

Sprinter Operator's Manual

## Symbols

#### Trademarks®

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Λ

Warning

Φ

Environmental note

1

Possible vehicle damage

a

Helpful hints or further information

Instructions

DD

Continuation symbol

▷ page Page reference

Display Messages in the display

#### Vehicle Distributor

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Canada only:

Authorized Sprinter Dealer is defined as an authorized Mercedes-Benz Sprinter Dealer.

# Thank you for choosing the new Sprinter.

Before your first journey, please familiarize yourself with your vehicle and how it operates, as well as its driving, control and convenience functions.

Before you drive off, read this Operator's Manual. This will help you to obtain the maximum pleasure from your vehicle and to avoid endangering yourself and others.

The equipment or product name for your vehicle may vary, depending on:

- model
- order
- country specification
- availability

Your vehicle's equipment may differ from some descriptions and illustrations. Items of optional equipment are also described in this manual, should you require a description of the way they work.

The manufacturer continuously updates its vehicles and equipment. We therefore reserve the right to make changes with regard to:

- design
- equipment
- technical features

Your nearest authorized Sprinter Dealer will be happy to assist you further if you have any other questions.

The Operator's Manual, Brief Instructions, Service and Warranty Information Booklet, Maintenance Booklet and equipmentrelated supplementary operator's manuals are integral parts of the vehicle.

Always keep these manuals in the vehicle. Pass them on to the new owner if you sell the vehicle.

We extend our best wishes for many miles of safe, pleasurable driving.

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## **Environmental protection**



# Environmental note

Our declared policy is one of comprehensive environmental protection.

The objectives are for the natural resources which form the basis of our existence on this planet to be used sparingly and in a manner which takes the requirements of both nature and humanity into account.

You too can contribute to environmental protection by operating your vehicle in an environmentally responsible manner.

Fuel consumption and engine, transmission. brake and tire wear depend on these two factors:

- operating conditions of your vehicle
- your personal driving style

You can influence both factors.

Observe the following notes:

Operating conditions:

- avoid driving short distances as this increases fuel consumption.
- make sure that the tire pressures are alwavs correct.
- do not carry any unnecessary weight in / on the vehicle.
- keep an eye on the vehicle's fuel consumption.
- remove roof racks once you no longer need them.
- a regularly serviced vehicle will contribute to environmental protection. You should therefore adhere to the specified service intervals.
- always have maintenance work carried out at an authorized Sprinter Dealer.

Personal driving style:

- do not depress the accelerator pedal when starting the engine.
- do not warm up the engine when the vehicle is stationary.
- adopt an anticipatory style of driving and keep a sufficient distance from other vehicles.
- avoid frequent, sudden acceleration.
- switch off the engine in stationary traffic.

## Environmental concerns and recommendations

In this manual, whenever you see instructions to discard materials, you should first attempt to reclaim and recycle them. To preserve our environment, follow appropriate environmental rules and regulations when disposing of materials.

#### **Operating safety**



#### Warning

Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

In addition, certain fluids contained in vehicles, and certain products of component wear contain chemicals known to the State of California to cause cancer and birth defects. or other reproductive harm.

Emergency tensioning retractors, airbags and remote control batteries contain perchlorate, which may require special handling and regard for the environment. Check with your local government's disposal guidelines.

California residents: see http://www.dtsc.ca.gov/ HazardousWaste / Perchlorate / index.cfm.



## Warning

Work carried out incorrectly on electronic equipment and its software could cause the equipment to stop working. The electronic systems are networked with each other via interfaces. Tampering with the electronic systems may also cause malfunctions in systems that have not been modified. These malfunctions, however, can jeopardize the operating safety of your vehicle and therefore put your own safety at considerable risk.

Other work carried out incorrectly or modifications to the vehicle could also jeopardize operating safety.

Some safety systems only function while the engine is running. Therefore, you should not switch off the engine while driving.



#### Warning

Always have maintenance work carried out at an authorized Sprinter Dealer which has the necessary specialist knowledge and tools to carry out the work required. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.



#### Warning

A heavy impact to the underbody, tires or wheels, for example when bottoming out on rough terrain or driving over an obstacle at high speed, could damage your vehicle. This also applies to vehicles equipped with underbody protection.

In this case, have your vehicle checked at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

#### Service and warranty information

The Service and Warranty Information Booklet contains detailed information about the warranties covering your Sprinter, including

- New Vehicle Limited Warranty
- Diesel Engine Limited Warranty
- Corrosion Warranty
- Restraint System Limited Warranty (vehicles sold and registered in the State of Kansas only)
- Emission Warranties required by law.

### Registering your vehicle

We may instruct our authorized Sprinter Dealer to carry out technical inspections on certain vehicles to improve their quality or safety.

If you did not purchase your vehicle from an authorized dealership and your vehicle has not yet been inspected at an authorized Sprinter Dealer, there is a possibility that your vehicle has not been registered in your name.

We will only be able to inform you about vehicle inspections if we are in possession of your registration data.

It is advisable to have your vehicle registered at an authorized Sprinter Dealer.

Inform us as soon as possible if your address has changed or if there has been a change of vehicle owner.

# Digital speedometer and total distance recorder

Do not allow the electronically stored total distance covered by your vehicle to be modified as a result of tampering with the electronics system.

This type of modification or failing to inform the buyer when selling the vehicle could constitute an offense punishable by law.

### Modifying the engine power output

Having the engine power output of your vehicle increased by tampering with the electronic engine management system will invalidate the vehicle's general operating permit and insurance coverage, as well as your New Vehicle Limited Warranty and warranty entitlement.

Modifications to the output of the engine must be reported to the insurance provider and require the vehicle to be recertified. The tires, chassis, brake and cooling systems must be adapted to the increased engine power output.

Tampering with the electronic engine management system modifies emission values and it will not be possible to guarantee the operating safety of the engine in every case. Increases in performance may lead to malfunctions and consequential damage to other assemblies.

If you sell the vehicle, failing to inform the buyer of the modified engine power output could constitute an offense punishable by law, depending on the country concerned.

#### Vehicle alterations

We recommend the use of genuine Sprinter parts and conversion parts as well as accessories that have been expressly approved for your vehicle model (> page 278).

These parts have been subjected to special tests in order to determine their safety, reliability and suitability.

For safety reasons, have bodies manufactured and fitted in accordance with the valid body/equipment mounting directives. These body/equipment mounting directives ensure that the chassis and the body form one unit and that maximum operating and road safety is achieved.

For safety reasons, we recommend that:

- no other modifications be made to the vehicle.
- approval be obtained from us in the event of deviations from approved body/equipment mounting directives. Approval from certified inspection agencies or official approvals do not eliminate all possible and potential risks to your safety.
- The wooden cargo floor fitted at the factory is an integral component of the vehicle structure. The body can be damaged if you remove the wooden floor. The security of the load is then compromised and the maximum loading capacity of the lashing points can no longer be guaranteed. For this reason, you should not have the wooden floor removed.

Even seemingly small changes to the vehicle, such as attaching a radiator cover for winter driving or as protection against insects, are not allowed. These could cause the engine diagnostics to register incorrect data. The recording of engine diagnostic data is a legal requirement, and must always be verifiable and accurate.

#### Sprinter body builder guideline

If you intend on making any alterations to the vehicle, we strongly recommend that you contact the distributor named on the inside of the front cover in order to obtain all necessary information (there may be a charge).

Body builders and dealers who make any modifications which may affect the final certification of the engine, vehicle or equipment assume the sole responsibility for the vehicle, including labeling and documentation, affected by their modifications.

It is their responsibility to certify that the altered vehicle conforms to all applicable standards and regulations affected by the vehicle alteration or continues to comply with the motor vehicle safety standards and emissions regulations.

They are responsible for ensuring that modifications or equipment installation do not affect the safety of the vehicle.



#### Warning

Any modifications or alterations of the Sprinter not in compliance with the Sprinter Body Builder Guideline and the Sprinter Operator's Manual may seriously inhibit its roadworthiness and safety and may lead to an accident resulting in serious injury or death.

Consult the Sprinter Body Builder Guideline and the Sprinter Operator's Manual prior to initiating any alterations or modifications.

We are not responsible for any final certification or claims regarding product liability, or warranty claims, which result from any component, assembly, or system being altered, or which cause non-compliance with any of the emission control standards or motor vehicle safety standards, or which would otherwise cause the vehicle to be or to become defective or unsafe.

We do not assume responsibility as the final-stage manufacturer or the consequential product liability.

#### Correct use



#### Warning

Be sure to read the Sprinter Operator's Manual. Otherwise, you may not be aware of certain risks and could injure yourself or others.

Observe the following information when using your vehicle:

- the safety notes in this manual
- the "Technical data" section in this manual
- traffic rules and regulations
- motor vehicle laws and safety standards

# Substances constituting a health hazard

Do not store or transport in the cab any substances that constitute a health hazard or react aggressively.

These include:

- solvents
- fuels
- oils and greases
- · cleaning agents
- acids



### Warning

Do not store or transport in the cab any substances that constitute a health hazard or react aggressively. Gases and liquids may escape from containers that are completely sealed.

The driver's ability to concentrate while the vehicle is in motion and the driver's health could be affected. In addition, electrical components (e.g. control units and connectors) could be damaged. This can result in malfunctions, system failures, or short circuits which can start a fire.

You could cause an accident, thereby endangering yourself and others.

#### Stickers and warning labels



#### Warning

Various warning labels are affixed to your vehicle. These warning labels are intended to make you and others aware of various risks. You should not remove any of these warning labels unless explicitly instructed to do so by information on the label itself. Removal of any of these labels may cause you and others to be unaware of certain risks which may result in an accident and / or injury.

## Problems with your vehicle

If you should experience a problem with your vehicle, particularly one that you believe may affect its safe operation, we urge you to immediately contact an authorized Sprinter Dealer to have the problem diagnosed and corrected if required.

If the matter is not handled to your satisfaction, please discuss the problem with the Sprinter Dealer management, or if necessary contact the distributor named on the inside of the front cover.

#### Reporting safety defects

#### In the USA:

In all 50 states and Washington, D.C.:

If you believe that your vehicle has a defect, which could cause a crash or cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying the distributor.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer and the vehicle distributor.

To contact NHTSA, you may either call the Auto Safety Hotline toll free at 1–888–327–4236 (TTY: 1-800-424-9153),

or go to http://www.safercar.gov

or write to:

Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590.

#### In Canada:

If you believe that your vehicle has a safety defect, you should contact immediately the Customer Service Department of the distributor named on the inside of the front cover.

# Information regarding electronic recording devices

(Including notice pursuant to California Code § 9951)

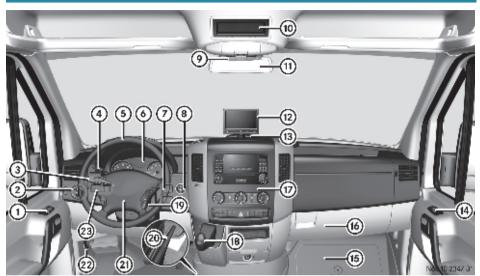
Please note that your vehicle is equipped with devices that can record vehicle system data.

This information helps, for example, to diagnose vehicle systems after a collision and to continuously improve vehicle safety. We may access the information and share it with others:

- for safety research or vehicle diagnosis purposes
- with the consent of the vehicle owner or lessee
- in response to an official request by a law enforcement or other government agency
- for use in dispute resolution involving Daimler, its affiliates or sales/service organization and/or
- as otherwise required or permitted by law

Dashboard Instrument cluster Center console Steering wheel with buttons Switch units

## **Dashboard**



1 This Operator's Manual describes all features, standard or optional, potentially available for your vehicle at the time of purchase. Please be aware that your vehicle might not be equipped with all features described in this manual.

	Function	Page
1	Door control panel	31
2	Light switch	75
3	Combination switch:	
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	<ul> <li>windshield wipers</li> </ul>	80
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10	Storage compartment	

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17	Center console	29
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22	Hood lock release	156
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10	Instrument cluster on vehicles with steering wheel buttons	82
11)	Indicator and warning lamps	28
12	Display	88
13	Tachometer with indicator and warning lamps	83
14)	Fuel gauge with:	83
	<ul> <li>reserve fuel warning lamp</li> </ul>	
	fuel filler flap location indicator	
15	+, - Brighten / dim instrument lighting	83
16	Speedometer with indicator and warning lamps	83

	Function	Page
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1 Vehicles with steering wheel buttons: Corresponding messages may also be shown in display (2) (> page 86).

# Center console



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# Steering wheel with buttons



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	Forward	
	Backward	
5	Jumps from one submenu to another:	86
	Forward	
	Backward     Backward	

# Switch units

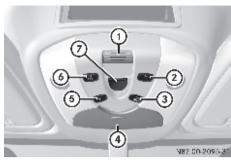
# Center console

1 The number of switches may vary, depending on the vehicle's equipment.



	Function	Page
#	Switches the left / right seat heating on / off	71
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ASR OFF	Activates / deactivates ASR	51
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OFF P → A	Switches PARKTRONIC on / off	124

# Overhead control panel



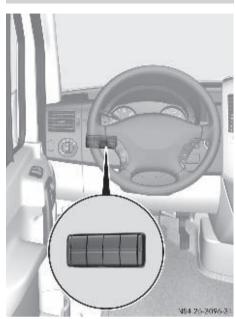
	Function	Page
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# **Door control panel**



	Function	Page
1	Adjusts the exterior mirrors	74
2	Selects an exterior mirror	74
3	Opens / closes the left- hand side window	65
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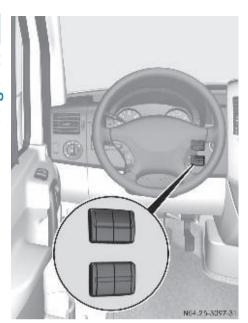
## Additional switch units



Switch unit between the light switch and the steering wheel

	Function	Page
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1 The layout of the switches may vary, depending on the vehicle's equipment.



Switch unit between the steering wheel and the ignition lock

	Function	Page
[A]	Switches the rear-compartment convenience interior lighting on / off	79

**1** The layout of the switches may vary, depending on the vehicle's equipment.

Vehicle equipment
Occupant safety
Emergency exit
Driving safety systems
Anti-theft systems

#### Vehicle equipment

This Operator's Manual describes all features, standard or optional, potentially available for your vehicle at the time of purchase. Please be aware that your vehicle might not be equipped with all features described in this manual.

#### **Occupant safety**

#### **Restraint systems**

This section contains important information about the restraint systems in your vehicle.

The seat belts, belt tensioners, belt force limiters and airbags are restraint systems designed to complement one another. They reduce the risk of injury in specific, pre-defined types of accident situations and thereby increase occupant safety. However, the seat belts and airbags cannot generally prevent injuries caused by objects penetrating the vehicle from the outside.

The most important restraint systems are:

- · the seat belts
- restraint systems for children, since they are the most effective means of reducing the extent to which the occupants are moved in the event of an accident

Additional protection is provided by:

- SRS (<u>Supplemental Restraint System</u>), comprising:
  - srs warning lamp
  - emergency tensioning retractors
  - belt force limiters
  - airbags

An airbag increases the degree of protection afforded to vehicle occupants wearing a seat belt and is therefore only to be considered as an additional restraint system to the seat belt.

Airbags do not in any way relieve any vehicle occupants of the need to wear their seat belt correctly at all times.

This is partly because an airbag is not activated in all accident situations since in some cases it would not provide and protection beyond that already afforded by a correctly fastened seat belt.

Furthermore, an activated airbag can only provide increased protection if the seat belt is being worn correctly, because:

- the belt helps to hold the vehicle occupant in the best position in relation to the airbag.
- the belt prevents the vehicle occupant from being propelled in the opposite direction from the force of impact, e.g., in the event of a head-on collision, and is therefore better able to reduce the risk of injury.

In accidents in which an airbag is activated, the airbag will therefore only offer an increase in the protection provided by the seat belt, i.e. additional protection, if the seat belt is worn correctly.

For the restraint systems to provide their full protective potential, make sure that:

- the seat and head restraint are adjusted to the correct position (▷ page 67).
- the seat belt is worn correctly (> page 35).
- the airbags are unobstructed and can inflate properly if they are deployed (▷ page 40).
- the steering wheel is adjusted to the correct position (▷ page 73).
- the restraint systems have not been tampered with.



Modifications to or work incorrectly carried out on a restraint system (seat belt and seat belt anchorages, emergency tensioning retractor, belt force limiter or airbag) or its wiring, or tampering with other networked electronic systems, could cause the restraint systems to stop working correctly.

The airbags or emergency tensioning retractors could, for example, be activated inadvertently or could fail in accidents in which the deceleration force is sufficient to deploy the airbag.

For this reason, do not modify the restraint systems. Do not tamper with electronic components or their software.

#### Seat belts

# Safety notes



#### Warning

Airbags do offer additional protection but they are not a substitute for the seat belts. To reduce the risk of serious or fatal injuries, make sure that all occupants – in particular, expectant mothers – wear their seat belt correctly at all times, have adopted a normal sitting position and that the seat is positioned as upright as possible.

The most important restraint systems in the vehicle are the seat belts and child restraint systems. They are the most effective means of preventing vehicle occupants from moving towards the point of impact and thus reducing the risk of occupants hitting parts of the vehicle interior.

The use of seat belts and child restraint systems is required by law in all 50 states, the District of Columbia, U.S. territories and all Canadian provinces. Even where this is not the case, all vehicle occupants should have their seat belts fastened whenever the vehicle is in motion.

For information on children traveling with you in the vehicle and on child restraint systems, see "Children in the vehicle" (> page 44).



# Warning

A seat belt that is worn incorrectly or not at all, or that is not correctly engaged in the seat belt buckle, cannot perform its intended protective function. In certain circumstances, you could be seriously or even fatally injured. Make sure, that all occupants – in particular, expectant mothers – wear their seat belt correctly at all times.

You must make sure that the helt.

- is routed as low as possible across your pelvic area, for example across your hip joints and not across your abdomen
- fits closely
- is not twisted
- is routed across the middle of your shoulder
- is not routed across your neck or under your arm
- is pulled tight across the lap by pulling upwards on the shoulder belt

Do not secure any objects with a seat belt if it is being used by one of the vehicle's occupants.

Avoid wearing bulky clothing, for example a winter coat.

Do not route the belt strap over sharp or fragile objects, especially if these are located in or on your clothing, for example eyeglasses, pens or keys. The belt strap could otherwise tear in the event of an accident and you or other vehicle occupants could be injured as a result.

Only one person may use each seat belt at any one time.

 $\triangleright \triangleright$ 

A child must never be carried sitting on the lap of a vehicle occupant. It would not be possible to restrain the child, and in the event of abrupt braking or an accident, the child and other vehicle occupants could be seriously or fatally injured.

Children 12 years old and under cannot wear their seat belt properly. They therefore require additional restraint systems on suitable vehicle seats for protection in an accident. Always observe the installation instructions issued by the manufacturer of the child restraint systems.



#### **Warning**

The seat belt only provides its intended degree of protection if the seat backrest is positioned as vertically as possible, allowing the occupant to sit upright. Avoid seat positions that do not allow the seat belt to be routed correctly. Therefore, position the backrest as vertically as possible. Never drive with the backrest tilted too far back. You could otherwise be seriously or even fatally injured in the event of an accident or abrupt braking.



## Warning

The seat belt cannot perform its protective function correctly if the seat belt strap or buckle is dirty or damaged. You should therefore keep the belt strap and buckle clean, as otherwise the belt latch plate may not be able to engage correctly.

Check regularly that the seat belts:

- are not damaged
- are not routed over sharp edges
- are not trapped

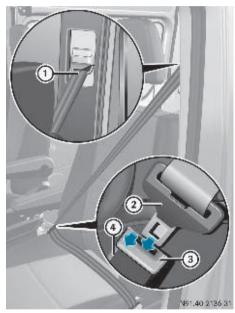
The belt strap could otherwise tear in the event of an accident. You or others could be seriously or fatally injured.



