



AIRCRAFT
MAINTENANCE MANUAL

EXTERNAL EMERGENCY LIGHTS - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the external emergency lights.
- B. (FOR AIRCRAFT WITH AIRSTAIR DOOR) The external emergency lights are installed in the main door handrail, service door lining, LH and RH side center fairings, and forward lower fairing.
- C. (FOR AIRCRAFT WITH SIDE HINGED DOOR) The external emergency lights are installed in the main door lining, service door lining, LH and RH side center fairings, and forward lower fairing.
- D. Obey the safety precautions below, when you work on the external emergency lights.
 - Disconnect the electrical power.
 - Always use insulated tools when you work on or near electrical circuits.
- E. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
33-50-10-000-801-A	EXTERNAL EMERGENCY LIGHTS - RE- MOVAL	ALL
33-50-10-400-801-A	EXTERNAL EMERGENCY LIGHTS - IN- STALLATION	ALL



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TASK 33-50-10-000-801-A

EFFECTIVITY: ALL

2. EXTERNAL EMERGENCY LIGHTS - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the external emergency lights.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 25-23-04-000-801-A/400	MAIN-DOOR LINING PANEL - REMOVAL
WM 20-21-00	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191		Forward lower fairing
194		RH Side center fairing
194		LH Side center fairing
811		Main door
821		Service door

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Main door handrail or service door lining or LH or RH side center fairings or forward lower fairing

I. Preparation

SUBTASK 841-002-A

- (1) On the Circuit Breaker Panel, open the EMERG circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (2) Open the main door (if applicable).



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- (3) Open the service door (if applicable).

J. Removal of the Main-Door External Emergency Light

SUBTASK 020-002-A

- (1) (For aircraft with airstairs door and incandescent lamp) Remove the lamp as follows ([Figure 401](#)):
 - (a) Remove the two screws (3).
 - (b) Remove the protective lens (2).
 - (c) Remove the lamp (1) from the socket (4).
- (2) (For aircraft with airstairs door and LED assy) Remove the LED assy as follows ([Figure 401](#)):
 - (a) Remove the screws (5).
 - (b) Remove the lining panels of the main door, as applicable. Refer to [AMM TASK 25-23-04-000-801-A/400](#).
 - (c) Remove the tie-down straps (6) and clamp (1) along door handrail as far as splices (2).
 - (d) **NOTE:** Correctly identify the harness. Make marks to show its positioning. This will make the installation procedure easier and help you install it correctly.

Disconnect harness (3) from disconnectable splices (2). Refer to WM 20-21-00.

**CAUTION: BE CAREFUL WHEN YOU CUT THE HEAT SHRINKABLE SLEEVE.
INJURY TO PERSONS OR DAMAGE TO THE PARTS CAN OCCUR.**

- (e) Cut the heat shrinkable sleeve (7) on both ends of the conduit and remove the reinforcing ring (8).
- (f) **NOTE:** Use the wire guide when you remove the harness from the conduit, to make installation easier.

Remove LED assy (4) and harness (3) from door handrail.

- (3) (For aircraft with side-hinged main door) Do as follows ([Figure 402](#)):
 - (a) Loosen the two screws (3).
 - (b) Remove the protective lens (2) and the gasket (1) from the reflector (5).
 - (c) Remove the lamp (4).

K. Removal of the Service-Door External Emergency Light ([Figure 403](#))

SUBTASK 020-003-A

- (1) Loosen the screws (3) (2 positions).
- (2) Remove the protective lens (2) and the gasket (1) from the reflector (5).

- (3) Remove the lamp (4).
- L. Removal of the External Emergency Lights of the LH and RH Side Center Fairings, and Forward Lower Fairing ([Figure 404](#))

SUBTASK 020-004-A

NOTE: These procedures are applicable to the four emergency lights of the LH and RH side center fairings, and forward lower fairing as follows:
- LH Side center fairing: one emergency light.
- RH Side center fairing: one emergency light.
- Forward lower fairing: two emergency lights.

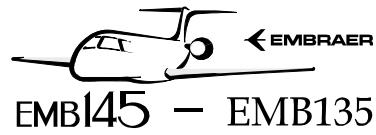
- (1) Carefully remove the sealant around the protective lens.
- (2) Remove the screws (4) (4 positions).
- (3) Remove the protective lens (3) from the reflector (1).
- (4) Remove the lamp (2).

- M. Removal of the External Emergency Lights Assembly of the LH and RH Side Center Fairings, and Forward Lower Fairing ([Figure 405](#))

SUBTASK 020-005-A

NOTE: These procedures are applicable to the four emergency lights of the LH and RH side center fairings, and forward lower fairing as follows:
- LH Side center fairing: one emergency light.
- RH Side center fairing: one emergency light.
- Forward lower fairing: two emergency lights.

