



Introduction of SL-Class Model Refinement and Launch of New SL 63 AMG Model Series 230

Introduction into Service Manual



Mercedes-Benz

Introduction of SL-Class Model Refinement and Launch of New SL 63 AMG Model Series 230

Introduction into Service Manual

Ordering workshop information

All printed workshop information from GSP/TI, such as Introduction into Service Manuals, System Descriptions, Function Descriptions, Technology Guides, Technical Data Manuals and adhesive labels, can be ordered as follows:

In Germany

Through our GSP/TI Shop on the Internet

Link: <http://gsp-ti-shop.daimlerchrysler.com>

or alternatively

Email: customer.support@daimler.com

Phone: +49-(0)18 05/0 10-79 79

Fax: +49-(0)18 05/0 10-79 78

Outside Germany

Please get in touch with the contact person responsible for your market.

Product Portfolio

Comprehensive information about our full Product Portfolio can also be found at our Internet Portal.

Link: <http://open.aftersales.daimler.com>

Questions and suggestions

If you have any questions or suggestions concerning this product, please write to us.

Email: customer.support@daimler.com

Fax: +49-(0)18 05/0 10-79 78

or alternatively

Address: Daimler AG

GSP/TIS

HPC R822, W002

D-70546 Stuttgart

© 2008 by Daimler AG

This document, including all its parts, is protected by copyright.

Any further processing or use requires the previous written consent of Daimler AG, Department GSP/TIS, HPC R822, W002, D-70546 Stuttgart.

This applies in particular to reproduction, distribution, alteration, translation, microfilming and storage and/or processing in electronic systems, including databases and online services.

Image no. of title image: P00.01-3568-00

Order no. of this publication: 6516 1359 02

02/08

Preface	7
----------------	---

Overview

Standard models and major assemblies	8
Brief description of standard models	9
AMG models and major assemblies	10
Brief description of AMG models	11
Equipment of standard models	12
Equipment/retrofit items of standard models	17
Equipment of AMG models	18

Overall vehicle

Exterior of standard models	20
Exterior of AMG models	23
Dimensions of standard models	26
Dimensions of AMG models	28
Technical data - dimensions	30
Technical data - dimensions and weight	32
Interior	34
Safety concept	42
Maintenance	46

Drivetrain

Technical data of engine	48
Engine M272 in SL 280	50
Engine M272 in SL 350	52
Engine M156 in SL 63 AMG	54
Cooling system in SL 63 AMG	60
Cooling system in SL 65 AMG	63
Exhaust system	64
Fuel system of standard models	66
Fuel system of AMG models	68
Technical data of transmission	70
7-speed automatic transmission	72
SPEEDSHIFT MCT sport transmission in SL 63 AMG	73
AMG DRIVE UNIT in SL 63 AMG	79
RACE START function in SL 63 AMG	81

Chassis

Active Body Control (ABC)	86
Axles on AMG models	87
Rear axle differential	89
Wheels/tires	90
Steering	93
Brake system	95
3-stage ESP on SL 63 AMG	96
Technical data of brake system	100

Body

Networking	102
On-board electrical system	106
Instrument cluster	108
Exterior lights	113
Outside mirrors	120
Convenience feature	121
PARKTRONIC	122
Audio and communications systems	124
Climate control	146
AIRSCARF	150
Body	153

Special tools

General 156

Abbreviations 157

Index 160

Dear reader,

This Introduction into Service Manual presents the refined SL-Class models and the newly launched SL 63 AMG of model series 230.

The purpose of this brochure is to acquaint you with the technical highlights of these refined vehicle models in advance of their market launch.

This brochure is intended to provide information for people employed in service, maintenance and repair as well as for aftersales staff. It is assumed here that the reader is already familiar with the Mercedes-Benz model series currently on the market.

In terms of the contents, the emphasis in this Introduction into Service Manual is on presenting new and modified components and systems.

This Introduction into Service manual is not intended as an aid for repairs or for the diagnosis of technical problems. For such needs, more extensive information is available in the Workshop Information System (WIS) and in the Diagnosis Assistance System (DAS).

WIS is updated monthly. Therefore, the information available there reflects the latest technical status of our vehicles.

The Introduction into Service Manual presents initial information relating to the refined SL-Class models and the newly launched SL 63 AMG of model series 230 and, as such, is not stored in WIS. The contents of this brochure are not updated. No provision is made for supplements.

We will publicize modifications and new features in the relevant WIS documents. The information presented in this Introduction into Service Manual may therefore differ from the more up-to-date information found in WIS.

All information relating to technical data, equipment and options is valid as of the copy deadline in February 2008 and may therefore differ from the current production configuration.

Daimler AG

Technische Information und Werkstatteinrichtung
(GSP/TI)

Note

Information about the vehicle and about operating the vehicle functions can also be found in the interactive owner's manual on the Internet at:

www.mercedes-benz.de/betriebsanleitung

Standard models and major assemblies

R 230 Market launch 04/2008	Model	Engine	Automatic 5-speed transmission	Automatic 7-speed transmission
SL 280	230.454	272.949	–	722.999
SL 350	230.458	272.968	–	722.904
SL 500	230.471	273.965	–	722.904
SL 600	230.477	275.954	722.649	–

R 230 USA Market launch 05/2008	Model	Engine	Automatic 5-speed transmission	Automatic 7-speed transmission
SL 550	230.471	273.965	–	722.904
SL 600	230.477	275.954	722.649	–



Model refinement shown on SL 350

P00.00-4190-00

Brief description of standard models

Vehicle concept

With the new generation of model series 230, the customer receives a vehicle with greater sportiness, more agility, an enhanced design, an even higher quality appearance and a new telematics generation.

This is achieved with a fully redesigned front section, new light alloy wheels, a new rear design and a newly accentuated interior.

With the new telematics generation 2.5, the model refinement (MOPF) of model series 230 features a new control and display concept as well as new functions based on the systems of model series 204, 216 and 221.

Although the display and the controls are separated from each other on these model series, they are still located together in the COMAND controller unit with the new telematics generation 2.5 in model series 230.

Innovations

- New body styling
- New design of lamp units
- Intelligent Light System: bi-xenon headlamps with dynamic curve illumination, motorway light, cornering illumination and extended fog light function
- New Telematics Generation 2.5
- DAB radio (GB version)
- SDAR radio of 3rd generation (USA version)
- New design of light alloy wheels
- Larger and redesigned outside mirrors
- New convenience feature (USA version)
- Parktronic system with new sensors and more advanced control unit
- New direct steering special equipment (SA)
- New AIRSCARF head area ventilation (SA)
- New entry-level engine in SL 280
- New sport engine in SL 350
- 3-spoke multifunction steering wheel
- Redesigned instrument cluster with new functions
- New AC control and operating unit
- Ventilated glove box

Dimensional concept

The stylistic changes to the front of the vehicle that were made as part of the model refinement of model series 230 slightly change the length measurements and overhang angle at the front. The vehicle width has increased due to the new, larger outside mirrors.

The dimensional changes listed below refer to the ECE version standard model.

Dimensions	Unit	R 230 SL 600 (previous)	R 230 SL 600 (MOPF)	Difference
Vehicle length	mm	4532	4562	+30
Vehicle width across outside mirrors	mm	2033	2069	+36
Front overhang angle	°	13.2	12.5	-0.7

AMG models and major assemblies

R 230 AMG Market launch 04/2008	Model	Engine	Automatic 5-speed transmission	Automatic 7-speed transmission
SL 63 AMG	230.470	156.981	–	722.930
SL 65 AMG	230.479	275.981	722.649	–

R 230 AMG USA Market launch 06/2008	Model	Engine	Automatic 5-speed transmission	Automatic 7-speed transmission
SL 63 AMG	230.470	156.981	–	722.930
SL 65 AMG	230.479	275.981	722.649	–



New SL 63 AMG and model refinement of SL 65 AMG

P00.10-4412-00

Brief description of AMG models

Vehicle concept of AMG models

As part of the model refinement of model series 230, the AMG models also feature a new appearance based on that of the standard models.

These top of the range models feature a new and exclusive AMG design both on the inside and outside. Like the standard models, the AMG models are equipped with the new telematics generation 2.5.

New SL 63 AMG

With the model refinement, the AMG 6.3-liter naturally aspirated V8 engine is now also available in the SL-Class and replaces the AMG 5.5-liter V8 Kompressor engine.

The new SL 63 AMG impresses with its significantly larger displacement and the associated increase in output compared to the predecessor SL 55 AMG model. The SL 63 AMG is unmistakable thanks to the "6.3 AMG" logos on the fender air outlets.

SL 65 AMG

The SL 65 AMG is equipped with the tried and tested AMG 6.0-liter V12 BITURBO engine and, like the standard models of model 230, its appearance has been redeveloped. The engine output of the top of the range SL-Class model has been retained.

The SL 65 AMG is unmistakable thanks to the "V12 BITURBO" logos on the fender air outlets.

Innovations of AMG models

The innovations of the AMG models consist of specific enhancements of the technology and design of the refined standard models.

- New AMG body styling
- New AMG interior styling
- New lamp units with darkened design
- New AMG design of light alloy wheels
- Instrument cluster with new AMG design and new functions
- Modified engine cooling system
- New suspension tuning
- New AMG performance steering wheel (SA)

New SL 63 AMG:

- New AMG SPEEDSHIFT MCT 7-speed sport transmission with positive torque function for downshifting
- New start-up clutch in transmission
- New AMG DRIVE UNIT and new functions for individual vehicle set-up
- New 3-stage ESP
- New RACE START function



P88.10-2209-00

Identifying feature of SL 63 AMG



P88.10-2210-00

Identifying feature of SL 65 AMG

Equipment of standard models

	SL 280	SL 350	SL 500	SL 600	SL 550 USA	SL 600 USA
Drivetrain						
Automatic 5-speed transmission Code (423)	–			Standard	–	Standard
Automatic 7-speed transmission Code (427)	Standard			–	Standard	–
Automatic 7-speed sport transmission Code (427)	SA			–	SA	–
Chassis						
Steel suspension	Standard			–		
Active Body Control (ABC) Code (487)	–	SA		Standard		
Steering						
Direct steering Code (213)	SA					
Leather-trim steering wheel and selector lever	Standard			–	Standard	–
Steering wheel in leather/wood finish Code (289)	SA			Standard	SA	Standard
Wheels, tires and light alloy wheels						
Light alloy wheel with 5-spoke design Code (644)	Standard	–				
Light alloy wheel with 5-double-spoke design Code (R48)	SA	Standard	–			



Equipment of standard models

	SL 280	SL 350	SL 500	SL 600	SL 550 USA	SL 600 USA
Wheels, tires and light alloy wheels						
Light alloy wheel with 5-spoke design Code (R31)	SA		Standard	SA	–	
Light alloy wheel with 5-spoke design Code (R32)	–				Standard	SA
Light alloy wheel with 10-double-spoke design Code (R99)	–			Standard	–	Standard
Light alloy wheel (Evolution) with 5-double-spoke design Code (22R)	SA				–	
Light alloy wheel (Evolution) with 5-double-spoke design Code (R17)	SA				–	
AMG light alloy wheel with 5-spoke design Code (770)	SA					
Safety/locking system						
Seat occupied recognition on front passenger seat	Standard				–	
Automatic child seat recognition (ACSR)	Standard				–	
Weight sensing system (WSS)	–				Standard	
Kneebag (driver)	–				Standard	
KEYLESS GO Code (889)	SA			Standard	SA	Standard

Equipment of standard models

	SL 280	SL 350	SL 500	SL 600	SL 550 USA	SL 600 USA
Climate control						
AIRSCARF Code (403)	SA					
Light systems						
Bi-xenon headlamps Code (614)	Standard				–	
Asymmetric bi-xenon headlamps Code (618) (RHD vehicles)	Standard				–	
Bi-xenon headlamps with dynamic curve illumination without motorway lights Code (615) (LHD vehicles)	–				Standard	
Intelligent Light System with bi-xenon headlamps Code (621) (LHD vehicles) Code (622) (RHD vehicles)	SA				–	
Equipment lines/variants						
AMG styling* Code (772)	SA					
Sport package USA Code (951)	–				SA	
Sport package ECE* Code (952)	SA			–		
* Special equipment with a detailed description at the end of the equipment list for standard models						



Equipment of standard models

	SL 280	SL 350	SL 500	SL 600	SL 550 USA	SL 600 USA	
Comfort systems							
Heated windshield washer system Code (875)	SA						
Telephone, audio and communications systems							
Telephone preinstallation (Bluetooth) Code (386)	SA			Standard	–		
Telephone preinstallation (Bluetooth) Code (389)	–				SA		
TELE AID emergency call system Code (359)	–				Standard		
COMAND NTG 2.5 Code (528)	Standard			–	–		
COMAND APS NTG 2.5 Code (512)	SA			Standard	Standard		
COMAND APS NTG 2.5 Code (527) (Japan version)	–	Standard				–	
Satellite Digital Audio Radio (SDAR) Code (536)	–				Standard		
Digital Audio Broadcasting (DAB) radio operation (only GB) Code (537)	SA				–		

Equipment of standard models

i Note

The special equipment options listed do not cover all of the equipment available for model 230. Emphasis has been given to listing equipment options whereby the refined model differs from the previous model 230.

AMG styling, code (772)

The AMG styling special equipment for the standard model incorporates the following changes to the exterior:

- AMG front apron
- AMG side skirt trim
- AMG rear apron



P00.00-4211-00

Standard SL 350 model with AMG styling



Equipment/retrofit items of standard models

Sport package ECE, code (952)

The sport package available for ECE vehicles as special equipment includes the following changes to the interior and exterior:

Interior

- Steering wheel and selector lever with perforated leather
- Silver-colored contrast seams on seats, steering wheel, instrument panel, center console, armrest, selector lever and door linings (also in rear compartment with exclusive Nappa leather).
- Trim made of prism aluminum
- Inner headliner made of black material
- Velour floor mats with black border and silver contrast seam

Exterior

- 19" light alloy wheels with double-spoke design
FA: 8.5J x 19H ET 35, tire size 255/35 ZR 19Y
RA: 9.5J x 19H ET 40, tire size 285/30 ZR 19Y
- Wheel hub cover with star and laurel wreath
- Painted front brake calipers with Mercedes-Benz logo
- Perforated rear brake disks
- Darkened xenon headlamps
- Darkened taillamps
- Automatic 7-speed sport transmission incl. steering wheel shift buttons
- Sport air filter for an even sportier engine sound (only for SL 350)

	SL 280	SL 350	SL 500	SL 600	SL 550 USA	SL 600 USA
Retrofit items (special equipment)						
Steering wheel in leather/wood finish Code (289)		SA		Standard	SA	Standard
COMAND APS NTG 2.5 Code (512)		SA		Standard	Standard	

Equipment of AMG models

Special equipment

Exclusive special equipment and the AMG performance package are optionally available for the SL 63 and SL 65 AMG vehicles. The components developed in the AMG Performance Studio improve vehicle dynamics even further and can be supplied for all new AMG models.



AMG performance steering wheel in SL 63 AMG P46.10-2965-00

AMG performance package, code (P30)	SL 63 AMG	SL 65 AMG
AMG performance suspension: Consisting of new shock absorbers on front and rear axle with modified characteristics	X	—
AMG locking differential: Consisting of a mechanical, asymmetric multidisk clutch with a locking factor of 40%	X	Standard
AMG composite brake system: Consisting of internally ventilated and perforated composite brake disks on front axle, format 390 x 36 mm	X	Standard
AMG light alloy wheel with 5-double-spoke design	X	Standard
AMG performance steering wheel with leather trim	X	X

Equipment of AMG models

Special equipment	SL 63 AMG	SL 65 AMG
Drivetrain		
Locking differential (HAG 215 FE-V) Code (471)	SA	Standard
AMG driver's package Code (250) ECE version (Vmax. = 300 km/h) Code (251) USA version (Vmax. = 186 mph)	SA	
Chassis		
AMG performance suspension Code (486)	SA	–
Steering		
AMG performance steering wheel Code (281)	SA	
Wheels, tires and light alloy wheels		
AMG light alloy wheel with 5-triple-spoke design Code (797)	Standard	–
AMG light alloy wheel with 5-double-spoke design Code (793)	SA	Standard
AMG light alloy wheel with 5-spoke design Code (770) (except USA version)	SA	
Comfort		
AMG exterior carbon package Code (773)	SA	
AMG carbon trim Code (H73)	Standard	
AMG illuminated door sills Code (U25)	SA	
AMG floor mats Code (U26)	SA	

Exterior of standard models

Front view of standard models

The refined models of the SL-Class are characterized by:

- A wider radiator grille with a chrome slat running across it horizontally
- A more pointed front section with the horizontal separation between radiator grille and bumper removed
- Air inlets in the radiator grille and bumper in a diamond-pattern design
- A bumper without protective strips
- An engine hood with "powerdomes" to make it appear even longer
- Larger outside mirrors with newly designed turn signal indicators

With its more pronounced taper and accentuated width, the front end makes an even more impressive and commanding impression than the predecessor model.

The newly designed lamp units make an important contribution to this appearance. They consist of main and additional headlamps combined under a shared clear glass cover, clearly differentiating this vehicle from the dual headlamp look of the predecessor model.



Front view shown on SL 350

P00.10-4331-00



Rear view of standard models

The rear section has retained the familiar lines of the SL-Class. Its very sporty appearance has been enhanced even further by the following style elements:

- Taillamps drawn out far towards the front of the vehicle, thereby visually shortening the rear end
- A redesigned bumper with diffuser styling between the two exhaust tailpipes
- Chrome-plated exhaust tips in a trapezoidal design

The rear view is dominated by the characteristic Mercedes V-shaped lines of the trunk lid and the powerful bumper. The sporty and forceful rear end is rounded off by two cutouts in the bumper for the exhaust tailpipes.

On the top-of-the-line model, the SL 600, each of the exhaust tips also features a center bar splitting it in two.



P00.10-4332-00

Rear view shown on SL 350

Exterior of standard models

Side view of standard models

The body lines of the refined SL-Class models slope upwards towards the rear of the vehicle and they combine with the arched, smooth-surfaced roof contour to give the vehicle a very dynamic and elegant appearance.

The swage line in the front fender visually lengthens the SL-Class vehicles.

The familiar air inlets in the fenders have been restyled to round off the side view attractively.

With its flat silhouette, dynamically flowing side lines, wheel arches extending out distinctively from the body and large light alloy wheels, the vehicle conveys an overall impression which is both muscular and sporty.

On the SL 600, the air inlets are painted in a dull silver tone and the "V12" logo has been applied to the front fenders.

USA version vehicles are instantly recognizable by the additional side markers on the left and right of the front skirt.



USA version

P40.10-5172-00



Side view shown on SL 600 (ECE version)

P00.10-4333-00



Front view of AMG models

The AMG models of the SL-Class feature a distinctive front skirt with large air inlets and the AMG-specific radiator grille.

With its wide front fenders and an engine hood that incorporates an impressive "powerdome", the front end has obvious racing characteristics.

The AMG models are also characterized by their darkened headlamps, which are also available with the Intelligent Light System as a special equipment option.



P00.10-4408-00

Front view shown on SL 63 AMG (ECE version)

Exterior of AMG models

Rear view of AMG models

The rear end is unmistakably AMG with the AMG Sport exhaust system, the extremely sporty rear apron, the wide rear fenders and the rear spoiler.

The AMG-specific taillamps are darkened and, in combination with the chrome-plated dual tailpipe exhaust system, provide a very sporty rear appearance.



Rear view shown on SL 63 AMG (ECE version)

P00.10-4409-00

Side view of AMG models

The dynamic side design of the AMG models leaves a very powerful impression which is realized by the large wheel cutouts housing exclusive AMG light alloy wheels and the particular emphasis placed on the AMG high-performance brake system.

The distinctive profile of the AMG models is further enhanced by the AMG-specific air outlets in the front fenders and the continuation of the longitudinal member panel with its perfect transition to the rear apron.

The enormous power of the AMG models is further underlined by the "6.3 AMG" logo on the front fender of the SL 63 AMG and the "V12 BITURBO" logo on the SL 65 AMG.

USA version vehicles are instantly recognizable by the additional side markers on the left and right of the front skirt.



USA version

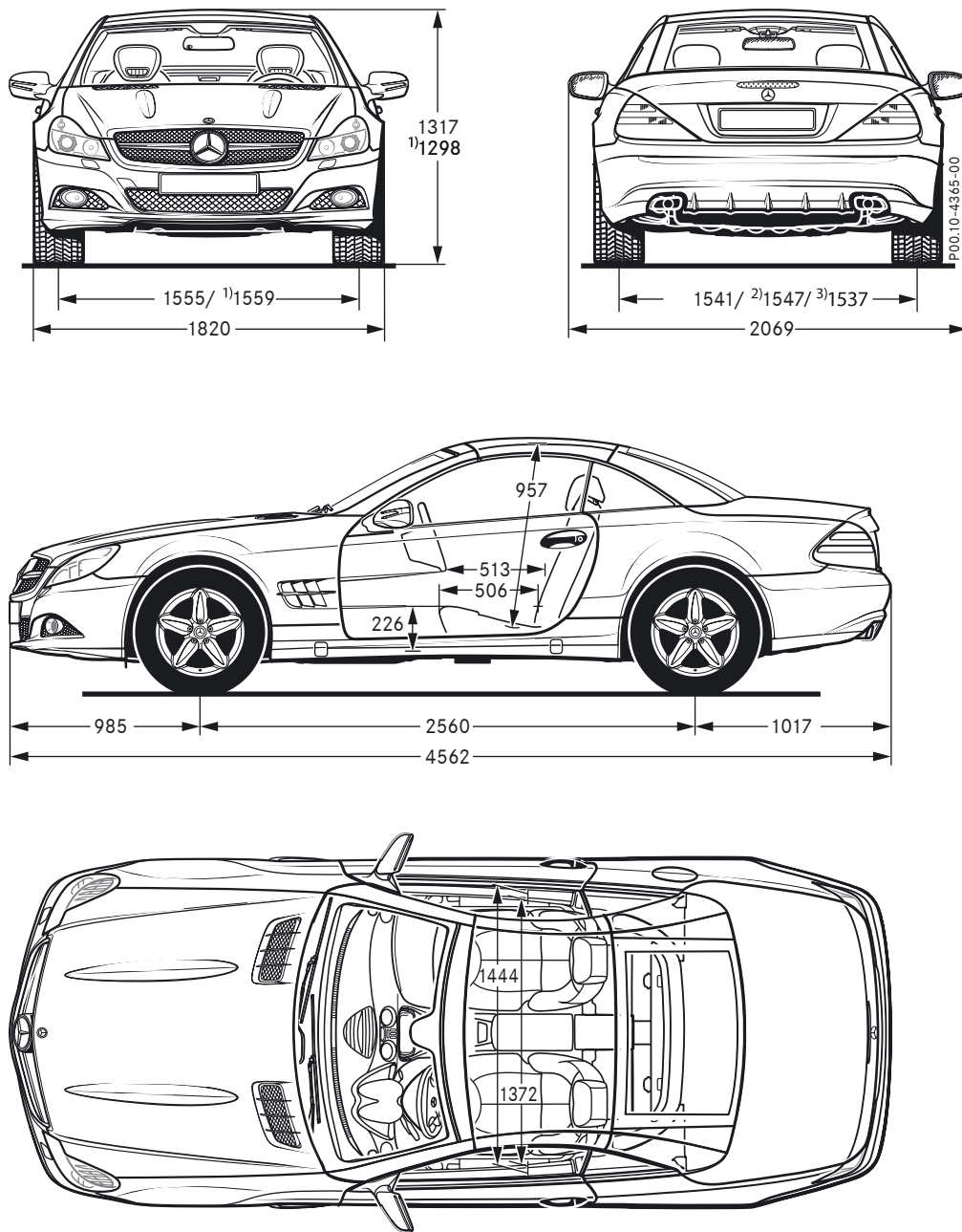
P00.10-4411-00



Side view shown on SL 63 AMG (ECE version)

P00.10-4410-00

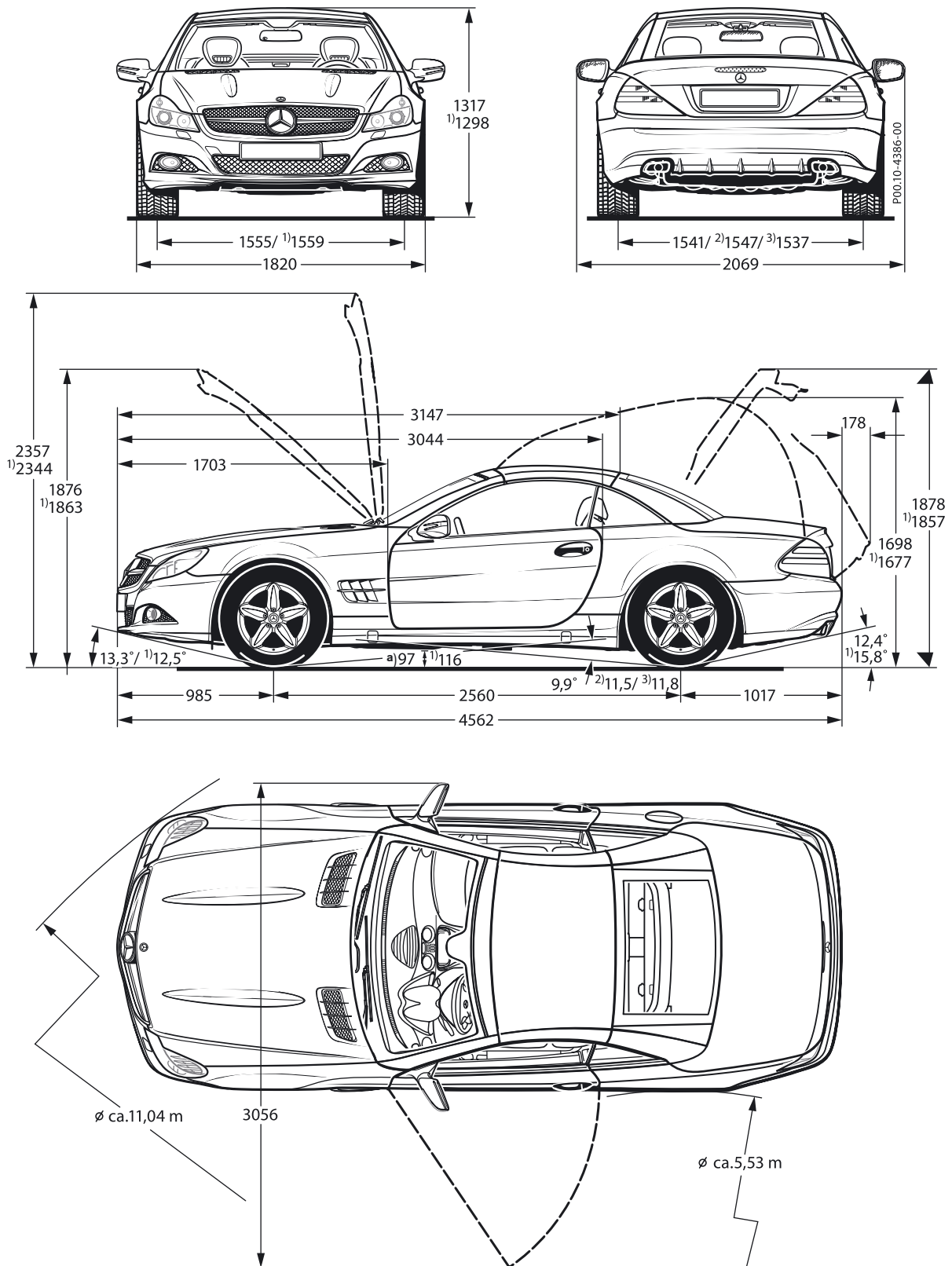
Dimensions of standard models



Vehicle dimensions for models SL 280/350/500/550/600 shown on SL 350

Dimensions without license plate adapter (4 mm)
 Dimensions unloaded

- ¹⁾ SL 500/550/600 only
- ²⁾ SL 500 only
- ³⁾ SL 550/600 only



Vehicle dimensions (garage dimensions) for models SL 280/350/500/550/600 shown on SL 350

Dimensions without license plate adapter (4 mm)

Dimensions unloaded

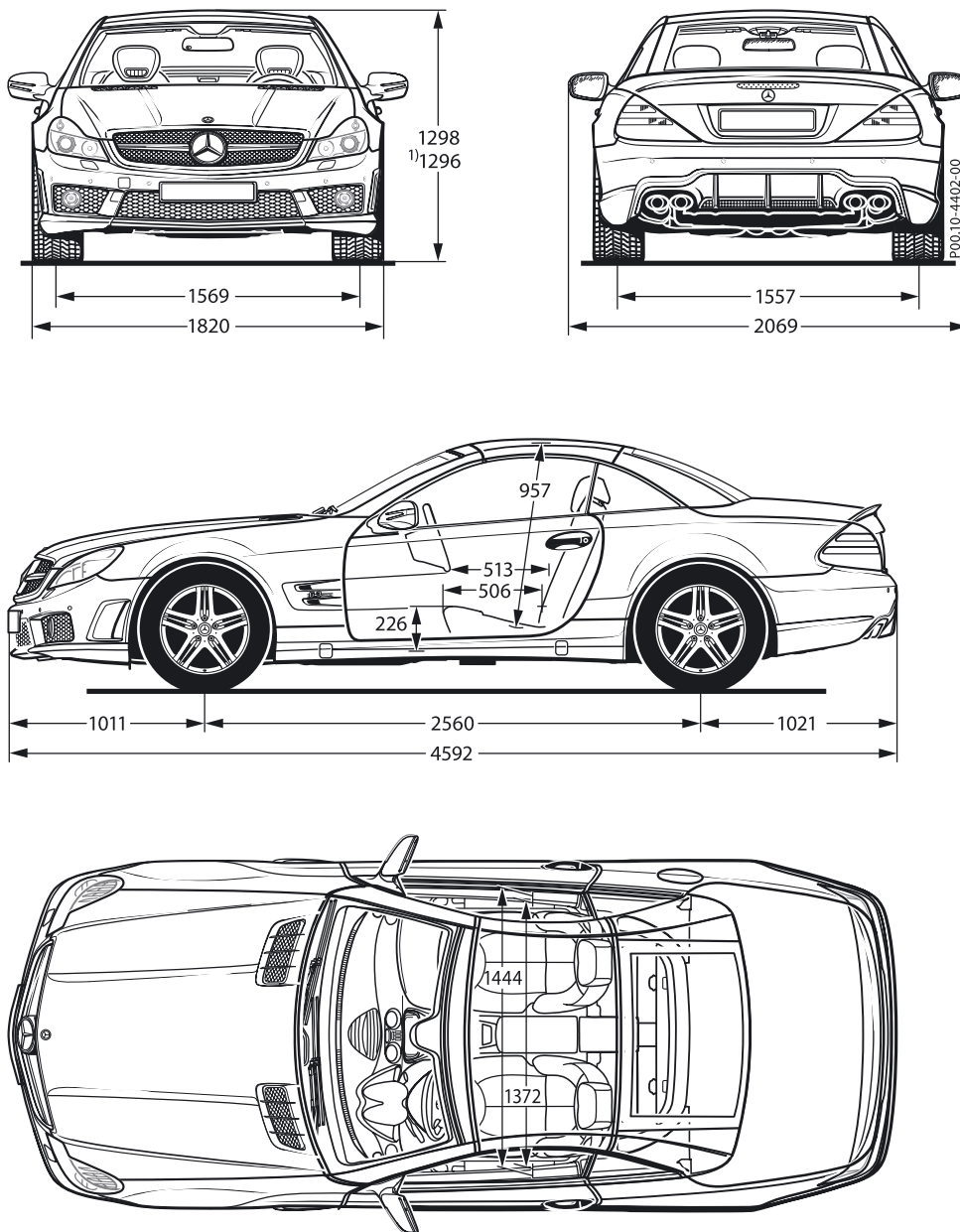
^{a)} At permissible gross vehicle weight

¹⁾ SL 500/550/600 only

²⁾ SL 500 only

³⁾ SL 550/600 only

Dimensions of AMG models

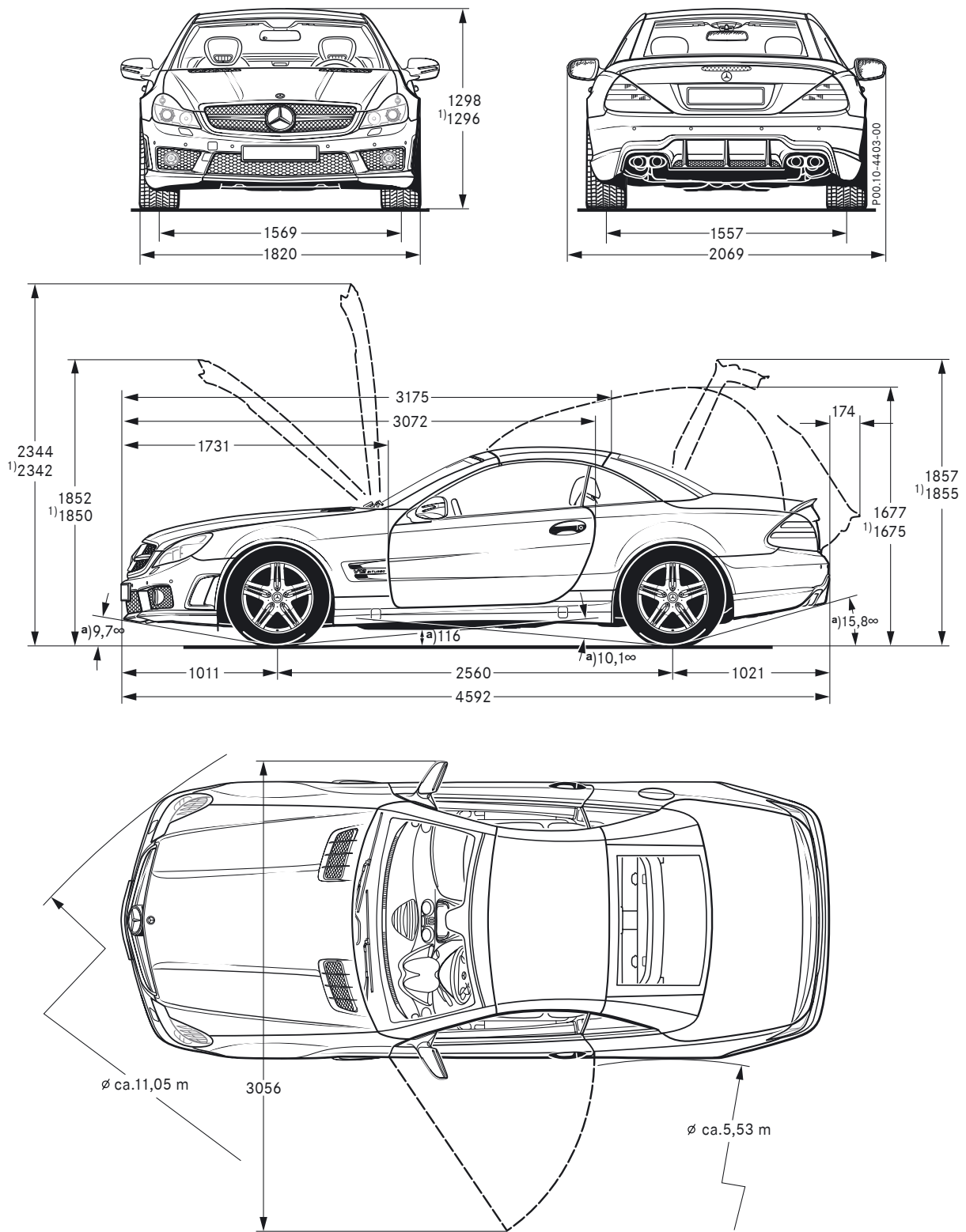


Vehicle dimensions for models SL 63 AMG/SL 65 AMG shown on SL 65 AMG

Dimensions without license plate adapter (6 mm)
Dimensions unloaded

¹⁾ USA version vehicles

Dimensions of AMG models



Vehicle dimensions (garage dimensions) for models SL 63 AMG/SL 65 AMG shown on SL 65 AMG

Dimensions without license plate adapter (6 mm)
Dimensions unloaded

^{a)} At permissible gross vehicle weight
¹⁾ USA version vehicles

Technical data - dimensions

	Unit	SL 280	SL 350	SL 500	SL 600
Dimensions					
Wheelbase	mm	2560			
Front track width	mm	1555		1559	
Rear track width	mm	1541		1547	1537
Vehicle length	mm	4562			
Vehicle width	mm	1820			
Vehicle width (outside mirrors folded out)	mm	2069			
Vehicle height	mm	1317		1298	
Aerodynamic drag	C_d	0.30			0.31



Technical data - dimensions

SL 550 (USA)	SL 600 (USA)	SL 63 AMG	SL 65 AMG	SL 63 AMG (USA)	SL 65 AMG (USA)
2560					
1559		1569			
1537		1557			
4562		4592			
1820					
2069					
1298		1298		1296	
0.30	0.31	0.29			

Technical data - dimensions and weight

	Unit	SL 280	SL 350	SL 500	SL 600
Dimensions and weights					
Operational curb weight USA	kg	–			
Curb weight as per EC	kg	1825	1825	1910	2045
Permissible gross vehicle weight	kg	2110	2120	2205	2320
Payload as per EC Directives	kg	285	295		275
Maximum trunk payload	kg	100			
Max. seating capacity		2			
Trunk capacity (Vario roof closed)	l	339			
Trunk capacity (Vario roof open and stowed)	l	235			
Turning circle	m	11.04			
Tank capacity/including reserve	l	80/10			



Technical data - dimensions and weight

SL 550 (USA)	SL 600 (USA)	SL 63 AMG	SL 65 AMG	SL 63 AMG (USA)	SL 65 AMG (USA)
1915	2040	–		1995	2065
–		1970	2120	–	
2205	2320	2225	2385	2225	2325
290	280	255	265	175	
100					
2					
339					
206		235		206	
11.04					
80/10		80/14			

Interior

Interior design of standard models

For the redesign of the vehicle interior, the emphasis was placed on the seat covers, the steering wheel and the instrument cluster with its indicators.

On vehicles with leather seats, the partitioning of the seat center panels has been redesigned in a classic fluted style.

A sporty but elegant 3-spoke steering wheel replaces the previous 4-spoke steering wheel. The controls on the steering wheel have been restyled to match the other controls in the vehicle interior.

The instrument cluster has a completely new appearance. The dial face visuals and the needles have been redesigned.

The SL 600 features a "V12" emblem on the steering wheel and on the velour floor mats and the "V12" logo is also embossed on the seat covers. The leather in the door center panels features the same fluted design as the seat covers.



Interior design of standard models

P68.00-5199-00



Interior design of AMG models

On the AMG models, the seats, door center panels, armrests and instrument panel cover are upholstered with particularly exclusive Nappa leather as standard.

The leather interior is available in the following color variants:

- Black
- Alpaca gray
- Pebble beige

The instrument cluster of the AMG models features a new AMG-specific design.

A newly developed ergonomic sport steering wheel has also been installed as part of the model refinement. The redesigned interior is rounded off by the following AMG trim:

- AMG sport pedal assembly made of polished stainless steel with rubber naps
- Genuine carbon trim parts
- Door sills in brushed steel with AMG logo
- Illuminated door sills, code (U25)



P68.00-5206-00

Interior design of SL 65 AMG

Interior

Instrument panel on standard models

On the instrument panel, the instrument cluster and the steering wheel have been redesigned.

The instrument cluster on the standard and AMG models has only changed in terms of styling and it now features:

- Red-printed needles
- Silver-painted needle housings
- Tachometer and speedometer with hanging needles (with ignition off)
- Tachometer and speedometer with white dial face and black digits
- Coolant and fuel level indicator with black dial face and white digits

As part of the model refinement, the SL-Class has been equipped with a 3-spoke steering wheel with multifunction buttons. The multifunction buttons, which are located on the left and right of the steering wheel, are networked to the vehicle via a LIN bus.

The 3-spoke multifunction steering wheel is also available with shift buttons and in a wood/leather variant as a special equipment option, code (289).

Instrument panel on AMG models

The redesigned instrument cluster features typical AMG characteristics such as the AMG logo in the speedometer and the individual model logo in the tachometer.

The newly developed ergonomic sport steering wheel is equipped with:

- Perforated leather on the side grip areas
- A more heavily contoured steering wheel rim
- AMG steering wheel shift paddles in aluminum design with large gripping surfaces

The AMG performance steering wheel is available as a special equipment option, code (281).



Instrument panel shown on SL 350

P68.10-3886-00



Center console

The center console, which flows smoothly into the instrument panel, has been refined in the following respects:

- AC control and operating unit
- Information and communications systems

AC control and operating unit

The redeveloped AC control and operating unit has been arranged more clearly and simplified. The manual air distribution selections are indicated on displays inside the left and right temperature selector wheels.

A majority of the button positions and assignments have been changed to make the AC control and operating unit even more user-friendly

Information and communications systems

The new telematics generation (NTG 2.5) has been introduced into the SL-Class for the first time and it features a new display and control concept as well as offering new functions. As previously, the COMAND control and display unit is located in the center console.



Center console shown on SL 350

P68.20-3844-00

Interior

Shift programs

With the model refinement of model 230, three different shift programs are now available. The program selector switch is located in the lower section of the center console next to the selector lever module.

Standard program C/S

On vehicles with this equipment variant, the automatic transmission can be operated in Comfort mode (C) or in Sport mode (S).

In comfort mode, the vehicle starts off more gently under full throttle and has increased traction, which improves the driving stability of the vehicle e.g. on slippery roads.

The automatic transmission shifts up earlier causing the vehicle to drive in lower rpm ranges.

Sport mode is suitable for all normal driving situations.

i Note

The new shift program of the SL 63 AMG is described in more detail in the Drivetrain/AMG DRIVE UNIT chapter.

Sport program C/S/M

This variant is installed in the SL 65 AMG as standard. It can also be ordered for all standard models (except USA) in combination with steering wheel shift paddles, code (428).

The automatic transmission can be operated in Comfort mode (C), Sport mode (S) or Manual mode (M).

Comfort and Sport mode operate in the same way as on vehicles with the standard program C/S. In the manual shift program (M), gear changes can be performed using the steering wheel shift buttons or the selector lever.



P27.60-3047-00

Shift program C/S



P27.60-3048-00

Shift program C/S/M

Seats of standard models

The redesigned integral seats of the SL-Class are not just visually different from their predecessors, they are also technically more advanced. They incorporate the following extensive range of features as standard:

- Electric seat adjustment (seat height, length and inclination of seat cushion)
- Electric head restraint adjustment
- Electric access aid (Easy Entry)
- Seat heaters
- Seat occupied recognition with automatic child seat recognition for special Mercedes-Benz approved child seats with transponder

The following special equipment options are available for the driver and front passenger seats:

- Seat climate control with active seat ventilation and seat heaters, code (401)
- Multicontour seats with memory function code (404/405)
- AIRSCARF, code (403)

Another new feature is that the seats can now be electrically adjusted regardless of the door status and the position of the transmitter key in the ignition lock. A tone is now also output to acknowledge that a seat, steering column or outside mirror memory position has been stored. The visual refinement of the seats is primarily concentrated on the design and the colors. The seat center panels have been repartitioned in a classic fluted design. The seat colors have been adjusted to suit the new sporty appearance of the vehicle.



AMG sport seats

The new AMG sport seats provide perfect lateral support with their heavily contoured side wings. They feature an AMG-specific design with independent diamond-patterned perforations. High-quality decorative double seams and silver AMG badges in the backrests round off the sporty and exclusive visuals. The AIRSCARF function is now also available for the AMG models of the SL-Class for the first time.

