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ABOUT THIS GUIDE

Information at hand

EASY ACCESS TO PRODUCT KNOWLEDGE

The new 2006 Sales Presentation Guides continue in the format introduced for 2005, based on positive feedback received from the Mercedes-Benz sales force.

ORGANIZATION OF THE GUIDES

The presentation of the 2006 Mercedes-Benz model line is divided into two groups, for easier access to information you need:

- **Class Guides:** Information on each model line, to explain the key features that distinguish one model line from the others, and from their competition.
- A core Technology Guide: Information on what makes every Mercedes-Benz a Mercedes-Benz: the key shared features and technologies that are common to every—or nearly every—2006 model.

To help you find information easily, the Guides provide **some basic search tools:**

- At the front of each Guide, a **Table of Contents** lists the subjects in page order.
- This is followed by an **Alphabetical Index** of key topics.
- The **Tech Guide** is divided into topical sections, although the various benefits of certain features may be presented in more than one section, as appropriate.
- ★ Benefits of each feature are called out in italics with a red star.
- Throughout each Guide, blue-diamond callouts direct you to other sections or the Class Guides for additional discussion of related or model-specific features:

♦ MORE INFO: TECH GUIDE | P. XX



WHAT FEATURES ARE ON WHAT MODELS?

In the standard printed Tech Guide, each informational "spread" (two facing pages) includes a **model chart** along the right side that shows whether each feature described is **standard**, **optional or not available** for each Mercedes-Benz model. **In this online PDF version**, the model charts appear on the **odd-numbered pages**. For example, the chart on **page 15** covers **pages 14–15**.

The model charts can also help you become familiar with the specific **differences in** equipment from one model to another.

For further details on features and individual models, please refer to the **Specifications and Equipment charts** at the back of each model line's Class Guide.

REDUCED REPETITION, MORE DEPTH The Guides are designed to minimize repeating information across numerous models, helping to make the information more easily accessible to you. This also helps to better illustrate how every Mercedes is engineered to virtually the same standards in technology, innovation, safety systems and features. This is something that your customers can appreciate every day—as well as in those moments where the depth of substance that characterizes every Mercedes-Benz becomes critical.

We've selected the most compelling and pertinent facts about the most advanced, diverse and exciting line of Mercedes-Benz models we've ever presented to you and your customers. With an exciting, expanded range of models for 2006, we hope you'll not only benefit from this approach, we hope you'll enjoy it, too.

> John Zupancic Curriculum Designer MBUSA Training and Education

E 320 CDI Sedan

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Questions or comments on the Presentation Guides for 2006? Please contact John Zupancic at john.zupancic@mbusa.com

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DRIVING DYNAMICS OVERVIEW

Poise under pressure, confidence over any road

While all Mercedes-Benz automobiles look beautiful at a glance, their refined and poised road manners reveal them to be even more beautiful from behind the wheel. Every model can be characterized by a sensation of confidence-inspiring stability and impressive cornering ability, thanks in large part to sophisticated suspensions, state-of-the-art electronics and optimized drivetrains, all of which work together to deliver the distinctive driving feel that is uniquely Mercedes-Benz.

After all, every Mercedes-Benz benefits from 120 years of automotive innovation and leadership—from the invention of the car, to victory at the first car race, to the introduction of such features as the first 4-wheel independent suspension and the benchmark Electronic Stability Program (ESP). No other automobile brand in the world can claim such a legendary heritage. Perhaps that is why no other car feels quite like a Mercedes-Benz.



DRIVETRAINS, TRACTION AND STABILITY

A Rear-wheel drive

Every 2006 Mercedes-Benz passenger car is based on a rear-wheel-drive platform.

★ more even front/rear weight distribution leads to handling that is naturally balanced for a midsize or larger vehicle

REAR-WHEEL VS FRONT-WHEEL DRIVE

While front-wheel drive offers a number of packaging benefits in a compact car, larger vehicles—even the midsize C-Class—make good use of the benefits of rear-wheel drive:

- · Rear-wheel drive apportions the workload of steering and acceleration more evenly to all four wheels and tires.
- ★ allows every Mercedes, even our most practical wagons and luxurious sedans, to offer responsive and sporty handling
- Rear-wheel drive helps balance the weight of the drivetrain along the longer wheelbase of larger cars, which typically have heavier engines than small cars.
- * provides more balanced handling in a larger car

The rest of the auto industry has taken note of this inherent handling advantage for larger cars, with a notable return to rear-wheel drive among both luxury sedans and a number of their more mainstream offerings.

REAR-WHEEL DRIVE AND WINTER DRIVING

With the advent of traction and stability **systems** – concepts brought to fruition by Mercedes-Benz-and with the use of proper winter tires on all four wheels, rear-wheel drive has proven to be guite viable for use in snowy climates and conditions as well.

B 4MATIC all-wheel drive

The 4MATIC[™] all-wheel drive system delivers torque to all four wheels full-time.

★ 4MATIC enhances traction in all driving situations.¹ particularly in inclement weather ★ 4MATIC can enhance dry-road handling, too, particularly in curves or where there are loose surfaces such as gravel

4MATIC is available within every line of Mercedes-Benz sedans and wagons-C-Class (Luxury), E-Class and S-Class.

DRY-ROAD BENEFITS OF 4MATIC

The added surefootedness of 4MATIC all-wheel drive:

★ enhances stability on dry roads

* rewards spirited drivers with enhanced grip and control during acceleration and cornering

4MATIC truly is all-season all-wheel drive.



C 4-wheel drive – SUVs

DRIVING DYNAMICS

FEATURE APPLICATION BY MODEL

SEE CHART ON NEXT PAGE. >

The 4-wheel drive systems in the M-Class SUVs and R-Class Grand Sports Tourers add certain features designed to enhance driving on rough or rutted roads, taking off on steep hills, and trailer towing.²

♦ MORE INFO ON 4-WHEEL DRIVE: SEE M-CLASS AND R-CLASS GUIDES



ML 500

2006 TECH GUIDE 6



40/60 FRONT/REAR TORQUE SPLIT

In normal driving, 4MATIC sends 40% of the engine's torque output to the front wheels and 60% to the rear.

* sending a larger portion of the torque to the rear wheels helps the car deliver the sporty handling character of a rear-wheeldrive vehicle while offering the benefits of all-wheel drive

★ 4MATIC ensures that torque is delivered to each wheel in changing traction conditions, thanks to the 4-wheel Electronic Traction *System (4-ETS).* (See item D, at right.)

S430 Sedan with 4MATIC

4MATIC AND ELECTROHYDRAULIC BRAKES

On the E-Class all-wheel-drive models. 4MATIC is enhanced by the electrohydraulic brake control.

★ The electrohydraulic braking system facilitates even quicker 4-ETS response by applying individual brakes more rapidly in the event that any of the wheels lose grip

♦ MORE INFO: TECH GUIDE | P. 13

1 No system, regardless of how advanced, can overcome physics or correct careless driving. Please always wear your seat belt. Performance is limited by available traction, which snow, ice and other conditions can affect. Always drive carefully, consistent with conditions. Best performance in snow is obtained with winter tires.

2 Off-road driving should only be attempted by drivers with the necessary skill, experience and understanding of the vehicle's limits and performance capabilities in those conditions.



D 4-ETS

4-WHEEL ELECTRONIC TRACTION SYSTEM

All 4MATIC and 4-wheel-drive models use the highly advanced 4-wheel Electronic Traction System (4-ETS) to help maintain optimum grip in virtually all driving circumstances.1

HOW 4-ETS WORKS

- · If a wheel spins, as in snow or other lowtraction conditions, the natural tendency is for the slipping wheel to draw all the torque sent to that axle (due to the way differentials send power to two wheels).
- When 4-ETS detects that one or more wheels have lost grip (via wheel-speed sensors shared with ABS and ESP), it:
- Applies the brakes to the slipping wheel (or wheels)
- ★ permits torgue to flow to all the wheels, allowing the gripping wheels to make use of available traction
- -Reduces excess engine power, if the system deems it is necessary
- ★ helps to further arrest wheelspin

"ONE-WHEEL" DRIVE

Because 4-ETS operates on all four wheels, it has the unusual capability of being able to deliver torgue to a single wheel.

* can help get the vehicle moving even when three wheels slip and only one wheel has grip



One wheel slips Two wheels slip

< See preceding page for footnotes.

M-CLASS AND R-CLASS ENHANCEMENTS

The 4-wheel drive system in the M-Class and R-Class uses an enhanced version of 4-ETS (called 4-ETS+) that adds several features.

♦ MORE INFO: M-CLASS AND R-CLASS GUIDES



ML 350

E ESP

ELECTRONIC STABILITY PROGRAM

Every Mercedes-Benz-whether rear-wheel. all-wheel or 4-wheel drive-features ESP, which was the first stability control system on the U.S. market in 1995, and remains an industry benchmark today.

★ ESP helps to maintain the driver's intended course through a turn¹ by correcting two common (but not commonly understood) phenomena: "oversteer" and "understeer"

• For oversteer (or fishtailing – when the rear of the vehicle tends to rotate toward the outside of a turn), ESP brakes the **outside front wheel**. This creates a counter-rotation that helps to bring the vehicle back on course.

- For understeer (when the front of the car **plows** toward the outside of the curve). ESP brakes the **inside rear wheel** to help bring the vehicle back to its intended path.
- ESP can also reduce excess engine power to further help restore stability.

TRACTION CONTROL INCLUDED IN ESP

ESP incorporates the functions of Automatic Slip Control, which (like 4-ETS) can brake a slipping drive wheel and/or reduce excess engine power as needed to restore grip.¹

* Automatic Slip Control helps counteract wheelspin under acceleration

THE "ESP OFF" BUTTON

A button on the dash can defeat the powerreduction function of ESP. The braking of individual wheels remains in effect.

★ allows for some beneficial wheel slip to enhance tire "bite" in snow





CLS 500 Coupe

FEATURE APPLICATION BY MODEL

DRIVING DYNAMICS

■ STANDARD □ OPTIONAL - NOT AVAILABLE

MODEL

SLK 280

SLK 350

SLK 55 AMG

C 230 Spt Sedan

C 350 Spt Sedan

C 55 AMG Spt Sedan

C 280 Luxury Sedan

C 350 Luxury Sedan

- Α Rear-wheel drive
- R 4MATIC all-wheel drive
- С 4-wheel drive-SUVs

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D 4-ETS

A B C D E

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Electronic Stability Program (ESP) E.

SUSPENSION SYSTEMS

A Independent suspension

Mercedes-Benz pioneered the 4-wheel independent suspension in 1931, and the multilink rear suspension in 1982. Today, both remain hallmarks of the **refined ride and athletic handling** of every Mercedes passenger car and the M-Class SUV.

4-WHEEL MULTILINK SUSPENSION

Mercedes-Benz passenger cars feature sophisticated 4-wheel independent **multilink suspensions** that provide:

- ★ an optimal blend of over-the-road ride comfort and predictable, stable handling
- ★ precise wheel location for improved steering accuracy
- ★ favorable deformation characteristics in the event of a severe frontal collision
- ★ reduced road noise and tire vibration

OTHER SUSPENSION DETAILS

All models (except those equipped with air suspension) feature **gas-pressurized shock absorbers**, which better resist internal oilfoaming as the shock absorbers heat up during rough-road driving.

★ offer more consistent damping under all driving conditions

The front and rear suspensions feature **antidive and antisquat geometry**.

- ★ helps resist nosedive under hard braking
- ★ helps resist rear-end "squat" under acceleration

Front and rear stabilizer bars help to counteract body lean in corners.

- ★ more stable handling, improved control
- Stabilizer bars are not required with ABC.

B 3-link front suspension

C-Class, SLK and CLK models all feature a compact 3-link design, with **two lower links and a concentric shock absorber** (or "strut") and coil spring.



Multilink front suspension (C-Class shown)

RIGID SUBFRAME MOUNTING

The lower links are attached to the body via a subframe.

★ subframe helps improve overall body rigidity for more precise handling

★ design better isolates the cabin from the harshness of the road

c 4-link front suspension

E-Class, S-Class, SL and CL models use a 4-link design for even more precise wheel location and to better manage the weight of these larger cars.

As with the 3-link design, the suspension is subframe-mounted for rigidity and isolation.

ALL-WHEEL DRIVE MODELS

E-Class and S-Class models with 4MATIC[™] all-wheel drive use a **double-wishbone** design, in order to accommodate the additional front-end driveline components.

D Multilink rear suspension

The **5-arm multilink rear suspension** continues to be regarded by many as one of the world's most effective and efficient rear suspension designs.



Multilink rear suspension (SL 500 shown)

The multilink rear suspension design found on all Mercedes-Benz passenger car models incorporates five arms that locate the wheels precisely in a variety of driving and load conditions.

The five-arm design virtually eliminates all unwanted rear-wheel movement.

- ★ provides extremely precise wheel location at any point in the wheel travel
- ★ counteracts the unintended steering effects of the rear wheels
- ★ helps ensure a maximized tire contact patch
- ★ all of these benefits contribute to more predictable control

2006 TECH GUIDE DRIVING DYNAMICS 8 FEATURE APPLICATION BY MODEL SEE CHART ON NEXT PAGE. >

E Light truck suspension

The M-Class SUVs and R-Class Grand Sport Tourers feature a unique suspension setup.

DOUBLE WISHBONE/MULTILINK DESIGN

The all-new M-Class and R-Class both feature a 4-wheel independent suspension:

- **Double wishbone** front suspension
- 4-arm multilink rear suspension
- Airmatic air suspension optional on M-Class and R-Class

♦ MORE INFO: M-CLASS AND R-CLASS GUIDES

F Airmatic air suspension

Some E-Class, CLS, S-Class, M-Class and R-Class models use variations of Airmatic **air suspension** with these core principles:

- **Spring-struts** that use compressed air to instantly vary their spring and damping rates replace the springs and shock absorbers of conventional suspensions.
- An electric compressor supplies the air to adjust the ride height and damping rate of each spring-strut, based on sensors that monitor road irregularities (via up-down wheel movement) and ride height.
- An **accumulator** maintains a reserve of air to fill the spring-struts when driving below 6 mph, for quieter system operation.
- Seamless, high-strength hose-type bellows inside each spring-strut allow for extremely rapid filling without harshness.
- The Adaptive Damping System (ADS II) adjusts the suspension damping rate.
- **4-wheel automatic level control** adjusts the ride height as passenger and cargo loads vary.
- The driver can raise the ride height by 0.75 inch¹ via pushbutton (the car returns to normal after about 5 minutes above 50 mph, or immediately above 75 mph).
 * useful on rutted roads or in deep snow
- The ride height is **automatically lowered** by 0.4 inch¹ above 70 mph:
- ★ improves aerodynamics and stability
 Returns to normal below 40 mph

On the E-Class and CLS, **Airmatic Dual Control** adds semi-active response to cornering, braking and acceleration forces.

- ★ helps reduce roll, dive and pitch
- ★ optimizes ride quality

< See preceding page for footnotes.

G Adaptive Damping System

ADS II is an electronically controlled system that instantly adjusts Airmatic's spring-struts to the road and driving conditions to optimize ride and handling. Components include:

- Switching valves in each spring-strut
- Sensors for steering-wheel angle and wheel speeds (sensors shared with ABS)
- Three vertical body-acceleration sensors
- Brake pedal switch

Every time a wheel changes its **direction of travel** from up (compression of the springstrut) to down (extension), ADS automatically selects one of **four damping stages**:

ADS DAMPING STAGES

Stage	Extension	Compression
1	Soft	Soft
★ maxir	num ride comfort	on smooth straightaways
2	Soft	Firm
★ comp	liance over bump	s, flatter lane-changes
3	Firm	Soft
★ less l	ean in corners, re	duced braking nosedive
4	Firm	Firm
★ maxir	num handling con	ntrol, minimum body lean

Pushbutton **Comfort** and **Sport** modes change the threshold of body motion at which the system selects the next stage:

Comfort Largest motions allowed Sport 1 Reacts to smaller motions Sport 2 (cars only) Directly engages Stage 4 Auto (M-Class, R-Class) Automatic selection of Stage	Mode	Suspension response			
Sport 1 Reacts to smaller motions Sport 2 (cars only) Directly engages Stage 4 Auto (M-Class, R-Class) Automatic selection of Stage	Comfort	Largest motions allowed			
Sport 2 (cars only) Directly engages Stage 4 Auto (M-Class, R-Class) Automatic selection of Stage	Sport 1	Reacts to smaller motions			
Auto (M-Class, R-Class) Automatic selection of Stag	Sport 2 (cars only)	Directly engages Stage 4			
and the second second second	Auto (M-Class, R-Class)	Automatic selection of Stage			
the second second	Auto (M-Class, R-Class)	Automatic selection of Sta			

Airmatic ride height (a.) and ADS Sport mode (b.) buttons

H Active Body Control

ABC ACTIVE AIR SUSPENSION

Active Body Control is **the most advanced active suspension** on the market. Rather than using conventional springs, struts and stabilizer bars, ABC's components include:

- A coil spring and electronically controlled hydraulic cylinder in series, for each wheel
- A separate gas-pressurized shock absorber, for each wheel
- A **compressor** and **accumulator** which maintain total system pressure at up to 2,900 psi
- A system of sensors for lateral and longitudinal body acceleration, ride height, wheel speed, steering angle and brake use

ABC **moves the body** up to five times per second to offer sports-car handling with a luxurious ride.

- helps keep car level while steering, braking, accelerating, and riding on irregular surfaces
 reduces dive when braking and squat under acceleration
- ★ driver-selectable Sport mode results in virtually no body roll in corners
- ★ 4-wheel automatic level control adjusts to passengers and cargo loads
- Automatic lowering by about 0.4 inch (gradually, between about 35 and 85 mph)
- Three driver-selectable ride heights

ABC RIDE HEIGHT PROGRAMS

Option	Ride height	Gradual a	utomatic lowering
0	0" (normal)	-0.4"	from 35 to 85 mph
I	+0.75"	- 1"	from 35 and 120 mph
II	+1.125"	- 0.4" - 1" more	from 0 to 35 mph, from 35 to 120 mph

FEATURE	APPLICATIO		MODEL
STANDARD		- NOT A	VAILABLE

DRIVING DYNAMICS

- **A** Independent suspension
- **B** 3-link front suspension
- **c** 4-link front suspension
- **D** Multilink rear suspension
- E Light truck suspension
 F Airmatic air suspension
- F Airmatic air suspensionG Adaptive Damping System (ADS II)
- H Active Body Control (ABC)

	_	-	_		_	_		
A	В	С	D	E	F	G	н	MODEL
		-		-	-	-	-	C 230 Spt Sedan
		-		-	-	-	-	C 350 Spt Sedan
		-		-	-	-	-	C 55 AMG Spt Sedan
		-		-	-	-	-	C 280 Luxury Sedan
		-		-	-	-	-	C 350 Luxury Sedan
		-		-	-	-	-	SLK 280
		-		-	-	-	-	SLK 350
		-		-	-	-	-	SLK 55 AMG
		-		-	-	-	-	CLK 350 Coupe
		-		-	-	-	-	CLK 500 Coupe
		-		-	-	-	-	CLK 350 Cab
		-		-	-	-	-	CLK 500 Cab
		-		-	-	-	-	CLK 55 AMG Cab
	-			-			-	E350 Sedan
	-			-	-	-	-	E320 CDI Sedan
	-			-			-	E 500 Sedan
	-			-			-	E 55 AMG Sedan
	-			-			-	E350 Wagon
	-			-			-	E 500 4MATIC Wagon
	-			-			-	E 55 AMG Wagon
	-			-			-	CLS 500
	-			-			-	CLS 55 AMG
	-			-			-	S 350
	-			-			-	\$430
	-			-			-	S 500
	-			-	-	-		S 55 AMG
	-			-	-	-		S600
	-			-	-	-		S 65 AMG
	-			-	-	-		SL500
	-			-	-	-		SL55 AMG
	-			-	-	-		SL600
	-			-	-	-		SL65 AMG
	-			-	-	-		CL 500
	-			-	-	-		CL 55 AMG
	-			-	-	-		CL600
	-			-	-	-		CL65 AMG
	-	-	-				-	ML 350
	-	-	-				-	ML 500
	-	-	-				-	R 350
	-	-	-				-	R 500

WHEELS AND TIRES

A Aluminum-alloy wheels

Every Mercedes-Benz features **lightweight aluminum-alloy wheels**. Wheels range from 16" to 19" in diameter.

REDUCED UNSPRUNG WEIGHT

While most of the weight of a vehicle is supported by the suspension, the wheels, tires, brakes and related hardware actually "hang" on the suspension. These elements comprise **unsprung weight**, and reducing it can help to improve the responsiveness of the steering and suspension.

★ alloy wheels can weigh less than half of conventional steel wheels, providing a significant reduction in unsprung weight

UNDERSTANDING WHEEL AND TIRE SIZES

Wheel and tire sizes use an often confusing collection of numbers and letters, and both US and metric units. The chart below is intended to help clarify their meaning.

1 V-rated, W-rated, Y-rated and Z-rated tires are optimized for performance driving and may provide reduced ride comfort, increased tire noise, substantially increased treadwear and greater susceptibility to damage compared with H-rated tires.

B Staggered-width wheels

Many models have wheels and tires that are **wider at the rear** of the car than at the front. ***** *larger rear-tire contact patch enhances grip under acceleration*

 \star front tires are sized to minimize the

influence of irregularities and grooves in the road surface on steering feedback

Even though the front and rear tires are differing widths, the **overall diameter** of all four tires is always **nearly the same**. This is accomplished by specifying a lower "aspect ratio" (see chart below) for the rear tires, so that the sidewall heights are all nearly equal.

c Wheel packages

Many models offer an optional AMG Sport Package and/or Appearance Package. ★ larger wheels and high-performance tires

enhance handling and styling^{1,2}

2 AMG 18" and 19" wheels and accompanying high-speedrated tires provide substantially increased treadwear and reduced ride comfort compared to H-rated tires. Serious wheel and tire damage may occur if the vehicle is operated on rough or damaged road surfaces or upon encountering road debris or obstacles.

UNDERSTANDING WHEEL AND TIRE SIZES

Wheel size	Element	Meaning	Example
Example:	7.5	Wheel width	(7.5 inches across)
7.5Jx17	J	Wheel type	(shape where tire meets rim)
	x	"by"	(width multiplied by diameter)
	17	Diameter	(17 inches tall)
Tire size	Element	Meaning	Example
Example:	225	Section width	(225 mm across at mid-sidewall)
225/45ZR17 92Y	45	Aspect ratio	(sidewall height is 45% of section width: 0.45 x 225 = 101.25 mm)
	Z	Speed rating	(usually H, V, W, Y or Z)
	R	Tire type	(R = radial construction)
	17	Diameter	(fits a 17" wheel)
	92	Load index	(higher rating is for heavier loads)
	Y	Speed rating	(same info as "7" above. W and Y ranges are subsets of 7 rating.)

D Compact spare tire

Most models feature one of the following lightweight spare wheel and tire types intended for **temporary** use–limited to a total lifetime usage of 12,000 miles:

- a compact "minispare" tire and wheel
- a full-size tire and "structure" alloy wheel
- ★ lighter spare helps improve fuel economy and is easier to handle during tire-changing
- Each of the above spare tires is stored fully inflated and ready for use, though like any tire—it is important for the driver to check the inflation pressure regularly per the Operator's Manual.

