

## Specifications

Description	Nm	lb-ft
Clutch slave cylinder bolts	10	7
Clutch master cylinder to pedal box bolts	23	17
Clutch pedal box to bulkhead bolts	23	17
Clutch master cylinder push rod nuts	23	17

## **Clutch Controls - Vehicles With: 6-Speed Manual Transmission (MT82)**

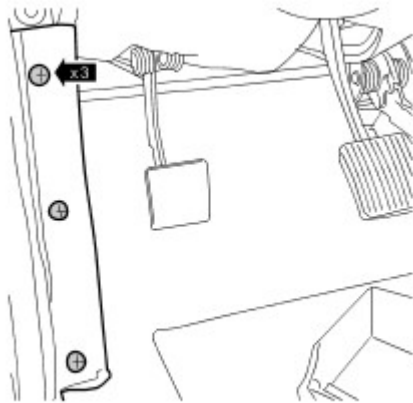
### **OVERVIEW**

For additional information, refer to [Clutch - Vehicles With: 6-Speed Manual Transmission \(MT82\)](#) (308-01 )

## Clutch Master Cylinder - LHD (33.20.01)

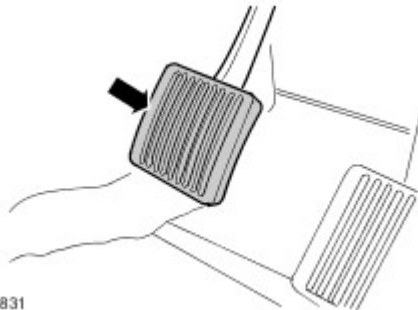
### Removal

- 1 . Remove the 2 stop lamp switches.  
For additional information, refer to [Stoplamp Switch \(70.35.42\)](#)
- 2 . Remove 3 screws securing closing panel to lower 'A' pillar.
  - 1) Release closing panel sufficient to gain access to clutch and brake pedal bracket bolts.



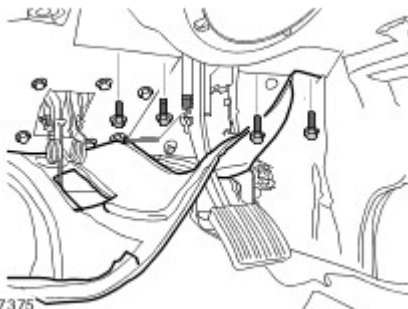
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- 3 . Remove clutch pedal rubber.



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- 4 . Remove 12 bolts securing clutch and brake pedal brackets to body.



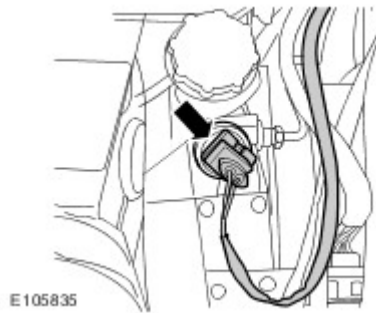
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- 5 . **NOTE:**

Some variation in the illustration may occur, but the essential information is always correct.

Disconnect multiplug from clutch pedal sensor.

- 1) Disconnect multiplug and harness clip from pedal bracket.

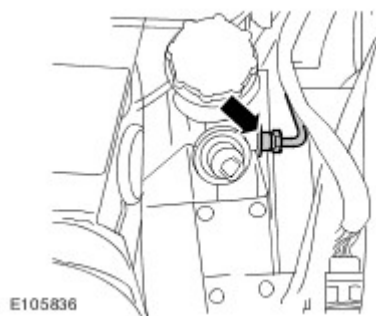


**6 . NOTE:**

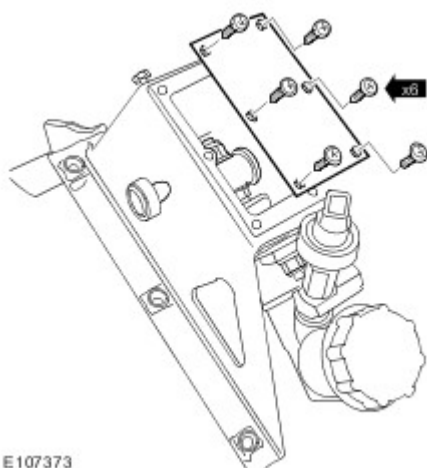
Some variation in the illustration may occur, but the essential information is always correct.