Multicontour seat with AIRSCARF

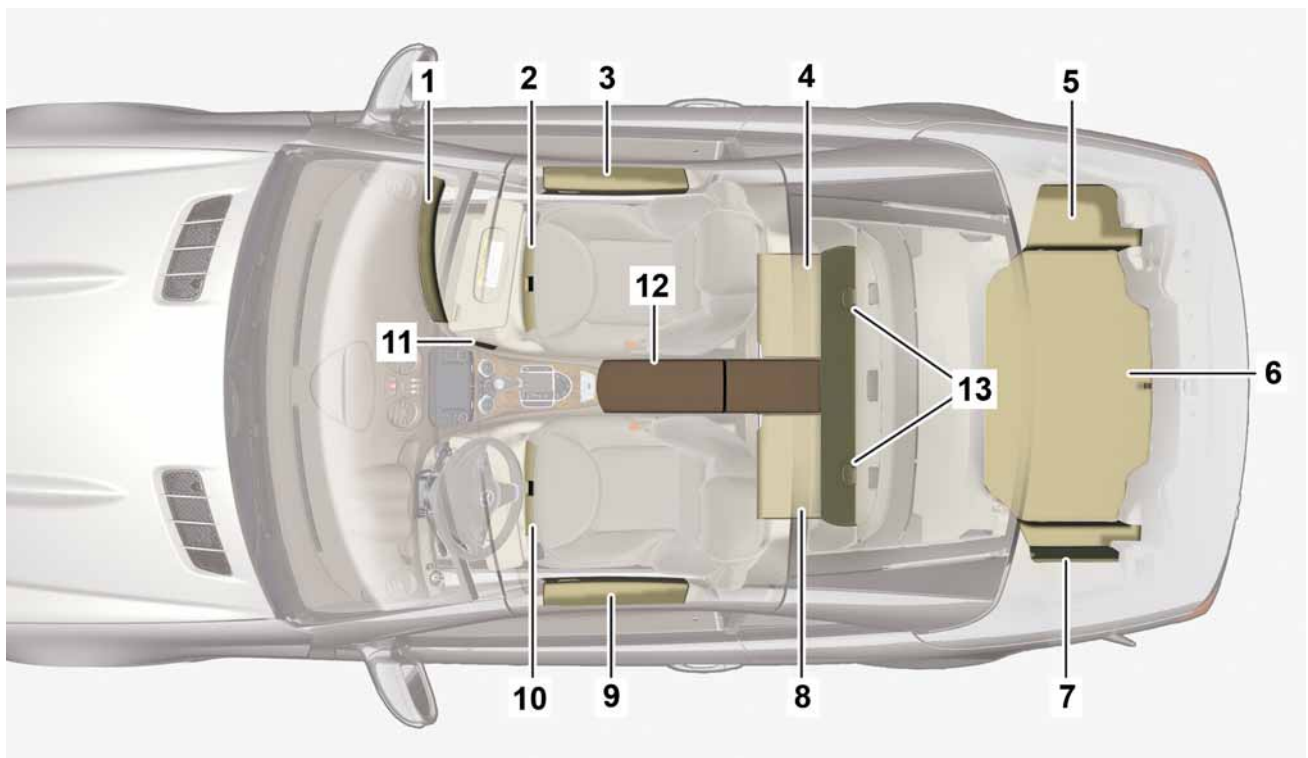
P91.10-3265-00

Interior

Stowage areas/compartments

With the model refinement, model 230 is now equipped with 13 stowage compartments. The following stowage compartments can be locked and unlocked via the central locking (CL):

- Glove compartment
- Stowage compartment under armrest
- Stowage compartment in rear



P68.00-5170-00

Stowage compartments of SL-Class shown on standard model

- | | |
|---|---|
| 1 Glove compartment | 8 Left stowage compartment in rear |
| 2 Stowage compartment under front passenger seat with first aid kit | 9 Stowage compartment in driver door |
| 3 Stowage compartment in front passenger door | 10 Stowage compartment under driver seat with fire extinguisher |
| 4 Right stowage compartment in rear | 11 Luggage net in front passenger footwell |
| 5 Side stowage compartment on right of trunk | 12 Stowage compartment under armrest |
| 6 Stowage compartment under trunk floor | 13 Luggage shelf in rear |
| 7 Side stowage compartment on left of trunk | |



Some stowage compartments have special features or are also intended to accommodate special equipment. For example, these include:

- An illuminated and cooled glove box with mount for CD rack as special equipment
- An illuminated stowage compartment under the armrest with mobile phone cradle and media interface connector as special equipment



P68.20-3852-00

Stowage compartment under armrest

X18/69 Media interface connector

Accessories: travel bag and luggage nets

A travel bag is available as a genuine accessory for the rear of the SL-Class. It is exactly matched to the dimensions of the rear bench seat and can be safely fastened in place in the vehicle using the standard seat belts.



P68.00-5201-00

Travel bag in rear



P68.50-2442-00

Nets in trunk

Safety concept

Components of safety concept

The safety concept in model 230 consists of the following components:

Control units

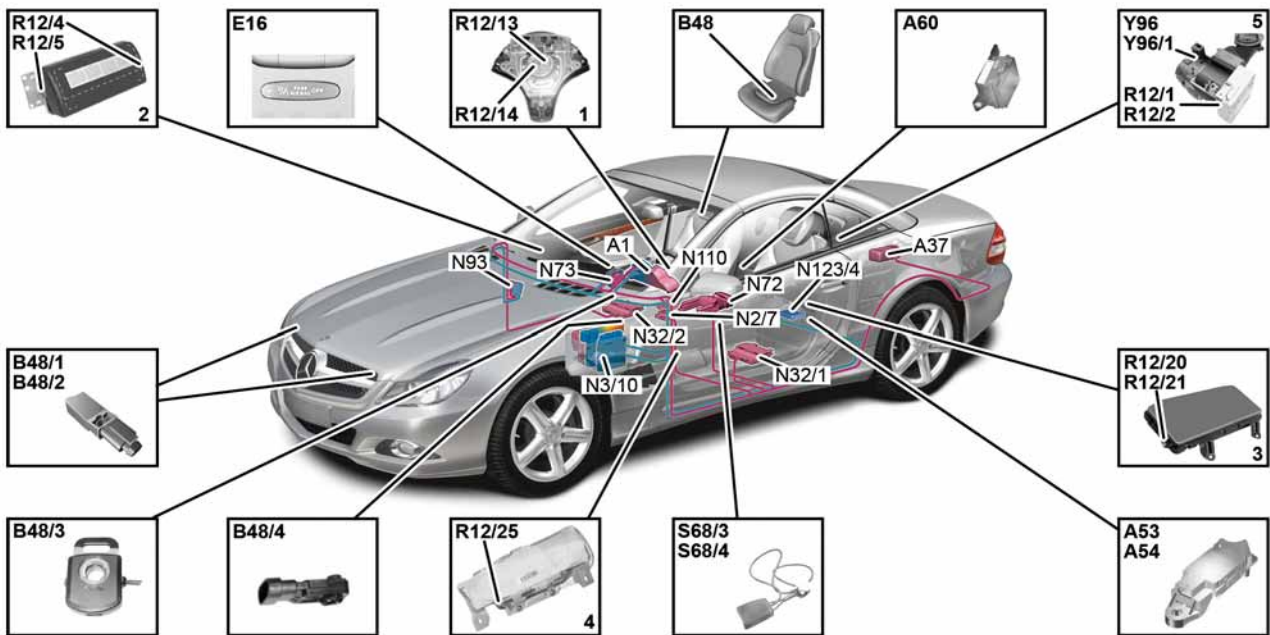
- Restraint systems control unit
- WSS control unit (USA version)
- Emergency call system control unit (USA version)

Actuators

- Airbags
- Seat belts
- Emergency tensioning retractors
- Instrument cluster with airbag indicator lamp

Sensors

- Front passenger seat occupied and child seat recognition sensor
- Left sidebag sensor
- Right sidebag sensor
- Driver-side frontal acceleration sensor
- Passenger-side frontal acceleration sensor
- Left front seat belt buckle restraint systems switch
- Right front seat belt buckle restraint systems switch
- Pressure sensor (USA version)
- Belt tension sensor (USA version)

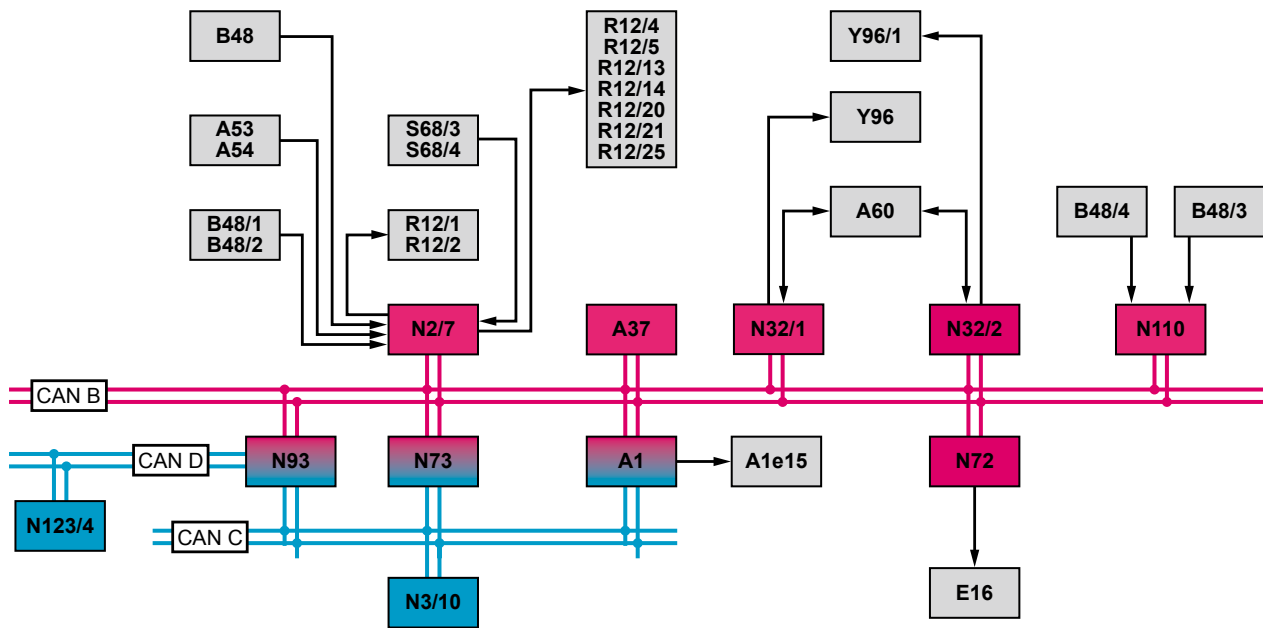


Location of components of supplemental restraint system (SRS)

See next page for legend

P91.60-3689-00





P91.60-3690-00

Block diagram of supplemental restraint system (SRS)

1	Driver airbag unit	N72	Lower control panel control unit
2	Passenger airbag unit	N73	EZS control unit
3	Sidebag unit	N93	Central gateway control unit
4	Kneebag unit (with code (494) USA version)	N110	Weight Sensing System (WSS) control unit (with code (494) USA version)
5	Emergency tensioning retractor unit	N123/4	Emergency call system control unit (with code (359) TELE AID emergency call system)
A1	Instrument cluster	R12/1	Driver emergency tensioning retractor squib
A1e15	Airbag indicator and warning lamp	R12/2	Passenger emergency tensioning retractor squib
A37	Pneumatic controller unit with combined functions	R12/4	Passenger airbag ignition squib 1
A53	Left sidebag sensor	R12/5	Passenger airbag ignition squib 2
A54	Right sidebag sensor	R12/13	Driver airbag squib 1
A60	Vehicle-sensitive belt lock sensor	R12/14	Driver airbag squib 2
B48	Front passenger seat occupied and child seat recognition sensor (without code (494) USA version)	R12/20	Left front sidebag squib
B48/1	Driver-side frontal acceleration sensor	R12/21	Right front sidebag squib
B48/2	Passenger-side frontal acceleration sensor	R12/25	Driver kneebag squib (with code (494) USA version)
B48/3	Belt tension sensor (with code (494) USA version)	S68/3	Left front seat belt buckle restraint systems switch
B48/4	Pressure sensor (with code (494) USA version)	S68/4	Right front seat belt buckle restraint systems switch
E16	Automatic child seat recognition airbag OFF indicator lamp	Y96	Left front belt lock solenoid
N2/7	Restraint systems control unit	Y96/1	Right front belt lock solenoid
N3/10	ME-SFI [ME] control unit	CAN B	Interior CAN
N32/1	Left front seat adjustment control unit with memory	CAN C	Engine compartment CAN
N32/2	Right front seat adjustment control unit with memory	CAN D	Diagnostic CAN

Safety concept

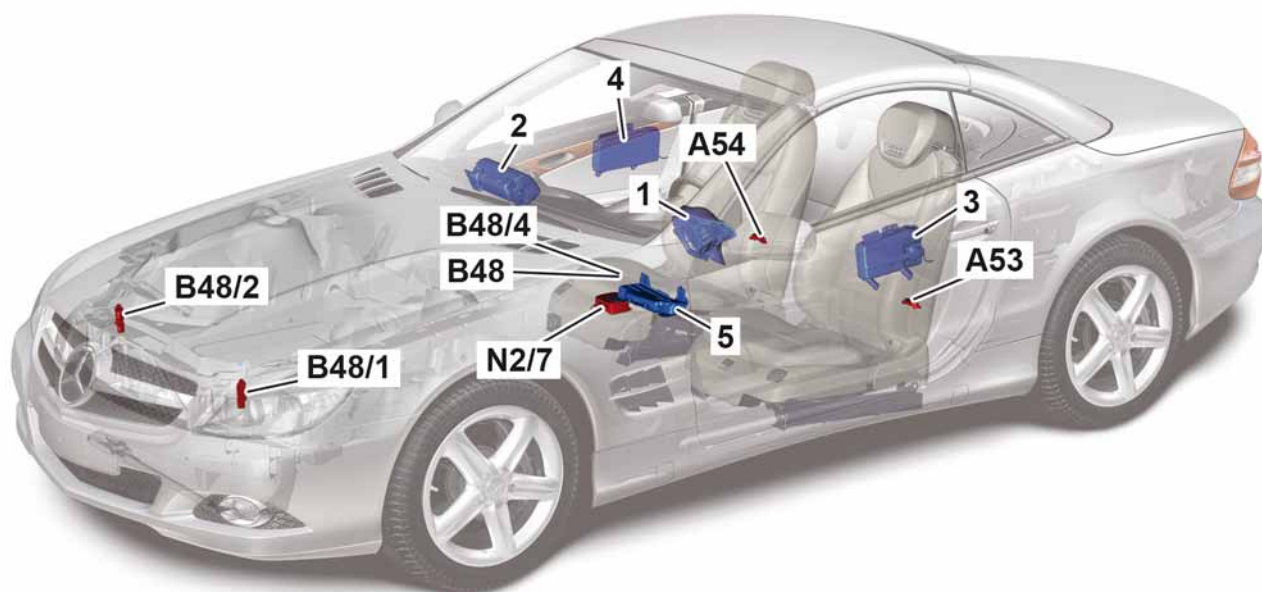
Passive safety

The passive safety concept of the SL-Class incorporates:

- Body structure with high-rigidity passenger cell
- Front and rear structures with high energy absorption potential due to deformation
- Engine mounted on a frame-type integral support which is deformable in the direction of impact in the event of a head-on collision
- Several parallel load paths for improved load distribution in the event of a partial head-on collision
- Telescoping steering column with collapsible tube
- Doors with reinforcement profiles

The occupant restraint system includes:

- Driver and front passenger airbags with situation-dependent dual stage triggering
- Seat occupied recognition for front passenger seat (except USA version)
- Automatic child seat recognition (ACSR)
- Weight Sensing System (WSS) (USA version)
- Kneebag (USA version)
- Head-thorax bags in side doors
- 3-point seat belts with belt force limiter for driver and front passenger



Airbag system

P91.60-3691-00

1	Driver airbag	A54	Right sidebag sensor
2	Passenger airbag	B48	Front passenger seat occupied and child seat recognition sensor (except USA version)
3	Driver-side head-thorax bag	B48/1	Driver-side frontal acceleration sensor
4	Passenger-side head-thorax bag	B48/2	Passenger-side frontal acceleration sensor
5	Kneebag (USA version)	B48/4	Pressure sensor (USA version)
A53	Left sidebag sensor	N2/7	Restraint systems control unit



Active safety

In the refined SL-Class models, high levels of active safety are provided by both tried-and-tested and newly developed systems.

The components responsible for maintaining **driving safety** include:

- Four-link front suspension
- Independent multilink rear suspension
- SBC brake system with Hill Start Assist, precharging and dry braking functions
- Brake Assist System (BAS)
- Dynamic handling control systems ABS/ASR/ETS/ESP
- Tire pressure loss warner (RDW)
- ABC suspension with selective damping system
- DISTRONIC

High standards of **stress-reducing safety** are due to:

- Comfortable seats with comfort head restraints
- Head restraints with integrated AIRSCARF system
- Comfort seats with active seat ventilation and seat heaters
- Multicontour seats with memory function
- Exclusive use of heat-insulating glass
- Comfort automatic air conditioning
- Cruise control including SPEEDTRONIC
- Selective damping system

The components that ensure a high level of **perceptual safety** include:

- Bi-xenon headlamps with headlamp cleaning system
- Intelligent Light System: Bi-xenon headlamps with dynamic curve illumination, motorway lights, cornering illumination, extended fog light function and headlamp cleaning system
- Center high-mounted brake lamp in trunk lid
- Adaptive brake lights (except USA version)
- Improved field of view thanks to larger outside mirrors
- PARKTRONIC
- Rain/light sensor

Operating safety is provided by:

- Ergonomically designed driver area
- Optimal arrangement of the controls
- 3-spoke multifunction steering wheel
- Communications and navigation system of New Telematics Generation (NTG 2.5)



P82.10-5113-00

Center high-mounted brake lamp (E21) with LED technology

Maintenance

Extended maintenance strategy (ECE version)

Both workshops and the customer will benefit from the extended maintenance strategy from the very first kilometer driven.

By making maintenance less complicated and introducing the basic service which covers the technically essential items, we are able to offer maintenance that is more cost-efficient and competitive without compromising the usual Mercedes-Benz service quality.

Previously, the maintenance scopes alternated between the minor service (Service A) and the major service (Service B). These services have now been classified as **Basic service** A and B respectively, covering the technically essential items.

These basic services always alternate (fixed interval of every 25,000 km/1 year) and only include the technically essential service items.

A **PLUS package** which includes further checks and maintenance items is available additionally:

- Check windshield washer system
- Check headlamp cleaning system
- Check tire pressure
- Check expiration date of tire repair kit
- Inspect wiper blades
- Check trunk illumination
- Check indicator lamps in instrument cluster and interior compartment
- Check headlamp adjustment

This PLUS package is a customer option.

Digital Service Booklet (DSB)

All service, body and major assembly operations are documented in a central database using the Digital Service Booklet (DSB). The customer receives a service report which he/she stores in the service booklet.

Service indicator

The following service information is displayed on the instrument cluster by ASSYST:

- Perform Service A/B
- Service A/B in XX days
- Service A/B in xxx km
- Fault and warning messages

The display messages are either shown in white (service information) or red (fault and warning messages).



P00.20-2655-00

Service indicator



P00.20-2656-00

Service A display

i Note about DSB

For further information about the DSB, see the brochure "ASSYST PLUS Maintenance, Extended Maintenance Strategy for Model Series as of Modification Year 2008".

Order no.: 6516 1355 02

This brochure can be ordered from the GSP/TI Shop.

Maintenance intervals

The kilometer/mile intervals are adapted to market-specific requirements.

Maintenance interval (ECE version)

The maximum maintenance interval is either 25,000 km or 1 year, whichever is reached first.

Mileage-based servicing

ASSYST calculates in mileage-based servicing mode when the kilometer interval for the engine oil is reached before the time interval.

Example of mileage-based servicing:

- Engine oil interval 25,000 km/365 days (1 year)
- Driving behavior of customer: 120 km/day
- 25,000 km : 120 km \approx 208 days

ASSYST now calculates in mileage-based servicing mode because the kilometer interval for the engine oil of 25,000 km is reached before a year has passed.

Time-based servicing

ASSYST calculates in time-based servicing mode when the time interval for the engine oil is reached before the kilometer interval.

Example of time-based servicing:

- Engine oil interval 25,000 km/365 days (1 year)
- Driving behavior of customer: 50 km/day
- 25,000 km : 50 km \approx 500 days

ASSYST now calculates in time-based servicing mode because the time interval of 365 days (1 year) is reached before the 25,000 km.

Maintenance interval (USA version)

The maximum maintenance interval is either 10,000 mi or 1 year, whichever is reached first.

Mileage-based servicing

ASSYST calculates in mileage-based servicing mode when the mile interval for the engine oil is reached before the time interval.

Example of mileage-based servicing:

- Engine oil interval 10,000 mi/365 days (1 year)
- Driving behavior of customer: 60 mi/day
- 10,000 mi : 60 mi/day \approx 166 days

ASSYST now calculates in mileage-based servicing mode because the mile interval for the engine oil of 10,000 mi is reached before a year has passed.

Time-based servicing

ASSYST calculates in time-based servicing mode when the time interval for the engine oil is reached before the mile interval.

Example of time-based servicing:

- Engine oil interval 10,000 mi/365 days (1 year)
- Driving behavior of customer: 20 mi/day
- 10,000 mi : 20 mi/day \approx 500 days

ASSYST now calculates in time-based servicing mode because the time interval of 365 days (1 year) is reached before the 10,000 mi.

Technical data of engine

Engine data	Unit	SL 280	SL 350	SL 500
Engine model designation		272.949	272.968	273.965
Engine designation		M272 KE 30	M272 KE 35 Sport	M273 KE 55
Rated output	kW at rpm	170 6000	232 6500	285 6000
Rated torque	Nm at rpm	300 2500-5000	360 4900	530 2800-4800
Maximum engine speed	rpm	6500	6800	6500
Displacement	cm ³	2996	3498	5461
Bore	mm	88.0	92.9	98.0
Stroke	mm	82.1	86.0	90.5
Engine configuration/no. of cylinders		V6	V6	V8
Cylinder angle	°	90	90	90
Acceleration 0 - 100 km/h				
5-speed automatic transmission	s	—	—	—
7-speed automatic transmission	s	7.8	6.2	5.4
Maximum speed ¹	km/h	250 ²		
Fuel economy NEDC ¹	l/100 km	9.4	9.9	11.9
CO ₂ emissions ¹	g/km	224	236	284
Fuel		Midgrade gasoline 95 RON, unleaded		
Emission regulations	Standard	EU 4		

¹With standard transmission

²Electronically governed



Technical data of engine

SL 600	SL 550 (USA)	SL 600 (USA)	SL 63 AMG	SL 65 AMG
275.954	273.965	275.954	156.981	275.981
M275 KE 55	M273 KE 55	M275 KE 55	M156 E 63	M275 E 60
380 5000	285 6000	380 5000	386 6800	450 4800-5100
830 1900-3500	530 2800-4800	830 1900-3500	630 5200	1000 ² 2000-4000
5950	6500	5950	7200	5950
5513	5461	5513	6208	5980
82.0	98.0	82.0	102.2	82.6
87.0	90.5	87.0	94.6	93.0
V12 60	V8 90	V12 60	V8 90	V12 60
4.5 –	– 5.4	4.5 –	– 4.6	4.2 –
	250 ²		250 ² 300 ³	250 ² 300 ³
13.9	12.2	14.3	13.9	15.1
330	*	*	330	362
Super Plus 98 RON, unleaded	Midgrade gasoline 95 RON, unleaded		Super Plus 98 RON, unleaded	
EU 4	ULEV 2		EU 4/ULEV 2	

² Electronically governed

* Values were not available at copy deadline

³ Maximum speed in combination with
AMG driver's package (electronically governed)

Engine M272 in SL 280

SL 280

The 3-liter V6 gasoline engine which is being used for the first time in model series 230 is the new entry-level model of the SL-Class.

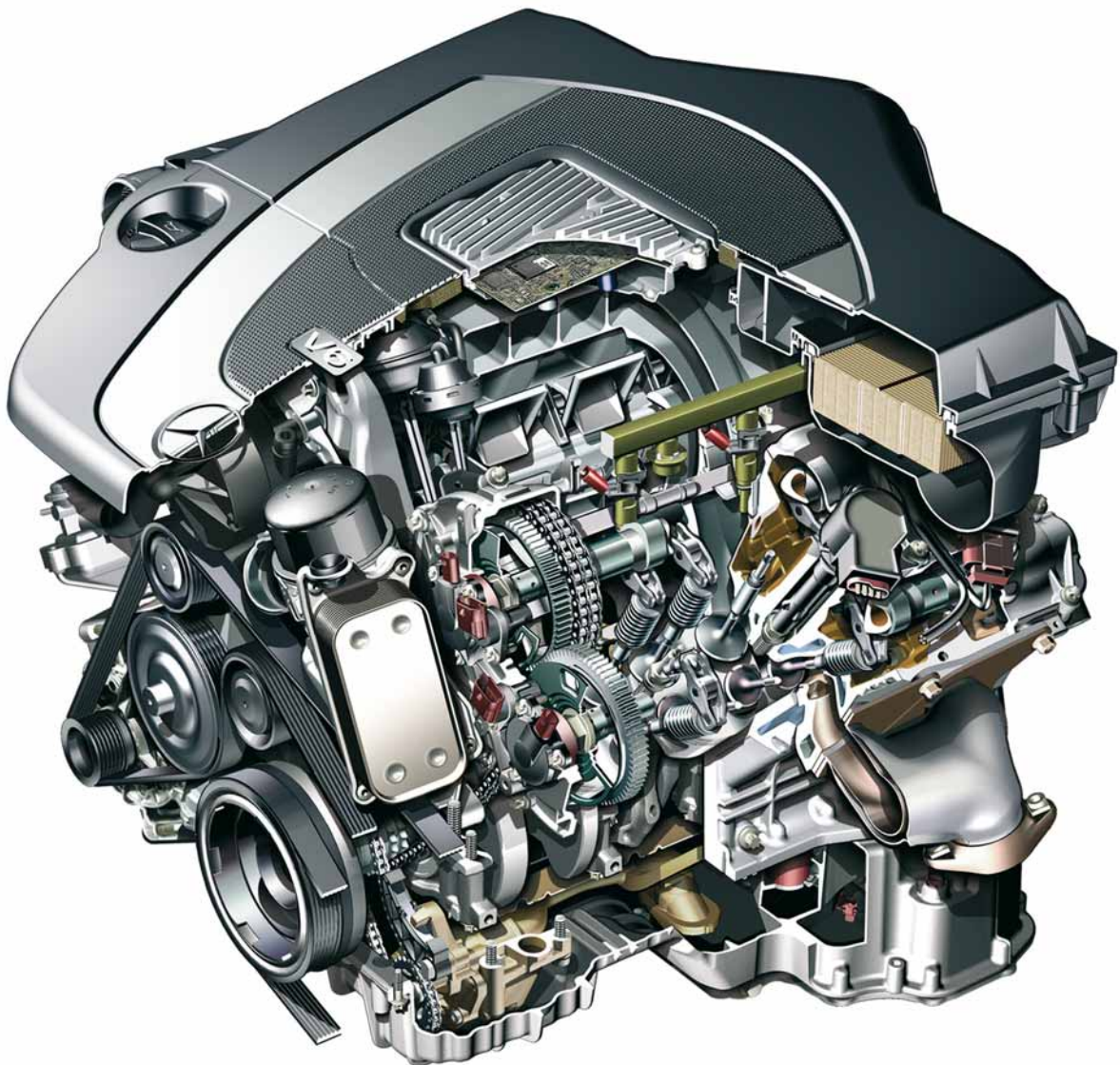
The engine has a rated output of 170 kW (230 hp) and generates a maximum torque of 300 Nm.

i Note

The engine number of engine 272 is located at the left rear of the cylinder crankcase at the top near the oil dipstick.

A separate Introduction into Service Manual is available for engine series 272.

Order no. 6516 1301 02

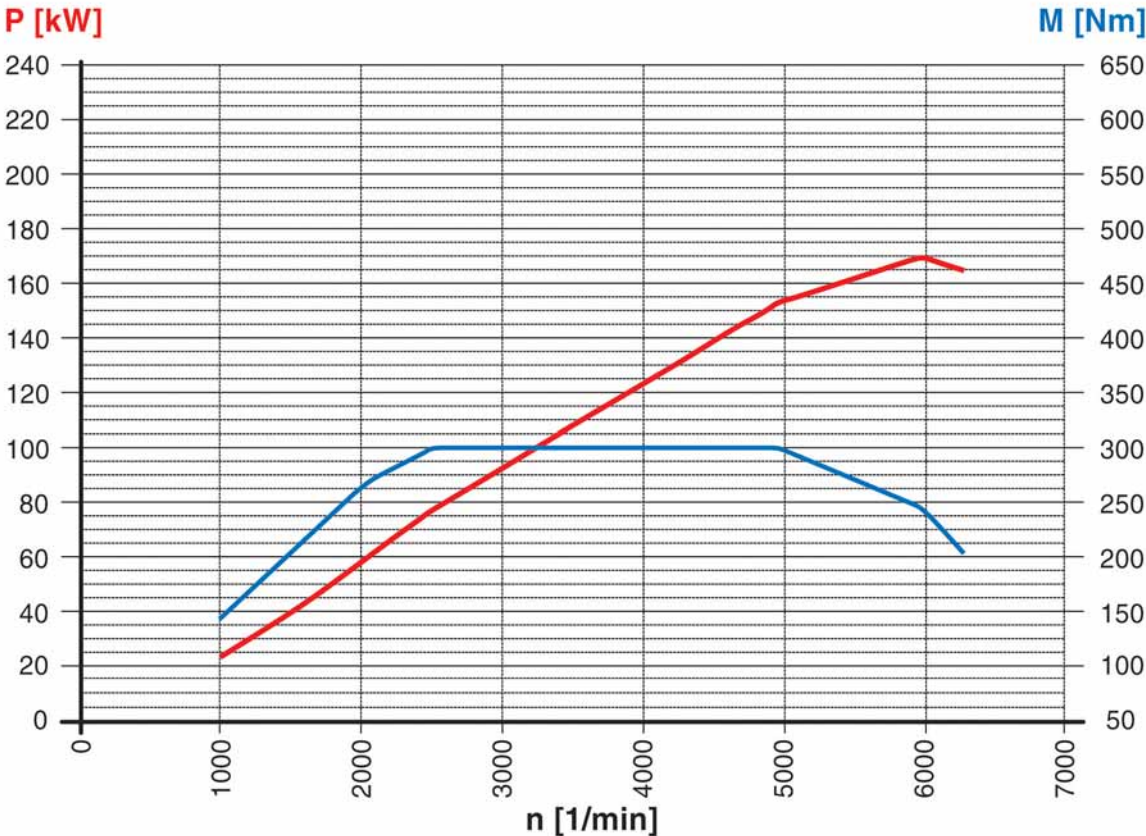


3-liter V6 gasoline engine M272.949

P01.00-2546-00



	Unit	M272.949
Rated output	kW at rpm	170 6,000
Rated torque	Nm at rpm	300 2,500-5,000
Compression ratio	ϵ	11.3:1



M272.949

P01.00-3024-00

- █ M Torque
- █ P Power output
- n Rpm

Engine M272 in SL 350

SL 350

The refined SL 350 model is equipped with a modified 3.5-liter V6 sport engine.

Compared to its predecessor, the rated output has been increased from 200 kW (272 hp) to 232 kW (315 hp) and the rated torque has been increased from 350 Nm to 360 Nm.

The maximum engine speed has been increased to 6800 rpm. The engine can even be operated at a maximum engine speed of 7200 rpm for short periods ($t > 2s$).

The new sport engine is characterized by the red "V" on the engine cover.

In order to achieve the increase in output, the following changes were made to the previous 3.5-liter V6 engine:

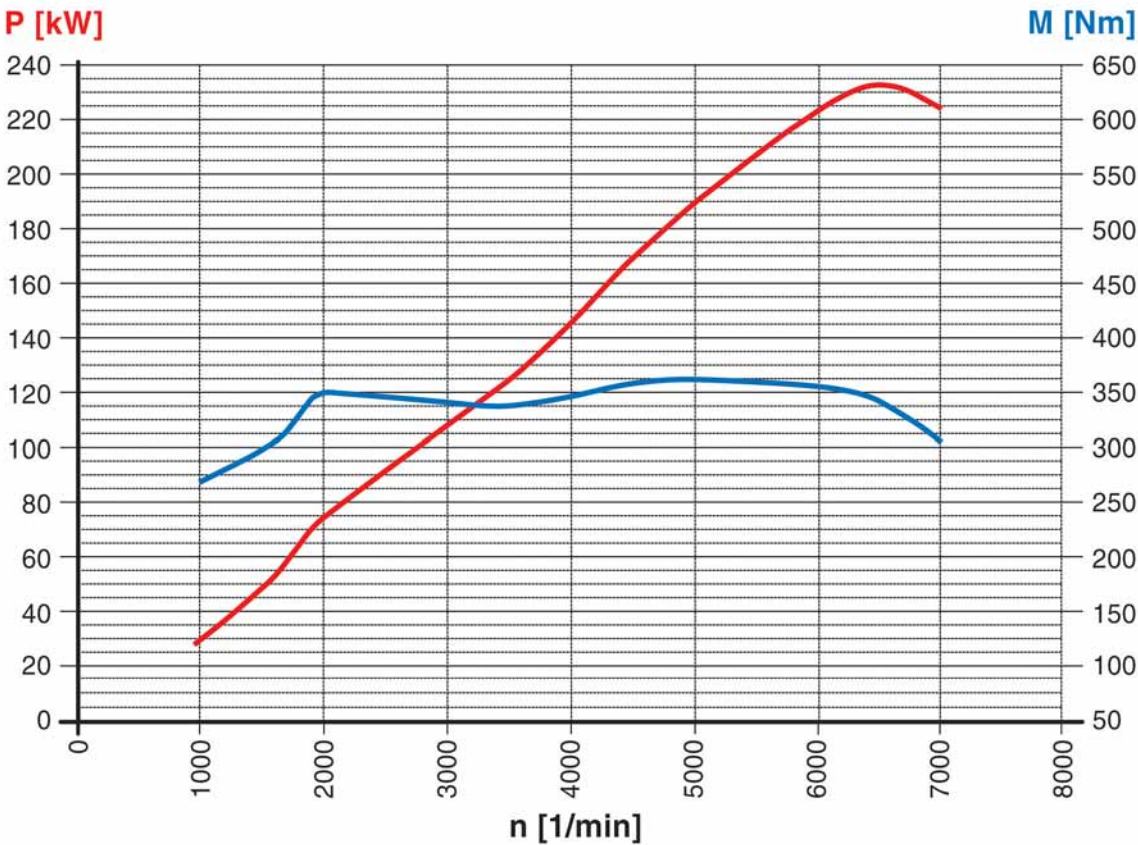
- New cylinder heads with optimized intake ports
- Intake manifold with optimized flow characteristics due to omission of tumble flaps and variable length switchover flaps
- Modified valve timing gear with more robust components



3.5-liter V6 sport engine M272.968

P01.10-2947-00

	Unit	M272.968
Rated output	kW at rpm	232 6,500
Rated torque	Nm at rpm	360 4,900
Compression ratio	ϵ	11.5:1



M272.968

P01.00-3025-00

- M Torque
- P Power output
- n Rpm

Engine M156 in SL 63 AMG

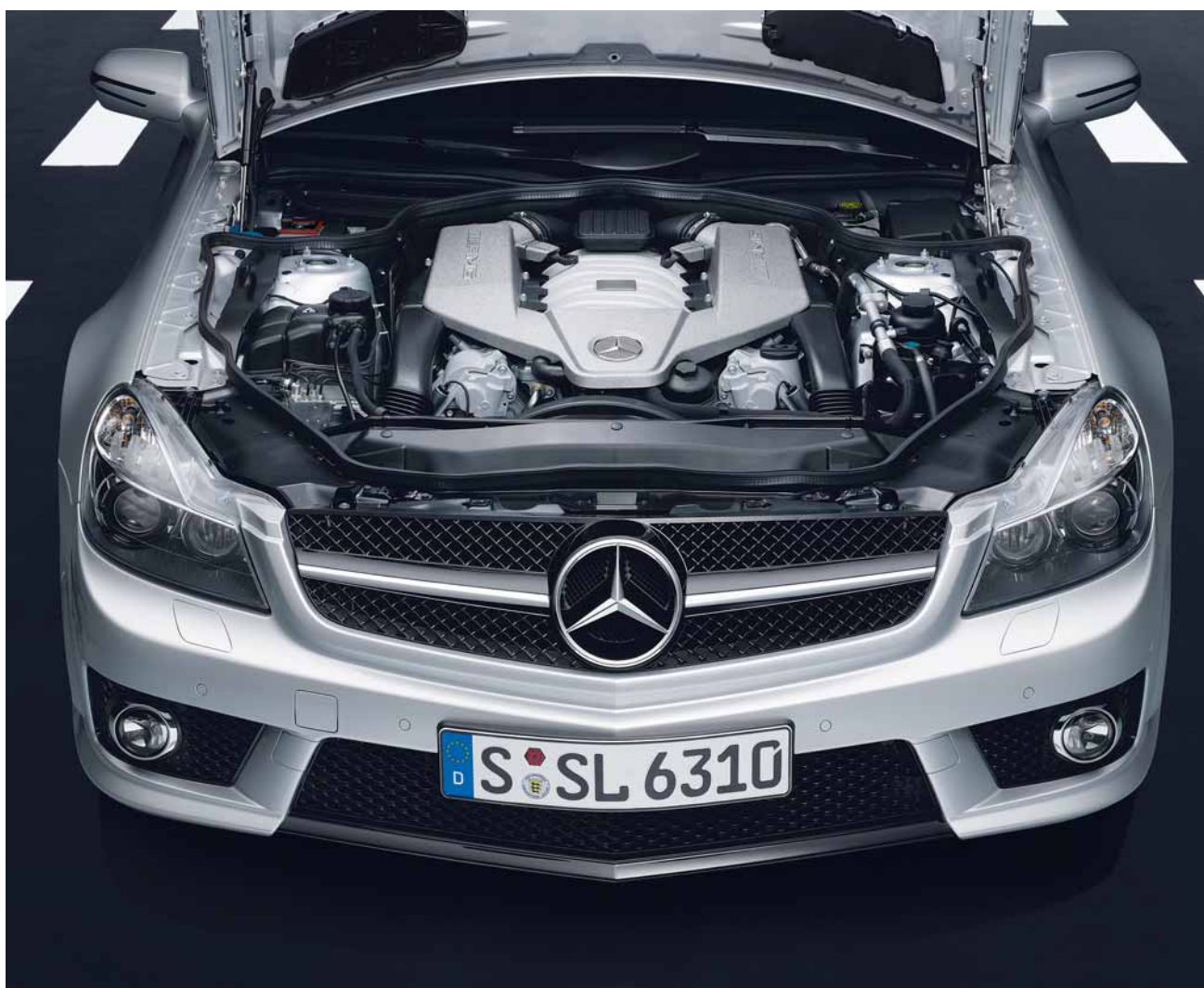
SL 63 AMG

The 6.3-liter naturally aspirated V8 engine with engine model designation 156.981 that is installed in the SL 63 AMG has a maximum output of 386 kW (525 hp) and a maximum torque of 630 Nm. Many of the components and special technical features of this engine were developed by Mercedes-AMG itself or adopted from motor sport.

Engine 156 AMG expresses its decidedly sporty character through high agility and dynamic responsiveness in all engine speed ranges.

