

400 Body-General

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GENERAL

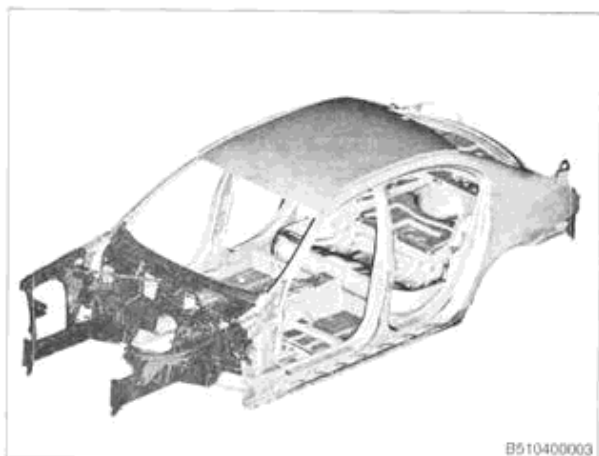
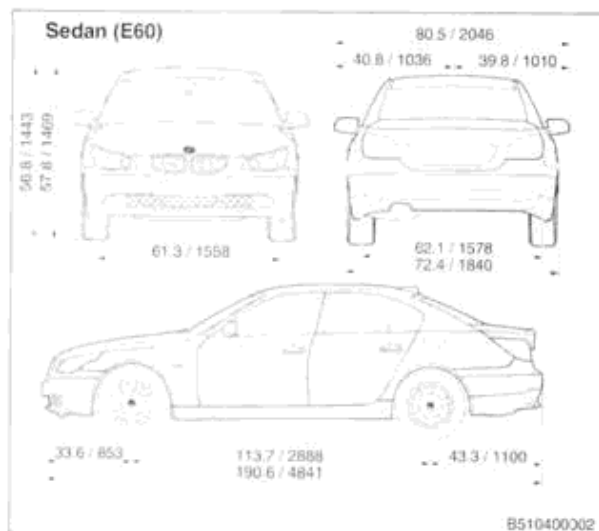
This chapter covers system descriptions and general information for the repair groups in partitions **4 Body** and **5 Body Equipment**.

The 5 Series chassis was introduced in the North America market as a Sedan (E60) in fall 2003 and Sports Wagon (E61) in spring 2005. Both rear-wheel drive and all-wheel drive (xDrive) versions were offered.



400-2 Body-General

Dimensions



BODY ASSEMBLY

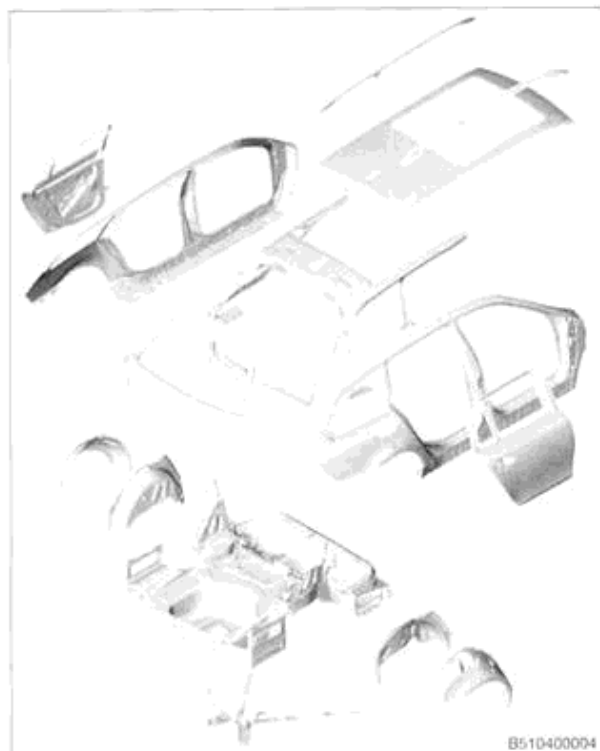
Dimensions

- ◀ In the accompanying illustration, dimensions for 2004 - 2010 Sedan models are given in inches / mm.

Body dimensions have been increased from the previous generation (E39) to improve knee room in the rear seat area by 5 cm (2 in) and to increase the luggage compartment capacity, which at 520 L (18.36 ft³) has the largest capacity of all current BMW vehicles including the E65.