Position cloth to collect fluid spillage.

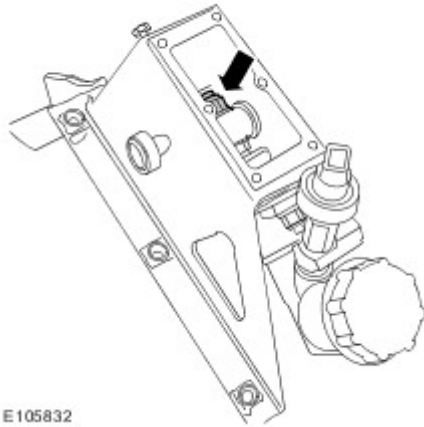
- 1) Loosen pipe union, release pipe and plug pipe and master cylinder.
- 2) Move brake master cylinder assembly aside and lift out clutch master cylinder assembly.



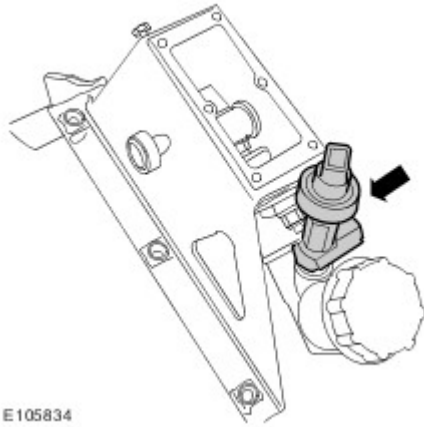
7 . Remove 6 screws, remove pedal box top cover and discard gasket.



8 . Remove nut securing push rod to clutch pedal trunnion.

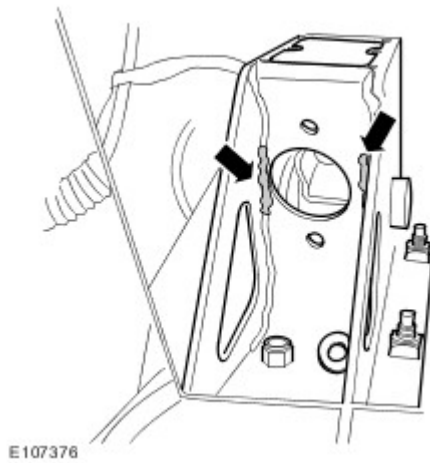


- 9 . Remove clutch pedal sensor and pipe union from master cylinder and discard sealing washers.  
1) Remove 2 bolts and remove clutch master cylinder from pedal bracket.

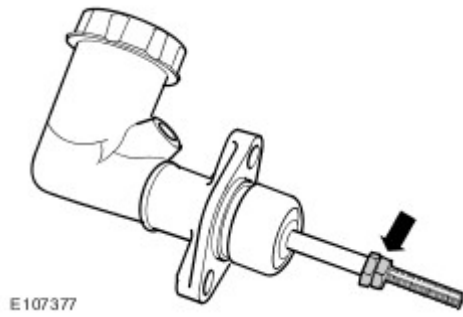


## Installation

- 1 . Check seal on pedal box at points indicated and seal with RTV if necessary.

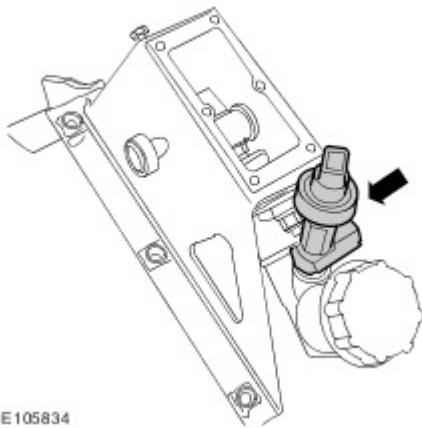


- 2 . Install new lock nuts to master cylinder.



3 . Clean sensor and pipe union.

