

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

25 Airbag system components - removal and installation

General information

- 1 All models are equipped with a Supplemental Restraint System (SRS), more commonly known as an airbag. This system is designed to protect the driver, and the front seat passenger, from serious injury in the event of a head-on or frontal collision. It consists of airbag sensors mounted on the seat crossmember for models equipped with side impact airbags and a sensing/diagnostic module mounted in the center of the vehicle, near the floor console. The airbag assemblies are mounted on the steering wheel and the right side top surface of the passenger's side dash. Side-impact airbags are located in the sides of the seat backs, and head protection airbags located in the headliner A pillars. The airbag control module is mounted in the center console near the parking brake handle.
- 2 Two different types of driver's airbags may be installed. Models from September 1999 are equipped with "Smart" airbags with two stages of inflation. Where a low speed impact is detected and airbags provide "soft" deployment, and "hard" deployment in high speed impacts. Thus ensuring that the airbag deployment is no greater than necessary to provide protection.

Disarming the system and other precautions

Warning:

Failure to follow these precautions could result in accidental deployment of the airbag and personal injury.

- 3 Whenever working in the vicinity of the steering wheel, steering column or any of the other SRS system components, the system must be disarmed. To disarm the system:
 - A. Point the wheels straight ahead and turn the key to the Lock position.
 - B. Disconnect the cable from the negative battery terminal(s) (see Chapter 5, Section 1).
 - C. Wait at least two minutes for the back-up power supply to be depleted.
- 4 Whenever handling an airbag module, always keep the airbag opening (the trim side) pointed away from your body. Never place the airbag module on a bench or other surface with the airbag opening facing the surface. Always place the airbag module in a safe location with the airbag opening facing up.
- 5 Never measure the resistance of any SRS component. An ohmmeter has a built-in battery supply that could

accidentally deploy the airbag.

6 Never use electrical welding equipment on a vehicle equipped with an airbag without first disconnecting the yellow airbag connector, located under the steering column near the combination switch connector (driver's airbag) and behind the glove box (passenger's airbag).

7 Never dispose of a live airbag module. Return it to a dealer service department or other qualified repair shop for safe deployment and disposal.

Driver's airbag removal and installation

Models equipped with a conventional steering wheel

8 Loosen and remove the two airbag retaining Torx screws from the rear of the steering wheel, rotating the wheel as necessary to gain access to the screws (see illustration).

25.8 Rotate the steering wheel to access the two Torx screws



9 Return the steering wheel to the straight-ahead position then carefully lift the airbag assembly away from the steering wheel. Release the locking clip and disconnect the airbag wiring connector from the steering wheel (see illustration) . Note that the airbag must not be knocked or dropped and should be stored the correct way up with its padded surface uppermost.

25.9 Release the retaining clip and disconnect the airbag wiring connector



10 On installation reconnect the wiring connector and seat the airbag unit in the steering wheel, making sure the wire does not become trapped. Install the retaining screws and tighten them to the specified torque setting and reconnect the battery.

Models equipped with a sport steering wheel

11 With the steering wheel in the straight-ahead position, insert a screwdriver through the hole in the rear-side of the steering wheel at 90-degrees to the steering column to release the spring clip, and pull that side of the airbag away from the wheel (see illustrations). Repeat this process on the other side of the wheel.

25.11a Insert a screwdriver through the hole in the side of the steering wheel . . .



25.11b . . . so that the screwdriver goes behind the metal plate . . .



25.11c . . . and pushes against the retaining clip (airbag removed for clarity)



12 To disconnect the airbag wiring connectors, using a small flat-bladed screwdriver, lift the connector locking flap and pull the connector from position (see illustration). Note that the airbag must not be knocked or dropped and should be stored the correct way up with its padded surface uppermost.

25.12 Lift the locking flap and disconnect the airbag wiring connector



13 On installation, reconnect the wiring connectors, and ensure that connectors are locked in place. Note that the connectors are color-coded to ensure correct installment. The connector plugs into the socket of the same color. Position the airbag on the wheel and push the unit home until it locks in place. Reconnect the battery negative <u>terminal</u>.

Passenger airbag

- 14 Using a wooden or plastic level, carefully pry off the decorative strip above the passenger's glove box.
- 15 Remove the two screws and pull out the air vent on the passenger's side.
- 16 Carefully pull the lower edge of the airbag cover from the dash. Remove the two screws and remove the cover (see illustration) . Note that after airbag deployment, a new cover must be installed.

25.16 Remove the screws and remove the cover



17 Remove the retaining nuts and remove the airbag. Press the locking tab and disconnect the wiring connector as the unit is withdrawn (see illustrations) .

25.17a Remove the airbag nuts



25.17b Press the retaining clip and disconnect the airbag wiring connector



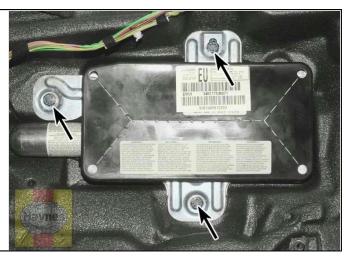
18 Installation is the reverse of removal. Tighten the airbag retaining screws to the torque listed in this Chapter's Specifications, and reconnect the battery negative terminal.

Door airbags

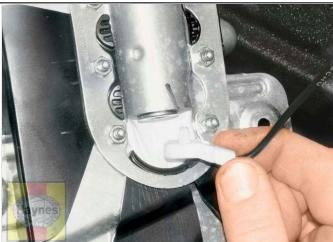
19 Remove the door inner trim panel (see Chapter 11).

20 Remove the three screws and lift the airbag from position. Pull the wiring connector from the airbag as it is removed (see illustrations). Where applicable, release the wiring from any retaining clips.

25.20a Door airbag retaining nuts



25.20b Unplug the yellow connector from the side airbag



21 Installation is the reverse of removal. Tighten the airbag retaining screws to the torque listed in this Chapter's Specifications, and reconnect the battery negative terminal.

Head airbags

22 On each side of the passenger cabin, a Head Protection Airbag (HPS) is present. The airbag runs from the lower part of the windshield pillar to above the rear door, is approximately 5-feet (1.5 meters) in length, and 5-inches (130 mm) in diameter when inflated. To remove the airbag, the entire dash and headlining must be removed. This task is outside the scope of the DIYer, and therefore we recommend that the task be entrusted to a BMW dealer or specialist.

Airbag control unit

23 Remove the rear section of the center console as described in Chapter 11.

24 Cut the carpet in front of the parking brake lever to expose the control unit.

25 Remove the retaining nuts and lift the module. Note the ground strap under one of the mounting nuts. Disconnect the wiring connector as the unit is withdrawn (see illustrations).

25.25a Note the ground strap under one of the mounting nuts



25.25b Unlock the catch and disconnect the control unit wiring connector



26 Installation is the reverse of removal. Note that the <u>control unit</u> must be installed with the arrow pointing towards the front of the vehicle, and that the ground strap is installed under one of the module mounting nuts.

Impact sensor

27 There are two impact sensors, one on each side of the passenger cabin. Remove the seats (see Chapter 11).

28 Unclip the door sill trim panel, and fold the carpet away from the side. To improve access if required, remove the floor level heater duct.

29 Remove the two retaining screws, and remove the <u>sensor</u> (see illustration) . Disconnect the wiring connector as the <u>sensor</u> is withdrawn.

25.29 Remove the two screws and remove the impact sensor



30 Installation is the reverse of removal, noting that the arrow on the sensor must point towards the door sill.

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