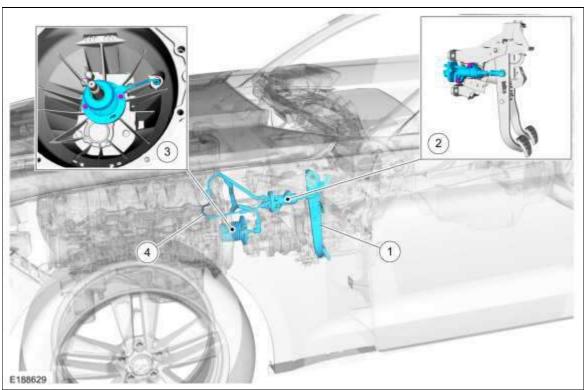
Clutch Controls - Component Location



Item	Description
1	Clutch pedal
2	Clutch master cylinder
3	Clutch slave cylinder
4	Clutch hydraulic fluid tubes

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Clutch System Bleeding

Special Tool(s) / General Equipment

Brake/Clutch System Pressure Bleeder/Filler

Materials

Name	Specification
Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid PM-20	WSS-M6C65-A2

Bleeding

MARNING: Carefully read cautionary information on product label. For emergency medical information seek medical advice. In the USA or Canada on Ford/Motorcraft products call the Poison Control Center at: 1-800-959-3673. For additional information, consult the product Material Safety Data Sheet (MSDS) if available. Failure to follow these instructions may result in serious personal injury.

NOTICE: Do not spill brake fluid on painted or plastic surfaces or damage to the surface may occur. If brake fluid is spilled onto a painted or plastic surface, immediately wash the surface with water.

- 1. Make sure all hydraulic tubes are correctly seated.
- 2. Make sure the clutch pedal is in the most upward position.
- 3. Check the fluid level of the brake/clutch reservoir. Fill the reservoir with the specified fluid to the MAX mark. Material: Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid / PM-20 (WSS-M6C65-A2)
- 4. Using a suitable bleeder kit and a Vacuum Pump Kit, install the rubber stopper in the reservoir opening. Make sure the rubber stopper has a tight fit. Alternate method: use a 50 mm (1.96 in) rubber stopper with an 8 mm (0.31 in) pipe inserted through the rubber stopper. Use the General Equipment: Brake/Clutch System Pressure Bleeder/Filler
- 5. Holding the rubber stopper in place, operate the vacuum pump to 15-20 inches of vacuum. Hold the vacuum for one minute, then quickly relieve the vacuum. Remove the special tools.
- 6. Check the fluid level of the reservoir. Fill the reservoir with the specified fluid to the MAX mark. Install the reservoir cap.
- 7. Press and release the clutch pedal 10 to 12 times or until clutch pedal effort is consistent and positive at top of clutch pedal travel.
- 8. Repeat Steps 4 through 7 two additional times or until clutch pedal effort is consistent and positive at top of clutch pedal travel.
- 9. Install the reservoir cap.
- 10. Check the clutch pedal reserve. Test the clutch system for normal operation.

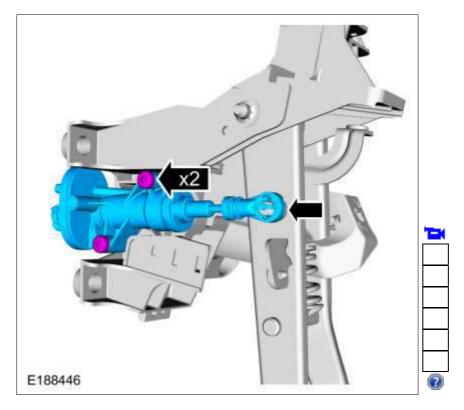
Clutch Master Cylinder

Removal

MARNING: Carefully read cautionary information on product label. For emergency medical information seek medical advice. In the USA or Canada on Ford/Motorcraft products call the Poison Control Center at: 1-800-959-3673. For additional information, consult the product Material Safety Data Sheet (MSDS) if available. Failure to follow these instructions may result in serious personal injury.

NOTICE: Do not spill brake fluid on painted or plastic surfaces or damage to the surface may occur. If brake fluid is spilled onto a painted or plastic surface, immediately wash the surface with water.

- Remove the brake pedal and bracket assembly.
 Refer to: <u>Brake Pedal and Bracket 6-Speed Manual Transmission 3160/6-Speed Manual Transmission MT82</u> (206-06 Hydraulic Brake Actuation, Removal and Installation).
- Remove the clutch master cylinder bolts, then disconnect the clutch master cylinder from the clutch pedal and remove the master cylinder. *Torque*: 89 lb.in (10 Nm)



Installation

- 1. To install, reverse the removal procedure.
- 2. Bleed the clutch hydraulic system.

 Refer to: Clutch System Bleeding (308-02 Clutch Controls, General Procedures).

