



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

CONTROL-COLUMN POSITION SWITCH - ADJUSTMENT/TEST

EFFECTIVITY: AIRCRAFT WITH ELECTROMECHANICAL GUST LOCK

1. General

- A. This section gives the procedures to adjust the control-column position switch.
- 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
27-71-11-700-801-A	CONTROL-COLUMN POSITION SWITCH - ADJUSTMENT	AIRCRAFT WITH ELECTROMECHANICAL GUST LOCK



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AIRCRAFT
MAINTENANCE MANUAL

TASK 27-71-11-700-801-A

EFFECTIVITY: AIRCRAFT WITH ELECTROMECHANICAL GUST LOCK

2. CONTROL-COLUMN POSITION SWITCH - ADJUSTMENT

A. General

(1) This task gives the procedures to do the adjustment of the control-column position switch.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 27-71-00-700-801-A/500	ELECTROMECHANICAL GUST LOCK - OPERATIONAL CHECK
AMM TASK 32-00-01-910-801-A/200	LG SAFETY PIN - INSTALLATION AND REMOVAL
AMM TASK 55-36-00-400-801-A/400	TAIL BOOM - INSTALLATION
S.B.145-27-0125	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
123	123BL	Area below the cockpit floor
124	123BL	Area below the cockpit floor

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 070	Digital Protractor	To measure the elevator deflection	
GSE 058	Rig Pin, Kit	To lock the elevator system in the neutral position	

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Flashlight	To make the lighting condition better in the area where the inspection will be done	1
Commercially available	Inspection Mirror	To do an inspection on the electromechanical gust-lock mechanism parts	1

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
Commercially available	Adhesive, double-faced tape	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Area below the cockpit floor
1	Helps the other technician	Elevator

I. Preparation
SUBTASK 841-003-A

- (1) Set the gust lock system to the unlocked position.
- (2) Make sure that the safety pins of the landing gears are installed [AMM TASK 32-00-01-910-801-A/200](#).
- (3) Remove control ringing door 123BL AMM MPP 06-41-01/100.

J. Control-Column Position Switch - Adjustment ([Figure 501](#))
SUBTASK 720-003-A

WARNING: MAKE SURE THAT THERE ARE NO PERSONS OR EQUIPMENT IN THE ELEVATOR TRAVEL AREA.

- (1) Put the control column fully forward.
- (2) Release the switch nut.
- (3) Press the switch (1) on the contact point (3) and make sure that the switch (1) is actuated.
- (4) Tighten the switch nut.
- (5) Put the control column in the neutral position and place the rig pin in the elevator torque tube.
- (6) Install the digital protractor on the elevator and set it to zero. Refer to [Figure 502](#).
- (7) Remove the rig pin.
- (8) Move the control column to 4 - 8 degrees nose down.

NOTE: To make sure of the correct control column position, read the values shown on the digital protractor.

- (9) If the movement of the gust lock lever is locked:
 - (a) Make sure that the switch (1) is deactivated between 4 degrees nose down and 19 degrees nose up.
NOTE: Use a mirror and a flashlight to do the inspection.
 - (b) Pull the control column rearward (nose up), beyond the neutral point, and keep it thus.
 - (c) Lift the handle and command the gust lock lever to the locked position.
 - (d) Push the control columns fully forward and make sure of the following:

- The two control columns are locked, but small deflections are possible because of the cable system flexibility.

- The engine power control levers cannot be moved beyond the ground maneuver setting.

(e) Lift the handle and command the gust lock lever to the unlocked position until the intermediate backstop is touched.

(f) The gust lock lever travel is limited to the intermediate position (approximately 12 degrees forward of the locked position).

NOTE: • (FOR AIRCRAFT PRE-MOD. [S.B.145-27-0125](#)) The gust lock light comes on for approximately 8 seconds after the gust lock lever is at the intermediate position. After this time, the gust lock light goes off and the elevators are free, but the gust lock lever cannot be moved from the intermediate to the unlocked position.

• (FOR AIRCRAFT POST-MOD. [S.B.145-27-0125](#)) The gust lock light comes on for approximately 8 seconds after the gust lock lever is at the intermediate position. After this time, the gust lock light starts to blink and the elevators are free, but the gust lock lever cannot be moved from the intermediate to the unlocked position.

(g) Move the control column rearward (nose up), beyond the neutral point, and keep it thus.

(h) Lift the handle and command the gust lock lever to the unlocked position.

