



AIRCRAFT MAINTENANCE MANUAL

MAIN-DOOR WARNING MICROSWITCHES - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do the operational test and adjustment of the main door.
- 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
52-73-01-700-801-A ♦	AIRSTAIRS MAIN-DOOR WARNING MI- CROSWITCHES - FUNCTIONAL TEST	ALL
52-73-01-700-802-A ♦	SIDE-HINGED MAIN-DOOR WARNING MI- CROSWITCHES - FUNCTIONAL TEST	ALL
52-73-01-820-801-A	AIRSTAIRS MAIN-DOOR WARNING MI- CROSWITCHES - ADJUSTMENT	ALL
52-73-01-820-802-A	SIDE-HINGED MAIN-DOOR WARNING MI- CROSWITCHES - ADJUSTMENT	ALL



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-73-01-700-801-A

EFFECTIVITY: ALL

2. AIRSTAIRS MAIN-DOOR WARNING MICROSWITCHES - FUNCTIONAL TEST

A. General

- (1) The function of this test is to make sure that the main-door warning microswitches are serviceable.
- (2) These procedures are applicable to the four warning microswitches of the main door.
- (3) The microswitches are installed in the lock box assemblies and track assemblies, as follows:
 - One microswitch in each of the two lock box assemblies.
 - One microswitch in each of the two track assemblies.

B. References

REFERENCE	DESIGNATION
AMM SDS 23-41-00/1	
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 53-01-02-000-801-A/400	-
AMM TASK 53-01-02-400-801-A/400	-
S.B.145-52-0031	-
WM 52-70-50	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Main door

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 050	Digital multimeter	To check continuity	

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	Operates the main door



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

(Continued)

QTY	FUNCTION	PLACE
1	Helps the other technician	Does the check of the EICAS display in the cockpit

I. Preparation

SUBTASK 841-002-A

WARNING: MAKE SURE THAT THE SENSOR (PITOT 1 - TAT 1/AOA 1, PITOT 3 AND PITOT 2 - TAT 2/AOA 2) PUSHBUTTONS, ON THE OVERHEAD PANEL, ARE SET TO OFF.

- (1) Energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) On the circuit breaker panel, close the MAIN DOOR circuit breaker.
- (3) Connect the ramp interphone to permit communication between the mechanics ([AMM SDS 23-41-00/1](#)).
- (4) Make sure that these doors are closed and locked:
 - Forward Electronic - Compartment Door.
 - Cockpit Underfloor Access Hatch.
 - Service Door.
 - Passenger Cabin Escape Hatches.
 - Baggage Door.
 - Rear Electronic-Compartment Access Hatch.
 - Fueling Panel Door.
- (5) Open the N2 SIGNAL 1A, 2A, 1B and 2B circuit breakers, on the circuit breaker panel.
- (6) Open the AIR/GND A, B, C and D circuit breakers, on the circuit breaker panel.
- (7) Remove floor panel 231CF (AMM TASK 53-01-02-000-801-A/400 as applicable).

J. Functionally Check Main Door Warning Microswitches ([Figure 501](#))

SUBTASK 720-002-A

- (1) Do the functional test as follows:

- (a) **NOTE:** There is a delay of 4 to 5 seconds between the locking of the door and the indications shown on the EICAS display.

Open the main door and monitor the indication on the EICAS display.

- 1 The EICAS display shows this warning message:

- MAIN DOOR OPN.

The MFD shows:

- DOOR OPEN indication (in red).
- A red square that shows the Main Door.