- 1) Install new gasket.
- 2) Position master cylinder to pedal bracket and align push rod to pedal trunnion.
- 3) Install bolts and nuts and secure master cylinder to pedal bracket.
- 4) Install clutch pedal sensor and pipe to master cylinder using new sealing washers.

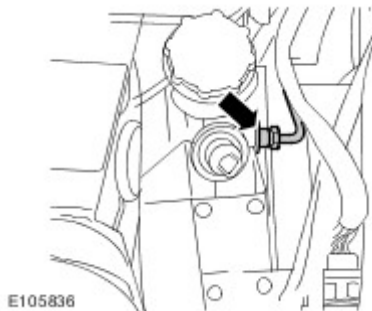


4 . **NOTE:**

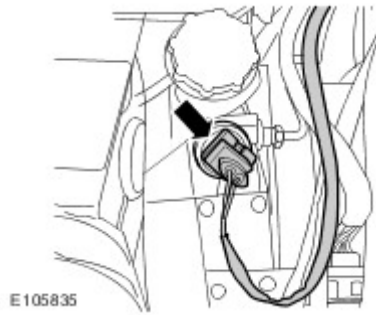
Some variation in the illustration may occur, but the essential information is always correct.

Move brake master cylinder aside and position clutch master cylinder assembly.

- 1) Clean clutch pipe union.
- 2) Align pipe and tighten union.



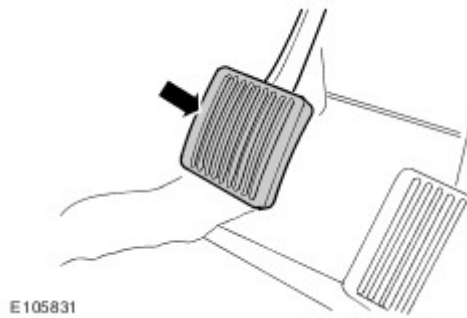
5 . Connect multiplug to clutch pedal sensor.



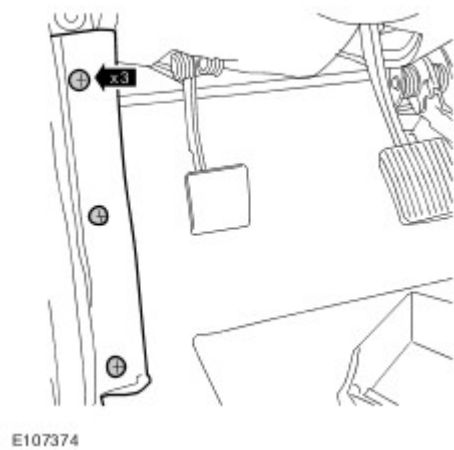
6 . Tighten bolts securing clutch pedal and brake pedal brackets to body.



7 . Install clutch pedal rubber.

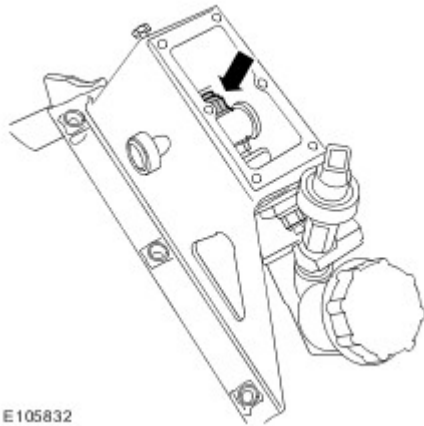


8 . Position closing panel and tighten screws to lower 'A' pillar.



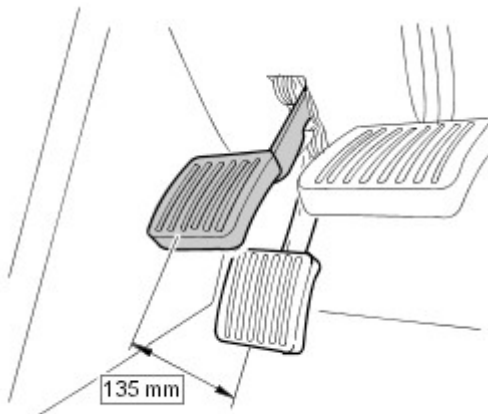
9 . Install the 2 stoplamp switches.  
For additional information, refer to [Stoplamp Switch \(70.35.42\)](#)

10 . Install and lightly tighten nut securing push rod to clutch pedal trunnion.



