GUST LOCK COMMAND SWITCHES - ADJUSTMENT/TEST

EFFECTIVITY: AIRCRAFT WITH ELECTROMECHANICAL GUST LOCK

1. General

   A. This section gives the procedures to do the adjustment of the gust lock command switches.

   B. The gust lock command switches are components of the electromechanical gust lock system. It is situated in the Engine Control Box.

   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*
27-71-12-700-801-A	GUST LOCK COMMAND SWITCHES - ADJUSTMENT	AIRCRAFT WITH ELECTROMECHANICAL GUST LOCK

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TASK 27-71-12-700-801-A
EFFECTIVITY: AIRCRAFT WITH ELECTROMECHANICAL GUST LOCK

2. GUST LOCK COMMAND SWITCHES - ADJUSTMENT

A. General

(1) This task gives the procedures to do the adjustment of the gust lock command switches.

B. References

REFERENCE	*DESIGNATION*
AMM MPP 06-41-03/100	- COMPONENT LOCATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 27-71-00-700-801-A/500	ELECTROMECHANICAL GUST LOCK - OPERATIONAL CHECK
S.B.145-27-0101	-
S.B.145-27-0125	-

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
223	223NZ	Control pedestal
223	223RZ	Control pedestal

D. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
Commercially available	Analog Multimeter	To do the check for electrical continuity	
Commercially available	Feeler Gauge	To measure the gap	

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

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I. Preparation

SUBTASK 841-002-A

(1) Make sure the gust lock lever is at locked position.

(2) (For aircraft with thrust reverser) On the circuit breaker panel, open these circuit breakers and attach DO-NOT-CLOSE tags to them:

- LIGHTS - PEDESTAL PANEL.
- POWERPLANT - START 1/2.
- POWERPLANT - FADEC 1A/2A - 1B/2B.
- POWERPLANT - ELEC. IDLE STOP 1/2.
- POWERPLANT - THRUST REVERSER 1/2.
- GUST LOCK.

(3) (For aircraft without thrust reverser) On the circuit breaker panel, open these circuit breakers and attach DO-NOT-CLOSE tags to them:

- LIGHTS - PEDESTAL PANEL.
- POWERPLANT - START 1/2.
- POWERPLANT - FADEC 1A/2A - 1B/2B.
- GUST LOCK.

(4) Remove the screw (1) and (2) that attach the control stand mask (Figure 501).

(5) Remove access panel 223RZ and 223NZ (AMM MPP 06-41-03/100).

(6) Energize the aircraft with the External DC Power Supply AMM TASK 20-40-01-860-801-A/200.

J. Adjustment of the Gust Lock Command Switches

SUBTASK 720-002-A

(1) Do the adjustment of the gust lock command switches (Figure 502), as follows:

(2) Move the gust lock lever to the intermediate position.

(3) Untighten the bolts (3) from the microswitch support (2).

(4) Position the support until the gap between the cam (3) and the end plunger (4) is approximately 2 millimeters long (VIEW D deactuated, Figure 502).

NOTE: Use a feeler gauge to measure the gap between the cam (3) and the plunger (4).

(5) Tighten the bolts (1) from the microswitch support (2) (Figure 502).

(6) Move the gust lock lever to the locked position.

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(7) (For aircraft PRE-MOD. S.B.145-27-0101) Do a continuity check on the command switches:

(a) Check the continuity between the pin 24 and 13 from the connector P1270.

(b) Check the continuity between the pin 12 and 4 from the connector P1270.

(c) Check the continuity between the pin 12 from the connector P1270 and the pin A from the connector P1269.

(8) (For aircraft POST-MOD. S.B.145-27-0101) Do a continuity check on the command switches:

(a) Check the continuity between the pin 24 and 13 from the connector P1270.

(b) Check the continuity between the pin 12 and 4 from the connector P1270.

(c) Set the Engine Thrust Levers (1 and 2) to the Idle position.

(d) With the Engine Thrust Levers (1 and 2) set to the Idle position, check the continuity between the pin M (-) and pin A (+) from the connector P1269.

NOTE: The polarity of the diode must be observed in the continuity check.

(9) Move the gust lock lever to the intermediate position.

NOTE: The sound click must be heard.

(10) (For aircraft PRE-MOD. S.B.145-27-0101) Do a discontinuity check on the command switches:

(a) Check the discontinuity between the pin 24 and 13 from the connector P1270.

(b) Check the discontinuity between the pin 12 and 4 from the connector P1270.

(c) Check the discontinuity between the pin 12 from the connector P1270 and the pin A from the connector P1269.

