



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

PITOT LINES HEATER - REMOVAL/INSTALLATION

EFFECTIVITY: ON ACFT WITH PITOT LINES HEATER INSTALLED

1. General

- A. This section gives the procedures to remove and install the LH and RH pitot line heater(s).
- B. The pitot lines heater(s) is/are installed in the forward electronic compartment.
- C. 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
30-31-03-000-801-A	PITOT LINES HEATER - REMOVAL	ON ACFT WITH PITOT LINES HEATER INSTALLED
30-31-03-400-801-A	PITOT LINES HEATER - INSTALLATION	ON ACFT WITH PITOT LINES HEATER INSTALLED



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TASK 30-31-03-000-801-A

EFFECTIVITY: ON ACFT WITH PITOT LINES HEATER INSTALLED

2. PITOT LINES HEATER - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the LH and RH pitot line heater(s).

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM SDS 24-60-00/1	
AMM TASK 25-81-01-000-801-A/400	-
SWPM 20-21-00	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
213	113CZ	Forward Electronic Compartment

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	Forward Electronic Compartment

I. Preparation

SUBTASK 841-002-A

WARNING: TO PREVENT INJURY TO PERSONS, DO NOT TOUCH THE PITOT SENSOR, PITOT/STATIC SENSOR, ANEMOMETRIC STATIC PORTS, AND INTERNAL TUBES IMMEDIATELY AFTER ITS HEATER IS TURNED OFF.

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Open the HEATING/PITOT 1 circuit breaker and attach a DO-NOT-CLOSE tag to it (LH electrical-power control/distribution box ([AMM SDS 24-60-00/1](#))).



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- (3) Open the HEATING/PITOT 2 circuit breaker and attach a DO-NOT-CLOSE tag to it (RH electrical-power control/distribution box ([AMM SDS 24-60-00/1](#))).

CAUTION: BE CAREFUL WHEN YOU GET ACCESS TO FORWARD ELECTRONIC COMPARTMENT TO NOT LEAN ON THE PITOT LINE. DAMAGE TO THE ANEMOMETRIC SYSTEM CAN OCCUR.

- (4) Open the access door 113CZ (AMM MPP 06-41-01/100).

J. Removal

SUBTASK 020-002-A

EFFECTIVITY: ON ACFT PRE-MOD. S.B. 145-30-0056

- (1) To remove the LH and RH pitot line heater, do as follows ([Figure 401](#)):
 - (a) Remove the insulation blanket (1) from the tube.
 - (b) If necessary, remove the thermoacoustic insulation pads to get access to the splice and fuse. Refer to AMM TASK 25-81-01-000-801-A/400.
 - (c) Disconnect harness from the disconnectable splice (4). Refer to SWPM 20-21-00.
 - (d) Disconnect harness from the fuse (3). Refer to SWPM 20-21-00.
 - (e) Remove the pitot line heater (2).

K. Removal

SUBTASK 020-003-A

EFFECTIVITY: ON ACFT POST-MOD. S.B. 145-30-0056

- (1) To remove the LH and RH tube ribbon heater (1), do as follows ([Figure 402](#)):
 - (a) If necessary, remove the thermoacoustic insulation pads to get access to the splice and fuse. Refer to AMM TASK 25-81-01-000-801-A/400.
 - (b) Disconnect harness from the disconnectable splice (4). Refer to SWPM 20-21-00.
 - (c) Disconnect harness from the fuse (3). Refer to SWPM 20-21-00.
 - (d) Remove and discard the tie-down strap (2) from the tube ribbon heater (1).
 - (e) Remove and discard the tie-down strap (2) that attaches the tube heater electrical connector (5) to the fitting ribbon heater (7).
 - (f) Disconnect the tube heater electrical connector (5) from the fitting heater electrical connector (6).
 - (g) Remove the tube ribbon heater (1).

L. Removal

SUBTASK 020-004-A

EFFECTIVITY: ON ACFT POST-MOD. S.B. 145-30-0056

- (1) To remove the LH and RH fitting ribbon heater (7), do as follows ([Figure 402](#)):

