remove the screws [27] and cover plate [28].
  - (b) Remove the nuts [21] and washers [22].
  - (c) Disconnect the electrical wires [23] and electrical wires [24].
  - (d) Remove the screws [26].
  - (e) Replace the transformer [25].
  - (f) Install the screws [26].
  - (g) Connect the electrical wires [23] and electrical wires [24].
  - (h) Install the washers [22] and nuts [21].
  - (i) Install the cover plate [28] and screws [27].

### SUBTASK 33-41-00-860-007

(4) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-41-00-860-005

(5) Remove the safety tag and close this applicable circuit breaker:

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	6	C33608	WG ILLUM LTS CTRL

ARO ALL

33-41-00



### SUBTASK 33-41-00-710-003

- (6) Do a test of the new transformer.
  - (a) Set the switch for the wing illumination lights to the ON mode.
    - 1) Make sure the light comes on.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the light goes off.

### SUBTASK 33-41-00-410-001

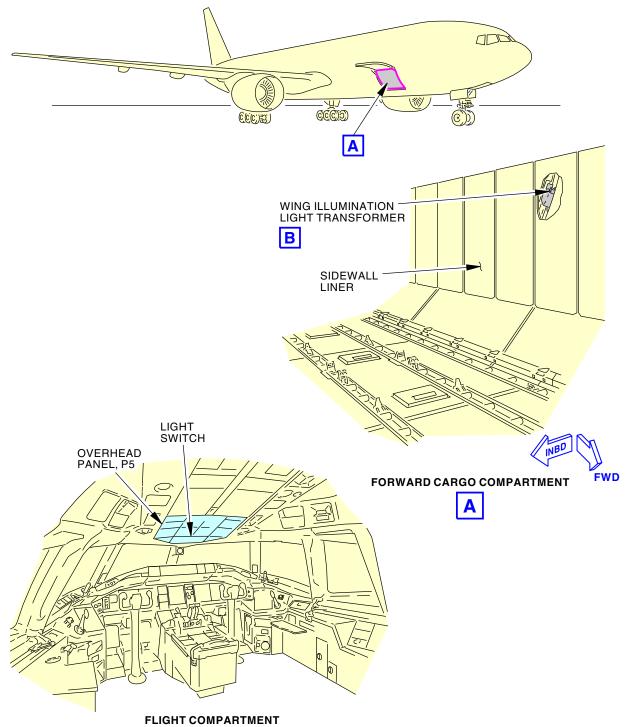
(7) Install the adjacent sidewall liner (TASK 25-52-06-400-801).

----- END OF TASK -----

ARO ALL

33-41-00





F69377 S0006420182\_V2

Wing Illumination Light - Transformer Replacement Figure 203/33-41-00-990-803 (Sheet 1 of 2)

EFFECTIVITY

ARO ALL

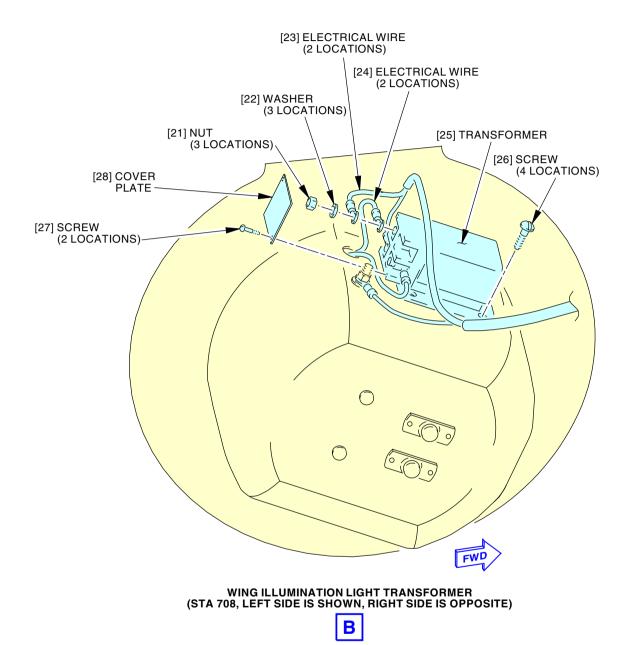
D633W101-ARO

FCCN 0FF001 POF INC PROPRIETARY Constitute & Unsubstituted Most. See title on

33-41-00

Page 211 Sep 05/2016





C98211 S0006420183\_V3

Wing Illumination Light - Transformer Replacement Figure 203/33-41-00-990-803 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-41-00

Page 212 Sep 05/2017



### TASK 33-41-00-960-803

6. Wing Illumination Light - Light Assembly Replacement

(Figure 204)

A. References

Reference	Title
51-31-01-160-801	Prepare For Sealing (P/B 201)

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental -	BMS5-95
	Chromate Type	

C. Location Zones

Zone	Area	
100	Lower Half of Fuselage	

D. Procedure

SUBTASK 33-41-00-860-008

(1) Open this circuit breaker and install safety tag:

**Ground Service/Handling Power Panel, P320** 

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	5	C33470	WG ILLUM LTS

SUBTASK 33-41-00-020-003

(2) Remove the electrical wires from the transformer (TASK 33-41-00-960-802).

SUBTASK 33-41-00-020-001

(3) Remove the twelve bolts [2] from the light assembly [1].

SUBTASK 33-41-00-020-002

(4) Remove the light assembly [1] from the airplane skin.

SUBTASK 33-41-00-160-002

(5) Clean the sealant from the airplane skin (TASK 51-31-01-160-801).

SUBTASK 33-41-00-390-001

(6) Apply sealant, A00247, between the light assembly [1] and the airplane skin for a faying surface seal.

SUBTASK 33-41-00-420-001

(7) Install the light assembly [1] with its twelve bolts [2].

SUBTASK 33-41-00-420-002

(8) Install the transformer electrical wires (TASK 33-41-00-960-802).

### E. Wing Illumination Light Installation Test

SUBTASK 33-41-00-860-009

(1) Remove the safety tag and close this circuit breaker:

### Ground Service/Handling Power Panel, P320

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	5	C33470	WG ILLUM LTS

SUBTASK 33-41-00-710-004

(2) At the P5 overhead panel, set the switch for the wing illumination lights to the ON mode.

ARO ALL

33-41-00



(a) Make sure the light comes on.

SUBTASK 33-41-00-710-005

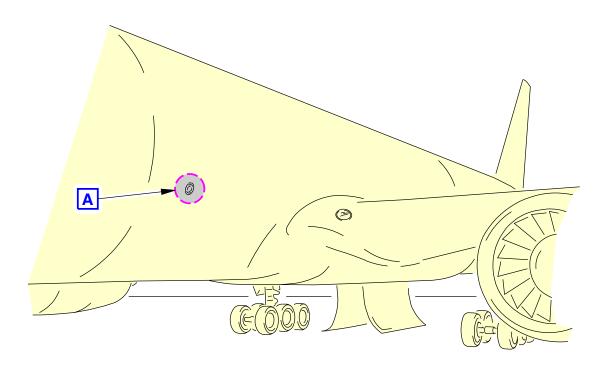
- (3) Set the switch to the OFF mode.
  - (a) Make sure the light goes off.

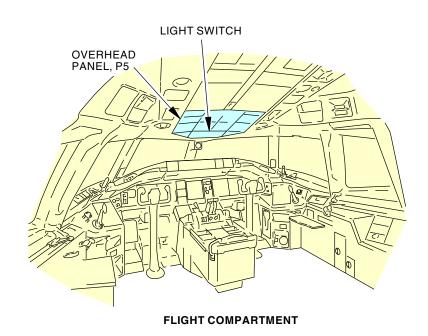
----- END OF TASK -----

ARO ALL

33-41-00







F69630 S0006420179\_V2

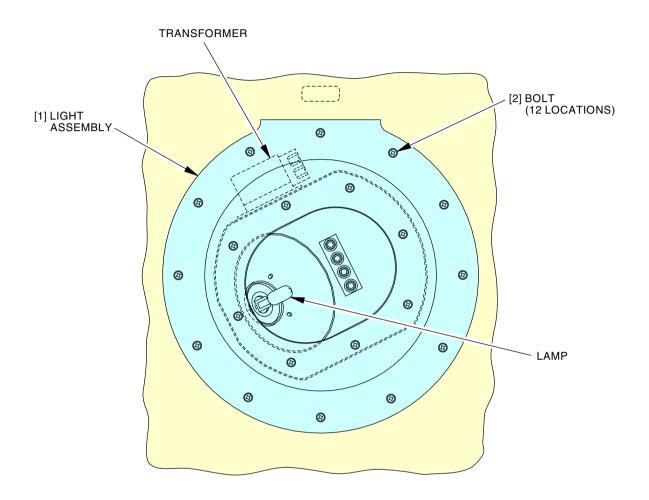
Wing Illumination Light - Light Assembly Replacement Figure 204/33-41-00-990-804 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-41-00

Page 215 Sep 05/2016





WING ILLUMINATION LIGHT ASSEMBLY



2271128 S0000511021\_V2

Wing Illumination Light - Light Assembly Replacement Figure 204/33-41-00-990-804 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-41-00

Page 216 Sep 05/2016



# WING ILLUMINATION LIGHTS - ADJUSTMENT/TEST

### 1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has one task:
  - (1) Wing Illumination Lights Operational Test

#### TASK 33-41-00-710-801

### 2. Wing Illumination Lights - Operational Test

- A. General
  - (1) This test makes sure the wing illumination lights operate.
- B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-41-11	Wiring Diagram Manual

### C. Location Zones

Zone	Area	
212	Flight Compartment, Right	

### D. Procedure

SUBTASK 33-41-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-41-00-710-001

- (2) Do a test of the wing illumination lights (WDM 33-41-11):
  - (a) At the overhead panel, P5, set the switch for the wing illumination lights to the on mode.
    - 1) Make sure the lights come on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the lights go off.

——— END OF TASK ———

33-41-00

ARO ALL

EFFECTIVITY



### LANDING, RUNWAY TURNOFF AND TAXI LIGHTS - ADJUSTMENT/TEST

### 1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
  - (1) Landing, Runway Turnoff, and Taxi Lights Operational Tests
  - (2) Wing Landing Lights Operational Test of the DIM/BRT Relays
  - (3) Landing, Runway Turnoff, and Taxi Lights System Tests

#### TASK 33-42-00-710-801

### 2. Landing, Runway Turnoff, and Taxi Lights - Operational Tests

### A. General

(1) These tests make sure the landing, runway turnoff, and taxi lights operate correctly during ground operations. To make sure all lighting components operate correctly in all modes, (TASK 33-42-00-720-802).

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-42-11	Wiring Diagram Manual
WDM 33-42-12	Wiring Diagram Manual
WDM 33-42-13	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

### D. Procedure

### SUBTASK 33-42-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

### SUBTASK 33-42-00-710-004

- (2) Do a test of the nose gear landing lights (WDM 33-42-11):
  - (a) At the overhead panel, P5, set the switch for the nose gear landing lights to the on mode.
    - 1) Make sure the lights come on.
  - (b) Set the switches to the off mode.
    - 1) Make sure the lights go off.

#### SUBTASK 33-42-00-710-005

- (3) Do a test of the left and right wing landing lights (WDM 33-42-11):
  - (a) At the P5 panel, set the switches for the left and right wing landing lights to the on mode.
    - 1) Make sure the lights come on.
  - (b) Set the switches to the off mode.
    - Make sure the lights go off.



#### SUBTASK 33-42-00-710-006

- (4) Do a test of the runway turnoff lights (WDM 33-42-13):
  - (a) At the P5 panel, set the switches for the left and right runway turnoff lights to the on mode.
    - 1) Make sure the lights come on.
  - (b) Set the switches to the off mode.
    - 1) Make sure the lights go off.

#### SUBTASK 33-42-00-710-007

- (5) Do a test of the taxi lights (WDM 33-42-12):
  - (a) At the overhead panel, P5, set the switch for the taxi lights to the on mode.
    - 1) Make sure the taxi lights come on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the lights go off.



#### TASK 33-42-00-710-802

# 3. Wing Landing Lights - Operational Test of the Dim/Bright Relays

(Figure 501)

#### A. General

- (1) This test makes sure the bright/dim relays for the wing landing lights operate.
- (2) It is difficult to do this test in bright daylight. Do the test when it is dark, or use a light meter.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-42-11	Wiring Diagram Manual

# C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description	
COM-1911	Meter - Light, Handheld (Litemate III Photometer)	
	Part #: LT45 Supplier: 0LTF4 Part #: PR-520 Supplier: 92434 Opt Part #: PR-524 Supplier: 92434 Opt Part #: PR504 Supplier: 92434	
SPL-1690	Actuators/Deactuators Set - Proximity Sensor	
	Part #: 8-758-01 Supplier: 08748 Part #: A27092-70 Supplier: 81205 Opt Part #: A32102-25 Supplier: 81205 Opt Part #: KHT8-758-01 Supplier: 08748	

### D. Location Zones

Zone	Area
211	Flight Compartment, Left

ARO ALL



(Continued)

Zone	Area
212	Flight Compartment, Right

#### E. Procedure

#### SUBTASK 33-42-00-860-003

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-42-00-720-002

(2) Do this test of the wing landing lights (WDM 33-42-11):

NOTE: If you cannot see a change in light intensity during the steps that follow, do this test again with a handheld light meter, COM-1911.

- (a) At the overhead panel, P5, set the switches for the left and right wing landing lights to the on mode.
  - 1) Make sure the lights come on.
- (b) Install the deactuation tool from the Proximity Sensor Actuator/Deactuator proximity sensor test set, SPL-1690, to each of these proximity sensors:

NOTE: These steps simulate NOSE GEAR NOT DOWN AND LOCKED. This will cause an aural warning and "GEAR DISAGREE" caution message.

- 1) S32022, NLG Locked 1
- 2) S32026, NLG Locked 2
- (c) Observe the brightness of the wing landing lights.

NOTE: If a handheld light meter, COM-1911 is used, hold it approximately 17 feet in front of each light. This location should be at approximately the forward edge of door 2. Record the results.

- (d) Remove the deactuation tool from each of these proximity sensors:
  - 1) S32022, NLG Locked 1
  - 2) S32026, NLG Locked 2
- (e) Observe the brightness of the wing landing lights.

NOTE: If a handheld light meter, COM-1911 is used, hold it approximately 17 feet in front of each light. This location should be at approximately the forward edge of door 2. Record the results.

- 1) Make sure the lights become brighter.
- (f) Set the switches for the left and right wing landing lights to the off mode.
  - 1) Make sure the lights go off.

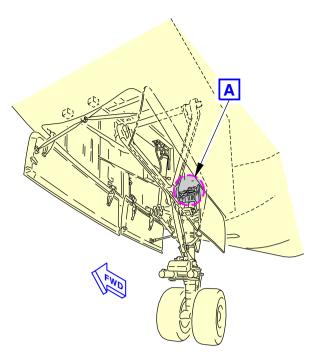
 ENID	OF TA	۱ck –	

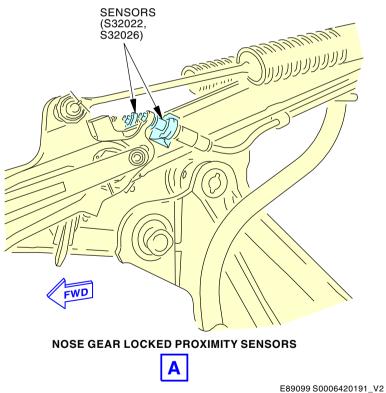
33-42-00

ARO ALL

EFFECTIVITY .







Nose Landing Gear Proximity Sensor Locations Figure 501/33-42-00-990-801

ARO ALL
D633W101-ARO

33-42-00

Page 504 Sep 05/2016



#### TASK 33-42-00-720-802

### 4. Landing, Runway Turnoff, and Taxi Lights - System Tests

(Figure 501)

#### A. General

- (1) These tests make sure all lighting components for the landing, runway turnoff, and taxi lights operate correctly in ground and air modes.
- (2) It is difficult to do this test in bright daylight. Do the test when it is dark, or use a light meter.

#### B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
32-09-00-860-801	Air/Ground Mode Simulation (P/B 201)	
WDM 33-42-11	Wiring Diagram Manual	
WDM 33-42-12	Wiring Diagram Manual	
WDM 33-42-13	Wiring Diagram Manual	

# C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description	
COM-1911	Meter - Light, Handheld (Litemate III Photometer)	
	Part #: LT45 Supplier: 0LTF4 Part #: PR-520 Supplier: 92434 Opt Part #: PR-524 Supplier: 92434 Opt Part #: PR504 Supplier: 92434	
SPL-1690	Actuators/Deactuators Set - Proximity Sensor	
	Part #: 8-758-01 Supplier: 08748 Part #: A27092-70 Supplier: 81205 Opt Part #: A32102-25 Supplier: 81205 Opt Part #: KHT8-758-01 Supplier: 08748	

### D. Location Zones

Zone	Area	
211	Flight Compartment, Left	
212	Flight Compartment, Right	

#### E. Procedure

#### SUBTASK 33-42-00-860-004

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-42-00-720-003

(2) Do a test of the wing landing lights (WDM 33-42-11):

NOTE: To see the change in light intensity, position yourself between the engine and the fuselage slightly forward of the wing leading edge. Look at an angle to the light assembly.

<u>NOTE</u>: If you still cannot see a change in light intensity during the steps that follow, do this test again with a handheld light meter, COM-1911.

ARO ALL



(a) Open this circuit breaker and install safety tag:

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
J	10	C33519	WG LDG LTS HEATING

- (b) At the overhead panel, P5, set the switches for wing landing lights to the on mode.
  - 1) Make sure the wing landing lights come on.
- (c) Open these circuit breakers and install safety tags:

### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
В	15	C33473	L WG LDG LT

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	9	C33474	R WG LDG LT

- 1) Make sure the wing landing lights go off.
- (d) Remove the safety tags and close these circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	15	C33473	L WG LDG LT

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	9	C33474	RWGIDGIT

- 1) Make sure the wing landing lights come on.
- (e) Open these circuit breakers and install safety tags:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	26	C33601	L WG LDG LT CTRL

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	Name
M	8	C33630	R WG LDG LT CTRL

- 1) Make sure the wing landing lights go off.
- (f) Install the deactuation tool from the Proximity Sensor Actuator/Deactuator proximity sensor test set, SPL-1690, to each of these proximity sensors:

NOTE: These steps simulate NOSE GEAR NOT DOWN AND LOCKED. This will cause a "GEAR DISAGREE" caution message.

- 1) S32022, NLG Locked 1
- 2) S32026, NLG Locked 2

33-42-00

Page 506 May 05/2015



(g) Remove the safety tags and close these circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	26	C33601	L WG LDG LT CTRL

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	8	C33630	R WG LDG LT CTRL

- 1) Make sure the wing landing lights come on.
- (h) Observe the brightness of the wing landing lights.

NOTE: If a handheld light meter, COM-1911 is used, hold it approximately 17 feet in front of each light. This location should be at approximately the forward edge of door 2. Record the results.

- (i) Remove the deactuation tool from each of these proximity sensors:
  - 1) S32022, NLG Locked 1
  - 2) S32026, NLG Locked 2
- (j) Observe the brightness of the wing landing lights.

NOTE: If a handheld light meter, COM-1911 is used, hold it approximately 17 feet in front of each light. This location should be at approximately the forward edge of door 2. Record the results.

- 1) Make sure the lights become brighter.
- (k) At the overhead panel, P5, set the switches for wing landing lights to the off mode.
  - 1) Make sure the wing landing lights go off.
- (I) Remove the safety tag and close this circuit breaker:

#### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
.I.	10	C33519	WG LDG LTS HEATING

- (m) To check the circuitry between the wing landing lights heating circuit breaker, C33519, and the wing landing lights, continue to do the steps that follow.
  - 1) Keep this circuit breaker closed for all remaining steps:

Replace

### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
J	10	C33519	WG LDG LTS HEATING



OBEY THE PROCEDURE THAT PUTS THE AIRPLANE IN THE AIR MODE. IF YOU DO THE PROCEDURE INCORRECTLY, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

- 2) To put the airplane in the air mode, do this task: Air/Ground Mode Simulation, TASK 32-09-00-860-801.
- 3) Make sure the wing landing lights come on very dim.

NOTE: 320J10, WG LDG LTS HEATING circuit breaker must be closed.

ARO ALL



4) To put the airplane in the ground mode, do this task: Air/Ground Mode Simulation, TASK 32-09-00-860-801.

#### SUBTASK 33-42-00-720-004

- (3) Do a test of the runway turnoff lights (WDM 33-42-13):
  - (a) At the overhead panel, P5, set the switches for the runway turnoff lights to the on mode.
    - 1) Make sure the runway turnoff lights come on.
  - (b) Open these circuit breakers and install safety tags:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	25	C33477	L RWY TRN LT

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	5	C33476	R RWY TRN LT

- 1) Make sure the runway turnoff lights go off.
- (c) Remove the safety tags and close these circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	25	C33477	L RWY TRN LT

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	5	C33476	R RWY TRN LT

- 1) Make sure the runway turnoff lights come on.
- (d) Open these circuit breakers and install safety tags:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	20	C33633	L RWY TRN LT CTRL

#### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	9	C33632	R RWY TRN LT CTRL

- 1) Make sure the runway turnoff lights go off.
- (e) Remove the safety tags and close these circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	20	C33633	L RWY TRN LT CTRL

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	9	C33632	R RWY TRN LT CTRL

- 1) Make sure the runway turnoff lights come on.
- (f) At the P5 panel, set the switches for the runway turnoff lights to the off mode.

ARO ALL



#### SUBTASK 33-42-00-720-005

- (4) Do a test of the taxi and nose gear landing lights (WDM 33-42-11) (WDM 33-42-12):
  - (a) At the overhead panel, P5, set the switches for the taxi and nose gear landing lights to the on mode.
    - 1) Make sure the taxi and nose gear landing lights come on.
  - (b) Install the deactuation tool from the Proximity Sensor Actuator/Deactuator proximity sensor test set, SPL-1690, to each of these proximity sensors:

NOTE: These steps simulate NOSE GEAR NOT DOWN AND LOCKED. This will cause a "GEAR DISAGREE" caution message.

- 1) S32022, NLG Locked 1
- 2) S32026, NLG Locked 2
- (c) Make sure the taxi and nose gear landing lights go off.
- (d) Remove the deactuation tool from each of these proximity sensors:
  - 1) S32022, NLG Locked 1
  - 2) S32026, NLG Locked 2
- (e) Make sure the taxi and nose gear landing lights come on.
- (f) Open these circuit breakers and install safety tags:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	25	C33479	L TAXI LT
D	24	C33478	R TAXI LT
F	5	C33471	L NLG LDG LT

### Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	24	C33472	R NLG LDG LT

- 1) Make sure the taxi and nose gear landing lights go off.
- (g) Remove the safety tags and close these circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	25	C33479	L TAXI LT
D	24	C33478	R TAXI LT
F	5	C33471	L NLG LDG LT

#### Right Power Management Panel, P210

Row	Col	Number	<u>Name</u>
F	24	C33472	R NLG LDG LT

- 1) Make sure the taxi and nose gear landing lights come on.
- (h) Open these circuit breakers and install safety tags:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	21	C33631	TAXI LT CTRL

ARO ALL



(Continued)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
N	22	C33617	I NIGIDGIT CTRI

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	7	C33618	R NLG LDG LT CTRL

- 1) Make sure the nose gear taxi and landing lights go off.
- (i) Remove the safety tags and close these circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ν	21	C33631	TAXI LT CTRL
Ν	22	C33617	L NLG LDG LT CTRL

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
M	7	C33618	R NLG LDG LT CTRL

- 1) Make sure the taxi and nose gear landing lights come on.
- (j) At the P5 panel, set the switches for the taxi and nose gear landing lights to the off mode.

----- END OF TASK -----

33-42-00

- EFFECTIVITY -



### **NOSE GEAR LANDING LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has these tasks:
  - (1) Nose Gear Landing Light Deactivation
  - (2) Nose Gear Landing Light Activation
  - (3) Nose Gear Landing Light Lamp Replacement
  - (4) Nose Gear Landing Light Beam Adjustment
  - (5) Nose Gear Landing Light Transformer Replacement

#### TASK 33-42-01-040-801

### 2. Nose Gear Landing Light - Deactivation

### A. General

- (1) This task removes electrical power from the following components of the Nose Gear Landing Lights:
  - (a) Nose Landing Gear Light
  - (b) Nose Landing Gear Light Transformer

### B. References

Reference	Title
32-00-30-480-801	Landing Gear Downlock Pins Installation (P/B 201)

#### C. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
711	Nose Landing Gear

### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### E. Procedure

SUBTASK 33-42-01-860-013



MAKE SURE THAT THE DOWNLOCK PINS ARE INSTALLED IN ALL OF THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR CAN RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Do this task: Landing Gear Downlock Pins Installation, TASK 32-00-30-480-801.

#### SUBTASK 33-42-01-860-014

(2) At the pilots overhead panel, P5, set the switch for the nose gear landing light to the OFF mode.

ARO ALL



#### SUBTASK 33-42-01-010-001

(3) Open this access panel:

Number Name/Location

117AL Main Equipment Center Access Door

SUBTASK 33-42-01-860-015



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU

**WARNING** 

(4) Open these circuit breakers and install safety tags:

# Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
F	5	C33471	L NLG LDG LT

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	Name
F	24	C33472	R NLG LDG LT

# F. Nose Gear Landing Light - Tryout

SUBTASK 33-42-01-860-016

(1) Make sure that these circuit breakers are open and have safety tags:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	5	C33471	L NLG LDG LT

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	24	C33472	R NLG LDG LT

### SUBTASK 33-42-01-860-017

- (2) At the pilots overhead panel, P5, set the switch for the nose gear landing light to the ON mode.
  - (a) Make sure the nose gear landing lights do not illuminate.
  - (b) Return the switch to the OFF mode.



### TASK 33-42-01-440-801

# 3. Nose Gear Landing Light - Activation

### A. General

- (1) This task adds electrical power to the following components of the Nose Gear Landing Lights:
  - (a) Nose Landing Gear Light
  - (b) Nose Landing Gear Light Transformer

### B. References

Reference	Title
32-00-30-480-801	Landing Gear Downlock Pins Installation (P/B 201)

- EFFECTIVITY · **ARO ALL** 

33-42-01

Page 202 Sep 05/2017



#### C. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
711	Nose Landing Gear

#### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Doo

### E. Procedure

SUBTASK 33-42-01-860-018



MAKE SURE THAT THE DOWNLOCK PINS ARE INSTALLED IN ALL OF THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR CAN RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Make sure the Landing Gear downlocks are in place, if necessary, do this task: Landing Gear Downlock Pins Installation, TASK 32-00-30-480-801.

SUBTASK 33-42-01-860-019



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Remove the safety tags and close these circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	5	C33471	L NLG LDG LT

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	24	C33472	R NLG LDG LT

SUBTASK 33-42-01-410-001

(3) Close this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

------ END OF TASK -----

TASK 33-42-01-960-801

4. Nose Gear Landing Light - Lamp Replacement

(Figure 201)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

ARO ALL

33-42-01

Page 203 Sep 05/2017



### (Continued)

Reference	Title
32-00-30-480-801	Landing Gear Downlock Pins Installation (P/B 201)
WDM 33-42-11	Wiring Diagram Manual

#### B. Consumable Materials

Reference	Description	Specification
C00047	Adhesive - Silicone RTV, 1 Part, Sealant	MIL-A-46106
	Primer	

### C. Location Zones

Zone	Area
711	Nose Landing Gear

#### D. Procedure

SUBTASK 33-42-01-860-001



MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Do this task: Landing Gear Downlock Pins Installation, TASK 32-00-30-480-801.

#### SUBTASK 33-42-01-860-002

(2) Open these applicable circuit breakers and install safety tags:

(WDM 33-42-11)

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	5	C33471	L NLG LDG LT

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	24	C33472	R NLG LDG LT

#### SUBTASK 33-42-01-960-001

- (3) Do these steps to replace the lamp:
  - (a) Remove the bolts [9] and washers [8] to remove the retainer [7].
    - 1) Do not turn the adjustment screws [2].
  - (b) Pull the lamp [6] from the housing.
    - 1) If the gasket on the frame is worn, replace the frame [4].
  - (c) Disconnect the electrical wires [1] from the terminals [5] behind the lamp.
    - 1) Clean the unwanted sealant from the electrical wires [1] if necessary.
    - Make sure that the electrical connections and lamp terminals are clean for good electrical contact.
  - (d) Connect the electrical wires [1] to the new lamp [6].
    - 1) Seal the terminals [5] with adhesive, C00047.

NOTE: It is optional to seal the electrical connection.

(e) Put the new lamp [6] in the housing [3].

ARO ALL





DO NOT APPLY MORE THAN THE MAXIMUM SPECIFIED TORQUE WHEN YOU TIGHTEN THE PARTS. DAMAGE TO THE PARTS CAN OCCUR IF YOU APPLY TOO MUCH TORQUE.

(f) Install the retainer [7], bolts [9], and washers [8].

NOTE: Make sure the NO STEP label shows on the top side of the retainer assembly.

- 1) If the gasket on the retainer is worn, replace the retainer [7].
- 2) Tighten the bolt [9] to 20 in-lb (2.3 N·m)-30 in-lb (3.4 N·m).

#### SUBTASK 33-42-01-860-003

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-42-01-860-004

(5) Remove the safety tags and close these applicable circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	5	C33471	L NLG LDG LT

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	24	C33472	R NLG LDG LT

#### SUBTASK 33-42-01-710-001

- (6) Do a test of the new lamp [6].
  - (a) At the overhead panel, P5, set the switch for the nose gear landing lights to the on mode.
    - 1) Make sure the new lamp comes on.
    - 2) Do a visual check to make sure the light beam points in the correct direction (Figure 202).
      - a) If it is necessary to adjust the light beam, do this task: Nose Gear Landing Light Light Beam Adjustment, TASK 33-42-01-820-801.
  - (b) Set the switch to the off mode.
    - 1) Make sure the lamp goes off.

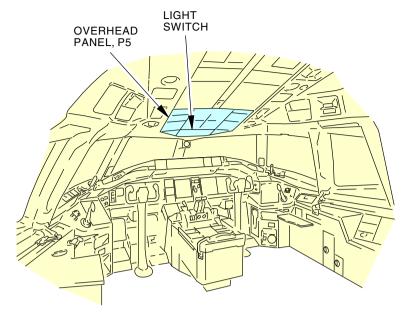
——— END OF TASK ———
---------------------

33-42-01

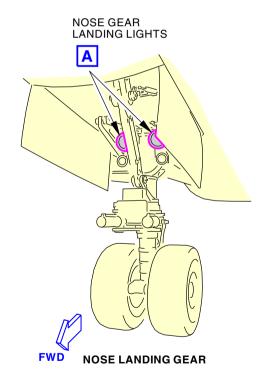
ARO ALL

· EFFECTIVITY ·





### **FLIGHT COMPARTMENT**



C08855 S0006420196\_V2

Nose Gear Landing Light - Lamp Replacement Figure 201/33-42-01-990-801 (Sheet 1 of 2)

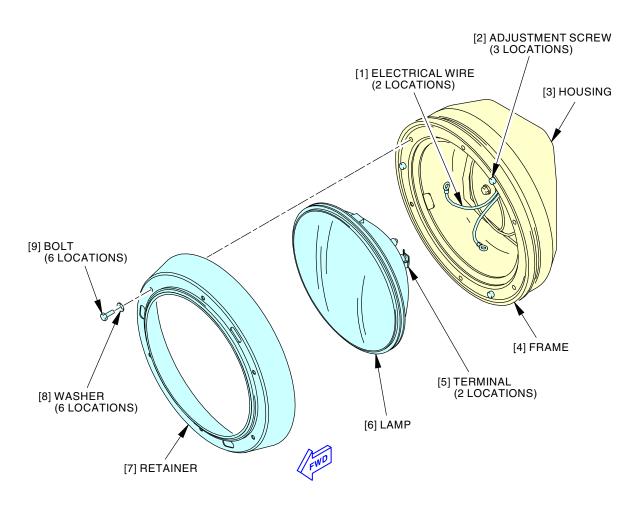
ARO ALL

33-42-01

Page 206 Sep 05/2016

D633W101-ARO





NOSE GEAR LANDING LIGHT (EXAMPLE)



F69363 S0006420197\_V2

Nose Gear Landing Light - Lamp Replacement Figure 201/33-42-01-990-801 (Sheet 2 of 2)

ARO ALL

33-42-01

Page 207 Sep 05/2016



#### TASK 33-42-01-820-801

### 5. Nose Gear Landing Light - Light Beam Adjustment

(Figure 202)

#### A. References

Reference	Title
08-21-00-580-801	Make the Airplane Level (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
32-00-30-480-801	Landing Gear Downlock Pins Installation (P/B 201)

#### B. Consumable Materials

Reference	Description	Specification
G01505	Lockwire - Safety And Lock	NASM20995

#### C. Location Zones

Zone	Area
711	Nose Landing Gear

#### D. Procedure

SUBTASK 33-42-01-940-003

(1) Make sure the airplane and test area are approximately level (TASK 08-21-00-580-801).

#### SUBTASK 33-42-01-940-001

(2) Set a marker on the ground at the TARGET points (Figure 202).

NOTE: A marker can be any item large enough to be seen from a distance.

### SUBTASK 33-42-01-860-005



MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(3) Do this task: Landing Gear Downlock Pins Installation, TASK 32-00-30-480-801.

### SUBTASK 33-42-01-860-006

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 33-42-01-860-007



TO PREVENT DECREASED LAMP LIFE, DO NOT OPERATE THE LIGHT WHEN IT IS NOT NECESSARY.

(5) At the overhead panel, P5, set the switch for the nose gear landing light to the on mode.

#### SUBTASK 33-42-01-820-001

- (6) Do these steps to adjust each light beam:
  - (a) Remove the lockwire [22].
  - (b) Turn the adjustment screws [21] on the retainer until the light beam is on the marker. NOTE: Each adjustment screw must be installed tightly against the frame.
  - (c) Install the lockwire, G01505 [22] (MS20995NC32).

33-42-01

ARO ALL

EFFECTIVITY

Page 208 Jan 05/2018



SUBTASK 33-42-01-860-008

(7) Set the switch to the off mode.

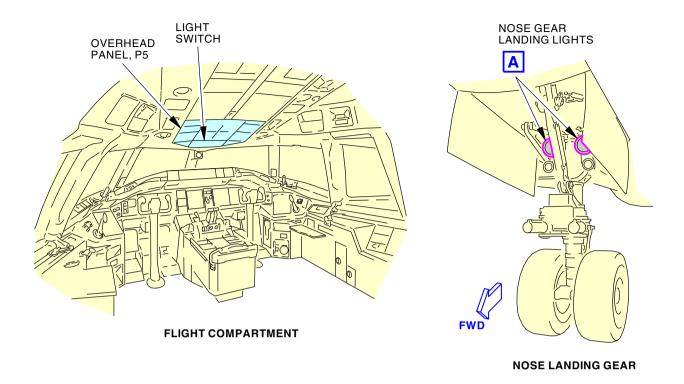
SUBTASK 33-42-01-940-002

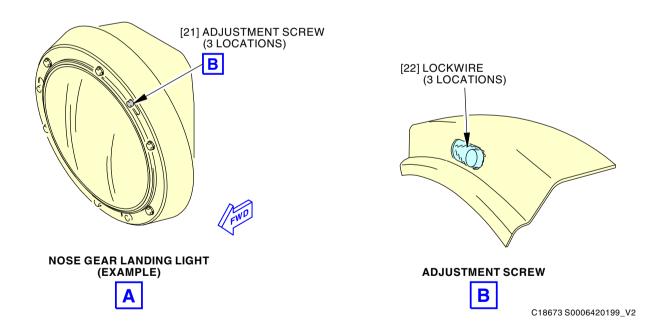
(8) Remove the markers.

----- END OF TASK -----

ARO ALL







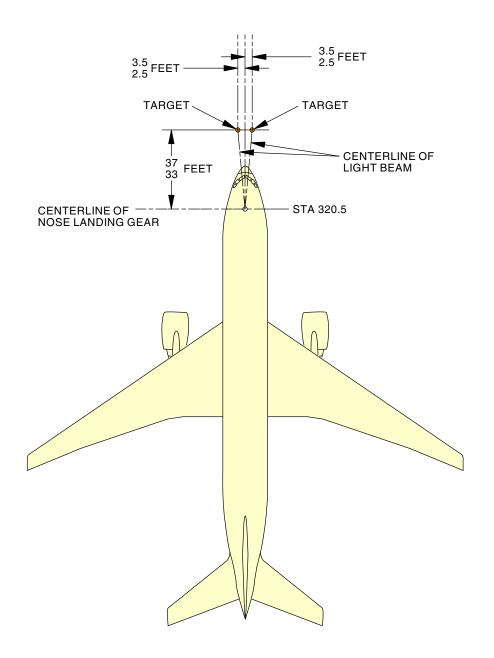
Nose Gear Landing Light - Light Beam Adjustment Figure 202/33-42-01-990-802 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-42-01

Page 210 Sep 05/2016





F69367 S0006420200\_V2

# Nose Gear Landing Light - Light Beam Adjustment Figure 202/33-42-01-990-802 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-42-01

Page 211 Sep 05/2016



#### TASK 33-42-01-960-802

### 6. Nose Gear Landing Light - Transformer Replacement

(Figure 203)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
32-00-30-480-801	Landing Gear Downlock Pins Installation (P/B 201)
WDM 33-42-11	Wiring Diagram Manual

### B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
41	Transformer	33-42-51-01-005	ARO ALL

#### C. Location Zones

Zone	Area
711	Nose Landing Gear

#### D. Procedure

SUBTASK 33-42-01-860-009



MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Do this task: Landing Gear Downlock Pins Installation, TASK 32-00-30-480-801.

#### SUBTASK 33-42-01-860-010

(2) Open these applicable circuit breakers and install safety tags:

(WDM 33-42-11)

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	5	C33471	L NLG LDG LT

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	24	C33472	R NLG LDG LT

### SUBTASK 33-42-01-960-002

- (3) Do these steps to replace the transformer:
  - (a) Open the service and APU shutdown panel, P40.
  - (b) Disconnect the electrical wires [42] from the P40 panel.
  - (c) Remove the screws [43] and washers [44].
  - (d) Replace the transformer [41].
  - (e) Install the screws [43] and washers [44].
  - (f) Connect the electrical wires [42] to the P40 panel.
  - (g) Close the P40 panel.

ARO ALL



#### SUBTASK 33-42-01-860-011

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-42-01-860-012

(5) Remove the safety tags and close these applicable circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
F	5	C33471	L NLG LDG LT

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	24	C33472	R NLG LDG LT

#### SUBTASK 33-42-01-710-002

- (6) Do a test of the new transformer.
  - (a) At the overhead panel, P5, set the switch for the nose gear landing lights to the on mode.
    - 1) Make sure the light connected to the transformer comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

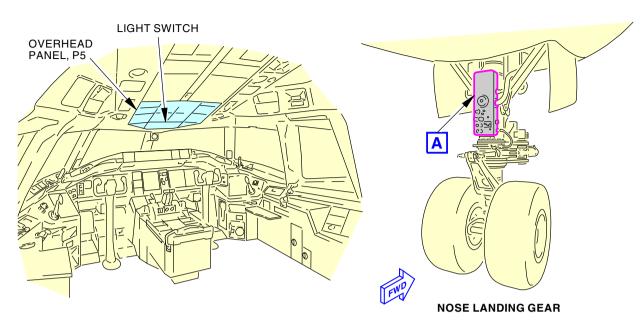
----- END OF TASK -----

33-42-01

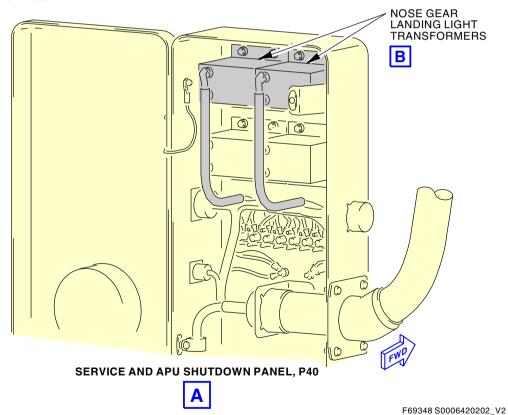
- EFFECTIVITY -

ARO ALL





### **FLIGHT COMPARTMENT**



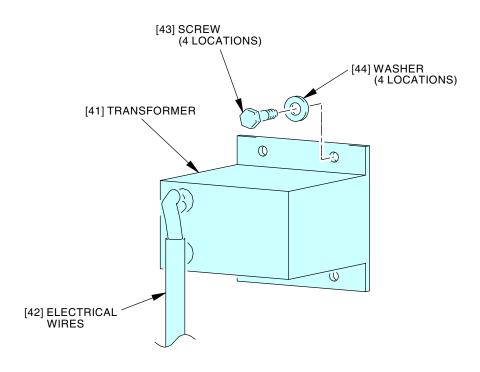
Nose Gear Landing Light - Transformer Replacement Figure 203/33-42-01-990-803 (Sheet 1 of 2)

ARO ALL DE

33-42-01

Page 214 Sep 05/2016





NOSE GEAR LANDING LIGHT TRANSFORMER (EXAMPLE)



C92251 S0006420203\_V2

Nose Gear Landing Light - Transformer Replacement Figure 203/33-42-01-990-803 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-42-01

Page 215 Sep 05/2016



### WING LANDING LIGHTS - MAINTENANCE PRACTICES

### 1. General

- A. This procedure has these tasks:
  - (1) Wing Landing Light Deactivation
  - (2) Wing Landing Light Activation
  - (3) Wing Landing Light Lamp Replacement
  - (4) Wing Landing Light Beam Adjustment
    - (a) Use one of the two different methods in this procedure to do the light beam adjustment:
      - 1) Light Beam Adjustment with a Target
      - 2) Light Beam Adjustment with a Light Aligner
  - (5) Wing Landing Light Transformer Replacement

### TASK 33-42-02-040-801

### 2. Wing Landing Light - Deactivation

# A. General

- (1) This task removes electrical power to the following components of the Wing Landing Lights:
  - (a) Wing Landing Lights.
  - (b) Wing Landing Lights Transformer.

#### B. References

Reference	Title
27-81-00-040-801	Leading Edge Slat - Deactivation (P/B 201)

### C. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
511	Leading Edge to Front Spar - Inboard of Nacelle Strut - Left Wing
611	Leading Edge to Front Spar - Inboard of Nacelle Strut - Right Wing

### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

### E. Procedure

SUBTASK 33-42-02-040-001

(1) Deactivate the Leading Edge Slats (TASK 27-81-00-040-801).

SUBTASK 33-42-02-860-012

(2) At the pilots overhead panel, P5, set the switch for the wing landing lights to the OFF mode. SUBTASK 33-42-02-010-004

(3) Open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

ARO ALL



SUBTASK 33-42-02-860-013



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(4) Open these circuit breakers and install safety tags:

# Ground Service/Handling Power Panel, P320

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
J	10	C33519	WG LDG LTS HEATING

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	15	C33473	L WG LDG LT
Ν	26	C33601	L WG LDG LT CTRL

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	9	C33474	R WG LDG LT
M	8	C33630	R WG LDG LT CTRL

### F. Wing Landing Lights - Tryout

NOTE: This tryout is to make sure the Wing Landing Lights are in a zero energy state.

#### SUBTASK 33-42-02-860-014

(1) Make sure that these circuit breakers are open and have safety tags:

### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
J	10	C33519	WG LDG LTS HEATING

### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
В	15	C33473	L WG LDG LT
N	26	C33601	L WG LDG LT CTRL

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	9	C33474	R WG LDG LT
M	8	C33630	R WG LDG LT CTRL

#### SUBTASK 33-42-02-860-015

EFFECTIVITY

**ARO ALL** 

- (2) At the pilots overhead panel, P5, set the switch for the wing landing lights to the ON mode.
  - (a) Make sure the wing landing lights do not illuminate.
  - (b) Set the switch for the wing landing lights to the OFF mode.

	<b>END</b>	OF TASK	
--	------------	---------	--

33-42-02

D633W101-ARO

Page 202 Jan 05/2018



### TASK 33-42-02-440-801

# 3. Wing Landing Light - Activation

### A. General

- (1) This task adds electrical power to the following components of the Wing Landing Lights:
  - (a) Wing Landing Lights.
  - (b) Wing Landing Lights Transformer.

### B. References

Reference	Title
27-81-00-440-801	Leading Edge Slat Reactivation (P/B 201)

### C. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
511	Leading Edge to Front Spar - Inboard of Nacelle Strut - Left Wing
611	Leading Edge to Front Spar - Inboard of Nacelle Strut - Right Wing

#### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### E. Procedure



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

#### SUBTASK 33-42-02-860-016

(1) Remove the safety tags and close these circuit breakers:

### **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
J	10	C33519	WG LDG LTS HEATING

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	15	C33473	L WG LDG LT
Ν	26	C33601	L WG LDG LT CTRL

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	9	C33474	R WG LDG LT
M	8	C33630	R WG LDG LT CTRL

### SUBTASK 33-42-02-440-001

(2) Activate the Leading Edge Slats (TASK 27-81-00-440-801).

ARO ALL



#### SUBTASK 33-42-02-410-004

(3) Close this access panel:

Number Name/Location

117AL Main Equipment Center Access Door

—— END OF TASK ———

### TASK 33-42-02-960-801

# 4. Wing Landing Light - Lamp Replacement

(Figure 201)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
27-81-00-040-801	Leading Edge Slat - Deactivation (P/B 201)
27-81-00-440-801	Leading Edge Slat Reactivation (P/B 201)
WDM 33-42-11	Wiring Diagram Manual

### B. Consumable Materials

Reference	Description	Specification
A00900	Sealant - Silicone, RTV - Dow Corning	
	93-006-1RF (Formerly 93-006-1. Use until	
	Stock depleted)	
C00047	Adhesive - Silicone RTV, 1 Part, Sealant	MIL-A-46106
	Primer	
G00771	Agent - Parting, Peelable, AZ 634-2 (0A3C8 -	BAC5000, PSD 6-187
	Aztec Chemical, Inc., El Monte, CA)	
G01659	Swab - Cotton Or Rayon, (Disposable)	

### C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
5	Frame	33-42-02-05-055	ARO ALL
8	Lamp	33-42-02-05-070	ARO ALL
9	Retainer assembly	33-42-02-05-040	ARO ALL

### D. Location Zones

Zone	Area
511	Leading Edge to Front Spar - Inboard of Nacelle Strut - Left Wing
611	Leading Edge to Front Spar - Inboard of Nacelle Strut - Right Wing

### E. Procedure

SUBTASK 33-42-02-860-001



DO THE DEACTIVATION PROCEDURE FOR THE LEADING EDGE SLATS. THE SLATS RETRACT QUICKLY. THIS CAN CAUSE INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT.

(1) Do this task: Leading Edge Slat - Deactivation, TASK 27-81-00-040-801.

#### SUBTASK 33-42-02-860-002

(2) Open these applicable circuit breakers and install safety tags: (WDM 33-42-11)

ARO ALL



### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
В	15	C33473	L WG LDG LT

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	9	C33474	R WG LDG LT

#### SUBTASK 33-42-02-010-001

- (3) Remove the lens assembly [3].
  - (a) Loosen the studs [1].

NOTE: Do not disconnect the lanyard.

### ARO ALL PRE SB 777-33-0046

#### SUBTASK 33-42-02-960-001

- (4) Do these steps to replace the lamp.
  - (a) Remove the screws [10] and the retainer assembly [9].

NOTE: Do not turn the adjustment screws.

- (b) Pull the lamp [8] from the housing.
  - 1) If the gasket on the frame is worn, replace the frame [5].
- (c) Disconnect the electrical wires [6] from the terminals [7] behind the lamp [8].
  - 1) Clean the unwanted sealant from the electrical wires [6], if necessary.
  - Make sure that the electrical connections and lamp terminals are clean for good electrical contact.
- (d) Connect the electrical wires [6] to the new lamp [8].
  - 1) Seal the terminals [7] with adhesive, C00047.

NOTE: It is optional to seal the electrical connection.

- (e) Put the new lamp [8] in the housing.
  - 1) Align the 3 lugs on the lamp [8] with the lug holes in the housing.
  - 2) Make sure that the lamp filament is horizontal.
- (f) Install the retainer assembly [9] and screws [10].
  - 1) If the gasket on the retainer is worn, replace the retainer assembly [9].

#### ARO ALL POST SB 777-33-0046

### SUBTASK 33-42-02-960-003

- (5) Do these steps to replace the lamp [8].
  - (a) Remove the screws [10] and the retainer assembly [16].

NOTE: Do not turn the adjustment screws.

- (b) Remove the screw [12] and washer [13], and remove the support bracket [11] from the clamp [14].
- (c) Pull the lamp [8] from the housing.
  - 1) If the gasket on the frame is worn, replace the frame assembly [17].

ARO ALL 33-42-02



### ARO ALL POST SB 777-33-0046 (Continued)

- (d) Disconnect the electrical wires [6] from the terminals [7] and support bracket [11] from behind the lamp [8].
  - Clean the unwanted sealant from the electrical wires [6], if necessary.
  - Make sure that the electrical connections and lamp terminals are clean for good electrical contact.
- (e) Connect the electrical wires [6] and support bracket [11] to the new lamp [8].
  - 1) Seal the terminals [7] with adhesive, C00047.
- (f) Put the new lamp [8] in the housing.
  - Align the three lugs on the lamp [8] with the lug holes in the housing.
  - 2) Make sure the lamp filament is horizontal.
- (g) Install the support bracket [11] into the clamp [14].
  - 1) Move the bracket [15] over the support bracket [11], keep aligned with the clamp [14] and install with screw [12] and washer [13].
- (h) Install the retainer assembly [16] and screws [10].
  - 1) If the gasket on the retainer is worn, replace the retainer assembly [16].
  - 2) Align the rectangle cut out with screw [12] installation.

#### **ARO ALL**

#### SUBTASK 33-42-02-860-003

- (6) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-42-02-860-004

(7) Remove the safety tags and close these applicable circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	15	C33473	L WG LDG LT

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	9	C33474	R WG LDG LT

#### SUBTASK 33-42-02-710-001

- (8) Do a test of the new lamp [8].
  - (a) At the overhead panel, P5, set the switch for the wing landing light to the on mode.
    - Make sure the new lamp [8] comes on.
    - If it is necessary, adjust the light beam (TASK 33-42-02-820-801).
  - (b) Set the switch to the off mode.
    - 1) Make sure the lamp goes off.

#### SUBTASK 33-42-02-410-001

- (9) Do these steps to install the lens assembly [3]:
  - (a) Examine the seal.



- 1) If the seal along the edge of the opening on the airplane is damaged, do these steps to replace or repair it.
  - a) Remove the loose or damaged sealant from the opening on the airplane.
  - b) Apply the peelable parting agent, G00771, to the lens assembly [3].
  - c) Make a continuous seal with a thin layer of the new Dow Corning 93-006-1 RF sealant, A00900, along the edge of the opening.
    - NOTE: Keep the sealant out of the fastener holes.
  - d) Use a swab, G01659, to clear the fastener holes of any unwanted sealant.
- (b) Install the lens assembly [3].

NOTE: Once the lens assembly is installed, do not fill in the gap between the lens assembly and the airplane with the sealant.

1) Install the studs [1].

SUBTASK 33-42-02-860-005

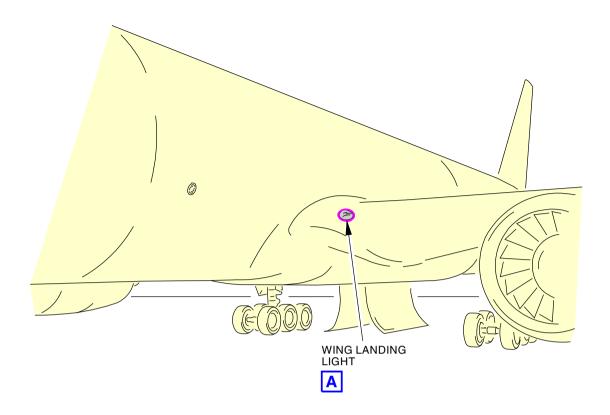
(10) Do this task: Leading Edge Slat Reactivation, TASK 27-81-00-440-801.

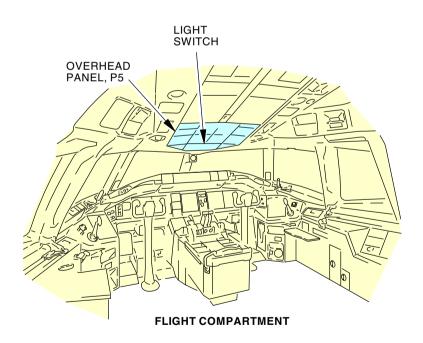
SUBTASK 33-42-02-940-001

(11) Remove the markers.

----- END OF TASK -----







F69393 S0006420207\_V2

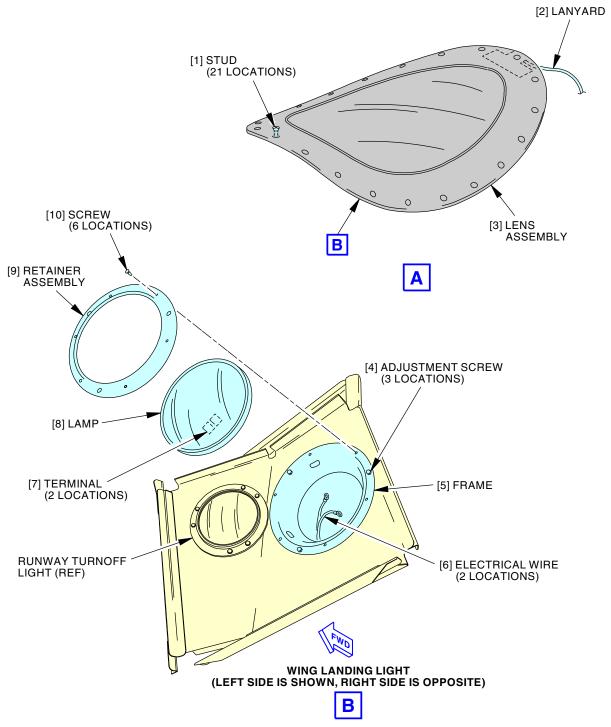
Wing Landing Light - Lamp Replacement Figure 201/33-42-02-990-801 (Sheet 1 of 4)

ARO ALL
D633W101-ARO

33-42-02

Page 208 Sep 05/2016





C12791 S0006420208\_V2

Wing Landing Light - Lamp Replacement Figure 201/33-42-02-990-801 (Sheet 2 of 4)

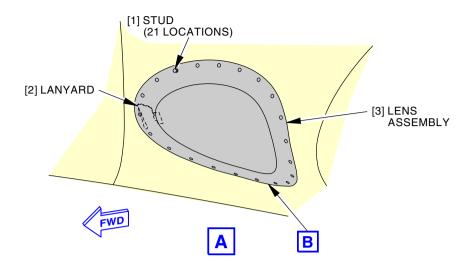
ARO ALL PRE SB 777-33-0046

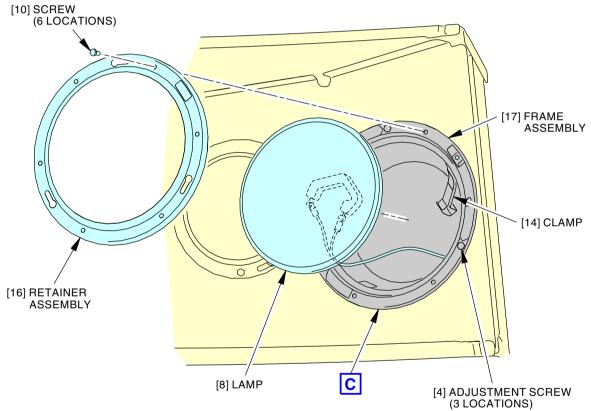
D633W101-ARO

33-42-02

Page 209 Sep 05/2016







WING LANDING LIGHT (LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE)



2313867 S0000526047\_V2

Wing Landing Light - Lamp Replacement Figure 201/33-42-02-990-801 (Sheet 3 of 4)

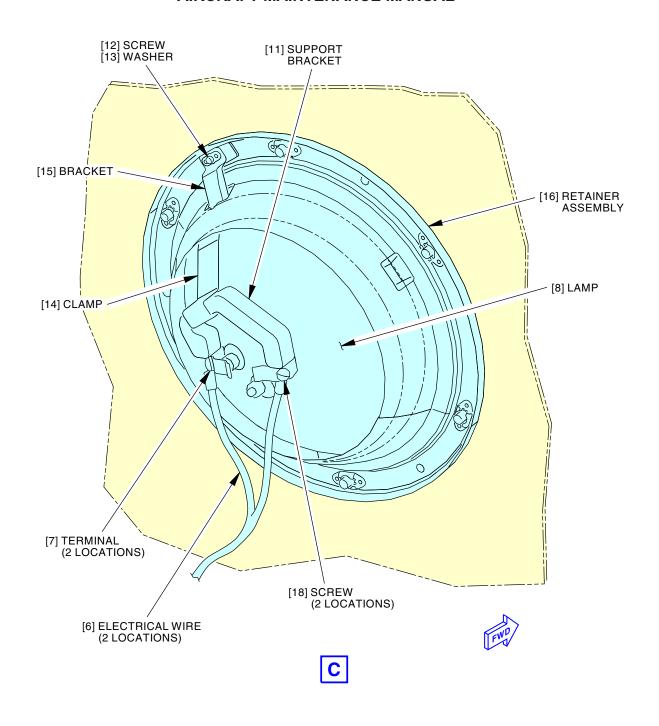
ARO ALL POST SB 777-33-0046

D633W101-ARO

33-42-02

Page 210 Sep 05/2016





2313990 S0000526045\_V2

Wing Landing Light - Lamp Replacement Figure 201/33-42-02-990-801 (Sheet 4 of 4)

ARO ALL POST SB 777-33-0046

33-42-02

Page 211 Sep 05/2016



#### TASK 33-42-02-820-801

### 5. Wing Landing Light - Light Beam Adjustment

(Figure 202)

### A. References

Reference	Title
08-21-00-580-801	Make the Airplane Level (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
27-81-00-040-801	Leading Edge Slat - Deactivation (P/B 201)
27-81-00-440-801	Leading Edge Slat Reactivation (P/B 201)

### B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description	
COM-8845	OPT: Aligner - Landing Light (Non-procurable)	
	Part #: LA87 Supplier: 41364	

### C. Consumable Materials

Reference	Description	Specification
A00900	Sealant - Silicone, RTV - Dow Corning 93-006-1RF (Formerly 93-006-1. Use until Stock depleted)	
G00771	Agent - Parting, Peelable, AZ 634-2 (0A3C8 - Aztec Chemical, Inc., El Monte, CA)	BAC5000, PSD 6-187
G01659	Swab - Cotton Or Rayon, (Disposable)	

### D. Location Zones

Zone	Area
511	Leading Edge to Front Spar - Inboard of Nacelle Strut - Left Wing
611	Leading Edge to Front Spar - Inboard of Nacelle Strut - Right Wing

### E. Procedure

NOTE: The landing light aligner, COM-8845, is no longer procurable and no equivalent tool is available or necessary. Light Beam Adjustment with a Target is an acceptable method and does not require the use of any tool.