(11) (For aircraft POST-MOD. S.B.145-27-0101) Do a discontinuity check on the command switches:

(a) Check the discontinuity between the pin 24 and 13 from the connector P1270.

(b) Check the discontinuity between the pin 12 and 4 from the connector P1270.

(c) With the Engine Thrust Levers (1 and 2) set to the Idle position, check the discontinuity between the pin M (-) and pin A (+) from the connector P1269.

(12) If the continuity and discontinuity check are OK, do the procedure below (Figure 502):

(a) Tighten the bolts (1) of the microswitch support (2) with 25 lb.in.

(b) Move the gust lock lever to locked position.

(13) If the continuity or discontinuity check is not OK, do the procedure below (Figure 502):

(a) Remove the bolts (1) from the microswitch support (2).

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(b) Untighten the bolts from the oblong holes of the command switches where the continuity check is not OK.

(c) Manually displace the plunger (4) fully forward, and keep it thus.

(d) Adjust the command switches until be actuated (VIEW D actuated, Figure 502).

NOTE:
- Use the oblong holes to do the adjustment.
- Make sure the three command switches are actuating approximately together.

(e) Tighten the bolts from the oblong holes of the three microswitches.

(f) Release the plunger (4) from the command switches (Figure 502).

(g) Manually, displace the plunger (4) again and check that the command switches are actuating before the contact roller reached the upper position of the plunger (4) (Figure 502).

NOTE: To make sure that the command switches are actuating, the sound click must be heard.

(h) Move the gust lock lever to the locked position.

(i) (For aircraft PRE-MOD. S.B.145-27-0101) Do a continuity check on the command switches:

1 Check the continuity between the pin 24 and 13 from the connector P1270.

2 Check the continuity between the pin 12 and 4 from the connector P1270.

3 Check the continuity between the pin 12 from the connector P1270 and the pin A from the connector P1269.

(j) (For aircraft POST-MOD. S.B.145-27-0101) Do a continuity check on the command switches:

1 Check the continuity between the pin 24 and 13 from the connector P1270.

2 Check the continuity between the pin 12 and 4 from the connector P1270.

3 With the Engine Thrust Levers (1 and 2) set to the Idle position, check the continuity between the pin M (-) and pin A (+) from the connector P1269.

NOTE: The polarity of the diode must be observed in the continuity check.

(k) Install the microswitch support (2) on the control stand assembly (Figure 502).

(l) Untighten the bolts (1) from the microswitch support (2) (Figure 502).

(m) Position the support until the gap between the cam (3) and the end plunger (4) is approximately 2 millimeters long (VIEW D deactuated, Figure 502).

NOTE: Use a feeler gauge to measure the gap between the cam (3) and the plunger (4).

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(n) Tighten the bolts (1) from the microswitch support (2) (Figure 502).

(o) Move the gust lock lever to the locked position (Figure 502).

(p) Tighten the bolts (1) of the microswitch support (2) with 25 lb.in (Figure 502).

(14) (For aircraft POST-MOD. S.B.145-27-0125) Do the adjustment of the gust lock command switch (Figure 503), as follows:

(a) Move the gust lock lever to the intermediate position.

(b) Move the control column to the full nose up position and back to the full nose down position.

(c) Lift the gust lock handle and move the gust lock lever to the full forward position (unlocked position).

(d) Disconnect the electrical connector J1270 from the switch (4).

(e) Untighten the bolts (1) of the switch (4).

(f) Check the electrical continuity between the pin 9 and 10 of the connector P1270.

NOTE: With the gust lock lever on full forward position there must be no electrical continuity between the pin 9 and 10.

(g) Adjust the switch until you get no electrical continuity between the pin 9 and 10 of the connector P1270.

(h) Tighten the bolts (1) of the switch (4).

(i) Without lifting the trigger of the gust lock lever, slightly move the lever to the forward and rearward position to make sure that a small command will not disengage the switch.

(j) With the gust lock lever on the full forward position (unlocked position), lift and release the trigger of the lever to make sure that this command will not disengage the switch.

NOTE: Do not command the lever at this time.

(k) Cycle the gust lock lever from the intermediate position to the full forward position 3 times in order to make sure the correct adjustment of the switch.

(l) If necessary do the adjustment of the switch again.

(15) Move the gust lock lever to locked position.

K. Follow-on

SUBTASK 842-002-A

(1) Install access panel 223RZ and 223NZ (AMM MPP 06-41-03/100).

(2) Install the screw (1) and (2) that attach the control stand mask (Figure 501).

