



Second Edition January 2009  
Guidelines for First Responders

Mercedes-Benz



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## **Preface**

A high standard of safety is tradition and a top priority at Mercedes-Benz. Our vehicles are state-of-the-art and this is especially true regarding safety.

Our comprehensive safety philosophy extends to providing rescue personnel with specific information about our vehicles. As their top priority is to save lives, the rescue personnel must be able to reach accident victims as quickly as possible without exposing anyone to additional danger.

First responders must be properly trained and have knowledge of vehicle-specific air bag packaging as well as information on other components that if handled improperly could prove dangerous to vehicle occupants and/or rescue personnel. Also with increased use of high-strength steels and other less common materials, it is essential to educate rescue personnel on their use in vehicle construction.

This document contains other noteworthy features and essential information on occupant restraint systems and the Tele Aid emergency call system.

## Extinguishing Vehicle Fires



**WARNING: Approach and extinguish any fires according to your local fire department guidelines!**

### ***Body***

Strong and light, magnesium is increasingly being used in safety-relevant reinforcement structures on the body of Mercedes-Benz vehicles. Case in point, the inner door panels on the CL-Class Coupé (model 215 and 216) and SL-Class roadster (model 230) are made of magnesium.

**NOTE:** Fires involving magnesium are classified as Class D fires by the National Fire Protection Association (NFPA).

### ***Restraint Systems***

If a fire breaks out in a vehicle, the front air bags, side impact air bags, and head/thorax side impact air bag, gas generators or pyrotechnic emergency tensioning retractors may be triggered.

Gas generators are designed to ignite as soon as the temperature inside the generator reaches 320-356° F. In such cases the ignition squib and the propellant deploy without destroying the gas generator. During combustion a specific volume of gas is released at a specific pressure.

**NOTE:** If the front air bags, side impact air bag or head/thorax side impact air bags as well as the emergency tensioning devices (ETDs) are triggered the corresponding charges will burn in a controlled manner; i.e., will discharge gas as it would when inflating the airbags. They will not explode.

### **Emergency Tensioning Devices (ETDs)**

The front and most rear seat belts are equipped with Emergency Tensioning Devices (ETDs) that are designed to remove slack from the seat belts by pyrotechnically engaging a tightening mechanism. The apparatus is either integrated in the seat belt locking retractor or it is located at the belt buckle strap.

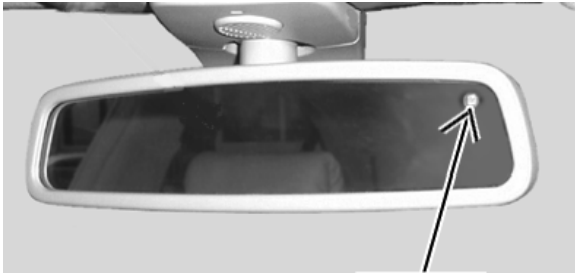
If the device becomes damaged in a collision there is a small chance that the pyrotechnic charge could be exposed to the environment. In this case the charge will start to burn after being exposed to an ignition source. Conditions where pressure around the charge could build up to facilitate an explosion have not been observed.

In most cases the ETDs will stay intact after the collision. It could heat up to the charge's ignition temperature and initiate the belt tensioning sequence for any devices that were not deployed in the collision, but without the risk of an explosion.

### **Automatic Dimming Mirror**

On many Mercedes-Benz vehicles the inside rear view mirror and the left outside mirror contain **electrolyte fluid** for automatic dimming. Automatic dimming mirrors can be identified by an electrochromatic sensor dot on the glass (see arrow in photograph).

**NOTE:** The dimming of outside mirrors is controlled by interior-mirror sensors.



The automatic dimming interior rearview mirror is identified by an electrochromatic sensor dot on the glass.

### **Automatic Dimming Interior Rearview Mirror**



#### **WARNING!**

Electrolyte fluid may escape if the mirror glass is broken. This fluid acts as an irritant and must not come in contact with the skin, eyes or respiratory organs. Should contact occur, immediate flush off the fluid with clean water and seek medical attention.

For relevant Material Safety Data Sheets, call 800-451-8345. (The 3E Company is a 24/7/365 operation.)

## Special Rescue Guidelines

### ***Switching Off the Engine on Vehicles with KEYLESS-GO***

KEYLESS-GO is a keyless access and drive authorization system. In some crash situations the engine may continue to operate. If the key is not in the ignition switch in a vehicle with KEYLESS GO, the engine can be switched off as follows:

Move the selector lever to position “P.”

Press the Start/Stop button either on the selector lever (1) or the KEYLESS-GO Start/Stop button inserted in the ignition switch (2). (Location varies by model.)



**Start/Stop Button**



**Start/Stop Button on Another Model**

### ***Automatic Release of Central Locking in the Event of an Accident***

Since 1996, Mercedes-Benz vehicles have been equipped with “Central Locking Emergency Opening” systems that are designed to unlock the doors in the event of a crash. Predefined acceleration rates signal the controls to unlock the doors. This happens at a preset time delay.

### ***Hazard Warning Flasher***

In the event of a crash that exceeds the deployment threshold of an air bag or a seat belt emergency tensioning device, the hazard warning system automatically turns on.



It can be switched off by pressing the hazard warning flasher switch (1) that is usually located in the center of the dashboard.

**NOTE:** Leaving the hazard warning flashers on can serve as confirmation when the onboard power has been interrupted as they will stop flashing.

**Hazard Warning Flasher Switch**

### ***Removal of Head Restraints***

Following an accident it could be useful to remove the head restraints. We recommend consulting the emergency physician.

**NOTE:** There are special instructions for removing head restraints with the Active Head Restraint feature. See the following page.

### ***Electric Head Restraint Adjustment***

The switch for the electric head restraint adjustment is integrated into the Mercedes' seat-shaped control.



**Electric Adjustment**

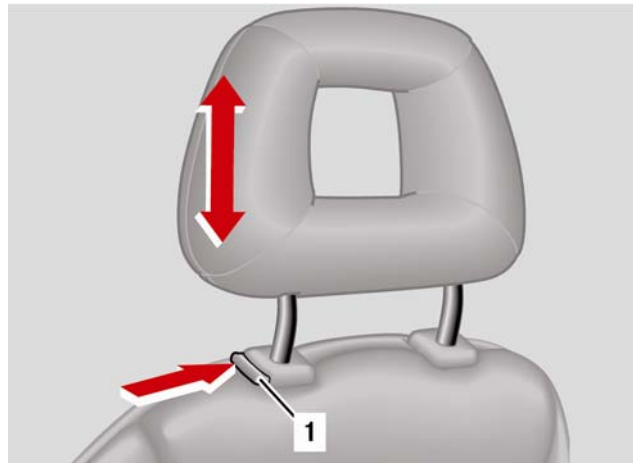
The head restraint is moved to the top position by pushing up on the part of the seat-shaped control that mimics the head restraint.

Once fully raised, the head restraint can be pulled out of its guide by pulling it up out of its base.

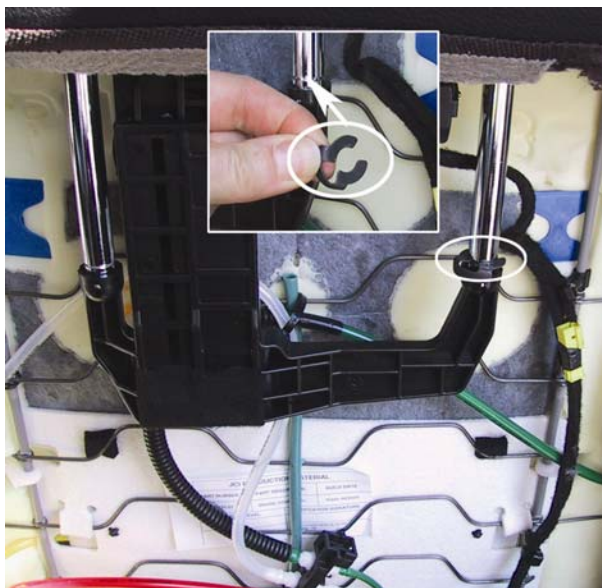


### Manual Head Restraint Adjustment

In most mechanical head restraint systems, the head restraint is moved to the top position simply by pulling on it. Pressing the release button (1) and then pulling upwards allows the head restraint to be removed from its guides. The release button is usually located at the base of the head restraint.



Manual Adjustment



C-Clip on the Right-Head Restraint Post\*

### Active Head Restraints

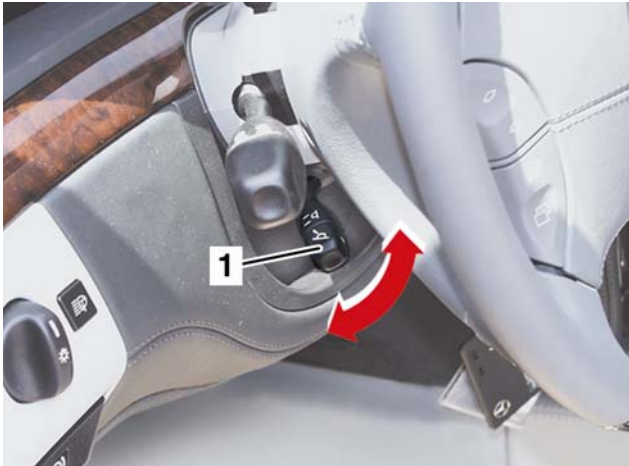
As of model year 2006, most front head rests may only be lifted out by removing the back rest cover and then the C-clip from the right-hand head restraint post. This applies to any vehicle equipped with Active Head Restraints.

\*Inset shows the C-Clip removed.

### Easy Entry/Exit Feature

Some Mercedes-Benz vehicles may be equipped with the electronic easy entry/exit feature. When the driver's door is opened (ignition off) or when the electronic key is removed, the steering column is moved in the direction of the instrument panel and raised. At the same time, the driver seat moves to the rear. When closing the driver door the steering column and driver seat are automatically reset to the last stored position.





If so equipped, the rotary switch (1) for the easy entry/exit is located on the lever for the electronic steering column adjustment below the combination switch (turn signal lights and windshield wipers) on the steering wheel.

**Easy Access Rotary Switch**

### **Deactivation of Easy Entry/Exit**

Care must be taken to ensure that no one gets caught in moving parts when the Easy Entry/Exit feature is operated.

The procedure must be stopped immediately if there is any risk of someone being caught in between moving parts.

This can be done either by:

pressing the steering column adjustment switch (1) on the steering wheel or in the driver door (2) control panel;



**Steering Column Adjustment Switch**



**Driver Door Control Panel**


pressing the seat adjustment (3) switch;  
or pressing the position key of the memory function (4).

Using these methods, the seat and steering column will immediately come to a standstill.

**NOTE:** The control positions shown are for illustration purposes only. The actual positions vary by model.



**Position Key of Memory Function**

<p> <b>Risk of Injury</b></p> <p>An injured driver might be moved by opening the driver-side door.</p>	<p><b>What to Do</b></p> <p>If the <i>Easy Entry/Exit</i> feature cannot be deactivated through a window, access the driver via a door other than the one on the driver's side.</p>
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If a vehicle is equipped with PRE-SAFE then the front passenger seat may adjust prior to a collision. The window and sliding roof may close and air chambers of luxury and dynamic seats may inflate. Seat, window and sliding roof switches are designed to subsequently remain functional.

***S-Class Cutting Points***

Should it become necessary for rescuers to cut the A and C pillars to access the vehicle interior, the S-Class is marked with cutting points on the windshield and rear window to prevent accidentally cutting into the air bag inflators.

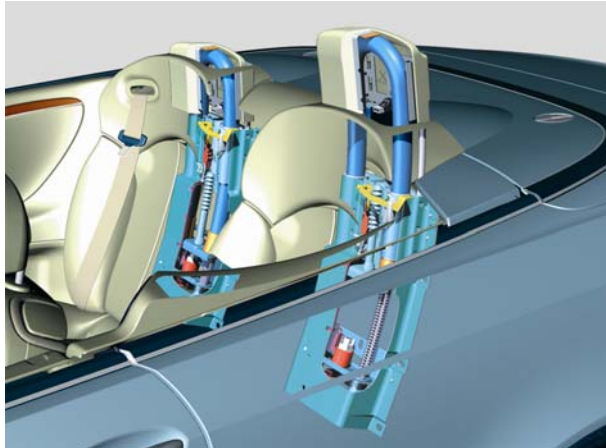


## **Roll Bars**

<p> <b>Risk of Injury</b></p> <p>There is a risk of injury from an untriggered roll bar to anyone in its deployment area. If the roll bar has not been deployed, rescue personnel should not be in its deployment area unless it is absolutely necessary.</p> <p>If the battery has not been disconnected and parts of the vehicle undergo significant movement, or electrical cables are cut – the roll bar can deploy.</p> <p>This can cause injury if there is anyone within the deployment area of the roll bar.</p> <p>Do not attempt to use an extended roll bar as an attachment point for any equipment or place any tools, rescue equipment or other objects on the roll bar when it has not been extended.</p> <p>Do not place any objects in the area of a roll bar that has not been deployed as deployment could turn those objects into harmful projectiles.</p>	<p><b>What to Do</b></p> <p>Switch off the ignition.</p> <p>Disconnect all batteries. (See Model Classes components section for locations of all batteries on a vehicle.) Disconnect or cut both battery lines (positive and negative cables). If this is not possible, the occupants must be protected from possible contact.</p>
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In cases where the rescue or treatment of victims has to be carried out within the perimeter of an untriggered roll bar (e.g. where persons are trapped), observe all of the above safety points before commencing rescue operations.

## SPECIAL RESCUE GUIDELINES



**Extendable Roll Bar**

**NOTE:** In the SL-Class (model 230) both batteries must be disconnected. If only one battery is disconnected, the other battery supplies power to the roll bar system and it remains active!



