ANEMOMETRIC STATIC PORT - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

   A. This section gives the procedures to remove and install the anemometric static ports.

   B. These procedures are applicable to anemometric static ports 1, 2, 3, and 4.

   C. Anemometric static ports 1 and 3 are installed on the fuselage skin, in the LH area under the cockpit floor.

   D. Anemometric static ports 2 and 4 are installed on the fuselage skin, in the RH area under the cockpit floor.

   E. 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*
34-13-03-000-801-A	ANEMOMETRIC STATIC PORT - REMOVAL	ALL
34-13-03-400-801-A	ANEMOMETRIC STATIC PORT - INSTALLATION	ALL

TASK 34-13-03-000-801-A
EFFECTIVITY: ALL

2. ANEMOMETRIC STATIC PORT - REMOVAL

A. General

(1) This procedure gives the instructions to remove the anemometric static port.

B. References

REFERENCE	*DESIGNATION*
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM MPP 06-41-03/100	- COMPONENT LOCATION
AMM TASK 20-10-03-000-801-A/400	TUBING - REMOVAL
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 24-65-00-000-801-A/400	LEFT POWER CONTROL/DISTRIBUTION BOX - REMOVAL
AMM TASK 25-11-01-000-801-A/400	PILOT SEAT - REMOVAL
AMM TASK 25-12-04-000-801-A/400	RH AFT CONSOLE - REMOVAL
AMM TASK 25-12-05-000-801-A/400	LH AFT CONSOLE - REMOVAL
AMM TASK 25-21-02-000-801-A/400	FLIGHT ATTENDANT SEAT - REMOVAL

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
113	113DL	Forward fuselage section I
221	221CF	Cockpit floor panels
221	221EF	Cockpit floor panels
221	221GF	Cockpit floor panels
222	222BF	Cockpit floor panels
222	222FF	Cockpit floor panels
223	223UZ	Cockpit internal panels
224	224NZ	Cockpit internal panels

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	Helps the other technician	External side of the fuselage

I. Preparation

SUBTASK 841-002-A

WARNING: MAKE SURE THAT THE AIRCRAFT IS IN A SAFE CONDITION BEFORE YOU DO THE MAINTENANCE PROCEDURES. THIS IS TO PREVENT INJURY TO PERSONS AND/OR DAMAGE TO THE EQUIPMENT.

(1) Make sure that the aircraft is safe for maintenance.

WARNING: MAKE SURE THAT THE AIRCRAFT IS DE-ENERGIZED BEFORE YOU DO THE MAINTENANCE PROCEDURES. THIS IS TO PREVENT INJURY TO PERSONS AND/OR DAMAGE TO THE EQUIPMENT.

(2) Make sure that the aircraft is de-energized (AMM TASK 20-40-01-860-801-A/200).

(3) Make sure that the DC ground power unit or power rectifier connector is disconnected from the external DC power source receptacle.

(4) Attach a DO-NOT-OPERATE tag to the external DC power source receptacle.

(5) Make sure that the BATT 1 and BATT 2 switches, on the overhead panel, are set to OFF.

(6) Attach a DO-NOT-SET-AUTO tag to the BATT 1 and BATT 2 switches.

(7) Open the main battery compartment door 113DL (AMM MPP 06-41-01/100).

(8) To disconnect the main batteries BATT 1 and BATT 2, do these steps:

NOTE: The same procedure is applicable to disconnect the BATT 1 and BATT 2 from the electrical buses.

(a) Cut the lockwire from the power connector of the main battery.

(b) Disconnect the power connector from the main battery.

(c) Disconnect the connector of the temperature sensors from the main battery.

(d) Put a protective cap on the power connector and on the temperature sensors connector of the battery.

(e) Repeat the steps from (a) to (d) again to the other battery.

CAUTION: BE CAREFUL AND AVOID TO FORCE OR HANDLE EXCESSIVELY THE WIRES, CABLES AND HARNESS TO GET ACCESS TO THE ANEMOMETRIC PORTS DURING THE REMOVAL AND INSTALLATION ACTIVITIES, BECAUSE DAMAGE TO THE WIRES, CABLES AND HARNESS CAN HAPPEN.