- (1) For external emergency lights assembly on the center fairings, as follows:
 - (a) With an acrylic spatula, remove the old aerodynamic sealant in the lateral attachment area of the access panel (1).
 - (b) Remove the screws (2)(8 positions) that attach the access panel (1) (AMM MPP 06-41-01/100) to the lateral wing-to-fuselage fairing.
 - access panels 194AR (RH side).
 - access panels 195AL (LH side).
 - (c) Disconnect the electrical connector (4) from the external emergency lights assembly (3).
 - (d) Install the protection cap to the disconnected electrical connector (4).
 - (e) On a bench, carefully remove the sealant around the protective lens.
 - (f) Remove the screws (5)(6 positions) that attach the external emergency lights assembly to the access panel (1).
- (2) For external emergency lights assembly of the forward lower fairing, as follows:
 - (a) Remove access panels (AMM MPP 06-41-01/100) to get access to the back of the emergency lights assembly (3).



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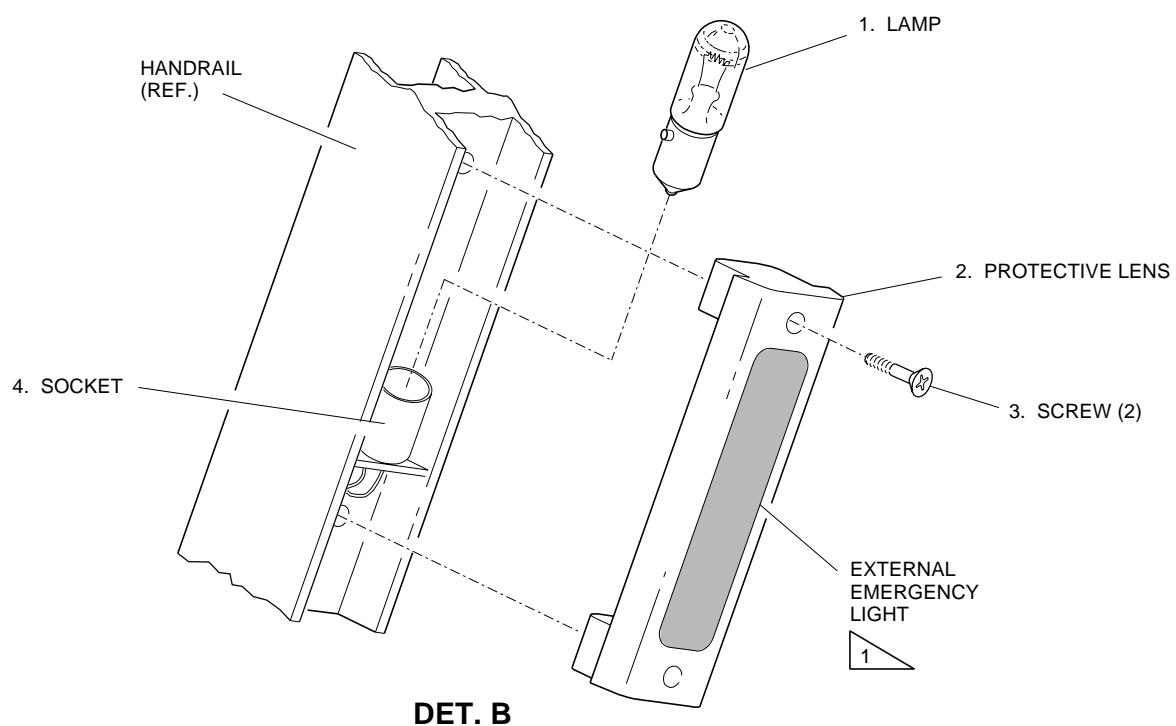
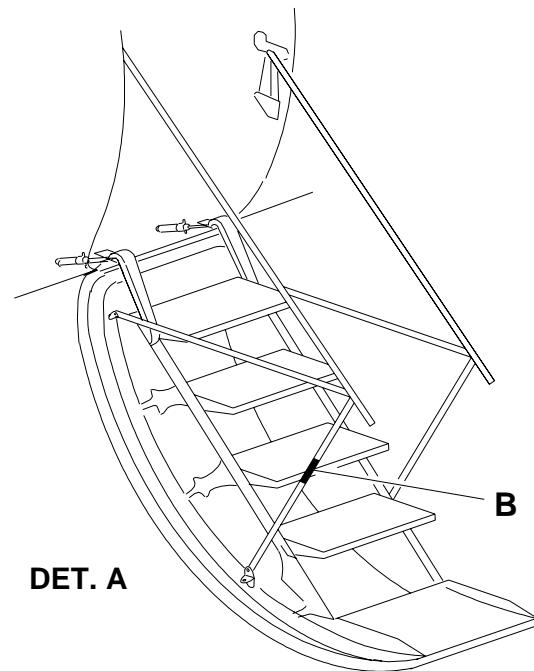
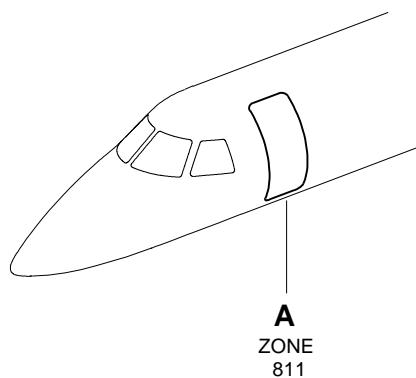
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- 191FR (RH side).
 - 191EL (LH side) .
- (b) Disconnect the electrical connector (4) from the external emergency lights assembly (3).
- (c) Install the protection cap to the disconnected electrical connector (4).
- (d) Carefully, remove the sealant around the protective lens.
- (e) Remove the screws (5)(6 positions) that attach the external emergency lights assembly (1) to the fairing.