**Retractable Roll Bar**





### **Risk of Injury**

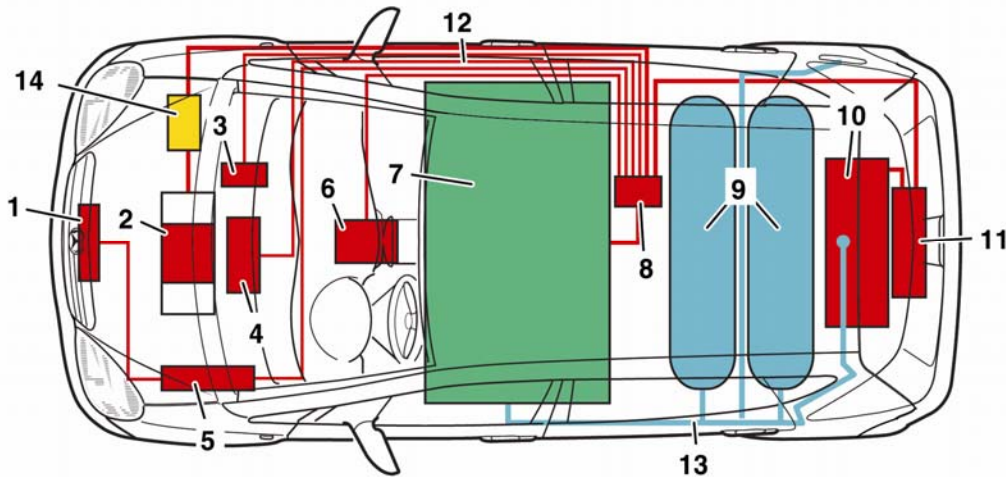
When disconnecting the batteries or when cutting electrical cables, the ground cables must always be disconnected or cut through first, otherwise there is a risk of short-circuiting.

If this is not possible, insulated tools must be used to disconnect or cut the cables.

## F-Cell Model with Fuel-Cell Drive

<p> <b>Risk of Injury</b></p> <p>Risk of Injury from cables and components carrying the traction voltage.</p> <p>Failure to follow these warnings can cause severe burns and electric shock that may result in death or serious injury.</p>	<p><b>What to Do</b></p> <p>Deactivate the traction voltage circuit: Move the selector lever to position "P." Turn the ignition key to the "Off" position and remove.</p> <p>Disconnect 12 V battery in engine compartment.</p> <p>Do not touch, cut or open orange traction voltage lines or bodywork near the right and left C-pillars or along the vehicle floor.</p>
<p> <b>Risk of Injury</b></p> <p>Risk of explosion from escaping hydrogen.</p>	<p><b>What to Do</b></p> <p>Deactivate the traction voltage circuit.</p> <p>Deactivate the hydrogen circuit.</p> <p>Do not cut hydrogen lines.</p>

### Location of Components



- |                             |                                      |
|-----------------------------|--------------------------------------|
| 1. Fan motor                | 8. Power distribution unit (PDU)     |
| 2. Engine with transmission | 9. Hydrogen tanks                    |
| 3. HT coolant pump          | 10. 450 V traction voltage battery   |
| 4. A/C compressor           | 11. AC/DC converter traction voltage |
| 5. Fan converter            | 12. Traction voltage lines           |
| 6. PTC heater booster       | 13. Hydrogen lines                   |
| 7. Fuel cell stack          | 14. Power supply battery 12 V        |

### ***Special Features of Vehicles with Fuel Cell Drive System (F-Cell)***

The body, interior equipment and the location of the air bags are identified on page 18. The overall fuel cell system is arranged in the sandwich configuration at the body floor. (Sandwich refers to the double-floor safety configuration of the vehicle. In the event of a head-on crash, the engine and transmission are designed to slide down along the inclined floor connection ramp to minimize intruding into the driver and front passenger compartments.)

The 12 V power supply battery (item 14 in the preceding illustration) is located on the right side of the engine compartment, and two cylindrical hydrogen tanks (item 9 in the preceding illustration) are installed at the rear in place of the fuel tank.



**WARNING:** Before beginning a rescue operation, make sure that the traction voltage and hydrogen circuits are deactivated!

### **Venting Line**

The venting line leads from the main valve on the hydrogen tanks, along the left C-pillar to the discharge opening in the base of the antenna (arrow) on the roof.

**NOTE:** If the venting line is cut, hydrogen gas will either escape into the car or the cut venting line could seal itself.



**Venting Line Opening on Vehicle Roof**

The traction voltage lines between the fuel cell stack, engine and the traction voltage battery in the trunk are routed under the right side of the vehicle. The traction voltage lines are colored orange.

The hydrogen lines between the tanks and the fuel cell stack are arranged at the bottom left of the vehicle. The tank line runs from the tank connection at the rear on the right over the wheel housing to the hydrogen tanks. The hydrogen lines are marked:

- High Pressure = Yellow
- Low Pressure = Yellow/Red



## Automatic Shutoff of the Voltage and Hydrogen Circuits



**Crash Switch**

The F-Cell safety system monitors all the safety-relevant operating states of the vehicle. If a critical state occurs, appropriate actions are initiated. If a crash exceeds the vehicle's Supplementary Restraint System (SRS) deployment threshold, its SRS control unit actuates the restraint systems (air bags and emergency tensioning devices) and the hydrogen supply of the fuel cell and the traction voltage circuit disables via a crash switch.

If an event involving only moderate deceleration is detected, but there is no air bag deployment or Emergency Tensioning Device (ETD) deployment, the crash switch also responds. After triggering, the ball in the crash switch (see above) can be pushed back into its original position, which is a depressed position under the rubber flap. (Reset by pressing in.) The vehicle can now be driven to the nearest workshop following a minor accident, without damage to the safety-relevant components of the fuel cell system.

## Manual Shutoff of the Voltage and Hydrogen Circuits

In order to ensure that the hydrogen and traction voltage circuits have been deactivated, the Service Disconnect switch must be actuated by separating the plug connector. The plug connector (arrow) is located behind the cover on the right in the trunk.



**Plug Connector on Right Side of Trunk**

If the Service Disconnect switch is not accessible after an accident, disconnect the 12 V battery in the engine compartment or cut through the electrical lines on the battery.

Move the selector lever to position "P."  
 Turn the ignition key to the "Off" position and remove.  
 Disconnect 12 V battery in engine compartment.

The traction voltage battery (450 V) in the trunk does not need to be disconnected. If a hydrogen or a 12 V circuit is interrupted, it switches off automatically via a contactor.




## Occupant Restraint System

### ***Location of Air Bags***

If equipped, air bags in Mercedes-Benz vehicle model series are located as follows:


- In the steering wheel (driver front air bag)
- Above or in lieu of the glove box in instrument panel (front passenger front air bag)
- In the doors (side impact air bags or head/thorax side impact air bags)
- In the outer areas of the seat backrests (front side impact air bags or head/thorax side impact air bags)
- In the area of the roof pillars and side roof frame (window curtain air bags)
- In the driver footwell below the instrument panel and in the passenger footwell (knee bags)
- In the outer side of seat (pelvic air bags)

The position of each air bag is recognizable by the symbol “SRS air bag” or “air bag” on the air bag upholstered covering or in the immediate vicinity of installation location. For additional information on Mercedes-Benz Occupant Restraint Systems, refer to the MBUSA “Seat Belts and Airbags” brochure.

 <p><b>Risk of Injury</b></p> <p>During a rescue operation there is a risk of undeployed air bags going off unexpectedly. This can happen particularly if the battery has not been disconnected.</p> <p><b>NOTE:</b> If only one battery is disconnected, the other battery supplies power to the air bag system so that it remains active! In the following vehicles both batteries must be disconnected:</p> <p>E-Class (model 211)                  CLS-Class (model 219)                  SL-Class (model 230)                  M-Class (model 164)                  R-Class (model 251)                  SLR McLaren (199)</p>	<p><b>What to Do</b></p> <p>Cover all occupants of the vehicle with transparent sheets before starting work.</p> <p>Wear protective clothing and safety goggles.</p> <p>Disconnect all batteries and if that is impossible avoid the air bag perimeters.</p> <p>Do not perform cutting work near untriggered air bags.</p> <p>Avoid heating near untriggered air bags.</p> <p>Do not use the area around untriggered air bags as a place to place or store objects.</p> <p><b>NOTE:</b> Merely cutting through the steering wheel rim or the spokes will not trigger the air bag!</p>
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### **Window Curtain Air Bags**

The window curtain air bag compressed gas generators are filled not with solid fuel, but rather with compressed gas.

 <p><b>Risk of Injury</b></p> <p>Do not cut the compressed gas generators of the window curtain air bags. Cutting the container reduces its volume and thus increases its already high internal pressure. At the same time the deformed container loses its structural integrity and as gas escapes, the container can explode or detach and injure anyone inside or outside of the vehicle.</p>	<p><b>What to Do</b></p> <p>Do not cut any A, B or C-pillar body panels before remove their corresponding inner paneling with a suitable tool to determine the exact location of the gas generators.</p>
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**WARNING / RISK OF INJURY:** As the vehicle and its parts are moved around or electrical cables are cut; the front, side impact, and window curtain air bags may deploy and cause loose objects or splintered glass to become projectiles that could injure vehicle occupants or rescue personnel.

## Batteries

### Location of Batteries

The batteries in the Mercedes-Benz passenger car model series are located as follows:

Vehicle Model Battery Locations				
Engine Compartment	Right-Front Passenger Compartment	Under Front Passenger Seat	Under Right-Rear Seat	Trunk
M-Class (model 163 )	F-Cell	M-Class (model 164) [2 – an auxiliary battery to the rt. of main battery]	E-Class (model 210)	SLR McLaren (model 199) [2 in trunk]
SLK-Class (models 170 and 171)	R-Class (model 251) [under the seat]*	R-Class (model 251)	G-Class (model 463) – [between front and rear seat]	SL-Class (model 129 and 230)
C-Class (model 203 and 204)		GL-Class (model 164.8)		E-Class (model 211)
CLK-Class (model 208 and 209)				CL-Class (model 215 and 216*)
E-Class (model 211)*				CLS-Class (model 219)
CLS-Class (model 219)*				S-Class (model 220 and 221 <sup>1</sup> )
SL-Class (model 230)**				
CL-Class (model 216** <sup>1</sup> )				
S-Class (model 221** <sup>1</sup> )				

<sup>1</sup> Up to MY09, Models 216 and 221 have a 2-battery system. (The starter battery is in the engine compartment and the auxiliary battery is in the trunk. Beginning in MY2009, Models 216 and 221 have one battery in the engine compartment only.

\* indicates an auxiliary battery      \*\* indicates a starter battery

On the SLR McLaren (model 199) both batteries are located in the trunk. All current models are fitted with a prefuse which breaks the connection between the alternator and the positive battery terminal in the event of a short circuit.



Use caution when accessing SLR battery panels as carbon fiber conducts electricity.

SLK-Class vehicles (model 170 and 171) with the Kompressor (supercharged) engines are equipped with a cutoff relay (alternator/battery) or a prefuse. The cutoff relay interrupts the connection between the alternator and the positive battery terminal when a crash activates an air bag or the seat belt emergency tensioning devices. This helps to prevent possible short circuits caused by deformed vehicle parts. The cutoff relay is activated on “Ignition ON” and is triggered directly by the air bag control unit.

## Structural Reinforcements

### *Location of Structural Reinforcements*

The structural reinforcements of relevance to rescue operations are all located in the passenger area of the car. The layout of the side protection elements differs according to the model series concerned. In particular, they include the A-, B-, C- and D-pillars, all the roof frames and the door areas. Within the doors, the significant areas are the end faces of the doors (hinge or lock area) and all the longitudinal and lateral reinforcements running between the door end faces. Tubular door reinforcements are also installed.



**Body Structure with HSLA Steel in Red**

**NOTE:** It may be difficult to cut the tubular door reinforcements between the end faces of the doors, the A and B pillar reinforcements and the retractable top linkage points on convertibles and roadsters with conventional fire department hydraulic cutting gear!

The reinforcements are made of high-strength steel with a tensile strength higher than 1000 N/mm<sup>2</sup>, a tube diameter between 20 and 30 mm and a wall thickness of approximately 2 to 3 mm.



**Risk of Injury** Attempting to cut high-strength steel with conventional tools can fracture or snap them, turning them into projectiles that could injure the people within the surrounding area.

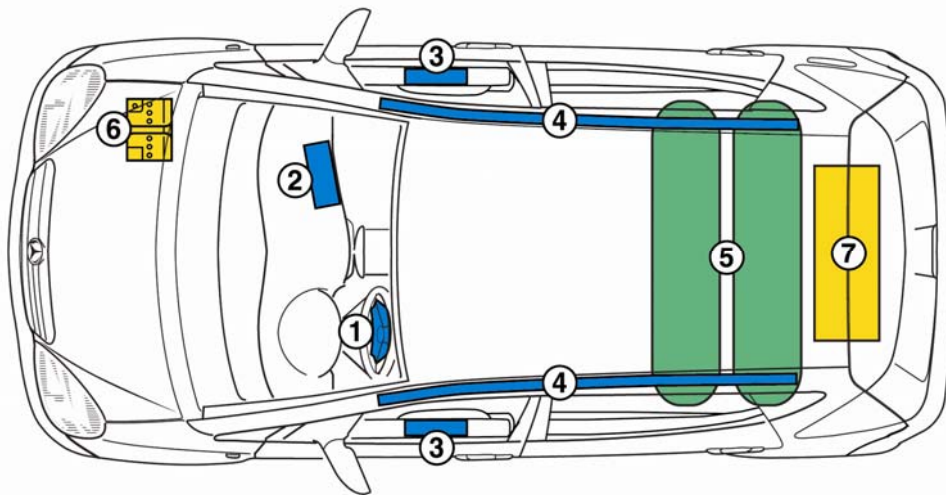
### *Location of the Fuel Tank*

The fuel tank in the Mercedes-Benz passenger cars can be located in the front of, and above the rear axle or under the loading floor.

The fuel lines are routed in protected areas along the center tunnel or the side sills and are mainly made of metal. In the engine compartment they are made of elastic fuel hoses with metal end connectors and routed in a way to help reduce the possibility of disconnecting during a crash. In addition, the fuel pump is shut off automatically when the engine comes to a stop.

The illustrations on the following pages show the possible locations of air bags, batteries, structural reinforcements and fuel tanks.

