



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TOTAL-AIR-TEMPERATURE (TAT) PROBE - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the total-air-temperature (TAT) sensors.
- B. These procedures are applicable to TAT 1 and 2 sensors.
- C. The TAT sensors are installed on the skin of the forward fuselage as follows:
 - Sensor 1 on the LH side of the cockpit.
 - Sensor 2 on the top of the aircraft nose.
- D. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

<i>TASK NUMBER</i>	<i>DESCRIPTION</i>	<i>EFFECTIVITY</i>
34-15-03-000-801-A	TOTAL-AIR-TEMPERATURE (TAT) SENSOR - REMOVAL	ALL
34-15-03-400-801-A	TOTAL-AIR-TEMPERATURE (TAT) SENSOR - INSTALLATION	ALL



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TASK 34-15-03-000-801-A

EFFECTIVITY: ALL

2. TOTAL-AIR-TEMPERATURE (TAT) SENSOR - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the total-air-temperature (TAT) sensor.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-

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
1	Does the task	Forward Fuselage Skin, on the LH side of the cockpit or on the top of the aircraft nose

I. Preparation

SUBTASK 841-002-A

- (1) On the LH Power Control/Distribution Box, open the TAT1 SENSOR HTG circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (2) On the RH Power Control/Distribution Box, open the TAT2 SENSOR HTG circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (3) Open access door 113CZ (AMM MPP 06-41-01/100).

J. Removal (Figure 401)

SUBTASK 020-002-A

- (1) Remove the adhesive polyimide tape from around the electrical harness end of the TAT sensor (2) to get access to the electrical connector (3).