The most important new features of engine model series M156 compared to the predecessor model series M113 include:

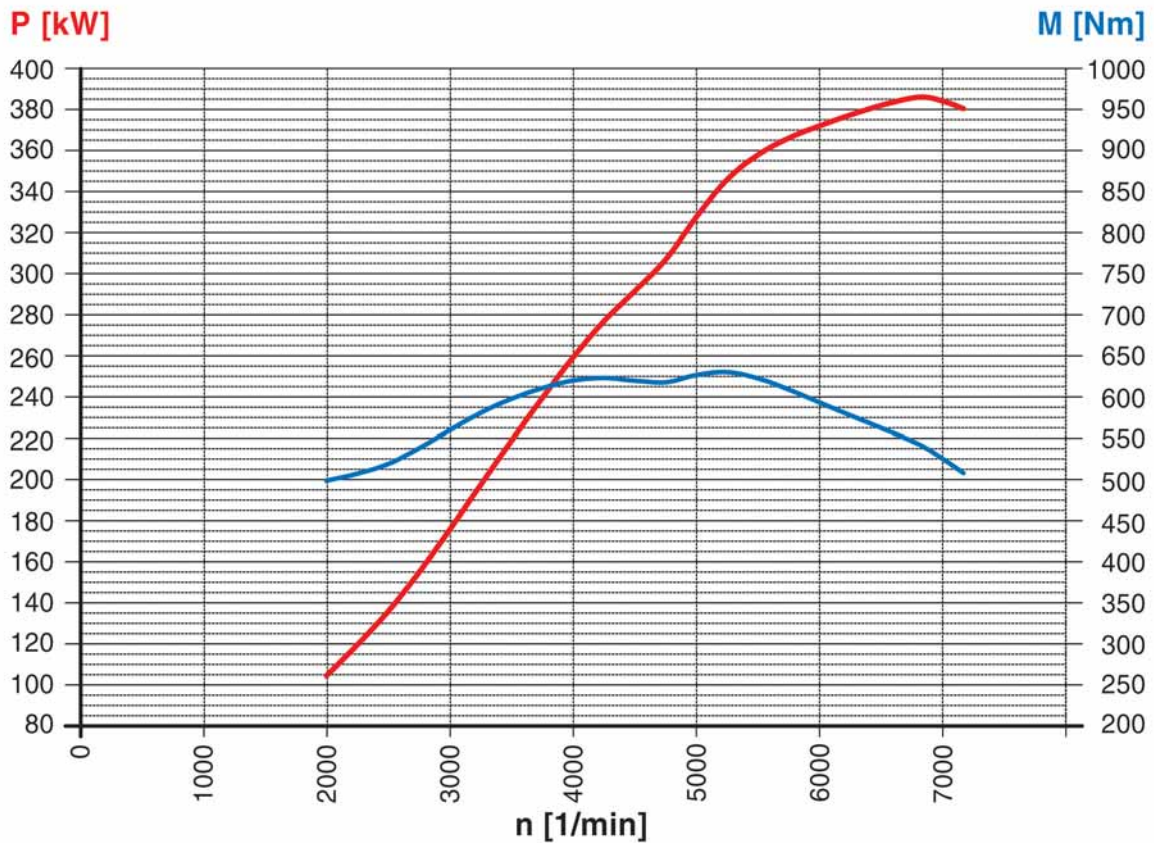
- 4-valve technology with continuous camshaft adjustment at intake and exhaust sides
- Steep intake ports to optimize the air supply
- Optimization of all air-carrying parts by dethrottling the intake tract



AMG 6.3-liter naturally aspirated V8 engine M156.981

P01.10-2951-00

	Unit	M156.981
Rated output	kW at rpm	386 6,800
Rated torque	Nm at rpm	630 5,200
Compression ratio	ϵ	11.3:1

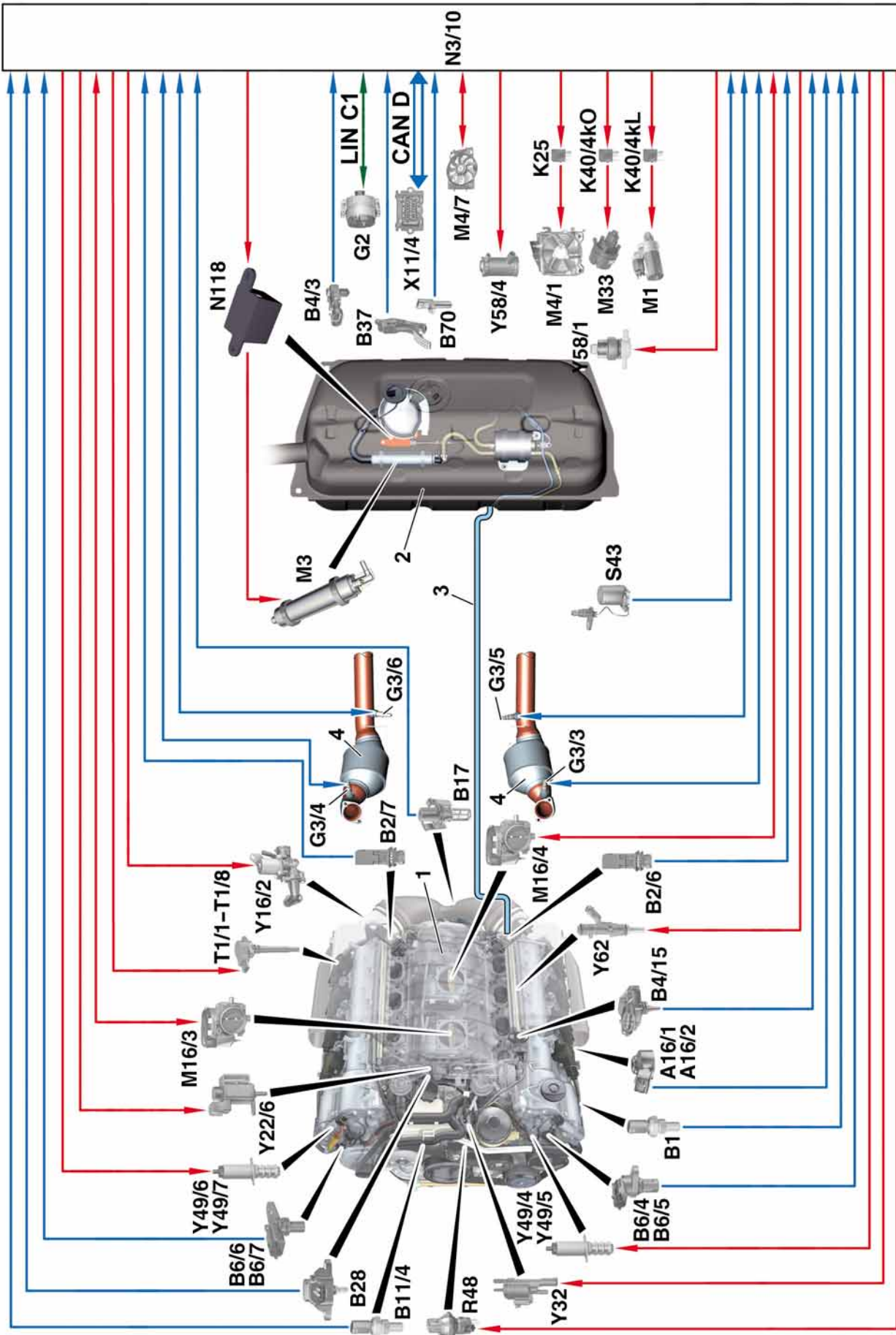


M156.981

- *M* Torque
- *P* Power output
- n* Rpm

P00.10-4287-00

Engine M156 in SL 63 AMG



Function schematic for engine control, shown on engine 156.981

P07.61-3623-00

1	Intake manifold	B37	Accelerator pedal sensor	N118	Fuel pump control unit
2	Fuel tank	B70	Crankshaft Hall sensor	R48	Two-disk thermostat heating element
3	Fuel line to fuel distribution rail	G2	Alternator	S43	Oil level check switch
4	Firewall catalytic converter	G3/3	Left O2 sensor upstream of catalytic converter	T1/1- T1/8	Ignition coils, cylinders 1 to 8
A16/1	Knock sensor 1, right	G3/4	Right O2 sensor upstream of catalytic converter	X11/4	Data link connector
A16/2	Knock sensor 2, left	G3/5	Left O2 sensor downstream of catalytic converter	Y16/2	Heating system shutoff valve
B1	Oil temperature sensor	G3/6	Right O2 sensor downstream of catalytic converter	Y22/6	Variable intake manifold switchover valve
B2/6	Left hot film mass air flow sensor	K25	Engine oil additional fan relay	Y32	Air pump switchover valve
B2/7	Right hot film mass air flow sensor	K40/4kL	Starter relay	Y49/4	Intake camshaft solenoid, left
B4/3	Fuel tank pressure sensor (with code (494) USA version)	K40/4kO	Air pump or reserve relay	Y49/5	Intake camshaft solenoid, right
B4/15	Fuel pressure sensor	M1	Starter	Y49/6	Exhaust camshaft solenoid, left
B6/4	Intake camshaft Hall sensor, left	M3	Fuel pump	Y49/7	Exhaust camshaft solenoid, right
B6/5	Intake camshaft Hall sensor, right	M4/1	Oil cooler fan	Y58/1	Purge control valve
B6/6	Exhaust camshaft Hall sensor, left	M4/7	Engine and air conditioning electric suction fan with integrated control	Y58/4	Activated charcoal filter shutoff valve (with code (494) USA version)
B6/7	Exhaust camshaft Hall sensor, right	M16/3	Front throttle valve actuator	Y62	Fuel injection valves
B11/4	Coolant temperature sensor	M16/4	Rear throttle valve actuator	CAN D	Diagnostic CAN
B17	Intake air temperature sensor	M33	Electric air pump	LIN C1	Drivetrain LIN
B28	Pressure sensor	N3/10	ME-SFI [ME] control unit		

Engine M156 in SL 63 AMG

Engine control

The gasoline injection and ignition system (engine control) is controlled by the ME-SFI [ME] control unit. ME-SFI [ME] control unit version "Bosch ME 9.7 AMG", is used for the AMG 6.3-liter naturally aspirated V8 engine and the control unit is specially tuned for the properties of this high-performance engine.

The software in the ME-SFI [ME] control unit is flashable, making the control unit flexible and allowing it to be kept up-to-date with technological developments. The software required to program the control unit is found on the STAR DIAGNOSIS DAS Update DVD.

System control

The following systems are controlled and coordinated by the ME-SFI [ME] control unit:

- Ignition system
- Injection system
- Idle speed control
- Electronic accelerator
- Torque interface
- Alternator interface (LIN C1)
- Evaporative emission control system
- Thermal management
- Starter control
- Immobilizer and drive authorization system (DAS 3)
- Diagnosis and fault storage
- Exhaust gas cleaning

Evaluated input signals

The ME-SFI [ME] control unit evaluates the following information for the engine control system:

- Air mass
- Coolant temperature
- Engine speed and crankshaft position
- Throttle valve position
- Accelerator pedal position
- Intake manifold pressure
- Intake air temperature
- Fuel pressure
- Fuel tank pressure (on USA version)
- Position of intake and exhaust camshafts
- Alternator interface
- Engine knocking
- Oil level
- Oil temperature
- O₂ concentration upstream and downstream of firewall catalytic converter



N3/10 ME-SFI [ME] control unit

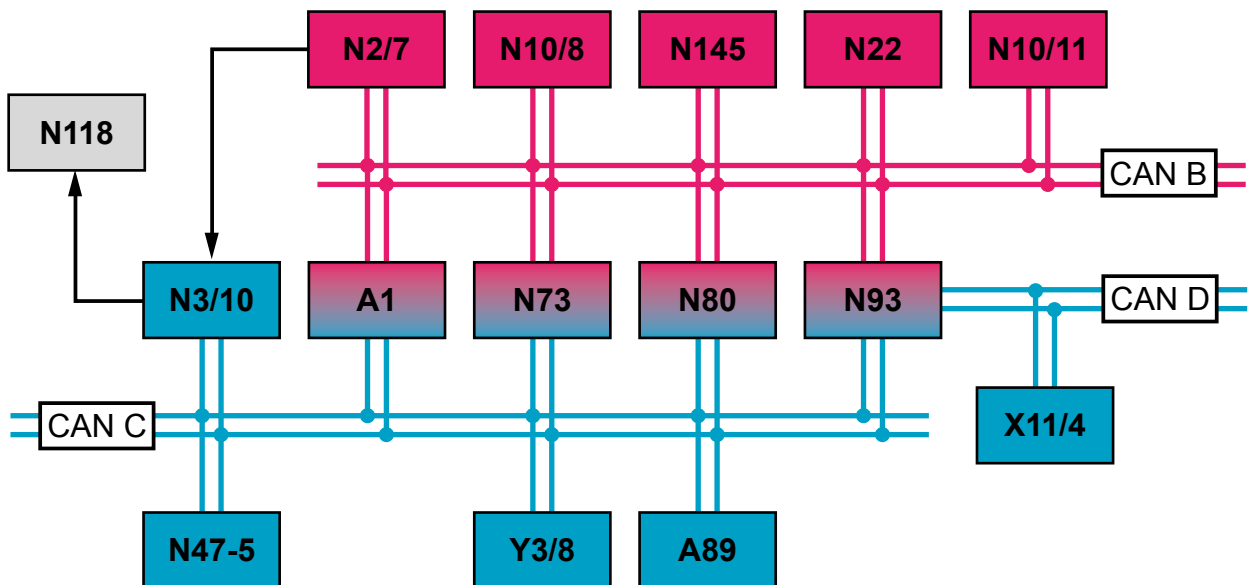
P07.08-2170-00



Signals influencing engine control

The ME-SFI [ME] control unit receives further input signals via the CAN data bus (Controller Area Network). These signals, which influence engine control, include:

- Vehicle speed
- Torque requests
- Gear range and gear recognition
- Cruise control or DISTRONIC commands
- Braking recognition
- Steering angle
- Start enable (drive authorization system)
- Crash signal
- Fuel level



P07.61-3624-00

Networking of control units for engine control, M156

A1	Instrument cluster	N73	EZS control unit
A89	DTR controller unit	N80	Steering column module control unit
N2/7	Restraint systems control unit	N93	Central gateway control unit
N3/10	ME-SFI [ME] control unit	N118	Fuel pump control unit
N10/8	Rear SAM control unit	X11/4	Data link connector
N10/11	Passenger-side SAM control unit	Y3/8	Fully integrated transmission control unit
N15/1	Electronic selector lever module control unit		
N22	AAC [KLA] control and operating unit	CAN B	Interior CAN
N47-5	ESP, SPS [PML] and BAS control unit	CAN C	Engine compartment CAN
		CAN D	Diagnostic CAN

Cooling system in SL 63 AMG

Engine cooling system of SL 63 AMG

The engine cooling system operates on the cross-flow principle. This means that each of the eight cylinders and cylinder heads exhibit uniform temperatures due to the homogeneous coolant flow and critical temperature peaks are avoided.

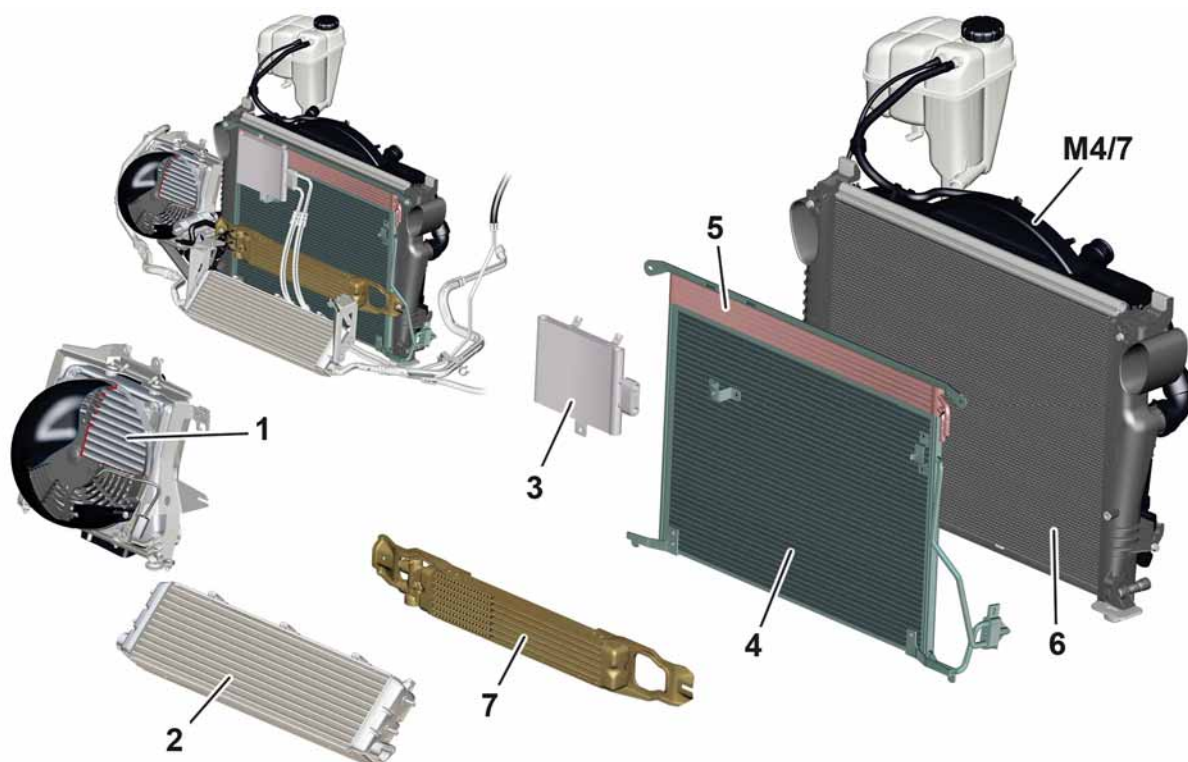
The large radiator fan ensures an optimal coolant temperature in all operating conditions.

The air ducting has been adapted to the modified transmission and engine oil cooling systems.

The temperature of the coolant is controlled variably by means of a heatable two-disk thermostat.

The two-disk thermostat has a heating element for this purpose which is actuated according to need by the ME-SFI [ME] control unit. When the two-disk thermostat is heated, it opens the coolant circuit of the engine radiator in stages (cooling mode).

If a sporty driving style is detected, the intelligent control system can regulate the cooling system appropriately in advance.



P20.10-2244-00

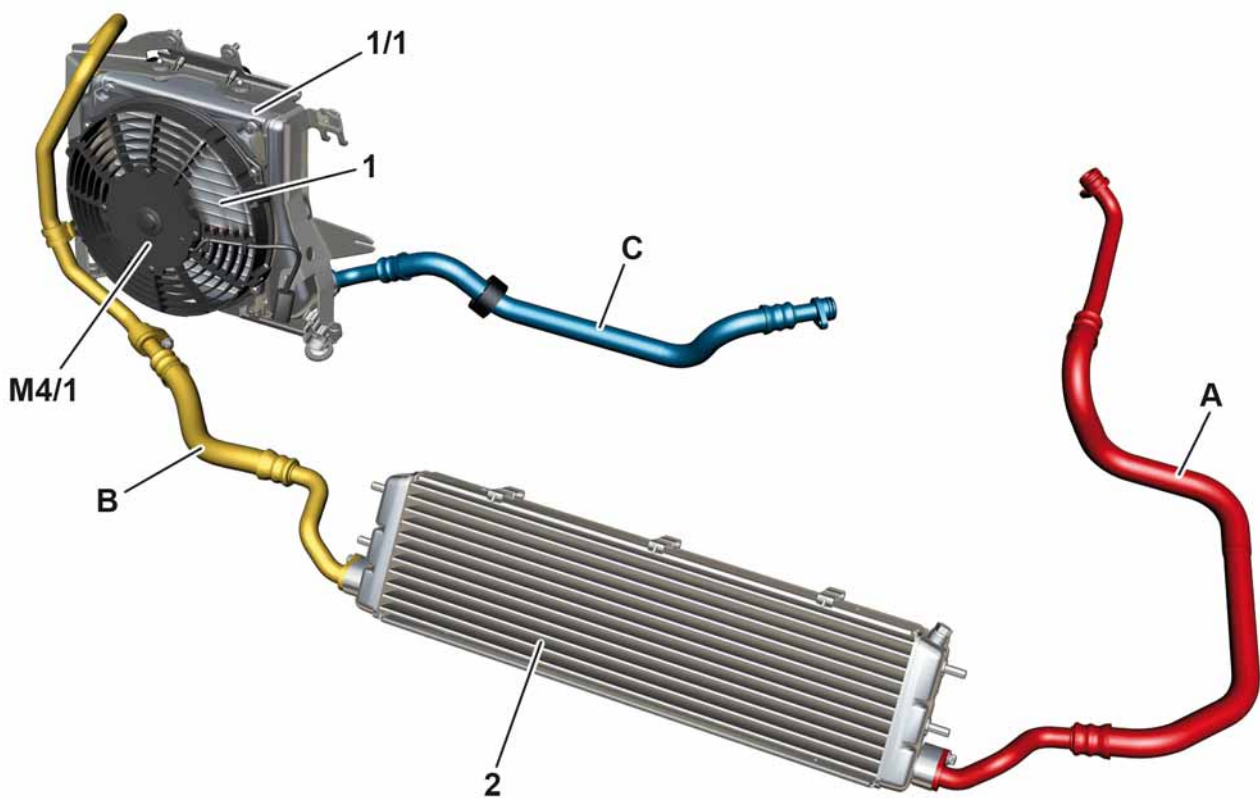
Radiator module

- | | | | |
|---|---|------|--|
| 1 | Engine oil cooler (wheel arch) | 7 | Auxiliary transmission cooler |
| 2 | Engine oil cooler (front end) | | |
| 3 | ABC oil cooler | M4/7 | Engine and air conditioning electric suction fan with integrated control |
| 4 | Condenser | | |
| 5 | Steering oil cooler | | |
| 6 | Engine radiator with integral transmission cooler | | |

Engine oil cooling system of SL 63 AMG

The engine oil cooling system of the SL 63 AMG has a two-stage design which ensures optimal cooling of the oil in engine M156 as required. The oil temperature is monitored by the ME-SFI [ME] control unit via a sensor located in the timing case. When necessary, the ME-SFI [ME] control unit actuates the blower fan of the engine oil cooler in the wheel arch to lower the engine oil temperature.

The AMG-specific air ducting required for this system has been redeveloped accordingly.



P18.30-2132-00

Engine oil cooling components

- | | | | |
|------|---|---|---|
| 1 | Engine oil cooler (wheel arch) | A | Feed to engine oil cooler (front end) from engine |
| 1/1 | Engine oil cooler fan cowl (wheel arch) | B | Feed to engine oil cooler (wheel arch) from engine oil cooler |
| 2 | Engine oil cooler (front end) | C | Return from engine oil cooler (wheel arch) to engine |
| M4/1 | Oil cooler fan motor | | |

Cooling system in SL 63 AMG

Engine oil additional fan relay (K25)

The engine oil additional fan relay (K25) of the SL 63 AMG, which is fused via the engine oil additional fan fuse, is located in the right front wheel arch next to the oil cooler.



P54.15-3127-00

K25 Engine oil additional fan relay

Engine oil additional fan fuse (K40/4f35)

The engine oil additional fan fuse (K40/4f35) of the SL 63 AMG is located in the passenger-side fuse and relay module (K40/4) which is installed at the right rear of the engine compartment.



P54.15-3144-00

K40/4 Passenger-side fuse and relay module
K40/4f35 Fuse 35 (20 A)

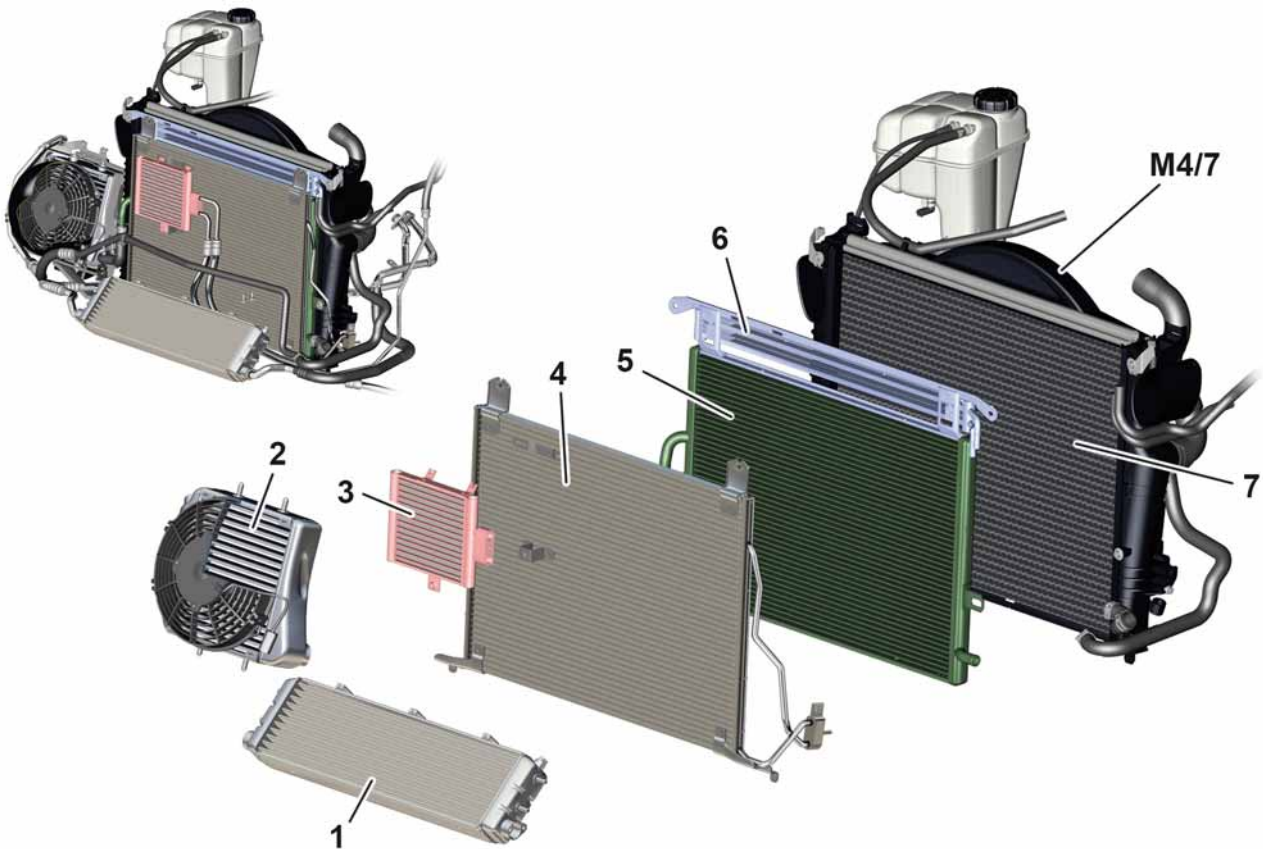
Engine cooling system of SL 65 AMG

On the refined SL 65 AMG models, the radiator is installed in the right front wheel arch. When necessary, the ME-SFI [ME] control unit actuates the blower fan of the radiator (wheel arch) to lower the coolant temperature.

Engine oil cooling system of SL 65 AMG

To ensure optimal engine oil cooling according to requirements, the high-performance engine oil cooler from the SL 63 AMG is installed in front of the radiator module.

The engine oil is cooled exclusively by the airstream created by the vehicle's movement. The AMG-specific air ducting required for this system consists of parts taken over from the SL 63 AMG.



Radiator module

- | | | | |
|---|--|------|--|
| 1 | Engine oil cooler (front end) | 6 | Steering oil cooler |
| 2 | Radiator (wheel arch) | 7 | Engine radiator |
| 3 | ABC oil cooler | | |
| 4 | Condenser | M4/7 | Engine and air conditioning electric suction fan with integrated control |
| 5 | Charge air cooler (low-temperature cooler) | | |

P20.00-2344-00

Exhaust system

Exhaust system of SL 280/350

The exhaust system on the SL 280/350 models with engine M 272 is almost identical to the exhaust system of the SL 500/550 (USA) models with engine M 273.

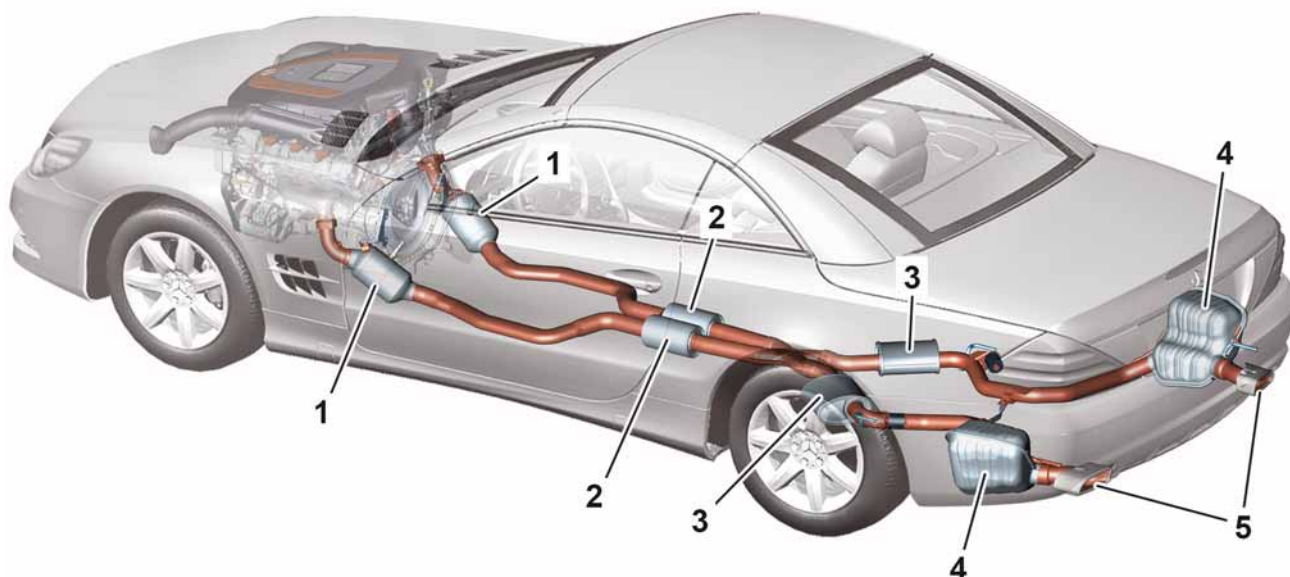
It is a continuous twin-pipe system consisting of:

- Two near-engine mounted firewall catalytic converters
- Two front mufflers
- Two center mufflers
- Two rear mufflers

i Note

The separation points provided for repairs on the exhaust system are identified with punch marks.

The guidelines in WIS with regard to the installation position of the repair clamps and the tightening torque of the bolts must be complied with.



P49.00-2114-00

Exhaust system of SL 350

- | | | | |
|---|--|---|--------------|
| 1 | Near-engine mounted firewall catalytic converter | 4 | Rear muffler |
| 2 | Front muffler | 5 | Exhaust tips |
| 3 | Center muffler | | |



Exhaust system of SL 63 AMG

General

The internal engine emission control functions are assisted by an ultramodern exhaust system specially developed for the large-displacement engine 156. Both the European Euro 4 standard and the current strict ULEV 2 standard from the USA are complied with.

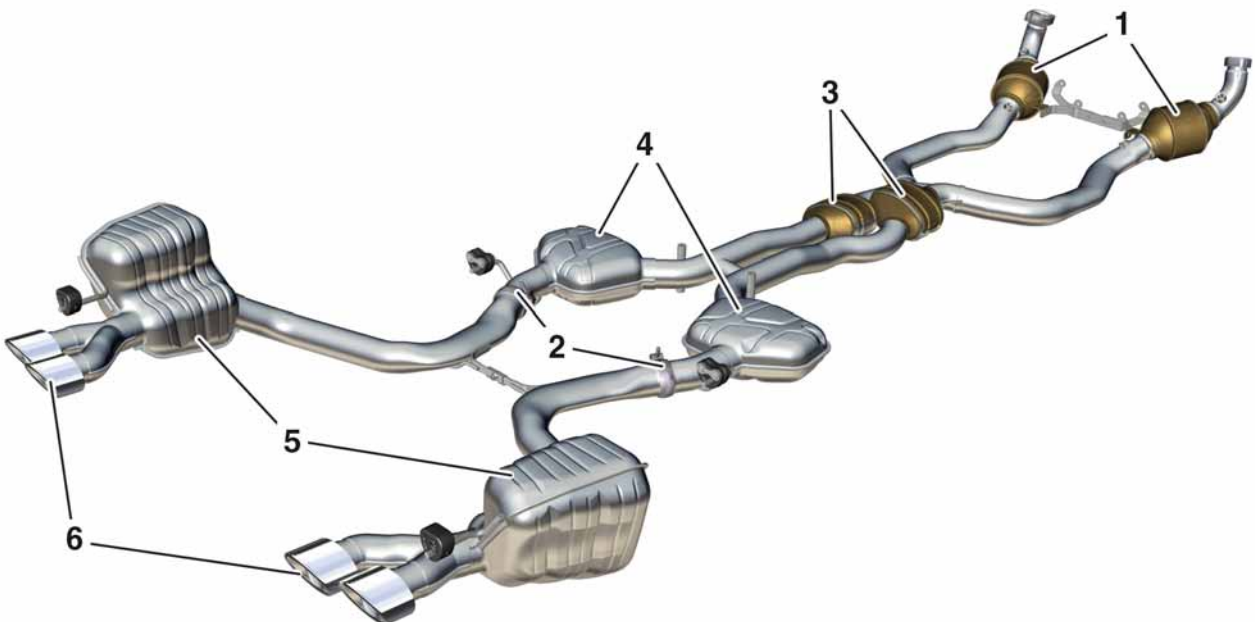
Design

The entire exhaust system is made of stainless steel. It is a continuous twin-pipe system equipped with two near-engine mounted firewall catalytic converters, two underfloor catalytic converters, two center mufflers and two rear mufflers. The exhaust tailpipes are equipped with fixed oval exhaust tips.

Exhaust gas cleaning

The air gap-insulated exhaust manifold with a wall thickness of only 1 mm allows the catalytic converters to reach temperatures of approx. 280 °C just 10 s after a cold start.

This is the prerequisite for the firewall catalytic converters to reach their operating temperature quickly. The near-engine mounted firewall catalytic converters each consist of two catalytic converter elements fitted with thin-walled substrates. Thanks to their maximized surface area, these not only offer the best possible conditions for effective cleaning, but also help with power development due to their low exhaust back pressure.



P49.10-2824-00

Exhaust system of SL 63 AMG

- | | |
|----------------------------------|------------------|
| 1 Firewall catalytic converter | 4 Center muffler |
| 2 Separation points | 5 Rear muffler |
| 3 Underfloor catalytic converter | 6 Exhaust tips |

Fuel system of standard models

Fuel supply system (ECE version)

The fuel supply system must ensure that the injection valves receive adequate quantities of fuel from the fuel tank at sufficient pressure under all operating conditions. The fuel pump suctions the fuel out of the fuel tank and pumps it through the fuel filter with fuel pressure regulator to the injection valves on the fuel distribution rail (feed system).

The fuel pressure regulator regulates the fuel pressure to approx. 3.8 bar.

The large-displacement fuel distribution rail ensures that sufficient fuel is available at all injection valves when the accelerator pedal is rapidly depressed.

The return line from the fuel pressure regulator supplies a suction jet pump which fills the swirl pot in the fuel tank.

Actuation of the fuel pump takes place:

- Via a relay in the rear fuse and relay module, which is actuated by the engine control unit, on the SL 280, SL 350 and SL 500
- Via the fuel pump control unit, which actuates the fuel pump with a PWM signal, on the SL 600

Fuel supply system (USA version)

In order to fulfill the emission regulations in the USA, the following modifications have been made to the fuel system:

- Larger activated charcoal filter
- Activated charcoal filter shutoff valve
- Fuel pressure sensor

Activated charcoal filter

The significantly larger activated charcoal filter can absorb the fuel vapors produced during refueling and bind them to the activated charcoal granules.

Activated charcoal filter shutoff valve

The activated charcoal filter shutoff valve is actuated by ME-SFI [ME] control unit and is used to seal the ventilation system of the activated charcoal filter.

This is necessary so that the legally prescribed leak test of the purge system can be performed.

When the activated charcoal filter shutoff valve is closed, the activated charcoal filter is ventilated via the mechanical safety valve.

Purge switchover valve

The purge switchover valve can be opened and closed to allow a leak test of the purge system to be performed.



Fuel system of standard models

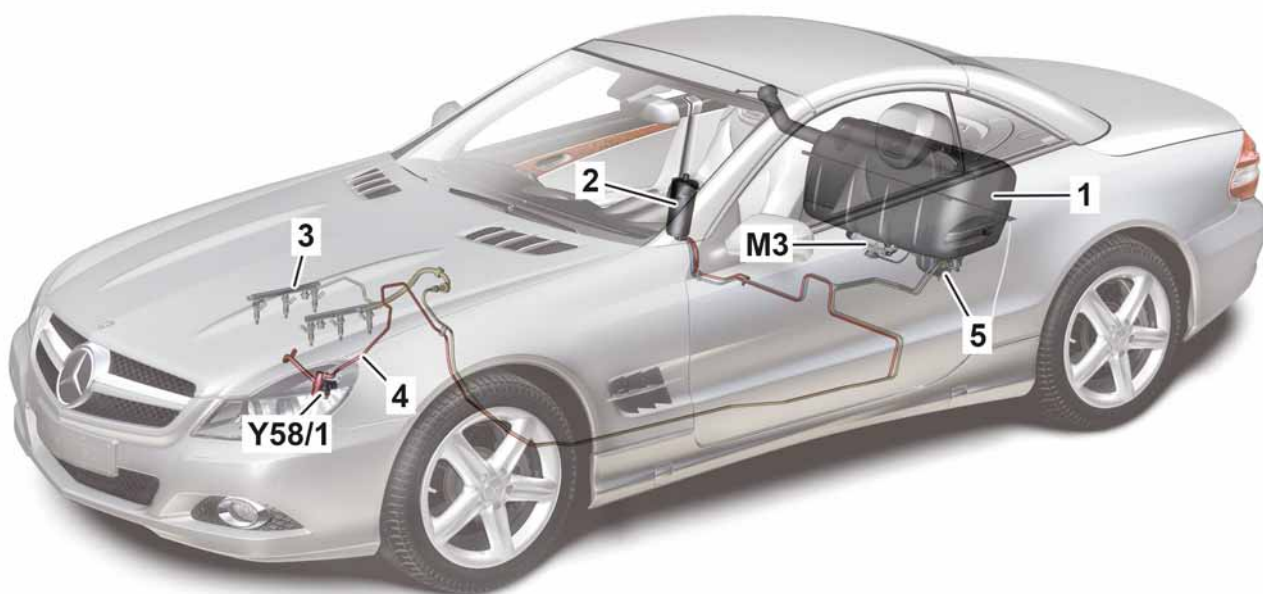
Fuel tank (ECE version)

The fuel tank of the SL-Class is made of sheet steel and is located above the rear axle. Inside it are a suction jet pump and a swirl pot, from which the fuel is suctioned out by the external fuel pump. The suction jet pump located inside the fuel tank is used to fill the swirl pot.

Fuel tank (USA version)

Fuel tank pressure sensor

The internal pressure of the fuel tank is measured via the fuel tank pressure sensor for the purpose of the leak test.



P47.00-2156-00

Function schematic of fuel system in SL 280

- | | | | |
|---|---------------------------|-------|---------------------------------|
| 1 | Fuel tank | 5 | Fuel filter with overflow valve |
| 2 | Activated charcoal filter | M3 | Fuel pump |
| 3 | Fuel distribution rail | Y58/1 | Purge switchover valve |
| 4 | Purge line | | |

Fuel system of AMG models

Fuel supply system of SL 63 AMG

The fuel system of the SL 65 AMG has been used for the SL 63 AMG to ensure that the AMG naturally aspirated V8 engine is supplied with sufficient fuel under all operating conditions.

An external fuel pump with a delivery rate of up to 330 l/h suctions the fuel out of the fuel tank and pumps it to the injection valves on the fuel distribution rail via the fuel filter with integrated overflow valve.

Quantity and pressure control (injection pressure) is performed by the fuel pump control unit in communication with the engine control unit. This determines the system pressure via the fuel pressure sensor and then actuates the fuel pump via a PWM signal to produce a system pressure of between 3.6 and 4.5 bar according to requirements.

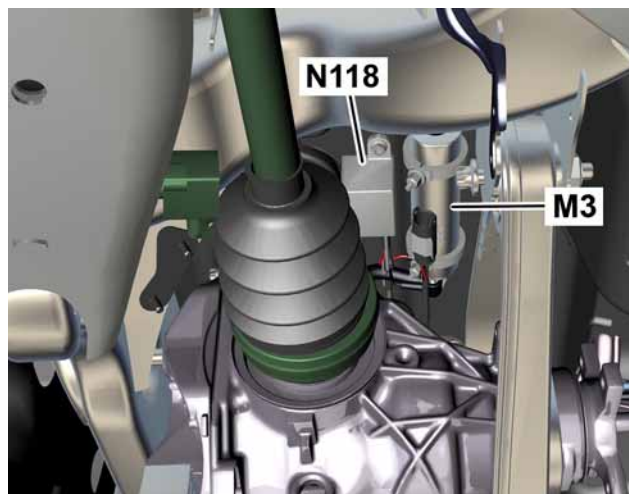
This makes it possible to variably adjust the fuel pressure to all load conditions.

The return line from the overflow valve runs back to the fuel tank. It supplies the suction jet pump inside the fuel tank with fuel to fill the swirl pot.

The mechanical overflow valve opens as soon as the fuel pressure reaches approx. 5.4 bar.

Fuel pump control unit

The fuel pump control unit is located under the fuel tank next to the fuel pump.

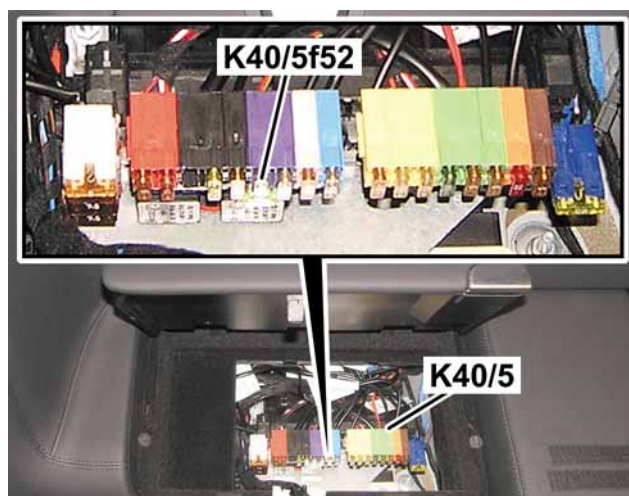


P47.10-2158-00

M3 Fuel pump
N118 Fuel pump control unit

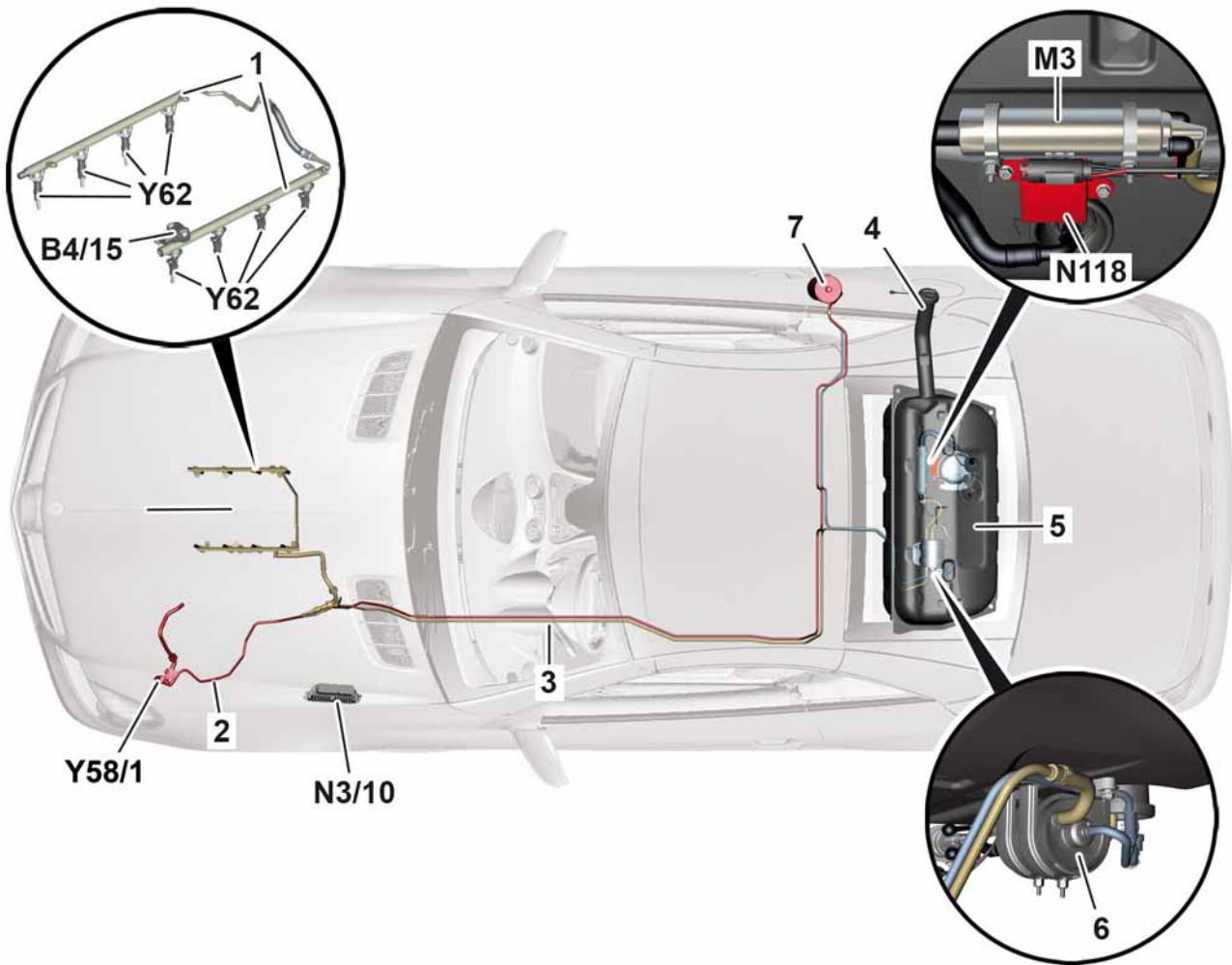
Fuel pump control unit fuse (K40/5f52)

The fuel pump control unit fuse (K40/5f52) is located in the rear fuse and relay module (K40/5), which is located at the rear right next to the transmission tunnel.



P54.15-3128-00

K40/5 Rear fuse and relay module
K40/5f52 Fuse 52 (30 A)



P47.00-2159-00

Function schematic of fuel system in SL 63 AMG

- | | | | |
|---|---------------------------------|-------|--------------------------|
| 1 | Fuel distribution rail | B4/15 | Fuel pressure sensor |
| 2 | Purge line | M3 | Fuel pump |
| 3 | Fuel pressure line | N3/10 | ME-SFI [ME] control unit |
| 4 | Fuel filler neck | N118 | Fuel pump control unit |
| 5 | Fuel tank | Y58/1 | Purge switchover valve |
| 6 | Fuel filter with overflow valve | Y62 | Fuel injection valves |
| 7 | Activated charcoal filter | | |

i Note

The fuel system of the SL 63 AMG is based on the system of the SL 65 AMG.

However, the SL 65 AMG also has an intank fuel pump. This is located in the fuel tank and is actuated by the intank fuel pump control unit.