## Model Classes F-Cell

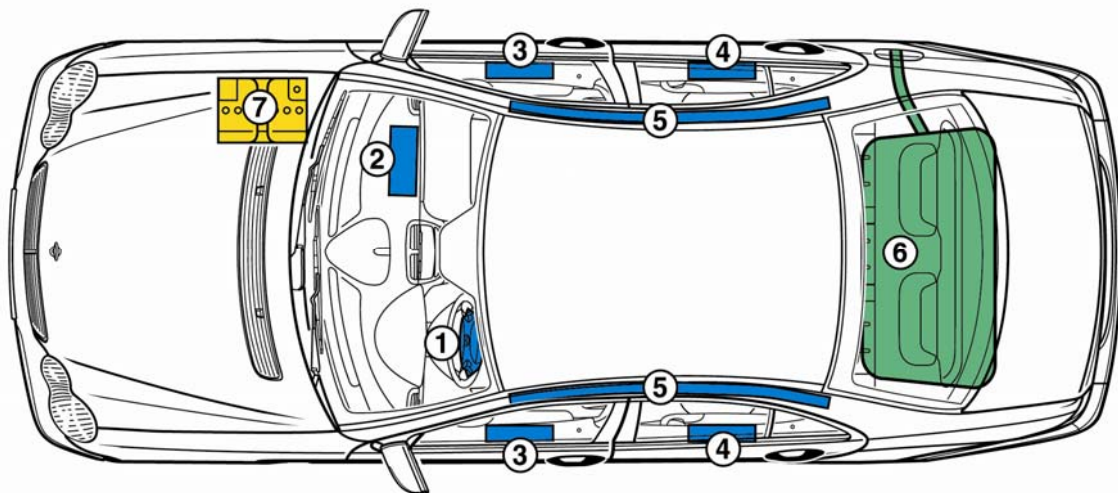


### Location

-  Air Bag
-  Tank
-  Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Window curtain air bags
5. Hydrogen tanks
6. Power supply battery 12 V
7. 450 V traction voltage battery

## C-Class Sedan (Model 203)



### Location

 Air Bag

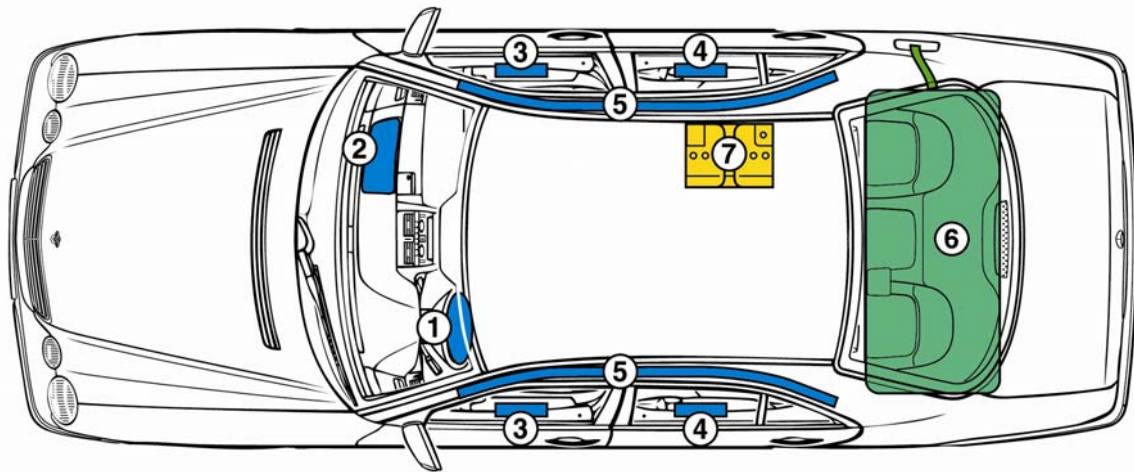
 Tank

 Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Battery



## E-Class Sedan (Model 210)



### Location

 Air Bag

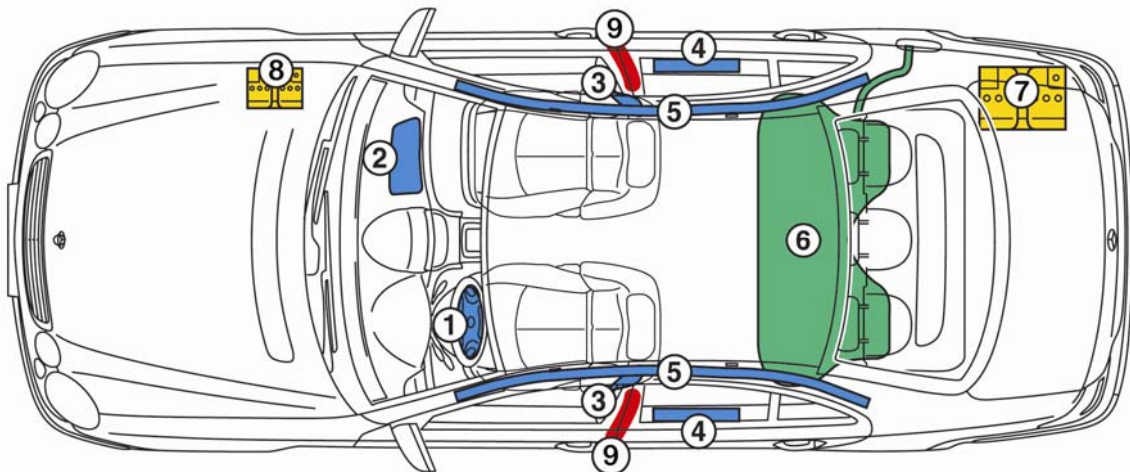
 Tank

 Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Battery (under right rear bench seat)



## E-Class Sedan (Model 211)



### Location

 Air Bag

 Tank

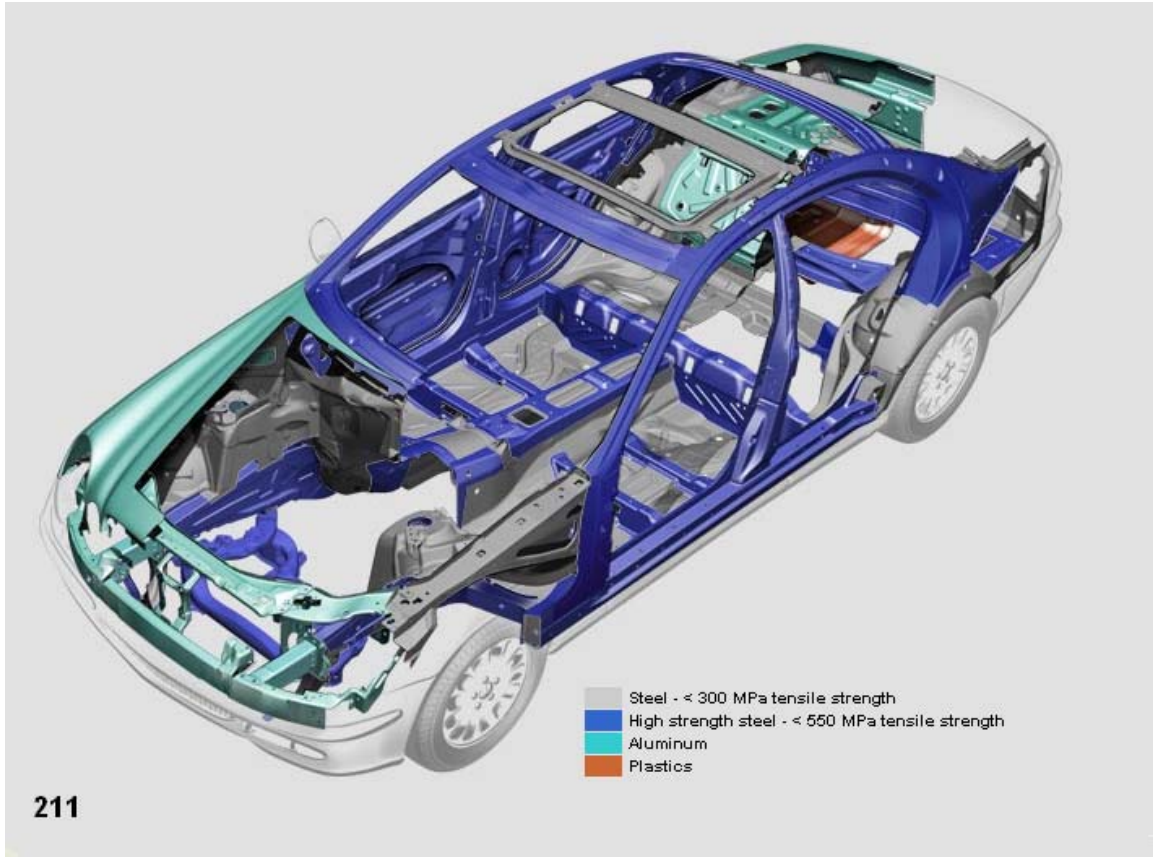
 Battery

 Structural reinforcements

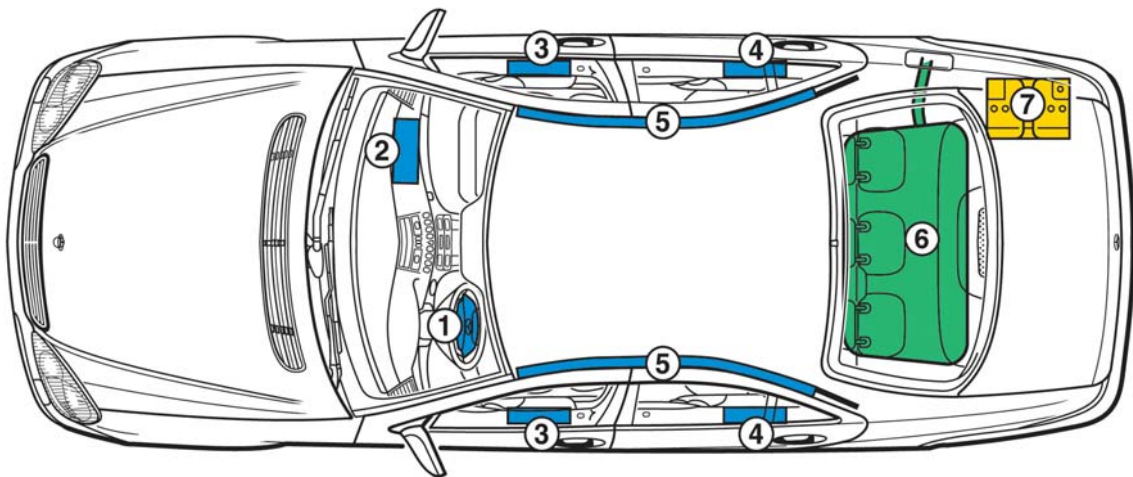
1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags (in seat backrests) at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Main battery
8. Auxiliary battery in engine compartment
9. Reinforcement for B-pillars

## E-Class Sedan (Model 211) – continued

### Materials Mix



## S-Class Sedan (Model 220)



### Location

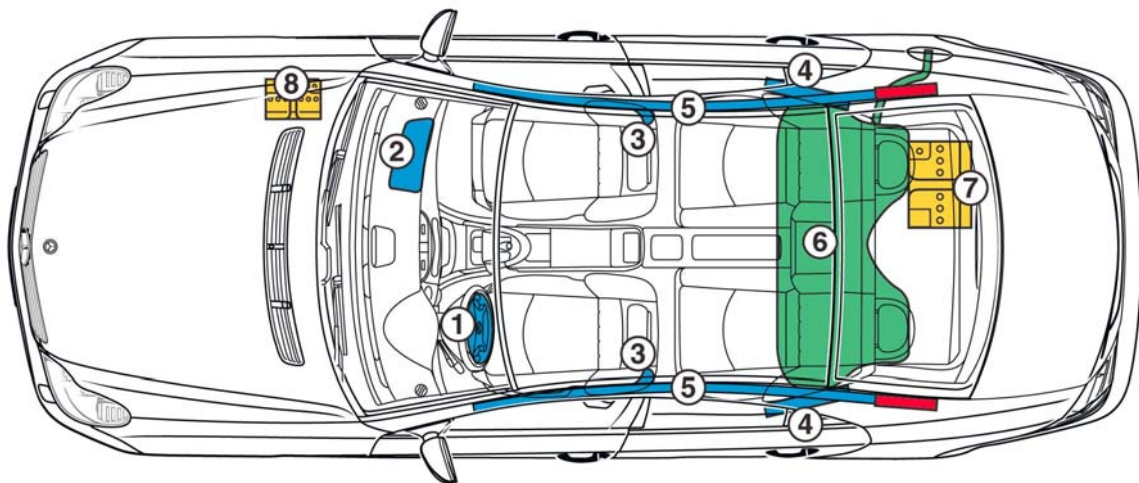
 Air Bag

 Tank





 Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Battery

## S-Class Sedan (Model 221)



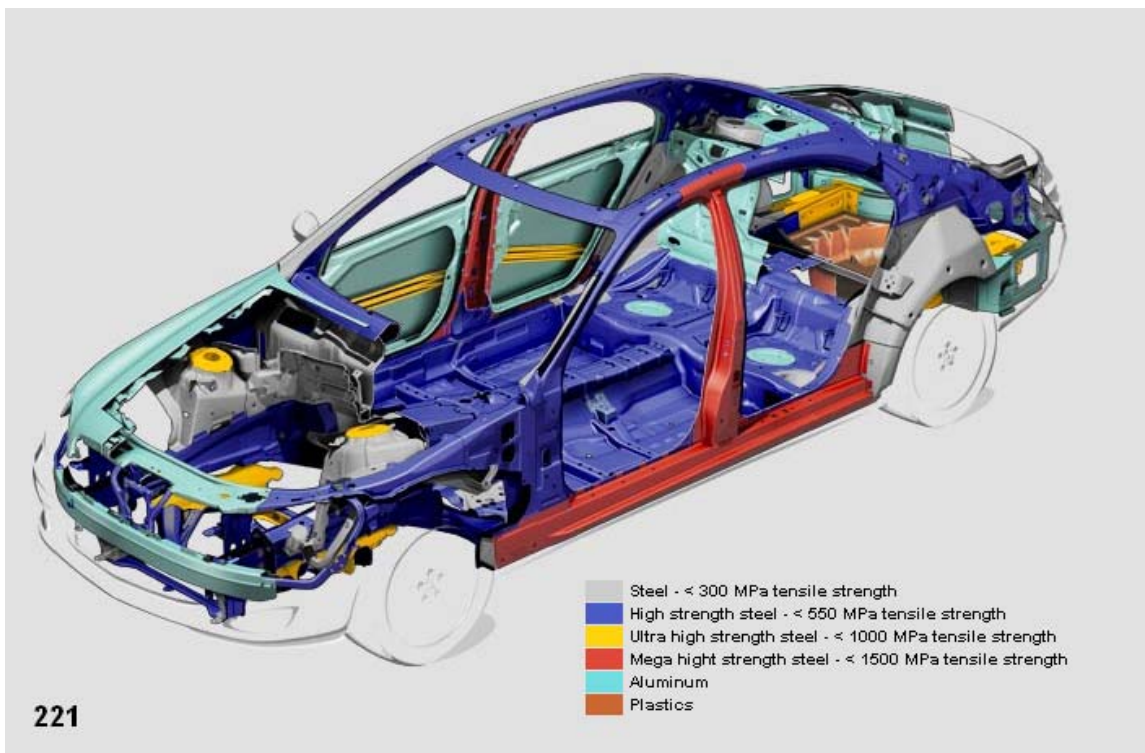
### Location

	Air Bag
	Tank
	Battery
	Structural reinforcements

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags (in seat backrests) at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Auxiliary battery in engine compartment
8. Main battery