- (b) Close and lock the main door and monitor the EICAS display.
- 1 On the EICAS display:
- The MAIN DOOR OPN warning message goes out of view.
- On the MFD:
- DOOR OPEN indication goes out of view.
 - The red square that shows the Main Door becomes green.
- (c) For aircraft PRE-MOD [S.B.145-52-0031](#) do as follows:
- 1 Open the main door, disconnect connectors J7071/P7071 and do a check for continuity between pins M and L of connector J7071, related to microswitch S7281 (WM 52-70-50).
- a There must not be continuity between pins M and L of connector J7071.
- 2 Do a check for continuity between pins K and J of connector J7071, related to microswitch S7280 (WM 52-70-50).
- a There must not be continuity between pins K and J of connector J7071.
- 3 Do a check for continuity between pins H and G of connector J7071, related to microswitch S7225 (WM 52-70-50).
- a There must not be continuity between pins H and G of connector J7071.
- 4 Do a check for continuity between pins B and A of connector J7071, related to microswitch S7224 (WM 52-70-50).
- a There must not be continuity between pins B and A of connector J7071.
- (d) For aircraft POST-MOD [S.B.145-52-0031](#) do as follows:
- 1 Open the main door, disconnect connectors J7071/P7071 and do a check for continuity between pins M and L of connector J7071, related to microswitch S7281 (WM 52-70-50).
- a There must not be continuity between pins M and L of connector J7071.
- 2 Do a check for continuity between pins L and J of connector J7071, related to microswitch S7280 (WM 52-70-50).
- a There must not be continuity between pins L and J of connector J7071.
- 3 Do a check for continuity between pins J and G of connector J7071, related to microswitch S7225 (WM 52-70-50).

- a There must not be continuity between pins J and G of connector J7071.
- 4 Do a check for continuity between pins G and A of connector J7071, related to microswitch S7224 (WM 52-70-50).
 - a There must not be continuity between pins G and A of connector J7071.