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(3) (For aircraft with thrust reverser) On the circuit breaker panel, remove the DO-NOT-CLOSE tags and close these circuit breakers:

- LIGHTS - PEDESTAL PANEL.
- POWERPLANT - START 1/2.
- POWERPLANT - FADEC 1A/2A - 1B/2B.
- POWERPLANT - ELEC. IDLE STOP 1/2.
- POWERPLANT - THRUST REVERSER 1/2.
- GUST LOCK.

(4) (For aircraft without thrust reverser) On the circuit breaker panel, remove the DO-NOT-CLOSE tags and close these circuit breakers:

- LIGHTS - PEDESTAL PANEL.
- POWERPLANT - START 1/2.
- POWERPLANT - FADEC 1A/2A - 1B/2B.
- GUST LOCK.

(5) Do the operational check of the electromechanical gust lock system. Refer to AMM TASK 27-71-00-700-801-A/500.

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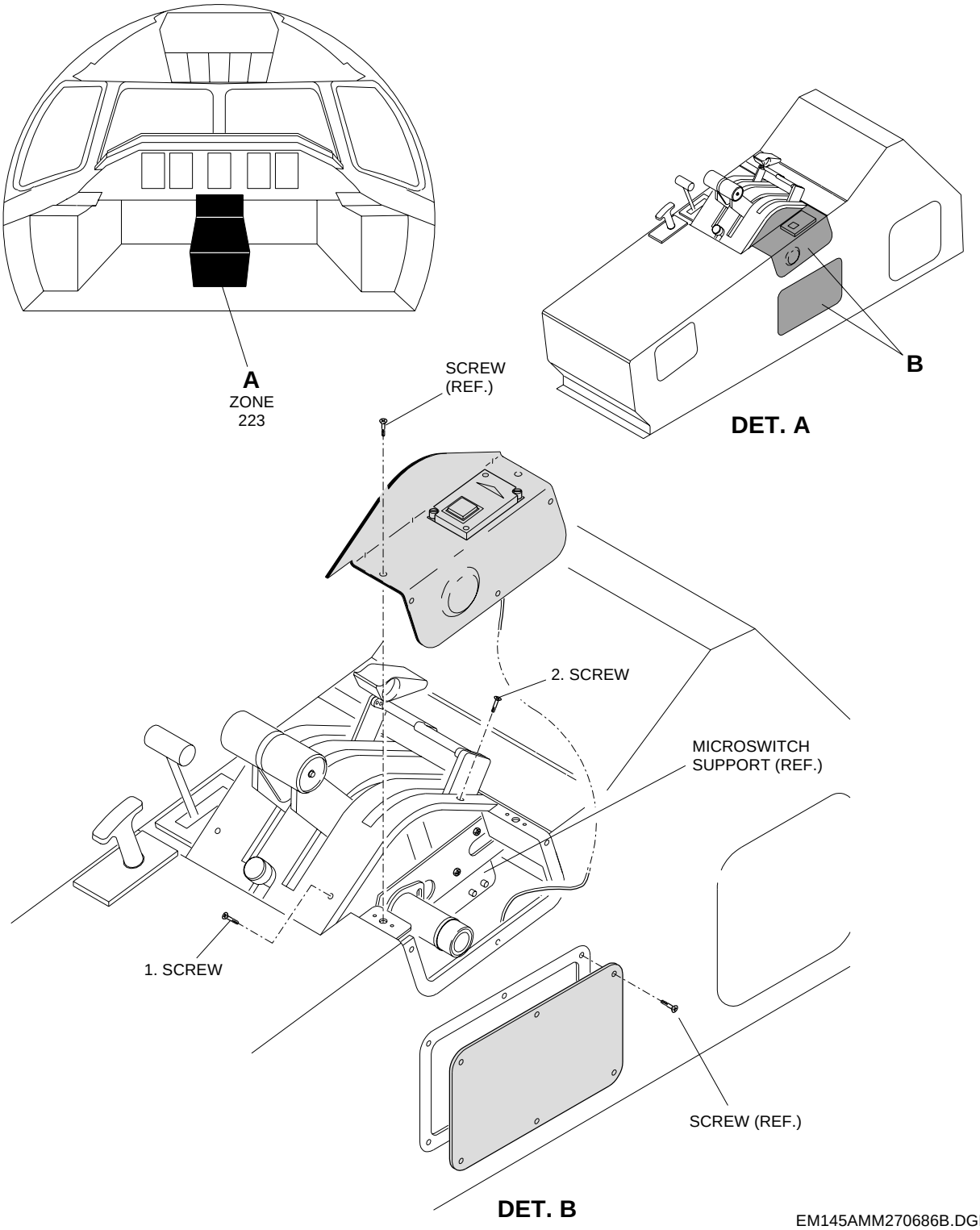
EFFECTIVITY: AIRCRAFT WITH ELECTROMECHANICAL GUST LOCK