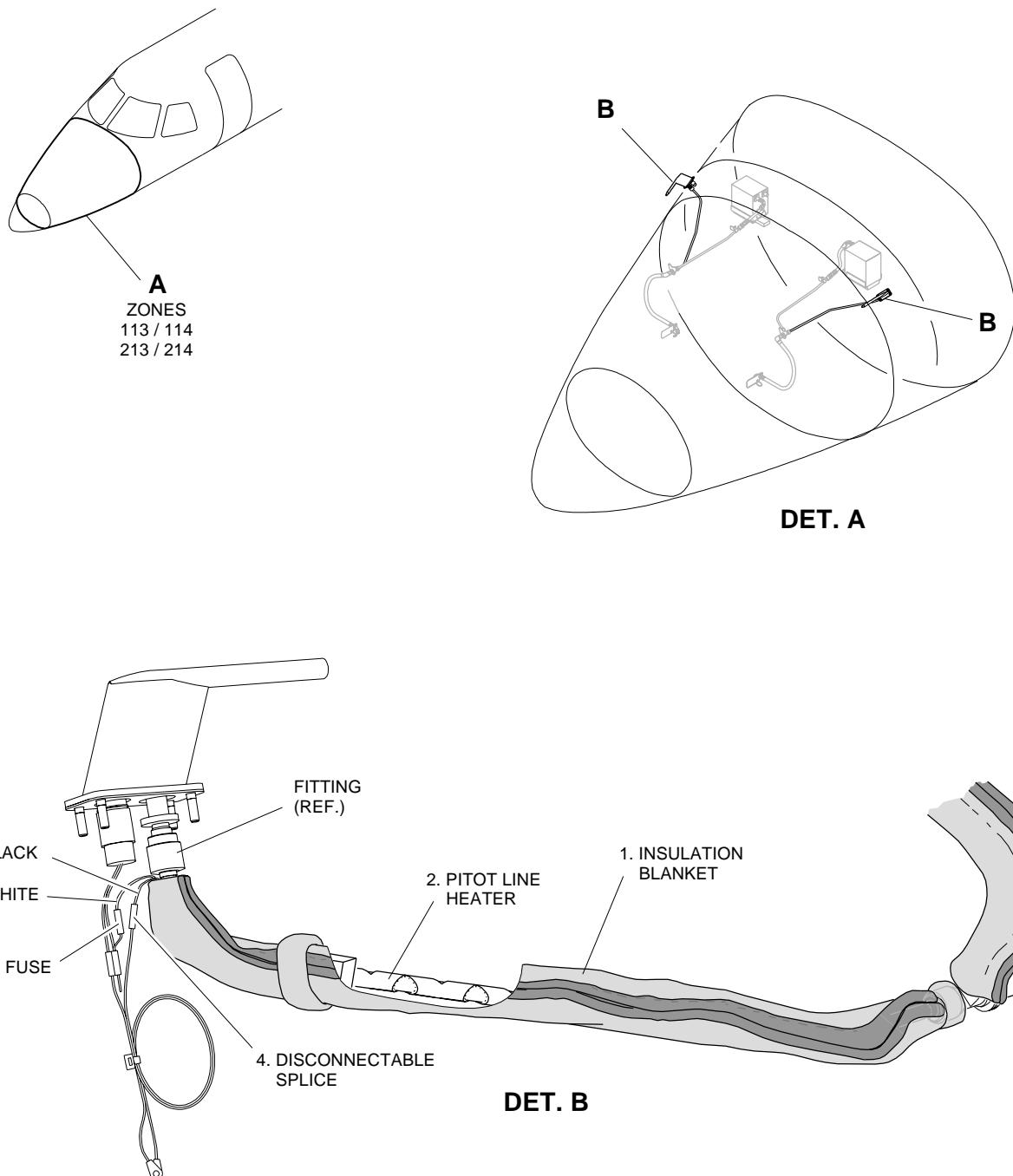


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- (a) Remove and discard the tie-down strap (2) that attaches the tube heater electrical connector (5) to the fitting ribbon heater (7).
- (b) Disconnect the fitting heater electrical connector (6) from the tube heater electrical connector (5).
- (c) Remove and discard the tie-down strap (2) from fitting ribbon heater (7).
- (d) Remove the fitting ribbon heater (7).

EFFECTIVITY: ON ACFT PRE-MOD. S.B. 145-30-0056
Pitot lines heater - Removal/Installation
Figure 401