K. Follow-on

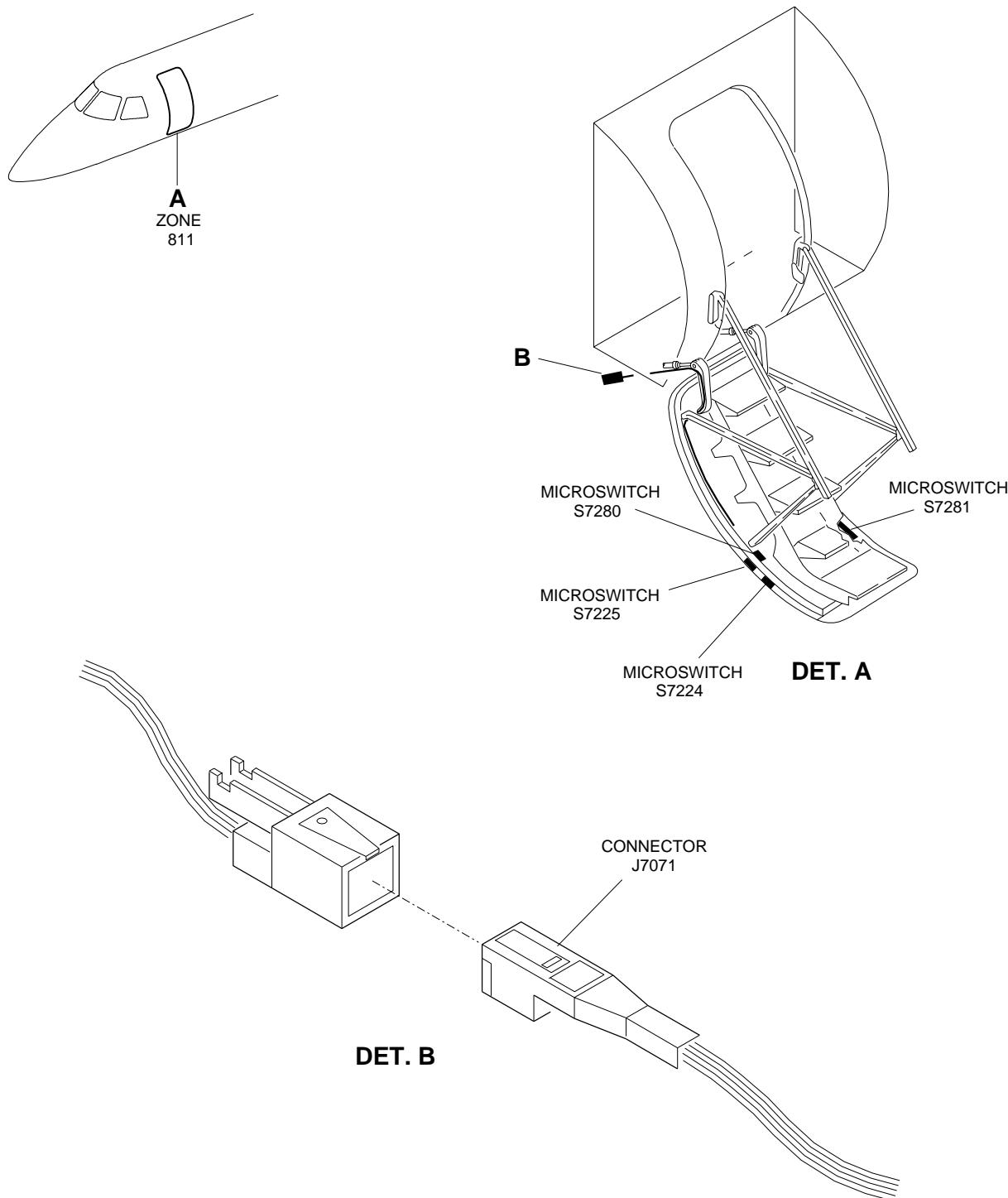
SUBTASK 842-002-A

- (1) On the circuit breaker panel, open the MAIN DOOR circuit breaker.
- (2) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (3) Disconnect the ramp interphone ([AMM SDS 23-41-00/1](#)).
- (4) Connect connectors J7071/P7071.
- (5) Install floor panel 231CF (AMM TASK 53-01-02-400-801-A/400 as applicable).
- (6) On the circuit breaker panel, close the N2 SIGNAL 1A, 2A, 1B, 2B, AIR/GND A, B, C, and D circuit breakers.

EFFECTIVITY: ALL

Main Door - Warning Microswitches

Figure 501



145AMM520136.MCE A



AIRCRAFT MAINTENANCE MANUAL

TASK 52-73-01-700-802-A

EFFECTIVITY: ALL

3. SIDE-HINGED MAIN-DOOR WARNING MICROSWITCHES - FUNCTIONAL TEST

A. General

- (1) The function of this test is to make sure that the side-hinged main-door warning microswitches are serviceable.
- (2) These procedures are applicable to the four warning microswitches of the side-hinged main door.
- (3) The microswitches are installed in the lock box assemblies and track assemblies, as follows:
 - One microswitch in each of the two lock box assemblies.
 - One microswitch in each of the two track assemblies.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-45-00/100	- COMPONENT LOCATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
WM 52-70-50	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Side-hinged main door

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 050	Digital multimeter	To do the check for continuity	
Commercially available	Workstand	To get access to the side-hinged main door	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

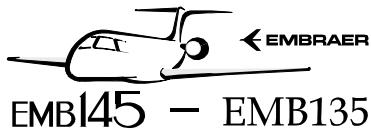
Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Does the check at the side-hinged main door



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

(Continued)

QTY	FUNCTION	PLACE
1	Helps the other technician	Does the check of the EICAS display in the cockpit

I. Preparation

SUBTASK 841-004-A

WARNING: MAKE SURE THAT THE SENSOR (PITOT 1 - TAT 1/AOA 1, PITOT 3 AND PITOT 2 - TAT 2/AOA 2) PUSHBUTTONS, ON THE OVERHEAD PANEL, ARE SET TO OFF.

- (1) Energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Make sure that these doors are closed and locked:
 - Forward Electronic - Compartment Door.
 - Cockpit Underfloor Access Hatch.
 - Service Door.
 - Passenger-Cabin Escape Hatches.
 - Baggage Door.
 - Rear Electronic-Compartment Access Hatch.
 - Fueling Panel Door.
- (3) Open the N2 SIGNAL 1A, 2A, 1B and 2B circuit breakers, on the circuit breaker panel.
- (4) Open the AIR/GND A, B, C and D circuit breakers, on the circuit breaker panel.
- (5) Remove the lining panels of the side-hinged main door ([AMM MPP 06-45-00/100](#)).

J. Functionally Check Side-Hinged Main-Door Warning Microswitches

SUBTASK 720-003-A

- (1) Do the functional test as follows:

NOTE: There is a delay of 4 to 5 seconds between the locking of the door and the indications shown on the EICAS display.

