



EMB145 - EMB135

AIRCRAFT  
MAINTENANCE MANUAL

**COOLING PACK SYSTEM - REMOVAL/INSTALLATION**

*EFFECTIVITY: ALL*

1. General

- A. This section gives the procedures to deactivate and reactivate the Cooling Pack 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
21-51-00-040-801-A	COOLING PACK SYSTEM - DEACTIVATION PROCEDURE	ALL
21-51-00-440-801-A	COOLING PACK SYSTEM - REACTIVATION PROCEDURES	ALL



EMB145 – EMB135

AIRCRAFT  
MAINTENANCE MANUAL

TASK 21-51-00-040-801-A

EFFECTIVITY: ALL

2. COOLING PACK SYSTEM - DEACTIVATION PROCEDURE

A. General

- (1) The airplane may be dispatched with both cooling packs inoperative, provided:
  - both ram air valves operate normally.
  - flight is conducted in unpressurized configuration. Refer to item B.
  - ambient temperature on the ground is below ISA + 21°C.
- (2) Refer to Electropneumatic and Pneumatic Outflow Valves Deactivation Procedures ([AMM TASK 21-31-03-040-801-A/400](#) and [AMM TASK 21-31-04-040-801-A/400](#)) for outflow valves secured open, if required.
- (3) Refer to the task that follows to make sure that the ram air valves operate normally.

B. References

REFERENCE	DESIGNATION
<a href="#">AMM TASK 20-40-01-860-801-A/200</a>	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
<a href="#">AMM TASK 21-31-03-040-801-A/400</a>	ELECTROPNEUMATIC OUTFLOW VALVE - DEACTIVATION PROCEDURE
<a href="#">AMM TASK 21-31-04-040-801-A/400</a>	PNEUMATIC OUTFLOW VALVE - DEACTIVATION PROCEDURE
<a href="#">AMM TASK 32-63-00-700-801-A/500</a>	AIR/GROUND SYSTEM - OPERATIONAL CHECK

C. Zones and Accesses

Not Applicable

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	NACA air inlets
1	B - Helps technician A	Cockpit

I. Preparation

**SUBTASK 841-002-A**

- (1) Energize the aircraft with External DC Power Supply ( [AMM TASK 20-40-01-860-801-A/200](#)).

- (2) On the ELECTRICAL control panel, on the overhead panel, set the BATT 1 and BATT 2 switches to OFF.

**NOTE:** The BATT 1 and BATT 2 switches must be set to the OFF position to permit the external power supply to energize the electrical systems when the aircraft is in the AIR condition.

- (3) On the ICE PROTECTION control panel, on the overhead panel, set the SENSORS (PITOT 1/TAT 1/AOA 1, PITOT 3 and PITOT 2/TAT 2/AOA 2) pushbuttons to OFF (lights ON). Attach DO-NOT-SET-ON tags to them.

- (4) On the circuit breaker panel, make sure that the SENSORS HTG circuit breaker is closed.

**NOTE:** If this circuit breaker is open, the heating of the sensors and static ports will be activated.

- (5) On the STALL PROTECTION control panel, on the control pedestal, set the CUTOUT 1 and CUTOUT 2 pushbuttons to ON (lights ON).

**NOTE:** The CUTOUT 1 and CUTOUT 2 pushbuttons must be set to ON to prevent the operation of the stick shaker.

J. Cooling Pack Valves - Deactivation Procedure ([Figure 401](#))

**SUBTASK 040-002-A**

**CAUTION:** AFTER EACH 30 SECONDS OF OPERATION OF THE LINEAR ACTUATOR, STOP 2 MINUTES TO OPERATE IT AGAIN.

- (1) On the circuit breaker panel, open the AIR/GND A, the AIR/GND B, the AIR/GND C, and the AIR/GND D circuit breakers.

- (2) Make sure that the flap valves of the ram air valves go to the DOWN position (which permits the airflow to go to the cockpit and to the passenger cabin).

**CAUTION:** THE TIME NECESSARY FOR YOU TO CLOSE ALL THE FOUR AIR/GND A, B, C, AND D CIRCUIT BREAKERS MUST NOT BE MORE THAN 10 SECONDS ([AMM TASK 32-63-00-700-801-A/500](#)).

- (3) On the circuit breaker panel, close the AIR/GND A, the AIR/GND B, the AIR/GND C, and the AIR/GND D circuit breakers.

- (4) Make sure that the flap valves of the ram air valves go to the UP position (which stops the airflow to the cockpit and to the passenger cabin).

- (5) Write in the aircraft technical logbook that you did the deactivation procedure for the Pack Valve.