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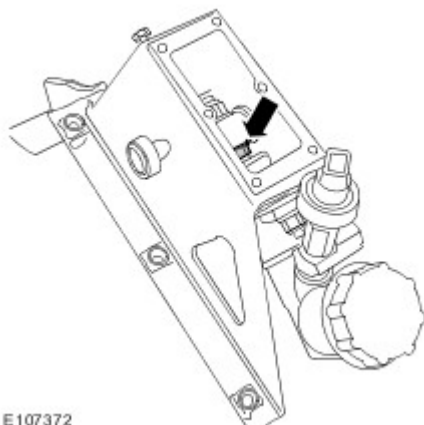
11 . Check distance from lower edge of clutch pedal to down position. Correct measurement is 135 mm (5.31 in).



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12 . Adjust master cylinder push rod lock nuts and nylon nut until 135mm (5.31 in) is achieved.

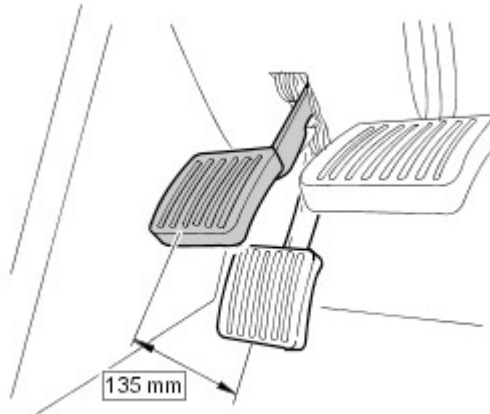
- 1) Tighten lock nuts.
- 2) Tighten nylon nut securing push rod to clutch pedal trunnion.



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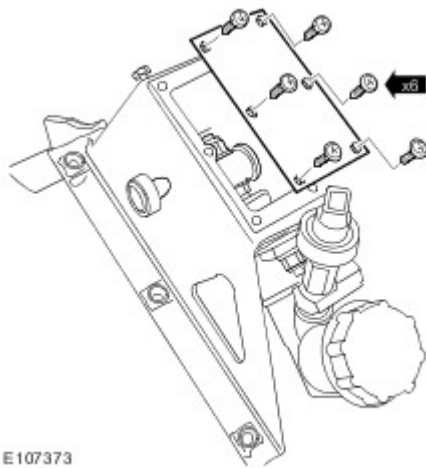
13 . Check pedal travel is to correct measurement.



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14 . Install a new gasket to cover plate and secure with the 6 screws.

1) Connect multiplug and harness clip to pedal bracket.



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15 . Bleed clutch hydraulic system.

For additional information, refer to [Clutch System Bleeding](#).

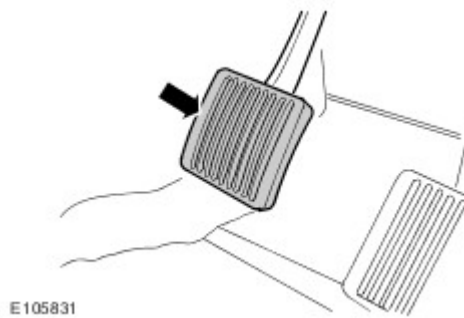
## Clutch Master Cylinder - RHD (33.20.01)

### Removal

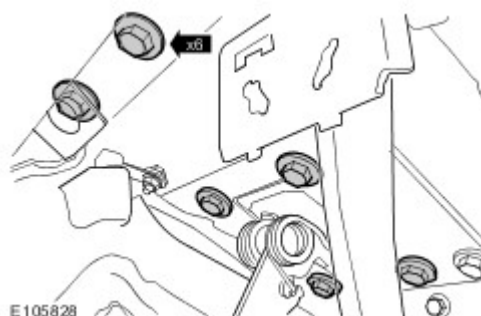
- 1 . Remove the 2 stop lamp switches.  
For additional information, refer to [Stoplamp Switch \(70.35.42\)](#)
- 2 . Remove 3 screws securing closing panel to lower 'A' pillar.