#### SUBTASK 33-42-02-940-003

(1) Make sure the airplane and test area are approximately level (TASK 08-21-00-580-801).

### SUBTASK 33-42-02-940-002

- (2) Do this light beam adjustment with a target:
  - (a) Set a marker on the ground at the TARGET points (Figure 202).

NOTE: A marker is an item large enough that can be seen from a distance.

#### SUBTASK 33-42-02-940-004

- (3) Do this light beam adjustment with a light aligner:
  - (a) Set the landing light aligner, COM-8845, in its position.
  - (b) Measure the height of the light from the ground.
  - (c) Use the height of the light to adjust the height of the light aligner.

ARO ALL



#### SUBTASK 33-42-02-860-006



DO THE DEACTIVATION PROCEDURE FOR THE LEADING EDGE SLATS. THE SLATS RETRACT QUICKLY. THIS CAN CAUSE INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT.

(4) Do this task: Leading Edge Slat - Deactivation, TASK 27-81-00-040-801.

#### SUBTASK 33-42-02-860-007

- (5) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-42-02-010-002

- (6) Remove the lens assembly [3].
  - (a) Loosen the studs [1].

NOTE: Do not disconnect the lanyard.

#### SUBTASK 33-42-02-820-001

- (7) Do these steps to adjust each light beam:
  - (a) At the overhead panel, P5, set the switch for the wing landing light to the on mode.
    - 1) To prevent decreased lamp life, do not operate the light when it is not necessary.
  - (b) Remove the lockwire [21].
  - (c) If a target is used to adjust the light beam, then do this step:
    - 1) Turn the adjustment screws [4] on the retainer assembly [9] until the approximate center of the beam hits the ground at the target point marker.
      - NOTE: Each adjustment screw must be installed tightly against the frame. Do not tighten the screws so much that you cause the frame to bend.
  - (d) If a light aligner is used to adjust the light beam, then do this step:
    - 1) Turn the adjustment screws [4] on the retainer assembly [9] until the center indicator on the landing light aligner, COM-8845, is yellow.

NOTE: All the other indicators must be black.

- (e) Install the lockwire [21] (MS20995NC32).
- (f) Set the switch to the off mode.

#### SUBTASK 33-42-02-410-003

EFFECTIVITY

**ARO ALL** 

- (8) Do these steps to install the lens assembly:
  - (a) Examine the seal.
    - If the seal along the edge of the opening on the airplane is damaged, do these steps to replace or repair it.
      - a) Remove the loose or damaged sealant from the opening on the airplane.
      - b) Apply the peelable parting agent, G00771, to the lens assembly.
      - c) Make a continuous seal with a thin layer of the new Dow Corning 93-006-1 RF sealant, A00900, along the edge of the opening.

NOTE: Keep the sealant out of the fastener holes.

d) Use a swab, G01659, to clear the fastener holes of any unwanted sealant.



(b) Install the lens assembly [3].

NOTE: Once the lens assembly is installed, do not fill in the gap between the lens assembly and the airplane with the sealant.

1) Install the studs [1].

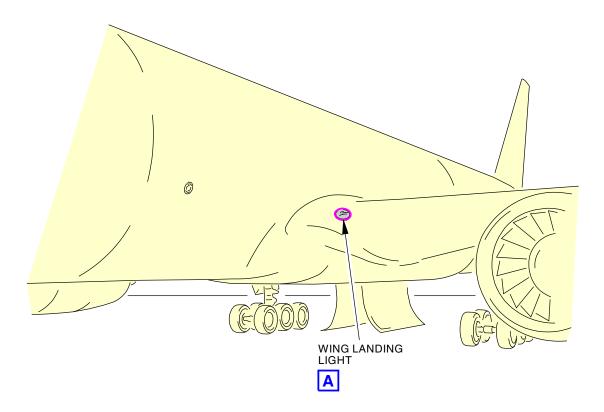
SUBTASK 33-42-02-860-008

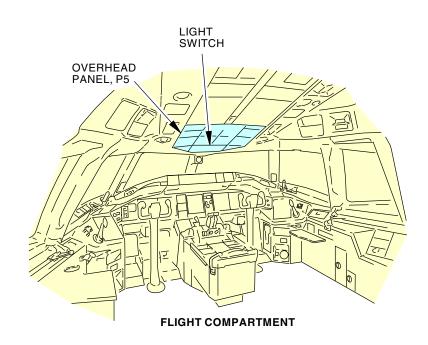
(9) Do this task: Leading Edge Slat Reactivation, TASK 27-81-00-440-801.

——— END OF TASK ———

ARO ALL 33-42-02







F69411 S0006420210\_V2

Wing Landing Light - Light Beam Adjustment Figure 202/33-42-02-990-802 (Sheet 1 of 4)

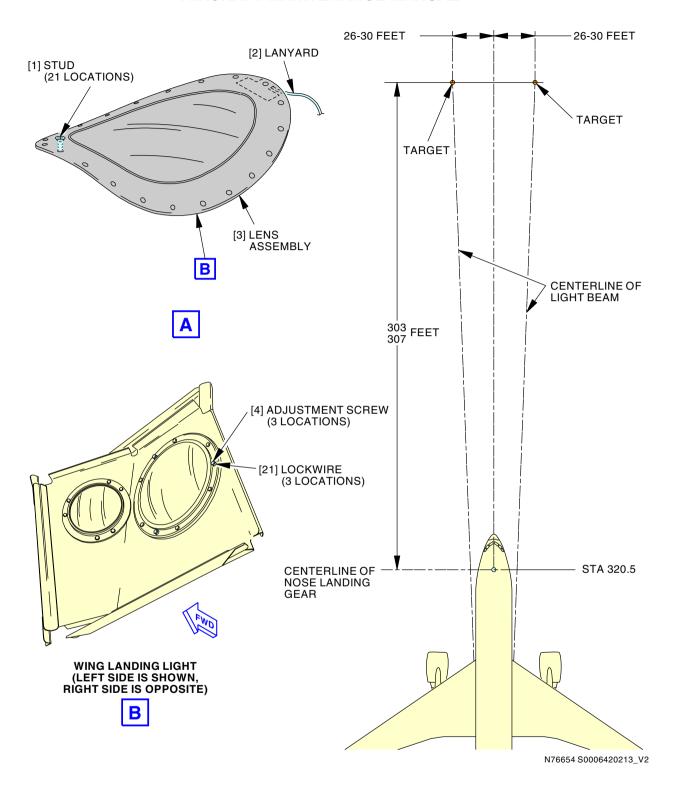
ARO ALL

D633W101-ARO

33-42-02

Page 215 Sep 05/2016





Wing Landing Light - Light Beam Adjustment Figure 202/33-42-02-990-802 (Sheet 2 of 4)

EFFECTIVITY

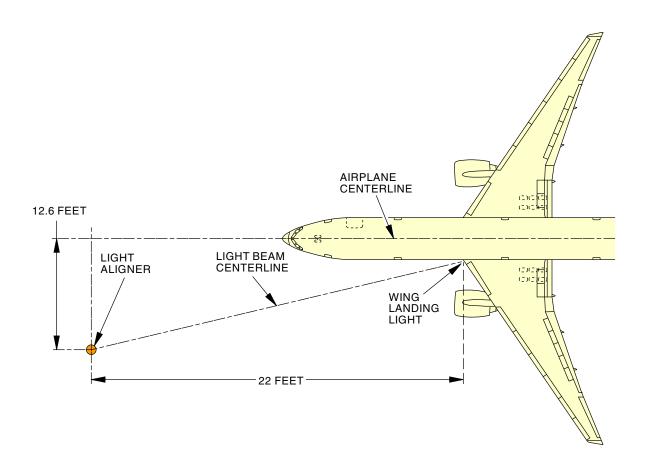
ARO ALL

Page 216

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





# LOCATION OF THE LIGHT ALIGNER FOR THE LEFT WING LANDING LIGHT\ (RIGHT LIGHT IS SYMMETRICAL)

1458403 S0000265844\_V2

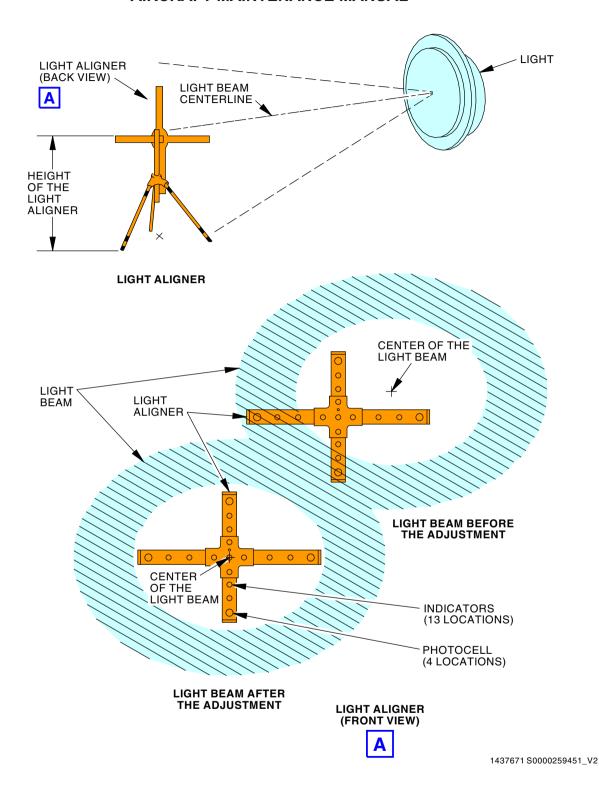
Wing Landing Light - Light Beam Adjustment Figure 202/33-42-02-990-802 (Sheet 3 of 4)

ARO ALL
D633W101-ARO

33-42-02

Page 217 Sep 05/2016





Wing Landing Light - Light Beam Adjustment Figure 202/33-42-02-990-802 (Sheet 4 of 4)

ARO ALL
D633W101-ARO

33-42-02

Page 218 Sep 05/2016



### TASK 33-42-02-960-802

# 6. Wing Landing Light - Transformer Replacement

(Figure 203)

### A. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
25-52-06-000-801	Sidewall Liner Removal (P/B 401)	
25-52-06-400-801	Sidewall Liner Installation (P/B 401)	
WDM 33-42-11	Wiring Diagram Manual	

# B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
44	Transformer	33-42-11-02-110	ARO ALL

### C. Location Zones

Zone	Area
121	Forward Cargo Compartment, Left
122	Forward Cargo Compartment, Right

### D. Procedure

SUBTASK 33-42-02-860-009

(1) Open these applicable circuit breakers and install safety tags:

(WDM 33-42-11)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	15	C33473	L WG LDG LT

### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	9	C33474	R WG LDG LT

#### SUBTASK 33-42-02-010-003

(2) Remove the adjacent sidewall liner (TASK 25-52-06-000-801).

### SUBTASK 33-42-02-960-002

- (3) Do these steps to replace the transformer:
  - (a) Remove the nuts [43] and disconnect the electrical wires [42] from the transformer.
  - (b) Remove the screws [45] and washers [41].
  - (c) Replace the transformer [44].
  - (d) Install the screws [45] and washers [41].
  - (e) Connect the electrical wires [42] to the new transformer with the nuts [43].

### SUBTASK 33-42-02-860-010

- (4) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

ARO ALL 33-42-02



### SUBTASK 33-42-02-860-011

(5) Remove the safety tags and close these applicable circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	15	C33473	L WG LDG LT

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	9	C33474	R WG LDG LT

### SUBTASK 33-42-02-710-002

- (6) Do a test of the new transformer.
  - (a) At the overhead panel, P5, set the switch for the wing landing light to the on mode.
    - 1) Make sure the light connected to the transformer comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

### SUBTASK 33-42-02-410-002

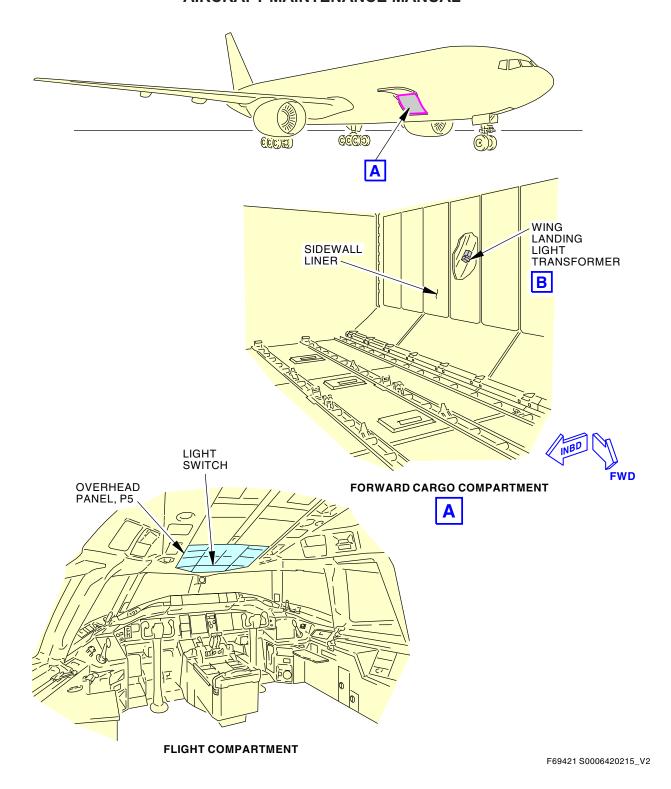
- EFFECTIVITY -

**ARO ALL** 

(7) Install the adjacent sidewall liner Sidewall Liner Installation, TASK 25-52-06-400-801.

----- END OF TASK -----





Wing Landing Light - Transformer Replacement Figure 203/33-42-02-990-803 (Sheet 1 of 2)

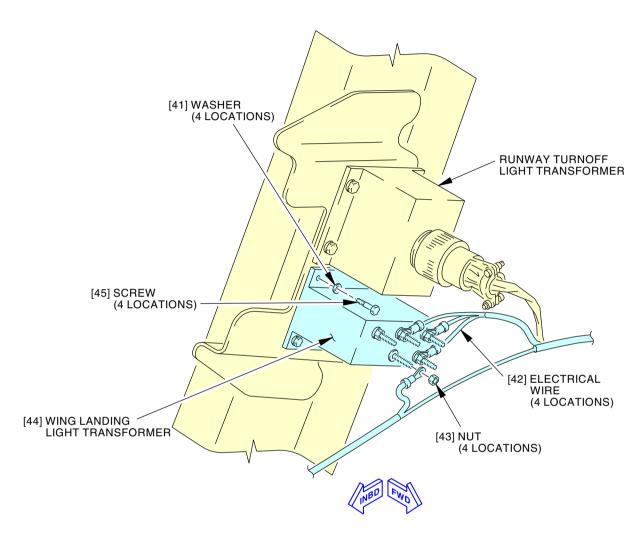
ARO ALL

D633W101-ARO

33-42-02

Page 221 Sep 05/2016





WING LANDING LIGHT TRANSFORMER (STA 951, LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE)



C15205 S0006420216\_V2

Wing Landing Light - Transformer Replacement Figure 203/33-42-02-990-803 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-42-02

Page 222 Sep 05/2016



# **TAXI LIGHTS - MAINTENANCE PRACTICES**

# 1. General

- A. This procedure has these tasks:
  - (1) Taxi lights Deactivation
  - (2) Taxi lights Activation
  - (3) Taxi light lamp Replacement
  - (4) Taxi light beam Adjustment
  - (5) Taxi light transformer Replacement
  - (6) Taxi light assembly Removal/Installation

### TASK 33-42-03-040-801

# 2. Taxi Lights - Deactivation

(Figure 201)

# A. General

(1) This task removes electrical power from the taxi lights.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

# C. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

### D. Location Zones

Zone	Area
117	Main Equipment Center, Left
211	Flight Compartment, Left
212	Flight Compartment, Right
711	Nose Landing Gear

### E. Access Panels

Number	Name/Location	
117AL	Main Equipment Center Access Door	

# F. Procedure

SUBTASK 33-42-03-010-001

(1) Open this door:

<u>Number</u>	Name/Location
117AI	Main Equipment Center Access Door

ARO ALL



SUBTASK 33-42-03-860-017



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Open these circuit breakers and install safety tags:

# Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
С	25	C33479	L TAXI LT
D	24	C33478	R TAXI LT
Ν	21	C33631	TAXI LT CTRL

# G. Taxi Lights - Tryout

NOTE: This tryout is to make sure that the taxi lights are in a zero energy state.

### SUBTASK 33-42-03-860-018

(1) Make sure that electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

### SUBTASK 33-42-03-700-001

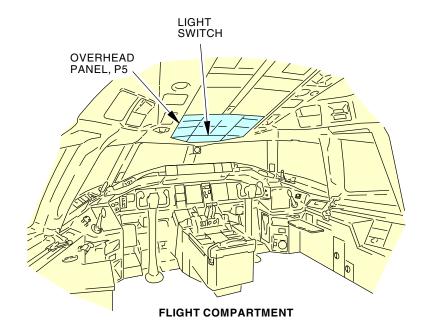
- (2) Do a test of the taxi lights:
  - (a) At the overhead panel, P5, set the switch for the taxi lights to the ON mode.
    - 1) Make sure that the taxi lights do not come on.
  - (b) Set the switch to the OFF mode.
  - (c) Install a DO NOT OPERATE tag, STD-858 on the taxi light switch.

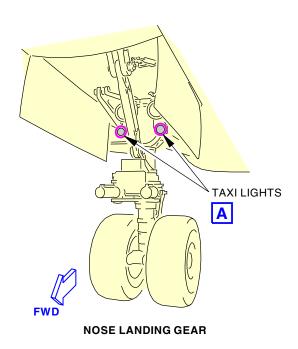


33-42-03

· EFFECTIVITY







L45605 S0006420229\_V2

Taxi Lights Figure 201/33-42-03-990-805

ARO ALL
D633W101-ARO

33-42-03

Page 203 Sep 05/2016



# TASK 33-42-03-440-801

# 3. Taxi Lights - Activation

(Figure 201)

### A. General

(1) This task adds electrical power to the taxi lights.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

# C. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

### D. Location Zones

Zone	Area
117	Main Equipment Center, Left
211	Flight Compartment, Left
212	Flight Compartment, Right
711	Nose Landing Gear

### E. Access Panels

Number	Name/Location	
117AL	Main Equipment Center Access Door	

### F. Procedure

SUBTASK 33-42-03-860-020

(1) Make sure that electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 33-42-03-860-021



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Close these circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	25	C33479	L TAXI LT
D	24	C33478	R TAXI LT
Ν	21	C33631	TAXI LT CTRL

### SUBTASK 33-42-03-410-001

(3) Close this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

# SUBTASK 33-42-03-700-002

- (4) Do a test of the taxi lights:
  - (a) Remove the DO NOT OPERATE tag, STD-858 on the taxi light switch.

ARO ALL



- (b) At the overhead panel, P5, set the switch for the taxi lights to the ON mode.
  - 1) Make sure that the taxi lights come on.
- (c) Set the switch to the OFF mode.

----- END OF TASK -----

#### TASK 33-42-03-960-801

### 4. Taxi Light - Lamp Replacement

(Figure 202)

# A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
32-00-30-480-801	Landing Gear Downlock Pins Installation (P/B 201)
WDM 33-42-12	Wiring Diagram Manual

#### B. Consumable Materials

Reference	Description	Specification
C00047	Adhesive - Silicone RTV, 1 Part, Sealant	MIL-A-46106
	Primer	

### C. Location Zones

Zone	Area
711	Nose Landing Gear

#### D. Procedure

SUBTASK 33-42-03-860-001



MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Make sure the downlock pins are installed on the nose and main landing gear (TASK 32-00-30-480-801).

### SUBTASK 33-42-03-860-002

(2) Open these applicable circuit breakers and install safety tags:

(WDM 33-42-12)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	25	C33479	L TAXI LT
D	24	C33478	RTAXIIT

### SUBTASK 33-42-03-960-001

- (3) Do these steps to replace the lamp:
  - (a) Remove the screws [8]], the Tubings [11], and the retainer [7].

NOTE: Do not turn the adjustment screws [2].

- (b) Pull the lamp [6] from the housing [3].
- (c) Remove the gasket [9] and gasket [10].
- (d) Disconnect the electrical wire [1] from the terminals [5] behind the lamp.

ARO ALL



- 1) Clean the unwanted sealant from the electrical wire [1] if necessary.
- 2) Make sure that the electrical connections and lamp terminals are clean for good electrical contact.
- (e) Connect the electrical wire [1] to the new lamp [6].
  - 1) Seal the terminals [5] with adhesive, C00047.

NOTE: It is optional to seal the electrical connection.

(f) Put the new lamp [6] in the housing [3].

NOTE: The filament in the lamp should be horizontal to the ground.

- 1) Examine the gasket [9] and gasket [10] for damage.
  - a) If the gaskets are damage then install new gaskets.
- 2) Apply adhesive, C00047 on gaskets to keep them in position.
- 3) Install the gasket [10] between the lamp [6] and the frame [4] and install the gasket [9] between the lamp [6] and the retainer [7].
- (g) Install the retainer [7], Tubings [11], and the screws [8].

NOTE: The length of the tubing is 7/16 inch.

1) Tighten the screws [8] to 12 + 3 / -0 in-lb  $(1.4 + 0.4 / -0.0 \text{ N} \cdot \text{m})$ .

#### SUBTASK 33-42-03-860-003

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-42-03-860-004

(5) Remove the safety tags and close these applicable circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
С	25	C33479	L TAXI LT
D	24	C33478	R TAXI LT

# SUBTASK 33-42-03-710-001

- (6) Do a test of the new lamp.
  - (a) At the overhead panel, P5, set the switch for the taxi lights to the on mode.
    - 1) Make sure the new lamp comes on.
    - 2) Do a visual check to make sure the light beam points in the correct direction (Figure 203).
      - a) If it is necessary to adjust the light beam, do this task: Taxi Light Light Beam Adjustment, TASK 33-42-03-820-801.
  - (b) Set the switch to the off mode.
    - Make sure the lamp goes off.

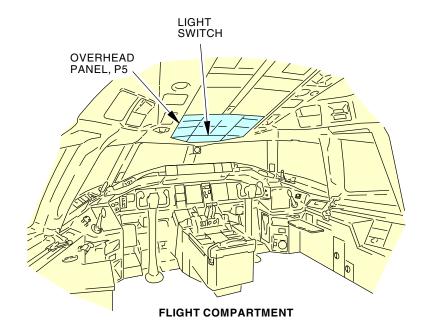
	<b>END</b>	OF	TASK	
--	------------	----	------	--

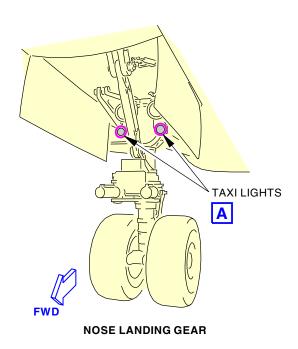
33-42-03

ARO ALL

EFFECTIVITY







F69427 S0006420220\_V2

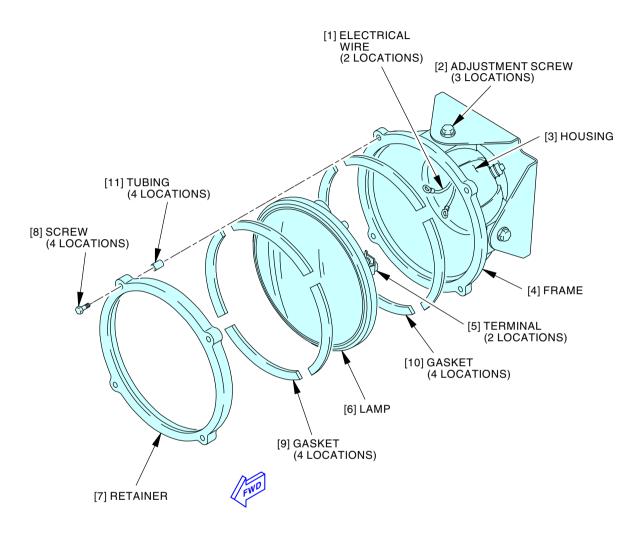
Taxi Light - Lamp Replacement Figure 202/33-42-03-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-42-03

Page 207 Sep 05/2016





TAXI LIGHT (EXAMPLE)

C08869 S0006420221\_V3

Taxi Light - Lamp Replacement Figure 202/33-42-03-990-801 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-42-03

Page 208 Sep 05/2016



### TASK 33-42-03-820-801

### 5. Taxi Light - Light Beam Adjustment

(Figure 203)

#### A. References

Reference	Title
08-21-00-580-801	Make the Airplane Level (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
32-00-30-480-801	Landing Gear Downlock Pins Installation (P/B 201)

#### B. Consumable Materials

Reference	Description	Specification	
G01505	Lockwire - Safety And Lock	NASM20995	

### C. Location Zones

Zone	Area
711	Nose Landing Gear

### D. Procedure

#### SUBTASK 33-42-03-940-003

(1) Make sure the airplane and test area are approximately level (TASK 08-21-00-580-801).

#### SUBTASK 33-42-03-940-001

(2) Set a marker on the ground at the TARGET points (Figure 203).

NOTE: A marker can be any item large enough to be seen from a distance.

### SUBTASK 33-42-03-860-005



MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(3) Make sure the downlock pins are installed on the nose and main landing gear (TASK 32-00-30-480-801).

### SUBTASK 33-42-03-860-006

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-42-03-860-007

(5) At the overhead panel, P5, set the switch for the taxi lights to the on mode.

NOTE: To prevent decreased lamp life, do not operate the light when it is not necessary.

#### SUBTASK 33-42-03-820-001

- (6) Do these steps to adjust each light beam:
  - (a) Remove the lockwire [22] and loosen the adjustment screws [21].
  - (b) Adjust the taxi light until the light beam is on the marker.
  - (c) Tighten the adjustment screws [21] and install the lockwire, G01505.

### SUBTASK 33-42-03-860-008

(7) Set the switch to the off mode.

ARO ALL



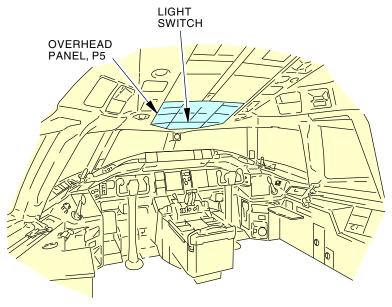
SUBTASK 33-42-03-940-002

(8) Remove the markers.

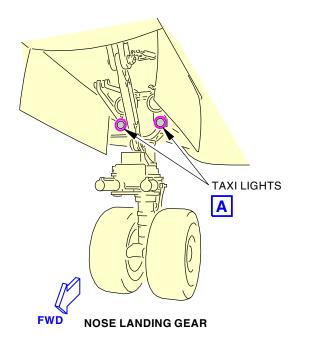
----- END OF TASK -----

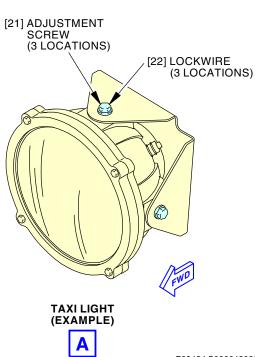
ARO ALL





**FLIGHT COMPARTMENT** 



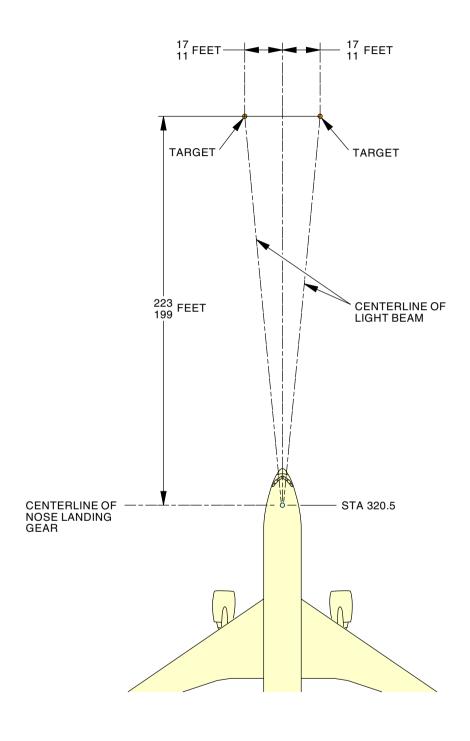


F69434 S0006420223\_V2

Taxi Light - Light Beam Adjustment Figure 203/33-42-03-990-802 (Sheet 1 of 2)

ARO ALL
D633W101-ARO





C18676 S0006420224\_V2

Taxi Light - Light Beam Adjustment Figure 203/33-42-03-990-802 (Sheet 2 of 2)



33-42-03

Page 212 Sep 05/2016



### TASK 33-42-03-960-802

### 6. Taxi Light - Transformer Replacement

(Figure 204)

### A. References

	Referenc	e	Title
	24-22-00-	-860-805	Supply Electrical Power (P/B 201)
	32-00-30-	-480-801	Landing Gear Downlock Pins Installation (P/B 201)
	WDM 33-	42-12	Wiring Diagram Manual
B.	Location	Zones	
	Zone	Area	
	711	Nose Landing Gea	ar

### C. Procedure

SUBTASK 33-42-03-860-009



MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Make sure the downlock pins are installed on the nose and main landing gear (TASK 32-00-30-480-801).

### SUBTASK 33-42-03-860-010

(2) Open these applicable circuit breakers and install safety tags:

(WDM 33-42-12)

### Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	25	C33479	L TAXI LT
D	24	C33478	R TAXI LT

### SUBTASK 33-42-03-960-002

- (3) Do these steps to replace the transformer:
  - (a) Open the service and APU shutdown panel, P40.
  - (b) Disconnect the electrical wires [42] from the P40 panel.
  - (c) Remove the screws [43] and washers [44].
  - (d) Replace the transformer [41].
  - (e) Install the screws [43] and washers [44].
  - (f) Connect the electrical wires [42] to the P40 panel.
  - (g) Close the P40 panel.

### SUBTASK 33-42-03-860-011

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805



### SUBTASK 33-42-03-860-012

(5) Remove the safety tags and close these applicable circuit breakers:

# Left Power Management Panel, P110

zort i orior managomont i anor, i i i				
Row	<u>Col</u>	<u>Number</u>	<u>Name</u>	
С	25	C33479	L TAXI LT	
D	24	C33478	R TAXI LT	

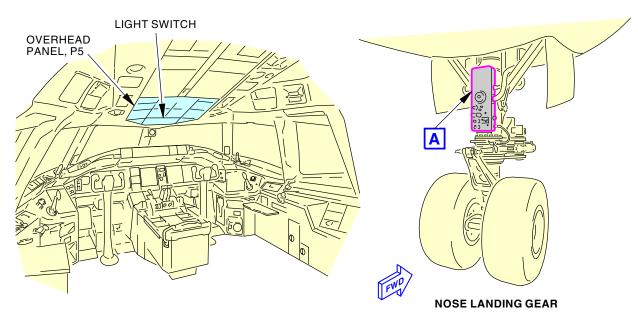
# SUBTASK 33-42-03-710-002

- (6) Do a test of the new transformer.
  - (a) At the overhead panel, P5, set the switch for the taxi lights to the on mode.
    - 1) Make sure the light connected to the transformer comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

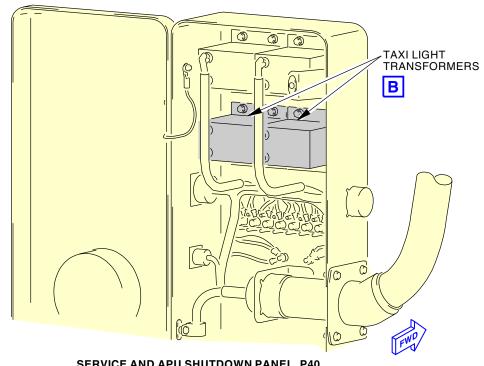


ARO ALL





### **FLIGHT COMPARTMENT**



SERVICE AND APU SHUTDOWN PANEL, P40



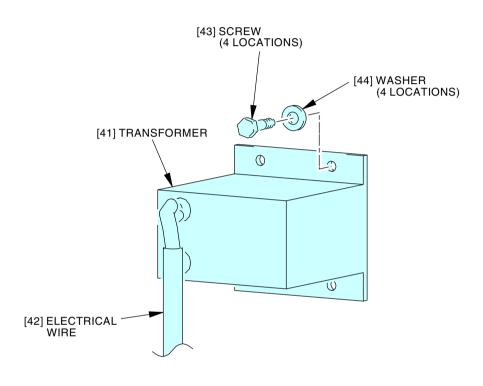
F69440 S0006420226\_V2

Taxi Light - Transformer Replacement Figure 204/33-42-03-990-803 (Sheet 1 of 2)

ARO ALL l D633W101-ARO 33-42-03

Page 215 Sep 05/2016





TAXI LIGHT TRANSFORMER (EXAMPLE)



C92223 S0006420227\_V2

Taxi Light - Transformer Replacement Figure 204/33-42-03-990-803 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-42-03

Page 216 Sep 05/2016



### TASK 33-42-03-960-803

# 7. Taxi Light - Light Assembly Removal/Installation

(Figure 205)

### A. References

Reference	Title
32-00-30-480-801	Landing Gear Downlock Pins Installation (P/B 201)
WDM 33-42-12	Wiring Diagram Manual

### B. Consumable Materials

Reference	Description	Specification
G01505	Lockwire - Safety And Lock	NASM20995

### C. Location Zones

Zone	Area
711	Nose Landing Gear

### D. Procedure

SUBTASK 33-42-03-860-013



MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Make sure the downlock pins are installed on the nose and main landing gear (TASK 32-00-30-480-801).

### SUBTASK 33-42-03-860-014

(2) Open these applicable circuit breakers and install safety tags:

(WDM 33-42-12)

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	25	C33479	L TAXI LT
D	24	C33478	R TAXI LT

#### SUBTASK 33-42-03-020-001

- (3) Do these steps to remove the light assembly:
  - (a) Remove the lockwire [52].
  - (b) Remove the adjustment screw [53] and washer [51].
  - (c) Disconnect the electrical cable [54] from at the taxi light frame.
  - (d) Remove the light assembly [55].

NOTE: If the lamp operates, it can be installed in the new light assembly.

### SUBTASK 33-42-03-020-002

- (4) Do these steps to install the new light assembly:
  - (a) Make sure a lamp and new gaskets are installed in the new light assembly [55] (TASK 33-42-03-960-801).

NOTE: The filament in the lamp should be horizontal to the ground.

(b) Remove and discard the seal, washer, and nut from end of the electrical cable [54].

ARO ALL



- (c) Connect theelectrical cable [54] to the receptacle on the taxi light frame.
- (d) Put the light assembly [55] in its position.
- (e) Install the washer [51].
- (f) Install the adjustment screw [53] loosely.

#### SUBTASK 33-42-03-860-015

(5) Remove the safety tags and close these applicable circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	25	C33479	L TAXI LT
D	24	C33478	R TAXI LT

#### SUBTASK 33-42-03-860-016

(6) Do this task: Taxi Light - Light Beam Adjustment, TASK 33-42-03-820-801.

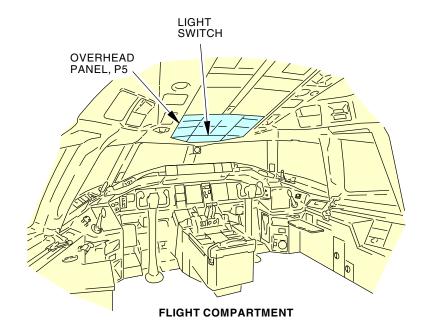
NOTE: When you do the reference procedure, you install the lockwire, G01505 (MS20995NC32) [52], tighten the adjustment screw [53], and operate the taxi lights. Additional testing is not required.

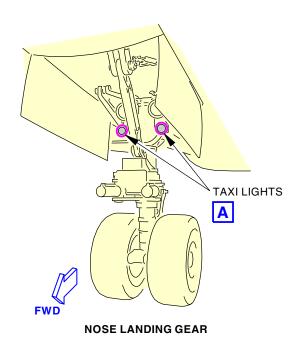


33-42-03

· EFFECTIVITY ·







L45605 S0006420229\_V2

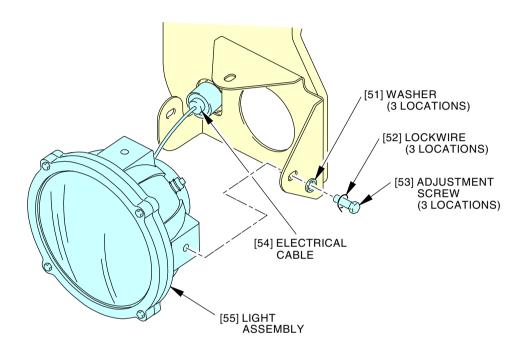
Taxi Light - Light Assembly Installation Figure 205/33-42-03-990-804 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-42-03

Page 219 Sep 05/2016





TAXI LIGHT (EXAMPLE)



L45997 S0006420230\_V2

Taxi Light - Light Assembly Installation Figure 205/33-42-03-990-804 (Sheet 2 of 2)

ARO ALL

33-42-03

Page 220 Sep 05/2016



# **RUNWAY TURNOFF LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has these tasks:
  - (1) Runway Turnoff Light Deactivation
  - (2) Runway Turnoff Light Activation
  - (3) Runway Turnoff Light Lamp Replacement
  - (4) Runway Turnoff Light Beam Adjustment
  - (5) Runway Turnoff Light Transformer Replacement

### TASK 33-42-04-040-801

# 2. Runway Turnoff Lights - Deactivation

(Figure 201)

### A. General

(1) This task removes electrical power from the Runway Turnoff Lights.

# B. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

### C. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
511	Leading Edge to Front Spar - Inboard of Nacelle Strut - Left Wing
611	Leading Edge to Front Spar - Inboard of Nacelle Strut - Right Wing

# D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

### E. Procedure

SUBTASK 33-42-04-860-017

- (1) At the overhead panel, P5, do the following steps:
  - (a) Set the L and R switches for the RUNWAY TURNOFF lights to the OFF position.
  - (b) Install DO NOT OPERATE tag, STD-858, on the L and R switches for the RUNWAY TURNOFF lights.

#### SUBTASK 33-42-04-010-004

(2) Open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

ARO ALL



#### SUBTASK 33-42-04-860-013



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(3) Open these circuit breakers and install safety tags:

### Left Power Management Panel, P110

Row	Col	<u>Number</u>	<u>Name</u>
Ε	25	C33477	L RWY TRN LT
Ν	20	C33633	L RWY TRN LT CTRL

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	5	C33476	R RWY TRN LT
M	9	C33632	R RWY TRN LT CTRL

# F. Runway Turnoff Lights - Tryout

NOTE: This tryout is to make sure that the Runway Turnoff Lights are in a zero energy state.

#### SUBTASK 33-42-04-860-018

- (1) At the overhead panel, P5, do the following steps:
  - (a) Make sure the L and R switches for the RUNWAY TURNOFF lights are in the OFF position.
  - (b) Make sure the DO NOT OPERATE tag, STD-858, is attached to the switches.

### SUBTASK 33-42-04-860-014

(2) Make sure that these circuit breakers are open and have safety tags:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	25	C33477	L RWY TRN LT
N	20	C33633	L RWY TRN LT CTRL

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	5	C33476	R RWY TRN LT
M	9	C33632	R RWY TRN LT CTRL

#### SUBTASK 33-42-04-700-001

- (3) At the overhead panel, P5, do the following steps:
  - (a) Set the L and R switches for the RUNWAY TURNOFF lights to the ON position.
    - 1) Make sure none of the lights come on.
    - 2) Return the L and R switches to the OFF position.

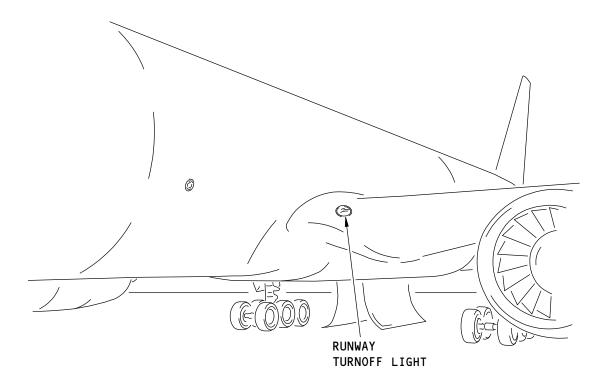
	OF TA	43N	

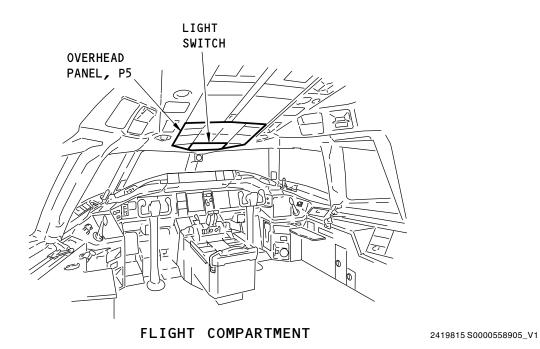
33-42-04

Page 202 /101-ARO Jan 05/2018

· EFFECTIVITY -







....

Runway Turnoff Lights Figure 201/33-42-04-990-804

ARO ALL
D633W101-ARO

33-42-04

Page 203 Jan 05/2016



#### TASK 33-42-04-440-801

# 3. Runway Turnoff Lights - Activation

(Figure 201)

#### A. General

(1) This task adds electrical power to the Runway Turnoff Lights.

### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

# C. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

## D. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
511	Leading Edge to Front Spar - Inboard of Nacelle Strut - Left Wing
611	Leading Edge to Front Spar - Inboard of Nacelle Strut - Right Wing

## E. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

## F. Procedure

# SUBTASK 33-42-04-860-016

- (1) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

## SUBTASK 33-42-04-860-019

- (2) At the overhead panel, P5, do the following steps:
  - (a) Set the L and R switches for the RUNWAY TURNOFF lights to the OFF position.
  - (b) Remove DO NOT OPERATE tag, STD-858, from the L and R switches for the RUNWAY TURNOFF lights.

SUBTASK 33-42-04-860-015



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(3) Remove the safety tags and close these circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	25	C33477	L RWY TRN LT
N	20	C33633	I DW/ TDM IT CTDI

ARO ALL

33-42-04

Page 204 Jan 05/2018



# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	5	C33476	R RWY TRN LT
M	9	C33632	R RWY TRN LT CTRL

#### SUBTASK 33-42-04-700-002

- (4) At the overhead panel, P5, do the following steps:
  - (a) Set the L and R switches for the RUNWAY TURNOFF lights to the ON position.

— END OF TASK —

- 1) Make sure the lights come on.
- 2) Return the L and R switches to the OFF position.

#### SUBTASK 33-42-04-410-004

(5) Close this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

## TASK 33-42-04-960-801

# 4. Runway Turnoff Light - Lamp Replacement

(Figure 202)

# A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
27-81-00-040-801	Leading Edge Slat - Deactivation (P/B 201)
27-81-00-440-801	Leading Edge Slat Reactivation (P/B 201)
WDM 33-42-13	Wiring Diagram Manual

# B. Consumable Materials

Reference	Description	Specification
A00900	Sealant - Silicone, RTV - Dow Corning 93-006-1RF (Formerly 93-006-1. Use until	
	Stock depleted)	
C00047	Adhesive - Silicone RTV, 1 Part, Sealant Primer	MIL-A-46106
G00771	Agent - Parting, Peelable, AZ 634-2 (0A3C8 - Aztec Chemical, Inc., El Monte, CA)	BAC5000, PSD 6-187
G01659	Swab - Cotton Or Rayon, (Disposable)	

# C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
4	Frame	33-42-04-05-055	ARO ALL
8	Lamp	33-42-04-05-070	ARO ALL
9	Retainer assembly	33-42-04-05-040	ARO ALL

## D. Location Zones

Zone	Area
511	Leading Edge to Front Spar - Inboard of Nacelle Strut - Left Wing
611	Leading Edge to Front Spar - Inboard of Nacelle Strut - Right Wing

ARO ALL

33-42-04

Page 205 Jan 05/2018



#### E. Procedure

SUBTASK 33-42-04-860-001



DO THE DEACTIVATION PROCEDURE FOR THE LEADING EDGE SLATS. THE SLATS RETRACT QUICKLY. THIS CAN CAUSE INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT.

(1) Do this task: Leading Edge Slat - Deactivation, TASK 27-81-00-040-801.

#### SUBTASK 33-42-04-860-002

(2) Open these applicable circuit breakers and install safety tags:

(WDM 33-42-13)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	25	C33477	L RWY TRN LT

# Right Power Management Panel, P210

Row	Col	•	<u>Name</u>
С	5	C33476	R RWY TRN LT

#### SUBTASK 33-42-04-010-001

- (3) Remove the lens assembly [3].
  - (a) Loosen the studs [1].

NOTE: Do not disconnect the lanyard.

#### SUBTASK 33-42-04-960-001

- (4) Do these steps to replace the lamp [8]:
  - (a) Remove the screws [10] and the retainer assembly [9].

NOTE: Do not turn the adjustment screws.

- (b) Pull the lamp [8] from the housing.
  - 1) If the gasket on the frame is worn, replace the frame [4].

NOTE: The use of a new gasket is recommended every time the runway turnoff lights are replaced to decrease lamp failures.

- (c) Disconnect the electrical wires [6] from the terminals [7] behind the lamp [8].
  - Clean the unwanted sealant from the electrical wires [6], if necessary.
  - Make sure that the electrical connections and lamp terminals are clean for good electrical contact.
- (d) Connect the electrical wires [6] to the new lamp [8].
  - 1) Seal the terminals [7] with adhesive, C00047.

NOTE: It is optional to seal the electrical connection.

- (e) Put the new lamp [8] in the housing.
- (f) Install the retainer assembly [9] and the screws [10].
  - 1) If the gasket on the retainer is worn, replace the retainer assembly [9].

#### SUBTASK 33-42-04-860-003

- (5) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

ARO ALL 33-42-04



#### SUBTASK 33-42-04-860-004

(6) Remove the safety tags and close these applicable circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	25	C33477	L RWY TRN LT

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	5	C33476	R RWY TRN LT

#### SUBTASK 33-42-04-710-001

- (7) Do a test of the new lamp [8].
  - (a) At the overhead panel, P5, set the switch for the runway turnoff light to the on mode.
    - 1) Make sure the new lamp comes on.
    - 2) Do a visual check to make sure the light beam points in the correct direction (Figure 203).
      - a) If it is necessary to adjust the light beam, do this task: Runway Turnoff Light Light Beam Adjustment, TASK 33-42-04-820-801.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

#### SUBTASK 33-42-04-410-002

- (8) Do these steps to install the lens assembly [3]:
  - (a) Examine the seal.
    - If the seal along the edge of the opening on the airplane is damaged, do these steps to replace or repair it.
      - a) Remove the loose or damaged sealant from the airplane.
      - b) Apply the peelable parting agent, G00771, to the lens assembly [3].
      - c) Make a continuous seal with a thin layer of the new Dow Corning 93-006-1 RF sealant, A00900, along the edge of the opening.
        - <u>NOTE</u>: Keep the sealant out of the fastener holes.
      - d) Use a swab, G01659, to clear the fastener holes of any unwanted sealant.
  - (b) Install the lens assembly [3].

NOTE: Once the lens assembly is installed, do not fill in the gap between the lens assembly and the airplane with the sealant.

1) Install the studs [1].

#### SUBTASK 33-42-04-860-005

(9) Do this task: Leading Edge Slat Reactivation, TASK 27-81-00-440-801.

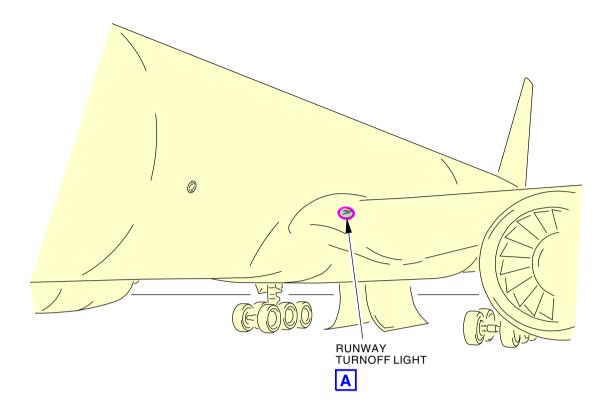
	Е	ND	OF	= T/	٩S١	<	
--	---	----	----	------	-----	---	--

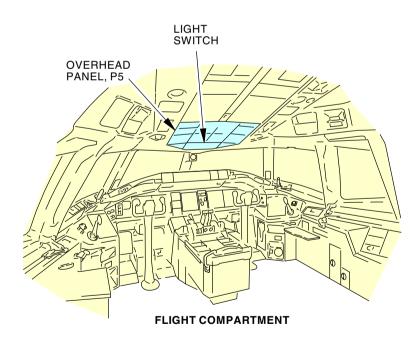
33-42-04

ARO ALL

EFFECTIVITY .







F69471 S0006420234\_V2

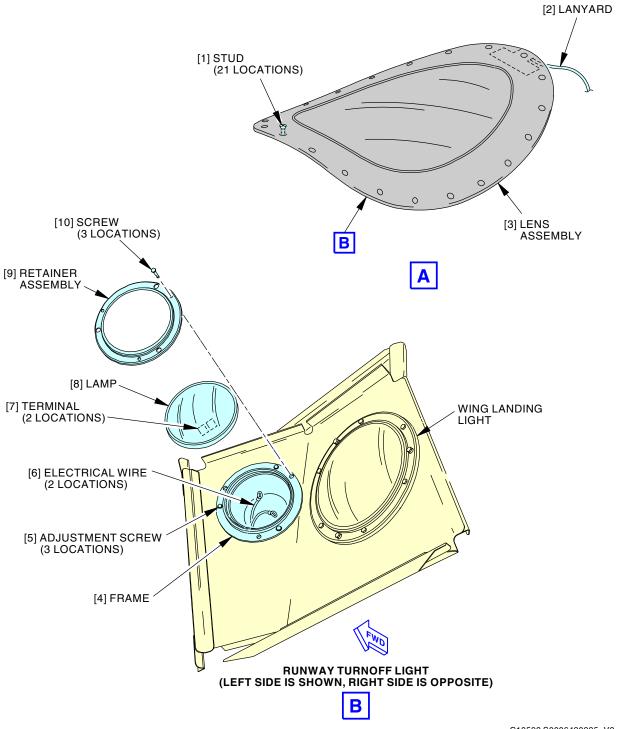
Runway Turnoff Light - Lamp Replacement Figure 202/33-42-04-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-42-04

Page 208 Sep 05/2016





C18593 S0006420235\_V2

Runway Turnoff Light - Lamp Replacement Figure 202/33-42-04-990-801 (Sheet 2 of 2)

EFFECTIVITY **ARO ALL** l D633W101-ARO 33-42-04

Page 209 Sep 05/2016



#### TASK 33-42-04-820-801

# 5. Runway Turnoff Light - Light Beam Adjustment

(Figure 203)

#### A. References

Reference	Title
08-21-00-580-801	Make the Airplane Level (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
27-81-00-040-801	Leading Edge Slat - Deactivation (P/B 201)
27-81-00-440-801	Leading Edge Slat Reactivation (P/B 201)

#### B. Consumable Materials

Reference	Description	Specification
A00900	Sealant - Silicone, RTV - Dow Corning 93-006-1RF (Formerly 93-006-1. Use until	
	Stock depleted)	
G00771	Agent - Parting, Peelable, AZ 634-2 (0A3C8 - Aztec Chemical, Inc., El Monte, CA)	BAC5000, PSD 6-187
G01659	Swab - Cotton Or Rayon, (Disposable)	

#### C. Location Zones

Zone	Area
511	Leading Edge to Front Spar - Inboard of Nacelle Strut - Left Wing
611	Leading Edge to Front Spar - Inboard of Nacelle Strut - Right Wing

#### D. Procedure

SUBTASK 33-42-04-940-003

(1) Make sure the airplane and test area are approximately level (TASK 08-21-00-580-801).

# SUBTASK 33-42-04-940-002

(2) Set a marker on the ground at the TARGET points (Figure 203).

NOTE: A marker can be any item large enough to be seen from a distance.

SUBTASK 33-42-04-860-006



DO THE DEACTIVATION PROCEDURE FOR THE LEADING EDGE SLATS. THE SLATS RETRACT QUICKLY. THIS CAN CAUSE INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT.

(3) Do this task: Leading Edge Slat - Deactivation, TASK 27-81-00-040-801.

# SUBTASK 33-42-04-860-007

- (4) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

## SUBTASK 33-42-04-010-002

- (5) Remove the lens assembly [3].
  - (a) Loosen the studs [1].

NOTE: Do not disconnect the lanyard.

#### SUBTASK 33-42-04-860-008

- (6) At the overhead panel, P5, set the switch for the runway turnoff light to the on mode.
  - (a) To prevent decreased lamp life, do not operate the light when it is not necessary.

ARO ALL 33-42-04

Page 210 Jan 05/2018



#### SUBTASK 33-42-04-820-001

- (7) Do these steps to adjust each light beam:
  - (a) Remove the lockwire [21].
  - (b) Turn the adjustment screws [5] on the retainer until the light beam is on the target.

NOTE: Each adjustment screw must be installed tightly against the frame. Do not tighten the screws so much that you cause the frame to bend.

- (c) Install the lockwire [21] (MS20995NC32).
- (d) Set the switch to the off mode.

#### SUBTASK 33-42-04-410-003

- (8) Do these steps to install the lens assembly [3]:
  - (a) Examine the seal.
    - 1) If the seal along the edge of the opening on the airplane is damaged, do these steps to replace or repair it.
      - a) Remove the loose or damaged sealant from the opening on the airplane.
      - b) Apply the peelable parting agent, G00771, to the lens assembly [3].
      - c) Make a continuous seal with a thin layer of the new Dow Corning 93-006-1 RF sealant, A00900, along the edge of the opening.

<u>NOTE</u>: Keep the sealant out of the fastener holes.

- d) Use a swab, G01659, to clear the fastener holes of any unwanted sealant.
- (b) Install the lens assembly [3].

NOTE: Once the lens assembly is installed, do not fill in the gap between the lens assembly and the airplane with the sealant.

1) Install the studs [1].

# SUBTASK 33-42-04-860-009

(9) Do this task: Leading Edge Slat Reactivation, TASK 27-81-00-440-801.

#### SUBTASK 33-42-04-940-001

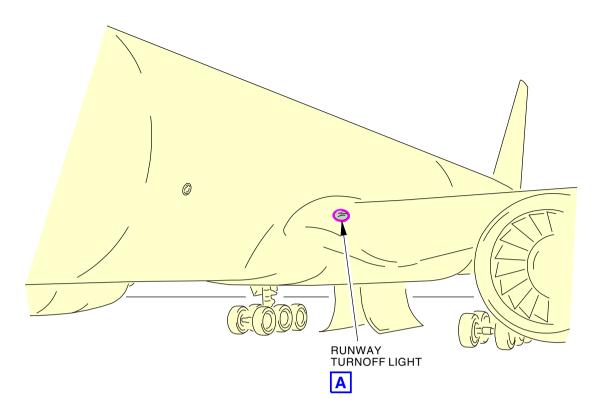
(10) Remove the markers.