(9) To remove the anemometric static ports 1 and 3, do these steps below:

(a) Remove the lifevest compartment (AMM TASK 25-21-02-000-801-A/400), if applicable.

(b) Remove the pilot seat (AMM TASK 25-11-01-000-801-A/400).

(c) Remove the LH aft console (AMM TASK 25-12-05-000-801-A/400).

(d) Remove floor panels 221CF, 221EF, and 221GF (AMM MPP 06-41-02/100).

(e) Open access panel 223UZ (AMM MPP 06-41-03/100).

(f) Remove the left power control/distribution box (AMM TASK 24-65-00-000-801-A/400) to get access to the anemometric ports.

NOTE: If the access to the anemometric ports is really clear and easy, and the wires, cable and harness do not obstruct their removal or installation activities, it is not necessary to remove the left power control/distribution box. Otherwise you must remove it.

CAUTION: BE CAREFUL AND AVOID TO FORCE OR HANDLE EXCESSIVELY THE WIRES, CABLES AND HARNESS TO GET ACCESS TO THE ANEMOMETRIC PORTS DURING THE REMOVAL AND INSTALLATION ACTIVITIES, BECAUSE DAMAGE TO THE WIRES, CABLES AND HARNESS CAN HAPPEN.

(10) On anemometric static ports 2 and 4, do these steps:

(a) Remove the copilot seat (AMM TASK 25-11-01-000-801-A/400).

(b) Remove the RH aft console (AMM TASK 25-12-04-000-801-A/400).

(c) Remove floor panels 222BF,222FF, and 221GF (AMM MPP 06-41-02/100).

(d) Open access panel 224NZ (AMM MPP 06-41-03/100).

J. Removal (Figure 401)

SUBTASK 020-002-A

WARNING: DO NOT TOUCH THE ANEMOMETRIC STATIC PORT IMMEDIATELY AFTER ITS HEATER WAS TURNED OFF TO PREVENT BURNS.

(1) Disconnect the electrical wire (4) of the anemometric static port (1).

(2) Disconnect the hose (3) of the anemometric static port (1) (AMM TASK 20-10-03-000-801-A/400).

(3) Remove the sealant from the anemometric static-port base.

(4) Remove the six screws (5).

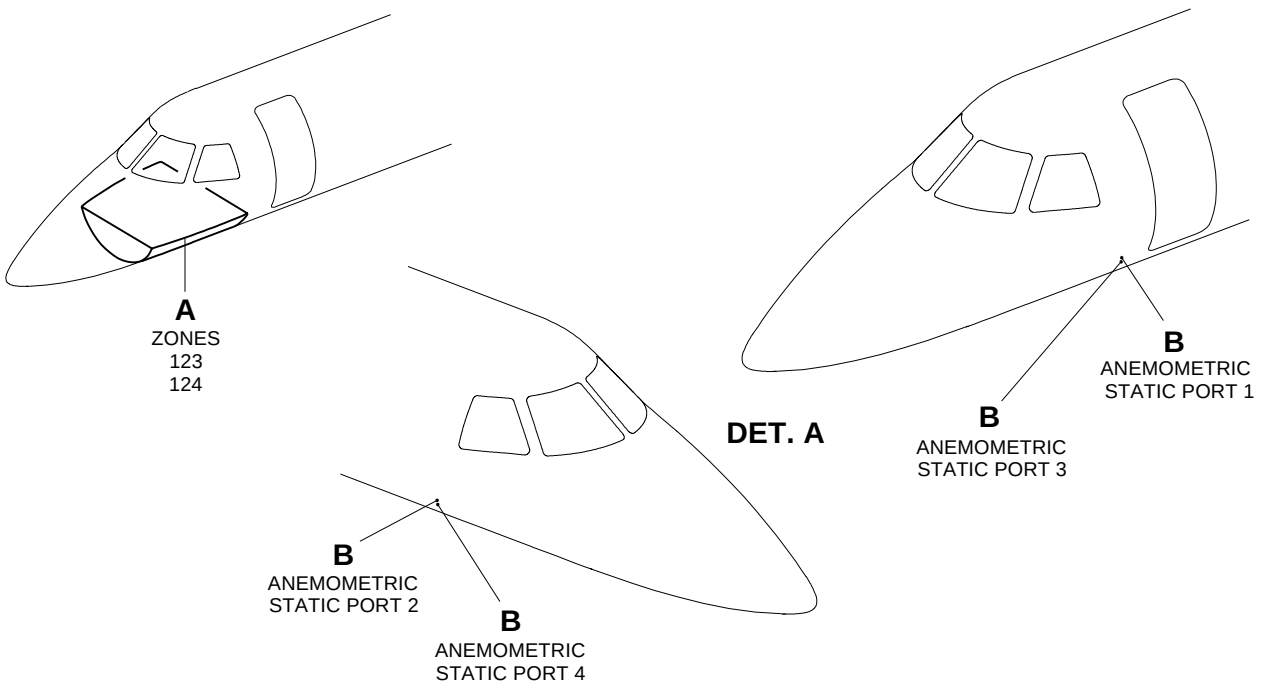
(5) Remove the anemometric static port (1).