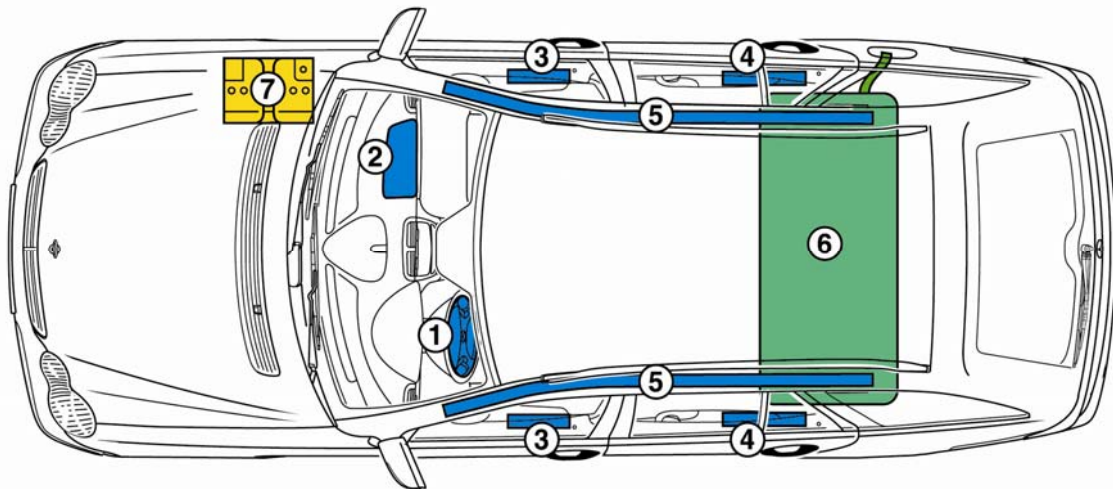
## S-Class Sedan (Model 221) – continued

### Materials Mix





## C-Class Wagon (Model 203)



### Location

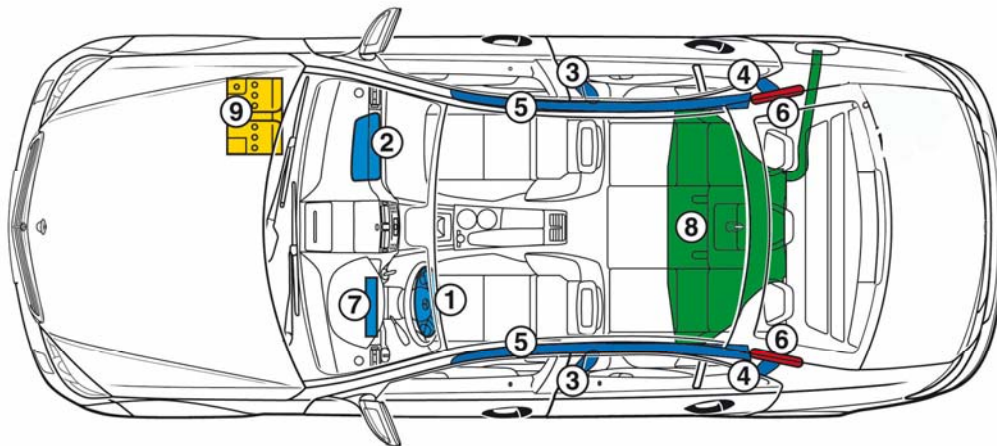
 Air Bag

 Tank





 Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Battery

## C-Class (Model 204)



### Location

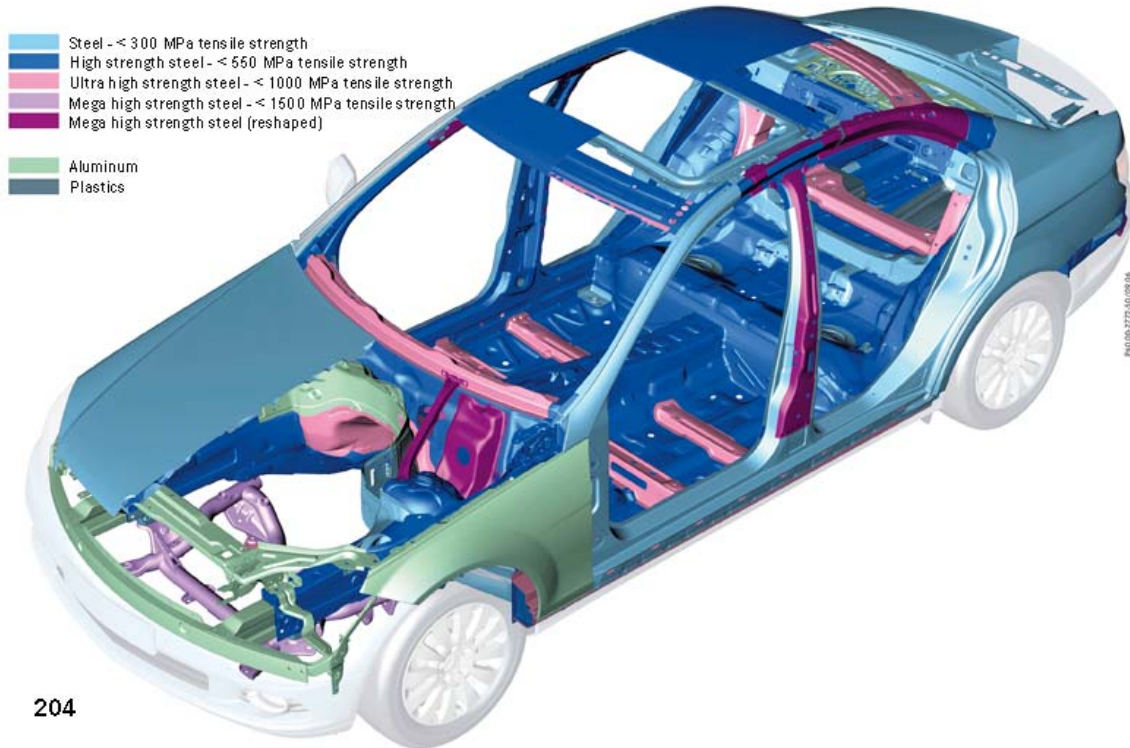
	Air Bag
	Tank
	Battery
	Structural reinforcements

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags (in seat backrests) at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Reinforcements
7. Driver-side knee air bag
8. Fuel tank
9. Main battery
10. Reinforcement for B-pillars

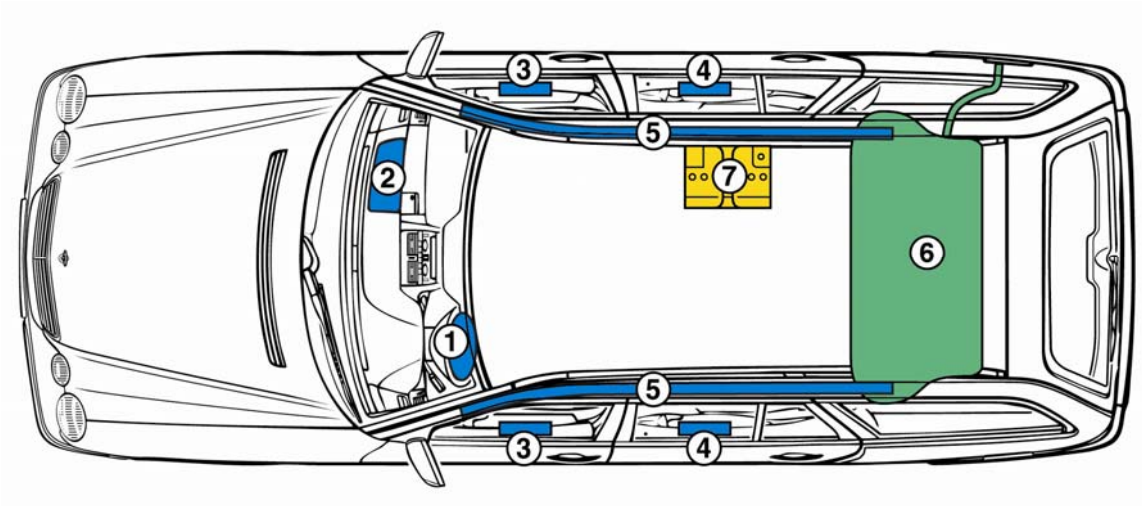


## C-Class (Model 204) – continued

### Materials Mix



## E-Class Wagon (Model 210)



### Location

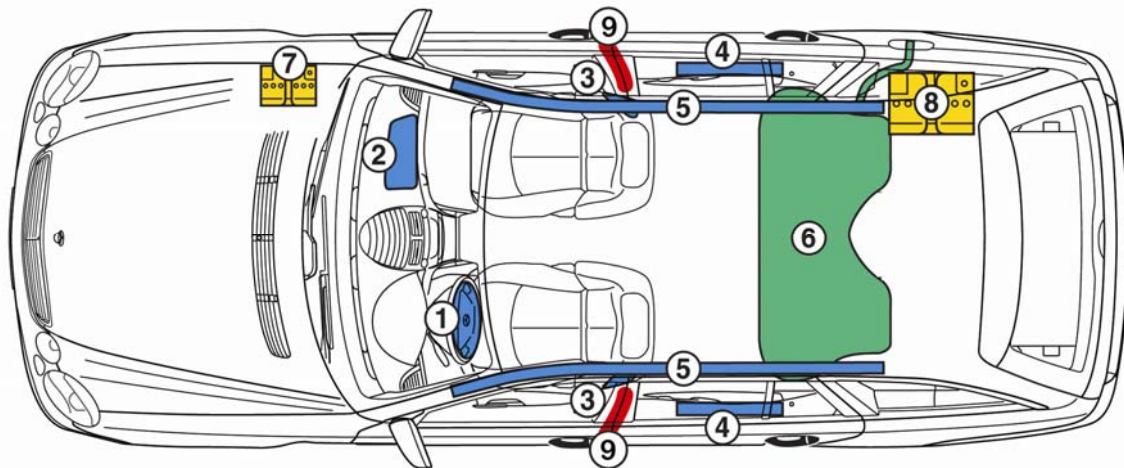
 Air Bag

 Tank

 Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Battery

## E-Class Wagon (Model 211)

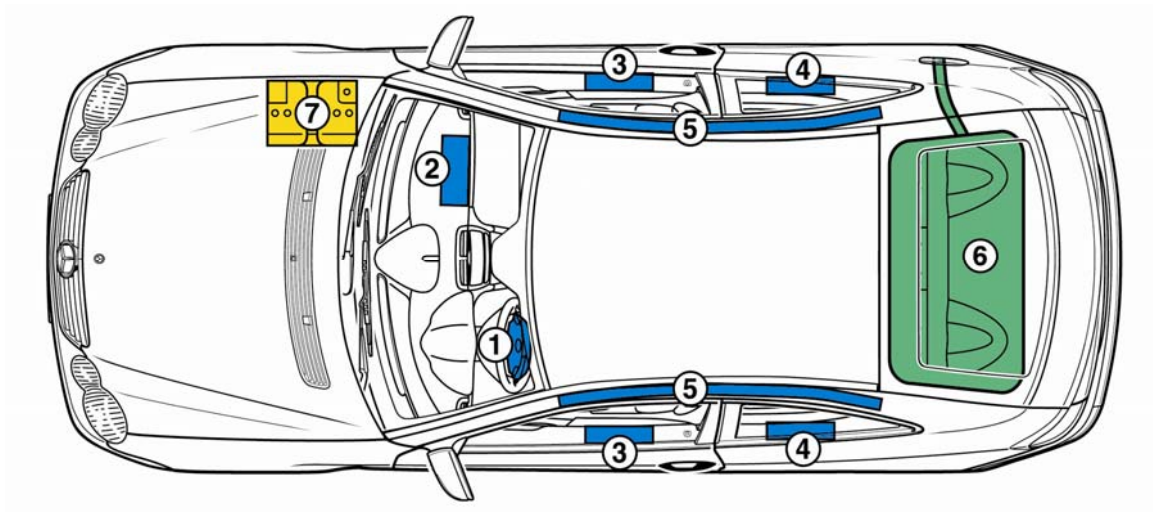


### Location

- Air Bag
- Tank
- Battery
- Structural reinforcements

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags (in seat backrests) at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Auxiliary battery in engine compartment
8. Main battery
9. Reinforcement for B-pillars