Clutch Pedal

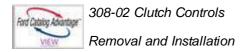
Removal

1. The clutch pedal is serviced as part of the brake pedal assembly. Remove the brake pedal assembly. Refer to: <u>Brake Pedal and Bracket - 6-Speed Manual Transmission - 3160/6-Speed Manual Transmission - MT82</u> (206-06 Hydraulic Brake Actuation, Removal and Installation).

Installation

1. To install, reverse the removal procedure.

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Clutch Slave Cylinder

Removal

WARNING: Do not breathe dust or use compressed air to blow dust from storage containers or friction components. Remove dust using government-approved techniques. Friction component dust may be a cancer and lung disease hazard. Exposure to potentially hazardous components may occur if dusts are created during repair of friction components, such as brake pads and clutch discs. Exposure may also cause irritation to skin, eyes and respiratory tract, and may cause allergic reactions and/or may lead to other chronic health effects. If irritation persists, seek medical attention or advice. Failure to follow these instructions may result in serious personal injury.

MARNING: Carefully read cautionary information on product label. For emergency medical information seek medical advice. In the USA or Canada on Ford/Motorcraft products call the Poison Control Center at: 1-800-959-3673. For additional information, consult the product Material Safety Data Sheet (MSDS) if available. Failure to follow these instructions may result in serious personal injury.

1. Remove the transmission.

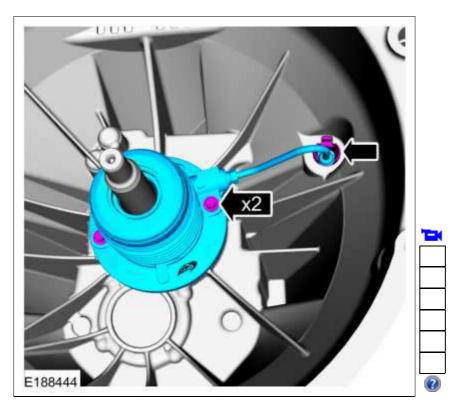
Refer to: <u>Transmission - 2.3L EcoBoost (201kW/273PS)</u> (308-03A Manual Transmission - 6-Speed Manual Transmission - MT82, Removal).

Refer to: <u>Transmission - 3.7L Duratec (227kW/301PS)</u> (308-03A Manual Transmission - 6-Speed Manual Transmission - MT82, Removal).

Refer to: <u>Transmission - 5.0L 32V Ti-VCT</u> (308-03A Manual Transmission - 6-Speed Manual Transmission - MT82, Removal).

Refer to: Transmission (308-03B Manual Transmission - 6-Speed Manual Transmission - 3160, Removal).

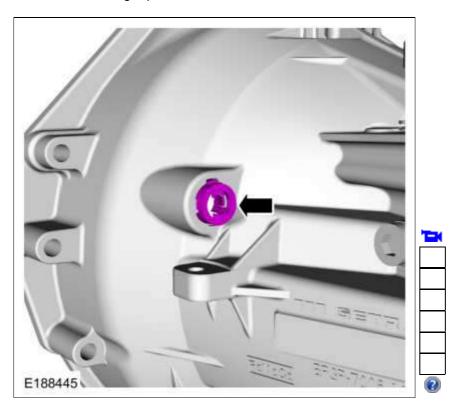
2. Remove the clutch slave cylinder bolts. Pull the clutch slave cylinder outward and release the tube from the retaining clip.



3. Inspect the clutch slave cylinder for a damaged boot, leaking brake fluid or a worn or damaged release bearing. Rotate the release bearing while applying pressure. If the bearing rotation is rough, install a new clutch slave cylinder.

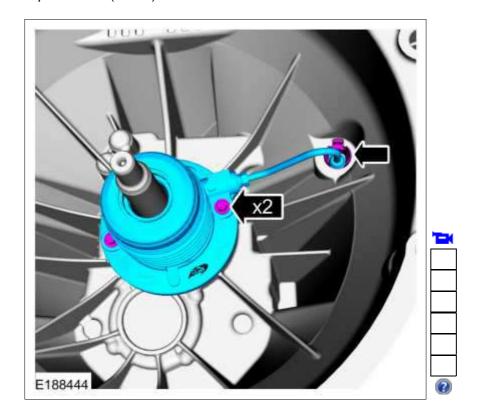
Installation

1. Install a new retaining clip.



2. Position the clutch slave cylinder in the transmission, inserting the tube through the retaining clip. Install the clutch slave cylinder bolts.

*Torque: 97 lb.in (11 Nm)



3. Install the transmission

Refer to: <u>Transmission - 2.3L EcoBoost (201kW/273PS)</u> (308-03A Manual Transmission - 6-Speed Manual Transmission - MT82, Installation).

Refer to: <u>Transmission - 3.7L Duratec (227kW/301PS)</u> (308-03A Manual Transmission - 6-Speed Manual Transmission - MT82, Installation).

Refer to: Transmission - 5.0L 32V Ti-VCT (308-03A Manual Transmission - 6-Speed Manual Transmission

- MT82, Installation).

Refer to: <u>Transmission</u> (308-03B Manual Transmission - 6-Speed Manual Transmission - 3160, Installation).

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