- (a) Open the side-hinged main door and monitor the indication on the EICAS display.
Result:
 - 1 The EICAS display shows this warning message:
 - MAIN DOOR OPN.The MFD shows:
 - DOOR OPEN indication (in red).
 - A red square that shows the Main Door.
- (b) Close and lock the side-hinged main door and monitor the EICAS display.

Result:

- 1 On the EICAS display:

- The MAIN DOOR OPN warning message goes out of view.

On the MFD:

- DOOR OPEN indication goes out of view.

- The red square that shows the Main Door becomes green.

- (c) Open the side-hinged main door, disconnect connectors J7235/P7235, and do a check for continuity between pins M and L of connector J7235, related to microswitch S7281 (WM 52-70-50).

Result:

- 1 There must not be continuity between pins M and L of connector J7235.

- (d) Do a check for continuity between pins K and J of connector J7235, related to microswitch S7280 (WM 52-70-50).

Result:

- 1 There must not be continuity between pins K and J of connector J7235.

- (e) Do a check for continuity between pins H and G of connector J7235, related to microswitch S7225 (WM 52-70-50).

Result:

- 1 There must not be continuity between pins H and G of connector J7235.

- (f) Do a check for continuity between pins B and A of connector J7235, related to microswitch S7224 (WM 52-70-50).

Result:

- 1 There must not be continuity between pins B and A of connector J7235.

