



## AIRCRAFT MAINTENANCE MANUAL

### LH SERVICE UNIT SUPPORTING STRUCTURE - REMOVAL/INSTALLATION

EFFECTIVITY: ACFT MODEL(S) EMB-135

#### 1. General

- A. This section gives the procedures to remove/install the left-hand passenger service unit (PSU) channel/duct supporting structure (PSU structure).
- B. 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
25-22-01-000-802-A	PSU STRUCTURE - REMOVAL	ACFT MODEL(S) EMB-135
25-22-01-400-802-A	PSU STRUCTURE - INSTALLATION	ACFT MODEL(S) EMB-135



AIRCRAFT  
MAINTENANCE MANUAL

TASK 25-22-01-000-802-A

EFFECTIVITY: ACFT MODEL(S) EMB-135

2. PSU STRUCTURE - REMOVAL

A. General

- (1) This task gives the procedures to remove the LH PSU structure.

B. References

REFERENCE	DESIGNATION
AMM TASK 21-20-04-000-802-A/400	-
AMM TASK 25-26-04-000-803-A/400	-
AMM TASK 25-26-04-000-804-A/400	-
AMM TASK 25-27-05-000-801-A/400	-
AMM TASK 25-81-02-000-801-A/400	-
AMM TASK 33-21-01-000-801-A/400	CONTROL MODULE ASSEMBLY - REMOVAL
WM 20-50-01	-

C. Zones and Accesses

Not Applicable

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
2	Do the task	Passenger cabin

I. Preparation

SUBTASK 841-008-A

- (1) On the RH electrical power control/distribution box, open these circuit breakers and attach a DO-NOT-CLOSE tag to them:
  - (a) GALLEY (Location Tip: RB SERVBUS/GALLEY).
  - (b) GALLEY (Location Tip: RB SHED DC BUS2/GALLEY).
- (2) Remove the sound-proofing blanket, as applicable (AMM TASK 25-81-02-000-801-A/400).

J. PSU Structure Module I - Removal ([Figure 401](#)) ([Figure 402](#)) ([Figure 403](#)) ([Figure 404](#)) ([Figure 405](#))

## SUBTASK 020-041-A

- (1) Remove the main door curtain (AMM TASK 25-27-05-000-801-A/400).
- (2) Remove the LH wardrobe, as applicable (AMM TASK 25-26-04-000-803-A/400 or AMM TASK 25-26-04-000-804-A/400).
- (3) Remove the control module assembly ( [AMM TASK 33-21-01-000-801-A/400](#)).
- (4) Remove the screws (9), washers (7) and (8), and cables. See DET. B, Figure 401.
- (5) Cut the strap (2) that attaches the conditioned air hose (6) to the end cap assembly (1). See DET. B, Figure 401.
- (6) Remove the screws (4) and washers (3). See DET. B, Figure 401.
- (7) Remove the end cap assembly (1). See DET. B, Figure 401.
- (8) Remove the clamps that attach the thermoacoustic insulation pad to frame 19 and frame 20.
- (9) Open the thermoacoustic insulation pad.
- (10) Disconnect the electrical connector (5). See DET. B, Figure 401.
- (11) Remove the screws (1), lock washers (2), steel washers (3), aluminum washers (5), cables (4), and nuts (6). See DET. C, Figure 403.
- (12) Cut the straps that attach the PSU harness to PSU-structure module I and to the fuselage.
- (13) Pull the electrical cable through the PSU duct hole.
- (14) Disconnect the electrical connector (1). See DET. B, Figure 402.
- (15) Remove the screw (4), aluminum washer (2), and cables (3). See DET. B, Figure 402.
- (16) Remove the screw (2), aluminum washer (1), and cable (3). See DET. B, Figure 405.
- (17) Disconnect the transparent drain tube (5) that is assembled between frame 22 and frame 23. See DET. B, Figure 404.
- (18) Remove the screws (4) and washers (5) that attach PSU-structure module I to module II. See DET. B, Figure 405.
- (19) Remove the joint extension panel (6). See DET. B, Figure 405.
- (20) Remove the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module I to frame 20 and frame 22. See DET. C, Figure 404.
- (21) Remove the cotter pins (7), washers (8), and pins (9), and open the mounting-bracket tube clamp. See DET. D, Figure 403.

(22) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module I. See DET. B, Figure 403.

(23) **NOTE:** Be careful with the lamp during the movement of PSU-structure module I.

Remove PSU-structure module I. See DET. A, Figure 404.

**K. PSU-Structure Module II - Removal (Figure 402) (Figure 403) (Figure 404) (Figure 405)**

**SUBTASK 020-042-A**

- (1) Disconnect the electrical connector (1). See DET. B, Figure 402.
- (2) Remove the screw (2), aluminum washer (1), and cable (3). See DET. B, Figure 405.
- (3) Remove the clamps that attach the thermoacoustic insulation pad to frame 24.
- (4) Open the thermoacoustic insulation pad.
- (5) Disconnect the splice electrical connector from the PSU harness side (WM 20-50-01).
- (6) Cut the straps that attach the PSU harness to PSU-structure model II and to the fuselage.
- (7) Pull the electrical cable through the PSU duct hole.
- (8) Disconnect the transparent drain tube (5) that is assembled between the frames. See DET. B, Figure 404.
- (9) Remove the screws (4) and washers (5) that attach PSU-structure module II to modules I and III. See DET. B, Figure 405.
- (10) Remove the joint extension panel (6). See DET. B, Figure 405.
- (11) Remove the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module II to frame 23 and frame 32. See DET. C, Figure 404.
- (12) Remove the cotter pins (7), washers (8), and pins (9), and open the mounting-bracket tube clamp. See DET. D, Figure 403.
- (13) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module II. See DET. B, Figure 403.
- (14) Remove the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module III to frame 33 and frame 37. See DET. C, Figure 404.
- (15) Remove the cotter pins (7), washers (8), and pins (9), and open the mounting-bracket tube clamp at PSU-structure module III. See DET. D, Figure 403.
- (16) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module III. See DET. B, Figure 403.
- (17) Remove the screws (4) and washers (5) that attach PSU-structure module III to module IV. See DET. B, Figure 405.

