



SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. 0113

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DATE: September 27, 2011

1. SUBJECT: Cyclic Trim Actuator Switch Assembly Inspection
2. MODEL: F-28A, 280, F-28C, 280C, F-28F, 280F, and 280FX
3. EFFECTIVITY: S/N 828 and prior; S/N 2133 and prior
4. BACKGROUND:

Enstrom has received a report of an incorrectly assembled trim actuator switch assembly used in the cyclic trim system. The screws that assemble the switches to the bracket were inadvertently installed in the opposite direction. This is a concern for the screws adjacent to the bracket slot, as the protruding shanks could interfere with the spring capsule travel and possibly compromise the performance of the cyclic trim system.

This Service Directive Bulletin (SDB) requires a one-time inspection of the both the lateral and longitudinal cyclic trim actuator switch assemblies.

5. COMPLIANCE:
Inspect the lateral and longitudinal trim assemblies for the correct screw orientation at the next 100-hour/annual inspection.
6. INSPECTION:

NOTE: Perform all maintenance in accordance with the applicable F-28/280 Series Maintenance Manual.

- 6.1 Locate the trim actuator assemblies by removing the seat deck.
- 6.2 Inspect the lateral and longitudinal trim switch assemblies for the proper screw orientation. The screw shanks and nuts should be visible on the wiring side of the switch assembly (*Figure 1 and Figure 2*). The heads of inner screws should be facing the spring capsule.

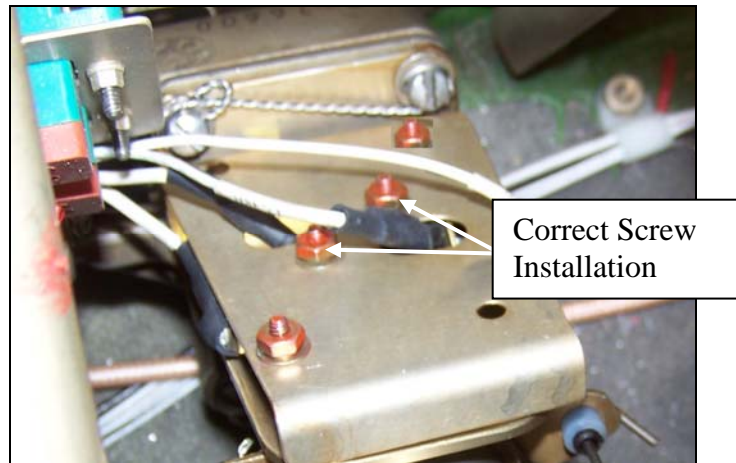


Figure 1. Properly Installed Screws – The heads of the inner screws face the spring capsule.

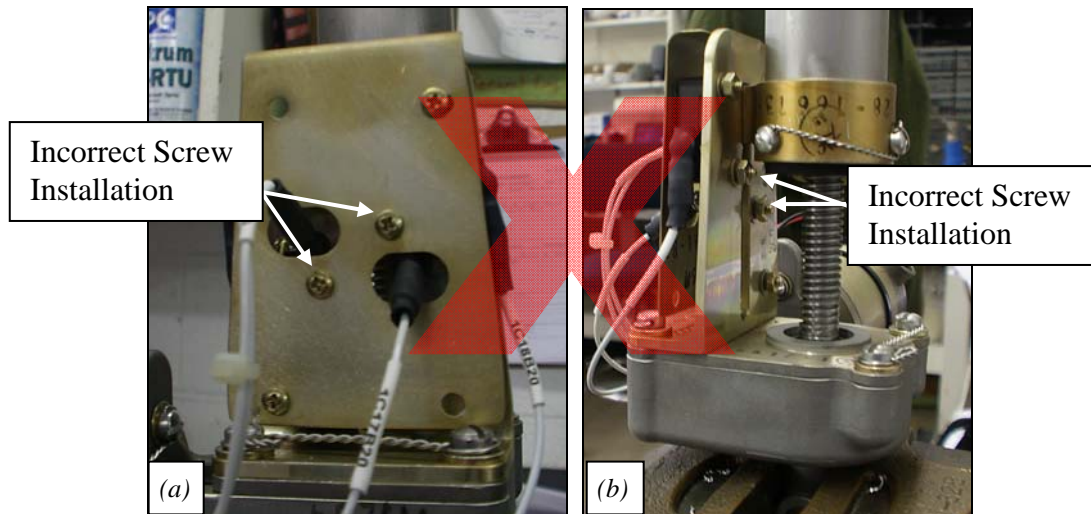


Figure 2. Improperly Installed Screws (a) (b) – The shanks of the inner screws face the spring capsule (b). (The trim actuator is removed from the aircraft.)