Body

- ◀ In order to make the Sedan (E60) and Sports Wagon (E61) significantly lighter than the previous generation 5 Series (E39), BMW designed a reduced-weight aluminum front end (GRAV). The front end consists almost entirely of aluminum while the transition to steel occurs in the front bulkhead area. Aluminum components are shown in darker shaded (front clip) section.



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- ✦ The bodies of the Sedan and Sports Wagon are identical in structure and design from the front bumper to the B-pillar. The rear doors, rear floor pans, inner halves of the rear wheel arches, rear side frames and pillars, rear roof frame and roof outer skin have been redesigned for the Sports Wagon. The rear hatch was designed similar to the E39 Sports Wagon with a separately opening rear window. To increase the body rigidity, a V-shaped tension strut is fitted on the underbody on vehicles equipped with the panoramic glass sunroof.



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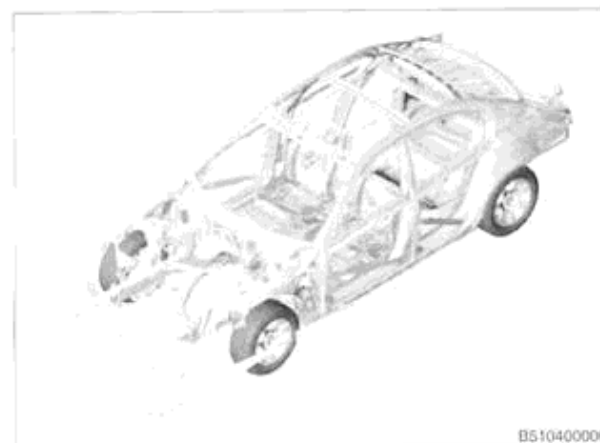
- ✦ The Sports Wagon luggage compartment is flat with the rear seat backrests folded down. 4 lashing eyes are fitted as standard on the floor of the luggage compartment. The vehicle tool kit is located in a utility box on the left-hand frame side member. The lockable luggage compartment floor can be raised and with the aid of gas spring struts (similar to the hood) and remains in position until it is pressed down again. A storage area is provided under the luggage compartment floor. Below this is the spare wheel or a further storage area (35 liters) if the vehicle is equipped with run-on flat tires.

400

SAFETY AND SECURITY

Passenger safety

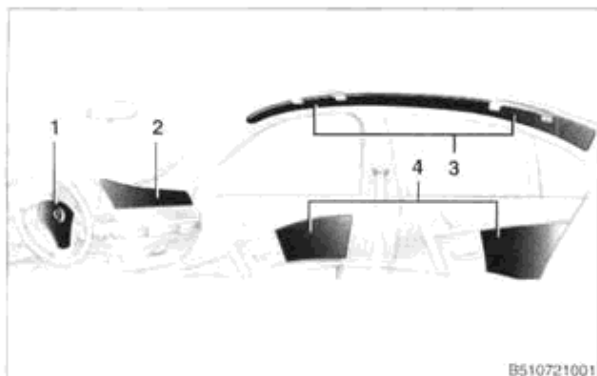
BMW passive safety is based on the principle of protecting the passenger compartment with dynamic deformation zones. One of the first considerations in designing a safe vehicle is the body and chassis design. It is vital to protect the passenger in the event of an impact. This is accomplished by maintaining the integrity of the "passenger cell" during an accident. The main consideration during an impact is to avoid transferring crash energy to the vehicle occupants. By adding energy absorbing crash elements to the vehicle, this energy transfer is reduced considerably.



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400-4 Body-General

Restraint system



Restraint system

The passive restraint system consists of seat belts with pyrotechnic (explosive) tensioners and a minimum of 6 airbags.