- (18) Remove the joint extension panel (6). See DET. B, Figure 405.
  - (19) Move PSU-structure module III toward module IV (Figure 404).
  - (20) NOTE: Be careful with the lamp during the movement of PSU structure model II.  
Remove PSU-structure module II (Figure 404).
- L. **PSU-Structure Module III - Removal** ([Figure 402](#)) ([Figure 403](#)) ([Figure 404](#)) ([Figure 405](#))
- SUBTASK 020-043-A**
- (1) Disconnect the electrical connector (1). See DET. B, Figure 402.
  - (2) Remove the screws (2), aluminum washers (1), and cables (3). See DET. B, Figure 405.
  - (3) Remove the clamps that attach the thermoacoustic insulation pad to the frame.
  - (4) Open the thermoacoustic insulation pad.
  - (5) Remove the screws (1), lock washers (2), steel washers (3), aluminum washers (5), cables (4), and nuts (6). See DET. C, Figure 403.
  - (6) Cut the straps that attach the PSU harness to PSU-structure module III and to the fuselage.
  - (7) Pull the electrical cable through the PSU duct hole.
  - (8) Disconnect the center conditioned-air ducts from the PSU conditioned-air duct (AMM TASK 21-20-04-000-802-A/400).
  - (9) Disconnect the transparent drain tube (5) that is assembled at frame 33. See DET. B, Figure 404.
  - (10) Remove the screws (4) and washers (5) that attach PSU-structure module III to modules II and IV. See DET. B, Figure 405.
  - (11) Remove the joint extension panel (6). See DET. B, Figure 405.
  - (12) Remove the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module III to frame 33 and frame 37. See DET. C, Figure 404.
  - (13) Remove the cotter pins (7), washers (8), and pins (9), and open the mounting-bracket tube clamp. See DET. D, Figure 403.
  - (14) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module III. See DET. B, Figure 403.
  - (15) Remove the screws (1), washers (2) and (3), and nut (4) that attach PSU-Structure module II to frame 23 and frame 32. See DET. B, Figure 404.
  - (16) Remove the cotter pins (7), washers (8), and pins (9), and open the mounting-bracket tube clamp at PSU-structure module II. See DET. D, Figure 403.

- (17) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module II. See DET. B, Figure 403.
- (18) Remove the screws (4) and washers (5) that attach PSU-structure module II to module I. See DET. B, Figure 405.
- (19) Remove the joint extension panel (6). See DET. B, Figure 405.
- (20) Move PSU-structure module II forward (Figure 404).
- (21) **NOTE:** Be careful with the lamp during the movement of PSU-structure module III.  
Remove PSU-structure module III (Figure 404).

**M. PSU-Structure Module IV - Removal (Figure 402) (Figure 403) (Figure 404) (Figure 405)**

**SUBTASK 020-044-A**

- (1) Disconnect the electrical connector (1). See DET. B, Figure 402.
- (2) Remove the screw (2), aluminum washer (1), and cable (3). See DET. B, Figure 405.
- (3) Release the Velcro fasteners to open the thermoacoustic insulation pad.
- (4) Disconnect the splice electrical connector from the PSU harness side (WM 20-50-01).
- (5) Cut the straps that attach the PSU harness to PSU-structure module IV and to the fuselage.
- (6) Pull the electrical cable through the PSU duct hole.
- (7) Disconnect the transparent drain tube (5) that is assembled between frame 38 and frame 44. See DET. B, Figure 404.
- (8) Remove the screws (4) and washers (5) that attach PSU-structure module IV to modules III and V. See DET. B, Figure 405.
- (9) Remove the joint extension panel (6). See DET. B, Figure 405.
- (10) Remove the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module IV to frame 38 and frame 44. See DET. C, Figure 404.
- (11) Remove the cotter pins (7), washers (8), and pins (9), and open the mounting-bracket tube clamp. See DET. D, Figure 403.
- (12) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module IV. See DET. B, Figure 403.
- (13) Remove the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module III to frame 33 and frame 37. See DET. C, Figure 404.
- (14) Remove the cotter pins (7), washers (8), and pins (9), and open the mounting-bracket tube clamp at PSU-structure module III. See DET. D, Figure 403.

- (15) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module III. See DET. B, Figure 403.
- (16) Remove the screws (4) and washers (5) that attach PSU-structure module III to module II. See DET. B, Figure 405.
- (17) Remove the joint extension panel (6). See DET. B, Figure 405.
- (18) Move PSU-structure module III forward (Figure 404).
- (19) **NOTE:** Be careful with the lamp during the movement of PSU-structure module IV.  
Remove PSU-structure module IV. See DET. B, Figure 405.

**N. PSU-Structure Module V - Removal (Figure 402) (Figure 403) (Figure 404) (Figure 405)**

**SUBTASK 020-045-A**

- (1) Disconnect the electrical connector (1). See DET. B, Figure 402.
- (2) Remove the screw (2), aluminum washer (1), and cable (3). See DET. B, Figure 405.
- (3) Remove the clamp that attaches the thermoacoustic insulation pad to the frames.
- (4) Open the thermoacoustic insulation pad.
- (5) Remove the screws (1), lock washers (2), steel washers (3), aluminum washers (5), cables (4), and nuts (6). See DET. C, Figure 403.
- (6) Disconnect the splice electrical connector from the PSU harness side (WM 20-50-01).
- (7) Cut the straps that attach the PSU harness to PSU-structure module V and to the fuselage.
- (8) Pull the electrical cable through the PSU duct hole.
- (9) Disconnect the transparent drain tube (5) that is assembled between frame 47 and frame 51. See DET. B, Figure 404.
- (10) Remove the screws (4) and washers (5) that attach PSU-structure module V to modules IV and VI. See DET. B, Figure 405.
- (11) Remove the joint extension panel (6). See DET. B, Figure 405.
- (12) Remove the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module V to frame 47 and frame 51. See DET. C, Figure 404.
- (13) Remove the cotter pins (7), washers (8), and pins (9), and open the mounting-bracket tube clamp. See DET. D, Figure 403.
- (14) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module V. See DET. B, Figure 403.
- (15) Remove the screws (1), washer (2) and (3), and nut (4) that attach PSU-structure module IV to frame 38 and frame 44. See DET. C, Figure 404.

- (16) Remove the cotter pins (7), washers (8), and pins (9), and open the mounting-bracket tube clamp at PSU-structure module IV. See DET. D, Figure 403.
- (17) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module IV. See DET. B, Figure 403.
- (18) Remove the screws (4) and washers (5) that attach PSU-structure module IV to module III. See DET. B, Figure 405.
- (19) Remove the joint extension panel (6). See DET. B, Figure 405.
- (20) Move PSU-structure module IV forward (Figure 404).
- (21) **NOTE:** Be careful with the lamp during the movement of PSU-structure module V.  
Remove PSU-structure module V (Figure 404).