# Warning

Always have seats belts that are damaged or that have been subjected to a heavy load in an accident replaced, and their anchorages checked, at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

# Wearing seat belts



- ➤ To fasten your seat belt: pull the belt smoothly from the seat belt reel holder.
- ▶ Route the belt over your shoulder.
- ► Click belt latch plate ② into buckle ④.
- Pull the shoulder section of the belt upwards to tighten the belt against your body if necessary.
- The upper section of the belt must be routed centrally over the shoulders. Adjust the belt to the appropriate height as necessary.

► To release the seat belt: press release button ③ on seat belt buckle ④.

You will find additional information about special seat belt retractors for secure fastening of child restraints on (▷ page 44).

## Adjusting the belt height



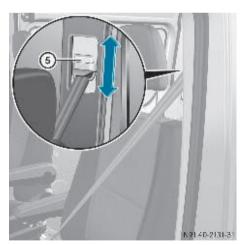
# Warning

Only adjust the belt height when the vehicle is stationary and the handbrake is applied.

You could otherwise lose control of the vehicle as a result of the seat adjusting movement and thereby endanger yourself and others.

You can adjust the belt height for the driver's seat and the outer passenger's seat.

Adjust the belt height in such a way that the shoulder belt is routed over the middle of the shoulder.



➤ To raise the belt height: slide belt sash guide ① upward.

Belt sash guide ① engages in various positions.

- ► To lower the belt height: press and hold release button (5).
- ► Slide belt sash guide ① to the desired height.
- ▶ Let go of release button ⑤ and make sure that belt sash guide ⑴ engages.

# **SRS (Supplemental Restraint System)**

SRS reduces the risk of occupants hitting parts of the vehicle interior in the event of an accident. In addition, it can reduce the forces the occupants are subjected to during an accident.

The SRS may consist of the following components, depending on the equipment level:

- srs warning lamp
- emergency tensioning retractors
- belt force limiters
- Airbag system with:
  - · airbag control unit
  - airbags

# SRS warning lamp

The SRS performs a self-test at regular intervals when the ignition is switched on and while the engine is running. Malfunctions can therefore be detected in good time.

The **SRS** warning lamp in the instrument cluster comes on for approximately 4 seconds when you switch on the ignition.



A malfunction has occurred if the  $\boxed{\mbox{srs}}$  warning lamp:

- does not come on when you switch on the ignition
- does not go out after approximately 4 seconds
- · lights up again

Individual systems may be activated unintentionally or may not be deployed in the event of an accident with a high rate of vehicle deceleration.

In this case, have the SRS system checked and repaired immediately at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.



# Warning

Emergency tensioning retractors and airbags contain perchlorate, which may require special handling and regard for the environment. Check with your local government's disposal guidelines.

California residents, see http://www.dtsc.ca.gov/ HazardousWaste/Perchlorate/index.cfm.

# Activation of emergency tensioning retractors, belt force limiters and airbags

In the event of a collision, the sensor in the airbag control unit evaluates important physical data, such as duration, direction and rate of vehicle deceleration or acceleration. Based on the evaluation of this data and depending on the vehicle's rate of longitudinal deceleration in a collision, in the first stage, the airbag control unit pre-emptively deploys the emergency tensioning retractors.

The front airbags are not deployed unless a second activation threshold is exceeded, i.e. if there is a greater rate of vehicle deceleration in a longitudinal direction.

# Criteria for deployment of emergency tensioning retractors and airbags

To determine whether it is necessary to deploy an emergency tensioning retractor or airbag, the airbag control unit evaluates the duration and direction of deceleration or acceleration during the initial phase of the collision.

The emergency tensioning retractor and airbag activation thresholds are variable and are adapted to the rate of the vehicle deceleration. This process is pre-emptive in nature as the airbag must be deployed during – and not at the end of – the collision.

Airbags are not deployed in all types of accident. They are actually controlled by complex sensor technology and evaluation logic. This process is pre-emptive in nature as airbag deployment must take place during the impact and must be adapted to provide calculated, additional protection for the vehicle occupants. Not all airbags are deployed in an accident.

The various airbag systems work independently of each other. However, all systems depend on the type (frontal or side impact) and severity (in particular vehicle deceleration or acceleration) of accident determined in the initial phase of the accident.

Vehicle deceleration or acceleration and the direction of the force are essentially determined by:

- the distribution of the force during the impact
- the collision angle
- the deformation characteristics of the vehicle
- the composition of the object involved in the collision, for example the other vehicle

Factors that cannot be seen or measured until after the collision are not used to determine whether the airbag should be deployed and are not decisive for this.

The vehicle may be substantially deformed without an airbag being deployed, for example if only relatively easily deformable vehicle parts such as the hood or fenders are affected by the collision and the required deceleration threshold is not reached. On the other hand, airbags may be deployed even though the vehicle only displays minor deformation if, for example, rigid vehicle parts such as a longitudinal member are affected by the impact, thus causing vehicle deceleration to exceed the pre-determined threshold.

# **Emergency tensioning retractors, belt force limiters**

If the vehicle is equipped with a driver's airbag, the driver's and the passenger's seat belts are equipped with emergency tensioning retractors.

Emergency tensioning retractors tension the seat belts in an accident, pulling them close against the body.

• Emergency tensioning retractors do not correct incorrect sitting positions or incorrectly worn seat belts.

Emergency tensioning retractors do not pull occupants back towards the backrest.

A belt force limiter additionally installed in the seat belt reduces the load exerted by the seat belt on the occupant when the emergency tensioning retractor is deployed.

When the ignition is on, the emergency tensioning retractor is activated:

only if the restraint systems are operational (the SRS warning lamp comes on for approximately 4 seconds after the ignition is switched on)
 (▷ page 37).

- in the event of a frontal or rear collision, if there is a high rate of vehicle acceleration or deceleration in the initial stages of a collision.
- in the event of a side impact, if the vehicle suddenly decelerates or accelerates in a lateral direction at the initial stage of the impact and the vehicle is equipped with thorax sidebags and / or windowbags.

If the emergency tensioning retractors are deployed, you will hear a bang that is generally harmless to your hearing. The sas warning lamp lights up.



#### Warning

Deployment of the emergency tensioning retractors temporarily releases a small amount of fine powder. This powder does not constitute a health hazard, nor does it imply that fire has broken out in the vehicle. This powder could cause short-term breathing difficulties for persons suffering from asthma or other respiratory conditions. To avoid these breathing difficulties, you should either:

leave the vehicle immediately, if it is possible to do so safely

or

 open the window to allow fresh air to enter



#### Warning

If the emergency tensioning retractors have been deployed, have them replaced at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.



Emergency tensioning retractors contain perchlorate, which may require special handling and regard for the environment. Check with your local government's disposal guidelines.

California residents, see
http://www.dtsc.ca.gov/
HazardousWaste/Perchlorate/index.cfm.

## Airbag system



# Warning

To reduce the risk of serious or fatal injuries in the event of an accident with a high rate of deceleration, for example due to an airbag inflating within milliseconds or due to sudden braking, please observe the following points:

- all vehicle occupants must select a seat position in which they can wear their seat belt correctly and which is as far back from the airbag as possible. The seat position of the driver must be such that the vehicle can be driven safely. The distance from the driver's seat to the pedals must be such that the driver can fully depress the pedals. The distance between the driver's chest and the center of the airbag cover must be more than 10 in (25 cm). The driver's arms should be slightly bent when holding the steering wheel.
- vehicle occupants should wear their seat belt correctly at all times and lean back against the backrest, which should be positioned as upright as possible.
- adjust the head restraints in such a way that the upper edge of the head restraint is at the same height as the seat occupant's head.
- move the co-driver's seat as far to the rear as possible, especially if a child is secured in a restraint system installed on this seat.

- it is not permitted to secure a rearwardfacing child restraint system to the codriver's seat. Children in a rearward-facing child restraint system must be secured on a suitable rear seat.
- if you secure a forward-facing child restraint system to the co-driver's seat, you must move the co-driver's seat as far back as possible.
- do not lean forward, for example over the padded boss of the steering wheel, especially when the vehicle is in motion.
- do not put your feet on the dashboard.
- only hold the steering wheel by the outer rim. This allows the airbag to inflate fully. If you hold the inside of the steering wheel, you could be injured if the airbag is deployed.
- do not lean on the doors from inside the vehicle.
- make sure that no persons, animals or objects are present between the vehicle occupants and the deployment range of the airbags.
- do not place any items in the storage compartment above the passenger's airbag if they protrude from the compartment. The passenger's airbag must be able to inflate unimpeded.
- do not place any objects between the seat backrest and the door.
- do not hang any hard objects, for example coat hangers, on the grab handles or coat hooks.

The risk of injuries from an airbag cannot be entirely ruled out, due to the high speed at which the airbag is required to inflate.



The airbag function is only guaranteed if you:

- do not cover or affix badges or stickers to the padded boss of the steering wheel, the co-driver's front airbag cover, the thorax sidebag cover on the side cushions of the front seats and the windowbag covers in the roof frame.
- do not modify the restraint system components, including the wiring.
- do not make any improper or non-professional modifications or installations to other electric components or wiring.

Your vehicle is equipped with the following airbags, depending on the equipment version:

- driver's front airbag, located in the steering wheel
- co-driver's front airbag, located above the glove box
- thorax sidebags in the outer sides of the driver's seat and the co-driver's individual seat
- windowbags in the side of the roof frame between the A and B-pillars

Each airbag's cover is marked with the letters "SRS / AIRBAG" or "AIRBAG".

# How airbags work

Airbag inflation slows down and restricts the movement of the vehicle occupant.

If the airbags are deployed, you will hear a bang that is generally harmless to your hearing and a small amount of dust may also be released. The dust does not constitute a health hazard. An airbag inflates within milliseconds. The srs warning lamp in the instrument cluster comes on.

When the vehicle occupant makes contact with the airbag, hot gas flows out of the inflated airbag. This reduces the load on the head and upper body of the vehicle occupant. The airbag is therefore in a deflated state after an accident.



## Warning

After an airbag has been deployed, airbag parts are hot – do not touch them, otherwise you could be burned.

Airbags are designed to function on a onetime-only basis. An airbag that has deployed must be replaced at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

Airbags contain perchlorate, which may require special handling and regard for the environment. Check with your local government's disposal guidelines.

California residents, see
http://www.dtsc.ca.gov/
HazardousWaste/Perchlorate/index.cfm.



## Warning

A small amount of fine powder is released as an airbag inflates. This powder does not constitute a health hazard, nor does it imply that fire has broken out in the vehicle. This powder could cause short-term breathing difficulties for persons suffering from asthma or other respiratory conditions. To avoid these breathing difficulties, you should either:

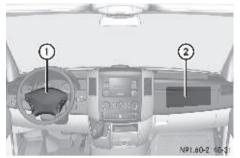
leave the vehicle immediately, if it is possible to do so safely

or

open the window to allow fresh air to enter

# Front airbags

The front airbags are designed to increase protection to the driver's and passenger's head and chest.



Driver's front airbag ① inflates in front of the steering wheel; passenger's front airbag ② inflates in front of and above the glove box and the center console.

The driver's front airbag and co-driver's front airbag are deployed:

- in the initial stages of an accident with a high rate of vehicle acceleration or deceleration in a longitudinal direction
- if the system determines that airbag deployment can offer protection beyond that provided by the seat belt
- if the respective seat belt is fastened
- independently of other airbags in the vehicle

# Thorax sidebags



# Warning

For safety reasons, we recommend that you use seat covers that have been tested for the Sprinters and that have a seam for thorax sidebags. A thorax sidebag may otherwise not inflate correctly and could fail to provide the intended degree of protection in the event of a collision. You can obtain these covers from an authorized Sprinter Dealer, for example.



## Warning

To reduce the risk of injury to occupants if a thorax sidebag is deployed, make sure that:

- no persons, animals or objects are present between the vehicle occupants and the thorax sidebag deployment range
- no accessories, for example cup holders, are secured to the doors
- only light items of clothing are hung from the coat hooks in the vehicle
- there are no heavy or sharp objects in the pockets of items of clothing



## Warning

Observe the following to reduce the risk of serious or fatal injury if the thorax sidebag is deployed:

- vehicle occupants in particular, children – must never lean their head against the area of the window in which the thorax sidebag inflates.
- vehicle occupants must wear their seat belt correctly at all times and lean back against the backrest, which should be positioned as upright as possible.
- always secure children who are less than 5 ft (1.50 m) tall and/or under 12 years of age in a suitable child restraint system.

The thorax sidebags are only integrated into the outer side of the backrests on single front seats. The purpose of the thorax sidebags is to increase the level of protection for the thorax (but not the head, neck and arms) of the occupants on the side of the vehicle on which the impact occurs.



In the event of an accident, thorax sidebag ① next to the outer seat side inflates between the door and the chest area of the occupant.

Thorax sidebags (1) are deployed:

- in the initial stages of an accident with a high rate of vehicle acceleration or deceleration in a lateral direction, for example in the event of a side impact
- on the side on which an impact occurs
- whether or not the seat belt is fastened
- independently of the front airbags
- independently of the belt tensioner
- 1 You will find additional information about airbag deployment on  $(\triangleright \text{ page } 41)$ .

You will find additional information about the deploying of emergency tensioning retractors and belt force limiters on (▷ page 39).

# Windowbags



## Warning

To ensure that windowbags can provide the intended degree of protection when deployed, make sure that no persons, animals or objects are present between the vehicle occupants and the deployment range of the windowbags.

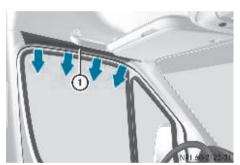
# $\Lambda$

#### Warning

Observe the following to reduce the risk of serious or fatal injury if the windowbag is deployed:

- vehicle occupants in particular, children – must never lean their head against the area of the window in which the windowbag inflates.
- vehicle occupants must wear their seat belt correctly at all times.
- always secure children who are less than 5 ft (1.50 m) tall and/or under 12 years of age in a suitable child restraint system.

The windowbags are designed to increase protection to the head (but not to the chest or arms) of the vehicle occupants on the side on which the impact occurs.



Windowbags (1) are deployed:

- in the initial stages of an accident with a high rate of vehicle acceleration or deceleration in a lateral direction
- on the side on which an impact occurs
- regardless of whether the co-driver's seat is occupied
- whether or not the seat belt is fastened
- independently of the front airbags
- independently of the belt tensioner

1 You will find additional information about airbag deployment on ( $\triangleright$  page 41).

You will find additional information about the deployment of emergency tensioning retractors and belt force limiters on (> page 39).

#### Children in the vehicle



## Warning

Activate the child-proof locks in the doors if children are traveling in the vehicle. Otherwise, the children could open the doors while the vehicle is in motion, injuring themselves and others.

If a child is traveling in the vehicle:

- secure the child in a child restraint system appropriate to his / her age and size, preferably on a suitable seat in the rear
- make sure that the child is strapped in throughout the trip

You can obtain child seats and information about the correct child restraint system from any authorized Sprinter Dealer.



## Warning

Do not leave children unsupervised in the vehicle even if they are secured in a child restraint system. The children could injure themselves on parts of the vehicle. They could be seriously or even fatally injured by prolonged exposure to intense heat or cold.

If the children open a door, they could:

- cause injury to others as a result
- get out of the vehicle and could either injure themselves when doing so or they could be injured by passing vehicles
- sustain serious injuries if they were to fall out of the vehicle, due in particular to the height of the passenger compartment from the ground

Always take the key with you when leaving the vehicle, even if you are only leaving for a short time.



#### Warning

Do not expose child restraint systems to direct sunlight. Metallic parts of the child restraint system could heat up, for example, and the child could burn him- or herself on the hot parts.



#### **Warning**

Do not carry heavy or hard objects inside the vehicle or load compartment unless they are secured.

An unsecured or incorrectly positioned load increases the risk of injury to occupants, particularly children, in the event of:

- sharp braking
- a sudden change of direction
- an accident

# Child restraint systems

We recommend that all infants and children be properly restrained at all times while the vehicle is in motion.

All lap-shoulder belts except the driver's seat belt have special seat belt retractors for secure fastening of child restraints.

To fasten a child restraint, follow child restraint instructions for mounting.

- ➤ To activate the special seat belt retractor: pull the shoulder belt out completely and let it retract.
  - During seat belt retraction, a ratcheting sound can be heard to indicate that the special seat belt retractor is activated. The belt is now locked.
- Push down on the child restraint to take up any slack.
- ➤ To deactivate the special seat belt retractor: release the seat belt buckle and let the seat belt retract completely.

The seat belt can again be used in the usual manner.



Never release the seat belt buckle while the vehicle is in motion, since the special seat belt retractor will be deactivated.

The use of infant or child restraints is required by law in all 50 states, the District of Columbia, U.S. territories and all Canadian provinces.

Infants and small children should be seated in an appropriate infant or child restraint system. They must be properly secured in accordance with the manufacturer's instructions for the child restraint. All infant or child restraint systems must comply with U.S. Federal Motor Vehicle Safety Standards 213 and 225 and Canadian Motor Vehicle Safety Standards 213 and 210.2.

A statement by the child restraint manufacturer of compliance with these standards can be found on the instruction label on the restraint and in the instruction manual provided with the restraint.

When using any infant restraint, toddler restraint or booster seat, make sure to carefully read and follow all manufacturer's instructions for installation and use.

Please read and observe warning labels affixed to the inside of the vehicle and to infant or child restraints.



Co-driver's sun visor with warning sticker



Warning symbol for rearward-facing child seat



## Warning

To reduce the risk of serious or fatal injury to a child in the event of an accident, sharp braking or a sudden change in direction:

- always secure children less than 5 ft (1.50 m) tall or under 12 years of age in a special child restraint system installed on a suitable vehicle seat, since the seat belts are not designed for this body size.
- do not secure children under 12 years of age on the co-driver's seat unless they are secured in a suitable forward-facing child restraint system.
- it is not permitted to secure a rearwardfacing child restraint system on the codriver's seat or in the center position of the front bench seat if the vehicle is equipped with a co-driver's airbag. Only secure a rearward-facing child restraint system on a suitable rear seat.
- always move the co-driver's seat to its rearmost position if you have secured a child on this seat in a forward-facing child restraint system.
- a child must never be carried sitting on the lap of a vehicle occupant. It would not be possible to restrain the child as a result of the forces acting in the event of an accident, braking or abrupt changes in direction. The child would be thrown against parts of the vehicle interior and be seriously or fatally injured.
- vehicle occupants must wear their seat belt correctly at all times.



If the child restraint system is not installed correctly on a suitable vehicle seat, the child may not be restrained in the event of an accident or sudden braking and may be seriously or fatally injured. For this reason, always observe the installation instructions issued by the child restraint system manufacturer and the intended use for the child restraint system when fitting it. It is advisable to install the child restraint system on one of the rear seats. The child is generally better protected there.

Do not place objects (for example a cushion) underneath the child restraint system. The entire base of the child restraint system must be in contact with the seat cushion at all times.

Child restraint systems must not be used without the original cover. Only replace damaged covers with original covers.

On the rear seats, only use child restraint systems recommended by the child-seat manufacturer.



## Warning

If you no longer require the child restraint system, remove it from the vehicle or secure it with the seat belt.

The restraint system could otherwise be thrown through the vehicle interior in the event of an accident.



## Warning

A child secured in a child restraint system could be seriously or fatally injured in the event of an accident, braking or a sudden change in direction if the child restraint system or its securing system is already damaged or has been subjected to a load in an accident.

Have restraint systems and their securing systems which have been damaged or subjected to a load in an accident checked and, if necessary, replaced immediately at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

# ISOFIX child seat securing system / Child seat anchors - LATCH type

ISOFIX is a standardized securing system on the rear seats for special LATCH (Lower Anchors and Tethers for Children) child restraint systems with matching mounting fittings.

The LATCH-type anchors for child restraint systems are installed between the seat cushion and the backrest:

- on the outside left and right on narrow rear bench seats with 3 seats
- on the outside left on rear bench seats with 2 seats

Non-LATCH type child seats may also be used and can be installed using the vehicle's seat belt system (▷ page 44). Only use child restraint systems that are appropriate for the age and size of the child and that conform to legal requirements. Make sure that you observe the child-seat manufacturer's installation instructions.