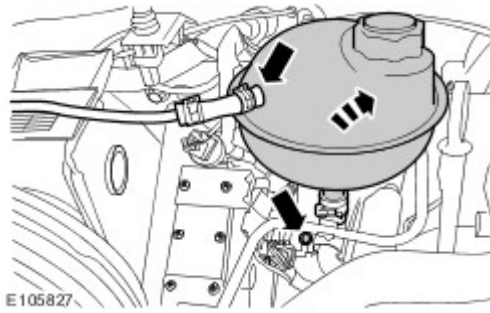
- 3 . Remove clutch pedal rubber.



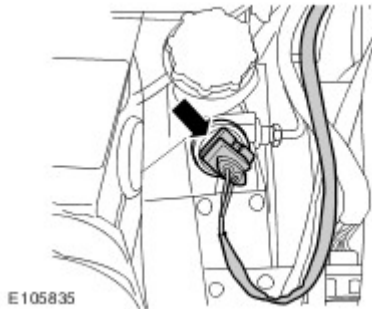
- 4 . Release closing panel sufficient to gain access to clutch bracket bolts.
  - 1) Remove 6 bolts securing clutch pedal bracket to body.



- 5 . Disconnect the expansion tank return hose and plug connections.
  - 1) Remove bolt and tie aside expansion tank.

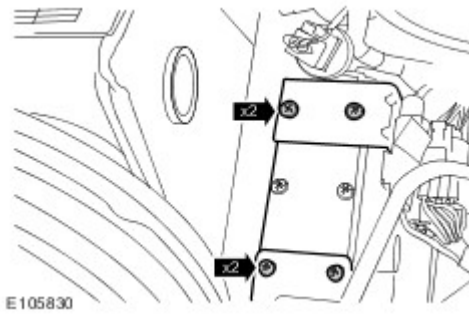


6 . Disconnect multiplug clutch pedal sensor.



7 . Remove and tie aside the multiplug mounting bracket.

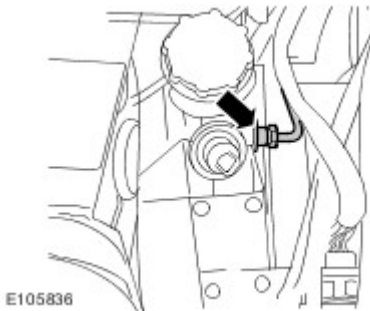
1) Remove and tie aside the brake pipe mounting bracket.



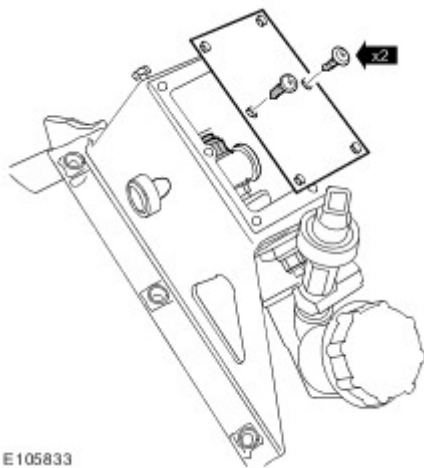
8 . Loosen pipe union, release pipe and plug pipe and master cylinder.

1) Position cloth to collect fluid spillage.

2) Lift out clutch master cylinder assembly.

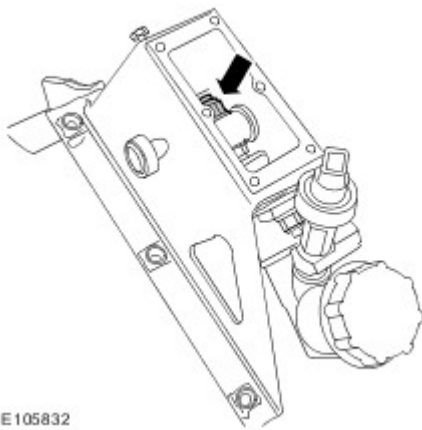


9 . Remove the 2 remaining screws, remove pedal box top cover and discard gasket.