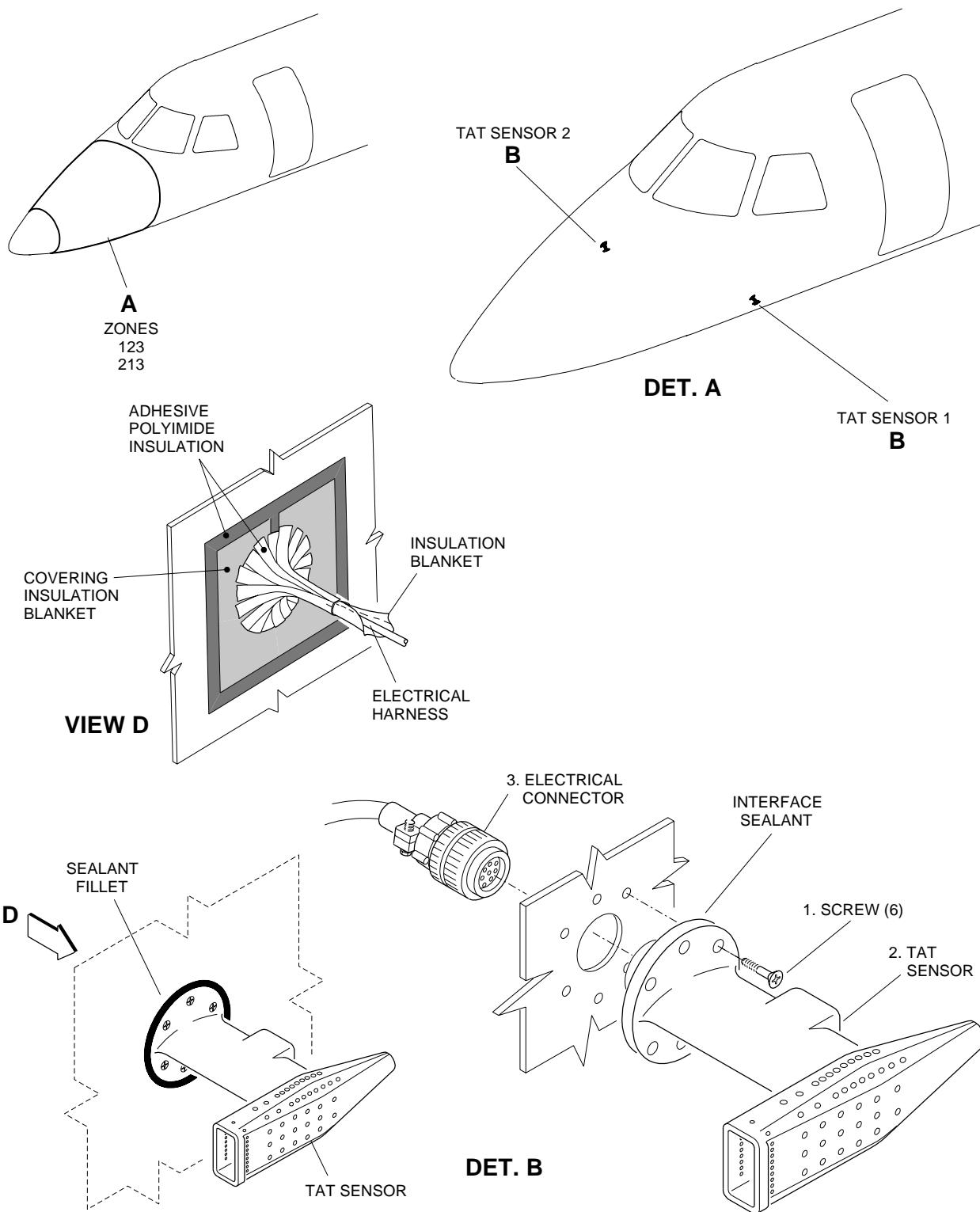


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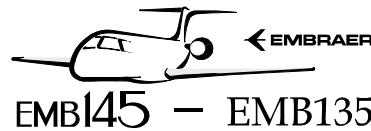
- (2) Remove the covering blanket from around the electrical harness end of the TAT sensor (2).
- (3) Disconnect the electrical connector (3).
- (4) Remove the sealant from around the TAT sensor (2) base.
- (5) Remove the six screws (1).
- (6) Hold the TAT sensor (2) strut and pull it carefully.
- (7) Remove the TAT sensor (2).

EFFECTIVITY: ALL

Total-Air-Temperature (TAT) Sensor - Installation
Figure 401



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TASK 34-15-03-400-801-A

EFFECTIVITY: ALL

3. TOTAL-AIR-TEMPERATURE (TAT) SENSOR - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the total-air-temperature (TAT) sensor.

B. References

REFERENCE	DESIGNATION
AMM MPP 20-30-03/200	- MAINTENANCE PRACTICES
AMM TASK 30-33-00-700-801-A/500	TAT SENSOR HEATING - OPERATIONAL CHECK
AMM TASK 34-15-00-700-802-A/500	ADC SYSTEM - OPERATIONAL TEST

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MIL-S-81733, Type IV-12	Interface Sealant	AR
MIL-S-8802, Type II, Class B2	Sealant	AR
KB46/50	Adhesive polyimide tape	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Forward Fuselage Skin, on the LH side of the cockpit or on the top of the aircraft nose

I. Installation (Figure 401)

SUBTASK 420-002-A

- (1) Remove all the old sealant from the fuselage skin surface where the TAT sensor is installed. For this, use a plastic spatula.
- (2) Apply interface sealant to the TAT sensor (2) base (for alternative sealant refer to [AMM MPP 20-30-03/200](#)).

- (3) Put the TAT sensor (2) in its installation position on the skin.
- (4) Install the six screws (1).
- (5) Remove the unwanted interface sealant from around the TAT sensor base.
- (6) Apply a fillet of sealant along the contour of the TAT sensor base.
- (7) Connect the electrical connector (3) to the TAT sensor (2).
- (8) Install the covering insulation blanket from around the electrical harness end of the TAT sensor (2).
- (9) Stick adhesive polyimide tape around the covering insulation blanket and around the electrical harness end of the TAT sensor to isolate this area.

J. Follow-on

SUBTASK 842-002-A

- (1) On the LH Power Control/Distribution Box, close the TAT1 SENSOR HTG circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (2) On the RH Power Control/Distribution Box, close the TAT2 SENSOR HTG circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (3) Do an operational check of the total-air-temperature (TAT) heating system ([AMM TASK 30-33-00-700-801-A/500](#)).
- (4) Do an operational test of the ADC system ([AMM TASK 34-15-00-700-802-A/500](#)).