## Warning

A LATCH-type child restraint system that has been secured using the ISOFIX child seat securing system is unable to provide adequate protection for children who weigh more than 48 lbs (22 kg). For this reason, only secure children weighing less than 48 lbs (22 kg) in a LATCH-type child restraint system secured using the ISOFIX child seat securing system. If the child weighs more than 48 lbs (22 kg), you should secure the LATCH-type child restraint system with a lap-shoulder belt.



If the child restraint system has not been installed correctly on a suitable vehicle seat, the child cannot be restrained in the event of an accident or sudden braking maneuvers and could be seriously or fatally injured. You must therefore observe the installation instructions issued by the child restraint system manufacturer when installing a child restraint system. On the rear bench seat, only use LATCH-type child restraint systems with ISOFIX child seat mountings that have been recommended by the child-seat manufacturer

An incorrectly installed child restraint system could come loose and the child or other vehicle occupants could be fatally injured. You must therefore make sure that the child restraint system is engaged in the securing rings on the left and right-hand side of the seat after it has been installed.



### Warning

If the child restraint system or its securing system, for example the ISOFIX child seat securing system, is damaged or has been subjected to a load in an accident, the child secured in it could suffer severe or fatal injuries in the event of an accident, heavy braking or a sudden change of direction.

For this reason, have restraint systems and their mountings checked immediately and replaced if necessary at an authorized Sprinter Dealer if they are damaged or have been subjected to a load in an accident. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

I Take care not to trap the seat belt on the center seat when you install the child restraint system.



1 Securing rings - LATCH type anchors



#### Warning

Do not leave children unsupervised in the vehicle even if they are secured in a child restraint system. The children could injure themselves on parts of the vehicle. They could be seriously or even fatally injured by prolonged exposure to intense heat or cold.

If the children open a door, they could:

- · cause injury to others as a result
- get out of the vehicle and could either injure themselves when doing so or they could be injured by passing vehicles
- sustain serious injuries if they were to fall out of the vehicle, due in particular to the height of the passenger compartment from the ground

Always take the key with you when leaving the vehicle, even if you are only leaving for a short time.

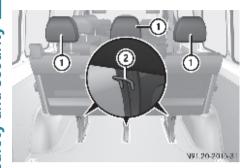


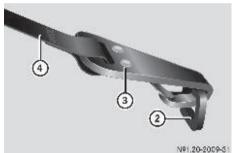
#### Warning

Do not expose child restraint systems to direct sunlight. Metallic parts of the child restraint system could heat up, for example, and the child could burn him- or herself on the hot parts.

# Top Tether

The TopTether anchorages are on the feet of the rear bench seat.





- Slide head restraint (1) upward.
- ► Guide TopTether belt ④ under head restraint ① from the front and between the two head restraint bars.
- ► Hook TopTether hook ③ into TopTether anchorage ② on the feet of the bench seat. Make sure that TopTether belt ④ can move freely.
- ► Install the LATCH type child restraint system with TopTether. The manufacturer's installation instructions must be observed

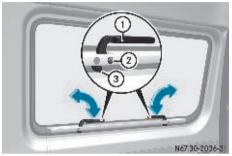
# **Emergency exit**

# **Emergency exit window**

The vehicle can be equipped with an emergency exit window. The emergency exit window is only intended for emergencies and may only be opened when the vehicle is stationary.

In an emergency or following an accident, the occupants of the vehicle can exit the vehicle via the open emergency exit window.

The emergency exit window is the first window behind the driver's seat on the driver's side. It bears the letters "Emergency Exit".



- 1 Handles
- (2) Safety bolts
- (3) Locking mechanisms



#### Warning

Compliance with the following requirements is essential in order to be able to safely use the emergency exit window in the event of an emergency:

- inform the vehicle occupants about the emergency exit window and explain its operation before setting out. Clearly point out the known risks here.
- only vehicle occupants who are able to operate the emergency exit window are permitted to sit next to the emergency exit window.
- access to the emergency exit window must be free of obstacles. Do not place any large or heavy objects on the seats or in front of the seats next to the emergency exit window.
- do not use the window handles as hooks, e.g., for lightweight objects, bags or items of clothing.



Please observe the following instructions to reduce the risk of an accident or injury when exiting the vehicle through the emergency exit window:

- only open the emergency exit window when the vehicle is stationary.
- take care not to trap anyone when closing and opening the emergency exit window. One person must hold the emergency exit window open.
- pay attention to the traffic conditions when opening the emergency exit window and make sure that there is sufficient clearance
- pay attention to the traffic conditions when exiting the vehicle and take account of the vehicle height and the surrounding conditions.

Extreme caution must be exercised, in particular if there are children in the vicinity.



## Warning

If you continue your journey without closing and locking the emergency exit window, it may come out of its frame and cause an accident.

You should, therefore, check the locking mechanism and safety bolts on the emergency exit window before setting out.

The emergency exit window may only be opened when the vehicle is stationary.

Make sure that there is enough space to open the emergency exit window. You must hold the open window in position. Otherwise, you could damage it.

▶ **To open:** turn both handles ① to a vertical position. This releases safety bolts ②.

The window is unlocked.

- Use the handles to push the window outward and hold it steady. Make sure you have enough space to do this.
- ► To close: close the window.
- Turn both handles 1 to a horizontal position. Make sure that locking mechanisms 3 are located on the inside of the window frame.

The window is locked.

► Replace the safety bolts ② before driving the vehicle again.

Please contact your authorized Sprinter Dealer for information about how to do this.

## **Driving safety systems**

In this section, you will find information about the following driving safety systems:

- ABS (Anti-lock Brake System)
- BAS (Brake Assist)
- ESP® (<u>E</u>lectronic <u>S</u>tability <u>P</u>rogram)
- ASR (acceleration skid control)
- EBV (electronic brake force distribution)

1 The maximum effect of ABS, BAS, ESP®, ASR and EBV can only be achieved if you:

- always drive with the correct tire pressures adjusted according to the load (▷ page 174)
- use winter tires (M+S tires) in wintry conditions, with snow chains if necessary and where legally permitted



There is an increased risk of an accident if you:

- drive too fast, in particular when cornering and on a wet or slippery road surface
- drive too close to the vehicle in front

The driving safety systems described in this section cannot reduce this risk and are unable to override the laws of physics.

Always adapt your driving style to the prevailing road and weather conditions, and maintain an adequately safe distance from other road users as well as from any obstacles on the road.

1 Only use wheels with the recommended tire sizes (> page 290); otherwise, the driving safety systems will not work correctly.

# Anti-lock Brake System (ABS)

ABS regulates the brake pressure in such a way that the wheels do not lock when you brake. This allows you to continue steering when braking. ABS works from a speed of about 3 mph (5 km/h) upwards, regardless of road surface conditions.

ABS works on slippery surfaces, even when you only brake gently.



## Warning

Do not depress the brake pedal several times in quick succession (pumping). Depress the brake firmly and evenly. Pumping the brake pedal may reduce the braking effect.

There is a malfunction if the 
 indicator lamp is permanently lit while the engine is running (▷ page 212). Despite this, the normal driving and braking functions remain available.

# **Braking**

If ABS intervenes during braking, you will feel the steering wheel vibrate gently and the brake pedal pulsate.

- If ABS intervenes: continue to depress the brake pedal firmly until the braking situation is over.
- ► For full brake application: depress the brake pedal with maximum force.



#### Warning

Always adapt your driving style to the prevailing road and weather conditions, and maintain an adequately safe distance from other road users as well as from any obstacles on the road.

If ABS malfunctions, the wheels could lock when you brake. This means that the steerability of the vehicle is restricted during braking and the stopping distance may increase. If ABS is deactivated due to a malfunction, BAS is also deactivated.

## **Brake Assist (BAS)**

Brake Assist operates in emergency braking situations. If you depress the brake pedal quickly, BAS automatically increases the brake pressure, thereby reducing the stopping distance.

 Keep the brake pedal firmly depressed until the emergency braking situation is over.

ABS prevents the wheels from locking.

When you release the brake pedal, the brakes will work as normal again. BAS is deactivated.

Vehicles without steering wheel buttons: There is a malfunction if the  $\boxed{\textcircled{1}}$  indicator lamp is permanently lit while the engine is running ( $\triangleright$  page 51).



#### Warning

If BAS malfunctions, the brake system is still available with the full brake boosting effect. In an emergency braking situation, however, the braking force will not be additionally boosted automatically and the stopping distance may increase.

# Electronic Stability Program (ESP®)

ESP® monitors driving stability and detects a tendency of the vehicle to understeer or oversteer (skidding) in good time. ESP® stabilizes the vehicle by braking individual wheels, limiting the engine power output, and greatly assists you when driving on wet or slippery road surfaces. ESP® also stabilizes the vehicle when braking.

When ESP® intervenes, the warning lamp in the speedometer flashes.



#### Warning

Proceed as follows if the warning lamp in the speedometer flashes:

- do not deactivate ASR under any circumstances.
- only depress the accelerator pedal as far as necessary when pulling away.
- adapt your driving style to suit the prevailing road and weather conditions.

Otherwise, the vehicle could begin to skid.

ESP® cannot reduce the risk of an accident if you drive too fast. ESP® is unable to override the laws of physics.

There is a malfunction if the ☐ indicator lamp is permanently lit while the engine is running (▷ page 213).

If  $\ensuremath{\mathsf{ESP}}^\ensuremath{^{\mathbb{B}}}$  malfunctions, engine power output may be reduced.

Only operate the vehicle briefly (maximum of 10 seconds) on a brake dynamometer. The key must be turned to position 1 in the ignition lock during this time. You could damage the drive train or the brake system.

Do not operate the vehicle on a roller dynamometer (for example for performance testing). If you wish to operate the vehicle on a roller dynamometer, please consult an authorized Sprinter Dealer beforehand. You could otherwise damage the drive train or the brake system.

## Acceleration skid control (ASR)

ASR improves traction for a sustained period, i.e. the transfer of power from the tires to the road surface, and thus also improves the driving stability of the vehicle. ASR assists you when pulling away and accelerating, especially on smooth and slippery surfaces.

ASR brakes individual drive wheels and limits the engine torque to prevent the drive wheels from spinning. When ASR intervenes, the warning lamp in the speedometer flashes.

If the road surface is not capable of providing sufficient traction, bearing in mind the tires, load and gradient, it will not be possible to pull away smoothly even with ASR.

Vehicles without steering wheel buttons: There is a malfunction if the ☐ indicator lamp is permanently lit while the engine is running (▷ page 51).

If ASR malfunctions, engine power output may be reduced.

# Activating/deactivating ASR

ASR is automatically activated as soon as the engine is switched on.

It may be best to deactivate ASR in the following situations:

- if snow chains are being used
- · in deep snow
- on sand or gravel

If you deactivate ASR:

 the engine's torque is then no longer limited and the drive wheels could spin; the spinning wheels produce a cutting effect for better traction.

- traction control still intervenes by braking if one drive wheel reaches its grip limit, for example if the surface under one side of the vehicle is slippery. The wheel is then braked to increase traction in this situation.
- ESP® still intervenes to stabilize the vehicle.



ESP® remains active despite ASR having been deactivated and carries out braking interventions if this is necessary to improve driving stability. The \_\_\_\_\_\_\_ warning lamp flashes.

If ASR is deactivated, there is an increased risk that the brake system of your vehicle could overheat and be damaged when subjected to high loads for a long period of time. A hot brake system also increases the stopping distance.

For this reason, only deactivate ASR when it is absolutely necessary.



► To switch off: press upper section ① of the switch.

The warning lamp in the speedometer lights up.

► To switch on: press upper section ① of the switch again.

The warning lamp in the speedometer goes out.

# Electronic brake force distribution (EBV)

EBV monitors and regulates the brake pressure at the rear wheels to improve driving stability during braking.

There is a malfunction if the  $\fbox{,}$  ,  $\fbox{,}$  and  $\fbox{,}$  indicator lamps are permanently lit while the engine is running ( $\gt{p}$  page 210).



#### Warning

If the [3], [3], [4] and [5] indicator lamps light up while the vehicle is in motion, there could be a malfunction in the electronic braking force distribution (EBV). The vehicle could skid when the brakes are applied. You should therefore take particular care when driving.

Adapt your driving style to the road conditions. Driving too fast will increase the risk of an accident.

In the event of a malfunction in the electronic braking force distribution (EBV), you should take your vehicle for repair immediately to an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

# Anti-theft systems

#### **Immobilizer**

The immobilizer prevents the vehicle from being started without the correct key.

When leaving the vehicle, always take the key or remote keyless entry transmitter with you and lock the vehicle. The engine could be started by anyone with a valid key or remote keyless entry transmitter that is left inside the vehicle.

- ► **To activate:** remove the key from the ignition lock (▷ page 67).
- ► **To deactivate:** switch on the ignition (> page 67).

## Anti-theft alarm system (ATA)

A visual and audible alarm is triggered if the alarm system is enabled and:

- a door is opened
- · the hood is opened

# **Enabling the alarm system**

- Close all the doors.
- ► Lock the vehicle using the button on the key.

The indicator lamp in the central locking switch (▷ page 59) flashes.

# Deactivating the anti-theft alarm system

► Unlock the vehicle using the utton on the key.

The indicator lamp in the central locking switch (▷ page 59) goes out.

Panel van and crewbus only:
If you unlock the vehicle using the remote control with key and do not open a door within
40 seconds, the vehicle locks again automatically.

The alarm system will be triggered if the vehicle has been locked with the key and is then unlocked from the inside.

# Switching off the alarm

- Insert the key into the ignition lock.
- or
- ▶ Press the button on the key.

# **Tow-away protection**

A visual and audible alarm is triggered if the inclination of the vehicle changes while tow-away protection is enabled.

1 The tow-away protection alarm is triggered shortly before the wheel leaves the ground if the vehicle is being jacked up on one side, for example.

# **Enabling tow-away protection**

Tow-away protection is automatically enabled approximately 20 seconds after you lock the vehicle.

Tow-away protection is automatically deactivated when you unlock the vehicle.

# Deactivating the tow-away protection for transportation

Deactivate tow-away protection if the vehicle is transported or loaded onto another vehicle. This will prevent false alarms.



- ► Turn the key to position **0** or **1** in the ignition lock or remove the key.
- ► Press button ①.

Indicator lamp ② lights up for approximately 5 seconds after the button is released.

► Lock the vehicle using the key.

Tow-away protection remains deactivated until you lock the vehicle again.

#### Interior motion sensor

If the anti-theft alarm system is enabled and the vehicle is locked, a visual and audible alarm is triggered if one of the side windows or the rear window on your vehicle is smashed and someone reaches into the interior, for example.

If the interior motion sensor is primed and the auxiliary heating (> page 118) is switched on, it is possible that the interior temperature monitoring may cause a false alarm. In this case, either deactivate the interior motion sensor or switch off the auxiliary heating.

# **Enabling the interior motion sensor**

Close the side windows and the sliding sunroof.

This will prevent false alarms.

▶ Lock your vehicle.

The interior motion sensor is enabled after approximately 40 seconds.

1 Do not leave anything (for example, mascots or coat hangers) hanging on the rear-view mirror or on the grab handles on the roof trim. This will prevent false alarms.

# Deactivating the interior motion sensor

Deactivate the interior motion sensor if people or animals remain in the locked vehicle. This will prevent false alarms.



- ► Turn the key to position 0 or 1 in the ignition lock or remove the key.
- Press button ①. Indicator lamp ② lights up for approximately 5 seconds after the button is released.
- ► Lock the vehicle using the key.

  The interior motion sensor remains deactivated until you lock the vehicle again.

Driving systems
Operating the vehicle

Transporting Features

Vehicle equipment
Opening and closing
Key positions
Seats
Steering wheel
Mirrors
Lighting
Good visibility
Instrument cluster
Operating system without steering wheel buttons
Operating system with steering wheel buttons
Driving and parking
Automatic transmission
Air conditioning

# Vehicle equipment

This Operator's Manual describes all features, standard or optional, potentially available for your vehicle at the time of purchase. Please be aware that your vehicle might not be equipped with all features described in this manual.

# Opening and closing

Your vehicle is supplied with either 2 or 4 remote keyless entry transmitters or 4 keys without remote control.

Vehicle keys which were not included with delivery must be activated before they can be used. You can obtain further information at any authorized Sprinter Dealer.

When leaving the vehicle, always take the key or remote keyless entry transmitter with you and lock the vehicle. The engine could be started by anyone with a valid key or remote keyless entry transmitter that is left inside the vehicle

You will find information about opening and closing your vehicle with the key in the "Locking and unlocking the vehicle with the key" section (▷ page 58).



## Warning

Do not leave children unsupervised in the vehicle even if they are secured in a child restraint system. The children could injure themselves on parts of the vehicle. They could be severely or even fatally injured by prolonged exposure to intense heat or cold.

If the children open a door, they could:

- cause injury to others as a result
- get out of the vehicle and could either injure themselves when doing so or they could be injured by passing vehicles
- sustain serious injuries if they were to fall out of the vehicle, due in particular to the height of the passenger compartment from the ground

Always take the key with you when leaving the vehicle, even if you are only leaving for a short time.

# Remote control with key

Included with your vehicle are 2 or 4 remote keyless entry transmitters with a folding mechanical key.



USA only:

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interfer-
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this eauipment.



Canada only:

This device complies with RSS-210 of Industry Canada. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interfer-
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Remote controls with keys which were not included with delivery must be activated at an authorized Sprinter Dealer before they can be used.

The remote keyless entry transmitter transmits in all directions. It does not have to be pointed at the vehicle.

The remote keyless entry transmitter has an average range of about 32 ft. (about 10 m).

Always verify the correct operation of the remote keyless entry transmitter by checking whether the locking knobs on the driver's and co-driver's doors move down and whether the turn signals flash.

The remote control unlocks the driver's door and/or all doors centrally. If programmed as a factory setting, it locks the following centrally:

- the driver's and co-driver's door
- · the sliding doors
- the rear doors

f the driver's or co-driver's door is not completely closed, the respective door is not locked. If one sliding door or rear door is not completely closed, no doors of the load compartment are locked.

The remote keyless entry transmitter will not function when there is a vehicle key inserted in the ignition lock.



#### Warning

Do not leave children unsupervised in the vehicle even if they are secured in a child restraint system. The children could injure themselves on parts of the vehicle. They could be severely or even fatally injured by prolonged exposure to intense heat or cold.

If the children open a door, they could:

- cause injury to others as a result
- get out of the vehicle and could either injure themselves when doing so or they could be injured by passing vehicles
- sustain serious injuries if they were to fall out of the vehicle, due in particular to the height of the passenger compartment from the ground

Always take the key with you when leaving the vehicle, even if you are only leaving for a short time.



#### Remote control with key

- 1 To unlock the sliding doors and rear doors
- 2 To unlock the driver's door or the vehicle centrally
- (3) To lock the vehicle centrally
- 4 Release button for mechanical key
- (5) Battery check lamp.

Do not expose the key to high levels of electromagnetic radiation; otherwise, this may interfere with the functions of the key.

Protect the key from moisture to prevent malfunctions.

1 To prevent theft, only use the remote control in the immediate vicinity of the vehicle.

In an emergency, the driver's door and rear door can also be unlocked manually using the key.

As a precaution, both remote controls should always be carried.

# Checking the batteries

▶ Press the or button for longer than 2 seconds.

Battery check lamp (5) comes on briefly to indicate that the remote control batteries are in order.

Change the batteries immediately if the lamp does not light up briefly during this check (> page 244).

If the batteries are checked within signal range of the vehicle, pressing the or button will lock or unlock the vehicle accordingly.

# Locking and unlocking the vehicle with the remote control

► To unlock the driver's door: press the button.

The turn signals flash once. The antitheft alarm system (ATA) is deactivated.

► To unlock the sliding doors and the rear doors: press the button.

The turn signals flash once.

- ► To unlock the vehicle centrally: unlock the driver's door.
- ▶ Press the button within 2 seconds again.

The turn signals flash once.

