



AIRCRAFT MAINTENANCE MANUAL

AIR DISTRIBUTION VALVE - ADJUSTMENT/TEST

EFFECTIVITY: ACFT MODEL(S) EMB-145

1. General

- A. This section gives the procedures to adjust the OPEN/CLOSED positions of the air distribution valve.
- B. The air distribution valve is adjusted on a bench.
- C. 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
21-22-01-800-801-A	AIR DISTRIBUTION VALVE - ADJUSTMENT	ACFT MODEL(S) EMB-145



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TASK 21-22-01-800-801-A

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2. AIR DISTRIBUTION VALVE - ADJUSTMENT

A. General

- (1) To adjust the air distribution valve, you must correct the positions of its microswitches in relation to the cam of the electrical motor.

B. References

REFERENCE	DESIGNATION
AMM TASK 21-22-01-000-801-A/400	-
AMM TASK 21-22-01-400-801-A/400	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	DC Power supply, 28 V/50 A	To operate the electrical motor of the air distribution valve	-

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	Bench

I. Preparation

SUBTASK 841-007-A

- (1) Remove the air distribution valve from the aircraft (AMM TASK 21-22-01-000-801-A/400).
- (2) Loosen the four screws that attach the two microswitches (S1 and S2) ([Figure 501](#)).

J. Adjustment ([Figure 501](#))

SUBTASK 820-007-A

- (1) Adjust the closed position of the air distribution valve. For this, do the steps below:



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- (a) Connect the positive (+) wire of the electrical power supply to the pin A of the electrical connector.
 - (b) Connect the negative (-) wire of the electrical power supply to the pin B of the electrical connector.
 - (c) Monitor the travel of the mark in the end of the motor shaft (refer to VIEW C).
 - (d) Stop the power supply to pin A immediately, when the mark comes to the letter C on the bottom of the air distribution valve.
 - (e) Slowly move the support of the microswitch S1 in the cam direction.
 - (f) Stop the movement immediately when you hear the CLICK of the microswitch (operation indication).
 - (g) Tighten the screws that attach the support of the microswitch (S1).
- (2) Adjust the open position of the air distribution valve. For this, do the steps below:
- (a) Connect the positive (+) wire of the electrical power supply to the pin B of the electrical connector.
 - (b) Connect the negative (-) wire of the electrical power supply to the pin A of the electrical connector.
 - (c) Monitor the travel of the mark in the end of the motor shaft (refer to VIEW C).
 - (d) Stop the power supply to pin B immediately, when the mark comes to the letter O on the bottom of the air distribution valve.
 - (e) Slowly move the support of the microswitch S2 in the cam direction.
 - (f) Stop the movement immediately, when you hear the CLICK of the microswitch (operation indication).
 - (g) Tighten the screws that attach the support of the microswitch (S2).

K. Follow-on

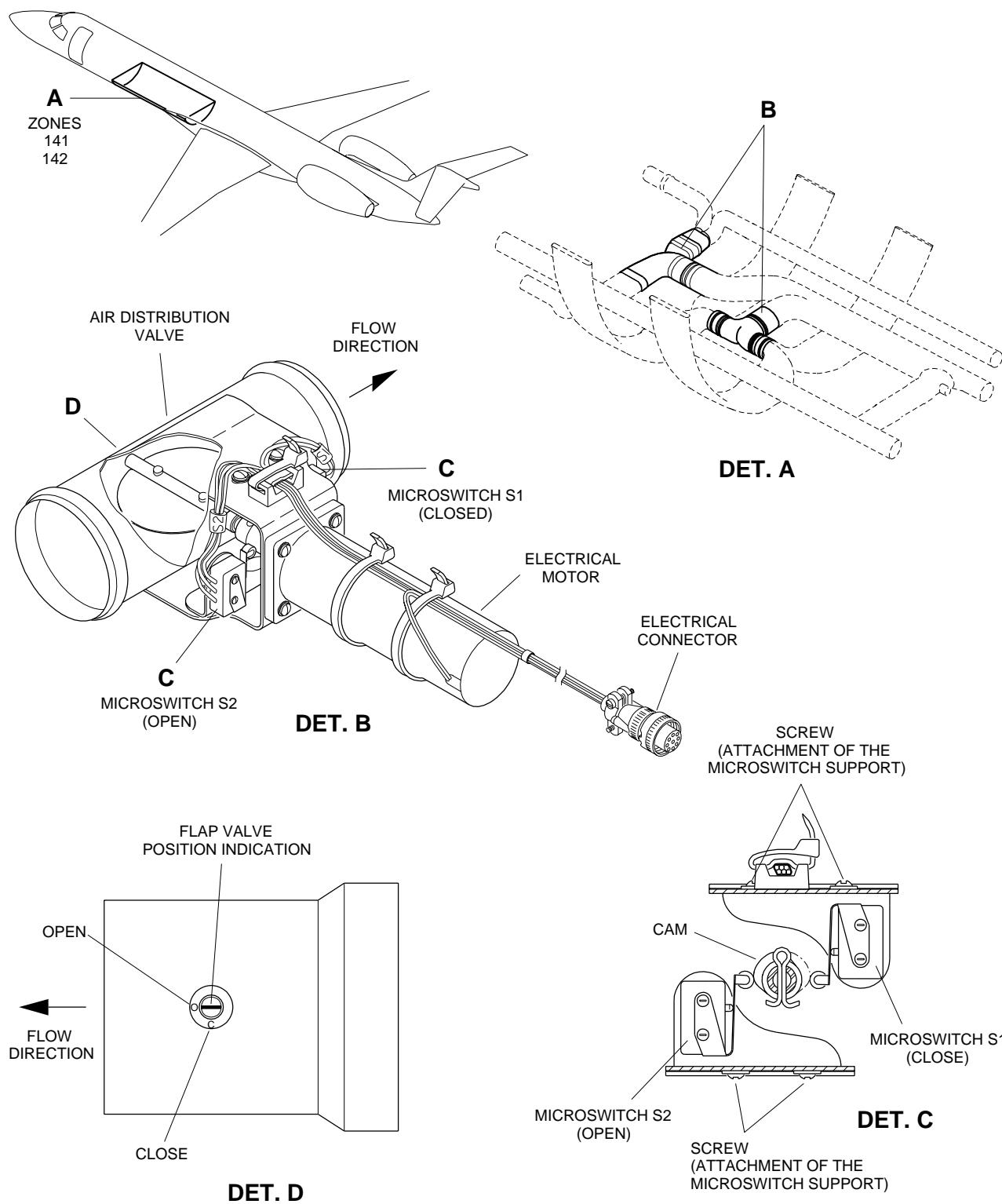
SUBTASK 842-007-A

- (1) Install the air distribution valve to the aircraft (AMM TASK 21-22-01-400-801-A/400).

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Air Distribution Valve - Adjustment

Figure 501



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