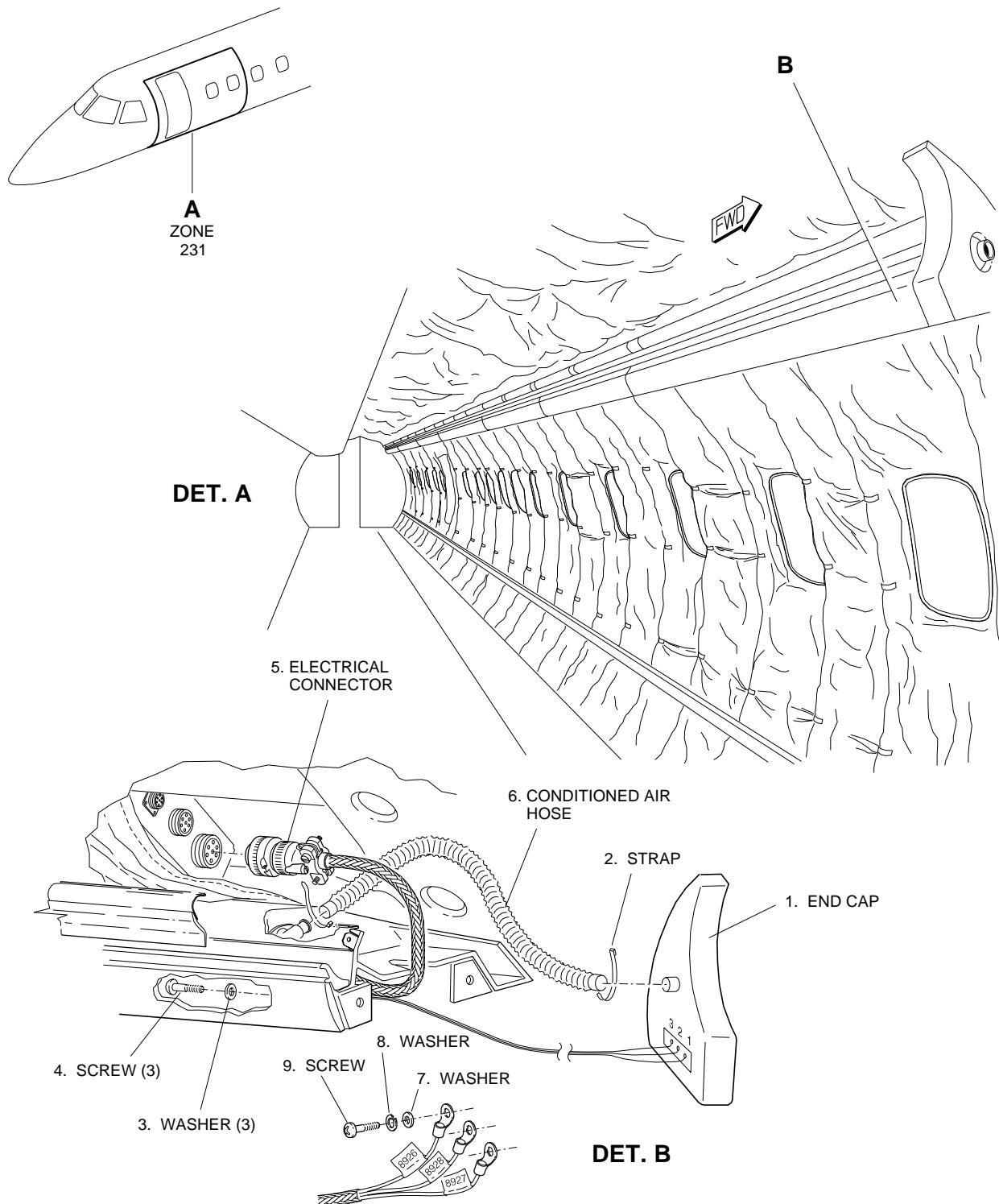
O. PSU-Structure Module VI - Removal ([Figure 402](#)) ([Figure 403](#)) ([Figure 404](#)) ([Figure 405](#))

**SUBTASK 020-046-A**

- (1) Disconnect the electrical connector (1). See DET. B, Figure 402.
- (2) Remove the screw (2), aluminum washer (1), and cable (3). See DET. B, Figure 405.
- (3) Remove the clamps that attach the thermoacoustic insulation pad to frame 53 and frame 55.
- (4) Open the thermoacoustic insulation pad.
- (5) Remove the screws (1), lock washers (2), steel washers (3), aluminum washers (5), cables (4), and nuts (6). See DET. C, Figure 403.
- (6) Disconnect the splice electrical connector from the PSU harness side (WM 20-50-01).
- (7) Cut the straps that attach the PSU harness to PSU-structure module VI and to the fuselage.
- (8) Pull the electrical cable through the PSU duct hole.
- (9) Disconnect the transparent drain tube (5) that is assembled between frame 53 and frame 55. See DET. B, Figure 404.
- (10) Disconnect the rear conditioned-air duct from the PSU conditioned-air duct (AMM TASK 21-20-04-000-802-A/400).
- (11) Cut the strap that attaches the conditioned air hose.
- (12) Remove the screws (4) and washers (5) that attach PSU-structure module VI to module V. See DET. B, Figure 405.
- (13) Remove the joint extension panel (6). See DET. B, Figure 405.
- (14) Remove the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module VI to frame 53 and frame 55. See DET. C, Figure 404.