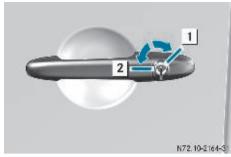
- Panel van and crewbus only:
  If you unlock the vehicle using the remote control with key and do not open a door within
  40 seconds, the vehicle locks again automatically.
- ► To lock the vehicle centrally: press the button.

The turn signals flash three times if the drive authorization system or the antitheft alarm system (ATA) is activated and all the doors are closed

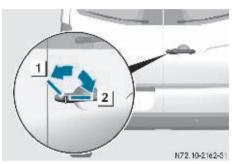
**1** Make sure that the locking knobs have dropped down.

# Locking and unlocking the vehicle with the key

If the doors can no longer be locked or unlocked with the remote control, you can lock and unlock the driver's door and the rear doors with the key.



Driver's door



#### Rear door

- 1 To lock
- 2 To unlock
- ► To unlock the driver's door or the rear door: press the key release button on the remote control.

The key folds out.

► Insert the key fully into the driver's door lock and turn it to position 2.

The door is unlocked.

**1** The anti-theft alarm system (ATA) is triggered when you open the vehicle using the key.

The alarm can be disabled in the following ways:

▶ Press the button on the remote control.

or

▶ Insert the key into the ignition lock.

- ► To lock the vehicle: lock all doors with the exception of the driver's door and (if necessary) the rear door from the inside. Also press down the locking knobs of the doors.
- Press the key release button on the remote control.

The key folds out.

► Insert the key fully into the rear door lock and turn it to position 1.

The rear doors are locked.

The driver's door is locked.

► Insert the key fully into the driver's door lock and turn it to position 1.

# **Central locking**



# Warning

Do not leave children unsupervised in the vehicle even if they are secured in a child restraint system. The children could injure themselves on parts of the vehicle. They could be severely or even fatally injured by prolonged exposure to intense heat or cold.

If the children open a door, they could:

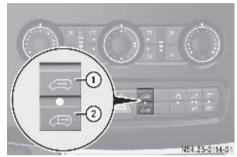
- cause injury to others as a result
- get out of the vehicle and could either injure themselves when doing so or they could be injured by passing vehicles
- sustain serious injuries if they were to fall out of the vehicle, due in particular to the height of the passenger compartment from the ground

Always take the key with you when leaving the vehicle, even if you are only leaving for a short time.

You can unlock and open a locked door from the inside at any time.

# Locking and unlocking manually

Using the central locking switch, you can centrally lock or unlock from the inside either the entire vehicle or the sliding doors and rear doors only.



► To lock/unlock the entire vehicle: press upper part ① of the switch when the doors are closed

When the entire vehicle is locked, the indicator lamp in the central locking button lights up.

- 1 If the key is in position 0 or no longer in the ignition lock, the indicator lamp in the central locking switch lights up for 5 seconds after it is pressed.
- ➤ To lock/unlock the sliding doors and the rear doors: press lower part ② of the switch when the doors are closed.

When the sliding doors and rear doors are locked, the indicator lamp in the central locking button lights up.

# **Automatic locking**

As a standard feature on all vehicles, all doors lock automatically when a speed of 9 mph (15 km/h) is reached.

On some vehicles, depending on the equipment, all doors lock automatically as soon as the ignition is switched on.

For information about different settings, please contact your authorized Sprinter Dealer.

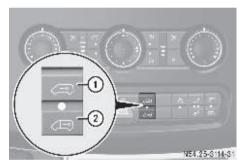
**1** If your vehicle is centrally locked, this could hinder rescue operations from the outside in the event of an accident.

When the automatic locking when driving function is activated, there is a risk of being locked out if the vehicle is towed. For this reason, always deactivate the automatic locking when driving function:

- before having the vehicle towed
- if you are only leaving the vehicle for a brief period

If activated, automatic locking is deactivated if the vehicle is unlocked or locked using the central locking switch.

Automatic locking is reactivated after the ignition is switched off or if a door is opened with the vehicle stationary.



# Activating the automatic locking function

- Close all the doors.
- Turn the key to position 1 or 2 in the ignition lock.
- ► For the entire vehicle: press upper part ① of the switch until the indicator lamp in the switch flashes four times.
- ► Only for the sliding doors and the rear doors: press upper part ② of the switch until the indicator lamp in the switch flashes four times.

# Deactivating the automatic locking function

- ► Close all the doors.
- Turn the key to position 1 or 2 in the ignition lock.
- ► For the entire vehicle: press upper part ① of the switch until the indicator lamp in the switch flashes twice.
- Only for the sliding doors and the rear doors: press lower part ② of the switch until the indicator lamp in the switch flashes twice.

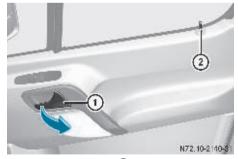
# Opening the driver's or co-driver's door from the inside



## Warning

Make sure that nobody can become trapped when you close or open the doors. Take particular care, especially if children are near the vehicle. You could otherwise injure yourself and others.

You can open the driver's / co-driver's door from the inside at any time, even if it is locked. Open the door only when conditions are safe to do so.



Pull door handle ①.
 Locking knob ② pops up. The door opens.

# Sliding door



#### Warning

Make sure nobody can become trapped when you close or open the doors. Take particular care, especially if children are near the vehicle.

Make sure that there is sufficient clearance and that the traffic area is clear when opening the doors. You could otherwise injure yourself and others.



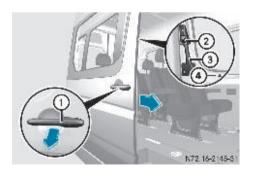
#### Warning

If the vehicle is parked on an incline, the sliding door may move of its own accord if it is open but not engaged. You or others could be trapped.

Make sure that the sliding door is engaged in the active retainer.

The sliding door is equipped with an active retainer, which engages the door at the end stop when opened.

When you open / close the sliding door, you can also detent it around half way so that it is not always necessary to open the door to the end stop to get in and out of the vehicle. The intermediate detent does not fully engage the sliding door.



# Opening / closing the sliding door from the outside

- ► **To open:** pull door handle ① to open the sliding door.
- Hold door handle ① and slide the sliding door towards the rear as far as the stop.
- Check the sliding door detent.
  The sliding door must be engaged.
- ► To close: pull door handle ① to release the sliding door from its detent.
- Holding door handle ①, pull the door firmly towards the front until it engages.

# Opening / closing the sliding door from the inside

Open the sliding door only when conditions are safe to do so.

- ➤ To unlock: pull locking knob ④ up.
  Only this sliding door unlocks. The other doors remain locked.
- ► **To open:** press button ② to open the unlocked sliding door.
- ► Hold door handle ③ and slide the sliding door towards the rear as far as the stop.
- Check the sliding door detent.The sliding door must be engaged.
- ► **To close:** press button ② to release the sliding door from its detent.
- ► Holding door handle ③, pull the door firmly towards the front until it engages.
- ► To lock: press locking knob (4) down. Only this sliding door is locked. The other doors remain unlocked.

# **Electric closing aid**

Your vehicle may be equipped with an electric closing aid.

The electric closing aid helps you to close the sliding door. Closing the door does not require as much effort.



#### Warning

Make sure that nobody can become trapped when you close the sliding door.

If someone is in danger of becoming trapped, pull the outside door handle or press the button on the inside door handle and open the sliding door.

#### Rear doors

You can fix the rear doors in place at an angle of approximately 90° or 270°.

Always make sure that the open rear door is correctly engaged in the detent.

Make sure that there is sufficient clearance when opening the rear doors. They could otherwise damage the vehicle or objects close to the rear doors.



## Warning

Make sure that nobody can become trapped when you close or open the doors. Take particular care, especially when children are near the vehicle.

Make sure that there is sufficient clearance and that the traffic area is clear when opening the doors. You could otherwise injure yourself and others.



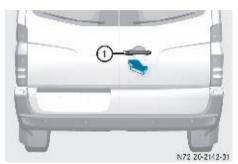
#### Warning

The rear lamps are concealed by more than 50% when you open the rear doors through 90° or more. The vehicle is then not sufficiently safeguarded at the rear and may only be seen by other road users when they are close to the vehicle. This could lead to an accident.

Make sure, therefore, that the vehicle is safeguarded at the rear in accordance with national legal requirements, e.g. with a warning triangle.

# Opening the rear doors from the outside

## Opening the right-hand rear door



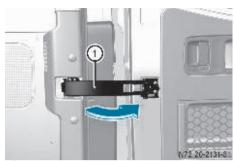
- ▶ Pull handle (1).
- Swing the rear door out to the side until it engages.

# Opening the left-hand rear door



- Make sure that the right-hand rear door is open and engaged.
- ▶ Pull release lever ① in the direction of the arrow.
- Swing the rear door out to the side until it engages.

# Opening the rear doors to an angle of 270°



i If you prefer to keep door retainer ① out of the loading area when loading the vehicle, you can swivel it 180° against the spring pressure and onto the door, where it engages. The door retainer then remains in this position and no longer returns to its original position.

Before closing the door, release door retainer ① from the detent and return it to its original position.

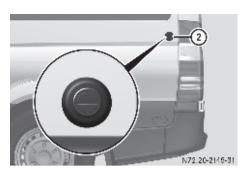
- Open the rear door to an angle of approximately 45°.
- ▶ Pull door retainer ① in the direction of the arrow and hold it firmly.



#### Warning

Make sure that the traffic area is clear when opening the rear doors beyond 90°. You could otherwise injure yourself and others.

- ▶ Open the rear door beyond 90° so that the door retainer can no longer engage.
- ► Release the door retainer and open the door to an angle of 270°.



▶ With the rear door opened to an angle of 270°, push it against magnetic door retainer ② on the sidewall.

When the magnet on the rear door is in contact with magnetic door retainer ②, the rear door is held in this position.

# Closing the rear doors from outside



## Warning

Make sure that nobody can become trapped as you close the rear door.

- Pull the door away from magnetic door retainer (2) if necessary.
- ► Close the left-hand rear door firmly from the outside.
- ► Close the right-hand rear door firmly from the outside.
- ① Door retainer ② is automatically released from its detent.

# Opening / closing the rear door from the inside

The opening lever is on the inside of the right-hand rear door. If a white marking is visible, this indicates that the rear door is unlocked.

Open rear doors only when conditions are safe to do so.



## Rear door

- ➤ To unlock: slide catch ② to the left.

  You will see a white marking. Only the rear door is unlocked. The other doors remain locked.
- ► **To open:** pull opening lever ① and open the unlocked rear door.
- ► Always make sure that the open rear door is correctly engaged in the detent.



#### Warning

Make sure that nobody can become trapped as you close the rear door.

- ► To close: make sure that the left-hand rear door is closed.
- ► Pull the right-hand rear door firmly closed by the door handle.
- ► To lock: slide catch ② to the right.

  The white marking is no longer visible.

  Only the rear door is locked. The other doors remain unlocked.

# Partition sliding door

The partition sliding door is in the partition between the cab and the load compartment.



#### Warning

Do not operate the partition sliding door while the vehicle is in motion. You could otherwise lose control of the vehicle as a result of moving the partition and cause an accident and injure yourself and others.

Make sure that nobody can become trapped as you close the partition sliding door.

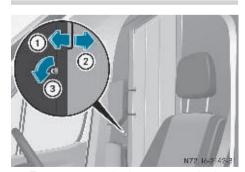


#### **Warning**

Make sure that the partition sliding door is closed and locked before operating the vehicle. Otherwise, the partition sliding door can slam shut, or open and then slam shut, while the vehicle is operating, such as during a turn.

This could cause serious crushing or severing injuries to hands, arms and other parts of the body struck by the sliding door.

# Operating the partition sliding door from inside the cab



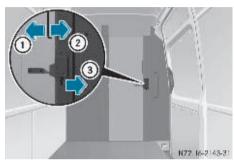
► To open: turn the key counterclockwise ③.

The sliding door is unlocked.

 Slide the sliding door to the right as far as stop (2). ► **To close:** slide the sliding door to the left until it engages (1).

The sliding door can be locked using the key.

# Operating the partition sliding door from inside the load compartment



- ► **To open:** press the lever to right ③. The sliding door is unlocked.
- ► Slide the sliding door to the left as far as stop ①.
- ► **To close:** slide the sliding door to the right until it engages ②.

#### Side windows

You can open and close the front side windows electrically. After a malfunction or if the battery has been disconnected, you have to reset the side windows (> page 66).



## Warning

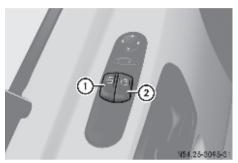
When opening the side windows, make sure that nobody can become trapped between the window and door frame. When opening a side window, keep all parts of the body away from the window, as the downward motion of the side window could cause these to become pulled down or trapped between the window and the door frame. In the event of danger, release the switch or push the switch up to close the side window again.



# Warning

When closing a side window, make sure that nobody can become trapped. In the event of danger, release the switch or press the switch again to re-close the side window.

The switches for all side windows are located on the door control panel.



#### Power window switches (driver's side)

- (1) Power window, left
- 2 Power window, right
- ► Turn the key to position 2 in the ignition lock.
- ► To open/close: pull or press and hold switch ① or ② until the window has reached the desired position.
- The window opens automatically when you press the switch beyond the pressure point and then release it.

To stop the window, pull or press the switch again.



# Warning

Do not leave children unsupervised in the vehicle even if they are secured in a child restraint system. The children could injure themselves on parts of the vehicle. They could be severely or even fatally injured by prolonged exposure to intense heat or cold.

If the children open a door, they could:

cause injury to others as a result

- get out of the vehicle and could either injure themselves when doing so or they could be injured by passing vehicles
- sustain serious injuries if they were to fall out of the vehicle, due in particular to the height of the passenger compartment from the ground

Always take the key with you when leaving the vehicle, even if you are only leaving for a short time.

#### Resetting the side windows

The side windows must be reset if the battery has been disconnected or if there has been a malfunction.

- Pull the two power window switches until the side windows are closed.
- Hold the switches in this position for about 1 second.

The side windows are reset

# Sliding sunroof



## Warning

The glass may shatter in the event of an accident.

If you or other occupants are not wearing your seat belt, there is a risk of being thrown out of the opening in the event of the vehicle overturning. Therefore, always wear a seat belt to reduce the risk of injuries.

In accidents in which the vehicle overturns, there is an increased risk of injury even for occupants who have fastened their seat belts correctly, as their head or limbs could be thrust through the opening.



## Warning

Never leave children unsupervised in the vehicle. They could operate the sliding sunroof and injure themselves.

Remove the key from the ignition lock even if you are only leaving the vehicle for a short time.



# Warning

Make sure that nobody can become trapped as you open and close the sliding sunroof. In the event of danger, release the switch and press it briefly in any direction to stop the sliding sunroof.



# Sliding sunroof switch

- 1) To open
- (2) To close
- (3) To raise
- (4) To lower

Do not raise the sliding sunroof if you have mounted a roof rack. It would otherwise strike the roof rack.

You could thereby damage the sliding sunroof and the roof rack.

- Turn the key to position 2 in the ignition lock.
- Press the sliding sunroof switch in the desired direction as far as the first pressure point.
- Release the sliding sunroof switch when the desired position has been reached.

The sliding sunroof opens automatically when you press the sliding sunroof switch for opening beyond the pressure point and then release it.

To stop the sliding sunroof, press the sliding sunroof switch again in any direction.

Do not transport objects protruding through the sliding sunroof. You could otherwise damage the sliding sunroof.

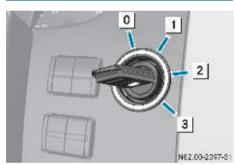
# Resetting the sliding sunroof

The sliding sunroof must be reset after:

- the sunroof has opened with a jerk
- a malfunction
- an interruption in the voltage supply as a result of a disconnected or flat battery.
- ► Turn the key to position 2 in the ignition lock.
- Press the sliding sunroof switch in the direction of arrow (2) (▷ page 66).
- Wait until the sliding sunroof is closed and then keep the sliding sunroof switch pressed for approximately 3 seconds.

The sliding sunroof is reset.

# Key positions



- To remove the key; to lock the steering wheel
- 1 To unlock the steering wheel (power supply for some consumers, e.g. radio)
- 2 To switch on the ignition (power supply for all consumers); pre-glow and drive position
- 3 To start

The key can only be removed from position **0**. Also observe the notes in the "Driving and parking" section (⊳ page 100).

1 To unlock the steering, turn the steering wheel slightly while turning the key to position 1.

On vehicles with a battery isolating switch, you must first switch on the electrical system (> page 165).

## Seats

#### Driver's and co-driver's seats

# Standard, comfort and suspension seats



## Warning

Only adjust the seats when the vehicle is stationary and the handbrake is applied. You could otherwise lose control of the vehicle as a result of the seat moving and cause an accident and injure yourself and others.



## Warning

Make sure that nobody can become trapped as the seat is adjusted. Never place your hands under the seat or near moving parts.

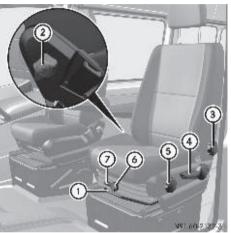
Your seat must be adjusted in such a way that you can wear the seat belt correctly (> page 35).

Observe the following points:

- position the backrest as vertically as possible and sit upright.
- avoid seat positions that do not allow the seat belt to be routed correctly. The shoulder section of the seat belt must be routed across the middle of your shoulder and must fit closely across your chest. The lap section of the belt must be routed as low as possible across your pelvic area, i.e. across your hip joints. Never drive with the backrest tilted too far back.
- your arms should be slightly bent when you are holding the steering wheel.
- the distance from the pedals should be such that you can depress them fully.

- adjust the head restraints in such a way that the upper edge of the head restraint is at the same height as the seat occupant's head.
- make sure that you hear the seat engage.
   Otherwise, the seat is not correctly locked in place.

Injuries may be caused if these notes are not observed.



- 1) Seat fore-and-aft adjustment
- Lumbar support adjustment
- 3 Backrest adjustment
- 4 Seat height adjustment
- Seat angle adjustment
- 6 Seat suspension adjustment
- Suspension lock lever
- i Different settings are possible, depending on the seat version.

# Seat fore-and-aft adjustment

- ▶ Pull lever ① up.
- Slide the seat forward or backward until you can reach the pedals and depress them.
- Release lever 1.
- ► Slide the seat forward or backward slightly until it engages audibly.

# Backrest adjustment

- Turn thumbwheel ③ forward.
   The backrest moves to an upright position.
- Turn thumbwheel 3 backward.
  The backrest tilts towards the rear.

# Seat height adjustment

 Push or pull lever (4) repeatedly until you have reached the desired seat height.

# Seat angle adjustment

- ► Turn thumbwheel ⑤ forward.

  The front of the seat cushion tilts down.
- ► Turn thumbwheel ⑤ backward.

  The front of the seat cushion tilts up.

# Lumbar support adjustment

① Using the lumbar support, you can increase the level of support that the backrest provides to your spinal column.

When the lumbar support is correctly adjusted, it reduces strain on your back while you are driving.

- ► Turn thumbwheel ② upward.

  This increases the support provided to your lumbar region.
- Turn thumbwheel ② downward.
  This reduces the support provided to your lumbar region.

# Seat suspension adjustment

The seat suspension must be adjusted to your body weight. Only adjust the seat suspension when the seat is unoccupied.

- ▶ Relieve the load on the seat.
- Select your body weight 88 to 265 lbs (40 to 120 kg) using thumbwheel 6 for optimal seat suspension.

The seat suspension becomes harder as you adjust it to a higher body weight. The seat will then not travel down as far.

# Suspension lock

If the seat bounces up and down frequently, you can engage the seat in the lower position of its suspension travel.

- Turn lever ⑦ downward.
  The next time the seat bounces, it will engage.
- 1 The suspension lock will engage only if your weight is identical to or above the adjusted suspension weight.
- ► Turn lever ⑦ upward to release the seat from the suspension lock.

The seat can now move up and down again.

# Swiveling front seats



# Warning

Only adjust the seats when the vehicle is stationary and the handbrake is applied. You could otherwise lose control of the vehicle as a result of the seat moving and cause an accident.



#### Warning

The driver's and co-driver's seat must be adjusted and properly engaged in the direction of travel for driving. Otherwise you will not be able to operate the vehicle safely.

