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1999 Dodge or Ram Truck RAM 2500 Truck 4WD L6-5.9L DSL Turbo VIN 6
Vehicle > Transmission and Drivetrain > Clutch > Clutch Hydraulic System > Clutch Master Cylinder > Service and
Repair
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## PROCEDURES

NOTE: The clutch master cylinder, remote reservoir, slave cylinder and connecting lines are all serviced as an assembly. These components cannot be serviced separately. The linkage cylinders and connecting lines are sealed units. They are pre-filled with fluid during manufacture and must not be disassembled nor disconnected.

## REMOVAL

- 1. Raise and support vehicle.
- 2. On diesel models, remove slave cylinder shield from clutch housing, if equipped.
- 3. Remove nuts attaching slave cylinder to studs on clutch housing.
- 4. Remove slave cylinder from clutch housing.
- 5. Disengage slave cylinder fluid line from body retainer clips.
- 6. Lower vehicle.
- 7. Disconnect clutch pedal interlock switch wires.



8. Remove locating clip from clutch master cylinder mounting bracket.



9. Remove retaining clip, flat washer and wave washer that attach clutch master cylinder push rod to clutch pedal.

- 10. Slide clutch master cylinder push rod off pedal pinch
- 11. Inspect condition of bushing on clutch pedal pin. Remove and replace bushing if worn or damaged.
- 12. Verify that cap on clutch master cylinder reservoir is tight. This will avoid spillage during removal.
- 13. Remove screws that attach clutch fluid reservoir to dash panel.
- 14. Remove reservoir mounting bracket screws and remove reservoir from dash panel.
- 15. Rotate clutch master cylinder 45° counterclockwise to unlock it. Then remove cylinder from dash panel.
- 16. Remove clutch master cylinder rubber seal from dash panel.
- 17. Remove clutch cylinders, reservoir and connecting lines from vehicle.

## INSTALLATION

- 1. Tighten cap on clutch fluid reservoir to avoid spillage during installation.
- 2. Position cylinders, connecting lines and reservoir in vehicle engine compartment.
- 3. Lubricate cylinder seal with liquid dish soap to ease installation. Then seat seal in dash and around cylinder.
- 4. Insert clutch master cylinder in dash panel. Rotate cylinder 45° clockwise to lock it in place.
- 5. If cylinder seal is hard to seat, unlock cylinder and reseat seal if necessary. Then lock cylinder afterward.

6. Position clutch fluid reservoir on dash panel and install reservoir screws. Tighten screws to **5 Nm (40 inch lbs.)** torque.

- 7. Install reservoir mounting bracket on dash panel, if removed.
- 8. Install replacement bushing on clutch pedal pin if necessary.
- 9. Install clutch master cylinder push rod on clutch pedal pinch Secure rod with wave washer, flat washer and retainer ring.

10. Connect clutch pedal position (interlock) switch wires.

11. Install locating clip in clutch master cylinder mounting bracket.

12. Raise vehicle.

13. Install slave cylinder. Be sure cap at end of cylinder rod is seated in release lever. Check this before installing cylinder attaching nuts.

14. Install and tighten slave cylinder attaching nuts to 23 Nm (200 inch lbs.) torque.

15. Lower vehicle.

16. If new linkage has been installed, remove plastic shipping stop from master cylinder push rod. Do this after installing slave cylinder and before operating linkage.

17. Operate linkage several times to verify proper operation.