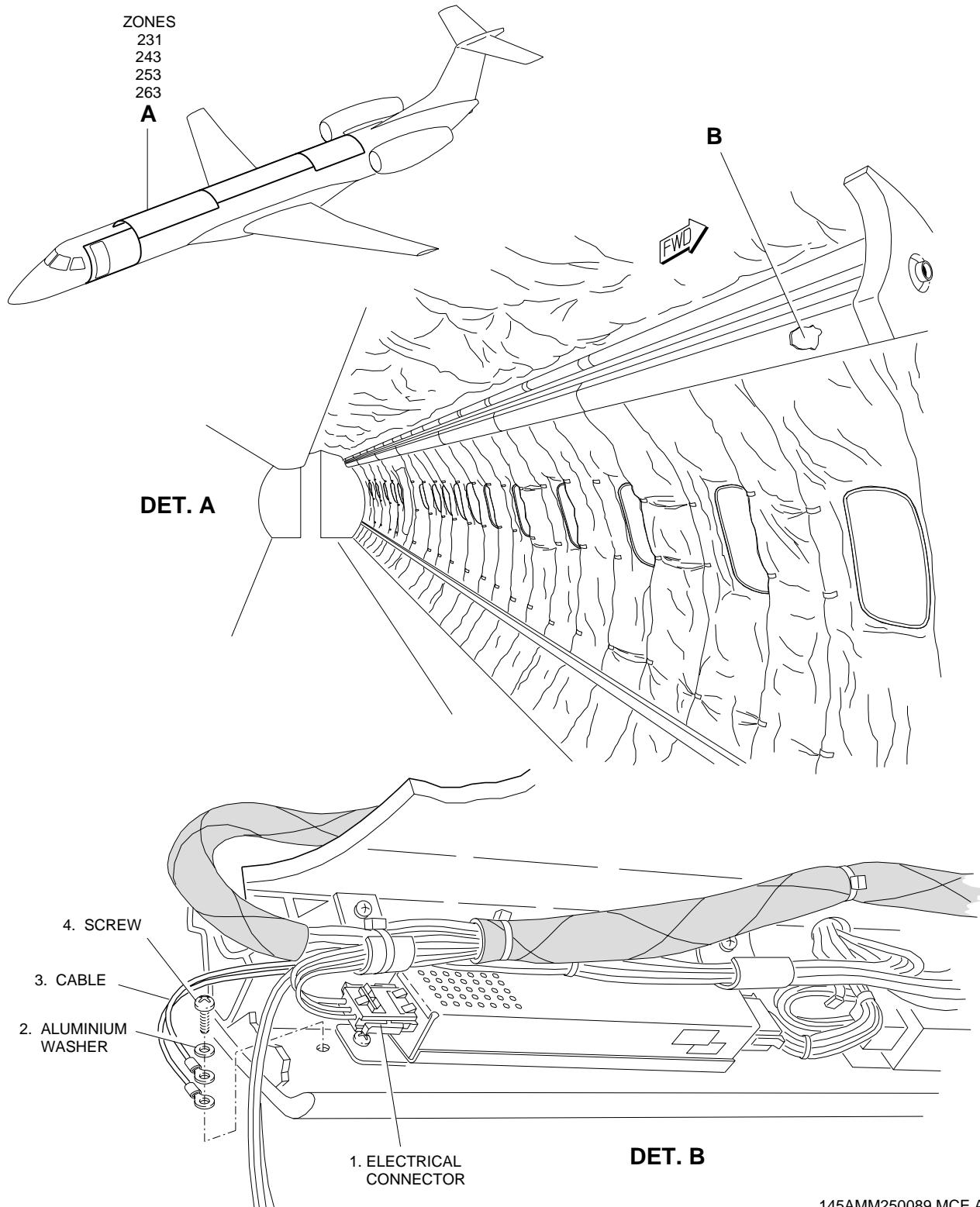
- (15) Remove the cotter pins (7), washers (8), and pins (9), and open the mounting-bracket tube clamp. See DET. D, Figure 403.
- (16) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module VI. See DET. B, Figure 403.
- (17) Remove the screws (1), washer (2) and (3), and nut (4) that attach PSU-structure module V to frame 47 and frame 51. See DET. C, Figure 404.
- (18) Remove the cotter pins (7), washers (8), and pins (9) and, open the mounting-bracket tube clamp at PSU-structure module V. See DET. D, Figure 403.
- (19) Turn the tube (10) clockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to remove the support bracket rod (11) from the connection at PSU-structure module V. See DET. B, Figure 403.
- (20) Remove the screws (4) and washers (5) that attach PSU-structure module V to module IV. See DET. B, Figure 405.
- (21) Remove the joint extension panel (6). See DET. B, Figure 405.
- (22) Move PSU-structure module V forward (Figure 404).
- (23) NOTE: Be careful with the lamp during the movement of PSU-structure module VI.  
Remove PSU-structure module VI (Figure 404).

**EFFECTIVITY: ACFT MODEL(S) EMB-135**  
**LH PSU Structure - Removal/Installation**  
**Figure 401**



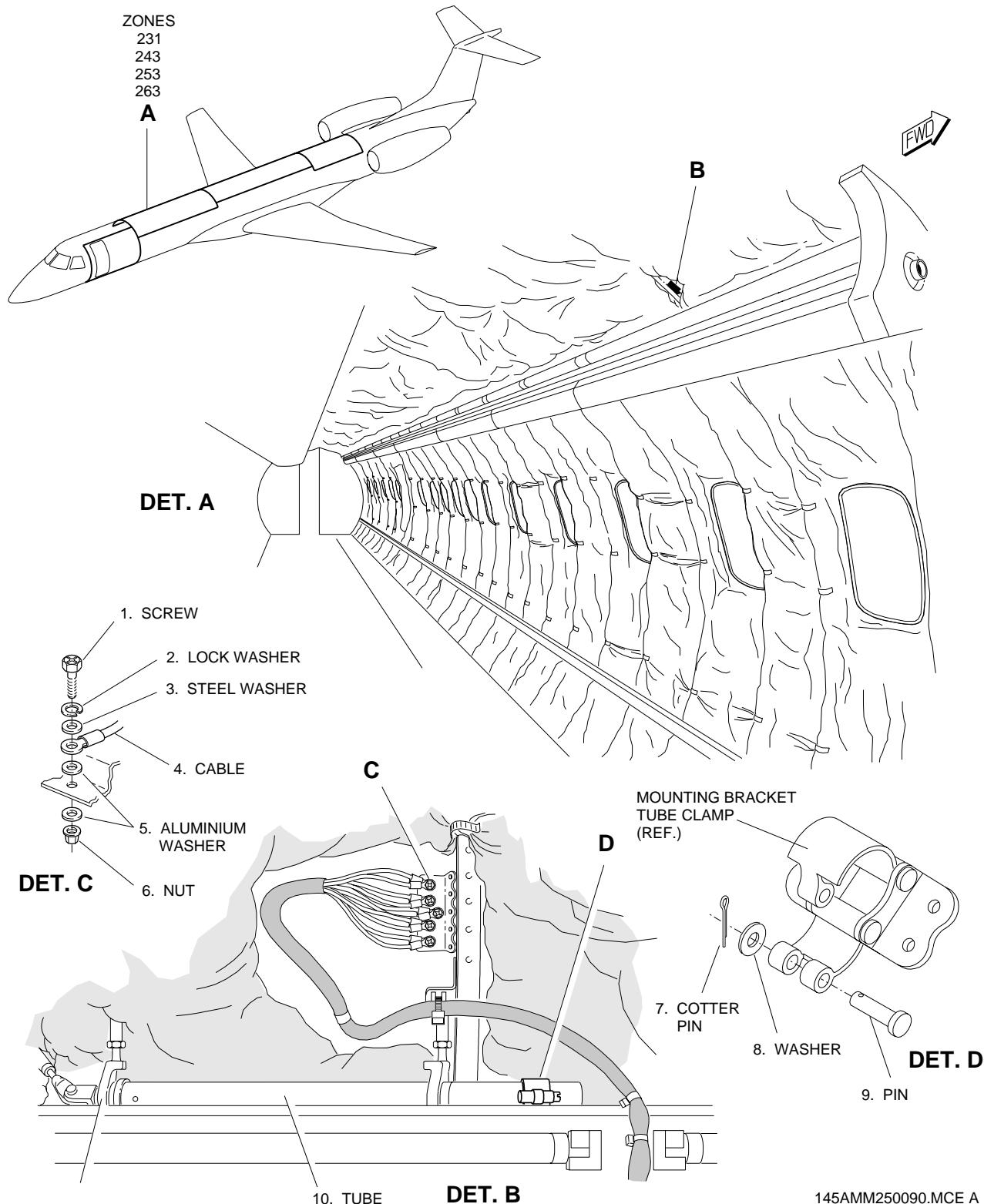
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**EFFECTIVITY: ACFT MODEL(S) EMB-135**  
**LH PSU Structure - Removal/Installation**  
**Figure 402**