E Collapsible spare tire

Roadsters and R-Class models are equipped with a **limited-use** spare tire that must be **inflated for use**. A portable electric air compressor that plugs into the 12V power outlet in the cabin or trunk is included. * *improves usable trunk space*

F Run-flat tires

Certain 2006 models will be offered with optional **extended-mobility (run-flat) tires** that can be driven a **limited distance** (approximately 30 miles) at speeds **up to 50 mph** after a loss of air pressure in a tire.

- ★ driver can continue driving—to a safer location or to a repair facility
- ★ alleviates the need for a spare tire, saving weight and maximizing available cargo room

TIRE AND WHEEL INFO FOR EACH MODEL: SEE INDIVIDUAL CLASS GUIDES

FEATURE APPLICATION BY MODEL

STANDARD DOPTIONAL - NOT AVAILABLE

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- A Aluminum-alloy wheels
- **B** Staggered-width wheels and tires

DRIVING DYNAMICS

- **C** Wheel packages
- **D** Compact spare tire
- **E** Collapsible spare tire
- **F** Run-flat tires

	_		_		_	
Α	В	С	D	E	F	MODEL
		-		-	-	C 230 Spt Sedan
		-		-	-	C 350 Spt Sedan
				-	-	C 55 AMG Spt Sedan
	-	-		-	-	C 280 Luxury Sedan
	-	-		-	-	C 350 Luxury Sedan
			-			SLK 280
			-			SLK 350
			-		-	SLK 55 AMG
		-		-		CLK 350 Coupe
		-		-		CLK 500 Coupe
		-		-		CLK 350 Cab
		-		-		CLK 500 Cab
		-		-	-	CLK 55 AMG Cab
				-	-	E 350 Sedan
	-	-		-	-	E 320 CDI Sedan
				-	-	E 500 Sedan
			-		-	E 55 AMG Sedan
				-	-	E 350 Wagon
				-	-	E 500 4MATIC Wagon
				-	-	E55 AMG Wagon
				-		CLS 500
			-		-	CLS 55 AMG
				-	-	S 350
				-	-	S 430
				-	-	S 500
				-	-	S 55 AMG
				-	-	S600
				-	-	S 65 AMG
			-			SL500
			-		-	SL55 AMG
			-			SL600
			-		-	SL65 AMG
				-	-	CL500
				-	-	CL55 AMG
				-	-	CL600
				-	-	CL65 AMG
	-			-	-	ML 350
	-			-	-	ML 500
	-		-		-	R 350
	-		-		_	R 500

POWER AND PERFORMANCE OVERVIEW

Smooth, strong, efficient – and fun to drive

Now more than ever, power and performance are Mercedes-Benz hallmarks. After all, a Mercedes-Benz would not be worthy of its name if it was not powered by a thoroughbred engine. And a fine engine needs a fine transmission to harness that power as it makes its way to the wheels. Yet as thrilling as acceleration can be in a Mercedes-Benz, there can be no understating the importance of bringing it back to reality with a smooth, controlled stop.

This section offers detailed information on key features and technologies that give every Mercedes-Benz its performance credentials, including a family of smooth, strong engines (including a new generation of DOHC V-6s), acclaimed transmissions (featuring the industry's first 7-speed automatic) and innovative, state-of-the-art braking systems that are among the world's very best.



CLK DTM racecar and E55 AMG Sport Sedan



A 4-wheel disc brakes

Every Mercedes-Benz features **disc brakes** at all four wheels.

★ designed to exhibit minimal fade, for maximum stopping performance, even under heavy use

All models include **ventilated front brake discs** (also known as rotors). Many models offer **ventilated rear brake discs** as well.

- Ventilated discs use a **two-layer design**, with each layer connected by **central vanes** that allow cooling air to circulate between the disc layers.
- ★ offer better heat dissipation than solid (non-ventilated) rotors

B Multipiston calipers

Many models offer multipiston brake calipers on the front and/or rear brakes that offer **two, four, or even six or eight pistons** within each caliper.

- The piston is the component which, when forced outward by the pressure of the brake fluid, **pushes the brake pad** against the brake disc.
- Additional pistons in a brake caliper better distribute the braking force (and the resultant heat) across the surface area of each brake disc.
- ★ allows for higher braking forces
- ★ helps reduce warping from hot spots

♦ MORE INFO: TECH GUIDE | P. 18

c Perforated rotors

Perforations within the brake rotors on some models help to **disperse the heat** and gases that are generated during extreme braking needs. They also help reduce water buildup on the brake discs, and allow some additional ventilation.

- ★ help maintain brake performance in challenging conditions
- ★ add to stylish appearance
- Perforations in Mercedes-Benz discs are cast in place, not "cross-drilled" after the rotor is manufactured.
 - ★ eliminates disc-weakening stress points that can occur from drilling



S 500 perforated front brake and 4-piston caliper



E 55 AMG perforated front brake and 8-piston caliper



S-Class braking components (2001 model shown)



SLK 55 AMG compound, perforated front brake and 6-piston caliper

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FEATURE APPLICATION BY MODEL SEE CHART ON NEXT PAGE. >

POWER AND

D Electrohydraulic braking

Previously known as Sensotronic Brake Control, we now communicate this braking system to consumers as **the world's first electrohydraulic braking system** used in a volume-produced vehicle.

With this pioneering technology, electronics replace many mechanical components used in conventional braking systems to provide **highly effective and precise braking** in varying driving situations.

- Sensors register the pressure with which the driver depresses the brake pedal and transfer that information to an electronic control unit.
- The control unit processes information along with information from various other sources, and calculates the optimal brake pressure for each individual wheel, depending on the driving dynamics.

To ensure that the driver retains the "feel" of the brakes, the system links a **simulator** to the tandem brake cylinder.

- In the event of a component failure, the system provides a direct hydraulic connection between the brake pedal and the front brakes in order to slow and stop the vehicle.
- Note: This backup mode requires significantly lengthened brake-pedal travel and the application of substantially greater brake-pedal force.



In addition to its core functions, the system adds several performance features that were not feasible with conventional brakes, although future models will incorporate them without the added complexity of the full electrohydraulic braking system:

PREDICTIVE BRAKE PRIMING

Predictive brake priming recognizes the **speed at which the driver's foot lifts off the accelerator** as an indication of a possible emergency braking situation.

- When the driver lifts off quickly, the system immediately increases brake-line pressure to set the pads closer to the discs.
- ★ helps reducing the response time of the brakes once the brake pedal is pushed

E 500 Sedan

AUTOMATIC BRAKE DRYING

When **driving with the wipers on**, automatic brake drying **imperceptibly applies the brakes** periodically, based on windshield wiper cycling and by monitoring how recently the driver has used the brakes.

- This action helps disperse the layer of moisture that can accumulate on the brake-disc surfaces in wet weather.
- ★ helps maintain peak brake performance in wet conditions, for more immediate brake response and shorter stopping distances

FEATURE APPLICATION BY MODEL

- STANDARD □ OPTIONAL NOT AVAILABLE
- **A** 4-wheel disc brakes
- **B** Multipiston calipers
- **c** Perforated rotors
- **D** Electrohydraulic braking

Α	В	С	D			MODEL
			-			C 230 Spt Sedan
			-			C 350 Spt Sedan
			-			C 55 AMG Spt Sedan
	-	-	-			C 280 Luxury Sedan
	-	-	-			C 350 Luxury Sedan
		-	-			SLK 280
			-			SLK 350
			-			SLK 55 AMG
	-	-	-			CLK 350 Coupe
		-	-			CLK 500 Coupe
	-	-	-			CLK 350 Cab
		-	-			CLK 500 Cab
			-			CLK 55 AMG Cab
		-				E350 Sedan
	-	-				E320 CDI Sedan
		-				E 500 Sedan
						E 55 AMG Sedan
		-				E350 Wagon
		-				E 500 4MATIC Wagon
						E55 AMG Wagon
		-				CLS 500
						CLS 55 AMG
			-			S 350
			-			S 430
			-			S 500
			-			S 55 AMG
			-			S 600
			-			S 65 AMG
						SL500
						SL55 AMG
						SL600
						SL65 AMG
			-			CL500
			-			CL55 AMG
			-			CL600
			-			CL65 AMG
		-	-			ML 350
		-	-			ML 500
		-	-			R 350
-		-	-			R 500

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FEATURE APPLICATION BY MODEL SEE CHART ON NEXT PAGE. >

ENGINES

Overview

Benefiting from 120 years of development and racing heritage that dates to **winning the first car race**, every Mercedes-Benz engine is part of one of the most evolved and sophisticated powertrain families in the industry and offers efficient power, robust torque and low emissions.

KEY ENGINE FEATURES

- Die-cast aluminum-alloy engine block (gasoline engines) and cylinder heads
 provide high strength with light weight
- Electronic throttle valve and integrated electronic control units (ECUs) with a high-speed data network to control the fuel injection and ignition
- ★ provide precise control of engine speed and a smoother idle
- Self-adjusting valvetrains
- ★ help reduce maintenance costs and maintain optimum engine efficiency
- Lightweight reciprocating parts such as pistons, connecting rods and valves
- ★ help reduce internal power losses, for higher performance and fuel efficiency

TEN MODELS WITH OVER 450 HP

Mercedes-Benz is the only automaker to offer this many separate high-power models:

Model	Engine	Peak output
E55 AMG	5,439-cc supercharged V-8	469 hp
S 55 AMG SL 55 AMG CL 55 AMG	5,439-cc supercharged V-8	493 hp
S 600 SL 600 CL 600	5,513-cc twin-turbo V-12	493 hp
S 65 AMG SL 65 AMG CL 65 AMG	5,980-cc twin-turbo V-12	604 hp

A Turbocharged diesel inline-6

The **E320 CDI**'s advanced 3.2-liter inline-6 turbodiesel engine uses **Common-rail Direct Injection** to provide extremely **high torque** for truly exceptional performance.

KEY ENGINE FEATURES

- Cast-iron cylinder block
- \star provides high strength for durability
- Double overhead camshafts (DOHC) and 4 valves per cylinder
- \star improve airflow in and out of cylinders
- Intercooled, electronically controlled Variable Nozzle Turbocharger (VNT) with electronically adjusted vanes
- ★ increases density of intake air through compression (turbocharger) and cooling (intercooler) for greater power
- ★ VNT improves charge pressurization at lower rpm, for reduced turbo lag and exceptional low-end torque
- Electronically controlled **ultrahighpressure Common-rail Direct Injection** (CDI) with centrally located 7-nozzle fuel injectors
- ★ fuel pressure maintained at up to
 23,200 psi for improved fuel atomization,
 greatly increasing peak torque output
- Double-pilot injection, which preheats the combustion chambers with a preinjection of fuel
- ★ promotes stronger, faster and more complete combustion
- ★ reduces noise ("diesel clatter")
- ★ reduces particulate (soot) emissions

B New-generation DOHC V-6

Nearly every 2006 **V-6 model** is powered by a member of a new generation of DOHC engines that will be introduced across the full model line in the coming years.

Engine	Models	
2.5-liter DOHC V-6	C230	
3.0-liter DOHC V-6	C 280	SLK 280
3.5-liter DOHC V-6	C 350	SLK 350
	CLK 350	E 350
	ML350	R 350

KEY ENGINE FEATURES

- Chain-driven dual overhead camshafts (DOHC) with 4 valves per cylinder
- Continuously variable intake-valve and exhaust-valve timing (by up to 40°)
- ★ varying intake valves helps optimize torque across the rev range ; varying exhaust valves helps improve fuel economy and emissions
- ★ exhaust valves can remain open for an instant when intake valves open, reducing emissions from unburned fuel and improving airflow to boost fuel economy
- 2-stage resonance intake manifold
- ★ optimizes filling of cylinders with fuel-air mixture by changing length of intake path at both high and low rpm, for higher torque across a broader rev range
- Innovative turbulence flaps in the intake ducts, which electropneumatically open



at partial acceleration loads

- ★ open flaps shorten path of intake air to increase turbulence of fuel-air mixture and speed of combustion, for higher power and more complete combustion, helping improve mpg and emissions
- ★ closed flaps recede from intake path to allow full effect of long intake paths
- Direct ignition with one centrally located spark plug and ignition coil per cylinder
 *** optimizes combustion flame path
- An advanced heat management system, which interrupts the circulation of coolant during engine warm-up, and directs flow of heat in all conditions to help maintain oil and coolant at optimum temperature
- ★ helps engine reach optimum operating temperature more rapidly, improving oil flow and thereby reducing friction, helping boost economy while reducing emissions
- Single balance shaft, rotating at crankshaft speed but in the opposite direction
 * enhances smoothness
- Acoustic optimizing, from the intake to the exhaust system
- ★ woven nylon intake ducts help absorb sound, to reduce intake noise
- ★ tuned exhaust optimizes sound at idle, under acceleration, and when cruising



E 320 CDI turbodiesel inline-6

♦ MORE ENGINE SPECS: SEE CLASS GUIDES

DOHC 24-valve V-6 engine

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FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL - NOT AVAILABLE

- **A** Turbocharged diesel inline-6
- **B** New-generation DOHC V-6
- **C** SOHC V-6 or V-8
- **D** Twin-turbocharged V-12
- E AMG V-8 or V-12

Α	В	С	D	E	1	MODEL
-		-	-	-	(C 230 Spt Sedan
-		-	-	-	(C 350 Spt Sedan
-	-	-	-		(C 55 AMG Spt Sedan
-		-	-	-	(C 280 Luxury Sedan
-		-	-	-	(C 350 Luxury Sedan
-		-	-	-		SLK 280
-		-	-	-		SLK 350
-	-	-	-			SLK 55 AMG
-		-	-	-	(CLK 350 Coupe
-	-		-	-	(CLK 500 Coupe
-		-	-	-	(CLK 350 Cab
-	-		-	-	(CLK 500 Cab
-	-	-	-		(CLK 55 AMG Cab
-		-	-	-		E350 Sedan
	-	-	-	-		E 320 CDI Sedan
-	-		-	-	1	E500 Sedan
-	-	-	-		1	E 55 AMG Sedan
-		-	-	-		E350 Wagon
-	-		-	-		E 500 4MATIC Wagon
-	-	-	-		1	E55 AMG Wagon
-	-		-	-	(CLS 500
-	-	-	-		(CLS 55 AMG
-	-		-	-		S 350
-	-		-	-		S 430
-	-		-	-		S 500
-	-	-	-			S 55 AMG
-	-	-		-		s 600
-	-	-	-			S 65 AMG
-	-		-	-		SL500
-	-	-	-			SL55 AMG
-	-	-		-		SL 600
-	-	-	-			SL65 AMG
-	-		-	-	(CL 500
-	-	-	-		(CL55 AMG
-	-	-		-	(CL600
-	-	-	-		(CL 65 AMG
-		-	-	-	-	ML 350
-	-		-	-	1	ML 500
-		-	-	-		R 350
-	-		-	-		R 500

C SOHC V-6 and V-8 engines

The **V-8 engines** in **all model lines** and the V-6 in the new **S 350** are all from a single "modular" engine family.

Engine Models										
3.7-liter V-6 \$350										
4.3-liter V-8 \$430										
5.0-liter V-8	5.0-liter V-8 CLK 500 E 500 CLS 500 S 500									
SL500 CL500 ML500 R500										
• The 5,439-cc	AMG V-8 e	ngines in t	he AMG "5	5"						

 The 5,439-cc AMG V-8 engines in the AMG 55 models are also derived from this family of engines.

KEY ENGINE FEATURES

- Chain-driven single overhead camshaft (SOHC) with 3 valves per cylinder
- ★ dual intake valves improve airflow into cylinders
- ★ single exhaust valve transfers heat of combustion better, to heat the catalytic converters more quickly, reducing peak emissions after cold-engine startup
- 2-stage resonance intake manifold

 Internal butterfly valve routes intake air through a longer path at lower rpm.
- ★ longer intake runner accelerates airflow into cylinders, improving response at lower engine speeds (rpm)
- ★ shorter path at higher rpm promotes free breathing with higher air volume



SOHC V-8



• ME 2.8 engine management system

each cylinder

★ individually controls fuel spray, spark

timing and phase, and antiknock control for

★ integrates fuel injection and ignition for more precise and efficient combustion

-Two spark plugs for each cylinder fire

in sequence, milliseconds apart, with

* stronger, more complete combustion

-Firing order **swaps** with each cycle.

★ helps ensure more even plug wear

-One high-energy ignition coil per plug.

★ stronger, more complete combustion

100,000-mile replacement intervals.

★ rotates in opposite direction but at same

speed as crankshaft to counteract natural

★ reduce normal-use maintenance costs

Single balance shaft (V-6 engines)

vibrations, for smoother operation

- Platinum-tipped spark plugs feature

Phased twin-spark ignition

each combustion cycle.

Twin-turbo V-12 engine

D Twin-turbocharged V-12

The **5,513-cc twin-turbo V-12** is one of the world's most powerful car engines.

Engine	Models									
5.5-liter twin-turbo V-12	S 600	SL600	CL600							
• The 5,980-cc AMG twin-turbo V-12 engine in the										
AMG "65" models is also	derived f	from this en	gine.							

KEY ENGINE FEATURES

- Two-piece die-cast engine block
 - ★ provides exceptional strength
- Magnesium cylinder head covers
- · Hand-matched engine components
 - ★ provides more exacting tolerances
- Twin turbochargers
- -One per cylinder bank, integrated in each bank's exhaust manifold
- ★ efficiently increase peak power and help provide massive low-end torque
- -Electronically controlled bypass valves
- ★ reduce turbocharger "whine"
- Liquid-to-air intercoolers (1 per turbo)
- ★ cooling increases air-charge density for more powerful combustion
- Intercoolers feature a special cooling system "low-temperature circuit."
- ★ maximizes intercooler efficiency
- Double-hardened, polished crankshafts
 - ★ hardening provides exceptional strength
- ME 2.7 engine management system
 - ★ features and benefits similar to V-8s

E AMG V-8 and V-12 engines

The **AMG V-8s and V-12** are derived from the **regular-production** 5.0-liter V-8 in item C and 5.5-liter V-12 in item D, so they share many of their respective attributes.

ENGINES continued

SUPERCHARGING AND TURBOCHARGING

Turbochargers and superchargers help **extract more power** from an engine, for the **performance of a larger engine** with less increase in size and fuel consumption.

 Both devices boost engine power by compressing intake air and forcing it into the combustion chambers.
 Superchargers are mechanically

driven by an accessory belt.

- Turbochargers are spun by exhaust gases in the exhaust manifolds.
- Our **superchargers** use two rotors inside an oval housing that draw air from the air cleaner and force it into the intake manifold.
- AMG models use a helical screw-type supercharger with hollow-cast rotors.
- An electromagnetic coupling engages the supercharger only as needed, based on driver demand, engine load and pressure of the charged air.
- ★ disengaging the supercharger at low speeds reduces friction and extends its lifespan
- **Turbochargers** feature impeller-driven turbines that remain inert until sustained combustion generates enough exhaust flow to spin them. As a result, maximum boost is not usually achieved instantly.
- The V-12's compact twin turbos (rather than one large one) and optimized turbine and impeller designs nearly eliminate this "turbo lag."
- **Intercoolers** help reverse the heating of the air caused by compression. Cooler air is denser, so more can be forced into the engine, further boosting performance.

TRANSMISSIONS

A 6-speed manual

Standard on the **C-Class Sport Sedans**, **SLK 280** and **SLK 350** is a performanceoriented 6-speed manual transmission.

KEY TRANSMISSION FEATURES

- Direct-action linkage, with the shifter connected to the transmission via a single rigid rod rather than the previous rod/cable setup
- ★ provides more direct, accurate shifts with more satisfying feel
- ★ designed not to require adjustment
- Short-throw gearshift
 - ★ enhances sporty shifter feel
- Innovative **multiple-cone synchronizers** in 1st, 2nd, 3rd and 4th gears
- ★ reduces shift effort, for higher comfort
- Double-H shift pattern, with Reverse at the upper left and engaged by moving the lever left of 1st gear past a detent
 * engaging Reverse no longer requires lifting knob, enhancing ease of shifting
- New **insulating dampers** in shift lever and between shift housing and car body
- ★ reduce vibration, improve shifting ease
- Automatically adjusting clutch
 * helps reduce maintenance costs and
- maintain consistent, proper pedal feel



6-speed manual short-throw gearshift

B 5-speed automatic

Standard on some **models** is a 5-speed automatic transmission widely praised for its smooth shifting and versatile character.

KEY TRANSMISSION FEATURES

- Electronic control, networked with the engine ECU for smoother performance
- Driver-adaptive control, which adjusts the shift points to key indicators of the driver's current driving style:
- -Vehicle speed; engine rpm and load
- -Throttle use (amount and speed of
- accelerator pedal application) - Traction control intervention
- -Cruise control engagement
- -Uphill/downhill road grade
- -Extent of manual use of Touch Shift
- -Driver's braking and steering inputs
- ★ enthusiastic driving induces shifts at higher rpm for maximum performance
- ★ more leisurely driving induces shifts at lower rpm for maximum economy
- Touch Shift control (see Item D, at right)
- **Sport and Comfort modes**, including 2nd-gear startup (see Item E, at right)
- Torque converter lockup in 3rd, 4th and 5th gears
 - ★ improves fuel efficiency
- Automatic downshifting to help maintain downhill speed with cruise control on
- Digital display on dash of selected gear range and Sport/Comfort mode
- \star enhances ease of use

AMG ENHANCEMENTS

AMG models add a number of features to suit their **high-performance** needs.



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FEATURE APPLICATION BY MODEL SEE CHART ON NEXT PAGE. >

c 7-speed automatic

The **world's first** production 7-speed automatic transmission is standard on most **rear-wheel-drive** models, the **M-Class** and **R-Class**, and optional on non-AMG **SLKs**.

KEY TRANSMISSION FEATURES

- All 5-speed features described in item B
- Seven forward gear ratios, with more closely spaced ratios spanning a broader total range

★ help provide the optimum gear for any driving situation, from rapid acceleration to more efficient highway cruising

★ closer gear ratios reduce rpm changes between gears, for smoother driving

• Driver-adaptive control

- Similar to 5-speed automatic (see Item B, at left)

- Quicker gear changes
 - ★ improve responsiveness and comfort
- Torque converter lockup in all seven forward gears, to reduce power losses
 improves fuel efficiency
- Ability to skip gears during downshifts
 helps provide quicker acceleration or stronger "engine braking" on deceleration

AMG ENHANCEMENTS

The SLK 55 AMG is the **first AMG model** to employ an enhanced 7-speed automatic.

♦ MORE INFO: SLK-CLASS GUIDE

H GUIDE | P. 18

D Touch Shift

Every automatic-equipped Mercedes features Touch Shift, which lets the driver enjoy **manual-style control** of shifting whenever the mood strikes.

- When in Drive, the driver can **nudge the shift lever** to the left (-) or right (+).
- \star enhances control and sporting feel
- ★ left-right motion requires an easier, more natural arm (elbow) movement than competitors' fore-aft systems
- Tapping left (-) directly downshifts one gear below the gear currently in use.
- Tapping right (+) selects the next highest gear range, allowing the transmission to upshift as far as the selected range.
 With Drive selected, all gears are used.
- -With a lower gear selected, only **that** gear and those below it are used.
- Transmission automatically upshifts if engine reaches maximum rpm (redline).
- Holding left (-) for 0.7 second activates "Shift into Optimum Gear" (see below).
- Holding right (+) for 0.7 second returns the transmission directly to Drive.

SHIFT INTO OPTIMUM GEAR

Touch Shift allows one-touch preselection of the **optimum gear for acceleration**.