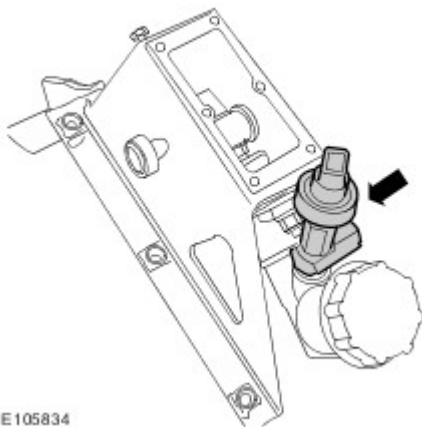
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10 . Remove nut securing push rod to clutch pedal trunnion.



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11 . Remove clutch pedal sensor and pipe union from master cylinder and discard sealing washers.  
1) Remove 2 bolts and remove clutch master cylinder from pedal bracket.



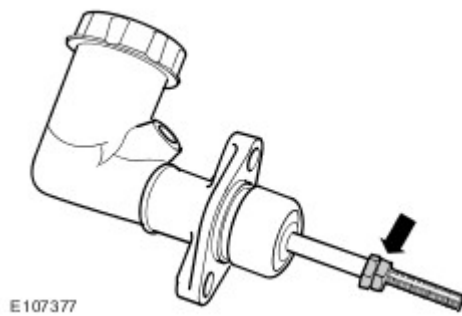
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## Installation

1 . Check seal on pedal box at points indicated and seal with RTV if necessary.

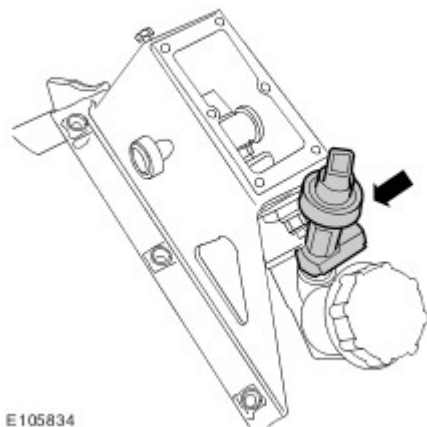


2 . Install new lock nuts to master cylinder.



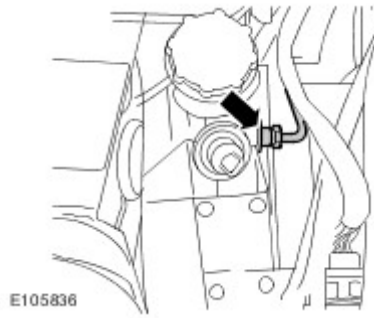
3 . Clean sensor and pipe union.

- 1) Install new gasket.
- 2) Position master cylinder to pedal bracket and align push rod to pedal trunnion.
- 3) Install bolts and nuts and secure master cylinder to pedal bracket.
- 4) Install clutch pedal sensor and pipe to master cylinder using new sealing washers.

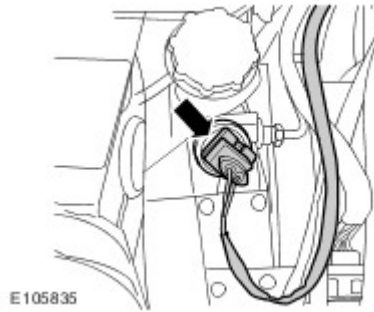


4 . Install clutch master cylinder and mounting bracket.

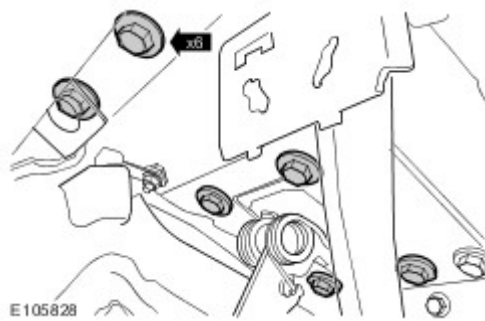
- 1) Clean clutch pipe union.
- 2) Align pipe and tighten union.