The restraint systems in your vehicle will only function as intended when the driver's and passenger's seat are engaged in the direction of travel.

The driver's and co-driver's seat can be rotated by 180° to be opposite of the direction of travel.

The seats engage in the direction of travel or opposite the direction of travel as well as at 50° pointing towards the exit.

When rotating the seats, make sure that there is sufficient space. If necessary, move the seat fore or aft to avoid colliding with adjacent add-on parts.

Fold the handbrake lever down as far as it will go. You could otherwise damage the handbrake or the handbrake lever

**1** Move the co-driver's seat forward as far as it will go before rotating it (▷ page 68).

- Make sure the handbrake is applied and the handbrake lever is folded down as far as it will go (▷ page 104).
- Set the steering wheel so that there is sufficient clearance for turning and adjusting the driver's seat (⊳ page 73).



#### Warning

Make sure that nobody can become trapped when unlocking and turning the seats.

Never hold your hands under the seat or near moveable parts when turning the seats.



# Seat release (example: co-driver's seat)

- ➤ To turn the seat: press lever ① on the back of the seat to the center and turn the seat slightly inwards.
  - The turning device is unlocked.
- ▶ Release lever ① again.
- Turn the seat inwards to the desired position.



You could knock yourself against the unprotected pivoting frame if the seat is opposite of the direction of travel and pushed right back in a longitudinal direction.

Therefore, center the seat above the seat base whenever you leave it. Alert passengers to this danger.

# Twin co-driver's seat



- ➤ To fold the seat cushion forward: lift the seat cushion out of front anchorage (1).
- ▶ Pull the seat cushion towards the front slightly and out of rear anchorage ②.
- Fold the seat cushion up by the rear edge.
- 1 You can store various articles in the space under the twin co-driver's seat.
- ► Positioning the seat cushion: fold the seat cushion back.
- ► Slide the seat cushion under the backrest and into rear anchorage ②.
- ▶ Fold the seat cushion down.
- ▶ Press the front of the seat cushion down until it engages in front anchorage ①.

#### **Head restraints**



## Warning

Only drive with the head restraints installed. You could otherwise suffer serious or fatal injuries in the area of the upper spinal column.

Adjust the head restraint in such a way that the upper edge of the head restraint is level with your head.

Adjust your head restraint so that when your head is relaxed, the back of your head is as close as possible to the head restraint. This will effectively support your head in an accident.

The head restraint must be engaged in a detent.

# Adjusting the head restraint



- (1) Release button
- (2) Height adjustment
- 3 Angle adjustment (comfort head restraint only)
- ► To raise: pull the head restraint up to the desired position.
- ➤ **To lower:** press release button ① and slide the head restraint down to the desired position.
- ➤ To adjust the angle: hold the head restraint by the lower edge and fold it to the desired position.

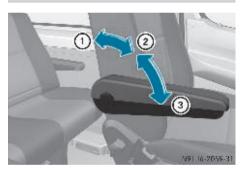
## Removing the head restraints

- Pull the head restraint up as far as it will go.
- Press release button ① and pull the head restraint out.

#### Installing the head restraints

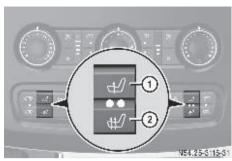
- Make sure that the head restraint is reinstalled in such a way that its front faces in the direction of travel (comfort head restraint).
- Insert the head restraint so that the rod with the notches is in the direction of travel on the left.
- Push the head restraint down until it engages.

#### **Armrests**



- ➤ To adjust the armrest angle: fold the armrest up by an angle of more than 45° to unlock it ②.
- ► Fold the armrest forward to stop ③.
- ► Fold the armrest up to the desired position.
- ► To fold up the armrest: if you do not wish to use the armrest, fold it up by an angle of more than 90° (1).

#### Seat heating



- 1 Normal heating
- (2) Rapid heating
- ► Turn the key to position 2 in the ignition lock.

## Normal heating

► **To switch on:** press the upper part of the 📆 switch.

One indicator lamp in the switch comes on.

► **To switch off:** press the upper part of the 🖅 switch again.

The indicator lamp in the switch goes out.

## Rapid heating

► To switch on: press the lower part of the ∰ switch.

Both indicator lamps in the switch come on.

► To switch off: press the lower part of the ∰ switch again.

The indicator lamps in the switch go out.

► To switch down to normal heating: press the upper part of the 

witch.

Only one indicator lamp in the switch remains lit.

1 The rapid seat heating switches automatically to normal heating mode after approximately 5 minutes.

## Folding seat

The folding seat is on the co-driver's side.



Folding seat (example with partition sliding door)



## Warning

When folding down the seat cushion, make sure that nobody can become trapped.

There is a risk of injury to the co-driver in the event of sudden steering movements or an accident if there is a key inserted in the partition sliding door lock.

Remove the key from the partition sliding door before using the folding seat.

- Remove key 1 from partition sliding door.
- Fold seat cushion ② down or up. The seat cushion is held in the relevant position.

#### Rear bench seat



#### Warning

All release levers on the legs of the rear bench seat must be parallel to the vehicle floor. A rear bench seat with 2 seats may only be installed on the left side of the vehicle.

The integrated seat belt can only offer the degree of protection for which it is designed if you install the specified rear bench seats correctly. Therefore, you must have the rear bench seat with 4 seats installed by an authorized Sprinter Dealer.

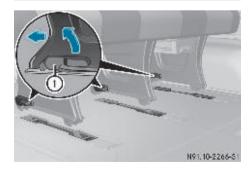
Keep the seat bench mounting cups in the vehicle floor free from dirt and foreign objects. This is the only way to guarantee that the locking mechanisms will engage securely.

For reasons of safety, only have seat mounting cups retrofitted at an authorized Sprinter Dealer.

① Do not exceed the maximum permissible number of seats for passenger vans.

For safety reasons, the rear bench seat with 4 seats must be removed or installed by an authorized Sprinter Dealer.

## Removing the rear bench seat with 2 or 3 seats



► Turn all levers ① for the bench seat fully upward.

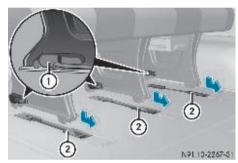
The rear bench seat moves back into the seat mounting cups on the vehicle floor.

► Lift the rear bench seat upward out of the seat mounting cups.

## Installing the rear bench seat with 2 or 3 seats

 Observe the specified installation location for the rear bench seat

A rear bench seat with 2 seats may only be installed on the left side.



 Check seat mounting cups ② on the vehicle floor.

Seat mounting cups ② must be kept free from dirt and foreign objects.

- ▶ Position the rear bench seat in the direction of travel in respective seat mounting cups ②.
- Slide the rear bench seat forward until you hear the locking mechanisms engage.
- ► Check levers ① on the bench seat feet.

All levers ① must be parallel to the vehicle floor.

## Steering wheel



#### Warning

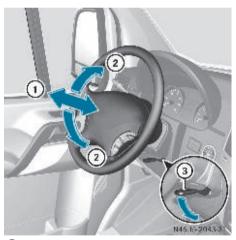
Only adjust the steering wheel when the vehicle is stationary. Only drive with the steering wheel locked in position.

An incorrectly secured steering wheel could make it more difficult to steer the vehicle safely, since the height and fore-and-aft adjustment could move out of position when the steering wheel is turned. As a result, you could lose control of the vehicle, cause an accident and injure yourself and others.



#### Warning

Never leave children unsupervised in the vehicle. They could become trapped if they try to adjust the steering column.



- Steering column fore-and-aft adjustment
- ② Steering column height
- 3 Lever
- ➤ Swing lever ③ down to the stop. The steering wheel is unlocked.
- Move the steering wheel to the desired position.
- ► Pull lever ③ up to the stop. The steering wheel is locked again.

#### **Mirrors**

#### Rear-view mirror

 Before starting off, adjust the rear-view mirror by hand in such a way that you have a good view of road and traffic conditions.



► Anti-glare function: flick lever ① to the rear.

#### **Exterior mirrors**



#### Warning

The exterior mirrors reduce the size of the image. Objects therefore appear further away than they really are. You could therefore cause an accident if you only observe traffic in the exterior mirrors.

For this reason, you should pay attention to traffic behind you by also using the main exterior mirror and, if necessary, the rear-view mirror, especially while maneuvering or overtaking.

## Adjusting manually

 Before starting off, manually adjust the exterior mirrors in such a way that you have a good view of road and traffic conditions.

## Adjusting electrically

1 The exterior mirrors are automatically heated at low outside temperatures.



- Turn the key to position 2 in the ignition lock.
- Press left-hand side ① of the switch for the left-hand mirror or press righthand side ② of the switch for the righthand mirror.
- Press button (3) at the top or bottom, right or left. Adjust the exterior mirrors in such a way that you have a good view of road and traffic conditions.

## Lighting

## Lamp failure monitor

Your vehicle is equipped as standard with a lamp failure monitor.

The lamp failure monitor monitors all lamps of the exterior lighting with the exception of the identification lamps and the trailer lighting. In the event of a lamp failure, either the indicator lamp (> page 219) lights up or a corresponding message appears in the display (> page 226).

1 Depending on the equipment version, the lamp failure monitor may not monitor all lamps (with the exception of the turn signals).

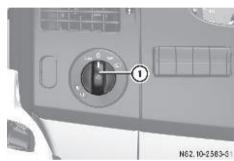


### Warning

The lamp failure monitor is only an aid. You are responsible for making sure that the vehicle lighting is functioning correctly at all times.

Please therefore check the condition and working order of the lighting equipment of your vehicle and, if applicable, of the trailer before each drive.

## Light switch



# Light switch between driver's door and steering wheel

- 1) Light switch
- Automatic headlamp control
- **o** Lights off / Constant headlamp mode
- Parking lamps, license plate and instrument lighting on
- Low-beam / high-beam headlamps on (depending on the position of the combination switch)

## Low-beam headlamps

- Turn the key to position 1 in the ignition lock.
- ► Turn the light switch to ☑.

  The ☑ indicator lamp in the instrument cluster lights up.

## Constant headlamp mode

You can set constant headlamp mode on or off:

- on vehicles without steering wheel buttons (▷ page 85)
- on vehicles with steering wheel buttons
   (▷ page 94)

This does not apply to countries in which there is a legal requirement to use constant headlamp mode.

► Turn the light switch to **0**.

The low-beam headlamps, parking lamps and license plate lamp are switched on when the engine is running.

The indicator lamp in the instrument cluster lights up.



If you turn the light switch to [505] or [50], the corresponding light switches on. Constant head-lamp mode remains activated if the light switch is turned to [AUTO].

Canada only:

If you turn the light switch to D, the low-beam headlamps are switched on. Constant headlamp mode remains activated if the light switch is turned to O T AUTO.

## Automatic headlamp control

The parking lamps, low-beam headlamps and license plate lamp are switched on automatically when the brightness of ambient light falls below a predetermined level.



#### Warning

If the light switch is at AUTO:

- the headlamps could switch off temporarily due to extreme glare, e.g. from oncoming traffic
- the lights do not switch on automatically in foggy conditions.

Set the light switch to . Otherwise, you may endanger yourself and others.

If it is dark, only turn the light switch from AUTO to D when the vehicle is stationary. You could otherwise cause an accident if the headlamps were to switch off briefly.

Automatic headlamp mode is only a driving aid. You are responsible for the vehicle's lighting at all times.

► Turn light switch to AUTO.

The parking lamps are switched on / off automatically when the key is in position 1 in the ignition lock.

The parking lamps, low-beam head-lamps and license plate lamp are

lamps and license plate lamp are switched on / off automatically when the engine is running, depending on the ambient light conditions.

Only use manual headlamp mode when you are driving in countries where driving with the low-beam headlamps switched on is required by law.

► In this case, turn the light switch to ☑.

## Front foglamps / rear foglamp

foglamps will operate with the parking lamps and / or the low-beam headlamps on. Foglamps should only be used in conjunction with low-beam headlamps. Consult your State or Provincial motor vehicle regulations regarding permissible lamp operation.

When the light switch is set to AUTO, you cannot switch on the front or rear foglamps. In this case, turn the light switch to OC.

When your vehicle is in motion do not use the position (50%) to activate the foglamps, only use the position (50).

If your vehicle is only equipped with rear foglamps, you must turn the light switch to 🔊 .

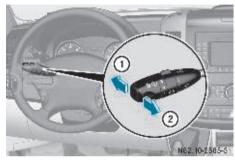
Front foglamps: pull light switch (1) out to the first detent.

The so green indicator lamp next to the light switch comes on.

▶ Rear foglamp: pull light switch ① out to the second detent.

The 0\$ yellow indicator lamp next to the light switch comes on.

#### **Combination switch**



- 1 High-beam headlamps
- (2) Headlamp flasher

## High-beam headlamps

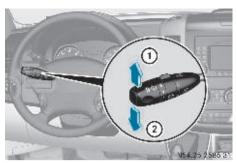
- Switch on the low-beam headlamps (▷ page 75).
- ► Press the combination switch forward ①.

The indicator lamp in the instrument cluster lights up.

## Headlamp flasher

- Turn the key to position 1 or 2 in the ignition lock.
- ▶ Pull the combination switch briefly in direction (2).

## Turn signals



- ① Right-hand turn signal
- 2 Left-hand turn signal
- Push combination switch up ① or down ② until it engages.

The combination switch moves back automatically if the steering wheel is turned sufficiently.

To indicate minor directional changes such as changing lanes, press the combination switch only to the point of resistance and release. The corresponding turn signals will flash three times.

# Cornering lamps (vehicles with bi-xenon headlamps)

When the low-beam headlamps are switched on, the cornering light function improves the illumination of the road in the direction you are turning.

The cornering light function switches on automatically if:

- you are traveling at a speed of less than 25 mph (40 km/h) and you switch on the turn signals or turn the steering wheel.
- you are traveling at a speed of between 25 mph (40 km/h) and 43 mph (70 km/h) and you turn the steering wheel.

The cornering light may continue to be lit for a short time, but is deactivated automatically after a maximum of three minutes.

#### Hazard warning lamps

The hazard warning lamps still operate if the ignition is switched off and the key is removed.

They switch on automatically when an airbag is deployed or after heavy brake application from a speed of more than 43 mph (70 km/h) that brings the vehicle to a standstill.



- ► To switch on/off: press hazard warning lamp switch (1).
- If you have indicated a turn while the hazard warning lamps are switched on, only the turn signal lamps on that side of the vehicle will light up.

If the hazard warning lamps have been switched on automatically, press the hazard warning lamp switch once to switch them off.



#### Warning

The rear lamps are concealed when the rear doors are opened 90° (detent position).

The vehicle is then not sufficiently safeguarded at the rear and may only be seen by other road users when they are close to the vehicle. This could lead to an accident.

Therefore, make sure that the vehicle is safeguarded at the rear in accordance with national legal requirements, e.g., with a warning triangle.

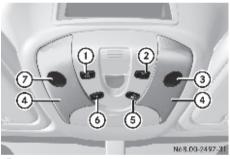
## Front interior lighting

## Standard front interior lighting



- (1) To switch on the interior lighting
- (2) Automatic control
- (3) To switch off the interior lighting

## Front interior lighting with overhead control panel



- 1) To switch the left-hand reading lamp on / off
- ② To switch the right-hand reading lamp on / off
- ③ Right-hand reading lamp
- 4 Interior lamp
- (5) To switch automatic control on / off
- 6 To switch the interior lighting on / off
- (7) Left-hand reading lamp

If you switch an interior lamp or a reading lamp on manually, it switches off automatically after 20 minutes on vehicles with an overhead control panel.

#### Automatic control

The front interior lighting (but not the rear interior lamps) comes on if you:

- unlock the vehicle
- · open a door
- remove the key from the ignition lock

The interior lighting switches off after approximately 20 minutes if it is controlled automatically and if a door remains open.

#### Rear interior lighting

# Switching the standard rear interior lighting on / off

On panel vans / crewbuses equipped with standard rear interior lighting, the switch for the rear interior lighting is on the rear lamp in the load / passenger compartment.



#### Rear interior lamp with switch

- 1 To switch on the rear interior lighting
- (2) To switch off the rear interior lighting
- (3) Automatic control

# Switching the convenient rear interior lighting on / off

On panel vans / crewbuses equipped with convenient rear interior lighting, the rear interior lighting master control switch is between the steering wheel and the ignition lock.

There is a switch on each rear interior lamp, which can be used to switch the lamp concerned on / off separately, regardless of the position of the master control switch



Rear interior lighting master control switch

- 1) To switch on the rear interior lighting
- 2 Automatic control
- (3) To switch off the rear interior lighting
- ► To switch on: press upper part ① of the switch.

The rear interior lamps are switched on when the switches on the rear interior lamps (▷ page 78) are not in Off position ②.

► To switch off: press lower part ③ of the switch.

All rear interior lamps are switched off regardless of the position of the switch on the rear interior lamp.

#### Automatic control

► To switch on: set the rear interior lighting master control switch to position ②.

If the switch on the rear interior lamps (> page 78) is set to automatic control (3), the rear interior lamps come on when you open a door or unlock the vehicle.

**1** The rear interior lamps switch off automatically after 20 minutes.

If you wish to reactivate the rear interior lamps, you must:

- · open a door
- · switch on the ignition again

## Load compartment motion detector

On panel vans equipped with a motion detector in the load compartment, the rear interior lighting may also switch on if motion is detected.



#### Warning

Motion detectors work with invisible infrared beams emitted by LEDs (Light Emitting Diodes).

Do not view invisible infrared radiation, laser class 1M, directly using optical instruments, e.g. glasses.

Your eyes could otherwise be injured.

If the motion detector detects movement in the load compartment when the vehicle is stationary, the rear interior lighting switches on for approximately 2 minutes.

The rear interior lighting can be switched on by the motion detector with a delay of no more than 4 seconds if:

- the switch on the rear interior lamp (> page 78) is set to "automatic control".
- the vehicle is stationary, the handbrake is applied and the service brake is not applied.

or

- the selector lever is in position **P** and the service brake is not applied.
- the vehicle has not been locked from the outside using the key.

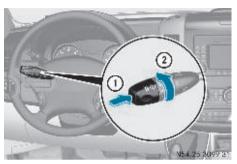
The motion detector switches off automatically if no change is detected in the vehicle for several hours, e.g. door opened, ignition key turned, etc.

This prevents the battery from discharging.

① Do not hang any objects (e.g. coats) in the load compartment. This will help to prevent the motion detector from inadvertently switching on the rear interior lamps.

## **Good visibility**

## Windshield wipers



#### **Combination switch**

- Single wipe / wiping with washer fluid
   (▷ page 81)
- 2) To switch the windshield wipers on

## Switching on the windshield wipers

- ► Turn key to position 1 in the ignition lock.
- I Vehicles with rain sensor:

Switch off the windshield wipers in dry weather conditions; otherwise, dirt on the surface of the rain sensor or optical effects can cause inadvertent wiper sweeps. This could damage the wiper blades or scratch the windshield.

- Turn the combination switch to the required position in the direction of arrow ② depending on how heavy the rain is.
  - 0 Windshield wipers off
  - I Intermittent wipe
  - II Normal wipe
  - III Rapid wipe

Canada only:

The speed of the windshield wipers is automatically reduced if the vehicle comes to a halt with the windshield wipers switched on. For example, if you have selected speed **II** and stop the vehicle, the wipers wipe at intermittent speed until you pull away again. The wipe intervals are longer in intermittent mode.

Vehicles with rain sensor:

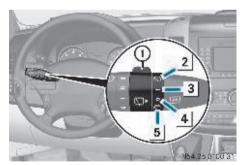
You can use speed I as the universal speed. The rain sensor adjusts the wiping frequency according to how heavy the rain is. If you stop the vehicle, speeds III and II are automatically switched down to speed I.

The original speed of the windshield wipers is resumed when you drive faster than 5 mph (8 km/h) again.

Setting the sensitivity of the rain/light sensor (> page 96).

#### Rear window wiper

The rear window wiper switches on automatically if you engage reverse gear and the windshield wipers are on.