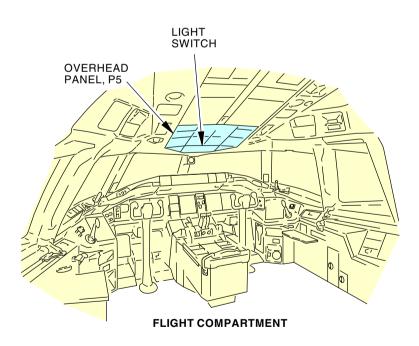
	OF T	A C IZ	

33-42-04

**EFFECTIVITY** 







F69528 S0006420237\_V2

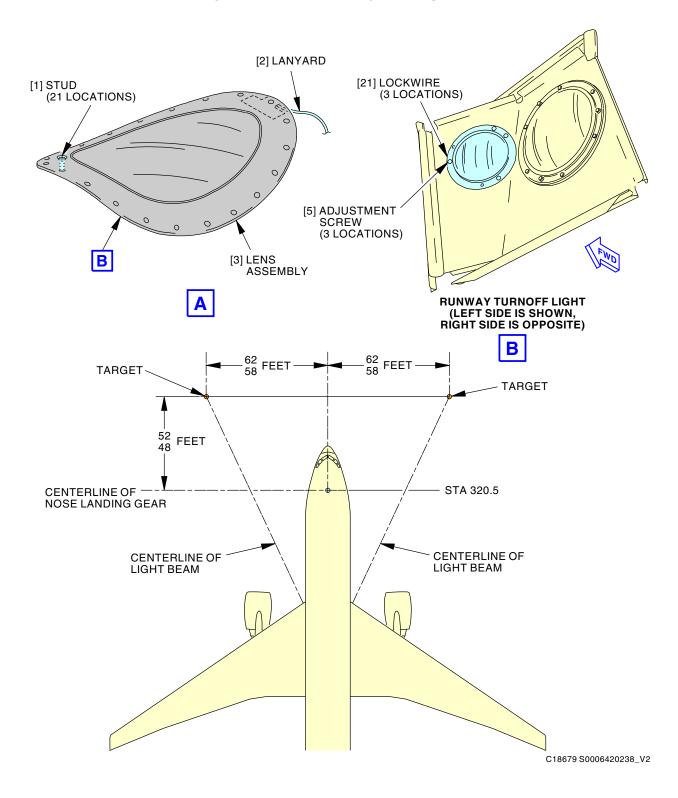
Runway Turnoff Light - Light Beam Adjustment Figure 203/33-42-04-990-802 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-42-04

Page 212 Sep 05/2016





Runway Turnoff Light - Light Beam Adjustment Figure 203/33-42-04-990-802 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

Page 213

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



#### TASK 33-42-04-960-802

# 6. Runway Turnoff Light - Transformer Replacement

(Figure 204)

# A. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
25-52-06-000-801	Sidewall Liner Removal (P/B 401)	
25-52-06-400-801	Sidewall Liner Installation (P/B 401)	
WDM 33-42-13	Wiring Diagram Manual	

## B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
41	Runway turnoff light transformer	33-42-12-02-010	ARO ALL
		33-42-12-02-110	ARO ALI

#### C. Location Zones

Zone	Area
121	Forward Cargo Compartment, Left
122	Forward Cargo Compartment, Right

## D. Procedure

#### SUBTASK 33-42-04-860-010

(1) Open these applicable circuit breakers and install safety tags:

(WDM 33-42-13)

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	25	C33477	L RWY TRN LT

# Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	5	C33476	R RWY TRN LT

#### SUBTASK 33-42-04-010-003

(2) To remove the adjacent sidewall liner, do this task: Sidewall Liner Removal, TASK 25-52-06-000-801.

#### SUBTASK 33-42-04-960-002

- (3) Do these steps to replace the transformer.
  - (a) Disconnect the electrical connector [44] from the runway turnoff light transformer [41].
  - (b) Remove the screws [43] and washers [42].
  - (c) Replace the runway turnoff light transformer [41].
  - (d) Install the screws [43] and washers [42].
  - (e) Connect the electrical connector [44] to the new runway turnoff light transformer [41].

### SUBTASK 33-42-04-860-011

- (4) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

ARO ALL



#### SUBTASK 33-42-04-860-012

(5) Remove the safety tags and close these applicable circuit breakers:

(WDM 33-42-13)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	25	C33477	L RWY TRN LT

# Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
С	5	C33476	R RWY TRN LT

#### SUBTASK 33-42-04-710-002

- (6) Do a test of the new transformer.
  - (a) At the overhead panel, P5, set the switch for the runway turnoff light to the on mode.
    - 1) Make sure the light connected to the transformer comes on.
  - (b) Set the switch to the off mode.

#### SUBTASK 33-42-04-410-001

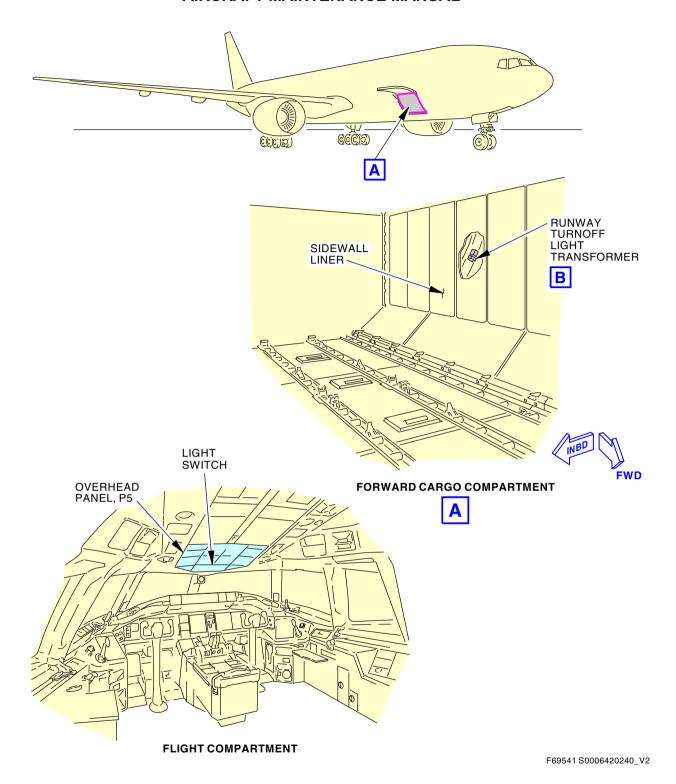
(7) To install the adjacent sidewall liner, do this task: Sidewall Liner Installation, TASK 25-52-06-400-801.

----- END OF TASK -----

33-42-04

EFFECTIVITY -





Runway Turnoff Light - Transformer Replacement Figure 204/33-42-04-990-803 (Sheet 1 of 2)

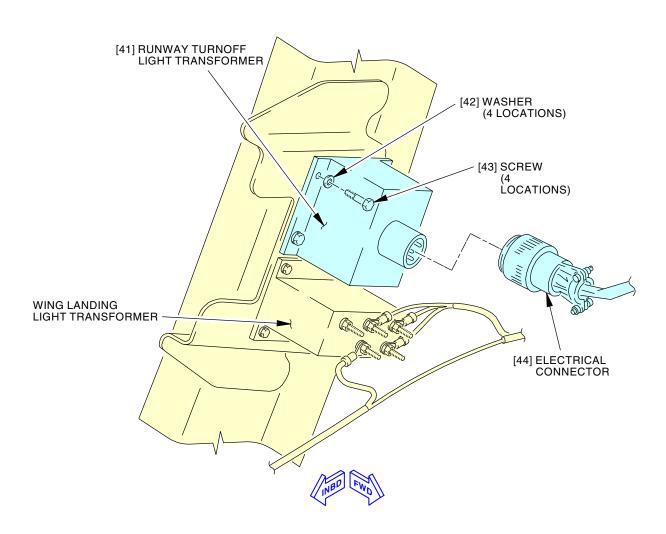
ARO ALL

D633W101-ARO

33-42-04

Page 216 Sep 05/2016





RUNWAY TURNOFF LIGHT TRANSFORMER (STA 951, LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE)



C18599 S0006420241\_V2

Runway Turnoff Light - Transformer Replacement Figure 204/33-42-04-990-803 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-42-04

Page 217 Sep 05/2016



## WING LANDING AND RUNWAY TURNOFF LIGHT LENS - MAINTENANCE PRACTICES

## 1. General

- A. This procedure has one task:
  - (1) Wing Landing and Runway Turnoff Light Lens Temporary Repair
- B. Use this procedure to make a temporary cover for the wing landing and runway turnoff lights when the lens assembly is broken and no spare is available.

# TASK 33-42-05-350-801

2. Wing Landing and Runway Turnoff Light Lens - Temporary Repair

(Figure 201)

## A. References

Reference	Title
27-81-00-040-801	Leading Edge Slat - Deactivation (P/B 201)
27-81-00-440-801	Leading Edge Slat Reactivation (P/B 201)
WDM 33-42-11	Wiring Diagram Manual
WDM 33-42-13	Wiring Diagram Manual

## B. Consumable Materials

Reference	Description	Specification
G00111	Sheet - Mylar	
G00270	Tape - Scotch Flatback Masking 250	ASTM D6123 (Supersedes A-A-883)
G02042	Material - Aluminum Alloy 2024 Sheet	MS14361
G02329	Tape - Aluminum Foil, Pressure Sensitive - Vibration Damping Tape 434	

## C. Location Zones

Zone	Area
511	Leading Edge to Front Spar - Inboard of Nacelle Strut - Left Wing
611	Leading Edge to Front Spar - Inboard of Nacelle Strut - Right Wing

# D. Procedure

SUBTASK 33-42-05-860-001



DO THE DEACTIVATION PROCEDURE FOR THE LEADING EDGE SLATS. THE SLATS RETRACT QUICKLY. THIS CAN CAUSE INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT.

(1) Do this task: Leading Edge Slat - Deactivation, TASK 27-81-00-040-801.

#### SUBTASK 33-42-05-860-002

(2) Open these applicable circuit breakers and install safety tags for each lamp behind the broken lens assembly:

(WDM 33-42-11), (WDM 33-42-13)

# **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
J	10	C33519	WG LDG LTS HEATING

ARO ALL



# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	15	C33473	L WG LDG LT
Ε	25	C33477	L RWY TRN LT

# Right Power Management Panel, P210

Row	<u>Col</u>	Number	<u>Name</u>
С	5	C33476	R RWY TRN LT
С	9	C33474	R WG LDG LT

#### SUBTASK 33-42-05-020-001

- (3) Do these steps to remove the broken lens assembly [3]:
  - (a) Loosen the studs [1].
  - (b) Disconnect the lanyard [2].

#### SUBTASK 33-42-05-020-002

- (4) With the broken lens assembly off the airplane, disassemble the studs [1] and rings [4] from the lens assembly [3].
  - (a) Keep the studs [1] for use during the installation of the temporary cover [5].

#### SUBTASK 33-42-05-350-001

- (5) Do these steps to make a temporary cover [5]:
  - (a) Make a four-piece Mylar template.
    - 1) Cut the mylar sheet, G00111, into four strips.
      - 2) Make each Mylar strip align with the contour of the broken lens assembly then attach them with masking Scotch Flatback Masking Tape 250, G00270.
        - NOTE: The boundaries between adjacent Mylar strips align on the flange, midway between the fastener holes and perpendicular to the rim.
      - 3) Cut the Mylar strips the same as the rim around the lens assembly [3].
      - 4) Carefully make a mark for each fastener hole.
      - 5) Remove the Mylar strips from the lens assembly [3].
  - b) Make the four-piece temporary cover [5] the same as the Mylar template.
    - 1) Make the temporary cover [5] from aluminum sheet material, G02042, with the thickness from 0.063 in. (1.6 mm) to 0.125 in. (3.2 mm).
    - Drill .0268-0.280 diameter holes and countersink to 0.399-0.404 diameter x 100 degree head.
    - 3) If the thickness of the aluminum material is less than 0.090 in. (2.3 mm), make a shim out of similar material in the shape of the rim.

#### SUBTASK 33-42-05-420-001

- (6) Do these steps to install the temporary cover [5]:
  - (a) Make each aluminum strip align with the contour of the broken lens assembly [3].
  - (b) Attach the shim (if one is necessary) and each aluminum strip with the studs [1]. NOTE: Do not use the rings [4].
    - 1) Bring the aluminum strips up to contour, 0.126 ±0.040 in. (3.200 ±1.016 mm).



(c) Cover all gaps with speed Vibration Damping Tape 434 tape, G02329.

NOTE: The gaps between the aluminum strips should be  $0.10 \pm 0.10$  in.  $(2.54 \pm 2.54 \text{ mm})$  inches wide. The gaps between the aluminum strips and the opening should be  $0.060 \pm 0.060$  in.  $(1.52 \pm 1.53 \text{ mm})$  inches wide.

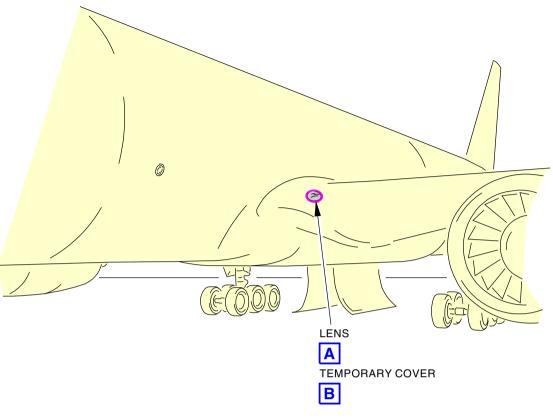
SUBTASK 33-42-05-860-003

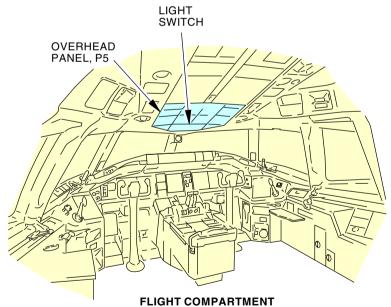
(7)	Do this task: Leading Edge Slat Reactivation	, TASK 27-81-00-440-801.
-----	--	--------------------------

------ END OF TASK ------

ARO ALL







G12551 S0006420245\_V2

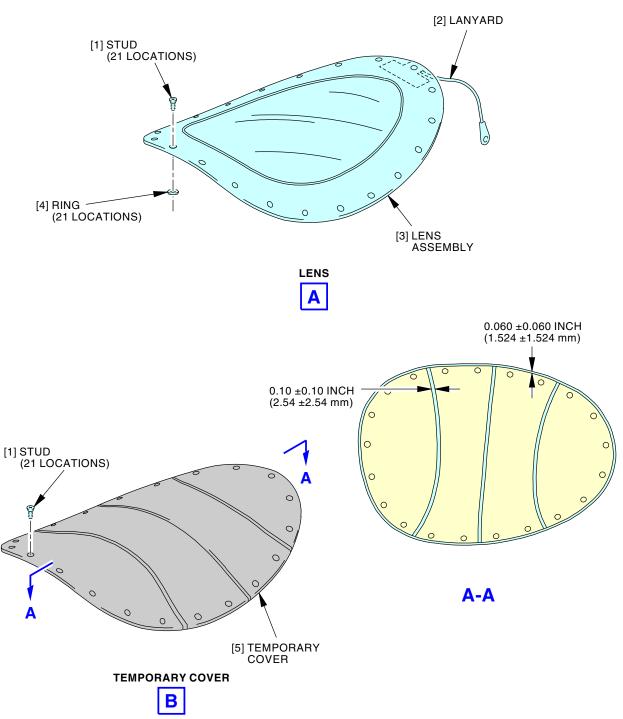
Wing Landing and Runway Turnoff Light Lens - Temporary Repair Figure 201/33-42-05-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-42-05

Page 204 Sep 05/2016





G12554 S0006420246\_V4

Wing Landing and Runway Turnoff Light Lens - Temporary Repair Figure 201/33-42-05-990-801 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

Page 205

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



# **POSITION (NAVIGATION) LIGHTS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has these tasks:
  - (1) Wing position (navigation) lights Deactivation
  - (2) Wing position (navigation) lights Activation
  - (3) Wing position (navigation) lights lens Replacement

#### TASK 33-43-00-040-801

# 2. Wing Position (Navigation) Lights - Deactivation

# A. General

(1) This task removes electrical power from the wing position (navigation) lights.

# B. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

## C. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

## D. Access Panels

Number	Name/Location	
117AL	Main Equipment Center Access Door	

## E. Procedure

SUBTASK 33-43-00-010-001

(1) Open this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 33-43-00-860-009



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Open these circuit breakers and install safety tags:

**Ground Service/Handling Power Panel, P320** 

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	1	C33020	TAIL L

ARO ALL



# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	18	C33481	L POS LT
Ν	19	C33635	L POS LT CTRL

# Right Power Management Panel, P210

Row	Col	<u>Number</u>	<u>Name</u>
Ε	13	C33480	R POS LT
M	10	C33634	R POS LT CTRL

# F. Wing Position (Navigation) Lights - Tryout

NOTE: This tryout is to make sure that the wing position (navigation) lights are in a zero energy state.

#### SUBTASK 33-43-00-700-002

- (1) Do a test of the wing position (navigation) lights:
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the ON mode.
    - 1) Make sure that the forward and rear position lights on the left and right wing tips do not come on.
      - NOTE: Each light contains two lamps.
    - 2) Make sure that the position lights on the tailcone do not come on.
      - NOTE: The light contains two lamps.
  - (b) Set the switch to the OFF mode.
  - (c) Install a DO NOT OPERATE tag, STD-858 on the position (navigation) light switch.



#### TASK 33-43-00-440-801

# 3. Wing Position (Navigation) Lights - Activation

# A. General

(1) This task adds electrical power to the wing position (navigation) lights.

# B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	

# C. Tools/Equipment

Reference	Description
STD-858	Tag - DO NOT OPERATE

# D. Location Zones

Zone	Area
117	Main Equipment Center, Left
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
545	Raked Wing Tip, Left

ARO ALL



# (Continued)

Zone	Area
645	Raked Wing Tip, Right

## E. Access Panels

A00033 I u	
Number	Name/Location
117AL	Main Equipment Center Access Door

#### F. Procedure

SUBTASK 33-43-00-860-006

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-43-00-860-007



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Remove the safety tags and close these circuit breakers:

# Ground Service/Handling Power Panel, P320

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	1	C33020	TAIL L

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	18	C33481	L POS LT
Ν	19	C33635	L POS LT CTRL

# **Right Power Management Panel, P210**

Row	<u>Col</u>	Number	Name
Ε	13	C33480	R POS LT
M	10	C33634	R POS LT CTRL

## SUBTASK 33-43-00-410-001

(3) Close this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### SUBTASK 33-43-00-700-001

- (4) Do a Test of the wing position (navigation) lights:
  - (a) Remove the DO NOT OPERATE tag, STD-858 from the position (navigation) light switch.
  - (b) Set the switch for the position (navigation) lights to the ON mode.
    - 1) Make sure the forward and rear position lights on left and right wing tips come on.

NOTE: Each light contains two lamps.

2) Make sure the position light on the tailcone comes on.

NOTE: The light contains two lamps.

(c) Set the switch to the OFF mode.

33-43-00

Page 203 Sep 05/2017



1) Make sure all position lights go off.

		<b>END</b>	OF	<b>TASK</b>	
--	--	------------	----	-------------	--

#### TASK 33-43-00-960-801

4. Wing Position (Navigation) Lights - Lens Replacement

(Figure 201)

#### A. General

(1) Use this procedure to replace the damaged navigation lens.

#### B. References

Reference	Title
33-43-01-960-803	Forward Position Light - Assembly Replacement (P/B 201)
33-43-02-960-802	Rear Position Light - Light Assembly Replacement (P/B 201)
51-31-01-160-801	Prepare For Sealing (P/B 201)

## C. Consumable Materials

Reference	Description	Specification
A00933	Sealant - Silicone Rubber - RTV 159	
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5 Class A
G50004	Tape - Vacuum Bag Sealant, SM 5126 Tacky Tape	
G50228	Tape - 3M 436 Vibration Damping Tape (Formerly 3M Y436)	

## D. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

#### E. Procedure

SUBTASK 33-43-00-010-002

(1) If it is necessary to get access to the aft of the lens, remove the position (navigation) light assembly (TASK 33-43-01-960-803 or TASK 33-43-02-960-802).

SUBTASK 33-43-00-000-001



KEEP THE AREA FREE OF CONTAMINATION. IF THE ADHESIVE SEALANT BECOMES LOOSE, IT CAN CAUSE DAMAGE TO THE AIRPLANE.

(2) Remove sealant around the periphery of housing and the navigation lens (TASK 51-31-01-160-801).

SUBTASK 33-43-00-900-001

(3) Remove the discard the damaged lens from housing.

SUBTASK 33-43-00-100-003

(4) Remove the used adhesive sealant from housing and edges of the lens opening (TASK 51-31-01-160-801).

SUBTASK 33-43-00-400-001

(5) Put the new lens with rubber bands to keep the lens in position.

ARO ALL

33-43-00

Page 204 Sep 05/2017



- (a) Use 0.005 in. (0.127 mm) to 0.02 in. (0.51 mm) thick Teflon shims to make sure that the lens does not touch the housing.
- (b) Attach the lens with masking tape.

#### SUBTASK 33-43-00-200-002

- (6) Do a check for a mismatch of the navigation lens to the surface of housing:
  - (a) Make sure the lens is flush to  $\pm 0.025$  inch ( $\pm 0.64$  mm) at top and bottom of the wing tip, and other areas are no more than 0.03 in. (0.76 mm).
    - 1) If it is necessary, use thicker or thinner shims.

#### SUBTASK 33-43-00-914-001



DO NOT GET PRIMER AND SEALANT IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM PRIMER AND SEALANT. PUT ON GOGGLES, AND GLOVES WHEN YOU USE PRIMER AND SEALANT. KEEP PRIMER AND SEALANT AWAY FROM SPARKS, FLAME, AND HEAT. PRIMER AND SEALANT IS POISONOUS AND FLAMMABLE, AND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(7) Apply RTV 159 sealant, A00933, into the space between the lens and the housing. NOTE: Use an injection or potting gun to apply adhesive sealant.

#### SUBTASK 33-43-00-100-004

(8) Use a clean cotton wiper, G00034, to remove unwanted adhesive sealant from the outer surface of the lens and housing.

#### SUBTASK 33-43-00-210-001

(9) Let the first application dry for a minimum of 24 hours.

NOTE: Addition cure time is required when below room temperature and 50 percent relative humidity.

#### SUBTASK 33-43-00-100-005

(10) Use a clean cotton wiper, G00034, to remove unwanted adhesive sealant from the inner periphery of the lens.

# SUBTASK 33-43-00-000-002

(11) Remove the shims, rubber bands and tape.

## SUBTASK 33-43-00-390-008



DO NOT GET PRIMER AND SEALANT IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM PRIMER AND SEALANT. PUT ON GOGGLES, AND GLOVES WHEN YOU USE PRIMER AND SEALANT. KEEP PRIMER AND SEALANT AWAY FROM SPARKS, FLAME, AND HEAT. PRIMER AND SEALANT IS POISONOUS AND FLAMMABLE, AND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

- (12) Apply a thin layer of sealant RTV 159 sealant, A00933, to fill the gap between the outer periphery of lens and housing.
  - (a) Let the adhesive sealant dry for a minimum of 24 hours.

NOTE: Additional cure time is required when below room temperature and 50 percent relative humidity.

ARO ALL



#### SUBTASK 33-43-00-100-008

(13) Use a clean cotton wiper, G00034, to remove unwanted sealant from the outer surface of the lens and housing.

#### SUBTASK 33-43-00-400-003

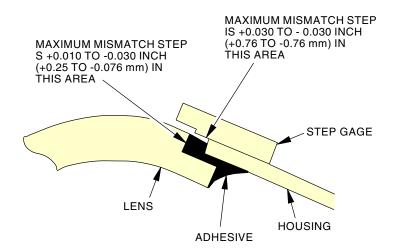
- (14) Do these steps to install the lens if 24 hours cure time is not possible:
  - NOTE: This is a temporary repair only. To install the lens correctly, RTV 159 sealant, A00933, must be used. The RTV 159 sealant, A00933, requires 24 hours to cure. You must install the lens correctly with RTV 159 sealant, A00933, as soon as possible.
  - (a) Use a clean cotton wiper, G00034, to remove unwanted adhesive sealant from the outer surface of the lens and housing.
  - (b) Apply SM 5126 tacky tape, G50004, into the space between the lens and the housing.
    - 1) Remove the shims, rubber bands, and tape.
  - (c) Use a clean cotton wiper, G00034, to remove unwanted sealant from the outer surface of the lens and housing.
  - (d) Secure the lens in place with 1 layer of 3M 436 Tape, G50228, to ensure that the 3M 436 Tape, G50228, goes from the upper surface of the lens to the lower surface of the lens with no tape seams along the leading edge of the lens.
  - (e) Apply 2 layers of 3M 436 Tape, G50228, over new lens on the inside.
  - (f) Apply 1 more layer of 3M 436 Tape, G50228, on the outside of lens.
    - NOTE: The lamp assembly must stay disconnected if the lens is not installed with RTV 159 sealant, A00933.

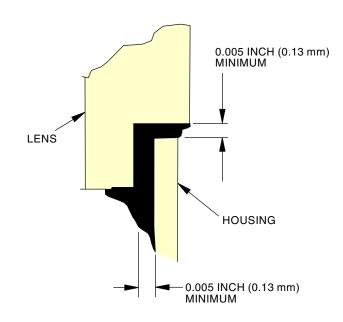
#### SUBTASK 33-43-00-410-002

(15) If the position (navigation) light assembly was removed to replace the lens, install the position (navigation) light assembly (TASK 33-43-01-960-803 or TASK 33-43-02-960-802).

——— END OF TASK ———







1953234 S0000372784\_V2

# Wing Position (Navigation) Lights - Lens Replacement Figure 201/33-43-00-990-801

EFFECTIVITY . **ARO ALL** l D633W101-ARO 33-43-00

Page 207 Sep 05/2016



# POSITION (NAVIGATION) LIGHTS - ADJUSTMENT/TEST

# 1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure contains:
  - (1) Position Lights Operational Test
  - (2) Position Lights Operational Test During Towing Operations

#### TASK 33-43-00-710-801

# 2. Position Lights - Operational Test

## A. General

(1) This test makes sure the position lights operate.

Flight Compartment, Right

(2) The position lights are also referred to as the navigation lights.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-43-11	Wiring Diagram Manual
WDM 33-43-12	Wiring Diagram Manual
Location Zones	
Zone Area	

# 212 **D. Procedure**

C.

#### SUBTASK 33-43-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-43-00-710-001

- Do a test to make sure the position lights operate (WDM 33-43-11) (WDM 33-43-12).
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the on mode.
    - 1) Make sure the forward and rear position lights on the left wing tip come on.

NOTE: Each light contains two lamps.

2) Make sure the forward and rear position lights on the right wing tip come on.

NOTE: Each light contains two lamps.

3) Make sure the position light on the tailcone comes on.

NOTE: The light contains two lamps.

- (b) Set the switch to the off mode.
  - 1) Make sure all position lights go off.

——— END OF TASK ———
---------------------

EFFECTIVITY 33-43-00



#### TASK 33-43-00-710-802

# 3. Position Lights - Operational Test During Towing Operations

#### A. General

(1) This test makes sure the position lights operate during towing operations.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
24-22-00-860-806	Remove Electrical Power (P/B 201)
SSM 33-43-11	System Schematics Manual
WDM 33-43-11	Wiring Diagram Manual
WDM 33-43-12	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
212	Flight Compartment, Right

#### D. Procedure

#### SUBTASK 33-43-00-860-002

(1) Do this task: Remove Electrical Power, TASK 24-22-00-860-806.

NOTE: To operate the lights during towing operations, AC power must be removed from the airplane. The main battery will supply the electrical power that is necessary.

#### SUBTASK 33-43-00-860-003

(2) At the overhead panel, P5, set the BATTERY switch to the on mode.

#### SUBTASK 33-43-00-710-002

- (3) Do a test of the position lights operate during towing operations (SSM 33-43-11) (WDM 33-43-11).
  - (a) At the maintenance panel, P61, set the TOW switch to the on mode.
    - Make sure the forward and rear position lights on the left wing tip come on.
       NOTE: Each light contains two lamps.
    - 2) Make sure the forward and rear position lights on the right wing tip come on.

NOTE: Each light contains two lamps.

3) Make sure the position light on the tailcone comes on.

NOTE: The light contains two lamps.

- (b) At the P61 panel, set the TOW switch to the off mode.
  - 1) Make sure all position lights go off.

#### SUBTASK 33-43-00-860-004

(4) At the P5 panel, set the BATTERY switch to the off mode.

## E. Put the Airplane Back to Its Usual Condition

#### SUBTASK 33-43-00-860-005

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

——— END OF TASK ———

ARO ALL 33-43-00



# **POSITION (NAVIGATION) LIGHTS - REPAIRS**

#### 1. General

- A. This procedure contains:
  - (1) Wing Position (Navigation) Lights Lens Repairs

## TASK 33-43-00-300-801

# 2. Wing Position (Navigation) Lights - Lens Repairs

- A. General
  - (1) Use this procedure to repair contaminated sealant between the navigation lens and housing.
- B. References

Reference	Title
51-31-01-160-801	Prepare For Sealing (P/B 201)

C. Consumable Materials

Reference	Description	Specification
A00933	Sealant - Silicone Rubber - RTV 159	

D. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

#### E. Procedure

SUBTASK 33-43-00-200-001



KEEP THE AREA FREE OF CONTAMINATION. IF THE ADHESIVE SEALANT BECOMES LOOSE, IT CAN CAUSE DAMAGE TO THE AIRPLANE.

- (1) Do a sealant check between the navigation lens and housing.
  - (a) Remove unwanted adhesive sealant between the navigation lens and housing where new sealant is to be applied (Prepare For Sealing, TASK 51-31-01-160-801).
  - (b) Make sure that the area is clean to apply the new sealant.

#### SUBTASK 33-43-00-390-006



DO NOT GET PRIMER AND SEALANT IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM PRIMER AND SEALANT. PUT ON GOGGLES, AND GLOVES WHEN YOU USE PRIMER AND SEALANT. KEEP PRIMER AND SEALANT AWAY FROM SPARKS, FLAME, AND HEAT. PRIMER AND SEALANT IS POISONOUS AND FLAMMABLE, AND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(2) Apply RTV 159 sealant, A00933 into the space between the lens and the housing.

NOTE: Use an injection or potting gun to apply adhesive sealant.

SUBTASK 33-43-00-100-002

(3) Use a clean cloth to remove unwanted adhesive sealant from the inner surface of the lens and housing.

ARO ALL



#### SUBTASK 33-43-00-390-007

(4) Let the sealant dry for a minimum of 24 hours.

NOTE: Addition cure time is required when below room temperature and 50 percent relative humidity.

#### SUBTASK 33-43-00-390-010



DO NOT GET PRIMER AND SEALANT IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM PRIMER AND SEALANT. PUT ON GOGGLES, AND GLOVES WHEN YOU USE PRIMER AND SEALANT. KEEP PRIMER AND SEALANT AWAY FROM SPARKS, FLAME, AND HEAT. PRIMER AND SEALANT IS POISONOUS AND FLAMMABLE, AND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

- (5) Apply a thin layer of sealant RTV 159 sealant, A00933 to fill the gap between the outer periphery of lens and the housing.
  - (a) Let the adhesive sealant dry for a minimum of 24 hours.

NOTE: Addition cure time is required when below room temperature and 50 percent relative humidity.

#### SUBTASK 33-43-00-100-009

(6) Use a clean cloth to remove unwanted sealant from the outer surface of the lens and housing.

----- END OF TASK -----



## FORWARD POSITION LIGHTS - MAINTENANCE PRACTICES

# 1. General

- A. This procedure has these tasks:
  - (1) Forward Position Light Lamp Replacement
  - (2) Forward Position Light Assembly Replacement
  - (3) Forward Position Light Connect the Electrical Connector
  - (4) Forward Position Light Disconnect the Electrical Connector

#### TASK 33-43-01-960-801

# 2. Forward Position Light - Lamp Replacement

(Figure 201)

NOTE: This procedure is a scheduled maintenance task.

#### A. General

(1) There are two lamps in each light assembly. When it is necessary to replace one lamp, it is recommended that the other be replaced at the same time.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-43-11	Wiring Diagram Manual
WDM 33-43-12	Wiring Diagram Manual

#### C. Consumable Materials

Reference	Description	Specification
G01306	Gloves - Lint-free	

# D. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

# E. Access Panels

Number	Name/Location
545CB	Wingtip Light Assembly Access Panel
645CB	Wingtip Light Access Panel

## F. Procedure

SUBTASK 33-43-01-860-001

(1) Open these applicable circuit breakers and install safety tags:

(WDM 33-43-11) (WDM 33-43-12)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>	
Е	18	C33481	L POS LT	

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>	
Е	13	C33480	R POS LT	

ARO ALL



#### SUBTASK 33-43-01-960-001

(2) Do these steps to replace the lamp:

NOTE: Do not touch the new lamp with your hands. Use lint-free gloves, G01306.

(a) Open these access panels as applicable:

<u>Number</u>	Name/Location
545CB	Wingtip Light Assembly Access Panel
645CB	Wingtip Light Access Panel

(b) Pull out the light assembly [1].

NOTE: Do not disconnect the lanyard.

- 1) Loosen the fasteners [5] on the aft end of the light assembly.
- 2) Release the light assembly [1] from the hinge and pull it through the opening.
- (c) Loosen the fasteners [4] and remove the reflector assembly [3].
- (d) Replace the lamp [2].
- (e) Install the reflector assembly [4] and tighten the fasteners [4].
- (f) Put back the light assembly [1].
  - 1) Put the light assembly [1] in its position around the hinge.
  - 2) Tighten the fasteners [5].
- (g) Close these access panels as applicable:

<u>Number</u>	Name/Location
545CB	Wingtip Light Assembly Access Panel
645CB	Wingtip Light Access Panel

#### SUBTASK 33-43-01-860-002

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

## SUBTASK 33-43-01-860-003

(4) Remove the safety tags and close these applicable circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	18	C33481	L POS LT

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	13	C33480	R POS LT

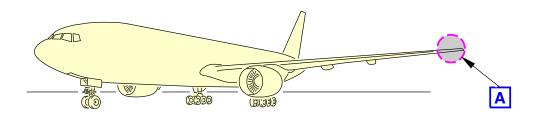
#### SUBTASK 33-43-01-710-001

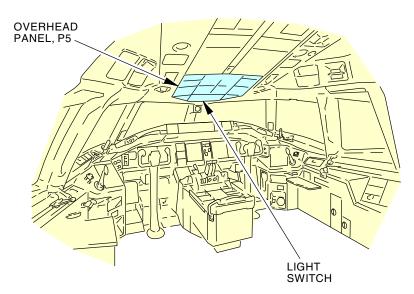
- (5) Do a test of the new lamp.
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the on mode.
    - 1) Make sure the light comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

END	$\cap$ E	<b>TASK</b>	
	UГ	IASN	

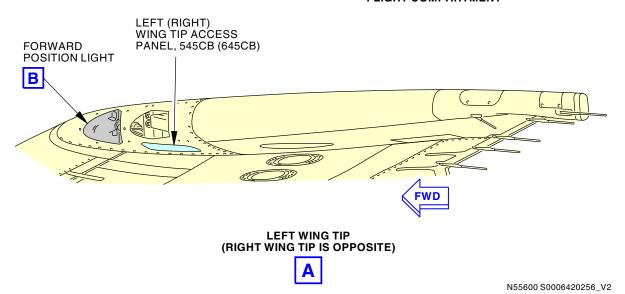
ARO ALL 33-43-01







# FLIGHT COMPARTMENT



Forward Position Light - Lamp Replacement Figure 201/33-43-01-990-801 (Sheet 1 of 2)

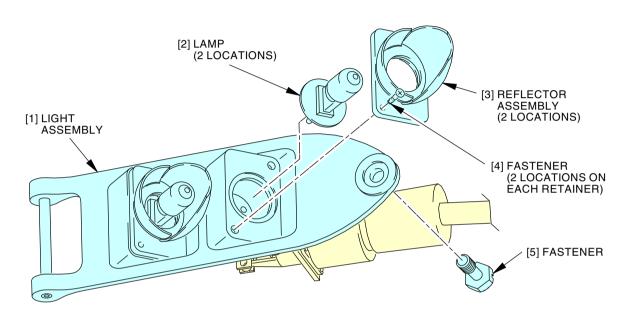
ARO ALL

D633W101-ARO

33-43-01

Page 203 Sep 05/2016





**FORWARD POSITION LIGHT** 



N55612 S0006420259\_V2

Forward Position Light - Lamp Replacement Figure 201/33-43-01-990-801 (Sheet 2 of 2)

ARO ALL

33-43-01

Page 204 Sep 05/2016



#### TASK 33-43-01-960-803

# 3. Forward Position Light - Assembly Replacement

(Figure 201, Figure 202)

# A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-43-11	Wiring Diagram Manual
WDM 33-43-12	Wiring Diagram Manual

## B. Location Zones

Zone	Area	
545	Raked Wing Tip, Left	
645	Raked Wing Tip, Right	

## C. Procedure

#### SUBTASK 33-43-01-860-007

(1) Open these applicable circuit breakers and install safety tags:

(WDM 33-43-11) (WDM 33-43-12)

## Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
Е	18	C33481	L POS LT

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	13	C33480	R POS LT

## SUBTASK 33-43-01-020-013

(2) Disconnect the electrical connector [21] and ground wire [23], do this task: Forward Position Light - Disconnect the Electrical Connector, TASK 33-43-01-020-801.

#### SUBTASK 33-43-01-010-003

- (3) Do these steps to remove the light assembly [1]:
  - (a) Remove the fasteners [5].
  - (b) Release the light assembly [1] from the hinge.
  - (c) Remove the light assembly [1].

### SUBTASK 33-43-01-410-001

- (4) Do these steps to install the light assembly [1]:
  - (a) Put the light assembly [1] in its position on the hinge.
  - (b) Install the fasteners [5].

## SUBTASK 33-43-01-420-005

(5) Connect the electrical connector [21] and ground wire [23], do this task: Forward Position Light - Connect the Electrical Connector, TASK 33-43-01-420-801.

#### SUBTASK 33-43-01-860-009

(6) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

ARO ALL



#### SUBTASK 33-43-01-860-008

(7) Remove the safety tags and close these applicable circuit breakers:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	18	C33481	L POS LT

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	13	C33480	R POS LT

#### SUBTASK 33-43-01-700-001

- (8) Do a test of the new light assembly [1].
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the on mode.
    - 1) Make sure the light comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.



## TASK 33-43-01-020-801

4. Forward Position Light - Disconnect the Electrical Connector

(Figure 202)

#### A. General

(1) Use this procedure when it is necessary to remove the wing tip.

#### B. References

Reference	Title
WDM 33-43-11	Wiring Diagram Manual
WDM 33-43-12	Wiring Diagram Manual

# C. Location Zones

Zone	Area	
545	Raked Wing Tip, Left	
645	Raked Wing Tip, Right	

# D. Access Panels

Number	Name/Location
545CB	Wingtip Light Assembly Access Panel
645CB	Wingtip Light Access Panel

# E. Procedure

# SUBTASK 33-43-01-860-004

(1) Open the applicable circuit breakers and attach the DO-NOT-CLOSE tags:

(WDM 33-43-11) (WDM 33-43-12)

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	18	C33481	L POS LT

ARO ALL



## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	13	C33480	R POS LT

#### SUBTASK 33-43-01-010-001

- (2) Get access to the connector.
  - (a) Open these access panels as applicable:

<u>Number</u>	Name/Location
545CB	Wingtip Light Assembly Access Panel
645CB	Wingtip Light Access Panel

#### SUBTASK 33-43-01-020-002

(3) Remove the screw [22] and disconnect the ground wire [23].

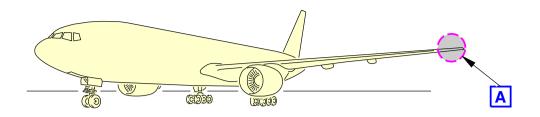
#### SUBTASK 33-43-01-020-001

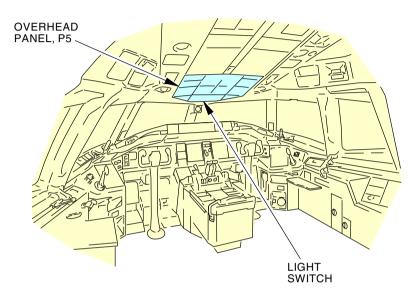
(4) Disconnect the electrical connector [21].

----- END OF TASK -----

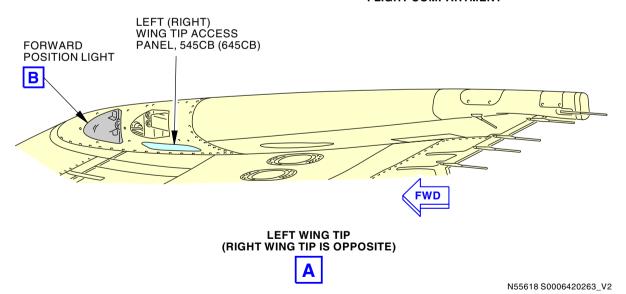
ARO ALL 33-43-01







## FLIGHT COMPARTMENT



Forward Position Light - Disconnect/Connect the Electrical Connector Figure 202/33-43-01-990-802 (Sheet 1 of 2)

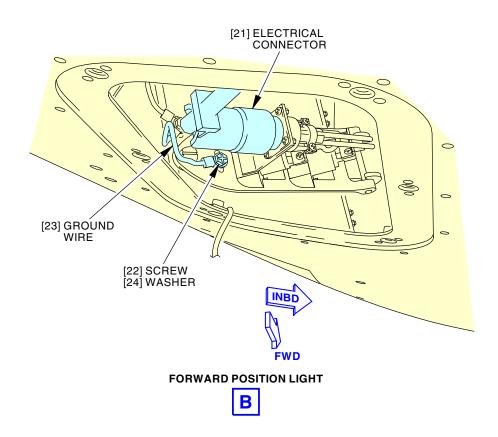
EFFECTIVITY

ARO ALL

Page 208
D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





N55629 S0006420266\_V2

Forward Position Light - Disconnect/Connect the Electrical Connector Figure 202/33-43-01-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-43-01

Page 209 Sep 05/2016



#### TASK 33-43-01-420-801

5. Forward Position Light - Connect the Electrical Connector

(Figure 202)

#### A. General

(1) Use this procedure when it is necessary to install the wing tip.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

#### C. Location Zones

Zone	Area	
545	Raked Wing Tip, Left	
645	Raked Wing Tip, Right	

#### D. Access Panels

Number	Name/Location
545CB	Wingtip Light Assembly Access Panel
645CB	Wingtip Light Access Panel

## E. Procedure

SUBTASK 33-43-01-420-001

(1) Connect the electrical connector [21].

SUBTASK 33-43-01-420-002

(2) Connect the ground wire [23] and install the screw [22].

## SUBTASK 33-43-01-010-002

- (3) Replace the access panel(s).
  - (a) Close these access panels as applicable:

<u>Number</u>	Name/Location
545CB	Wingtip Light Assembly Access Panel
645CB	Wingtip Light Access Panel

#### SUBTASK 33-43-01-860-005

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-43-01-860-006

(5) Remove the safety tags and close these applicable circuit breakers:

## Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	18	C33481	L POS LT

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	13	C33480	R POS LT

#### SUBTASK 33-43-01-710-002

- (6) Do a test of the light.
  - (a) At the overhead panel, P5, set the switch to the on mode.

ARO ALL



- 1) Make sure the light comes on.
- (b) Set the switch to the off mode.
  - 1) Make sure the light goes off.

——— END OF TASK ———

ARO ALL



#### **REAR POSITION LIGHTS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has these tasks:
  - (1) Rear Position Light Lamp Replacement
  - (2) Rear Position Light Light Assembly Replacement
  - (3) Rear Position Light Disconnect the Electrical Connector
  - (4) Rear Position Light Connect the Electrical Connector

#### TASK 33-43-02-960-801

## 2. Rear Position Light - Lamp Replacement

(Figure 201)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-43-11	Wiring Diagram Manual
WDM 33-43-12	Wiring Diagram Manual

#### B. Consumable Materials

Reference	Description	Specification
D00189	Compound - Molykote 111 (Formerly Dow	
	Corning 111, Valve Sealant and Lubricant)	

#### C. Location Zones

Zone	Area	
545	Raked Wing Tip, Left	
645	Raked Wing Tip, Right	

## D. Procedure

## SUBTASK 33-43-02-860-001

(1) Open these applicable circuit breakers and install safety tags:

(WDM 33-43-11), (WDM 33-43-12)

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	18	C33481	L POS LT

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	13	C33480	R POS LT

## SUBTASK 33-43-02-960-001

(2) Do these steps to replace the lamp:



DO NOT TOUCH THE LAMP WITH YOUR HANDS. USE LINT-FREE GLOVES, G01306 OR LINT-FREE CLOTH, G01043. THE LAMP IS HOT AND CAN CAUSE INJURIES.

(a) Loosen the fasteners [5] and remove the lens assembly [4].

ARO ALL



- (b) Loosen the fasteners [2] and remove the reflector assembly [1].
  - NOTE: Do not disconnect the lanyard.
- (c) Remove the lamp [3].
- (d) Apply a thin layer of Molykote 111 Compound, D00189, to all interior surfaces of both lampholders.
- (e) Install the lamp [3].
- (f) Install the reflector assembly [1] and tighten the fasteners [2].
- (g) Install the lens assembly [4] and the fasteners [5].
- (h) Tighten the fastener [5] to 15 in-lb  $(1.7 \text{ N} \cdot \text{m})$  18 in-lb  $(2.0 \text{ N} \cdot \text{m})$ .

#### SUBTASK 33-43-02-860-002

- (3) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-43-02-860-003

(4) Remove the safety tags and close these applicable circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	18	C33481	L POS LT

## Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	13	C33480	R POS LT

#### SUBTASK 33-43-02-710-001

- (5) Do a test of the new lamp.
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the on mode.
    - 1) Make sure the lamp comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the lamp goes off.

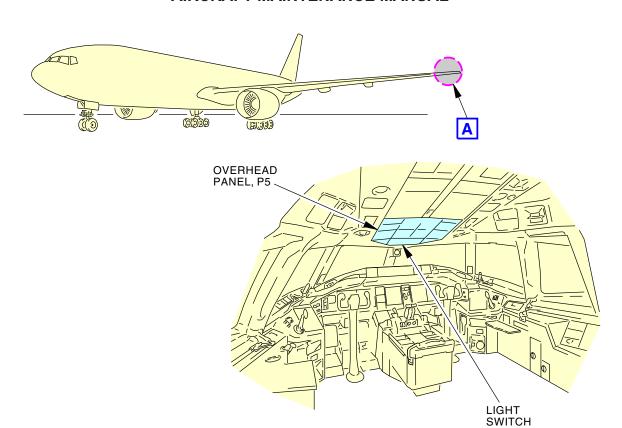
----- END OF TASK -----

33-43-02

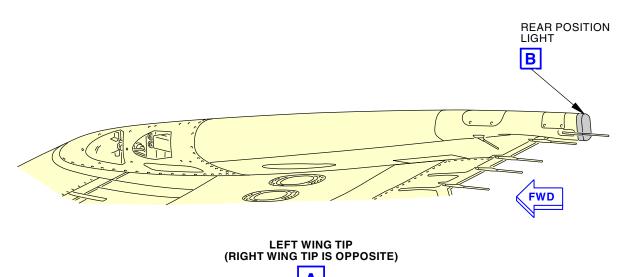
· EFFECTIVITY

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





## FLIGHT COMPARTMENT



N56288 S0006420275\_V2

Rear Position Light - Lamp Replacement Figure 201/33-43-02-990-801 (Sheet 1 of 2)

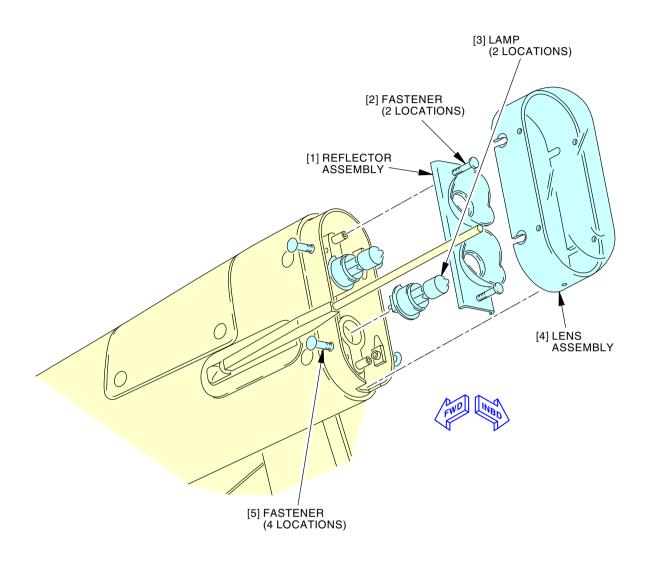
ARO ALL

D633W101-ARO

33-43-02

Page 203 Sep 05/2016





**REAR POSITION LIGHT** 



N56291 S0006420278\_V2

Rear Position Light - Lamp Replacement Figure 201/33-43-02-990-801 (Sheet 2 of 2)

ARO ALL

33-43-02

Page 204 Sep 05/2016



## TASK 33-43-02-960-802

## 3. Rear Position Light - Light Assembly Replacement

(Figure 202)

## A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-43-11	Wiring Diagram Manual
WDM 33-43-12	Wiring Diagram Manual

## B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550).
	Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

## C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142 Type II
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796 Class III

## D. Location Zones

Zone	Area	
545	Raked Wing Tip, Left	
645	Raked Wing Tip, Right	

#### E. Access Panels

Number	Name/Location
545FL	Wingtip Casting Access Door
545GL	Wingtip Casting Access Door
645FR	Wingtip Casting Access Door
645GR	Wingtip Casting Access Door

## F. Procedure

SUBTASK 33-43-02-860-004

(1) Remove these access panels:

<u>Number</u>	Name/Location
545FL	Wingtip Casting Access Door

ARO ALL



(Continued)

<u>Number</u>	<u>Name/Location</u>
545GL	Wingtip Casting Access Door
645FR	Wingtip Casting Access Door
645GR	Wingtip Casting Access Door
645FR	Wingtip Casting Access Doo

Open these applicable circuit breakers and install safety tags:

(WDM 33-43-11), (WDM 33-43-12)

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	18	C33481	L POS LT

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	13	C33480	R POS LT

#### SUBTASK 33-43-02-960-002

- (2) Do these steps to replace the light assembly [25]:
  - (a) Remove the relevant access panel.
    - Loosen all panel fasteners.
    - 2) Remove the bolt [24].
      - NOTE: The bolts are a different size than the panel fasteners.
    - 3) Pull off the access panel.
  - (b) Disconnect the electrical connector [26].
  - (c) Disconnect the jumper [23].
    - 1) Remove the screw [21] and washer [22].
  - (d) Replace the light assembly [25].



DO NOT TOUCH THE LAMP WITH YOUR HANDS. USE LINT-FREE GLOVES, G01306 OR LINT-FREE CLOTH, G01043. THE LAMP IS HOT AND CAN CAUSE INJURIES.

- 1) Make sure the lamps are installed in the light assembly.
- (e) Connect the jumper [23].
  - 1) Install the washer [22] and screw [21].
  - Use the electrical bonding intrinsically safe approved bonding meter, COM-1550, to make sure the resistance between the light assembly and the jumper measures no more that 0.0025 ohms.
  - 3) Apply a fillet seal to the jumper with sealant, A02315.
- (f) Connect the electrical connector [26].
- (g) Close these access panels:

Marinalaan

<u>number</u>	<u>Name/Location</u>
545FL	Wingtip Casting Access Door
545GL	Wingtip Casting Access Door
645FR	Wingtip Casting Access Door

Name of Landian

ARO ALL

33-43-02

Page 206 Sep 05/2017



(Continued)

<u>Number</u>	Name/Location

645GR Wingtip Casting Access Door

- (h) Bond the faying surfaces of the light assembly [25].
  - 1) Make sure the resistance between the lens assembly and the fuselage measure no more than 0.0025 ohms.
  - 2) Apply the sealant, A00247, to the base of the light assembly [25].
    - NOTE: Do not apply the sealant to the lens assembly.
  - 3) Apply aerodynamic sealant, A02315, in the clearance around the access panel.
- (i) Install the bolt [24] with the corrosion-preventative compound, C00528.

#### SUBTASK 33-43-02-860-005

- (3) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-43-02-860-006

(4) Remove the safety tags and close these applicable circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	18	C33481	L POS LT

## Right Power Management Panel, P210

Row	<u>Col</u>	Number	<u>Name</u>
Ε	13	C33480	R POS LT

#### SUBTASK 33-43-02-710-002

- (5) Do a test of the new light assembly.
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the on mode.
    - 1) Make sure the light comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

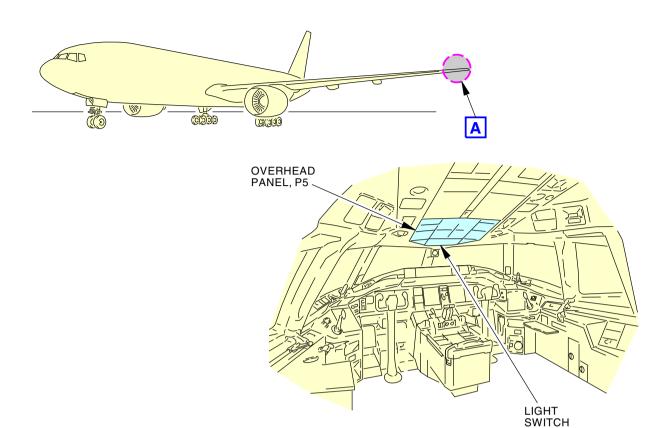
——— END OF TASK ———

33-43-02

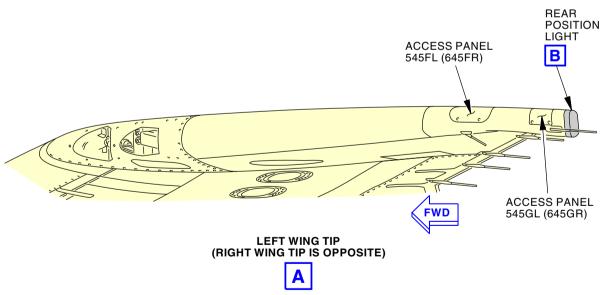
EFFECTIVITY '

**ARO ALL** 





## **FLIGHT COMPARTMENT**



N56289 S0006420282\_V4

Rear Position Light - Light Assembly Replacement Figure 202/33-43-02-990-802 (Sheet 1 of 2)

EFFECTIVITY

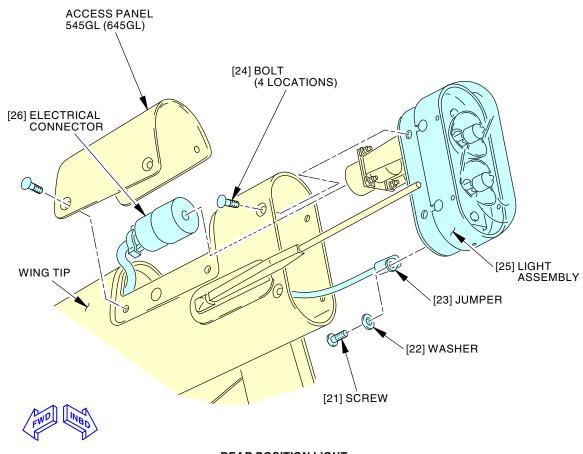
ARO ALL

D633W101-ARO

33-43-02

Page 208 May 05/2017





**REAR POSITION LIGHT** 



N56292 S0006420285\_V3

Rear Position Light - Light Assembly Replacement Figure 202/33-43-02-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-43-02

Page 209 May 05/2017



#### TASK 33-43-02-020-801

## 4. Rear Position Light - Disconnect the Electrical Connector

## A. General

(1) Use this procedure when it is necessary to remove the wing tip.

#### B. References

Reference	Title
WDM 33-43-11	Wiring Diagram Manual
WDM 33-43-12	Wiring Diagram Manual

#### C. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

#### D. Procedure

#### SUBTASK 33-43-02-860-007

(1) Open these applicable circuit breakers and install safety tags:

(WDM 33-43-11), (WDM 33-43-12)

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	18	C33481	L POS LT

## Right Power Management Panel, P210

Row	Col	<u>Number</u>	<u>Name</u>
F	13	C33480	RPOSIT

#### SUBTASK 33-43-02-010-001

- (2) Remove the access panel.
  - (a) Loosen all panel fasteners.
  - (b) Remove the outboard bolt [24] on the access panel.