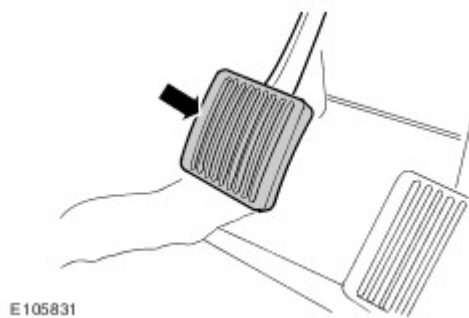
5 . Connect multiplug to clutch pedal sensor.



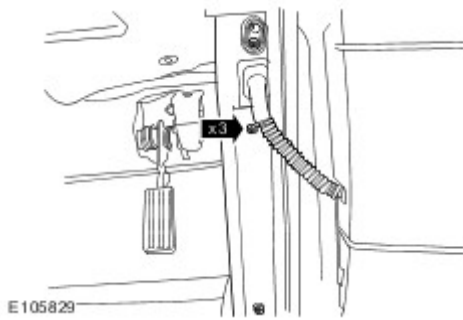
6 . Install the 6 bolts securing clutch pedal bracket to body.



7 . Install clutch pedal rubber.



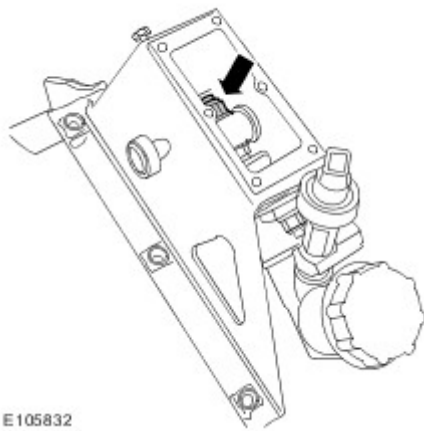
8 . Position closing panel and tighten screws to lower 'A' pillar.



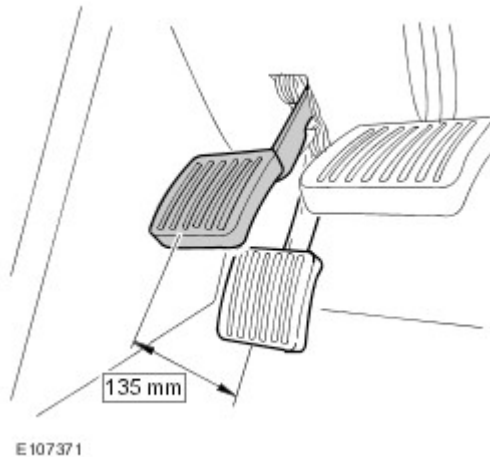
9 . Install the 2 stoplamp switches.

For additional information, refer to [Stoplamp Switch \(70.35.42\)](#)

10 . Install and lightly tighten nut securing push rod to clutch pedal trunnion.



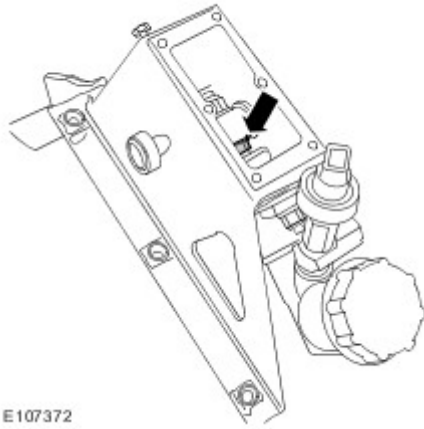
11 . Check distance from lower edge of clutch pedal to down position. Correct measurement is 135 mm (5.31 in).



12 . Adjust master cylinder push rod lock nuts until 135mm (5.31 in) is achieved.