K. Follow-on

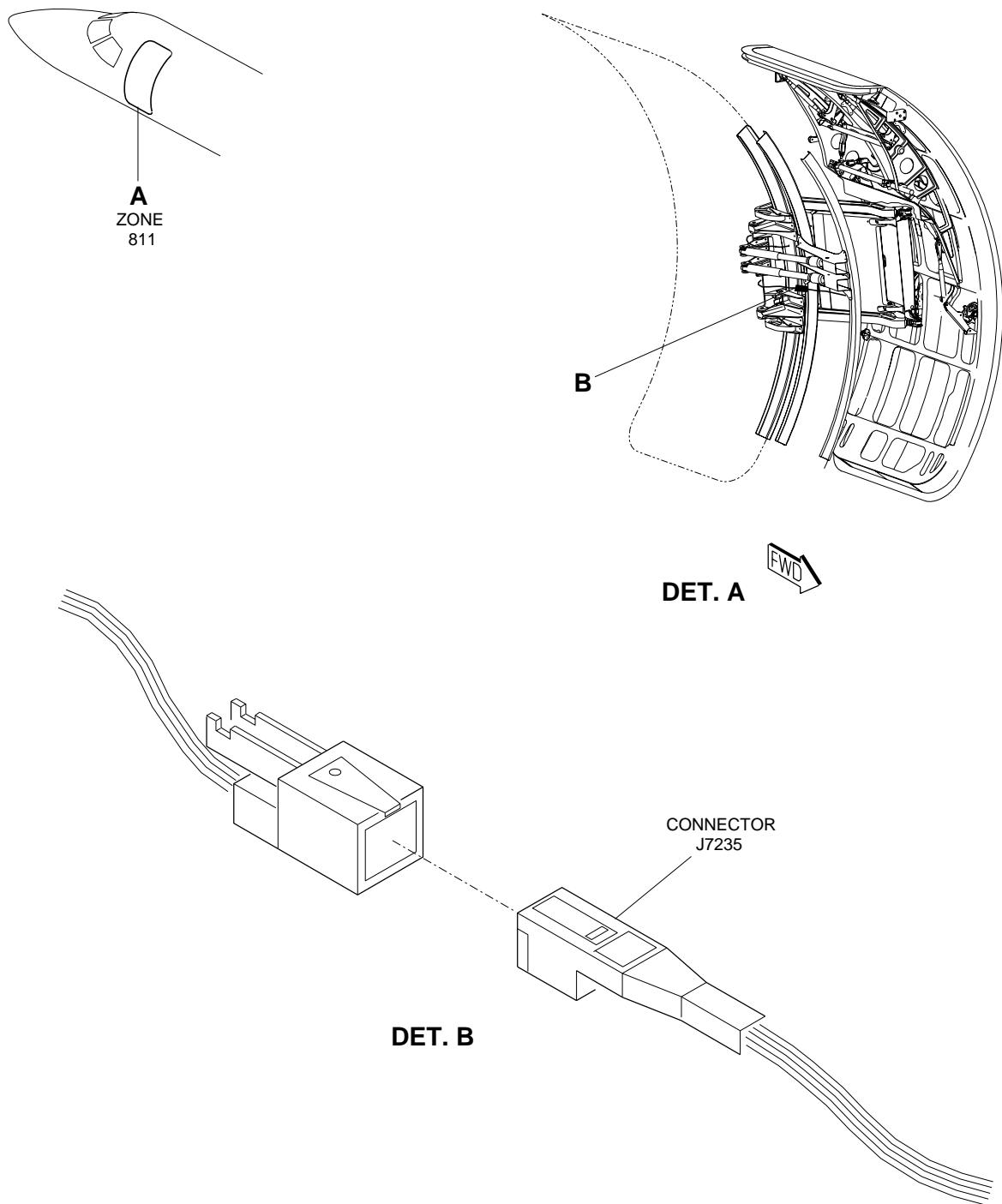
SUBTASK 842-004-A

- (1) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Connect connectors J7235/P7235.
- (3) On the circuit breaker panel, close the N2 SIGNAL 1A, 2A, 1B, 2B, AIR/GND A, B, C, and D circuit breakers.
- (4) Install the lining panels of the side-hinged main door ([AMM MPP 06-45-00/100](#)).

EFFECTIVITY: ALL

Side-Hinged Main Door - Warning Microswitches

Figure 502



145AMM520234.MCE A

TASK 52-73-01-820-801-A
EFFECTIVITY: ALL
4. AIRSTAIRS MAIN-DOOR WARNING MICROSWITCHES - ADJUSTMENT
A. General

- (1) This task gives the procedures to adjust the microswitches of the warning system of the main door.
- (2) To adjust the microswitches of the warning system of the main door, you must correct the positions of the microswitches of the lock box assemblies in relation to the locks.
- (3) These procedures are applicable to the two microswitches of the lock box assemblies of the main door.
- (4) The microswitches are installed in the lock box assemblies, as follows:
- One microswitch in each of the two lock box assemblies.

B. References

<i>REFERENCE</i>	<i>DESIGNATION</i>
AMM TASK 25-23-04-000-801-A/400	MAIN-DOOR LINING PANEL - REMOVAL
AMM TASK 25-23-04-400-801-A/400	MAIN-DOOR LINING PANEL - INSTALLATION
AMM TASK 52-73-01-000-801-A/400	AIRSTAIRS MAIN DOOR WARNING MICROSWITCHES - REMOVAL
AMM TASK 52-73-01-400-801-A/400	AIRSTAIRS MAIN DOOR WARNING MICROSWITCHES - INSTALLATION
AMM TASK 52-73-01-700-801-A/500	AIRSTAIRS MAIN-DOOR WARNING MICROSWITCHES - FUNCTIONAL TEST

C. Zones and Accesses

<i>ZONE</i>	<i>PANEL/DOOR</i>	<i>LOCATION</i>
811		Main door

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Inside the passenger cabin

I. Preparation

SUBTASK 841-003-A

- (1) Open the main door.
- (2) Remove the lining panels ([AMM TASK 25-23-04-000-801-A/400](#) as applicable).