NOTE: (FOR AIRCRAFT POST-MOD. [S.B.145-27-0125](#)) After the gust lock lever get to the unlocked position, the gust lock light stops to blink and the light goes off.

(10) If the movement of the gust lock lever is not locked:

(a) Do step (1) and on again.

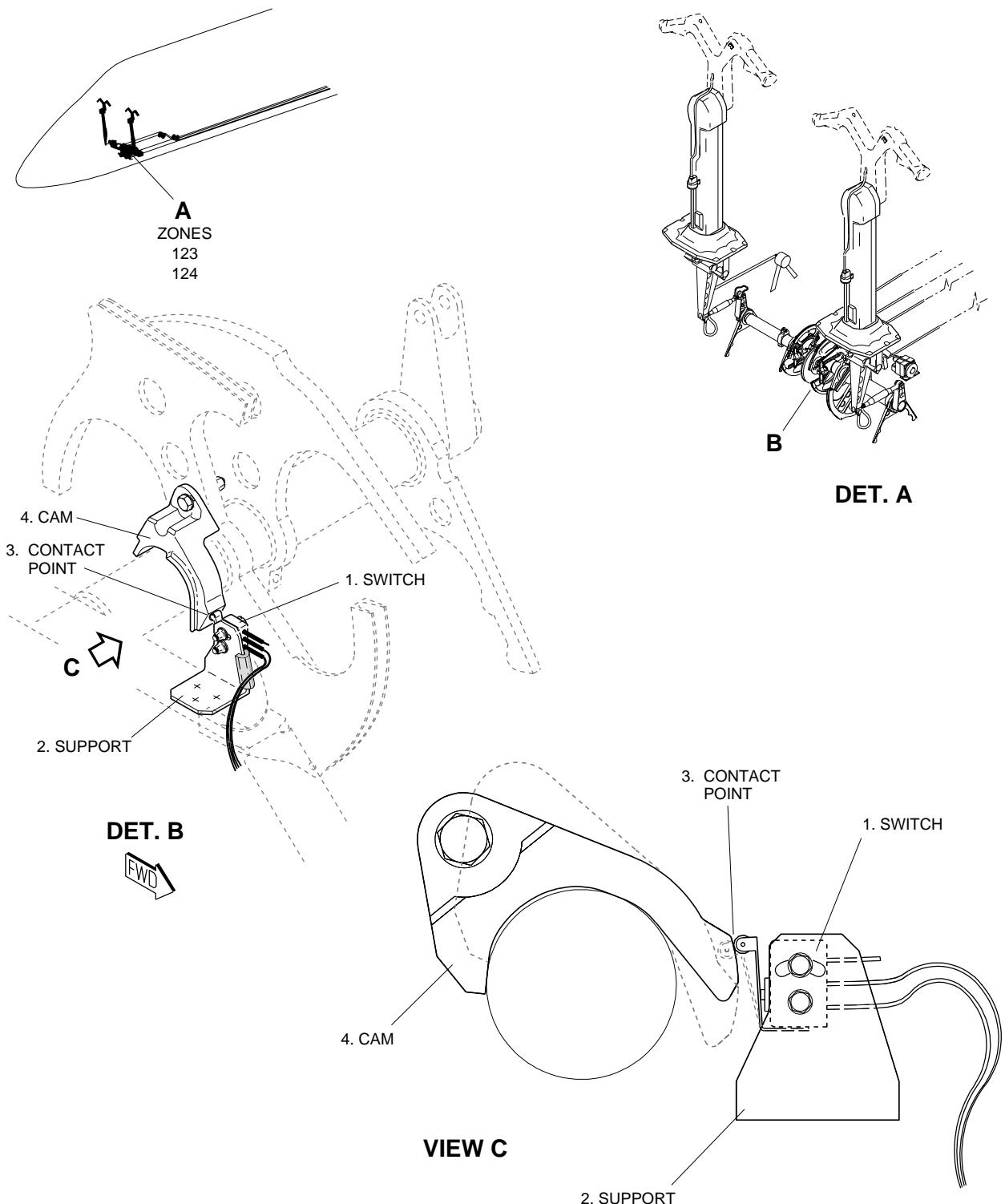
(11) Remove the digital protractor from the elevator.