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

Airstairs Door External Emergency Light - Removal/Installation

Figure 401 - Sheet 1



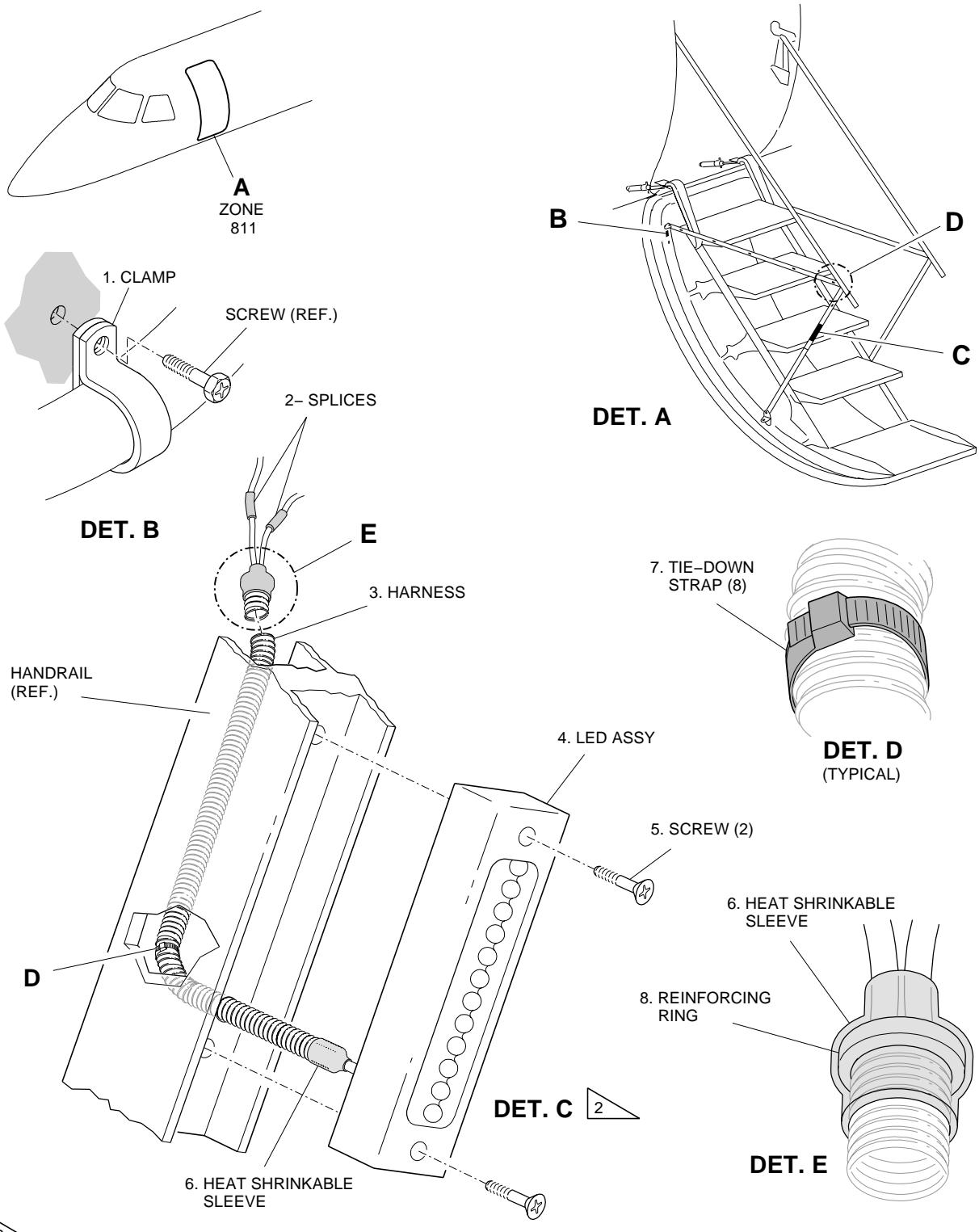
 AIRCRAFT WITH INCANDESCENT LAMP.

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EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