Technical data of transmission

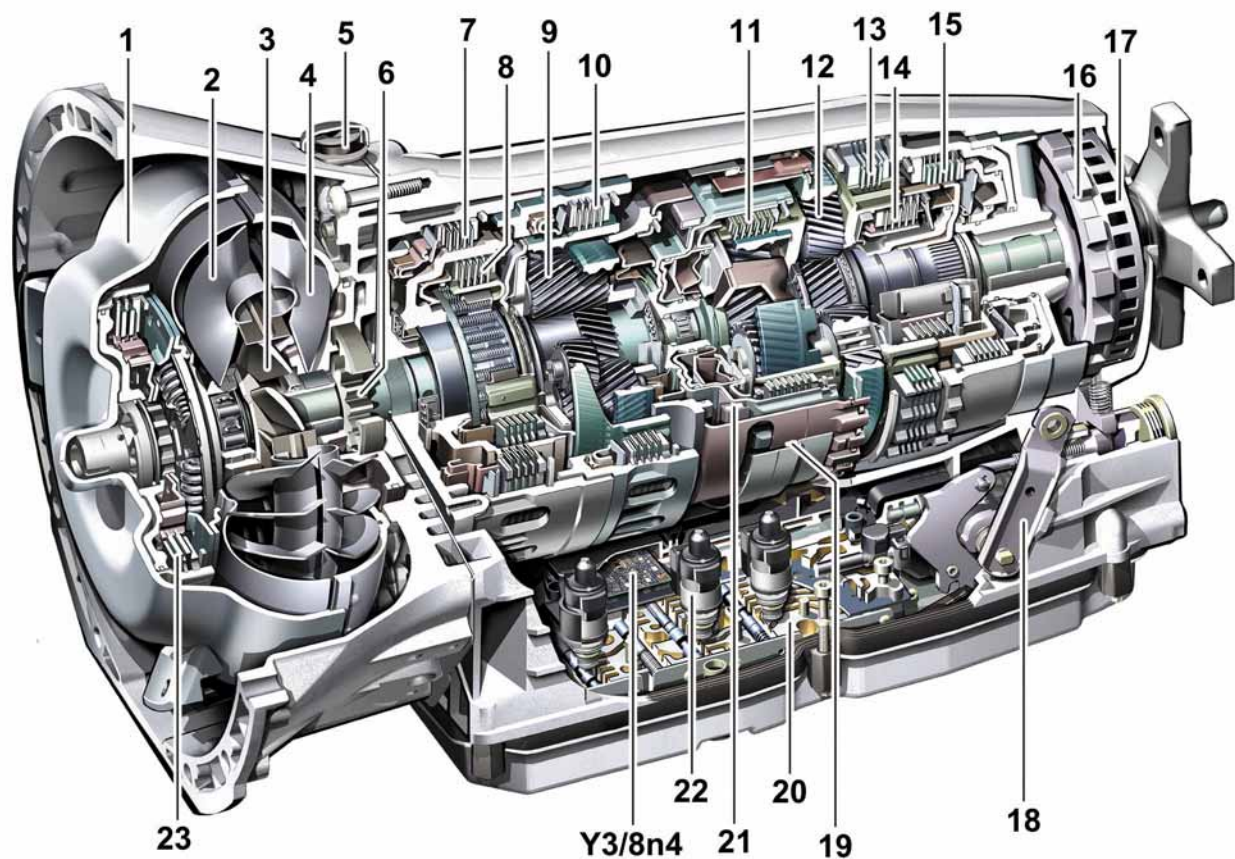
Transmission model	Unit	722.999	722.904
Transmission version		W7A 400	W7A 700
Vehicle model		SL 280	SL 350 SL 500 SL 550
Number of gears (forward/reverse)		7/2	
Max. transferable torque	Nm	400	700
Starting device		Torque converter with torque converter lockup clutch	
Approx. weight (without oil charge)	kg	74	
Oil charge (permanent charge)	l	9	
1st gear ratio	i	4.382	4.377
2nd gear ratio	i	2.855	2.859
3rd gear ratio	i	1.925	1.921
4th gear ratio	i	1.368	
5th gear ratio	i	1.000	
6th gear ratio	i	0.823	0.820
7th gear ratio	i	0.723	0.728
R gear ratio (shift program S)	i	-3.441	-3.416
R gear ratio (shift program C)	i	-2.242	-2.231



Technical data of transmission

722.649	722.930	722.649
W5A 900	W7B 1000	W5A 900
SL 600	SL 63 AMG	SL 65 AMG
5/2	7/2	5/2
900	1000	
Torque converter with torque converter lockup clutch	Wet start-up clutch with steel plates	Torque converter with torque converter lockup clutch
80	74	80
7	9	7
3.600	4.377	3.600
2.190	2.859	2.190
1.410	1.921	1.410
1.000	1.368	1.000
0.830	1.000	0.830
–	0.820	–
–	0.728	–
-2.650	-3.416	-3.160
-1.920	-2.231	-1.920

7-speed automatic transmission



7-speed automatic transmission of SL 350/500/SL550 (USA)

P27.10-2300-00

- | | | | |
|----|-------------------------------|--------|--|
| 1 | Torque converter | 15 | Multidisk brake B2 |
| 2 | Turbine wheel | 16 | Park pawl gear |
| 3 | Stator | 17 | Pulse ring for rpm sensing |
| 4 | Impeller | 18 | Range selector lever |
| 5 | Transmission housing breather | 19 | Ring magnet for rpm sensing |
| 6 | Oil pump | 20 | Valve body housing |
| 7 | Multidisk brake B1 | 21 | Ring magnet for rpm sensing |
| 8 | Multidisk clutch K1 | 22 | Control solenoid valve |
| 9 | Ravigneaux gear set | 23 | Force bridgeover with torsional damper elements |
| 10 | Multidisk brake B3 | | |
| 11 | Multidisk clutch K2 | | |
| 12 | Single planetary gear set | Y3/8n4 | Fully integrated transmission control unit (VGS) |
| 13 | Multidisk brake BR | | |
| 14 | Multidisk brake BR | | |

i Note

A separate Introduction into Service manual is available for the 7-speed automatic transmission.

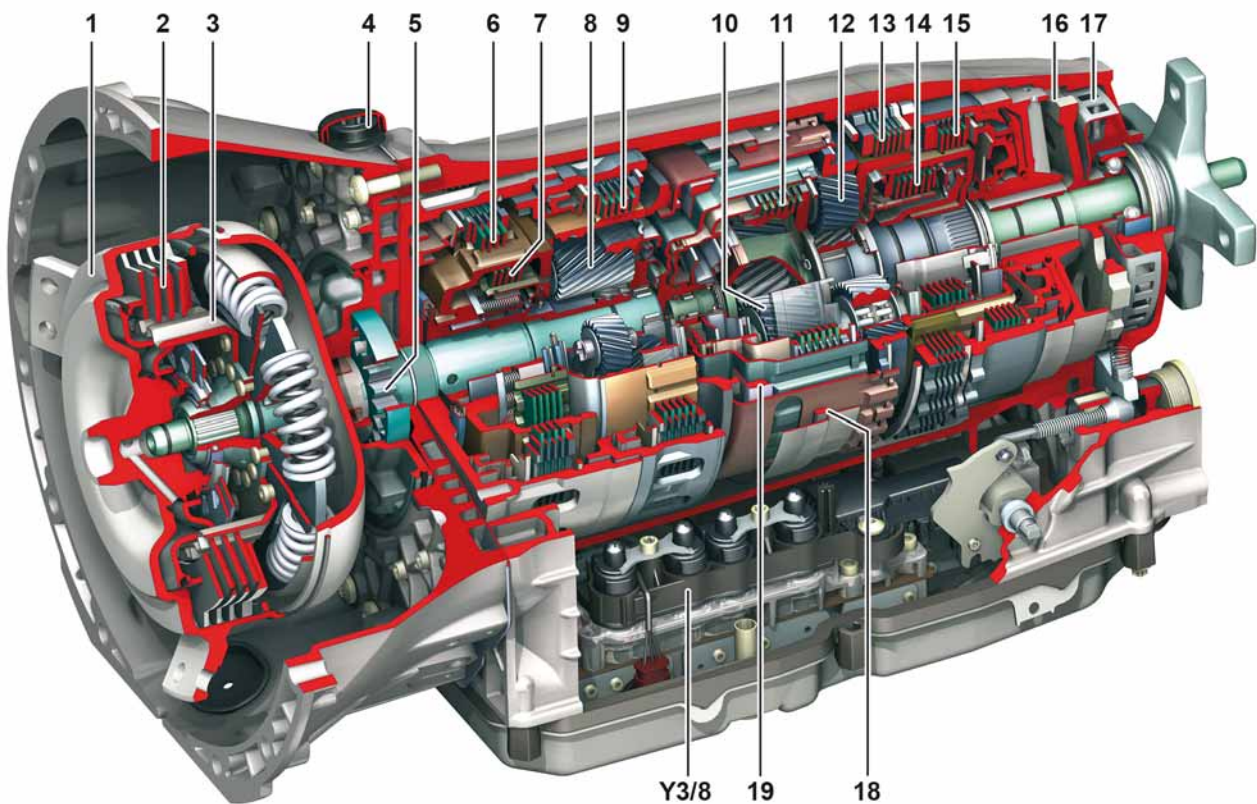
Order no. 6516 1298 02



SPEEDSHIFT MCT sport transmission in SL 63 AMG

The AMG SPEEDSHIFT MCT 7-speed sport transmission in the SL 63 AMG is a new development which is based on the technology of the 7-speed automatic transmission. It is characterized by the following features:

- The torque converter with lockup clutch has been replaced with a wet start-up clutch
- High engine dynamics due to low rotary inertia of hydraulic multidisk clutch
- Reinforcement of all relevant steel and sheet metal parts to increase the maximum torque level supported to 1000 Nm
- Automatic positive torque function for downshifting
- Reduction in shift times
- Immediate reaction to accelerator pedal due to non-slip start-up clutch

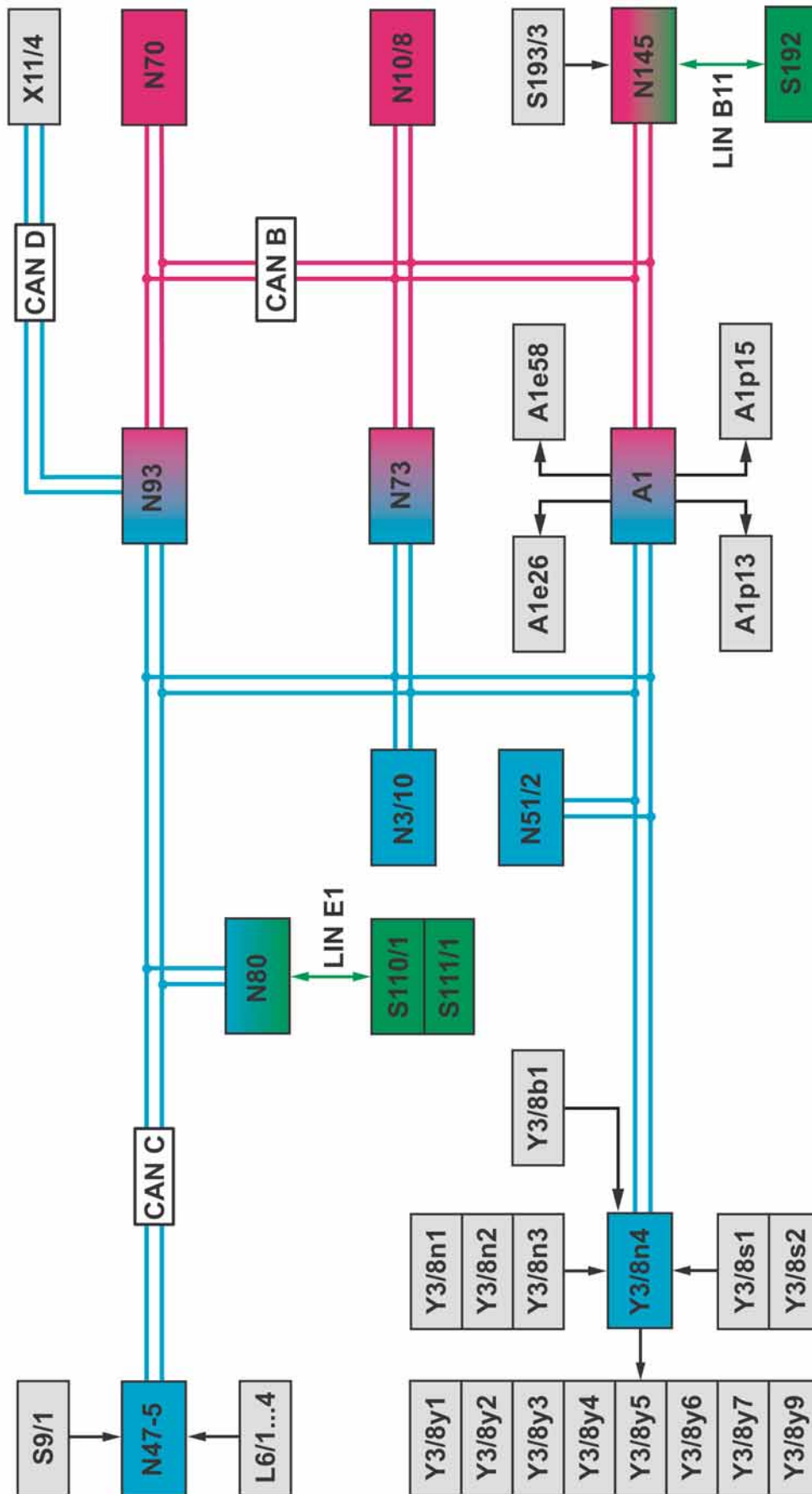


P27.10-2304-00

AMG SPEEDSHIFT MCT 7-speed sport transmission of SL 63 AMG

- | | | | |
|----|--|------|--------------------------------|
| 1 | External plate carrier | 11 | Multidisk clutch K2 |
| 2 | Multidisk clutch | 12 | Rear single planetary gear set |
| 3 | Internal plate carrier with torsional damper | 13 | Multidisk brake BR |
| 4 | Transmission housing ventilation | 14 | Multidisk clutch K3 |
| 5 | Oil pump | 15 | Multidisk brake B2 |
| 6 | Multidisk brake B1 | 16 | Park pawl gear |
| 7 | Multidisk clutch K1 | 17 | Pulse ring for rpm sensing |
| 8 | Ravigneaux gear set | 18 | Ring magnet for rpm sensing |
| 9 | Multidisk brake B3 | 19 | Ring magnet for rpm sensing |
| 10 | Front single planetary gear set | | |
| | | Y3/8 | Electric controller unit (VGS) |

SPEEDSHIFT MCT sport transmission in SL 63 AMG



P27.19-2372-00

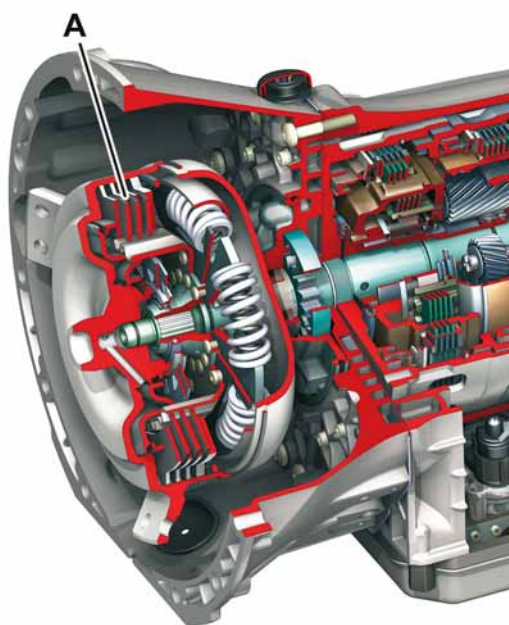
Block diagram for transmission control 722.930

A1	Instrument cluster	N93	Central gateway control unit	Y3/8s2	Transmission oil temperature sensor (VGS)
A1e26	CHECK ENGINE indicator lamp	N145	AMG DRIVE UNIT control unit	Y3/8y1	Working pressure control solenoid valve (VGS)
A1e58	Engine diagnosis indicator lamp	S9/1	Brake light switch	Y3/8y2	K1 clutch control solenoid valve (VGS)
A1p13	Left multifunction display	S110/1	Steering wheel gear shifter MINUS	Y3/8y3	K2 clutch control solenoid valve (VGS)
A1p15	Right multifunction display	S111/1	Steering wheel gear shifter PLUS	Y3/8y4	K3 clutch control solenoid valve (VGS)
L6/1	Left front rpm sensor	S192	Transmission mode adjustment rotary switch	Y3/8y5	B1 brake control solenoid valve (VGS)
L6/2	Right front rpm sensor	S193/3	AMG button	Y3/8y6	B2 brake control solenoid valve (VGS)
L6/3	Left rear rpm sensor	X11/4	Data link connector	Y3/8y7	B3 brake control solenoid valve (VGS)
L6/4	Right rear rpm sensor	Y3/8b1	Start-up clutch oil pressure sensor	Y3/8y9	Start-up clutch control solenoid valve
N3/10	ME-SFI [ME] control unit	Y3/8n1	Turbine speed sensor (VGS)	CAN B	Interior CAN
N10/8	Rear SAM control unit	Y3/8n2	Internal rpm sensor (VGS)	CAN C	Engine compartment CAN
N47-5	ESP, SPS [PML] and BAS control unit	Y3/8n3	Output speed sensor (VGS)	CAN D	Diagnostic CAN
N51/2	ABC control unit	Y3/8n4	Fully integrated transmission control (VGS) control unit	LIN B11	AMG DRIVE UNIT LIN
N70	Overhead control panel control unit		Selection range sensor (VGS)	LIN E1	Steering LIN
N73	EZS control unit				
N80	Steering column module				

SPEEDSHIFT MCT sport transmission in SL 63 AMG

Wet start-up clutch

The wet start-up clutch is a hydraulically operated multidisk clutch. The disks are located in an oil bath to reduce the thermal load they are subjected to.



P27.51-2078-00

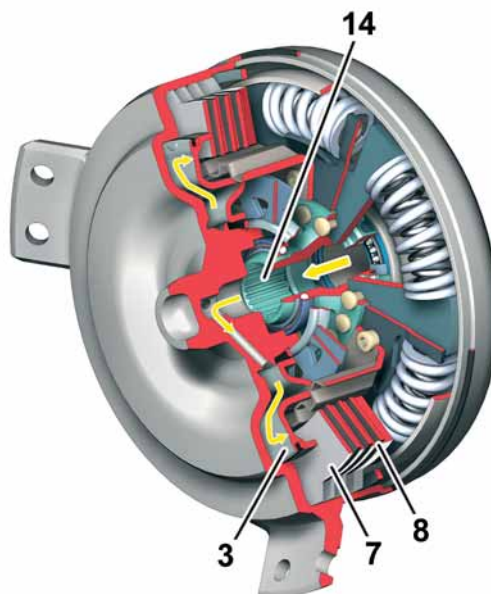
Wet start-up clutch

A Wet start-up clutch

Mode of operation of wet start-up clutch

The start-up clutch control solenoid valve, which is actuated by the fully integrated transmission control unit (VGS), controls the oil pressure and directs it through the drive shaft into the pressure chamber behind the clutch piston. The clutch plates are pressed together by the clutch piston so that the engine torque can be transmitted. The pressure in the clutch piston is regulated via the start-up clutch control solenoid valve. The wet start-up clutch is engaged in all gears depending on the engine speed and engine load.

The torsional damper integrated in the internal plate carrier prevents the transmission of humming noises and engine vibrations. This improves comfort for the driver and reduces wear and tear on the mechanical components of the transmission.



P27.51-2075-00

Oil flow of wet start-up clutch

- 3 Clutch piston
- 7 Externally toothed plates
- 8 Internally toothed plates
- 14 Drive shaft hub

i Note

To operate the wet start-up clutch, the fully integrated transmission control unit (VGS) also needs the start-up clutch oil pressure sensor.

Functions of wet start-up clutch

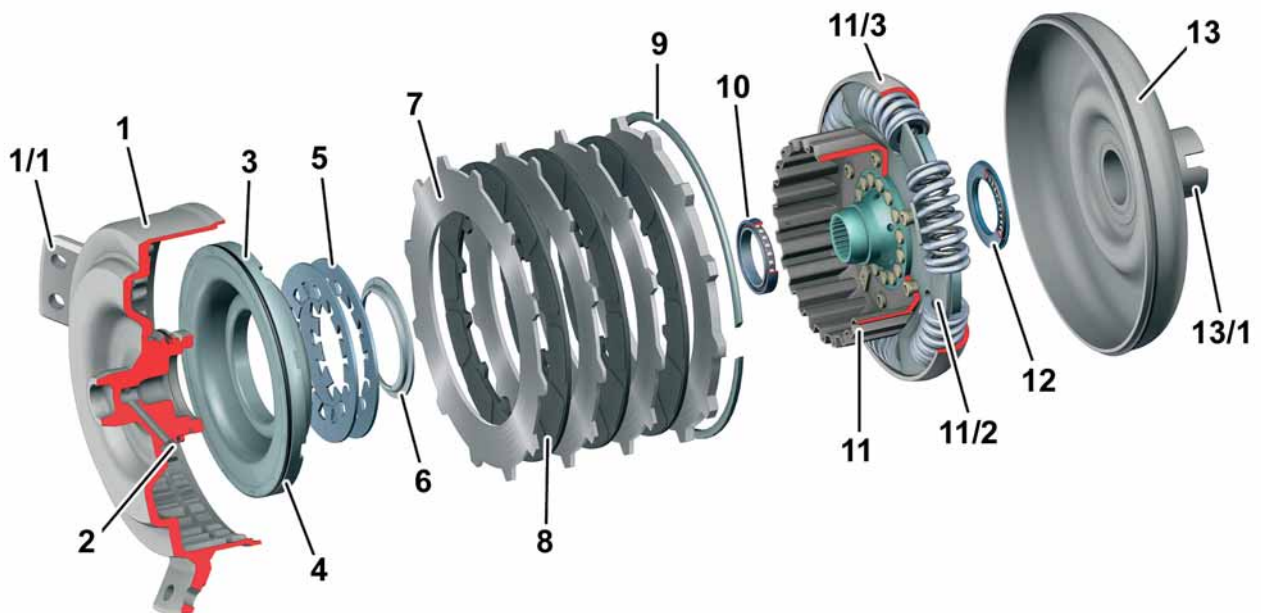
The wet start-up clutch performs the following functions:

- Switch-on process
- Crawling
- Starting off
- Stopping
- Slip control

Positive torque function

The new SL 63 AMG has an automatic positive torque function for downshifting. This offers the following advantages:

- Improved vehicle dynamics
- Improved driving safety
- Reduction of braking torque on drive axle
- Even quicker load-free downshifting



Components of wet start-up clutch

P27.51-2074-00

1	External plate carrier	9	Circlip
1/1	Carrier flank	10	Grooved ball bearing
2	Inner piston seal	11	Internal plate carrier assy. with torsional damper
3	Clutch piston	11/2	Left cover panel
4	Outer piston seal	11/3	Right cover panel
5	Return spring	12	Axial bearing
6	Circlip	13	Clutch cover
7	Externally toothed plates	13/1	Pump neck
8	Internally toothed plates		

SPEEDSHIFT MCT sport transmission in SL 63 AMG

Transmission cooling system

The SL 63 AMG has an additional transmission cooler for the new AMG SPEEDSHIFT MCT 7-speed sport transmission to maintain the transmission oil temperature at a defined temperature level. This is integrated in the lower area of the radiator module.

The temperature sensor located in the transmission oil sump records the transmission oil temperature and forwards it to the fully integrated transmission control unit (VGS). This processes the information and regulates the radiator fan to ensure an optimal transmission oil temperature.

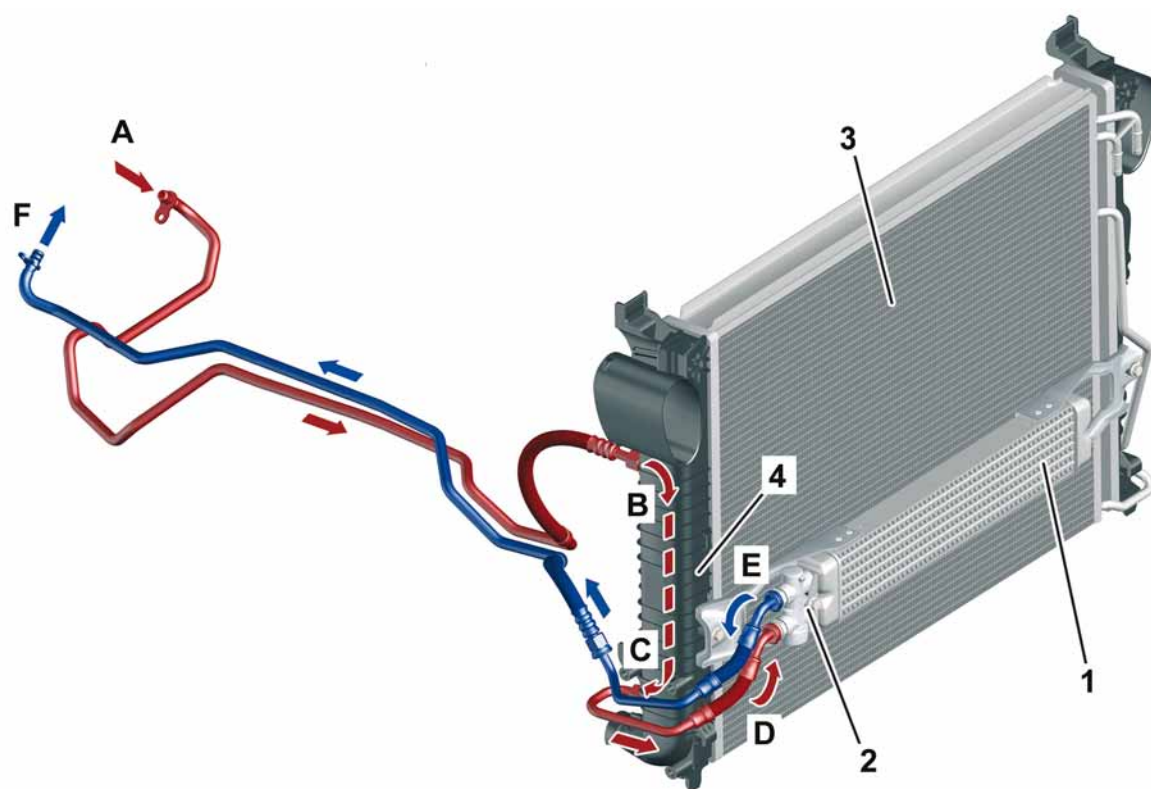
The transmission oil temperature is controlled as follows:

- At $< 80\text{ }^{\circ}\text{C}$ it is heated so that the automatic transmission reaches its operating temperature more quickly
- At $> 80\text{ }^{\circ}\text{C}$ it is cooled to prevent thermal overload

The auxiliary transmission cooler is equipped with a transmission oil thermostat.

At a transmission oil temperature of $< 90\text{ }^{\circ}\text{C}$, the transmission oil flows directly back to the automatic transmission via the return line.

At a transmission oil temperature of $> 90\text{ }^{\circ}\text{C}$, the transmission oil thermostat opens and the transmission oil flows through the transmission cooler before it flows back to the transmission through the return line.



P27.55-2086-00

Transmission oil cooling system of AMG SPEEDSHIFT MCT 7-speed sport transmission in SL 63 AMG

- 1 Auxiliary transmission cooler
- 2 Transmission oil thermostat
- 3 Radiator
- 4 Transmission cooler

- A Feed to cooling circuit from transmission
- B Feed to transmission cooler
- C Return from transmission cooler
- D Feed to transmission oil thermostat
- E Return from transmission oil thermostat
- F Return from cooling circuit to transmission



AMG DRIVE UNIT in SL 63 AMG

On the SL 63 AMG, all of the driving-related switches and buttons are combined for the driver in a newly designed operating unit, the "AMG DRIVE UNIT".

The following buttons and switches are integrated in the AMG DRIVE UNIT:

- Transmission mode adjustment rotary switch
- ESP Sport OFF button
- Suspension button
- AMG button



P27.60-3039-00

S192 Transmission mode adjustment rotary switch
S193/1 ESP Sport OFF button

S193/2 Suspension button
S193/3 AMG button

AMG DRIVE UNIT control unit

The AMG DRIVE UNIT is controlled via a separate control unit. The AMG DRIVE UNIT control unit is located under the trim behind the driver seat.



P54.21-2960-00

N145 AMG DRIVE UNIT control unit

AMG DRIVE UNIT in SL 63 AMG

Transmission mode adjustment rotary switch

The transmission mode adjustment rotary switch is used to select the various transmission shift programs:

- Comfort "C"
(normal driving situation)
- Sport "S"
(normal driving situation)
- Sport Plus "S+"
(sporty driving situation with reduced shift times)
- Manual "M"
- RACE START "RS"
(not selectable during normal driving operation)

The indicator for the program selected on the transmission mode adjustment rotary switch is highlighted with red background illumination.



P54.25-6709-00

Transmission mode adjustment rotary switch

Fuse 41 (K40/4f41) AMG DRIVE UNIT

Fuse 41 (K40/4f41) AMG DRIVE UNIT, which protects the AMG DRIVE UNIT control unit, is located in the passenger-side fuse and relay module (K40/4). This is installed at the right rear of the engine compartment.

ESP Sport OFF button

Three different ESP modes can be selected using the ESP Sport OFF button:

- ESP ON
- ESP Sport (raised control threshold)
- ESP OFF (ESP deactivated)

Suspension button

The suspension button is pressed to select either the "Comfort" or "Sport" suspension setting.

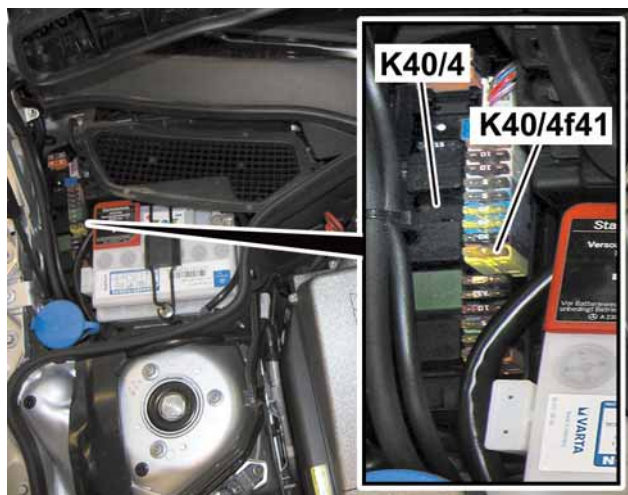
AMG button

The AMG button is used to store and call up the following setup menus:

- Transmission mode
- Suspension tuning

The setup menu is called up by briefly pressing the AMG button.

If the AMG button is pressed for a longer period of time, the setup menu not only opens but the current transmission mode and suspension settings are also stored.



P54.15-3143-00

K40/4 Passenger-side fuse and relay module
K40/4f41 Fuse 41 (5 A)



RACE START function

The new RACE START function allows for optimal vehicle acceleration from standstill. Certain basic requirements must be fulfilled for RACE START to be activated:

- Driver door, trunk lid and engine hood closed
- Engine, transmission, ESP and ABS not in emergency operation mode
- ESP Sport mode activated

The following parameters are also checked before the RACE START function is started:

- Engine oil temperature $T > 80\text{ °C}$
- Position of steering angle sensor:
The steering wheel must be in the straight-ahead position
- No thermal overload of start-up clutch
- Gear range "D" must be engaged

If one of these basic requirements is not fulfilled, RACE START is not possible or is aborted.

The following messages are displayed in the multifunction displays:

- Left multifunction display:
"RACE START"
- Right multifunction display:
"not possible, see operator's manual"

RACE START procedure

1. Actuate brake pedal

When the brake pedal is actuated by the left foot of the driver, pressure is built up in the hydraulic brake system. The level of pressure is forwarded to the fully integrated transmission control unit (VGS) by the ESP, SPS [PML] and BAS control unit via the CAN bus.

i Note

The brake pedal must be actuated with the left foot because the right foot is required to actuate the accelerator pedal.

2. Engage gear range

The AMG DRIVE UNIT control unit receives feedback about gear range engagement from the fully integrated transmission control unit via CAN bus.



P54.32-5843-00

RACE START not possible display

RACE START function in SL 63 AMG

3. Call up RACE START

RACE START mode is activated in the fully integrated transmission control unit via the AMG DRIVE UNIT by turning the transmission mode adjustment rotary switch to position "RS".

The transmission control unit then evaluates the following signals:

- Engine oil temperature
- Steering angle sensor position
- Temperature of wet start-up clutch

The fully integrated transmission control unit also displays the following messages via the instrument cluster:

- Left multifunction display:
"Paddle DOWN to abort RACE START"
- Right multifunction display:
"Paddle UP to confirm RACE START"



RACE START confirm display

P54.32-5839-00

4. Activate/deactivate RACE START

The signal to confirm or abort RACE START is transmitted to the fully integrated transmission control unit via the steering column tube module by pressing the steering wheel Paddle UP or the steering wheel Paddle DOWN.

5. Actuate accelerator pedal

The fully integrated transmission control unit (VGS) transmits a request to the instrument cluster to display the following text in the multifunction displays:

- Left multifunction display:
"RACE START"
- Right multifunction display:
"available, press accelerator pedal"

In accordance with the text in the right multifunction display, the driver must now depress the accelerator pedal all the way with his/her right foot.

The status of the accelerator pedal is read in by the ME-SFI [ME] control unit and made available to the fully integrated transmission control unit via the CAN bus.



RACE START available display

P54.32-5840-00

RACE START function in SL 63 AMG

6. Activate RACE START

The AMG DRIVE UNIT control unit places the signal "RACE START mode active" on the CAN bus. The ME-SFI [ME] control unit then raises the engine speed to approx. 4000 rpm and the following text appears in the multifunction displays:

- Left multifunction display:
"RACE START"
- Right multifunction display:
"Release brake to start"



P54.32-5841-00

RACE START start display

7. RACE START mode active

The RACE START function is started by releasing the brake pedal and the start-off procedure is performed with maximum acceleration.

The following messages appear on the multifunction displays:

- Left multifunction display:
"RACE START"
- Right multifunction display:
"active"



P54.32-5842-00

RACE START active display

8. End of RACE START mode

The RACE START function is terminated when the vehicle reaches a speed of approx. 50 km/h.

RACE START abort

RACE START mode is aborted if the fully integrated transmission control unit receives one of the following signals:

- Driver door, trunk lid or engine hood open
- Engine, transmission, ESP or ABS in emergency operation mode
- Start-up clutch thermally overloaded

The following messages are then displayed in the multifunction displays:

- Left multifunction display:
"RACE START"
- Right multifunction display:
"aborted"



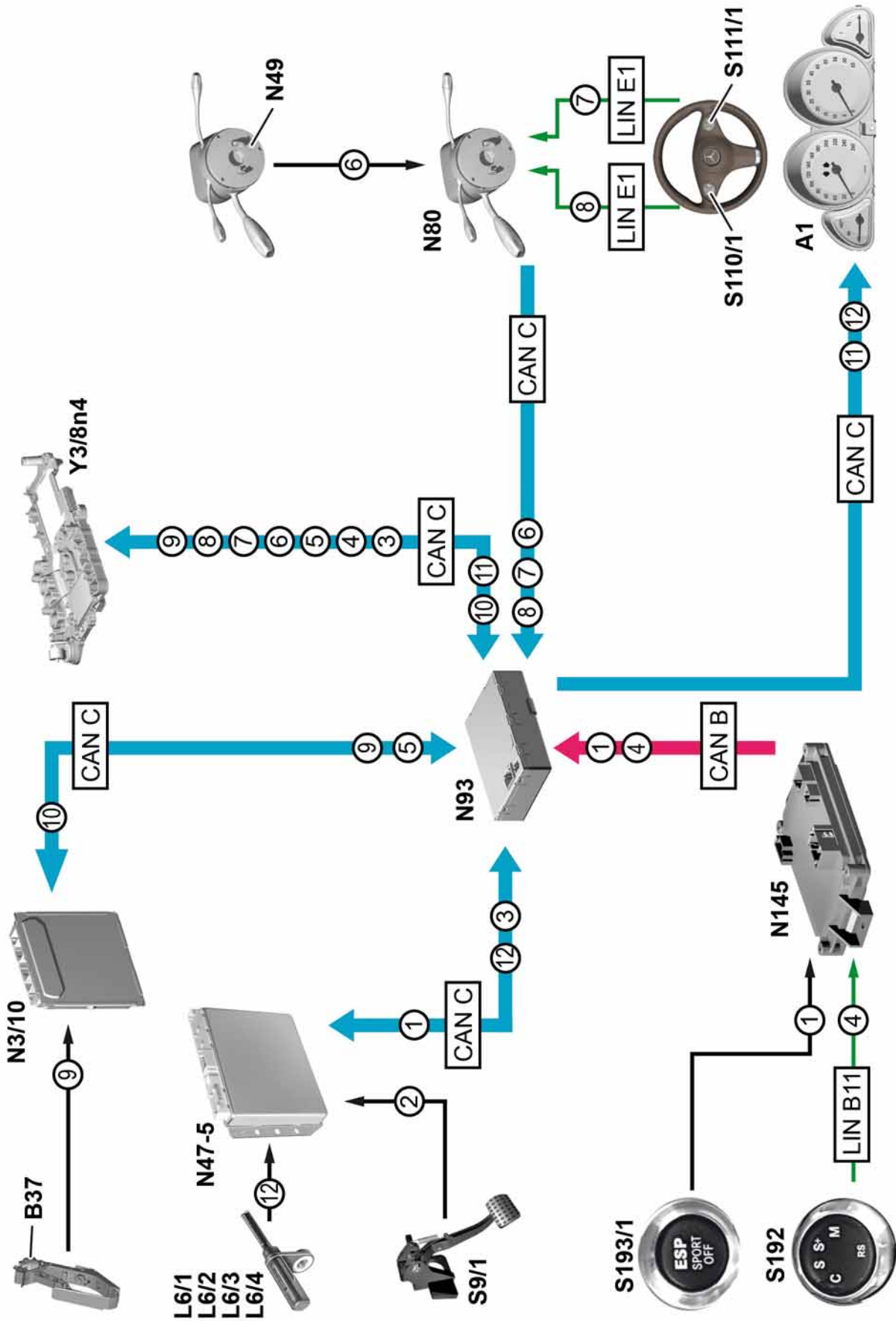
P54.32-5844-00

RACE START aborted display

i Note

If RACE START is used several times in quick succession, it only becomes available again after the vehicle is driven a certain distance.

RACE START function in SL 63 AMG



P00.10-4302-00

Data flow chart for RACE START

1	ESP Sport mode request	A1	Instrument cluster	S111/1	Steering wheel gear shifter PLUS
2	Brake light switch status	B37	Accelerator pedal sensor	S192	Transmission mode adjustment rotary switch
3	Brake pressure signal	L6/1	Left front rpm sensor	S193/1	ESP Sport OFF button
4	Gear range mode status	L6/2	Right front rpm sensor	Y3/8n4	Fully integrated transmission control unit (VGS)
5	Engine oil temperature	L6/3	Left rear rpm sensor		
6	Steering angle sensor position	L6/4	Right rear rpm sensor		
7	RACE START confirmation request	N3/10	ME-SFI/[ME] control unit		
8	RACE START abort request	N47-5	ESP, SPS [PML] and BAS control unit	CAN B	Interior CAN
9	Accelerator pedal status	N49	Steering angle sensor	CAN C	Engine compartment CAN
10	RACE START activated	N80	Steering column module	LIN B11	AMG DRIVE UNIT LIN
11	Status indication	N93	Central gateway control unit	LIN E1	Steering LIN
12	Vehicle speed signal	N145	AMG DRIVE UNIT control unit		
		S9/1	Brake light switch		
		S110/1	Steering wheel gear shifter MINUS		

Active Body Control (ABC)

Suspension

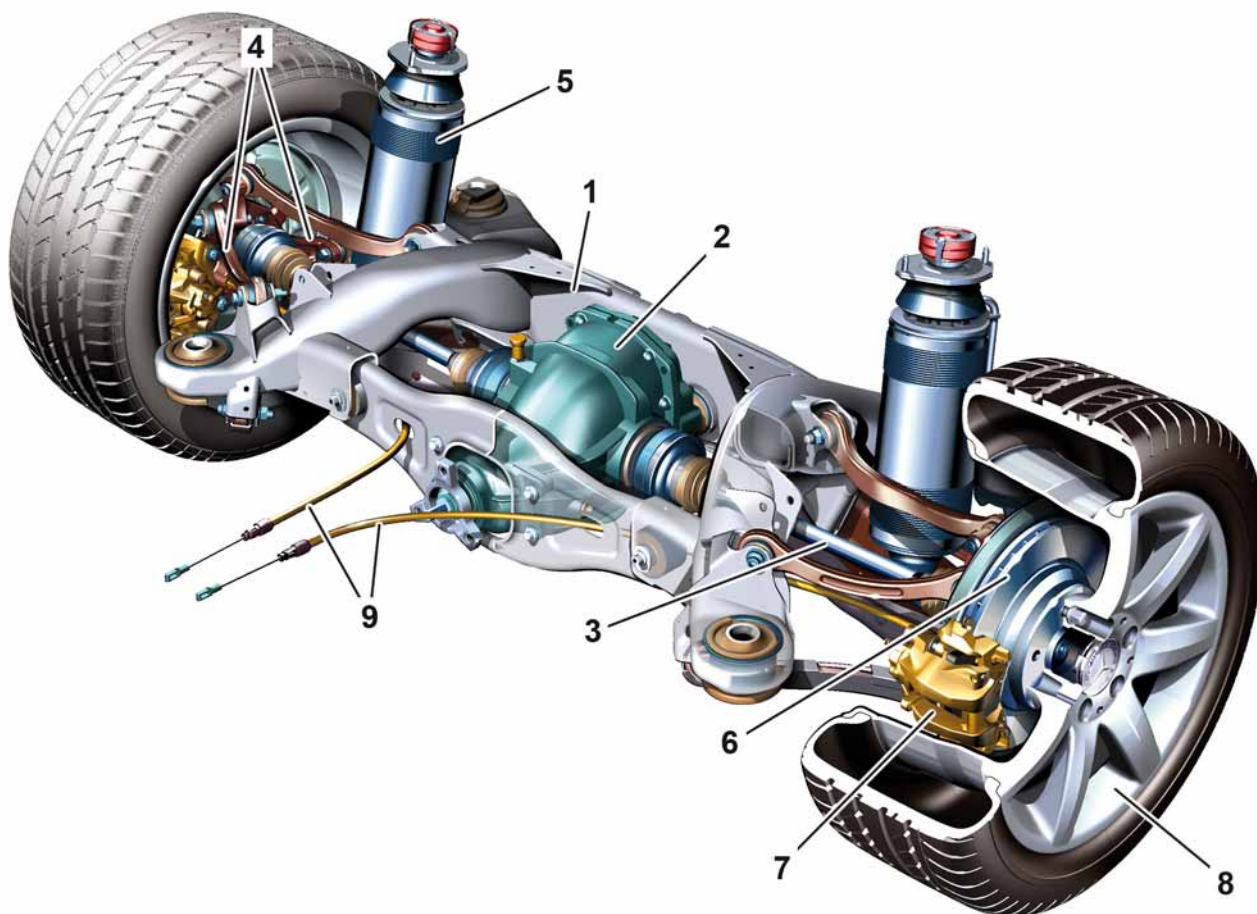
The familiar Active Body Control (ABC) active suspension and damping system, code (487), is also used on the refined SL-Class models.

The ABC shock absorbers have been retuned to improve the handling characteristics. This was achieved by changing the parameters of the software.

The SL 500, the SL 600 and all USA vehicles are equipped with ABC suspension as standard.

The SL 280 and the SL 350 are equipped with conventional steel suspension as standard.