## C-Class Sports Coupé (Model 203)



### Location

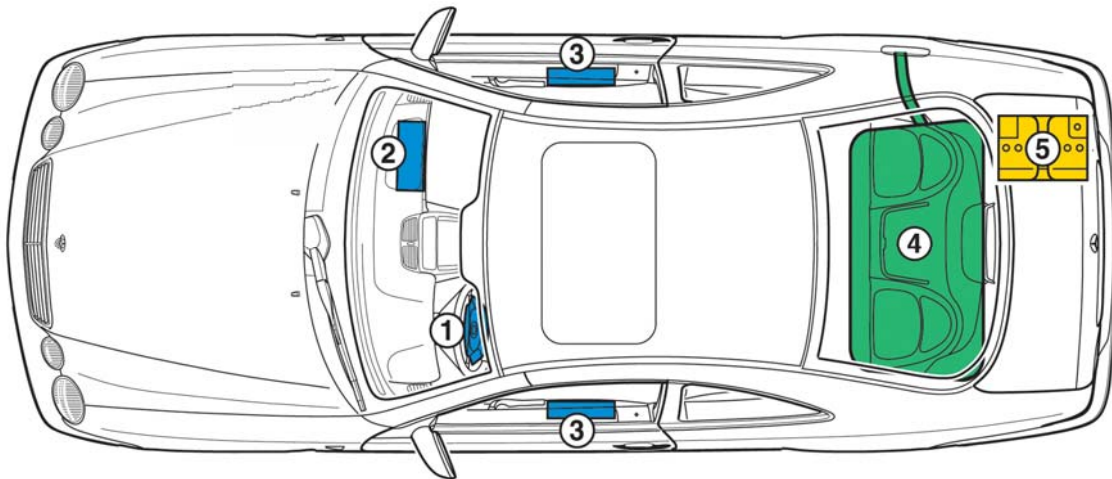
 Air Bag

 Tank

 Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Battery

## CLK-Class Coupé (Model 208)



### Location

 Air Bag

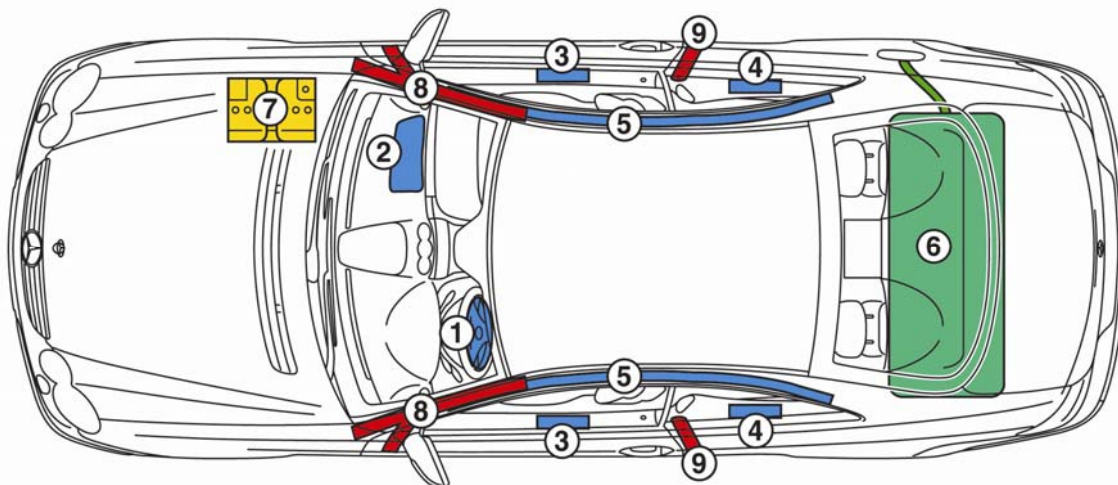
 Tank

 Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Fuel tank
5. Battery



## CLK-Class Coupé (Model 209)




### Location

 Air Bag

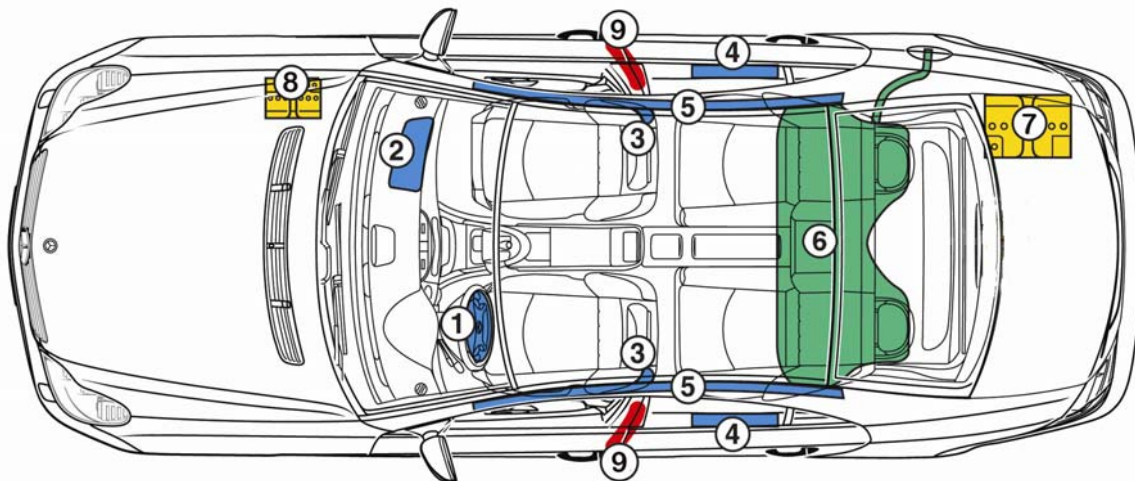
 Tank

 Battery

 Structural reinforcements

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Battery
8. Structural reinforcements on A-pillars
9. Structural reinforcements on B-pillars

## CLS-Class (Model 219)



### Location

 Air Bag

 Tank

 Battery

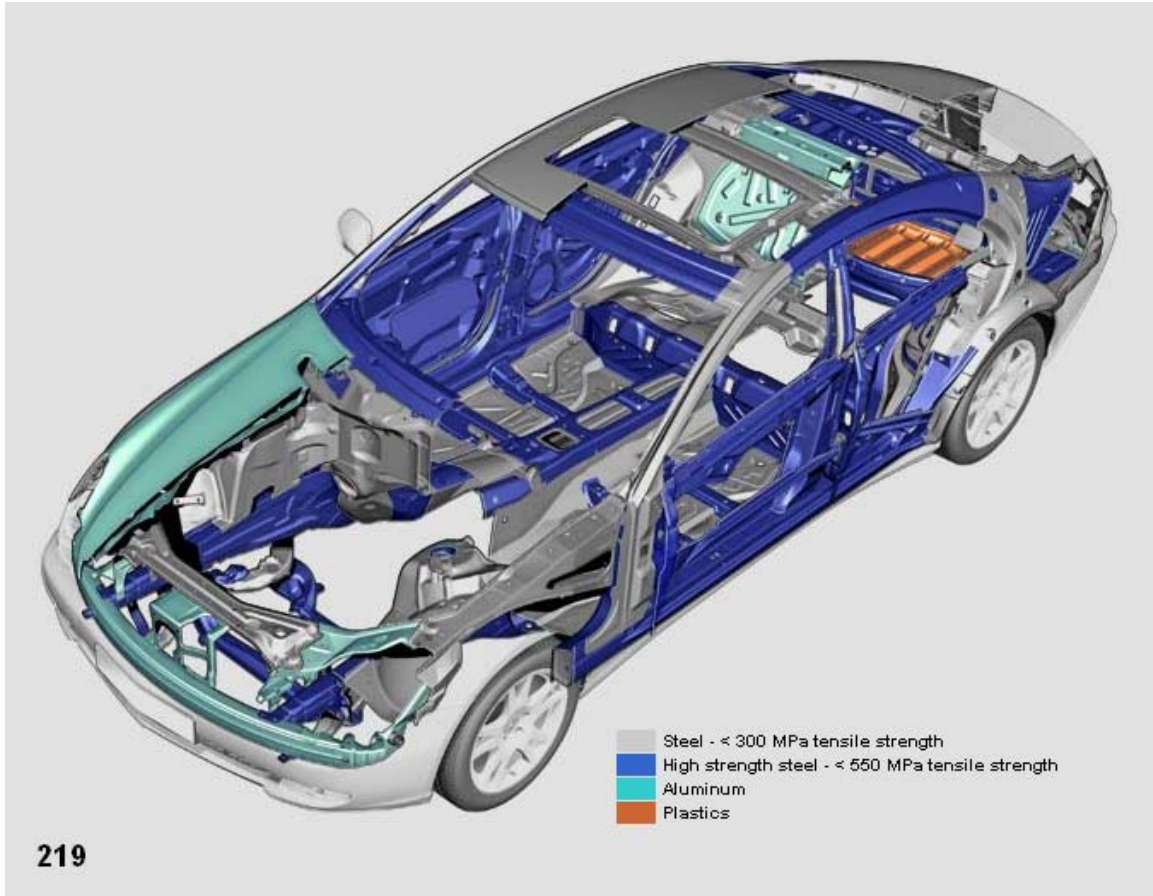
 Structural reinforcements

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Battery
8. Auxiliary battery in engine compartment
9. Structural reinforcement of B-pillars