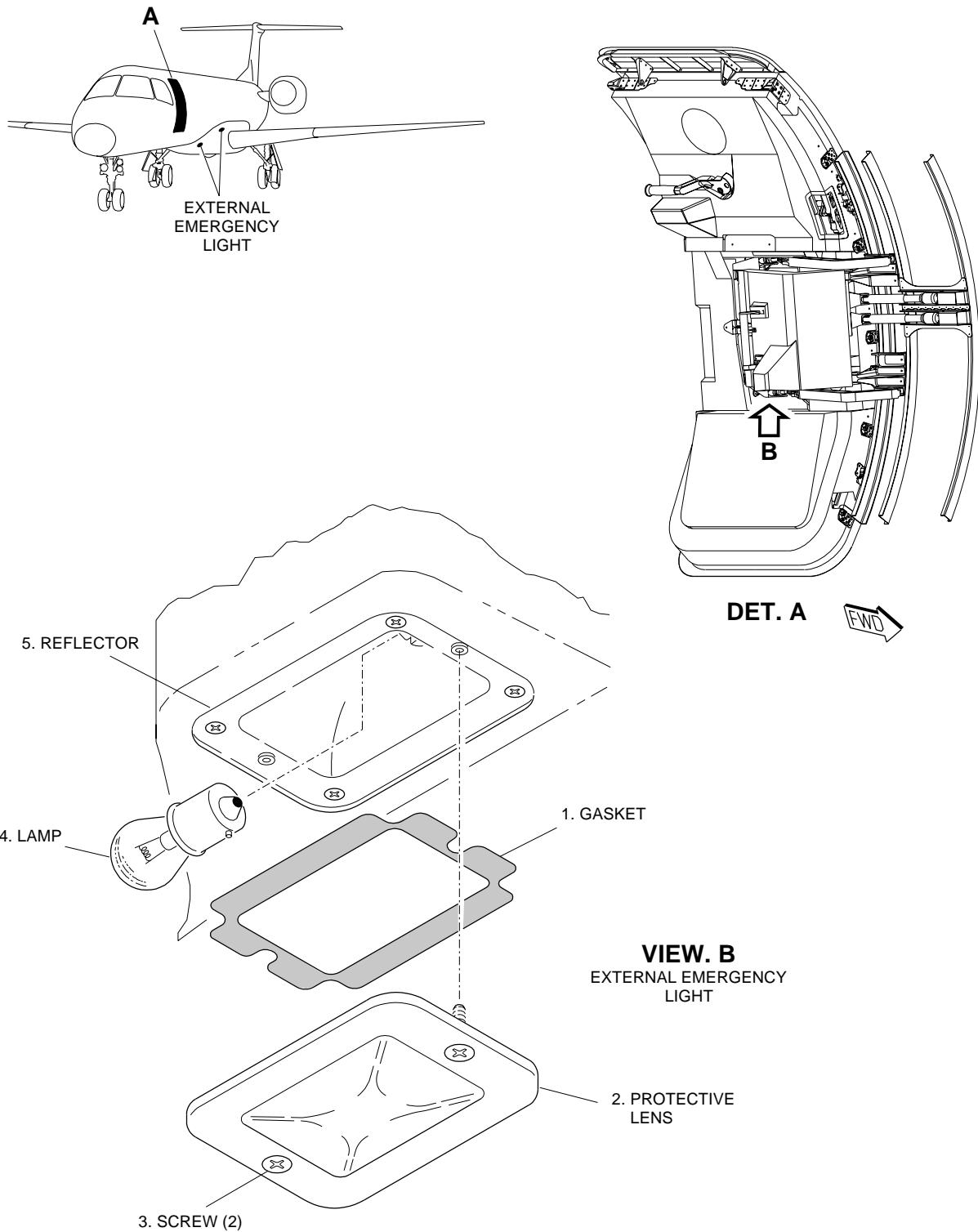
Airstairs Door External Emergency Light - Removal/Installation

Figure 401 - Sheet 2



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EFFECTIVITY: AIRCRAFT WITH SIDE-HINGED MAIN DOOR
 Side-hinged Main Door External Emergency Light - Removal/Installation
 Figure 402

