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**BMW 3-Series and Z4 (99-05) Includes 2006 325ci/330ci Coupe and Convertible models Haynes Online Manual.**

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## 5 Clutch master cylinder - removal, inspection and installation

### Warning:

Brake fluid is poisonous; wash off immediately and thoroughly in the case of skin contact, and seek immediate medical advice if any fluid is swallowed or gets into the eyes. Certain types of brake fluid are flammable and may ignite when allowed into contact with hot components; when servicing any hydraulic system, it is safest to assume that the fluid is flammable, and to take precautions against the risk of fire as though it is gasoline that is being handled. Brake fluid is also an effective paint stripper, and will attack plastics; if any is spilled, it should be washed off immediately, using copious quantities of fresh water. Finally, it is hygroscopic (it absorbs moisture from the air) - old fluid may be contaminated and unfit for further use. When topping-up or replacing the fluid, always use the recommended type, and ensure that it comes from a freshly-opened sealed container.

## Removal

1 Remove the brake fluid reservoir cap, and siphon out sufficient brake fluid so that the fluid level is below the level of the reservoir fluid hose connection to the clutch master cylinder (the brake fluid reservoir feeds both the brake and clutch hydraulic systems). Do not empty the reservoir, as this will draw air into the brake hydraulic circuits.

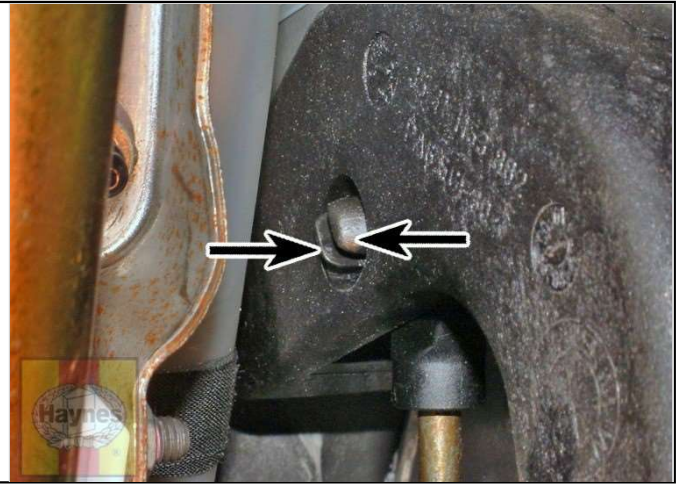
2 Disconnect the clutch master cylinder hose from the brake fluid reservoir. Be prepared for fluid spillage, and plug the open end of the hose to prevent dirt entry.

3 Working inside the vehicle, remove the securing screws, and remove the driver's side lower dash trim panel (see [Chapter 11](#) ).

4 Disconnect the electrical connector, and remove the clutch pedal switch by depressing the pedal, pulling out the switch red sleeve to its full extent, then squeeze together the two retaining clips and pull the switch from the bracket.

5 Squeeze together the two ends then press out the master cylinder pushrod pivot pin from the clutch pedal (see illustration).

**5.5 Squeeze together the ends and remove the pivot pin**



6 Remove the fasteners securing the master cylinder to the pedal bracket in the footwell (see illustration).

**5.6 Remove the master cylinder bolts**



7 Using a small screwdriver, pry out the retaining clip and then pull the master cylinder from the hydraulic pressure hose (which goes to the slave cylinder) (see illustration). Withdraw the master cylinder, and carefully ease the fluid supply hose through the firewall.

**5.7 Pry out the retaining clip**



## Inspection

8 Inspect the master cylinder for fluid leaks and damage, and replace if necessary. No spare parts are available for the master cylinder, and if faulty, the complete unit must be replaced.

## Installation

9 Installation is the reverse of removal, noting the following points.

- A. Take care not to strain the master cylinder fluid supply hose during installation.
- B. On completion, top up the fluid level in the reservoir, then bleed the clutch hydraulic system (see [Section 6](#)).

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