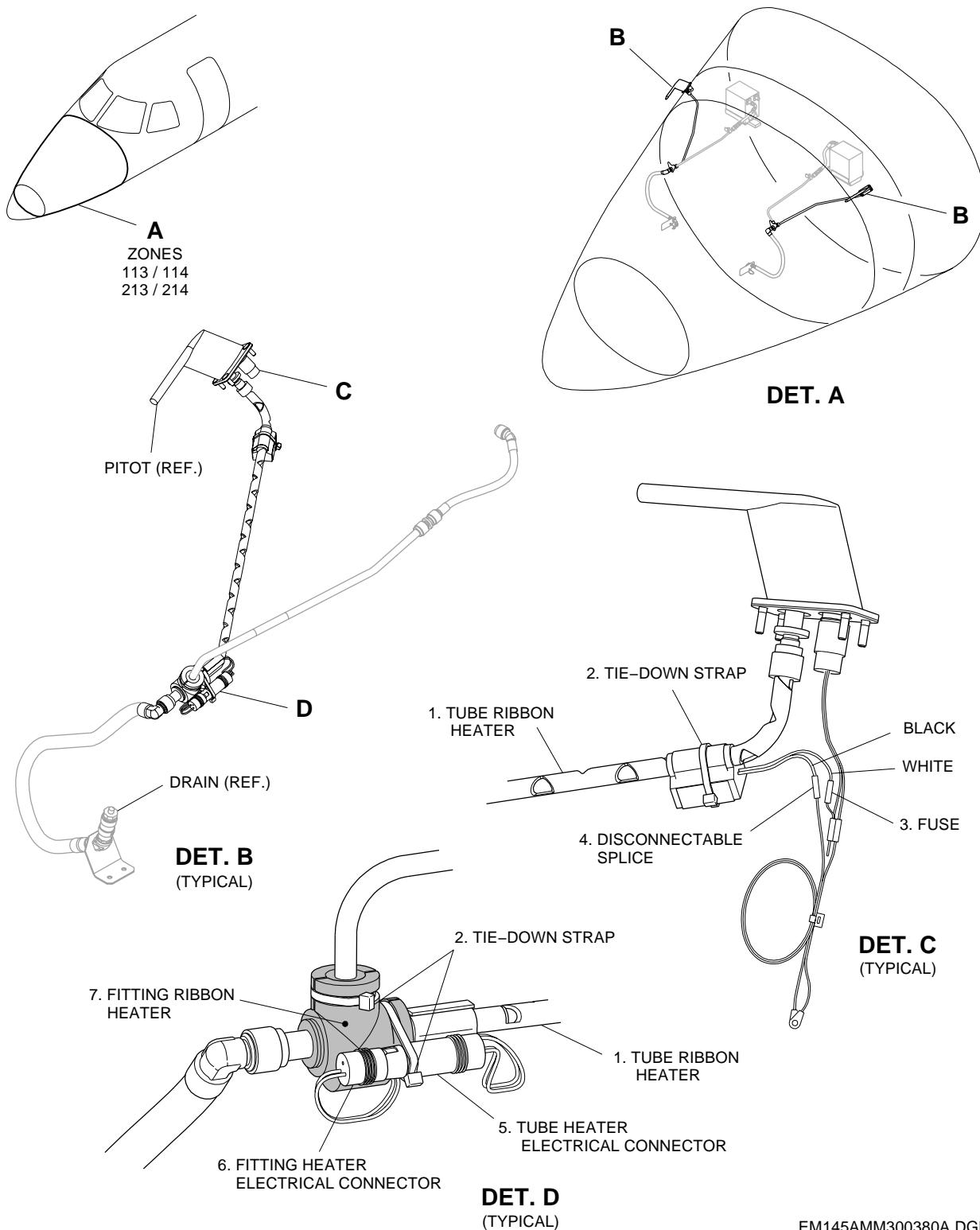


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EFFECTIVITY: ON ACFT POST-MOD. S.B. 145-30-0056

Pitot lines heater(s) - Removal/Installation

Figure 402



EM145AMM300380A.DGN



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TASK 30-31-03-400-801-A

EFFECTIVITY: ON ACFT WITH PITOT LINES HEATER INSTALLED

3. PITOT LINES HEATER - INSTALLATION

A. General

(1) This procedure gives the instructions to install the LH and RH pitot line heater(s).

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 34-13-00/600	- INSPECTION/CHECK
AMM SDS 24-60-00/1	
AMM TASK 25-81-01-300-801-A/800	THERMOACOUSTIC INSULATION PADS - REPAIR
AMM TASK 25-81-01-400-801-A/400	-
AMM TASK 30-31-03-700-801-A/500	PITOT LINES HEATER - OPERATIONAL TEST
AMM TASK 34-13-00-200-803-A/600	PITOT LINES - INSPECTION
SWPM 20-21-00	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
213	113CZ	Forward Electronic Compartment

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	Forward Electronic Compartment

I. Installation

SUBTASK 420-002-A

EFFECTIVITY: ON ACFT PRE-MOD. S.B. 145-30-0056

(1) To install the LH and RH pitot line heater, do as follows (Figure 401):

- (a) Inspect the pitot lines tube, check for tube misalignment which can cause water accumulation. Refer to [AMM TASK 34-13-00-200-803-A/600](#).
- (b) Install the pitot line heater (2).
- (c) Connect harness to the fuse (3). Refer to SWPM 20-21-00.
- (d) Connect harness to the disconnectable splices (4). Refer to SWPM 20-21-00.
- (e) Close the HEATING/PITOT 1 circuit breaker and remove the DO-NOT-CLOSE tag from it (LH electrical-power control/distribution box ([AMM SDS 24-60-00/1](#))).
- (f) Close the HEATING/PITOT 2 circuit breakers and remove the DO-NOT-CLOSE tag from it (RH electrical-power control/distribution box ([AMM SDS 24-60-00/1](#))).
- (g) Do the operational test of the pitot line heater. Refer to [AMM TASK 30-31-03-700-801-A/500](#).
- (h) Install the insulation blanket (1).

