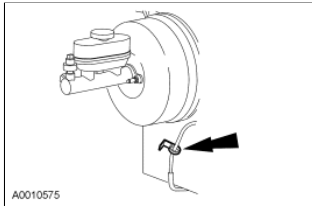


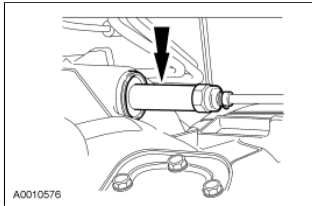
Clutch Master Cylinder and Reservoir**Removal**

⚠ CAUTION: Remove the entire clutch hydraulic system from the vehicle as an assembly when installing a new clutch master cylinder assembly (7C522).

1. Disconnect the clutch hydraulic tube from the dash clip.



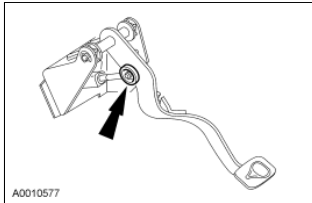
2. Raise and support the vehicle. For additional information, refer to [Section 100-02](#).
3. Unlock and remove the slave cylinder (7A564) from the transmission.
 - Compress and twist the slave cylinder to unlock it from the transmission.



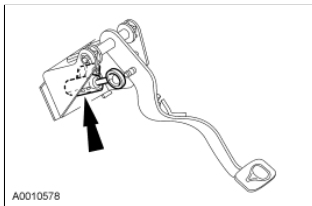
4. Disconnect the clutch hydraulic tube from the floor pan clip. Position the slave cylinder and hydraulic tube forward below the left engine bank. This will make it easier to unlock the clutch master cylinder from the clutch pedal and support bracket (7B633) by reducing tension on the hydraulic tube.
5. Lower the vehicle.

6. **⚠ WARNING:** The clutch pedal is under spring tension.

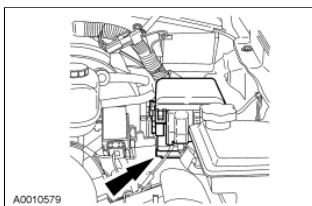
Unlock the push rod bushing retaining clips and separate the clutch master cylinder push rod from the clutch pedal.



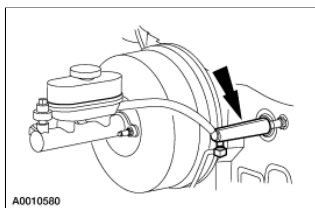
7. Remove and discard the push rod bushing (7526).
8. Remove the switch cover, and remove the clutch pedal position switch (7C534) from the clutch master cylinder push rod.



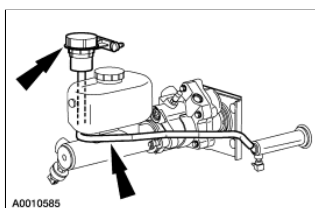
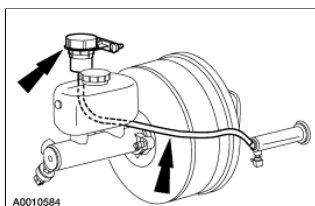
9. Separate the power distribution box from the bracket to gain access to the clutch master cylinder.



10. Unlock and remove the clutch master cylinder from the clutch pedal and support bracket.
- Compress and twist the clutch master cylinder clockwise 45 degrees to unlock it from the clutch pedal and support bracket.

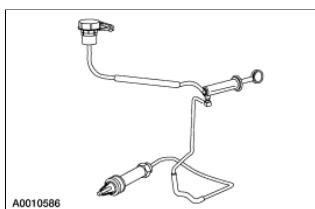


11. Remove the clutch hydraulic reservoir from the wiring tray and separate the clutch hydraulic tube from the brake master cylinder assembly. Position the clutch hydraulic reservoir aside.



12. **CAUTION:** Brake fluid is harmful to painted and plastic surfaces. If brake fluid is spilled onto a painted or plastic surface, wash the surface with water immediately.

Remove the clutch hydraulic system from the vehicle.

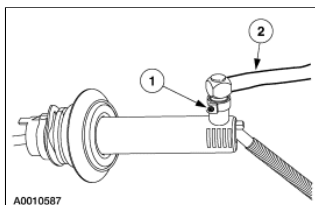


13. Clean the clutch hydraulic system components to prevent contaminants from entering the hydraulic system.

14. **CAUTION:** Place a suitable container under the clutch master cylinder.

Disconnect the hydraulic tube from the clutch master cylinder.

1. Using a 3/32-inch punch and a hammer, drive out the roll pin, and discard it.
2. Disconnect the hydraulic tube from the clutch master cylinder.



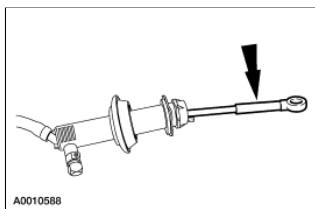
15. **NOTE:** Sometimes the O-ring seal will remain inside the clutch master cylinder.

Remove the O-ring seal from the end of the hydraulic tube, and discard it. Cap the open end of the hydraulic tube.

Installation

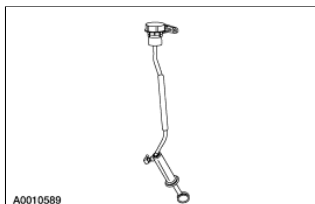
1. **CAUTION:** The push rod is not removable after installing it in the clutch master cylinder.

Install the new push rod in the clutch master cylinder.



2. **CAUTION:** Place a suitable container under the clutch master cylinder.

