**ON A/C ALL

TASK 30−40−00−810−801
WSHLD HOT (Caution) − Fault Isolation

1. General

A. This fault isolation procedure is for when the caution and warning panel (CAWP) shows the WSHLD HOT caution light on.

B. The CAWP WSHLD HOT caution light comes on when the windshield temperature is more than 60 ±3°C (140±5F).On Pre SB84−24−12 this temperature threshold continues to remain at 52±2°C (126±4° F).

2. Job Set−Up Information

Subtask 30−40−00−946−001

A. Reference Information

REFERENCE	DESIGNATION
AMM TASK 20−30−11−760−801	Electrical Test of the Aircraft Wiring
AMM TASK 30−41−00−350−801	Repair of the Windshield and Pilot’s Anti−icing System
AMM TASK 30−41−00−710−801	Operational Test of the Pilot Windshield Anti−Icing System
AMM TASK 30−41−00−710−802	Operational Test of the Copilot Windshield and Pilot Side Window Anti−icing System
AMM TASK 30−41−00−760−801	Electrical Resistance Check of the Windshield
AMM TASK 30−41−01−000−801	Removal of the Anti−Ice Controller
AMM TASK 30−41−01−000−802	Removal of the Anti−Ice Controller Activation/Deactivation Relays (3041−K1 to K6)
AMM TASK 30−41−01−400−801	Installation of the Anti−Ice Controller
AMM TASK 30−41−01−400−802	Installation of the Anti−Ice Controller Activation/Deactivation Relays (3041−K1 to K6)
AMM TASK 30−41−06−000−801	Removal of the Windshield Heat Switch
AMM TASK 30−41−06−400−801	Installation of the Windshield Heat Switch
AMM TASK 45−00−30−742−802	Retrieval of Data from the Central Diagnostic System (CDS) − Ice Protection System (ICE PROTECTION)
AMM TASK 45−00−30−743−802	Erase the Data from the Central Diagnostic System (CDS) − Ice Protection System (ICE PROTECTION)
AMM TASK 56−10−01−000−801	Removal of the Windshields
AMM TASK 56−10−01−400−801	Installation of the Windshields

REFERENCE	DESIGNATION
FIM TASK 30−41−01−810−801	LEFT WSHLD CTRL FAIL (Status) − Fault Isolation
FIM TASK 30−41−01−810−802	RIGHT WSHLD CTRL FAIL (Status) − Fault Isolation
WM 30−41−00−1	Windshield and Pilot’s Windows Anti−Icing System
WM 30−41−00−1A	Windshield and Pilot’s Windows Anti−Icing System

3. Fault Confirmation

Subtask 30−40−00−810−001

A. Confirm the fault as follows:

(1) Do the CDS fault indication retrieval (Refer to AMM TASK 45−00−30−742−802).

(2) Erase the data from the CDS (Refer to AMM TASK 45−00−30−743−802).

(3) Do the operational test of the pilot windshield anti−icing system (Refer to AMM TASK 30−41−00−710−801) or the co−pilot anti−icing system (Refer to AMM TASK 30−41−00−710−802).

(a) If the WSHLD HOT caution light does not come on, no maintenance procedure is necessary. Do the Close Out.

(b) If the WSHLD HOT caution light does come on, do the CDS fault indication retrieval again (Refer to AMM TASK 45−00−30−742−802). Do the Fault Isolation.

4. Fault Isolation

Subtask 30−40−00−810−002

A. Isolate the fault as follows:

(1) If the message is LEFT WSHLD CTRL FAIL, do the fault isolation for LEFT WSHLD CTRL FAIL (Refer to FIM TASK 30−41−01−810−801). Do the Close Out.

(2) If the message is RIGHT WSHLD CTRL FAIL, do the fault isolation for RIGHT WSHLD CTRL FAIL (Refer to FIM TASK 30−41−01−810−802). Do the Close Out.

(3) If there are no related CDS messages, do the steps that follow:

(a) Check for continuity between the ice protection panel connector 3000−P101, pin 95 and the aircraft ground in all three positions of the WINDSHIELD HEAT switch (Refer to WM 30−41−00−1 or WM 30−41−00−1A and AMM TASK 20−30−11−760−801). Repeat two more times.