J. Adjustment ([Figure 503](#))

SUBTASK 820-002-A

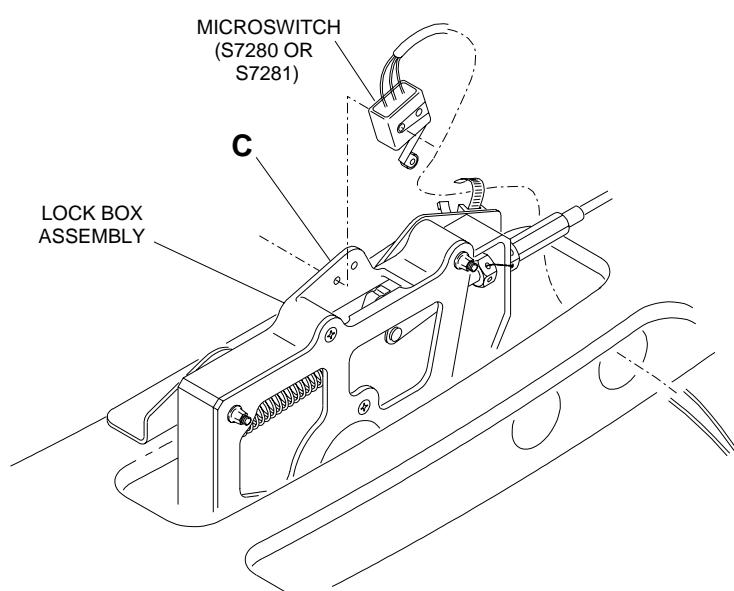
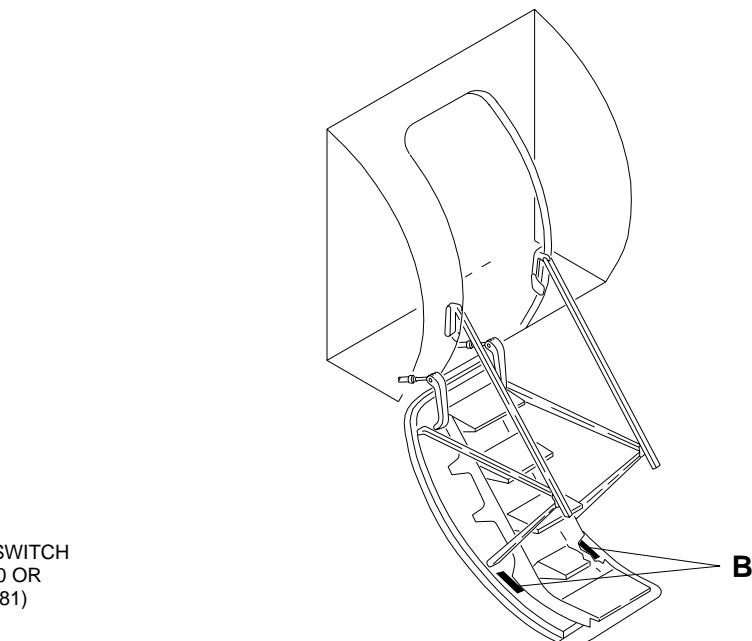
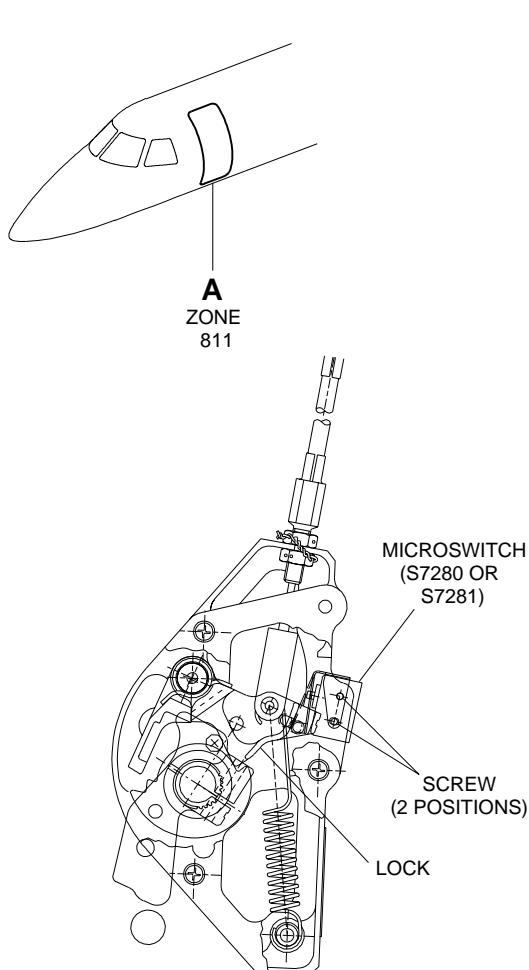
- (1) Close and lock the main door.
- (2) Adjust microswitch S7280 or S7281 of the lock box assemblies as follows:
 - (a) Loosen the two screws that attach the microswitch.
 - (b) Slowly move the microswitch in the lock direction.
 - (c) Stop the movement immediately when you hear the CLICK of the microswitch (operation indication).
 - (d) Tighten the two screws to attach the microswitch.
- (3) Open the main door.