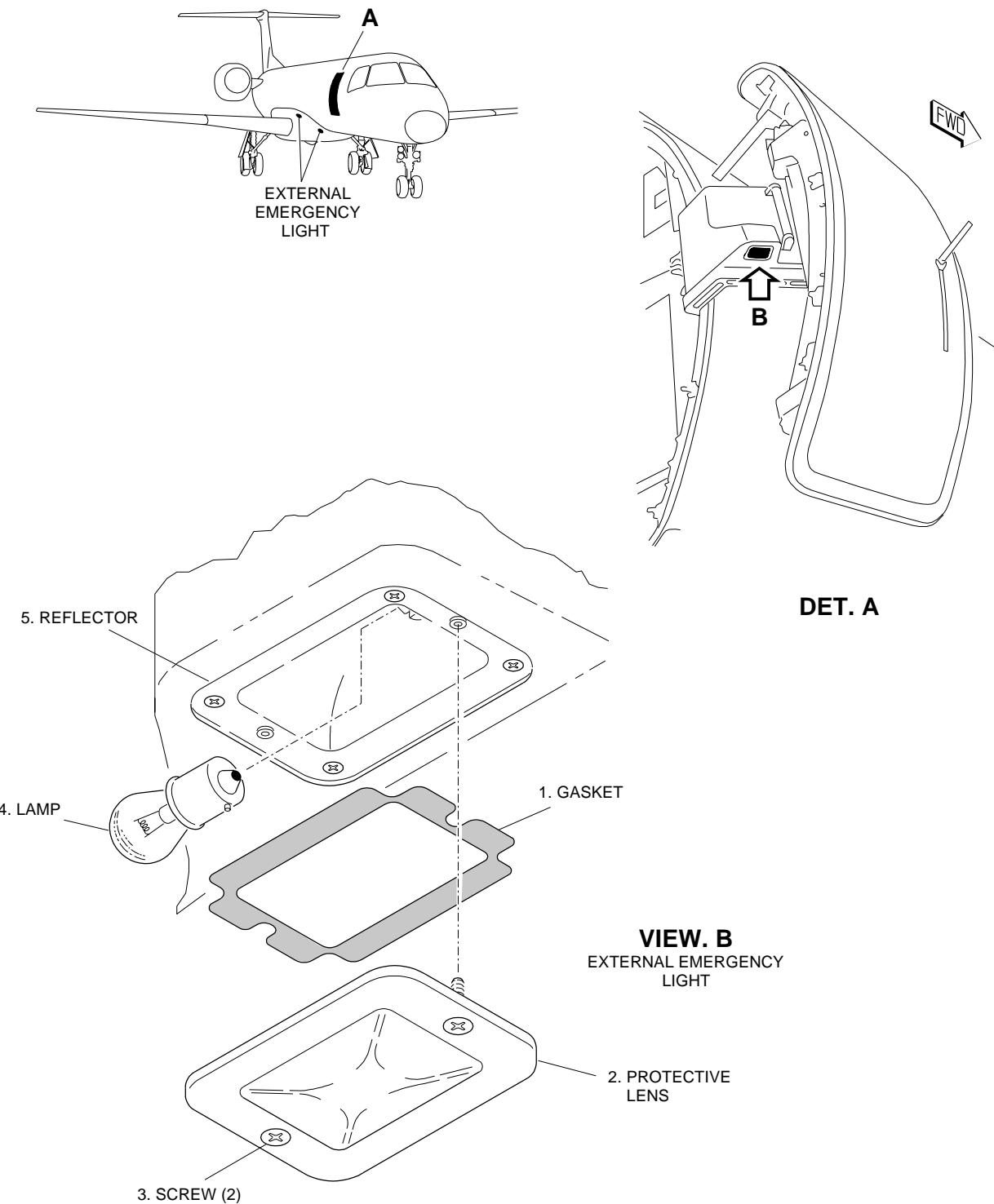


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EFFECTIVITY: ALL

Service-Door External Emergency Light - Removal/Installation

Figure 403

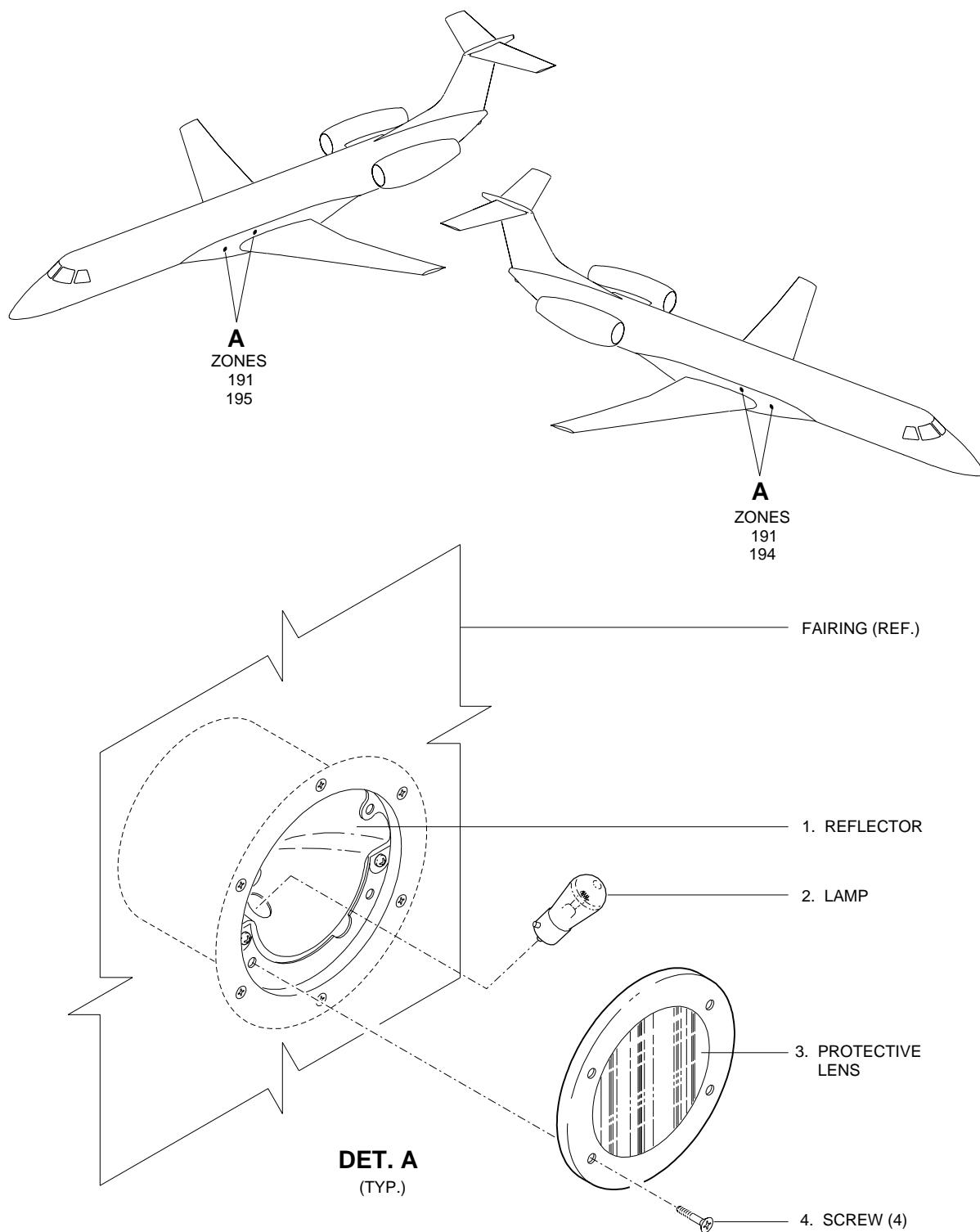


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EFFECTIVITY: ALL