- In Drive, hold the gear lever left (–) for approximately 0.7 second.
- The transmission will automatically select the ideal gear for maximum acceleration or engine braking (based on whether driver presses or lifts up on accelerator).
- ★ enhances performance and helps provide instant passing-gear response



Touch Shift automatic gearshift **E** Sport and Comfort modes

All passenger-car and R-Class automatic transmissions feature two **shift modes**, activated by the **C/S button** on the console:

- Sport mode is the default setting:
- -Vehicle takes off in 1st gear and bases shift points on the driver-adaptive programming.
- Comfort mode causes the vehicle to: -start moving in 2nd gear
- -upshift at lower rpm (when in Drive)-engage a special, second Reverse gear
- (when in R) with a taller ratio ★ helps reduce tendency for wheelspin on
- wet or slippery surfaces
- ★ maximizes shift comfort

F Direct Select[™] shifter

On the **M-Class** and **R-Class**, the driver operates the transmission in a new way.

- A lever on the steering column selects **Park, Reverse, Drive** and **Neutral**.
- **Touch Shift** is controlled via the steeringwheel shift buttons (see item G, at right).



Fingertip manual mode shift button G Steering-wheel shift buttons

Two systems are offered, both with **buttons behind the upper steering-wheel spokes**.

FINGERTIP SHIFT CONTROL

- Standard on CLK 500, M-Class and R-Class
- Included with the AMG Sport Package for the SLK-Class and SL-Class
- Two identical **rocker switches** operate the **Touch Shift** feature.
- -Press **inside** of button to shift **down**, press **outside** of button to shift **up**.

FINGERTIP MANUAL MODE

• Standard on all AMG models

♦ MORE INFO: TECH GUIDE | P. 18



Direct Select shift lever

FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL − NOT AVAILABLE

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- A 6-speed manual transmission
- **B** 5-speed automatic transmission
- **C** 7-speed automatic transmission
- **D** Touch Shift
- **E** Sport and Comfort shift modes
- **F** Direct Select shifter
- **G** Steering-wheel shift buttons

	_		_		_		
Α	В	С	D	Е	F	G	MODEL
	-				-	-	C 230 Spt Sedan
	-				-	-	C 350 Spt Sedan
-		-			-		C 55 AMG Spt Sedan
-	-				-	-	C 280 Luxury Sedan
-	-				-	-	C 350 Luxury Sedan
	-				-		SLK 280
	-				-		SLK 350
-	-				-		SLK 55 AMG
-	-				-	-	CLK 350 Coupe
-	-				-		CLK 500 Coupe
-	-				-	-	CLK 350 Cab
-	-				-		CLK 500 Cab
-		-			-		CLK 55 AMG Cab
-	-				-	-	E 350 Sedan
-		-			-	-	E 320 CDI Sedan
-	-				-	-	E 500 Sedan
-		-			-		E 55 AMG Sedan
-	-				-	-	E 350 Wagon
-	-				-	-	E 500 4MATIC Wagon
-		-			-		E 55 AMG Wagon
-	-				-		CLS 500
-		-			-		CLS 55 AMG
-		-			-	-	S 350
-	-				-	-	S 430
-	-				-	-	S 500
-		-			-		S 55 AMG
-		-			-	-	S600
-		-			-		S 65 AMG
-	-				-		SL500
-		-			-		SL55 AMG
-		-			-		SL600
-		-			-		SL65 AMG
-		-			-	-	CL500
-		-			-		CL55 AMG
-		-			-	-	CL 600
-		-			-		CL65 AMG
-	-			-			ML350
-	-			-			ML 500
-	-						R 350
-	-						R 500

AMG PERFORMANCE ENHANCEMENTS

AMG engines

Three **handcrafted AMG engines** are offered for 2006, a **5,439-cc V-8** in both naturally aspirated and supercharged versions, and a **5,980-cc twin-turbo V-12**:

AMG ENGINES BY MODEL											
Engine	AMG n	nodels									
Naturally aspirated V-8	C 55	SLK 55	CLK 55								
Supercharged V-8	E55	CLS 55									
	S 55	SL 55	CL 55								
Twin-turbocharged V-12	S65	SL65	CL 65								

Every passenger-car model line offers an AMG variant powered by a **handcrafted**, **high-performance V-8** engine. The S, SL and CL-Class also offer a **604-hp AMG V-12**.

ONE MAN, ONE ENGINE

AMG's **"one man, one engine"** philosophy puts one technician in charge of handselecting and assembling the components that comprise each AMG powerplant. ***** *ensures each engine is ideally balanced and assembled with minimum tolerances*

THE AMG V-8-KOMPRESSOR OR NOT

 $\ensuremath{\text{Two versions}}$ of the AMG V-8 are offered:

- A **naturally aspirated** engine producing up to 362 hp and 376 lb-ft of torque
- A **supercharged** V-8 producing up to 493 hp and 516 lb-ft of torque
- Both derive from the regular-production 5.0-liter V-8 (p. 54, item C), so they share many of the same core design attributes.

♦ ENGINE SPECS: SEE CLASS GUIDES

Other enhancements that help each AMG V-8 produce **ultrahigh output** while retaining



high durability and smooth, refined behavior in everyday driving include:

- An **8-mm increase in stroke**, to achieve the additional displacement
- Hand-matched internal components, for exacting tolerances
- Reinforced and **individually balanced** crankshaft
- High-strength forged aluminum pistons
- Precisely matched **connecting rods**
- Aggressively profiled camshafts
- Enlarged fuel injectors
- Low-backpressure exhaust system
- Reinforced engine block and oil pan

THE LIMITED-PRODUCTION AMG V-12 • MORE INFO: SEE S-CLASS, SL AND CL GUIDES

AMG transmissions

Most AMG models include a reinforced, AMG-reprogrammed version of the robust **5-speed automatic**. The **SLK 55** is the first AMG application of the **7-speed** automatic. AMG transmission modifications include:

- Heavier-duty components
- AMG SpeedShift[™] programming and fingertip manual mode

AMG SPEEDSHIFT PROGRAMMING

- Standard on all AMG models
- Adds several performance-enhancing capabilities:
- -35% faster gear changes
- Automatic downshifts, or even multiple-downshifts, under heavy braking
- Prevention of **unwanted upshifts when cornering**
- -**Torque converter lockup** in all forward gears, for minimized power losses

FINGERTIP MANUAL MODE

- Standard on all AMG models
- Pushbutton switches behind each upper steering-wheel spoke manually upshift or downshift when in manual mode:
- -Select Manual mode via the C/S/M button next to the shift lever
- Press left (-) button to downshift, press right (+) button to upshift.
- In Manual mode, the transmission will not intervene automatically except to: -select 1st gear when the vehicle stops -upshift at redline (S, SL and CL only)
- In Comfort or Sport mode, the buttons operate the **Touch Shift** feature.

AMG brakes

To achieve stopping ability on par with their capacity for speed, all AMG models feature **enhanced braking systems** designed for **maximum control and minimal fade**, even during high-performance driving. AMG brake enhancements include:

• Larger internally ventilated brake discs



AMG perforated brake rotor and 8-piston caliper

with perforated rotors

- Multipiston calipers, with four, six or an incredible eight pistons in the front calipers, and two or four in the rear
- Programming for the electrohydraulic braking system (E55, SL55, SL65) is AMG-recalibrated to suit the enlarged hardware and performance needs.
- ♦ MORE INFO: TECH GUIDE | P. 12
- ♦ MORE BRAKE SPECS: SEE CLASS GUIDES

Other AMG enhancements

AMG models also feature a number of enhancements to round out their enticing, performance-oriented packages.

- **Suspensions** feature high-performance AMG components such as :
 - -firmer, progressive-rate springs
 - -firmer, heavier-duty **shock absorbers**
- -thicker front and rear stabilizer bars
- -modified **programming** of Airmatic DC or ABC, where equipped
- 18" or 19" wheels and tires
- ♦ MORE INFO: TECH GUIDE | P. 10 ALSO SEE CLASS GUIDES
- AMG-design lower bodywork: chiseled front apron (with mesh air intakes), rear apron and side skirts
- AMG-design interior treatments
- ♦ MORE INFO: SEE CLASS GUIDES

ACTIVE SAFETY OVERVIEW

The most survivable accident is the one avoided

For well over half a century, Mercedes-Benz has pioneered the development, market introduction and enhancement of such safety systems as crumple zones, Emergency Tensioning Devices, Head Protection Curtains and pop-up roll bars.

Along with these systems designed to help the occupants of a Mercedes survive a collision with reduced injury, Mercedes-Benz has also been at the forefront in providing systems designed to help the driver avoid accidents in the first place, from the world's first 4-wheel independent suspension in the 1930s to our benchmark Electronic Stability Program (ESP) and emergency-sensing Brake Assist. Many of the systems pioneered by Mercedes-Benz eventually become common features on virtually all cars.

While passive safety features are those that help minimize injury in the event of a collision, active safety features are those that help the driver avoid collisions in the first place.

The numerous active safety and accident avoidance features in a Mercedes-Benz are engineered to help the driver stay in maximum control of the vehicle at all times, helping increase the driver's ability to avoid potential collisions. These systems range from precise steering and responsive suspension systems, to advanced braking technologies, to details like remote-retracting rear-seat head restraints that help the driver see better out the rear window when there are no rear passengers.





DRIVING DYNAMICS SYSTEMS

Integrated approach

The driving dynamics systems in every Mercedes work in concert to help the driver maintain control of the vehicle in demanding situations such as evasive maneuvers and hard braking. These systems include:

- Stability-enhancing ESP
- Emergency-sensing Brake Assist
- Precisely tuned suspension and steering
- Advanced lighting systems



ESP brakes the inside rear wheel to correct plowing

- Effective wipers and other measures to help keep the windows cleaner in inclement weather
- · Ergonomically designed controls

Benefits include:

- ★ improved emergency handling
- ★ optimized "feel of the road"
- ★ shorter stopping distances
- ★ improved driver vision
- ★ increased driver alertness

2 Braking effectiveness also depends on proper brake system maintenance, and tire and road conditions.

A ESP

ELECTRONIC STABILITY PROGRAM

Every Mercedes-Benz features our Electronic Stability Program (ESP), one of the most important systems ever developed to help the driver **maintain vehicle stability during turns and evasive maneuvers**.¹ **★** ESP helps to correct fishtailing and plowing during steering maneuvers

♦ MORE INFO: TECH GUIDE | P. 7



ESP brakes the outside front wheel to correct fishtailing

TRACTION CONTROL

ESP incorporates the functions of all-speed traction control (the systems formerly known as Automatic Slip Control or ASR, and the Electronic Traction System or ETS), which can brake a slipping wheel and/or reduce excess engine power as needed to restore control.¹

- ★ helps counteract drive-wheel spin under acceleration
- * controlling wheelspin can help the driver accelerate more securely on low-traction surfaces, in curves, or when the drive wheels are on surfaces offering different levels of traction (such as one wheel on a gravel shoulder)





B Brake Assist

Mercedes-Benz research revealed a **common human tendency** not to brake hard enough, soon enough, in an emergency:

- When a driver sees an upcoming hazard, a common response is to "cover the brake" by pressing the brake pedal quickly but not firmly, delaying the decision to brake hard.
- This tendency wastes critical potential stopping distance.

Emergency-sensing Brake Assist can detect a possible **panic-braking** situation and automatically intervene to **potentially shorten the overall stopping distance**.²

- Brake Assist monitors the **speed** at which the driver **presses the brake pedal**.
- If the brake pedal is depressed quickly enough to trigger the system, Brake Assist almost immediately applies full power braking boost automatically, often before the driver would do so instinctively.
- ★ by eliminating the delay caused by the driver's hesitation, Brake Assist can potentially help the vehicle stop sooner
- The system reverts to **normal braking** if the driver **lets up** on the brake pedal.
- ★ maintains expected brake pedal feel
- ★ helps make operation "seamless"

- On most models, a solenoid valve in the brake booster more rapidly builds up pressure in the master cylinder.
- ★ pre-loading results in even faster response times during hard braking

C Electrohydraulic braking

The electrohydraulic brakes in the **E-Class**, **CLS** and **SL-Class** add several features designed to enhance active safety that were previously not feasible with conventional brakes. Two are described below.

AUTOMATIC BRAKE DRYING

When **driving with the windshield wipers on**, automatic brake drying **imperceptibly applies the brakes** periodically, based on windshield wiper cycling and by monitoring how recently the driver has used the brakes.

• This action helps **disperse the layer of moisture** that can accumulate on the brake-disc surfaces in wet weather.

 helps maintain peak brake performance in wet conditions, for more immediate brake response and shorter stopping distances

PREDICTIVE BRAKE PRIMING

Predictive brake priming recognizes the **speed at which the driver's foot lifts off the accelerator** as an indication of a possible emergency braking situation.

¹ No system, regardless of how advanced, can overcome physics or correct careless driving. Please always wear your seat belt.



C continued from preceding page

- If the driver lifts off quickly, the system immediately increases brake-line pressure to set the pads closer to the discs.
- ★ helps reduce the response time of the brakes once the brake pedal is pushed

D Transmissions and traction

COMFORT MODE

To **help prevent wheelspin** in low-traction conditions, the driver of all **models** (except the M-Class) equipped with an automatic transmission can select the Comfort mode (formerly known as "Winter" mode).

- Activated by the C/S button on the console, next to the shift lever
 Button is on center dash in R-Class.
- Comfort mode causes the car to:
- -Start moving in **2nd gear**
- Upshift through the gear ranges (when in Drive) at lower rpm than with the normal "Sport" shift mode
- Engage a special, second Reverse gear (when in R) with a taller ratio
- ★ helps reduce tendency for wheelspin, especially when taking off from a standstill on wet or slippery surfaces



Comfort/Sport mode control (left of shifter)

E Tire-pressure monitoring

On S-Class and CL models, an onboard **tirepressure monitoring system** indicates the inflation pressure of all four mounted tires in the multifunction display (when selected).

- Sensors within each tire electronically monitor both the air pressure and temperature of the tire.
- -An antenna inside the wheel (attached to the back of the valve) transmits data to a receiver in the wheel arch.
- The system's **ECU** evaluates the data and determines which wheel sent it.
- The system alerts the driver via a warning message in the multifunction display if:
- a tire's inflation pressure falls below a predetermined range of the set tire pressure
- helps alert driver to a loss of tire pressure
 there is a fault in the system, or any tire's monitor is not communicating
- The driver can also view the pressures of all four tires in the multifunction display by selecting this screen from the menu.
 *** helps driver maintain proper tire pressure
- Certain steps must be taken after a tire is changed, the wheels are rotated, or a flat tire is carried in the trunk. These are covered in the Operator's Manual.



Tire-pressure monitoring system display

F Tire-pressure loss warning

On vehicles so equipped, a **tire-pressure loss warning system** can alert the driver to a loss of pressure in one of the four mounted tires.

Two types of systems will be offered, depending on model and described below.

- In either system, a **warning message** will appear in the multifunction display that a tire might have lost its pressure.
 - ★ helps alert driver to a loss of tire pressure
- Unlike the tire-pressure monitoring system, these systems cannot display the mounting position of the flat tire, nor numerical pressure of any tire.

INDIRECT-MEASURING SYSTEM

- Wheel-speed sensors shared with the ABS and ESP systems can detect a difference in the rolling speed of one wheel compared to the others.
- A significant loss of pressure in a tire can reduce its overall diameter.
- This will cause it to rotate faster than the other wheels.
- Standard on M-Class and R-Class
- Included with optional run-flat tires on SLK and CLK

DIRECT-MEASURING SYSTEM

- Sensors within each tire electronically monitor the air pressure.
- The sensor can only alert the driver if the pressure falls below a preset limit.
- -It cannot display the actual pressure.
- Standard on E-Class, CLS and SL

	FEAT	URE A	PPLICA	TION B	Y MODEL
--	------	-------	--------	--------	---------

■ STANDARD □ OPTIONAL − NOT AVAILABLE

- A Electronic Stability Program (ESP)
- **B** Emergency-sensing Brake Assist
- **C** Electrohydraulic braking system
- **D** Comfort shift mode
- **E** Tire-pressure monitoring system
- **F** Tire-pressure loss warning system

A	В	С	D	Е	F	MODEL
		-		-	_	C 230 Spt Sedan
		_		-	-	C 350 Spt Sedan
		-		-	-	C 55 AMG Spt Sedan
		-		-	-	C 280 Luxury Sedan
		-		-	-	C 350 Luxury Sedan
		-		-		SLK 280
		-		-		SLK 350
		-		-	-	SLK 55 AMG
		-		-		CLK 350 Coupe
		-		-		CLK 500 Coupe
		-		-		CLK 350 Cab
		-		-		CLK 500 Cab
		-		-	-	CLK 55 AMG Cab
				-	-	E 350 Sedan
				-	-	E 320 CDI Sedan
				-	-	E 500 Sedan
				-	-	E 55 AMG Sedan
				-	-	E350 Wagon
				-	-	E 500 4MATIC Wagon
				-	-	E 55 AMG Wagon
				-		CLS 500
				-		CLS 55 AMG
		-			-	S 350
		-			-	S 430
		-			-	S 500
		-			-	S 55 AMG
		-			-	S 600
		-			-	S 65 AMG
				-		SL500
				-		SL55 AMG
				-		SL600
				-		SL65 AMG
		-			-	CL 500
		-			-	CL55 AMG
		-			-	CL 600
		-			-	CL65 AMG
		-	-	-		ML 350
		-	-	-		ML 500
	-	-		-		R 350
		-		-		R 500

VISION AND VISIBILITY

A Bi-Xenon headlamps

High Intensity Discharge headlamps use an **electrified arc of xenon gas**, rather than a glowing wire filament, to generate light.

- Xenon headlamps produce a bright, blue-white light that more closely approximates the color of daylight.
 * more natural lighting improves driver's perception during nighttime driving
- With Bi-Xenon headlamps, both low and high beams are generated by the same projector-style lamp.
- -A perforated diffuser moves in front of the lamp to generate the low beam.
- The diffuser instantly moves away to release the full illumination of the lamp when the **high beam** is selected.
- Bi-Xenon lamps throw their light **further down the road** than halogen lamps.
- Both low and high beam patterns offer a wide path with a distinct cutoff toward the left side of the road ahead.
 *** provides more usable light coverage while minimizing glare to oncoming traffic
- Xenon headlamps use **extremely high voltage** to first illuminate (a "warm-up" period of a few seconds in which the light appears far more blue), then settle to a more normal voltage during operation.
- The headlamp clusters contain a supplemental halogen high beam,



Illumination with halogen low beam



Bi-Xenon headlamp (SLK-Class shown)

used for the "flash-to-pass feature."

- ★ provides immediate, full-intensity light
- Without a traditional filament, Bi-Xenon headlamps are designed to last virtually the lifespan of the vehicle.
- A self-leveling system continually and automatically adjusts headlamp aim as the vehicle's angle changes due to loads and driving maneuvers.
- ★ helps ensure optimum illumination
- ★ helps reduce glare to oncoming traffic

ACTIVE CURVE-SENSING HEADLAMPS

- Some Bi-Xenon headlamps feature active curve illumination, which can swivel the lamps up to 12° toward the center of the vehicle or 6° toward the outside, based on driving speed and steering angle.
- Included with Bi-Xenon lamps on CLK, E-Class, CLS, M-Class and R-Class
- ★ provides up to 90% better illumination of curving roadways than fixed-position lamps



Illumination with Bi-Xenon low beam



Headlamp washer control (upper right button)



With and without active headlamps



FEATURE APPLICATION BY MODEL SEE CHART ON NEXT PAGE. >

B Headlamp washers

- Clean the headlamps by spraying fluid onto the lenses via high-pressure jets.
 Included with Bi-Xenon headlamps
- -Also standard on SL 500 and SL 55 AMG
- Activated via a **pushbutton** on the dash.
- Nozzles are mounted on **telescoping arms** that extend in front of each headlamp when activated.
- ★ helps disperse dirt and road spray
- ★ helps maintain the headlamps at their peak of lighting efficiency and accuracy

c Automatic lamp substitution

- If a critical exterior bulb fails, vehicle automatically substitutes a nearby lamp.
 Also illuminates a dashboard warning
 - \star helps maintain vehicle lighting functions

D Front and rear foglamps

FRONT FOGLAMPS

- Standard on all models except R-Class
- Halogen front foglamps emit a short, wide beam of light designed to reflect less glare back to driver in fog and mist.
 * enhances driver's vision in fog and mist

RED REAR FOGLAMP

- Standard on all models
- Single, brighter, red taillamp

 located in left-side taillamp cluster
 - ★ helps make vehicle more visible from behind in thick fog
- Should **not** be used in clear weather, as it can be bothersome to following traffic

◆ FOGLAMP OPERATION: SEE CLASS GUIDES



E Corner-illuminating foglamps

On some models, the Lighting Package¹ includes corner-illuminating front foglamps, with a wider beam pattern that extends up to 65° more toward the side than conventional foglamps.



Illustration of corner-illuminating foglamps

- When driving below 25 mph, the left or right foglamp is illuminated on based on:
- -Steering angle (e.g., steering left illuminates the left foglamp)
- ★ enhances lighting of curving roads
- -Turn-signal use (left or right)
- ★ enhances illumination to the side when turning into a dark driveway or alley
- If the driver shifts to Reverse, the opposite-side front foglamp illuminates, since this is the direction the front of the vehicle swings when backing up.
- The turn-signal switch always takes precedence over the steering sensor.
- ★ helps prevent back-and-forth flashing of front foglamps when parallel parking

1 On the SLK 55 AMG and on SLK 280 and SLK 350 models with the AMG Sport Package, the Lighting Package does not include corner-illuminating foglamps.

F LED brake lamps

Light-emitting diodes (LEDs) illuminate more quickly than conventional light bulbs. Using them in brake lamps provides more rapid notification to other drivers of your braking actions. ★ enhances safety

- · All models use LEDs for their center highmounted stoplamp.
- CLS-Class, S-Class and CL-Class models, as well as E-Class models with the optional Appearance Package, use LEDs for all of their brake lamps.
- SL and SLK models feature dual-intensity, all-LED brake lamps and taillamps.



G Heated windshield washers

- All models include standard heated washer nozzles.
 - -Warm the fluid immediately before it is spraved into the windshield.
- Some models also include full-time heating of the washer fluid reservoir and the fluid lines to the nozzles.
- -Standard on CLK 55 AMG, E-Class, CLS, S-Class, SL and CL models -Optional on CLK 350 and CLK 500
- ★ helps prevent freezing in cold weather
- ★ heated fluid can be more effective at helping wipers remove road grime from glass

H Enhanced windshield wipers

AERO WIPER BLADES

Low-profile aero wiper blades are standard for the front wipers on all models.