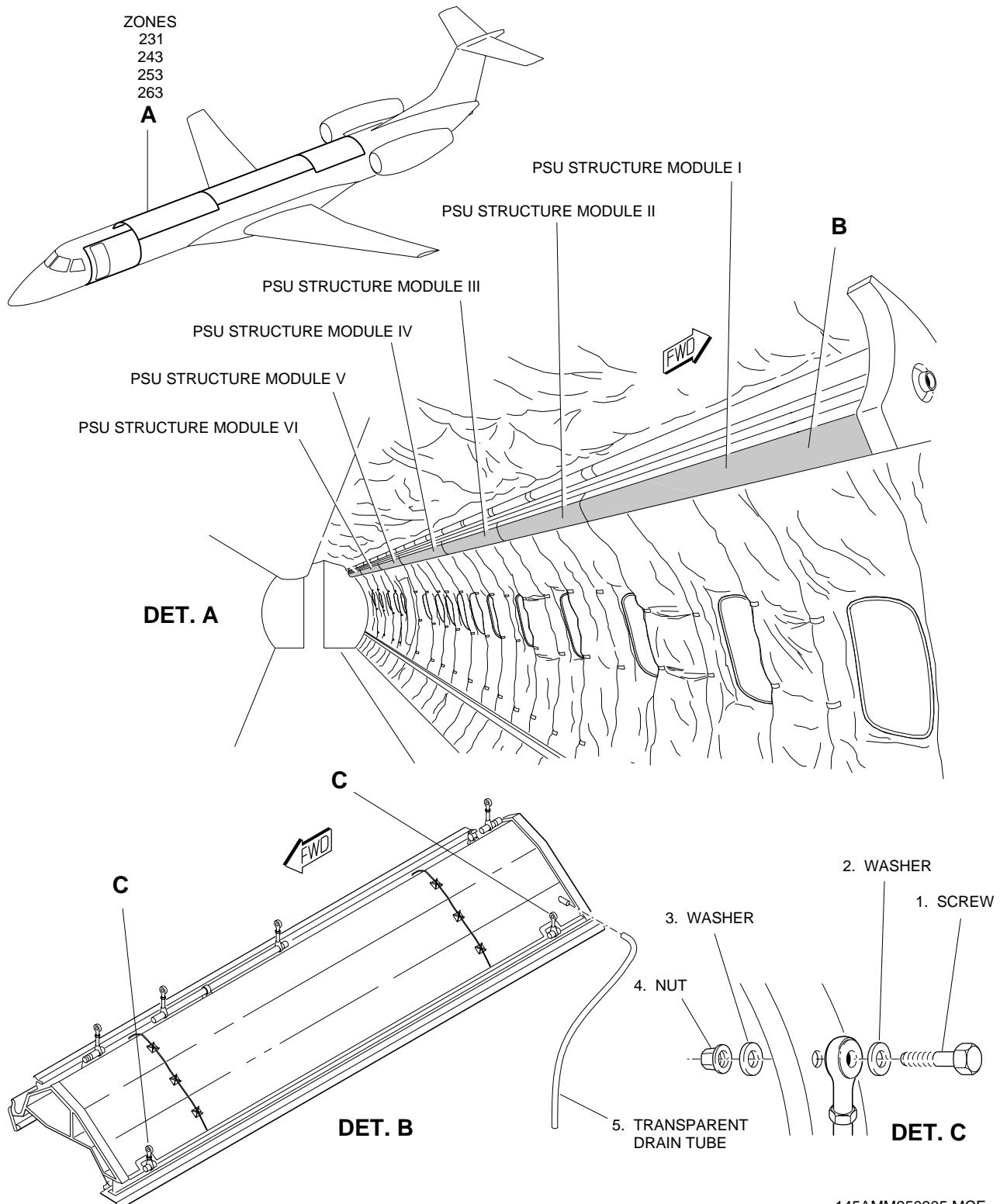
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**EFFECTIVITY: ACFT MODEL(S) EMB-135**  
**LH PSU Structure - Removal/Installation**  
**Figure 403**