Gust Lock Command Switches - Access

Figure 501



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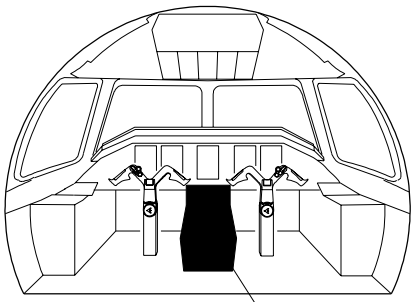
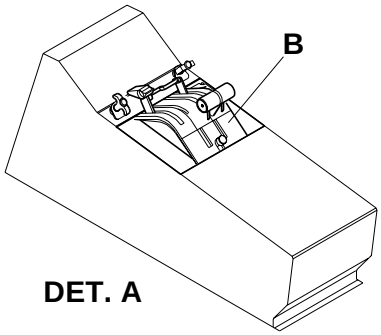
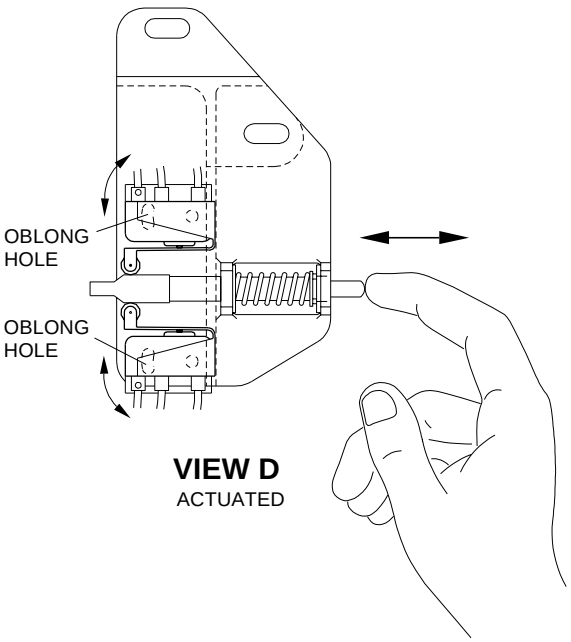
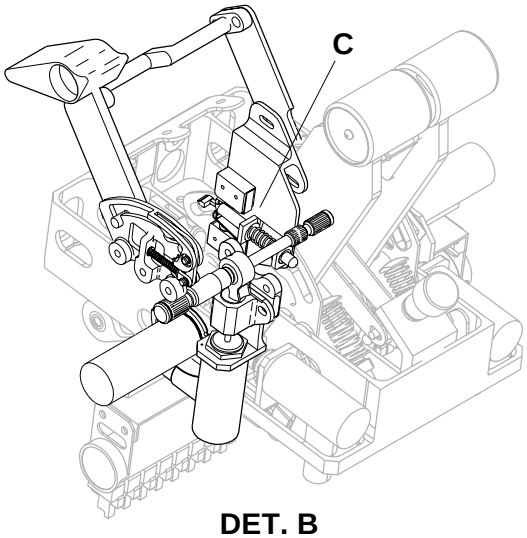
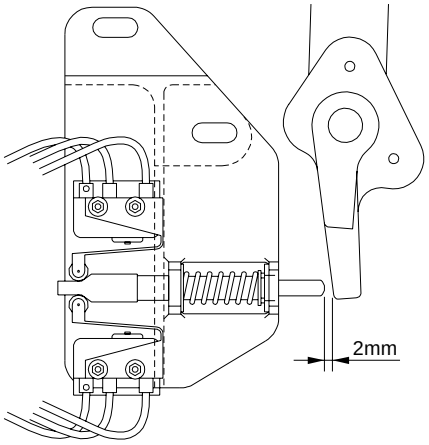
EFFECTIVITY: AIRCRAFT WITH ELECTROMECHANICAL GUST LOCK
Gust Lock Command Switches - Adjustment
Figure 502

