

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

27 Dynamic Stability Control - general information and component replacement

General information

1 Dynamic Stability Control (DSC) is standard on all models. Strictly speaking, DSC includes ABS and Traction control, but this Section is concerned with Cornering Brake Control (CBC). By monitoring steering wheel movements, suspension ride heights, road speed and lateral acceleration, the system controls the pressure in the <u>brake lines</u> to each of the four brake calipers during braking, reducing the possibility of understeer or oversteer.

Component replacement

Steering angle sensor

2 Replacement of the steering angle <u>sensor</u> involves the complete dismantling of the steering column, which should be entrusted to a BMW dealer or suitably-equipped specialist. **Note:** *After replacing the steering angle sensor, the steering angle offset procedure must be carried out using dedicated BMW diagnostic equipment. Have this procedure carried out by a BMW dealer or suitably-equipped specialist.*

Front ride height sensor

- 3 Remove the nut securing the control rod to the sensor arm (see illustration 12.3 in Chapter 12).
- 4 Remove the two retaining screws, and withdraw the ride <u>sensor</u>. Disconnect the electrical connector as the sensor is removed.
- 5 Installation is a reversal of removal. Have the headlight alignment checked on completion.

DSC control unit

6 The DSC <u>control unit</u> is integral with the ABS control unit, replacement of which should be entrusted to a BMW dealer or suitably-equipped specialist (see <u>Chapter 9</u>).

DSC pre-boost pump

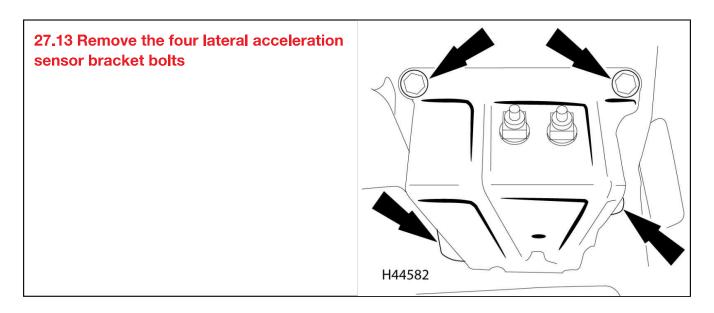
Note:

After replacing the pre-boost pump, the brake high pressure hydraulic system needs to be bled. This necessitates the use of dedicated BMW Service equipment. Have the procedure carried out by a BMW dealer or suitably-equipped specialist.

- 7 The DSC pre-boost pump is located under the brake <u>master cylinder</u>. Clamp the supply hose from the master cylinder reservoir to the pump, and disconnect the hose from the pump. Be prepared for fluid spillage.
- 8 Unscrew the line fitting and disconnect the outlet pipe from the pump.
- 9 Disconnect the electrical connector from the pump and maneuver it from the rubber mounting.
- 10 Installation is a reversal of removal. Bleed the brake hydraulic system as described in Chapter 9.

Lateral acceleration sensor

- 11 Remove the driver's seat as described in Chapter 11.
- 12 With the seat removed, lift the floor panel, and move the insulating wedge 10 cm forward to gain access to the <u>sensor</u>.
- 13 Remove the four screws securing the <u>sensor</u> bracket to the body and, lifting the inner end first, remove the assembly (see illustration). Disconnect the electrical connector as the unit is withdrawn. Note: *The <u>sensor</u> is extremely sensitive to vibration. Handle the unit with care.*



- 14 If necessary, remove the two screws and separate the sensor from the bracket.
- 15 Installation is a reversal of removal. Tighten the fasteners to the specified torque where given.