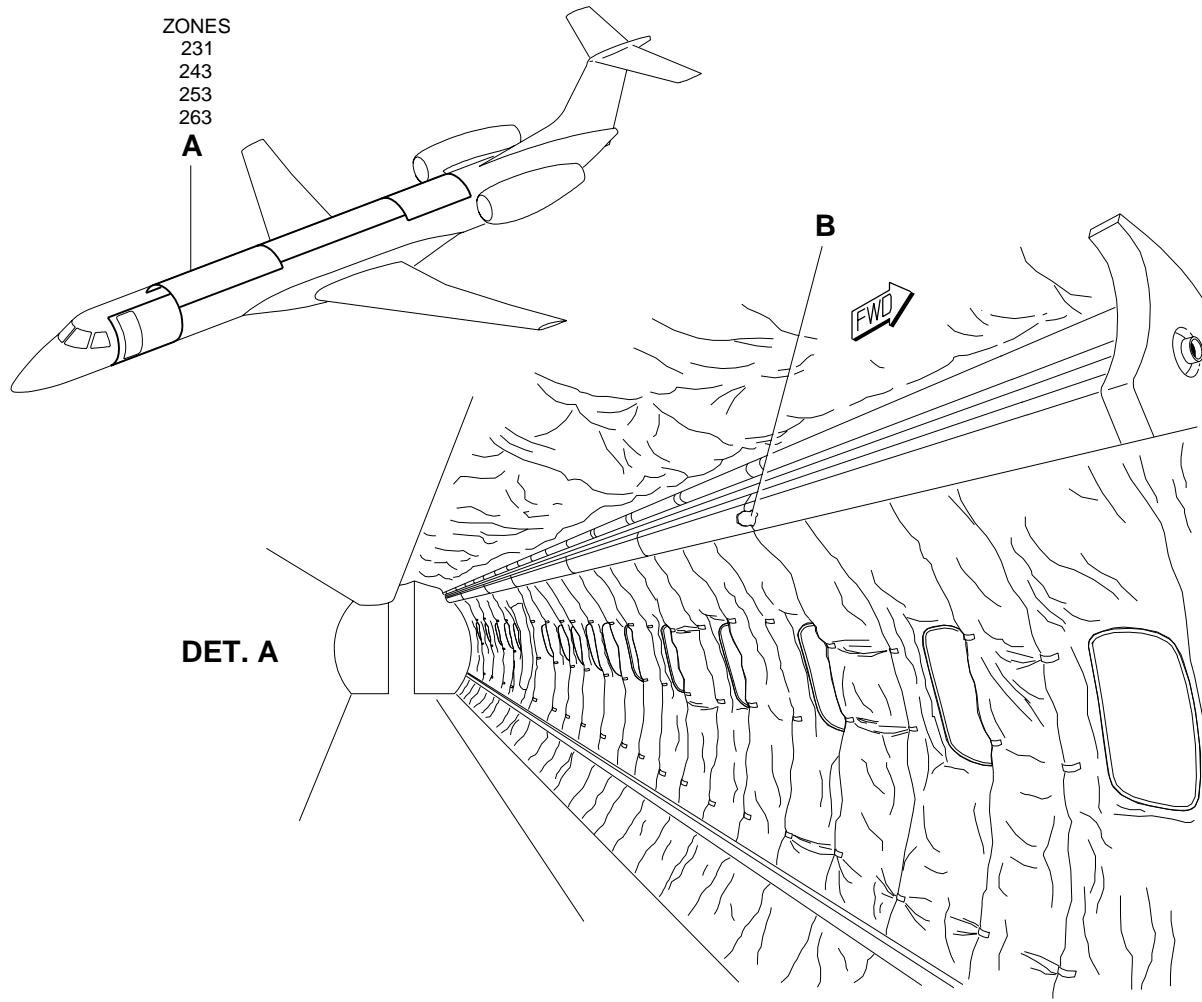
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**EFFECTIVITY: ACFT MODEL(S) EMB-135**  
**LH PSU Structure - Removal/Installation**  
**Figure 404**



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**EFFECTIVITY: ACFT MODEL(S) EMB-135**  
**LH PSU Structure - Removal/Installation**  
**Figure 405**



1. ALUMINIUM WASHER

2. SCREW

3. CABLE

4. SCREW

5. WASHER

6. JOINT EXTENSION  
PANEL

**DET. B**

145AMM250092.MCE A

**TASK 25-22-01-400-802-A**
**EFFECTIVITY: ACFT MODEL(S) EMB-135**
**3. PSU STRUCTURE - INSTALLATION**
**A. General**

- (1) This task gives the procedures to install the LH PSU structure.

**B. References**

<i>REFERENCE</i>	<i>DESIGNATION</i>
AMM TASK 20-13-21-910-801-A/200	TYPES OF ELECTRICAL BONDING AND SURFACE PREPARATION - STANDARD PROCEDURES
AMM TASK 21-20-04-400-802-A/400	-
AMM TASK 25-26-04-400-803-A/400	-
AMM TASK 25-26-04-400-804-A/400	-
AMM TASK 25-27-05-400-801-A/400	-
AMM TASK 25-81-02-400-801-A/400	-
AMM TASK 33-21-00-700-801-A/500	PASSENGER CABIN LIGHTS - OPERATIONAL TEST
AMM TASK 33-21-01-400-801-A/400	CONTROL MODULE ASSEMBLY - INSTALLATION
AMM TASK 33-23-00-700-801-A/500	PASSENGER WARNING SIGNS - OPERATIONAL TEST
AMM TASK 33-25-00-700-801-A/500	READING AND ATTENDANT CALL LIGHTS (1) - OPERATIONAL TEST
AMM TASK 33-50-00-700-801-A/500	EMERGENCY LIGHTS - OPERATIONAL CHECK
IPC 25-22-06	HARNESS - PSU
WM 20-50-01	-

**C. Zones and Accesses**

Not Applicable

**D. Tools and Equipment**

Not Applicable

**E. Auxiliary Items**

Not Applicable

**F. Consumable Materials**

Not Applicable

**G. Expendable Parts**

<i>ITEM</i>	<i>IPC REFERENCE (VENDOR REFERENCE)</i>	<i>QTY</i>
Strap	IPC 25-22-06	AR

**H. Persons Recommended**

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
2	Do the task	Passenger cabin

**I. PSU Structure Module I - Installation (Figure 401) (Figure 402) (Figure 403) (Figure 404) (Figure 405)**
**SUBTASK 420-041-A**

- (1) **NOTE:** Be careful with the lamp during the movement of PSU-structure module I.  
Install PSU-structure module I (Figure 404).
- (2) **NOTE:** Make sure that the gap between the PSU structures after the installation is 3 mm.  
Turn the tube (10) counterclockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to install the support bracket rod (11) to the connection. See DET. B, Figure 403.
- (3) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
- (4) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module I to frame 20 and frame 22. See DET. C, Figure 404.
- (5) Install the joint extension panel (6). See DET. B, Figure 405.
- (6) Install the screws (4) and washers (5) that attach PSU-structure module I to module II. See DET. B, Figure 405.
- (7) Connect the transparent drain tube (5) at PSU structure between frame 22 and frame 23. See DET. B, Figure 404.
- (8) Pass the electrical cable through the PSU duct hole.
- (9) Install the straps that attach the PSU harness to PSU-structure module I and to the fuselage.
- (10) Do the preparation of the surface and the electrical bonding (**AMM TASK 20-13-21-910-801-A/200**).
- (11) Install the screws (1), lock washers (2), steel washers (3), aluminum washers (5), cables (4), and nuts (6). See DET. C, Figure 403.
- (12) Connect the electrical connector (5). See DET. B, Figure 401.
- (13) Close the thermoacoustic insulation pad.
- (14) Install the clamps that attach the thermoacoustic insulation pad to frame 19 and frame 20.
- (15) Install the screw (2), aluminum washer (1), and cable (3). See DET. B, Figure 405.
- (16) Install the screw (4), aluminum washer (2), and cables (3). See DET. B, Figure 402.