- Slim, aerodynamic shape is less likely to lift off the glass at highway speeds.
- * enhances driver's vision in the rain
- Jointless design helps resist the effects of icing, to allow wipers to better follow the curvature of the windshield glass.
- ★ helps optimize swept area and wiper effectiveness in all conditions

ECCENTRIC-SWEEP WIPER ARM

All models for 2006 feature **dual-arm front** windshield wipers with these features:

- A conventional arm in front of the driver
- An eccentric-sweep arm in front of the passenger with a **pivoting linkage** that causes the wiper to reach farther into the top corner of the glass
- ★ helps wipers clean a larger glass area than conventional single-pivot systems
- ★ offers smoother. more vibration-free operation than former single-arm wiper



RAIN-SENSING INTERMITTENT WIPERS ♦ MORE INFO: TECH GUIDE | P. 50

2 Double entry ("□■") in chart indicates front/rear status.

FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL - NOT AVAILABLE

- Α **Bi-Xenon headlamps**
- R Headlamp washers
- Automatic lamp substitution С
- Front and rear foglamps² D
- **Corner-illuminating front foglamps** E. E. LED brake lamps
- G Heated windshield washers
- **H** Aero wipers and eccentric-sweep arm

A	В	С	D	Е	F	G	н	MODEL
				-	-			C 230 Spt Sedan
				-	-			C 350 Spt Sedan
				-	-			C 55 AMG Spt Sedan
					-			C 280 Luxury Sedan
					-			C 350 Luxury Sedan
								SLK 280
								SLK 350
				-				SLK 55 AMG
					-			CLK 350 Coupe
					-			CLK 500 Coupe
					-			CLK 350 Cab
					-			CLK 500 Cab
					-			CLK 55 AMG Cab
				-				E350 Sedan
				-	-			E320 CDI Sedan
				-				E 500 Sedan
				-				E 55 AMG Sedan
				-				E350 Wagon
				-				E 500 4MATIC Wagon
				-				E 55 AMG Wagon
								CLS 500
				-				CLS 55 AMG
				-				S 350
				-				\$430
			•	-				S 500
			•	-				S 55 AMG
			•	-				S 600
				-				S 65 AMG
			•					SL500
								SL55 AMG
								SL600
								SL65 AMG
			•	-				CL 500
-				-				CL55 AMG
			•	-				CL 600
			•	-				CL65 AMG
			•		-			ML 350
			•		-			ML 500
					-			R 350
					-			R 500



VISION AND VISIBILITY continued

A Rear-window wiper/washer

Wagon, M-Class and R-Class models feature a single-arm rear-window wiper and washer.

- ★ helps clear moisture, dust, dirt or snow from the rear window
- ★ enhances driver's rearward vision



E350 Wagon

AUTOMATIC WIPING IN REVERSE

The rear-window wiper is **automatically activated** if the driver shifts to **Reverse** while the **front wipers** are on.

★ enhances safety when driver backs up during inclement weather

B Heated rear window

- Rear window can be heated by electrical wires embedded in or on the glass.
- ★ helps clear moisture and fog while driving, to enhance driver's rearward vision
- The automatic shutoff timer monitors the outside temperature, and on some models, the driving speed.
- helps compensate for longer time needed to clear window in colder weather or when car is traveling at a higher rate of speed
- ★ reduces driver distraction by reducing need to reactivate the heated rear window after it automatically times out
- Note: The driver should always clear snow, ice or frost from windows, wipers, lights and defroster air intakes before driving.

c Retractable head restraints

All models feature **head restraints in all seating positions** for added protection in the event of a rear impact. This, of course, includes the rear seats.

- On all models, the rear-seat head restraints can be retracted when there are no passengers in the rear seat.
- On all sedans, E-Class wagons, and CLK and CL coupes, the rear head restraints can be **remote-retracted by the driver** via a switch on the dash.
- ★ enhances driver's rearward vision when there are no rear-seat passengers



Remote rear head-restraint retraction control



CL 600 Coupe with rear head restraints retracted

D Auto-dimming mirrors

- Dual sensors on the inside mirror:
- Compare the light in front of the car and approaching from behind the car
- Gradually darken the inside and leftside mirrors via an electrochromic film behind the mirror lens
- ★ reduces reflected glare of the headlamps of following vehicles
- ★ enhances driver comfort, nighttime vision and, as a result, safety
- Auto-dimming is **cancelled automatically** if driver shifts to **Reverse** or an **interior lamp** is switched on.
- ★ improves rearward vision at night

E Heated side mirrors

The side mirror lenses are **automatically heated** whenever the vehicle is running. * helps keep mirrors free of moisture, fog and ice, to enhance driver's rearward vision

F Parking-assist mirror

- Right-side mirror automatically tilts downward when Reverse gear is selected.
- ★ helps driver locate curb while parallel parking, to help avoid wheel or tire damage
- Standard on SLK, CLK, CLS, M-Class and R-Class models
- Included on C-Class models equipped with **driver's seat memory**
- Mirror position must be preset by driver.
- Mirror adjuster control must have button for **right-side mirror** selected.
- ★ allows driver to turn feature on and off
- Mirror returns to preset normal position when car drives off in forward direction.

FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL - NOT AVAILABLE

- A Rear-window wiper/washer
- **B** Heated rear window
- **c** Retractable rear-seat head restraints
- **D** Auto-dimming mirrors
- **E** Heated side mirrors
- **F** Parking-assist right-side mirror

A	в	С	D	E	F	MODEL	
-						C 230 Spt Seda	n
-						C 350 Spt Seda	n
-						C 55 AMG Spt S	edan
-						C 280 Luxury S	edan
-						C 350 Luxury S	edan
-		-				SLK 280	
-		-				SLK 350	
-		-				SLK 55 AMG	
-						CLK 350 Coupe	
-						CLK 500 Coupe	
-						CLK 350 Cab	
-						CLK 500 Cab	
-						CLK 55 AMG Ca	b
-					-	E350 Sedan	
-					-	E 320 CDI Seda	n
-					-	E 500 Sedan	
-					-	E 55 AMG Seda	n
					-	E350 Wagon	
					-	E 500 4MATIC W	agon
					-	E 55 AMG Wago	n
-						CLS 500	
-						CLS 55 AMG	
-					-	S 350	
-					-	S 430	
-					-	S 500	
-					-	S 55 AMG	
-					-	S600	
-					-	S 65 AMG	
-		-			-	SL500	
-		-			-	SL55 AMG	
-		-			-	SL600	
-		-			-	SL65 AMG	
-					-	CL500	
-					-	CL55 AMG	
-					-	CL600	
-	-				-	CL65 AMG	
						ML 350	
						ML 500	
		-				R 350	
		-				R 500	

PASSIVE SAFETY OVERVIEW

Setting the standard for occupant protection

While active safety systems help a driver avoid accidents, passive safety features help minimize injury to the occupants of a vehicle in the event that a collision occurs.

From early in its development, every new Mercedes-Benz model series undergoes an extensive regimen of testing using both computer-generated models and actual prototypes in a variety of crash situations. Beyond meeting the standards of any single nation, a Mercedes is designed to excel in the eyes of perhaps the most stringent and passionate group of automotive safety proponents on earth: the safety engineers of Mercedes-Benz.

Mercedes-Benz has long been a pioneer in the advancement of safety systems. And while this is an area in which the company holds thousands of patents, it is notable that they have often chosen not to enforce these patents, so that occupants of many vehicles could enjoy their benefits.

Since the invention of the first crumple zone to the breakthrough of the PRE-SAFE[®] system, Mercedes-Benz has been innovating and continually improving systems that repeatedly have changed the course of automotive history—and the outcome of many collisions.



BODY CONSTRUCTION

A Body structure

UNIT-BODY CONSTRUCTION

With the introduction of the all-new 2006 M-Class, **every Mercedes-Benz model** now features unit-body construction.

The unit-body, or **monocoque**, structure is designed to optimize protection of the cabin structure and its occupants in a collision. Broad safety considerations help determine the **geometry and location** of components, **materials** and their thicknesses, and **mounting and connecting** technology.

- The front and rear bumpers are designed to manage **minor impact forces**.
- The full-width structures behind them help absorb and channel some forces of more severe impacts toward strategically placed elements throughout the vehicle.
- help absorb, dissipate and redirect the energy of impact forces, to maximize protection of the passenger cabin
 Numerous reinforcements are built into



the floorpan, door sills, side walls, pillars, roof (on hardtop models), doors, and bulkheads.

★ help preserve occupant space in frontal, rear and side impacts, as well as rollovers

B Advanced crumple zones

Crumple zones, originally **invented by Mercedes-Benz in 1951**, are a network of structural elements designed to manage impact forces **before** they reach the cabin.

FRONT CRUMPLE ZONES

The area in front of the cabin includes:

- Longitudinal members designed to deform at a programmed rate
- ★ help dissipate impact forces
- A **full-width crossmember** behind the front bumper
 - helps distribute the forces of an offset (partial-overlap) front impact to both longitudinal members, to dissipate energy over a larger area of the vehicle structure
- An ellipsoidal bulkhead (or similar configuration) designed to channel some impact forces up the A-pillars, down the transmission tunnel, and to the side sills
 *** helps distribute impact forces over, under and around the cabin
- The side sills are extended forward and are structurally connected to the A-pillars
- helps create a more rigid side structure
 helps prevent the front wheels from
- pushing into the footwells
- ★ helps distribute impact forces toward the rear of the

vehicle

Managing the forces of an offset frontal collision

REAR CRUMPLE ZONES

The area at the rear of the car incorporates:

- Longitudinal members designed to deform at a programmed rate
- Strategically placed reinforcements to help channel forces around the cabin
- Rear bulkhead crossmembers



Rear crumple zones in E-Class wagon

FEATURES OF SPECIFIC BODYSTYLES

- Wagon and SUV models add structural members in the floor and D-pillars.
- ★ help manage rear impact forces in the absence of a rear bulkhead
- **Convertible** models add reinforcements in the **floor**, **bulkheads**, and side sills.
- ★ help manage impact forces without the benefit of a fixed roof structure



c Staggered components

Rigid components located within the front crumple zone (such as the air conditioning compressor and alternator) are packaged to **minimize their stacking** as the crumple zone deforms in a frontal impact.

- ★ helps maintain deformation space for crumple zone
- ★ helps body to absorb energy more gradually

★ helps reduce intrusion of components into the cabin, to preserve cabin space

D HSLA steel

Every model utilizes special **high-strength**/ **low-alloy** (HSLA) steel in key areas.

- HSLA is up to three times stronger than lower-carbon steel of the same dimensions.
 * enhances crashworthiness and body integrity
- The HSLA components help channel some impact forces **away from the cabin**.
- ★ helps to minimize deformation of the passenger area in collisions
- HSLA (shown in red below) is used for **up to 62% of the body** (by weight), depending on model.



Typical Mercedes-Benz body structure (S-Class sedan shown)

E Convertible features

Because of their open-top design, roadster and cabriolet models require a devoted approach in order to optimize **occupant protection in a rollover.**¹

Since the roof is also an important element of the **side-impact protection** afforded by a fixed-roof car, special side-impact measures are taken.

Additional **HSLA body reinforcements** are provided in several key areas:

- The A-pillars
- The floorpan structure
- The side sills
- The front rear cabin bulkheads
- ★ help maintain cabin integrity in a rollover or side impact

1 The roll bar system is designed to enhance the level of rollover protection compared to an open vehicle without one. No system, no matter how sophisticated, can eliminate the chance of injury in an accident. Please always wear your seat belt.

2 Always raise the rear head restraints when the rear seats are occupied.



SL-Class pop-up roll bar



ROLL BARS

All Mercedes roadster and cabriolet models feature roll bars designed to help **preserve the occupant space** in a rollover.¹

- **SLK-Class** models feature twin fixed roll bars anchored in the rear bulkhead.
- **CLK-Class cabriolets** and the **SL-Class** feature variations of the pop-up roll bar concept pioneered by Mercedes-Benz in 1989.
 - -CLK Cabriolets feature **dual pop-up roll bars** integrated with the **rear-seat head restraints**.²



CLK-Class Cabriolet pop-up roll bar components

-SL models use a **single pop-up roll bar** behind the passenger area.

- Both are designed to deploy (pop up) automatically in just 0.3 second if sensors detect an impending rollover.
- Since many critical situations can occur in the course of a collision, the pop-up roll bars also deploy in front and rear impacts that exceed certain thresholds.
- The head restraints in the CLK models can be raised manually by pulling them up. (Note: This does not "pre-deploy" the roll bars. It only raises the head

restraints.)

-On SL models, the roll bar can be raised electrically at any time via a control on the console.



CLK-Class Cabriolet pop-up roll bar



FEATURE APPLICATION BY MODEL

STANDARD OPTIONAL - NOT AVAILABLE

- **A** Unit-body construction
- **B** Advanced front and rear crumple zones
- **C** Staggered underhood components
- **D** High-strength/low-alloy (HSLA) steel
- E Roll bars

A	В	С	D	E		MODEL
				-		C 230 Spt Sedan
			•	-		C 350 Spt Sedan
			•	-		C 55 AMG Spt Sedan
				-		C 280 Luxury Sedan
				-		C 350 Luxury Sedan
						SLK 280
						SLK 350
						SLK 55 AMG
				-		CLK 350 Coupe
				-		CLK 500 Coupe
						CLK 350 Cab
						CLK 500 Cab
						CLK 55 AMG Cab
				-		E 350 Sedan
				-		E320 CDI Sedan
				-		E 500 Sedan
				-		E 55 AMG Sedan
				-		E350 Wagon
				-		E 500 4MATIC Wagon
•				-		E55 AMG Wagon
				-		CLS 500
				-		CLS 55 AMG
				-		S 350
				-		S430
				-		S 500
				-		S 55 AMG
				-		S 600
•			•	-		S 65 AMG
						SL500
						SL55 AMG
						SL600
						SL65 AMG
				-		CL 500
			•	-		CL55 AMG
			•	-		CL600
			•	-		CL65 AMG
			•	-		ML 350
			•	-		ML 500
			•	-		R 350
				_		P 500



FEATURE APPLICATION BY MODEL SEE CHART ON NEXT PAGE. >

D Head Protection Curtains

All models with fixed roof structures provide standard Head Protection Curtain air bags.

- Multi-chamber air bags mounted in the headliner above the side windows
- **Deploy downward** when the side-impact air bags are deployed
- Provided for both front and outboard rear seating positions
 - -Does **not** include the 3rd seating row in E-Class wagons
- * provide supplemental head protection and help protect the occupants from broken sidewindow glass

DEPLOYMENT IN ROLLOVERS

E-Class, CLS, S-Class, CL and SUV models² can also deploy the Head Protection Curtains (without the side-impact air bags) in certain types of rollover accidents.

E Head-thorax side air bags

In lieu of front side-impact air bags and Head Protection Curtains, all convertible models feature front-seat head-thorax side air bags that deploy in certain side impacts.

- SLK and CLK: Mounted in seat side trim
- SL: Mounted in each door
- Only the head-thorax side air bag on the affected side of the vehicle deploys in a side impact.
 - ★ help protect the head and thorax

DEPLOYMENT IN ROLLOVERS

The head-thorax side air bags can also be deployed in certain rollover accidents.

INTEGRATED RESTRAINT SYSTEM, PART I: AIR BAGS

A 8–10-way air-bag protection

Every Mercedes-Benz sedan, coupe, wagon, M-Class and R-Class features no fewer than six standard air bags offering 8-way protection. Many models include eight air bags offering 10-way protection¹:

- (1, 2) Dual-stage front air bags for both driver and front passenger
- (3, 4) Front side-impact air bags
- (5, 6, 7, 8) Head Protection Curtains for all four front and outboard rear occupants
- (9, 10) Rear side-impact air bags - Optional on C-Class, CLK, M-Class, and 2nd-row seats of R-Class models
- -Standard on all other models that seat four or more passengers

SLK, CLK and SL convertibles feature:

- Dual-stage front air bags and headthorax side air bags for both driver and passenger (CLK: front passenger only)
- SLK only: dual knee air bags
- SL only: driver's knee air bag
- CLK: optional rear side-impact air bags

All 2006 models feature front air bags with dual-stage deployment.

B Dual-stage front air bags

- Based on the severity of a frontal impact exceeding a preset threshold, either one or both inflators are deployed.
- ★ more precisely tailors air-bag inflation rate to the needs of the specific collision

1 WARNING: THE FORCES OF A DEPLOYING AIR BAG CAN CAUSE SERIOUS OR FATAL INJURY TO A CHILD UNDER AGE 13. THE SAFEST SEATING POSITION FOR YOUR CHILD IS IN THE REAR SEAT, BELTED INTO AN APPROPRIATE, PROPERLY INSTALLED CHILD SEAT, OR CORRECTLY WEARING A SEAT BELT IF TOO LARGE FOR A CHILD SEAT. WITH BABYSMART SYSTEM. A CHILD UNDER 13 MUST NOT USE THE FRONT SEAT UNLESS THE CHILD IS BELTED INTO AN APPROPRIATE, PROPERLY INSTALLED BABYSMART-COMPATIBLE CHILD SEAT AND THE "PASSENGER AIR BAG OFF" INDICATOR REMAINS ILLUMINATED. OCCUPANT CLASSIFICATION SYSTEM (OCS) IS DESIGNED TO TURN THE FRONT PASSENGER'S FRONT AIR BAG OFF WHEN THE SYSTEM SENSES THE WEIGHT OF A TYPICAL CHILD 12 MONTHS OLD OR LESS, PLUS THE WEIGHT OF A STANDARD APPROPRIATE CHILD RESTRAINT. SEE OPERATOR'S MANUAL TO DETERMINE WHICH SYSTEM A VEHICLE HAS, FOR IMPORTANT ADDITIONAL INFORMATION ON THESE SYSTEMS, AND FOR FURTHER INFORMATION REGARDING THE TRANSPORTATION OF CHILDREN HEAVIER THAN A TYPICAL 12-MONTH-OLD. 2 "SUV models" includes M-Class and R-Class. 3 Except the C 55 AMG, which is equipped with the BabySmart system



Air bag illustration showing full deployment of all air bags, shown in an S-Class Sedan

c Side-impact air bags

Front and rear side-impact air bags deploy in certain side impacts.

- · Front side-impact air bags are standard on all models except convertibles
- Rear side-impact air bags are:
- Optional on most C-Class and CLK models, as well as all SUV models²
- -Standard on all other models (except two-seaters)
- Mounted in the front and rear doors of many models, except as listed below:
- -E-Class and CLS-Class: The front sideimpact air bags deploy from within the front-seat side panels.
- -CLK and CL: Rear side-impact air bags deploy from the rear side trim panels
- -SUV models²: both the front and rear side-impact air bags deploy from within the seat side panels.
- Sensor system includes satellite sensors designed for rapid response necessary in side impacts, since there is no room for side crumple zones.
- Only the side-impact air bags on the affected side of the vehicle deploy.
- ★ help protect the torso (thorax)



Head-thorax side air bag, shown in a CLK-Class Cabriolet

See next page for more footnotes. >

-Includes 3rd seating row in R-Class



F Air bag sensors

Every 2006 Mercedes-Benz features a system of sensors that work in extremely rapid concert to carry out the most effective air-bag deployment strategy.

Sensors include:

- A **main sensor module** on the center tunnel of the cabin
- ★ calculates impact forces on occupants rather than at either end of vehicle
- Additional sensors near the front of the front crumple zone
- ★ helps determine direction and severity of frontal impact more rapidly
- Satellite sensors near the B-pillars
- ★ helps evaluate side impacts

DUAL DEPLOYMENT THRESHOLDS

The **integrated restraint system** in every Mercedes-Benz includes not only an array of advanced air bags but also seat belts with Emergency Tensioning Devices (ETDs) and belt force limiters (see next page). The sensor system is designed to make **the best use of each element**:

- In an impact generating deceleration rates below the system's first threshold, the system might not deploy any components.
- ★ helps reduce needless repair costs
- With deceleration rates **exceeding the first threshold**, if the front-seat occupants are belted, the system might deploy **only the ETDs**.
- ★ potentially saves the air bags for a more severe second impact in the same accident.

G Weight-sensing air bag

The Occupant Classification System

(OCS) replaces the well-known BabySmart system on many models.¹

- ★ OCS tailors the inflation of the front passenger's front air bag to the weight of the seated occupant
- C-Class³ and CLK models use a weightsensing mat filled with a special silicone oil, fitted below the front passengerseat cushion. The mat uses pressure to estimate weight category.
- In the E-Class, CLS and SUV models² special weight-sensing bolts in the front-passenger seat frame measure the occupant's weight category.
- OCS is designed to turn off the front passenger's front air bag-when the system senses the weight of a typical child 12 months old or less, plus the weight of a standard appropriate child restraint. A special BabySmart-compatible seat is not required.
- The system will also **adjust the inflation rate** of the two-stage gas generator for the air bag based on the weight classification of the seated occupant.
- The "PASS AIR BAG OFF" indicator remains



illuminated whenever the air bag is deactivated.

• **Important note:** If an occupant's weight is near a threshold of one of the weight classifications, or if the seated occupant sits or changes position in such a way as to reduce the reading of the weight sensor (such as by leaning heavily on the armrest), the system can detect a lower reading and might turn off the air bag and illuminate the indicator.

 A message in the multifunction display will be displayed if the air bag turns on and off excessively during driving.



H Tele Aid SOS button

The Tele Aid telematics system, standard on most models, provides **manual and automatic emergency call** capabilities.⁴

- The Tele Aid **SOS button** connects the driver to emergency services, where emergency response personnel can detect the **location of the vehicle** (via satellite) and **dispatch needed help**.
- Should an air bag or ETD deploy, the Automatic Collision Notification feature initiates an SOS call automatically.
- ★ helps driver obtain emergency assistance after a collision, even if no one in the car is able to speak or reach the SOS button

4 When equipped with Tele Aid system, first year's Tele Aid Security & Care service provided at no additional cost with subscription. Subscription and acquaintance call required for service to be active. System operates only where cellular and GPS coverage are available, and requires adequate power supply. Owner must authorize stolen vehicle tracking with a PIN code and file a police report.

5 Dual entry in chart ("■□") indicates different front/rear status. Single entry used when front and rear are the same. R-Class rear side-impact air bags are for 2nd-row seats only.

	FEATURE APPLICATION BY MODEL									
	■ STANDARD □ OPTIONAL − NOT AVAILABLE									
Α	Multiple air-bag protection									
В	Dual-stage front air bags									
С	Side-impact air bags ⁵									
D	Head Protection Curtains									
E	Front head-thorax side air bags									
F	Dual deployment thresholds									
G	Occupant Classification System (OCS)									
н	Tele Aid SOS button									
Α	В	С	D	E	F	G	н	MODEL		
				-				C 230 Spt Sedan		
				-				C 350 Spt Sedan		
				-		-		C 55 AMG Spt Sedan		
				-				C 280 Luxury Sedan		
				-				C 350 Luxury Sedan		
			-			-		SLK 280		
			-			-		SLK 350		
			-			-		SLK 55 AMG		
				-				CLK 350 Coupe		
				-				CLK 500 Coupe		
		-0	-					CLK 350 Cab		
		-0	-					CLK 500 Cab		
		-	-					CLK 55 AMG Cab		
				-				E350 Sedan		
				-				E 320 CDI Sedan		
-				-				E 500 Sedan		
-		•		-				E 55 AMG Sedan		
-		•		-				E350 Wagon		
-	-	•		-		•		E 500 4MATIC Wagon		
-		•		-				E 55 AMG Wagon		
-	-	-		-	-	-	-	CLS 500		
-		•		-		-		CLS 55 AMG		
-	-	-		-	-	-	-	\$350		
-	-	-		-	-	-	-	\$430		
-	-	-		-	-	-	-	\$ 500		
-	-	-		-	-	-	-	S 55 AMG		
-	-	-		-	-	-	-	\$600		
-	-	-		-	-	-		S 65 AMG		
-	-	-	-	-	-	-	-	SL500		
-	-	-	-	-	-	-	-	SL55 AMG		
-	-	-	-	-	-	-	-	SL 600		
-	-	-	-	-	-	-		SL65 AMG		
-	-	-		-	-	-	-	CL 500		
-	-		-	-		-		CL 55 AMG		
-	-		-	-		-		CL 600		
-	-		-	-		-	-	CL 65 AMG		
-	-		-	-				ML 350		
_			-	-				ML 500		
_	_		-	-				R350		
				-				R 500		

PASSIVE SAFETY AND OCCUPANT PROTECTION 30

FEATURE APPLICATION BY MODEL SEE CHART ON NEXT PAGE. >

INTEGRATED RESTRAINT SYSTEM, PART II: SEAT BELTS AND OTHER FEATURES

Seat belts

Every Mercedes-Benz provides a **3-point** seat belt for every occupant.

