



**Haynes**  
shows you how

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

## 3 Hydraulic lines and hoses - replacement

### Warning:

On models with ABS (with or without ASC+T), under no circumstances should the hydraulic lines/hoses linking the master cylinder, hydraulic unit and the accumulator (if equipped) be disturbed. If these fittings are disturbed and air enters the high-pressure hydraulic system, bleeding of the system can only be safely carried out by a BMW dealer or suitably-equipped specialist using the special service tester.

### Note:

Before starting work, refer to the precautions in [Section 1](#) and the warnings at the beginning of [Section 2](#) .

1 If any line or hose is to be replaced, minimize fluid loss by first removing the master cylinder reservoir cap, then tightening it down onto a piece of cellophane to obtain an airtight seal. Alternatively, flexible hoses can be sealed, if required, using a proprietary brake hose clamp; metal brake line fittings can be plugged (if care is taken not to allow dirt into the system) or capped immediately they are disconnected. Place a wad of rag under any fitting that is to be disconnected, to catch any spilled fluid.

2 If a flexible hose is to be disconnected, unscrew the brake line fitting nut before removing the spring clip which secures the hose to its mounting bracket.

3 Use a flare-nut wrench to loosen the brake line fittings (these are available at most automotive retail stores). Always clean the fitting and surrounding area before disconnecting it. If disconnecting a component with more than one fitting, make a careful note of the connections before disturbing any of them.

4 If a brake line is to be replaced, it can be obtained, cut to length and with the fitting nuts and end flares in place, from BMW dealers. All that is then necessary is to bend it to shape, following the line of the original, before installing it to the car. Alternatively, most motor accessory shops can make up brake lines from kits, but this requires very careful measurement of the original, to ensure that the replacement is of the correct length. The safest answer is usually to take the original to the shop as a pattern.

5 On installation, do not over-tighten the line fittings.

6 Ensure that the lines and hoses are correctly routed, with no kinks, and that they are secured in the clips or brackets provided. After installation, remove the cellophane from the reservoir, and bleed the hydraulic system as described in [Section 2](#) . Wash off any spilled fluid, and check carefully for fluid leaks.

