



EMB145 – EMB135

AIRCRAFT  
MAINTENANCE MANUAL

**AOA SENSOR HEATING - ADJUSTMENT/TEST**

*EFFECTIVITY: ALL*

1. General

- A. This section gives the procedures to do the operational check of the AOA sensor heating.
- 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).

<i>TASK NUMBER</i>	<i>DESCRIPTION</i>	<i>EFFECTIVITY</i>
30-32-00-700-801-A ♦	AOA SENSOR HEATING - OPERATIONAL CHECK	ALL



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TASK 30-32-00-700-801-A

EFFECTIVITY: ALL

2. AOA SENSOR HEATING - OPERATIONAL CHECK

A. General

- (1) The function of this check is to make sure that the AOA sensor heating operates correctly.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-03/100	- COMPONENT LOCATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223		LH front fuselage
224		RH front fuselage
223	223LZ	Cockpit

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	Cockpit
1	Does the task	Front fuselage

I. Preparation

SUBTASK 841-002-A

- (1) Open access door 223LZ ( [AMM MPP 06-41-03/100](#)).
- (2) Energize the aircraft with the External DC-Power Supply ( [AMM TASK 20-40-01-860-801-A/200](#)).
- (3) On the overhead circuit breaker panel, located on cockpit ceiling, make sure that the SENSORS HTG circuit breaker is closed.

- SENSORS HTG (Location tip: DC BUS 2/ICE AND RAIN PROTECTION/SENSORS HTG).

J. Operationally Check AOA Sensor Heating ([Figure 501](#))

**SUBTASK 710-002-A**

- (1) Do the check as follows:

**WARNING:** • ISOLATE THE TEST AREA AND IDENTIFY IT TO PREVENT INJURY TO THE MAINTENANCE PERSONS.

- DURING TEST, THESE ITEMS BECOME HOT AND AFTER THE AIRCRAFT LANDING THESE ITEMS ARE HOT:
  - PITOT SENSORS.
  - PITOT/STATIC SENSOR.
  - ANEMOMETRIC STATIC PORTS.
  - TAT SENSORS.
  - PRESSURIZATION STATIC PORTS.
  - AOA SENSORS.

**DO NOT TOUCH THEM SO AS NOT TO BURN YOURSELF.**

**CAUTION:** DO NOT STOP THIS TASK BEFORE IT IS COMPLETED, BECAUSE THIS CAN DECREASE THE SERVICE LIFE OF THESE COMPONENTS.

- (a) Set the SENSORS (PITOT 1 - TAT 1/AOA 1, PITOT 3, and PITOT 2 - TAT 2/AOA 2) pushbuttons, on the overhead panel, to ON.
- (b) On the overhead circuit breaker panel, open the N2 SIGNAL 2A circuit breaker.
  - N2 SIGNAL/2A (Location Tip: ESSENTIAL DC BUS 1/POWERPLANT/N2 SIGNAL 2A).

Result:

- 1 The EICAS display shows the AOA 1-2 HEAT INOP caution messages.
- 2 The master CAUTION lights flash.
- 3 The AOA 1 and AOA 2 sensors become hot.

- (c) Push a master CAUTION light.

Result:

- 1 The master CAUTION lights go off.

- (d) Close the N2 SIGNAL 2A circuit breaker.

Result:

- 1 On the EICAS display, the AOA 1-2 HEAT INOP caution messages go out of view.

- 2 The AOA 1 and AOA 2 sensors become cool.

- (e) On the circuit breaker panel, open the N2 SIGNAL 1B circuit breaker.
  - N2 SIGNAL/1B (Location Tip: ESSENTIAL DC BUS 2/POWERPLANT/N2 SIGNAL 1B).

Result:

- 1 On the EICAS display, the AOA 1-2 HEAT INOP caution messages come into view.

- 2 The master CAUTION lights flash.
- 3 The AOA 1 and AOA 2 sensors become hot.
- (f) Push a master CAUTION light.  
 Result:  
 1 The master CAUTION lights go off.
- (g) Close the N2 SIGNAL 1B circuit breaker.  
 Result:  
 1 On the EICAS display, the AOA 1-2 HEAT INOP caution messages go out of view.  
 2 The AOA 1 and AOA 2 sensors become cool.
- (h) On the maintenance panel, set the EICAS SWITCH to OVRD.  
 Result:  
 1 The EICAS display shows the AOA 1-2 HEAT INOP caution messages.  
 2 The master CAUTION lights flash.
- (i) Press the master CAUTION light.  
 Result:  
 1 The master CAUTION lights go off.
- (j) On the circuit breaker panel, open the N2 SIGNAL 2A circuit breaker.  
 • N2 SIGNAL/2A (Location Tip: ESSENTIAL DC BUS 1/POWERPLANT/N2 SIGNAL 2A).  
 Result:  
 1 On the EICAS display, the AOA 1-2 HEAT INOP caution messages stay in view.  
 2 The AOA 1 and AOA 2 sensors become hot.
- (k) On the maintenance panel, set the EICAS SWITCH to NORM.
- (l) Close the N2 SIGNAL 2A circuit breaker.  
 Result:  
 1 The AOA 1 and AOA 2 sensors become cool.  
 2 On the EICAS display, the AOA 1-2 HEAT INOP caution messages go out of view.