ABC suspension is available as a special equipment option for the SL 350.



P35.10-2344-00

Rear axle of SL 500/SL 550

- | | |
|---------------------------------------|---------------------|
| 1 Rear axle frame | 6 Brake disk |
| 2 Rear axle differential (HAG 215 FE) | 7 Brake caliper |
| 3 Drive shaft | 8 Light alloy wheel |
| 4 Control arm | 9 Hand brake cables |
| 5 ABC suspension strut | |

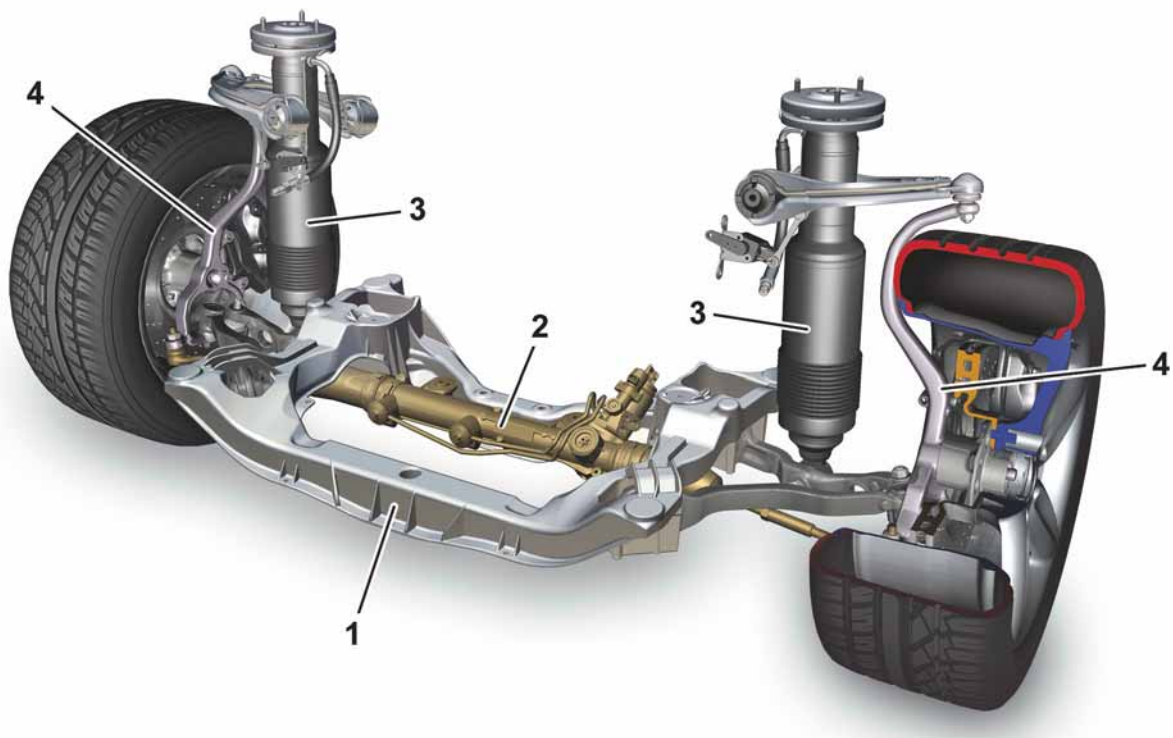
Front axle of SL 63 AMG

The front axle of the SL 63 AMG is a further developed version of the front suspension from the SL 55 AMG. It differs from the front suspension of standard models as follows:

- AMG-specific suspension strut
- Modified elastokinematics
- AMG-specific parameterization and adaptation of ABC control unit
- Adaptation of characteristics of AMG speed-sensitive power steering

Front axle of SL 65 AMG

Like the front axle of the SL 63 AMG, the front axle of the SL 65 AMG features the AMG-specific components listed below.



P33.10-2314-00

Front axle of SL 63 AMG

- 1 Frame-type integral support
2 AMG speed-sensitive power steering

- 3 AMG-specific ABC suspension strut
4 Steering knuckle

Axles on AMG models

Rear axle and drivetrain

SL 63 AMG

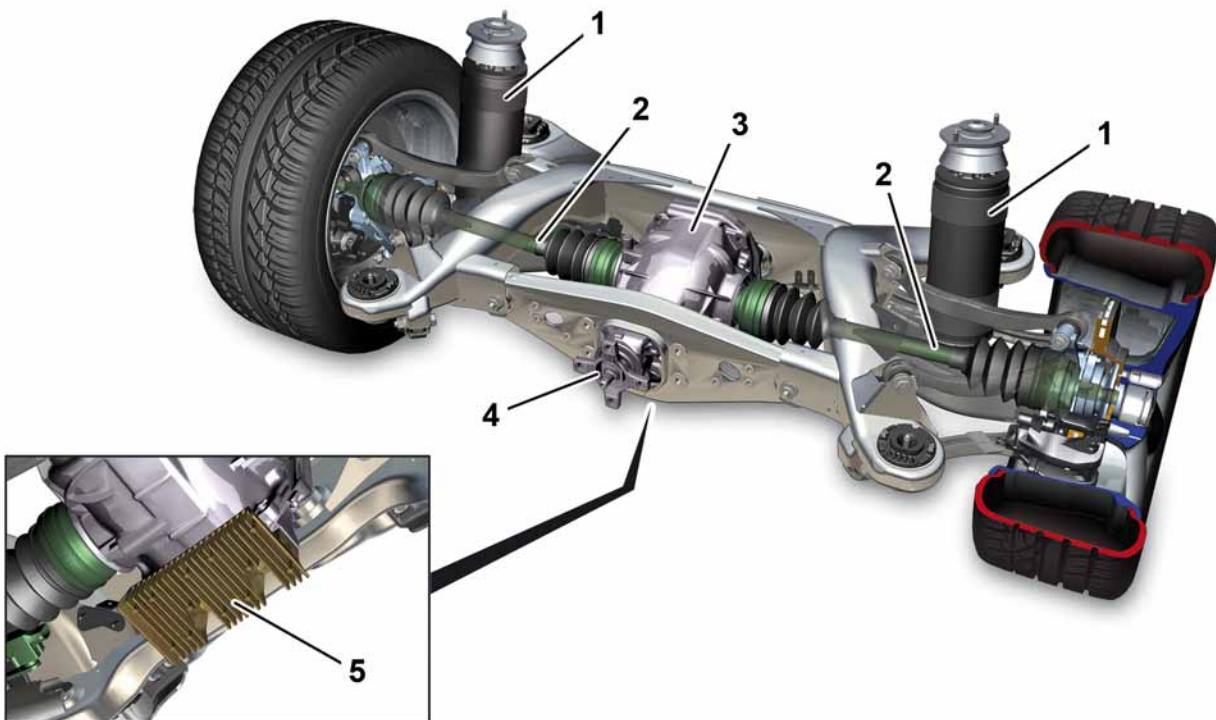
The rear axle of the SL 63 AMG is based on the SL 55 AMG, although the elastokinematics have been modified and the vehicle features the HAG 215 FE rear axle differential and new drive shafts

A reinforced rear axle differential, code (471), with mechanical locking differential, asymmetric multidisk clutch and 40% locking factor is available as a special equipment option for the SL 63 AMG.

SL 65 AMG

The modified elastokinematics of the SL 63 AMG are used on the rear axle of the SL 65 AMG.

The mechanical locking differential, code (471), with asymmetric multidisk clutch and 40% locking factor is installed in the SL 65 AMG as standard.



Rear axle of SL 63 AMG

- 1 AMG-specific ABC suspension strut
- 2 AMG-specific drive shafts

- 3 Rear axle differential (HAG 215 FE)
- 4 4-arm flange
- 5 Heat sink

P35.10-2345-00

Rear axle differential (HAG)					
Vehicle model	Model	Engine	Transmission	HAG	Gear ratio
SL 280	230.454	272.949	722.999	200 FE	3.07
SL 350	230.458	272.968	722.904	200 FE	3.27
SL 500	230.471	273.965	722.904	215 FE	2.65
SL 600	230.477	275.954	722.649	215 FE	2.65
SL 550 (USA)	230.471	273.965	722.904	215 FE	2.65
SL 600 (USA)	230.477	275.954	722.649	215 FE	2.65
SL 63 AMG	230.470	156.981	722.930	215 FE	3.06
SL 63 AMG Code (471)	230.470	156.981	722.930	215 FE-V*	3.06
SL 65 AMG	230.479	275.981	722.649	215 FE-V*	2.65

HAG

FE = Fuel Economy

* = with differential lock

V = Reinforced

Maintenance of AMG locking differential

i Note

On AMG models with locking differential, the first oil change on the rear axle differential must be performed after the first 3000 km. The maintenance interval for the rear axle gear with locking differential is 60,000 km.



AMG rear axle locking differential

P35.31-2224-00

Wheels/tires

Designation	Front tires	Front light alloy wheel	Rear tires	Rear light alloy wheel
Standard equipment light alloy wheels				
Code 644	255/45 R17	8.5J x 17 ET 35	255/45 R17	8.5J x 17 ET 35
Code R48				
Code R31	255/40 R18	8.5J x 18 ET 35	255/40 R18	8.5J x 18 ET 35
Code R32 (USA version)	255/40 R18	8.5J x 18 ET 35	285/35 R18	9.5J x 18 ET 40
Code R99				



Light alloy wheel, code (644)

P40.10-5173-00



Light alloy wheel, code (R31)

P40.10-5169-00



Light alloy wheel, code (R48)

P40.10-5170-00



Light alloy wheel, code (R32)

P40.10-5172-00





P40.10-5171-00

Light alloy wheel, code (R99)

Designation	Front tires	Front light alloy wheel	Rear tires	Rear light alloy wheel
Standard equipment AMG light alloy wheels				
Code 793	255/35 R19	8.5J x 19 ET 30	285/30 R19	9.5J x 19 ET 31
Code 797				



P40.10-5186-00

Light alloy wheel, code (793)



P40.10-5195-00

Light alloy wheel, code (797)

Wheels/tires

Designation	Front tires	Front light alloy wheel	Rear tires	Rear light alloy wheel
Special equipment light alloy wheels				
Code 22R	255/40 R18	8.5J x 18 ET 35	285/35 R18	9.5J x 18 ET 40
Code 770	255/35 R19	8.5J x 19 ET 30	285/30 R19	9.5J x 19 ET 31
Code R17	255/35 ZR19	8.5J x 19 ET 35	285/30 ZR19	9.5J x 19 ET 40



P40.10-5168-00

Light alloy wheel, code (22R)



P40.10-5174-00

Light alloy wheel, code (R17)



P40.10-5194-00

Light alloy wheel, code (770)



Direct steering

With the model refinement, a new direct steering system, code (213), is available for the SL-Class as special equipment.

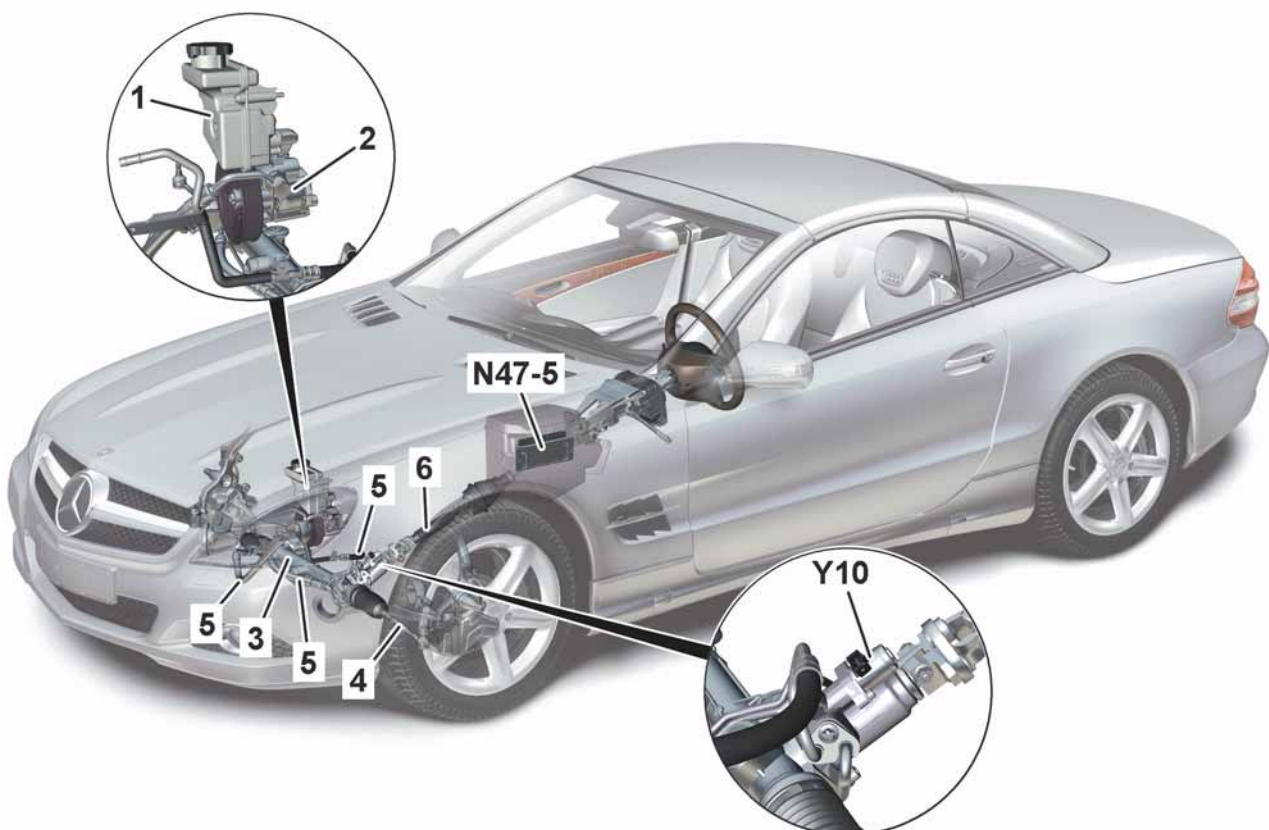
As well as the familiar speed-dependent servo assistance function, it improves the steering comfort of the driver and makes an important contribution to improving the agility of the vehicle.

Steering of AMG models

In order to retain the typical sports car driving behavior, the elastokinematics of the front axle have been further optimized on the AMG models to improve steering agility and to provide a direct and sporty steering response. Great emphasis was placed on ensuring a predominantly linear turning and self-steering behavior, which means that the direct steering system would not have provided any further advantages as part of the overall steering and suspension tuning setup.

i Note

Direct steering, code (213), is not available for the AMG models.



Components of direct steering

- | | | | |
|---|--------------------------|-------|-------------------------------------|
| 1 | Expansion reservoir | 6 | Steering column |
| 2 | Power steering pump | N47-5 | ESP, SPS [PML] and BAS control unit |
| 3 | Rack-and-pinion steering | Y10 | SPS [PML] solenoid valve |
| 4 | Tie rod | | |
| 5 | Hydraulic lines | | |

P46.50-2074-00

Steering

Direct steering

The new direct steering system differs from the familiar speed-sensitive power steering system due to a new valve characteristic and a modified toothed rack.

The new toothed rack features a sharp increase in the gear ratio from the center position. The increase in the gear ratio starts at a steering angle of approx. 6° and the maximum gear ratio is reached at a steering angle of approx. 94°.

Speed-dependent steering assistance has been further optimized by modifying the valve characteristic.

The SL-Class can now be driven with greater safety, more comfort and greater agility due to the introduction of the variable gear ratio and optimized steering assistance.

The steering gear enables the following functions to be performed:

- Transfer of steering movement
- Steering assistance control
- Variable steering force support (speed-dependent)
- Play compensation
- Steering damping

Variable steering force support

Steering force support is regulated to match the vehicle speed. It is controlled via the speed-sensitive power steering solenoid valve, which is actuated by the ESP, SPS [PML] and BAS control unit according to vehicle speed.

Play compensation

Zero clearance meshing of the drive pinion and toothed rack is guaranteed by a thrust piece in the valve play compensator.

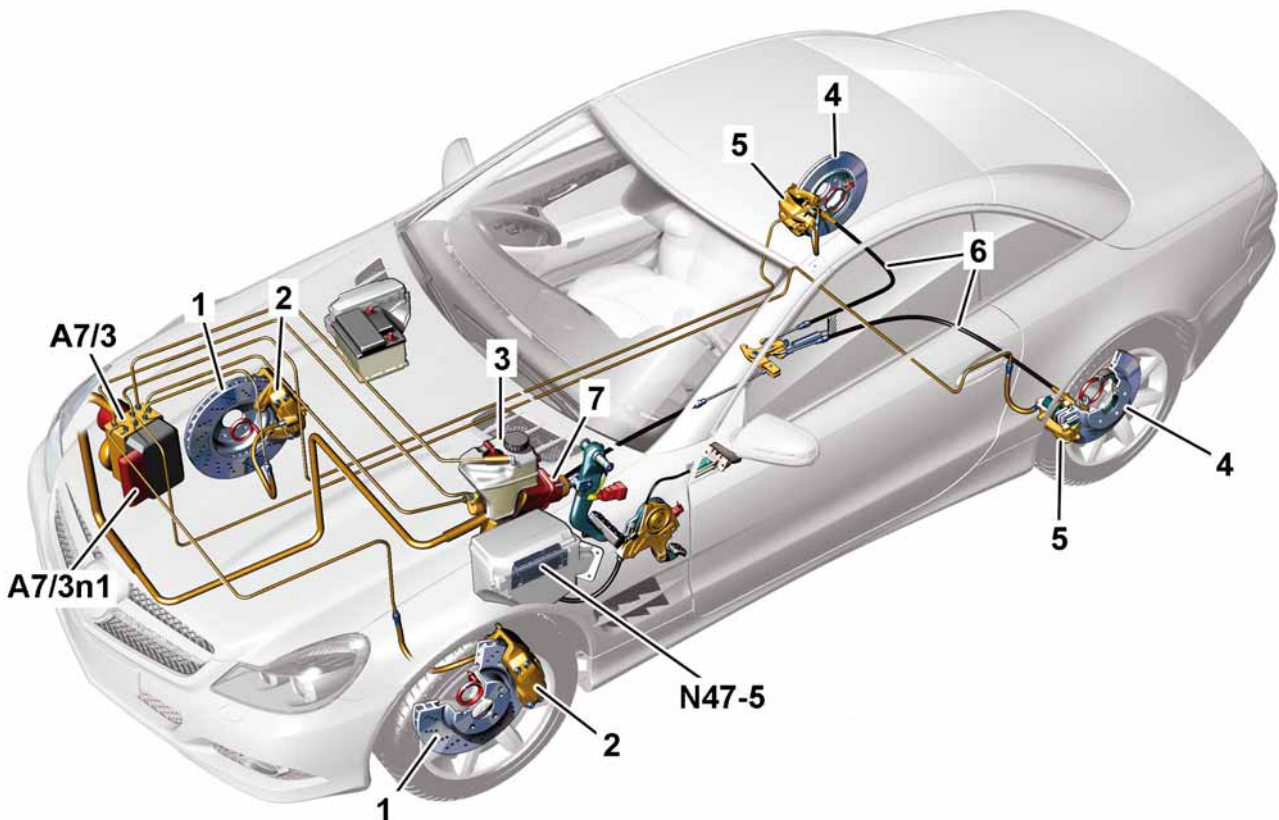
Because the hydraulic steering assistance starts immediately, no steering play is noticeable when the engine is running.

With a steering angle applied only a low, slightly increasing torque is noticeable over a travel of approx. 50 mm when the engine is switched off. This is due to the slewing range of the torsion bar in the rotary valve and should not be confused with play in the steering gear. Only when the steering wheel is turned further does the drive pinion begin to roll across the toothed rack, this can be felt on the steering wheel in the form of a slight pressure point and a more rapid torque increase.

SBC brake system

With the model refinement, a modified SBC brake system is installed in the SL-Class.

New features include the 3-stage Electronic Stability Program (ESP) and Hill Start Assist function in the SL 63 AMG and adaptation of the ESP to the new engine generation on all other models of model series 230.



Brake system of SL 350

P42.00-2141-00

- 1 Front brake disk
- 2 Front brake caliper
- 3 Expansion reservoir
- 4 Rear brake disk
- 5 Rear brake caliper
- 6 Hand brake cables
- 7 Operating unit with master brake cylinder

- A7/3 SBC hydraulic unit
- A7/3n1 SBC control unit
- N47-5 ESP, SPS [PML] and BAS control unit

3-stage ESP on SL 63 AMG

3-stage Electronic Stability Program (ESP)

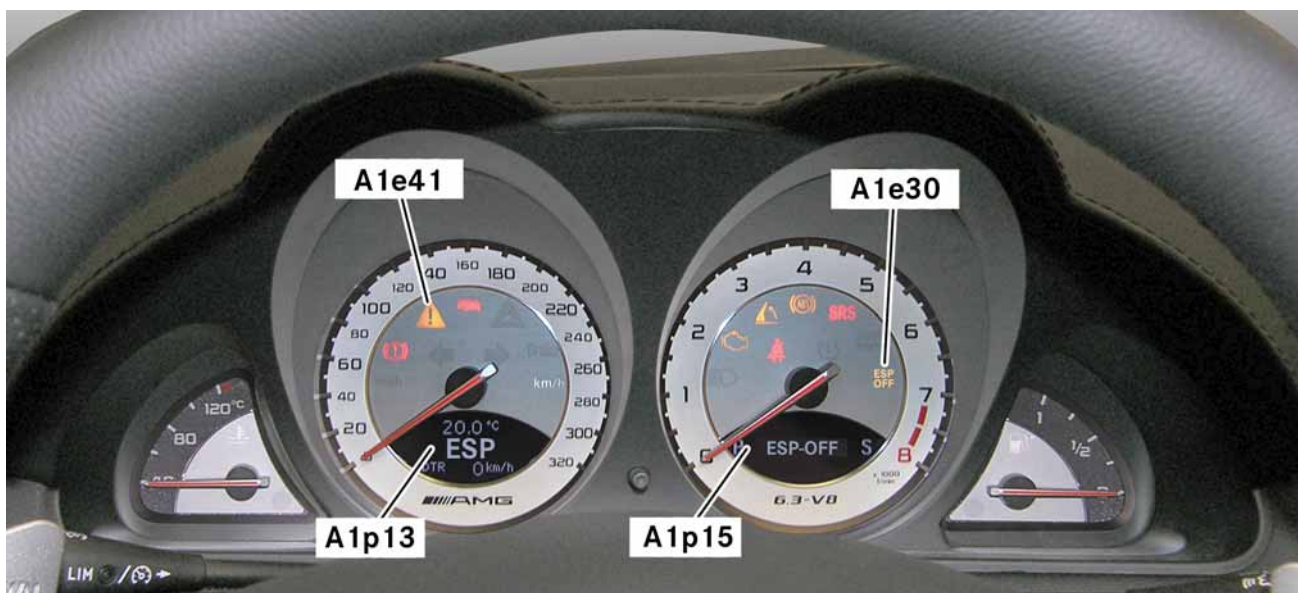
The new SL 63 AMG is equipped with the new 3-stage ESP system, which allows the driver to make individual adjustments to the ESP.

"ESP ON" mode

"ESP ON" mode is always activated when the ignition is switched on. In this state, the ESP system behaves in the same way as on the standard model of the new SL-Class.

It prevents breakaway when the vehicle oversteers or understeers. In all situations it ensures that the vehicle does not deviate from the course specified by the driver (within physical limits). ESP stabilizes the vehicle and prevents the drive wheels from spinning by selectively braking individual wheels and by limiting the engine output.

The ESP and ABS warning lamp in the instrument cluster flashes during ESP control interventions.



P54_32-5845-00

Instrument cluster

A1e30 ESP OFF indicator lamp
A1e41 ESP and ABS warning lamp

A1p13 Left multifunction display
A1p15 Right multifunction display



"ESP Sport" mode

Briefly pressing the ESP Sport OFF button activates "ESP Sport" mode. This changes the following settings:

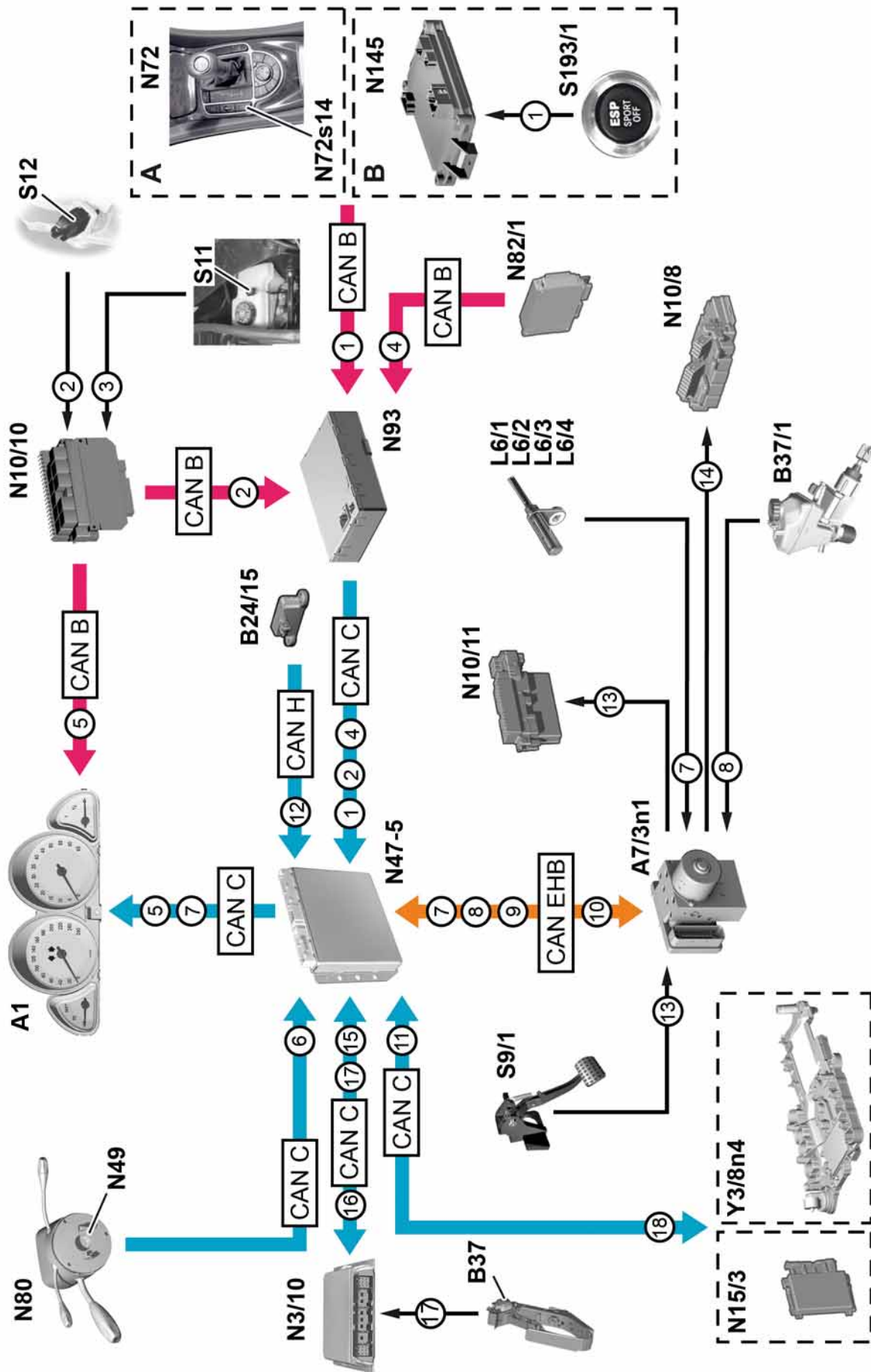
- ABS is adjusted to the vehicle set-up
- The engine torque control functions of the ASR and ESP systems are active but with significantly reduced intervention strength and adjusted intervention thresholds
- When the brake pedal is depressed forcefully, the vehicle is braked with ESP support (when the brake application is finished, the system automatically reverts to ESP SPORT mode)
- The ESP and ABS warning lamp in the instrument cluster is permanently on and flashes during ESP control interventions
- The message "ESP SPORT" appears on the right multifunction display

"ESP OFF" mode

Pressing the ESP Sport OFF button for a longer period activates "ESP OFF" mode. This changes the following settings:

- ABS control operates with maximum deceleration (comfort of secondary importance)
- No engine torque control or brake system interventions by the ASR system. Only single-sided brake system intervention is active for traction support.
- No engine torque control or brake system interventions by ESP system
- When the brake pedal is depressed forcefully, the vehicle is braked with ESP support (when the brake application is finished, the system reverts to ESP OFF mode)
- The ESP and ABS warning lamp and ESP OFF indicator lamp in the instrument cluster are permanently on. The ESP and ABS warning lamp flashes during ABS control interventions.
- The message "ESP OFF" appears on the right multifunction display

3-stage ESP on SL 63 AMG



ESP function schematic

P42_46-2.154-00

1	Status of ESP Sport OFF button (SL 63 AMG), Status of ESP OFF switch (except SL 63 AMG)	A1 A7/3n1 B24/15 B37	Instrument cluster SBC control unit Yaw rate and lateral acceleration sensor Accelerator pedal sensor SBC pedal value sensor Left front rpm sensor Right front rpm sensor Left rear rpm sensor Right rear rpm sensor ME-SFI/[ME] control unit Rear SAM control unit Driver-side SAM control unit Passenger-side SAM control unit ETC [EGS] control unit (except SL 63 AMG) ESP, SPS [PML] and BAS control unit Steering angle sensor Lower control panel control unit (except SL 63 AMG)	N72s14 N80 N82/1 N93 N145 S9/1 S11 S12 S193/1 Y3/8n4	ESP OFF switch (except SL 63 AMG) Steering column tube module Vehicle power supply control unit Central gateway control unit AMG DRIVE UNIT control unit (SL 63 AMG) Brake light switch Brake fluid indicator switch Parking brake indicator switch ESP Sport OFF button (SL 63 AMG) Fully integrated transmission control unit (VGS)
2	Status of parking brake switch	B37/1			
3	Status of brake fluid level switch	L6/1			
4	Status of on-board electrical system	L6/2			
5	Instrument cluster message	L6/3			
6	Steering angle signal	L6/4			
7	Wheel speed signal	N3/10			
8	Pedal travel signal	N10/8			
9	Status of service brake	N10/10			
10	Specified brake pressure values signal	N10/11			
11	Status of shift stage	N15/3		A	Except SL 63 AMG
12	Signal of yaw rate and lateral acceleration sensor	N47-5 N49		B	SL 63 AMG
13	Status of brake light switch	N72		CAN B	Interior CAN
14	Status of circuit 54			CAN C	Engine compartment CAN
15	Engine speed signal			CAN EHB	Electrohydraulic brake CAN
16	Engine torque reduction request			CAN H	Sensor CAN
17	Accelerator pedal sensor signal				
18	Downshift suppression request				

Technical data of brake system

Standard models	Unit	SL 280 SL 350	SL 500	SL 550
Front brake system				
Brake type (aluminum fixed caliper)		4-piston	6-piston	4-piston
Brake disk diameter	mm	330	350	330
Brake disk thickness	mm	32		
Lining area	cm ²	60	77	60
Brake disk design		Internally ventilated and perforated		
Rear brake system				
Brake type		1-piston floating caliper		
Brake disk diameter	mm	300	320	300
Brake disk thickness	mm	12	24	12
Lining area	cm ²	38		
Brake disk design		Solid	Internally ventilated	Solid



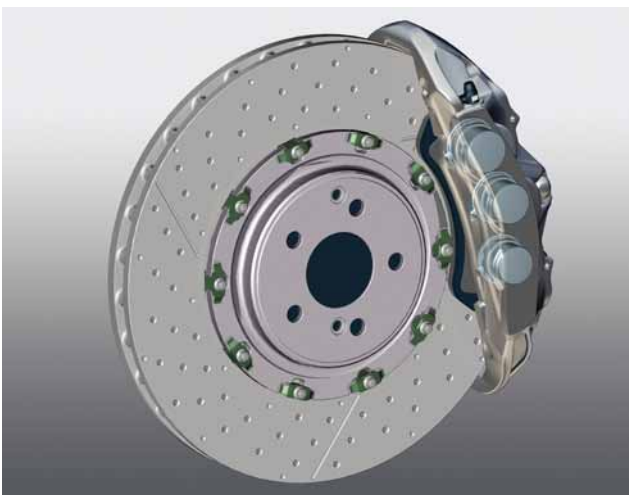
Front wheel brake (SL 350)

P42.10-2733-00



Technical data of brake system

SL 600	SL 63 AMG	SL 63 AMG with code (P30)	SL 65 AMG
6-piston			
360		390	
36			
120	115		
Internally ventilated and perforated	Internally ventilated and perforated composite brake disks		
4-piston fixed caliper			
330		360	
26			
48			
Internally ventilated	Internally ventilated and perforated		Internally ventilated and perforated composite brake disks



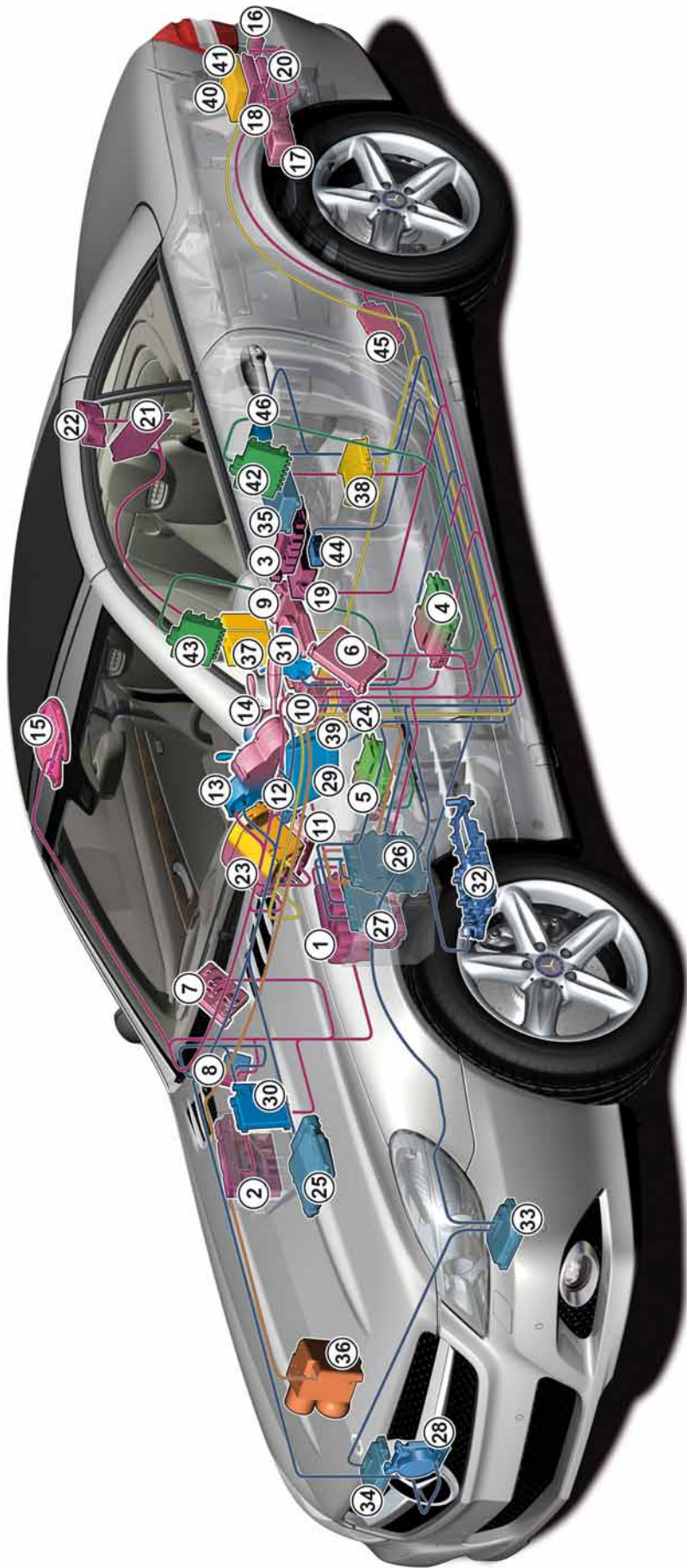
P42.10-2722-00

Front wheel brake (SL 65 AMG)

Networking

Overall network, model series 230

- Interior CAN
- Engine compartment CAN
- Sensor CAN
- Electrohydraulic brake CAN
- Diagnostic CAN
- PRIVATE bus
- MOST



Shown on SL 500 (ECE version)

P00.19-4403-00

Interior CAN

- 1 Driver SAM control unit
- 2 Passenger-side SAM control unit
- 3 Rear SAM control unit
- 4 Left front seat adjustment control unit with memory
- 5 Right front seat adjustment control unit with memory
- 6 Left door control unit
- 7 Right door control unit
- 8 Central gateway control unit
- 9 Lower control panel control unit
- 10 Restraint systems control unit
- 11 AAC [KLA] control and operating unit
- 12 EZS control unit
- 13 Instrument cluster
- 14 Steering column tube module
- 15 Overhead control panel control unit
- 16 TPM [RDK] control unit (with code (475) Tire pressure monitor (Siemens) or with code (494) USA version)
- 17 Pneumatic control unit with combined functions
- 18 Keyless Go control unit (with code (889) Keyless Go)
- 19 RVC [UVS] control unit

- 20 PTS control unit (with code (220) Parktronic system (PTS))
- 21 Vehicle power supply control unit
- 22 AIRSCARF control unit (with code (403) AIRSCARF system)
- 23 COMAND operating, display and controller unit
- 24 Weight Sensing System (WSS) control unit (with code (494) USA version)
- 45 AMG DRIVE UNIT control unit

Electrohydraulic brake CAN

- 27 ESP, SPS [PML] and BAS control unit
- 36 SBC control unit

Diagnostic CAN

- 8 Central gateway control unit
- 33 Xenon headlamp control unit
- 34 Xenon headlamp control unit
- 35 Emergency call system control unit (with code (359) TELE AID emergency call system)

Engine compartment CAN

- 8 Central gateway control unit
- 12 EZS control unit
- 13 Instrument cluster
- 14 Steering column tube module
- 25 ME-SFI [ME] control unit (M 272/273)
- 26 ME-SFI [ME] control unit (M156/275)
- 27 ESP, SPS [PML] and BAS control unit
- 28 DTR controller unit (code (219) Distronic (DTR))
- 29 ABC control unit (Code (487) Active Body Control (ABC))
- 30 ETC [EGS] control unit (transmission 722.6)
- 31 Electronic selector (lever module control unit)
- 32 Fully integrated transmission control unit (VGS) (transmission 722.9)
- 46 Fuel pump control unit (M 156/275)

Sensor CAN

- 27 ESP, SPS [PML] and BAS control unit
- 44 Yaw rate and lateral acceleration sensor

MOST

- 23 COMAND operating, display and controller unit
- 37 MOST TV tuner (code (860) TV tuner)
- 38 Amplifier for sound system (code (860) Sound system)
- 39 Media interface control unit (code (518) Media interface)
- 40 SDARS control unit (code (536) SIRIUS satellite radio)
- 41 Digital Audio Broadcasting control unit (Code (537) Digital radio)

PRIVATE bus

- 4 Left front seat adjustment control unit with memory
- 5 Right front seat adjustment control unit with memory
- 42 Left front multicontour backrest control unit (code 404) Driver seat multicontour backrest
- 43 Right front multicontour backrest control unit (code 405) Front passenger seat multicontour backrest

Networking

Overall network

Since the demands on the vehicle electronics systems in terms of vehicle safety, comfort, communication and diagnosis are continuously on the increase, the systems present in the vehicle have to be networked together.

The following data bus systems are used to facilitate the exchange of the required information:

- Controller Area Network (data bus/CAN)
- Media Oriented System Transport (MOST)

CAN

The CAN is an electrical bus system for the transmission of data via two lines.

Every connected control unit can transmit or receive data (bidirectional bus). A data log defines the individual data blocks and specifies which data is received or transmitted by a control unit. Faults detected are saved and stored in the fault memory.

The following CAN systems are involved in the overall network:

- Interior CAN
- Engine compartment CAN
- Diagnostic CAN
- Electrohydraulic brake CAN
- Sensor CAN

Interior CAN (CAN B)

The interior CAN is responsible for data transfer in the vehicle interior. It networks the different comfort systems, for example. The interior CAN operates at a transfer rate of 83.3 kBit/s.

Gateways:

The following control units form interfaces for the exchange of data between the interior CAN and other bus systems:

- Central gateway control unit (interface to engine compartment CAN and diagnostic CAN)
- COMAND operating, display and controller unit (interface to MOST)

Engine compartment CAN (CAN C)

The engine compartment CAN is responsible for the data transfer between the drive and chassis systems. The engine compartment CAN operates at a transfer rate of 500 kBit/s.

Gateways:

The following control units form the interface for the data exchange between the engine compartment CAN and other bus systems:

- Central gateway control unit (interface to interior CAN and diagnostic CAN)
- ESP, SPS [PML] and BAS control unit (interface to electrohydraulic brake CAN and sensor CAN)

Diagnostic CAN (CAN D)

An external tester (e.g. STAR DIAGNOSIS) can be connected to the diagnostic CAN via the data link connector. The diagnostic CAN operates at a transfer rate of 500 kBit/s.

Gateway:

The central gateway control unit forms the interface for data exchange between the diagnostic CAN, interior CAN and engine compartment CAN.

Electrohydraulic brake CAN (CAN EHB)

The following control units of the SBC brake system are connected to each other for data exchange purposes via the CAN EHB.

- SBC control unit
- ESP, SPS [PML] and BAS control unit

Gateway:

The ESP, SPS [PML] and BAS control unit forms the interface for data exchange between the electrohydraulic brake CAN, engine compartment CAN and sensor CAN.

Sensor-CAN (CAN H)

The sensor CAN is responsible for data exchange between the ESP, SPS [PML] and BAS control unit and the yaw rate and lateral acceleration sensor.

Gateway:

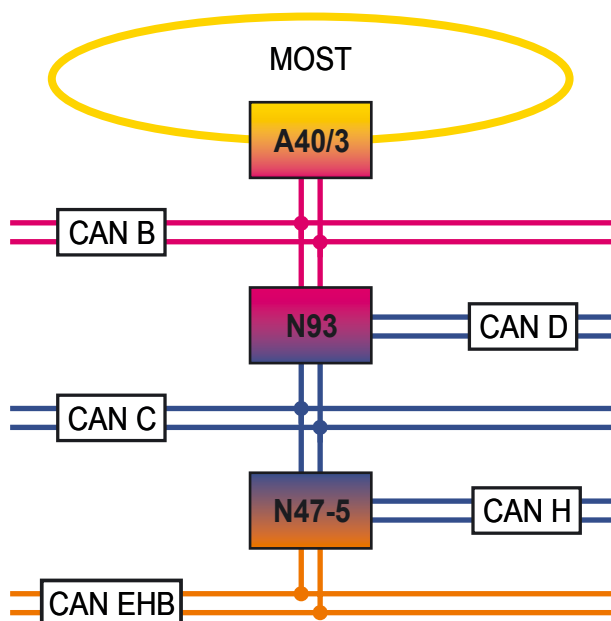
The ESP, SPS [PML] and BAS control unit forms the interface for data exchange between the sensor CAN, electrohydraulic brake CAN and engine compartment CAN.

MOST

MOST is an optical networking system. Data are transferred via fiber optic cable to the connected information, navigation, and communication components. The MOST operates with a transfer rate of 22 MBit/s.

Gateway:

The COMAND operating, display and controller unit forms the interface for data exchange between MOST and interior CAN.