1. Driver airbag
2. Passenger airbag
3. Curtain side airbag
4. Side airbag (rear optional)

For additional restraint system information, see:

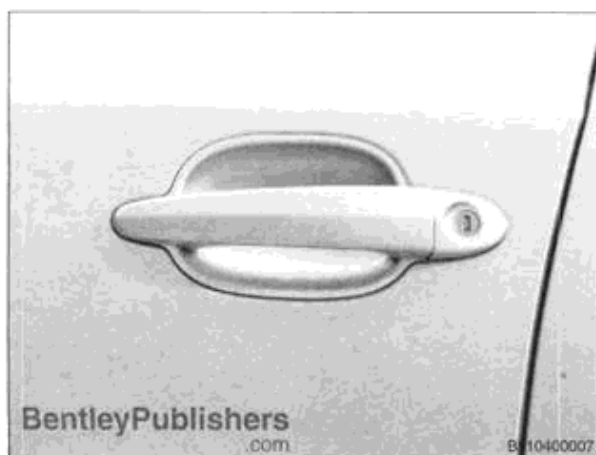
- 720 Seat belts
- 721 Airbag System (SRS)

Door handles

◀ In vehicle equipped with comfort access, the front door handle contains the components of the electronic outer door handle module (TAGE).

If a vehicle remote key is in the vicinity of the vehicle, a hand inserted between the door handle and the door automatically unlocks the car.

See 515 Central Locking and Anti-theft.



Central locking

All doors locks as well as trunk lid lock, tailgate lock and fuel filler flap lock are integrated into central locking and can be operated via the following:

- Remote key
- Driver's door lock barrel (door lock)
- Central locking button
- Electronic outer door handle module (TAGE) (comfort access vehicle)

There are two different central locking systems in 5 Series models dependant on production date. See 515 Central Locking and Anti-theft for more information.

Antitheft alarm (DWA)

When armed, the antitheft system monitors door lock contacts and trunk and engine hood locks and sounds an alarm if it detects tampering. Included in the enhanced system is a tilt sensor to protect against the vehicle being towed away, and an interior motion sensor.

For more information, see 515 Central Locking and Anti-theft.

INTERIOR FEATURES

Instruments, iDrive



- ◀ The instrument cluster and dashboard layout is similar to other BMW models with all of the controls in easy reach of the driver.

The dashboard is equipped with the iDrive central information display (CID) or car information computer (CIC). The display screen is used for a variety of vehicle control and diagnostic tasks and is also capable of displaying navigation information.



- ◀ Navigation, climate control, sound system and other functions are controlled via iDrive controller.

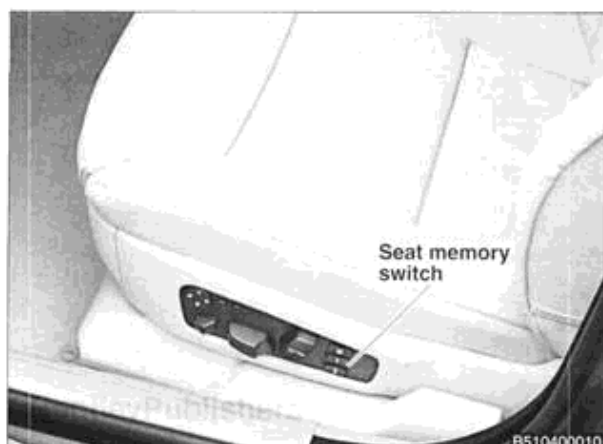


- ◀ Functions and controls essential to the driver are logically grouped and easy to reach. Instruments and controls are fully integrated into the overall design of the vehicle.

- Tilt-telescopic steering wheel has 30 mm (1.2 in) of vertical and longitudinal adjustment.
- Multifunction steering wheel contains two key pads containing controls for the sound system, telephone and cruise control.

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Seats



Seats

Ergonomically engineered seats are constructed from polyurethane foam containing areas or zones of different firmness. They offer superior lateral support without constricting the occupant.

- ◀ In cars equipped with seat position memory, two different seat configurations can be memorized by the seat control module. Seat memory coordinates with outside mirror memory. These functions are controlled by the seat memory module.

For additional information, see **520 Seats**.

BODY ELECTRONICS

5 Series vehicles are equipped with an integrated complex of electronic modules connected via the bus system. An overview of the bus system is in **600 Electrical System-General**. For details of electrical functions, see:

- **121 Battery, Starter, Alternator**
- **512 Door Windows**
- **515 Central Locking and Anti-theft**
- **520 Seats**
- **611 Wipers and Washers**
- **620 Instruments**
- **630 Lights**