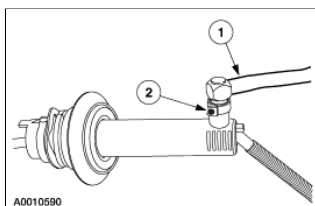
Support the hydraulic components so that the reservoir is above the master cylinder.



3. **CAUTION:** Do not let the reservoir run dry.

Purge the air from the clutch master cylinder assembly (7C522). Install the reservoir cap, and cap the port in the master cylinder after purging the system of air.

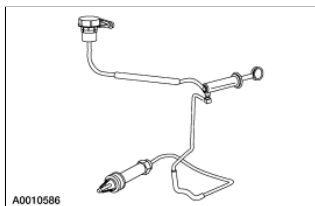
- Fill the reservoir with Ford High Performance DOT 3 Motor Vehicle Brake Fluid C6AZ-19542-AB or equivalent meeting Ford specification ESA-M6C25-A. Allow the fluid to flow through the master cylinder and run out into the container. Do not let the reservoir run dry. Repeat this process, refilling the reservoir 2 to 3 times, to ensure that all air purged from the assembly. Install the reservoir cap, and cap the port in the master cylinder after purging the system of air.
4. Remove the cap from the opening in the hydraulic tube. Position the new O-ring seal on the end of the hydraulic tube. Coat the O-ring seal with DOT 3 Brake Fluid.
- Use Ford High Performance DOT 3 Motor Vehicle Brake Fluid C6AZ-19542-AB or equivalent meeting Ford specification ESA-M6C25-A.
5. Remove the cap from the port in the clutch master cylinder. Connect and secure the hydraulic tube to the clutch master cylinder.
1. Connect the hydraulic tube to the clutch master cylinder.
 2. Install the new roll pin.



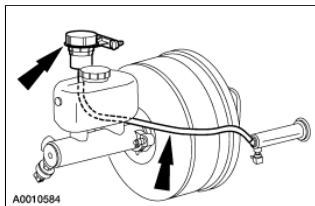
6. Bench bleed the clutch hydraulic system. For additional information, refer to [Section 308-00](#).

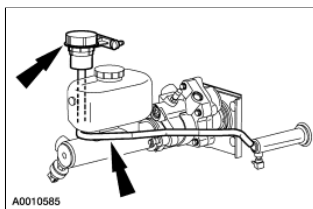
7. **CAUTION:** Brake fluid is harmful to painted and plastic surfaces. If brake fluid is spilled onto a painted or plastic surface, wash the surface with water immediately.

Position the clutch hydraulic system in the vehicle.

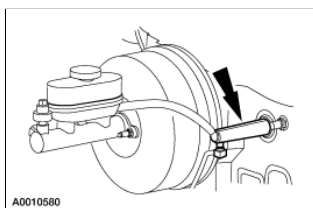


8. Correctly route the clutch hydraulic tube and attach the clutch hydraulic reservoir to the wiring tray.

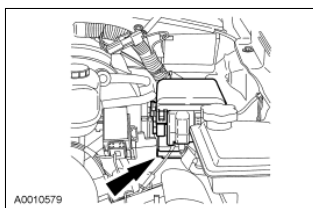




9. Install the clutch master cylinder.
 - Compress and twist the clutch master cylinder counterclockwise 45 degrees to lock it to the clutch pedal and support bracket.

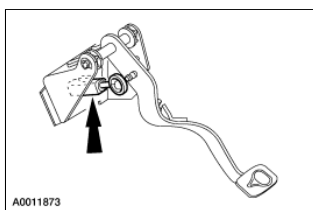


10. Seat the clutch master cylinder rubber seal to the bulkhead.
11. Route the clutch master cylinder-to-slave cylinder hydraulic tube under the brake booster reservoir.
12. Connect the power distribution box to the bracket.



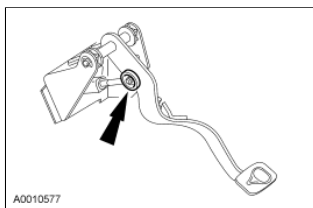
13. **⚠ CAUTION:** When installed correctly, the flat side of the clutch pedal position switch must face the tab protruding from the clutch master cylinder, and the switch wiring connector must be in the 12 o'clock position. Incorrect installation will damage the clutch pedal position switch and cause insufficient clutch pedal travel.

Install the clutch pedal position switch on the clutch master cylinder push rod, and secure it with the switch cover.

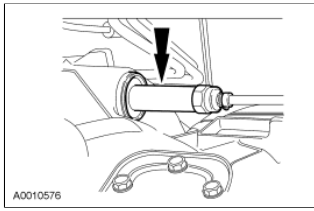


14. Install the new push rod bushing.
15. **⚠ WARNING:** The clutch pedal is under spring tension.

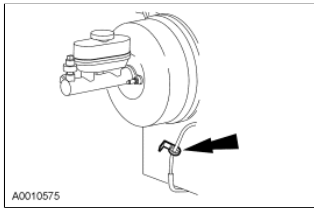
Connect the clutch master cylinder push rod to the clutch pedal.



16. Raise and support the vehicle. For additional information, refer to [Section 100-02](#).
17. Correctly route the hydraulic tube and slave cylinder (7A564) to the transmission.
18. Install the slave cylinder (7A564).
 - Compress and twist the slave cylinder to lock it onto the transmission.



19. Connect the clutch hydraulic tube to the floor pan clip.
20. Lower the vehicle.
21. Connect the clutch hydraulic tube to the dash clip.



22. Press the clutch pedal to seat the push rod in the clutch master cylinder.
 23. Test the system for normal operation.
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