

## TRW Automotive Commercial Steering Systems

## Service Procedure # COL-167

Actuator Motor Replacement (Telescope Location) April '06

NOTE	This procedure applies to TRW Commercial Steering Systems Steering Power Actuated steering column/s
NOTE	Take appropriate safety measures before beginning this procedure.

• Torque wrench

## **Tools Required**

- 5 mm Allen wrench / bit
- Ratchet
- 13 mm Socket
- 1/2 in. Socket

## Actuator Motor Replacement (Telescope Location)

- 1. Remove steering column shroud according to vehicle manufacturer's instructions.
- 2. Unplug actuator from wire harness. Figure 1
- Using a ½ in. socket and ratchet remove retaining nut (P/N 024031) Figure 2
- 4. Using a 5 mm Allen and a 13 mm socket remove top shoulder bolt and nut (P/N 023046) **Figure 3**
- 5. Remove actuator, mark the actuator to prevent reinstallation.
- To install new actuator (P/N 410028), align new actuator over lower mounting stud and reinstall nut with 1/2 in. socket and torgue wrench torgue to 140 - 160 in.-lbs.

NOTE New actuator end may need to be rotated 1/4 turn to install. **DO NOT** rotate more than 1/4turn.

- 7. Align actuator at top hole by manually pushing / pulling on top of column. **Figure 4**
- 8. Reinstall shoulder bolt and nut. Figure 5
- 9. Using a 5 mm Allen and a 13 mm socket and torque wrench torque the shoulder bolt and nut to 70-80 in-lbs.

This TRW Commercial Steering Systems' service procedure has been written to help you repair commercial vehicles more efficiently. This procedure should not replace your manuals; you should use them together. These materials are intended for use by properly trained, professional mechanics, NOT "Do-ityourselfers". You should not try to diagnose or repair steering problems unless you have been trained, and have the right equipment, tools and know-how to perform the work correctly and safely.



Figure 1



Figure 2



Figure 3

- 10. Connect the new actuator to the wire harness. Figure 6
- 11. Reinstall steering column shroud according to vehicle manufacturer's instructions.



Figure 4



Figure 5



Figure 6

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