



AIRCRAFT
MAINTENANCE MANUAL

LINEAR ACTUATOR - MAINTENANCE PRACTICES

EFFECTIVITY: ALL

1. General

- A. This section gives the procedure to adjust the linear actuator of the ram-air valve.
- 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
21-25-03-800-801-A	LINEAR ACTUATOR - ADJUSTMENT	ALL



AIRCRAFT MAINTENANCE MANUAL

TASK 21-25-03-800-801-A

EFFECTIVITY: ALL

2. LINEAR ACTUATOR - ADJUSTMENT

A. General

- (1) When the linear actuator is extended, the flap valve of the ram-air valve goes down (which permits the ram-air to flow to the cockpit and passenger cabin).
- (2) When the linear actuator is retracted, the flap valve of the ram-air valve goes up (which permits the ram-air to flow to make the heat exchanger of the pack cooler).

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM SDS 32-63-00/1	
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
191	191EL	Wing-to-fuselage fairing
191	191FR	Wing-to-fuselage fairing

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	Inside the wing-to-fuselage fairing
1	B - Helps technician A	Cockpit

I. Preparation

SUBTASK 841-002-A

- (1) Energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Open the access panel (AMM MPP 06-41-01/100), as applicable:

- 191EL (linear actuator of LH ram-air valve).
- 191FR (linear actuator of RH ram-air valve).

J. Adjustment of the Linear Actuator (Figure 501)

SUBTASK 820-002-A

- (1) Make sure that AOA sensors are in the down position.
- (2) Open the AIR/GND A, the AIR/GND B, the AIR/GND C, and the AIR/GND D circuit breakers, on the circuit breaker panel.
- (3) Make sure that the linear actuator (1) is in the extended position.
- (4) Disconnect the primary adjustment rod end (2) of the operation lever (3).
- (5) Manually move the operation lever to the extended position.
- (6) Put the operation lever on the primary adjustment rod end (2) and make sure that the bolt (4) goes through without any interference.

NOTE: If there is some interference in step (5), adjust the primary adjustment rod end (2).

- (7) Loosen the operation lever (3) of the primary adjustment rod end (2).

CAUTION: WHEN YOU ARE TO CLOSE THE AIR/GND A, B, C AND D CIRCUIT BREAKERS, THE TIME NECESSARY FOR YOU TO CLOSE ALL THE FOUR CIRCUIT BREAKERS MUST NOT BE MORE THAN 10 SECONDS ([AMM SDS 32-63-00/1](#)).

- (8) Close the AIR/GND A, the AIR/GND B, the AIR/GND C, and the AIR/GND D circuit breakers.
- (9) Make sure that the linear actuator (1) goes to the retracted position.
- (10) Manually move the operation lever (3) to the retracted position.
- (11) Put the operation lever (3) on the primary adjustment rod end (2) and make sure that the bolt (4) goes through without any interference.

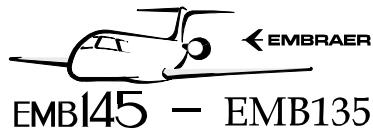
NOTE: If there is some interference in step (10) do the adjustment with the secondary adjustment screws (5).

CAUTION: IF THE ADJUSTMENT OF THE TWO POSITIONS IS NOT CORRECT ON THEIR RELATED STOPS, DO A MIXED ADJUSTMENT OF THE PRIMARY ADJUSTMENT ROD END AND THE SECONDARY ADJUSTMENT SCREWS.

- (12) Install the bolt, the washers, and the nut to attach the primary adjustment rod end.

CAUTION: MAKE SURE THAT THE LINEAR ACTUATOR MOTOR STOPS BEFORE IT GETS THE EXTENDED POSITION STOP.

- (13) Open the AIR/GND A, the AIR/GND B, the AIR/GND C, and the AIR/GND D circuit breakers.
- (14) Let the linear actuator extension occur.



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- CAUTION:
- MAKE SURE THAT THE LINEAR ACTUATOR MOTOR STOPS BEFORE IT GETS THE RETRACTED POSITION STOP.
 - WHEN YOU ARE TO CLOSE THE AIR/GND A, B, C AND D CIRCUIT BREAKERS, THE TIME NECESSARY FOR YOU TO CLOSE ALL THE FOUR CIRCUIT BREAKERS MUST NOT BE MORE THAN 10 SECONDS ([AMM SDS 32-63-00/1](#)).