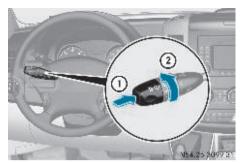


#### Combination switch

- (1) Switch
- (2) To wipe with windshield washer fluid
- ③ Intermittent wipe
- (4) To switch off the wiper
- (5) To wipe with washer fluid
- ► Turn key to position 1 or 2 in the ignition lock.
- ► Turn the switch to required position ①.

Wipe with washer fluid even when it is raining. By doing so you can prevent smears on the rear window.

### Windshield washer system



- Single wipe / wiping with washer fluid
   (▷ page 81)
- (2) To switch the windshield wipers on
- Press the combination switch beyond the pressure point in the direction of arrow 1.

The windshield wiper will wipe with washer fluid.

Wipe with washer fluid even when it is raining. By doing so you can prevent smears on the windshield.

## Headlamp cleaning system

- Switch on the low-beam headlamps.
- Switch on the windshield washer system.

The headlamps are cleaned with a highpressure water jet.

## Window heating



## Warning

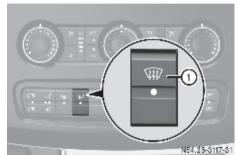
Clear ice or snow from the windows and the windshield before commencing a journey. Iced-up windows restrict your view. You could cause an accident and endanger yourself and others. Do not start the vehicle if the windows are iced up, fogged up or covered in snow.

## Windshield heating

The windshield heating is operational while the engine is running.

The windshield heating consumes considerable energy. You should therefore switch the heating off as soon as the windshield is clear.

The heating switches off automatically after approximately 5 minutes.

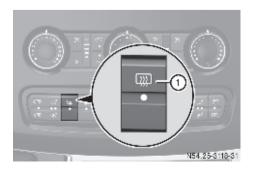


- ▶ Start the engine.
- Press upper part of the switch ①. The indicator lamp in the switch is lit when the windshield heating is switched on.

## Rear window heating

The rear window heating is operational while the engine is running.

The rear window heating consumes considerable energy. You should therefore switch the rear window heating off as soon as the window is clear. The heating switches off automatically after a maximum of 12 minutes.



- Start the engine.
- ▶ Press upper part of the switch ①.

The indicator lamp in the switch is lit when the windshield heating is switched on.

The indicator lamp in the switch comes on.

#### Instrument cluster

You will find a full overview of the instrument cluster in the "At a glance" section (⊳ page 27).



N54.32-2494-3

- 1 Instrument cluster on vehicles without steering wheel buttons
- (2) Instrument cluster on vehicles with steering wheel buttons
- (3) + /(-) buttons,
  - M menu button,
  - O reset button
  - service button (engine oil level check (> page 158))

The display in the instrument cluster is activated when you:

- open the driver's door
- turn the key to position 2 in the ignition lock
- press the ① reset button
- · switch on the lights

The display switches off automatically after approximately 30 seconds if:

- there is no vehicle lighting switched on
- the key is in position 0 in the ignition lock



#### **Warning**

No messages can be displayed if the instrument cluster and / or the display is malfunctioning.

You will not then be able to see information about the vehicle status, such as speed and outside temperature, warning and indicator lamps, malfunction and warning messages or the malfunction of systems. Handling characteristics may be affected. You should therefore adapt your driving style and the vehicle speed accordingly.

Contact an authorized Sprinter Dealer immediately. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.



## Warning

Only use the adjustment buttons on the instrument cluster when traffic conditions permit. You will otherwise be unable to observe road and traffic conditions and could cause an accident.

Do not reach through the steering wheel to press the adjustment buttons. This will make the steering wheel much more difficult to control. Your attention will also be diverted from the road and traffic conditions. This could cause you to lose control of the vehicle and could lead to an accident and injure yourself and others.

In addition, failure to keep your hands on the rim of the steering wheel while driving may not allow the airbag to fully inflate in the event of an accident and may lead to serious injury resulting from the inflating airbag.

Do not rest your head or chest on the steering wheel or dashboard when operating the adjustment buttons.

See the safety precautions for airbags ( $\triangleright$  page 40).

#### Instrument lighting

With the lights switched on, you can adjust the brightness of the instrument lighting using the (+) and (-) buttons.

- **▶ Brighter:** press the (+) button.
- ▶ **Dimmer:** press the (-) button.
- Vehicles with automatic headlamp mode: The instrument lighting also adjusts in line with the automatic headlamp mode.

#### **Tachometer**

The red band in the tachometer indicates the engine's overrevving range.

Do not drive in the overrevving range. Doing so could damage the engine.

To protect the engine, the fuel supply is interrupted when the red band is reached.



#### **Environmental note**

Avoid high engine speeds. These could increase your vehicle's fuel consumption unnecessarily and damage the environment through increased pollutant emissions.

## Speedometer

1 In some countries, a signal sounds when the vehicle reaches the maximum speed limit, e.g. at 75 mph (120 km/h).

The speed can also be shown in the display. You can find information on the digital speedometer for vehicles without steering wheel buttons on ( $\triangleright$  page 84) and for vehicles with steering wheel buttons on ( $\triangleright$  page 88).

#### Trip meter

#### Resetting the trip meter

- ▶ Vehicles with steering wheel buttons: make sure that the display is showing the trip meter (▷ page 88).
- ► Keep the ① reset button pressed until the trip meter is set to 0.0.

## Fuel gauge





- 1) Fuel gauge on vehicles without steering wheel buttons
- 2) Fuel gauge on vehicles with steering wheel buttons
- 3 Fuel filler flap location indicator
  - The fuel filler cap is on the left-hand side
- ④ Reserve fuel warning lamp (> page 216)

Information on the Diesel Exhaust Fluid (DEF) gauge can be found in the "Driving" section (> page 134).

# Operating system without steering wheel buttons

The operating system is activated as soon as you turn the key to position 1 in the ignition lock.



## Warning

Only use the adjustment buttons on the instrument cluster when traffic conditions permit. You will otherwise be unable to observe road and traffic conditions and could cause an accident.

Do not reach through the steering wheel to press the adjustment buttons. This will make the steering wheel much more difficult to control. Your attention will also be diverted from the road and traffic conditions. This could cause you to lose control of the vehicle and could lead to an accident and injure yourself and others.

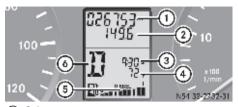
In addition, failure to keep your hands on the rim of the steering wheel while driving may not allow the airbag to fully inflate in the event of an accident and may lead to serious injury resulting from the inflating airbag. Do not rest your head or chest on the steering wheel or dashboard when operating the adjustment buttons.

See the safety precautions for airbags ( $\triangleright$  page 40).

The operating system shows the information and settings in the display.

You can control the display and the settings in the operating system using the adjustment buttons on the instrument cluster.

## Standard display



- (1) Odometer
- (2) Trip meter
- (3) Time
- 4 Outside temperature or digital speedometer
- (5) Fuel gauge (▷ page 83)
- 6 Selector lever position or current shift range

### Changing the standard display

- Turn the key to position 2 in the ignition lock.
- Press and hold the M menu button for more than 1 second.

The information shown in the display changes from the outside temperature to the digital speedometer or vice-versa.

## **Outside temperature display**



## !\ Warning

Even if the temperature displayed is just above freezing point, the road surface may still be icy, especially in wooded areas or on bridges. You could skid or loose control of the vehicle. You should therefore always adapt your driving style and speed to suit the weather conditions.

There may be a short delay before a lower outside temperature is displayed, for example after leaving a garage. There may also be a short delay before a rise in the outside temperature is displayed.

This prevents you from seeing a temperature display influenced by heat from the engine when the vehicle is stationary or moving slowly.

#### Menus

Use the (+), (-), (-) or (-) buttons to select the following functions:

- Calling up the service due date (> page 194)
- Checking the engine oil level (> page 158)
- Selecting / setting the auxiliary heating switch-on time (▷ page 119)
- Tire pressure monitor (> page 175)
- Setting the time (> page 85)
- Setting the date (> page 85)
- Setting constant headlamp mode (> page 85)
- ➤ To return to the standard display: Press and hold the (M) menu button for more than 1 second.

or

 Wait 10 seconds before pressing a button.

The display accepts the changed settings.

## Setting the time

- ► Turn the key to position 2 in the ignition lock.
- ► Press the (M) menu button repeatedly until the hour display flashes.
- ▶ Set the hour using the + or button.
- ► Press the ⊚ reset button.

The minute display flashes.

- ► Set the minutes using the ⊕ or ⊖ button.
- 1 If you keep the + or button pressed, the values will change continuously.

### Setting the date

- Turn the key to position 2 in the ignition lock
- ► Press the (M) menu button repeatedly until the day display flashes.
- ► Set the day using the + or button.
- ▶ Press the ⊚ reset button. The month display flashes.
- ► Set the month using the → or → button.
- Press the ① reset button. The year display flashes.
- ▶ Set the year using the (+) or (-) button.
- 1 If you keep the button + or pressed, the values will change continuously.

## Setting constant headlamp mode

If you have set constant headlamp mode and the light switch is at **0**, the following light up automatically when the engine is running:

- the parking lamps and low-beam headlamps
- the tail lamps
- the license plate lamp
- **1** USA only:

If you turn the light switch to [506] or [50], the corresponding light switches on. Constant head-lamp mode remains activated if the light switch is turned to [AUTO].

1 Canada only:

If you turn the light switch to , the low-beam headlamps are switched on. Constant headlamp mode remains activated if the light switch is turned to , or , auto.

For safety reasons, it is only possible to change this setting when the vehicle is stationary. The factory setting is 0N in countries in which constant headlamp mode is mandatory.

- ► Turn the key to position **2** in the ignition lock.
- ▶ Press the M menu button repeatedly until the D indicator lamp in the instrument cluster flashes and the ON or OFF message appears in the display.
- ▶ Use ♠ or ♠ to switch constant headlamp mode on / off.

# Operating system with steering wheel buttons

The operating system is activated as soon as you turn the key to position 1 in the ignition lock.



#### Warning

Only use the operating system when road and traffic conditions permit. You will otherwise be unable to observe road and traffic conditions and could cause an accident and injure yourself and others.

The operating system shows the information and settings in the display.

## Steering wheel with buttons

You can control the display and the settings in the operating system with the buttons on the steering wheel.



(1) Display Operating system controls (2) Selects submenus Changes values Adjusts the volume (3) Telephone operation Accepts a call / starts dial-Ends a call / rejects an incoming call (4) Jumps from one menu to another Forward Back lumps from one submenu to (5) another Forward  $\triangle$ 

Several functions are combined thematically in the menus.

Back

The display changes when you press one of the buttons on the steering wheel.

For example, the **AUDIO** menu contains functions for controlling the radio or CD player. You can use a function to call up information or to change the settings for the vehicle.

Operation of the audio equipment using the steering wheel buttons and making settings using the AUDIO menu only function as described if our approved audio equipment is installed. If you are using audio equipment from another manufacturer, the described functions may be restricted or may not be available at all.

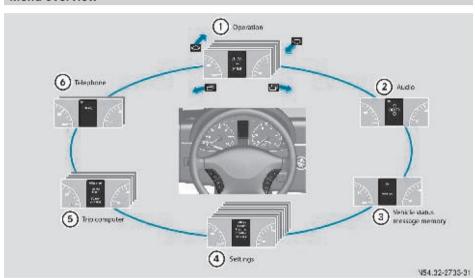
You can think of the order of the menus and of the functions within a menu as a circle:

- If you keep pressing the or or button, each menu will appear one after the other.
- If you keep pressing the or or button, each function in the same menu will appear one after the other.

The **Settings** menu contains submenus instead of functions with which you can call up or change a setting. The way in which you operate these submenus is described in the "Settings menu" section (> page 90).

The number of menus depends on the optional equipment installed in your vehicle.

#### Menu overview



#### Example illustration

This is what the display looks like when you scroll through the menus.

#### **Function**

- Operation menu (▷ page 88):
  - Standard display
  - Calls up the service due date (▷ page 194)
  - Tire pressure monitor
     (▷ page 177)
  - Checks the engine oil level (> page 160)
- 2 Audio menu (⊳ page 88)

#### **Function**

- Message memory menu (⊳ page 89)
- ④ Settings menu (▷ page 90)
- (5) **Trip computer** menu (▷ page 97)
- (b) Telephone menu (b) page 98)

The tabular overview of the menus contains generic terms which are not always shown in the operating system. The generic term concerned is intended simply to make it easier for you to familiarize yourself with the menus. With Sound 5 / Audio 20, the operating system always shows the **AUDIO** and **TEL** (telephone) menus in English. This is the case even if a different language is selected for the display.

## Operation menu

In the **Operation** menu, you can select the following functions using the  $\triangle$  or  $\heartsuit$  button:

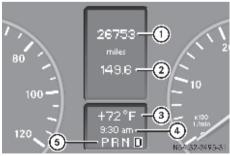
- Trip meter and odometer (standard display)
- Display coolant temperature
   (▷ page 88)
- Calling up the service due date (▷ page 194)
- Tire pressure monitor (▷ page 175)
- Checking the engine oil level (> page 160)

## Standard display

In its basic setting, you will see the odometer and the trip meter in the upper part of the display. This is referred to as the standard display.

Use the buttons on the steering wheel.

► If you see a different display, press the ☐ or ☐ button repeatedly until the standard display appears.



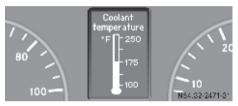
- (1) Odometer
- (2) Trip meter
- ③ Outside temperature or digital speedometer

- 4 Time
- Selector lever position or current shift range

## Displaying the coolant temperature

Use the buttons on the steering wheel.

- ▶ Press the or button repeatedly until the standard display appears.
- Press the or button repeatedly until you see the Coolant temperature in the display.



The temperature displayed may climb to 250 °F (120 °C) when the vehicle is being driven in normal conditions and if the coolant contains the correct concentration of corrosion inhibitor and antifreeze. It is acceptable for the coolant temperature to rise to the end of the scale at high outside temperatures and when driving in mountainous terrain.

#### Audio menu

You can use the functions in the **Audio** menu to control the audio equipment that you have just switched on.

Operation of the audio equipment using the steering wheel buttons and making settings using the **AUDIO** menu only function as described if our approved audio equipment is installed. If you are using audio equipment from another manufacturer, the described functions may be restricted or may not be available at all.

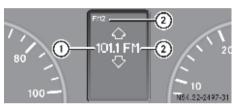
If you have a Sound 5 or Audio 20 installed and no audio equipment is switched on, you will see the AUDIO off message.

### Selecting a radio station

Use the buttons on the steering wheel.

- Switch on the radio (see the separate Operating Instructions).
- Press the or button repeatedly until you see the station currently selected.

The type of search depends on the setting for the radio station selection (▷ page 96). The next station stored is selected, or the station search begins (not for Audio 20).



- (1) Reception frequency
- Waveband, with memory location number if set
- ▶ Press the or button repeatedly until you have found the desired station.

1 It is only possible to save new stations using the radio itself. See the separate Operating Instructions.

You can also operate the radio in the same way as usual.

## Operating the CD player

Use the buttons on the steering wheel.

- Switch on the radio and select the CD player (see the separate Operating Instructions).
- ▶ Press the ☐ or ☐ button repeatedly until the settings for the CD being played are displayed.



- ① Current CD (with CD changer)
- ② Current track
- ▶ Press the or button repeatedly until you have set the desired track.

## Message memory menu

The operating system stores certain display messages. In the **Message memory** menu, you can call up the stored display messages.



## Warning

The operating system only records and shows messages and warnings from certain systems. Therefore, make sure that your vehicle is safe to use. You could otherwise cause an accident by driving an unsafe vehicle.

Use the buttons on the steering wheel.

- ► Press the ☐ or ☐ button repeatedly until the display shows the number of stored messages e.g. 2 messages.

  If no messages are stored, the No messages message appears.
- ► Scroll through the messages by pressing the △ or ▽ button.

The possible display messages are described in the "Practical hints" section (> page 223).

- ► To select another display, press the ☐ or ☐ button.
- **1** The message memory is cleared when you switch off the ignition.

## Settings menu

The **Settings** menu has two functions:

- To reset: Press the 0 button for 3 sec. function, with which you can reset all settings to the factory defaults
- a collection of submenus which you can use to make individual settings for your vehicle

Use the buttons on the steering wheel.

Press the or button repeatedly until you see the Settings menu in the display.



Settings menu

## Resetting all settings

You can reset the functions in all submenus to the factory defaults.

Use the buttons on the steering wheel.

- Press the or button repeatedly until you see the **Settings** menu in the display.
- ► Press the ① reset button for approximately 3 seconds.

You will see the message in the display prompting you to press the ① reset button once more to confirm.

Press the ① reset button again.
The functions in most submenus are reset to the factory defaults.

If you do not press the ① reset button a second time to confirm, the changed settings remain set. The **Settings** menu is displayed again after approximately 5 seconds.

For safety reasons, it is not possible to reset all of the functions while the vehicle is in motion. For example, the HdImp. mode function in the **Lighting** submenu remains unchanged.

## Resetting the functions of a submenu

You can reset the functions of an individual submenu to the factory defaults.

Use the buttons on the steering wheel.

- Press the or button repeatedly until you see the Settings menu in the display.
- Press to switch to the submenu selection.
- ▶ Press + or to select a submenu.
- Press the ① reset button for approximately 3 seconds.

You will see the message in the display prompting you to press the ① reset button once more to confirm.

Press the ① reset button again.
Most functions in the submenu are reset to the factory defaults.

1 If you do not press the (1) reset button a second time to confirm, the changed settings remain set. The **Settings** menu is displayed again after approximately 5 seconds.

For safety reasons, it is not possible to reset all of the functions while the vehicle is in motion. For example, the **HdImp. mode** function in the **Lighting** submenu remains unchanged.

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### Submenus in the Settings menu

Use the buttons on the steering wheel.

- ▶ Press the or button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.

You will see the collection of submenus. There are more submenus than can be displayed at the same time.



▶ Press + or - to select a submenu.

The current submenu is highlighted.

- ► Press to switch to the submenu selection.
- ▶ Press + or to change the setting.

The changed setting is saved.

You can select the following submenus:

- Instrument cluster (▷ page 91)
  - Select the units and the language
  - Select the display for the status line
- Clock/Date (▷ page 93)
- **Lighting** (⊳ page 94)
  - Switch constant headlamp mode and the locator lighting on or off
  - Switch the exterior lighting delayed switch-off on or off
- Vehicle (⊳ page 96)
  - Set station selection
  - Set the windshield wiper sensitivity
- Auxiliary heating (▷ page 119)

- Convenience (⊳ page 97)
  - Key-dependent settings

#### Instrument cluster submenu

## Selecting the unit for the temperature

Use the buttons on the steering wheel.

- ▶ Press the or button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ► Select the **Inst. cluster** submenu using the + or button.
- ► Press the △ or ⋄ button repeatedly until you see the Temperat. message in the display.

The current setting is highlighted.



▶ Press the + or - button to select the unit for all messages in the display: °C (degrees Celsius) or °F (degrees Fahrenheit).

## Selecting the unit for the digital speedometer

Use the buttons on the steering wheel.

- ▶ Press the ☐ or ☐ button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ► Select the **Inst. cluster** submenu using the + or button.
- ▶ Press the or button repeatedly until you see the Dig. speedo. message in the display.

The current setting is highlighted.



▶ Press the + or button to select the unit for all messages in the display: km/h or mph (kilometers or miles per hour).

## Selecting the unit for the odometer

Use the buttons on the steering wheel.

- ▶ Press the or button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ► Select the **Inst. cluster** submenu using the + or button.
- ► Press the △ or ▽ button repeatedly until you see the Trip message in the display.

The current setting is highlighted.



▶ Press the + or - button to select the unit for all messages in the display: km (kilometers) or miles.

### Selecting the language

Use the buttons on the steering wheel.

- ▶ Press the ☐☐ or ☐☐ button repeatedly until you see the Settings menu in the display.
- Press to switch to the submenu selection.
- ► Select the **Inst. cluster** submenu using the + or button.
- ▶ Press the or button repeatedly until you see the Language message in the display.

