

AIRFOIL - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do the operational test of the airfoil anti-icing system.
- 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
30-10-00-700-801-A	AIRFOIL ANTI-ICING SYSTEM - OPERATIONAL TEST	ALL

TASK 30-10-00-700-801-A

EFFECTIVITY: ALL

2. AIRFOIL ANTI-ICING SYSTEM - OPERATIONAL TEST

A. General

- (1) The function of this test is to make sure that the airfoil anti-icing system shows no low pressure or overpressure condition.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 06-42-00/100	-
AMM TASK 49-10-00-910-802-A/200	APU - START
AMM TASK 49-10-00-910-803-A/200	APU - SHUTDOWN
AMM TASK 49-13-00-910-802-A/200	APU - START
AMM TASK 49-13-00-910-803-A/200	APU - SHUTDOWN
S.B.145-30-0022	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191	191EL, 191FR	LH/RH side of the forward lower fairing
324	324EL	LH side of the vertical stabilizer
324	324FR	RH side of the vertical stabilizer

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	A - Does the task	Cockpit
1	B - Helps technician A	Outside the aircraft

I. Preparation

SUBTASK 841-002-A

- (1) Open access panels 191EL and 191FR (AMM MPP 06-41-01/100).
- (2) Open access panel 324EL or 324FR (AMM MPP 06-42-00/100).

J. Operational Test of the Airfoil Anti-Icing System ([Figure 501](#))

SUBTASK 710-002-A

WARNING: DO NOT TOUCH THE DUCTS OR COMPONENTS OF THE ANTI-ICING SYSTEM IMMEDIATELY AFTER THE SYSTEM IS TURNED OFF. THE HIGH AIR TEMPERATURE CAN CAUSE INJURY TO PERSONS.

- (1) Start the APU ([AMM TASK 49-10-00-910-802-A/200](#) for APU T-62T-40C11 or [AMM TASK 49-13-00-910-802-A/200](#) for APU T-62T-40C14).
- (2) Set the APU switch to ON.
- (3) Set these push-button and knob as follows:
 - PACK 1 AND PACK 2 - ON.
 - X BLEED - OPEN.
 - APU BLEED - OPEN.
 - OVERRIDE - ALL.
 - WING - ON.
 - STAB - ON.

CAUTION: • DO NOT HOLD THE ICE DETECTION/TEST SWITCH AT POSITION 1 OR 2 FOR MORE THAN 15 SECONDS.

- DO NOT DO THIS TEST MORE THAN TWO TIMES TO PREVENT AN OVER-HEATING CONDITION AT THE WING AND EMPENNAGE LEADING EDGES. IF IT IS NECESSARY TO DO THE TEST AGAIN, STOP UNTIL THE LEADING EDGES GET THE AMBIENT TEMPERATURE AGAIN.

- (4) (PRE-MOD. [S.B.145-30-0022](#)) Do as follows:
 - (a) Set the TEST switch, on the overhead panel, to 1 or 2 and hold it for 15 seconds.
Make sure that the "OPEN" indication of the WING and STAB push- buttons comes on and the EICAS shows the following messages:
 - ICE CONDITION
 - ICE DET 1-2 FAIL
 - WG 1-2 A/ICE FAIL
 - STAB A/I FAIL
 - BLD 1-2 LOW TEMP

CAUTION: • DO NOT HOLD THE ICE DETECTION/TEST SWITCH AT POSITION 1 OR 2 FOR MORE THAN 15 SECONDS.

- DO NOT DO THIS TEST MORE THAN TWO TIMES TO PREVENT AN OVER-HEATING CONDITION AT THE WING AND EMPENNAGE LEADING EDGES. IF IT IS NECESSARY TO DO THE TEST AGAIN, STOP UNTIL THE LEADING EDGES GET THE AMBIENT TEMPERATURE AGAIN.

(5) (POST-MOD. [S.B.145-30-0022](#)) Do as follows:

(a) Disconnect connector P2864 of the wing 2 low pressure transducer.

(b) Set the TEST switch, on the overhead panel, to 1 and hold it for 15 seconds.

Make sure that the "OPEN" indication of the WING and STAB push-button comes on and the EICAS shows the following messages:

- ICE CONDITION
- ICE DET 1 FAIL
- WG A/ICE FAIL
- STAB A/I FAIL
- BLD 1 LOW TEMP

(c) Set these push-button as follow:

- WING - OFF.
- STAB - OFF.

(d) Connect connector P2864 of the wing 2 low pressure transducer.

(e) Disconnect connector P2863 of the wing 1 low pressure transducer

(f) Set these push-button as follow:

- WING - ON.
- STAB - ON.

(g) Set the TEST switch, on the overhead panel, to 2 and hold it for 15 seconds.