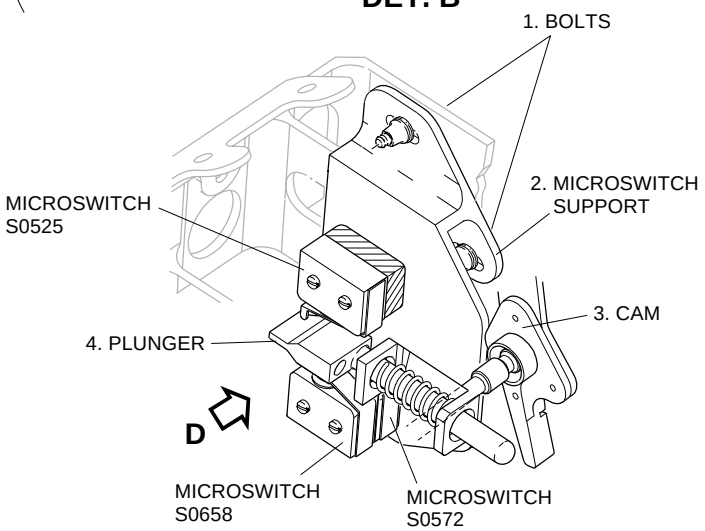












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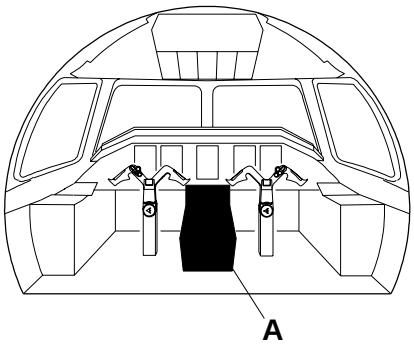
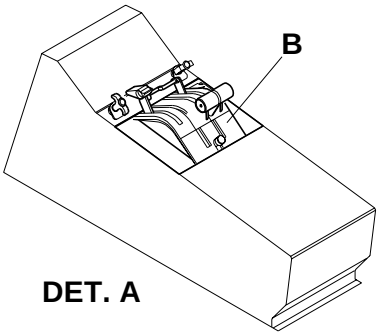
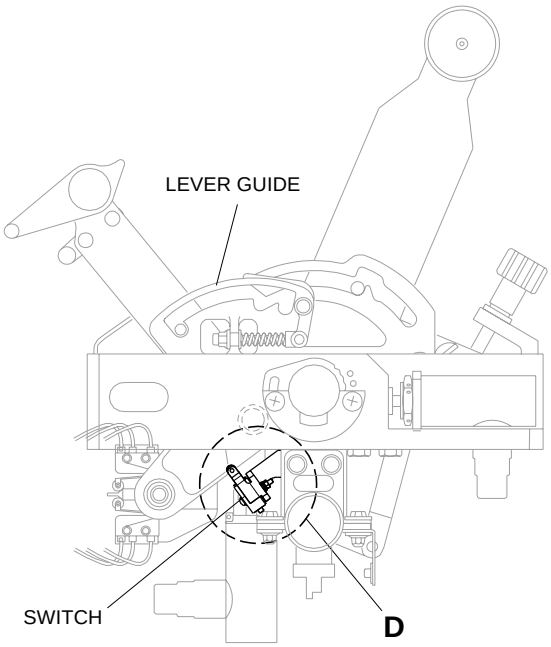
EFFECTIVITY: POST-MOD. S.B. 145-27-0125
Gust Lock Command Switch - Adjustment
Figure 503

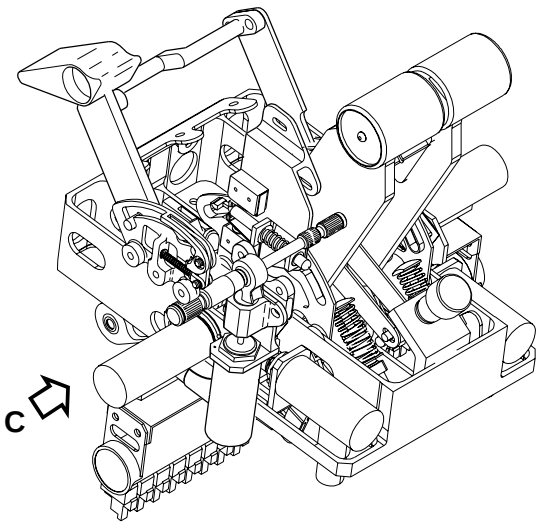




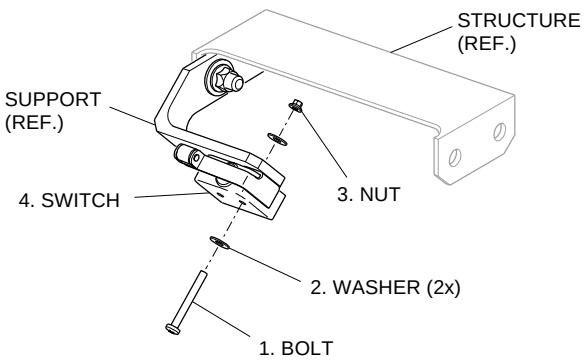
DET. A



VIEW C



DET. B



DET. D

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