External Emergency Lights of the LH and RH Side Center Fairings, and Forward Lower Fairing - Removal/
Installation

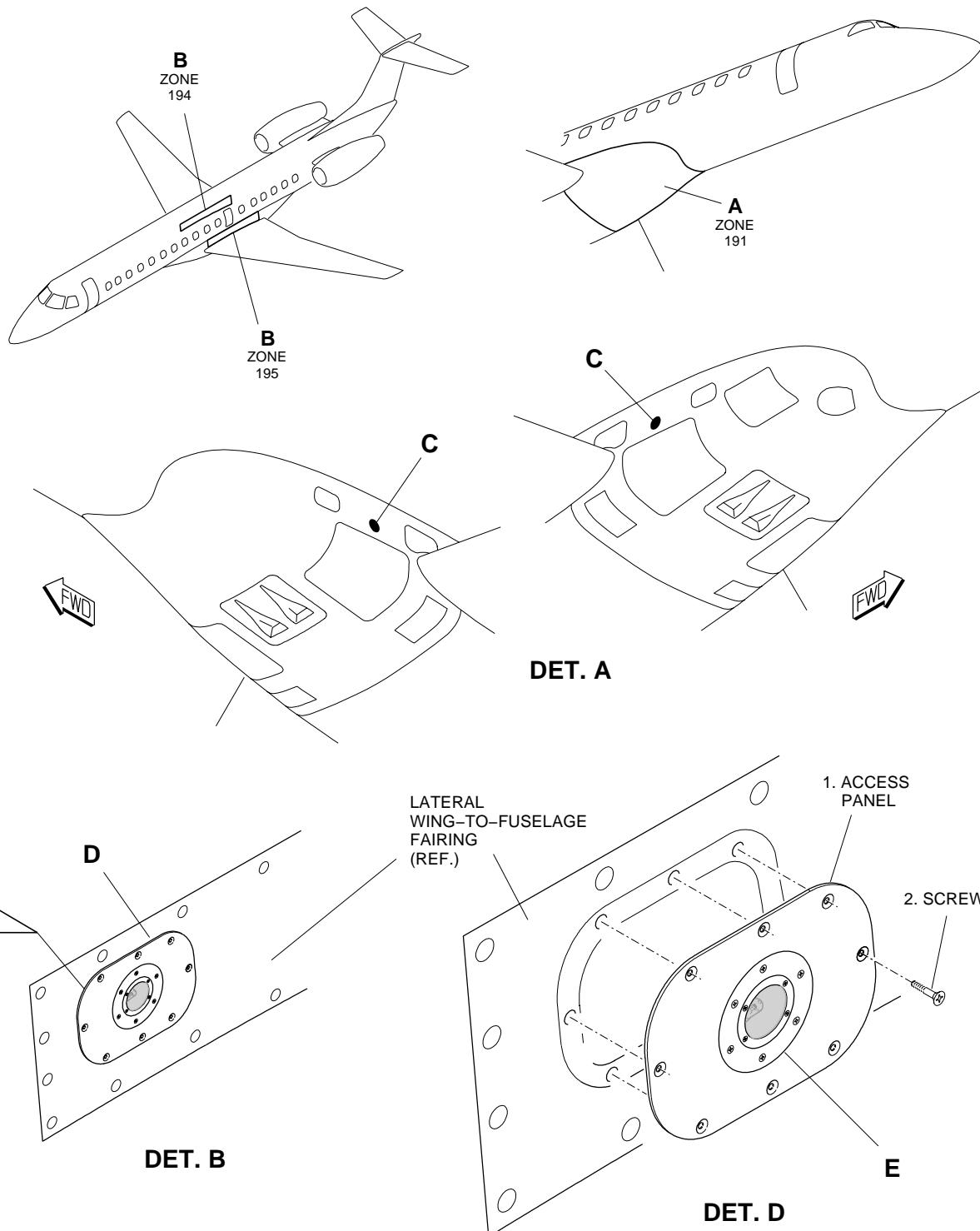
Figure 404



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EFFECTIVITY: ALL

External Emergency Lights assembly of the LH and RH Side Center Fairings, and Forward Lower Fairing - Removal/Installation
 Figure 405 - Sheet 1