- The lower anchor points for the front seat belts are mounted to the reinforced seat frames on all models.
- ★ allows buckle and lap portion of belt to stay in one position relative to the occupant regardless of seat adjustment
- On SL-Class and CL-Class models, all three front seat-belt anchor points are attached to the seat.
- ★ helps optimize shoulder-belt placement and accessibility on these models without full B-pillars

Seat belts are arguably the most important element of occupant protection. **Always buckle up** and require that all of your passengers do, too.



CLK-Class Coupe automatic front seat-belt presenter

CLK-CLASS SEAT-BELT PRESENTERS

CLK-Class coupes and cabriolets feature exclusive automatic motorized seat-belt presenters which **extend when the door is closed** to place the seat belt closer to the driver and front passenger.

★ encourages and facilitates fastening of seat belts

A Adjustable shoulder belts

FRONT SHOULDER BELTS

All sedans, wagons, and SUVs¹ feature adjustable upper anchor points for the front seat belts.

- Manually adjustable on C-Class, E-Class, CLS-Class, M-Class and R-Class models
- ★ allows occupants to adjust shoulder belt to suit their height, for optimum seat-belt effectiveness and comfort
- Automatically adjusting as the front seats are adjusted fore-aft on S-Class
- On CLK, SL and CL-Class models, the shoulder belts emerge low enough to render adjustment unnecessary.



Shoulder-belt adjusters, shown in an S 500 Sedan

OUTBOARD REAR SHOULDER BELTS

Outboard rear shoulder belts feature automatic or manual adjustment.

- All sedans and coupes: Automatic height adjustment via pivoting mounts inside the C-pillars and slots in the pillar trim
- Second-row seat belts in E-Class wagons and R-Class models: Manual adjustment

 Includes SLK, CLK Cabriolet and SL models.
 Includes M-Class and R-Class models.
 The roll bar system is designed to enhance the level of rollover protection compared to an open vehicle without one. No system, no matter how sophisticated, can eliminate the chance of injury in an accident. Please always wear your seat belt. In CLK Cabriolet models, always raise the rear head restraints when the rear seats are occupied.
 Scand-row head restraints on E-Class wagons.
 S tarting approximately with June 2005 production.

B ETDs

Most Mercedes seat belts are equipped with **Emergency Tensioning Devices** (ETDs).

- ETDs use a **pyrotechnic charge** to **instantly remove slack** from the seat belts in a collision of the type and severity sufficient to deploy them.
- ★ help hold occupant in position for the seat belt and air bag to be most effective
- ETDs are deployed in sufficiently severe: -front impacts
 - -rear impacts
 - ★ in a rear impact, helps reduce upward movement of occupant in seat, to better maintain position relative to head restraint
 - certain rollovers in E-Class, CLS, S-Class, CL, convertible¹ and SUV² models
 - ★ helps limit occupant movement
- ETDs are provided for:
- -all front seat belts
- outboard rear seat belts on 4-passenger and 5-passenger models
- outboard 2nd-row seat belts on all models with three seating rows
- ETDs must be replaced by a dealer once they have deployed.



Emergency Tensioning Device

c Belt force limiters

Most Mercedes ETDs also incorporate belt force limiters.

- After the ETD has removed the slack from the seat belt, the forces of a frontal impact tend to thrust the occupant forward into the seat belt (and toward the air bag).
- Belt force limiters allow a slight amount of "give" in the seat belts at the peak of this forward motion, in order to:
 - more evenly distribute the forces between the seat belt and air bag (for front-seat occupants)
 - reduce the peak seat belt forces on the occupant (in front or rear seat)
- ★ helps reduce the extent of injury in certain frontal impacts

D Rollover sensor

- CLK coupes, E-Class, CLS, S-Class, CL and SUV² models feature a system designed to automatically deploy the Head Protection Curtain air bags and ETDs when an imminent rollover is detected.
- CLK cabriolets and SL roadsters also deploy the automatic pop-up roll bar³ and ETDs.
- SLK roadsters also deploy the headthorax side air bags and ETDs



Pop-up roll bar, shown in an SL-Class



E Head restraints

Every seating position in every Mercedes-Benz (including the rear-facing 3rd-row seats in the E-Class wagon) is provided with its own head restraint.

- ★ helps reduce or prevent whiplash injuries
- · Front-seat head restraints on all models are adjustable for height.
- -Models with front seat memory include power height adjustment for the head restraints.
- -Power head restraints (except S-Class) adjust their height **automatically** as the seat is adjusted fore-aft.
- * helps pre-position head restraint to the optimum height for the occupant
- -The occupant can fine-tune the height via the power seat switch.
- · Front-seat head restraints on all models (except the SLK) are also adjustable fore-aft, pivoting at the top so the head restraint better protects the neck.
- ★ helps restraint offer optimum support
- · Rear-seat head restraints on most models are adjustable for height and fore-aft position like the front units.

-Rear head restraints can be **retracted**.

- ★ enhances driver's rearward vision when there are no rear passengers
- -On all sedans, E-Class wagons,⁴ and CLK, CLS and CL coupes, the rear head restraints can be remote-retracted by the driver via a switch on the dash.
- -On S-Class models with power rear seats and all CL Coupes, the rear head restraints rise automatically when the occupant fastens the seat belt.
- ★ features add safety and convenience < See preceding page for footnotes.

F Active front head restraints

- New feature on some 2006 models
- Reduce distance between head restraint and front-seat occupant's head in the event of a rear-end collision
- · Electronically controlled head restraints are pushed forward and upward by the release of preloaded springs
- ★ help limit rearward movement of the head. reducing chances of "whiplash" type injuries to the cervical spine



Active front-seat head restraint

G PRE-SAFE

PRE-SAFE[®] is an **industry-first system** that is standard on all S-Class models.

- PRE-SAFE can prepare certain interior elements for the possibility of a frontal collision before it occurs.
- PRE-SAFE uses a network of sensors including those for ESP and Brake Assist-to monitor driving dynamics.
- PRE-SAFE can detect indicators that suggest a collision or rollover is possible, such as:
- -Severe skidding despite ESP activation -Brake Assist activation
- If PRE-SAFE detects these conditions, it takes advantage of the time before

a possible collision occurs to adjust certain interior settings in such a way that the seat belts and air bags can offer the most protection.

PRE-SAFE ACTION SEQUENCE

- Front seat belts are snugged using reversible electric tensioners.
- Front passenger seat adjusts to a more favorable position for air-bag effectiveness:
 - -Seat moved rearward, if needed
- -Seatback moved more upright
- -Cushion lowered at rear
- Rear seat cushions are adjusted. - Requires 4-place seating option
- Sunroof is closed.
 - -If an imminent rollover is detected
- All adjustments occur at the **normal** operating speed of the components.

IF A COLLISION DOES NOT OCCUR

- The seat-belt tensioners are automatically reversed.
- The occupants may readjust their seats and the sunroof.
- ★ PRE-SAFE optimizes the effectiveness of vehicle's restraint systems



FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL - NOT AVAILABLE

- Α Adjustable shoulder belts
 - **Emergency Tensioning Devices (ETDs)**
- Seat-belt force limiters С
- **Rollover sensor** D
- Head restraint for each seating position E. Active front head restraints
- E
- **G** PRE-SAFE

A	в	С	D	E	E	G	MODEL
-	-	-	-	-		-	C 220 Set Soder
÷	-	-	_	-	-	_	C 230 Spt Sedan
-	-	-	_	-	-	_	C 550 Spt Sedan
÷	-	-	_	-	-	_	C 35 AMG Spt Sedan
÷	-	-	_	-	-	_	C 280 Luxury Sedan
-	-	-	_	-		_	C 350 Luxury Sedan
	-	-		-	_	_	SLK 260
	-	-		-	_	_	SLK 550
_	-	-	-	-	-	_	CLK 250 Course
	-	-		-		_	CLK 500 Coupe
	-	-		-		_	CLK 300 Coupe
	-	-		-		_	CLK 500 Cab
	-	-		-		_	
-	-	-	-	-	5	_	E 250 Sodon
÷	-	-		-		_	E 330 Seuali
÷	-	-		-		_	E 520 GDI Sedan
÷	-	-	-	-	-	_	E 500 Sedan
÷	-	-	-	-	5	_	E 35 AMG Sedan
÷	-	-	-	-		_	E 350 Wagon
÷	-	-	-	-	-	_	E 500 4MAIIC Wagon
÷	-	-	-	-	-	_	E 55 AIVIG Wagon
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-	-	-			-	-	R 300
_	-	-		-	_	-	R 500



CHILD SAFETY

A number of features in Mercedes-Benz vehicles specifically aim to help protect children from injury.

 It is important to remember that, whenever possible, children should be placed in the rear seat of vehicles so equipped.¹

A LATCH system

LOWER ANCHORS AND TETHERS FOR CHILDREN

All Mercedes-Benz models with rear seats feature the standardized LATCH system designed to accommodate widely available child safety seats:

• Lower anchor points

- Located between cushion and seatback of each outboard rear seat, sometimes under a flap in the upholstery, and labeled with a child-seat symbol
- Top-tether attachments
- -Chrome-plated tie-down rings
- Located on the rear shelf of sedans and coupes (under decorative covers)
- Located on the cargo-area floor behind the 2nd-row seats in wagon, M-Class and R-Class models
- LATCH-compatible child seats are designed to snap into the lower anchors and then be tethered at the top.



Lower anchors (A) and icons (B), shown in a CLK 500

B BabySmart system

BabySmart[™] automatically deactivates the front passenger's front air bag when an **accessory BabySmart-compatible child seat** is properly installed.¹

- Standard on all SLK-Class, CLS, S-Class, SL and CL models
- Standard on C55 AMG
- Non-AMG C-Class models, as well as CLK, E-Class, M-Class and R-Class models use the Occupant Classification System (OCS) instead of BabySmart.

♦ MORE OCS INFO: TECH GUIDE | P. 29



Power window lockout, shown in a C-Class Sport Sedan
C Window lockout control

All models with **power rear windows** and **more than two seats** feature a driver-selectable window lockout control.

- Sliding switch near the master power window switch cluster on driver's door
- ★ disables power window switches at all passenger seating positions

D Pinch protection

All power windows with one-touch **expressup** include a feature designed to detect an obstacle blocking the window's upward path.

- If system senses an obstacle during the express-up operation, the power window stops rising and lowers slightly.
 - Express-up window motion needs to be interrupted suddenly for obstacle sensor to function.
- * helps prevent injury from a rising window
- System cannot recognize a slowly applied force (such as when a person rests his/her arm on the open window sill and attempts to stop the window simply by pushing down on the glass).
 Window may continue rising if switch is
- held in "up" position.
- Window motion can be **restarted** simply by using the window switch again.

1 WARNING: THE FORCES OF A DEPLOYING AIR BAG CAN CAUSE SERIOUS OR FATAL INJURY TO A CHILD UNDER AGE 13. THE SAFEST SEATING POSITION FOR YOUR CHILD IS IN THE REAR SEAT, BELTED INTO AN APPROPRIATE, PROPERLY INSTALLED CHILD SEAT, OR CORRECTLY WEARING A SEAT BELT IF TOO LARGE FOR A CHILD SEAT. WITH BABYSMART SYSTEM, A CHILD UNDER 13 MUST NOT USE THE FRONT SEAT UNLESS THE CHILD IS BELTED INTO AN APPROPRIATE, PROPERLY INSTALLED BABYSMART-COMPATIBLE CHILD SEAT AND THE "PASSENGER AIR BAG OFF" INDICATOR REMAINS ILLUMINATED. SEE OPERATOR'S MANUAL FOR IMPORTANT ADDITIONAL INFORMATION ON THESE SYSTEMS, AND FOR FURTHER INFORMATION REGARDING THE TRANSPORTATION OF CHILDREN HEAVIER THAN A TYPICAL 12-MONTH-OLD.

	FEATURE	APPL	ICATION	BY N	IODEL
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■ STANDARD □ OPTIONAL − NOT AVAILABLE

- **A** LATCH system
- **B** BabySmart system
- **C** Power window lockout control
- **D** Power window pinch protection

A	в	С	D		MODEL
	-				C 230 Spt Sedan
	-				C 350 Spt Sedan
					C 55 AMG Spt Sedan
	-				C 280 Luxury Sedan
	-				C 350 Luxury Sedan
-					SLK 280
-					SLK 350
-					SLK 55 AMG
	-				CLK 350 Coupe
	-				CLK 500 Coupe
	-				CLK 350 Cab
	-				CLK 500 Cab
	-				CLK 55 AMG Cab
	-				E350 Sedan
	-				E320 CDI Sedan
	-				E 500 Sedan
	-				E 55 AMG Sedan
	-				E350 Wagon
	-				E 500 4MATIC Wagon
	-				E 55 AMG Wagon
					CLS 500
					CLS 55 AMG
					S 350
					S 4 3 0
					S 500
					S 55 AMG
					\$600
					S 65 AMG
-					SL500
-					SL55 AMG
-					SL 600
-					SL65 AMG
					CL 500
					CL55 AMG
					CL600
					CL 65 AMG
	-				ML 350
	-				ML 500
	-				R 350
	_	-	-		D 500

LOCKING AND SECURITY OVERVIEW

Security and convenience go hand in hand

Now more than ever, owners of Mercedes-Benz vehicles want to protect both themselves and their investments. Mercedes-Benz has developed a number of locking and security features that provide owners with peace of mind, while also adding appreciable measures of convenience. For 2006, the valet lockout feature for the trunk returns to most models. From illumination that can light a path to your door—or back to your car again—to doors and trunk lids you can unlock without touching your key, the locking and security features look after your comfort. And with advanced security systems, a Mercedes-Benz virtually looks after its own security as well, which is often equally comforting.









LOCKING AND SECURITY

A SmartKey

For 2006, all models now feature the SmartKey system—a **compact**, **integrated electronic unit** that puts convenience and security literally in the palm of your hand.



SMARTKEY FEATURES

- Remote locking and unlocking See features at right.
- Unlocking of ignition, to start car
- System uses an electronic code rather than a mechanical key to unlock the ignition and either the steering column or gearshift, depending on model.
- \star virtually impossible to copy key
- Activation of locator lighting and illuminated entry features
- ♦ MORE INFO: TECH GUIDE | P. 36
- Remote opening/closing of windows from outside the vehicle
- -Optional on SLK
- Standard on all other models with SmartKey

-Includes sunroof, if so equipped

- -Turns on Active Ventilated front seats, if so equipped
- ★ adds to convenience when parking
- ★ helps driver air out the interior when returning to a car parked in sunlight
- Feature uses an infrared signal, so that SmartKey must be pointed at sensor in left front door handle, from within 15 feet of car, to operate feature.



★ helps ensure driver is in view of car when operating windows, to help prevent injury or inadvertent use



- Remote operation of **convertible top** -SLK (optional), CLK and SL models
- Remote locking of interior storage areas
 SLK and SL models (see Class Guides)
- ★ adds to top-down parking convenience
- Opening of trunk lid (coupes and sedans)
- -Trunk opener button must be pressed for 1.5 seconds.
- ★ helps prevent inadvertent opening



- Operation of optional power tailgate or electronic trunk closer (when equipped)
- Allows user to fully open or close the power trunk lid (coupes and sedans) or tailgate (wagons, M-Class and R-Class)
 * enhances convenience

- Remote panic alarm
- -Honks horns and flashes headlamps
- \star helps attract attention in an emergency
- Locking of glovebox
- Performed with removable mechanical kev that slides out of SmartKev for use
- Removable key can also unlock driver's door manually.
- Valet lockout feature
- Returns to all coupe and sedan models for 2006 (as a running change on E350 and CLS-Class models)
- Performed with removable mechanical key that slides out of SmartKey for use
- -Turning the key in the trunk lock disables the trunk opener on the driver's door and in the SmartKey.
- Driver keeps slide-out key while leaving remainder of SmartKey with parking attendant.
- Two SmartKeys come with each car, but as many as eight SmartKeys can be assigned to the car at any time.
- The **user-recognition** feature, by which each SmartKey could recall numerous settings for its individual user, is **discontinued** for 2006.

LOCKING AND SECURITY

FEATURE APPLICATION BY MODEL SEE CHART ON NEXT PAGE. >

B Remote locking features

- Selective unlocking
 - -Lets driver unlock only the driver's
 - door and fuel filler with one push of
 the unlock button, or unlock all doors
 plus the trunk/liftgate and fuel filler
 with a second push (global unlocking)
 * enhances security
 - Global locking can also be set as the default action (see Operator's Manual).
 * enhances security
- Locking signal is transmitted via **radio frequency** (RF) with a **rolling code** that changes with every use.
- ★ requires no pointing of SmartKey
- ★ offers generous transmitting range
- ★ rolling code helps prevent cloning of signal by would-be thieves
- Confirming flash for locking/unlocking
- Turn signals flash three times to confirm vehicle has locked, once to acknowledge unlocking.
- ★ enhances convenience and security
- Automatic re-locking
- If doors are remote-unlocked but no door is opened for 40 seconds, the doors automatically re-lock.
- ★ enhances security in case driver unlocks car inadvertently

C Driveaway locking

- Standard on all models
 Driver-programmable (on or off)
- Automatically **locks all doors** plus the trunk/liftgate and fuel filler when the vehicle reaches a driving speed of 9 mph
- ★ enhances security and convenience
- ★ 9-mph threshold designed to prevent selflocking, such as in automatic car washes

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2006 TECH

GUIDE 35

FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL - NOT AVAILABLE

- Α
- R
- С
- E



D Keyless Go

Optional Keyless Go is an extension of the remote locking and drive authorization system that enables the car to be unlocked, started and locked without removing the SmartKey from pocket or purse.



- Antennas in the doors and trunk lid detect when the SmartKey containing the Keyless Go computer chip is near the vehicle. (Additional sensors detect when the SmartKey is inside the cabin.)
- The doors can be unlocked by grasping an exterior door handle.
- The trunk lid can be opened similarly, using a button above the license-plate.
- · With the SmartKey inside the vehicle (even in the driver's pocket or purse), the driver can start the vehicle as follows:
- -Driver depresses brake pedal.
- -Driver taps "start/stop" button atop shifter (see at right for SUVs).
- -Touch Start feature starts engine.



Keyless Go start/stop button

- To turn off engine, driver places shifter in Park, keeps foot on brake, and touches button on shifter again.
- The SmartKey can still be used in the ignition of a vehicle with Keyless Go.
- If the driver inadvertently locks the SmartKey in the trunk (as in a purse or jacket pocket), Keyless Go can recognize this error, and will automatically open the trunk lid a few moments later.
 - * helps prevent unintended lockout
- The M-Class and R-Class use a slightly different version of Keyless Go.
- -A removable stop/start button is placed in the ignition module.
- ♦ MORE INFO: M-CLASS AND R-CLASS GUIDES



E Garage door control

Three buttons on the underside of the inside rearview mirror can be programmed to operate up to three openers for garage doors, security gates and other items.

- System is compatible with HomeLink[®] opener and remote control systems, available at most home improvement stores, and some other systems.
- * enhances security and convenience
- ★ helps eliminate clutter of multiple remotes

F Tele Aid security features

A number of valuable services are offered to Tele Aid subscribers.

REMOTE DOOR UNLOCK SERVICE

- Allows Tele Aid to unlock the vehicle remotely if driver locks the key inside.
- Owner calls Customer Assistance Center (CAC) at 1-800-FOR-MERCEDES and identifies self with a PIN code.
- Tele Aid service provider locates the vehicle via GPS, and system transmits a signal to vehicle.
- Vehicle is not automatically unlocked. Driver must unlock car with a few simple steps explained by Tele Aid operator, which will be valid for a brief time.
- ★ helps limit vehicle access to owner, in case owner is not calling from near car

TELE AID STOLEN VEHICLE RECOVERY

- Allows Tele Aid to work with police by locating a vehicle reported stolen
- Owner must file a police report, then call CAC and identify self with a PIN code.

AUTOMATIC ALARM NOTIFICATION

- Allows Tele Aid to phone vehicle owner if standard antitheft alarm is set off
- · Owner must "opt in" to this service, since Tele Aid cannot determine false alarms.
- * allows owner to forgo this service if a high rate of false alarms is an issue
- ♦ MORE TELE AID INFO: TECH GUIDE | P. 52

- SmartKey Remote central locking **Driveaway** locking
- D **Keyless Go**
- Garage door control
- Tele Aid security features

LOCKING AND SECURITY continued

A Night security illumination

Night security illumination uses the vehicle's exterior lights to **help light a path away from the vehicle** when the vehicle is remote-locked in darkness.

- Parking and taillamps, as well as front foglamps, turn on when the SmartKey is removed from the ignition and the **driver's door is closed**.
- Illumination remains active for the interval programmed via the multifunction display (off, 15, 30, 45 or 60 seconds).
- ★ adds security and convenience after parking in darkness

B Locator lighting

Locator lighting uses the vehicle's exterior lights to **help light a return path** when the car is remote-unlocked in darkness.

- Parking and taillamps, as well as front foglamps, turn on when driver remoteunlocks vehicle.
- Passenger-car models employ the light sensor for the auto-on headlamps, and activate locator lighting in darkness.
- Locator lighting remains active:

 until the driver's door is opened, or
 for approximately 40 seconds
- Locator lighting can be programmed (on or off) via the **multifunction display**.
- ★ adds security and convenience when approaching car in darkness
- ★ can help driver find car in a crowded parking lot

C Remote illuminated entry

Unlocking the vehicle activates the illuminated entry system, which turns on the following lamps **until the last door is closed**, or for **approximately 40 seconds** if no door is opened:

- Interior room lighting
- Entrance lamps in the doors (most models, some only on front doors)
- Entrance lamps underneath the side mirrors (CLS-Class, S-Class and CL-Class models)
- ★ adds security and convenience when approaching car in darkness
- ★ entrance lamps help illuminate step area outside vehicle, helping passengers navigate puddles, curbs, etc.



Night security illumination, shown on an E 320 CDI Sedan



Mirror-mounted entrance lamps, shown on an \$500

	•	C 230 Spt Sedan
		C 350 Spt Sedan
		C 55 AMG Spt Sedan
		C 280 Luxury Sedan
		C 350 Luxury Sedan
		SLK 280
		SLK 350
		SLK 55 AMG
	•	CLK 350 Coupe
	•	CLK 500 Coupe
	•	CLK 350 Cab
	•	CLK 500 Cab
	•	CLK 55 AMG Cab
	•	E 350 Sedan
	•	E 320 CDI Sedan
	•	E 500 Sedan
	•	E 55 AMG Sedan
	•	E 350 Wagon
	•	E 500 4MATIC Wagon
	•	E 55 AMG Wagon
	•	CLS 500
		CLS 55 AMG
		S 350
	•	S 430
		S 500
	•	S 55 AMG
	•	S600
•	•	S 65 AMG
	•	SL500
	•	SL55 AMG
	•	SL600
•	•	SL65 AMG
	•	CL500
	•	CL55 AMG
		CL 600
	•	CL65 AMG
	•	ML 350
	•	ML 500
		P 350

R 500

FEATURE APPLICATION BY MODEL

STANDARD DOPTIONAL - NOT AVAILABLE

MODEL

- **A** Night security illumination
- **B** Locator lighting

A B C

. . .

c Remote illuminated entry

COMFORT AND CONVENIENCE OVERVIEW

Luxury that soothes, supports, satisfies and surrounds you

Mercedes-Benz has maintained its leadership among luxury brands by offering cars that are, first and foremost, luxurious. Therefore, it is only fitting that Mercedes-Benz cars and SUVs offer a vast array of state-of-the-art creature comforts to match their exciting performance and reassuring safety systems. With a wide array of standard and optional amenities—from aromatic hand-fitted leather upholstery, to a heated steering wheel, to seats that massage, to the latest in digital surround sound—it quickly becomes clear that every Mercedes-Benz aims to cater to its occupants' comfort as thoroughly as they transport them and guard their well-being.



