

SERVICE BULLETIN

No. 400-01-02

Compliance recommended

Subject: Installation of de-ice equipment approved for the use in icing conditions

Affected Aircraft: EA-400 SN 03 through 27

Purpose: The de-ice equipment installed in the EXTRA 400 aircraft has to be modified for approved flights into icing conditions defined in the EXTRA 400 Pilot's Operating Handbook.

Approval: These information or instructions relate to change no. ÄM-400-99-50 which has been approved by the Authority. The technical information contained in this document has been approved under the authority of JAA Design Organisation Approval no. LBA.NJA.010.

Compliance Time: Recommended: Should be accomplished if flight in icing conditions is desired.

ACCOMPLISHMENT INSTRUCTIONS:

Important:

Work shall be performed by EXTRA-personnel only!

Boot control switch

The three-position boot control switch has to be replaced by an ON/OFF type switch in the left side panel. Labelling has to be changed accordingly.

- 1 Remove left side panel. (refer to Maintenance Manual [MM] Chapter 25-01-00)
- 2 Disconnect electrical wiring from boot control switch.
- 3 Insulate cable end of LOW position wire (no more in use).
- 4 Remove the three-position boot control switch.
- 4 Install ON/OFF type switch.
- 5 Connect wiring (as before without LOW position wire)
(refer to wiring table EA-95310.20)
- 6 Replace panel labelling
- 7 Install left side panel (refer to MM Chapter 25-01-00)

Post light

A post light has to be installed close to the prop heat ammeter.

1. Remove left main panel (refer to MM Chapter 34)
- 2 Disconnect wiring where necessary by separating plugs and receptacles.
- 3 Drill a hole (refer to drawing No: EA-85100.11)
- 4 Install post light.
- 5 Install connector (2-pole Molex, refer to wiring table EA-95334.90)
- 6 Install wiring from Module 3 Pin C to connector (white cable)
(refer to wiring table EA-95334.90)
- 7 Connect black cable to ground bridge.

- 8 Connect wiring where necessary.
- 9 Install left main Panel (refer to MM Chapter 34)

Stall warning lift detector gives disconnect to autopilot

The AP must be hooked up to the stall warning lift detector. The stall warning lift detector switch shall disconnect the autopilot S-TEC 55X prior to stall.

- 1 Remove right main panel (refer to MM Chapter 34)
- 2 Disconnect wiring where necessary by separating plugs and receptacles.
- 3 Install relay (Leach M210-B4N) to the mounting plate by means of angle sheet. (refer to drawings EA-75251.51 and EA75241.41)
- 4 Wiring according to drawings EA-95271.17 and EA-95315.80
- 5 Install right main Panel (refer to MM Chapter 34)

Stall warning lift detector

The stall warning lift detector must be adjusted to a stall warning margin of 7 – 10 knots to compensate for loss of margin in icing conditions.

- 1 Loosen stall warning lift detector attachment bolts
- 2 Adjust stall warning lift detector and fasten bolts
- 3 Repeat procedure after test flight if necessary.

Vacuum System Modification

A bigger cross-section vacuum line from vacuum manifold to filter element is necessary. The vacuum filter is now placed between the keel beams. Suction / exhaust manifolds replace the former T-fittings.

- 1 Remove former vacuum filter from the right wing root rib of D-section. (refer to MM Chapter 37-10-02)
- 2 Remove former vacuum filter line.
- 3 Close bulkhead fitting by means of a cap.
- 4 Install new vacuum manifold PN: AM1H5-29 Rev. C (refer to MM Chapter 37-10-04)
- 5 Replace vacuum line from vacuum manifold to e-box

- 6 Modify e-box and firewall lead through (refer to drawing EA-25227.80)
- 7 Install vacuum lines and suction / exhaust manifolds
(refer to drawings EA-75550.10 and EA75550.20 depending on vacuum equipment installed)
- 8 Install new vacuum line lead through in the aft side of nose gear wheel well.
(refer to drawings EA-25103 sheet 3 and EA-25103W07)
- 9 Install new filter between keel beams (refer to MM Chapter 37-10-02)

Ice inspection light

An ice light has to be installed in the left side of the lower engine cowling.
(refer to drawings EA-25132.10 and EA-25132.20)

- 1 Remove cowlings
- 2 Install ice light ground plate to the intercooler intake.
- 3 Install ice light bracket.
- 4 Make an oval cutout from lower cowling. Seal edges.
- 5 Cut oval lexan plate
- 6 Attach lexan plate and light bracket to the lower cowling.
- 7 Connect electrical wiring to the pre-installed plug.
(refer to wiring table EA-95334.55)

Testing

- 1 Perform De-Ice-Boots Ground Acceptance Test (Doc. Nr. EA-05510.02)
- 2 Perform icing equipment relevant tests of Production Flight Test
(Doc. Nr. EA-05510.03):
 - a Pitot/Static Heat System
 - b De-Ice-Boots
 - c Windshield Heat Alternate Air
 - d Propeller Heat
 - e Heating (Windshield defrost)
 - f Stalls (Stall warning and AP Disconnect)

General

- 1 Complete POH by inserting revision No. 11, 2. Edition 15 July 2002.
- 2 Complete MM by inserting revision No. 11, 5. July 2002
- 3 Update of equipment list and appropriate log book entry by aircraft inspector
- 4 Replace placards, add new ones

Work shall be performed by EXTRA-personnel only!