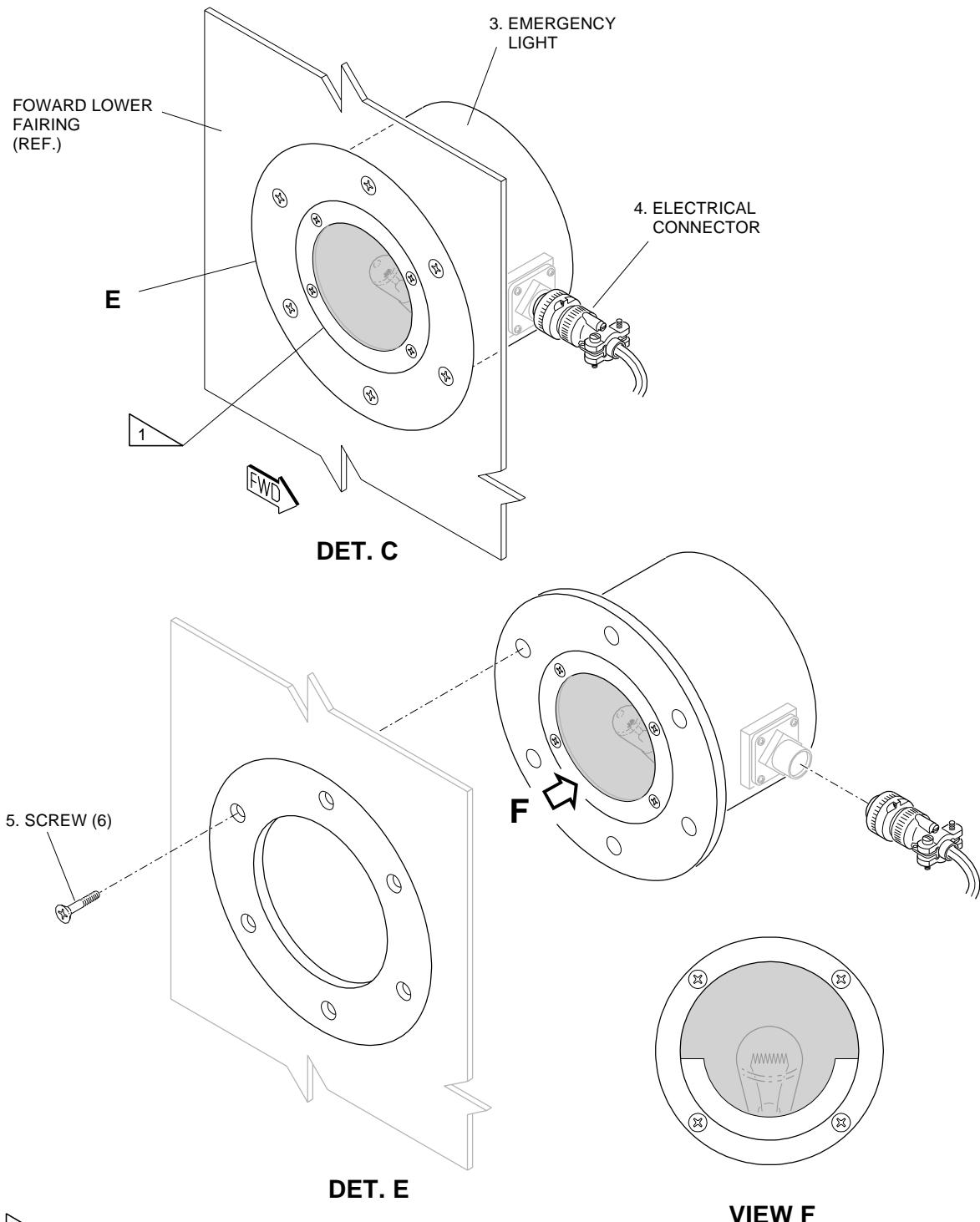
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EFFECTIVITY: ALL

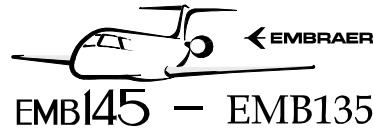
External Emergency Lights assembly of the LH and RH Side Center Fairings, and Forward Lower Fairing -

Removal/Installation

Figure 405 - Sheet 2



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TASK 33-50-10-400-801-A

EFFECTIVITY: ALL

3. EXTERNAL EMERGENCY LIGHTS - INSTALLATION

A. General

(1) This procedure gives the instructions to install the external emergency lights.