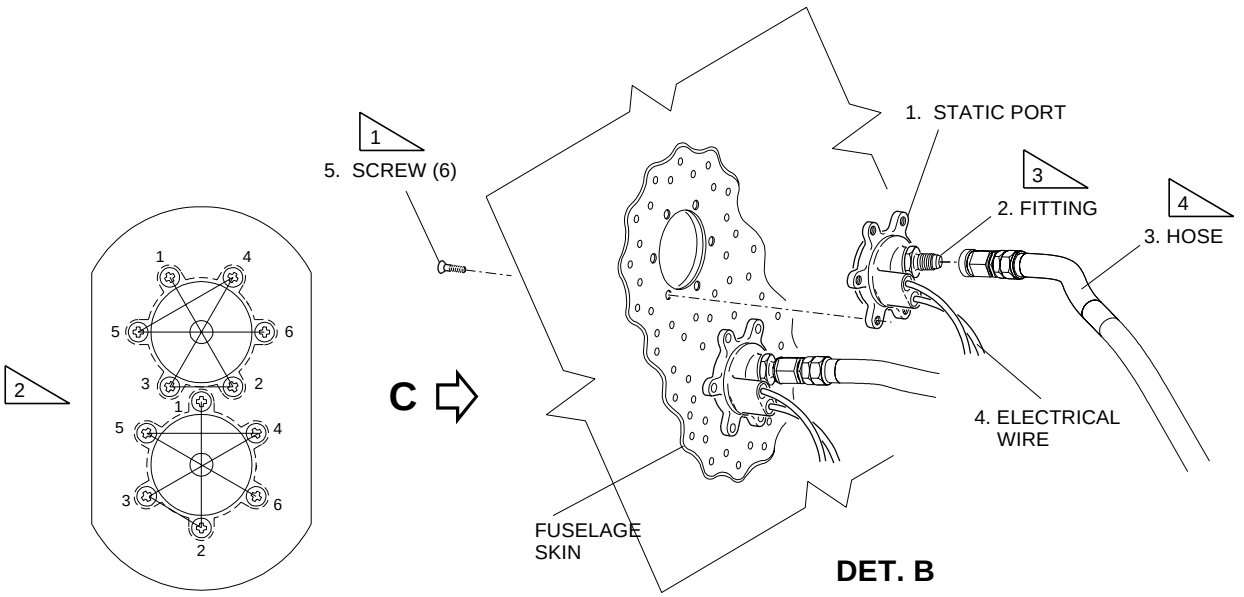
NOTE: The fitting (2) does not need to be removed from the static port (1), only if you are replacing one of these two parts for a new one, or when you are fixing a leakage between them.

(6) Install a cap/plug to the end of the hose (3).