#### K. Follow-on

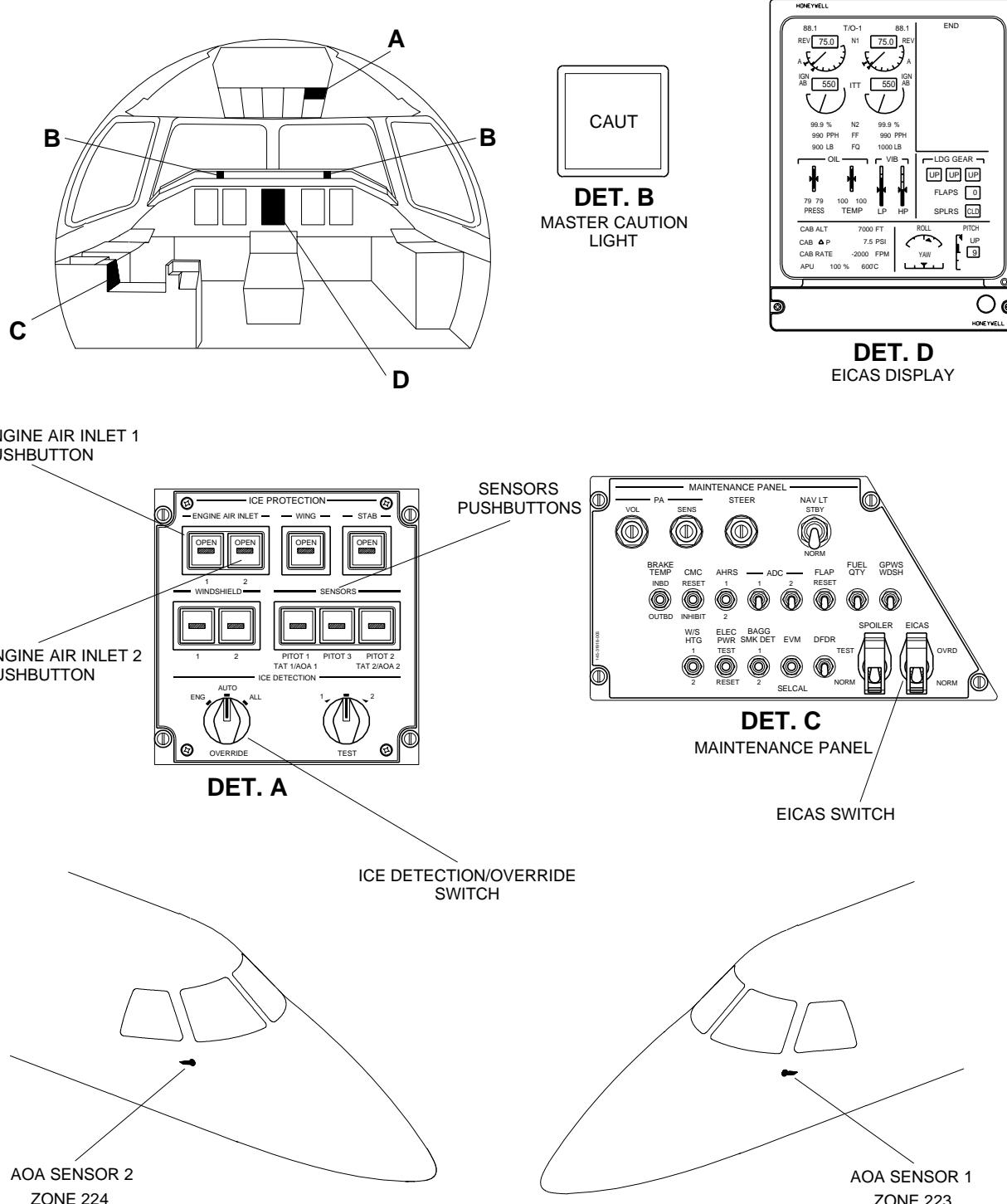
##### **SUBTASK 842-002-A**

- (1) On the overhead panel, set the SENSORS (PITOT 1 - TAT 1/AOA 1, PITOT 3, and PITOT 2 - TAT 2/AOA 2) to OFF.
- (2) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (3) Close access door 223LZ ([AMM MPP 06-41-03/100](#)).

**EFFECTIVITY: ALL**

AOA Sensor Heating - Operational Check

Figure 501



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