C-Class Luxury Sedan



COMFORT AND CONVENIENCE

FEATURE APPLICATION BY MODEL

AUDIO SYSTEMS

A Standard radios

- Standard on all models: AM/FM stereo/ weatherband radio with in-dash single-CD player
- All factory radios and vehicles are prewired to integrate the controls for the available CD changers, phones and satellite radio.
- · Standard audio systems feature at least six high-fidelity speakers.
- Premium sound systems are offered on all models (see chart at far right).

AUDIO 20 RADIO

- · C-Class. SLK and CLK models come standard with a double-DIN-size radio internally identified as Audio 20.
- Features include:
- -AM/FM stereo/weatherband radio
- -Single-disc CD player
- Monochromatic dot-matrix display
- -10-digit keypad for radio presets, direct-access radio tuning (by pressing "*****" and station's numeric frequency) and dialing the optional phone
- -Four "soft keys" below the display whose functions change for each mode (radio, CD, phone and audio adjustments such as bass, fader, etc.)
- -Access to commonly used functions via the multifunction steering wheel



Audio 20 radio head unit (C-Class/CLK version shown)

B COMAND system

COMAND HEAD UNIT

- E-Class, CLS, S-Class, SL, CL, M-Class and R-Class models come standard with variations of the **COMAND** (Cockpit and Data Management system) head unit.
- COMAND is also optional on all C-Class, SLK and CLK models.



COMAND head unit (E-Class version shown)

- All models except the S, SL and CL use the Modular COMAND System (MCS II). -Navigation is optional with MCS II.
- AM/FM stereo/weatherband radio
- Single-disc CD player
- Large color-LCD screen
- · 10-digit keypad for radio presets, directaccess radio tuning and dialing the optional phone (see "Audio 20" at left)
- 10 "soft keys"-five along each side of the display-whose functions change for each mode (radio, CD, navigation, phone and audio adjustments such as bass, fader, etc.)
- the multifunction steering wheel

♦ MORE INFO: TECH GUIDE | P. 40

C CD changers

Every model offers a 6-disc CD changer that is fully integrated with the factory radio and the multifunction steering wheel.

- Two types of 6-disc changer are used:
- -Cartridge: discs load into a magazine, which is then loaded into the changer



- Single-feed: discs load directly through a single slot in the changer's faceplate

CD CHANGERS BY MODEL

Model	Туре	Location			
C, CLK	Cartridge	Glovebox			
SLK	Single-feed	Glovebox			
E, CLS	Single-feed	Behind center dash panel			
S, CL	Cartridge	Trunk floor			
SL	Cartridge	Storage well behind driver			
M, R	Single-feed	Glovebox			

D Fiber-optic network

All audio, phone and SIRIUS components (except the speakers) are connected via a high-speed **fiber-optic** communication network rather than conventional wiring.

★ helps ensure excellent sound quality without generating interference

E harman/kardon sound

A sophisticated harman/kardon[®] LOGIC7[®] digital surround sound system is standard or optional on all model lines except the S-Class, SL and CL (see chart at right).

HARMAN/KARDON FEATURES

- 7.1-channel digital amplifier set (eight amps housed together
- Digital surround-sound technologydeveloped for the professional recording industry-for playback of FM radio. CDs and satellite radio
- LOGIC7 sound processing
- ★ provides a natural, realistic sound stage
- Up to 12 speakers, including dual surround speakers and a subwoofer (bass enclosure on E-Class wagons)
- Digital Dynamic Volume Control \star ensures that the sound balance is preserved under all driving conditions ★ overcomes the masking effect of road and wind noise on the sound spectrum

HARMAN/KARDON SPECS BY MODEL								
Model	Total output	Speakers						
C-Class	240 watts	12 + subwoofer						
SLK	380 watts	11						
CLK coupes	240 watts	12 + subwoofer						
CLK cabriolets	320 watts	10 + subwoofer						
E-Class sedans	240 watts	12 + subwoofer						
E-Class wagons	240 watts	12 + bass enclosure						
CLS	240 watts	11 + subwoofer						
M-Class, R-Class	440 watts	11 + subwoofer						



COMAND FEATURES

- · Access to commonly used functions via

• DVD-based GPS navigation system (optional with Modular COMAND System)

FEATURE APPLICATION BY MODEL STANDARD
OPTIONAL - NOT AVAILABLE

COMAND on Modulan COMAND such

A Audio 20 radio

2006 TECH

GUIDE

F Bose sound systems

S-Class, SL and CL models feature digital Bose[®] Cabin Surround[™] sound.

BOSE FEATURES

- 5.1-channel digital amplifier
- Independent front and rear channels for accurate 360° digital surround sound at every seating position during playback of CDs and satellite radio
- Bose Centerpoint[™] signal processing, which outputs digital surround sound even from conventional stereo CDs
- Up to 12 speakers, including dual surround speakers and a large woofer
 S-Class and CL models use an Nd[®] Neodymium Iron Boron woofer
 - ★ generates deep bass from a relatively compact unit that fits in rear shelf
- Bose AudioPilot[™] technology
- ★ constantly monitors sound within the cabin and seamlessly compensates with no perceived change in audio volume

	BOSE SPECS BY MODEL
Model	Speakers
S-Class CL-Class	12 total 10 total } including:
	 2 surround sound (on rear shelf) 1 center-fill (on dash) 10" Nd woofer
SL-Class	8 total, including: • 2 surround sound (in rear cabin wall) • 1 center-fill (on dash) • 4 x 6" woofer
203	



G SIRIUS Satellite Radio

SIRIUS Satellite Radio provides **120 all-digital** channels of coast-to-coast programming.¹

SIRIUS EQUIPMENT

- Offered only as a factory option for 2006
- SIRIUS equipment includes:
- -A satellite radio receiver
- -An external antenna (location varies)
- -Some minor hardware
- An initial period of SIRIUS service (See separate **dealer guide** for details.)
- SIRIUS is accessed through the standard audio controls and in-dash radio, and plays through the vehicle's sound system.

SIRIUS SERVICE

- SIRIUS service requires a subscription.
- SIRIUS programming includes:
- 65 commercial-free music channels in numerous musical formats, as well as children's entertainment and Spanishlanguage programming
- 55 channels of information, news, entertainment and sports—including live games from NHL[®], NBA and NFL[®]



H iPod integration kit

An exciting new **dealer-installed accessory** can integrate most **Apple**[®] **iPod**[®] music players with most 2005–2006 models.

- Available for these 2006 models:
- All C-Class, CLK, E-Class, CLS, M-Class and R-Class models
- -SLK models with optional COMAND
- Compatible with any iPod equipped with a **dock-type connector**
 - -iPod **not included** in accessory kit
- Fully integrates iPod with vehicle's audio system plus multifunction steering wheel and display
- iPod docks in glovebox.
- -Battery recharges while connected.
- Music plays through vehicle's speakers.
- **Title and song** information appear in multifunction display.
- -Driver can **select tracks** and **control volume** via multifunction steering wheel.
- -iPod information does **not** appear in main COMAND/radio screen.

Apple and iPod are registered trademarks of Apple Computer, Inc. Accessory may be delayed on some models.

1 While the SIRIUS network of satellite and terrestrial antennas provides nearly seamless service throughout the contiguous U.S., SIRIUS service may be unavailable or interrupted for a variety of reasons, including environmental or topographic conditions; in certain locations such as tunnels, parking garages, or within or next to large buildings; or near other technologies that can interfere with the SIRIUS signal. SIRIUS, the dog logo and SIRIUS stream names and logos are trademarks of SIRIUS Satellite Radio.

2	CD changer									
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2	h	rm	an/	'kai	dor	n di	n aita	l surround sound		
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Ġ	SI	RII	ISS	ate	llite	Ra	dio	Sound		
н	A	ces	sor	v iI	Pod	inte	egra	ation kit		
A	B C D E F G H MODEL									
					-			C 230 Spt Sedan		
-		_	-	_	-	_		C 350 Spt Sedan		
					-			C 55 AMG Spt Sedan		
					-			C 280 Luxury Sedan		
					-			C 350 Luxury Sedan		
					-			SLK 280		
					-			SLK 350		
					-			SLK 55 AMG		
					-			CLK 350 Coupe		
					-			CLK 500 Coupe		
					-			CLK 350 Cab		
					-			CLK 500 Cab		
					-			CLK 55 AMG Cab		
-					-			E350 Sedan		
-					-			E320 CDI Sedan		
-					-			E 500 Sedan		
-					-			E 55 AMG Sedan		
-					-			E 350 Wagon		
-					-			E 500 4MATIC Wagon		
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-					-			CLS 500		
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-				-			-	S 500		
-				-			-	S 55 AMG		
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-					-			ML 500		

■ □ ■ □ - □ □

R350

R 500

NAVIGATION AND COMMUNICATION

A Navigation

Every Mercedes-Benz model offers as standard or optional equipment an in-dash navigation system¹ that uses the **Global Positioning System (GPS) satellites** and **sensors in the vehicle** to plot the location of the vehicle in real time.

- SLK, E-Class, CLS, M-Class and R-Class COMAND systems allow navigation to be factory or dealer-installed.
- ♦ MORE COMAND INFO: TECH GUIDE | P. 38

NAVIGATION SYSTEM COMPONENTS

- Controls and a **color display**, integrated with the in-dash COMAND head unit
- A map database on a single DVD-ROM that contains the maps for the contiguous 48 United States, Canada and Oahu, HI
- ★ eliminates need to purchase additional map discs or change them when traveling



GPS antenna, shown on an S-Class sedan

 A DVD-ROM drive, located as follows:
 C-C-Class, CLK, M-Class and R-Class: Behind the flip-open COMAND screen in the dash (using a separate drive from the audio-CD player)

- SLK, E-Class, CLS, S-Class, SL and CL: In the trunk (separate from the audio-CD player or changer)

- ★ separate navigation DVD and audio-CD drives allow simultaneous use of both
- A **GPS antenna**, located as follows: -All sedans, CLK and CLS coupes,
 - M-Class and R-Class: On the roof or near the top of the rear window
- SLK models: Integrated within the inside rearview mirror



COMAND navigation map shown in an SL 500

- CLK cabriolets and CL-Class coupes: Integrated with the composite trunk lid
 SL models: Integrated with the upper windshield header and glass
- A **satellite receiver**, usually located in the trunk or cargo area, or underneath the rear seat

KEY NAVIGATION SYSTEM FEATURES

- All systems incorporate a 4-way cursor control (which you press for "OK") and "soft keys" near the in-dash screen.
 - -Each of the soft keys **changes function** depending on which **mode** is in use, with clear on-screen labels next to each button in each mode.
 - ★ allows menus and functions to be accessed more directly
- The **map database**, which covers a large majority of known roads and routes at the time the map discs were developed, also includes information on:
- Detailed maps, with zoom features (and on S, SL and CL models, both 3-D and overhead "birdseye" view modes)
- Local points of interest, including tourist attractions, gas stations, parks, public golf courses, hospitals, hotels/ motels, and Mercedes-Benz dealerships
- Many points of interest can also be looked up by their phone numbers.
- Memory function to save and recall previously entered addresses and locations, as well as one's home address
- ★ allows driver to re-use commonly visited destinations without re-entering information
- Navigation **route guidance** using various parameters, such as fastest route, shortest route, and allowing the use of

freeways, ferries and/or toll roads

COMFORT AND

CONVENIENCE

• Estimated time and mileage to arrive at destination from current location

FEATURE APPLICATION BY MODEL

SEE CHART ON NEXT PAGE. >

2006 TECH

GUIDE

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- Display of the next instruction in the multifunction display (when navigation screen is called up using steering-wheel controls)
- If system is not navigating to a specific address, the current street and compass heading will be shown.
- Voice prompts of instructions along the route, with automatic muting of the audio system
- A compass mode that can display the vehicle's current heading, elevation, precise longitude and latitude, and the steering angle of the front wheels

 System need not be navigating for this
 - display to be used.

NAVUPDATE PROGRAM

The NavUpdate program allows the vehicle owner to **subscribe** to **annual updates** of the map DVD for up to three years at a significant savings.

* helps driver keep system's database of maps and points of interest more current

 \star enhances value of navigation system

1 While the navigation system provides directional assistance, the driver must remain focused on safe driving behavior, including paying attention to traffic and street signs. The driver should utilize the system's audio cues while driving and should only consult the map or verbal displays once the vehicle has been stopped in a safe place. DVD-ROM maps do not cover all areas nor all routes within an area.

B Phones

All 2006 models offer the Hands-Free Communication System.²

- Optional on all models,³ including 600s
- A compatible Motorola digital portable phone (V60, V600 or V710) must be purchased separately at the dealer.
- Availability of phone handsets depends on cellular service provider.

GENERAL PHONE FEATURES

When docked in the Multi-Handset Interface cradle located in the center armrest compartment, features include:

- Hands-free calling: A ceiling-mounted microphone registers vocal inputs from the driver or passengers, while the other party is heard through the audio system.
- Integration with vehicle electronics
- Phone functions can be operated via the standard radio or COMAND head unit, or with the available voice control system (see Item C, at right).
- Use of vehicle's antenna system ★ provides improved reception and helps prevent damage to the vehicle's electronic system from interference
- Automatic battery charging
- Access to phone book, and send/end commands via the multifunction steering wheel
- Accommodation of multiple handsets
- Automatic updating of the in-car phone **book** and phone's identity each time a handset is plugged into the cradle
- · Automatic muting of audio (or pausing of a playing CD) for incoming calls, with automatic resume feature at end of call

MOTOROLA V60 PHONE FEATURES

- Clamshell flip-phone design
- Programmable exterior display with date, time, caller ID and more
- Interchangeable,
- technology ringtones, screen savers, games and animated icons

MOTOROLA V600 PHONE FEATURES

- · Clamshell flip-phone design
- Programmable outer display
- Tri-band GSM technology
- Downloadable polyphonic ringtones, screen savers, games and icons
- Vivid 65,000-color display
- Integrated camera
- Downloadable games and productivity applications
- · Browser with fast, always-on Internet connection

MOTOROLA V710 PHONE FEATURES

- High-style clamshell flip-phone design
- Programmable exterior display
- Tri-band CDMA technology
- Downloadable polyphonic ringtones, screen savers, games and icons
- Vivid 65,000-color display
- Personal Information Manager (PIM)
- Integrated camera
- Downloadable games and productivity applications

Bluetooth integration

★ allows out-of-car use of bluetooth handsfree headsets and PIM synchronization with some Bluetooth-equipped home computers

• Browser with fast, always-on Internet connection

c Voice control system

A voice control system for the phone, audio and navigation systems is available.

 Included with Hands-Free Communication System on E-Class, CLS, S-Class, SL and CL-Class models

VOICE CONTROL SYSTEM FEATURES

- Allows driver to operate key features of three vehicle systems by voice command:
- -Phone, including the phone book
- -Audio system
- -Navigation system
- Activated via a **stalk** on the upper right side of the steering column
- Responds to a natural speaking voice
- · Confirms or requests repeat of commands with **voice feedback**
- ★ greatly enhances convenience
- ★ reduces driver distraction

2 For safety reasons, we encourage the driver to stop the vehicle in a safe place before answering or placing a call. Always dock the phone in the cradle for use inside the vehicle. Operating a phone or radio transmitter with its own attached or built-in antenna while the engine is running can interfere with the vehicle's electronic systems. 3 Availability is delayed on the M-Class.

FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL - NOT AVAILABLE

- Α Navigation system
- Hands-Free Communication System
- Voice control system С

COMFORT AND

CONVENIENCE

Α	в	С			MODEL
		-			C 230 Spt Sedan
		-			C 350 Spt Sedan
		-			C 55 AMG Spt Sedan
		-			C 280 Luxury Sedan
		-			C 350 Luxury Sedan
		-			SLK 280
		-			SLK 350
		-			SLK 55 AMG
		-			CLK 350 Coupe
		-			CLK 500 Coupe
		-			CLK 350 Cab
		-			CLK 500 Cab
		-			CLK 55 AMG Cab
					E 350 Sedan
					E 320 CDI Sedan
					E 500 Sedan
					E 55 AMG Sedan
					E350 Wagon
					E 500 4MATIC Wagon
					E 55 AMG Wagon
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					S 600
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					CL500
					CL 55 AMG
					CL600
					CL65 AMG
		-			ML 350
		-			ML 500
		-			R 350
	п	-			R 500





CLIMATE CONTROL

General features

Every 2006 Mercedes-Benz features an **automatic climate control** system that can help keep occupants comfortable by maintaining a **preselected temperature** regardless of conditions outside the vehicle.

- All models feature **dual-zone** temperature controls.
- All models feature an **electrostatic dust** filter (see item D, at right).

HIGH-FLOW/LOW-DRAFT VENTS

All models except two-seaters are equipped with numerous **front and rear air outlets** that are generous in both their size and number.

- Larger, more plentiful vents allow high airflow volume without creating drafts.
 Passenger-car models include a dashtop diffuser vent.
- ★ helps distribute climate-controlled air more evenly, improving comfort
- Rear-cabin heating ducts are located under the front seats.
- ★ enhances heating of the rear cabin
- Adjustable **rear-cabin vents** are located at the rear of the front center console.
- ★ enhances ventilation to the rear cabin
- ★ improves temperature control of overall passenger compartment



High-flow/low-draft air outlets shown in an S 600

A Dual-zone system

Many models feature **dial-type dual-zone climate control**. Features include:

- Dual dial-type temperature controls
- Settings adjust from 64° to 80°F.
 *** allows driver and front passenger to personalize heating or cooling
- Automatic and manual control of blower speed and airflow distribution (except SLK)
- ★ helps maintain comfort with minimal readjustment
- Selectable economy mode

 "A/C" button turns air-conditioning
- compressor on and off. ★ turning off compressor can improve fuel
- economy and acceleration when cooling or dehumidifying are not needed
- One-touch defrost button
 - Instantly selects maximum heat and blower settings, turns A/C on, and directs airflow to windshield
 - ★ rapidly clears fog and frost from
- windshield with a single touch
- ★ pressing again restores previous settings
- Recirculation button
- -Temporarily shuts off fresh-air intake
- Holding recirculation button closes all windows and sunroof ("tunnel mode").
 Holding it a second time restores the previous window and sunroof positions.



Dual-zone climate control shown in a C-Class Sport Sedan

B Digital dual-zone system

Digital dual-zone climate control systems include all functions listed in Item A for dial-type systems, **plus** several enhancements.

- Pushbutton temperature controls
- On some models:
 - Individual left and right selection of airflow distribution (CLK, S-Class, CL)
 - ★ allows driver and front passenger to select which air outlets are in use
 - -Dual automatic modes (S-Class, CL)
 - ★ further enhances convenience
- A sun sensor that monitors the direction and intensity of sunlight and automatically boosts airflow to compensate
- ★ helps maintain more even cabin temperature
- Backlit LCD readouts of many settings



Digital dual-zone climate control shown in an SLk



Digital dual-zone climate control shown in a CLK 500



FEATURE APPLICATION BY MODEL SEE CHART ON NEXT PAGE. >

c Multi-zone systems

The **3-zone and 4-zone systems** include all functions of the digital dual-zone systems, **plus** these enhancements:

- **3-zone**: Individual temperature and airflow direction controls for the **driver**, **front passenger** and **rear cabin**
- 4-zone: Individual left and right controls for temperature and airflow direction for both front and rear cabins
- Control of some **rear-cabin** settings from the **front** climate-control panel
- Additional, adjustable rear-cabin air outlets, in the B-pillars (4-zone systems)
- On S-Class models, rear-cabin control of blower speed with a separate **rear-cabin automatic** mode
- ★ allows driver and up to three passengers to personalize their comfort settings



Rear 4-zone climate control shown in an \$600



Digital dual-zone climate control shown in an \$500

Dust and pollen filter

- Standard on all models
- Traps airborne **particles 5 microns** (0.00002 inch) or larger
- Element should be replaced as part of regular vehicle maintenance

★ helps prevent dust, pollen and mold spores from entering cabin through climate control



Dust filter

E Activated charcoal filter

- Helps reduce airborne odors
- On SLK models, and with optional digital climate control on M-Class and R-Class: – Integrated with dust/pollen filter
- -Active whenever climate control is on
- -With digital systems, integrated **smog sensor** automatically recirculates cabin air for up to 20 minutes if it detects an increase in certain exterior pollutants above a certain level.
- On CLK 500, S-Class, SL and CL models:
- -Separate charcoal filter
- -Can be **switched on or off** via a button on the climate control panel
- **Smog sensor** automatically recirculates cabin air for up to 20 minutes if it detects an increase in certain exterior pollutants above a certain level. (Filter and A/C must both be switched on.)

F Humidity sensor

Many Mercedes-Benz climate control systems also feature a **humidity sensor**.

 Monitors the dewpoint of cabin air and automatically controls air-conditioning compressor operation to maintain proper humidity



Humidity sensor helps prevent window fogging on rainy days

- System helps to prevent the windows from fogging on humid days or when the climate control is heating the cabin
 * helps maintain driver's outward vision
- System helps to prevent the cabin air
- from becoming **overly dry** when the climate control is **cooling** the cabin on warm days
- ★ helps maintain occupant comfort to a highly refined degree

G REST mode

A **residual heating** feature, or REST mode, allows the climate control system to offer some benefits **after the vehicle has been shut off**. REST mode can:

- Circulate residual engine heat
- Run the blower to **ventilate** the interior
- Operate for **up to 30 minutes** after the engine is shut off, provided there is sufficient battery strength and residual engine heat
- ★ enhances comfort when waiting in or returning to a parked car

H Seat-belt usage sensors

Most 4-zone climate control systems, plus the dual-zone systems in the SL and CL, utilize **seat-belt usage sensors**.

- Allows system to determine which seating positions are occupied
- Allows climate control to focus its efforts first on occupied seats
- ★ provides more rapid comfort during periods of high-intensity climate control operation, such as when starting off in a car that has been parked in the sun



Dual-zone climate control system (2003 SL 500 shown)

FEATURE APPLICATION BY MODEL

COMFORT AND

CONVENIENCE

Dual-zone climate control

Α

■ STANDARD □ OPTIONAL − NOT AVAILABLE

Digital dual-zone climate control 3-zone or 4-zone climate control С Dust and pollen filter D Activated charcoal filter E. Humidity sensor E G **REST** residual heating mode **H** Seat-belt usage sensors CDEFGH MODEL В C 230 Spt Sedan C 350 Spt Sedan _ _ _ _ C 55 AMG Spt Sedan C 280 Luxury Sedan _ _ _ C 350 Luxury Sedan SLK 280 _ SLK 350 SLK 55 AMG CLK 350 Coupe _ _ CLK 500 Coupe CLK 350 Cab CLK 500 Cab CLK 55 AMG Cab E 350 Sedan E320 CDI Sedan E 500 Sedan E 55 AMG Sedan E350 Wagon E 500 4MATIC Wagon E55 AMG Wagon CLS 500 CLS 55 AMG S350 S430 S 500 S 55 AMG S600 S 65 AMG SL 500 SL55 AMG SL600 SL65 AMG CL 500 CL55 AMG CL 600 CL65 AMG ML 350 ML 500 _

R350

R 500

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SEATING

A Power front seats

All models feature front seats that are adjustable in **at least eight directions**

- Fore-aft
- Seat height
- Cushion tilt
- Seatback angle (recline)

★ allows driver and front passenger to find their optimum seating positions

C-CLASS SEMI-ELECTRIC FRONT SEATS

- Certain C-Class models include 10-way adjustment, with four of them power:
 Power seat height
- -Power seatback angle (recline)
- Seats adjust via seat-shaped switches on the outboard side of each front seat.