A40/3	COMAND operating, display and controller unit
N47-5	ESP, SPS [PML] and BAS control unit
N93	Central gateway control unit
CAN B	Interior CAN
CAN C	Engine compartment CAN
CAN D	Diagnostic CAN
CAN EHB	Electrohydraulic brake CAN
CAN H	Sensor CAN
MOST	Media Oriented System Transport

P00.19-4409-00

Control units with gateway function

On-board electrical system

On-board electrical system management

The on-board electrical system management ensures that the power supply to all the electrical consumers and components in the vehicle is appropriate for the requirements and the situation.

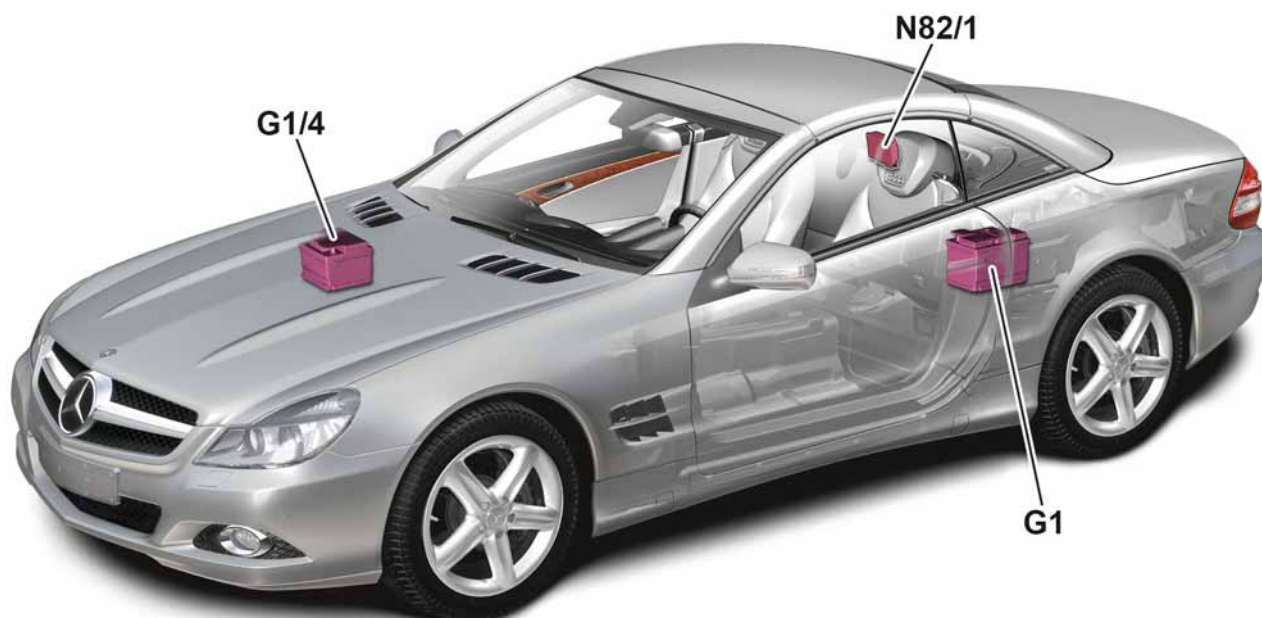
The on-board electrical system consists of two on-board circuits:

- Starter battery circuit with starter battery and starter
- Supply battery circuit with on-board electrical system battery and all electrical consumers

The two on-board electrical systems can be coupled whenever this is necessary for the vehicle to operate properly. When the systems are coupled, the starter battery and on-board electrical system battery are connected in parallel.

The on-board circuits are separate primarily in order to safeguard the starting ability of the vehicle. For this reason, other consumers are only allowed to consume energy under certain conditions.

The two on-board electrical system circuits are disconnected and connected via a battery cutoff relay which is located next to the vehicle power supply control unit. The on-board circuit system is coordinated by the vehicle power supply control unit.



On-board electrical system components shown on SL 500

P54.10-2942-00

G1 On-board electrical system battery
G1/4 Starter battery

N82/1 Vehicle power supply control unit

Vehicle power supply control unit

The vehicle power supply control unit is located in the area of the right wheel well under a cover and is accessible via the trunk.

It is responsible for controlling the two battery on-board electrical system and continuously evaluates the on-board electrical system battery and starter battery.

The basic functions of the vehicle power supply control unit are:

- Increase starting reliability by coupling the on-board electrical system battery and starter battery when the charge state is low
- Ensure voltage is available in the on-board electrical system by controlling the supply of power, e.g. consumer shutoff for the "engine ON" and "engine OFF" operating conditions
- Control the battery cutoff relay when the state of charge of the on-board electrical system battery is critical ($U < 9.8 \text{ V}$)
- Control the circuit 15R/30 cutoff relay
- Charge the starter battery via the charge converter

The vehicle power supply control unit is a subscriber to the interior CAN.



P54.10-2943-00

Location of vehicle power supply control unit and cutoff relay, shown on SL 500

K57 Battery cutoff relay
K75 Circuit 15R/30 cutoff relay

N82/1 Vehicle power supply control unit

Instrument cluster

Standard models

The instrument cluster was completely redesigned for the model refinement of model 230. The following changes have been made:

- New design of dial rings with three-dimensional marker lines
- Tachometer warning range is highlighted in red
- Needle housing is painted silver
- Needles are painted red
- Dial face is illuminated in white with black digits
- Scale of the tachometer has been redesigned

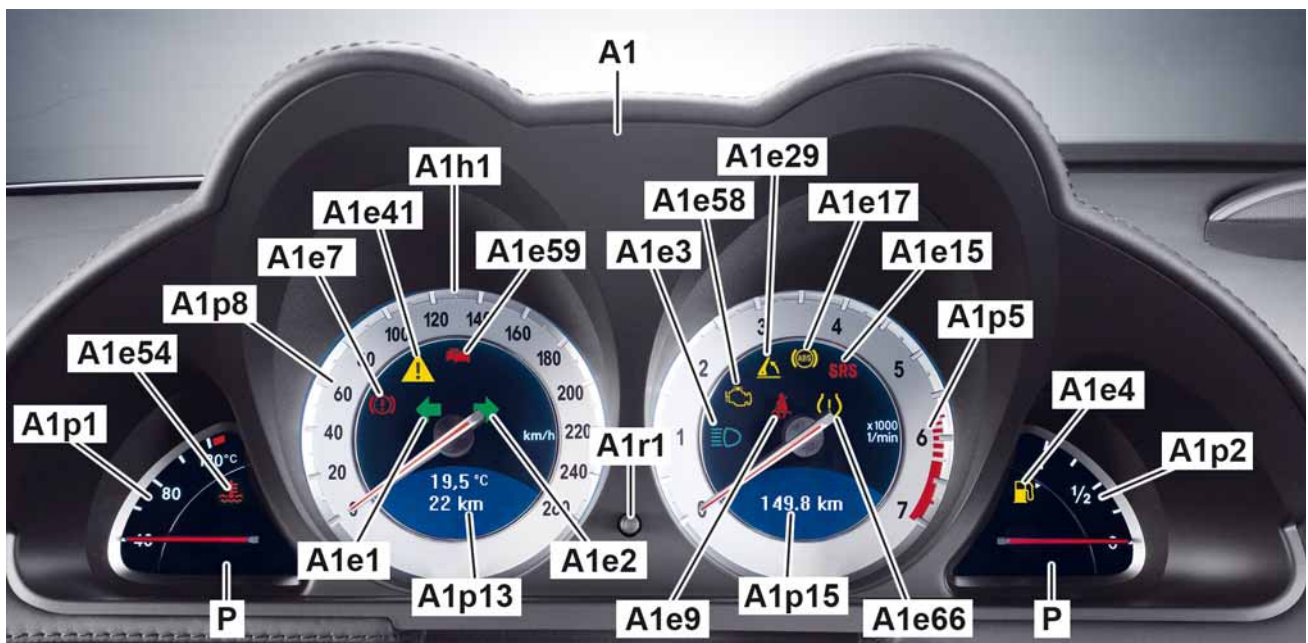
New function

When the ignition is switched off, the needles of the tachometer and speedometer move to the six o'clock position (hanging needles). When the ignition is switched on, both pointers first move all the way to the end and then back to the start of the scale at the "0 position".



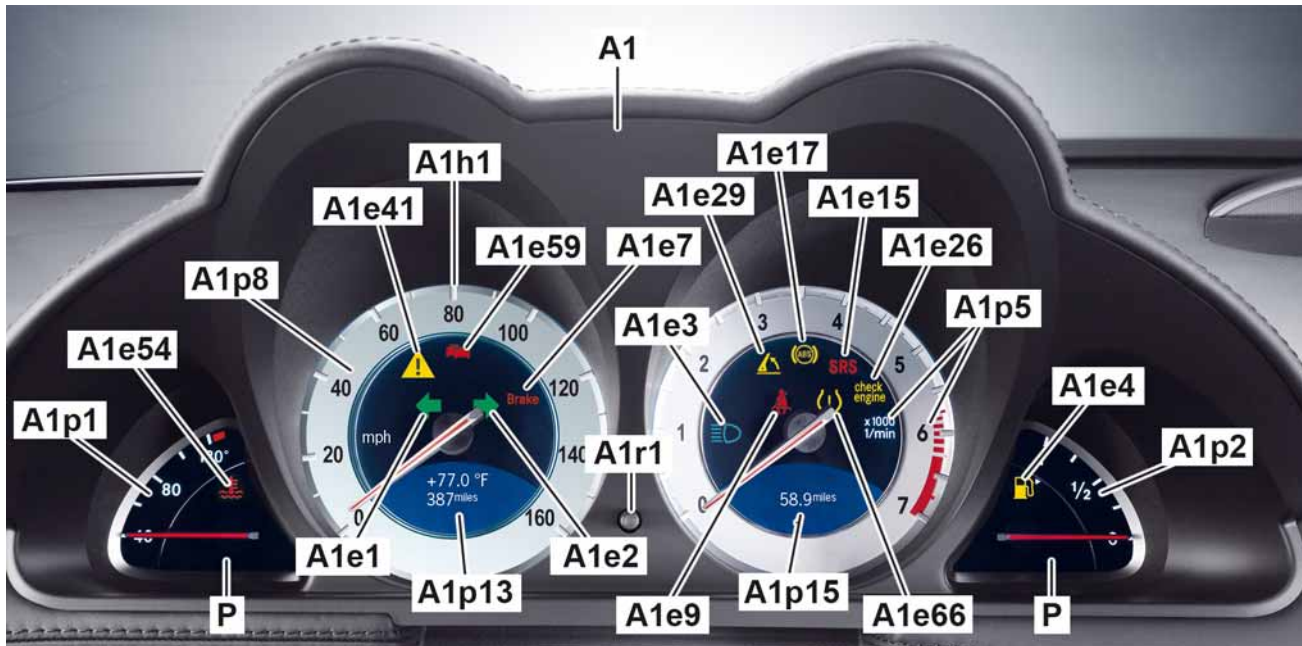
P54.32-6032-00

Hanging needles (ECE version)



P54.32-5860-00

Instrument cluster (ECE version)



P54.32-5861-00

Instrument cluster (USA version)

Legend for ECE and USA version

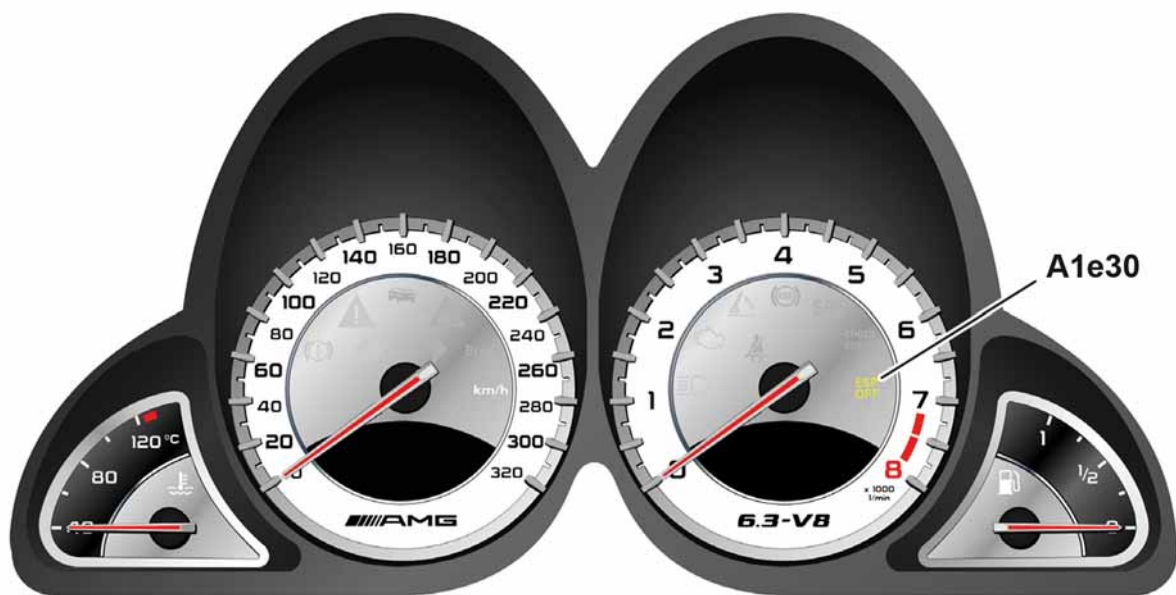
A1	Instrument cluster	A1e59	DTR warning and indicator lamp (with code (219) Distronic (DTR))
A1e1	Left turn signal indicator lamp	A1e66	Tire pressure monitor warning lamp (with code (475) Tire pressure monitor (Siemens) or with code (494) USA version)
A1e2	Right turn signal indicator lamp	A1h1	Warning buzzer
A1e3	High beam indicator lamp	A1p1	Coolant temperature display
A1e4	Fuel reserve indicator lamp	A1p2	Fuel level and reserve indicator
A1e7	Brake fluid and parking brake warning lamp	A1p5	Tachometer
A1e9	Seat belt warning lamp	A1p8	Electronic speedometer
A1e15	Airbag indicator and warning lamp	A1p13	Left multifunction display
A1e17	ABS indicator lamp	A1p15	Right multifunction display
A1e26	CHECK ENGINE indicator lamp (with code (494) USA version)	A1r1	Instrument illumination brightness control and reset button
A1e29	Roll bar (RB [ÜRB]) indicator lamp	P	Brightness sensor
A1e41	ESP and ABS warning lamp		
A1e54	Coolant temperature warning lamp		
A1e58	Engine diagnosis indicator lamp (without code (494) USA version)		

Instrument cluster

SL 63 AMG

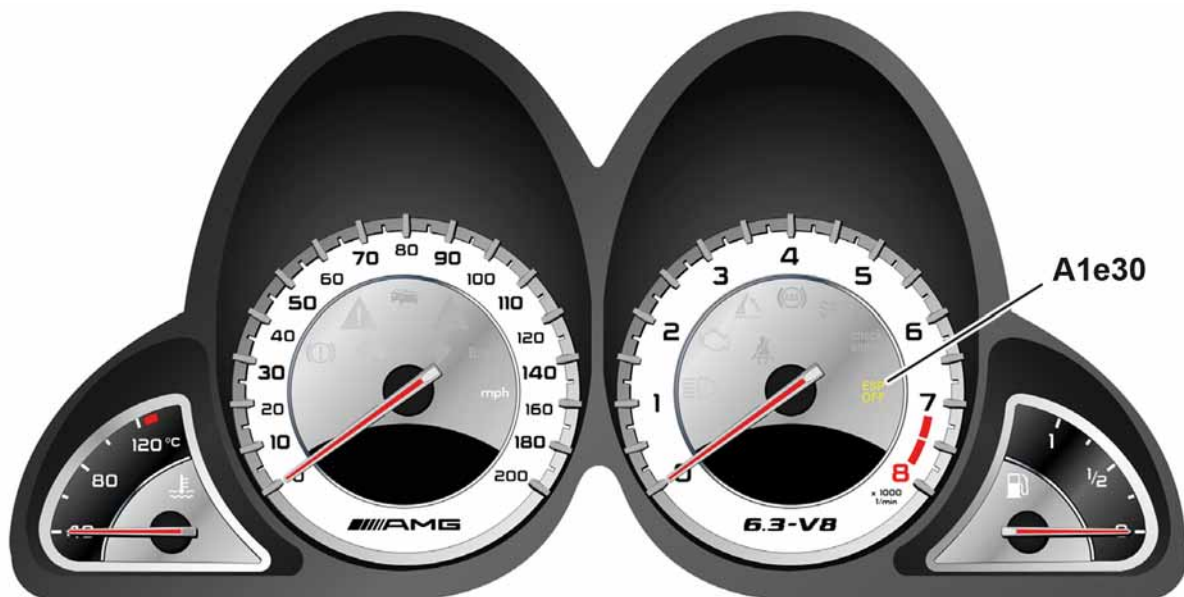
The instrument cluster of the SL 63 AMG differs from the instrument cluster of the standard models (with its chronometer design) via:

- AMG dial faces (white) with AMG-specific lettering (black)
- Red needles
- Additional ESP OFF indicator lamp (A1e30)
- Scales extended to 320 km/h (200 mph) and 8000 rpm
- "AMG" logo in speedometer and "6.3 V8" logo in tachometer
- AMG main menu with:
 - Central gear indicator
 - Indicator for engine oil temperature
 - Race Timer
- RACE START menu



P54.32-6102-00

Instrument cluster of SL 63 AMG (ECE version)



P54.32-6160-00

Instrument cluster of SL 63 AMG (USA version)



SL 65 AMG

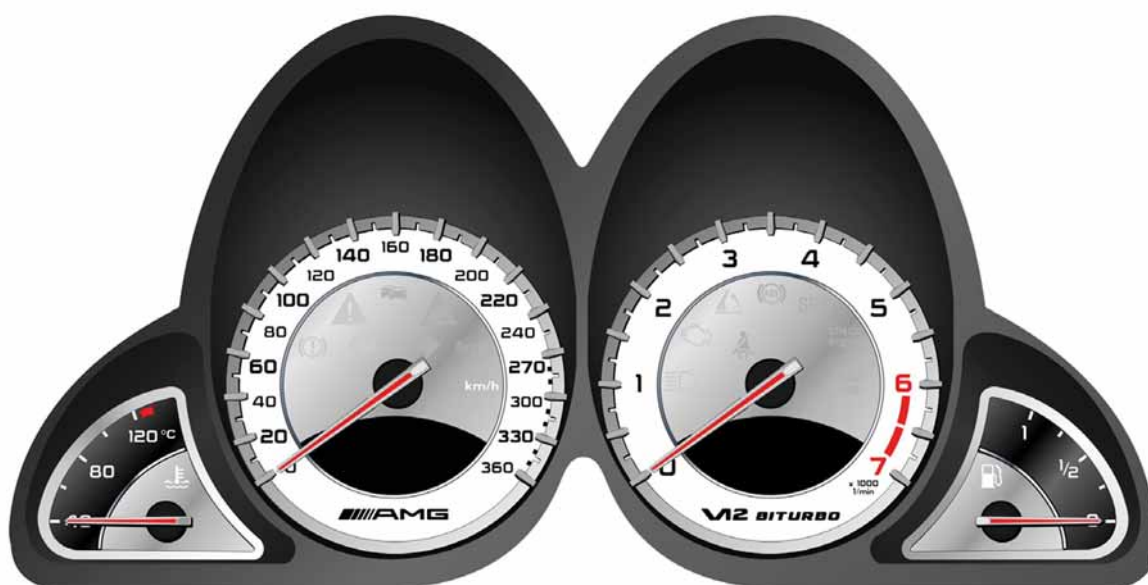
The instrument cluster of the SL 65 AMG differs from the instrument cluster of the standard models (with its chronometer design) via:

- AMG dial faces (white) with AMG-specific lettering (black)
- Red needles

- Scales extended to 360 km/h (220 mph) and 7000 rpm
- "AMG" logo in speedometer and "V12 BITURBO" logo in tachometer

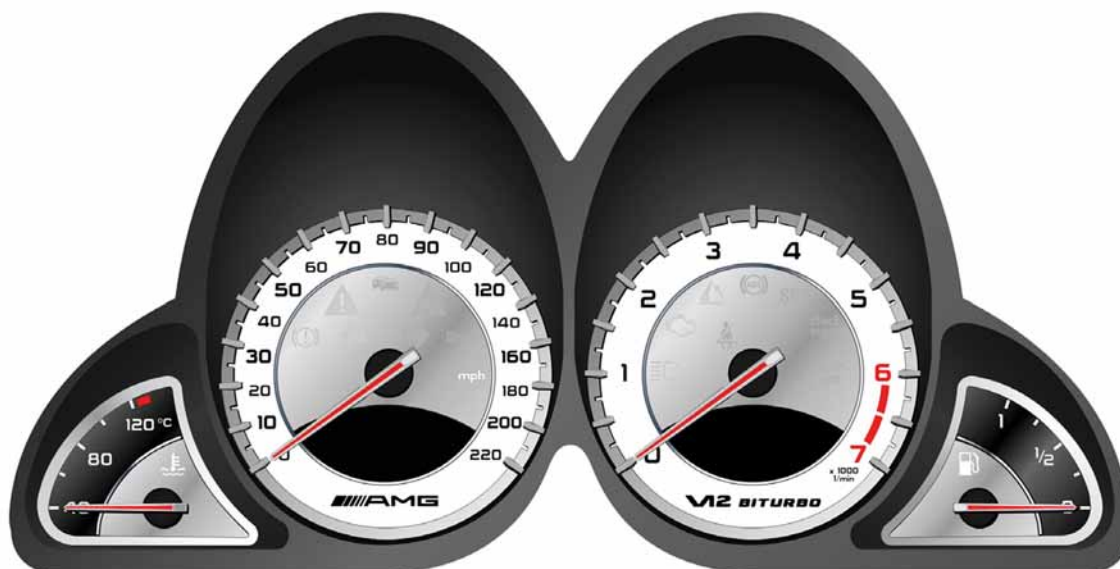
AMG menu with:

- Central gear indicator
- Indicator for engine oil temperature
- Race Timer



P54.32-6103-00

Instrument cluster of SL 65 AMG (ECE version)



P54.32-6161-00

Instrument cluster of SL 65 AMG (USA version)

Instrument cluster

AMG menu

There is a separate AMG menu in the instrument cluster of the AMG models. All important information is displayed to the driver via the two multifunction displays.

The AMG menu is subdivided into three submenus which can be operated and controlled via the buttons on the multifunction steering wheel.

"Warm up" menu

The engine oil temperature and gear indicator with upshift instruction are displayed in the "Warm up" menu.



P54.32-5834-00

Warm-up display

"Set up" menu

The "Set up" menu informs the driver about the current suspension setting and transmission mode.



P54.32-5835-00

Set up display with "Comfort" suspension setting and "Sport" transmission setting

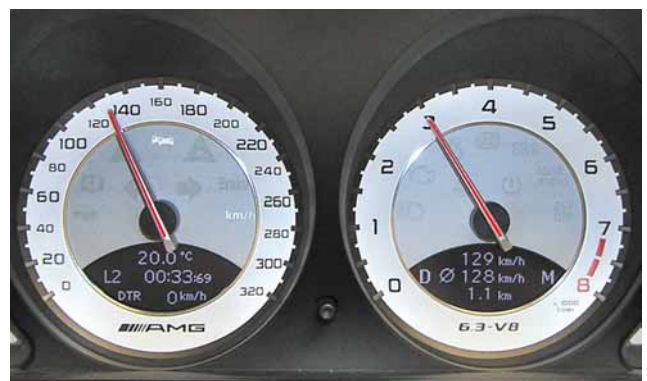
"Race" menu

The Race Timer is available in the "Race" menu. The driver can use this to record, store and evaluate lap times on a closed race track. The Race Timer is operated via the buttons on the multifunction steering wheel.



P54.32-5836-00

Race Timer display (lap times)



P54.32-5837-00

Race Timer display (evaluation)

Front lights

As part of the redesign of the engine hood, fenders and front bumper, the lamp units have also been modified to suit the new front section of the vehicle.

The previous lamp units with dual headlamp optics have been replaced with generously sized lamp units drawn far back into the fenders. This further emphasizes the even sportier body lines of the vehicle front.

The front fog lamps have been enhanced visually with more dominant chrome rings.

The cornering illumination special equipment function is no longer realized by the front fog lamps, but by the new lamp units.

On USA version vehicles, the side marker lamps have been redesigned to integrate perfectly into the new bumper.

Darkened headlamps are installed on the AMG models and on standard models with the sport package special equipment option.



P82.10-5104-00

Shown on standard model (USA version) without cornering illumination

E1 Left front lamp unit
 E2 Right front lamp unit
 E5/1 Left front fog lamp
 E5/2 Right front fog lamp

E6/1 Left front side marker lamp
 (with code (494) USA version)
 E6/2 Right front side marker lamp
 (with code (494) USA version)

Exterior lights

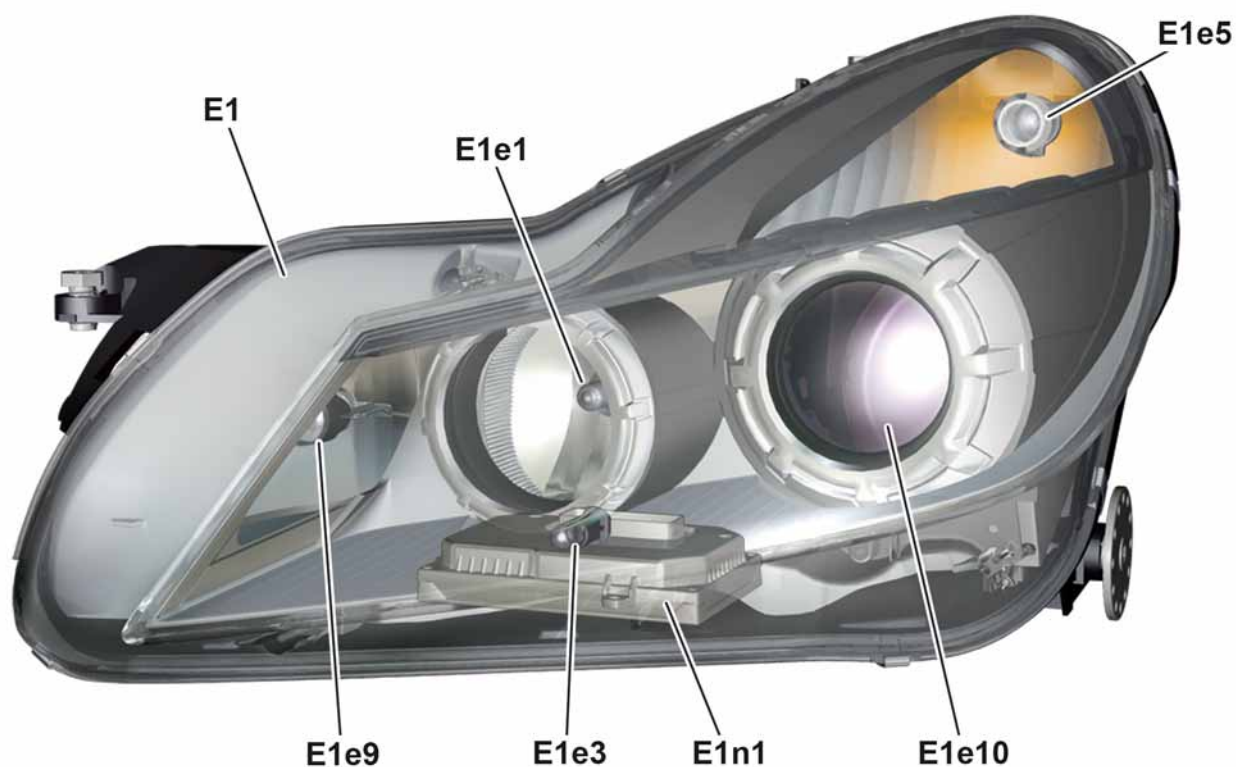
Headlamps

As well as a completely new design, the headlamps also feature functional modifications and improvements. The following two variants are available, each featuring different functions and a different make-up:

- The standard equipment comprises bi-xenon headlamps with a headlamp cleaning system. These perform all of the basic illumination functions except the fog light function and the front side marker lamp function.

- For the first time in model series 230, bi-xenon headlamps with a headlamp cleaning system and Intelligent Light System can be ordered as special equipment. The Intelligent Light System provides several extended driving light functions in addition to the basic light functions.

Both headlamp variants feature dynamic headlamp range control.



Left bi-xenon headlamp with Intelligent Light System

P82.10-5102-00

E1 Left front lamp unit

E1e1 Left high beam

E1e3 Left standing and parking lamp

E1e5 Left turn signal lamp

E1e9 Left cornering lamp

E1e10 Left bi-xenon lamp with integral ignition module

E1n1 Xenon headlamp control unit



Headlamps with clear glass lenses

Depending on the equipment installed, both of the headlamp variants specified above may be fitted to all standard models. Except for vehicles with the sport package special equipment, code (952), headlamps with clear glass lenses are installed on the standard models.



P82.10-5136-00

Clear glass design

Headlamps with darkened lenses

Depending on the equipment installed, both headlamp variants may be fitted to the AMG models or to the standard models with the sport package special equipment option. Darkened headlamps are installed on these vehicles.



P82.10-5152-00

Darkened lenses

Auto on/off headlamps

With the SL-Class model refinement, the function sequence of the auto on/off headlamps has been modified as follows:

- When the transmitter key is removed, the standing lights and low beams are always switched off
- If circuit 15C is switched on at the start of a trip, the standing lights and low beams are switched off. At the end of the trip, the standing lights remain switched on until the driver door is opened.
- When circuit 15R or when circuit 15 is switched on, the standing lights remain switched on. If there is a switch to circuit 15R at the end of the trip, the standing lights remain on.
- When circuit 61 is switched on, the standing lights and low beams are switched on. The high beams can be activated.

Exterior lights

Light functions of front illumination

Basic light functions

Most of the basic light functions are performed by the lamp units:

- Low beams
- High beams
- Standing/parking lights
- Turn signal lights
- Fog lights via separate front fog lamps
- Side marker lights via separate side marker lamps (USA version)

Extended driving light functions

All extended driving light functions are performed via the lamp units on vehicles with Intelligent Light System:

- Dynamic curve illumination
- Cornering Illumination
- Country lights
- Motorway lights
- Extended fog light function

Intelligent Light System

As well as the basic light functions, the Intelligent Light System also performs the extended driving light functions.

Lamp units with the "Intelligent Light System" are able to adjust their light distribution pattern. They can therefore automatically adapt to the respective driving situation and vehicle condition. One of the most important functions of the system is to ensure that other road users are not dazzled or irritated by the light.

Rear lamps

The rear lamps of the SL-Class feature both conventional incandescent lamp technology and LED technology.

The following lamps feature conventional incandescent lamp technology:

- Turn signal lamps
- Backup lamps
- Rear fog lamp
- License plate illumination

The following lamps feature LED technology:

- Brake lights
- Taillights
- Parking lights
- Center high-mounted brake lamp

Standard models with the sport package special equipment option, code (952), and the AMG models feature taillamps with darkened lenses.

The center high-mounted brake lamp is also darkened on the AMG models. On the standard models with sport package, the center high-mounted brake lamp features a clear lens.



P82.10-5135-00

Rear lamps

E3	Left taillamp
E4	Right taillamp
E19/1	Left license plate lamp
E19/2	Right license plate lamp
E21	Center high-mounted brake lamp



Taillamp

There are two design variants of the taillamps in the SL-Class:

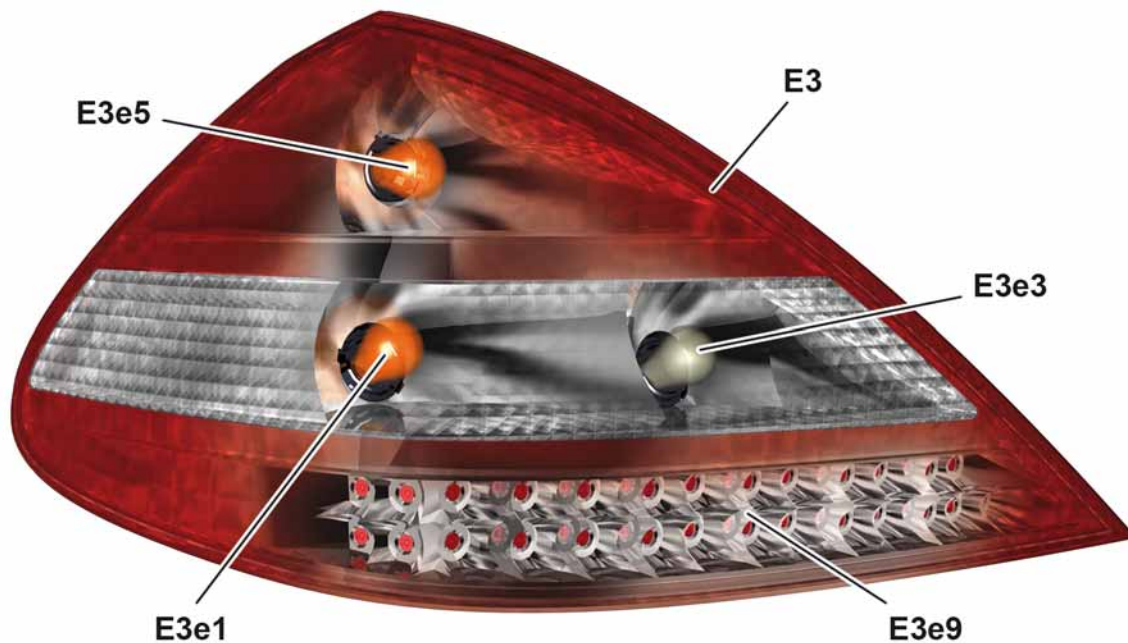
- Taillamps with clear lenses
- Taillamps with darkened lenses

The taillamps feature clear lenses on all standard models, except vehicles with the sport package special equipment option, code (952). The taillamps feature darkened lenses on the AMG models and on standard models with sport package special equipment.



Taillamp with darkened lenses

P82.10-5151-00



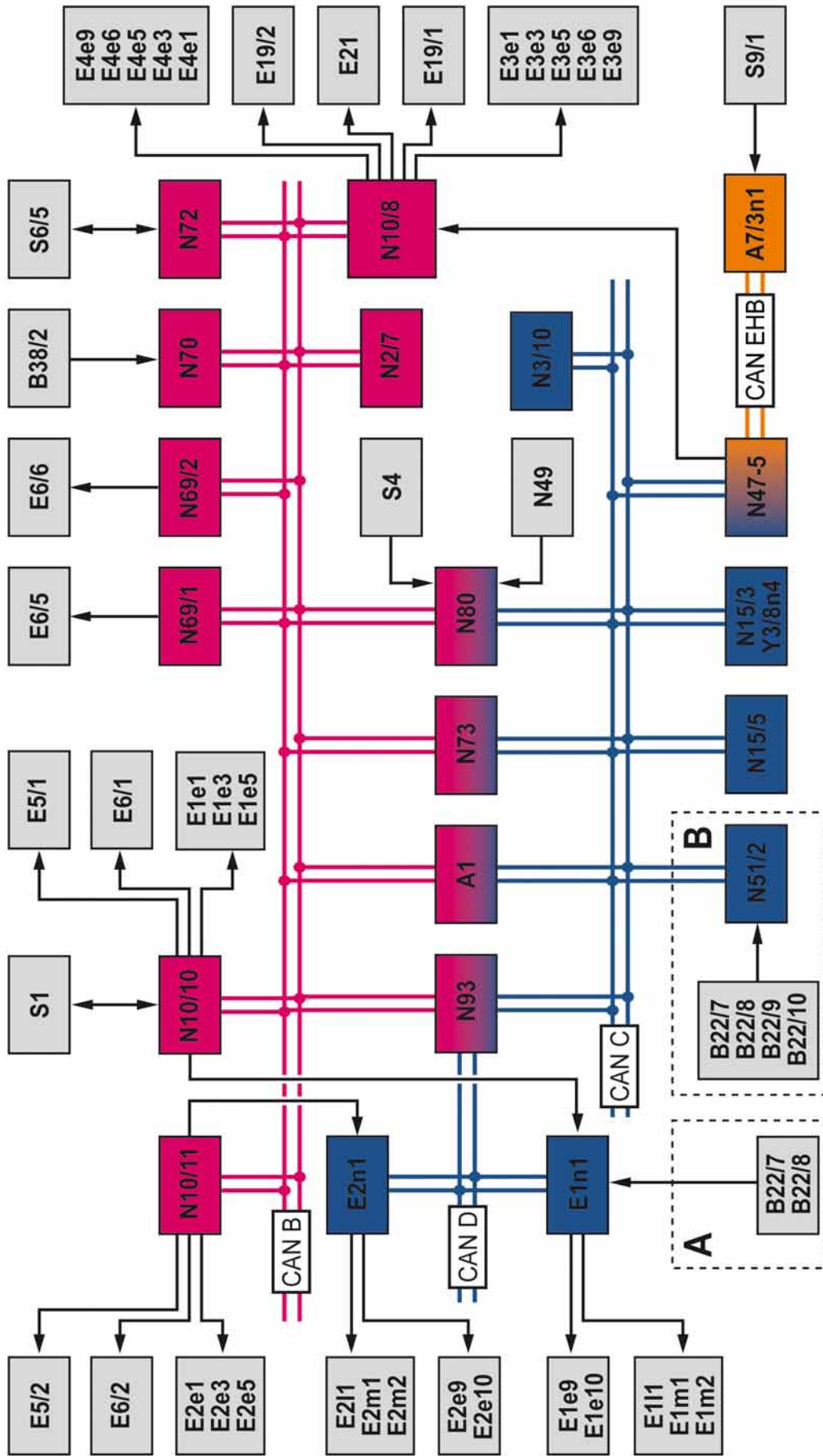
P82.10-5103-00

Left taillamp with clear lenses

- E3 Left taillamp
- E3e1 Left turn signal lamp
- E3e3 Left backup light

- E3e5 Left rear fog light
- E3e9 Left brake light, taillight and parking light (with LED technology)

Exterior lights



P82.10-5101-00

Block diagram of exterior lights

Outside mirrors

New outside mirrors

The outside mirrors have been completely redesigned. The LED turn signal lamps integrated into the side have been redesigned and the mirror base and mirror surface area have been enlarged.

The heat output of the outside mirrors has been adjusted to the larger mirror surface area.



P88.79-2276-00

Redesigned outside mirror

E6/5 Left outside mirror turn signal lamp

M21/1 Left electrically adjustable and heated outside mirror



Convenience feature (USA)

Modified power window function

On USA and Canada vehicles, the functions of the convenience feature have been changed due to legal requirements.

With the introduction of the new SL-Class, the following functions are no longer available in the USA:

- Manual closing and opening of side windows via the air recirculation switch for activation of air recirculation mode
- Manual closing and opening of the side windows via the Vario roof switch for comfort closing of the Vario roof

Manual opening and closing via the transmitter key is still possible.



A8/1 Transmitter key

P80.00-2152-00



N22s2 Air recirculation switch

P83.40-4085-00



N72s16 Vario roof switch

P77.39-2222-00

PARKTRONIC

More advanced PARKTRONIC System (PTS)

The PARKTRONIC System is an ultrasonic measuring system for detecting the distance to an obstacle. It assists the driver when parking and in maneuvering situations at speeds of $v < 16$ km/h.

The distance between the vehicle and the obstacle is indicated to the driver visually and acoustically.

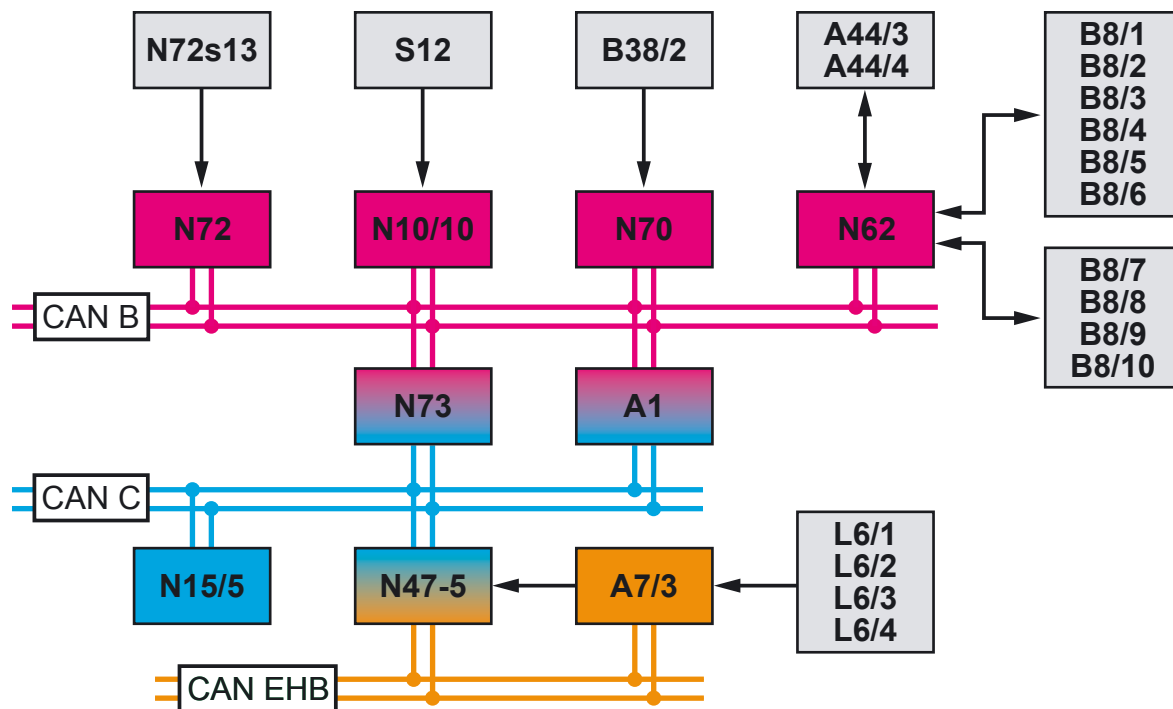
The PARKTRONIC System has been developed further and the optimized PARKTRONIC control unit from model series 204 and new ultrasonic sensors are installed in the vehicle. The new ultrasonic sensors have a new shape and have been reintegrated into the front skirt and rear apron.



Monitoring range of PARKTRONIC distance sensors (schematic)

P54.65-3579-00





P54.65-3578-00

PARKTRONIC System (PTS), block diagram

- | | | | |
|-------|---|---------|---|
| A1 | Instrument cluster | L6/3 | Left rear rpm sensor |
| A7/3 | SBC hydraulic unit | L6/4 | Right rear rpm sensor |
| A44/3 | Rear PTS warning indicator | N10/10 | Driver-side SAM control unit |
| A44/4 | Center instrument panel PTS warning indicator | N15/5 | Electronic selector lever module control unit |
| B8/1 | Outer left front PTS ultrasonic sensor | N47-5 | ESP, SPS [PML] and BAS control unit |
| B8/2 | Center left front PTS ultrasonic sensor | N62 | PTS control unit |
| B8/3 | Inner left front PTS ultrasonic sensor | N70 | Overhead control panel control unit |
| B8/4 | Inner right front PTS ultrasonic sensor | N72 | Lower control panel control unit |
| B8/5 | Center right front PTS ultrasonic sensor | N72s13 | PTS OFF switch |
| B8/6 | Outer right front PTS ultrasonic sensor | N73 | EZS control unit |
| B8/7 | Outer right rear PTS ultrasonic sensor | S12 | Parking brake indicator switch |
| B8/8 | Inner right rear PTS ultrasonic sensor | CAN B | Interior CAN |
| B8/9 | Inner left rear PTS ultrasonic sensor | CAN C | Engine compartment CAN |
| B8/10 | Outer left rear PTS ultrasonic sensor | CAN EHB | Electrohydraulic brake CAN |
| B38/2 | Rain/light sensor | | |
| L6/1 | Left front rpm sensor | | |
| L6/2 | Right front rpm sensor | | |

Audio and communications systems

New Telematics Generation (NTG) 2.5

The NTG 2.5 has been introduced with the model refinement of model 230. This features a new display and operating concept as well as new functions. In contrast to models 204, 216 and 221, where the controls and display elements are separated from each other, on the refined model 230 they are still grouped together in the COMAND operating, display and controller unit in the center console.