EFFECTIVITY: ALL

Anemometric Static Port - Installation
Figure 401





1 APPLY TORQUE OF 2.26 − 2.48 Nm (20 − 22 lb.in).

2 INSTALL SCREWS ACCORDING TO THE PRESENTED SEQUENCE

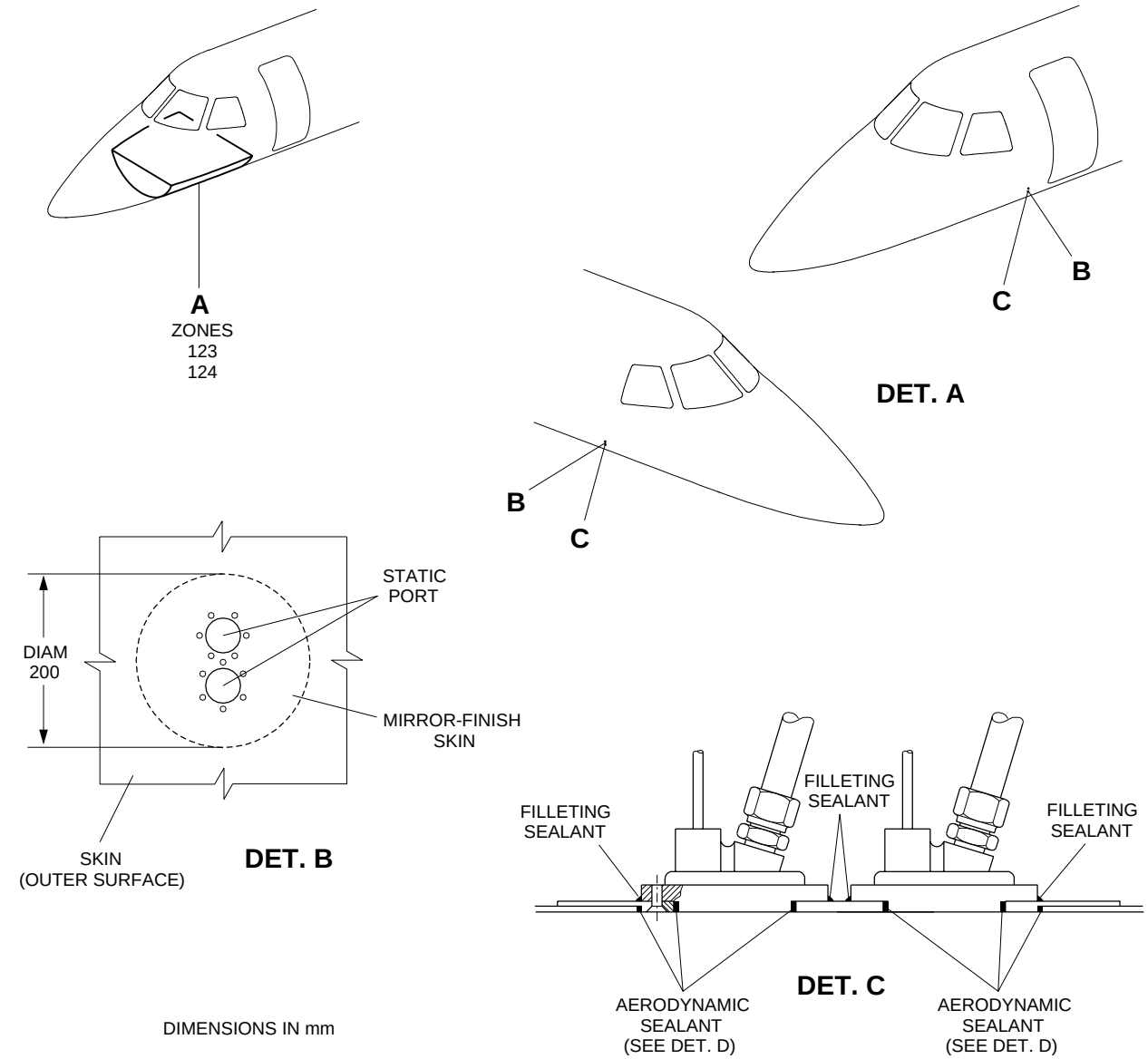
3 APPLY TORQUE OF 9.03 − 11.29 Nm (80 − 100 lb.in)

4 FOR 5/16" Ø APPLY TORQUE OF 7.9 − 10.16 Nm (70 − 90 lb.in)
FOR 3/8" Ø APPLY TORQUE OF 12.42 − 14.68 Nm (110 − 130 lb.in)

EM145AMM340027D.DGN

EFFECTIVITY: ALL

Anemometric Static Port - Sealant Application
Figure 402



145AMM340028.MCE B

TASK 34-13-03-400-801-A
EFFECTIVITY: ALL

3. ANEMOMETRIC STATIC PORT - INSTALLATION

A. General

(1) This procedure gives the instructions to install the anemometric static port.