NOTE: Do not remove the two inboard bolts.

(c) Pull off the access panel.

#### SUBTASK 33-43-02-020-001

(3) Disconnect the electrical connector [26].

----- END OF TASK -----

## TASK 33-43-02-420-801

5. Rear Position Light - Connect the Electrical Connector

(Figure 202)

## A. General

(1) Use this procedure when it is necessary to install the wing tip.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

ARO ALL

33-43-02

Page 210 Sep 05/2017



## C. Consumable Materials

Reference	Description	Specification
C00528	Compound - Corrosion Preventive, Petroleum	MIL-C-11796 Class III
	Hot Application (Soft Film)	

#### D. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

#### E. Procedure

#### SUBTASK 33-43-02-420-001

(1) Connect the electrical connector [26].

## SUBTASK 33-43-02-410-001

- (2) Install the access panel.
  - (a) Put on the access panel.
  - (b) Tighten all panel fasteners.
  - (c) Install the outboard bolt [24] with the corrosion-preventative compound, C00528.

#### SUBTASK 33-43-02-860-008

- (3) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-43-02-860-009

(4) Remove the safety tags and close these applicable circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	18	C33481	L POS LT

## **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	13	C33480	R POS LT

#### SUBTASK 33-43-02-710-003

- (5) Do a test of the light.
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the on mode.
    - 1) Make sure the light comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

 <b>END</b>	OF 1	TASK	
	<b>U</b> I I		

33-43-02

· EFFECTIVITY -



## **POSITION LIGHT TRANSFORMERS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has these tasks:
  - (1) Position Light Transformer, Wing Replacement
  - (2) Position Light Transformer, Tailcone Replacement

#### TASK 33-43-03-960-801

## 2. Position Light Transformer, Wing - Replacement

(Figure 201)

## A. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-43-11	Wiring Diagram Manual	
WDM 33-43-12	Wiring Diagram Manual	

## B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in
	Class I, Divisions I & II hazardous (classified) locations. Outside
	these hazardous locations, COM-614 can be used in lieu of
	COM-1550).
	Part #: 620LK Supplier: 1CRL2
	Part #: M1 Supplier: 3AD17
	Part #: T477W Supplier: 01014
	Opt Part #: M1B Supplier: 3AD17

#### C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental -	BMS5-95
	Chromate Type	

## D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Transformer	33-43-11-03-320	ARO ALL

## E. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

## F. Access Panels

Number	Name/Location	
521AHB	Outboard Fixed Leading Edge Panel	
621AHB	Outboard Fixed Leading Edge Panel	

ARO ALL



#### G. Procedure

#### SUBTASK 33-43-03-860-001

(1) Open these applicable circuit breakers and install safety tags:

(WDM 33-43-11) (WDM 33-43-12)

## Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
E	18	C33481	L POS LT

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	13	C33480	R POS LT

#### SUBTASK 33-43-03-960-001

- (2) Do these steps to replace the transformer:
  - (a) Open these access panels as applicable:

<u>Number</u>	Name/Location
521AHB	Outboard Fixed Leading Edge Panel
621AHB	Outboard Fixed Leading Edge Panel

- (b) Disconnect the electrical connector [4].
- (c) Remove the screws [3] and washers [2].
- (d) Replace the transformer [1].
  - 1) Bond the faying surfaces.
    - a) Use the electrical bonding intrinsically safe approved bonding meter, COM-1550, to make sure the resistance between the transformer and the fuselage measures no more that 0.0025 ohms.
    - b) Apply the sealant, A00247.
- (e) Install the washers [2] and screws [3].
- (f) Connect the electrical connector [4].
- (g) Close these access panels as applicable:

<u>Number</u>	Name/Location
521AHB	Outboard Fixed Leading Edge Panel
621AHB	Outboard Fixed Leading Edge Panel

## SUBTASK 33-43-03-860-002

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-43-03-860-003

(4) Remove the safety tags and close these applicable circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	18	C33481	L POS LT

33-43-03

EFFECTIVITY



## Right Power Management Panel, P210

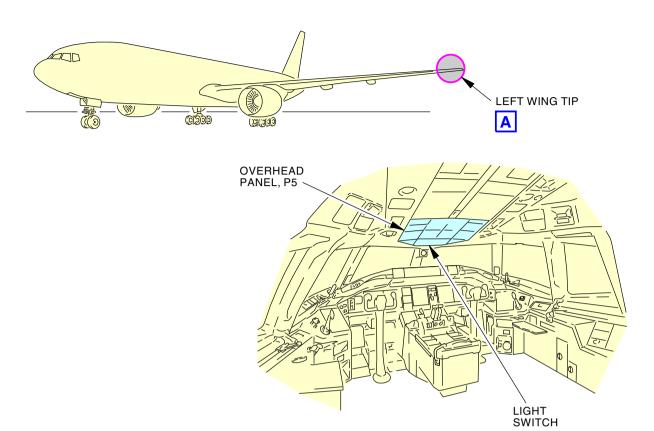
Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	13	C33480	R POS LT

#### SUBTASK 33-43-03-710-001

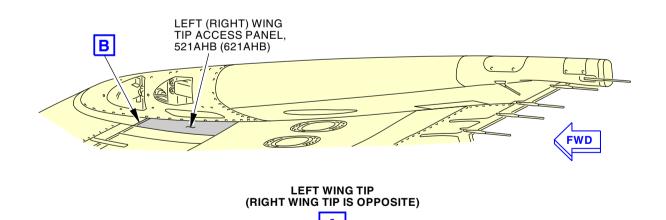
- (5) Do a test of the new transformer.
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the on mode.
    - 1) Make sure the lights come on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the lights go off.

----- END OF TASK -----





## FLIGHT COMPARTMENT



N56294 S0006420293\_V3

Position Light Transformer, Wing - Replacement Figure 201/33-43-03-990-801 (Sheet 1 of 2)

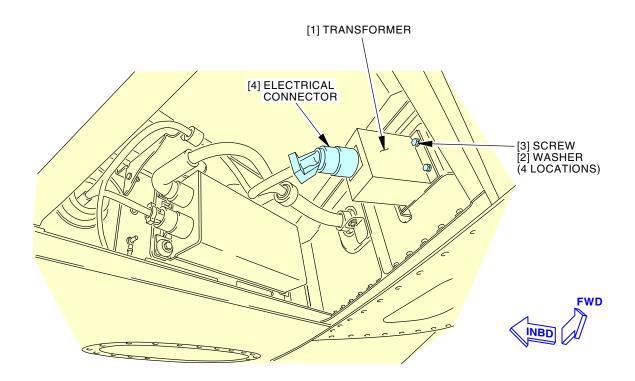
ARO ALL

D633W101-ARO

33-43-03

Page 204 Jan 05/2018





## **POSITION LIGHT TRANSFORMER**



N56297 S0006420296\_V3

Position Light Transformer, Wing - Replacement Figure 201/33-43-03-990-801 (Sheet 2 of 2)

ARO ALL

33-43-03

Page 205 Jan 05/2018



## TASK 33-43-03-960-802

## 3. Position Light Transformer, Tailcone - Replacement

(Figure 202)

#### A. General

(1) The tail light transformer is the same as the other position light transformers in the wings.

#### B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-43-11	Wiring Diagram Manual	
WDM 33-43-12	Wiring Diagram Manual	

## C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550).
	Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

## D. Consumable Materials

Reference	Description	Specification
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142 Type II
B01010	Final Cleaning Before Non-Structural Bonding To Solvent Resistant Organic Coatings - Series 90	l

## E. Location Zones

Zone	Area
310	Subzone 310 - Section 48

## F. Access Panels

Number	Name/Location
315AL	Auxiliary Power Unit (APU) Access Door, Left
316AR	Auxiliary Power Unit (APU) Access Door, Right

## G. Procedure

SUBTASK 33-43-03-860-004

(1) Open this circuit breaker and install safety tag:

Ground	Servi	ce/Handling	Power Pane	I, P320
<b>D</b>	_ ·	NI	NI	

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	1	C33020	TAIL L

(WDM 33-43-11) (WDM 33-43-12)

ARO ALL



#### SUBTASK 33-43-03-960-002

- (2) Do these steps to replace the transformer:
  - (a) Open these access panels:

<u>Number</u>	Name/Location
315AL	Auxiliary Power Unit (APU) Access Door, Left
316AR	Auxiliary Power Unit (APU) Access Door, Right

- (b) Disconnect the electrical connector [22].
- (c) Remove the screws [23] and washers [24] from the base of the transformer.
- (d) Remove the transformer [21].
- (e) Do these steps to bond the new transformer [21]:
  - 1) Clean the area around each hole with Series 90 solvent, B01010.
  - 2) Use the electrical bonding intrinsically safe approved bonding meter, COM-1550, to make sure the resistance between the transformer and the fuselage measures no more that 0.0005 ohms.
- (f) Put the new transformer in its position with the connector keyway on the side opposite from the ground wire.
- (g) Wet install the washers [24] and screws [23] with sealant, A02315.
- (h) Apply a fillet seal around the periphery of the transformer using sealant, A02315.
- (i) Connect the electrical connector [22].
- (j) Close these access panels:

<u>Number</u>	Name/Location
315AL	Auxiliary Power Unit (APU) Access Door, Left
316AR	Auxiliary Power Unit (APU) Access Door, Right

#### SUBTASK 33-43-03-860-005

(3) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-43-03-860-006

(4) Remove the safety tag and close this circuit breaker:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C33020	TAIL L

#### SUBTASK 33-43-03-710-002

- (5) Do a test of the new transformer.
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the on mode.
    - 1) Make sure the tailcone position light comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

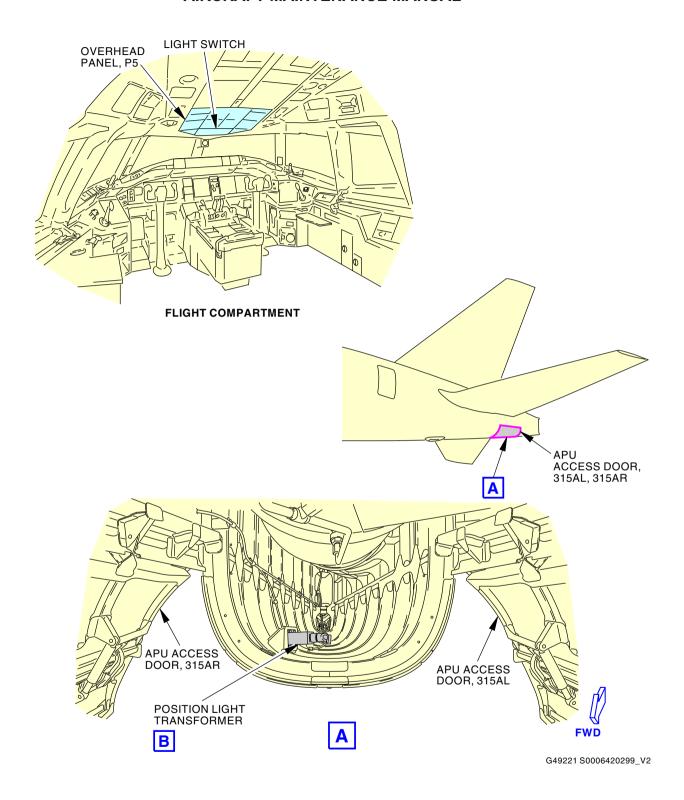
	$\triangle$ E	TASK	
	UF	IASN	

33-43-03

ARO ALL

EFFECTIVITY -





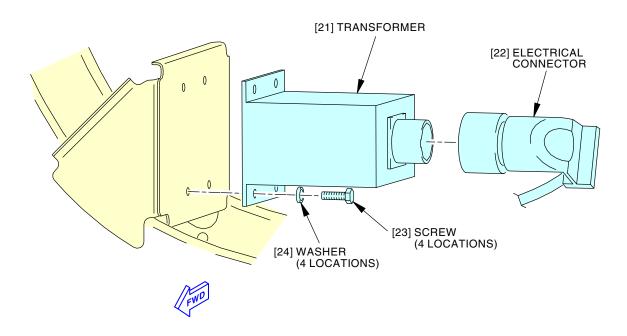
Position Light Transformer, Tailcone - Replacement Figure 202/33-43-03-990-803 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-43-03

Page 208 Sep 05/2016





## **POSITION LIGHT TRANSFORMER**



G49464 S0006420300\_V2

Position Light Transformer, Tailcone - Replacement Figure 202/33-43-03-990-803 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-43-03

Page 209 Sep 05/2016



## **TAILCONE POSITION LIGHT - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has these tasks:
  - (1) Tailcone Position Light Lamp Replacement
  - (2) Tailcone Position Light Light Assembly Replacement

#### TASK 33-43-04-960-801

## 2. Tailcone Position Light - Lamp Replacement

(Figure 201)

## A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-43-11	Wiring Diagram Manual
WDM 33-43-12	Wiring Diagram Manual

## **B.** Location Zones

Zone	Area	
310	Subzone 310 - Section 48	

## C. Procedure

SUBTASK 33-43-04-860-001

(1) Open this circuit breaker and install safety tag:

## Ground Service/Handling Power Panel, P320

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	1	C33020	TAIL L

(WDM 33-43-11), (WDM 33-43-12)

## SUBTASK 33-43-04-960-001

(2) Do these steps to replace the lamp:



DO NOT TOUCH THE LAMP WITH YOUR HANDS. USE LINT-FREE GLOVES, G01306 OR LINT-FREE CLOTH, G01043. THE LAMP IS HOT AND CAN CAUSE INJURIES.

- (a) Loosen the fasteners [5] and remove the lens assembly [3].
- (b) Loosen the fasteners [4] and remove the reflector assembly [2].

NOTE: Do not disconnect the lanyard.

- (c) Replace the lamp [1].
- (d) Install the reflector assembly [2] and tighten the fasteners [4].
- (e) Install the lens assembly [3] and tighten the fasteners [5].

#### SUBTASK 33-43-04-860-002

(3) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

ARO ALL



#### SUBTASK 33-43-04-860-003

(4) Remove the safety tag and close this circuit breaker:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	1	C33020	TAIL L

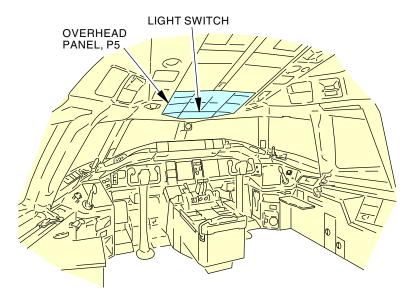
## SUBTASK 33-43-04-710-001

- (5) Do a test of the new lamp.
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the on mode.
    - 1) Make sure the lamp comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the lamp goes off.

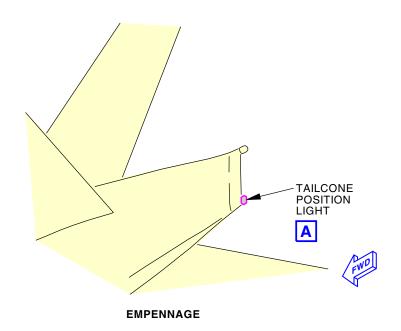
----- END OF TASK -----

ARO ALL





**FLIGHT COMPARTMENT** 



G48801 S0006420304\_V2

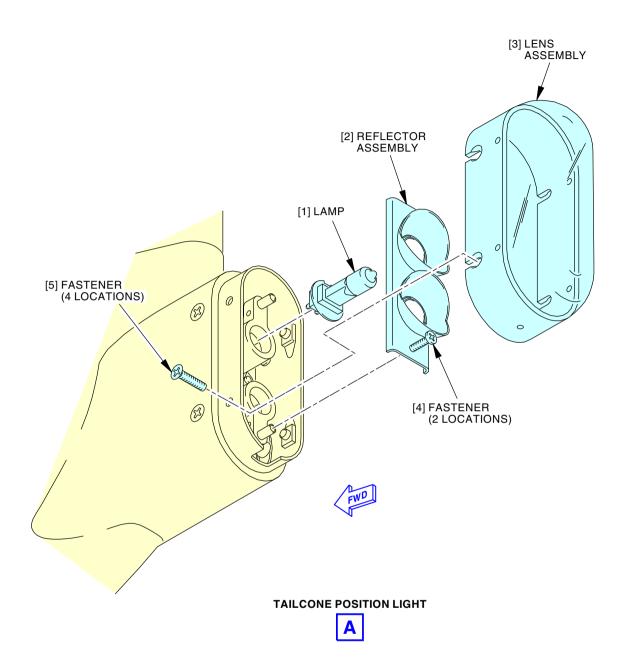
Tailcone Position Light - Lamp Replacement Figure 201/33-43-04-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-43-04

Page 203 Sep 05/2016





G48916 S0006420305\_V2

Tailcone Position Light - Lamp Replacement Figure 201/33-43-04-990-801 (Sheet 2 of 2)

ARO ALL

33-43-04

Page 204 Sep 05/2016



#### TASK 33-43-04-960-802

## 3. Tailcone Position Light - Light Assembly Replacement

(Figure 202)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-43-11	Wiring Diagram Manual
WDM 33-43-12	Wiring Diagram Manual

## B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside
	these hazardous locations, COM-614 can be used in lieu of COM-1550).
	Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014
	Opt Part #: M1B Supplier: 3AD17

#### C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142 Type II
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796 Class III

#### D. Location Zones

Zone	Area
310	Subzone 310 - Section 48

## E. Procedure

SUBTASK 33-43-04-860-004

(1) Open this circuit breaker and install safety tag:

# Ground Service/Handling Power Panel, P320 Row Col Number Name E 1 C33020 TAIL L

(WDM 33-43-11), (WDM 33-43-12)

## SUBTASK 33-43-04-960-002

- (2) Do these steps to replace the light assembly:
  - (a) Remove the bolts [26].
  - (b) Pull out the light assembly [22].
  - (c) Disconnect the electrical connector [21].

ARO ALL



- (d) Remove the screw [25] and washer [24] on the jumper [23].
- (e) Pull off the jumper [23].
- (f) Replace the light assembly [22].
  - 1) Make sure the lamps are installed in the light assembly (TASK 33-43-04-960-801).
- (g) Connect the jumper [23].

NOTE: Do not change the 90 degree bend in the jumper terminal lug.

- 1) Install the washer [24] and screw [25].
- 2) Use the electrical bonding intrinsically safe approved bonding meter, COM-1550, to make sure the resistance between the light assembly and the jumper measures no more that 0.0025 ohms.
- 3) Apply a fillet seal to the connection with sealant, A02315.
- (h) Connect the electrical connector [21].
- (i) Bond the faying surfaces of the light assembly [22].
  - Use the electrical bonding intrinsically safe approved bonding meter, COM-1550, to make sure the resistance between the lens assembly and the fuselage measures no more that 0.0025 ohms.
  - Apply the sealant, A00247, to the base of the light assembly [22].
     NOTE: Do not apply the sealant to the lens assembly.
- (j) Put the light assembly [22] in the tailcone.
- (k) Install the bolts [26] with the corrosion-preventative compound, C00528.

#### SUBTASK 33-43-04-860-005

(3) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-43-04-860-006

(4) Remove the safety tag and close this circuit breaker:

## **Ground Service/Handling Power Panel, P320**

Row	<u>Col</u>	<u>Number</u>	Name
F	1	C33020	TAILI

## SUBTASK 33-43-04-710-002

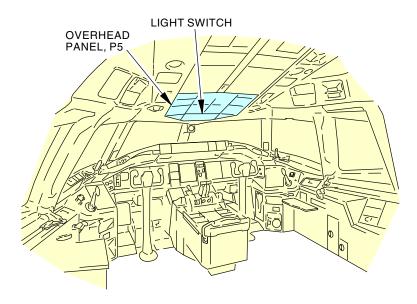
- (5) Do a test of the new light assembly.
  - (a) At the overhead panel, P5, set the switch for the position (navigation) lights to the on mode.
    - 1) Make sure the light comes on.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

——— FND OF TASK ———		 	
		CK _	

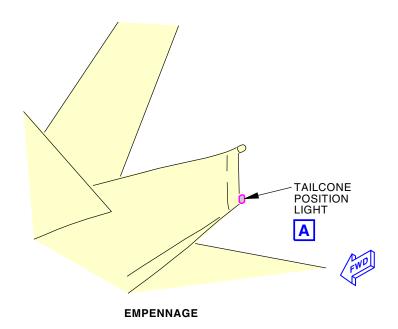
33-43-04

**EFFECTIVITY** 





**FLIGHT COMPARTMENT** 



G48857 S0006420307\_V2

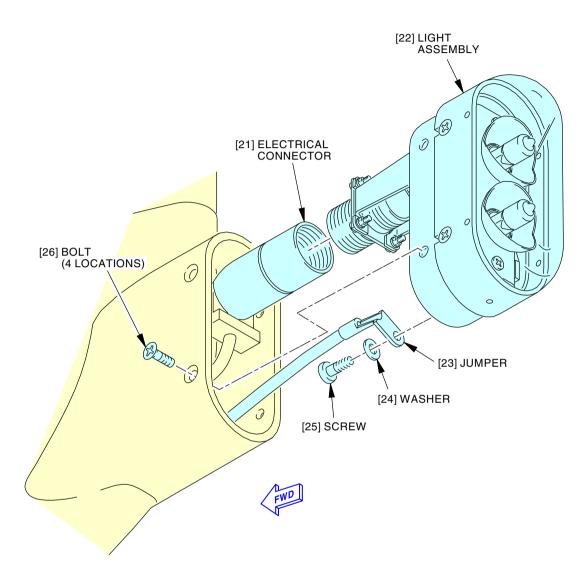
Tailcone Position Light - Light Assembly Replacement Figure 202/33-43-04-990-802 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-43-04

Page 207 Sep 05/2016





**TAILCONE POSITION LIGHT** 



G48852 S0006420308\_V2

Tailcone Position Light - Light Assembly Replacement Figure 202/33-43-04-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-43-04

Page 208 Sep 05/2016



## WING POSITION AND ANTI-COLLISION LIGHT LENS - INSPECTION/CHECK

## 1. General

- A. This procedure has one task:
  - (1) Do a visual inspection of the condition of the position and anti-collision lens.

#### TASK 33-43-05-200-801

## 2. Inspect the Wing Position and Anti-Collision Light Lens

(Figure 601)

## A. General

- (1) You will do an inspection of both winglet lenses in this task.
- (2) A man-lift and safety equipment will be required to gain access to the winglet lenses.

#### B. References

Reference	Title
33-43-00-960-801	Wing Position (Navigation) Lights - Lens Replacement (P/B 201)
33-44-03-960-804	Wing Anti-Collision Lights - Lens Replacement (P/B 201)

#### C. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

#### D. Procedure

#### SUBTASK 33-43-05-211-001

(1) Wipe forward position light lens and anti-collision light lens with a dry, clean cloth to remove dirt or dust.

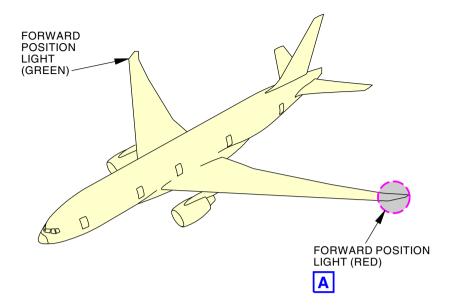
#### SUBTASK 33-43-05-211-002

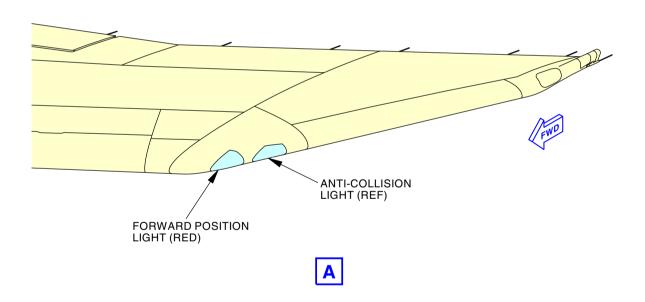
- (2) Do a visual inspection of the lens:
  - (a) If any defects are noted in any of the visual inspection characteristics list below, replace the lens. (Wing Position (Navigation) Lights - Lens Replacement, TASK 33-43-00-960-801 or Wing Anti-Collision Lights - Lens Replacement, TASK 33-44-03-960-804).
    - 1) Crazing: The lens should not exhibit a network of fine cracks on or beneath the surface of the lens.
    - 2) Cracking: There should be no cracks in the lens.
    - 3) Blistering or Bubbling: The lens should not contain any air pockets, lumps or voids.
      - NOTE: Small bubbles in the lens or coating that do not appear in large quantities or concentrations are allowable.
    - 4) Discoloration: The lens should not exhibit any signs of yellowing or darkening.
    - 5) Physical Deformation: The lens should not exhibit any signs of distortion or irregularities in the contour.

 END	OF	<b>TASK</b>	

EFFECTIVITY 33-43-05







2419542 S0000558913\_V2

## Integrated Leading Edge and Anti-Collision Light Assembly Figure 601/33-43-05-990-801

ARO ALL
D633W101-ARO

33-43-05

Page 602 Sep 05/2016



## **ANTI-COLLISION LIGHTS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure contains these tasks:
  - (1) Anti-collision lights Deactivation.
  - (2) Anti-collision lights Activation.

#### TASK 33-44-00-040-801

## 2. Anti-Collision Lights - Deactivation

(Figure 201)

## A. General

(1) This task removes electrical power from the Anti-Collision Lights.

## B. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

## C. Location Zones

Zone	Area
100	Lower Half of Fuselage
117	Main Equipment Center, Left
118	Main Equipment Center, Right
200	Upper Half of Fuselage
211	Flight Compartment, Left
212	Flight Compartment, Right
310	Subzone 310 - Section 48
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

## D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

## E. Procedure

SUBTASK 33-44-00-860-004

- (1) At the pilot's overhead panel, P5, do the following:
  - (a) Set the BEACON and STROBE LIGHT switches to the OFF position.
  - (b) Attach DO NOT OPERATE tags, STD-858 to the switches.

## SUBTASK 33-44-00-010-001

(2) Open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

EFFECTIVITY 33-44-00



SUBTASK 33-44-00-860-005



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(3) Open these circuit breakers and install safety tags:

## Left Power Management Panel, P110

Row	<u>Col</u>	Number	Name
Ε	24	C33487	WHT ANTI-COLL LTS
Ν	18	C33637	WHT ANTI-COLL LT CTRL

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	9	C33486	RD ANTI-COLL LTS
M	11	C33636	RED ANTI-COLL LT CTRL

## F. Anti-Collision Lights - Tryout

SUBTASK 33-44-00-860-006

- (1) At the pilot's overhead panel, P5, do these steps:
  - (a) Make sure the BEACON and STROBE LIGHT switches are in the OFF position.
  - (b) Make sure the DO NOT OPERATE tag, STD-858 is attached to the switches.

## SUBTASK 33-44-00-860-007

(2) Make sure that these circuit breakers are open and have safety tags:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	24	C33487	WHT ANTI-COLL LTS
Ν	18	C33637	WHT ANTI-COLL LT CTRL

#### Right Power Management Panel, P210

Row	<u>Col</u>	Number	<u>Name</u>
Ε	9	C33486	RD ANTI-COLL LTS
M	11	C33636	RED ANTI-COLL LT CTRL

## SUBTASK 33-44-00-700-001

- (3) At the pilot's overhead panel, P5, do these steps:
  - (a) Put the BEACON and STROBE LIGHT switches in the ON position.
  - (b) Make sure that none of the Anit-Collision lights come on.

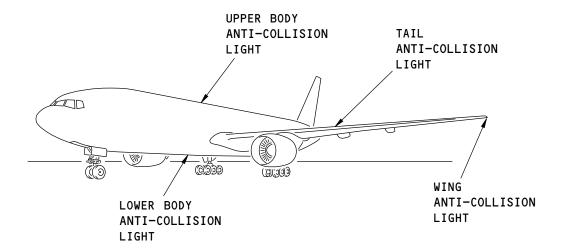
	OF TAS	
	OF IAS	<u> </u>

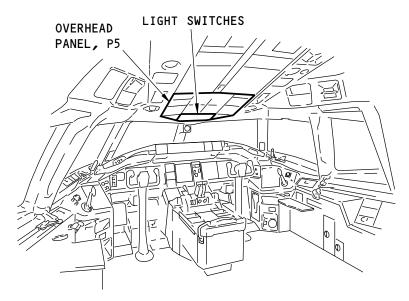
33-44-00

**ARO ALL** 

· EFFECTIVITY ·







FLIGHT COMPARTMENT

2417970 S0000558230\_V1

Anti-Collision Lights Figure 201/33-44-00-990-801

ARO ALL
D633W101-ARO

33-44-00

Page 203 Jan 05/2016



## TASK 33-44-00-440-801

## 3. Anti-Collision Lights - Activation

(Figure 201)

## A. General

(1) This task adds electrical power to the Anti-Collision Lights.

## B. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

#### C. Location Zones

Zone	Area
100	Lower Half of Fuselage
117	Main Equipment Center, Left
118	Main Equipment Center, Right
200	Upper Half of Fuselage
211	Flight Compartment, Left
212	Flight Compartment, Right
310	Subzone 310 - Section 48
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### E. Procedure

SUBTASK 33-44-00-860-008

- (1) At the pilot's overhead panel, P5, do the following:
  - (a) Make sure the BEACON and STROBE LIGHT switches to the OFF position.
  - (b) Remove the DO NOT OPERATE tag, STD-858.

#### SUBTASK 33-44-00-860-009



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Remove the safety tags and close these circuit breakers:

## Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	24	C33487	WHT ANTI-COLL LTS
Ν	18	C33637	WHT ANTI-COLL LT CTRL

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	9	C33486	RD ANTI-COLL LTS
M	11	C33636	RED ANTI-COLL LT CTRL

ARO ALL

33-44-00

Page 204 Sep 05/2017



## SUBTASK 33-44-00-410-001

(3) Close this access panel:

NumberName/Location117ALMain Equipment Center Access Door

——— END OF TASK ———

ARO ALL



## **ANTI-COLLISION LIGHTS - ADJUSTMENT/TEST**

## 1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
  - (1) Anti-Collision Lights Operational Test
  - (2) Anti-Collision Lights Operational Test Using the Cabin/Utility Switch

#### TASK 33-44-00-710-801

## 2. Anti-Collision Lights - Operational Test

#### A. General

(1) This test makes sure the anti-collision lights operate.

## B. References

	Reference	е	Title
	24-22-00-	860-805	Supply Electrical Power (P/B 201)
	WDM 33-4	44-11	Wiring Diagram Manual
	WDM 33-4	44-12	Wiring Diagram Manual
	WDM 33-4	44-13	Wiring Diagram Manual
C.	Location 2	Zones	
	Zone	Area	
	212	Flight Compartme	nt, Right

#### D. Procedure

SUBTASK 33-44-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-44-00-710-001



DO NOT LET THE LIGHTS FLASH DIRECTLY IN YOUR EYES. THE INTENSITY OF THE LIGHT CAN TEMPORARILY CAUSE INJURY TO YOUR EYES.

- (2) Do a test of the upper and lower anti-collision lights (WDM 33-44-13):
  - (a) At the overhead panel, P5, set the switch for the upper and lower anti-collision lights (beacons) to the on mode.
    - 1) Make sure the anti-collision lights on the top and bottom of the fuselage flash 40 to 45 times a minute.

NOTE: Let each light flash for 20 seconds to stabilize the system. If no misfire occurs, and the light flashes 40 to 45 times a minute, the system operates correctly.

If a misfire occurs before a system becomes stable, let the light flash for 60 more seconds. There must be no other misfires after the system becomes stable.

- (b) Set the switch to the off mode.
  - Make sure the lights go off.

ARO ALL



SUBTASK 33-44-00-710-002



DO NOT LET THE LIGHTS FLASH DIRECTLY IN YOUR EYES. THE INTENSITY OF THE LIGHT CAN TEMPORARILY CAUSE INJURY TO YOUR EYES.

- (3) Do a test of the wing and tailcone anti-collision lights (WDM 33-44-11) (WDM 33-44-12):
  - (a) At the overhead panel, P5, set the switch for wing and tailcone anti-collision lights (strobes) to the on mode.
    - 1) Make sure the white anti-collision lights on the wings and tailcone flash 40 to 45 times a minute.

NOTE: Let each light flash for 20 seconds to stabilize the system. If no misfire occurs, and the light flashes 40 to 45 times a minute, the system operates correctly.

If a misfire occurs before a system becomes stable, let the light flash for 60 more seconds. There must be no other misfires after the system becomes stable.

- (b) Set the switch to the off mode.
  - 1) Make sure the lights go off.



#### TASK 33-44-00-710-802

3. Anti-Collision Lights - Operational Test With the Cabin/Utility Switch

#### A. General

(1) This test makes sure the cabin/utility switch on the P5 panel operates the anti-collision lights (beacons) correctly.

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

## C. Procedure

SUBTASK 33-44-00-860-002

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-44-00-860-003

(2) Make sure the anti-collision lights are off.

SUBTASK 33-44-00-710-003

- (3) Do a test of the upper and lower anti-collision lights (beacons) with the cabin/utility switch:
  - (a) At the overhead panel, P5, set the cabin/utility switch, and upper/lower anti-collision light switch to the on mode.
    - Make sure the anti-collision lights on the top and bottom of the fuselage flash 40 to 45 times a minute.

NOTE: Let each light flash for 20 seconds to stabilize the system. If no misfire occurs, and the light flashes 40 to 45 times a minute, the system operates correctly.

ARO ALL



If a misfire occurs before a system becomes stable, let the light flash for 60 more seconds. There must be no other misfires after the system becomes stable.

- (b) Set the cabin/utility switch to the off mode.
  - 1) Make sure the lights go off.
- (c) Set the cabin/utility switch and the upper/lower anti-collision light switch to the usual mode.

----- END OF TASK -----

ARO ALL 33-44-00



## **UPPER BODY ANTI-COLLISION LIGHT (BEACON) - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has these tasks:
  - (1) Upper Body Anti-Collision Light Lamp Assembly Replacement
  - (2) Upper Body Anti-Collision Light Light Assembly Replacement
  - (3) Upper Body Anti-Collision Light Lens Assembly Replacement
  - (4) Upper Body Anti-Collision Light Power Supply Replacement

#### TASK 33-44-01-960-801

## 2. Upper Body Anti-Collision Light - Lamp Assembly Replacement

(Figure 201)

#### A. General

- (1) Replace the lamp assembly from the left aisle in the passenger compartment.
- (2) Replace the lamp assembly from outside of the airplane, you need to remove the upper body anti-collision light lens assembly.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-21-06-000-801	Main Ceiling Panel - Removal (P/B 401)
25-21-06-400-801	Main Ceiling Panel - Installation (P/B 401)
WDM 33-44-13	Wiring Diagram Manual

## C. Consumable Materials

Reference	Description	Specification
G01306	Gloves - Lint-free	

## D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Lamp assembly	33-44-11-50-067	ARO ALL
		33-44-11-50A-275	ARO ALI

## E. Location Zones

Zone	Area
223	Area Above Passenger Compartment Ceiling, Left - Section 41

## F. Procedure

SUBTASK 33-44-01-860-001

(1) Open this applicable circuit breaker and install safety tag:

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>	
Е	9	C33486	RD ANTI-COLL LTS	
(WDM 33-44-13)				

SUBTASK 33-44-01-960-001

(2) Do these steps to replace the lamp from the inside of the airplane:

NOTE: Do not touch the new lamp with your hands. Use lint-free gloves, G01306.

ARO ALL



(a) To open the inboard ceiling panel below the light, do this task: Main Ceiling Panel -Removal, TASK 25-21-06-000-801.

NOTE: To reach the light, stand on the platform inbroard of the opening.

- (b) Disconnect the electrical connector [5].
- (c) Remove the light assembly [4].

NOTE: Turn the light assembly counterclockwise to disengage it from the housing [1].

- (d) Loosen fastener [2].
- (e) Replace the lamp assembly [3].
- (f) Tighten the fastener [2].
- (g) Install the light assembly [4].

NOTE: Turn the light subassembly clockwise until it engages in the housing [1].

- (h) Connect the electrical connector [5].
- (i) To close the ceiling panel, do this task: Main Ceiling Panel Installation, TASK 25-21-06-400-801.

#### SUBTASK 33-44-01-960-005

(3) Do these steps to replace the lamp assembly from the outside of the airplane:

NOTE: Do not touch the new lamp with your hands. Use lint-free gloves, G01306.

- (a) Remove the lens assembly. To remove it, do this task: Upper Body Anti-Collision Light Lens Assembly Replacement, TASK 33-44-01-960-803.
- (b) Loosen fastener [2].
- (c) Replace the lamp assembly [3].
- (d) Tighten the fastener [2].
- (e) Install the lens assembly. To install it, do this task: Upper Body Anti-Collision Light Lens Assembly Replacement, TASK 33-44-01-960-803.

#### SUBTASK 33-44-01-860-002

(4) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-44-01-860-003

(5) Remove the safety tag and close this applicable circuit breaker:

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	9	C33486	RD ANTI-COLL LTS

## SUBTASK 33-44-01-710-001

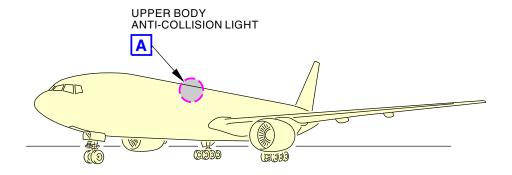
**EFFECTIVITY** 

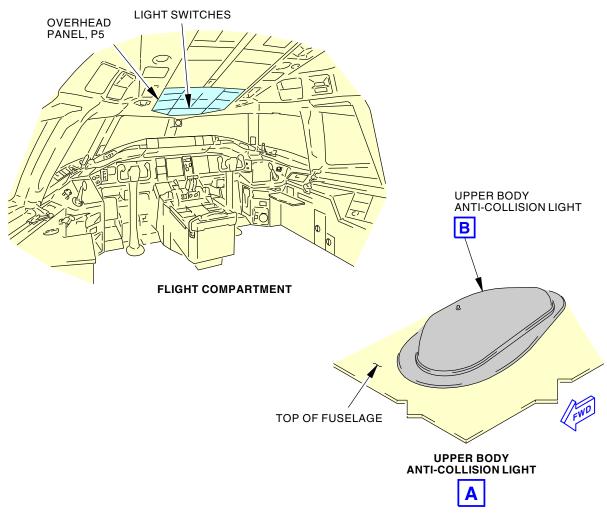
**ARO ALL** 

- (6) Do a test of the new lamp assembly.
  - (a) At the overhead panel, P5, set the switch for the upper anti-collision light (beacon) to the on mode.
    - 1) Make sure the light flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

END	OF TA	NOV	
		7.2V ·	







F69331 S0006420317\_V3

Upper Body Anti-Collision Light - Lamp Assembly Replacement Figure 201/33-44-01-990-801 (Sheet 1 of 2)

EFFECTIVITY

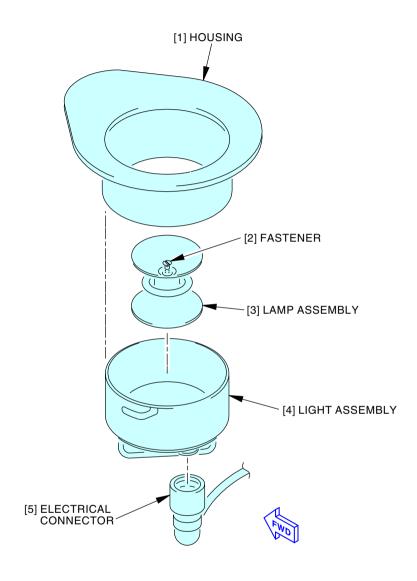
ARO ALL

Page 203

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





## **UPPER BODY ANTI-COLLISION LIGHT**



D03023 S0006420318\_V2

Upper Body Anti-Collision Light - Lamp Assembly Replacement Figure 201/33-44-01-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-44-01

Page 204 Sep 05/2016



#### TASK 33-44-01-960-802

## 3. Upper Body Anti-Collision Light - Light Assembly Replacement

(Figure 202)

NOTE: This procedure is a scheduled maintenance task.

#### A. General

(1) Replace the light assembly from the left aisle of the passenger compartment.

## B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
25-21-06-000-801	Main Ceiling Panel - Removal (P/B 401)	
25-21-06-400-801	Main Ceiling Panel - Installation (P/B 401)	
WDM 33-44-13	Wiring Diagram Manual	

## C. Consumable Materials

Reference	Description	Specification
G01306	Gloves - Lint-free	

## D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
4	Light assembly	Not Specified	

## E. Location Zones

Zone	Area
223	Area Above Passenger Compartment Ceiling, Left - Section 41

#### F. Procedure

SUBTASK 33-44-01-860-004

(1) Open this applicable circuit breaker and install safety tag:

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>		
Ε	9	C33486	RD ANTI-COLL LTS		
(WDM 33-44-13)					

#### SUBTASK 33-44-01-960-002

(2) Do these steps to replace the light assembly:

NOTE: Do not touch the new lamp with your hands. Use lint-free gloves, G01306.

(a) To open the inboard ceiling panel below the light, do this task: Main Ceiling Panel - Removal, TASK 25-21-06-000-801.

NOTE: To reach the light, stand on the platform inboard of the opening.

- (b) Disconnect the electrical connector [5].
- (c) Replace the light assembly [4].

NOTE: Turn the light assembly counterclockwise to disengage it from the housing [1] and clockwise to install it.

- (d) Connect the electrical connector [5] to the new light assembly.
- (e) To close the ceiling panel, do this task: Main Ceiling Panel Installation, TASK 25-21-06-400-801.

ARO ALL



#### SUBTASK 33-44-01-860-005

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-44-01-860-006

(4) Remove the safety tag and close this applicable circuit breaker:

Right P	ower N	<i>l</i> lanagemen	it Panel, P210
Row	<u>Col</u>	<u>Number</u>	<u>Name</u>

_	0	C2240C	DD ANTLOOLL LTC
	9	C33486	RD ANTI-COLL LTS

#### SUBTASK 33-44-01-710-003

- (5) Do a test of the new light assembly.
  - (a) At the overhead panel, P5, set the switch for the upper anti-collision light (beacon) to the on mode.
    - 1) Make sure the light flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

----- END OF TASK -----

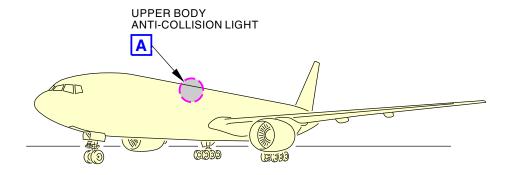
33-44-01

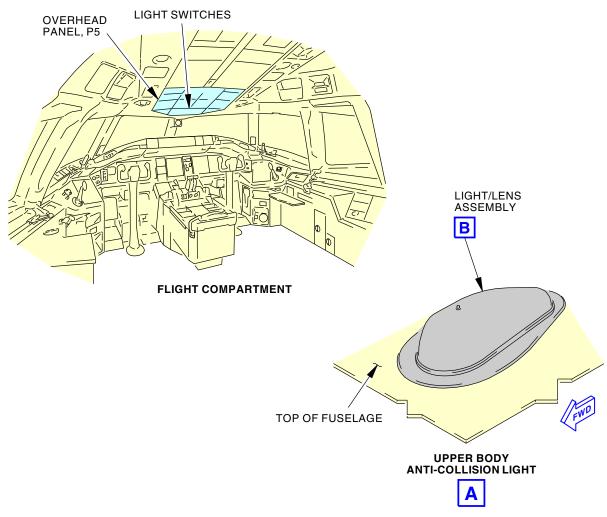
Page 206 Jan 05/2015

- EFFECTIVITY ·

**ARO ALL** 







F69341 S0006420320\_V3

Upper Body Anti-Collision Light - Light/Lens Assembly Replacement Figure 202/33-44-01-990-802 (Sheet 1 of 2)

EFFECTIVITY

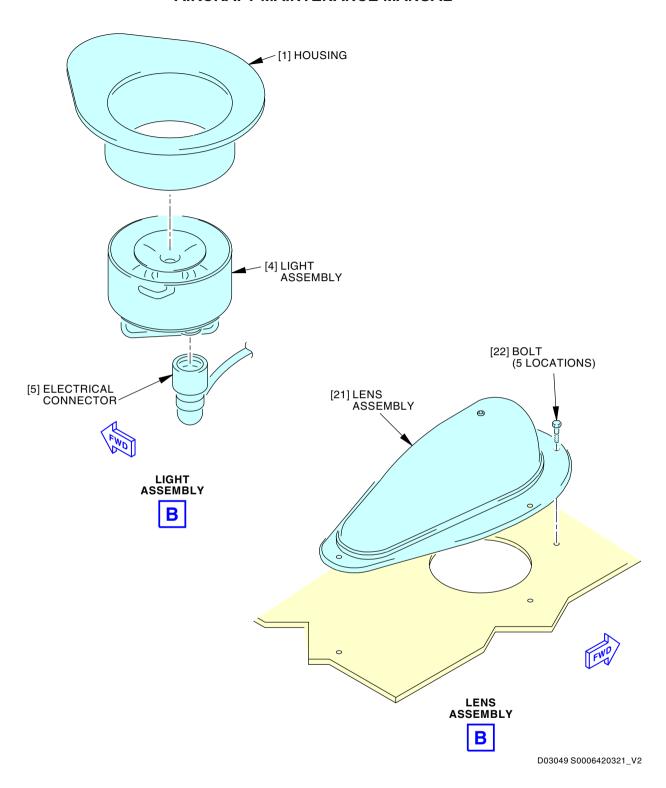
ARO ALL

Page 207

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





Upper Body Anti-Collision Light - Light/Lens Assembly Replacement Figure 202/33-44-01-990-802 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

Page 208

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



#### TASK 33-44-01-960-803

## 4. Upper Body Anti-Collision Light - Lens Assembly Replacement

(Figure 202)

#### A. General

(1) Go out of the airplane, above the fuselage, to replace the lens assembly.

#### B. References

Reference	Title
20-11-00-910-801	Standard Torque Values (P/B 201)
WDM 33-44-13	Wiring Diagram Manual

## C. Consumable Materials

Reference	Description	Specification
C00913	Compound - Corrosion Inhibiting Material, Nondrying Resin Mix	BMS3-27
G50237	Compound - Corrosion Inhibiting, Non-drying - Cor-Ban 27L	BMS3-38

## D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
21	Lens assembly	33-44-11-50-120	ARO ALL
		33-44-11-50A-335	ARO ALL

#### E. Location Zones

Zone	Area
223	Area Above Passenger Compartment Ceiling, Left - Section 41
224	Area Above Passenger Compartment Ceiling, Right - Section 41

## F. Procedure

SUBTASK 33-44-01-860-007

(1) Open this applicable circuit breaker and install safety tag:

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	9	C33486	RD ANTI-COLL LTS
(WDM 3	33-44-1	13):	

SUBTASK 33-44-01-960-003



USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.

33-44-01

ARO ALL

- EFFECTIVITY -

Page 209

Jan 05/2018



## (WARNING PRECEDES)



DO NOT GET THIS MATERIAL IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM THIS MATERIAL. PUT ON A RESPIRATOR, EYE PROTECTION (GOGGLES, OR OTHER APPROVED PROTECTION), AND GLOVES BEFORE YOU USE THIS MATERIAL. MAKE SURE THAT THERE IS SUFFICIENT AIRFLOW. KEEP THIS MATERIAL AWAY FROM SPARKS, FLAME, AND HEAT. THIS MATERIAL CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

- (2) Do these steps to replace the lens assembly:
  - (a) Remove the bolts [22].
  - (b) Replace the lens assembly [21].
  - (c) Apply Cor-Ban 27L Compound, G50237 or Mastinox 6856 K, C00913 to the threads and shank of bolts [22].
  - (d) Install the bolts [22]. Refer to Standard Torque Values, TASK 20-11-00-910-801.

#### SUBTASK 33-44-01-860-008

(3) Remove the safety tag and close this applicable circuit breaker:

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	9	C33486	RD ANTI-COLL LTS

----- END OF TASK -----

## TASK 33-44-01-960-804

# 5. Upper Body Anti-Collision Light - Power Supply Replacement

(Figure 203)

NOTE: This procedure is a scheduled maintenance task.

#### A. General

- (1) Replace the power supply from the right aisle of the passenger compartment.
- (2) When you replace the power supply, do not discard it. Usually, you can repair the power supply with a new capacitor assembly. Do the repair in a shop.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-21-06-000-801	Main Ceiling Panel - Removal (P/B 401)
25-21-06-400-801	Main Ceiling Panel - Installation (P/B 401)
WDM 33-44-13	Wiring Diagram Manual

## C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

ARO ALL



Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550).
	Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

## D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
44	Power supply assembly	33-44-11-01-221	ARO ALL
		33-44-11-01A-212	ARO ALL

#### E. Location Zones

Zone	Area
224	Area Above Passenger Compartment Ceiling, Right - Section 41

#### F. Procedure

SUBTASK 33-44-01-860-009

(1) Open this applicable circuit breaker and install safety tag:

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	9	C33486	RD ANTI-COLL LTS

(WDM 33-44-13)

SUBTASK 33-44-01-960-004



EFFECTIVITY -

**ARO ALL** 

DO NOT TOUCH THE POWER SUPPLY FOR 3 MINUTES AFTER YOU REMOVE ELECTRICAL POWER. AN ELECTRICAL SHOCK CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

- (2) Do these steps to replace the power supply:
  - (a) To open the outboard ceiling panel below the light, do this task: Main Ceiling Panel Removal, TASK 25-21-06-000-801.
  - (b) Disconnect the electrical connectors [43].
  - (c) Loosen the fasteners [41].
  - (d) Replace the power supply assembly [44].
    - 1) Attach the ground wires [42].
  - (e) Tighten the fasteners [41].
  - (f) Use the electrical bonding intrinsically safe approved bonding meter, COM-1550, to make sure the resistance between the power supply and the fuselage measures no more than 0.0025 ohms.
  - (g) Connect the electrical connectors [43].
  - (h) To close the ceiling panel, do this task: Main Ceiling Panel Installation, TASK 25-21-06-400-801.



#### SUBTASK 33-44-01-860-010

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-44-01-860-011

(4) Remove the safety tag and close this applicable circuit breaker:

Right Power	<sup>r</sup> Management	Panel,	P210
-------------	-------------------------	--------	------

Row		Number	<u>Name</u>
E	9	C33486	RD ANTI-COLL LTS

#### SUBTASK 33-44-01-710-002

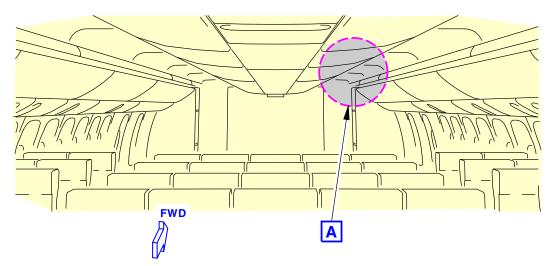
- (5) Do a test of the new power supply.
  - (a) At the overhead panel, P5, set the switch for the upper anti-collision light (beacon) to the on mode.
    - 1) Make sure the light flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

——— END OF TASK ———

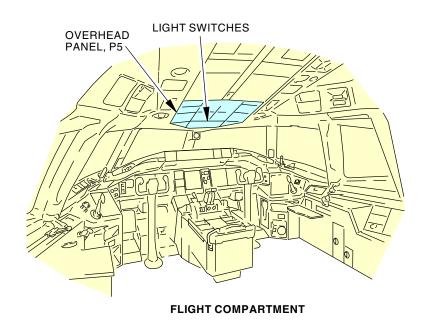
33-44-01

- EFFECTIVITY ·









F69902 S0006420324\_V2

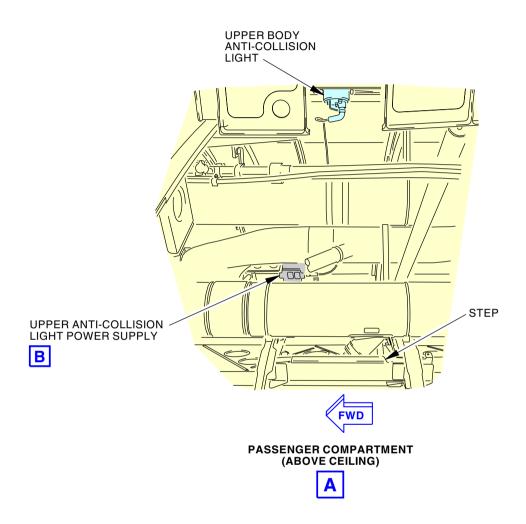
Upper Body Anti-Collision Light - Power Supply Replacement Figure 203/33-44-01-990-803 (Sheet 1 of 3)

ARO ALL
D633W101-ARO

33-44-01

Page 213 Jan 05/2017





F69904 S0006420325\_V3

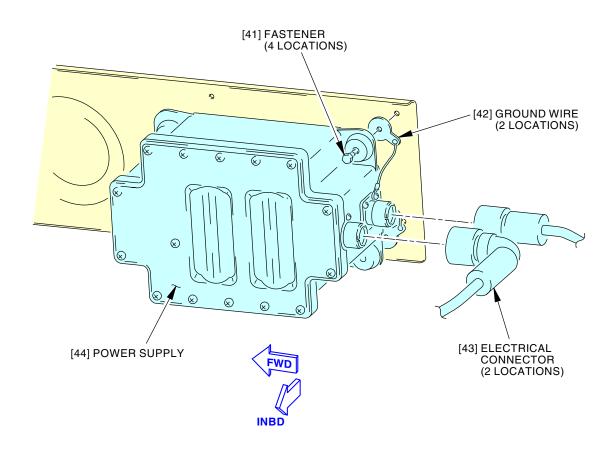
Upper Body Anti-Collision Light - Power Supply Replacement Figure 203/33-44-01-990-803 (Sheet 2 of 3)

ARO ALL

33-44-01

Page 214 Jan 05/2017





#### **UPPER ANTI-COLLISION LIGHT POWER SUPPLY**



E57537 S0006420328\_V2

Upper Body Anti-Collision Light - Power Supply Replacement Figure 203/33-44-01-990-803 (Sheet 3 of 3)

ARO ALL
D633W101-ARO

33-44-01

Page 215 Jan 05/2017



## LOWER ANTI-COLLISION LIGHT (BEACON) - MAINTENANCE PRACTICES

## 1. General

- A. This procedure has these tasks:
  - (1) Lower Body Anti-Collision Light Lamp Assembly Replacement
  - (2) Lower Body Anti-Collision Light Light Assembly Replacement
  - (3) Lower Body Anti-Collision Light Lens Assembly Replacement
  - (4) Lower Body Anti-Collision Light Power Supply Replacement

#### TASK 33-44-02-960-801

## 2. Lower Body Anti-Collision Light - Lamp Assembly Replacement

(Figure 201)

## A. References

Reference	Title
20-11-00-910-801	Standard Torque Values (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-44-13	Wiring Diagram Manual

#### B. Consumable Materials

Reference	Description	Specification
C00913	Compound - Corrosion Inhibiting Material,	BMS3-27
	Nondrying Resin Mix	
G01306	Gloves - Lint-free	
G50237	Compound - Corrosion Inhibiting, Non-drying Cor-Ban 27L	- BMS3-38

## C. Location Zones

Zone	Area
30	Subzone 130

#### D. Procedure

SUBTASK 33-44-02-860-002

(1) Open this applicable circuit breaker and install safety tag:

# Right Power Management Panel, P210

Row	Col	Number	<u>Name</u>
E	9	C33486	RD ANTI-COLL LTS
(WDM	33-44-1	13)	

SUBTASK 33-44-02-960-001



USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.

33-44-02

l D633W101-ARO



## (WARNING PRECEDES)



DO NOT GET THIS MATERIAL IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM THIS MATERIAL. PUT ON A RESPIRATOR, EYE PROTECTION (GOGGLES, OR OTHER APPROVED PROTECTION), AND GLOVES BEFORE YOU USE THIS MATERIAL. MAKE SURE THAT THERE IS SUFFICIENT AIRFLOW. KEEP THIS MATERIAL AWAY FROM SPARKS, FLAME, AND HEAT. THIS MATERIAL CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(2) Do these steps to replace the lamp assembly:

NOTE: Do not touch the new lamp with your hands. Use lint-free gloves, G01306.

- (a) Remove the bolt [4] and lens assembly [5].
- (b) Loosen the fastener [3] from the light assembly [1].
- (c) Replace the lamp assembly [2].
- (d) Tighten the fastener [3].
- (e) Install the lens assembly [5] and bolt [4].
  - Apply Cor-Ban 27L Compound, G50237 or Mastinox 6856 K, C00913 to the thread and shank of bolts [4].
  - 2) Install the bolts [4]. Refer to Standard Torque Values, TASK 20-11-00-910-801.