Make sure that the "OPEN" indication of the WING and STAB push-button comes on and the EICAS shows the following messages:

- ICE CONDITION
- ICE DET 2 FAIL
- WG A/ICE FAIL
- STAB A/I FAIL
- BLD 2 LOW TEMP

- (6) Connect connector P2863 of the wing 1 low pressure transducer.
- (7) Shut down the APU ([AMM TASK 49-10-00-910-803-A/200](#) for APU T-62T-40C11 or [AMM TASK 49-13-00-910-803-A/200](#) for APU T-62T-40C14).
- (8) Set the APU switch to OFF.
- (9) (PRE-MOD. [S.B.145-30-0022](#)) Do as follows:
 - (a) Disconnect electrical connectors P1382 and P1383 of the overpressure switches of the wing anti-icing system and put a jumper between pins A and B of the connectors.
 - (b) Disconnect electrical connector P1387 of the overpressure switch of the stabilizer anti-icing system and put a jumper between pins A and B of the connector.
 - (c) Start the APU ([AMM TASK 49-10-00-910-802-A/200](#) for APU T-62T-40C11 or [AMM TASK 49-13-00-910-802-A/200](#) for APU T-62T-40C14).
 - (d) Set the APU switch to ON.
 - (e) Set these push-button and knob as follows:
 - PACK 1 AND PACK 2 - ON.
 - X BLEED - OPEN.
 - APU BLEED - OPEN.
 - OVERRIDE - ALL.
 - WING - ON.
 - STAB - ON.

CAUTION: • DO NOT HOLD THE ICE DETECTION/TEST SWITCH AT POSITION 1 OR 2 FOR MORE THAN 15 SECONDS.

- DO NOT DO THIS TEST MORE THAN TWO TIMES TO PREVENT AN OVER-HEATING CONDITION AT THE WING AND EMPENNAGE LEADING EDGES. IF IT IS NECESSARY TO DO THE TEST AGAIN, STOP UNTIL THE LEADING EDGES GET THE AMBIENT TEMPERATURE AGAIN.

- (f) Set the TEST switch, on the overhead panel, to 1 or 2 and hold it so.
Make sure that the "OPEN" indication of the WING and STAB push-button continues off and the EICAS shows the following messages:
 - ICE CONDITION
 - ICE DET 1-2 FAIL
 - WG 1-2 A/ICE FAIL
 - STAB A/I FAIL
 - BLD 1-2 LOW TEMP

(10) (POST-MOD. [S.B.145-30-0022](#)) Do as follows:

- (a) Disconnect electrical connectors P1382 of the overpressure switch of the wing 2 anti-icing system and put a jumper between pins A and B of the connectors.
- (b) Disconnect electrical connector P1387 of the overpressure switch of the stabilizer anti-icing system and put a jumper between pins A and B of the connector.
- (c) Start the APU ([AMM TASK 49-10-00-910-802-A/200](#) for APU T-62T-40C11 or [AMM TASK 49-13-00-910-802-A/200](#) for APU T-62T-40C14).
- (d) Set the APU switch to ON.
- (e) Set these push-button and knob as follows:
 - PACK 1 AND PACK 2 - ON.
 - X BLEED - OPEN.
 - APU BLEED - OPEN.
 - OVERRIDE - ALL.
 - WING - ON.
 - STAB - ON.

CAUTION: • DO NOT HOLD THE ICE DETECTION/TEST SWITCH AT POSITION 1 OR 2 FOR MORE THAN 15 SECONDS.

- DO NOT DO THIS TEST MORE THAN TWO TIMES TO PREVENT AN OVERHEATING CONDITION AT THE WING AND EMPENNAGE LEADING EDGES. IF IT IS NECESSARY TO DO THE TEST AGAIN, STOP UNTIL THE LEADING EDGES GET THE AMBIENT TEMPERATURE AGAIN.

- (f) Set the TEST switch, on the overhead panel, to 2 and hold it for 15 seconds.
Make sure that the "OPEN" indication of the WING and STAB push-button continues off and the EICAS shows these messages:
 - ICE CONDITION
 - ICE DET 2 FAIL
 - WG A/ICE FAIL
 - STAB A/I FAIL
 - BLD 2 LOW TEMP
- (g) Shut down the APU ([AMM TASK 49-10-00-910-803-A/200](#) for APU T-62T-40C11 or [AMM TASK 49-13-00-910-803-A/200](#) for APU T-62T-40C14).
- (h) Set the APU switch to OFF.
- (i) Remove the jumper from connector P1382 and connect it to the wing anti-icing system.

- (j) Disconnect connector P1383 of the overpressure switches of the wing 1 anti-icing system and put a jumper between pins A and B of the connectors.
- (k) Start the APU ([AMM TASK 49-10-00-910-802-A/200](#) for APU T-62T-40C11 or [AMM TASK 49-13-00-910-802-A/200](#) for APU T-62T-40C14).
- (l) Set the APU switch to ON.