The current setting is highlighted.



 Use the + or button to select the language in which the operating system messages are to be displayed.

#### You can select:

- Deutsch (German)
- Brit. English (British English)
- Am. English (American English)
- Français (French)
- Italiano (Italian)
- Español (Spanish)

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### Selecting the display for the status line

Use the buttons on the steering wheel.

- Press the or button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ► Select the **Inst. cluster** submenu using the + or button.
- ▶ Press the or button repeatedly until you see the Select displ. message in the display.

The current setting is highlighted.



Press the + or button to select whether to display the outside temperature or the speed (digital speedometer).

The selected display is then shown permanently in the bottom part of the display.

## Selecting the unit for the tire pressure

Use the buttons on the steering wheel.

- ▶ Press the or button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ➤ Select the **Inst. cluster** submenu using the + or button.
- ► Press the △ or ♡ button repeatedly until you see the Tire pres. message in the display.

The current setting is highlighted.



Press the + or − button to select the unit for the tire pressure: bar or psi.

## Clock / Date submenu

## Setting the hours

Use the buttons on the steering wheel.

- ▶ Press the ☐ or ☐ button repeatedly until you see the Settings menu in the display.
- ▶ Press to switch to the submenu selection.
- ► Select the **Clock / Date** submenu using the + or button.
- ▶ Press the △ or ♂ button repeatedly until you see the Set clock Hours or Minutes message in the display.



▶ Set the hour and / or minutes by pressing the + or button.

## Selecting the time format

Use the buttons on the steering wheel.

Press the or button repeatedly until you see the Settings menu in the display.

- ► Press to switch to the submenu selection.
- ► Select the **Clock / Date** submenu using the + or button.
- ► Press the △ or ▽ button repeatedly until you see the 12/24 h message in the display.

The current setting is highlighted.



▶ Use the + or − button to select the 12 h or 24 h clock format.

## Setting the date

Use the buttons on the steering wheel.

- ▶ Press the or button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ► Select the **Clock/Date** submenu using the + or button.
- ► Press the △ or ▽ button repeatedly until you see the Date Day or Month or Year message in the display.



▶ Set the day, month or year by pressing the + or - button.

## Lighting submenu

#### Setting constant headlamp mode

If you have set constant headlamp mode and the light switch is at **0**, the following light up automatically when the engine is running:

- the parking lamps and low-beam headlamps
- the tail lamps
- · the license plate lamp
- USA only:

If you turn the light switch to [506] or [50], the corresponding light switches on. Constant head-lamp mode remains activated if the light switch is turned to [AUTO].

1 Canada only:

If you turn the light switch to ①, the lowbeam headlamps are switched on. Constant headlamp mode remains activated if the light switch is turned to ② or AUTO.

For safety reasons, it is only possible to change this setting when the vehicle is stationary. The factory setting is Constant in countries in which constant headlamp mode is mandatory.

Use the buttons on the steering wheel.

- ▶ Press the or button repeatedly until you see the **Settings** menu in the display.
- Press to switch to the submenu selection.
- ▶ Press the + or to select the Lighting submenu.
- ▶ Press the △ or ♡ button repeatedly until you see the Hdlmp. mode message in the display.

The current setting is highlighted.



▶ Press the + or button to select whether you wish to operate the lighting manually (Manual) or whether you wish to set constant headlamp mode (Constant).

for safety reasons, it is not possible to reset the Hdlmp. mode function to the factory setting while the vehicle is in motion. You will see the following message in the display: Setting only possible at standstill.

## Switching the locator lighting on or off

If you switch the locator lighting to 0n, the following lamps light up in the dark after you have unlocked the vehicle using the key:

- the parking lamps
- the tail lamps
- the license plate lamp
- the front foglamps

The locator lighting automatically switches off after 40 seconds or if you:

- open the driver's door
- insert the key into the ignition lock
- lock the vehicle with the key

Use the buttons on the steering wheel.

- Press the or button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ▶ Press the + or to select the Lighting submenu.

▶ Press the or button repeatedly until you see the Loc. lighting message in the display.

The current setting is highlighted.



▶ Press the + or − button to switch the locator lighting 0n or 0ff.

## Setting the exterior lighting delayed switch-off

The Headlamps (headlamps delayed switchoff) function enables you to set whether or not the exterior lighting should remain on in the dark after the doors have been closed.

When you have set the delayed switch-off and have switched off the engine, the following light up:

- the parking lamps
- the tail lamps
- the license plate lamp
- the front foglamps

1 You can reactivate this function by opening a door within 10 minutes.

The lights are switched off after 60 seconds if you do not close an opened door or if you do not open a door after the engine has been switched off.

Use the buttons on the steering wheel.

- ▶ Press the ☐ or ☐ button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ▶ Press the + or − to select the **Lighting** submenu.

▶ Press the △ or ▽ button repeatedly until you see the Headlamps message in the display.

The current setting is highlighted.



▶ Press the + or - button to select whether and for how long the lights should remain on.

#### Vehicle submenu

## Setting station selection

The Search function enables you to determine whether the radio should search for a new station or a previously stored station each time the radio is operated using the steering wheel buttons (not with Audio 20).

The Frequency setting starts the station search. The Memory setting selects the next stored station.

Use the buttons on the steering wheel.

- ▶ Press the or button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ▶ Press the + or − to select the **Vehicle** submenu.
- ▶ Press the or button repeatedly until you see the Search message in the display.

The current setting is highlighted.



Press the + or button to select how the radio should tune into a station.

## Setting the windshield wiper sensitivity

You can use the Wipe sensor function to set the sensitivity of the rain sensor:

- Level 1: High sensitivity Wiping begins in light rain
- Level 2: Moderate sensitivity
- Level 3: Low sensitivity
   Wiping only begins in heavy rain

Use the buttons on the steering wheel.

- ▶ Press the ☐ or ☐ button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ► Press the + or to select the **Vehicle** submenu.
- ► Press the △ or ▽ button repeatedly until you see the Wipe sensor message in the display.

The current setting is highlighted.



▶ Press the + or - button to select the level of sensitivity of the rain sensor.

#### Convenience submenu

## Key-dependent settings

You can use the Key function to determine whether the settings in the:

- Instrument cluster
- Lighting
- Vehicle

submenus are stored as key-dependent settings.

- Use the buttons on the steering wheel.
- ▶ Press the or button repeatedly until you see the **Settings** menu in the display.
- ► Press to switch to the submenu selection.
- ▶ Press the + or to select the Convenience submenu.
- ▶ Press the △ or ⋄ button repeatedly until you see the Key message in the display.

The current setting is highlighted.



- ► Press the + or button to switch key dependence on or off.
- for safety reasons, it is not possible to set the Key function while the vehicle is in motion. You will see the following message in the display: Setting only possible at standstill.

#### Trip computer menu

You can call up or reset statistical data for the vehicle in the **Trip computer** menu.

**1** When you call up the trip computer again, it always displays the last function which you called up.

The units of the trip computer are country-specific and depend on the setting in the **Instrument** submenu of the **Settings** menu.

## Fuel consumption statistics after start

Use the buttons on the steering wheel.

► Press the ☐ or ☐ button repeatedly until you see the After start message in the display.



- 1 Distance driven since start
- (2) Time elapsed since start
- (3) Average speed since start
- (4) Average fuel consumption since start

The average values for speed ③ and fuel consumption ④ are first shown again after a distance of 0.6 miles (1000 m) after resetting. Until then the display shows - - - for both averages.

1 If you turn the key to position 0 in the ignition lock or remove it, all the values are reset after approximately 4 hours.

The values will not be reset if you turn the key back to position 1 or 2 during this time.

## Fuel consumption statistics after reset

- ▶ Press the ☐ or ☐ button repeatedly until you see the After start message in the display.
- ▶ Press the or button repeatedly until you see the After reset message.



- 1 Distance driven since last reset
- (2) Time elapsed since last reset
- (3) Average speed since last reset
- 4 Average fuel consumption since last reset

The average values for speed ③ and fuel consumption ④ are first shown again after a distance of 0.6 miles (1000 m) after resetting. Until then the display shows - - - for both averages.

## Resetting fuel consumption statistics

Use the buttons on the steering wheel.

- ▶ Press the ☐ or ☐ button repeatedly until you see the After start message in the display.
- ► Press the △ or ▽ button repeatedly until you see the statistics that you want to reset in the display.
- ▶ Press and hold the ① reset button until the values are reset to 0.

1 The consumption statistics after start are automatically reset after 999 hours or 9999 miles (kilometers).

The consumption statistics after reset are automatically reset after 9999 hours or 99,999 miles (kilometers).

## Distance to empty

Use the buttons on the steering wheel.

- ▶ Press the ☐ or ☐ button repeatedly until you see the After start message in the display.
- ▶ Press the or button repeatedly until you see the Range message in the display.

The calculated remaining driving range based on the current fuel tank level is displayed.

If only very little fuel is left in the tank, the message Please refill shown instead of the remaining range.

## Telephone menu

You can operate your cell phone using the functions in the **TEL** menu if it is connected to the hands-free system.

Use the buttons on the steering wheel.



## Warning

You must observe the legal requirements for the country and state in which you are driving when operating a cell phone in the vehicle.

If it is permitted to operate a cell phone while the vehicle is in motion, you may only operate it when road and traffic conditions permit. You may otherwise be distracted from the traffic conditions, cause an accident and injure yourself and others.

- Switch on the cell phone and audio system (see the separate Operating Instructions).
- Press the or button repeatedly until you see the TEL menu in the display.

You will see different messages in the display, depending on the status of your cell phone.

If you have not yet entered the PIN code, enter the PIN using the cell phone or audio system.

The cell phone searches for a network. The display remains blank during this time.

As soon as the cell phone has found a network, you will see the Ready message or the name of the network provider (if available) in the display.

Once it has shown its operational readiness, you can operate the cell phone using the operating system.

If the operational readiness symbol goes out, your vehicle is outside the transmission / reception range. The message No Service is displayed.

## Accepting a call

You can accept a call at any time, provided that the cell phone is ready to receive calls.

Press the button.
The call duration is shown in the display.

## Ending or rejecting a call

▶ Press the button.

The caller then hears the busy signal. The display now shows the operational readiness symbol again.

## Dialing a number from the phone book

You may select and dial a number from the phone book at any time, provided that the cell phone is ready to receive calls.

1 It is only possible to create new phone number entries in the phone book using the cell phone itself. See the separate Operating Instructions.

▶ Press the ☐ or ☐ button repeatedly until you see the **TEL** menu with the operational readiness symbol in the display.

▶ Press the or button.

The operating system reads the phone book stored on the SIM card or in the phone. This may take more than 1 minute.

You will see the Processing message in the display.

▶ Press the or button repeatedly until you see the name you are looking for.

The stored names are displayed alphabetically from A to Z, or Z to A.

The operating system scrolls through the names rapidly if you press and hold the \( \subseteq \) or \( \subseteq \) button for more than one second. Releasing the button stops the rapid scroll.

If you no longer wish to make a call, press the button.

▶ Press the button.

The operating system dials the selected phone number. You will see the Dialed message in the display.

The operating system stores the phone numbers in the redial memory.

If a connection is made, you will see the name of the person you are calling and the call duration.

## Redialing

The operating system stores the most recently dialed phone numbers. This means that you do not have to search through the entire phone book.

- ▶ Press the ☐ or ☐ button repeatedly until you see the **TEL** menu with the operational readiness symbol in the display.
- ▶ Press the button.

The redial memory shows the most recently dialed numbers or names. ▷▷

- ▶ Press the or button repeatedly until the number or the name you are looking for is displayed.
- ▶ Press the button.

The operating system dials the selected phone number.

If a connection is made, you will see the call duration and the name of the person you are calling if stored in the phone book. Otherwise, the number you are dialing continues to be displayed.

## Driving and parking

## Preparing for a journey

#### Visual check of the vehicle exterior

- In particular, check the following components on the vehicle, and on the trailer as necessary:
  - license plates, vehicle lighting, turn signals and brake lamps, wiper blades for dirt and damage
  - tires and wheels for firm seating, correct tire pressure and general condition
  - trailer tow hitch for play and that it is securely fastened
- The trailer tow hitch is one of the most important items on the vehicle with regard to road safety. The separate instructions issued by the trailer tow hitch manufacturer pertaining to operation, care and maintenance should be observed.
- Rectify any noticeable defects before commencing the journey.

#### Checks in the vehicle

## Emergency equipment / first aid kit

The equipment for first aid and breakdown assistance is located in the stowage compartment of the driver's / co-driver's door and behind the driver's seat.

Check the equipment to make sure that it is accessible, complete and ready to use.

## Vehicle lighting

- ► Turn the key to position 2 in the ignition lock
- ► Check with the help of another person that the lights are clean and working correctly, including turn signals and brake lamps.
- ▶ Replace defective bulbs (> page 244).

## Before a journey



### Warning

Pedal movement must not be obstructed. The vehicle's operating and road safety are otherwise jeopardized.

Objects could fall and get caught between the pedals if you accelerate or brake suddenly. You will no longer be able to brake or accelerate. You could cause an accident, which could result in injury to yourself and others.

- If floor mats and carpets are used, make sure that these are secured correctly and cannot slip and that there is sufficient pedal clearance.
- Do not place any objects in the driver's footwell.
- Store and secure all loose objects so they cannot get into the driver's footwell while the vehicle is in motion.



## !\ Warning

The doors could open of their own accord while the vehicle is in motion if they are not fully closed. For this reason, please make sure that all the doors are properly closed and locked before driving off ( $\triangleright$  page 56).

- Close all doors.
- Secure the load according to the loading guidelines (▷ page 135).
- Make sure that the floormats and carpets are properly secured so that they cannot slip or obstruct the pedals.
- Observe the general driving tips at the end of this section (▷ page 105).

In the "Operation" section you will find information on:

- regular checks (▷ page 152)
- driving in winter (> page 192)
- driving when towing a trailer (> page 148)
- and other driving tips (▷ page 148)

## Starting the engine



## Warning

Do not keep any objects in the driver's foot-well. If you use a floormat or carpet in the driver's footwell, make sure that there is sufficient clearance for the pedals and that they are well secured. Do not place several floormats on top of one another.

Objects could otherwise get between the pedals in the event of sudden braking or acceleration. You may then no longer be able to brake or accelerate as intended. This may result in accidents and injuries.



#### Warning

Never run the engine in an enclosed space. The exhaust fumes contain poisonous carbon monoxide. Breathing in exhaust fumes constitutes a health hazard and can lead to loss of consciousness and death.



#### Warning

A seat belt that is worn incorrectly or not at all, or that is not correctly engaged in the seat belt buckle, cannot perform its intended protective function. In certain circumstances, you could then be seriously or even fatally injured. Make sure, therefore, that all occupants – in particular, expectant mothers – wear their seat belt correctly at all times.

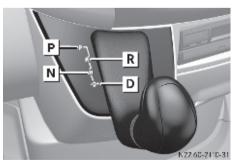
Do not depress the accelerator pedal when starting the engine.

If you depress the brake pedal when starting the engine, pedal travel may be short and the pedal resistance may be high.

Pedal travel and resistance return to normal when you depress the brake pedal again while the engine is running.

- ► Before starting the engine, make sure that:
  - · all doors are closed
  - all vehicle occupants are wearing their seat belt correctly
  - the handbrake is applied
  - the automatic transmission is in parking position **P**

1 It is also possible to start the engine in neutral N.



## Automatic transmission gearshift pattern

- P Parking position (selector lever lock)
- R Reverse gear
- Neutral
- **D** Drive position

## Starting the engine

Turn the key to position 2 in the ignition lock.

The meglow indicator lamp in the instrument cluster comes on.

- ▶ As soon as the 100 pre-glow indicator lamp goes out, turn the key to position 3 in the ignition lock and release it as soon as the engine is running.
- 1 You can start the engine without pre-glow when the engine is warm.

① Depending on the vehicle equipment, the vehicle is automatically locked centrally either when the ignition is switched on or when you pull away. The locking knobs in the doors drop down. You can open the doors from the inside at any time.

Automatic door locking can also be deactivated (> page 59).

#### **Pulling away**



#### Warning

Do not downshift for additional engine braking on a slippery surface. The drive wheels may lose their grip and the vehicle could skid. Your vehicle's ABS will not prevent this type of loss of control.

Only drive at high speeds once the engine has warmed up. Running a cold engine at high engine speeds may shorten the service life of the engine.

When driving on slippery surfaces, avoid spinning the drive wheels where possible as this could damage the drive train.

1 After pulling away or switching on the ignition, the vehicle automatically locks centrally. The locking knobs in the doors drop down. You can open the doors from the inside at any time.

Automatic door locking can also be deactivated (> page 59).

 Depress the brake pedal and keep it depressed.

The selector lever lock is released.

▶ Release the handbrake.

The ment cluster goes out.

- Only select reverse gear when the vehicle is stationary; otherwise, you could damage the automatic transmission.
- Move the selector lever to position D or R.
- 1 On vehicles with a reverse warning feature, an audible warning sounds for other road users when reverse gear is engaged (> page 133).
- Release the brake pedal.
- Carefully depress the accelerator pedal.
- 1 Automatic transmission upshifts are made at higher engine speeds after a cold start. This helps the catalytic converter to reach its operating temperature more quickly.

You will find more information about selector lever positions, shift ranges and driving tips in the "Automatic transmission" section (▷ page 108).

## Braking



## Warning

There is no power assistance for the service brake when the engine is not running.

You will need to use significantly more force to brake and could therefore lose control of the vehicle and cause an accident.

Never switch off the engine while driving.

Do not accelerate to prevent your vehicle from rolling backwards on an uphill gradient. Instead, you should either use the handbrake or depress the brake pedal. This prevents excessive wear on the clutch.

Select a lower gear (shift range **3**, **2** or **1**) (> page 109) in good time on long and steep downhill gradients, especially if towing a trailer. This prevents the brakes from overheating and wearing too rapidly.

It is best not to stop the vehicle immediately after the brakes have been subjected to an extreme load; continue driving for a short time instead. The brakes are cooled down more quickly in the airflow.

The first time the brakes are applied after a long period of driving in heavy rain without braking, it is possible that:

- there will be a delayed braking response
- you will need to depress the brake pedal more firmly

You should therefore maintain a greater distance from the vehicle in front



#### **Warning**

Make sure that other road users are not put at risk by your braking.

Apply the brakes so that you can feel their response after a journey on wet roads, especially if the road has been salted. The brake discs will be warmed, dry more quickly and be protected against corrosion.

If you make only moderate use of the service brake, check from time to time that it is fully functional. To do this, brake more sharply at a higher vehicle speed, but only if it is safe to do so. The brake will grip better as a result.

For safety reasons, we recommend that you only have brake pads /linings installed on your vehicle that have been approved for the Sprinter.

Brake pads / linings that have not been approved for the Sprinter could affect your vehicle's operating safety.

in exceptional cases, the handbrake can be used for emergency braking if the service brake fails (▷ page 104).

#### **Parking**



#### Warning

Only remove the key from the ignition lock when the vehicle is stationary, since it is not possible to steer the vehicle with the key removed.

Always switch off the engine and apply the handbrake before leaving the vehicle.

The vehicle could roll away if it is not secured.

On uphill or downhill gradients steeper than 15%:

- apply the handbrake
- secure an unloaded vehicle by chocking the front axle
- secure a loaded vehicle by, for example, chocking the rear axle



#### Warning

Make sure that the exhaust system does not come into contact with highly flammable materials, e.g., dry grass or gasoline. The flammable material could otherwise ignite and set vehicle components on fire.

Whenever you park the vehicle, always remove the key to prevent the battery from excessively discharging.

For vehicles that are out of use for extended periods and are equipped with a battery isolating switch, switch off the electrical system (> page 164).



## Warning

Regulations in some countries require the parking lamps to be switched on to illuminate the vehicle for other road users if parked on a public road at night. In built-up areas, night reflectors can also be used.

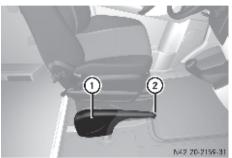
Observe legal requirements.