For the NTG 2.5, the following controller units are installed in the vehicle depending on the national version:

For the ECE market

- COMAND (standard equipment)
- COMAND APS (special equipment)

For the USA market

- COMAND APS (standard equipment)

For the Japanese market

- COMAND APS (standard equipment)

The most important innovations of the COMAND controller units include:

- New operating structure
- High-resolution display with 800 x 480 pixels
- New colors and graphics, based on model series 204, 216 and 221
- Bluetooth hands-free system as standard equipment
- Improved LINGUATRONIC voice control system (VCS) in COMAND APS
- 4 GB MusicRegister in COMAND APS for storing up to 1000 audio files
- Components which were previously located in separate positions, such as the CD/DVD changer, Bluetooth control unit, voice control module, navigation module and audio gateway, have been integrated into the COMAND APS
- New panels for all COMAND variants

Thanks to the integration of the CD/DVD changer, the stowage space in the stowage compartment behind the driver seat can now be used for other purposes.

New functionality

With the introduction of the NTG 2.5, the new audio and communications systems feature the following functions:

- Navigation
- Telephony
- Entertainment
- Media interface
- Surround sound system
- LINGUATRONIC voice control system (VCS)
- VICS traffic information system (Japan)



Navigation

As well as rapid hard disk-based navigation and route calculation, the COMAND APS controller unit is also able to display lane guidance. This allows the driver to see precisely which lane he/she needs to drive along to follow the route calculated by the system on freeway exit ramps. In addition, other important information such as gas stations along the route is displayed as symbols on the map.



P82.86-7671-00

COMAND navigation display: map view with gas station symbol and lane guidance (ECE version)

Audio and communications systems

Telephony

On vehicles with basic telephony, suitable mobile phones can be connected to the audio system of the vehicle via the Bluetooth interface installed as standard and on vehicles with comfort telephony they can be connected via a universal interface. With both variants, the mobile phone can be operated using the multifunction steering wheel and the buttons on the COMAND controller unit.

Basic telephony via Bluetooth interface

During Bluetooth operation, the mobile phone is not connected to the external vehicle antenna and is not recharged. Telephone book entries can be transferred to the COMAND controller unit via the business card transfer function.

Comfort telephony via universal interface

The universal interface is located under the armrest and connects the mobile phone to the vehicle via a suitable cradle. Integrating the mobile phone into the on-board electrical system via the cradle has the advantage that the external vehicle antenna can be used and the battery of the mobile phone can be recharged by the on-board electrical system. Operating the phone via the universal interface allows the telephone book to be transferred to COMAND. The entries can be downloaded both from the memory of the mobile phone and from the SIM card.

Bluetooth

Bluetooth is a worldwide open standard for connecting Bluetooth devices (e.g. mobile phones) wirelessly and is based on radio technology in the 2.4 GHz range.

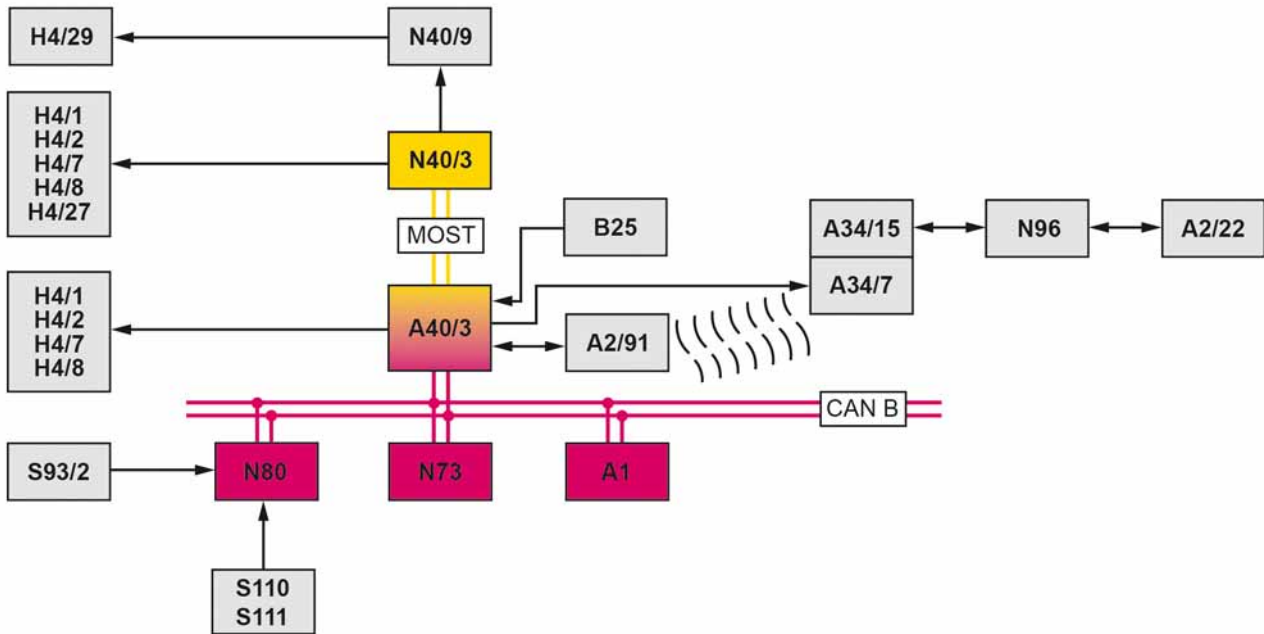
One advantage of Bluetooth, next to the wide availability of Bluetooth devices, is the uncomplicated and spontaneous connection of Bluetooth devices to a Bluetooth network (ad-hoc network).

The extremely high data security with 128-bit encryption and the relatively limited connection radius of approx. 10 m of this type of network makes Bluetooth suitable for use in vehicles.

The COMAND operating, display and controller unit can integrate mobile phones of the latest generation into the vehicle hierarchy using the Bluetooth interface of the mobile phone and the Bluetooth antenna.

Note

For more information about Bluetooth telephony and comfort telephony, see the following website:
www.mbusa-mobile.com



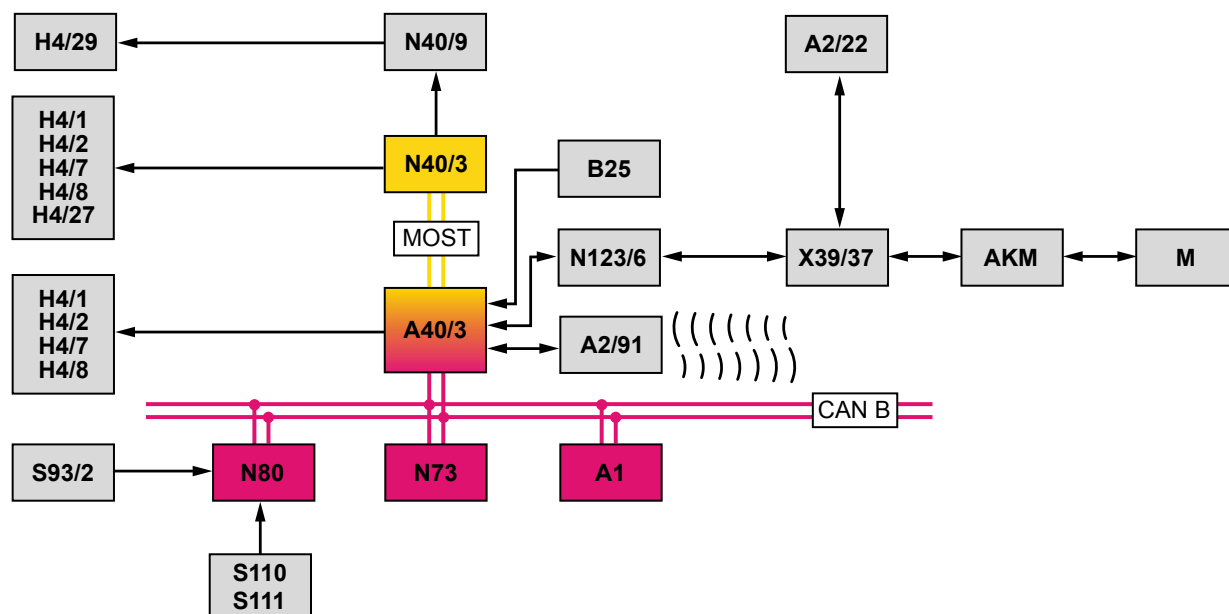
P82.70-6646-00

Block diagram for telephony (ECE and USA version)

with code (386) Mobile phone or code (389) Mobile phone preinstallation with universal interface, USA/Canada

A1	Instrument cluster	N40/3	Amplifier for sound system (with code (810) Sound system)
A2/22	Telephone antenna	N40/9	Subwoofer amplifier (with code (810) Sound system)
A2/91	Bluetooth antenna	N73	EZS control unit
A34/7	Bluetooth module	N80	Steering column tube module
A34/15	Universal Portable Cell Phone Interface (UPCI) cell phone holder (accessories)	N96	Frequency switchover control unit
A40/3	COMAND operating, display and controller unit	S93/2	VCS switch (with code (512) COMAND APS with DVD changer)
B25	Hands-free system microphone	S110	Left multifunction steering wheel button group
H4/1	Left door speaker group	S111	Right multifunction steering wheel button group
H4/2	Right door speaker group	CAN B	Interior CAN
H4/7	Left rear speaker	MOST	Media Oriented System Transport
H4/8	Right rear speaker		
H4/27	Center cockpit speaker (centerfill) (with code (810) Sound system)		
H4/29	Subwoofer speaker (with code (810) Sound system)		

Audio and communications systems



P82.70-6676-00

Block diagram for telephony (Japan version)

A1	Instrument cluster	N40/9	Subwoofer amplifier (with code (810) Sound system)
A2/22	Telephone antenna	N73	EZS control unit
A2/91	Bluetooth antenna	N80	Steering column tube module
A40/3	COMAND operating, display and controller unit	N123/6	Communications control unit
B25	Hands-free system microphone	S93/2	VCS switch (with code (512) COMAND APS with DVD changer)
H4/1	Left door speaker group	S110	Left multifunction steering wheel button group
H4/2	Right door speaker group	S111	Right multifunction steering wheel button group
H4/7	Left rear speaker	X39/37	Cell phone separation point
H4/8	Right rear speaker	AKM	Mobile phone adapter cable
H4/27	Center cockpit speaker (centerfill) (with code (810) Sound system)	CAN B	Interior CAN
H4/29	Subwoofer speaker (with code (810) Sound system)	M	Mobile phone
N40/3	Amplifier for sound system (with code (810) Sound system)	MOST	Media Oriented System Transport

Entertainment

The new COMAND operating, display and controller unit can also receive DAB digital radio (only GB) and SIRIUS satellite radio (USA). The COMAND controller unit is MP3-capable and supports DVD videos.

The COMAND APS is equipped with a 6-disk DVD changer and with a slot for SD memory cards. This allows the new MusicRegister functions including Compact Disc Database (CDDDB) to be used. SD storage media can be connected to the COMAND APS via the SD memory card slot and audio files can then be transferred to the hard disk.

On the USA and ECE versions, the MusicRegister allows music files and compressed audio files to be copied and on the Japan version they can also be opened. These files can be transferred directly to the hard disk of the COMAND APS from a CD, DVD or a SD memory card.

With the functionality of the Compact Disc Database, information about artists, track names, track lengths and music genre can be found on the "Gracenote" database and displayed on the display of the COMAND APS.

An AUX jack is installed in the glove compartment as standard regardless of the COMAND controller unit installed in the vehicle. This can be used to connect external devices (e.g. MP3 players) to the audio system of the vehicle.

The AUX jack is omitted on vehicles with the media interface special equipment option, code (518).



P82.86-7977-00

COMAND APS with 6-disk DVD changer (ECE version)

A40/3 COMAND operating, display and controller unit

Audio and communications systems

Satellite Digital Audio Radio (for USA/Canada)

General

The Satellite Digital Audio Radio (SDAR) allows reception of radio stations from the provider "Sirius Satellite Radio".

To achieve reception diversity, the Sirius satellite radio signal is transmitted 3 times (by two satellites and one terrestrial transmitter).

Function

The SDAR control unit allows the radio stations of the provider to be received via an antenna. The Satellite Digital Audio Radio (satellite radio) (SDAR) system is controlled using the COMAND operating, display and controller unit. The information and displays required for operation are shown on the display of the COMAND operating, display and controller unit.

Input

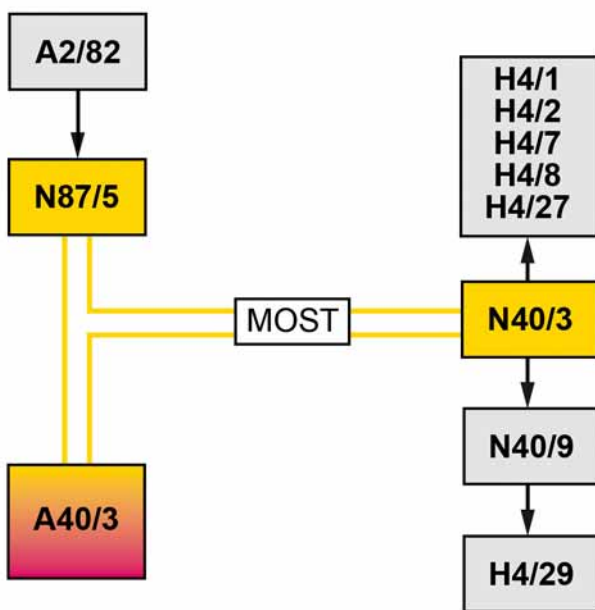
The SDAR antenna receives all three channels of the provider (Sat 1, Sat 2, terrestrial transmitter). The multifunction antenna routes the signals over a coaxial cable to the SDAR control unit.

Processing

The SDAR control unit receives and decodes the signals.

Output

The SDAR control unit then transmits the decoded digital radio signals to the COMAND operating, display and controller unit via Media Oriented System Transport (MOST). The audio signals are transferred to the speakers via COMAND. If a sound system is installed, the audio signals are output at the speakers via the amplifier for the sound system.



- A2/82 SDAR antenna
- A40/3 COMAND operating, display and controller unit
- H4/1 Left door speaker group
- H4/2 Right door speaker group
- H4/7 Left rear speaker
- H4/8 Right rear speaker
- H4/27 Center cockpit speaker (centerfill)
(with code (810) Sound system)
- H4/29 Subwoofer speaker
(with code (810) Sound system)
- N40/3 Amplifier for sound system
(with code (810) Sound system)
- N40/9 Subwoofer amplifier
(with code (810) Sound system)
- N87/5 SDAR control unit
- MOST Media Oriented System Transport

P82.60-6266-00

Block diagram of MOST ring, SDAR with sound system



Digital Audio Broadcasting radio operation (for GB)

General

Digital Audio Broadcasting (DAB) is a digital transmission standard optimized for the mobile reception of radio programs. Several programs are bundled into "ensembles" on a particular frequency and transmitted together.

One ensemble consists of up to twelve radio programs. Each ensemble is broadcast in a particular frequency range like a conventional FM radio station either nationally, regionally or locally. Listeners can thus also obtain tips about events happening in the region or listen to regional news etc.

Function

The Digital Audio Broadcasting control unit allows reception of "ensembles" in DAB format. The DAB functions are controlled by means of the COMAND operating, display and controller unit.

Input

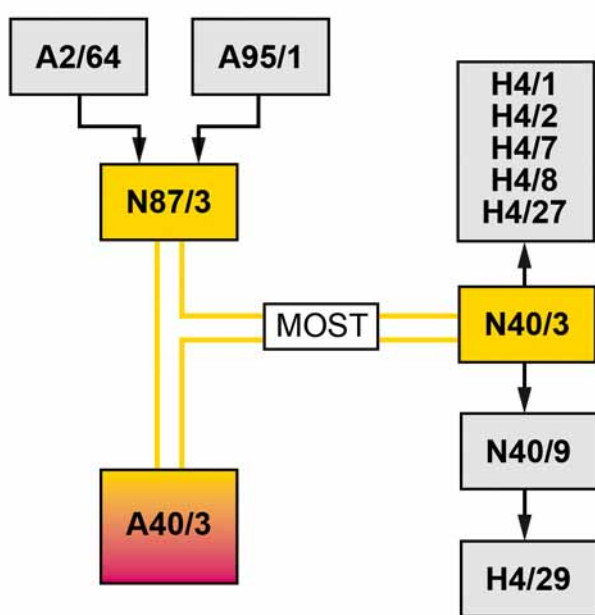
The Digital Audio Broadcasting control unit receives DAB L-band signals from the DAB L-band antenna via a coaxial line and band III signals from the left antenna amplifier module via a coaxial line.

Processing

The Digital Audio Broadcasting control unit converts the DAB L-band signals and band III signals into pulse code modulation (PCM) signals.

Output

The DAB status and the station lists are transmitted to the COMAND operating, display and controller unit via Media Oriented System Transport (MOST). The audio signals are also transferred to the speakers via COMAND. If a sound system is installed, the audio signals are output at the speakers via the amplifier for the sound system.



- A2/64 Left antenna amplifier module
- A40/3 COMAND operating, display and controller unit
- A95/1 DAB L-band antenna
- H4/1 Left door speaker group
- H4/2 Right door speaker group
- H4/7 Left rear speaker
- H4/8 Right rear speaker
- H4/27 Center cockpit speaker (centerfill)
(with code (810) Sound system)
- H4/29 Subwoofer speaker
(with code (810) Sound system)
- N40/3 Amplifier for sound system
(with code (810) Sound system)
- N40/9 Subwoofer amplifier
(with code (810) Sound system)
- N87/3 Digital Audio Broadcasting control unit
- MOST Media Oriented System Transport

P82.60-6265-00

Block diagram of MOST ring, DAB with sound system

Audio and communications systems

Media interface, code (518)

General

The universal device connecting point known as "Media interface" is available as special equipment. This allows external audio devices to be connected to the vehicle via an adapter cable and controlled using the COMAND operating, display and controller unit. The adapter cable is connected to the media interface control unit via the media interface electrical connector in the stowage compartment in the center console for this purpose. The media interface control unit is a subscriber to the MOST ring and is located under the center console.

The following devices can be connected via the adapter cable:

- AUX devices with standard jack
- iPod or serial USB devices (Media Transfer Protocol (MTP))
- Special USB devices (mass storage devices)

The AUX jack installed in the glove box as standard is omitted on vehicles with the media interface special equipment option, code (518).

Function

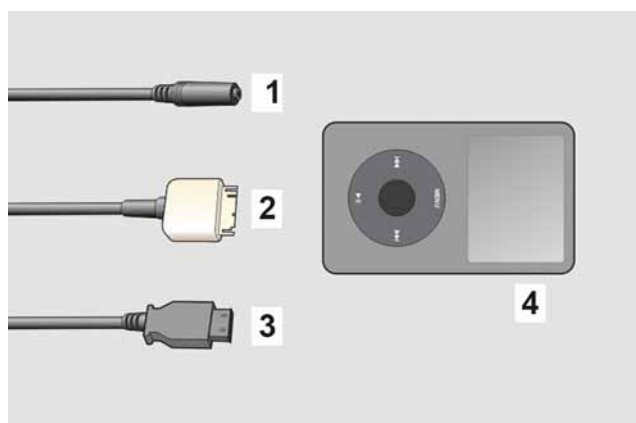
If an external audio device is connected to the adapter cable, the media interface control unit detects it via the connector in the center console.

The media interface control unit then sends an electrical wake-up signal to the COMAND controller unit over a direct line. The COMAND controller unit is switched on and activates MOST. Simultaneously, the audio signals and data are transmitted from the connected external audio device to the COMAND controller unit via the following path:

- Adapter cable
- Media interface connector
- Media interface control unit
- MOST

The name of the artist and of the music track is displayed on the display of the COMAND controller unit and on the instrument cluster.

If there is no TV tuner installed in the vehicle, video signals and data are transferred from the media interface connector to the COMAND controller unit via direct lines and shown on the display.



P82.60-6268-00

Adapter cable and connection options

- 1 AUX jack
- 2 iPod connector
- 3 USB connector
- 4 Example of iPod device

Operation

The control signals for the externally connected audio device are activated via the buttons of the COMAND controller unit or via the button groups of the multifunction steering wheel.

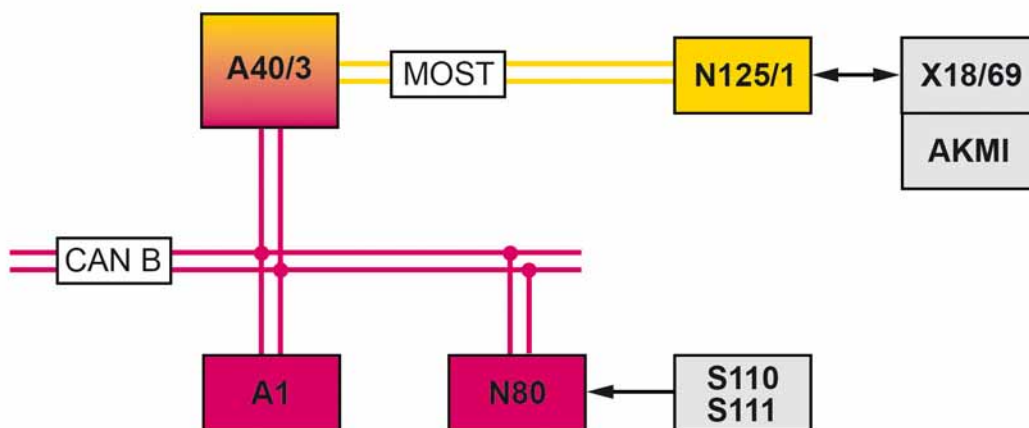
The control signals from the buttons of the COMAND controller unit are processed internally.

The control signals from the button groups of the multifunction steering wheel are transferred to the steering column tube module via a direct line and sent from there to the COMAND operating, display and controller unit via interior CAN.

After evaluation of the control signals in the COMAND controller unit, they are then sent to the external audio device via the following path:

- MOST
- Media interface control unit
- Media interface connector
- Adapter cable

The connected external audio device evaluates the control signals and transmits the corresponding audio signals and data back to the COMAND controller unit.



P82.60-6267-00

Block diagram of media interface

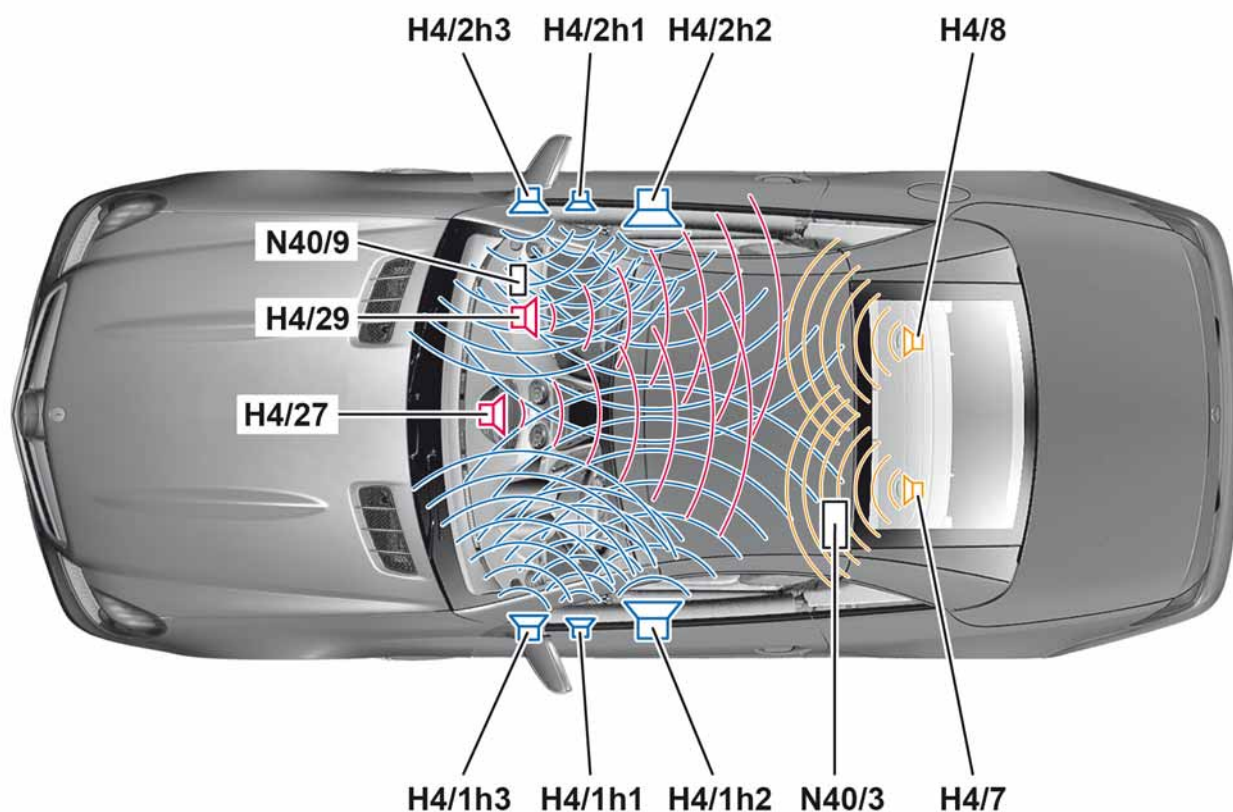
A1	Instrument cluster	X18/69	Media interface connector
A40/3	COMAND operating, display and controller unit	AKMI	Media interface adapter cable (accessories)
N80	Steering column tube module	CAN B	Interior CAN
N125/1	Media interface control unit	MOST	Media Oriented System Transport
S110	Left multifunction steering wheel button group		
S111	Right multifunction steering wheel button group		

Audio and communications systems

Surround sound system, code (810)

With the new telematics generation 2.5, the new harman/kardon LOGIC 7 surround sound system is also installed in the vehicle as special equipment. In combination with the DVD/audio drive of the COMAND APS, this supports discrete multichannel functionality as in model 204, 216 and 221.

The most important characteristics of the new surround sound system include an increase in output from a previous value of 250 watts to 510 watts, a more intensive sound experience with Dolby Digital 5.1 Surround Sound and the expansion from eight to ten high-performance speakers including two surround speakers and a bass speaker.



harman/kardon LOGIC 7 surround sound system

P82.62-3257-00

H4/1h1	Tweeter	H4/7	Left rear speaker
H4/1h2	Woofers	H4/8	Right rear speaker
H4/1h3	Midrange speaker	H4/27	Center cockpit speaker (centerfill)
H4/2h1	Tweeter	H4/29	Subwoofer
H4/2h2	Woofers	N40/3	Amplifier for sound system
H4/2h3	Midrange speaker	N40/9	Subwoofer amplifier



LINGUATRONIC voice control system (VCS)

The individual functions of the driver information system are called up and operated via the LINGUATRONIC voice control system (VCS). The VCS is integrated into the COMAND controller unit.

The new LINGUATRONIC generation features new functions and improved operating convenience.

The system includes the following modifications:

- Full-word input of town/city and road names during navigation in the national language the head unit is adjusted to
- Selection of telephone book entries without performing voice training on the system
- Selection of radio stations without performing voice training on the system
- Radio can be controlled by voice at any time, if activated
- Language change via user selection
- Use of synonyms
- Integrated noise filter

VICS traffic information system (Japan)

On vehicles for the Japanese market, reception of the VICS traffic information system (Vehicle Information and Communications System) is available as standard.

VICS provides the driver with precise and abundant information about traffic jams, accidents and other difficulties on the roads.

TELE AID emergency call system (USA)

Depending on their priority, the following functions can be performed via the emergency call function:

- 1 Automatic emergency call
- 2 Manual emergency call
- 3 Vehicle tracking
- 4 Roadside assistance
- 5 MB Info call
- 6 Authorization
- 7 Vehicle remote unlocking

Audio and communications systems

COMAND control and operating unit for ECE



COMAND operating, display and controller unit, code (528)

P82.86-7681-00

Features

Basic equipment	Special equipment	Code
6.5" color display screen	Comfort telephony	386
DVD changer (audio/video)	New Dolby Surround Sound system 5.1	810
Slot for SD memory cards	Digital radio reception (DAB) (only GB)	537
Navigation	Media interface	518
MusicRegister incl. CDDB		
LINGUATRONIC		
MP3 capability		
AUX-IN jack in glove compartment		
Bluetooth capability		



COMAND APS control and operating unit for ECE



P82.86-7681-00

COMAND APS operating, display and controller unit, code (512)

Features

Basic equipment	Special equipment	Code
6.5" color display screen	Comfort telephony	386
DVD changer in COMAND APS (audio/video)	New Dolby Surround Sound system 5.1	810
Slot for SD memory cards	Digital radio reception (DAB) (only GB)	537
HDD navigation with map display	Media interface	518
MusicRegister incl. CDDB	TV tuner	863
LINGUATRONIC		
MP3 capability		
AUX-IN jack in glove compartment		
Bluetooth capability		

Audio and communications systems

COMAND APS control and operating unit for USA



P82.86-7682-00

COMAND APS operating, display and controller unit, code (512)

Features

Basic equipment	Special equipment	Code
6.5" color display screen	Comfort telephony	389
DVD changer in COMAND APS (audio/video)	New Dolby Surround Sound system 5.1	810
Slot for SD memory cards	SIRIUS satellite radio	536
HDD navigation with map display		
MusicRegister incl. CDDB		
LINGUATRONIC		
TELE AID emergency call system		

COMAND APS control and operating unit for Japan



P82.86-7683-00

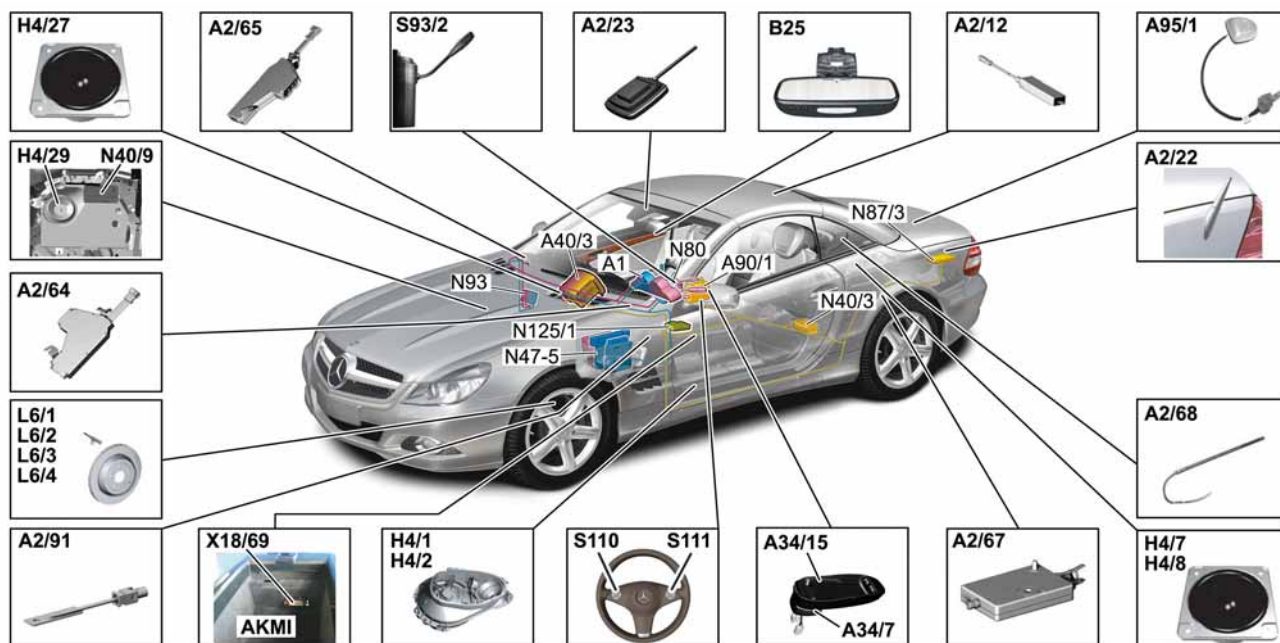
COMAND APS operating, display and controller unit, code (527)

Features

Basic equipment		
6.5" color display screen	VICS traffic information system (3D Media preinstalled wiring)	
DVD changer in COMAND APS (audio/video)	VICS traffic information system (FM multiplex)	
Slot for SD memory cards	TV tuner	
HDD navigation with map display		
MusicRegister incl. CDDB		
LINGUATRONIC		
MP3 capability		
Bluetooth capability	Special equipment	Code
AUX-IN jack in glove compartment	New Dolby Surround Sound system 5.1	810
Comfort telephony	Media interface	518

Audio and communications systems

Cockpit Management and Data System (COMAND) ECE



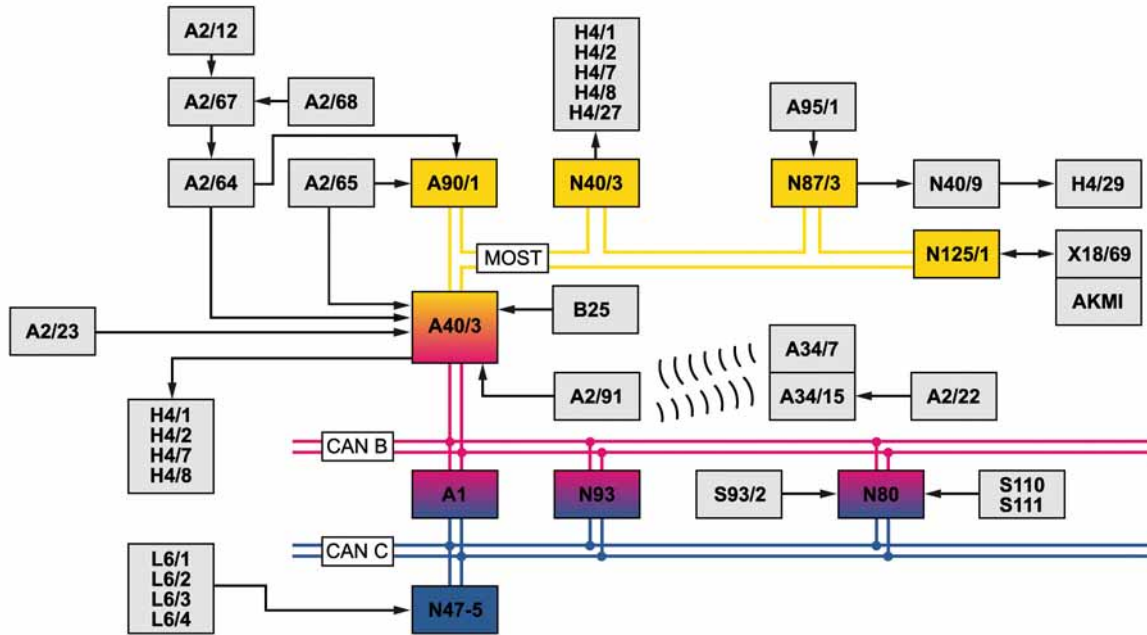
P82.86-7667-00

Location of components of COMAND (ECE version)

- | | | | |
|--------|---|-------|---|
| A1 | Instrument cluster | A95/1 | DAB L-band antenna (with code (537) Digital radio and with code (833) GB version) |
| A2/12 | Rear window antenna amplifier module | B25 | Hands-free system microphone |
| A2/22 | Telephone antenna | H4/1 | Left door speaker group |
| A2/23 | GPS antenna (with code (512) COMAND APS with DVD changer) | H4/2 | Right door speaker group |
| A2/64 | Left antenna amplifier module | H4/7 | Left rear speaker |
| A2/65 | Right antenna amplifier module | H4/8 | Right rear speaker |
| A2/67 | Rear shelf antenna amplifier | H4/27 | Center cockpit speaker (centerfill) (with code (810) Sound system) |
| A2/68 | Rear shelf antenna | H4/29 | Subwoofer speaker (with code (810) Sound system) |
| A2/91 | Bluetooth antenna | | |
| A34/7 | Bluetooth module (with code (386) Mobile phone) | | |
| A34/15 | Universal Portable Cell Phone Interface (UPCI) cell phone holder (accessories) | | |
| A40/3 | COMAND operating, display and controller unit | | |
| A90/1 | TV combination tuner (analog/digital) (with code (863) Digital/analog TV tuner) | | |

Legend continued on next page.





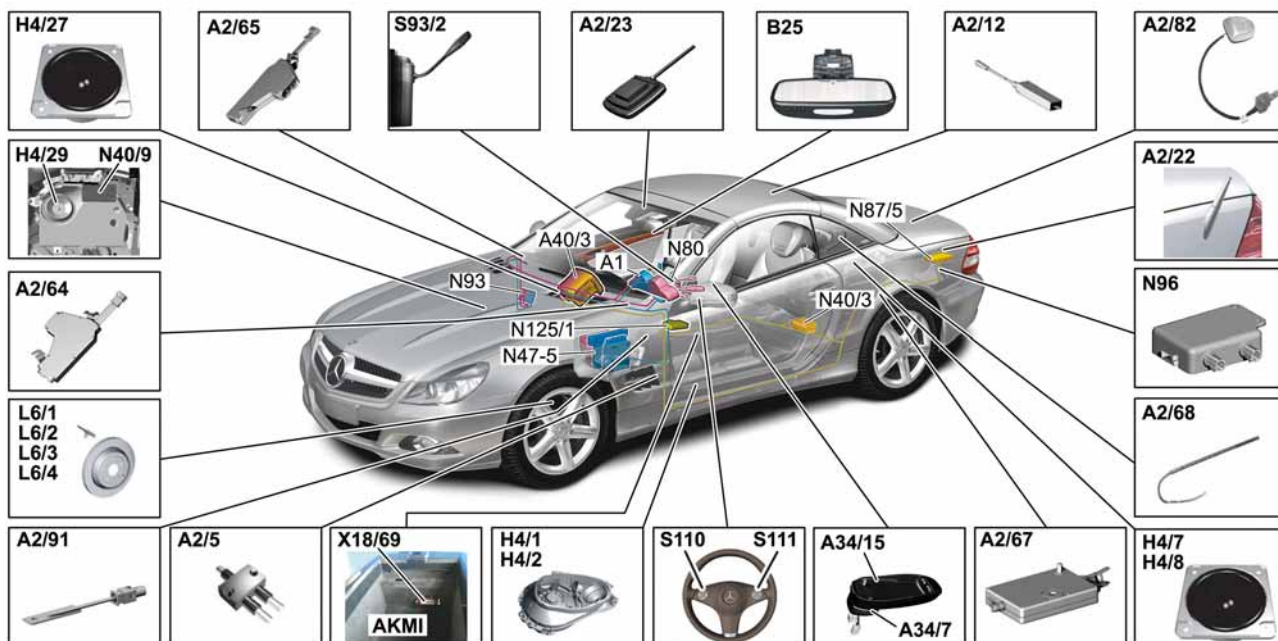
P82.86-7668-00

Block diagram of COMAND (ECE version)

- | | | | |
|--------|--|--------|---|
| L6/1 | Left front rpm sensor | S93/2 | VCS switch (with code (512) COMAND APS with DVD changer) |
| L6/2 | Right front rpm sensor | S110 | Left multifunction steering wheel button group |
| L6/3 | Left rear rpm sensor | S111 | Right multifunction steering wheel button group |
| L6/4 | Right rear rpm sensor | X18/69 | Media interface connector (with code (518) Media interface) |
| N40/3 | Amplifier for sound system (with code (810) Sound system) | AKMI | Media interface adapter cable (with code (518) Media interface) (accessories) |
| N40/9 | Subwoofer amplifier (with code (810) Sound system) | CAN B | Interior CAN |
| N47-5 | ESP, SPS [PML] and BAS control unit | CAN C | Engine compartment CAN |
| N80 | Steering column tube module | MOST | Media Oriented System Transport |
| N87/3 | Digital Audio Broadcasting control unit (with code (537) Digital radio and with code (833) GB version) | | |
| N93 | Central gateway control unit | | |
| N125/1 | Media interface control unit (with code (518) Media interface) | | |

Audio and communications systems

Cockpit Management and Data System (COMAND) USA



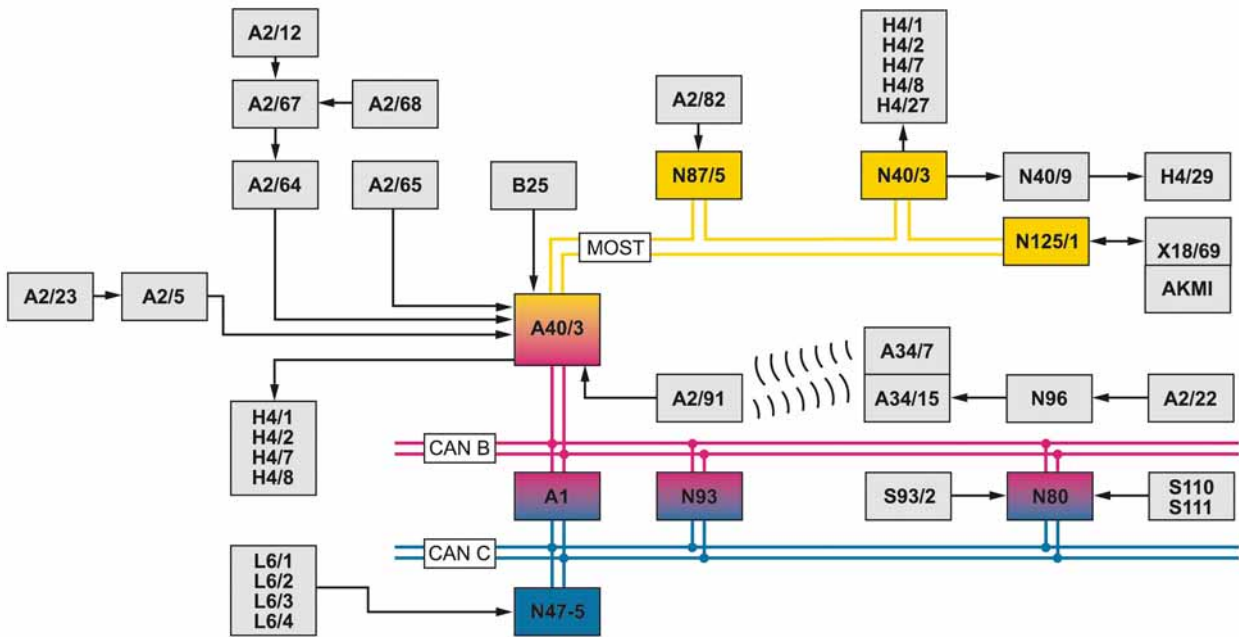
P82.86-7669-00

Location of components of COMAND (USA version)

- | | | | |
|--------|--|-------|-------------------------------------|
| A1 | Instrument cluster | B25 | Hands-free system microphone |
| A2/5 | Antenna splitter | H4/1 | Left door speaker group |
| A2/12 | Rear window antenna amplifier module | H4/2 | Right door speaker group |
| A2/22 | Telephone antenna | H4/7 | Left rear speaker |
| A2/23 | GPS antenna | H4/8 | Right rear speaker |
| A2/64 | Left antenna amplifier module | H4/27 | Center cockpit speaker (centerfill) |
| A2/65 | Right antenna amplifier module | | (with code (810) Sound system) |
| A2/67 | Rear shelf antenna amplifier | H4/29 | Subwoofer speaker (with code (810) |
| A2/68 | Rear shelf antenna | | Sound system) |
| A2/82 | SDAR antenna | L6/1 | Left front rpm sensor |
| | (with code (536) SIRIUS satellite radio) | L6/2 | Right front rpm sensor |
| A2/91 | Bluetooth antenna | L6/3 | Left rear rpm sensor |
| A34/7 | Bluetooth module | L6/4 | Right rear rpm sensor |
| | (with code (386) Mobile phone) | | |
| A34/15 | Universal Portable Cell Phone Interface (UPCI) | | |
| | cell phone holder (accessories) | | |
| A40/3 | COMAND operating, display and controller unit | | |

Legend continued on next page.