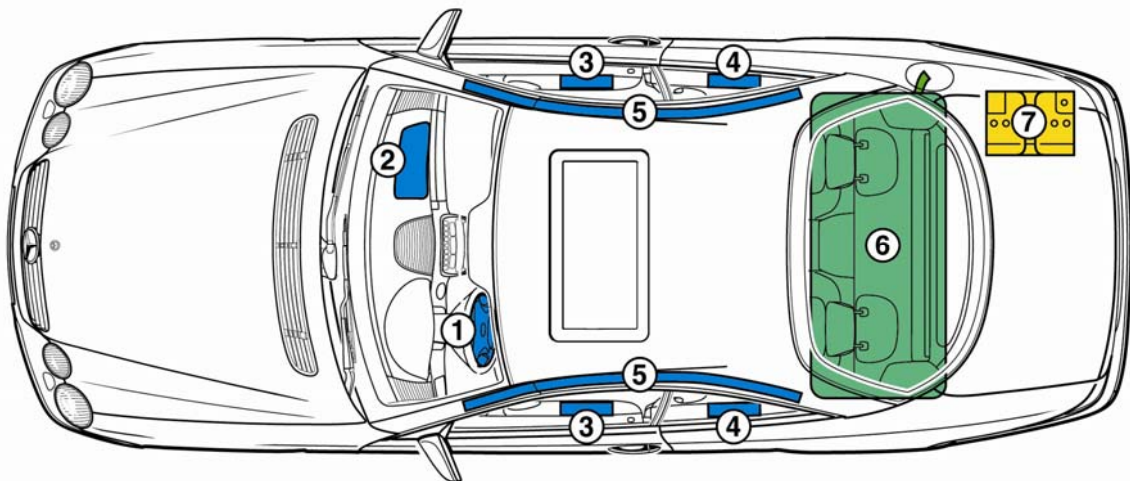


## CLS-Class (Model 219) – continued

### Materials Mix



## CL-Class Coupé (Model 215)



### Location

 Air Bag

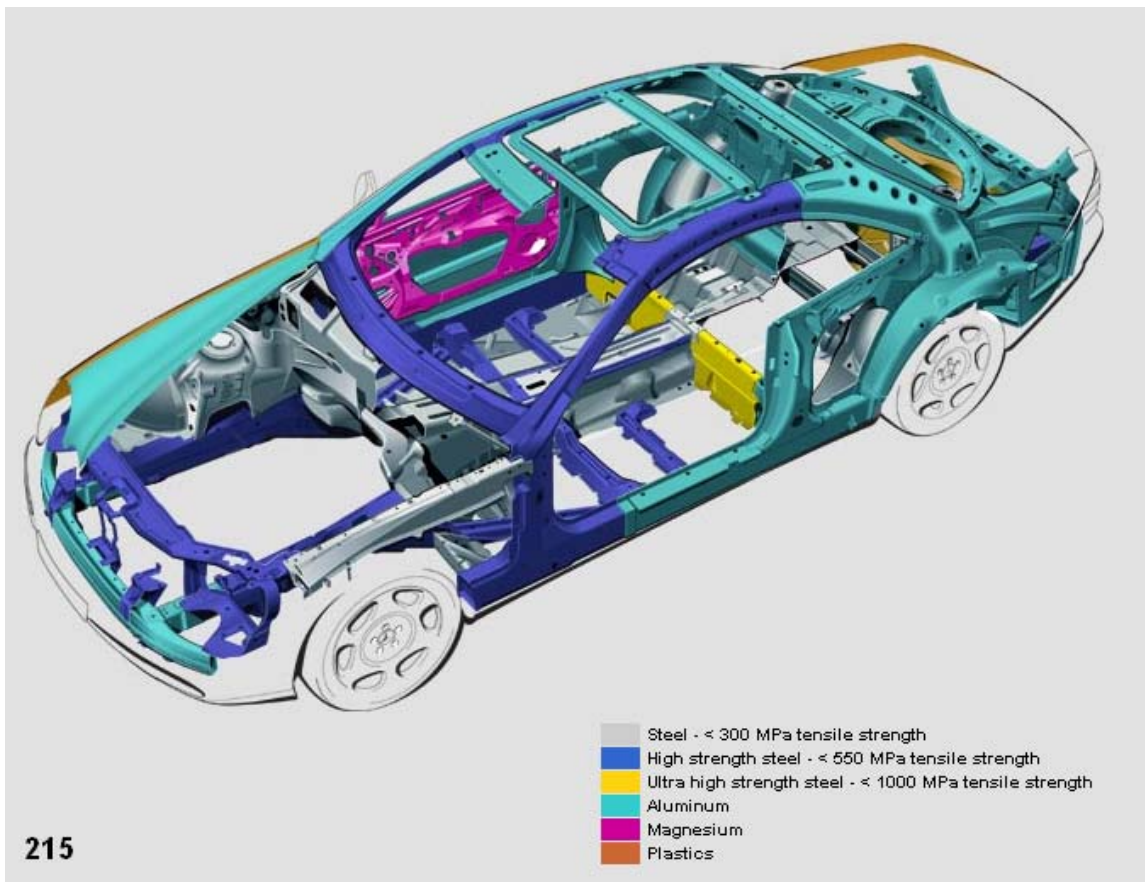
 Tank

 Battery

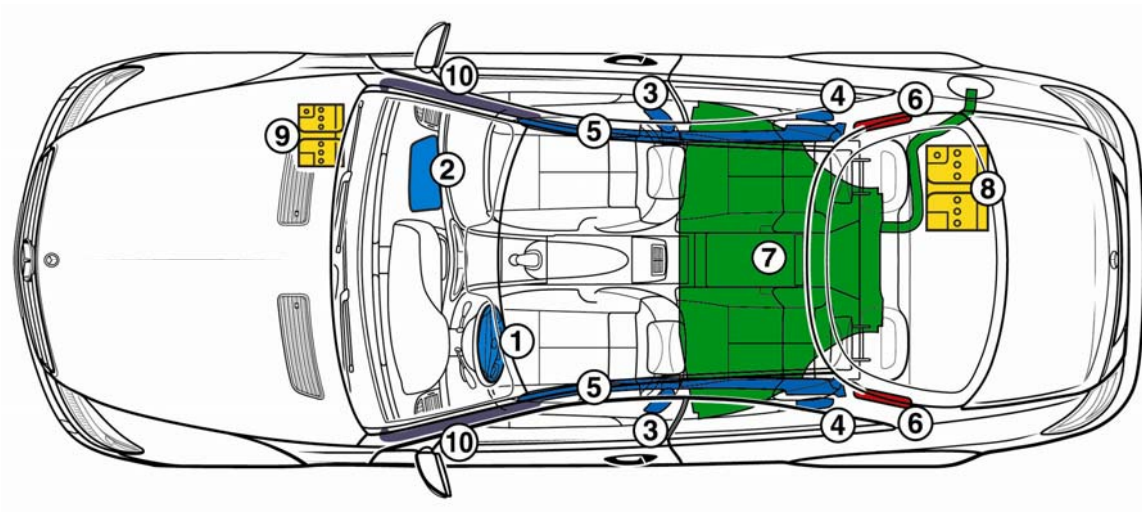
1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Battery

## CL-Class Coupé (Model 215) - continued

### Materials Mix



## CL-Class Coupé (Model 216)



### Location

-  Air Bag
-  Tank
-  Battery
-  Structural reinforcements
-  Roll Bar

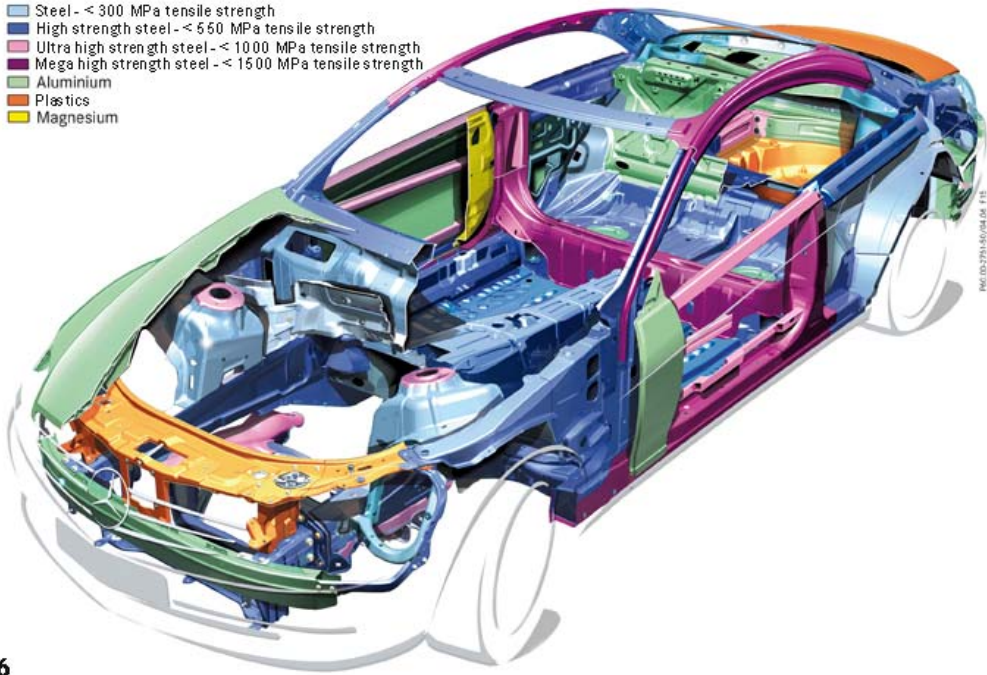
1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front and rear
4. Side impact air bags at rear
5. Window curtain air bags
6. Structural reinforcements
7. Fuel tank
8. Battery
9. Auxiliary Battery in Engine Compartment



## CL-Class Coupé (Model 216 - continued)

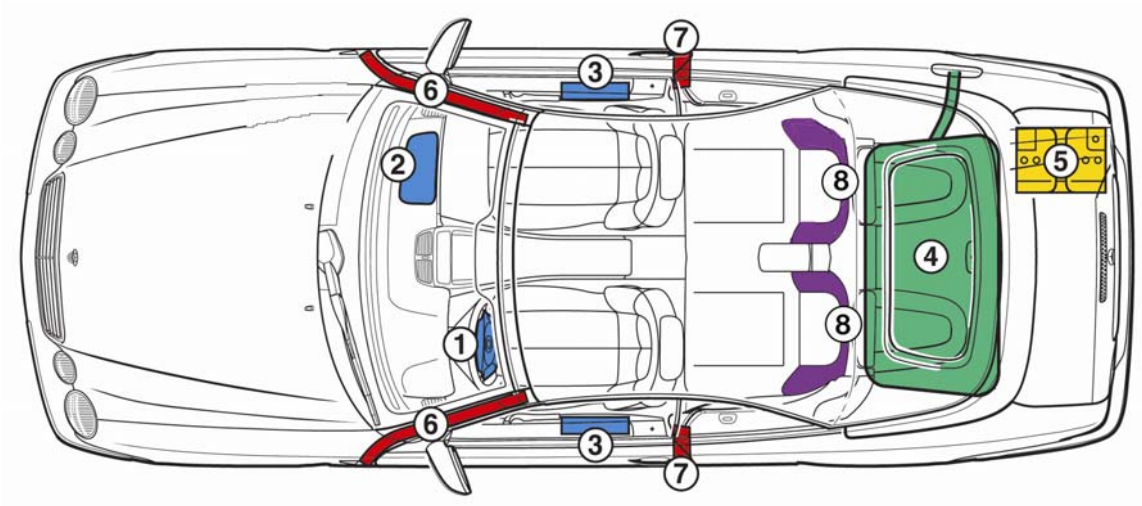
### Materials Mix

- Steel - < 300 MPa tensile strength
- High strength steel - < 550 MPa tensile strength
- Ultra high strength steel - < 1000 MPa tensile strength
- Mega high strength steel - < 1500 MPa tensile strength
- Aluminium
- Plastics
- Magnesium



216

## CLK-Class Convertible (Model 208)




### Location

 Air Bag

 Tank

 Battery

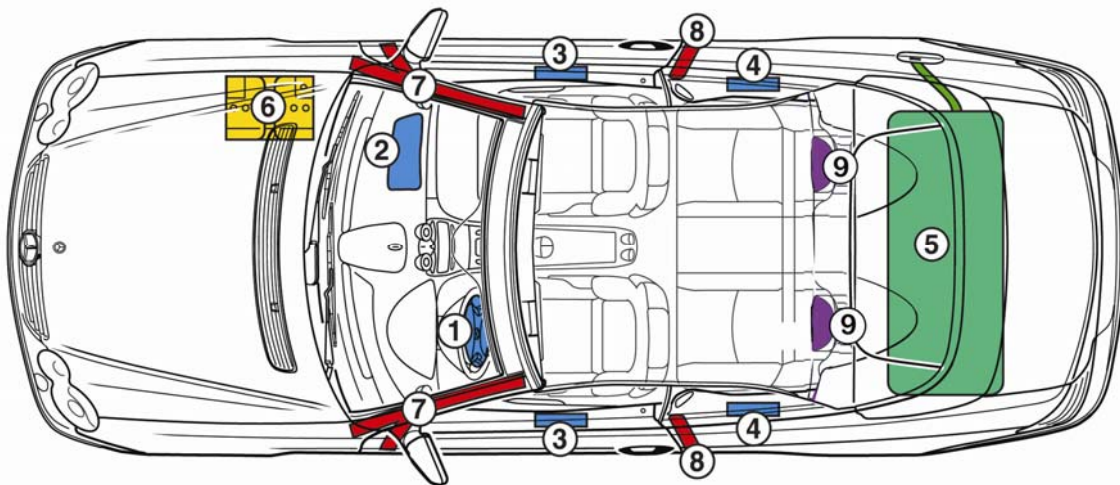
 Structural reinforcements

 Roll Bar

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Fuel tank
5. Battery
6. Structural reinforcements on A-pillars
7. Structural reinforcements on B-pillars
8. Roll bars



## CLK-Class Convertible (Model 209)




### Location

 Air Bag

 Tank

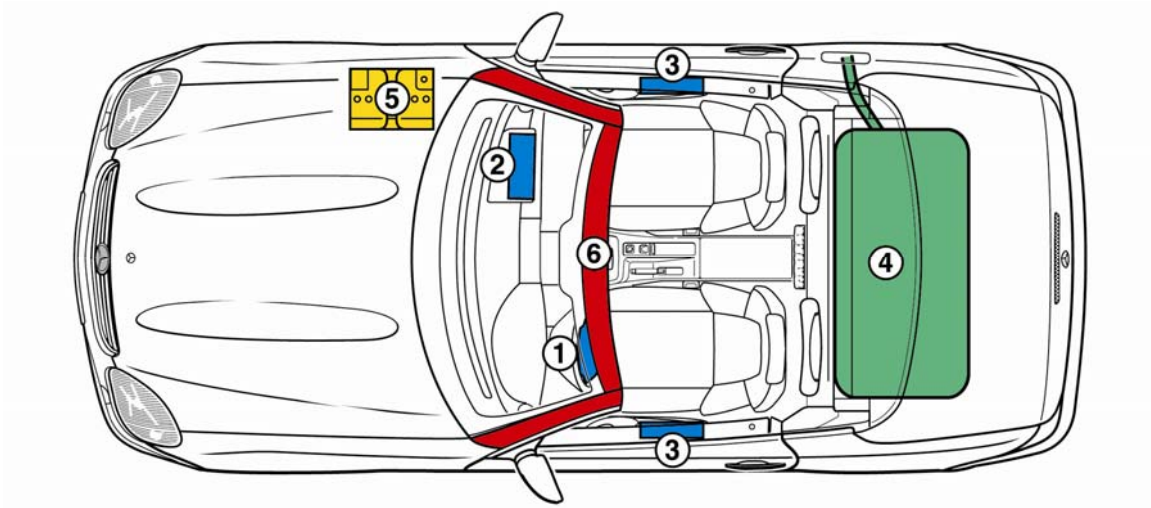
 Battery

 Structural reinforcements

 Roll Bar

1. Driver-side front air bag
2. Passenger-side front air bag
3. Head/thorax side impact air bags at front
4. Side impact air bags at rear
5. Fuel tank
6. Battery
7. Structural reinforcements on A-pillars
8. Structural reinforcements on B-pillars
9. Roll bars

## SLK-Class Roadster (Model 170)



### Location

 Air Bag

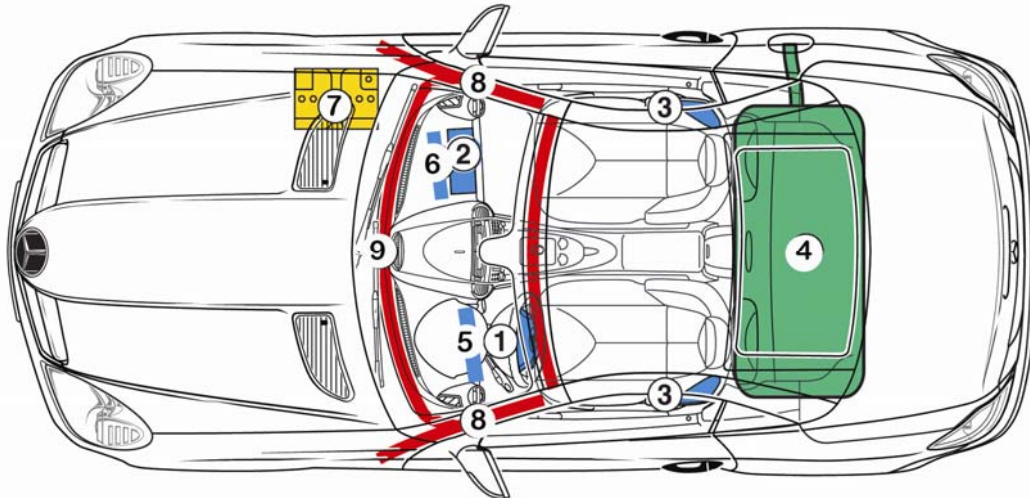
 Tank

 Battery

 Structural reinforcements

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags
4. Fuel tank
5. Battery
6. Structural reinforcements on A-pillars