#### SUBTASK 33-44-02-860-001

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-44-02-860-003

(4) Remove the safety tag and close this applicable circuit breaker:

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	9	C33486	RD ANTI-COLL LTS

#### SUBTASK 33-44-02-710-001

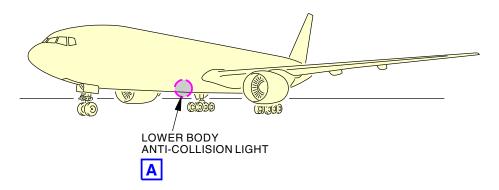
- (5) Do a test of the new lamp assembly.
  - (a) At the overhead panel, P5, set the switch for the lower anti-collision light (beacon) to the on mode.
    - 1) Make sure the lamp flashes.
  - (b) Set the switch to the off mode.
    - Make sure the lamp goes off.

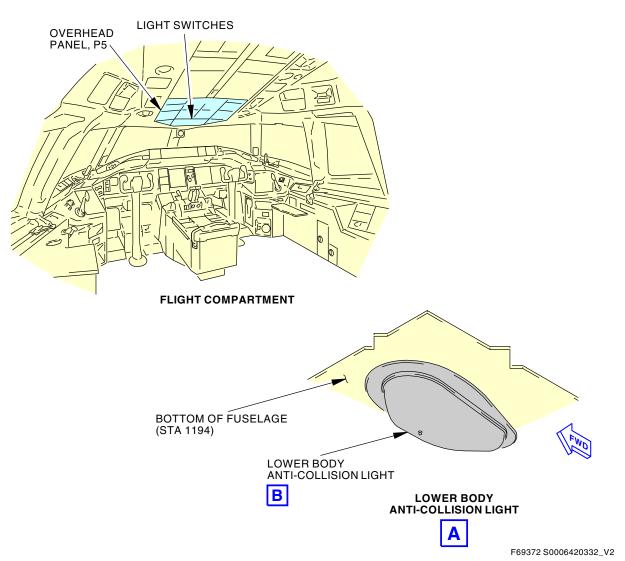
33-44-02

ARO ALL

EFFECTIVITY







Lower Body Anti-Collision Light - Lamp Assembly Replacement Figure 201/33-44-02-990-801 (Sheet 1 of 2)

EFFECTIVITY

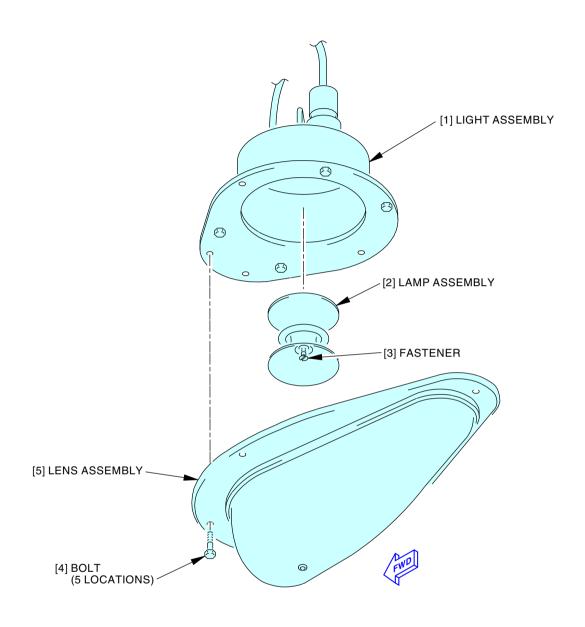
ARO ALL

Page 203

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





## **LOWER BODY ANTI-COLLISION LIGHT**



D02916 S0006420333\_V2

Lower Body Anti-Collision Light - Lamp Assembly Replacement Figure 201/33-44-02-990-801 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-44-02

Page 204 Sep 05/2016



#### TASK 33-44-02-960-802

## 3. Lower Body Anti-Collision Light - Light Assembly Replacement

(Figure 202)

NOTE: This procedure is a scheduled maintenance task.

#### A. References

Reference	Title
20-11-00-910-801	Standard Torque Values (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-44-13	Wiring Diagram Manual

#### B. Consumable Materials

Reference	Description	Specification
C00913	Compound - Corrosion Inhibiting Material, Nondrying Resin Mix	BMS3-27
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5 Class A
G01306	Gloves - Lint-free	
G50237	Compound - Corrosion Inhibiting, Non-drying - Cor-Ban 27L	BMS3-38

#### C. Location Zones

Zone	Area	
130	Subzone 130	

#### D. Procedure

SUBTASK 33-44-02-860-004

(1) Open this applicable circuit breaker and install safety tag:

## **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	9	C33486	RD ANTI-COLL LTS
(WDM 3	33-44-1	3)	

SUBTASK 33-44-02-960-002



USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.



DO NOT GET THIS MATERIAL IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM THIS MATERIAL. PUT ON A RESPIRATOR, EYE PROTECTION (GOGGLES, OR OTHER APPROVED PROTECTION), AND GLOVES BEFORE YOU USE THIS MATERIAL. MAKE SURE THAT THERE IS SUFFICIENT AIRFLOW. KEEP THIS MATERIAL AWAY FROM SPARKS, FLAME, AND HEAT. THIS MATERIAL CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(2) Do these steps to replace the light assembly:

NOTE: Do not touch the new lamp with your hands. Use lint-free gloves, G01306.

ARO ALL

33-44-02

Page 205 Jan 05/2018



- (a) Remove the bolt [29] and lens assembly [27].
- (b) Remove the bolt [30] and the housing [26].
- (c) Remove the light assembly [25] from the housing [26].

NOTE: Turn the light subassembly counterclockwise to disengage it from the housing.

- (d) Disconnect the electrical connector [24].
- (e) Remove the nut [23] and washer [22].
- (f) Disconnect the ground wire [21].
- (g) Replace the light assembly [25].
- (h) Connect the ground wire [21] to the new light assembly [25].
- (i) Install the washer [22] and nut [23].
- (j) Connect the electrical connector [24].
- (k) Install the light assembly [25] in the housing [26].

NOTE: Turn the light assembly clockwise until it engages in the housing.

- (I) Install the housing [26] and the bolt [30].
  - 1) Apply Cor-Ban 27L Compound, G50237 or Mastinox 6856 K, C00913 to the threads and shank of the bolts [30].
  - 2) Install the bolt [30]. Refer to Standard Torque Values, TASK 20-11-00-910-801.
- (m) Install the lens assembly [27] and the bolt [29].
  - 1) Apply Cor-Ban 27L Compound, G50237 or Mastinox 6856 K, C00913 to the threads and shank of the bolts [29].
  - 2) Install the bolt [29]. Refer to Standard Torque Values, TASK 20-11-00-910-801.
- (n) If the lens is dirty, clean it with a clean, soft, dry cotton wiper, G00034.
  - 1) Remove and discard the screw [28] on the bottom of the lens.

NOTE: The opening becomes a drain hole.

NOTE: On some airplanes, plug is installed.

## SUBTASK 33-44-02-860-005

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

# SUBTASK 33-44-02-860-006

(4) Remove the safety tag and close this applicable circuit breaker:

## Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Ε	9	C33486	RD ANTI-COLL LTS

## SUBTASK 33-44-02-710-002

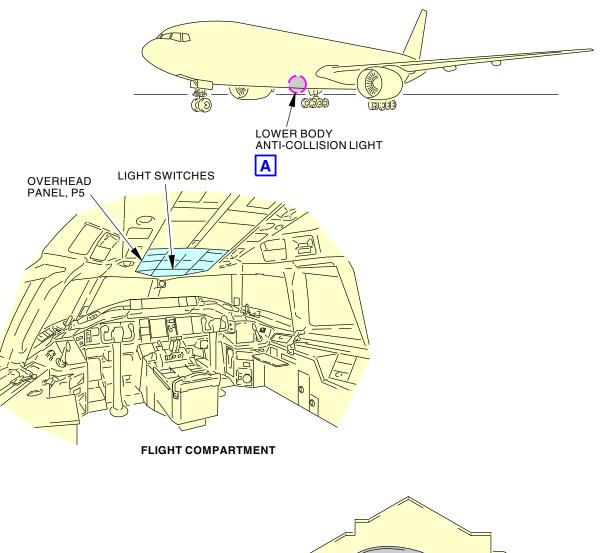
- (5) Do a test of the new light assembly.
  - (a) At the overhead panel, P5, set the switch for the lower anti-collision light (beacon) to the on mode.
    - 1) Make sure the light flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

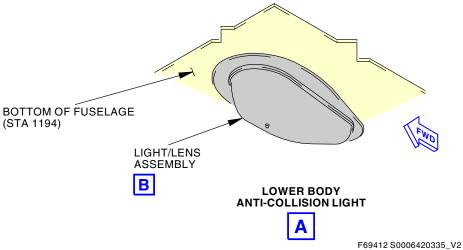
	<b>END</b>	OF	<b>TASK</b>	
--	------------	----	-------------	--

33-44-02

Page 206 Sep 05/2017







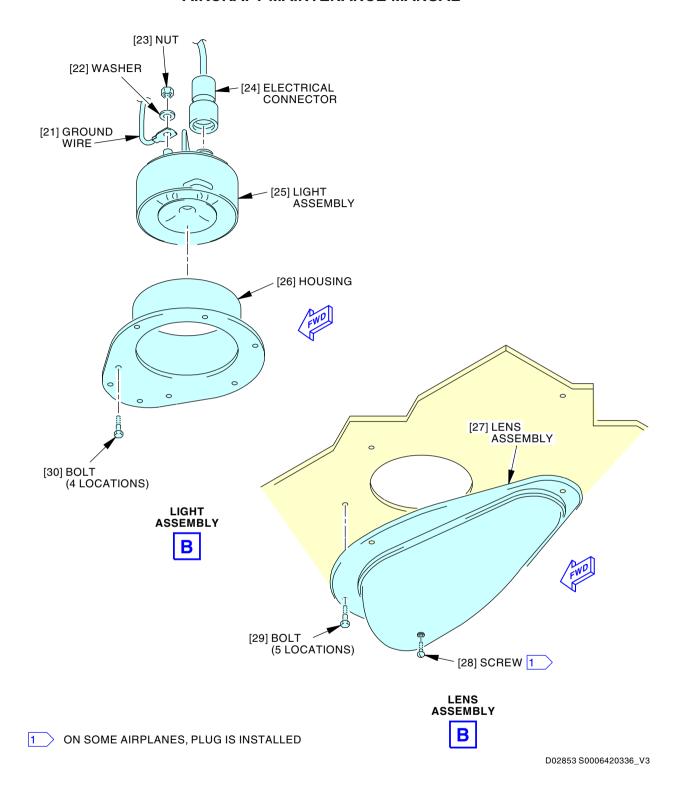
Lower Body Anti-Collision Light - Light/Lens Assembly Replacement Figure 202/33-44-02-990-802 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-44-02

Page 207 Sep 05/2016





Lower Body Anti-Collision Light - Light/Lens Assembly Replacement Figure 202/33-44-02-990-802 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

Page 208

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



#### TASK 33-44-02-960-803

## 4. Lower Body Anti-Collision Light - Lens Assembly Replacement

(Figure 202)

## A. References

Reference	Title	
20-11-00-910-801	Standard Torque Values (P/B 201)	
WDM 33-44-13	Wiring Diagram Manual	

## B. Consumable Materials

Reference	Description	Specification
C00913	Compound - Corrosion Inhibiting Material, Nondrying Resin Mix	BMS3-27
G50237	Compound - Corrosion Inhibiting, Non-drying - Cor-Ban 27L	BMS3-38

## C. Location Zones

Zone	Area
130	Subzone 130

#### D. Procedure

SUBTASK 33-44-02-860-007

(1) Open this applicable circuit breaker and install safety tag:

# Right Power Management Panel, P210

Row	<u>Col</u>	Number	<u>Name</u>
Е	9	C33486	RD ANTI-COLL LTS

(WDM 33-44-13)

SUBTASK 33-44-02-960-003



USE NITRILE GLOVES FOR SKIN PROTECTION WHEN YOU USE COR-BAN 27L, G50237. IF IT GETS ON YOUR SKIN, IMMEDIATELY REMOVE IT WITH WATER. IF THIS MATERIAL GETS IN YOUR EYES, IMMEDIATELY FLUSH YOUR EYES WITH WATER. GET MEDICAL AID. THIS MATERIAL CONTAINS FLAMMABLE AGENTS WHICH CAN CAUSE INJURIES TO PERSONNEL.



DO NOT GET THIS MATERIAL IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM THIS MATERIAL. PUT ON A RESPIRATOR, EYE PROTECTION (GOGGLES, OR OTHER APPROVED PROTECTION), AND GLOVES BEFORE YOU USE THIS MATERIAL. MAKE SURE THAT THERE IS SUFFICIENT AIRFLOW. KEEP THIS MATERIAL AWAY FROM SPARKS, FLAME, AND HEAT. THIS MATERIAL CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

- (2) Do these steps to replace the lens assembly:
  - (a) Remove the bolt [29].
  - (b) Replace the lens assembly [27].
    - 1) Remove and discard the screw [28] on the new lens assembly.

 $\underline{\mathsf{NOTE}} :$  The opening becomes a drain hole.

NOTE: On some airplanes, a plug is installed.

ARO ALL

33-44-02

Page 209 Jan 05/2018



- 2) Remove the plug if applicable.
- (c) Install the bolt [29].
  - 1) Apply Cor-Ban 27L Compound, G50237 or Mastinox 6856 K, C00913 to the shank of the bolts [29].
  - 2) Install the bolts [29]. Refer to Standard Torque Values, TASK 20-11-00-910-801.

#### SUBTASK 33-44-02-860-008

(3) Remove the safety tag and close this applicable circuit breaker:

Right	<b>Power</b>	Manageme	nt Panel, P210
Row	Col	<u>Number</u>	<u>Name</u>

E 9 C33486 RD ANTI-COLL LTS

----- END OF TASK -----

## TASK 33-44-02-960-804

## 5. Lower Body Anti-Collision Light - Power Supply Replacement

(Figure 203)

NOTE: This procedure is a scheduled maintenance task.

#### A. General

(1) When you replace the power supply, do not discard it. Usually, you can repair the power supply with a new capacitor assembly. Do the repair in a shop.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-44-13	Wiring Diagram Manual

## C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of COM-1550).
	Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: M1B Supplier: 3AD17

## D. Location Zones

Zone	Area
144	Main Landing Gear Wheel Well, Right

ARO ALL



#### E. Procedure

SUBTASK 33-44-02-860-009

(1) Open this applicable circuit breaker and install safety tag:

## Right Power Management Panel, P210

Row Col Number Name

E 9 C33486 RD ANTI-COLL LTS

(WDM 33-44-13)

SUBTASK 33-44-02-960-004



DO NOT TOUCH THE POWER SUPPLY FOR 3 MINUTES AFTER YOU REMOVE ELECTRICAL POWER. AN ELECTRICAL SHOCK CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

- (2) Do these steps to replace the power supply:
  - (a) Disconnect the electrical connectors [44].
  - (b) Loosen the fasteners [42].
  - (c) Replace the power supply assembly [41].
    - 1) Attach the ground wires [43].
  - (d) Tighten the fasteners [42].
  - (e) Use the electrical bonding intrinsically safe approved bonding meter, COM-1550, to make sure the resistance between the power supply and the fuselage measures no more than 0.0025 ohms.
  - (f) Connect the electrical connectors [44].

## SUBTASK 33-44-02-860-010

(3) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-44-02-860-011

(4) Remove the safety tag and close this applicable circuit breaker:

## **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	9	C33486	RD ANTI-COLL LTS

#### SUBTASK 33-44-02-710-003

- (5) Do a test of the new power supply.
  - (a) At the overhead panel, P5, set the switch for the lower anti-collision light (beacon) to the on mode.
    - 1) Make sure the light flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

END	OE 1	<b>TASK</b>	
	OF I	IASN	

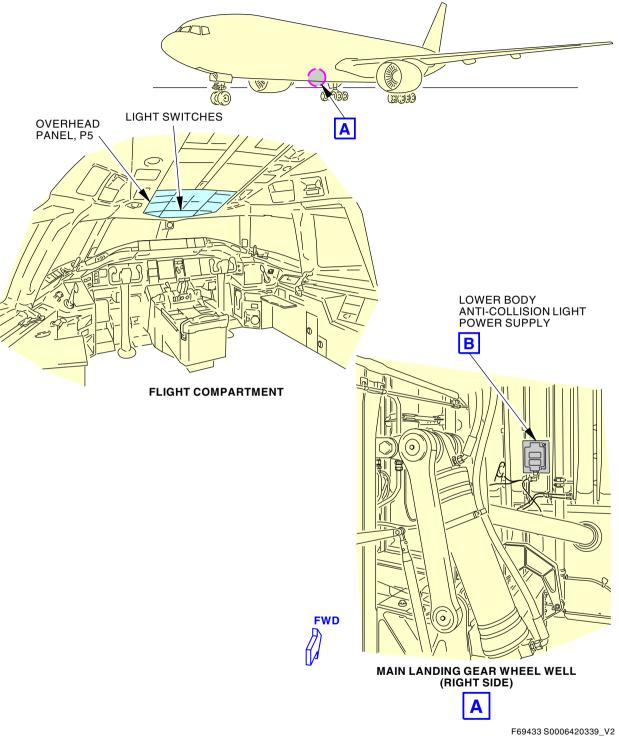
33-44-02

ARO ALL

· EFFECTIVITY ·

Page 211 Sep 05/2017



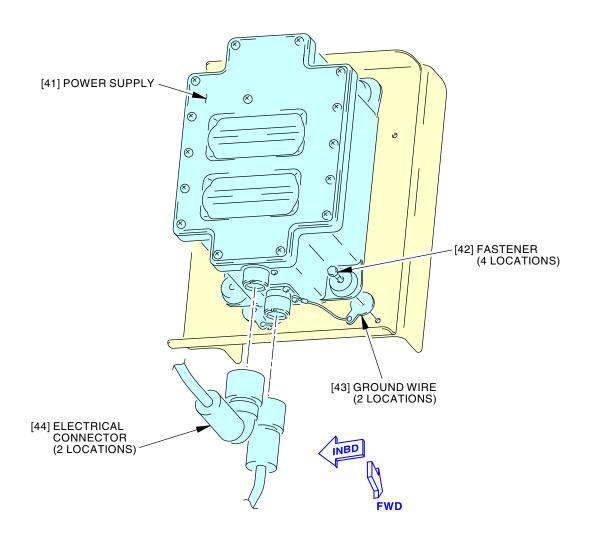


Lower Body Anti-Collision Light - Power Supply Replacement Figure 203/33-44-02-990-803 (Sheet 1 of 2)

· EFFECTIVITY ARO ALL D633W101-ARO 33-44-02

Page 212 Sep 05/2016





## LOWER ANTI-COLLISION LIGHT POWER SUPPLY



E56749 S0006420340\_V2

Lower Body Anti-Collision Light - Power Supply Replacement Figure 203/33-44-02-990-803 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-44-02

Page 213 Sep 05/2016



## WING ANTI-COLLISION LIGHTS (STROBE) - MAINTENANCE PRACTICES

## 1. General

- A. This procedure contains:
  - (1) Wing Anti-Collision Light Lamp Assembly Replacement
  - (2) Wing Anti-Collision Light Power Supply Replacement
  - (3) Wing Anti-Collision Light Disconnect the Electrical Connector
  - (4) Wing Anti-Collision Light Connect the Electrical Connector
  - (5) Wing Anti-Collision Light Lens Replacement

#### TASK 33-44-03-960-801

## 2. Wing Anti-Collision Light - Lamp Assembly Replacement

(Figure 201)

NOTE: This procedure is a scheduled maintenance task.

#### A. General

(1) The anti-collision light assembly consists of a lamp assembly mounted in a light assembly. To replace the lamp assembly, you must remove the light assembly first (TASK 57-32-01-000-801).

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
57-32-01-000-801	Raked Wingtip Removal (P/B 401)
WDM 33-44-11	Wiring Diagram Manual

## C. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

## D. Access Panels

Number	Name/Location
545CB	Wingtip Light Assembly Access Panel
645CB	Wingtip Light Access Panel

#### E. Procedure

SUBTASK 33-44-03-860-001

(1) Open this applicable circuit breaker and install safety tag:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C33487	WHT ANTI-COLL LTS
(WDM 3	33-44-1	l1)	

SUBTASK 33-44-03-960-005

(2) Do these steps to replace the lamp assembly [18] in the Anti-Collision Light:

ARO ALL



(a) Open these access panels as applicable:

<u>Number</u>	Name/Location
545CB	Wingtip Light Assembly Access Panel
645CB	Wingtip Light Access Panel

- (b) Do these steps to pull out the light assembly [2]:
  - 1) Disconnect the electrical connector [9].
  - 2) Loosen the two fasteners [1] on the forward end of the assembly.
  - 3) Loosen the lamp assembly [18] by rotating it away from the slots in the mounting structure.
  - 4) Pull the light assembly [2] through the opening.
  - 5) Remove the fastener [10] to disconnect the ground wire [8] and washers [12] to remove the lamp assembly [18] from the airplane.
- (c) Do these steps to remove the lamp assembly [18]:
  - 1) Loosen the four screws [13] from the side of the light assembly [2].
  - 2) Loosen the four screws [14] and remove the mounting plate [16] in front of the light assembly [2].
  - 3) Loosen the two captive screws [19] and screw [20] that hold the lamp assembly [18] in its position.
  - 4) Disconnect the electrical connectors [17] on each side of the lamp assembly [18].
  - 5) Lift off the lamp assembly [18] and all parts attached to it.
- (d) Do these steps to install the new lamp assembly [18]:
  - 1) Put the lamp assembly [18] on the light assembly [2].
  - 2) Connect the electrical connectors [17] on each side of the lamp assembly [18].
  - 3) Tighten the two captive screws [19] and screw [20] that hold the lamp assembly [18] in its position.
  - 4) Install the mounting plate [16] and tighten the four screws [14] in front of the light assembly [2].
  - 5) Tighten the four screws [13] on the side of the light assembly [2].
- (e) Do these steps to install the new light assembly [2]:
  - 1) Connect the ground wire [8] to the light assembly [2] using the fastener [10] and washers [12].
  - 2) Put the light assembly [2] through the opening, into the slots on the mounting structure, and rotate it into position.
  - 3) Tighten the two fasteners [1] that hold it in position.
  - 4) Connect the electrical connector [9] to the light assembly [2].
- (f) Close these access panels as applicable:

<u>Number</u>	Name/Location
545CB	Wingtip Light Assembly Access Panel
645CB	Wingtip Light Access Panel

#### SUBTASK 33-44-03-860-002

- (3) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

ARO ALL



#### SUBTASK 33-44-03-860-003

(4) Remove the safety tag and close this applicable circuit breaker:

#### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	Name
Е	24	C33487	WHT ANTI-COLL LTS

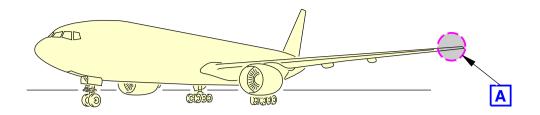
#### SUBTASK 33-44-03-710-002

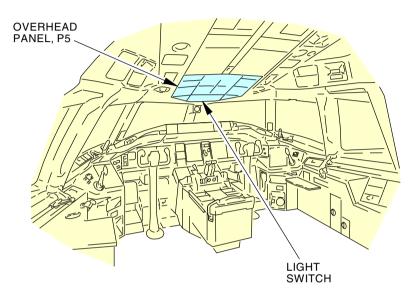
- (5) Do a test of the new light assembly [2].
  - (a) At the overhead panel, P5, set the switch for the wing anti-collision light (strobe) to the on mode.
    - 1) Make sure the lamp flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the lamp goes off.

——— END OF TASK ———

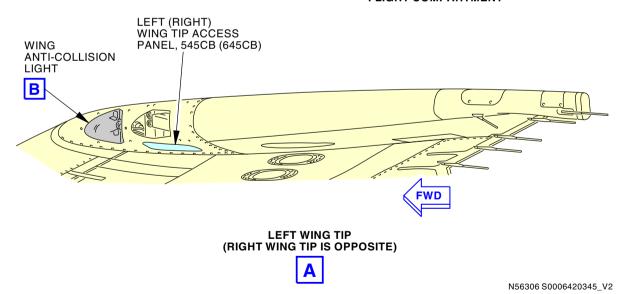
ARO ALL 33-44-03







#### FLIGHT COMPARTMENT



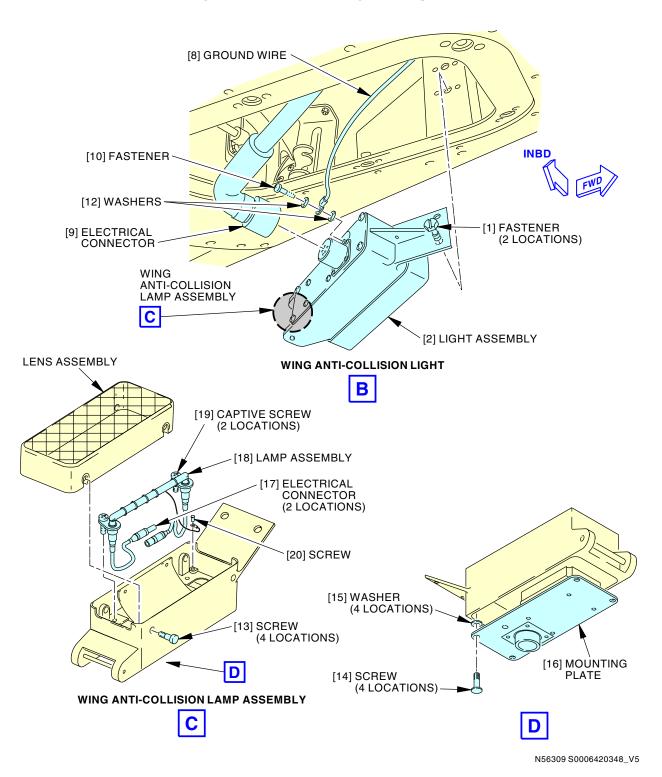
Wing Anti-Collision Light - Lamp Assembly Replacement Figure 201/33-44-03-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-44-03

Page 204 Sep 05/2016





Wing Anti-Collision Light - Lamp Assembly Replacement Figure 201/33-44-03-990-801 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

Page 205

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



#### TASK 33-44-03-960-802

# 3. Wing Anti-Collision Light - Power Supply Replacement

(Figure 202)

NOTE: This procedure is a scheduled maintenance task.

#### A. General

(1) When you replace the power supply, do not discard it. Usually, you can repair the power supply with a new capacitor assembly. Do the repair in a shop.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-44-11	Wiring Diagram Manual

# C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in
	Class I, Divisions I & II hazardous (classified) locations. Outside these hazardous locations, COM-614 can be used in lieu of
	•
	COM-1550).
	Part #: 620LK Supplier: 1CRL2
	Part #: M1 Supplier: 3AD17
	Part #: T477W Supplier: 01014
	Opt Part #: M1B Supplier: 3AD17

#### D. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

#### E. Access Panels

Number	Name/Location
521AHB	Outboard Fixed Leading Edge Panel
621AHB	Outboard Fixed Leading Edge Panel

#### F. Procedure

SUBTASK 33-44-03-860-004

(1) Open this applicable circuit breaker and install safety tag:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C33487	WHT ANTI-COLL LTS
(WDM 33-44-11)			

— EFFECTIVITY — 33-44-03



#### SUBTASK 33-44-03-960-001



DO NOT TOUCH THE POWER SUPPLY FOR THREE MINUTES AFTER YOU REMOVE ELECTRICAL POWER. AN ELECTRICAL SHOCK CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

- (2) Do these steps to replace the power supply:
  - (a) Open these access panels:

<u>Number</u>	Name/Location
521AHB	Outboard Fixed Leading Edge Panel
621AHB	Outboard Fixed Leading Edge Panel

- (b) Disconnect the electrical connectors [21].
- (c) Loosen the fastener [23].
- (d) Replace the power supply [24].
  - 1) Attach the ground wire [22].
- (e) Tighten the fastener [23].
- (f) With the electrical bonding intrinsically safe approved bonding meter, COM-1550, make sure the resistance between the power supply and the fuselage measures no more than 0.0025 ohms.
- (g) Connect the electrical connectors [21].
- (h) Close these access panels:

<u>Number</u>	Name/Location
521AHB	Outboard Fixed Leading Edge Panel
621AHB	Outboard Fixed Leading Edge Panel

#### SUBTASK 33-44-03-860-005

- (3) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-44-03-860-006

(4) Remove the safety tag and close this applicable circuit breaker:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C33487	WHT ANTI-COLL LTS

#### SUBTASK 33-44-03-710-003

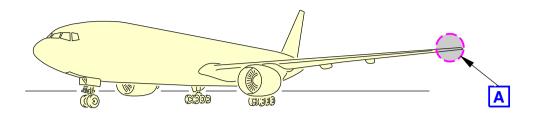
- (5) Do a test of the new power supply [24].
  - (a) At the overhead panel, P5, set the switch for the wing anti-collision light (strobe) to the on mode.
    - 1) Make sure the light flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

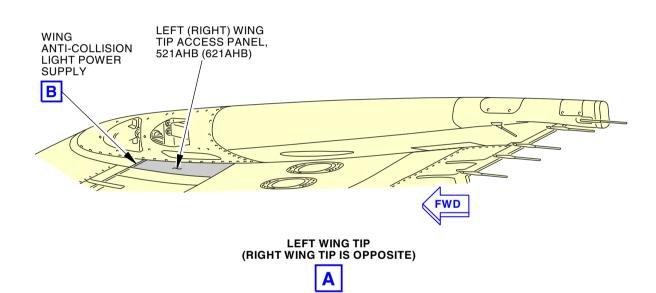
33-44-03

ARO ALL

Page 207 Jan 05/2018







N56318 S0006420352\_V3

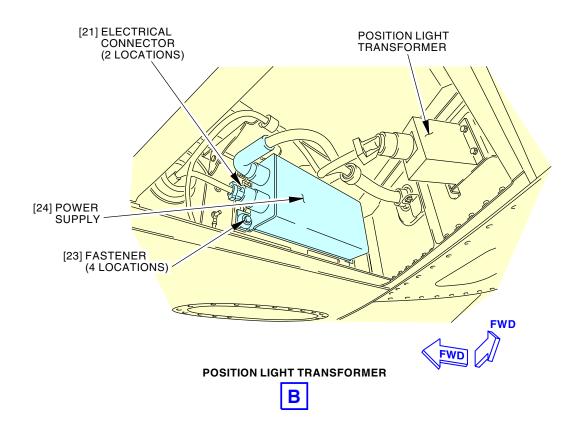
Wing Anti-Collision Light - Power Supply Replacement Figure 202/33-44-03-990-802 (Sheet 1 of 2)

ARO ALL

33-44-03

Page 208 Sep 05/2016





N56322 S0006420355\_V2

Wing Anti-Collision Light - Power Supply Replacement Figure 202/33-44-03-990-802 (Sheet 2 of 2)

ARO ALL

33-44-03

Page 209 Sep 05/2016



#### TASK 33-44-03-020-801

4. Wing Anti-Collision Lights - Disconnect the Electrical Connector

(Figure 202)

- A. General
  - (1) Use this procedure when it is necessary to remove the wing tip.
- B. References

Reference	Title		
WDM 33-44-11	Wiring Diagram Manual		

C. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

D. Access Panels

Number	Name/Location
521AHB	Outboard Fixed Leading Edge Panel
621AHB	Outboard Fixed Leading Edge Panel

E. Procedure

SUBTASK 33-44-03-860-007

(1) Open this circuit breaker and install safety tag:

(WDM 33-44-11)

Left Power Management Panel, P110

Row	Col	<u>Number</u>	Name
Е	24	C33487	WHT ANTI-COLL LTS

#### SUBTASK 33-44-03-010-001

- (2) Gain access to the electrical connector [21]:
  - (a) Open these access panels as applicable:

<u>Number</u>	Name/Location
521AHB	Outboard Fixed Leading Edge Panel
621AHB	Outboard Fixed Leading Edge Panel

SUBTASK 33-44-03-020-001



DO NOT TOUCH THE POWER SUPPLY FOR THREE MINUTES AFTER YOU REMOVE ELECTRICAL POWER. AN ELECTRICAL SHOCK CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(3) Disconnect the electrical connector [21].

 FND	OF TA	SK	

#### TASK 33-44-03-420-801

5. Wing Anti-Collision Lights - Connect the Electrical Connector

(Figure 202)

#### A. General

(1) Use this procedure when it is necessary to install the wing tip.

ARO ALL



#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

#### C. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

#### D. Access Panels

Number	Name/Location
521AHB	Outboard Fixed Leading Edge Panel
621AHB	Outboard Fixed Leading Edge Panel

#### E. Procedure

SUBTASK 33-44-03-420-001

(1) Connect the electrical connector [21].

SUBTASK 33-44-03-410-001

- (2) Close access to the electrical connector [21]:
  - (a) Close this access panel as applicable:

<u>Number</u>	Name/Location
521AHB	Outboard Fixed Leading Edge Panel
621AHB	Outboard Fixed Leading Edge Panel

#### SUBTASK 33-44-03-860-008

- (3) Make sure electrical power is supplied to the airplane.
  - (a) If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.

#### SUBTASK 33-44-03-860-009

(4) Remove the safety tag and close this applicable circuit breaker:

# Left Power Management Panel, P110

<u>Row</u>	Col	<u>number</u>	<u>name</u>
Е	24	C33487	WHT ANTI-COLL LTS

#### SUBTASK 33-44-03-710-001

- (5) Do a test of the light.
  - (a) At the overhead panel, P5, set the switch for the wing anti-collision light (strobe) to the on mode.
    - 1) Make sure the light flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

 END	UE.	<b>TASK</b>	
	OI.	IASIN	

#### TASK 33-44-03-960-804

#### 6. Wing Anti-Collision Lights - Lens Replacement

(Figure 201), (Figure 202)

#### A. General

(1) Use this procedure to replace the damaged anti-collision lens.

ARO ALL



#### B. References

Reference	Title
51-31-01-160-801	Prepare For Sealing (P/B 201)
57-32-01-000-801	Raked Wingtip Removal (P/B 401)
57-32-01-400-801	Raked Wingtip Installation (P/B 401)

#### C. Consumable Materials

Reference	Description	Specification	
A00933	Sealant - Silicone Rubber - RTV 159		
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5 Class A	
G50004	Tape - Vacuum Bag Sealant, SM 5126 Tacky Tape		
G50228	Tape - 3M 436 Vibration Damping Tape (Formerly 3M Y436)		

#### D. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

#### E. Procedure

SUBTASK 33-44-03-020-020

(1) Disconnect the electrical connector [21] (TASK 33-44-03-020-801).

SUBTASK 33-44-03-010-002

(2) If it is necessary to get clearance to aft of the lens, remove the wingtip light assembly [2] (TASK 57-32-01-000-801).

SUBTASK 33-44-03-000-001



KEEP THE AREA FREE OF CONTAMINATION. IF THE ADHESIVE SEALANT BECOMES LOOSE, IT CAN CAUSE DAMAGE TO THE AIRPLANE.

(3) Remove sealant around the periphery of housing and the anti-collision lens (TASK 51-31-01-160-801).

SUBTASK 33-44-03-900-001

(4) Remove and discard the damaged lens from housing.

SUBTASK 33-44-03-100-004

(5) Remove the used adhesive sealant from housing and edges of the lens opening (TASK 51-31-01-160-801).

SUBTASK 33-44-03-400-001

- (6) Put the new lens with rubber bands to keep the lens in position.
  - (a) Use 0.005 in. (0.127 mm) to 0.02 in. (0.51 mm) thick teflon shims (commercially available) to make sure that the lens does not touch the housing.
  - (b) Attach the lens with masking tape.

SUBTASK 33-44-03-200-001

(7) Do a check for a mismatch of the anti-collision lens to the surface of housing:

ARO ALL



- (a) Make sure the lens is flush to 0.025 +0.000 / -0.025 in. (0.64 +0.01 / -0.64 mm) at top and bottom of the wing tip, and other areas are no more than 0.03 in. (0.76 mm).
  - 1) If it is necessary, use thicker or thinner shims.

#### SUBTASK 33-44-03-400-003

(8) Do these steps to install the lens:



DO NOT GET PRIMER AND SEALANT IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM PRIMER AND SEALANT. PUT ON GOGGLES, AND GLOVES WHEN YOU USE PRIMER AND SEALANT. KEEP PRIMER AND SEALANT AWAY FROM SPARKS, FLAME, AND HEAT. PRIMER AND SEALANT IS POISONOUS AND FLAMMABLE, AND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

- (a) Apply RTV 159 sealant, A00933, into the space between the lens and the housing.
  - 1) Use an injection or potting gun to apply adhesive sealant.
- (b) Use a clean cotton wiper, G00034, to remove unwanted adhesive sealant from the outer surface of the lens and housing.
- (c) Let the first application dry for a minimum of 24 hours.
  - NOTE: Additional cure time is required when below room temperature and 50 percent relative humidity.
- (d) Use a clean cotton wiper, G00034, to remove unwanted adhesive sealant from the inner periphery of the lens.
- (e) Remove the shims, rubber bands and tape.



DO NOT GET PRIMER AND SEALANT IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM PRIMER AND SEALANT. PUT ON GOGGLES, AND GLOVES WHEN YOU USE PRIMER AND SEALANT. KEEP PRIMER AND SEALANT AWAY FROM SPARKS, FLAME, AND HEAT. PRIMER AND SEALANT IS POISONOUS AND FLAMMABLE, AND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

- (f) Apply a thin layer of sealant RTV 159 sealant, A00933, to fill the gap between the outer periphery of lens and housing.
  - 1) Let the adhesive sealant dry for a minimum of 24 hours.

NOTE: Additional cure time is required when below room temperature and 50 percent relative humidity.

(g) Use a clean cotton wiper, G00034, to remove unwanted sealant from the outer surface of the lens and housing.

#### SUBTASK 33-44-03-400-004

(9) Do these steps to install the lens if 24 hours cure time is not possible:

NOTE: This is a temporary repair only. To install the lens correctly, RTV 159 sealant, A00933, must be used. The RTV 159 sealant, A00933, requires 24 hours to cure. You must install the lens correctly with RTV 159 sealant, A00933, as soon as possible.

- (a) Remove the lamp assembly [3] (TASK 33-44-03-960-801).
- (b) Use a clean cotton wiper, G00034, to remove unwanted adhesive sealant from the outer surface of the lens and housing.

ARO ALL



- (c) Apply SM 5126 tacky tape, G50004, into the space between the lens and the housing.
  - 1) Remove the shims, rubber bands and tape.
- (d) Use a clean cotton wiper, G00034, to remove unwanted sealant from the outer surface of the lens and housing.
- (e) Secure the lens in place with 1 layer of 3M 436 Tape, G50228, to ensure that the 3M 436 Tape, G50228, goes from the upper surface of the lens to the lower surface of the lens with no tape seams along the leading edge of the lens.
- (f) Apply 2 layers of 3M 436 Tape, G50228, over new lens on the inside.
- (g) Apply 1 more layer of 3M 436 Tape, G50228, on the outside of lens.
- (h) Install the lamp assembly [3] (TASK 33-44-03-960-801).

NOTE: The lamp assembly must stay disconnected if the lens is not installed with RTV 159 sealant. A00933.

#### SUBTASK 33-44-03-410-002

(10) If the wingtip light assembly [2] was removed to replace the lens, install the wingtip light assembly [2] (TASK 57-32-01-400-801).

#### SUBTASK 33-44-03-420-003

(11) Install the electrical connector [21] (TASK 33-44-03-420-801).

----- END OF TASK -----

33-44-03

**EFFECTIVITY** 



#### WING ANTI-COLLISION LIGHTS (STROBES) - REPAIRS

#### 1. General

- A. This procedure contains:
  - (1) Wing Anti-Collision Lights Lens Repairs

#### TASK 33-44-03-300-802

- 2. Wing Anti-Collision Lights Lens Repairs
  - A. General
    - (1) Use this procedure to repair contaminated sealant between the anti-collision lens and housing.
  - B. References

Reference	Title
51-31-01-160-801	Prepare For Sealing (P/B 201)

C. Consumable Materials

Reference	Description	Specification
Δ00933	Sealant - Silicone Rubber - RTV 159	

D. Location Zones

Zone	Area
545	Raked Wing Tip, Left
645	Raked Wing Tip, Right

#### E. Procedure



KEEP THE AREA FREE OF CONTAMINATION. IF THE ADHESIVE SEALANT BECOMES LOOSE, IT CAN CAUSE DAMAGE TO THE AIRPLANE.

#### SUBTASK 33-44-03-020-019

- (1) Do a sealant check between the anti-collision lens and housing:
  - (a) Remove unwanted adhesive sealant between the anti-collision lens and housing where new sealant is to be applied (Prepare For Sealing, TASK 51-31-01-160-801).
  - (b) Make sure that the area is clean to apply the new sealant.

#### SUBTASK 33-44-03-390-006



DO NOT GET PRIMER AND SEALANT IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM PRIMER AND SEALANT. PUT ON GOGGLES, AND GLOVES WHEN YOU USE PRIMER AND SEALANT. KEEP PRIMER AND SEALANT AWAY FROM SPARKS, FLAME, AND HEAT. PRIMER AND SEALANT IS POISONOUS AND FLAMMABLE, AND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

(2) Apply RTV 159 sealant, A00933 into the space between the lens and the housing.

NOTE: Use an injection or potting gun to apply adhesive sealant.

#### SUBTASK 33-44-03-100-008

(3) Use a clean cloth to remove unwanted adhesive sealant from the inner periphery of the lens.

ARO ALL



#### SUBTASK 33-44-03-390-007

(4) Let the sealant dry for a minimum of 24 hours.

NOTE: Addition cure time is required when below room temperature and 50 percent relative humidity.

#### SUBTASK 33-44-03-390-013



DO NOT GET PRIMER AND SEALANT IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM PRIMER AND SEALANT. PUT ON GOGGLES, AND GLOVES WHEN YOU USE PRIMER AND SEALANT. KEEP PRIMER AND SEALANT AWAY FROM SPARKS, FLAME, AND HEAT. PRIMER AND SEALANT IS POISONOUS AND FLAMMABLE, AND CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.

- (5) Apply a thin layer of sealant RTV 159 sealant, A00933 to fill the gap between the outer periphery of lens and the housing.
  - (a) Let the adhesive sealant dry for a minimum of 24 hours.

NOTE: Addition cure time is required when below room temperature and 50 percent relative humidity.

#### SUBTASK 33-44-03-100-009

- (6) Use a clean cloth to remove unwanted sealant from the outer surface of the lens and housing. SUBTASK 33-44-03-390-014
- (7) Secure the lens to the housing, do these steps:

NOTE: Securing the lens to the housing is required when back-filling an adhesive erosion gap.

NOTE: A full 24 hour cure time on the ground is not necessary when back-filling an erosion gap.

- (a) Re-apply RTV 159 sealant, A00933 to back-filling the gap.
- (b) Wait for tack-free time.
- (c) Install speed tape to avoid humidity during flight.
- (d) Remove the speed tape after cure time in the conditions described as per the sealant data sheet.

------ END OF TASK ------

33-44-03

EFFECTIVITY



#### TAILCONE ANTI-COLLISION LIGHT (STROBE) - MAINTENANCE PRACTICES

#### 1. General

- A. This procedure has these tasks:
  - (1) Tailcone Anti-Collision Light Lamp Assembly Replacement
  - (2) Tailcone Anti-Collision Light Light Assembly Replacement
  - (3) Tailcone Anti-Collision Light Power Supply Replacement

#### TASK 33-44-04-960-801

#### 2. Tailcone Anti-Collision Light - Lamp Assembly Replacement

(Figure 201)

#### A. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-44-12	Wiring Diagram Manual	

#### B. Tools/Equipment

Reference	Description
STD-858	Tag - DO NOT OPERATE

#### C. Consumable Materials

Reference	Description	Specification
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142 Type II
G01306	Gloves - Lint-free	

#### D. Location Zones

Zone	Area
310	Subzone 310 - Section 48

#### E. Prepare for the Removal

SUBTASK 33-44-04-860-018

(1) Make sure the APU selector switch on the P5 overhead panel is OFF and attach a DO NOT OPERATE tag, STD-858.

#### F. Procedure

SUBTASK 33-44-04-860-001

(1) Open this applicable circuit breaker and install safety tag:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C33487	WHT ANTI-COLL LTS
(WDM 33-44-12)			

#### SUBTASK 33-44-04-960-001

- (2) Do these steps to replace the lamp assembly [6]:
  - (a) Loosen the fasteners [10] and remove the lens assembly [8].
    - 1) Do not disconnect the lanyard [9].
  - (b) Loosen the fasteners [7] and pull out the lamp assembly [6].

ARO ALL



- (c) Disconnect the electrical connector [1].
- (d) Remove the nut [3] and washer [4] and disconnect the ground jumper [5].
- (e) Remove the lamp assembly [6].
- (f) Connect the ground jumper [5] to the new lamp assembly [6].
  - 1) Do not touch the new lamp with your hands.
  - 2) Use lint-free gloves, G01306.
- (g) Install the washer [4] and nut [3].
  - 1) Fillet seal with the sealant, A02315.
- (h) Connect the electrical connector [1].
- (i) Install the new lamp assembly [6] and tighten the fasteners [7].
- (j) Install the lens assembly [8] and tighten the fasteners [10].

#### SUBTASK 33-44-04-860-002

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-44-04-860-003

(4) Remove the safety tag and close this applicable circuit breaker:

#### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
Ε	24	C33487	WHT ANTI-COLL LTS

#### SUBTASK 33-44-04-710-001

- (5) Do a test of the new lamp assembly [6].
  - (a) At the overhead panel, P5, set the switch for the tailcone anti-collision light (strobe) to the on mode.
    - 1) Make sure the lamp flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the lamp goes off.

#### SUBTASK 33-44-04-860-019

EFFECTIVITY

**ARO ALL** 

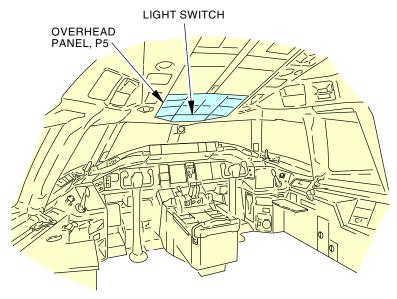
(6) Remove the DO NOT OPERATE tag, STD-858, from the APU selector switch on the P5 overhead panel.

END	OE.	TAG	SK	

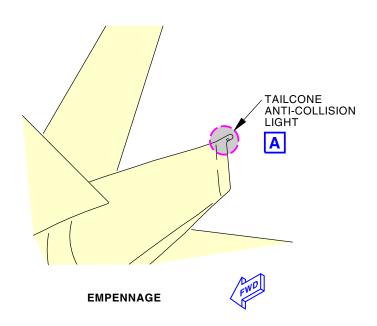
33-44-04

l D633W101-ARO





**FLIGHT COMPARTMENT** 



F69577 S0006420365\_V2

Tailcone Anti-Collision Light - Lamp Assembly Replacement Figure 201/33-44-04-990-801 (Sheet 1 of 2)

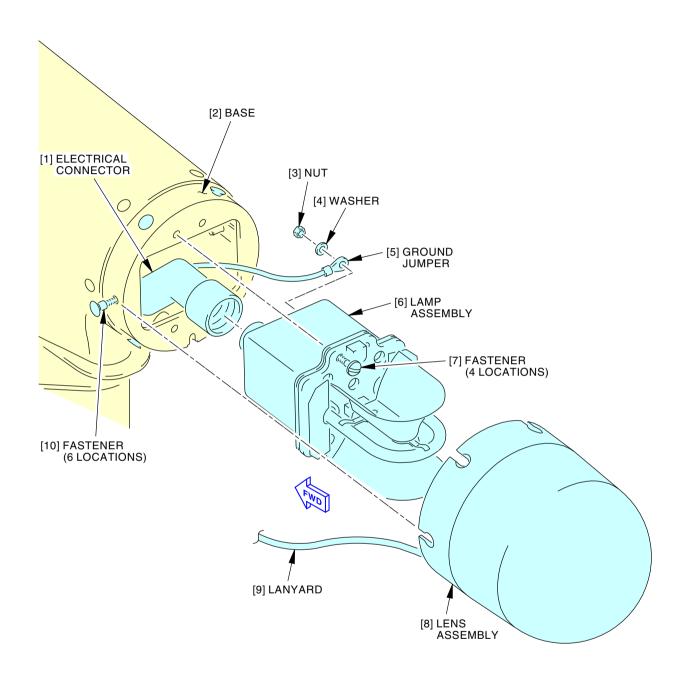
ARO ALL

D633W101-ARO

33-44-04

Page 203 Sep 05/2016





# **TAILCONE ANTI-COLLISION LIGHT**



C93479 S0006420366\_V2

Tailcone Anti-Collision Light - Lamp Assembly Replacement Figure 201/33-44-04-990-801 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-44-04

Page 204 Sep 05/2016



#### TASK 33-44-04-960-803

#### 3. Tailcone Anti-Collision Light - Light Assembly Replacement

(Figure 202)

#### A. References

Reference	Title
20-10-22-110-801	Remove Paint from Metal Surfaces with Lacquer Thinner or
	Solvent (P/B 701)
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-44-12	Wiring Diagram Manual

# B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in
	Class I, Divisions I & II hazardous (classified) locations. Outside
	these hazardous locations, COM-614 can be used in lieu of
	COM-1550).
	Part #: 620LK Supplier: 1CRL2
	Part #: M1 Supplier: 3AD17
	Part #: T477W Supplier: 01014
	Opt Part #: M1B Supplier: 3AD17

#### C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS5-95
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142 Type II
B00083	Solvent - VM&P Naphthas	TT-N-95 Type II, ASTM D-3735 Type III
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5 Class A

# D. Location Zones

Zone	Area
310	Subzone 310 - Section 48

#### E. Procedure

SUBTASK 33-44-04-860-005

(1) Open this applicable circuit breaker and install safety tag:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C33487	WHT ANTI-COLL LTS

(WDM 33-44-12)

SUBTASK 33-44-04-960-003

- (2) Do these steps to replace the light assembly [21]:
  - (a) Loosen the bolts [22] and pull out the light assembly [21].

ARO ALL



- (b) Disconnect the electrical connector [1].
- (c) Remove the nut [3] and washer [4], and disconnect the ground jumper [5].
- (d) Disconnect the lanyard [9].
- (e) Connect the ground jumper [5] to the new light assembly [21].
- (f) Connect the lanyard [9].
- (g) Install the washer [4] and nut [3].
  - 1) Fillet seal with the sealant, A02315.
- (h) Connect the electrical connector [1] to the new light assembly [21].
- (i) Use the electrical bonding intrinsically safe approved bonding meter, COM-1550, to make sure the resistance between the light assembly and the fuselage measures no more that 0.0025 ohms.
- (j) Electrically bond the base of the light assembly [21] to the fuselage.
  - 1) Apply solvent, B00083, to a clean white cotton wiper, G00034, and wipe the surfaces to be bonded (TASK 20-10-22-110-801).
  - Fillet seal the faying surfaces with the sealant, A00247 (BMS 5-95, Grade B, Class 1).
- (k) Install the bolts [22].

#### SUBTASK 33-44-04-860-006

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-44-04-860-007

(4) Remove the safety tag and close this applicable circuit breaker:

#### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C33487	WHT ANTI-COLL LTS

#### SUBTASK 33-44-04-710-003

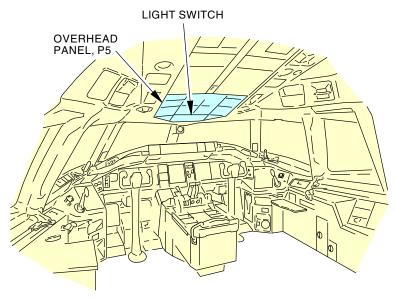
- (5) Do a test of the new light assembly [21].
  - (a) At the overhead panel, P5, set the switch for the tailcone anti-collision light (strobe) to the on mode.
    - 1) Make sure the light flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

END	OF	TAS	SK	

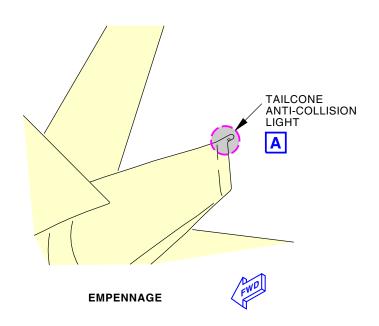
33-44-04

ARO ALL





**FLIGHT COMPARTMENT** 



F69581 S0006420368\_V2

Tailcone Anti-Collision Light - Light Assembly Replacement Figure 202/33-44-04-990-802 (Sheet 1 of 2)

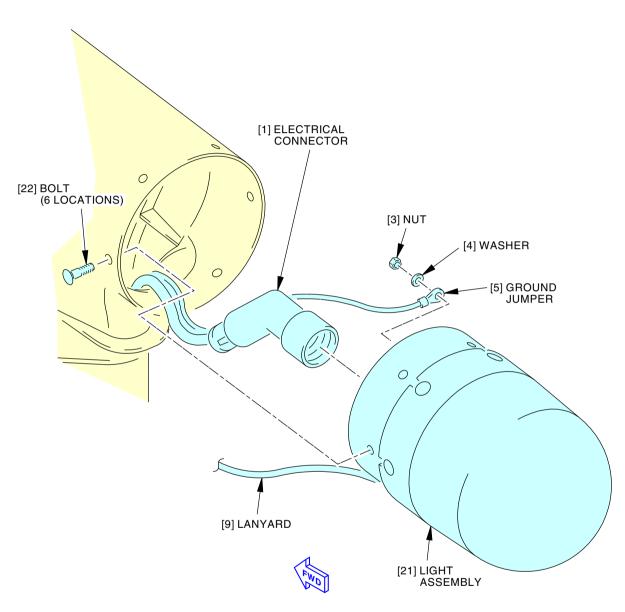
ARO ALL

D633W101-ARO

33-44-04

Page 207 Sep 05/2016





**TAILCONE ANTI-COLLISION LIGHT** 



D02740 S0006420369\_V2

Tailcone Anti-Collision Light - Light Assembly Replacement Figure 202/33-44-04-990-802 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-44-04

Page 208 Sep 05/2016



#### TASK 33-44-04-960-802

# 4. Tailcone Anti-Collision Light - Power Supply Replacement

(Figure 203)

#### A. General

(1) When you replace the power supply, do not discard it. Usually, you can repair the power supply with a new capacitor assembly. Do the repair in a shop.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-44-12	Wiring Diagram Manual

#### C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Bonding Meters - Approved, Intrinsically Safe (Approved for use in
	Class I, Divisions I & II hazardous (classified) locations. Outside
	these hazardous locations, COM-614 can be used in lieu of
	COM-1550).
	Part #: 620LK Supplier: 1CRL2
	Part #: M1 Supplier: 3AD17
	Part #: T477W Supplier: 01014
	Opt Part #: M1B Supplier: 3AD17

#### D. Location Zones

Zone	Area
314	Stabilizer Torsion Box Compartment, Right

#### E. Access Panels

Number	Name/Location	
313AL	Controls Bay Access Door	

#### F. Procedure

SUBTASK 33-44-04-860-009

(1) Open this applicable circuit breaker and install safety tag:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>	
Е	24	C33487	WHT ANTI-COLL LTS	
(WDM 33-44-12)				

SUBTASK 33-44-04-960-002



EFFECTIVITY -

**ARO ALL** 

DO NOT TOUCH THE POWER SUPPLY FOR THREE MINUTES AFTER YOU REMOVE ELECTRICAL POWER. AN ELECTRICAL SHOCK CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(2) Do these steps to place the power supply [43]:

33-44-04

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



(a) Open this access panel:

Number Name/Location

313AL Controls Bay Access Door

- (b) Disconnect the electrical connectors [44].
- (c) Loosen the fasteners [42].
- (d) Replace the power supply [43].
  - 1) Attach the ground wires [41].
- (e) Tighten the fasteners [42].
- (f) Connect the electrical connectors [44].
- (g) Use the electrical bonding intrinsically safe approved bonding meter, COM-1550, to make sure the resistence between the power supply and the fuselage measures no more that 0.0025 ohms.
- (h) Close this access panel:

<u>Number</u>	Name/Location
313AL	Controls Bay Access Door

#### SUBTASK 33-44-04-860-010

(3) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-44-04-860-011

(4) Remove the safety tag and close this applicable circuit breaker:

#### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Е	24	C33487	WHT ANTI-COLL LTS

#### SUBTASK 33-44-04-710-002

- (5) Do a test of the new power supply [43].
  - (a) At the overhead panel, P5, set the switch for the tailcone anti-collision light (strobe) to the on mode.
    - 1) Make sure the light flashes.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.