♦ MORE INFO: C-CLASS GUIDE

FULL POWER FRONT SEATS

- Adjustments are made via seat-shaped switches on each front door or the outboard side of the seat.
- M-Class and R-Class: 8-way power seats: – Power fore–aft
- -Power seat height
- -Power cushion tilt
- -Power seatback angle (recline)
- Standard or optional on most other models are 10-way power front seats, adding:
 Power head restraint height
- -Included on M-Class with seat memory
- S-Class, SL and CL-Class models add:
- -Power seat-cushion depth
- Pneumatically adjustable lumbar support (not retained in seat memory)

♦ MORE INFO: TECH GUIDE | P. 34



Power steering column (shown in a C 350 Luxury Sedan)

POWER STEERING COLUMN

- Included on all models equipped with the driver's seat memory system
- 4-way power-adjustment:
- -Tilts up-down
- -Telescopes in-out
- Adjusted via a **stalk** on the lower left side of the steering column
- · Driver's seat memory recalls position
- ★ helps most drivers find a comfortable seat/ steering wheel relationship

♦ MORE INFO: SEE CLASS GUIDES

EASY-EXIT FEATURE

- Included on all models equipped with the driver's seat memory system
- Automatically **raises steering wheel** to highest position when SmartKey is removed from ignition
- S-Class, CL, M-Class and R-Class: can also slide driver's seat almost 2.5 inches back
 Action deleted on all other 2006 models
- Automatically **restores position** when SmartKey is reinserted in ignition
- Turned on/off via multifunction display

MANUAL STEERING COLUMN

 Most C-Class, SLK, M-Class and R-Class models include standard manual 4-way adjustment of the steering column.

FEATURE APPLICATION BY MODEL

COMFORT AND

CONVENIENCE

2006 TECH

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c Power rear seats

- Available on S-Class, in two varieties
- Both include **power head restraints** that **rise automatically** when an occupant fastens the seat belt.
- Power controls for both types are located on **each rear door**.

POWER REAR BENCH SEAT

- Includes two adjustable outboard seats and a fixed center section
- Cushions move **fore-aft** 2.4 inches.
- Outer seats include pneumatically adjustable lumbar supports, via a thumbwheel at the outer corner.

4-PLACE SEATING PACKAGE

- Optional on most S-Class models
- Two individual power rear seats, separated by a wood-trimmed console
- Adjusted in most of the same ways as the front seats (though not as far)
- Includes 3-position memory and dynamic multicontour seatbacks
- Right rear passenger can power-slide an unoccupied front passenger seat forward for more rear legroom.



Power front seat and memory controls (S-Class)



Power front seat and memory controls (C-Class and CLK

B Memory and steering column

Standard or optional on all models, the

power-adjusted positions of up to three

memory buttons located near the seat

position after another driver or parking

programmed for later recall via the three

★ helps driver easily restore preferred seating

drivers or front passengers can be

controls on the door panel.

attendant has moved seat

- Power front seat, memory and mirror controls (E-Class)
- SLK, M-Class and R-Class power seat and memory controls are located on the outboard side of each front seat cushion.

USER-RECOGNITION

This feature has been discontinued for 2006 (as a running change on early E350 and CLS-Class models).

COMFORT AND

CONVENIENCE

D Heated seats

Heated front seats are standard or optional on all model lines (see chart at right).

- ★ provide rapid, soothing warmth
- Two or three levels of heating, depending on model, including:
- Rapid-heating and "normal" modes
 Automatic step-down to lower mode(s)
- ★ minimizes electrical system drain
- S-Class models also offer heated rear seats.

E Active Ventilated seats

Active Ventilated front seats are standard or optional on many models (see chart at right).

- Eight internal fans (five on CLK) circulate ambient air from underneath each seat through perforations in the leather upholstery on the seatback and cushion.
- ★ help to keep the occupant cooler and drier, even in hot summer conditions
- Include **heating feature**, and heating can be activated in conjunction with fans
- ★ circulates soothing warmth more rapidly
- Three levels of ventilation
- -Automatic step-down to lower mode after a few minutes at the high mode
- S-Class models also offer Active Ventilated rear seats.



Active Ventilated seat controls shown in a CL 500

F Multicontour seats

A multicontour **driver's seat** (C55 AMG and CLK models) or **both front seats** (other model lines) are standard or optional on most model lines.

- Inflatable chambers in various areas of the seat allow pneumatic adjustment of:
 – Side bolsters
- -Dual lumbar supports
- Thigh support (seat-cushion length) on C 55 AMG, CLK, E-Class and CLS
- ★ help occupant custom-tailor the seat

for more personalized support and comfort



Multicontour seat (CLK 500)

Multicontour seat controls shown in a CLK 500

G Dynamic multicontour seats

Dynamic multicontour front seats are available on the S-Class, SL and CL-Class.

- All features of multicontour seats, plus: - Three adjustable lumbar chambers
- Massage feature can slowly pulsate the central lumbar chamber.
- \bigstar helps relieve tension in the lower back
- ★ helps reduce driver fatigue caused by lack of muscle movement on long drives
- Multicontour **rear** seats included in **S-Class** 4-place seating package.

H Drive-Dynamic seats

Drive-Dynamic front seats are available on

the E55 AMG, CLS-Class, S55 AMG and S65 AMG.

 All features of dynamic multicontour

seats, plus the following enhancements.

- Three adjustable lumbar chambers
- "Active" side bolsters respond to cornering and lateral acceleration:
 - -When activated by a button on the leading edge of the seat cushion, the function automatically **inflates and deflates the side bolsters** rapidly to help compensate for the **lateral forces** of **moderate to hard cornering**.
 - The bolster near the **outside** of the curve **inflates**.
 - -The bolster near the **inside deflates**.
- ★ helps hold occupant in place in corners 1 Double entry ("■□") in chart indicates front/rear status.



DRIVING CONVENIENCES

A Cruise control

All Mercedes-Benz models feature standard electronic cruise control.

- Automatically maintains a set vehicle speed
- Operated by a **stalk** on the upper left side of the steering column
- Holding stalk up/down accelerates or decelerates vehicle, setting the new speed when the stalk is released.
- **Tap-up/down** feature increases or decreases set speed in 1-mph increments.
- ★ increases driver comfort
- ★ can help driver keep to speed limit
- ★ helps reduce fatigue during long-distance driving

ADDITIONAL FEATURES

- Some models with a **multifunction display** will briefly display the set speed as cruise control is engaged.
- On vehicles with **manual transmission**, cruise control is switched off when the clutch pedal is depressed for more than 4 seconds when downshifting.
- On most models, the **brakes** will automatically be applied to help maintain the preset cruise speed down a hill.
- On **automatic-transmission** models, the transmission can downshift to assist in slowing the vehicle if the "decelerate" feature is used but unable to slow the car rapidly enough.
- Cruise control switches off when the driver applies the **brakes**, but stores the previously set speed ("**resume**" feature, recalled by pulling the stalk toward the steering wheel briefly) until the engine is shut off or another setting replaces it.

B Distronic cruise control

Some models offer the convenience of Distronic **adaptive cruise control**.¹

 Distronic automatically adjusts the speed to help maintain the driver's selected following distance to vehicles ahead.

DISTRONIC'S KEY COMPONENTS

- A radar transceiver mounted behind the upper radiator grille
- An electronic control unit
- Radar sensor emits low-level signals that bounce off vehicles in front of the car.
- The control unit processes and evaluates the radar signals, and instructs the vehicle to respond by maintaining, reducing or resuming the selected speed.
- ★ adds to driver convenience when using cruise control
- ★ Note: Distronic is a convenience feature, not a safety feature.



Distronic display, shown in an E-Class

OPERATION

- When engaged (using the same stalk as conventional cruise control), Distronic:
- Monitors the speed and distance of a vehicle ahead of the car
- Maintains the set cruising speed, as long as no moving vehicles are detected within the following distance set via a thumbwheel on the console
- When a slower vehicle is detected in front, or if the leading vehicle slows:

 Distronic reduces speed through engine, brake and transmission intervention—but only up to 20 percent of maximum braking power.
- -If Distronic determines that it is **unable**

to slow the vehicle rapidly enough to maintain the preset following distance, an **alarm** sounds to alert the driver. **Important note**: Driver should not rely on sounding of alarm before braking when approaching other vehicles, as it may not allow sufficient time and/or

FEATURE APPLICATION BY MODEL

SEE CHART ON NEXT PAGE. >

COMFORT AND

CONVENIENCE

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- distance to slow or stop the car safely.
 The driver can set the multifunction display to show the following distance to the vehicle detected in front.
- This "forward collision warning" feature can be used **without** engaging the cruise control function of Distronic.
- Distronic **switches off** when the driver applies the brakes or turns it off via the cruise control stalk.

1 Distronic adaptive cruise control is no substitute for active driving involvement. It does not react to stationary objects, nor recognize or predict the curvature and lane layout of the road or the movement of vehicles ahead, and it can only apply a maximum of 20% of vehicle braking power. It is the driver's responsibility at all times to be attentive to traffic and road conditions, and to provide the steering, braking and other driving inputs necessary to retain control of the vehicle.



c Self-leveling suspension

Several forms of **automatic level control** are offered on various Mercedes models.

- Systems automatically adjust the ride height to accommodate **changing loads**, whether passengers, cargo or a combination of both.
- All of these systems take advantage of the pneumatic (air) suspensions in their respective vehicles.
- -Increasing air volume and pressure in air springs alters their ride height.

REAR-AXLE LEVEL CONTROL

- Standard on the E350 Wagon and both R-Class models
- Utilizes elements of Airmatic suspension to level the **rear axle**
- ★ helps maintain vehicle balance, ride height and attitude as payloads vary

4-WHEEL LEVEL CONTROL

Models with **Airmatic** suspension or **Active Body Control** (ABC) feature automatic vehicle level control at **all four wheels**.

- Responds to the weight and distribution of passengers and cargo
- helps maintain and improve vehicle balance, ride height and attitude as payloads vary
- Includes automatic lowering at higher speeds, helping to reduce air resistance for better aerodynamics and lowering the vehicle's center of gravity
 - ★ helps improve fuel economy
- ★ helps improve stability and resistance to crosswinds
- Airmatic and ABC also offer driverselectable **raised ride height**

★ helps vehicle negotiate snow-covered or rutted roads



ABC ride height control





S-Class Airmatic system components

A B C MODEL . - -C 230 Spt Sedan - -C 350 Spt Sedan I - -C 55 AMG Spt Sedan - -C 280 Luxury Sedan _ C 350 Luxury Sedan SLK 280 - -SLK 350 - - -- -SLK 55 AMG - - -CLK 350 Coupe . - -CLK 500 Coupe - -CLK 350 Cab CLK 500 Cab - -. - -CLK 55 AMG Cab E350 Sedan - - -E320 CDI Sedan - -E 500 Sedan E 55 AMG Sedan - . E350 Wagon -E 500 4MATIC Wagon E55 AMG Wagon . CLS 500 • • • CLS 55 AMG S350 S430 . . . S 500 • • • S 55 AMG S600 S 65 AMG SL 500 • • • SL55 AMG SL600

SL65 AMG CL500

CL55 AMG

CL65 AMG

CL 600

ML 350

ML 500

R350

R 500

COMFORT AND

CONVENIENCE

Distronic cruise control

Self-leveling suspension

Cruise control

Α

R

С

FEATURE APPLICATION BY MODEL STANDARD
OPTIONAL - NOT AVAILABLE

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REMOTE LOCKING FEATURES

A Keyless Go

Keyless Go is a standard or optional system that enables the car to be locked, unlocked and started without the driver removing the SmartKey from pocket or purse.

♦ MORE INFO: TECH GUIDE | P. 35

KEYLESS GO CONVENIENCE FEATURES

- The doors can be unlocked by grasping an exterior door handle.
- The trunk lid can be opened similarly.
- With the SmartKey inside the vehicle, the driver can **start the vehicle** by tapping the "start/stop" button on the shifter (see page 35 for M-Class and R-Class).
- Pressing a **button** on the exterior door handles locks the vehicle.
- * eliminates need to dig key out of pocket or purse to lock, unlock and start vehicle, especially convenient when carrying packages, in the rain, etc.



Keyless Go touchpad in door handle, shown on an S-Class



Keyless Go start/ stop button, shown in an E-Class

B SmartKey

TOUCH START

Touch Start makes the process of starting the engine a matter of twist and go.

- Automatic-transmission models only
- Briefly turn the SmartKey in the ignition to the "start" position (position 3), which initiates the starting process as with any ordinary key (by cranking the engine).
- · Immediately let go.
- The vehicle completes the starting procedure automatically.
- -Touch Start will automatically terminate starting effort if the engine does not start within a few attempts or seconds.
- -On **E320 CDI**, cold starting requires driver to wait with key in position 2 for 0-3 seconds as glow plugs heat. Once glow plug indicator turns off, Touch Start operates as described above.

REMOTE WINDOW OPENING/CLOSING

The SmartKey can remotely raise or lower the windows from outside the vehicle.

- Includes sunroof, if so equipped
- Driver must hold SmartKey button while pointing SmartKey at the infrared sensor in the driver's door handle.
- -Holding lock button raises windows.
- -Holding unlock button lowers windows.
- * adds to convenience when parking
- ★ helps driver air out the interior when returning to a car parked in sunlight

SPECIAL CONVERTIBLE FEATURES

SLK. CLK Cabriolet and SL models include convertible-specific SmartKey features:

- Remote top operation (standard on CLK and SL, optional on SLK)
- · Remote locking of interior storage areas -SLK and SL models (see Class Guides)
- ★ adds to top-down parking convenience



Power tailgate, shown on an E350 Wagon



Electronic trunk closer controls on underside of trunk lid



Electronic trunk closer, shown on a CL 500

COMFORT AND GUIDE CONVENIENCE

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FEATURE APPLICATION BY MODEL

c Power trunk or tailgate

ELECTRONIC TRUNK CLOSER

The available electronic trunk closer allows virtually hands-free operation of the trunk lid of E-Class and S-Class sedans, as well as CLS and CL coupes.

- Fully raises trunk lid via electric motor with a touch of a button on SmartKey or driver's door
- Fully lowers open trunk lid with touch of a button on driver's door or on the inside of the trunk lid
 - ★ makes loading and unloading cargo more convenient, especially in the rain
- In low-clearance areas, such as a garage or when parked under low tree branches, the trunk closer can be set to rise only to level of the vehicle's roof height.
- ★ helps prevent damage to bodywork

POWER TAILGATE

- Optional on the E-Class Wagons, M-Class and R-Class
- Operates the same way as the sedan trunk opener
- The M-Class and R-Class tailgates can be programmed via the multifunction display to open no higher than the roof height.
- * helps prevent damage to bodywork or to items in a rooftop carrier or luggage rack
- The E-Class wagon's cargo cover motors up when tailgate is opened. (This is a standard feature of the E-Class wagon.) ★ adds to "hands-free" convenience

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DISPLAYS AND CONTROLS

D Multifunction steering wheel

The multifunction steering wheel, now standard on every model, allows the driver to operate many **common features** while keeping **both hands on the wheel**.

- Buttons on the **steering wheel** operate as follows:
 - -The **left-hand keys** let the driver scroll through **menus** and their **submenus**.
 - -The **right-hand keys** function mostly as **audio** and **telephone** controls.

VEHICLE FEATURES OPERATED

- Audio system: Volume, radio seek-tune, and play next CD track
- **Telephone** (if equipped): Send, end, and scroll through phone book
- Multifunction display: Scroll through readouts and menus, and set vehicle preferences (see chart below right)

BASIC BUTTON FUNCTIONS

- a. Pages: Selection of the next or previous main menu
- b. Arrows: Selection of the next or previous submenu from the main menu on the display
- c. +/-: Adjustment of audio or telephone volume, or selection of a menu item
- d. Phone icons: Send and End keys for optional phone



Multifunction steering wheel, shown in CLK 350



Multifunction display: radio station



Multifunction display: Maintenance System



Multifunction display: night security illumination



Multifunction display: engine oil-level check

MULTIFUNCTION DISPLAY MENUS

Order of menus, items and features vary by model. Some features are optional. See Operator's Manual.

Main menu	Submenu	Main menu	Submenu		
1 Standard display	 Digital speedometer Outside temperature Maintenance System Check engine oil level 	6 Trip computer	 Fuel consumption since the last engine start Fuel consumption since the last reset 		
2 Audio	 Select radio station 	-	 Distance to empty (range) 		
	 CD track SIRIUS Satellite Radio 	7 Settings	 Reset to factory settings Instrument cluster submenu 		
3 Navigation	 Next navigation instruction Current location/compass (when not navigating) 		Time submenu Lighting submenu Vehicle submenu		
4 Distronic	 Call up settings 		Convenience submenu		
5 Malfunction memor	• Malfunction messages	8 Telephone	 Load phone book Search for names 		

FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL − NOT AVAILABLE

- A Keyless Go
- **B** SmartKey
- **C** Electronic trunk closer or power tailgate
- **D** Multifunction steering wheel and display

A	В	С	D			MODEL
-		-				C 230 Spt Sedan
-		-				C 350 Spt Sedan
-		-				C 55 AMG Spt Sedan
-		-				C 280 Luxury Sedan
-		-				C 350 Luxury Sedan
-		-				SLK 280
-		-				SLK 350
-		-				SLK 55 AMG
						CLK 350 Coupe
						CLK 500 Coupe
						CLK 350 Cab
						CLK 500 Cab
						CLK 55 AMG Cab
						E 350 Sedan
						E 320 CDI Sedan
						E 500 Sedan
						E 55 AMG Sedan
						E 350 Wagon
						E 500 4MATIC Wagon
						E 55 AMG Wagon
						CLS 500
						CLS 55 AMG
						S 350
						S430
						S 500
						S 55 AMG
						S600
						S 65 AMG
		-				SL500
		-				SL55 AMG
		-				SL600
		-				SL65 AMG
						CL500
						CL55 AMG
						CL600
						CL65 AMG
-						ML 350
						ML 500
-						R 350
						R 500



LIGHTING AND WINDOWS

A Light-sensing headlamps

All models feature light-sensing headlamps.



Auto-on headlamp switch, shown in an E-Class

- Headlamps turn on automatically when driving in **darkness** and the **headlamp** switch is set to the "Auto" position.
- A multi-element sensor detects the onset of darkness:
- From above (such as at dusk)
- -By "looking" ahead (as when entering a tunnel)
- Nearly **instant response** is particularly helpful in tunnels and garages.
- Advanced electronic control helps prevent unwanted oversensitivity to shade and shadows.
- * turns on lights in darkness almost instantly
- ★ enhances vision, visibility, convenience and safety



Ambient lighting of door handle, shown in an S-Class

B One-touch turn signals

- The Touch Turn Signal feature flashes a turn signal three times with a single tap of the stalk.
 - * adds convenience to lane changes

• Ambient interior lighting

The beauty of a Mercedes-Benz interior is not lost at night. Low-intensity amber LEDs are strategically placed in most passenger-car cabins to provide the subtle glow of ambient lighting in key locations:

- Lighting turns on automatically in response to detected darkness.
- The center console is illuminated by an LED on the underside of the inside mirror.
- Footwells on SLK, E-Class, CLS, S-Class and SL models, and front footwells on CL, are softly illuminated from within.
- Door handles on E-Class, CLS, S-Class, SL and CL models are all illuminated.
- E-Class models also feature extensive. adjustable overhead lighting.
- SLK, M-Class and R-Class models offer additional optional ambient lighting.
- * enhances passengers' feeling of well-being by preventing them from riding in darkness ★ helps make door handles easier to find



Ambient overhead lighting in an E-Class



D Rain-sensing wipers

Rain-sensing variable intermittent wipers are standard or optional on every model.

- An **infrared sensor**, mounted on the inside of windshield above the mirror. monitors the amount of water on the glass.
- · With the wiper switch in the intermittent setting, the system matches windshield wiper intervals to detected rainfall.
- Wipers sweep only when rain is detected.
- System can pause wipers indefinitely.
- System automatically **pauses** the wipers if a door is opened, restarting them when the car moves off.
- * helps prevent injury or splashing driver

E Express-up/down windows

Most models feature one-touch raising and lowering of the power window in each door. * adds to convenience when parking, or approaching and departing toll booths

- An obstruction sensor reverses a rising window if an obstacle is detected during express-up operation.
- On SLK and CLK cabriolet models, all four windows can be operated without moving the top, by **double-clicking** and holding the retractable top control.
- CLK and CL rear side windows feature express-down only.
- -Coupe rear windows inch forward as they close, to seal with the frameless

FEATURE APPLICATION BY MODEL SEE CHART ON NEXT PAGE. >



Power window controls shown in an ML350

door glass. It is not feasible to provide the "pinch protection" that would be necessary with an express-up feature.

F Advanced window glass

Some models feature glass that is designed to improve comfort by reducing the penetration of noise, heat and radiation.

LAMINATED GLASS ALL AROUND

- · Front. side and rear windows use a "sandwich" construction consisting of:
 - -Two glass panes (inner and outer)
- -A 0.05-mm-thick (0.002") plastic film coated with pure silver and other metal oxides, embedded between two bonding sheets of polyvinyl butyral
- Windshields are up to 6 mm thick.
- ★ helps isolate cabin from ambient noise

INFRARED-REFLECTING WINDOWS

- The **plastic film** in the laminated glass:
 - -Reflects up to 80% of invisible infrared (IR) light
 - -Reduces penetration of UV radiation from the sun into the passenger cabin from 18% to approximately 1%
 - -Reduces thermal radiation through the windshield from 60% to about 47%
 - ★ helps keep interior cooler on warm days
 - * helps protect interior trim from sunlight
- Optional on M-Class for windshield only as part of Appearance Package

FEATURE APPLICATION BY MODEL

STANDARD OPTIONAL - NOT AVAILABLE

- A Light-sensing auto-on headlamps
- **B** Touch Turn Signals
- **C** Ambient interior lighting
- **D** Rain-sensing intermittent wipers
- **E** Express-up/down power windows
- F Advanced window glassG Heated steering wheel
- Darktronic

-11								
Α	В	С	D	Е	F	G	н	MODEL
					-	-	-	C 230 Spt Sedan
					-	-	-	C 350 Spt Sedan
					-	-	-	C 55 AMG Spt Sedan
					-	-	-	C 280 Luxury Sedan
					-	-	-	C 350 Luxury Sedan
					-	-	-	SLK 280
					-	-	-	SLK 350
					-	-	-	SLK 55 AMG
					-	-	-	CLK 350 Coupe
					-	-	-	CLK 500 Coupe
					-	-	-	CLK 350 Cab
					-	-	-	CLK 500 Cab
					-	-		CLK 55 AMG Cab
					-	-		E350 Sedan
					-	-		E 320 CDI Sedan
					-	-		E 500 Sedan
					-	-		E 55 AMG Sedan
					-	-	-	E 350 Wagon
					-	-	-	E 500 4MATIC Wagon
					-	-	-	E 55 AMG Wagon
					-	-		CLS 500
•					-	-		CLS 55 AMG
•								S 350
•								S430
•								S 500
-	-	•	-	•	-	-		S 55 AMG
•								S600
•						-		S 65 AMG
-	-	•	-	•	-	-		SL500
•					-	-		SL55 AMG
•		-		-	•	-		SL600
•		-		-	-	-		SL65 AMG
•								CL500
•						-		CL55 AMG
						•		CL600
						-		CL65 AMG
•					-	-		ML 350
					-	-		ML 500
•					-	-		R 350
					-	-		R 500

COMFORT AND CONVENIENCE OPTIONS

G Heated steering wheel

H Parktronic

Standard or optional on many models is the luxury of a heated steering wheel.