(15) Close the AIR/GND A, the AIR/GND B, the AIR/GND C, and the AIR/GND D circuit breakers.

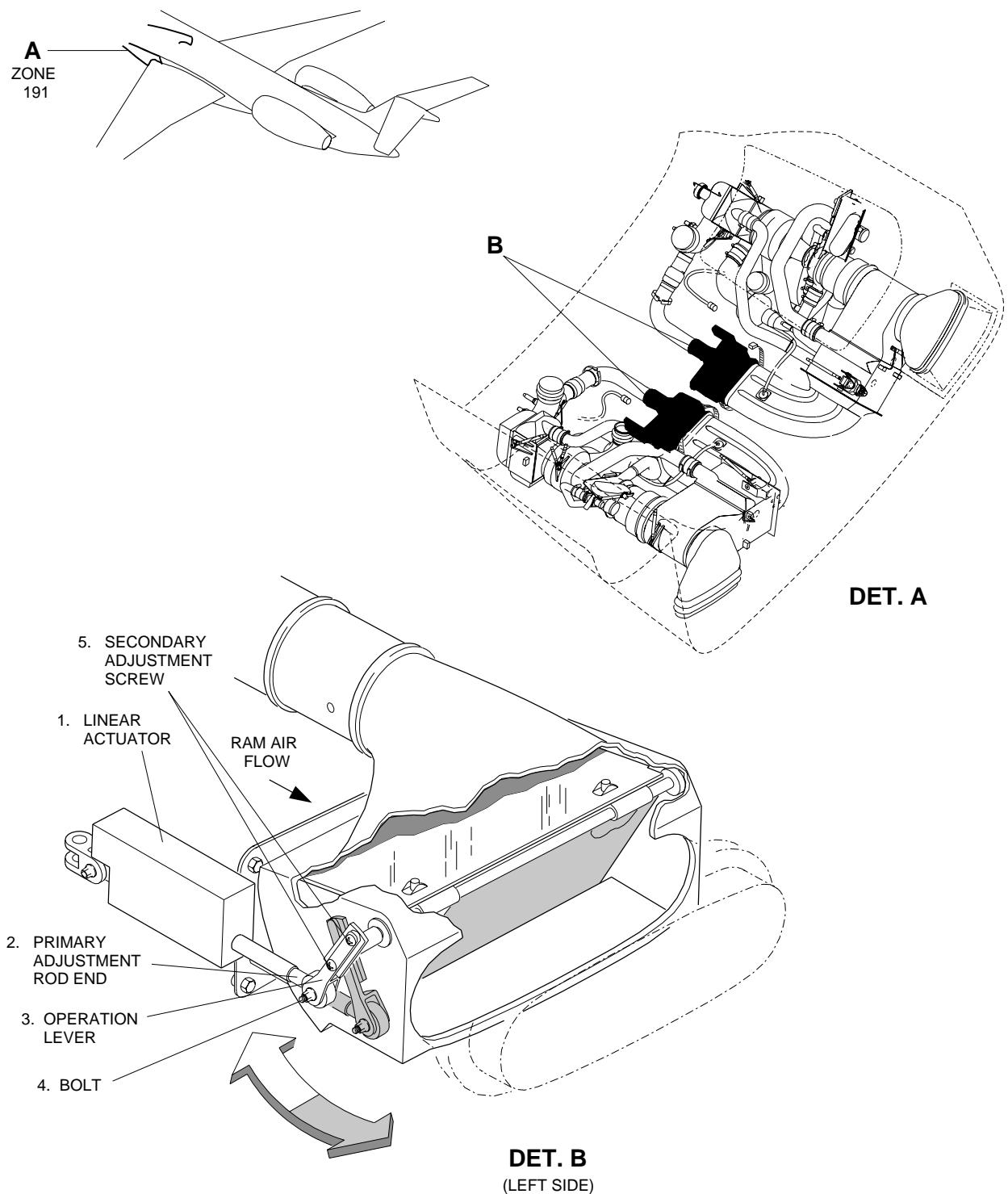
(16) Let the linear actuator retraction occur.

K. Follow-on

SUBTASK 842-002-A

- (1) Remove the external DC Power Supply to the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Close the access panel, as applicable:
 - 191EL (linear actuator of LH ram-air valve).
 - 191FR (linear actuator of RH ram-air valve).

EFFECTIVITY: ALL
 Linear Actuator - Adjustment
 Figure 201



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