EMB145 - EMB135

AIRCRAFT  
MAINTENANCE MANUAL

K. Follow-on

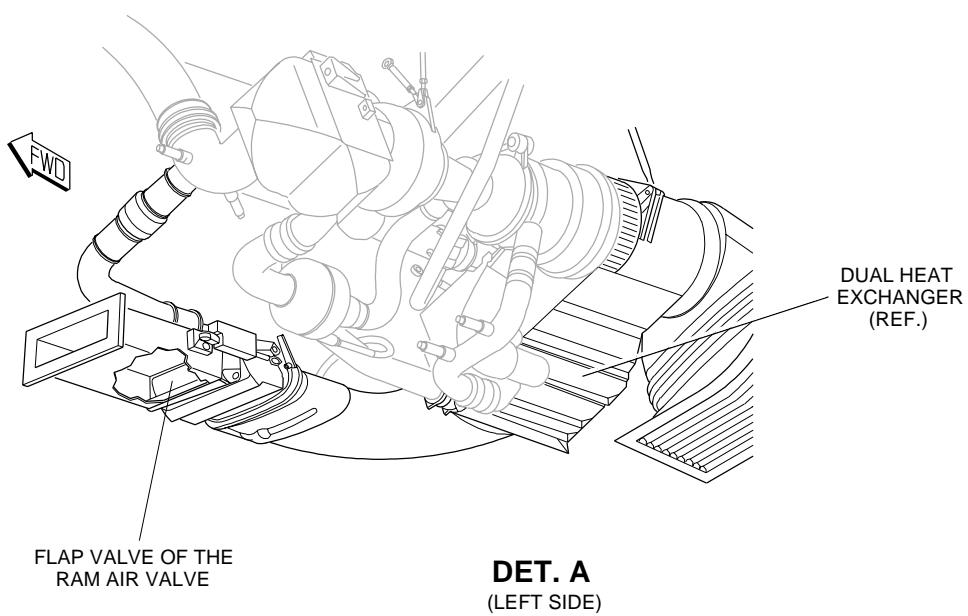
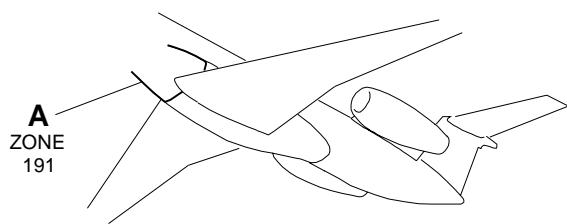
SUBTASK 842-002-A

- (1) On the STALL PROTECTION control panel, on the control pedestal, set the CUTOUT 1 and CUTOUT 2 pushbuttons to OFF (lights OFF).
- (2) On the ICE PROTECTION control panel, on the overhead panel, remove the DO-NOT-SET-ON tags from the SENSORS (PITOT 1/TAT 1/AOA 1, PITOT 3 and PITOT 2/TAT 2/AOA 2) pushbuttons and set them to ON (lights OFF).
- (3) On the ELECTRICAL control panel, on the overhead panel, set the BATT 1 and BATT 2 switches to AUTO.
- (4) Remove the External DC Power Supply from the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

**EFFECTIVITY: AIRPLANES EQUIPPED WITH CONVENTIONAL ELECTROMECHANICAL STANDBY  
INSTRUMENTS**

Ram Air Valve - Location

Figure 401



145AMM210014.MCE D



EMB145 – EMB135

AIRCRAFT  
MAINTENANCE MANUAL

TASK 21-51-00-440-801-A

EFFECTIVITY: ALL

3. COOLING PACK SYSTEM - REACTIVATION PROCEDURES

A. General

- (1) This task gives the procedures to reactivate the Cooling Pack System.
- (2) This task refers to item 21-51-00 - Cooling Pack System - of DDPM.

B. References

REFERENCE	DESIGNATION
AMM TASK 21-31-03-440-801-A/400	ELECTROPNEUMATIC OUTFLOW VALVE - REACTIVATION PROCEDURE
AMM TASK 21-31-04-440-801-A/400	PNEUMATIC OUTFLOW VALVE - REACTIVATION PROCEDURE

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

Not Applicable

I. Reactivation Procedures

*SUBTASK 440-002-A*

- (1) Do the troubleshooting and the applicable corrective maintenance procedure for the Cooling Pack System or the component that could possibly caused its deactivation..
- (2) Refer to Electropneumatic and Pneumatic Outflow Valves Reactivation Procedures ([AMM TASK 21-31-03-440-801-A/400](#) and [AMM TASK 21-31-04-440-801-A/400](#) ), if required.