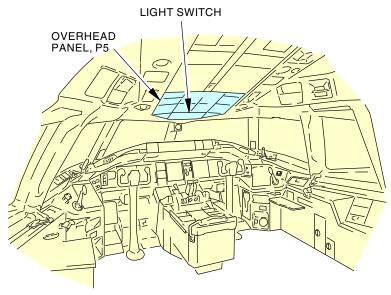
END	$^{\circ}$	TACK	
 END	OF	IASK	

33-44-04

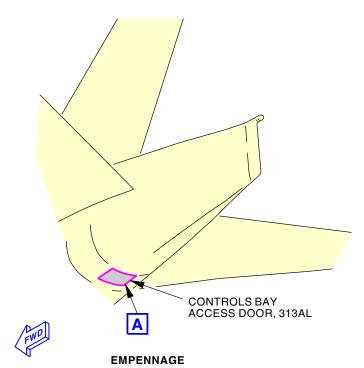
ARO ALL

**EFFECTIVITY** 





**FLIGHT COMPARTMENT** 



F69710 S0006420371\_V2

Tailcone Anti-Collision Light - Power Supply Replacement Figure 203/33-44-04-990-803 (Sheet 1 of 3)

ARO ALL

D633W101-ARO

33-44-04

Page 211 Sep 05/2016



# TAILCONE ANTI-COLLISION LIGHT POWER SUPPLY CONTROLS BAY ACCESS DOOR, 313AL

F69758 S0006420372\_V2

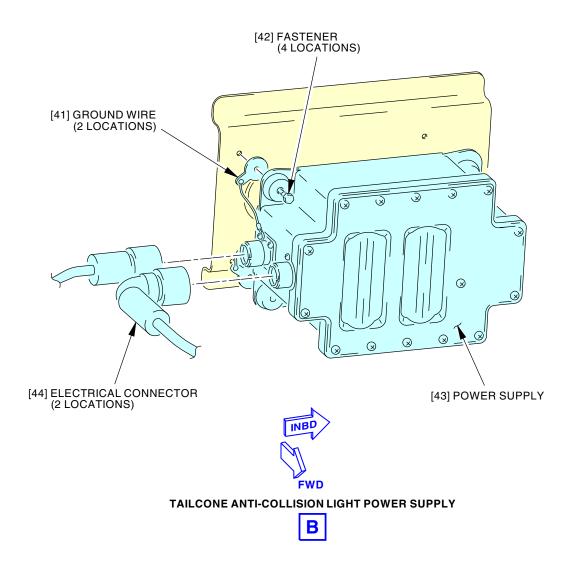
# Tailcone Anti-Collision Light - Power Supply Replacement Figure 203/33-44-04-990-803 (Sheet 2 of 3)

ARO ALL
D633W101-ARO

33-44-04

Page 212 Sep 05/2016





E53307 S0006420373\_V2

Tailcone Anti-Collision Light - Power Supply Replacement Figure 203/33-44-04-990-803 (Sheet 3 of 3)

ARO ALL
D633W101-ARO

33-44-04

Page 213 Sep 05/2016



# **LOGO LIGHTS - MAINTENANCE PRACTICES**

#### 1. General

- A. This procedure has these tasks:
  - (1) Logo lights Deactivation.
  - (2) Logo lights Activation.
  - (3) Logo light Lamp Replacement.
  - (4) Logo light Assembly Replacement.

#### TASK 33-45-00-040-801

#### 2. Logo Lights - Deactivation

(Figure 201)

# A. General

(1) This task removes electrical power to the logo lights.

#### B. Tools/Equipment

Reference	Description
STD-858	Tag - DO NOT OPERATE

#### C. Location Zones

Zone	Area
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
333	Left Horizontal Stabilizer - Auxiliary Spar to Front Spar
343	Right Horizontal Stabilizer - Auxiliary Spar to Front Spar

#### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### E. Procedure

SUBTASK 33-45-00-010-001

(1) Open this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 33-45-00-860-008



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Open these circuit breakers and install safety tags:

# **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	24	C33488	LOGO LTS
M	12	C33638	LOGO LT CTRL

ARO ALL

33-45-00



# F. Logo Lights - Tryout

NOTE: This tryout is to make sure that the logo lights are in a zero energy state. SUBTASK 33-45-00-700-001

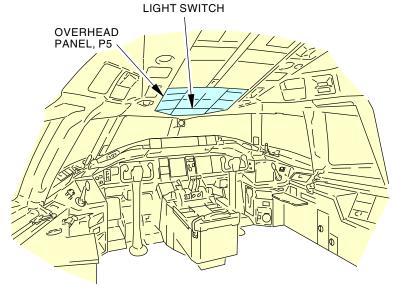
- (1) Do a test of the logo lights:
  - (a) At the overhead panel, P5, toggle the logo light switch.
    - 1) Make sure that the logo lights do not come on.
- (2) Install a DO NOT OPERATE tag, STD-858 on the logo light switch.

END	OE	TACK	
END	OF	<b>TASK</b>	

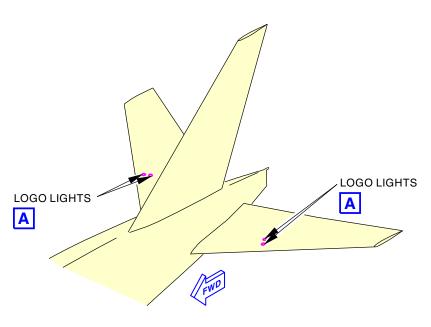
ARO ALL

33-45-00





**FLIGHT COMPARTMENT** 



**EMPENNAGE** 

F69876 S0006420384\_V2

Logo Lights Figure 201/33-45-00-990-804

ARO ALL
D633W101-ARO

33-45-00

Page 203 Sep 05/2016



#### TASK 33-45-00-440-801

#### 3. Logo Lights - Activation

(Figure 201)

#### A. General

(1) This task adds electrical power to the logo lights.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

#### C. Tools/Equipment

Reference	Description
STD-858	Tag - DO NOT OPERATE

#### D. Location Zones

Zone	Area
118	Main Equipment Center, Right
211	Flight Compartment, Left
212	Flight Compartment, Right
333	Left Horizontal Stabilizer - Auxiliary Spar to Front Spar
343	Right Horizontal Stabilizer - Auxiliary Spar to Front Spar

#### E. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### F. Procedure

SUBTASK 33-45-00-860-010

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-45-00-860-011



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Remove the safety tags and close these circuit breakers:

# Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	24	C33488	LOGO LTS
M	12	C33638	LOGO LT CTRI

#### SUBTASK 33-45-00-410-003

(3) Close this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 33-45-00-700-002

(4) Do a test of the logo lights:

ARO ALL

33-45-00



- (a) At the overhead panel, P5, Remove DO NOT OPERATE tag, STD-858 from the logo light switch.
- (b) Toggle the logo light switch.
  - 1) Make sure that the logo light comes on.

——— END OF TASK ———

#### TASK 33-45-00-960-801

# 4. Logo Light - Lamp Replacement

(Figure 202)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-45-11	Wiring Diagram Manual

# B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1578	Equipment - Personnel safety, Horizontal Stabilizer
	Part #: J20004-1 Supplier: 81205
STD-1177	Harness - Body

#### C. Consumable Materials

Reference	Description	Specification
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142 Type II
G01306	Gloves - Lint-free	

#### D. Location Zones

Zone	Area
333	Left Horizontal Stabilizer - Auxiliary Spar to Front Spar
343	Right Horizontal Stabilizer - Auxiliary Spar to Front Spar

#### E. Procedure

SUBTASK 33-45-00-860-007

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-805.

SUBTASK 33-45-00-840-004

(2) On the P10 control stand, put the Center and Right STAB CUT OFF switches in the CUT OUT position.

SUBTASK 33-45-00-840-005

(3) Open this circuit breaker and install safety tag:

Power Supply Assembly Center, M24301

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	2	CBB2-C	STAB TRIM

ARO ALL

33-45-00



#### SUBTASK 33-45-00-860-001

(4) Open this applicable circuit breaker and install safety tag:

(WDM 33-45-11)

#### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	24	C33488	LOGO LTS

#### SUBTASK 33-45-00-480-001

- (5) Set up the safety equipment, SPL-1578.
  - (a) Put on the body harness, STD-1177.
  - (b) Attach the end (hook) of the lanyard to the body harness, STD-1177.
  - (c) Attach the opposite end of the lanyard to the horizontal stabilizer.

#### SUBTASK 33-45-00-960-001

- (6) Do these steps to replace the lamp:
  - (a) Remove the lens assembly [1]:
    - 1) Loosen and remove the six fasteners [6].
    - 2) Carefully disengage the lens assembly [1] from the housing.
    - 3) Disconnect the bonding strap from the lens assembly [1].
  - (b) Remove the mirror retainer assembly [2].
    - 1) Remove the fasteners [3].
    - 2) Disconnect the bonding strap from the mirror retainer assembly [2].
  - (c) Make sure that the gasket [7] is not damaged.
  - (d) Remove the lamp [4].



DO NOT USE FORCE TO PUSH THE LAMP PINS IN THE SOCKET. THIS CAN CAUSE DAMAGE TO THE LAMP SOCKET CONTACT AND TO THE SOCKET INSULATION.

- (e) Align the lamp contacts to socket holes and carefully push the lamp [4] directly into the socket.
  - 1) Use lint-free gloves, G01306, to install new lamp.
- (f) Install the mirror retainer assembly [2] with the fastener [3].
  - 1) Connect the bonding strap.

#### SUBTASK 33-45-00-860-002

(7) Make sure that electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-45-00-860-003

(8) Remove the safety tag and close this applicable circuit breaker:

#### Right Power Management Panel, P210

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	24	C33488	LOGO LTS

ARO ALL 33-45-00



#### SUBTASK 33-45-00-840-006

(9) Remove the safety tag and close this circuit breaker:

# Power Supply Assembly Center, M24301

	Oabb.)	7 10001111213	Conton, ME 100
Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	2	CBB2-C	STAB TRIM

#### SUBTASK 33-45-00-840-007

(10) On the P10 control stand, put the Center and Right STAB CUT OFF switches in the NORM position.

#### SUBTASK 33-45-00-710-002

- (11) Do a test of the new lamp.
  - (a) At the P5 overhead panel, set the switch for the logo lights to the on mode.
    - 1) Make sure the lamp comes on.
    - 2) If it is necessary to adjust the direction of the light beam, do this step:
      - a) Turn the adjustment screws [5] until the light beam is on the logo.
  - (b) Set the switch to the off mode.
    - 1) Make sure the lamp goes off.

#### SUBTASK 33-45-00-410-001

- (12) Do these steps to install the lens assembly [1]:
  - (a) Connect the bonding strap to the lens assembly [1].
  - (b) Install the lens assembly [1] and tighten the fasteners [6].
  - (c) Apply sealant, A02315, to the clearance between the lens assembly [1] and the airplane skin.

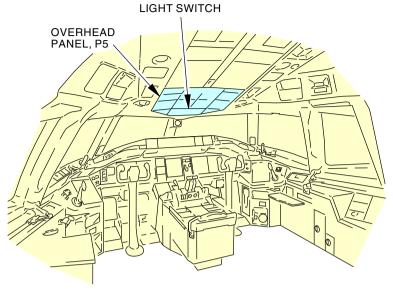
#### SUBTASK 33-45-00-080-001

- (13) Put away the safety safety equipment, SPL-1578.
  - (a) Disconnect the lanyard from the horizontal stabilizer.
  - (b) Disconnect the lanyard from the body harness, STD-1177.
  - (c) Remove the body harness, STD-1177.

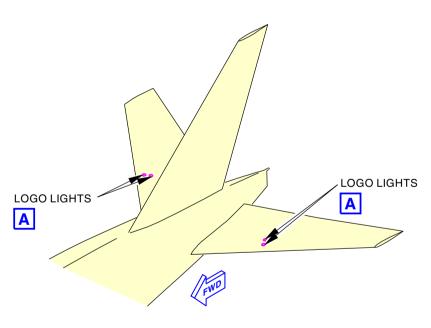
E	ND	OF	<b>TASK</b>	
---	----	----	-------------	--

33-45-00





FLIGHT COMPARTMENT



**EMPENNAGE** 

F69875 S0006420381\_V2

Logo Light - Lamp Replacement Figure 202/33-45-00-990-802 (Sheet 1 of 2)

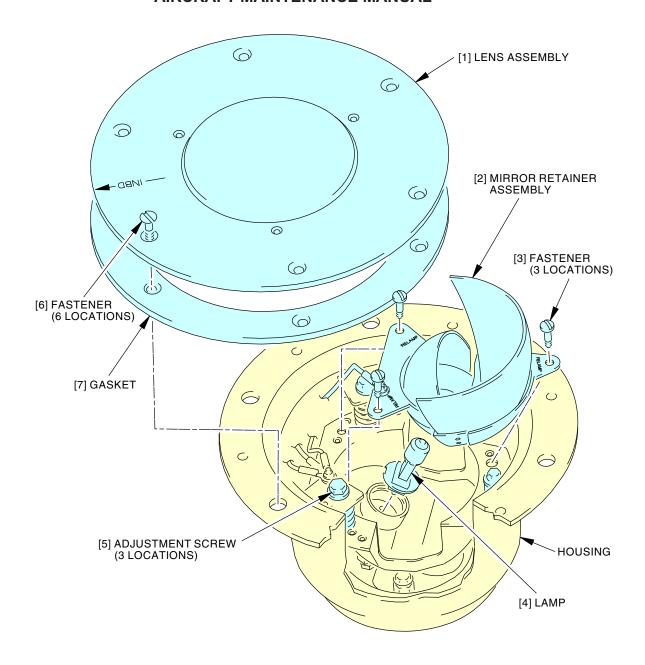
ARO ALL

D633W101-ARO

33-45-00

Page 208 Sep 05/2016





LOGO LIGHT (EXAMPLE)

D04274 S0006420382\_V4

Logo Light - Lamp Replacement Figure 202/33-45-00-990-802 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-45-00

Page 209 Sep 05/2017



### TASK 33-45-00-960-802

# 5. Logo Light - Light Assembly Replacement

(Figure 203)

#### A. General

(1) When you replace the light assembly, do not discard it. Usually, you can repair the assembly with a new transformer. Do the repair in a shop.

#### B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	
WDM 33-45-11	Wiring Diagram Manual	

### C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description		
SPL-1578	Equipment - Personnel safety, Horizontal Stabilizer		
	Part #: J20004-1 Supplier: 81205		
STD-1177	Harness - Body		

#### D. Consumable Materials

Reference	Description	Specification
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142 Type II
G01306	Gloves - Lint-free	

### E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity	
21	Light assembly	33-45-00-01-030	ARO ALL	
		33-45-00-01-035	ARO ALL	
		33-45-00-01-045	ARO ALL	
		33-45-00-01-050	ARO ALL	
23	Lens assembly	33-45-00-01-075	ARO ALL	
		33-45-00-01-080	ARO ALL	
		33-45-00-01-085	ARO ALL	

### F. Location Zones

Zone	Area
333	Left Horizontal Stabilizer - Auxiliary Spar to Front Spar
343	Right Horizontal Stabilizer - Auxiliary Spar to Front Spar

### G. Procedure

SUBTASK 33-45-00-840-001

(1) On the P10 control stand, put the Center and Right STAB CUT OFF switches in the CUT OUT position.

ARO ALL

33-45-00



#### SUBTASK 33-45-00-840-008

(2) Open this circuit breaker and install safety tag:

### Power Supply Assembly Center, M24301

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	2	CBB2-C	STAB TRIM

#### SUBTASK 33-45-00-860-004

(3) Open this applicable circuit breaker and install safety tag:

(WDM 33-45-11)

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	24	C33488	LOGO LTS

#### SUBTASK 33-45-00-480-002

- (4) Set up the safety equipment, SPL-1578.
  - (a) Put on the body harness, STD-1177.
  - (b) Attach the end (hook) of the lanyard to the body harness, STD-1177.
  - (c) Attach the opposite end of the lanyard to the horizontal stabilizer.

#### SUBTASK 33-45-00-960-002

- (5) Do these steps to replace the light assembly [21]:
  - (a) Remove the lens assembly [23].
    - 1) Loosen and remove the six fasteners [24].
      - 2) Carefully disengage the lens assembly [23] from the housing.
      - 3) Disconnect the bonding strap from the lens assembly [23].
  - (b) Remove the bolts [25] and pull out the light assembly [21].
  - (c) Disconnect the electrical connector [30].
  - (d) Disconnect the electrical wires [27].
    - 1) Remove the nut [29], washer [28], and washer [26].
  - (e) Replace the light assembly [21].
    - 1) Remove the temporary nuts and washers from the new light assembly [21] before its installation.
    - Make sure a lamp [4] is installed in the new light assembly [21].
      - a) Use lint-free gloves, G01306.
  - (f) Connect the electrical wires [27].
    - 1) Install the washer [26], washer [28], and nut [29].
  - (g) Connect the electrical connector [30].
  - (h) Put the light assembly [21] in its position.
  - (i) Install the bolts [25].

#### SUBTASK 33-45-00-860-005

(6) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL

33-45-00



#### SUBTASK 33-45-00-860-006

(7) Remove the safety tag and close this applicable circuit breaker:

### **Right Power Management Panel, P210**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	24	C33488	LOGO LTS

#### SUBTASK 33-45-00-840-002

(8) Remove the safety tag and close this circuit breaker:

### **Power Supply Assembly Center, M24301**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
В	2	CBB2-C	STAB TRIM

#### SUBTASK 33-45-00-840-003

(9) On the P10 control stand, put the Center and Right STAB CUT OFF switches in the NORM position.

#### SUBTASK 33-45-00-710-001

- (10) Do a test of the new light assembly.
  - (a) At the P5 overhead panel, set the switch for the logo lights to the ON mode.
    - 1) Make sure the light comes on.
    - 2) If it is necessary to adjust the direction of the light beam, do this step:
      - a) Turn the adjustment screws [22] until the light beam is on the logo.
  - (b) Set the switch to the OFF mode.
    - 1) Make sure the light goes off.

### SUBTASK 33-45-00-410-002

- (11) Do these steps to install the lens assembly [23]:
  - (a) Connect the bonding strep to the lens assembly [23].
  - (b) Install the lens assembly [23] and tighten the fasteners [24].
  - (c) Apply sealant, A02315, to the clearance between the lens assembly [23] and the airplane skin.

### SUBTASK 33-45-00-080-003

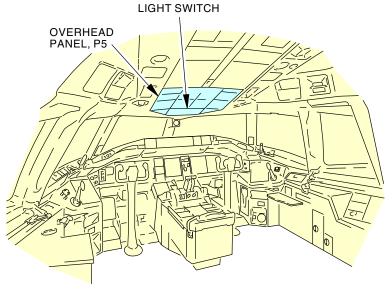
- (12) Put away the safety safety equipment, SPL-1578.
  - (a) Disconnect the lanyard from the horizontal stabilizer.
  - (b) Disconnect the lanyard from the body harness, STD-1177.
  - (c) Remove the body harness, STD-1177.

		_
END	OF TASK	
	OI IAGN	

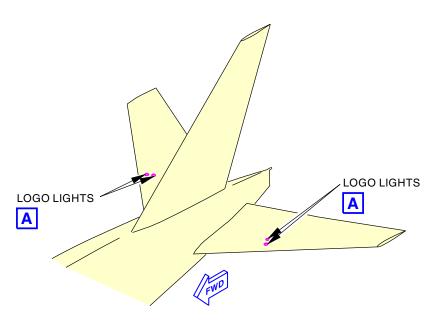
33-45-00

EFFECTIVITY





**FLIGHT COMPARTMENT** 



**EMPENNAGE** 

F69876 S0006420384\_V2

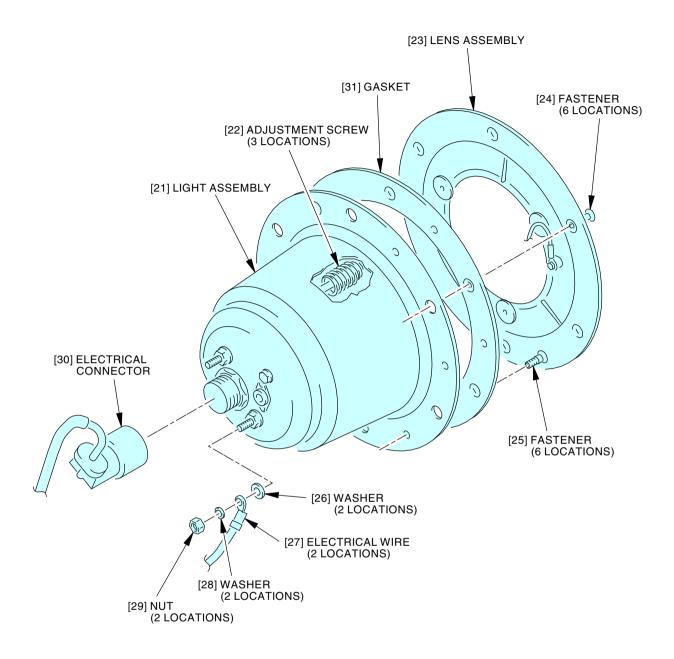
Logo Light - Light Assembly Replacement Figure 203/33-45-00-990-803 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-45-00

Page 213 Sep 05/2016







D05561 S0006420385\_V3

Logo Light - Light Assembly Replacement Figure 203/33-45-00-990-803 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-45-00

Page 214 Sep 05/2016



### **CAMERA LIGHTS - MAINTENANCE PRACTICES**

### 1. General

- A. This procedure has these tasks:
  - (1) Camera lights Deactivation
  - (2) Camera lights Activation
  - (3) Camera lights lamp Replacement
  - (4) Camera lights, NLG light assembly Replacement
  - (5) Camera lights, MLG transformer Replacement
  - (6) Camera lights, MLG light assembly Replacement.
  - (7) Camera lights, MLG lens assembly Replacement

### TASK 33-47-00-040-801

# 2. Camera Light - Deactivation

### A. General

(1) This task removes electrical power from the camera lights.

### B. Tools/Equipment

Reference	Description	
STD-858	Tag - DO NOT OPERATE	

### C. Location Zones

Zone	Area
113	Nose Landing Gear Wheel Well, Left
114	Nose Landing Gear Wheel Well, Right
117	Main Equipment Center, Left
211	Flight Compartment, Left
212	Flight Compartment, Right
577	Flap Support Fairing No. 1
677	Flap Support Fairing No. 8

### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

### E. Procedure

SUBTASK 33-47-00-860-030

(1) At the overhead panel, P5, set the switch for the camera lights to OFF.

SUBTASK 33-47-00-010-001

(2) Open this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

ARO ALL



SUBTASK 33-47-00-860-040



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(3) Open these circuit breakers and install safety tags:

### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>	
F	21	C33498	CAMERA LTS	
K	15	C33639	CAMERA LTS CTRL	

# F. Camera Lights - Tryout

NOTE: This tryout is to make sure that the camera lights are in a zero energy state.

#### SUBTASK 33-47-00-860-041

(1) Make sure that these circuit breakers are open and have safety tags:

### Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS
K	15	C33639	CAMERA LTS CTRL

#### SUBTASK 33-47-00-860-042

- (2) Do a test of the camera lights:
  - (a) At the overhead panel, P5, set the switch for the camera lights to On.
    - 1) Make sure that the camera lights do not come on
  - (b) Set the switch for the camera lights to OFF.
    - 1) Install a DO NOT OPERATE tag, STD-858 on the camera light switch.



### TASK 33-47-00-440-801

### 3. Camera Lights - Activation

- A. General
  - (1) This task adds electrical power to the camera lights.
- B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

C. Tools/Equipment

Reference	Description
STD-858	Tag - DO NOT OPERATE

D. Location Zones

Zone	Area
113	Nose Landing Gear Wheel Well, Left
114	Nose Landing Gear Wheel Well, Right
117	Main Equipment Center, Left
211	Flight Compartment, Left

ARO ALL



### (Continued)

Zone	Area
212	Flight Compartment, Right
577	Flap Support Fairing No. 1
677	Flap Support Fairing No. 8
A 00000 F	Panala

# E. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### F. Procedure

#### SUBTASK 33-47-00-860-033

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

SUBTASK 33-47-00-860-043



BE CAREFUL WHEN YOU DO WORK AROUND ENERGIZED PANELS. HIGH VOLTAGES CAN KILL YOU.

(2) Remove the safety tags and close these circuit breakers:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS
K	15	C33639	CAMERA LTS CTRL

### SUBTASK 33-47-00-410-001

(3) Close this door:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### SUBTASK 33-47-00-700-004

· EFFECTIVITY -

**ARO ALL** 

- (4) Do a test of the camera lights:
  - (a) At the overhead panel, P5, set the switch for the red anti-collision lights (beacons) to the
  - (b) At the overhead panel, P5, remove DO NOT OPERATE tag, STD-858 the on the camera light switch.
  - (c) Set the switch for the camera lights to ON.
    - 1) Make sure that the camera lights come on.
  - (d) Set the switch for the camera lights to OFF.
  - (e) Set the switch for the red anti-collision lights (beacons) to the off mode.

		_	
	OF TA	CV	
	UF IA	$\sim$	

33-47-00

Page 203 D633W101-ARO Sep 05/2017



#### TASK 33-47-00-710-802

### 4. Camera Light - Lamp Replacement

(Figure 201, Figure 202)

#### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
32-00-30-480-801	Landing Gear Downlock Pins Installation (P/B 201)

### B. Location Zones

Zone	Area
113	Nose Landing Gear Wheel Well, Left
114	Nose Landing Gear Wheel Well, Right
577	Flap Support Fairing No. 1
677	Flap Support Fairing No. 8

### C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### D. Procedure

SUBTASK 33-47-00-860-054



MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Make sure the downlock pins are installed on all the landing gear (TASK 32-00-30-480-801).

# SUBTASK 33-47-00-010-002

(2) Open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### SUBTASK 33-47-00-860-002

(3) Open this circuit breaker and install safety tag:

#### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

#### SUBTASK 33-47-00-960-001

- (4) Do these steps to replace the lamp [3] in the NLG camera light:
  - (a) Loosen the five fasteners [1] and move the lens assembly [2] away from the light assembly.
    - 1) Do not remove the lanyards.
  - (b) Replace the lamp [3].
  - (c) Carefully install the lens assembly [2] onto the light assembly.
  - (d) Install the fasteners [1]
    - 1) Tighten the fasteners [1] to 10  $\pm$ 1 in-lb (1.13  $\pm$ 0.11 N·m).

ARO ALL



#### SUBTASK 33-47-00-960-002

- (5) Do these steps to replace the lamp [42] in the MLG camera light:
  - (a) Loosen the fasteners [41] and pull out the lens assembly [44].
    - 1) Do not remove the lanyard.
  - (b) Loosen the fasteners [43] and washers [50] on the applicable socket [45].
  - (c) Replace the lamp [42].
  - (d) Install the fasteners [43] and washers [50] to connect the socket [45].
    - 1) Tighten the fasteners [43] to 10 in-lb (1.13 N·m).
  - (e) Carefully put the lens assembly [44] in the opening.
  - (f) Install the fasteners [41].
    - 1) Tighten the fasteners [41] to 10 in-lb (1.13 N·m).

#### SUBTASK 33-47-00-860-003

(6) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-47-00-860-004

(7) Remove the safety tag and close this circuit breaker:

### Left Power Management Panel, P110

Row	<u>Col</u>	Number	<u>Name</u>
F	21	C33498	CAMERA LTS

#### SUBTASK 33-47-00-410-002

(8) Close this access panel:

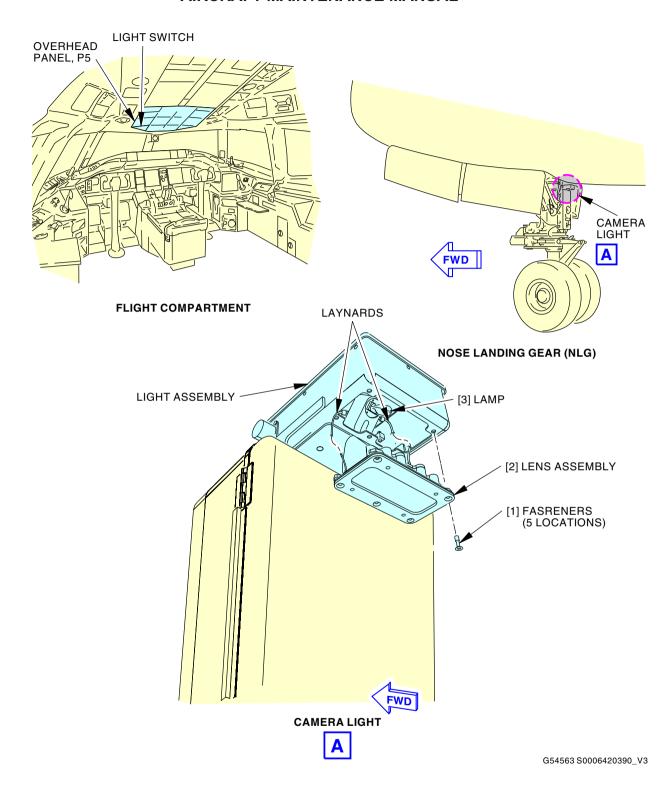
<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### SUBTASK 33-47-00-710-002

- (9) Do a test of the new lamp:
  - (a) At the P5 overhead panel, set the switch for the red anti-collision lights (beacons) to the ON mode.
  - (b) At the P5 overhead panel, set the switch for the camera lights to the ON mode.
    - 1) Make sure the new lamp comes on.
  - (c) Set the switch for the camera lights to the OFF mode.
    - 1) Make sure all camera lights go off.
  - (d) Set the switch for the red anti-collision lights (beacons) to the OFF mode.

 FND	OF TA	ΔSK	
	<b>OI</b> 1/	731	





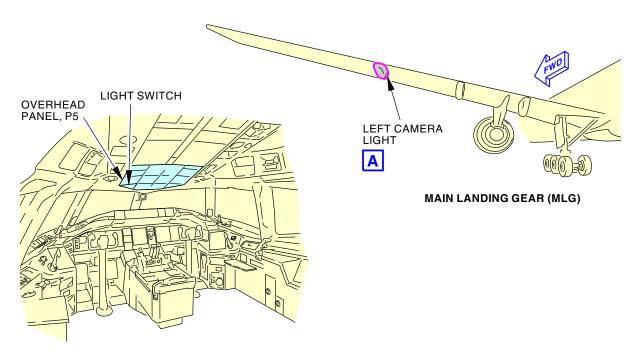
Camera Light, NLG - Lamp Replacement Figure 201/33-47-00-990-801

ARO ALL
D633W101-ARO

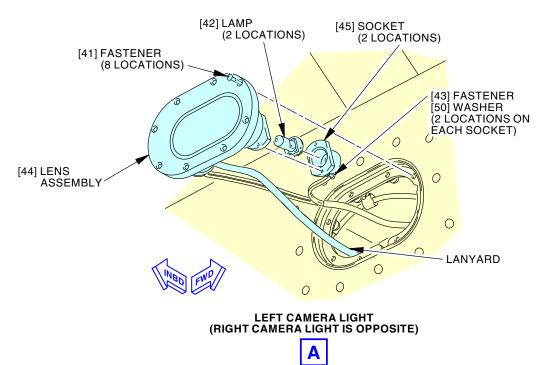
33-47-00

Page 206 Jan 05/2018





### **FLIGHT COMPARTMENT**



G54610 S0006420392\_V4

Camera Light, MLG - Lamp Replacement Figure 202/33-47-00-990-803

ARO ALL

D633W101-ARO

33-47-00

Page 207 Jan 05/2018



#### TASK 33-47-00-710-803

### 5. Camera Light, NLG - Light Assembly Replacement

(Figure 203)

### A. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
32-00-30-480-801	Landing Gear Downlock Pins Installation (P/B 201)

### **B.** Location Zones

Zone	Area
113	Nose Landing Gear Wheel Well, Left
114	Nose Landing Gear Wheel Well, Right

#### C. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### D. Procedure

SUBTASK 33-47-00-860-055



MAKE SURE THE DOWNLOCK PINS ARE INSTALLED ON ALL THE LANDING GEAR. WITHOUT THE DOWNLOCK PINS, THE LANDING GEAR COULD RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(1) Make sure the downlock pins are installed on all the landing gear (TASK 32-00-30-480-801).

#### SUBTASK 33-47-00-010-004

(2) Open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

### SUBTASK 33-47-00-860-005

(3) Open this circuit breaker and install safety tag:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

#### SUBTASK 33-47-00-960-003

- (4) Do these steps to replace the light assembly [21] of the NLG camera light:
  - (a) Disconnect the electrical connector [24].
  - (b) Remove the bolts [23] and washers [22] from the bracket.
  - (c) Replace the light assembly [21].
  - (d) Install the washers [22] and bolts [23].
  - (e) Connect the electrical connector [24].

### SUBTASK 33-47-00-860-006

(5) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL



#### SUBTASK 33-47-00-860-007

(6) Remove the safety tag and close this circuit breaker:

### Left Power Management Panel, P110

Row	Col	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

SUBTASK 33-47-00-410-004

(7) Close this access panel:

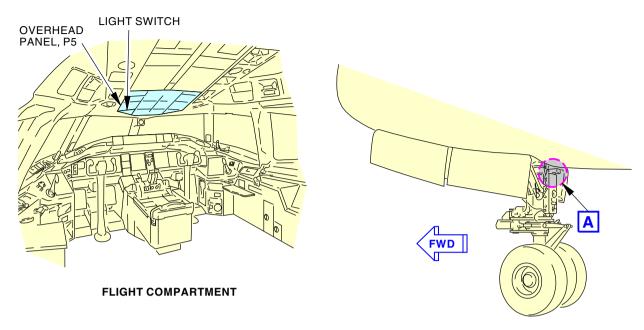
<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### SUBTASK 33-47-00-710-003

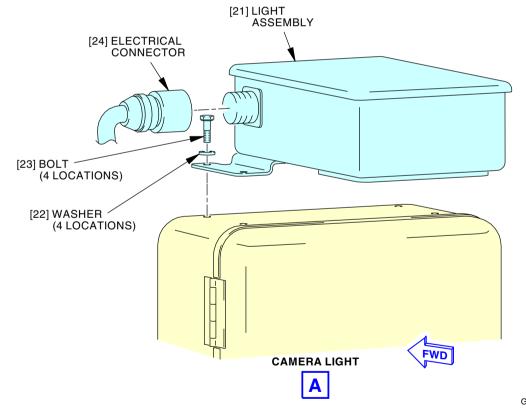
- (8) Do a test of the new light assembly [21]:
  - (a) At the P5 overhead panel, set the switch for the red anti-collision lights (beacons) to the ON mode.
  - (b) At the P5 overhead panel, set the switch for the camera lights to the ON mode.
    - 1) Make sure the new light comes on.
  - (c) Set the switch for the camera lights to the OFF mode.
    - 1) Make sure all camera lights go off.
  - (d) Set the switch for the red anti-collision lights (beacons) to the OFF mode.

----- END OF TASK -----





### NOSE LANDING GEAR (NLG)



G56333 S0006420391\_V2

Camera Light, NLG - Light Assembly Replacement Figure 203/33-47-00-990-808

ARO ALL

D633W101-ARO

33-47-00

Page 210 Jan 05/2018



#### TASK 33-47-00-710-804

# 6. Camera Light, MLG - Transformer Replacement

(Figure 204)

#### A. General

- (1) To do this procedure, the removal of the access doors on the outboard flap fairing is given. The removal of part or all of the outboard flap fairing is optional.
  - (a) If necessary, do the applicable step:
    - 1) Do this task: Outboard Flap Support Fairing Removal, TASK 27-51-28-000-801.
    - 2) Do this task: Outboard Flap Support Fairing Installation, TASK 27-51-28-400-801.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
27-51-00-040-801	Trailing Edge Flap Deactivation (P/B 201)
27-51-00-440-801	Trailing Edge Flap Reactivation (P/B 201)
27-51-00-860-805	Retract the Trailing Edge Flaps (P/B 201)
27-51-28-000-801	Outboard Flap Support Fairing Removal (P/B 401)
27-51-28-400-801	Outboard Flap Support Fairing Installation (P/B 401)

### C. Location Zones

Zone	Area
577	Flap Support Fairing No. 1
677	Flap Support Fairing No. 8

#### D. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door
577CB	Flap Support Fairing No. 1 Panel
577DL	Flap Support Fairing No. 1 Panel
577DR	Flap Support Fairing No. 1 Panel
677CB	Flap Support Fairing No. 8 Panel
677DL	Flap Support Fairing No. 8 Panel
677DR	Flap Support Fairing No. 8 Panel

### E. Prepare for the Removal

SUBTASK 33-47-00-860-011

(1) Make sure the flap is in the retracted position (TASK 27-51-00-860-805).

SUBTASK 33-47-00-860-012



DO THE TRAILING EDGE FLAP DEACTIVATION PROCEDURE BEFORE YOU DO WORK ON THE FLAP SYSTEM. WITH THE FLAPS ACTIVATED, THE FLAPS CAN MOVE AND CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(2) Do this task: Trailing Edge Flap Deactivation, TASK 27-51-00-040-801.

ARO ALL



#### F. Procedure

#### SUBTASK 33-47-00-010-003

(1) Open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### SUBTASK 33-47-00-860-008

(2) Open this circuit breaker and install safety tag:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

#### SUBTASK 33-47-00-960-004

- (3) Do these steps to replace the transformer [63] for a MLG camera light:
  - (a) Remove the three access panels on the applicable outboard flap support forward fairing.
    - 1) For the left fairing, these are the access panels:

Name/Location
Flap Support Fairing No. 1 Panel
Flap Support Fairing No. 1 Panel
Flap Support Fairing No. 1 Panel

2) For the right fairing, these are the access panels:

<u>Number</u>	Name/Location
677CB	Flap Support Fairing No. 8 Panel
677DL	Flap Support Fairing No. 8 Panel
677DR	Flap Support Fairing No. 8 Panel

- (b) Disconnect the electrical connector [62] from the transformer [63].
- (c) Disconnect the electrical connector [67] from the airplane wiring.
- (d) Disconnect the three ground wires [66] from the airplane wiring.
- (e) Remove the clamps [61] on the wires that are installed aft of the transformer [63].
  - 1) Make a note of the wires and clamps [61] to assure that the correct clamps [61] are used during the installation steps.
- (f) Remove the bolts [65] and washers [64].
- (g) Pull out the transformer [63] and the wires connected to it.
- (h) Put the new transformer [63] in its position.
- (i) Install the washers [64] and bolts [65].
- (j) Put the wires back in their initial position.
- (k) Install the clamps [61] around the wires.
  - 1) Use only the specified clamps [61] to make sure the wires are installed tightly.
- (I) Connect the ground wires [66].
- (m) Connect the electrical connector [67] to the airplane wiring.
- (n) Connect the electrical connector [62] to the transformer [63].

### SUBTASK 33-47-00-860-009

(4) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

ARO ALL



#### SUBTASK 33-47-00-860-010

(5) Remove the safety tag and close this circuit breaker:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

#### SUBTASK 33-47-00-410-003

(6) Close this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### SUBTASK 33-47-00-710-004

- (7) Do a test of the new transformer [63]:
  - (a) At the P5 overhead panel, set the switch for the red anti-collision lights (beacons) to the ON mode.
  - (b) At the P5 overhead panel, set the switch for the camera lights to the ON mode.
    - 1) Make sure the applicable light comes on.
  - (c) Set the switch for the camera lights to the OFF mode.
    - 1) Make sure all camera lights go off.
  - (d) Set the switch for the red anti-collision lights (beacons) to the OFF mode.
  - (e) Install the three access panels on the applicable outboard flap support forward fairing.
    - 1) For the left fairing, these are the access panels:

<u>Number</u>	<u>Name/Location</u>
577CB	Flap Support Fairing No. 1 Panel
577DL	Flap Support Fairing No. 1 Panel
577DR	Flap Support Fairing No. 1 Panel

2) For the right fairing, these are the access panels:

<u>Number</u>	Name/Location
677CB	Flap Support Fairing No. 8 Panel
677DL	Flap Support Fairing No. 8 Panel
677DR	Flap Support Fairing No. 8 Panel

### G. Put the Airplane Back to Its Usual Condition

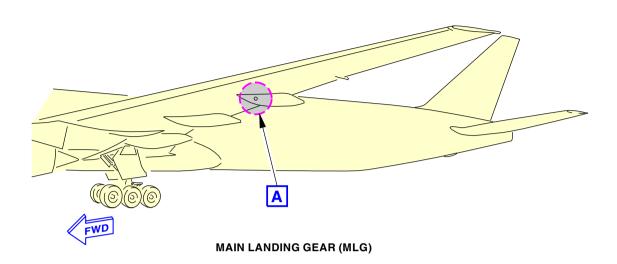
SUBTASK 33-47-00-860-013

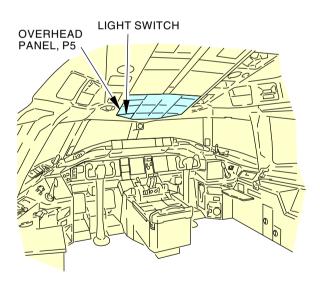
(1) Do this task: Trailing Edge Flap Reactivation, TASK 27-51-00-440-801.

FND	VCL	
	H.3N	

RO ALL 33-47-00







FLIGHT COMPARTMENT

G56706 S0006420395\_V2

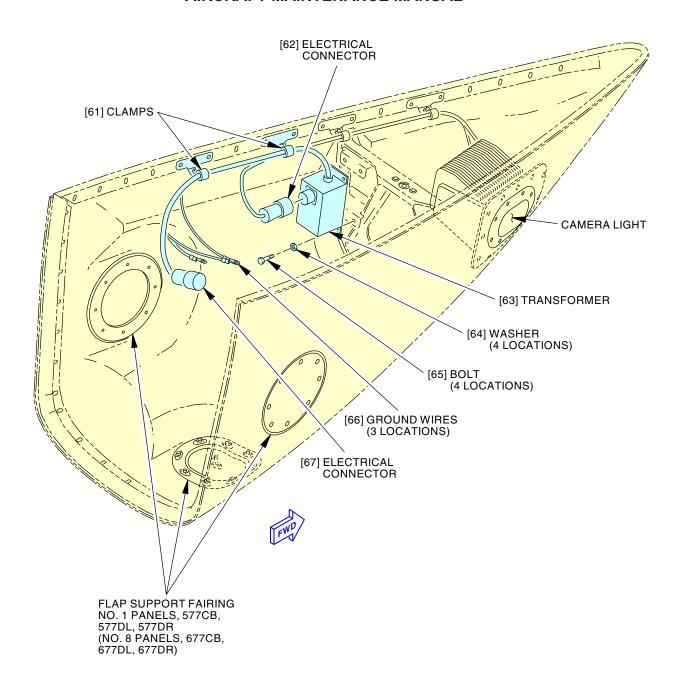
Camera Light, MLG - Transformer Replacement Figure 204/33-47-00-990-804 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-47-00

Page 214 Jan 05/2018





# LEFT CAMERA LIGHT TRANSFORMER (RIGHT CAMERA LIGHT TRANSFORMER IS OPPOSITE)



H07602 S0006420396\_V2

Camera Light, MLG - Transformer Replacement Figure 204/33-47-00-990-804 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-47-00

Page 215 Jan 05/2018



#### TASK 33-47-00-900-801

# 7. Camera Light, MLG - Light Assembly Replacement

(Figure 205)

#### A. General

- (1) To do this procedure, the removal of the access doors on the outboard flap fairing is given. The removal of part or all of the outboard flap fairing is optional.
  - (a) If necessary, do the applicable step:
    - 1) Do this task: Outboard Flap Support Fairing Removal, TASK 27-51-28-000-801.
    - 2) Do this task: Outboard Flap Support Fairing Installation, TASK 27-51-28-400-801.

### B. References

Reference	Title
20-30-88-910-801	Final Cleaning of Metal Prior to Non-structural Bonding (Series 88) (P/B 201)
24-22-00-860-805	Supply Electrical Power (P/B 201)
27-51-00-040-801	Trailing Edge Flap Deactivation (P/B 201)
27-51-00-440-801	Trailing Edge Flap Reactivation (P/B 201)
27-51-00-860-805	Retract the Trailing Edge Flaps (P/B 201)
27-51-28-000-801	Outboard Flap Support Fairing Removal (P/B 401)
27-51-28-400-801	Outboard Flap Support Fairing Installation (P/B 401)
51-31-01-160-801	Prepare For Sealing (P/B 201)

# C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-614	Bonding Meters - Non-Intrinsically Safe (For use in outside Class I, Divisions I & II non-hazardous locations. For hazardous locations, use COM-1550).
	Part #: 247000 Supplier: 00426 Part #: 620LK Supplier: 1CRL2 Part #: M1 Supplier: 3AD17 Part #: T477W Supplier: 01014 Opt Part #: 247001 Supplier: 00426 Opt Part #: M1B Supplier: 3AD17
COM-2481	Tool - Sealant Removal, BAC5000, PSD 6-184 Approved Part #: 1-6390-A Supplier: 63318 Part #: 10810 Supplier: \$0855 Part #: 234350 Supplier: \$0857 Part #: 311 Supplier: F6892 Part #: 411B60 Supplier: 3DN12 Part #: 411B90 Supplier: 3DN12 Part #: DAD5013 Supplier: \$0856 Part #: DFD5019 Supplier: \$0856 Part #: J5-0275-2010 Supplier: 435R8 Part #: SCD5019 Supplier: \$0856 Part #: ST982LF-9 Supplier: 62176 Part #: TS1275-4 Supplier: 1DWR5

ARO ALL



### (Continued)

Reference	Description
STD-297	Drill - Hand
STD-764	Scraper - Non-metallic
STD-765	Scraper - Plastic
STD-1328	Machine - Drilling, Electrical or Pneumatic

### D. Consumable Materials

Reference	Description	Specification
A00900	Sealant - Silicone, RTV - Dow Corning 93-006-1RF (Formerly 93-006-1. Use until Stock depleted)	
A50231	Sealant - Pressure And Environmental - Chromate Type	BMS5-95 Class B
B00130	Alcohol - Isopropyl	TT-I-735
B01008	Solvent - Final Cleaning Of Metal Prior To Non-Structural Bonding - Series 88	
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5 Class A
G02061	Marker - Permanent, Felt Tip Pen	

### E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
81	MLG camera light	33-47-00-01-035	ARO ALL
		33-47-00-01-040	ARO ALL
		33-47-00-10-020	ARO ALL

### F. Location Zones

Zone	Area	
577	Flap Support Fairing No. 1	
677	Flap Support Fairing No. 8	

### G. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door
577BB	Flap Support Fairing No. 1 Panel
677BB	Flap Support Fairing No. 8 Panel

# H. Prepare for the Removal

SUBTASK 33-47-00-860-014

- (1) Make sure the flap is in the retracted position.
  - (a) If the flap is not in the retracted position, do this task: Retract the Trailing Edge Flaps, TASK 27-51-00-860-805.

#### SUBTASK 33-47-00-860-015



DO THE DEACTIVATION PROCEDURE FOR THE TRAILING EDGE FLAP BEFORE YOU DO WORK ON THE FLAP SYSTEM. THE FLAPS MOVE QUICKLY. THEY CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.

(2) Do this task: Trailing Edge Flap Deactivation, TASK 27-51-00-040-801.

ARO ALL



#### I. Procedure

SUBTASK 33-47-00-010-005

(1) Open this access panel:

Number Name/Location

117AL Main Equipment Center Access Door

SUBTASK 33-47-00-860-016

(2) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

Row	Col	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

#### SUBTASK 33-47-00-960-005

- (3) Do these steps to replace the MLG camera light [81]:
  - (a) Remove this access panel on the applicable outboard flap support forward fairing.
    - 1) For the left fairing, this is the access panel:

NumberName/Location577BBFlap Support Fairing No. 1 Panel

2) For the right fairing, this is the access panel:

Number677BBName/LocationFlap Support Fairing No. 8 Panel

- (b) Use the sealant removal tool, COM-2481, non-metallic scraper, STD-764, or plastic scraper, STD-765, to scrape away the sealant from the ground wire [85].
- (c) Disconnect the electrical connector [82].
- (d) Remove the nut [84] and washer [83] to disconnect the ground wire [85].
- (e) Remove the fasteners [86] from the MLG camera light [81].
- (f) Remove the MLG camera light [81] from the airplane.
- (g) If installing a new adapter plate, do these steps to drill a new adapter plate on the MLG camera light [81] off-aircraft:

NOTE: It is necessary to drill the adapter plate off-aircraft.

- 1) Go to the applicable flap support fairing and put the new MLG camera light [81] so that it is centered in the fairing cutout.
- 2) From outside the fairing, use a marker, G02061, to outline the 12 hole locations on the MLG camera light [81] adapter plate.
- 3) Use a hand drill, STD-297, or electrical or pneumatic drilling machine, STD-1328, and drill bit to match-drill 12 holes to a diameter of 0.195 ±0.005 in. (0.495 ±0.013 cm) on the adapter plate of the MLG camera light [81].



OBEY THE INSTRUCTIONS IN THE PROCEDURE TO REMOVE AND APPLY THE SEALANT. IF YOU DO NOT OBEY THE INSTRUCTIONS, DAMAGE TO THE AIRPLANE SURFACE CAN OCCUR.

- (h) To remove the sealant, do this task: Prepare For Sealing, TASK 51-31-01-160-801.
- (i) Apply a fay surface seal of Dow Corning 93-006-1 RF sealant, A00900, to the MLG camera light [81] adapter plate contact surface.

33-47-00

ARO ALL

EFFECTIVITY



- 1) Do not apply sealant over the fastener holes.
- (j) Clean the underside of the fastener [86] heads at the 3 o'clock and 9 o'clock position with a cotton wiper, G00034, and alcohol, B00130.
- (k) Install the MLG camera light [81] with the fasteners [86].
- (I) Connect the electrical connector [82].
- (m) Final clean the contact surfaces of the washer [83], ground wire [85], and ground terminal with a cotton wiper, G00034, soaked with Series 88 solvent, B01008 (TASK 20-30-88-910-801).
  - 1) Rub dry with a clean, dry cotton wiper, G00034.
  - Continue to clean and dry the surfaces until the dry cotton wiper, G00034, stays clean.
- (n) Connect the nut [84]], washer [83], and ground wire [85] to the ground terminal.
- (o) Use a non-intrinsically safe bonding meter, COM-614, to measure the resistance from the ground terminal to structure.
  - 1) Make sure the electrical bonding resistance is 1.0 milliohm (0.001 ohm) or less.
- (p) Apply a fillet seal to the ground terminal and stud with sealant, A50231.

#### SUBTASK 33-47-00-860-017

(4) Make sure electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### SUBTASK 33-47-00-860-018

(5) Remove the safety tag and close this circuit breaker:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

### SUBTASK 33-47-00-410-005

(6) Close this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

#### SUBTASK 33-47-00-710-005

- (7) Do a test of the new MLG camera light [81]:
  - (a) At the P5 overhead panel, set the switch for the red anti-collision lights (beacons) to the ON mode.
  - (b) At the P5 overhead panel, set the switch for the camera lights to the ON mode.
    - 1) Make sure the applicable light comes on.
  - (c) Set the switch for the camera lights to the OFF mode.
    - 1) Make sure all camera lights go off.
  - (d) Set the switch for the red anti-collision lights (beacons) to the OFF mode.
  - (e) Install the access panel on the applicable outboard flap support forward fairing.
    - 1) For the left fairing, this is the access panel:

<u>Number</u>	Name/Location
577BB	Flap Support Fairing No. 1 Panel

ARO ALL



2) For the right fairing, this is the access panel:

Number Name/Location

677BB Flap Support Fairing No. 8 Panel

J. Put the Airplane Back to Its Usual Condition

SUBTASK 33-47-00-860-019

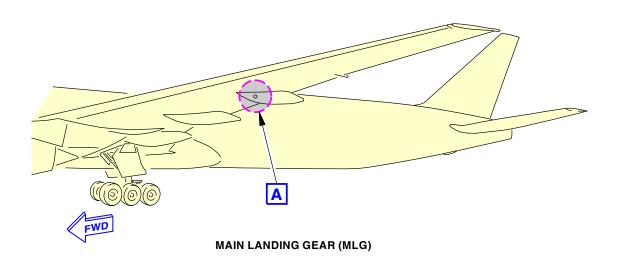
(1) Do this task: Trailing Edge Flap Reactivation, TASK 27-51-00-440-801.

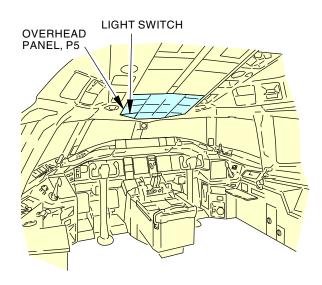
------ END OF TASK ------

ARO ALL 33-47-00

Page 220 Jan 05/2018







FLIGHT COMPARTMENT

G56706 S0006420395\_V2

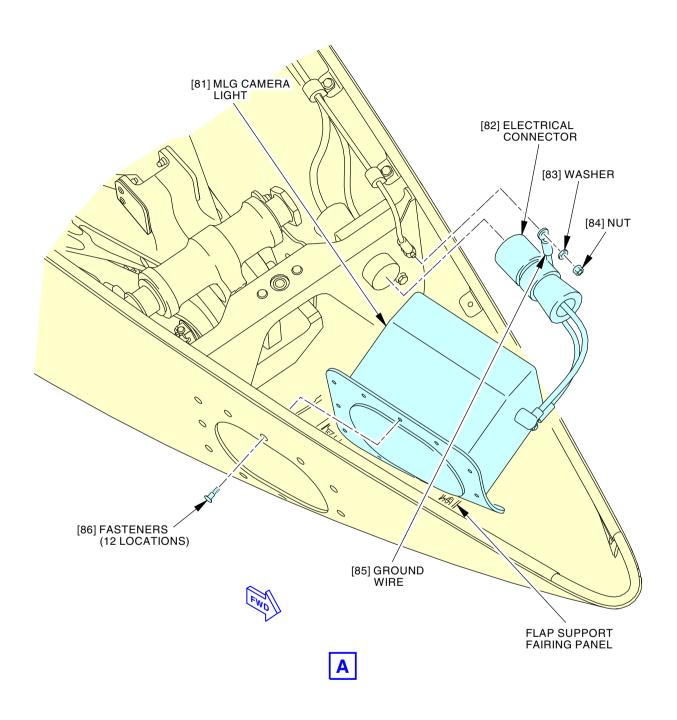
Camera Light, MLG - Light Assembly Replacement Figure 205/33-47-00-990-805 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-47-00

Page 221 Jan 05/2018





U34739 S0000192930\_V3

Camera Light, MLG - Light Assembly Replacement Figure 205/33-47-00-990-805 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-47-00

Page 222 Jan 05/2018



### TASK 33-47-00-900-802

8. Camera Light, MLG - Lens Assembly Replacement

(Figure 206)

### A. Location Zones

Zone	Area
577	Flap Support Fairing No. 1
677	Flap Support Fairing No. 8

### B. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

### C. Procedure

SUBTASK 33-47-00-010-006

(1) Open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 33-47-00-860-022

(2) Open this circuit breaker and install safety tag:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

#### SUBTASK 33-47-00-960-006

- (3) Do these steps to replace the lens assembly [44] of the MLG camera light:
  - (a) Loosen the fasteners [41] and pull out the lens assembly [44].
  - (b) Loosen the screws [47] and washers [48] from the reflector assembly [46].
  - (c) Remove the reflector assembly [46] and retainer ring [49] from the lens assembly [44].
  - (d) Replace the lens assembly [44].
  - (e) Install the reflector assembly [46] and retainer ring [49] on the new lens assembly [44].
  - (f) Tighten the screws [47] and washers [48] on the reflector assembly [46].
  - (g) Put the new lens assembly [44] in the opening.
    - 1) Tighten the fasteners [41] to 10 in-lb (1.13 N·m)

#### SUBTASK 33-47-00-860-024

(4) Remove the safety tag and close this circuit breaker:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

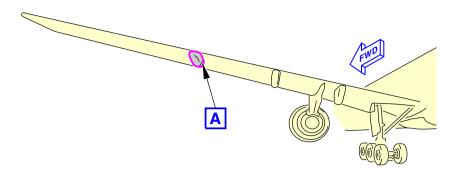
### SUBTASK 33-47-00-410-006

(5) Close this access panel:

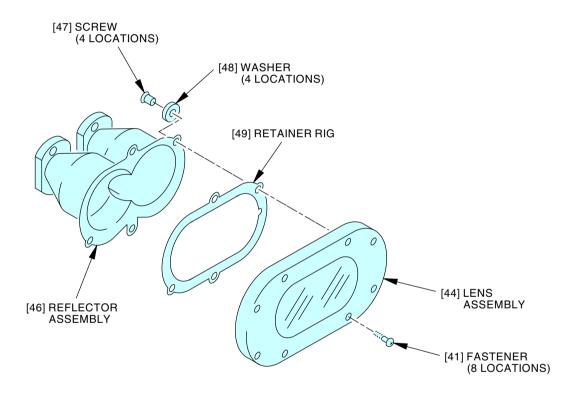
<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door
	——— END OF TASK ———

ARO ALL





**MAIN LANDING GEAR (MLG)** 



LENS ASSEMBLY



2124357 S0000458146\_V2

# Camera Light, MLG - Lens Assembly Replacement Figure 206/33-47-00-990-806

ARO ALL
D633W101-ARO

33-47-00

Page 224 Jan 05/2018



### TASK 33-47-00-900-803

### 9. Camera Light, MLG - Socket Assembly Replacement

(Figure 207)

### A. General

(1) This task includes instructions to replace the MLG camera light socket assembly. It is recommended that you do this task before you replace the MLG camera light assembly.