CAUTION: • DO NOT HOLD THE ICE DETECTION/TEST SWITCH AT POSITION 1 OR 2 FOR MORE THAN 15 SECONDS.

- DO NOT DO THIS TEST MORE THAN TWO TIMES TO PREVENT AN OVERHEATING CONDITION AT THE WING AND EMPENNAGE LEADING EDGES. IF IT IS NECESSARY TO DO THE TEST AGAIN, STOP UNTIL THE LEADING EDGES GET THE AMBIENT TEMPERATURE AGAIN.

- (m) Set the TEST switch, on the overhead panel, to 1 and hold it for 15 seconds.

Make sure that the "OPEN" indication of the WING and STAB push-button continues off and the EICAS shows these messages:

- ICE CONDITION
- ICE DET 1 FAIL
- WG A/ICE FAIL
- STAB A/I FAIL
- BLD 1 LOW TEMP

- (11) Set these push-button and knob as follows:

- OVERRIDE - AUTO.
- APU BLEED - OFF.
- PACK 1 AND PACK 2 - OFF.
- X BLEED - CLOSED.
- WING - OFF.
- STAB - OFF.

- (12) Shut down the APU ([AMM TASK 49-10-00-910-803-A/200](#) for APU T-62T-40C11 or [AMM TASK 49-13-00-910-803-A/200](#) for APU T-62T-40C14).

- (13) Set the APU switch to OFF.

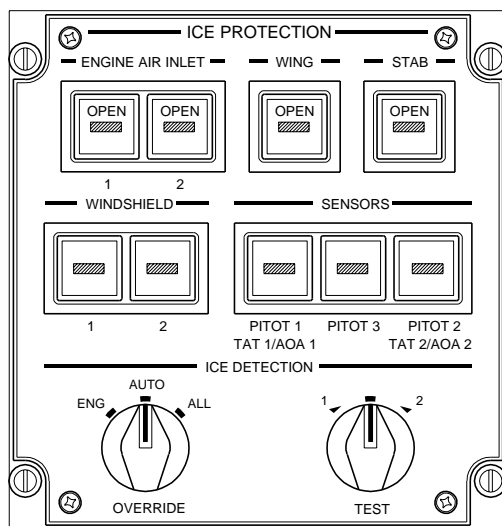
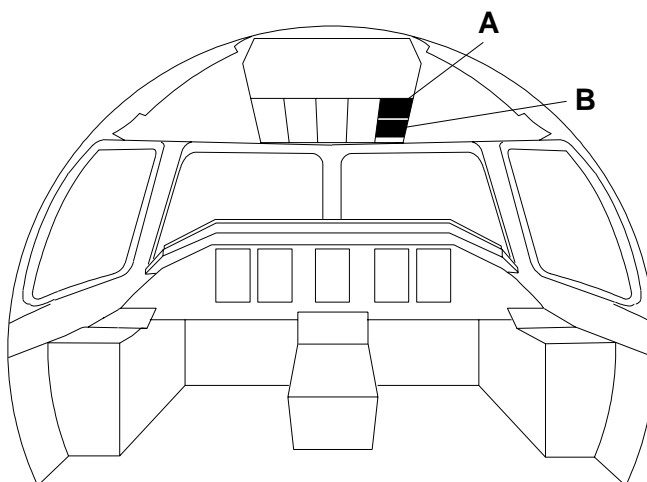
K. Follow-on

SUBTASK 842-002-A

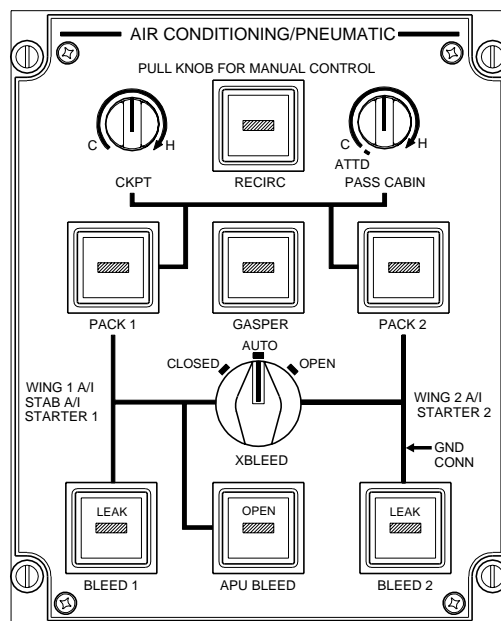
- (1) (PRE-MOD. S.B.145-30-0022) Remove the jumper from between pins A and B of connectors P1382 and P1383 of the overpressure switches of the wing anti-icing system and connect P1382 and P1383.