K. Follow-on

SUBTASK 842-003-A

- (1) Do the operational test of the microswitches of the main-door warning system ([AMM TASK 52-73-01-700-801-A/500](#)) and, if necessary, replace the related microswitch ([AMM TASK 52-73-01-000-801-A/400](#)) and ([AMM TASK 52-73-01-400-801-A/400](#)).
- (2) Install the lining panels ([AMM TASK 25-23-04-400-801-A/400](#) as applicable).
- (3) Close the main door.

EFFECTIVITY: ALL

 Microswitches of the Warning System of the Main Door - Adjustment
 Figure 503


145AMM520134.MCE A



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-73-01-820-802-A

EFFECTIVITY: ALL

5. SIDE-HINGED MAIN-DOOR WARNING MICROSWITCHES - ADJUSTMENT

A. General

- (1) This task gives the procedures to adjust the microswitches of the warning system of the side-hinged main door.
- (2) To adjust the microswitches of the warning system of the main door, you must correct their positions as follows:
 - Microswitches of the track assembly: Correct their positions in relation to the microswitch actuating pin or to the cam;
 - Microswitches of the lock box assemblies: Correct their positions in relation to the locks.

B. References

REFERENCE	DESIGNATION
AMM TASK 25-23-04-000-801-A/400	MAIN-DOOR LINING PANEL - REMOVAL
AMM TASK 25-23-04-400-801-A/400	MAIN-DOOR LINING PANEL - INSTALLATION
AMM TASK 52-73-01-000-802-A/400	SIDE-HINGED MAIN DOOR WARNING MICRO-SWITCHES - REMOVAL
AMM TASK 52-73-01-400-802-A/400	SIDE-HINGED MAIN DOOR WARNING MICRO-SWITCHES - INSTALLATION
AMM TASK 52-73-01-700-802-A/500	SIDE-HINGED MAIN-DOOR WARNING MICRO-SWITCHES - FUNCTIONAL TEST

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Side-hinged main door

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Workstand	To get access to the side-hinged main door	

E. Auxiliary Items

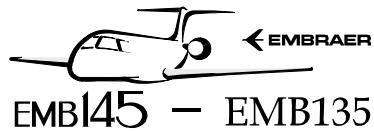
Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Inside the passenger cabin

I. Preparation

SUBTASK 841-005-A

- (1) Open the side-hinged main door.
- (2) Remove the lining panels of the side-hinged main door ([AMM TASK 25-23-04-000-801-A/400](#) as applicable).

J. Adjustment

SUBTASK 820-003-A

- (1) Close and lock the side-hinged main door.
- (2) Adjust microswitch S7224 of the track assembly as follows:
 - (a) Loosen the bolt and screw that attach the microswitch support.
 - (b) Slowly move the microswitch support in the direction of the microswitch actuating pin.
 - (c) Stop the movement immediately when you hear the CLICK of the microswitch (operation indication).
 - (d) Tighten the screw and bolt to attach the microswitch support.
- (3) Adjust microswitch S7225 of the track assembly as follows:
 - (a) Loosen the bolt and screw that attach the microswitch support.
 - (b) Slowly move the microswitch support in the cam direction.
 - (c) Stop the movement immediately when you hear the CLICK of the microswitch (operation indication).
 - (d) Tighten the screw and bolt to attach the microswitch support.
- (4) Adjust microswitch S7280 or S7281 of the lock box assemblies as follows:
 - (a) Loosen the two screws that attach the microswitch.
 - (b) Slowly move the microswitch in the lock direction.
 - (c) Stop the movement immediately when you hear the CLICK of the microswitch (operation indication).
 - (d) Tighten the two screws to attach the microswitch.
- (5) Open the side-hinged main door.