(b) If there is continuity between the ice protection panel connector 3000−P101, pin 95 and the aircraft ground, remove and replace the WINDSHIELD HEAT switch (Refer to AMM TASK 30−41−06−000−801 and AMM TASK 30−41−06−400−801). Do the Close Out.

(c) If the fault still continues and the WINDSHIELD HEAT switch is in the OFF position, do a test of the wiring between the ice protection panel and CAWP (Refer to WM

30−41−00−1 or WM 30−41−00−1A) and check CAWP connector 3312−P1, pin 39 for shorting to aircraft ground:

3000−P101 (Ice Protection Panel)	3312−P1 (CAWP)
95	39

(d) If the wiring is unserviceable, repair the wiring and/or 3312−P1, pin 39. Do the Close Out.

(e) If the fault still continues, do a test of the wiring between the AICs and the IRPS Panel (Refer to WM 30−41−00−1 or WM 30−41−00−1A):

3041−P1 (Left AIC)	3000−P101 (IRPS Panel)
J	96

3041−P2 (Right AIC)	3000−P101 (IRPS Panel)
J	96

(f) If the wiring is unserviceable, repair the wiring. Do the Close Out.

(g) Remove and replace the Pilot AIC activation relay 3041−K1 (Refer to AMM TASK 30−41−01−000−802 and AMM TASK 30−41−01−400−802). Do the Close Out.

(h) If the fault still continues, remove and replace the Co−pilot AIC activation relay 3041−K3 (Refer to AMM TASK 30−41−01−000−802 and AMM TASK 30−41−01−400−802). Do the Close Out.

(i) If the fault still continues, remove and replace the Left Anti−Ice Controller (AIC) (Refer to AMM TASK 30−41−01−000−801 and AMM TASK 30−41−01−400−801). Do the Close Out.

(j) If the fault still continues, remove and replace the Right Anti−Ice Controller (AIC) (Refer to AMM TASK 30−41−01−000−801 and AMM TASK 30−41−01−400−801). Do the Close Out.

(k) If the fault still continues, do a resistance check of both windshields (Refer to AMM TASK 30−41−00−760−801). Do the Close Out.

(l) If the windshield resistance is not between 4.18 to 5.66 ohms remove and replace the windshield (Refer to AMM TASK 56−10−01−000−801 and AMM TASK 56−10−01−400−801). Do the Close Out.

(m) If the faults still continues, do a resistance check of the temperature sensor for the pilot windshield. The resistance should be between 307 and 318 ohms between connector terminals B and C, A and D , and E and F .

(n) If the resistance of the windshield heat sensor is not between 307 to 318 ohms and the windshield spare heater sensor is available, move the wiring to the serviceable heat sensor (Refer to AMM TASK 30−41−00−350−801). Do the Close Out.

(o) If the resistance of the windshield heat sensor is not between 307 to 318 ohms and the windshield spare heater sensor is not available, remove and replace windshield (Refer to AMM TASK 56−10−01−000−801 and AMM TASK 56−10−01−400−801). Do the Close Out.

(p) If the resistance of the windshield heat sensor after the heat soak is not between 307 to 318 ohms and the windshield spare heater sensor is available, move the wiring to the serviceable heat sensor (Refer to AMM TASK 30−41−00−350−801). Do the Close Out.

(q) If the fault still continues, do a test of the wiring between the AICs and the windshield (Refer toWM 30−41−00−1 or WM 30−41−00−1A):

3041−P1 (Left AIC)	3041−TB1 (Pilot Windshield)
A	D
B	A
P	C
R	B

3041−P2 (Right AIC)	3041−TB3 (Co−pilot Windshield)
A	D
B	A
P	C
R	B

(r) If the wiring is unserviceable, repair the wiring. Do the Close Out.

(s) If the fault still continues, do a test of the wiring between the AICs and the CAWP (Refer to WM 30−41−00−1 or WM 30−41−00−1A):

3041−P1 (Left AIC)	3312−P1 (CAWP)
J	39

3041−P3 (Right AIC)	3312−P1 (CAWP)
J	39

(t) If the wiring is unserviceable, repair the wiring. Do the Close Out.

5. Close Out

Subtask 30−40−00−941−001

A. Make sure that the CAWP does not show the WSHLD HOT caution light on.

B. Remove all tools, equipment, and unwanted materials from the work area.