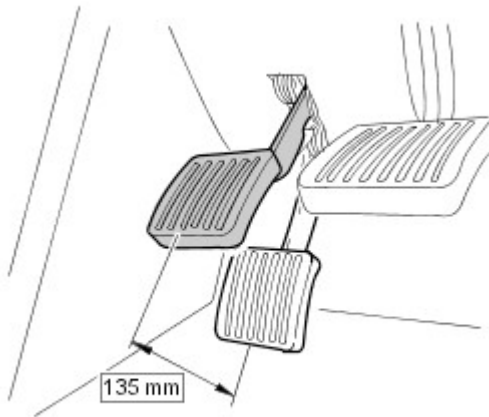
1) Tighten lock nuts.

2) Tighten nylon nut securing push rod to clutch pedal trunnion.



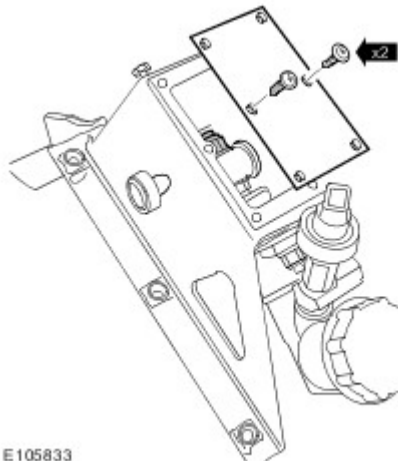
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13 . Check pedal travel is to correct measurement.



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14 . Install a new gasket to cover plate and secure with the 2 center screws.

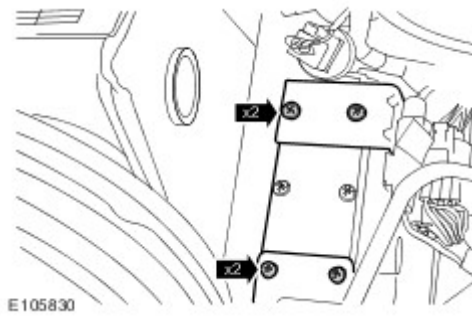


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15 . Install the multiplug mounting bracket.

1) Install the brake pipe mounting bracket.






- 16 . Install the coolant expansion tank.
  - 1) Connect the coolant expansion tank return hose.
  
- 17 . Bleed the clutch hydraulic system.

For additional information, refer to [Clutch System Bleeding](#).

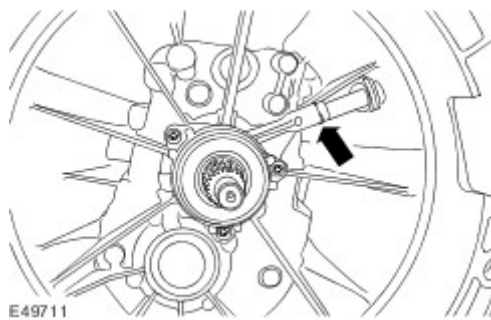
## Clutch Slave Cylinder (33.35.01)

### Removal

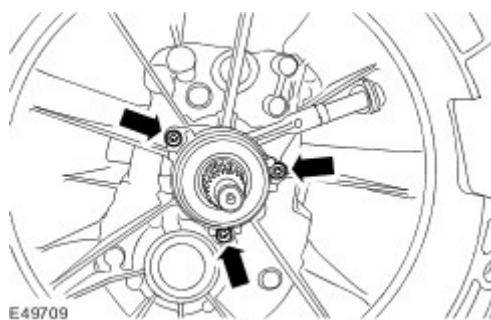
1.  **WARNING: Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.**

Raise and support the vehicle.

2. Disconnect the battery ground cable.  
For additional information, refer to [Battery Disconnect and Connect](#).
3. Remove the transmission.  
For additional information, refer to [Transmission \(37.20.02.99\)](#).
4. Disconnect the fluid pipe.
  - ▶ Position an absorbent cloth to collect any fluid spillage.
  - ▶ Remove the clip.



5. Remove the clutch slave cylinder.
  - ▶ Remove the 3 bolts.



### Installation

1. Install the clutch slave cylinder.
  - ▶ Tighten the bolts to 10 Nm (7 lb.ft).
2. Connect the fluid pipe.
  - ▶ Install the clip.
3. Install the transmission.

For additional information, refer to [Transmission \(37.20.02.99\)](#).

- 4 . Connect the battery ground cable.  
For additional information, refer to [Battery Connect](#).