B. References

REFERENCE	*DESIGNATION*
AMM MPP 06-41-02/100	-
AMM MPP 06-41-03/100	- COMPONENT LOCATION
AMM TASK 24-65-00-400-801-A/400	LEFT POWER CONTROL/DISTRIBUTION BOX - INSTALLATION
AMM TASK 25-11-01-400-801-A/400	PILOT SEAT - INSTALLATION
AMM TASK 25-12-04-400-801-A/400	RH AFT CONSOLE - INSTALLATION
AMM TASK 25-12-05-400-801-A/400	LH AFT CONSOLE - INSTALLATION
AMM TASK 25-21-02-400-801-A/400	FLIGHT ATTENDANT SEAT - INSTALLATION
AMM TASK 28-41-00-200-801-A/600	-
AMM TASK 30-31-00-700-803-A/500	PITOT AND ANEMOMETRIC STATIC PORT HEATING - OPERATIONAL TEST
AMM TASK 34-13-00-790-802-A/500	PITOT-STATIC SYSTEM 1 - LEAKAGE TEST
AMM TASK 34-13-00-790-803-A/500	PITOT-STATIC SYSTEM 2 - LEAKAGE TEST
AMM TASK 34-13-04-200-802-A/600	STATIC PORT SURROUNDING PLATE FOR FLUSHNESS AND INTEGRITY - INSPECTION
SRM 51-20-01	-

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
113	113DL	Forward fuselage section I
221	221CF	Cockpit floor panels
221	221EF	Cockpit floor panels
221	221GF	Cockpit floor panels
222	222BF	Cockpit floor panels
222	222FF	Cockpit floor panels
223	223UZ	Cockpit internal panels
224	224NZ	Cockpit internal panels

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
Commercially available	Plastic or wooden spatula	To remove the sealant	1

F. Consumable Materials

SPECIFICATION (BRAND)	*DESCRIPTION*	*QTY*
AMS-S-8802B, Type II-B2	Fillet sealant	AR
MIL-PRF-81733D, Type II-2	Aerodynamic sealant	AR
MIL-S-46163, Type I	Loctite 221 (or equivalent), Adhesive	AR
MIL-T-27730	Teflon tape, 1/2 inch	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Cockpit
1	Helps the other technician	External side of the fuselage

I. Installation (Figure 401) (Figure 402)

SUBTASK 420-002-A

CAUTION:
- BEFORE THE INSTALLATION, MAKE SURE THAT THERE IS NO UNWANTED MATERIAL IN THE ANEMOMETRIC STATIC PORT TO PREVENT THE CONTAMINATION OF THE SYSTEM.
- BE CAREFUL AND AVOID TO FORCE OR HANDLE EXCESSIVELY THE WIRES, CABLES AND HARNESS TO GET ACCESS TO THE ANEMOMETRIC PORTS DURING THE REMOVAL AND INSTALLATION ACTIVITIES, BECAUSE DAMAGE TO THE WIRES, CABLES AND HARNESS CAN HAPPEN.

(1) With a spatula, remove all the old sealant from the fuselage skin surface where the anemometric static port is installed and from its contour. Prepare these surfaces (SRM 51-20-01).

WARNING: MAKE SURE THAT THE AREA IN THE CIRCLE OF 200 mm IN DIAMETER AROUND THE TWO ANEMOMETRIC STATIC PORTS IS MIRROR-FINISH SKIN (FIGURE 402, DET. B).

(2) NOTE: If the access is difficult and you want to connect the hose to the anemometric static port with the port not in its installation position, do steps (7), (8), and (9) before you continue. Make sure that the hose is correctly routed when you install the port.

Put the anemometric static port (1) in its installation position on the fuselage skin.

(3) Apply Loctite adhesive on the surfaces of the six screws (5).

(4) Install the screws (5) (6 positions) to attach the anemometric static port (1).

(5) NOTE: If the fitting (2) was installed on the anemometric-static port (1) before, go to step (7).

