



AIRCRAFT MAINTENANCE MANUAL

AILERON ELECTRICAL - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do the operational check of the solenoid-manifold-shutoff function.
- 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
27-13-00-700-801-A ♦	AILERON SOLENOID-MANIFOLD-SHUT-OFF FUNCTION - OPERATIONAL CHECK	ALL



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 27-13-00-700-801-A

EFFECTIVITY: ALL

2. AILERON SOLENOID-MANIFOLD-SHUTOFF FUNCTION - OPERATIONAL CHECK

A. General

- (1) This task gives the procedures to do the operational check of the solenoid-manifold-shutoff function.

B. References

REFERENCE	DESIGNATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 29-10-00-860-801-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH HTS

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	Does the task	Cockpit
1	Does the task	Off the aircraft

I. Preparation

SUBTASK 841-002-A

WARNING: MAKE SURE THAT THERE ARE NO PERSONS AND EQUIPMENT IN THE AILERON TRAVEL AREA.

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Do not do other tasks on the aileron system.
- (3) Energize the aircraft with the External DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).
- (4) Pressurize the hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).

- (5) On the Flight Control Panel (Overhead Panel), make sure that the pushbutton lights of the AILERON SHUTOFF SYS 1 and AILERON SHUTOFF SYS 2 are on.
- (6) Make sure that the EICAS display shows the AIL SYS 1 - 2 INOP message.

J. Operationally Check Aileron Solenoid-Manifold-Shutoff Function ([Figure 501](#))

SUBTASK 710-002-A

- (1) Do a check of the aileron solenoid-manifold-shutoff function with both system on, as follows:
 - (a) Push the AILERON SHUTOFF SYS 1 and AILERON SHUTOFF SYS 2 pushbuttons, on the Flight Controls Panel.

Result:
 1 The pushbutton lights go off.
 2 On the EICAS display, the AIL SYS 1 - 2 INOP caution message goes out of view.
 - (b) Move the left control yoke fully to the left and to the right and then move it to the neutral position.

Result:
 1 The aileron surfaces move freely and no heavy load is felt on the control yoke.
- (2) Do a check of the aileron solenoid-manifold-shutoff function with the hydraulic system 1 off, as follows:
 - (a) Push the AILERON SHUTOFF SYS 1 pushbutton, on the Flight Controls Panel.

Result:
 1 The pushbutton light comes on.
 2 The EICAS display shows the AIL SYS 1 INOP caution message.
 - (b) Move the left control yoke fully to the left and to the right and then move it to the neutral position.

Result:
 1 The aileron surfaces move freely and no heavy load is felt on the control yoke.
- (3) Turn on the hydraulic system 1 as follows:
 - (a) Push the AILERON SHUTOFF SYS 1 pushbutton, on the Flight Controls Panel.

Result:
 1 The pushbutton light goes off.
 2 On the EICAS display, the AIL SYS 1 INOP caution message goes out of view.
- (4) Do a check of the aileron solenoid-manifold-shutoff function, with the hydraulic system 2 off, as follows:
 - (a) Push the AILERON SHUTOFF SYS 2 pushbutton, on the Flight Controls Panel.

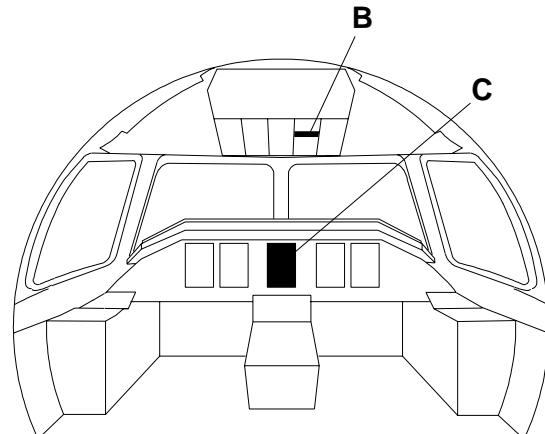
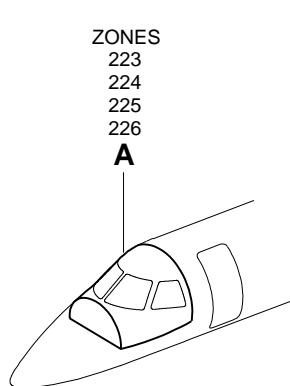
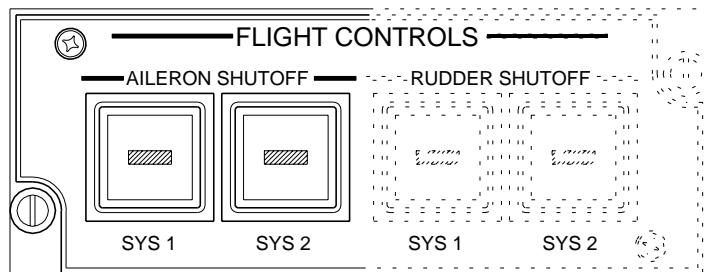
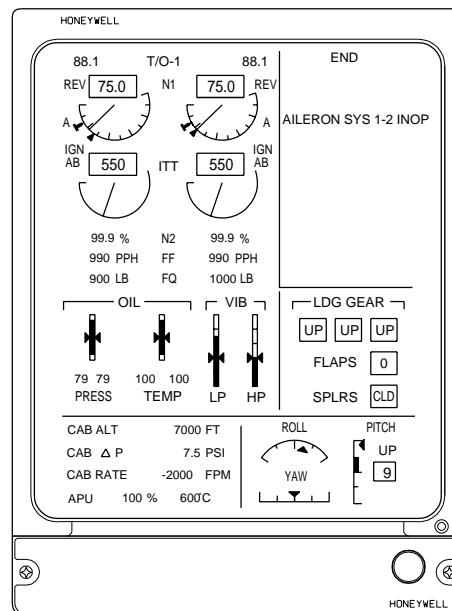
Result:
 1 The pushbutton light comes on.

- 2 The EICAS display shows the AIL SYS 2 INOP caution message.
- (b) Move the left control yoke fully to the left and to the right and then move it to the neutral position.
Result:
1 The aileron surfaces move free and no heavy load is felt on the control yoke.
- (5) Turn on the hydraulic system 2 as follows:
- (a) Push the AILERON SHUTOFF SYS 2 pushbutton, on the Flight Controls Panel.
Result:
1 The pushbutton light goes off.
2 On the EICAS display, the AIL SYS 2 INOP caution message goes out of view.
- (6) Do a check of the aileron solenoid shutoff function with both system off, as follows:
- (a) Push the AILERON SHUTOFF SYS 1 and AILERON SHUTOFF SYS 2 pushbuttons on the Flight Controls Panel
Result:
1 The pushbuttons lights come on.
2 The EICAS display shows the AIL SYS 1-2 INOP caution message.
- (b) Move the left or right control yoke fully to the left and to the right and then move it to the neutral position.
Result:
1 The aileron surfaces move freely, but you must apply much force to move the control yoke.

K. Follow-on

SUBTASK 842-002-A

- (1) Release the pressure of the hydraulic system ([AMM TASK 29-10-00-860-801-A/200](#)).
(2) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

EFFECTIVITY: ALL
EICAS Display and Flight Controls Panel - Location
Figure 501

DET. A

DET. B

DET. C

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