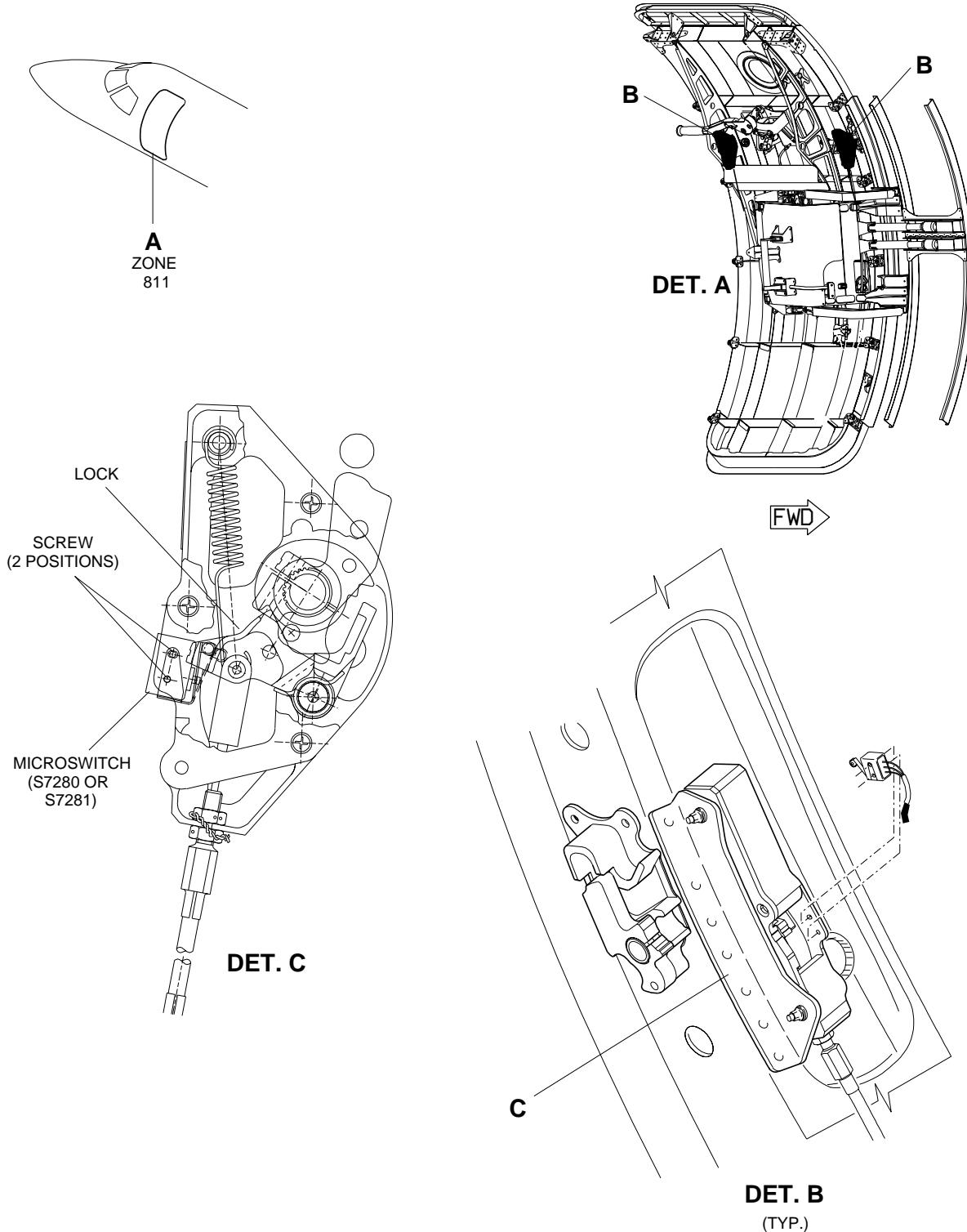
AIRCRAFT MAINTENANCE MANUAL

K. Follow-on

SUBTASK 842-005-A

- (1) Do the operational test of the microswitches of the side-hinged main door warning system ([AMM TASK 52-73-01-700-802-A/500](#)) and, if necessary, replace the related microswitch ([AMM TASK 52-73-01-000-802-A/400](#)) and ([AMM TASK 52-73-01-400-802-A/400](#)).
- (2) Install the lining panels of the side-hinged main door ([AMM TASK 25-23-04-400-801-A/400](#) as applicable).
- (3) Close the side-hinged main door.

EFFECTIVITY: ALL

 Microswitches of the Warning System of the Side-Hinged Main Door - Adjustment
 Figure 504


145AMM520233.MCE A