- (17) Connect the electrical connector (1). See DET. B, Figure 402.
  - (18) Install the strap (2) that attaches the conditioned air hose (6) to end cap assembly (1). See DET. B, Figure 401.
  - (19) Install the screws (9), washers (7) and (8), and cables, in the correct sequence. See DET. B, Figure 401.
  - (20) Install the end cap assembly (1). See DET. B, Figure 401.
  - (21) Install the screws (4) and washers (3). See DET. B, Figure 401.
  - (22) Install the control module assembly ([AMM TASK 33-21-01-400-801-A/400](#)).
  - (23) Install the LH wardrobe, as applicable (AMM TASK 25-26-04-400-803-A/400 or AMM TASK 25-26-04-400-804-A/400).
  - (24) Install the main door curtain (AMM TASK 25-27-05-400-801-A/400).
- J. PSU-Structure Module II - Installation (Figure 402) (Figure 403) (Figure 404) (Figure 405)  
**SUBTASK 420-042-A**
- (1) **NOTE:** Be careful with the lamp during the movement of PSU-structure module II.  
Install PSU-structure module II. See Figure 404.
  - (2) **NOTE:** Make sure that the gap between the PSU structures after the installation is 3 mm.  
Turn the tube (10) counterclockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to install the support bracket rod (11) to the connection at PSU-structure module II. See DET. B, Figure 403.
  - (3) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
  - (4) Install the screws (4) and washers (5) that attach PSU-structure module II to frame 23 and frame 32. See DET. B, Figure 405.
  - (5) Install the joint extension channels (6). See DET. B, Figure 405.
  - (6) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure modules II to modules I and III. See DET. C, Figure 404.
  - (7) Turn the tube (10) counterclockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to install the support bracket rod (11) to the connection at PSU-structure module III. See DET. B, Figure 403.
  - (8) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
  - (9) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module III to frame 33 and frame 37. See DET. C, Figure 404.
  - (10) Install the joint extension panel (6). See DET. B, Figure 405.

- (11) Install the screws (4) and washers (5) that attach PSU-structure module III to module IV. See DET. B, Figure 405.
- (12) Connect the transparent drain tube (5) at PSU-structure module II between frame 32 and frame 33. See DET. B, Figure 404.
- (13) Pass the electrical cable through the PSU duct hole.
- (14) Install the straps that attach the PSU harness to PSU-structure module II and to the fuselage.
- (15) Connect the splice electrical connector (WM 20-50-01).
- (16) Close the thermoacoustic insulation pad.
- (17) Install the clamps that attach the thermoacoustic insulation pad to frame 24.
- (18) Install the screw (2), aluminum washer (1), and cable (3). See DET. B, Figure 405.
- (19) Connect the electrical connector (1). See DET. B, Figure 402.

**K. PSU-Structure Module III - Installation (Figure 402) (Figure 403) (Figure 404) (Figure 405)**

**SUBTASK 420-043-A**

- (1) **NOTE:** Be careful with the lamp during the movement of PSU-structure module III.  
Install PSU-structure module III (Figure 404).
- (2) **NOTE:** Make sure that the gap between the PSU structures after the installation is 3 mm.  
Turn the tube (10) counterclockwise use a pair of pliers with the jaws padded not to cause damage to the tube or manually to install the support bracket rod (11) to the connection at PSU-structure module III. See DET. B, Figure 403.
- (3) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
- (4) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module III to frame 33 and frame 37. See DET. C, Figure 404.
- (5) Install the joint extension panel (6). See DET. B, Figure 405.
- (6) Install the screws (4) and washers (5) that attach PSU-structure module III to modules II and IV. See DET. B, Figure 405.
- (7) Turn the tube (10) counterclockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to install the support bracket rod (11) to the connection at PSU-structure module II. See DET. B, Figure 403.
- (8) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
- (9) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module II to frame 23 and frame 32. See DET. C, Figure 404.

- (10) Install the joint extension panel (6). See DET. B, Figure 405.
  - (11) Install the screws (4) and washers (5) that attach PSU-structure module II to module I. See DET. B, Figure 405.
  - (12) Connect the transparent drain tube (5) at PSU-structure module III at the frame 33. See DET. B, Figure 404.
  - (13) Pass the electrical cable through the PSU duct hole.
  - (14) Install the straps that attach the PSU harness to PSU-structure module III and to the fuselage.
  - (15) Do the preparation of the surface and the electrical bonding ([AMM TASK 20-13-21-910-801-A/200](#)).
  - (16) Install the screws (1), lock washers (2), steel washers (3), aluminum washers (5), cables (4), and nuts (6). See DET. C, Figure 403.
  - (17) Close the thermoacoustic insulation pad.
  - (18) Install the clamps that attach the thermoacoustic insulation pad to the frame.
  - (19) Install the screw (2), aluminum washer (1), and cable (3). See DET. B, Figure 405.
  - (20) Connect the electrical connector (1). See DET. B, Figure 402.
  - (21) Connect the central conditioned-air ducts from the PSU conditioned-air duct ([AMM TASK 21-20-04-400-802-A/400](#)).
- L. PSU-Structure Module IV - Installation (Figure 402) (Figure 403) (Figure 404) (Figure 405)  
**SUBTASK 420-044-A**
- (1) **NOTE:** Be careful with the lamp during the movement of PSU-structure module IV.  
Install PSU-structure module IV (Figure 404).
  - (2) **NOTE:** Make sure that the gap between the PSU structures after the installation is 3 mm.  
Turn the tube (10) counterclockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to install the support bracket rod (11) to the connection at PSU-structure module IV. See DET. B, Figure 403.
  - (3) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
  - (4) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module IV to frame 38 and frame 44. See DET. C, Figure 404.
  - (5) Install the joint extension panel (6). See DET. B, Figure 405.
  - (6) Install the screws (4) and washers (5) that attach PSU-structure module IV to modules III and V. See DET. B, Figure 405.