## SLK-Class Roadster (Model 171)




### Location

 Air Bag

 Tank

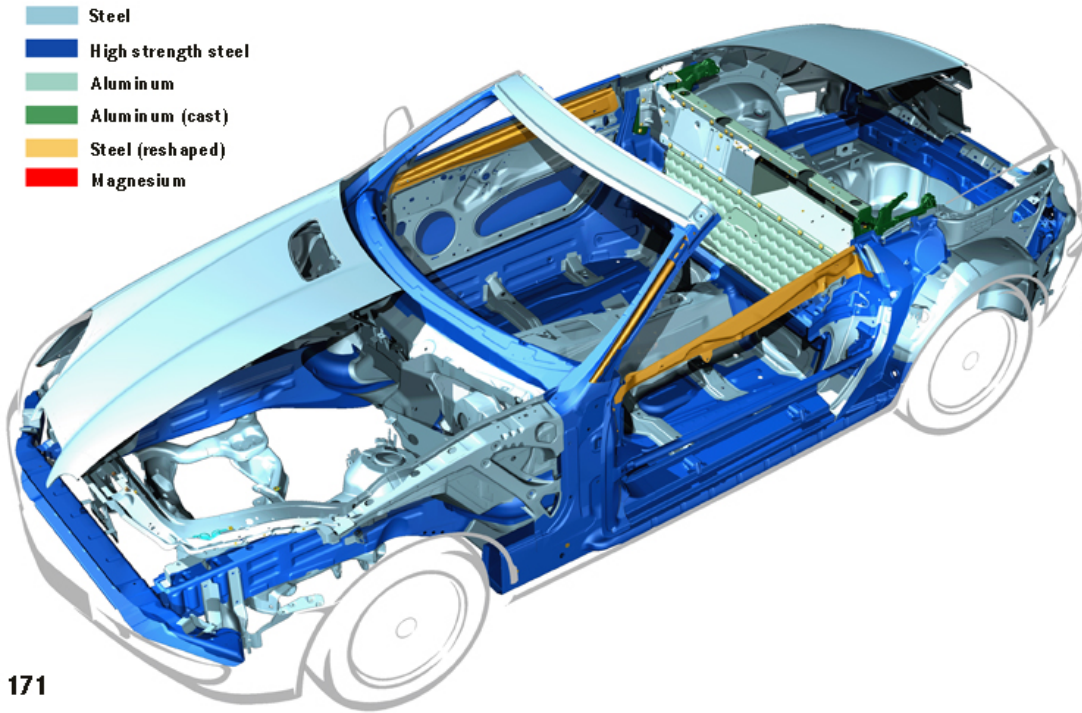
 Battery

 Structural reinforcements

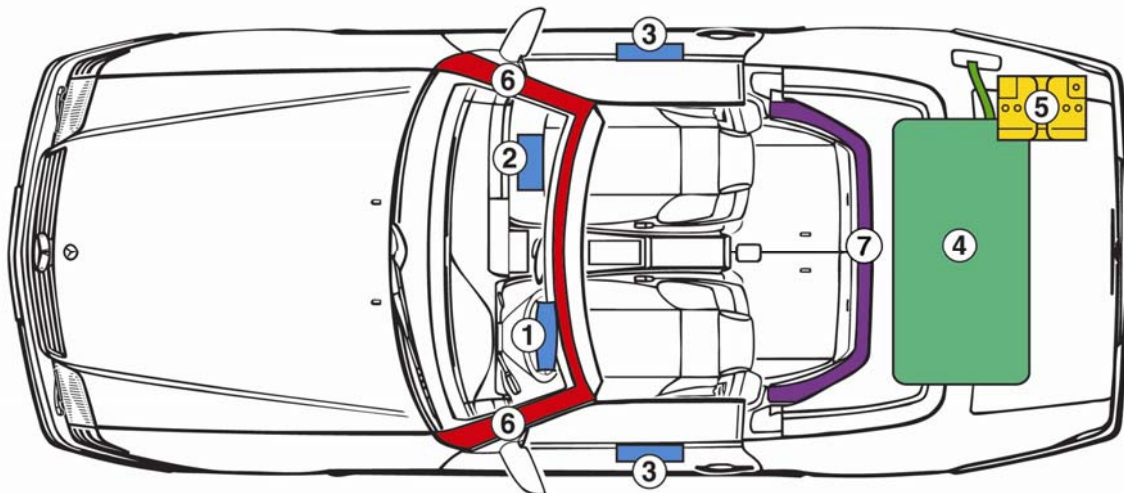
1. Driver-side front air bag
2. Passenger-side front air bag
3. Head/thorax side impact air bags (in seat backrests)
4. Fuel Tank
5. Driver knee air bag
6. Passenger knee air bag
7. Battery
8. Structural reinforcements on A-pillars
9. Structural reinforcements

## SLK-Class Roadster (Model 171) - continued

### Materials Mix



## SL-Class Roadster (Model 129)



### Location

 Air Bag

 Tank

 Battery

 Structural reinforcements

 Roll Bar

1. Driver-side front air bag

2. Passenger-side front air bag

3. Side impact air bags

4. Fuel tank

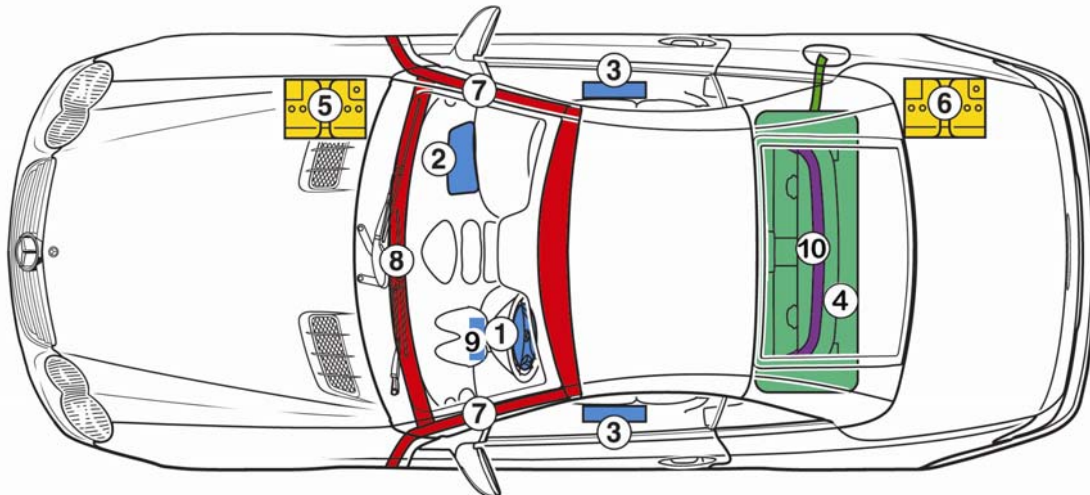
5. Battery

6. Structural reinforcements on A-pillars

7. Roll bar



## SL-Class Roadster (Model 230)



### Location

 Air Bag

 Tank

 Battery

 Structural reinforcements

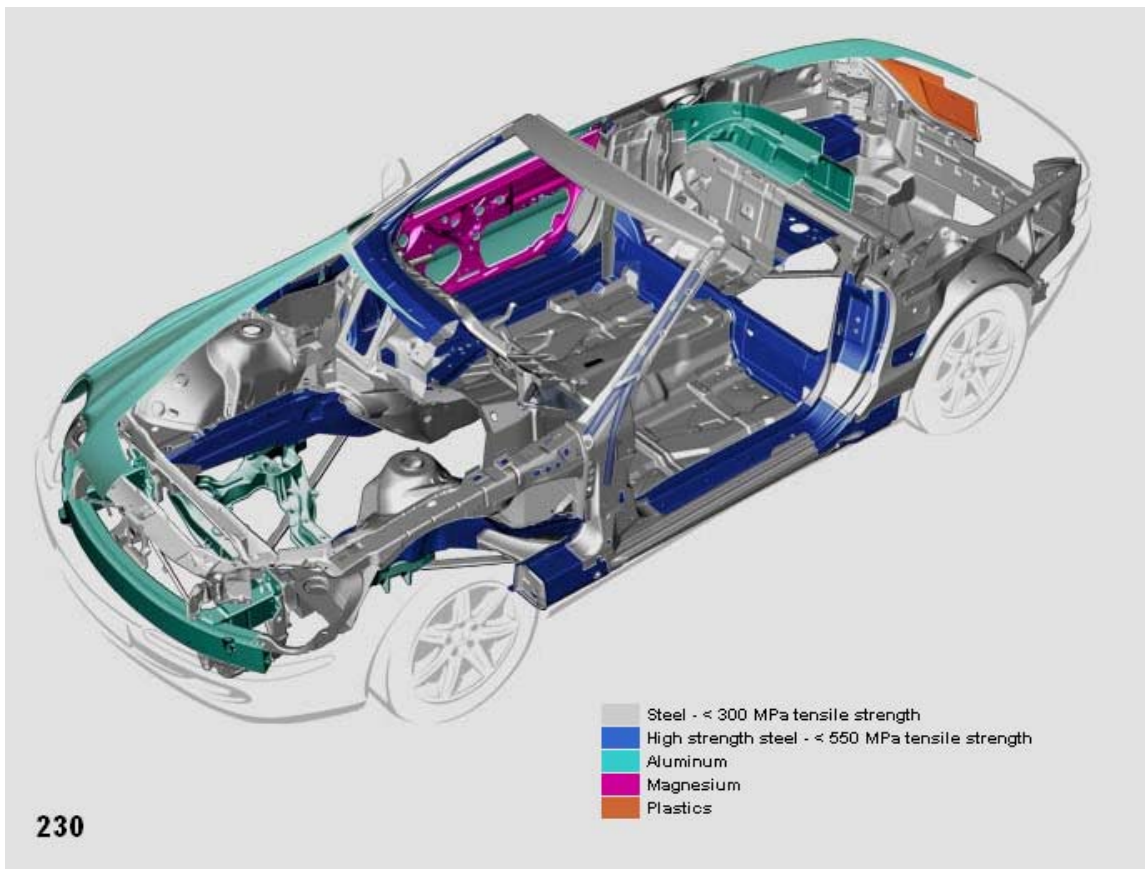
 Roll Bar

1. Driver-side front air bag
2. Passenger-side front air bag
3. Head/Thorax side impact air bags
4. Fuel tank
5. Battery (in engine compartment)
6. Battery
7. Structural reinforcements on A-pillars
8. Structural reinforcement
9. Driver-side knee bag
10. Retractable roll bar

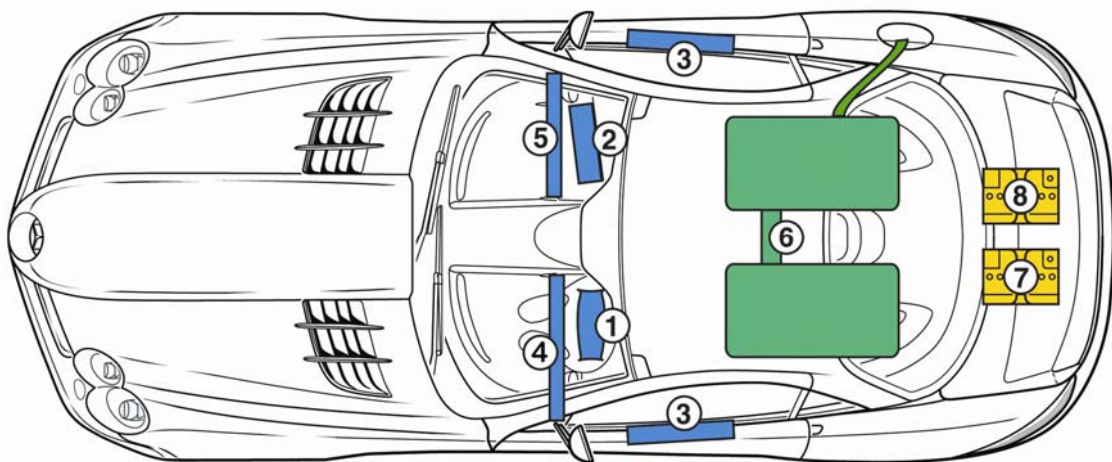


## SL-Class Roadster (Model 230) - continued

### Materials Mix



## SLR McLaren (Model 199)



### Location

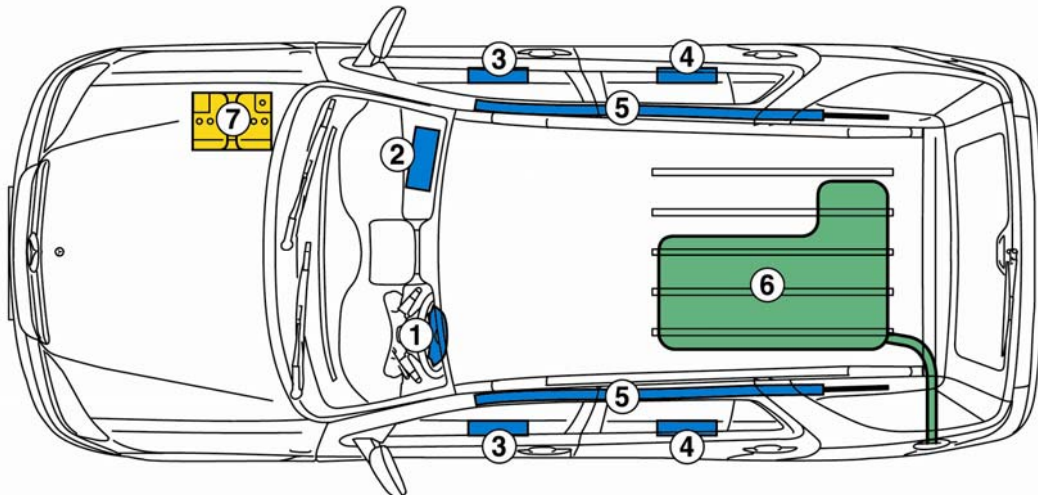
 Air Bag

 Tank

 Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Head/thorax side impact air bags
4. Driver knee air bag (under left instrument panel)
5. Front passenger knee air bag (under right instrument panel)
6. Fuel tank
7. Power supply battery
8. Starter battery