K. Follow-on

SUBTASK 842-003-A

- (1) Do the operational check of the electromechanical gust lock system. Refer to [AMM TASK 27-71-00-700-801-A/500](#).
- (2) Install rear fairings 321 of the horizontal stabilizer ([AMM TASK 55-36-00-400-801-A/400](#)).
- (3) Set the gust lock system to the locked position.

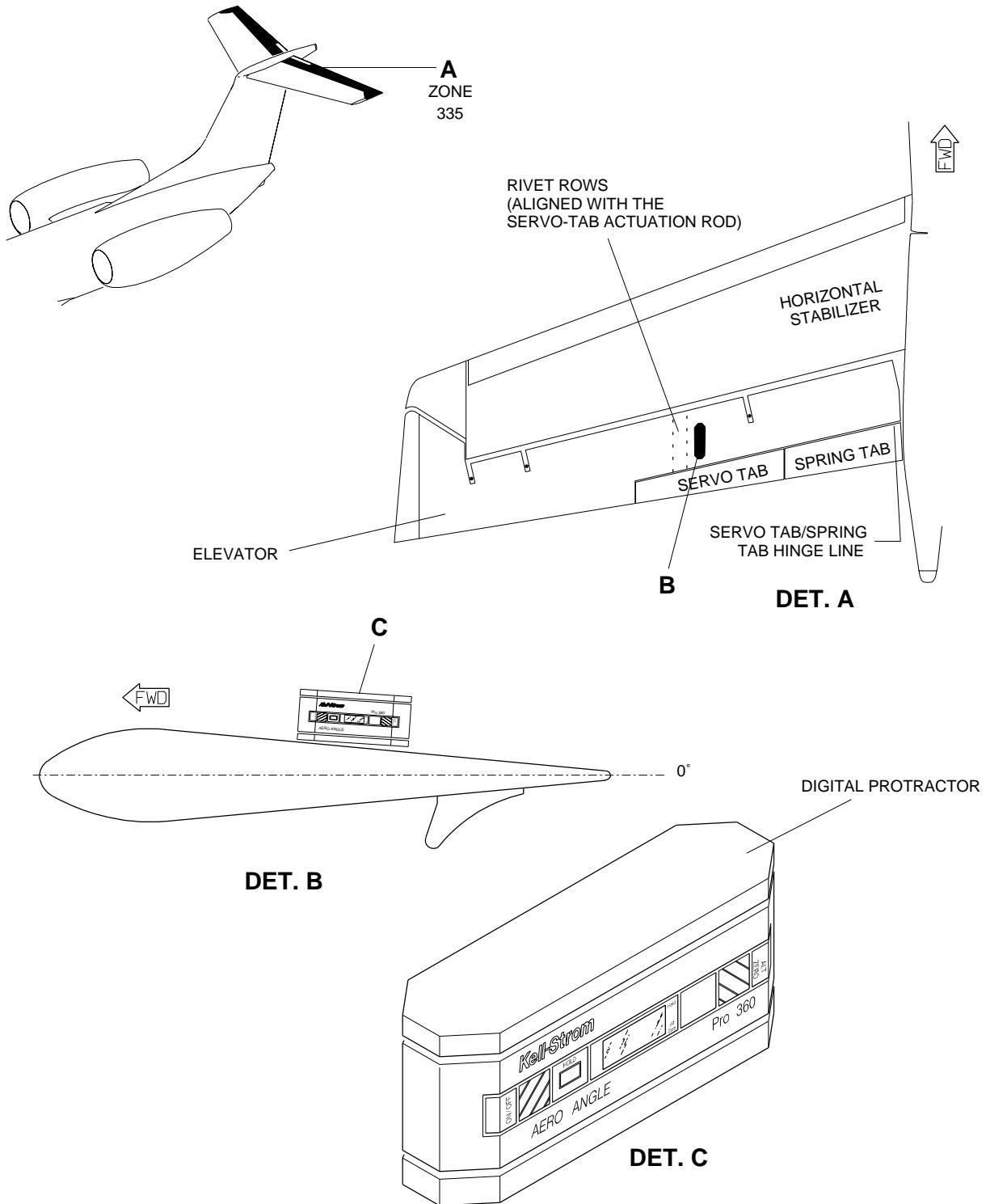
EFFECTIVITY: AIRCRAFT WITH ELECTROMECHANICAL GUST LOCK
Control-Column Position Switch - Adjustment
Figure 501



EFFECTIVITY: AIRCRAFT WITH ELECTROMECHANICAL GUST LOCK

Digital Protractor - Location

Figure 502



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