Install a fitting wrap Teflon band around the fitting (2) 5 times.

CAUTION: DO NOT APPLY EXCESSIVE TORQUE TO THE FITTING. THIS CAN CAUSE DAMAGE TO THE ANEMOMETRIC STATIC PORT.

(6) Install the fitting (2) to attach the anemometric static port (1).

(7) NOTE: If the hose was installed before, go to step (10).

Remove the cap/plug from the end of the hose (3).

(8) Install a fitting wrap Teflon band around the fitting (2) 3 to 5 times.

CAUTION: MAKE SURE THAT THE FLEXIBLE TUBE IS NOT TWISTED BEFORE AND AFTER TORQUE APPLICATION.

(9) Connect the hose (3) to the anemometric static port (1). Look the torque values on Figure 401.

(10) Connect the electrical wire (4) to the anemometric static port (1).

(11) Apply the sealant filleting on the contour of the anemometric static port base (SRM 51-20-01), on the internal side of the fuselage skin (Figure 402, DET. C).

WARNING: THE APPLICATION OF SEALANT ON THE EXTERNAL SIDE OF THE FUSELAGE SKIN MUST OBEY THE TOLERANCES SHOWN IN FIGURE 402, DET. D.

(12) Apply aerodynamic sealant on the interface between the anemometric static-port base and the skin, on the external side of the fuselage (SRM 51-20-01).

J. Follow-on

SUBTASK 842-002-A

(1) Do an inspection on the fuel quantity indication harness (AMM TASK 28-41-00-200-801-A/600).

NOTE: The inspection of the fuel quantity indication harness is part of the Critical Design Configuration Control Limitations (CDCCL) in the Airworthiness Limitations of the Aircraft Maintenance Program.

(2) On anemometric static ports 1 and 3, do these steps:

(a) If you removed the left power control/distribution box, install it back (AMM TASK 24-65-00-400-801-A/400).

(b) If you did not remove the left power control/distribution box, do as follows:

1 Close access panel 223UZ (AMM MPP 06-41-03/100).

2 Close floor panels 221CF, 221EF, and 221GF (AMM MPP 06-41-02/100).

3 Install the LH aft console (AMM TASK 25-12-05-400-801-A/400).

4 Install the pilot seat (AMM TASK 25-11-01-400-801-A/400).

5 Install the lifevest compartment (AMM TASK 25-21-02-400-801-A/400), if applicable.

(3) On anemometric static ports 2 and 4, do these steps:

(a) Close access panel 224NZ (AMM MPP 06-41-03/100).

(b) Install floor panels 222BF, 222FF, and 221GF(AMM MPP 06-41-02/100).

(c) Install the RH aft console (AMM TASK 25-12-04-400-801-A/400).

(d) Install the copilot seat (AMM TASK 25-11-01-400-801-A/400).

(4) To connect the main batteries BATT 1 and BATT 2, do these steps:

NOTE: The same procedure is applicable to connect the BATT 1 and BATT 2 to the electrical buses.

(a) Remove the protective cap from the power connector and the temperature sensors connector of the battery.

(b) Connect the connector of the temperature sensors to the main battery.

(c) Connect the power connector to the main battery.

(d) Use a lockwire to safety the power connector.

(e) Repeat the steps from (a) to (d) again to the other battery.

(5) Close main battery compartment door 113DL (AMM MPP 06-41-01/100).

(6) Remove the DO-NOT-SET-TO-AUTO tag from the BATT 1 and BATT 2 switches.

(7) Remove the DO-NOT-OPERATE tag from the external DC power receptacle.

(8) (This step is applicable only to RVSM-compliant aircraft) Do the inspection on static port surrounding plate for flushness and integrity (AMM TASK 34-13-04-200-802-A/600).

(9) Do the pitot/static system 1 leakage test (AMM TASK 34-13-00-790-802-A/500) for installation of anemometric-static ports 1 or 4 or the pitot/static system 2 leakage test (AMM TASK 34-13-00-790-803-A/500) for installation of anemometric static ports 2 or 3.

(10) Do an operational check on the heating system of the pitot/anemometric static port (AMM TASK 30-31-00-700-803-A/500).