- (2) (POST-MOD. S.B.145-30-0022) Remove the jumper from between pins A and B of connector P1383 of the overpressure switch of the wing anti-icing system and connect P1383.
- (3) Remove the jumper from between pins A and B of connector P1387 of the overpressure switch of the stabilizer anti-icing system and connect P1387.
- (4) Close access panels 191EL and 191FR (AMM MPP 06-41-01/100).
- (5) Close access panel 324EL or 324FR (AMM MPP 06-42-00/100), as applicable.

EFFECTIVITY: ALL
Airfoil - Operational Test
Figure 501 - Sheet 1



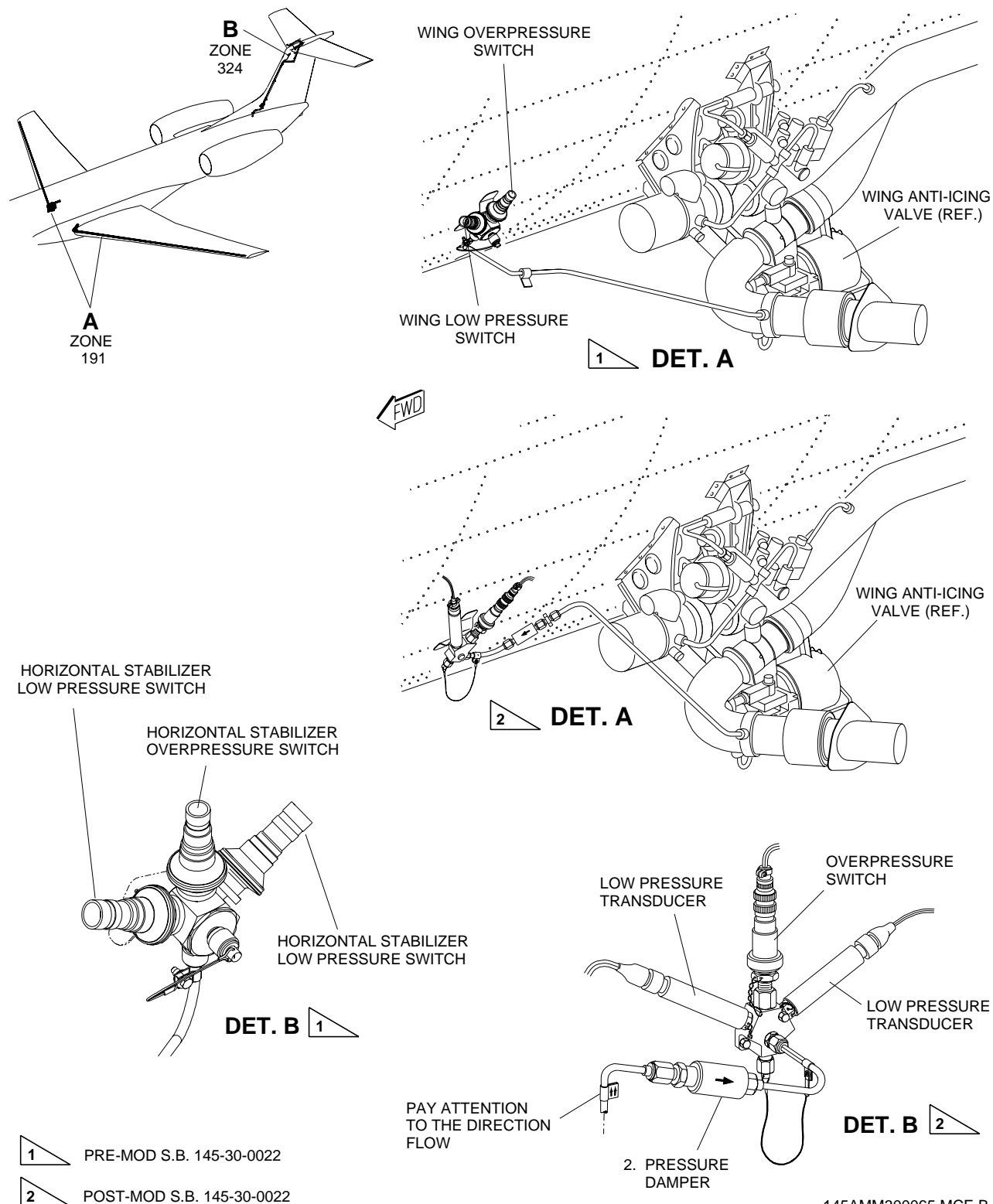
DET. A
ICE PROTECTION
PANEL



DET. B
AIR CONDITIONING/PNEUMATIC
PANEL

145AMM300064.MCE B

EFFECTIVITY: ALL
Airfoil - Operational Test
Figure 501 - Sheet 2



145AMM300065.MCE B