#### B. References

Reference	Title
WDM 33-47-11	Wiring Diagram Manual

### C. Consumable Materials

Reference	Description	Specification
G01043	Cloth - Lint-free	
G01306	Gloves - Lint-free	

### D. Location Zones

Zone	Area
117	Main Equipment Center, Left
577	Flap Support Fairing No. 1
677	Flap Support Fairing No. 8

#### E. Access Panels

Number	Name/Location
117AL	Main Equipment Center Access Door

#### F. Procedure

SUBTASK 33-47-00-010-007

(1) Open this access panel:

<u>Number</u>	Name/Location
117AL	Main Equipment Center Access Door

SUBTASK 33-47-00-860-026

(2) Open this circuit breaker and install safety tag:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

SUBTASK 33-47-00-020-001

(3) Loosen the fasteners [41] and pull out the lens assembly [44].

SUBTASK 33-47-00-020-002

(4) Loosen the fasteners [43] on the applicable socket [45].

SUBTASK 33-47-00-020-003

(5) Pull the socket [45] away from the lens assembly [44].

33-47-00

ARO ALL

- EFFECTIVITY -



#### SUBTASK 33-47-00-700-002



DO NOT TOUCH THE LAMP WITH YOUR BARE SKIN. USE A CLOTH TO HOLD THE LAMP. IF YOUR SKIN TOUCHES THE LAMP, YOU WILL DECREASE ITS LIFE.

- (6) Remove both lamps [42] from the sockets [45].
  - (a) Use lint-free gloves, G01306 or a lint-free cloth, G01043.

#### SUBTASK 33-47-00-410-007

- (7) Make a continuity check on each lamp [42].
  - (a) If there is no continuity, then replace the applicable lamp [42].
    - Install the socket [45] in the lens assembly [44].
    - 2) Tighten the fasteners [43] on the applicable socket [45] to a torque of 10 in-lb (1 N·m).
    - 3) Put the lens assembly [44] in the opening.
    - 4) Install the fasteners [41].
      - a) Tighten the fasteners [41] to 10 in-lb (1 N·m).
    - 5) Remove the safety tag and close this circuit breaker:

# Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>	
F	21	C33498	CAMERA LTS	

6) Close this access panel:

# Number117ALMain Equipment Center Access Door

- 7) Do this test to make sure the camera lights operate (WDM 33-47-11):
  - At the P5 overhead panel, set the switch for the red anti-collision lights (beacons) to the ON mode.
  - At the P5 overhead panel, set the switch for the camera lights to the ON mode.
    - <1> Make sure the light above the P40 service and APU shutdown panel, on the nose landing gear comes on.
    - <2> Make sure the light on the outboard fairing of each wing comes on.
  - c) Set the switch for the camera lights to the OFF mode.
    - <1> Make sure all lights go off.
  - d) Set the switch for the red anti-collision lights (beacons) to the OFF mode.
- (b) If there is continuity, then continue.
  - 1) Do not install the lamps [42].
  - 2) Store the lamps [42] until needed for installation.

33-47-00

EFFECTIVITY



#### SUBTASK 33-47-00-860-027

(8) Make sure that this circuit breaker is closed:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

#### SUBTASK 33-47-00-860-028

(9) At the P5 overhead panel, set the switch for the red anti-collision lights (beacons) to the ON mode.

#### SUBTASK 33-47-00-860-029

(10) At the P5 overhead panel, set the switch for the camera lights to the ON mode.

#### SUBTASK 33-47-00-760-001

- (11) Do a check for 12 VAC on the terminal block internal to the MLG camera light assembly.
  - (a) If there is 12 VAC, then do the following steps:
    - 1) Open this circuit breaker and install safety tag:

### Left Power Management Panel, P110

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	21	C33498	CAMERA LTS

2) Replace the applicable socket [45].



DO NOT TOUCH THE LAMP WITH YOUR BARE SKIN. USE A CLOTH TO HOLD THE LAMP. IF YOUR SKIN TOUCHES THE LAMP, YOU WILL DECREASE ITS LIFE.

- 3) Install the lamps [42].
  - a) Use lint-free gloves, G01306, or a lint-free cloth, G01043.
- 4) Install the sockets [45] in the lens assembly [44].
- 5) Tighten the fasteners [43] on the applicable socket [45] to a torque of 10 in-lb (1 N·m).
- 6) Put the lens assembly [44] in the opening and tighten the fasteners [41].
- 7) Remove the safety tag and close this circuit breaker:

### Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>	
F	21	C33498	CAMERALTS	

8) Close this access panel:

Number117ALMain Equipment Center Access Door

- 9) Do this test to make sure the camera lights operate (WDM 33-47-11):
  - a) At the P5 overhead panel, set the switch for the red anti-collision lights (beacons) to the ON mode.
  - At the P5 overhead panel, set the switch for the camera lights to the ON mode.
    - <1> Make sure the light above the P40 service and APU shutdown panel, on the nose landing gear comes on.

ARO ALL

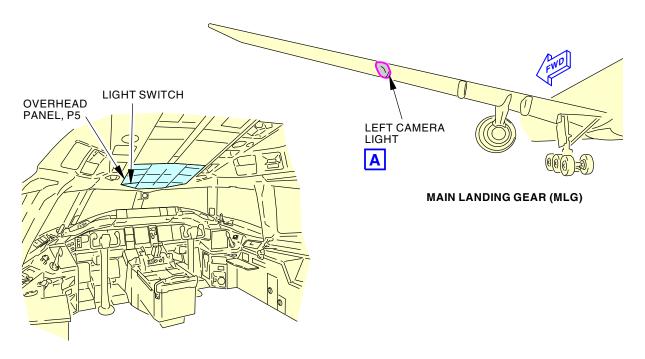


- <2> Make sure the light on the outboard fairing of each wing comes on.
- c) Set the switch for the camera lights to the OFF mode.
  - <1> Make sure all lights go off.
- d) Set the switch for the red anti-collision lights (beacons) to the OFF mode.
- (b) If there is not 12 VAC, then do this task: Camera Light, MLG Light Assembly Replacement, TASK 33-47-00-900-801.

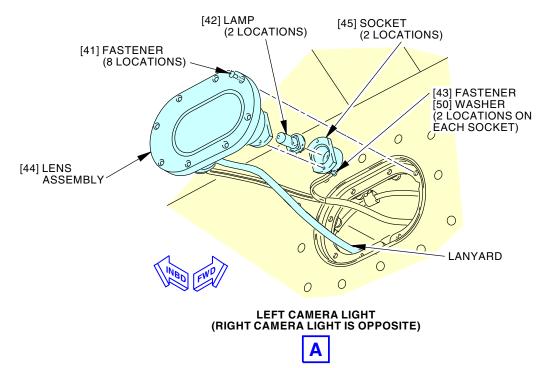
----- END OF TASK -----

ARO ALL





### **FLIGHT COMPARTMENT**



G54610 S0006420392\_V4

### Camera Light, MLG - Socket Assembly Replacement Figure 207/33-47-00-990-807

33-47-00 EFFECTIVITY -**ARO ALL** Jan 05/2018 l D633W101-ARO ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Page 229



### **CAMERA LIGHTS - ADJUSTMENT/TEST**

### 1. General

- A. This procedure has one task:
  - (1) Camera Lights Operational Test

#### TASK 33-47-00-710-801

### 2. Camera Lights - Operational Test

#### A. General

(1) This test makes sure the camera lights operate.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-47-11	Wiring Diagram Manual

### C. Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

#### D. Procedure

SUBTASK 33-47-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

### SUBTASK 33-47-00-710-001

- (2) Do a test to make sure the camera lights operate (WDM 33-47-11):
  - (a) At the overhead panel, P5, set the switch for the red anti-collision lights (beacons) to the on mode.
  - (b) At the P5 panel, set the switch for the camera lights to the on mode.
    - 1) Make sure the light above the service and APU shutdown panel, P40, on the nose landing gear comes on.
    - 2) Make sure the light on the outboard fairing of each wing comes on.
  - (c) Set the switch for the camera lights to the off mode.
    - 1) Make sure all lights go off.
  - (d) Set the switch for the red anti-collision lights (beacons) to the off mode.

	ΓΔSK	

33-47-00

**EFFECTIVITY** 



## **EMERGENCY LIGHTS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has one task:
  - (1) Emergency Lights Index

## TASK 33-50-00-970-801

## 2. Emergency Lights - Index

#### A. References

Reference	Title
33-20-00-970-801	Passenger Compartment Lights - Index (P/B 201)
33-51-01-960-801	Exit Sign - Lamp Replacement (P/B 201)
33-51-01-960-802	Exit Sign - Light Assembly Replacement (P/B 201)
33-51-03-960-801	Area Light - Lamp Replacement (P/B 201)
33-51-03-960-802	Area Light - Light Assembly Replacement (P/B 201)
33-51-04-960-801	Slide/Overwing Light - Lamp Replacement (P/B 201)
33-51-05-960-801	Floor Proximity Light - Lamp Replacement (P/B 201)
33-51-05-960-802	Floor Proximity Light - Light Assembly Replacement (P/B 201)
33-51-06-200-801	Power Supply - Battery Pack Capacity Check (P/B 201)
33-51-06-960-801	Power Supply - Fuse Replacement (P/B 201)
33-51-06-960-802	Power Supply - Battery Pack Replacement (P/B 201)
33-51-06-960-803	Power Supply - Power Supply Replacement (P/B 201)
33-51-07-960-801	Emergency Dome Light - Lamp Replacement (P/B 201)

## B. Procedure

NOTE: Components for the passenger compartment lighting system are not included here. Refer to the Passenger Compartment Lights - Index (TASK 33-20-00-970-801).

#### SUBTASK 33-50-00-970-001

- (1) If it is necessary to replace a lamp, use the applicable task that follows:
  - (a) Exit Sign Lamp Replacement (TASK 33-51-01-960-801)
  - (b) Area Light Lamp Replacement (TASK 33-51-03-960-801)
  - (c) Slide Light Lamp Replacement (TASK 33-51-04-960-801)
  - (d) Floor Proximity Light Lamp Replacement (TASK 33-51-05-960-801)
  - (e) Emergency Dome Light Lamp Replacement (TASK 33-51-07-960-801)

## SUBTASK 33-50-00-970-002

- (2) If it is necessary to replace a light assembly, use the applicable task that follows:
  - (a) Exit Sign Light Assembly Replacement (TASK 33-51-01-960-802)
  - (b) Area Light Light Assembly Replacement (TASK 33-51-03-960-802)
  - (c) Floor Proximity Light Light Assembly Replacement (TASK 33-51-05-960-802)

## SUBTASK 33-50-00-970-003

- (3) If it is necessary to replace a power supply or its components, use the applicable task that follows:
  - (a) Power Supply Power Supply Replacement (TASK 33-51-06-960-803)
  - (b) Power Supply Battery Pack Replacement (TASK 33-51-06-960-802)

ARO ALL

33-50-00



- (c) Power Supply Fuse Replacement (TASK 33-51-06-960-801)
- (d) Power Supply Battery Pack Capacity Check (TASK 33-51-06-200-801)

----- END OF TASK -----

ARO ALL

33-50-00



## **EMERGENCY LIGHTS - ADJUSTMENT/TEST**

## 1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
  - (1) Emergency Lights Operational Test
  - (2) Emergency Lights Operational Test with the Test Switches
  - (3) Emergency Lights Operational Test with the Control Switches
  - (4) Emergency Lights Functional Test

#### TASK 33-51-00-710-801

## 2. Emergency Lights - Operational Test

## A. General

(1) This test makes sure the batteries in the power supplies are charged.

## B. References

Reference	Title
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual

## C. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

#### D. Procedure

SUBTASK 33-51-00-710-001

- (1) Do an operational test of the emergency lights (WDM 33-51-11 thru WDM 33-51-99).
  - (a) At an applicable attendant switch panel, momentarily set the Test switch for the emergency lights to the on mode.

NOTE: Do not use the attendant emergency light switch.

- 1) Quickly make sure that all the emergency lights in the cabin come on.
- 2) Make sure that all the emergency lights in the cabin automatically go off after one minute.



## TASK 33-51-00-710-802

## 3. Emergency Lights - Operational Test with the Test Switches

NOTE: This procedure is a scheduled maintenance task.

## A. General

(1) This test makes sure the test switches operate the emergency lights.

#### B. References

Reference	Title	
WDM 33-51-11	Wiring Diagram Manual	
WDM 33-51-99	Wiring Diagram Manual	

ARO ALL



## C. Location Zones

Zone	Area
200	Upper Half of Fuselage
711	Nose Landing Gear

#### D. Procedure

#### SUBTASK 33-51-00-710-002

- (1) Do a check of the test switches in the passenger compartment (WDM 33-51-11 thru WDM 33-51-99).
  - (a) At each applicable attendant switch panel, set the test switch for the emergency lights to the on mode.

NOTE: Do not use the attendant emergency light switch.

- 1) Quickly make sure that all the emergency lights in the cabin come on.
- Make sure that all the emergency lights in the cabin automatically go off after one minute.

#### SUBTASK 33-51-00-710-003

- (2) Do a check of the test switch on the nose landing gear (SSM 33-51-11 thru 33-51-99 or WDM 33-51-11 thru 33-51-99).
  - (a) At the service and APU shutdown panel, P40, set the test switch for the emergency lights to the on mode.
    - 1) Quickly make sure that all the exterior emergency lights come on.

NOTE: This check includes all slide/overwing lights.

2) Make sure that the exterior emergency lights go off automatically after one minute.



## TASK 33-51-00-710-803

## 4. Emergency Lights - Operational Test with the Control Switches

NOTE: This procedure is a scheduled maintenance task.

## A. General

- (1) This test makes sure the control switches operate the emergency lights.
- (2) The control switches include the pilots emergency light switch in the flight compartment and the attendant emergency light switch in the passenger compartment.

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual

#### C. Location Zones

Location	20041011 201100		
Zone	Area		
200	Upper Half of Fuselage		

## D. Procedure

## SUBTASK 33-51-00-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

ARO ALL



#### SUBTASK 33-51-00-710-004

- (2) Do a check of the pilots emergency light switch (WDM 33-51-11 thru WDM 33-51-99).
  - (a) At the overhead panel, P5, set the switch for the emergency lights to the on mode.
    - 1) Quickly make sure that all the emergency lights in the cabin come on.
  - (b) Set the switch to the armed mode.
    - 1) Make sure the lights go off.
  - (c) At the overhead circuit breaker panel, P11, open each applicable circuit breaker for the emergency lights:

## **Overhead Circuit Breaker Panel, P11**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	9	C33640	EMER LTS-DR 5L & 5R
Н	10	C33641	EMER LTS-DR 2L & 2R
Н	11	C33642	EMER LTS-DR 1L & 1R
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R
Н	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

- 1) Quickly make sure that all the emergency lights in the cabin come on.
- (d) At the P11 panel, close each circuit breaker that was opened:

## **Overhead Circuit Breaker Panel, P11**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	9	C33640	EMER LTS-DR 5L & 5R
Н	10	C33641	EMER LTS-DR 2L & 2R
Н	11	C33642	EMER LTS-DR 1L & 1R
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R
Н	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

- 1) Make sure the lights go off.
- (e) Set the switch to the off mode.
  - 1) Make sure the lights stay off.

#### SUBTASK 33-51-00-710-005

- (3) Do a check of the attendant emergency light switch (WDM 33-51-11 thru WDM 33-51-99).
  - (a) At each applicable attendant switch panel, set the switch for the emergency lights to the on mode.

NOTE: Do not use the test switch.

- 1) Quickly make sure that all the emergency lights in the cabin come on.
- (b) Set the switch to the off mode.
  - 1) Make sure the lights go off.

33-51-00

**ARO ALL** 

· EFFECTIVITY ·



#### TASK 33-51-00-720-801

## 5. Emergency Lights - Functional Test

(Figure 501)

#### A. General

(1) This test makes sure all components in the emergency lighting system operate.

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-65-00-040-801	Disarm the Off-Wing Escape System (P/B 201)
25-65-00-440-801	Arm the Off-Wing Escape System (P/B 201)
25-66-01-820-801	Escape Slide Pack - Girt Material Stowage (P/B 401)
25-66-06-000-801	Bustle Removal (P/B 401)
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual

## C. Location Zones

Zone	Area
200	Upper Half of Fuselage
711	Nose Landing Gear

## D. Procedure

#### SUBTASK 33-51-00-860-003

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-51-00-720-001

- (2) Do a check of the emergency lighting system in the flight compartment (WDM 33-51-11 thru WDM 33-51-99).
  - (a) At the overhead panel, P5, set the pilots emergency light switch to the on mode.
    - 1) Make sure the light in the flight compartment comes on.
    - 2) Make sure the emergency lighting indication shows on the EICAS display. NOTE: The advisory message appears on the upper EICAS display.
  - (b) Set the switch to the off mode.
    - 1) Make sure the light goes off.
    - 2) Make sure the emergency lighting indication shows on the EICAS display.
  - (c) Set the switch to the armed mode.
    - 1) Make sure the light stays off.
    - 2) Make sure no lighting indication shows on the EICAS display.
  - (d) At the overhead circuit breaker panel, P11, open each applicable circuit breaker for the emergency lights:

# **Overhead Circuit Breaker Panel, P11**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	9	C33640	EMER LTS-DR 5L & 5R
Н	10	C33641	EMER LTS-DR 2L & 2R
Н	11	C33642	EMER LTS-DR 1L & 1R

ARO ALL



(Continued)

## **Overhead Circuit Breaker Panel, P11**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R
Н	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

- 1) Make sure the light in the flight compartment comes on.
- (e) At the P11 panel, close each circuit breaker that was opened.

## **Overhead Circuit Breaker Panel, P11**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	9	C33640	EMER LTS-DR 5L & 5R
Н	10	C33641	EMER LTS-DR 2L & 2R
Н	11	C33642	EMER LTS-DR 1L & 1R
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R
Н	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

- Make sure the light goes off.
- (f) Set the switch to the off mode.

#### SUBTASK 33-51-00-720-002

- (3) Do a check of the emergency lighting system in the passenger compartment (WDM 33-51-11 thru WDM 33-51-99).
  - (a) At each applicable attendant switch panel, set the attendant emergency light switch to the on mode.

NOTE: Do not use the test switch.

- 1) Quickly make sure the lights in the passenger compartment come on.
  - <u>NOTE</u>: This check includes all types of area lights, exit signs, and floor proximity lights in the passenger compartment.
- (b) Set the switch to the off mode.
  - 1) Make sure the lights in the passenger compartment go off.

#### SUBTASK 33-51-00-040-002

(4) Install the safety pins for the escape slide pack.

NOTE: Use two persons to do these steps.

- (a) Do this task: Bustle Removal, TASK 25-66-06-000-801.
- (b) Remove the two safety pins, girt release safety pin and cylinder safety pin, from the storage pouch on the escape slide pack.
- (c) Install the safety pin for the inflation cylinder for the escape slide.
- (d) Turn the EPAS battery safety switch [4] to the DISARM position.
  - NOTE: When the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not close.
- (e) Move the mode select handle to the AUTOMATIC/ARM position.

33-51-00

ARO ALL

EFFECTIVITY '





HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

- (f) Hold the door so it does not move from the cutout, and turn the PED interior door handle to the OPEN position to unlatch and lift the door.
  - NOTE: With the mode select switch in the AUTOMATIC/ARM position and the PED interior door handle in the OPEN position, the escape slide will deploy if the door moves more than 3 in. (76.2 mm) out of the fuselage.
- (g) Install the safety pin for the pack release.
  - NOTE: To install the safety pin, you must put the pin and lanyard through the center slit in the girt material.
- (h) Turn the PED interior handle to the CLOSED position to lower and latch the door.
- (i) Turn the EPAS battery safety switch [4] to the ARM position.

#### SUBTASK 33-51-00-720-005

- (5) Use the overwing emergency exit doors to do this check of the emergency lights (WDM 33-51-11 thru WDM 33-51-99).
  - (a) At the overhead panel, P5, set the pilots emergency light switch to the armed mode.
  - (b) At each overwing emergency exit door (PED 3), do these steps:
    - Do this task: Disarm the Off-Wing Escape System, TASK 25-65-00-040-801.
       NOTE: In the reference procedure, the word "cutout" is equivalent to "doorway".
    - 2) Make sure that these circuit breakers are closed:

## **Overhead Circuit Breaker Panel, P11**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R

3) Move the mode select handle [1] to the AUTOMATIC/ARM position.



HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN OCCUR.

- 4) Turn the interior handle [3] to the open position, but, do not let the door move out of the doorway.
- 5) While you hold the door, make sure one or more of the applicable lights come on.
  - NOTE: Use WDM 33-51-11 to identify the power supply connected to the door switches. When the emergency lights are armed and the door is open, the lights connected to the power supply come on.
- 6) Turn the interior handle [3] to the close position.
- 7) Make sure all applicable lights go off.
- 8) Move the mode select handle [2] to the MANUAL/DISARM position.
- 9) Do this task: Arm the Off-Wing Escape System, TASK 25-65-00-440-801.
- (c) At the P5 panel, set the pilots emergency light switch to the off mode.

ARO ALL 33-51-00

Page 506 May 05/2018



#### SUBTASK 33-51-00-720-004

- Use the passenger entry doors to do this check of the emergency lights (WDM 33-51-11thru WDM 33-51-99).
  - (a) At the overhead panel, P5, set the pilots emergency light switch to the armed mode.
  - At each passenger entry door, do these steps:
    - Turn the EPAS battery safety switch [4] to the DISARM position.
      - NOTE: When the EPAS battery safety switch is in the DISARM position, the aft hinge cover will not close.
    - Move the mode select handle [1] to the AUTOMATIC/ARM position. 2)



HOLD THE DOOR TO KEEP THE DOOR IN THE FUSELAGE. IF THE DOOR MOVES OUT OF THE FUSELAGE, THE ESCAPE SLIDE CAN RELEASE. INJURIES TO PERSONNEL OR DAMAGE TO WARNING EQUIPMENT CAN OCCUR.

- Turn the interior handle [3] to the open position, but, do not let the door move out of the doorway.
- While you hold the door, make sure one or more of the applicable lights come on.

NOTE: Use WDM 33-51-11 to identify the power supply connected to the door switches. When the emergency lights are armed and the door is open, the lights connected to the power supply come on.

- Turn the interior handle [3] to the close position. 5)
- Make sure all applicable lights go off.
- Move the mode select handle [2] to the MANUAL/DISARM position. 7)
- Do this task: Escape Slide Pack Girt Material Stowage, TASK 25-66-01-820-801.
- Turn the EPAS battery safety switch [4] to the ARM position.
- (c) At the P5 panel, set the pilots emergency light switch to the off mode.

## SUBTASK 33-51-00-720-003

- Do a check of the emergency lighting system from out of the airplane (WDM 33-51-11 thru WDM 33-51-99).
  - At the service and APU shutdown panel, P40, set the test switch for the emergency lights to the on mode.
    - Quickly make sure the exterior lights come on.
      - NOTE: This check includes all slide/overwing lights.
    - After one minute, make sure the lights go off automatically. 2)

## SUBTASK 33-51-00-860-004

Charge the batteries.

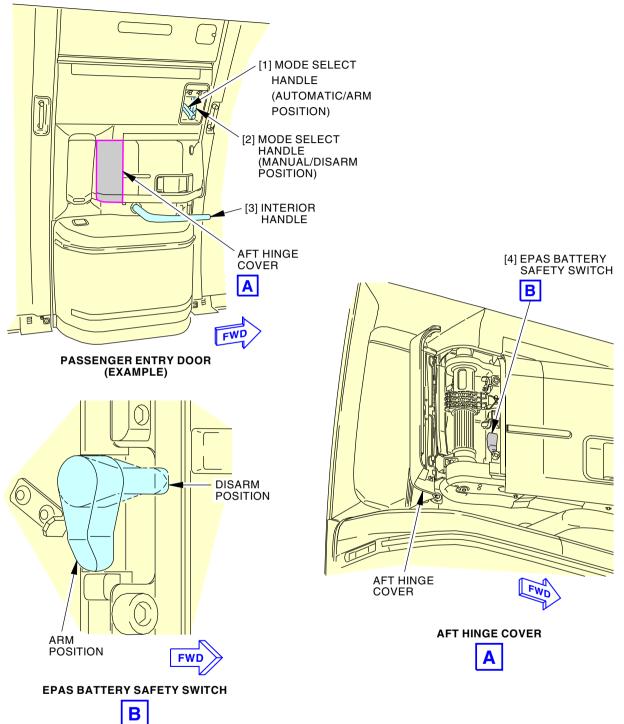
NOTE: The batteries in the emergency light power supplies are continuously charged when electrical power is supplied to the airplane. If the batteries are fully drained, maximum time necessary to charge them is 90 minutes.

- END OF TASK —

33-51-00

EFFECTIVITY .





F26545 S0006420410\_V2

# Emergency Lights Adjustment/Test Figure 501/33-51-00-990-802

ARO ALL

33-51-00

Page 508 Sep 05/2016



## **EXIT SIGNS - MAINTENANCE PRACTICES**

## 1. General

- This procedure has these tasks:
  - (1) Exit Sign Lamp Replacement
  - Exit Sign Light Assembly Replacement

## TASK 33-51-01-960-801

## 2. Exit Sign - Lamp Replacement

(Figure 201)

## A. References

Reference	Title
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual
Location Zones	

#### B.

Zone	Area
200	Upper Half of Fuselage

## C. Procedure

SUBTASK 33-51-01-960-001



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- Do these steps to replace the lamp (WDM 33-51-11 thru WDM 33-51-99):
  - (a) Remove the lens.

NOTE: If an exit sign has a lens on two sides, remove only one lens.

EXIT SIGN WITH PUSH BUTTON ON TWO SIDES;

When the exit sign is installed in the top half of the passenger compartment, push the side buttons, then pull off the lens [4].

EXIT SIGN WITHOUT PUSH BUTTON ON TWO SIDES:

When the exit sign is installed adjacent to the doors near the floor, use a No. 4 allen wrench to loosen the screw [12] from the release hole, then pull off the lens [13].

AIRPLANES WITH KOITO EXIT SIGN:

If the push button stopper is broken, do these steps to replace it:

- To remove the stopper, do these steps:
  - Do this task to remove the light assembly: Exit Sign Light Assembly Replacement, TASK 33-51-01-960-802.
  - b) Remove the lamp.
  - Remove the pop rivets or the screws and nuts that hold the stopper in its position.
  - Remove and discard the broken stopper.
- To install the new stopper, do these steps:
  - Put the new stopper in its position.

EFFECTIVITY **ARO ALL** 



- b) Install the new stopper with two pop rivets or two screws and two nuts.
- c) If screws and nuts are used, tighten the screws to 1.46  $\pm$ 0.13 in-lb (0.16  $\pm$ 0.02 N·m).
- d) Do this task to install the light assembly: Exit Sign Light Assembly Replacement, TASK 33-51-01-960-802.
- (c) Replace the lamp [5] or lamp [11].

#### SUBTASK 33-51-01-710-001

- (2) Do a test of the new lamp.
  - (a) Set the test switch for the emergency lights to the on mode.

NOTE: Use a test switch on the attendant switch panel or on the applicable power supply.

- 1) Make sure the new lamp comes on.
- 2) After one minute, make sure all emergency lights go off automatically.

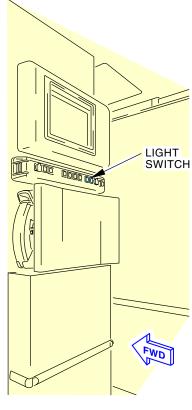
#### SUBTASK 33-51-01-410-001

(3) Install the lens [4] or lens [13].

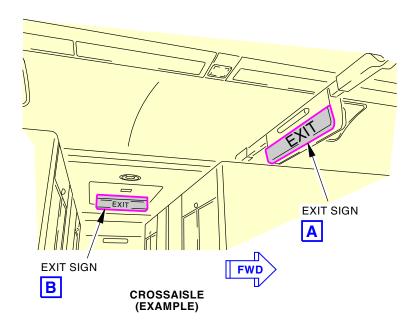
----- END OF TASK -----

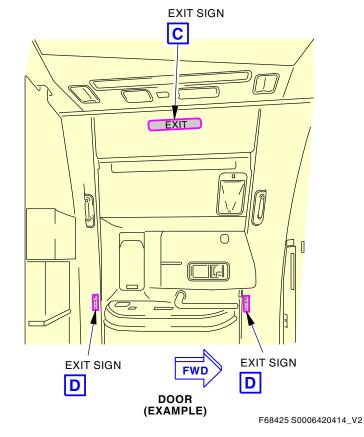
EFFECTIVITY 33-51-01





ATTENDANT SWITCH PANEL (EXAMPLE)





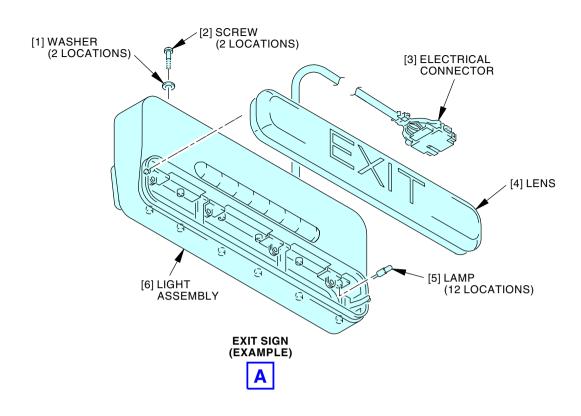
Exit Sign - Lamp/Light Assembly Replacement Figure 201/33-51-01-990-801 (Sheet 1 of 3)

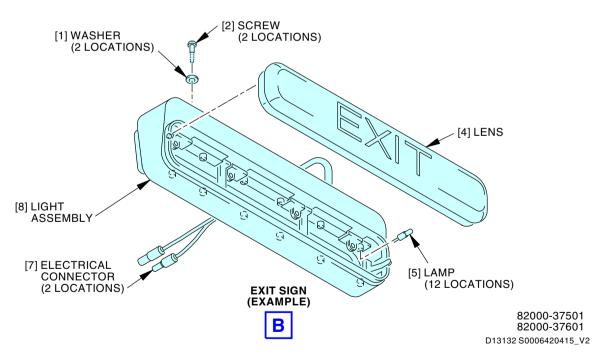
ARO ALL

33-51-01

Page 203 Sep 05/2016







Exit Sign - Lamp/Light Assembly Replacement Figure 201/33-51-01-990-801 (Sheet 2 of 3)

EFFECTIVITY

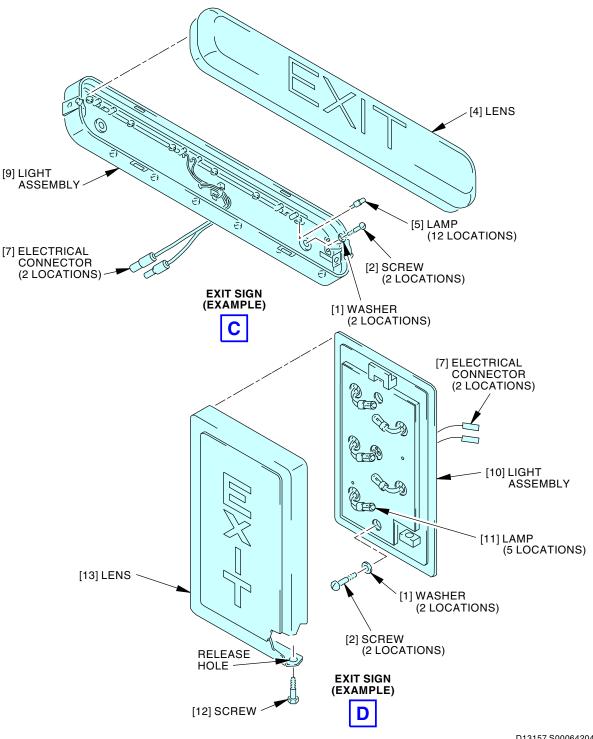
ARO ALL

Page 204

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details





D13157 S0006420416\_V3

Exit Sign - Lamp/Light Assembly Replacement Figure 201/33-51-01-990-801 (Sheet 3 of 3)

ARO ALL

D633W101-ARO

33-51-01

Page 205 Sep 05/2016



#### TASK 33-51-01-960-802

## 3. Exit Sign - Light Assembly Replacement

(Figure 201)

## References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
25-21-07-000-801	Lowered Ceiling Panel Removal (P/B 401)
25-21-07-400-801	Lowered Ceiling Panel Installation (P/B 401)
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual
Location Zones	

## B.

Zone	Area
200	Upper Half of Fuselage

#### **Procedure**

SUBTASK 33-51-01-410-002

- When the EXIT sign includes a Master Call Light Module, do these steps:
  - Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805.
  - (b) At the cabin system control panel, (CSCP) set these lights to the off mode:

NOTE: Use the cabin maintenance menus. On the main menu, touch CABIN TESTS. When the screen changes, touch LAMP TESTS. On the lamp test menu, make the applicable selections.

- 1) Passenger master call lights
- Lavatory master call lights
- Cabin interphone (crew) master call lights

## SUBTASK 33-51-01-960-002



DO NOT TOUCH THE METAL PINS IN THE ELECTRICAL CONNECTOR. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (2) Do these steps to replace the light assembly (WDM 33-51-11 thru WDM 33-51-99):
  - Get access to the light assembly by one of the following methods:
    - When the EXIT sign is attached to a ceiling panel, open the lowered ceiling panel do this task:(TASK 25-21-07-000-801).
    - When the EXIT sign is installed on a rail, get access to the screws and washers on the top of the rail.
    - When the EXIT sign is installed above a door or on a wall, pull off the lens [4].
    - When the EXIT sign is adjacent to a door or near the floor, use a No. 4 allen wrench to loosen the screw [12] from the release hole, then pull off the lens [13].
  - (b) Remove the screws [2] and washers [1].
  - (c) Disconnect the electrical connector, [3] or [7].
  - (d) If the wiring goes through the rail, pull it free before you remove the light assembly.

EFFECTIVITY **ARO ALL** 



- (e) Replace the light assembly, [6], [8], [9], or [10].
- (f) If the wiring goes through the rail, push it through to the electrical connector.
- (g) Connect the electrical connector, [3] or [7], to the new light assembly.
- (h) Install the washers [1] and screws [2].
- If a ceiling panel was lowered, put it back to its usual position (TASK 25-21-07-400-801).
- (j) If a lens was removed, [4] or [13], install it.

#### SUBTASK 33-51-01-710-002

- (3) Do a test of the new light assembly.
  - (a) For a test of the exit sign, set the test switch for the emergency lights to the on mode.

<u>NOTE</u>: Use a test switch on the attendant switch panel or on the applicable power supply.

- 1) Make sure the new exit sign comes on.
- 2) After one minute, make sure all emergency lights go off automatically.
- (b) When the EXIT sign includes a Master Call Light module, also do these steps:
  - 1) At the CSCP, set all master call lights to the on mode.
    - a) Make sure the lights come on.
    - b) Make sure the lights show the correct color:

## Table 201/33-51-01-993-801

TYPE OF CALL	COLOR	
Passenger call	blue	
lavatory call	amber/orange	
Cabin interphone	pink/red	

- 2) Set the lights to the off mode.
  - a) Make sure the lights go off.

#### SUBTASK 33-51-01-710-003

(4) Put the airplane back to its usual condition.

NOTE: On the lamp test menu, touch MAIN MENU. If a note appears on the screen, read it, then follow the instructions. If the cabin maintenance menus are not necessary, touch EXIT.

——— END OF TASK ———

ARO ALL



## **AREA LIGHTS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has these tasks:
  - (1) Area Light Lamp Replacement
  - (2) Area Light Light Assembly Replacement

## TASK 33-51-03-960-801

## 2. Area Light - Lamp Replacement

(Figure 201)

## A. References

Reference	Title
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual

## B. Location Zones

Zone	Area
200	Upper Half of Fuselage

## C. Procedure

SUBTASK 33-51-03-960-001



DO NOT TOUCH THE SOCKET OF THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp (WDM 33-51-11 thru WDM 33-51-99):
  - (a) Remove the lens assembly [1] or lens assembly [4].
    - 1) The lens cover tabs must be pushed in to remove the lens cover.

NOTE: If the tabs are not pushed correctly, you can cause damage to the lens cover.

- (b) Replace the lamp [2] or lamp [3].
- (c) Install the lens assembly [1] or lens assembly [4].

#### SUBTASK 33-51-03-710-001

- (2) Do a test of the new lamp.
  - (a) Set the test switch to the on mode.

<u>NOTE</u>: Use a test switch on the attendant switch panel or on the applicable power supply.

- 1) Make sure the new lamp comes on.
- 2) After one minute, make sure all emergency lights go off automatically.

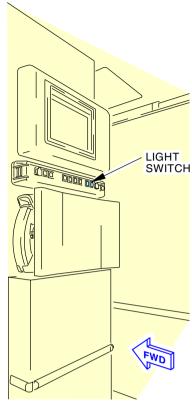
——— END OF TASK ———

33-51-03

**ARO ALL** 

EFFECTIVITY





AREA LIGHT

B

AREA LIGHT

AREA LIGHT

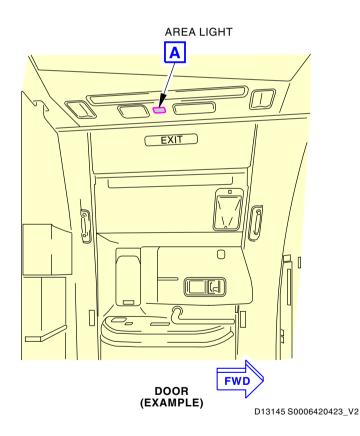
AREA LIGHT

AREA LIGHT

A

CROSSAISLE
(EXAMPLE)

ATTENDANT SWITCH PANEL (EXAMPLE)



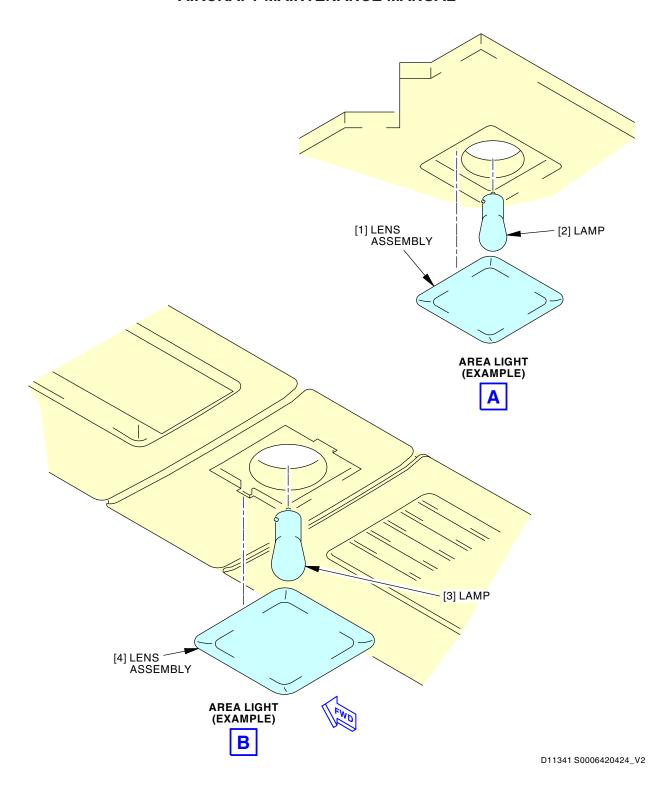
Area Light - Lamp Replacement Figure 201/33-51-03-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-51-03

Page 202 Sep 05/2016





Area Light - Lamp Replacement Figure 201/33-51-03-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-51-03

Page 203 Sep 05/2016



#### TASK 33-51-03-960-802

## 3. Area Light - Light Assembly Replacement

(Figure 202)

## A. References

Reference	Title
25-21-06-000-801	Main Ceiling Panel - Removal (P/B 401)
25-21-06-400-801	Main Ceiling Panel - Installation (P/B 401)
25-21-07-000-801	Lowered Ceiling Panel Removal (P/B 401)
25-21-07-400-801	Lowered Ceiling Panel Installation (P/B 401)
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
25-21-08-400-801	Overdoor Panel Installation/Closing (P/B 201)
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual

#### B. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

#### C. Procedure

SUBTASK 33-51-03-960-002



DO NOT TOUCH THE SOCKETS OF THE METAL ENDS OF THE LAMP. WHEN YOU SUPPLY ELECTRICAL POWER TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the light assembly (WDM 33-51-11 thru WDM 33-51-99):
  - (a) Get access to the top of the light assembly.
    - 1) Open the overdoor panel (TASK 25-21-08-000-801).
    - 2) Remove the main ceiling panel near the light (TASK 25-21-06-000-801).
    - 3) Remove the lowered ceiling panel (TASK 25-21-07-000-801) or, when available, open the adjacent access panel.
    - 4) Remove the LCD Video Monitor Unit (VMU). For the applicable AMM procedure, refer to the table of contents in Chapter 23.
  - (b) Disconnect the electrical connector.
  - (c) Remove the screws [22] or screws [24], and applicable washers [23].
  - (d) Replace the light assembly [21] or light assembly [25].
  - (e) Install the applicable washers [23] and screws [22] or screws [24].
  - (f) Connect the electrical connector.
  - (g) If a panel was opened or removed, close or install it (TASK 25-21-08-400-801) (TASK 25-21-06-400-801) (TASK 25-21-07-400-801).
  - (h) If a video monitor was removed, install it. For the applicable AMM procedure, refer to the table of contents in Chapter 23.

## SUBTASK 33-51-03-710-002

(2) Do a test of the new light assembly.

ARO ALL 33-51-03



(a) Set the test switch to the on mode.

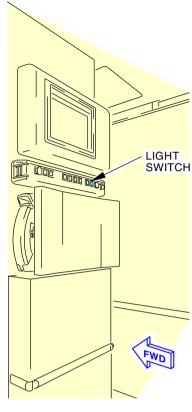
NOTE: Use a test switch on the attendant switch panel or on the applicable power supply.

- 1) Make sure the light comes on.
- 2) After one minute, make sure all emergency lights go off automatically.

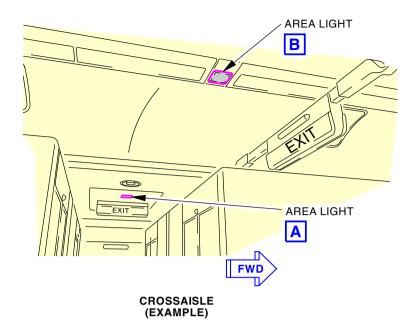
----- END OF TASK -----

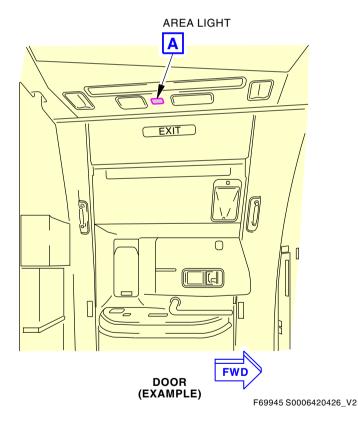
ARO ALL





ATTENDANT SWITCH PANEL (EXAMPLE)





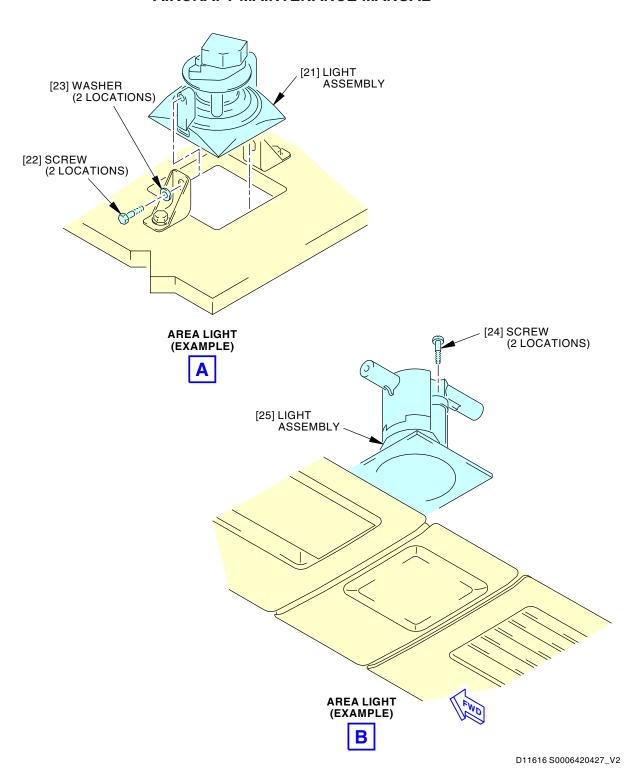
Area Light - Light Assembly Replacement Figure 202/33-51-03-990-802 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-51-03

Page 206 Sep 05/2016





Area Light - Light Assembly Replacement Figure 202/33-51-03-990-802 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

Page 207

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



## **SLIDE/OVERWING LIGHTS - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has one task:
  - (1) Slide/Overwing Light Lamp Replacement

## TASK 33-51-04-960-801

## 2. Slide/Overwing Light - Lamp Replacement

(Figure 201)

# A. References

Reference	Title
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual

## B. Consumable Materials

Reference	Description	Specification
G02309	Material - Moldable Plastic Shim	BMS8-338

# C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Lens assembly	33-51-11-01-045	ARO ALL
		33-51-11-01-050	ARO ALL
		33-51-11-02A-035	ARO ALL
		33-51-11-02A-040	ARO ALL
		33-51-11-03A-045	ARO ALL
		33-51-11-03A-050	ARO ALL
		33-51-11-04-095	ARO ALL
		33-51-11-04-100	ARO ALL
		33-51-11-05-045	ARO ALL
		33-51-11-05-050	ARO ALL
		33-51-11-06-045	ARO ALL
		33-51-11-06-050	ARO ALL
		33-51-11-07-045	ARO ALL
		33-51-11-07-050	ARO ALL
3	Lamp	25-13-52-19-075	ARO ALL
		33-51-11-01-030	ARO ALL
		33-51-11-02A-030	ARO ALL
		33-51-11-03A-030	ARO ALL
		33-51-11-04-080	ARO ALL
		33-51-11-05-040	ARO ALL
		33-51-11-06-040	ARO ALL
		33-51-11-07-040	ARO ALL

ARO ALL



## D. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

#### E. Procedure

SUBTASK 33-51-04-960-001



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LAMP, ELECTRICAL SHOCK CAN OCCUR. THIS CAN CAUSE INJURIES TO PERSONNEL.

- (1) Do these steps to replace the lamp (WDM 33-51-11 thru WDM 33-51-99):
  - (a) Loosen the fasteners [1] and remove the lens assembly [2].

NOTE: The lanyard stays connected.

- (b) Replace the lamp [3].
- (c) If the outer gasket of the lens assembly [2] is damaged, replace it.
- (d) If the shims on the lens assembly [2] are damaged, replace them:
  - 1) Remove the unwanted shim material.
  - 2) Apply new shim material, G02309 in the applicable areas of the rubber gasket.

NOTE: Use only the quantity necessary. Adjacent compartments in the rubber gasket will help contain the shim material. Cover the fastener holes and the drain hole with tape strips or equivalent.

- 3) Install the lens assembly [2] and tighten the fasteners [1] until the lens assembly [2] is flush with the airplane skin.
- 4) Let the shim material set and dry for six hours.
- 5) Remove the lens assembly [2].
  - a) Remove the temporary shim gaskets and tape strips from the lens assembly [2].
  - Remove unwanted materials from the drain hole to make sure that it is not blocked.
- 6) Clean and examine the shims.
  - a) Make sure the shim thickness is no more than 0.125 in. (3.175 mm).
- (e) Install the lens assembly [2] and tighten the fasteners [1] to 10 in-lb (1 N·m) 13 in-lb (1 N·m).
  - 1) Make sure that the lens assembly [2] is flush with the airplane skin.

## SUBTASK 33-51-04-710-001

- (2) Do a test of the new lamp.
  - (a) Set the test switch to the on mode.

NOTE: Use a test switch on the attendant switch panel, service and APU shutdown panel, or on the applicable power supply.

- 1) Make sure the new lamp comes on.
- 2) After one minute, make sure all emergency lights go off automatically.

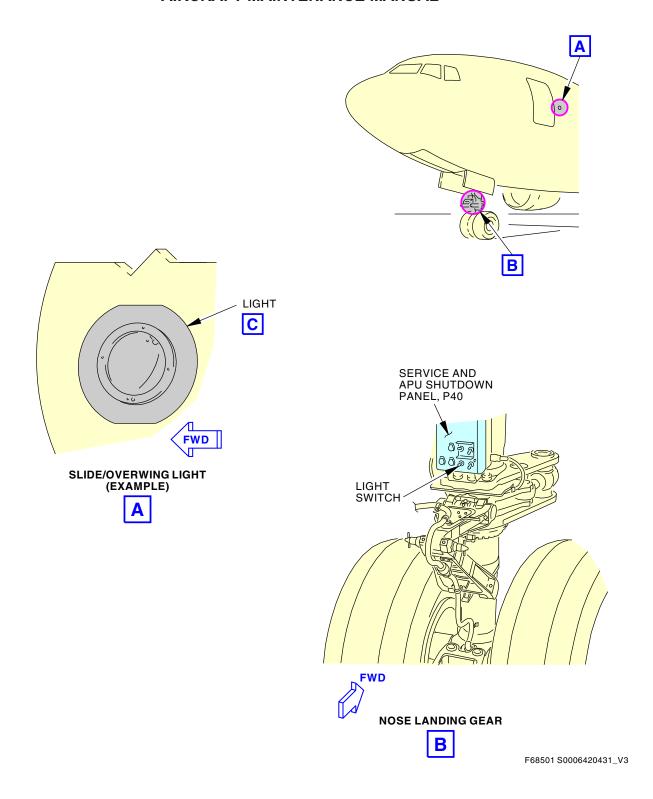
	$\sim$	TASK	
-NIII	( )I	IASK	

□ 33-51-04

**EFFECTIVITY** 

**ARO ALL** 





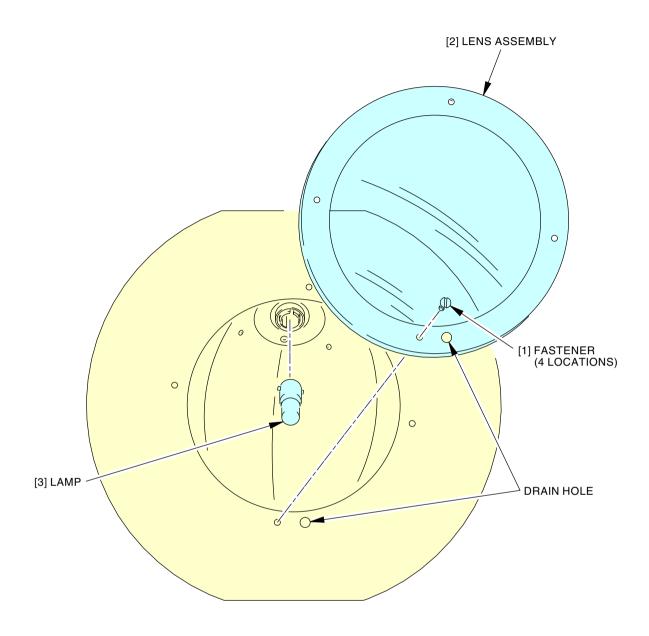
Slide/Overwing Light - Lamp Replacement Figure 201/33-51-04-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-51-04

Page 203 May 05/2018





SLIDE/OVERWING LIGHT (EXAMPLE)



D09397 S0006420432\_V5

Slide/Overwing Light - Lamp Replacement Figure 201/33-51-04-990-801 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-51-04

Page 204 Sep 05/2016



## FLOOR PROXIMITY LIGHTS - MAINTENANCE PRACTICES

## 1. General

- A. This procedure has these tasks:
  - (1) Floor Proximity Light Lamp Replacement
  - (2) Floor Proximity Light Light Assembly Replacement
  - (3) Floor Proximity Light Photoluminescent Light Strips Charging

## TASK 33-51-05-960-801

## 2. Floor Proximity Light - Lamp Replacement

(Figure 201)

## A. References

Reference	Title
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual

## **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

## C. Procedure

SUBTASK 33-51-05-960-001



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LIGHT, ELECTRICAL SHOCK CAN OCCUR.

- (1) Do these steps to replace the lamp (WDM 33-51-11 through WDM 33-51-99):
  - (a) Remove the lens.
    - 1) Before you remove a lens with an arrow, identify the direction of the arrow.
    - 2) If the lens is installed with a fastener, loosen the fastener.
  - (b) Replace the lamp.
  - (c) Install the lens.
    - 1) If the lens is damaged, replace it.
      - a) Make sure the color of the lens remains the same.
    - 2) If you install a lens with an arrow, make sure you point the arrow in the correct direction.
    - 3) If the lens is installed with a fastener, tighten the fastener.

## SUBTASK 33-51-05-710-001

- (2) Do a test of the new lamp:
  - (a) Set the test switch to the on mode.

NOTE: Use a test switch on the attendant switch panel or on the applicable power supply.

1) Make sure the new lamp comes on.

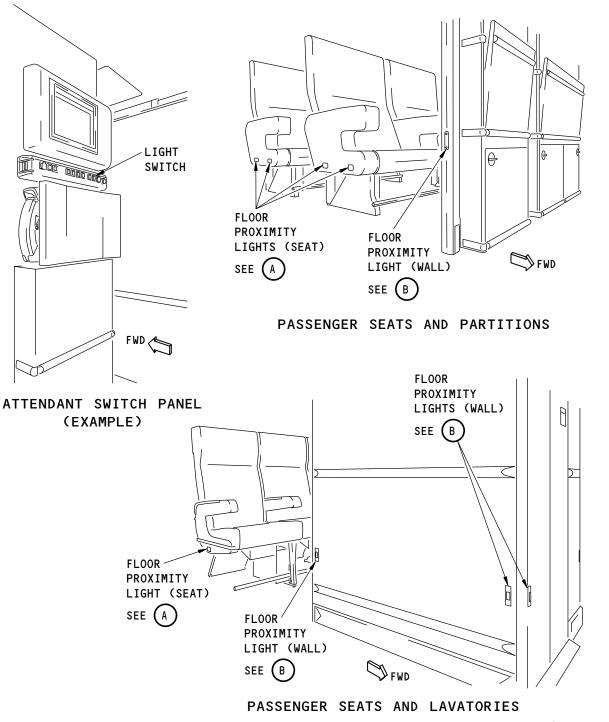
ARO ALL



2)	After one minute, make sure all emergency lights go off automatically.
	END OF TASK

ARO ALL





F69965 S0006420436\_V1

Floor Proximity Light - Lamp Replacement Figure 201/33-51-05-990-801 (Sheet 1 of 3)

EFFECTIVITY

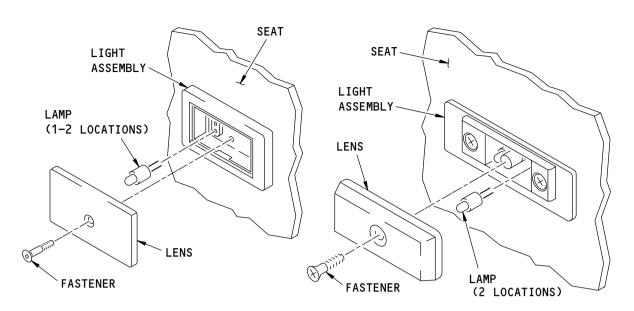
ARO ALL

Page 203

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details



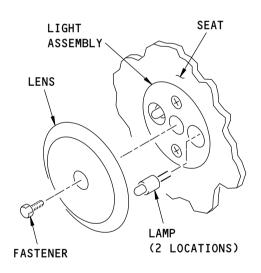


FLOOR PROXIMITY LIGHT (SEAT)
(EXAMPLE)

A

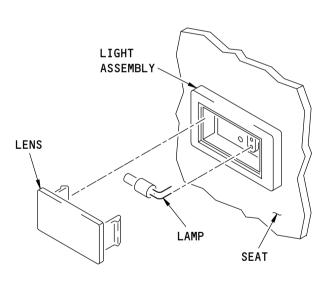
FLOOR PROXIMITY LIGHT (SEAT)
(EXAMPLE)





FLOOR PROXIMITY LIGHT (SEAT) (EXAMPLE)

A



FLOOR PROXIMITY LIGHT (SEAT)
(EXAMPLE)

A

**81000-33701** D11070 S0006420437\_V1

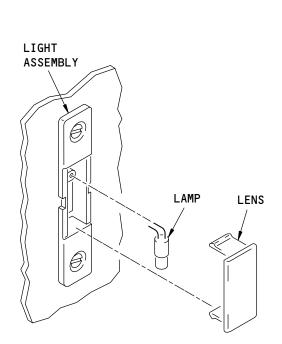
Floor Proximity Light - Lamp Replacement Figure 201/33-51-05-990-801 (Sheet 2 of 3)

ARO ALL

33-51-05

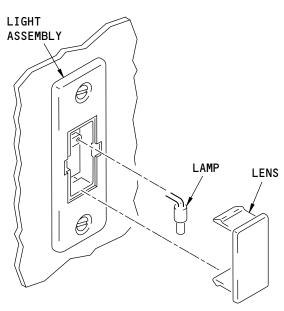
Page 204 Sep 05/2017





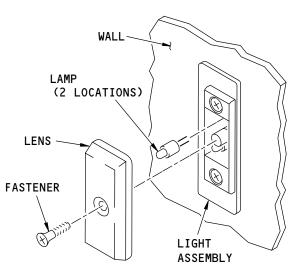
FLOOR PROXIMITY LIGHT (WALL) (EXAMPLE)

B



FLOOR PROXIMITY LIGHT (WALL)
(EXAMPLE)





FLOOR PROXIMITY LIGHT (WALL)
(EXAMPLE)

B

81000-33901 81000-33801 D11101 S0006420438\_V1

Floor Proximity Light - Lamp Replacement Figure 201/33-51-05-990-801 (Sheet 3 of 3)

ARO ALL

33-51-05

Page 205 Sep 05/2017



#### TASK 33-51-05-960-802

3. Floor Proximity Light - Light Assembly Replacement

(Figure 202)

## A. References

Reference	Title
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual

## B. Location Zones

2004.1011 201100		
Zone	Area	
200	Upper Half of Fuselage	

## C. Procedure

#### SUBTASK 33-51-05-960-002

- (1) Do these steps to replace a light assembly installed in a seat (WDM 33-51-11 thru WDM 33-51-99):
  - (a) Disconnect the electrical connector.