NOTE: Make sure that both insulation blanket hook-and-loop overlap are fasten.
- (i) If applicable, install the thermoacoustic insulation pads. Refer to AMM TASK 25-81-01-400-801-A/400.
- (j) If applicable, repair the thermoacoustic insulation pads. Refer to [AMM TASK 25-81-01-300-801-A/800](#).

J. Installation

SUBTASK 420-003-A

EFFECTIVITY: ON ACFT POST-MOD. S.B. 145-30-0056

- (1) To install the LH and RH tube ribbon heater (1), do as follows (Figure 402):
 - (a) Inspect the pitot lines tube, check for tube misalignment which can cause water accumulation. Refer to [AMM TASK 34-13-00-200-803-A/600](#).
 - (b) If the fitting ribbon heater (7) is not installed, do as follows:
 - 1 Install the fitting ribbon heater (7).
 - 2 Install the tie-down strap (2) to fitting ribbon heater (7).
 - (c) Install the tube ribbon heater (1).
 - (d) Connect the tube heater electrical connector (5) to the fitting heater electrical connector (6).
 - (e) Connect harness to the fuse (3). Refer to SWPM 20-21-00.
 - (f) Connect harness to the disconnectable splices (4). Refer to SWPM 20-21-00.
 - (g) Close the HEATING/PITOT 1 circuit breaker and remove the DO-NOT-CLOSE tag from it (LH electrical-power control/distribution box ([AMM SDS 24-60-00/1](#))).

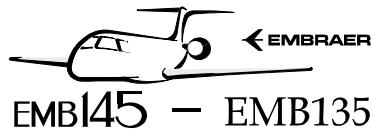
- (h) Close the HEATING/PITOT 2 circuit breakers and remove the DO-NOT-CLOSE tag from it (RH electrical-power control/distribution box ([AMM SDS 24-60-00/1](#))).
- (i) Do the operational test of the pitot line heater. Refer to [AMM TASK 30-31-03-700-801-A/500](#).
- (j) Install the tie-down strap (2) that attaches the tube heater electrical connector (5) to the fitting ribbon heater (7).
- (k) Install the tie-down strap (2) to the tube ribbon heater (1).
- (l) If applicable, install the thermoacoustic insulation pads. Refer to AMM TASK 25-81-01-400-801-A/400.
- (m) If applicable, repair the thermoacoustic insulation pads. Refer to [AMM TASK 25-81-01-300-801-A/800](#).

K. Installation

SUBTASK 420-004-A

EFFECTIVITY: ON ACFT POST-MOD. S.B. 145-30-0056

- (1) To install the LH and RH fitting ribbon heater (7), do as follows (Figure 402):
 - (a) If the tube ribbon heater (1) is not installed, do as follows:
 - 1 Install the tube ribbon heater (1).
 - 2 Connect harness to the fuse (3). Refer to SWPM 20-21-00.
 - 3 Connect harness to the disconnectable splices (4). Refer to SWPM 20-21-00.
 - (b) Install the fitting ribbon heater (7).
 - (c) Install the tie-down strap (2) to the fitting ribbon heater (7).
 - (d) Connect the fitting heater electrical connector (6) to the tube heater electrical connector (5).
 - (e) Close the HEATING/PITOT 1 circuit breaker and remove the DO-NOT-CLOSE tag from it (LH electrical-power control/distribution box ([AMM SDS 24-60-00/1](#))).
 - (f) Close the HEATING/PITOT 2 circuit breakers and remove the DO-NOT-CLOSE tag from it (RH electrical-power control/distribution box ([AMM SDS 24-60-00/1](#))).
 - (g) Do the operational test of the pitot line heater. Refer to [AMM TASK 30-31-03-700-801-A/500](#).
 - (h) Install the tie-down strap (2) that attaches the tube heater electrical connector (5) to the fitting ribbon heater (7).
 - (i) Install the tie-down strap (2) to the tube ribbon heater (1).



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L. Follow-on

SUBTASK 842-002-A

- (1) Make sure that the pitot lines are not bent. Refer to [AMM MPP 34-13-00/600](#).
- (2) Close the access door 113CZ (AMM MPP 06-41-01/100).