- (7) Turn the tube (10) counterclockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to install the support bracket rod (11) to the connection at PSU-structure module III. See DET. B, Figure 403.
- (8) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
- (9) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module III to frame 33 and frame 37. See DET. C, Figure 404.
- (10) Install the joint extension panel (6). See DET. B, Figure 405.
- (11) Install the screws (4) and washers (5) that attach PSU-structure module III to module II. See DET. B, Figure 405.
- (12) Connect the transparent drain tube (5) at the PSU-structure module IV between the frame 38 and frame 44. See DET. B, Figure 404.
- (13) Pass the electrical cable through the PSU duct hole.
- (14) Install the straps that attach the PSU harness to PSU-structure module IV and to the fuselage.
- (15) Connect the splice electrical connector (WM 20-50-01).
- (16) Close the thermoacoustic insulation pad and hold it with the Velcro fasteners.
- (17) Install the screw (2), aluminum washer (1), and cable (3). See DET. B, Figure 405.
- (18) Connect the electrical connector (1). See DET. B, Figure 402.

**M. PSU-Structure Module V - Installation (Figure 402) (Figure 403) (Figure 404) (Figure 405)**
**SUBTASK 420-045-A**

- (1) **NOTE:** Be careful with the lamp during the movement of PSU-structure module V.  
Install PSU-structure module V (Figure 404).
- (2) **NOTE:** Make sure that the gap between the PSU structures after the installation is 3 mm.  
Turn the tube (10) counterclockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to install the support bracket rod (11) to the connection at PSU-structure module V. See DET. B, Figure 403.
- (3) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
- (4) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module V to frame 47 and frame 51. See DET. C, Figure 404.
- (5) Install the joint extension panel (6). See DET. B, Figure 405.
- (6) Install the screws (4) and washers (5) that attach PSU-structure module V to modules IV and VI. See DET. B, Figure 405.

- (7) Turn the tube (10) counterclockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to install the support bracket rod (11) to the connection at PSU-structure module IV. See DET. B, Figure 403.
- (8) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
- (9) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module IV to frame 38 and frame 44. See DET. C, Figure 404.
- (10) Install the joint extension panel (6). See DET. B, Figure 405.
- (11) Install the screws (4) and washers (5) that attach PSU-structure module IV to module III. See DET. B, Figure 405.
- (12) Connect the transparent drain tube (5) at the PSU-structure module IV between the frame 47 and frame 51. See DET. B, Figure 404.
- (13) Pass the electrical cable through the PSU duct hole.
- (14) Install the straps that attach the PSU harness to PSU-structure module V and to the fuselage.
- (15) Do the preparation of the surface and the electrical bonding ([AMM TASK 20-13-21-910-801-A/200](#)).
- (16) Install the screws (1), lock washers (2), steel washers (3), aluminum washers (5), cables (4), and nuts (6). See DET. C, Figure 403.
- (17) Connect the splice electrical connector (WM 20-50-01).
- (18) Close the thermoacoustic insulation pad.
- (19) Install the clamps that attach the thermoacoustic insulation pad to the frames.
- (20) Install the screw (2), aluminum washer (1), and cable (3). See DET. C, Figure 404.
- (21) Connect the electrical connector (1). See DET. B, Figure 402.

#### N. PSU-Structure Module VI - Installation (Figure 402) (Figure 403) (Figure 404) (Figure 405)

##### **SUBTASK 420-046-A**

- (1) **NOTE:** Be careful with the lamp during the movement of PSU-structure module VI.  
Install PSU-structure module VI (Figure 404).
- (2) **NOTE:**
  - Make sure that the gap between the PSU structures after the installation is 3 mm.
  - Make sure that the between PSU-structure module VI and frame 55 after the installation is 13 mm.

Turn the tube (10) counterclockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to install the support bracket rod (11) to the connection at PSU-structure module VI. See DET. B, Figure 403.

- (3) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
- (4) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module VI to frame 53 and frame 55. See DET. C, Figure 404.
- (5) Install the joint extension panel (6). See DET. B, Figure 405.
- (6) Install the screws (4) and washers (5) that attach PSU-structure module VI to module V. See DET. B, Figure 405.
- (7) Turn the tube (10) counterclockwise (use a pair of pliers with the jaws padded not to cause damage to the tube or manually) to install the support bracket rod (11) to the connection at PSU-structure module V. See DET. B, Figure 403.
- (8) Close the mounting-bracket tube clamp, and install the cotter pins (7), washers (8), and pins (9). See DET. D, Figure 403.
- (9) Install the screws (1), washers (2) and (3), and nut (4) that attach PSU-structure module V to frame 47 and frame 52. See DET. C, Figure 404.
- (10) Install the joint extension panel (6). See DET. B, Figure 405.
- (11) Install the screws (4) and washers (5) that attach PSU-structure module V to module IV. See DET. B, Figure 405.
- (12) Connect the transparent drain tube (5) at the PSU-structure module VI between the frame 54 and frame 55. See DET. B, Figure 404.
- (13) Pass the electrical cable through the PSU duct hole.
- (14) Install the straps that attach the PSU harness to PSU-structure module VI and to the fuselage.
- (15) Do the preparation of the surface and the electrical bonding ([AMM TASK 20-13-21-910-801-A/200](#)).
- (16) Install the screws (1), lock washers (2), steel washers (3), aluminum washers (5), cables (4), and nuts (6). See DET. C, Figure 403.
- (17) Close the thermoacoustic insulation pad.
- (18) Install the clamps that attach the thermoacoustic insulation pad to frame 53 and frame 55.
- (19) Connect the splice electrical connector (WM 20-50-01).
- (20) Install the screw (2), aluminum washer (1), and cable (3). See DET. B, Figure 405.
- (21) Connect the electrical connector (1). See DET. B, Figure 402.
- (22) Connect the rear conditioned-air duct to the PSU conditioned-air duct ([AMM TASK 21-20-04-400-802-A/400](#)).
- (23) Install the strap that attaches the conditioned air hose.



EMB145 – EMB135

AIRCRAFT  
MAINTENANCE MANUAL

O. Follow-on

SUBTASK 842-008-A

- (1) Install the sound-proofing blanket, as applicable (AMM TASK 25-81-02-400-801-A/400).
- (2) On the RH electrical power control/distribution box, close these circuit breakers and remove the DO-NOT-CLOSE tag from them:
  - (a) GALLEY (Location Tip: RB SERVBUS/GALLEY).
  - (b) GALLEY (Location Tip: RB SHED DC BUS2/GALLEY).
- (3) Do an operational check of the passenger warning signs ( AMM TASK 33-23-00-700-801-A/500).
- (4) Do an operational check of the passenger cabin lights ( AMM TASK 33-21-00-700-801-A/500).
- (5) Do an operational check of the reading and attendant-call lights ( AMM TASK 33-25-00-700-801-A/500).
- (6) Do an operational check of the emergency lights ( AMM TASK 33-50-00-700-801-A/500).