B. References

REFERENCE	DESIGNATION
AMM TASK 33-50-00-700-801-A/500	EMERGENCY LIGHTS - OPERATIONAL CHECK
SRM 51-20-01	-
WM 20-10-00	-
WM 20-21-00	-
WM 33-50-50	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191		Forward lower fairing
194		RH Side center fairing
194		LH Side center fairing
811		Main door
821		Service door

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
Specification MIL-S-81733 TYPE II-2	Sealant P/S 870 B-2	AR
RNF-100 1/2-9	Heat shrinkable sleeve	AR
RNF-100 3/8-9	Heat shrinkable sleeve	AR
MS3367-1-9	Tie-down straps	08

G. Expandable Parts

Not Applicable



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H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Main door handrail or service door lining or LH or RH side center fairings or forward lower fairing

I. Installation of the Main-Door External Emergency Light

SUBTASK 420-002-A

- (1) (For aircraft with airstairs door and incandescent lamp) Install the lamp as follows (Figure 401):
 - (a) Install the lamp (1) to the socket (4).
 - (b) Put the protective lens (2) on the main door handrail.
 - (c) Attach the protective lens (2) to the handrail with the screws (3) (2 positions).
- (2) (For aircraft with airstairs door and LED assy) Install the LED assy as follows (Figure 401):
 - (a) Pass the harness (3) through the door handrail.
 - (b) Insert the harness (3) in the conduit with the help of the wire guide installed on the removal and carefully pull the wire guide until the LED assy fits in the handrail.
 - (c) Put the heat shrinkable sleeves (7) and reinforcing ring (8), in their installation positions but do not shrink the sleeves at this moment.
 - (d) Attach harness (3) along door handrail with tie-down straps (6) and clamp (1).
 - (e) **NOTE:** • Make sure that you obey the positions identified during the removal procedure. This will make the installation procedure easier and help you install the harness correctly.
• If the harness has not the terminations refer to WM 33-50-50.

Connect harness (3) to the splices (2) (refer to WM 20-21-00) and shrink the heat shrinkable sleeves (7) with heating gun (refer to WM 20-10-00).

- (f) Tighten the screws (5).
- (3) (For aircraft with side-hinged main door) Do as follows (Figure 402):
 - (a) Install the lamp (4) to the reflector (5).
 - (b) Put the gasket (1) and the protective lens (2) on the reflector (5).
 - (c) Attach the gasket (1) and the protective lens (2) to the reflector (5) with the screws (3) (2 positions).

J. Installation of the Service-Door External Emergency Light (Figure 403)

SUBTASK 420-003-A

- (1) Install the lamp (4) to the reflector (5).
- (2) Put the gasket (1) and the protective lens (2) on the reflector (5).
- (3) Attach the gasket (1) and the protective lens (2) to the reflector (5) with the screws (3) (2 positions).

K. Installation of the External Emergency Lights of the LH and RH Side Center Fairings, and Forward Lower Fairing (Figure 404)

SUBTASK 420-004-A

NOTE: These procedures are applicable to the four emergency lights of the LH and RH side center fairings, and forward lower fairing as follows:

- LH Side center fairing: one emergency light.
- RH Side center fairing: one emergency light.
- Forward lower fairing: two emergency lights.

- (1) Install the lamp (2) to the reflector (1).
- (2) Put the protective lens (3) on the reflector (1).
- (3) Attach the protective lens (3) to the reflector (1) with the screws (4) (4 positions).
- (4) Apply sealant around the lens (3). Refer to SRM 51-20-01.

L. Installation of the External Emergency Lights Assembly of the LH and RH Side Center Fairings, and Forward Lower Fairing (Figure 405)

SUBTASK 420-005-A

NOTE: These procedures are applicable to the four emergency lights of the LH and RH side center fairings, and forward lower fairing as follows:

- LH Side center fairing: one emergency light.
- RH Side center fairing: one emergency light.
- Forward lower fairing: two emergency lights.

- (1) For external emergency lights assembly of the LH and RH side center fairings, as follows:

- (a) NOTE: Make sure that the reflector is adjusted in way that the focus of light is directed to the ground.

On a bench, install the external emergency lights assembly (3) to the access panel (1) with screws (5)(6 positions).

- (b) Apply molykote DC-33 light grease to the faying surface of the lateral wing-to-fuselage fairing.
 - (c) Remove the protection cap from the disconnected electrical connector (4).
 - (d) Connect the electrical connector (4) to the emergency lights assembly (3) connector.

- (e) Install the access panel (1) with external emergency lights assembly (3) positioned on the lateral wing-to-fuselage fairings.
 - access panels 194AR (RH side).
 - access panels 195AL (LH side).
 - (f) Install the screws (2)(8 positions) that attach the lateral wing-to-fuselage fairings.
 - (g) Apply aerodynamic sealant around the protective lens and around the access panel. Refer to SRM 51-20-01.
- (2) For external emergency lights assembly of the forward lower fairing, as follows:
- NOTE: Make sure that the reflector is adjusted in way that the focus of light is directed to the ground.
- (a) Install the external emergency lights assembly (3) to the forward lower fairing with screws (5)(6 positions).
 - (b) Remove the protection cap from the disconnected electrical connector (4).
 - (c) Connect the electrical connector (4) to the emergency lights assembly (3) connector.
 - (d) Apply aerodynamic sealant around the protective lens. Refer to SRM 51-20-01.
 - (e) Install access panels (AMM 06-41-01/101).
 - 191FR (RH side).
 - 191EL (LH side).

M. Follow-on

SUBTASK 842-002-A

- (1) On the Circuit Breaker Panel, close the EMERG circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (2) Do an operational check on the Emergency Lights ([AMM TASK 33-50-00-700-801-A/500](#)).
- (3) Close the main door (if applicable).
- (4) Close the service door (if applicable).