NOTE: You will find approximately 6 inches of electrical wire between the light assembly and the electrical connector. Usually, the electrical connector will be under the seat.

- (b) If the light assembly is held to the seat with fasteners, do these steps:
  - Before you remove a light assembly with an arrow, identify the direction of the arrow.
  - 2) Loosen the fastener to remove the lens.
  - 3) Loosen the fasteners that hold the light assembly to the seat.
- (c) Lift the arm rest to reach behind the light assembly.
- (d) Push the light assembly out from the seat.
- (e) Pull out the light assembly with its electrical wire.
- (f) Put in the new light assembly.
  - 1) Make sure the new light assembly includes a lamp.
- (g) If the light assembly is held to the seat with fasteners, do these steps:
  - 1) Tighten the fasteners that hold the light assembly to the seat.
  - 2) Install the lens and tighten its fastener.
    - a) If the lens is damaged, replace it.
    - b) Make sure the color of the lens remains the same.
    - If you install a lens with an arrow, make sure you point the arrow in the correct direction.
- (h) Put the electrical wire back along its usual routing.
- (i) Close the arm rest.
- (j) Connect the electrical connector.

#### SUBTASK 33-51-05-960-003

(2) Do these steps to replace a light assembly installed on a lavatory, galley, closet, or partition (WDM 33-51-11 thru WDM 33-51-99):

ARO ALL



- (a) Remove the fasteners that hold the light assembly in its position.
  - If the lens covers the light assembly fasteners, loosen the lens fastener and remove the lens.
- (b) Pull out the light assembly.
  - Before you remove a light assembly with an arrow, identify the direction of the arrow.
- (c) Disconnect the electrical wire.
- (d) Connect the electrical wire for the new light assembly.
- (e) Put the new light assembly in its position.
  - 1) Make sure the new light assembly includes a lamp.
  - 2) Put the electrical wire back along its usual routing.
- (f) Install the fasteners that hold the light assembly in its position.
  - 1) If the lens is damaged, replace it.
    - a) Make sure the color of the lens remains the same.
  - 2) If you install a lens with an arrow, make sure you point the arrow in the correct direction.
  - 3) If the lens was removed, install it.

#### SUBTASK 33-51-05-710-002

- (3) Do a test of the new light assembly:
  - (a) Set the test switch to the on mode.

NOTE: Use a test switch on the attendant switch panel or on the applicable power supply.

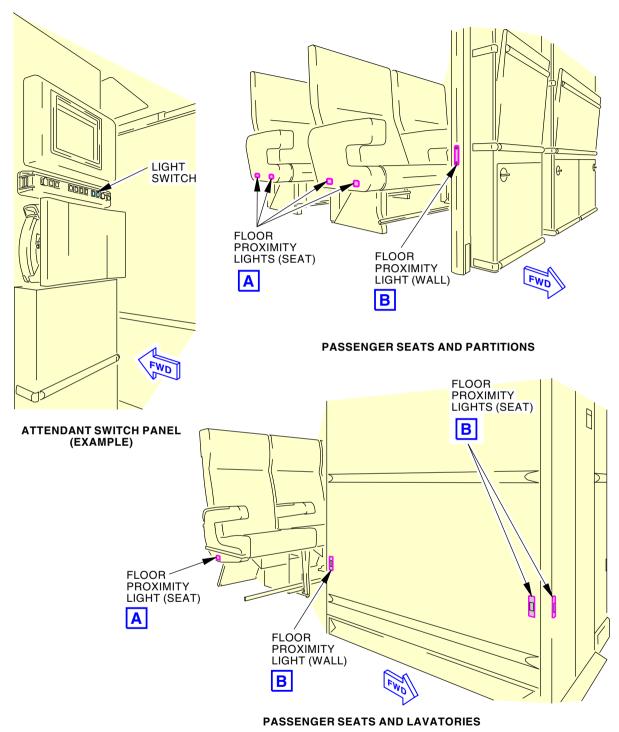
- 1) Make sure the new light assembly comes on.
- 2) After one minute, make sure all emergency lights go off automatically.

----- END OF TASK -----

33-51-05

· EFFECTIVITY ·





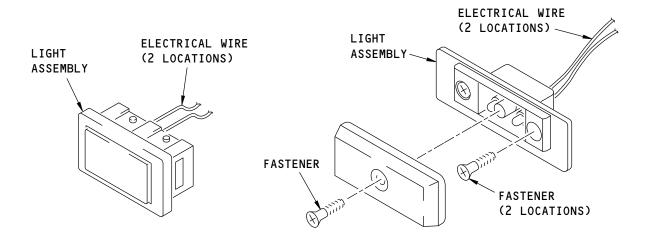
H67689 S0006420440\_V2

Floor Proximity Light - Light Assembly Replacement Figure 202/33-51-05-990-802 (Sheet 1 of 3)

33-51-05 · EFFECTIVITY **ARO ALL** Sep 05/2017 D633W101-ARO

Page 208



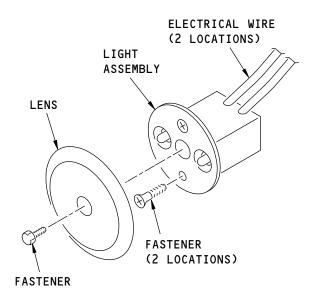


FLOOR PROXIMITY LIGHT (SEAT)
(EXAMPLE)

A

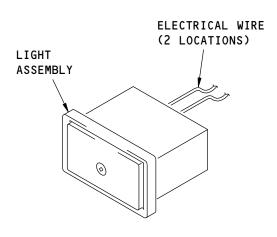
FLOOR PROXIMITY LIGHT (SEAT) (EXAMPLE)

 $\bigcirc$ 



FLOOR PROXIMITY LIGHT (SEAT)
(EXAMPLE)

(A)



FLOOR PROXIMITY LIGHT (SEAT)
(EXAMPLE)



**81000-33701** H67704 S0006420441\_V1

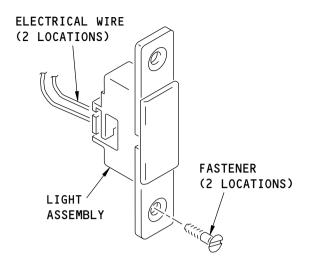
Floor Proximity Light - Light Assembly Replacement Figure 202/33-51-05-990-802 (Sheet 2 of 3)

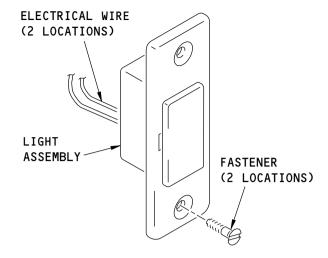
ARO ALL
D633W101-ARO

33-51-05

Page 209 Sep 05/2017





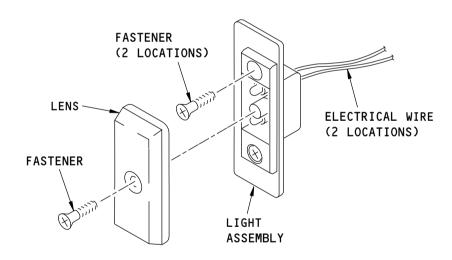


FLOOR PROXIMITY LIGHT (WALL)
(EXAMPLE)

B

FLOOR PROXIMITY LIGHT (WALL)
(EXAMPLE)





FLOOR PROXIMITY LIGHT (WALL)
(EXAMPLE)



81000-33901 81000-33801

H67714 S0006420442\_V1

Floor Proximity Light - Light Assembly Replacement Figure 202/33-51-05-990-802 (Sheet 3 of 3)

ARO ALL
D633W101-ARO

33-51-05

Page 210 Sep 05/2017



#### TASK 33-51-05-860-801

# 4. Floor Proximity Light - Photoluminescent Light Strips Charging

## A. General

(1) The photoluminescent floor proximity lights are energized when the lights are on. This procedure uses the passenger cabin lights to supply a continuous charge to all sections of the photoluminescent floor proximity lights.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
24-22-00-860-806	Remove Electrical Power (P/B 201)

## C. Location Zones

Zone	Area
200	Upper Half of Fuselage

# D. Prepare for Procedure

SUBTASK 33-51-05-860-001

(1) Make sure that electrical power is supplied to the airplane (TASK 24-22-00-860-805).

#### E. Procedure

SUBTASK 33-51-05-860-002

- (1) Do these steps to charge the photoluminescent strips:
  - (a) At the applicable Cabin Services Control Panel (CSCP) or Cabin Attendants Control Panel (CACP), set the lights to the Maintenance White mode from the Cabin Lighting menu.
    - NOTE: Passenger compartment lighting is critical to the performance of the photoluminescent floor proximity system. Use the applicable maintenance procedures to keep these lights serviceable.
    - NOTE: The tables that follow contain the charging times that are based on the initial configuration of the airplane. Addition of new lighting scenes or change to these scenes requires approval from Boeing and the applicable local regulatory agency.
  - (b) To initially charge the photoluminescent strips, select the scenarios listed in Table 201.

ARO ALL 33-51-05



# Table 201/33-51-05-993-801

Charge Scenario	Scene	Charge Time (Minutes)	Photoluminescent Duration (Hours)	Remarks
		15	10.50	
	Maint White	30	14.00	Cabin activity is limited to minor aisle traffic of crew and personnel.
Bins Open or Closed No Passengers or Seated Passengers		60	17.00	
	Board - Day  Board - Night (Pearl)  Board - Night (Coral)	15	10.50	
		30	14.00	
		60	17.00	
		15	9.00	
		30	11.00	
		15	9.00	
		30	11.00	

(c) Photoluminescent duration can be extended more than the initial charge. Use the extended charge scenarios listed in Table 202.

NOTE: The Photoluminescent Duration times listed in Table 202 differ from those listed in Table 201 because of differences in the charge time starting conditions.

## Table 202/33-51-05-993-802

14510 202/00 01 00 002					
Charge Scenario	Scene	Charge Time (Minutes)	Photoluminescent Duration (Hours)	Remarks	
	Cruina Day	15	5.75		
	Cruise - Day	30	6.75		
Bins Closed Seated Passengers	Cwice Night	15	5.75	Start charging before the end of the previous photoluminescent discharge duration.	
	Cruise - Night	30	6.75		
	Duty Free Day (Pearl & Coral)	15	5.75	Cabin activity is limited to minor	
		30	6.75	aisle traffic of crew and passengers.	
	Duty Free Night	15	5.75		
	(Pearl & Coral)	30	6.75		

# F. Put the Airplane Back to Its Usual Condition

SUBTASK 33-51-05-860-003

(1) At the applicable attendant panel, set the cabin lights to the usual mode.

SUBTASK 33-51-05-860-004

(2) If it is not necessary, remove electrical power (TASK 24-22-00-860-806).

——— END OF TASK ———

ARO ALL



# FLOOR PROXIMITY LIGHTS - REMOVAL/INSTALLATION

# 1. General

- A. This procedure has these tasks:
  - (1) Aisle Light Strip Removal
  - (2) Aisle Light Strip Installation
  - (3) Galley Light Strip Removal
  - (4) Galley Light Strip Installation

## TASK 33-51-05-000-801

- 2. Aisle Light Strip Removal
  - A. Tools/Equipment

Reference	Description
STD-764	Scraper - Non-metallic

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Aisle Light Strip Removal

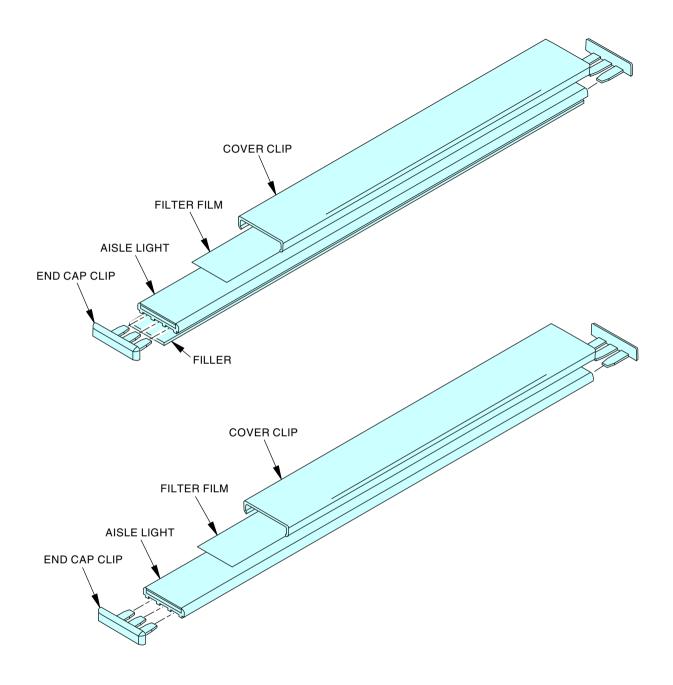
SUBTASK 33-51-05-020-001

(1) Use a non-metallic scraper, STD-764 to remove the aisle light strip and the adhesive tape from the floor panel.

——— END OF TASK ———

ARO ALL 33-51-05





2094764 S0000440143\_V3

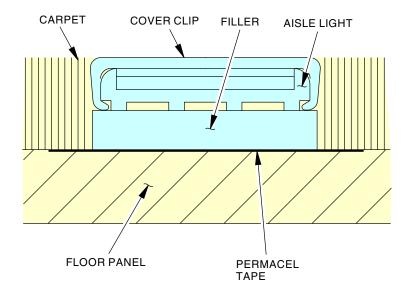
# Aisle Light Strip Installation Figure 401/33-51-05-990-805 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-51-05

Page 402 Sep 05/2016





2094765 S0000440144\_V3

# Aisle Light Strip Installation Figure 401/33-51-05-990-805 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-51-05

Page 403 Sep 05/2016



#### TASK 33-51-05-400-801

# 3. Aisle Light Strip Installation

# A. Tools/Equipment

Reference	Description	
STD-764	Scraper - Non-metallic	

#### B. Consumable Materials

Reference	Description	Specification
A50031	Sealant - Dow Corning 732 Multi-Purpose Sealant	MIL-A-46106
A50464	Tape - Vinyl, Adhesive Coated	BMS5-179
B00148	Solvent - Methyl Ethyl Ketone (MEK)	ASTM D740
G01043	Cloth - Lint-free	
G50138	Cloth - Soft Cotton	
G50551	Tape - Nitto P-306 (use until stock depleted)	

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

## D. Prepare for the Installation

#### SUBTASK 33-51-05-840-005

- (1) Do these steps to prepare the light strip:
  - (a) For light strip with filter, do these steps:
    - 1) Remove particles from the filter.
    - 2) Put the filter in the cover clip.
  - (b) Install the cover clip on the light strip.
  - (c) For light strip with filler, do these steps:
    - 1) Remove the foil from the back of the light strip.
    - 2) Put the light strip on the filler.
    - 3) Apply a light pressure along the length of the light strip.
  - (d) Cut the light strip with a metal saw to the necessary length.
    - NOTE: Refer to the used light strip without end caps for the necessary length.
  - (e) Apply Dow Corning 732 multi-purpose sealant, A50031 or equivalent to the inner surface of the end cap clips
  - (f) Install the end cap clips to each end of the light strip.

#### SUBTASK 33-51-05-840-006



DO NOT GET THE SOLVENT IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE IN THE FUMES FROM THE SOLVENT. MAKE SURE TO PUT ON PROTECTIVE SPLASH GOGGLES AND GLOVES WHEN USING THE SOLVENT. KEEP THE SOLVENT AWAY FROM SPARKS, FLAMES AND HEAT. THE SOLVENT IS POISONOUS AND FLAMMABLE AND CAN CAUSE INJURY OR DAMAGE IF NOT HANDLED PROPERLY.

(2) Do these steps to prepare for the installation:

33-51-05

Page 404 Sep 05/2017



- (a) Remove the remaining adhesive tape from the floor panels with a non-metallic scraper, STD-764.
- (b) Clean the applicable floor panel area with a lint-free cloth, G01043 and the solvent, B00148.
- (c) Use a new lint-free cloth, G01043 to remove the remaining solvent, B00148 before it dries.
- (d) Install Nitto P-306 tape, G50551 or tape, A50464 on the floor panel.

## E. Aisle Light Strip Installation

SUBTASK 33-51-05-420-001

- (1) Do these steps to install the light strip:
  - (a) Remove the foil from the back of the light strip.
  - (b) Put the light strip in its position on the floor panel.
    - 1) At each end of the new light strip, make sure that there is a clearance of 0.10 in. (2.54 mm) to 0.20 in. (5.08 mm) between the light strips.
  - (c) Use a soft cotton cloth, G50138 and apply a light pressure along the length of the light strip.
  - (d) At each end of the new light strip, make sure that there is a clearance of 0.10 in. (2.54 mm) to 0.20 in. (5.08 mm) between the light strips.



#### TASK 33-51-05-000-802

# 4. Galley Light Strip Removal

## A. Tools/Equipment

Reference	Description	
STD-764	Scraper - Non-metallic	

## B. Location Zones

Zone	Area
200	Upper Half of Fuselage

# C. Aisle Light Strip Removal

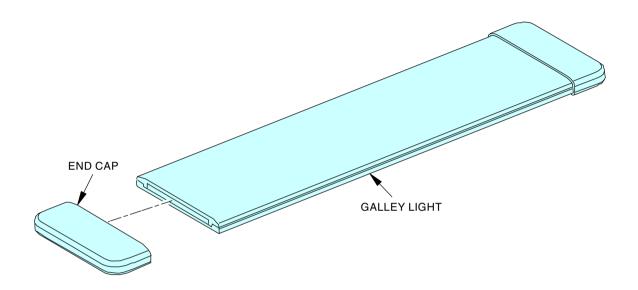
SUBTASK 33-51-05-020-002

(1) Use a non-metallic scraper, STD-764 to remove the galley light strip and the adhesive tape from the floor panel.

	$\triangle$ E	<b>TASK</b>	
	UF	IAON	

ARO ALL 33-51-05





2094761 S0000440145\_V2

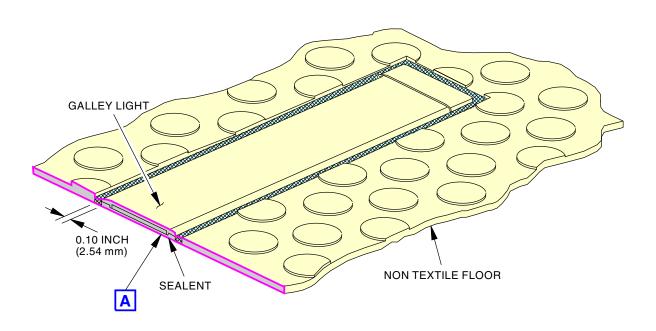
Galley Light Strip Installation Figure 402/33-51-05-990-806 (Sheet 1 of 2)

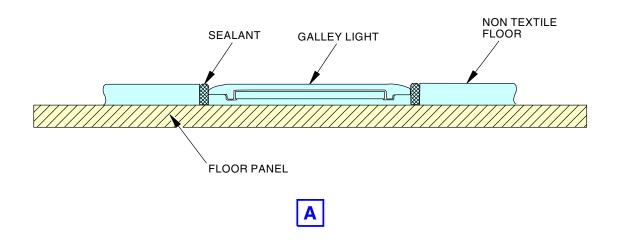
ARO ALL
D633W101-ARO

33-51-05

Page 406 Sep 05/2016







2094762 S0000440146\_V3

# Galley Light Strip Installation Figure 402/33-51-05-990-806 (Sheet 2 of 2)

EFFECTIVITY

ARO ALL

D633W101-ARO

ECCN 9E991 BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

33-51-05

Page 407 Sep 05/2016



#### TASK 33-51-05-400-802

# 5. Galley Light Strip Installation

# A. Tools/Equipment

Reference	Description
STD-764	Scraper - Non-metallic

#### B. Consumable Materials

Reference	Description	Specification
A50031	Sealant - Dow Corning 732 Multi-Purpose Sealant	MIL-A-46106
A50231	Sealant - Pressure And Environmental - Chromate Type	BMS5-95 Class B
B00148	Solvent - Methyl Ethyl Ketone (MEK)	ASTM D740
G01043	Cloth - Lint-free	
G50138	Cloth - Soft Cotton	

## C. Location Zones

Zone	Area
200	Upper Half of Fuselage

## D. Prepare for the Installation

SUBTASK 33-51-05-840-007

- (1) Do these steps to prepare the light strip:
  - (a) Cut the light strip with a metal saw to the necessary length.
    - NOTE: Refer to the used light strip without end caps for the necessary length.
  - (b) Apply Dow Corning 732 multi-purpose sealant, A50031 or equivalent to the inner surface of the end cap clips
  - (c) Install the end cap clips to each end of the light strip.

## SUBTASK 33-51-05-840-008



DO NOT GET THE SOLVENT IN YOUR MOUTH, EYES, OR ON YOUR SKIN. DO NOT BREATHE IN THE FUMES FROM THE SOLVENT. MAKE SURE TO PUT ON PROTECTIVE SPLASH GOGGLES AND GLOVES WHEN USING THE SOLVENT. KEEP THE SOLVENT AWAY FROM SPARKS, FLAMES AND HEAT. THE SOLVENT IS POISONOUS AND FLAMMABLE AND CAN CAUSE INJURY OR DAMAGE IF NOT HANDLED PROPERLY.

- (2) Do these steps to prepare for the installation:
  - (a) Remove the remaining adhesive tape from the floor panels with a non-metallic scraper, STD-764.
  - (b) Clean the applicable floor panel area with a lint-free cloth, G01043 and the solvent, B00148.
  - (c) Use a new lint-free cloth, G01043 to remove the remaining solvent, B00148 before it dries.

# E. Galley Light Strip Installation

SUBTASK 33-51-05-420-002

- (1) Do these steps to install the light strip:
  - (a) Remove the foil from the back of the light strip.

ARO ALL



- (b) Put the light strip in its position on the floor panel.
  - Make sure that the light strip is in the center of the floor opening.
  - 2) At each end of the new light strip, make sure that there is a clearance of 0.10 in. (2.54 mm) 0.20 in. (5.08 mm) between the light strips.
- (c) Use a soft cotton cloth, G50138 and apply a light pressure along the length of the light strip.
- (d) At each end of the new light strip, make sure that there is a clearance of 0.10 in. (2.54 mm) 0.20 in. (5.08 mm) between the light strips.
- (e) Apply sealant, A50231 to the clearance between the light strip and the non-textile floor.
- (f) Remove the unwanted sealant, A50231 from the light strip and the non-textile floor.



ARO ALL 33-51-05



## FLOOR PROXIMITY LIGHTS - ADJUSTMENT/TEST

## 1. General

- A. This procedure has this task:
  - (1) Cabin Light Intensity Test

## TASK 33-51-05-720-801

# 2. Cabin Light Intensity Test

(Figure 501, Figure 502)

NOTE: This procedure is a scheduled maintenance task.

## A. General

- (1) The photoluminescent floor proximity strips are energized when light is present. This procedure measures the amount of light available to provide the charge for those strips.
- (2) Depending on the type of light-meter selected, these conversion factors will allow readings in Foot-Candles (Fc) or Lux to be used:
  - (a)  $Fc \times 10.764 = Lux$
  - (b) Lux x 0.0929 = Fc

#### B. References

Reference	Title	
24-22-00-860-805	Supply Electrical Power (P/B 201)	_
24-22-00-860-806	Remove Electrical Power (P/B 201)	

## C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description	
COM-11030	Sensor - Illuminance (Photometric)	
COM-11031	Meter - Light, Handheld (Photometer)	

## D. Consumable Materials

Reference	Description	Specification
G00270	Tape - Scotch Flatback Masking 250	ASTM D6123
		(Supersedes A-A-883)

## E. Location Zones

Zone	Area
200	Upper Half of Fuselage

# F. Prepare for the Test

SUBTASK 33-51-05-860-005

(1) Make sure that electrical power is supplied to the airplane (TASK 24-22-00-860-805).

SUBTASK 33-51-05-860-006

- (2) Prepare to measure the cabin light intensity:
  - (a) Do some or all of these steps to make sure the airplane interior meets the "dark of night" criteria (0.005 fc).

ARO ALL



- 1) Move the airplane out of direct sunlight or daylight conditions.
  - NOTE: You can move the airplane inside a hanger or take the readings at night.
- 2) Close all of the window shades.
- 3) Tape over any light leaks in the window reveals.
- 4) Make sure seat power is off.
- 5) Remove galley power at the emergency power control.
- 6) Use light blocking fabric to block any large area light sources.
- Measure the light intensity of the airplane interior with a light meter and sensor such as, handheld light meter, COM-11031 and illuminance photometric sensor, COM-11030 or equivalent.
  - a) Make sure the airplane interior meets the "dark of night" criteria (0.005 fc or less).
- (b) Make sure that the airplane interior is in fully operational passenger provisions configuration.
  - NOTE: Provisions to include all seats, bins, galleys, lavatories, etc. installed for normal use.
- (c) Do these steps to mark light intensity measurement points on the aisleway carpet:
  - <u>NOTE</u>: Past data shows airplane is symmetrical, measurement along only one aisle is acceptable.
  - 1) Place a piece of Scotch Flatback Masking Tape 250, G00270, centered between the photoluminescent strips, on the aisleway carpet at the centerline of the forward cabin door.
  - 2) Use a ruler or measuring tape to measure 60 in. (152 cm) aft of that piece and put another piece of tape on the carpet.
  - 3) In like fashion, place pieces of tape every 60 in. (152 cm) throughout the rest of the length of the cabin, all the way back to, and including, the centerline of the most aft passenger door.
- (d) Make several copies of Data Sheet to use for recording data at each measurement point (Figure 502).
- (e) Set the lights for the cabin light level test:
  - 1) At the applicable attendants panel, set the ceiling lights to the on or bright mode.
  - 2) At the applicable attendants panel, set the window or sidewall lights to the off mode.
  - 3) Set all reading lights to the off mode.
  - 4) Close all window shades, lavatory doors, cabin egress doors, and all overhead bin doors.
- (f) Maintain the above conditions for 10 minutes minimum to stabilize the light source.

## G. Cabin Light Intensity Test

SUBTASK 33-51-05-720-001

- (1) Do these steps to measure the light intensity throughout the passenger cabin (Figure 501):
  - NOTE: One person should perform the tests while another person records the data.
  - (a) Do these steps to set up the light meter and sensor such as, handheld light meter, COM-11031 and illuminance photometric sensor, COM-11030 or equivalent:

ARO ALL



- 1) Connect the cable from the handheld light meter, COM-11031 to illuminance photometric sensor, COM-11030.
- 2) Turn the handheld light meter, COM-11031 on.
- Set the handheld light meter, COM-11031 to read in the 0 to 200 Lux range (or approximately 0 to 20 Fc), daylight mode (if applicable), and zero it or initialize it if necessary.
- (b) Do these steps to measure the light intensity:
  - 1) Place the illuminance photometric sensor, COM-11030 on the light strip on one side of the aisle at the point to be measured.
    - NOTE: The sensor points up toward the cabin ceiling.
  - Make sure no object is in the path of the light to the illuminance photometric sensor, COM-11030.
  - 3) Record the measurement point number and the light level value on the data sheet, (Figure 502).
  - 4) Move the illuminance photometric sensor, COM-11030 onto the strip on the other side of the aisle and measure and record the light level value on the data sheet for that side of the aisle.
- (c) Do the above steps for other points along the cabin floor.

#### SUBTASK 33-51-05-720-002

- (2) Calculate the average light level in the passenger cabin:
  - (a) Add all the recorded readings from all data sheets for values measured on each side of the aisle and record those totals on the last sheet.
  - (b) Divide each total by the number of readings taken.
  - (c) Make sure that the average value for each side is 20 Lux (1.858 Fc) minimum.
    - 1) If you do not get 20 Lux (1.858 Fc) minimum, clean the light lens or replace the applicable light.
- H. Put the Airplane Back to Its Usual Condition

SUBTASK 33-51-05-860-007

(1) Set the lights to the usual mode.

SUBTASK 33-51-05-860-008

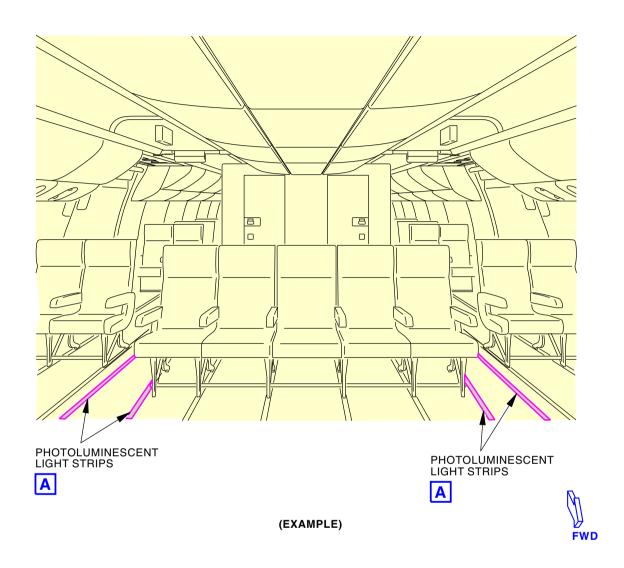
(2) If it is not necessary, remove electrical power (TASK 24-22-00-860-806).

——— END OF TASK ———

33-51-05

EFFECTIVITY





2095204 S0000443214\_V2

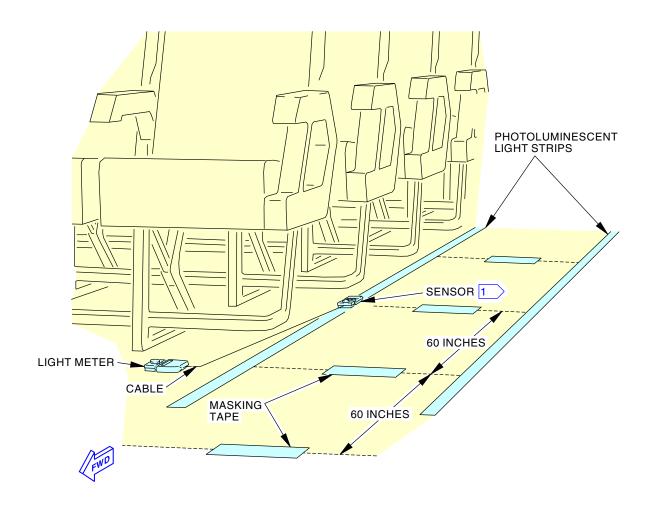
# Cabin Light Intensity Test Figure 501/33-51-05-990-810 (Sheet 1 of 2)

ARO ALL

33-51-05

Page 504 Sep 05/2017







1 SENSOR POINTS UP TO CABIN CELING.

2095206 S0000443215\_V2

# Cabin Light Intensity Test Figure 501/33-51-05-990-810 (Sheet 2 of 2)

ARO ALL

D633W101-ARO

33-51-05

Page 505 Sep 05/2017



MEASUREMENT POINT	MEASURED L	IGHT (LUX)
MEASUREMENT POINT	LEFT SIDE	RIGHT SIDE
SUBTOTAL THIS PAGE:		
SUBTOTAL PREVIOUS PAGE:		
OVERALL TOTAL:		
AVERAGE (LAST PAGE ONLY):		

**DATA SHEET** 

2095207 S0000440155\_V2

Cabin Light Intensity Test Light Meter Readings Figure 502/33-51-05-990-809

ARO ALL

33-51-05

Page 506 Sep 05/2017



### FLOOR PROXIMITY LIGHTS - INSPECTION/CHECK

## 1. General

- A. This procedure has this task:
  - (1) Photoluminescent Floor Proximity Light Strips Inspection

#### TASK 33-51-05-210-801

# 2. Photoluminescent Floor Proximity Light Strip Inspection

NOTE: This procedure is a scheduled maintenance task.

#### A. References

Reference	Title
33-51-05 P/B 401	FLOOR PROXIMITY LIGHTS - REMOVAL/INSTALLATION
33-51-05 P/B 701	FLOOR PROXIMITY LIGHTS - CLEANING/PAINTING

#### B. Consumable Materials

Reference	Description	Specification
G51033	Tape - Tesa 4965	

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

SUBTASK 33-51-05-210-001

- (1) Do these steps to examine the photoluminescent floor proximity light strips:
  - (a) There can be no more than 10.0 in. (25.4 cm) of a 72.0 in. (182.88 cm) section that does not give out light.
  - (b) There can be no two sections directly across of each other that do not give out light.
  - (c) If the light strips are dirty, clean the light strips (PAGEBLOCK 33-51-05/701).
    - 1) For sections of the light strip that cannot be cleaned to give out light, replace the light strip (PAGEBLOCK 33-51-05/401).
  - (d) If the light strip is loose, replace the Tesa 4965 tape, G51033 on the light strip (PAGEBLOCK 33-51-05/401).
  - (e) If a section of the light strip is damage or missing, replace the light strip (PAGEBLOCK 33-51-05/401).
  - (f) If a section of the light strip has discoloration, replace the light strip (PAGEBLOCK 33-51-05/401).

	<b>END</b>	OF	<b>TASK</b>	
--	------------	----	-------------	--

ARO ALL 33-51-05



# FLOOR PROXIMITY LIGHTS - CLEANING/PAINTING

#### 1. General

- A. This procedure has this task:
  - (1) Photoluminescent Floor Proximity Light Strips Cleaning

#### TASK 33-51-05-100-801

# 2. Photoluminescent Floor Proximity Light Strip Cleaning

#### A. Consumable Materials

Reference	Description	Specification
B00067	Alcohol - Denatured, Ethyl (Ethanol)	AMS 3002 (Supersedes O-E-760)
B00541	Cleaner - General Purpose Household Detergent	
B50026	Soap - Clear Liquid Dishwashing	
G01043	Cloth - Lint-free	

## **B.** Location Zones

Zone	Area
200	Upper Half of Fuselage

#### C. Procedure



USE THE RECOMMENDED CLEANER. DO NOT USE ACETONE, BENZOLE, GASOLINE, CARBON TETRACHLORIDE, OR CLEANING AGENTS WITH ALKALI. THESE WILL CAUSE DAMAGE TO THE STRIP.

#### SUBTASK 33-51-05-110-001

- (1) Do these steps to clean the photoluminescent floor proximity light strip:
  - (a) Attach the masking paper to each side of the protector to protect the adjacent floor from contamination.
  - (b) Use a lint-free cloth, G01043 and soap, B50026 or general purpose household detergent cleaner, B00541 to clean the protector.
    - 1) If stronger cleaner is necessary, use alcohol, B00067 to clean the light strip.
  - (c) Make sure that you do not damage the floor cover.
  - (d) Use the lint-free cloth, G01043 and clean water to remove the used cleaner from the protector.
  - (e) Make sure that the protector is clean.
  - (f) Use a clean lint-free cloth, G01043 to dry the protector.
  - (g) Remove and discard the masking paper.
  - (h) Make sure that the floor is clean.

	$\sim$ $\sim$	<b>TASK</b>	
	( ) <del>-</del>	$\Delta \sim \kappa$	

33-51-05

**ARO ALL** 

**EFFECTIVITY** 

Page 701 1-ARO Sep 05/2017



# **POWER SUPPLIES - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
  - (1) Power Supply Fuse Replacement
  - (2) Power Supply Battery Pack Replacement
  - (3) Power Supply Power Supply Replacement
  - (4) Power Supply Battery Pack Capacity Check
  - (5) Power Supply Battery Pack Deep-Cycle Procedure
- C. The power supply contains a battery pack and four fuses. Each item can be replaced.

#### TASK 33-51-06-960-801

# 2. Power Supply - Fuse Replacement

(Figure 201)

#### A. References

Reference	Title
25-21-07-000-801	Lowered Ceiling Panel Removal (P/B 401)
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual
–	

## B. Location Zones

Zone	Area	
200	Upper Half of Fuselage	

#### C. Procedure

SUBTASK 33-51-06-860-003

(1) Open the applicable circuit breakers and install safety tags:

# **Overhead Circuit Breaker Panel, P11**

			· · · ·
Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	9	C33640	EMER LTS-DR 5L & 5R
Н	10	C33641	EMER LTS-DR 2L & 2R
Н	11	C33642	EMER LTS-DR 1L & 1R
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R
Н	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

#### SUBTASK 33-51-06-960-001

- 2) Do these steps to replace the fuse [5] (WDM 33-51-11 thru WDM 33-51-99):
  - (a) Do the applicable step to get access to the power supply [6]:
    - 1) Open the overdoor panel (TASK 25-21-08-000-801).
    - 2) Open the lowered ceiling panel (TASK 25-21-07-000-801).
  - (b) Loosen the fasteners [3] on the battery pack [4].

ARO ALL





KEEP THE BATTERY PACK PARALLEL TO THE TOP SURFACE OF THE CHARGER WHEN YOU LIFT IT. DAMAGE TO THE TWO PLASTIC PROJECTIONS CAN OCCUR IF YOU DO NOT OBEY THIS INSTRUCTION.

- (c) Lift up the battery pack [4] to disconnect it from the power supply [6].
- (d) Replace each damaged fuse [5].
- (e) Align the battery pack [4] on the power supply [6] and push down to connect it.
- (f) Tighten the fasteners [3].

#### SUBTASK 33-51-06-710-001

- (3) Do a test of the new fuse [5].
  - (a) Remove the safety tags and close the applicable circuit breakers:

## **Overhead Circuit Breaker Panel, P11**

Row	Col	<u>Number</u>	<u>Name</u>
Н	9	C33640	EMER LTS-DR 5L & 5R
Н	10	C33641	EMER LTS-DR 2L & 2R
Н	11	C33642	EMER LTS-DR 1L & 1R
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R
Н	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

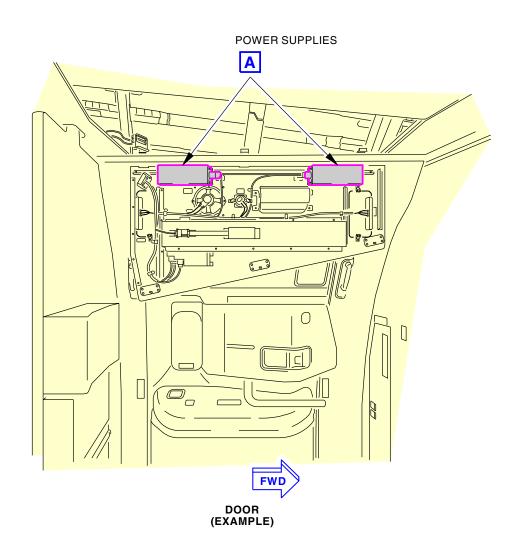
- (b) Set the test switch [8] to the ON mode.
  - 1) Make sure the lights connected to the power supply [6] come on.
  - 2) After one minute, make sure all emergency lights go off automatically.
- (c) Do the applicable step:
  - 1) Close the overdoor panel (TASK 25-21-08-000-801).
  - 2) Close the lowered ceiling panel (TASK 25-21-07-000-801).

——— END OF TASK ———

33-51-06

· EFFECTIVITY





E13564 S0006420446\_V2

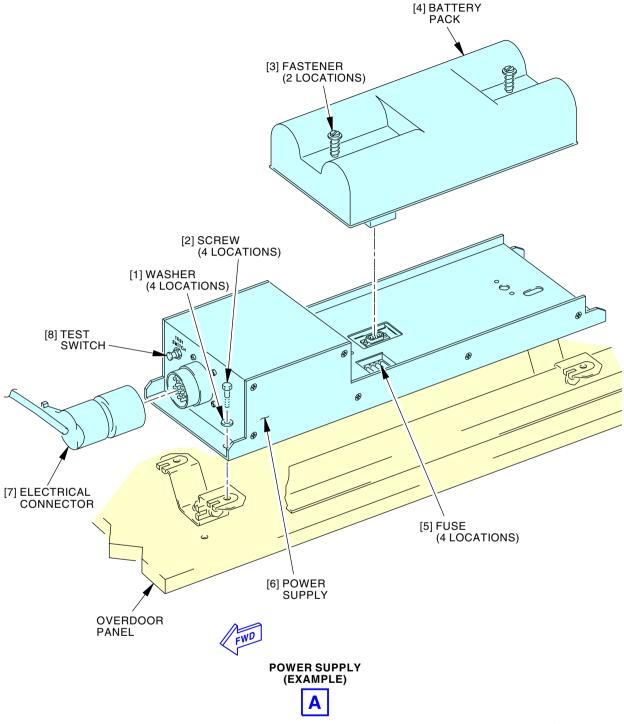
Power Supply - Power Supply/Battery Pack/Fuse Replacement Figure 201/33-51-06-990-801 (Sheet 1 of 2)

ARO ALL
D633W101-ARO

33-51-06

Page 203 Sep 05/2016





D13703 S0006420447\_V2

Power Supply - Power Supply/Battery Pack/Fuse Replacement Figure 201/33-51-06-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-51-06

Page 204 Sep 05/2016



#### TASK 33-51-06-960-802

# 3. Power Supply - Battery Pack Replacement

(Figure 201)

# A. General

(1) When you replace the battery pack, do not discard it. Refer to the vendor instructions for possible repairs.

NOTE: Ignore the expiration dates (if installed) on these battery packs.

#### B. References

Reference	Title	
25-21-07-000-801	Lowered Ceiling Panel Removal (P/B 401)	
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)	
WDM 33-51-11	Wiring Diagram Manual	
WDM 33-51-99	Wiring Diagram Manual	
Leastion Zenes		

# C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

SUBTASK 33-51-06-860-004

(1) Open the applicable circuit breakers and install safety tags:

## **Overhead Circuit Breaker Panel, P11**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	9	C33640	EMER LTS-DR 5L & 5R
Н	10	C33641	EMER LTS-DR 2L & 2R
Н	11	C33642	EMER LTS-DR 1L & 1R
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R
Н	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

### SUBTASK 33-51-06-960-002

- (2) Do these steps to replace the battery pack [4] (WDM 33-51-11 thru WDM 33-51-99):
  - (a) Do the applicable step to get access to the battery pack [4]:
    - 1) Open the overdoor panel (TASK 25-21-08-000-801).
    - 2) Open the lowered ceiling panel (TASK 25-21-07-000-801).
  - (b) Loosen the fasteners [3].



KEEP THE BATTERY PACK PARALLEL TO THE POWER SUPPLY WHILE YOU LIFT IT DIRECTLY AWAY FROM THE POWER SUPPLY. THE ALIGNMENT PINS CAN BREAK OFF IF YOU LIFT THE BATTERY PACK FROM ONE END.

- (c) Lift up the battery pack [4] to disconnect it from the power supply [6].
- (d) Align the new battery pack [4] on the power supply [6] and push down to connect it.
- (e) Tighten the fasteners [3].

#### SUBTASK 33-51-06-710-002

(3) Do a test of the new battery pack [4].

ARO ALL



(a) Remove the safety tags and close the applicable circuit breakers:

# **Overhead Circuit Breaker Panel, P11**

Row	Col	<u>Number</u>	<u>Name</u>
Н	9	C33640	EMER LTS-DR 5L & 5R
Н	10	C33641	EMER LTS-DR 2L & 2R
Н	11	C33642	EMER LTS-DR 1L & 1R
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R
Н	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

- (b) Set the test switch [8] to the ON mode.
  - 1) Make sure the lights connected to the power supply [6] come on.
    - a) If the lights do not come on, supply electrical power to the airplane for approximately 30 minutes to charge the battery pack [4].
    - b) Use the test switch [8] to do the test again.
  - 2) After one minute, make sure all emergency lights go off automatically.
- (c) Do the applicable step:
  - 1) Close the overdoor panel (TASK 25-21-08-000-801).
  - 2) Close the lowered ceiling panel (TASK 25-21-07-000-801).



#### TASK 33-51-06-960-803

4. Power Supply - Power Supply Replacement

(Figure 201)

## A. General

(1) When you replace the power supply, do not discard it. Refer to the vendor instructions for possible repairs.

#### B. References

Reference	Title
25-21-07-000-801	Lowered Ceiling Panel Removal (P/B 401)
25-21-08-000-801	Overdoor Panel Opening/Removal (P/B 201)
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual

# C. Location Zones

Zone	Area
200	Upper Half of Fuselage

## D. Procedure

SUBTASK 33-51-06-860-014

(1) At the overhead panel, P5, set the pilots emergency light switch to the OFF mode.

EFFECTIVITY 33-51-06



#### SUBTASK 33-51-06-860-005

(2) Open the applicable circuit breakers and install safety tags:

## **Overhead Circuit Breaker Panel, P11**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	9	C33640	EMER LTS-DR 5L & 5R
Н	10	C33641	EMER LTS-DR 2L & 2R
Н	11	C33642	EMER LTS-DR 1L & 1R
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R
Н	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

#### SUBTASK 33-51-06-960-003

- (3) Do these steps to replace the power supply [6] (WDM 33-51-11 thru WDM 33-51-99):
  - (a) Do the applicable step to get access to the power supply [6]:
    - 1) Open the overdoor panel (TASK 25-21-08-000-801).
      - 2) Open the lowered ceiling panel (TASK 25-21-07-000-801).
  - (b) Disconnect the electrical connector [7].
  - (c) Remove the screws [2] and washers [1].
  - (d) Replace the power supply [6].
  - (e) Install the washers [1] and screws [2].
  - (f) Connect the electrical connector [7].

## SUBTASK 33-51-06-710-003

- (4) Do a test of the new power supply [6].
  - (a) Remove the safety tags and close the applicable circuit breakers:

# **Overhead Circuit Breaker Panel, P11**

Row	<u>Col</u>	<u>Number</u>	<u>Name</u>
Н	9	C33640	EMER LTS-DR 5L & 5R
Н	10	C33641	EMER LTS-DR 2L & 2R
Н	11	C33642	EMER LTS-DR 1L & 1R
Н	16	C33621	EMERGENCY LIGHTS DOOR 3L
Н	17	C33620	EMERGENCY LIGHTS DOOR 3R
Н	18	C33619	EMERGENCY LIGHTS DOOR 4L & 4R

- (b) Set the test switch [8] to the ON mode.
  - 1) Make sure the lights connected to the power supply [6] come on.
    - a) If the lights do not come on, supply electrical power to the airplane for approximately 30 minutes to charge the battery pack [4].
    - b) Use the test switch [8] to do the test again.
  - 2) After one minute, make sure all emergency lights go off automatically.
- (c) Do the applicable step:
  - 1) Close the overdoor panel (TASK 25-21-08-000-801).
  - 2) Close the lowered ceiling panel (TASK 25-21-07-000-801).

----- END OF TASK -----

ARO ALL



#### TASK 33-51-06-200-801

# 5. Power Supply - Battery Pack Capacity Check

NOTE: This procedure is a scheduled maintenance task.

## A. General

(1) The capacity check makes sure each battery pack can operate its emergency lights and signs for a minimum of 15 minutes.

#### B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)
WDM 33-51-11	Wiring Diagram Manual
WDM 33-51-99	Wiring Diagram Manual
Location Zones	

#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

#### D. Procedure

#### SUBTASK 33-51-06-860-001

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-51-06-860-007

(2) Make sure the battery packs are fully charged.

NOTE: The battery packs in the emergency light power supplies are continuously charged when electrical power is supplied to the airplane, unless the emergency light switches are set to the on mode. If power has been on for 90 minutes and no emergency lights have been tested, the battery packs can be considered fully charged. If the battery packs are fully drained, maximum time necessary to charge them is 90 minutes.

#### SUBTASK 33-51-06-210-001

- (3) Do the battery pack capacity check:
  - (a) At the overhead panel, P5, set the pilots emergency light switch to the on mode.
    - NOTE: You will note the amount of time the emergency lights stay on for each battery pack.
  - (b) Leave the switch in the on mode until all emergency lights go off.
  - (c) Make sure the emergency lights and signs stay on for a minimum of 15 minutes.
    - 1) Identify each battery pack that does not operate its emergency lights and signs for a minimum of 15 minutes.
      - NOTE: Use WDM 33-51-11 through WDM 33-51-99. It is not necessary to identify individual lights and signs. It is only necessary to identify emergency light power supplies where unsatisfactory battery packs may be installed.
  - (d) At the P5 panel, set the pilots emergency light switch to the off mode.
  - (e) Charge the battery packs.
    - NOTE: The battery packs in the emergency light power supplies are continuously charged when electrical power is supplied to the airplane, unless the emergency light switches are set to the on mode. If the battery packs are fully drained, maximum time necessary to charge them is 90 minutes.

ARO ALL



#### SUBTASK 33-51-06-860-009

(4) If there are battery packs that do not operate correctly during the capacity check, then do these steps:

NOTE: The battery packs have been re-charged following the capacity check.

(a) To deep cycle the battery packs, do this task: Power Supply - Battery Pack Deep-Cycle Procedure, TASK 33-51-06-600-801

#### SUBTASK 33-51-06-810-001

- (5) Retest any battery packs that did not stay on for 15 minutes above.
  - (a) At the overhead panel, P5, set the pilots emergency light switch to the on mode.
    - NOTE: You will note the amount of time the emergency lights stay on that had previously failed.
  - (b) Leave the switch in the on mode until the emergency lights go off.
  - (c) Make sure the emergency lights stayed on for a minimum of 15 minutes.

#### SUBTASK 33-51-06-860-012

- (6) If the battery pack operated correctly during the retest, then put the airplane back to its usual condition:
  - (a) At the P5 panel, set the pilots emergency light switch to the off mode.
  - (b) Charge the battery pack.
    - NOTE: The battery pack in the emergency lights power supply is continuously charged when electrical power is supplied to the airplane, unless the emergency light switches are set to the on mode. If the battery pack is fully drained, maximum time necessary to charge it is 90 minutes.

#### SUBTASK 33-51-06-860-013

- (7) If the battery pack did not operated correctly during the retest, then replace it:
  - (a) Do this task: Power Supply Battery Pack Replacement, TASK 33-51-06-960-802.
  - (b) At the P5 panel, set the pilots emergency light switch to the off mode.
  - (c) Charge the battery pack.
    - NOTE: The battery pack in the emergency lights power supply is continuously charged when electrical power is supplied to the airplane, unless the emergency light switches are set to the on mode. If the battery pack is fully drained, maximum time necessary to charge it is 90 minutes.



# TASK 33-51-06-600-801

6. Power Supply - Battery Pack Deep-Cycle Procedure

NOTE: This procedure is a scheduled maintenance task.

## A. General

(1) The deep-cycle procedure removes the electrical power in the battery packs down to the power supply lower level cutoff and then charges them to their capacity.

## B. References

Reference	Title
24-22-00-860-805	Supply Electrical Power (P/B 201)

ARO ALL



#### C. Location Zones

Zone	Area
200	Upper Half of Fuselage

## D. Procedure

#### SUBTASK 33-51-06-860-006

(1) Make sure electrical power is supplied to the airplane. If it is necessary, do this task: Supply Electrical Power, TASK 24-22-00-860-805

#### SUBTASK 33-51-06-610-005

- (2) Do the battery pack deep-cycle procedure:
  - (a) At the overhead panel, P5, set the pilots emergency light switch to the on mode.
  - (b) Keep the switch on until all emergency lights and signs go off.
    - NOTE: The removal of electrical power from the battery packs can take up to 90 minutes.
  - (c) After all emergency lights and signs go off, set the switch to the off mode.
  - (d) Charge the battery packs.

NOTE: The battery packs in the emergency light power supplies are continuously charged when electrical power is supplied to the airplane, unless the emergency light switches are set to the on mode. If the battery packs are fully drained, maximum time necessary to charge them is 90 minutes.

----- END OF TASK -----



# **EMERGENCY DOME LIGHT - MAINTENANCE PRACTICES**

## 1. General

- A. This procedure has one task:
  - (1) Emergency Dome Light Lamp Replacement

## TASK 33-51-07-960-801

# 2. Emergency Dome Light - Lamp Replacement

(Figure 201)

# A. General

- (1) The emergency dome light is a secondary lamp installed in some dome light assemblies.
- (2) In this procedure, the secondary lamp refers to the emergency dome light. The primary lamp refers to the dome light, which is a part of the flight compartment illumination system.
- (3) It is necessary to remove the primary lamp to get access to the secondary lamp.

## B. References

Reference	Title
33-11-01-000-801	Dome Light - Lamp Removal (P/B 201)
33-11-01-400-801	Dome Light - Lamp Installation (P/B 201)

#### C. Location Zones

Zone	Area
211	Flight Compartment, Left

#### D. Procedure

SUBTASK 33-51-07-010-001

- (1) Do this task: Dome Light Lamp Removal, TASK 33-11-01-000-801.
  - (a) Do all steps in the specified procedure, which include the electrical power instructions and the removal of the lens assembly [1] and primary lamp [2].

SUBTASK 33-51-07-960-001



DO NOT TOUCH THE SOCKET OR THE METAL END OF THE LAMP. WHEN ELECTRICAL POWER IS SUPPLIED TO THE LAMP, ELECTRICAL SHOCK CAN OCCUR. THIS CAN CAUSE INJURIES TO PERSONNEL.

(2) Replace the secondary lamp [3].

SUBTASK 33-51-07-710-001

- (3) Do a test of the new lamp.
  - (a) At the overhead panel, P5, set the switch for the emergency lights to the on mode.
    - 1) Make sure the new lamp comes on.
  - (b) Set the switch for the emergency lights to the off mode.
    - 1) Make sure all emergency lights go off.

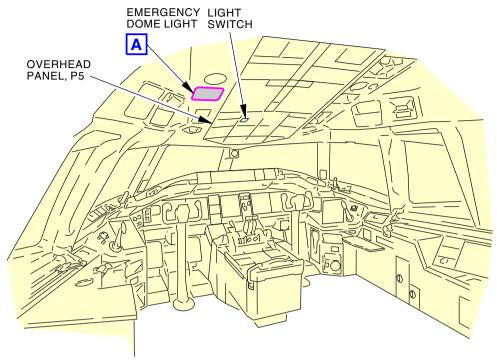
SUBTASK 33-51-07-410-001

- (4) Do this task: Dome Light Lamp Installation, TASK 33-11-01-400-801.
  - (a) Do all steps in the specified procedure, which include the installation of the primary lamp [2] and lens assembly [1], a test, and the electrical power instructions.

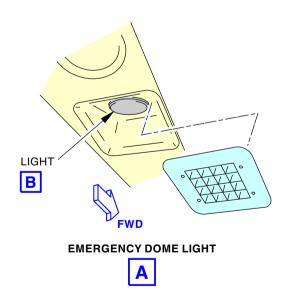
------ END OF TASK ------

ARO ALL





FLIGHT COMPARTMENT



F68511 S0006420455\_V2

Emergency Dome Light - Lamp Replacement Figure 201/33-51-07-990-801 (Sheet 1 of 2)

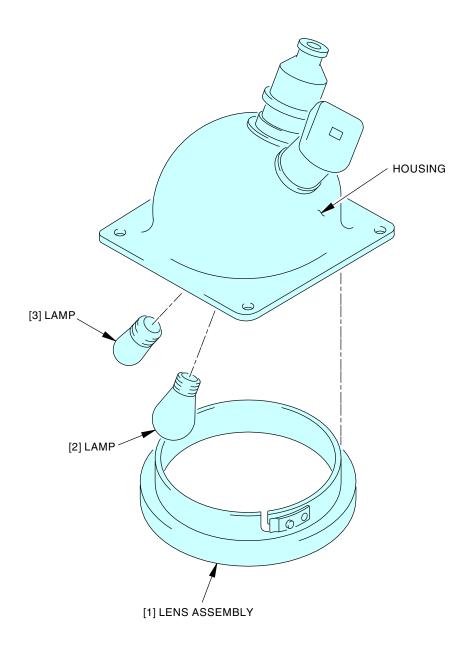
ARO ALL

D633W101-ARO

33-51-07

Page 202 Sep 05/2016





# **EMERGENCY DOME LIGHT**



10-1113C D11180 S0006420456\_V2

Emergency Dome Light - Lamp Replacement Figure 201/33-51-07-990-801 (Sheet 2 of 2)

ARO ALL
D633W101-ARO

33-51-07

Page 203 Sep 05/2016