WING A/I FUNCT

MAINT	RII/INSP

Execution / Start Date:	
End Date:	

WING A/I FUNCT

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Nr.	Hardtime	Task	Spec.	Related Documents
1.		F2	REI	MMS–328 302002 00100 rev 15/05/01

Check: C

Zones: 221, 222, 455, 456, 457, 458

Access: 1710, 1740

PREPARATION: External power to airplane. Close wing anti – ice c/b's on a–c bus n°1 on P1 and on a–c bus n°2 on P2, anti – icing duct temperature indicator c/b on 28V AC c/b panel P7, "WING ANTI–ICE & Q–SPRING HEATER " c/b and "SAFETY & OIL COOLER RELAYS" c/b on P5.

WING THERMAL ANTI – ICING SYSTEM FUNCTIONAL CHECK.

1. TEST WING THERMAL ANTI–ICING SYSTEM VALVE OPERATION.

A) Open "WATER DRAIN MAST HEATER" c/b on P1.

B) Open "SAFETY & OIL COOLER RELAYS" c/b on P5.

CAUTION: FAILURE TO OPEN WATER DRAIN MAST HEATER C/B PRIOR TO OPENING SAFETY AND OIL COOLER RELAYS C/B CAN CAUSE HEATER OVERHEAT.

C) Wing anti–ice control sw. "ON".
All 4 wing anti–ice shutoff valve "OPEN".
Note: Use a mirror to observe valve position indicator.

D) Close "SAFETY & OIL COOLER RELAYS" on P5.
All 4 wing anti–ice shutoff valves "CLOSE".

E) Wing anti–ice control sw "GROND TEST".
All valves open.
Release switch and valves should close.

2. TEST OVERHEAT PROTECTION CIRCUIT.

A) Remove both left and right thermal switches from the outboard thermal anti–ice supply duct Disconnect leads from switch terminals.

B) Open all shutoff valves by operating anti–ice control switch to "GROUND TEST".

C) Short circuit leads removed from LH thermal switch. All 4 shutoff valves should close and wing anti–ice overheat light should illuminate.

D) Repeat (C) by short circuiting leads removed from RH thermal switch.

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3. TEST DUCT TEMPERATURE INDICATING CIRCUIT.

A) Anti–icing duct temperature c/b on P7: open. Both pointers of duct temperature indicator should should drop to the lower end of the scales.

B) Remove either inboard wing anti–ice duct temperature bulb.

C) Remove connector plug from bulb and measure resistance between terminals A & B on bulb. Resistance should be between 90 &104 ohms (higher values for higher temp). See table:

READING TEMP INDIC ˚C	TEMP BULB RESIST OHMS
0+/–5	90
50+/–5	108
100+/–5	129
150+/–5	152
200+/–5	178
250+/–5	208

D) Immerse temp bulb in boiling water. Resistance between A & B should be129 ohms.

E) Remove bulb from water, connect plug and immerse bulb again in boiling water.

F) Position duct temperature selector sw in “INB” position.

G) Close anti–icing duct temp c/b on P7. Duct temperature indicator should show 100˚C.

H) Remove bulb from boiling water and alloy it to cool slowly. The indicator pointer should go down smoothly.

I) Install bulb into duct.

J) Repeat steps (B) thru (I) wit remaining 3 bulbs. Position selector sw “OUTB” before testing outboard bulbs and circuit.