## M-Class (Model 163)



### Location

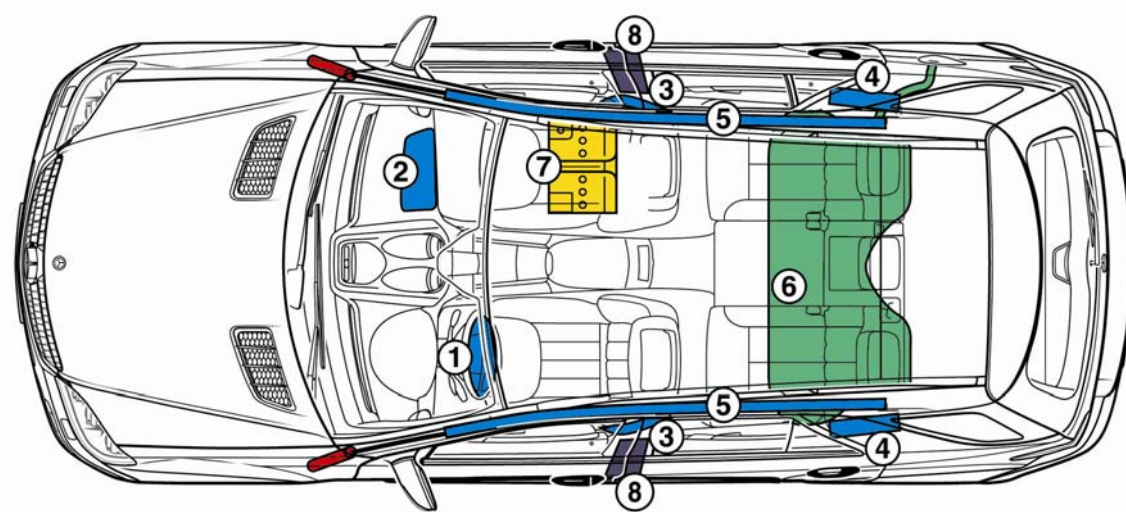
 Air Bag

 Tank





 Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags at front
4. Side impact air bags at rear
5. Window curtain air bags
6. Fuel tank
7. Battery

## M-Class (Models 164)



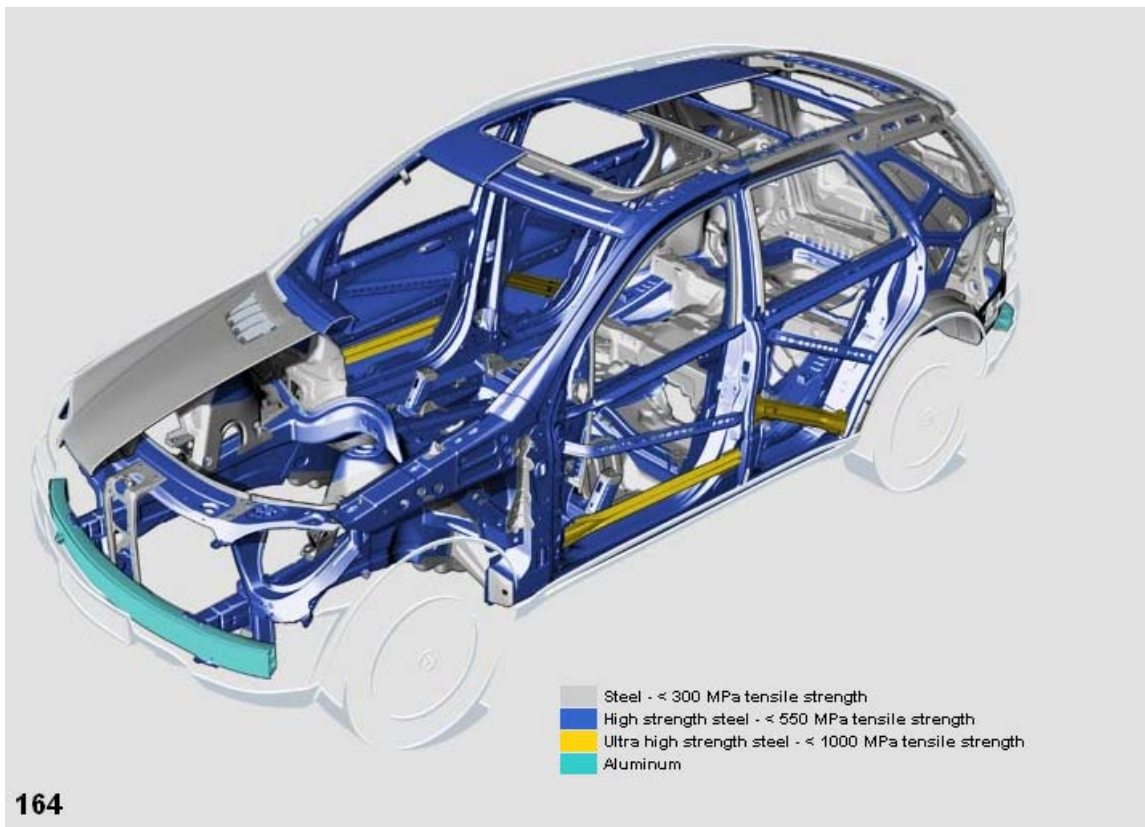
### Location

-  Air Bag
-  Tank
-  Battery
-  Structural reinforcements

1. Driver-side front air bag
2. Passenger-side front air bag
3. Side impact air bags
4. Side impact air bags
5. Window curtain air bags
6. Fuel Tank
7. Battery and auxiliary battery (under passenger seat)
8. Structural reinforcements on B-pillars

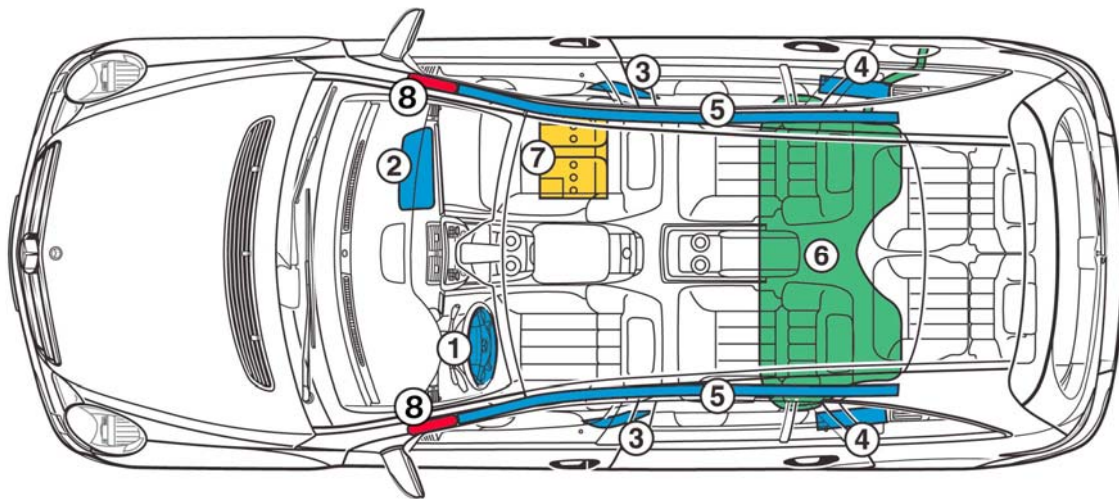
## M-Class (Models 164) - continued

### Materials Mix









## R-Class (Models 251)



### Location

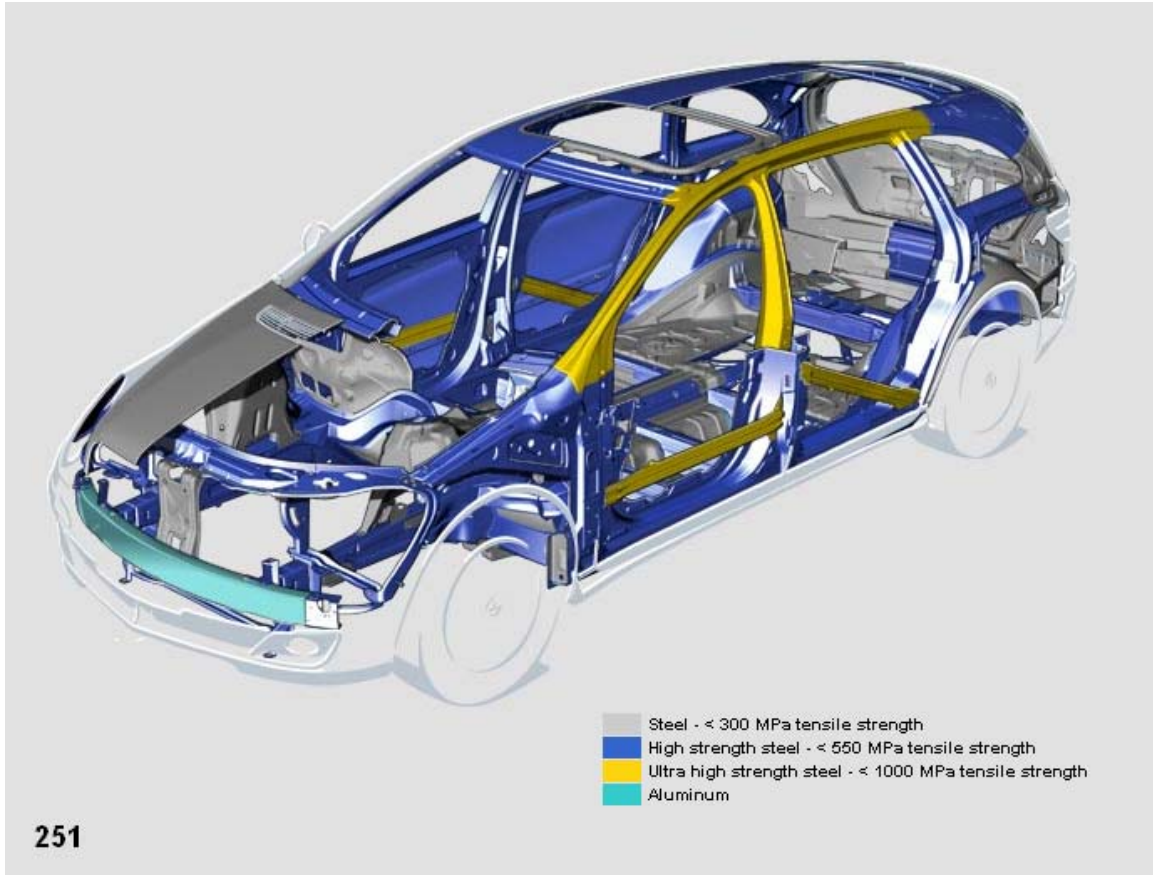
	Air Bag
	Tank
	Battery
	Structural reinforcements

1. Driver-side front air bag
2. Passenger-side front air bag
3. Window curtain air bags
4. Side impact air bags
5. Window curtain air bags
6. Fuel Tank
7. Battery (under passenger seat) and Auxiliary battery (under passenger footwell)
8. Structural reinforcements

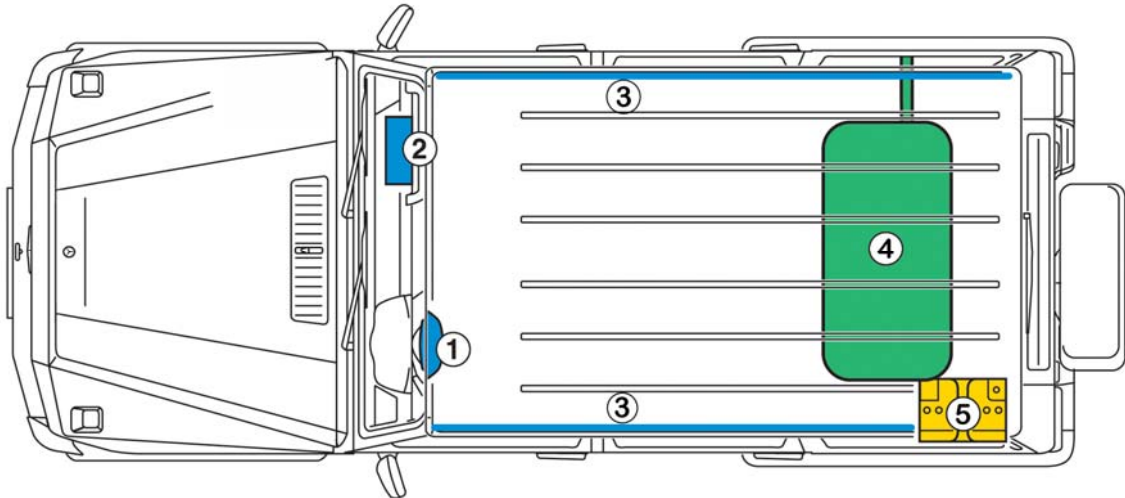


## R-Class (Models 251) – continued

### Materials Mix



## G-Class (Models 463)



### Location

 Air Bag

 Tank

 Battery

1. Driver-side front air bag
2. Passenger-side front air bag
3. Window curtain air bags
4. Fuel tank
5. Battery



## Tele Aid

Tele Aid is a Mercedes-Benz automatic vehicle emergency call system that uses GPS positioning satellite technology and the cellular phone network to stay connected with the vehicle. Tele Aid automates the processes of emergency calling and accurate location description, reducing the risk of human error in stressful situations.

**NOTE:** Tele Aid operation is limited to GPS and cellular phone service coverage areas.

### ***Automatic Emergency Triggers***

After the Supplemental Restraint System (SRS) control unit deploys a vehicle's air bag or seat belt emergency tensioning device, an emergency call is initiated by the Tele Aid control unit.

## Manual Emergency Triggers



**Red Switch**

Above the inside rearview mirror is a red switch (1), which is covered with a cap (marked "SOS") to prevent unintentional operation. This switch can be manually used to trigger an emergency call.

One of the benefits of the Tele Aid system is that it provides comprehensive information (such as vehicle model and color) to the emergency call response center.\*



**SOS Cap Cover**

Tele Aid can only work where adequate cellular and GPS coverage is available and relies on the vehicle's power supply. In addition, the vehicle owner must have a subscription to the monitoring service.

- \* Pressing the "SOS" button immediately establishes voice contact with an emergency response center. Pressing this button transmits information about the vehicle to the center, including its precise location through GPS satellite tracking.

The emergency response specialist can then notify the nearest appropriate emergency service and help guide them to the car.

If a collision deploys any airbag (or seatbelt tensioner), the system automatically establishes contact with the response center, relaying pertinent information. The center can then notify local police, fire or emergency services if voice contact is not established (e.g., the customer is unable to respond) or if the customer informs the call center that assistance is required. The response center can also call any third party that the client wants notified.

Standard Tele Aid systems do not require purchasing a cellular phone – it operates on the existing cellular system with a crash-protected backup antenna.