- Activated by twisting a button on the end of the steering-column adjuster stalk
- Warms the **leather-wrapped portions** of the steering-wheel rim
- ★ can warm steering wheel more rapidly than climate control can warm cabin
- ★ enhances comfort in cold conditions



Heated steering wheel, shown in a CL 500



- Sensors in front and rear bumpers help to determine when the car is approaching objects that are in their "line of sight" but might be out of the driver's view.
 - **Six front sensors** monitor an area of up to 31" (at the car's center).
 - Four rear sensors monitor an area of up to 47" to the rear.
- Red and yellow LCD bar-graph indicators



Parktronic display on dash, shown in a CLK-Class

illuminate progressively to indicate the proximity and direction of an obstacle.

- Displays are located on the dashboard and in the rear cabin (usually on the ceiling, and designed to be visible in the rearview mirror).
- When the sensors register an obstacle in the range of 6–8", an **audible signal** alerts the driver.
- Audible signal comes from the general direction of the obstacle (left front, right front, or rear).
- Audible signal increases in frequency as object draws nearer.
- ★ helps driver avoid low-speed impacts
- ★ helps prevent damage to bumpers
- While some competitors offer similar systems, many of them provide rear monitoring only.



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A Tele Aid equipment

Tele Aid uses GPS satellites plus a cellular **link** to provide system subscribers with 24-hour live assistance¹ for a variety of needs and services. Three buttons in the vehicle cabin connect the subscriber:



- **SOS button**: For emergency services
- *i*-button: For information and assistance
- Wrench button: For Roadside Assistance
- Satellite link data helps the Tele Aid response center **determine the current** location of the vehicle.
- * helps emergency response personnel locate car without driver assistance
- Cellular link establishes communication between the response center and the vehicle occupants through a hands-free microphone near the inside mirror.
- -System also transmits the vehicle identification number (VIN) through this cellular connection.
- VIN-matched records at response center automatically display certain information about vehicle, including: -vehicle model and color
 - ★ helps response personnel identify car
- -owner-provided information, including emergency contacts and medical information volunteered by owner during subscription process
- ★ can assist medical response personnel
- As of 2006, all models (except the SLR) use a digital cellular connection with an analog backup.

Tele Aid services

Various services are offered within the telematics packages listed at right.

EMERGENCY SERVICES

- SOS button contacts emergency response center to summon police or paramedics.
- Automatic Collision Notification attempts to establish a connection to the emergency response center if an air bag or ETD deploys.

SECURITY SERVICES

- Stolen Vehicle Recoverv²
- Remote Door Unlock
- Automatic Alarm Notification: With subscriber's consent, response center calls if vehicle antitheft alarm is set off.

DRIVING/VEHICLE-RELATED SERVICES

- Direct connection to Mercedes-Benz Roadside Assistance
- Real-time Traffic Information³
- -Based on vehicle's location along any of up to five regular commutes that owner programs at Owners Online, or within a 5-mile radius of present location
- -Available in over 100 cities -Can be updated every minute
- Voice-delivered Route Assistance³
- Connection to CAC for explanation of vehicle features or their operation
- Dealer Connect: location, appointments

PERSONAL CONCIERGE SERVICES

- · Arrangements for restaurant, hotel, airline or car rental reservations
- Tickets to events or tourist attractions
- · Arrange delivery of flowers or gifts
- Requests via *i*-button or e-mail

Telematics packages

Tele Aid services are bundled into two attractive packages of telematics **services** designed to appeal to the needs and lifestyles of a variety of customers.

BASIC "SECURITY & CARE" PACKAGE Full access to:

- Tele Aid SOS button emergency services
- Automatic Collision Notification
- Mercedes-Benz Roadside Assistance
- Mercedes-Benz information (CAC)
- Stolen Vehicle Recovery
- · Remote Door Unlock service
- Dealer Connect
- Automatic Alarm Notification (as an "opt-in" service) Help operating vehicle features

"LUXURY & CONVENIENCE" PACKAGE

Optional at extra cost.

- Includes all Security & Care services, plus full access to:
- Traffic Information (formerly part of Tele Trek) • Voice-delivered Route Assistance (formerly Tele Trek)
- Personal Concierge
- · Live Personal Assistant
- Proactive recommendations for special occasions
- · Opportunity to take advantage of special offers
- Online Concierge
- Answers via *i*-button, or to e-mail requests
- The Security & Care Package is included with the basic Tele Aid subscription.
- The basic subscription is offered at no charge for the first year on any vehicle with the Tele Aid equipment.
- Please see the Tele Aid Dealer Guide.

1 When equipped with Tele Aid, first year's Tele Aid Security & Care service provided at no additional cost with subscription. Subscription and acquaintance call required for service to be active. System operates only where cellular and GPS coverage are available, and requires adequate power supply.

2 Owner must authorize stolen vehicle tracking with a PIN code and file a police report.

3 Traffic information is based on available broadcast data and is not available in all areas. Route Assistance is limited to available digitized map data which does not include all areas or all routes within an area.

FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL - NOT AVAILABLE

A Tele Aid equipment

Α	MODEL
	C 230 Spt Sedan
	C 350 Spt Sedan
•	C 55 AMG Spt Sedan
	C 280 Luxury Sedan
	C 350 Luxury Sedan
	SLK 280
	SLK 350
	SLK 55 AMG
	CLK 350 Coupe
	CLK 500 Coupe
	CLK 350 Cab
	CLK 500 Cab
	CLK 55 AMG Cab
	E350 Sedan
	E 320 CDI Sedan
	E 500 Sedan
	E55 AMG Sedan
	E350 Wagon
•	E 500 4MATIC Wagon
	E55 AMG Wagon
	CLS 500
	CLS 55 AMG
	S 350
	S430
	S 500
	S 55 AMG
	\$600
	S 65 AMG
	SL500
	SL55 AMG
	SL600
	SL65 AMG
	CL 500
	CL 55 AMG
	CL600
	CL 65 AMG
	ML 350
	ML 500
	R 350
-	R 500

SUBSTANCE AND STYLE OVERVIEW

What makes a Mercedes-Benz legendary?

For virtually its entire 120-year legacy, Mercedes-Benz has been regarded as the maker of some of the world's most desirable automobiles. And while Mercedes-Benz models throughout automotive history conspicuously share the qualities of timelessly beautiful design, remarkable safety engineering, continual innovation and stellar performance, the fact that such a large number of them are still in use today is part of an enduring legacy of quality.

Through the generations, Mercedes-Benz designers have resisted the impulse to follow trends and instead have chosen to continually evolve a rich design tradition that could be considered the face of automotive luxury. New technologies and functional innovations are elegantly integrated—never clumsily added on—through a process which embraces form and function with equal passion. The result is that, throughout the history of the automobile, Mercedes-Benz designs inspire both instant attraction and lasting appeal.

Such is the difference between producing vehicles that are merely luxurious, or safe, or roadworthy—but not all of these—and creating truly memorable, desirable and enjoyable vehicles. At Mercedes-Benz, form and function lead together.

And Mercedes-Benz stands behind every automobile it produces with a comprehensive warranty, the industry's only roadside assistance that lasts for the life of the vehicle, and a thorough network of customer support—from the corporate offices to the dealership.

Today's Mercedes-Benz models are just the latest in a long line of sleek and elegant sedans, practical yet passionate wagons, evocative coupes, coveted sports cars, and versatile SUVs that each convey substance with value, excitement with grace, and performance with poise. Mercedes-Benz invented the car in 1886, and has been reinventing it ever since.



CLS 500 Coupe with optional AMG Sport Package

SUPPORT AND SERVICE

A Roadside Assistance

24-HOUR ROADSIDE ASSISTANCE FOR THE LIFE OF THE VEHICLE

The Mercedes-Benz Roadside Assistance Program was the **first such program** ever provided by a vehicle manufacturer, and it continues to be the only one that remains in effect for the entire **life of the car**.¹



The familiar Roadside Assistance response vehicle

Roadside Assistance is available to **anyone driving a Mercedes**—regardless of its age or mileage. The driver simply needs to:

- Call the Customer Assistance Center (CAC) at 1-800-FOR-MERCEDES, or
- Press the Tele Aid wrench button²
- ♦ MORE TELE AID INFO: TECH GUIDE | P. 52

SIGN AND DRIVE SERVICE

- Roadside Assistance will dispatch a technician to the owner's vehicle to provide these services at no charge:
 Bring some fuel for an empty tank
- Replace a flat tire with the vehicle's inflated spare tire (or attempt reinflation using the vehicle's Tirefit system on E 55 AMG Wagon or pre-2006 models factory-equipped with no spare tire)
 Jump-start a dead battery



OTHER ROADSIDE SERVICES

- A Roadside Assistance technician may also be dispatched to:
 - Attempt minor roadside repairs if they are feasible and safe to attempt at the vehicle location
- Assist a towing service in retrieving the vehicle for delivery to a dealer
- These services may incur charges for parts, labor and towing.

B Warranty-related benefits

MERCEDES-BENZ WARRANTIES

- **48-month/50,000-mile** New Vehicle Limited Warranty, whichever comes first³
- Owner can also purchase a Mercedes-Benz Extended Limited Warranty³ during first year of new-vehicle ownership.
 ** provides additional protection when the*

New Vehicle Limited Warranty expires

TRIP INTERRUPTION BENEFITS

- Reimburses owner up to \$300 per day for documented expenses—for up to 3 days—for meals, lodging and substitute
- transportation, if a **breakdown** covered by the New Vehicle Limited Warranty:
- Occurs more than 100 miles from home,Leaves the Mercedes inoperable or
- unsafe to drive, and -Requires overnight repairs at an authorized Mercedes-Benz Center

c Maintenance benefits

MERCEDES-BENZ MAINTENANCE SYSTEM

The Mercedes-Benz Maintenance System is designed to make it **easy to follow** the vehicle's maintenance schedule.

- Fixed, predictable service intervals:
- -Every 13,000 miles or 1 year for most models⁴
- -Every **10,000 miles or 1 year** for V-12 and AMG models⁴
- Most vehicles alternate Service A and Service B at each interval (see vehicle's Maintenance Booklet).
- ★ makes it simpler to remember when vehicle's next service is due, and what type of service is required
- Makes use of the Maintenance Booklet.
- ★ promotes and provides documentation of vehicle's service history
- ★ enhances vehicle value at resale time
- Vehicle will remind driver, about a month before service is due, via an **automatic display** on the dashboard.
- Display also tells driver which type of maintenance service is due.
- ★ makes it easier for owner to schedule and keep service appointments
- ♦ MORE DISPLAY INFO: TECH GUIDE | P. 49



Maintenance System indicator, shown in an E-Class

MAINTENANCE SYSTEM PLUS

STYLE AND

SUBSTANCE

• Standard on SLK, E-Class, CLS, M-Class and R-Class models

FEATURE APPLICATION BY MODEL

SEE CHART ON NEXT PAGE. >

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• Expanded version of Maintenance System that also monitors **brake-pad wear**

MERCEDES-BENZ SERVICE WELCOME

- Designed to encourage owners to **obtain proper care** from their Mercedes-Benz Center's Service Department.
- Includes **no-charge first visit** between 1,000 and 3,000 miles:
- Dealer performs **diagnostic check** and addresses any questions owner might have.
- Dealer also performs first tire rotation at no charge anytime before 6,500 miles⁵ on models with four same-size tires.
 - On models with staggered-width wheels and tires, dealer inspects tire inspection and sets inflation pressure.

MORE INFO ON STAGGERED-WIDTH WHEELS AND TIRES: TECH GUIDE | P. 10

1 Roadside Assistance repairs may involve charges for parts, service and towing. Depending on the circumstances, these services may be provided by an outside service, courtesy of Mercedes-Benz Roadside Assistance.

2 When equipped with Tele Aid, first year's Tele Aid Security & Care service provided at no additional cost with subscription. Subscription and acquaintance call required for service to be active. System operates only where cellular and GPS coverage are available, and requires adequate power supply.

3 Dealer can provide customer with warranty details as well as for terms, conditions and pricing for extended limited warranty options.

4 Whichever comes first. Requires use of 229.5-spec oil and high-performance fleece oil filter. Driver is responsible for monitoring fluid levels and tire pressures between service visits. See Maintenance Booklet for details.

- 5 Follow tire manufacturer's recommendations.
- 6 Not including CL-Class, due to hybrid body construction. 7 Delayed introduction on M-Class.

FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL - NOT AVAILABLE

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- Α **Roadside Assistance**
- R Warranty-related benefits
- С Maintenance benefits
- D Control Area Network
- **Durability measures** E.
- Nanoparticle clearcoat paint E.



QUALITY, RELIABILITY AND DURABILITY

D Control Area Network

E Durability

Numerous design, engineering and

A sampling of them is listed below.

is electrogalvanized with zinc.

arches, floorpan and A-pillars.

-A-pillars are sealed by hand.

BODY CONSTRUCTION

Seams and crimped body parts are

CORROSION PROTECTION

manufacturing approaches contribute to the

• Up to 100% of the body (varies by model)

sealed with polyvinyl chloride (PVC) to

• **Monocoque** design incorporates body

and frame in the same sheet metal.

★ extremely strong body for its weight

· Sheet metal is mostly rolled or stamped

help prevent corrosion-especially wheel

legendary durability of a Mercedes-Benz.

The Control Area Network (CAN) is a highspeed information-carrying network

(also known as a databus) that connects the various electronic control units (ECUs) of the vehicle. Two core networks exist in each vehicle, with these networks linked to each other.

CAN DATABUS "A"-POWERTRAIN

- Links the ECUs for such systems as: -Fuel injection and ignition
- -Cruise control
- -Automatic transmission
- -Traction and stability control
- ★ allows information from sensors to be shared by the ECUs, enabling nearly instantaneous adjustments to related system settings as necessary
- ★ helps improve performance and efficiency

CAN DATABUS "B"-VEHICLE SYSTEMS

- Links the ECUs for such systems as:
- -Climate control
- -Lighting
- -Instrumentation
- -Audio and navigation
- * allows systems to share information to provide automatic features or to optimize effectiveness of individual features
- Examples of features interacting via CAN:
- -SL climate control that monitors soft top and window positions
- -Auto-dimming mirrors that cancel dimming when an interior light is on
- -Rear-window wiper that turns on as the driver shifts into Reverse while the front wipers are on
- -Automatic lamp substitution (see p. 22)

< See preceding page for footnotes.

in multiple steps. * enhances strength and surface integrity • High-strength/low-alloy (HSLA) steel -Up to three times stronger than lower-

- carbon steel of the same dimensions -Used in 33-62% of body (by weight⁶)
- ★ increases overall body rigidity
- ★ strongly supports chassis systems
- Molded plastic underbody panels
- ★ help protect entire underside of body from corrosion

ELECTRICAL CONNECTORS

- Some connections are silver-plated.
- ★ provides excellent conductivity
- Sealing rings
- * help keep moisture and dirt out
- Connectors interlock
- help prevent loosening due to vibration

F Nanotechnology paint

NANOPARTICLE CLEARCOAT

- Innovative clearcoat with microscopic ceramic particles, 0.000001 mm each
- Standard on all models⁷ for 2006
- Over 4 years in development and testing

★ helps to better resist fine swirls/scratches, chemical damage and environmental damage

★ provides more durable, longer-lasting gloss, especially for darker colors

- · Phosphating: The body is sealed in an extremely fine zinc phosphate coating.
 - ★ helps sheet metal resist corrosion
- · Cataphoretic dip priming: Entire body is submerged in tank of water-based paint.
 - -Coats body and cavities, with body and dip tank oppositely charged
 - ★ helps shield against corrosion
- laver, 0.025 mm thick
- to body and promote even surface
- resist small stone chipping
- organic-solvent layer, 0.015 mm thick -Contains pigment, plus tiny aluminum
- flakes for metallic colors
- -Electrostatically charged to attract paint to body and promote even surface
- Nanoparticle clearcoat: 0.04-mm-thick clear lacquer with ceramic nanoparticles provides deep gloss and high durability.
- ★ cross-linked particles more resistant to acid rain, tree resin, bird droppings, etc.
- ★ super-hard finish better resists fine

scratches and damage from stone chips, abrasion, sunlight and temperature extremes

PAINT PROCESS

- Filler: Water-based, low-organic-solvent
- -Electrostatically charged to attract filler
- ★ helps to even out metal surfaces and
- · Base color coat: Water-based, low-

DESIGN AND STYLE

A designo editions

Many models offer expressive designo editions that combine exclusive colors with unique, hand-selected interior materials that are matched by the trained eye of *designo* artisans.

- *designo* editions are **optional** on most model lines, and usually require additional options such as heated seats.
- ♦ MORE INFO: SEE CLASS GUIDES

designo EDITION ELEMENTS

- Exclusive designo paint colors
- designo Nappa leather upholstery, in several exclusive colors, usually with the designo logo embossed into the front seats or head restraints
- Exclusive designo wood trim, matched by eye for harmony of grain and color
- designo floor mats, edged in leather
- · Wood and leather trimmed steering wheel and shift knob

-Except SLK-Class and AMG models



SL 500 designo Silver Edition



S-Class designo Espresso Edition interior

B Retractable hardtops

Their signature retractable hardtops are what make the SLK and SL-Class not just convertibles but **coupe/roadsters**, with:

- The security and all-season comfort of a closed, pillarless coupe
- The fun-loving freedom of an open roadster at the touch of button

Mercedes-Benz has produced more cars with retractable hardtops than anyone else.

Benefits over conventional soft tops include:

- ★ reduced cabin noise with the top up
- ★ superior protection from cold weather
- ★ enhanced theft deterrence
- The CLK-Class Cabriolets feature a 3-laver **insulated cloth soft top** that also provides all-season comfort, superior noise insulation and a glass rear window.





SL-Class top-down sequence

RETRACTABLE HARDTOP MECHANISMS

The mechanisms that operate the hardtops involve a sophisticated network of precisely synchronized electric latches and motors.

- · Roof made of steel or aluminum and glass
- Raised or lowered by holding a single button on console, or remotely from outside the car via SmartKey (see p. 34).
 - -Interior control illuminates and flashes during raising or lowering process.
 - -Flashing stops and/or chime sounds to indicate process is complete.
- Trunk lid is double-hinged:
- -Opens at the rear for trunk access
- -Opens at front to allow top operation

OPERATING SEQUENCE

- When the top begins to lower, the leading edge of the trunk lid unlatches from its anchors near the base of the rear window, then hinges back over the rear bumper (some clearance is required).
- The latch mechanisms that anchor the roof to the windshield header unfasten.
- Motors lift the roof assembly rearward and upward slightly.
- As the top lowers, the rear window pivots on its anchor points on the C-pillars.
- ★ minimizes cargo space lost to the stowed and folded hardtop in the trunk
- Once the roof is completely stowed, the trunk lid returns to its original position and latches securely.
- With the top stowed, each design offers:
- **clean appearance**, with the hardtop completely concealed and no "stack" -enough retained cargo space in the trunk to fit two golf bags



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Mercedes-Benz offers "all-glass" Panorama roof designs on three of its model lines:

FEATURE APPLICATION BY MODEL

STYLE AND

SUBSTANCE

- F-Class Sedans
- SL-Class Coupe/Roadsters
- R-Class Grand Sport Tourers

Panorama roofs offer a **feeling of openness** rivaled only by convertibles, with the allweather security of a rigid roof structure.



Panorama roof in an E-Class sedan

E-CLASS AND R-CLASS DESIGNS

- Tinted glass panels create a continuous glass surface from the windshield to the rear window.
- The front panel opens by sliding over the rear panel, while a wind deflector deploys automatically.
- ★ offers a breeze with minimal turbulence
- Power retractable sunshades are included.
 - ★ help block out excessive heat and glare

SL-CLASS DESIGN

- Replaces standard hardtop
- Tinted glass panel above the seats
- Manually retractable internal sunshade
- Panorama roof retracts and stows in the trunk in the same way as the standard hardtop.

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FEATURE APPLICATION BY MODEL

■ STANDARD □ OPTIONAL − NOT AVAILABLE

- **A** designo editions
- **B** Retractable hardtop
- **c** Panorama glass roof
- **D** Pillarless hardtop coupe design
- **E** Hand-fitted upholstery



D Pillarless hardtop coupes

The pillarless hardtop roof designs of the **CLK-Class and CL-Class** coupes achieve the graceful appearance and airiness that is only achievable with **no visible B-pillars**.

- It is a defining look, as Mercedes-Benz is the only manufacturer with at least one pillarless coupe bodystyle in production continuously since the 1960s.
- Highlights include four retractable side windows, outlined by a dynamic sweeping arc that forms the stylish roofline.

ENGINEERING+PASSION=PILLARLESS

Despite the absence of traditional B-pillars, the CLK and CL coupes offer **excellent structural integrity** and high levels of **rollover and side-impact protection**, thanks to extensive engineering expertise. Coupe structural enhancements include:

- Reinforced partial B-pillars
- Reinforced roof structures
- Comprehensive restraint systems



CL-Class body structure



CLK 350 Coupe

E Premium interiors

The rich **interior materials** used in each Mercedes-Benz model reflect the premium position of the brand.

HAND-FITTED UPHOLSTERY

All Mercedes-Benz upholstery—from the cloth in a base ML 350 to the richest Exclusive Nappa leather in an S600—is carefully fitted to the seats by hand.

A MERCEDES UPHOLSTERY GLOSSARY

- Cloth: Fabric with M-B Tex trim (M-Class)
- Leather front seating inserts: M-B Tex upholstery with genuine leather inserts on the front seats
- **M-B Tex** is a comfortable, durable and remarkably leather-like vinyl.
- **Premium leather**: Leather on all seat surfaces, including the side and rear panels and head restraints, plus the door trim inserts
- Nappa leather: Ultrapremium leather known for its naturally smooth grain and glove-soft feel
- Exclusive Nappa leather: Full interior treatment with additional leather on the doors, dash and rear shelf
- designo Nappa leather: Individually

selected for each vehicle to assure uniform color and grain (see item A at far left)

OTHER INTERIOR MATERIALS

- Wood trim is hand-polished and finished in a protective, high-gloss lacquer.
- -The CLS also offers **Matte Burl Walnut** wood with a satiny low-sheen finish.
- -Wood trim is laminated with a **layer of aluminum** in selected areas.
- ★ helps resist splintering in an impact
- -All wood comes from managed forests and farms. None is endangered.
- Aluminum trim is offered on some sport models, for a modern, high-performance appearance. Several types are available.
- Alcantara is a simulated suede used for:
- Seat inserts of some AMG models and M-Class/R-Class Appearance Packages
- Ceiling and pillar trim of the V-12 models and some *designo* editions.
- ★ offers the feel and appearance of genuine suede with superior durability and ease of maintenance
- Nubuck is a soft, sanded leather with a natural finish used on some AMG models.

MORE INTERIOR INFO: SEE CLASS GUIDES



CL600 Coupe

Questions or comments on the Presentation Guides for 2006? Please contact John Zupancic at john.zupancic@mbusa.com

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