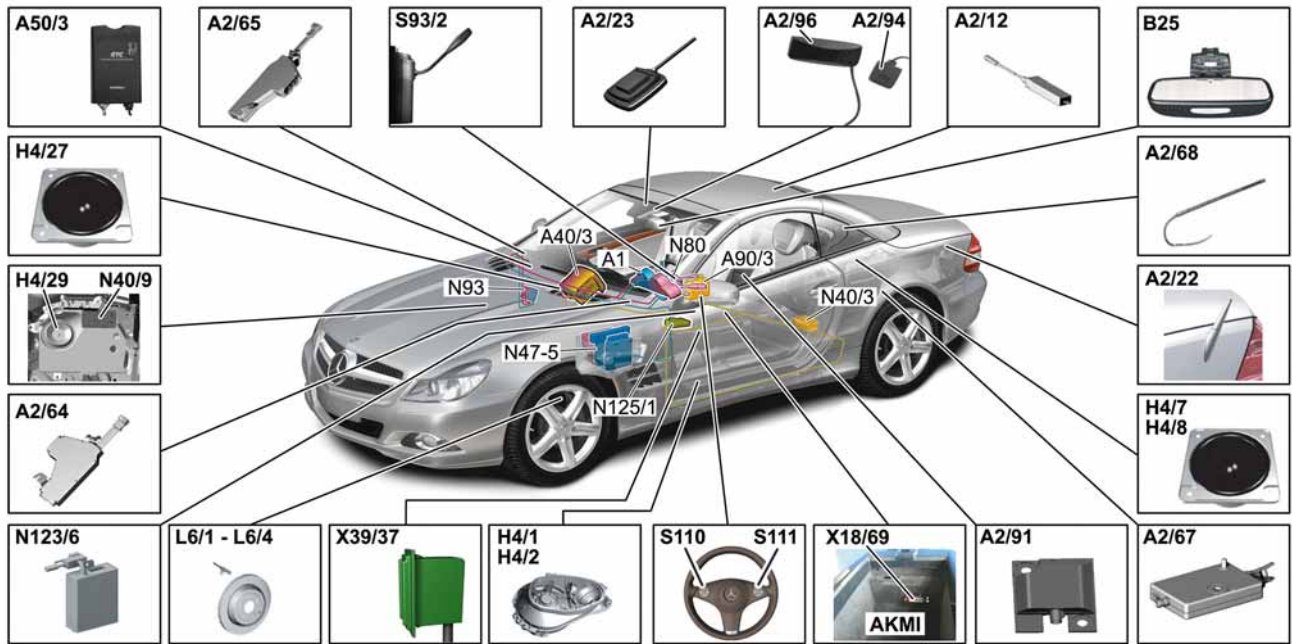
P82.86-7670-00

Block diagram of COMAND (USA version)

N40/3	Amplifier for sound system (with code (810) Sound system)	S93/2	VCS switch
N40/9	Subwoofer amplifier (with code (810) Sound system)	S110	Left multifunction steering wheel button group
N47-5	ESP, SPS [PML] and BAS control unit	S111	Right multifunction steering wheel button group
N80	Steering column tube module	X18/69	Media interface connector (with code (518) Media interface)
N87/5	SDAR control unit (with code (536) SIRIUS satellite radio)	AKMI	Media interface adapter cable (with code (518) Media interface) (accessories)
N93	Central gateway control unit	CAN B	Interior CAN
N96	Frequency switchover control unit	CAN C	Engine compartment CAN
N125/1	Media interface control unit (with code (518) Media interface)	MOST	Media Oriented System Transport

Audio and communications systems

Cockpit Management and Data System (COMAND) Japan



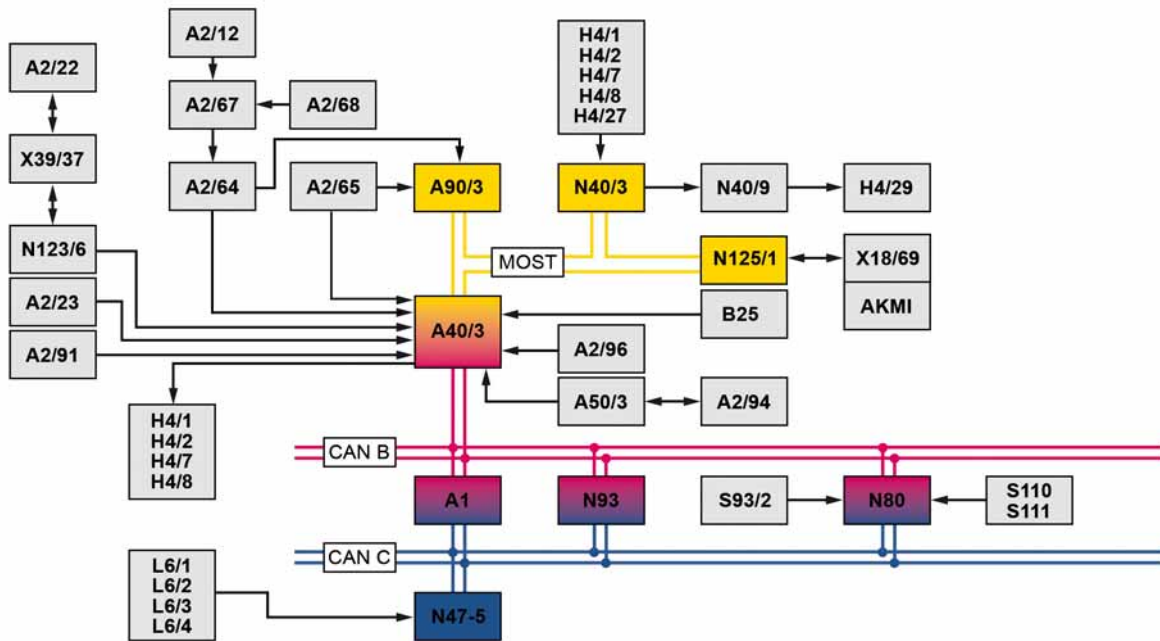
P82.86-7672-00

Location of components of COMAND (Japan version)

- | | | | |
|-------|---|-------|---|
| A1 | Instrument cluster | B25 | Hands-free system microphone |
| A2/12 | Rear window antenna amplifier module | H4/1 | Left door speaker group |
| A2/22 | Telephone antenna | H4/2 | Right door speaker group |
| A2/23 | GPS antenna | H4/7 | Left rear speaker |
| A2/64 | Left antenna amplifier module | H4/8 | Right rear speaker |
| A2/65 | Right antenna amplifier module | H4/27 | Center cockpit speaker (centerfill)
(with code (810) Sound system) |
| A2/67 | Rear shelf antenna amplifier | H4/29 | Subwoofer speaker (with code (810)
Sound system) |
| A2/68 | Rear shelf antenna | | |
| A2/91 | Bluetooth antenna | | |
| A2/94 | Electronic Toll Collection (ETC) antenna | | |
| A2/96 | VICS antenna | | |
| A40/3 | COMAND operating, display and controller unit | | |
| A50/3 | Electronic Toll Collection (ETC) control unit | | |
| A90/3 | Digital TV tuner | | |

Legend continued on next page.





P82.86-7673-00

Block diagram of COMAND (Japan version)

- | | | | |
|--------|--|--------|---|
| L6/1 | Left front rpm sensor | S93/2 | VCS switch |
| L6/2 | Right front rpm sensor | S110 | Left multifunction steering wheel button group |
| L6/3 | Left rear rpm sensor | S111 | Right multifunction steering wheel button group |
| L6/4 | Right rear rpm sensor | X18/69 | Media interface connector (with code (518) Media interface) |
| N40/3 | Amplifier for sound system (with code (810) Sound system) | X39/37 | Cell phone separation point |
| N40/9 | Subwoofer amplifier (with code (810) Sound system) | AKMI | Media interface adapter cable (with code (518) Media interface) (accessories) |
| N47-5 | ESP, SPS [PML] and BAS control unit | CAN B | Interior CAN |
| N80 | Steering column tube module | CAN C | Engine compartment CAN |
| N93 | Central gateway control unit | MOST | Media Oriented System Transport |
| N123/6 | Communications control unit | | |
| N125/1 | Media interface control unit (with code (518) Media interface) | | |

Climate control

Redesigned AC operating unit

Changes have been made to the design and controls of the AAC [KLA] control and operating unit. The operating unit is now structured much more clearly and features a more ergonomic design thanks to the repositioning of certain controls and the new display symbols for air distribution.

The previous push/turn controls of the operating unit for manually controlling the air distribution for driver and front passenger separately have been discontinued. A "MODE" button is now available for this function on each control. The corresponding symbols to indicate the air distribution selection are located in the indicator above the corresponding "MODE" button.

The push/turn control for adjusting the blower output and AUTO function have also been changed. The push control is no longer present and the AUTO function has been moved to a separate button on the lower part of the operating unit. The turn control no longer has a pushbutton function and is now only used to adjust the blower output.

Since the AUTO function has been repositioned, the functions of the three buttons in the lower section of the operating unit have been reassigned. The previous button assignment on the lower row of the operating unit has now been changed to the following sequence from left to right. The "AUTO" button is located on the left, the "OFF" button is in the center and the "A/C" and "REST" button is on the right and is now a dual function button.



P83.40-4018-00

Previous AAC [KLA] control and operating unit (ECE version)



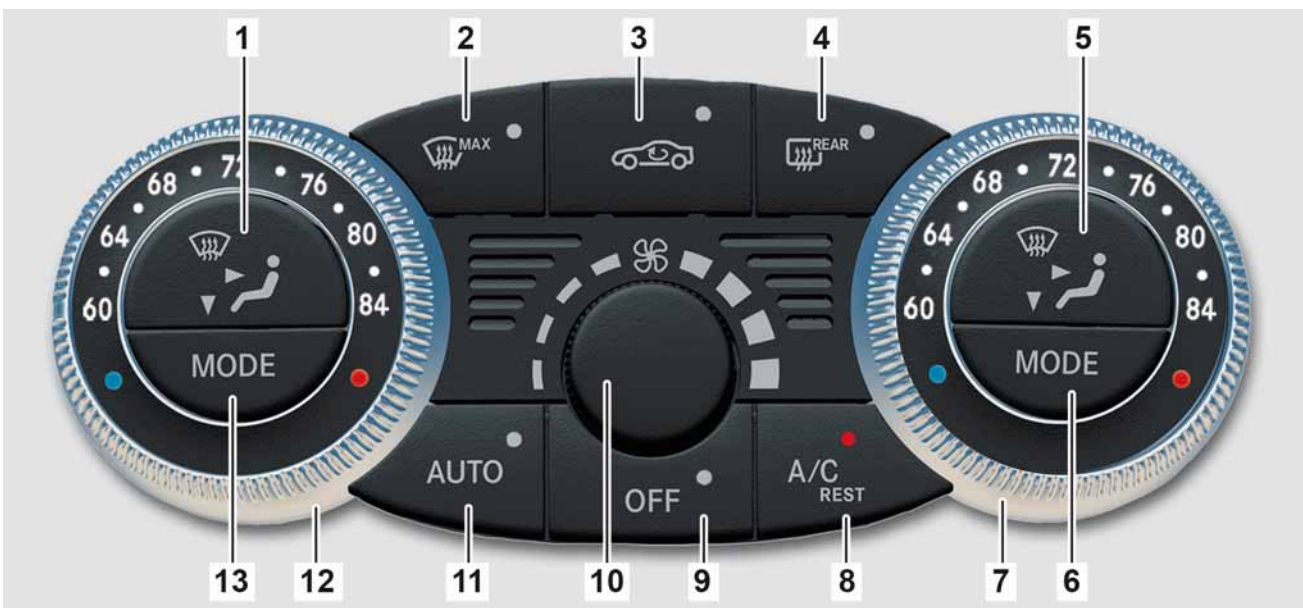
P83.40-4019-00

Previous AAC [KLA] control and operating unit (USA version)



P83.40-4011-00

New AAC [KLA] control and operating unit (ECE version)



P83.40-4017-00

New AAC [KLA] control and operating unit (USA version)

(Legend for ECE and USA version)

- | | |
|---|--|
| <ul style="list-style-type: none"> 1 Left air distribution indicator 2 Defrost windshield on/off 3 Air recirculation mode on/off 4 Rear window heater on/off 5 Right air distribution indicator 6 Right air distribution adjustment 7 Right temperature adjustment | <ul style="list-style-type: none"> 8 Cooling with air dehumidification on/off
Residual heat/stationary ventilation on/off 9 Automatic air conditioning on/off 10 Air flow adjustment 11 Automatic climate control 12 Left temperature adjustment 13 Left air distribution adjustment |
|---|--|

Climate control

Glove compartment and air outlets

When the automatic air conditioning is switched on, the glove compartment can be cooled down to approx. 6°C. The air flow depends on the air flow and air distribution setting on the AC control and operating unit. The air temperature corresponds approximately to that of the air emitted from the center air vent.

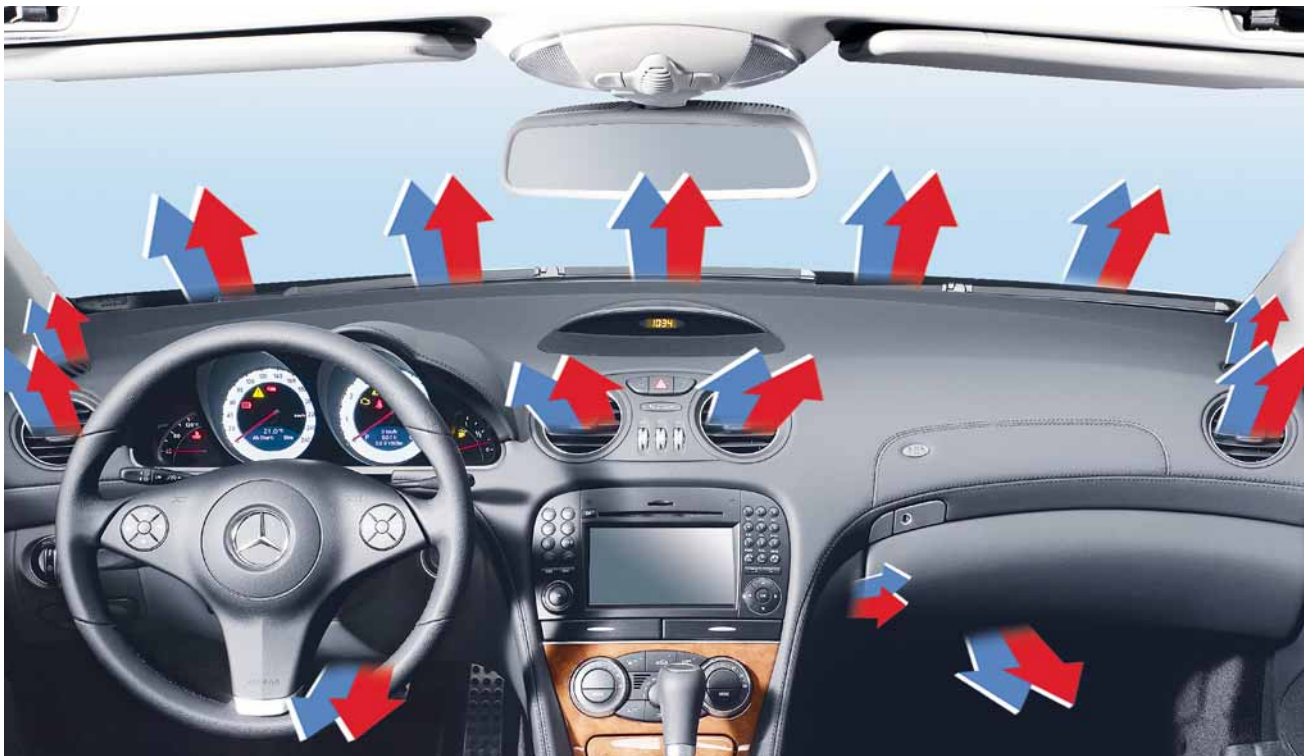
The air vent should be closed in heating mode, otherwise temperature-sensitive objects inside the glove compartment could be damaged.

The air feed can be opened or closed via the air vent adjustment wheel in the glove compartment.



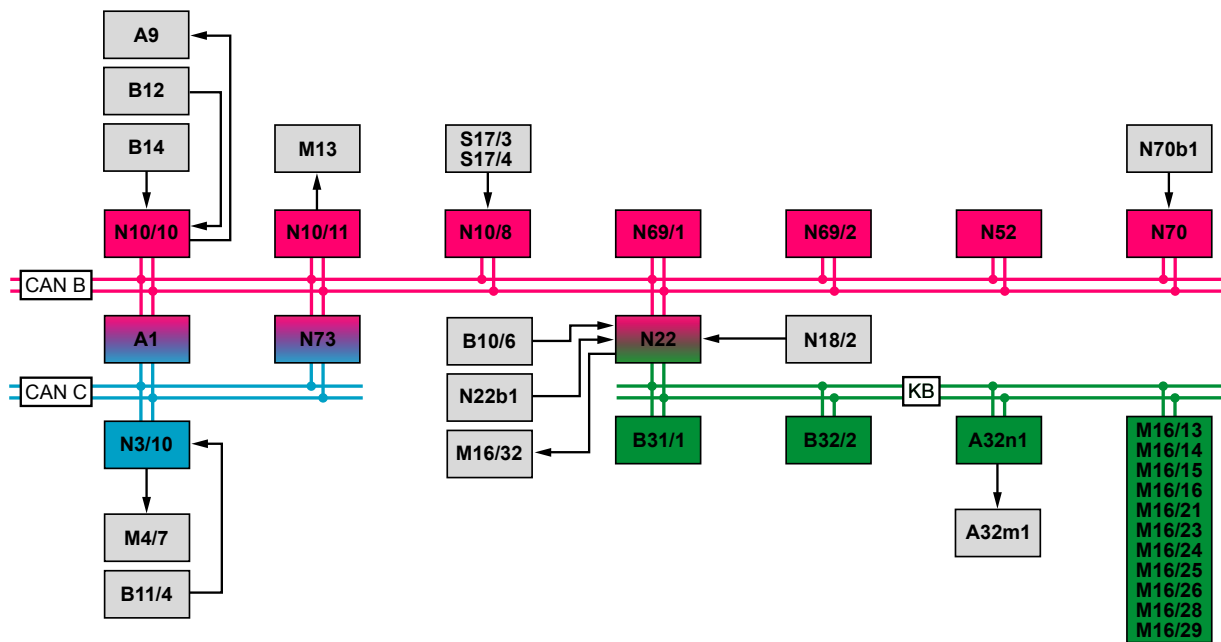
P83.40-4016-00

Air vent adjustment wheel in glove compartment



P83.10-2658-00

Interior climate control air outlets



P83.40-4074-00

Block diagram for climate control

A1	Instrument cluster	M16/28	Left blend air flap actuator motor
A9	Refrigerant compressor	M16/29	Right blend air flap actuator motor
A32m1	Blower motor	M16/32	Heat exchanger shutoff motor
A32n1	Blower regulator	N3/10	ME-SFI [ME] control unit
B10/6	Evaporator temperature sensor	N10/8	Rear SAM control unit
B11/4	Coolant temperature sensor	N10/10	Driver-side SAM control unit
B12	Refrigerant pressure sensor	N10/11	Passenger-side SAM control unit
B14	Outside temperature display temperature sensor	N18/2	AAC [KLA] center and side air outlet control system
B31/1	AAC [KLA] multifunction sensor	N22	AAC [KLA] control and operating unit
B32/2	AAC [KLA] sun sensor (4 in total)	N22b1	In-car temperature sensor
M4/7	Engine and air conditioning electric suction fan with integrated control	N52	RVC [UVS] control unit
M13	Heater circulation pump	N69/1	Left door control unit
M16/13	Left defroster vent flap actuator motor	N69/2	Right door control unit
M16/14	Right defroster vent flap actuator motor	N70	Overhead control panel control unit
M16/15	Left footwell flap actuator motor	N70b1	In-car temperature sensor
M16/16	Right footwell flap actuator motor	N73	EZS control unit
M16/21	Fresh air/air recirculation flap actuator motor	S17/3	Left door contact switch
M16/23	Left center air flap actuator motor	S17/4	Right door contact switch
M16/24	Right center air flap actuator motor	CAN B	Interior CAN
M16/25	Left side air flap actuator motor	CAN C	Engine compartment CAN
M16/26	Right side air flap actuator motor	KB	AC bus

AIRSCARF

System in general

The AIRSCARF system, code (403), is available as a special equipment option and additionally heats the headroom of the driver and front passenger, especially when driving with the soft top open. When the AIRSCARF system is activated, heated air comes out of an opening in the respective head restraint. The function requirements for this are as follows:

- Circuit 15R ON
- Interior temperature $T < 40\text{ }^{\circ}\text{C}$

The warm air feed can be adjusted in three stages and is controlled depending on the vehicle speed when the Vario roof is open.

The AIRSCARF system can also be activated when the Vario roof is closed. It does not however operate on a speed-dependent basis in this case.

Activation

The system is switched on via the respective seat adjustment switch group in the door panel on the driver or front passenger side. The heating stage that has been activated is indicated by red light-emitting diodes (LEDs) in the relevant switch.



P91.30-2396-00

Front view of head restraint with AIRSCARF

- 2 AIRSCARF head restraint
- 3 AIRSCARF air outlet

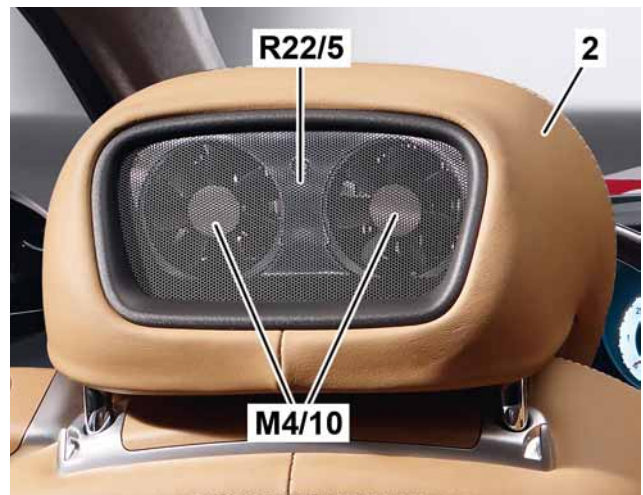


P54.25-6673-00

Left seat adjustment switch group

- 1 Light emitting diodes for AIRSCARF heating stages

S91/2s21 Left AIRSCARF switch



P91.30-2397-00

Rear view of head restraint with AIRSCARF

- 2 AIRSCARF head restraint
- M4/10 Left AIRSCARF fan motor
- R22/5 Left AIRSCARF heating element

Functional principle

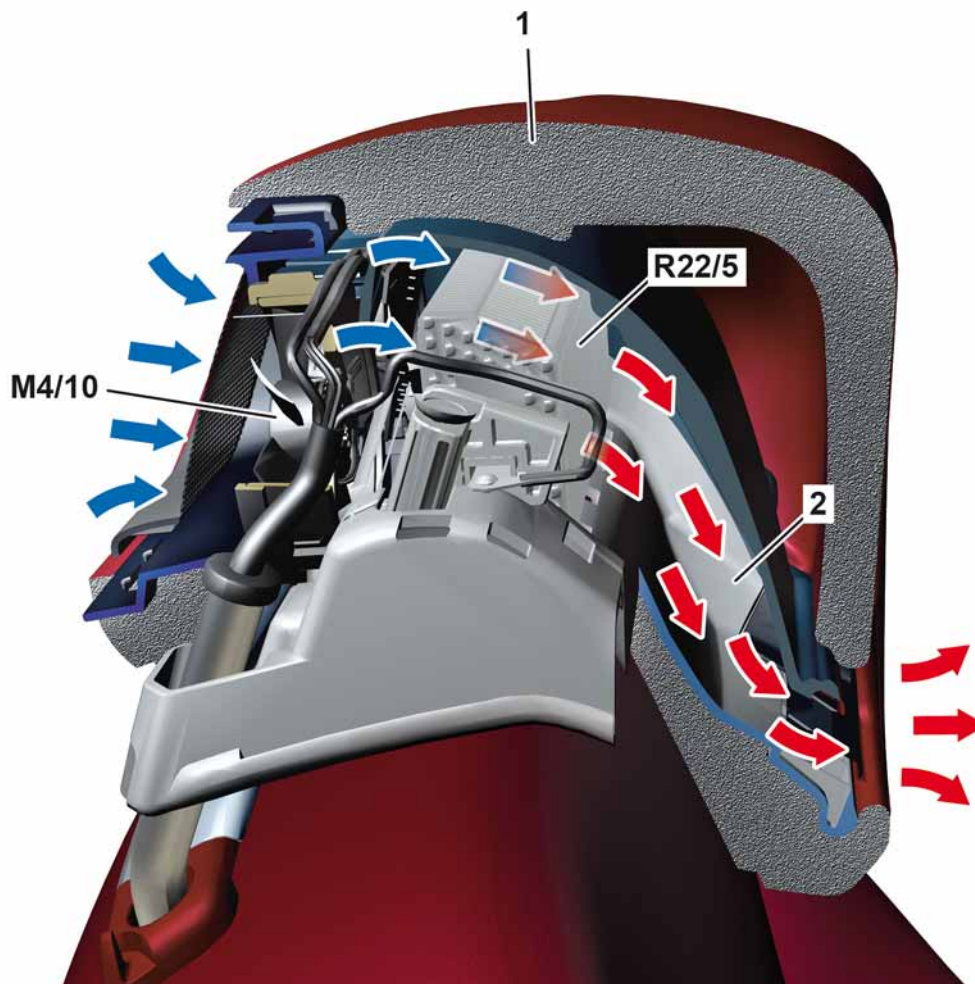
Special head restraints are installed on the driver and front passenger seats for the AIRSCARF system. These incorporate all of the components necessary to supply warm air to the head and neck areas of the occupants.

Two fan motors are installed in each head restraint. These take air in from the rear of the head restraint and direct it through a heating element.

While the air is passing through the head restraint, it is heated up by the respective heating element and it then flows through an air duct to the air outlet at the front of the head restraint.

i Note

The fans are actuated with a delay of 10 seconds whenever the system is switched on or off.



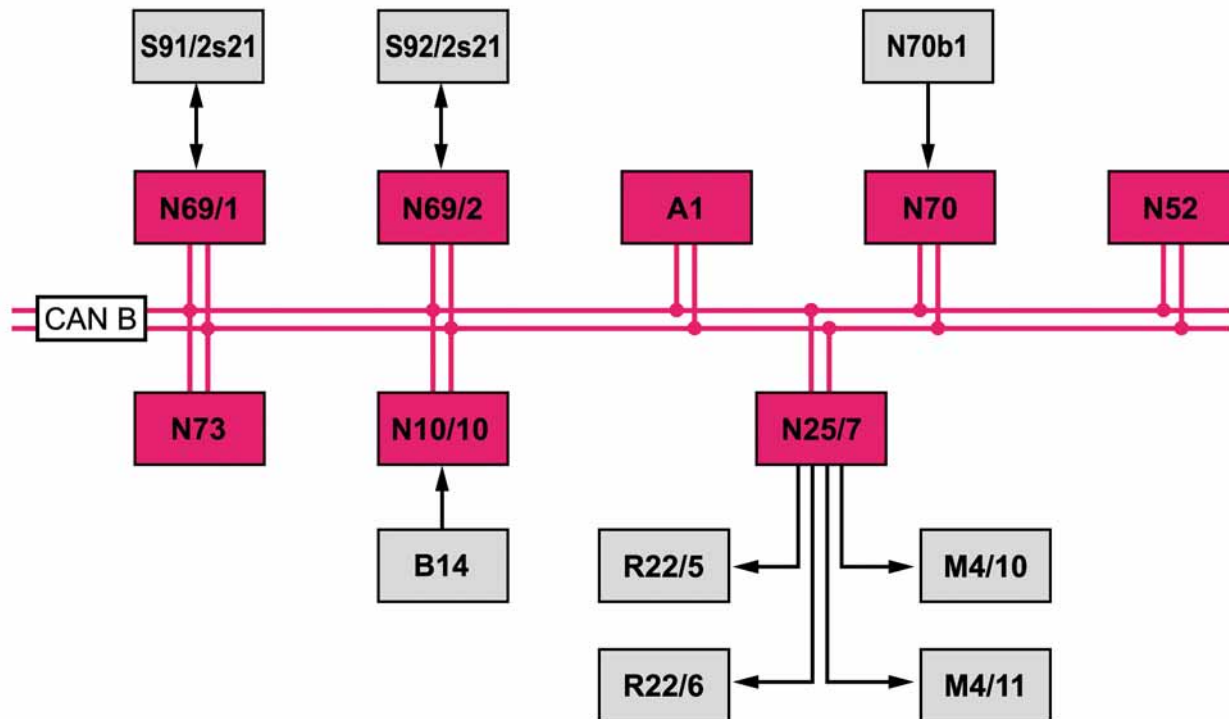
Functional principle of AIRSCARF shown on driver seat head restraint

P91.30-2395-00

1 AIRSCARF head restraint
2 AIRSCARF air duct

M4/10 Left AIRSCARF fan motor
R22/5 Left AIRSCARF heating element

AIRSCARF



P91.30-2394-00

Block diagram of AIRSCARF system

- | | | | |
|--------|--|----------|--------------------------------|
| A1 | Instrument cluster | N70b1 | In-car temperature sensor |
| B14 | Outside temperature indicator temperature sensor | N73 | EZS control unit |
| M4/10 | Left AIRSCARF fan motor | R22/5 | Left AIRSCARF heating element |
| M4/11 | Right AIRSCARF fan motor | R22/6 | Right AIRSCARF heating element |
| N10/10 | Driver-side SAM control unit | S91/2s21 | Left AIRSCARF switch |
| N25/7 | AIRSCARF control unit | S92/2s21 | Right AIRSCARF switch |
| N52 | RVC [UVS] control unit | CAN B | Interior CAN |
| N69/1 | Left door control unit | | |
| N69/2 | Right door control unit | | |
| N70 | Overhead control panel control unit | | |

P60.00-2803-00

Overview of bodyshell materials

Aluminum

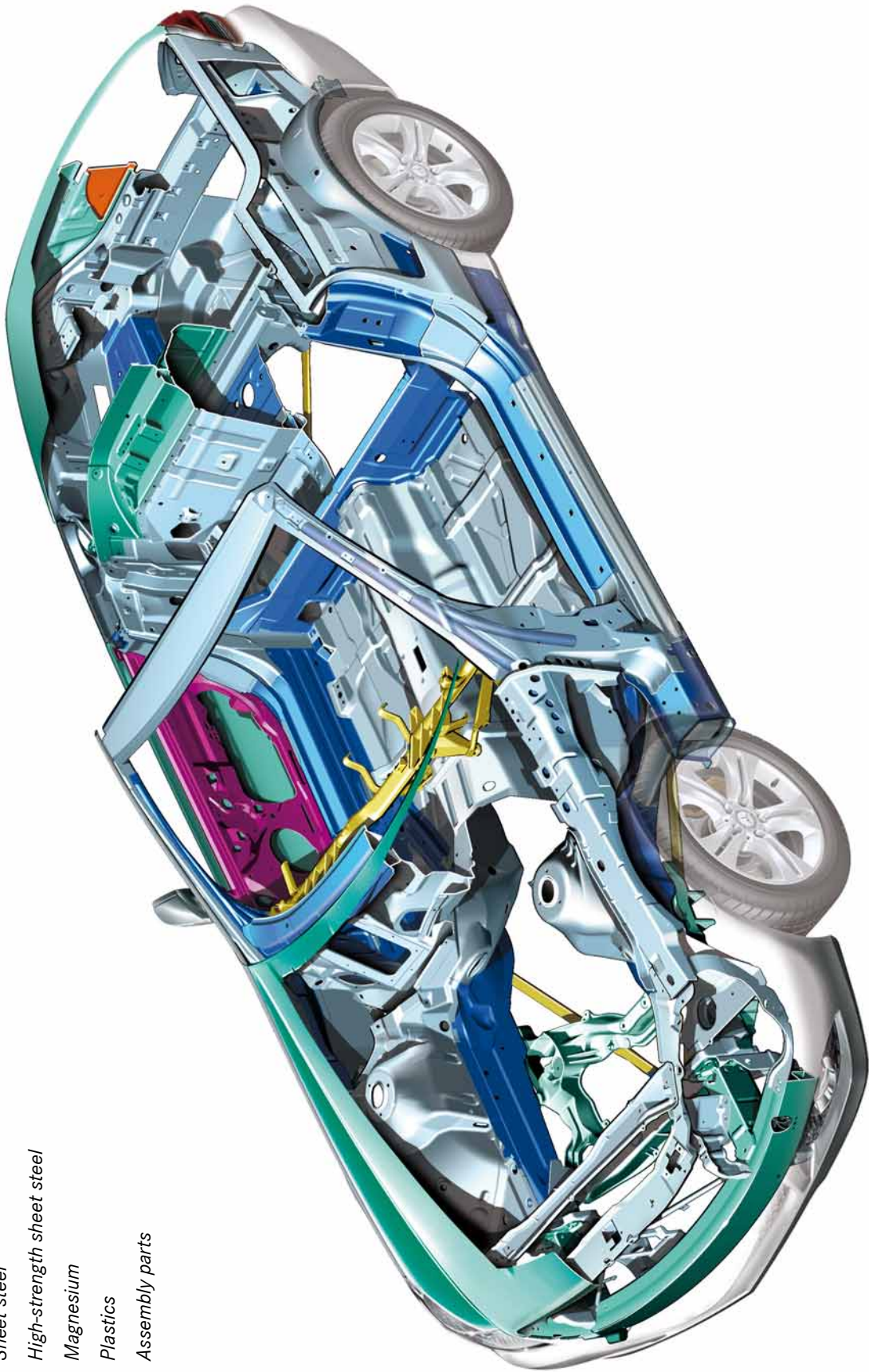
Sheet steel

High-strength sheet steel

Magnesium

Plastics

Assembly parts



Body

New exterior colors

With the model refinement, the SL-Class is available in two new exterior colors. At the same time, two other exterior colors are no longer available with the model refinement.

The following changes to the exterior colors on offer have been made:

- The new alabandite gray metallic special color replaces the jasper blue metallic basic color.
- The new palladium silver metallic sports car color replaces the previous tellurium silver metallic basic color.

Color designation	Color no. Mercedes-Benz	Modification
Palladium silver, metallic	9792	New
Tellurium silver, metallic	9762	Discontinued
Alabandite gray, metallic	7779	New
Jasper blue, metallic	5345	Discontinued



Model plate

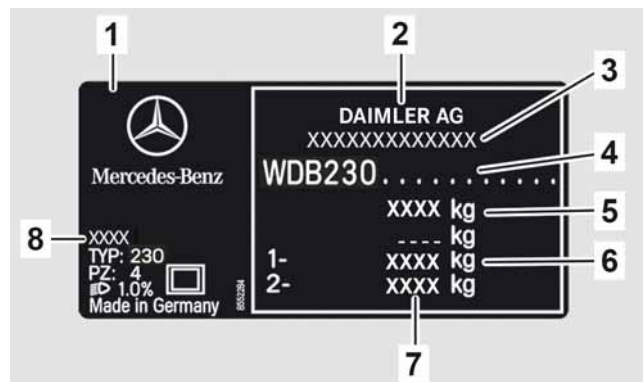
The model plate is mounted on the side of the right-hand B-pillar in the door frame.



P00.10-4324-00

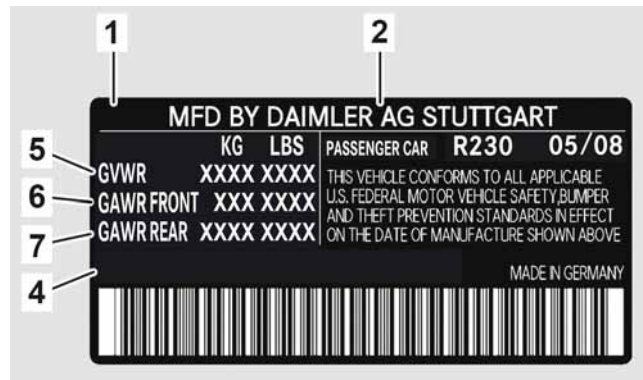
Location of model plate

- 1 Model plate
- 2 Vehicle manufacturer
- 3 EC operating permit number (only ECE)
- 4 Vehicle identification number (VIN)
- 5 Permissible gross vehicle weight
- 6 Permissible front axle load
- 7 Permissible rear axle load
- 8 Paint code number (only ECE)
- 9 Stowage compartment
- 10 Bulkhead
- 11 Vehicle identification number stamp



P00.10-4325-00

Model plate (ECE)



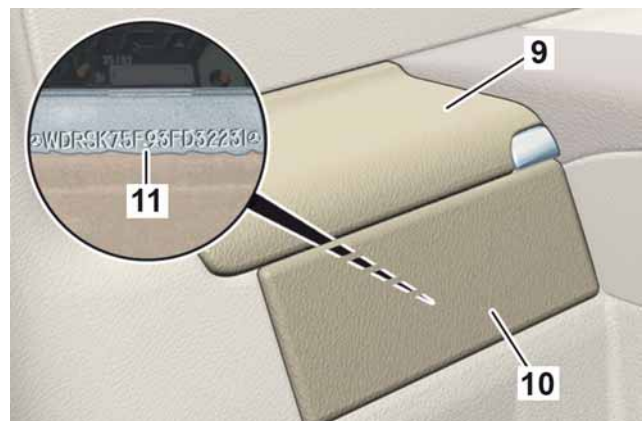
P00.10-4441-00

Model plate (USA)

Vehicle identification number (VIN)

In addition to the model plate, the vehicle identification number (VIN) is also stamped into the bodywork. It is located under the rear stowage compartment on the passenger side.

To check the VIN, the stowage compartment must be opened and the bulkhead must be removed. The vehicle identification number is then visible on the metal support over the floor covering.



P00.10-4326-00

Location of stamped VIN

General

i Note

No new special tools were developed for the model refinement of model 230.

See the Workshop Information System (WIS) for all current special tools for model 230.



ABC Active Body Control	EG European Community (EC)
ABS Antilock Brake System	EGS Electronic Transmission Control (ETC)
AKSE Automatic child seat recognition (ACSR)	EHB Electrohydraulic Brake
APS Auto Pilot System	ESP Electronic Stability Program
ASR Acceleration skid control	EU 4 Euro 4 standard (European exhaust emission regulation)
AUX Auxiliary	ETC Electronic Toll Collection
BAS Brake Assist System	ETS Electronic Traction System
CAN Controller Area Network	EZS Electronic ignition switch control unit
CD Compact Disc	FE Fuel Economy
CDDB Compact Disc Database	FBS 3 Drive authorization system stage 3 (DAS 3)
COMAND Cockpit Management and Data System	VIN Vehicle Identification Number
CO₂ Carbon dioxide	GPS Global Positioning System
DAB Digital Audio Broadcasting	HAG Rear axle differential
DAS Diagnosis Assistance System	HDD Hard Disk Drive
DTR DISTRONIC (autonomous intelligent cruise control)	KAT Catalytic converter (CAT)
DVD Digital Versatile Disk	KLA Automatic air conditioning

Abbreviations

LED

Light Emitting Diode

LIN

Local Interconnect Network

MCT

Multi-Clutch Technology

ME

Motor Electronics

MOPF

Model refinement package

MOST

Media Oriented System Transport

MP3

MPEG-1 audio layer 3

MPEG

Moving Picture Experts Group

MTP

Media Transfer Protocol

NEFZ

New European Driving Cycle (NEDC)

NTG 2.5

New Telematics Generation Version 2.5

O₂

Oxygen

PCM

Pulse Code Modulation

PML

Speed-sensitive power steering (SPS)

PTS

PARKTRONIC System

PWM

Pulse Width Modulation

RDK

Tire pressure monitor (TPM)

RDW

Tire pressure loss warning

ROZ

Research Octane Number (RON)

SA

Special equipment

SAM

Signal acquisition and actuation module

SAT

Satellite

SBC

Sensotronic Brake Control

SBS

Voice Control System (VCS)

SD

Secure Digital

SDAR

Satellite Digital Audio Radio

SIM

Subscriber Identity Module

SRS

Supplemental Restraint System

TELE AID

Telematic Alarm Identification on Demand
(emergency call system)

UHI

Universal Portable CTCL Interface (UPCI)

FM

Frequency Modulation

ULEV 2

Ultra Low Emission Vehicle 2
(USA exhaust emission regulation)



ÜRB

Roll bar (RB)

USB

Universal Serial Bus

UVS

Roll bar Vario roof control (RVC)

VICS

Vehicle Information and Communication System

VGS

Fully integrated transmission control

WIS

Workshop Information System

WSS

Weight Sensing System

ZV

Central Locking (CL)

A	
AC control and operating unit	37, 146
Active safety	45
AIRSCARF	150
AMG DRIVE UNIT in SL 63 AMG	79
AMG performance package	18
AMG SPEEDSHIFT MCT 7-speed sport transmission	73
B	
Body	
Bi-xenon headlamps	114
Left taillamp	117
Bodyshell	153
C	
Center console	37
COMAND	136
COMAND APS	137
D	
Digital Audio Broadcasting radio operation	131
Digital Service Booklet (DSB)	46
Dimensional concept	9
Direct steering	93
Drivetrain of AMG models	88
E	
Engine	
M156 in SL 63 AMG	54
M272 in SL 280	50
M272 in SL 350	52
Engine cooling	
SL 65 AMG	63
SL 63 AMG	60
Engine oil cooling	
SL 65 AMG	63
SL 63 AMG	61
Entertainment	129
Equipment package	
AMG styling	16
Sport package ECE	17
Exhaust system	
SL 280/350	64
SL 63 AMG	65
Extended Maintenance Strategy	46
Exterior colors	154
F	
Front axle	
AMG models	87
Front lights	113
Front view	
AMG models	23
Standard models	20
Fuel supply	
SL 63 AMG	68
Standard models	66
USA models	66
Fuel tank	67
I	
Innovations	
AMG models	11
Standard models	9
Instrument cluster	
AMG menu	112
SL 65 AMG	111
SL 63 AMG	110
Standard models	108
Instrument panel	36
Interior design	
AMG models	35
Standard models	34
L	
Light functions of front illumination	116
LINGUATRONIC voice control system (VCS)	135
M	
Maintenance interval	
ECE version	47
USA version	47
Media interface	132
Model plate	155
Modified power window function	121
N	
Navigation	125
New Telematics Generation (NTG) 2.5	124



P	
PARKTRONIC	122
Passive safety	44
Positive torque function in SL 63 AMG	77
R	
RACE START function in SL 63 AMG	81
Rear axle	
AMG models	88
Standard models	86
Rear lamps	116
Rear view	
AMG models	24
Standard models	21
S	
Satellite Digital Audio Radio	130
SBC brake system	95
Seats	39
Shift program	
in SL 63 AMG	80
Sport program	38
Standard program	38
Side view	
AMG models	25
Standard models	22
Stowage areas/compartments	40
Supplemental restraint system (SRS)	42
Surround sound system	134
T	
TELE AID emergency call system	135
Telephony	126
Transmission oil cooling of SPEEDSHIFT MCT sport transmission	78
V	
Vehicle dimensions	
AMG models	28, 29
Standard models	26, 27
Vehicle identification number (VIN)	155
VICS traffic information system	135
W	
Wet start-up clutch in SL 63 AMG	76