6.3 If the screws are installed properly, no additional inspection is required. Re-install the seat deck.

6.4 If the screws are not installed properly, proceed to paragraph 6.5.

NOTE: Steps 6.5 through 6.14 apply only to trim switch assemblies that have the screws installed backwards.

6.5 Disconnect the battery.

6.6 Remove the applicable trim actuator assembly from the aircraft in accordance with the maintenance manual (F-28A/C and 280/C: page MM-11-9) (F-28F/280F/FX: paragraph 12-7, B (lateral) or paragraph 12-7, C (longitudinal)).

- 6.7 Remove the safety wire, screws (1) and washers (2) attaching the switch assembly to the trim actuator. Remove the switch assembly (*Figure 3*).

NOTE: Handle the switch assembly with care to avoid altering the position of the micro-switches once the screws are removed.

- 6.8 Remove the inner screws (3), washers (4) (5), and nuts (6) from the switch assembly. Re-install the inner screws (3), washers (4) (5), and nuts (6) such that the screw heads face the spring capsule. Use care to avoid moving the position of the switches when installing the screws.
- 6.9 Re-install the switch assembly to the trim actuator assembly with the hardware removed in step 6.7 and safety wire.
- 6.10 Check the spring housing travel. Refer to SDB 0110 Rev. 3, or latest revision, for instructions on checking the travel and making required adjustments.
- 6.11 Apply VC-3 Vibra-Tite, or equivalent, to the exposed screw threads and nut face.
- 6.12 Re-install the trim actuator assembly in accordance with the maintenance manual (F-28A/C and 280/C: page MM-11-9, steps reversed) (F-28F/280F/FX: paragraph 12-7, G (lateral) or paragraph 12-7, H (longitudinal)).
- 6.13 Check for proper operation of the trim actuator assembly.
- 6.14 Re-install the seat deck.

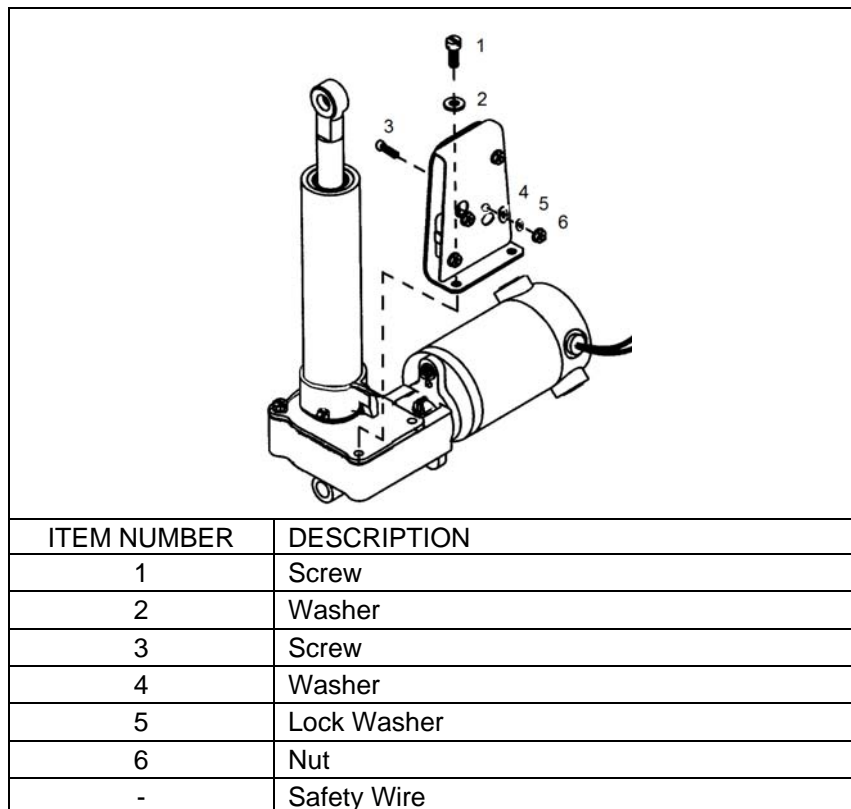


Figure 3. Cyclic Trim Switch Assembly

7. PARTS:
MS20995-C25 safety wire; VC-3 Vibra-Tite Thread Locker, or equivalent
8. SPECIAL TOOLS: None
9. MAN-HOURS: Inspection – 5 minutes
10. WARRANTY: Per Enstrom Warranty Policy
11. WEIGHT CHANGE: None
12. LOG BOOK ENTRY:
Record this inspection or modification in detail as required for maintenance actions.
13. REPETITIVE ACTION: None