#### Handbrake



## Warning

Never leave children unsupervised in the vehicle. They could release the handbrake. This could lead to a serious or fatal accident.



1 You may only apply the handbrake when the vehicle is stationary.

## Applying the handbrake

▶ Pull lever ① up as far as the last detent.

The mark indicator lamp in the instrument cluster lights up while the engine is running.

① On vehicles with a folding handbrake lever, you can then press lever 1 down to the stop.

## Releasing the handbrake

① On vehicles with a folding handbrake lever, you must first pull lever 1 up to the stop.

- ► Raise lever ① slightly and press release knob ②.
- ► Guide lever ① down to the stop.

  The ������� indicator lamp in the instrument cluster goes out.

## Emergency braking

Normally, you are only permitted to apply the handbrake when the vehicle is stationary. In exceptional cases, the handbrake can be used for emergency braking if the service brake fails.

► Keep release knob ② pressed and carefully apply lever ①.



#### Warning

The wheels on the rear axle could lock if the handbrake lever is applied too abruptly. The vehicle could then start to skid.

Make sure that you apply the handbrake lever carefully to ensure that braking application is moderated.

## Stopping the engine

- Stop the vehicle.
- Move the selector lever to P.
- Apply the handbrake.
- When parking on steep uphill or downhill gradients, turn the front wheels towards the curb.

If the coolant temperature is raised, e.g. following driving in mountainous terrain, run the engine at idling speed for a further 1 or 2 minutes before you switch off the engine.

This allows the coolant temperature to return to normal again.

► Turn the key to position **0** in the ignition lock and remove it.

The immobilizer is activated.

1 You can only remove the key from the ignition lock when the selector lever is in position **P**.

- Switch on the side lamps if necessary.
- Secure the vehicle at the front axle if unloaded and also at the rear axle if loaded, e.g. using a chock or similar aid.

Use the wheel chock to do so  $(\triangleright page 205)$ .

#### General driving tips

#### Drinking and driving



#### Warning

Drinking and driving and / or taking drugs and driving are very dangerous combinations. Even a small amount of alcohol or drugs can slow your reflexes and impair perception and judgment. The possibility of a serious or even fatal accident is significantly increased when you drink or take drugs and drive.

Never drink or take drugs and drive or allow anyone to drive after drinking or taking drugs.

#### Steering



#### Warning

Never switch off the engine while driving. There is no power-steering assistance when the engine is not running.

You will need to use significantly more force to steer and could therefore lose control of the vehicle and cause an accident.

Do not hold the steering wheel in its end positions for longer than necessary (e.g. when turning or maneuvering).

The hydraulic pump can be damaged by the increased temperature of the hydraulic fluid.

#### Overrun cut-off

The diesel supply is cut off if the driver's foot is completely removed from the accelerator pedal when the engine is overrunning at engine speeds outside of the idling control range.

#### **Driving in wet conditions**



#### Warning

The vehicle may hydroplane despite having adequate tire tread depth and being driven at low speeds, depending on the depth of water on the road surface.

For this reason, avoid tire ruts and brake carefully.

## **Driving on flooded roads**

If you are forced to drive on stretches of road on which water has collected, please note that:

- the water level must not reach above the lower edge of the front bumper
- the maximum speed at which you may drive is walking speed
- Note that vehicles in front or oncoming vehicles create waves. This may mean that the maximum permitted water depth is exceeded.

These notes must be observed to avoid the risk of engine, electrical system and transmission damage.

#### **Tires**

The tires are particularly important for the operating and road safety of the vehicle. You should therefore check the pressure, tread and condition of the tires on a regular basis.

A tire dealer, a qualified specialist workshop or any authorized Sprinter Dealer will be able to provide further information regarding the:

- list of recommended makes of tire
- tire load-bearing capacity (LI Load Index)
- maximum tire speed (SI Speed Index)
- tire age
- causes and consequences of tire wear
- measures to be taken in the event of tire damage

- tire types for certain regions, areas of operation or conditions of vehicle use
- interchangeability of tires, etc.

Modifications to the brake system or wheels are not permissible, nor is the use of spacer plates or brake dust shields. Any such modifications will invalidate the vehicle's general operating permit.



#### Warning

If you feel a sudden significant vibration or ride disturbance, or you suspect that possible damage to your vehicle has occurred, you should turn on the hazard warning flashers, carefully slow down, and drive with caution to an area which is at a safe distance from the road.

Inspect the tires and the vehicle undercarriage for possible damage. If the vehicle or tires appear unsafe, have the vehicle towed to the nearest authorized Sprinter Dealer or tire dealer for repairs.

Treadwear Indicators (TWI) are required by law. These indicators are located in six places on the tread circumference and become visible at a tread depth of approximately 1/16 in (1.6 mm), at which point the tire is considered worn and should be replaced. The Treadwear Indicator appears as a solid band across the tread.



#### Warning

Although the applicable federal motor vehicle safety laws consider a tire to be worn when the Treadwear Indicators (TWI) become visible at approximately 1/16 in (1.6 mm), do not allow your tires to wear down to that level. As tread depth approaches 1/8 in (3 mm) for summer tires or 1/6 in (4 mm) for winter tires, the adhesion properties on a wet road are sharply reduced.

Depending upon the weather and / or road surface (conditions), the tire traction varies widely.

Specified tire inflation pressures must be maintained. This applies particularly if the tires are subject to extreme operating conditions (e.g. high speeds, heavy loads, high ambient temperatures).



#### Warning

Do not drive with a flat tire. A flat tire affects the ability to steer or brake the vehicle. You may lose control of the vehicle. Continued driving with a flat tire or driving at high speed with a flat tire will cause excessive heat build-up and possibly a fire.

For detailed information on tires, see "Tires and wheels" (▷ page 165).

#### Hydroplaning

Depending on the depth of the water layer on the road, hydroplaning may occur, even at low speeds and with new tires. Reduce vehicle speed, avoid track grooves in the road and apply brakes cautiously in the rain.

#### Tire traction

Tire grip is greatly reduced on a wet, snow covered or icy road. Speed and driving style must therefore be adapted to suit road conditions. The safe speed on a wet, snow covered or icy road is always lower than on a dry road.

Below a tread depth of 1/8 in (3 mm), tire grip begins to decrease rapidly on wet roads.

Pay particular attention to the condition of the road whenever the outside temperatures is close to the freezing point.



#### Warning

If ice has formed on the road, tire traction will be substantially reduced. Under such weather conditions, drive, steer and brake with extreme caution. In winter, install M+S radial tires with a minimum tread depth of approximately 1/6 in (4 mm) on all wheels to ensure normal balanced handling characteristics. On packed snow, they can reduce your stopping distance compared to summer tires.

Stopping distance, however, is still considerably greater than when the road is not covered with snow or ice. Exercise appropriate caution.

For information on winter tires, see "Winter tires" (▷ page 191).

Avoid spinning a drive wheel. This may cause serious damage to the drive train which is not covered by the New Vehicle Limited Warranty.

#### Tire speed rating

Regardless of the tire speed rating, local speed limits should be obeyed. Use prudent driving speeds appropriate to prevailing conditions.



## Warning

Even when permitted by law, never operate a vehicle at speeds greater than the maximum speed rating of the tires.

Exceeding the maximum speed for which tires are rated can lead to sudden tire failure, causing loss of vehicle control and possibly resulting in an accident and / or serious injury and possible death, for you and for others.

The vehicles are factory equipped with "N" (vehicle models type 2500 only) or "Q"-rated tires, which have a speed rating of 87 mph (140 km/h) or 100 mph (160 km/h) respectively.

For information on speed ratings or for additional general information on tire speed markings on the tire sidewall, see "Tire speed rating" ( $\triangleright$  page 184).

#### Alignment and balance

Poor suspension alignment may result in:

- fast tire wear
- uneven tire wear, such as feathering and one-sided wear
- vehicle pulling to the left or right

Tires may also cause the vehicle to pull to the left or right. Alignment will not correct this condition. See an authorized Sprinter Dealer for proper diagnosis.

Improper alignment will not cause vehicle vibration. Vibration may be the result of a tire and wheel imbalance. Proper balancing will reduce vibration and avoid shoulder scuffing and uneven wear.

#### Coolant temperature

During severe operating conditions and stop / start traffic, the coolant temperature may rise close to approximately 250 °F (120 °C).

The engine should not be operated at a coolant temperature above 250 °F (120 °C).

Doing so may cause serious engine damage which is not covered by the New Vehicle Limited Warrantv.



#### Warning

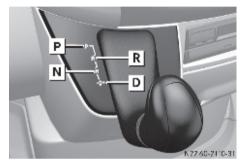
- Continuing to drive when your engine is overheated can cause fluids which may have consequentially leaked into the engine compartment to catch fire. You may suffer serious burns as a result.
- When opening the hood, steam may be emitted as a result of the engine overheating; contact with steam can cause serious scalding. Do not go near the engine if you see or hear steam coming from it.

Turn off the engine, get out of the vehicle and stand a safe distance away from the vehicle until the engine has cooled down.

#### **Automatic transmission**

The automatic transmission adapts to your individual driving style by continuously adjusting its shift points. These shift point adjustments take into account the current operating and driving conditions.

If the operating or driving conditions change, the automatic transmission reacts by adjusting the gearshift program.



The individual gears are selected automatically. The gear selected depends on:

- the selector lever position in shift ranges D, 4, 3, 2 and 1 (▷ page 109)
- the position of the accelerator pedal
- the road speed

The selector lever position engaged or the current shift range is shown in the display. Display on vehicles with steering wheel buttons (▷ page 86) and on vehicles without steering wheel buttons (▷ page 84).

When the selector lever is in position **D**, you can influence the gearshifts made by the automatic transmission. You can restrict the shift range or change the gear yourself.

## Selector lever positions

# P Parking lock

Prevents the parked vehicle from rolling away. Only move the selector lever to **P** when the vehicle is stationary.

You can only remove the key when the selector lever is in position **P**. The selector lever is locked in position **P** when the key is removed.

# R Reverse gear

Only move the selector lever to **R** when the vehicle is stationary.

### N Neutral

No power is transmitted from the engine to the drive wheels. Releasing the brakes will allow you to move the vehicle freely, e.g. by pushing or towing.

Do not move the selector lever to **N** while the vehicle is in motion. The automatic transmission could otherwise be damaged.

If ASR is deactivated or ESP<sup>®</sup> has malfunctioned: only move the selector lever to **N** if the vehicle is in danger of skidding, e.g. on icy roads.

#### **D** Drive

The automatic transmission changes gear automatically. All 5 forward gears are available.

#### One-touch gearshifting

When the selector lever is in position **D**, you can perform gearshifts yourself, even on vehicles with automatic transmission.

► To downshift: press the selector lever to the left towards D-.

The automatic transmission restricts the shift range (▷ page 109) by one gear. The automatic transmission shifts to the next gear down, depending on the gear currently engaged.



#### Warning

Do not downshift for additional engine braking on a slippery surface. The drive wheels may lose their grip and the vehicle could skid.

- The automatic transmission does not shift down if you press the selector lever towards **D**and the speed of the vehicle is too high. The engine could otherwise overrev.
- ► To upshift: press the selector lever to the right towards D+.

The automatic transmission extends the shift range by one gear. The automatic transmission shifts to the next gear up, depending on the current gearshift program.

➤ To derestrict the shift range: press and hold the selector lever towards D+ until D is shown once more in the display.

The automatic transmission shifts from the current shift range directly to **D**.

➤ To select the ideal shift range: press and hold the selector lever towards D-.

The automatic transmission will shift to a range which allows easy acceleration and deceleration. To do this, the automatic transmission will shift down one or more gears.

#### **Shift ranges**

When the selector lever is in position **D** you can restrict or derestrict the shift range for the automatic transmission.

► Press the selector lever briefly towards the right (**D+**) or left (**D-**).

The set shift range is shown in the display.

If the maximum engine speed for the shift range is reached and you depress the accelerator, the automatic transmission will not upshift if the shift range is restricted.

- **D** The transmission shifts through all 5 gears.
- The automatic transmission shifts only as far as fourth gear.
- The automatic transmission shifts only as far as third gear.

This position allows you to use the braking effect of the engine.

The automatic transmission shifts only as far as second gear.

For braking on steep downhill gradients and for driving:

- on steep mountain roads
- in mountainous terrain
- in arduous conditions
- The automatic transmission only works in first gear.

For braking on extremely steep downhill gradients and long downhill gradients.

## **Driving tips**

#### Accelerator pedal position

Your style of driving influences how the automatic transmission shifts gears:

- · Little throttle: early upshifts
- More throttle: later upshifts

#### Kickdown

Use kickdown for maximum acceleration.

► Depress the accelerator pedal beyond the pressure point.

The automatic transmission shifts to the next gear down, depending on the engine speed.

 Release the accelerator pedal as soon as the desired speed has been reached.

The automatic transmission shifts up again.

# **Stopping**

If you are only stopping briefly:

- Leave the selector lever in the drive position.
- Secure the vehicle against rolling away by using the brake pedal.

## Maneuvering

Maneuvering in a tight space:

- Control the speed by braking carefully.
- Accelerate only slightly and avoid jolting.

for rapid maneuvering (e.g. to rock the vehicle out of snow or slush), you can shift back and forth between drive position **D** and reverse gear **R** at low speeds without applying the brakes.

#### Trailer towing

- Run the engine in the moderate engine speed range on steep uphill gradients.
- Depending on the uphill or downhill gradient, shift down to shift range 3 or 2 (▷ page 109), even if cruise control is switched on.

#### Working on the vehicle



#### Warning

Apply the handbrake before working on the vehicle and shift the automatic transmission into parking position **P**.

The vehicle could otherwise roll away.

## Air conditioning



#### Warning

Only use the climate control system when road and traffic conditions permit. You will otherwise be unable to observe road and traffic conditions and could cause an accident and injure yourself and others.

## Overview of climate control systems

The vehicle is equipped with one of the following climate control systems:

## Air-conditioning system



N83 25-2058-31

The air-conditioning system is a combination of a heating and ventilation system, together with a cooling system (▷ page 112).

#### Heater



N83 20-2255-31

The heating system is a heating and ventilation system, without a cooling system (▷ page 113).

## Air conditioning in the rear



V83.60-2019-31

The rear-compartment air conditioning can be activated separately and allows the temperature and airflow for the rear compartment to be set separately (> page 113).

## Rear heating



N83.20-2256-31

The rear-compartment air conditioning can be activated separately and allows the temperature and airflow for the rear compartment to be set separately (> page 114).

On vehicles without rear-compartment air conditioning, the control unit is equipped with a paper holder (> page 142).

#### **General notes**

The air-conditioning system regulates the temperature and humidity of the vehicle interior and filters undesired particles out of the air.

The air-conditioning system / heater is only operational while the engine is running. Optimum operation is only achieved if you drive with the side windows and sliding sunroof closed.

The combination filter removes most dust particles, pollen and unpleasant odors from the outside air. A blocked filter reduces the amount of air supplied to the vehicle interior.

The interval for replacing the filter depends on environmental factors, e.g. high air pollution. The interval may be shorter than that indicated in the Maintenance Booklet.

Ventilate the vehicle for a brief period during warm weather or briefly switch to air-recirculation mode to quickly cool down the vehicle if you have an air-conditioning system. This will speed up the cooling process and the desired interior temperature will be reached more quickly.



### Warning

Follow the settings recommended on the following pages for heating or cooling. The windows could otherwise fog up. As a result, you could be distracted from road and traffic conditions and cause an accident.

# Electrical heater booster system

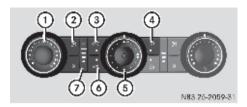
The vehicle can be equipped with an electrically powered heater booster system.

The heater booster system ensures that the vehicle interior is heated up as quickly as possible during the engine's warm-up phase.

The heater booster system switches on automatically as required.

# Overview of climate-control system functions

# Air-conditioning system



#### **Function**

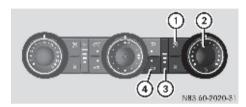
- ① Sets the temperature (▷ page 114)
  - Demists the windshield
- ② Sets the airflow (▷ page 116)
  - Increases the airflow
  - Decreases the airflow
- ③ Switches air-recirculation mode on / off (> page 118)
- Switches the reheat function (window air dehumidification) on / off (▷ page 117)
- Sets the air distribution(▷ page 116)
  - ▲ Demists the windshield
- 6 Switches cooling with air dehumidification on / off (▷ page 114)
- Blower setting bar display
  - Demists the windshield

Recommendations for optimum climate control:

- set the temperature to 72 °F (22 °C).
   Only change the temperature in small increments.
- switch on cooling with air dehumidification. The indicator lamp in the switch comes on.

- Only use the demisting function until the windshield is clear again (⊳ page 117).
- Only use the reheat function until the misted up windows are clear again.
- Only use air-recirculation mode briefly. e.g. in a tunnel. The windows could otherwise mist up, because the flow of fresh air is cut off and the air inside the vehicle is circulated

## Air conditioning in the rear

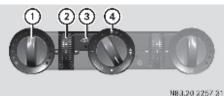


#### **Function**

- Sets the airflow (▷ page 116) (1) Increases the airflow Decreases the airflow
- Sets the temperature ( $\triangleright$  page 114)
- (3) Blower speed bar graph display
- Activates / deactivates the (4) rear-compartment air conditioning (⊳ page 114)

For optimum climate control, set the temperature control to the center position. Only change the temperature in small increments.

#### Heater



#### **Function**

- (1) Sets the temperature (▷ page 114)
  - Demists the windshield
- (2) Sets the airflow (⊳ page 116)
  - Demists the windshield
- (3) Switches air-recirculation mode on / off (⊳ page 118)
- Sets the air distribution (4) (⊳ page 116)
  - ▲ Demists the windshield

Recommendations for optimum climate control:

- Set the temperature control to the center position. Only change the temperature in small increments.
- Only use the demisting function until the windshield is clear again (⊳ page 117).
- Only use air-recirculation mode briefly, e.g. in a tunnel. The windows could otherwise mist up, because the flow of fresh air is cut off and the air inside the vehicle is circulated.

# Rear heating



N83.20-2258-31

#### **Function**

- 1 Activates / deactivates the rear-compartment air conditioning (> page 114)
- ② Sets the airflow (⊳ page 116)
- ③ Sets the temperature (▷ page 114)

For optimum climate control, set the temperature control to the center position. Only change the temperature in small increments.

## Switching the air conditioning on / off

If you switch off the air conditioning, the air supply and circulation functions are deactivated. Only use this setting for a brief period. The windows could otherwise fog up.

# Air-conditioning system

► To switch on: press the ∰ button and set to at least the first blower speed.

The blower speeds are shown in bars next to the button.

➤ To switch off: press the ③ button and after reaching the lowest blower speed, press again.

# Air conditioning in the rear/rear heating

► Press the 📳 button.

If the indicator lamp in the button lights up, the rear-compartment heating / rear-compartment air conditioning is switched on.

# Switching the cooling with dehumidification function on or off

If you want to cool the interior air to the set temperature, you must switch on the cooling with dehumidification function on vehicles with an air-conditioning system. The interior air is then cooled and dehumidified. As a result, the windows will not fog up.

Condensation may collect under the vehicle while the air-conditioning system is in operation.



#### Warning

If you switch off the cooling with dehumidification function, the interior of the vehicle is not cooled (in warm weather) or dehumidified. The windows could fog up more quickly. As a result, you could be distracted from road and traffic conditions and cause an accident.

▶ Press the 🏻 button.

If the indicator lamp in the button lights up, cooling with air dehumidification is switched on.

# Setting the temperature

# Air-conditioning system / heater

Turn temperature control ① clockwise to increase or counterclockwise to reduce the temperature (▷ page 112), (▷ page 113).
Begin in the center position or at 72 °F

Begin in the center position or at 72 °F (22 °C). Only change the temperature in small increments.

# Air conditioning in the rear/rear heating

Make sure that the climate control in the rear compartment (air-conditioning system in the rear / rear heating) is switched on (▷ page 114).

- ► Turn the temperature control of rear compartment air-conditioning system ② (▷ page 113) or rear heater ③ (▷ page 114) clockwise to increase or counterclockwise to decrease the temperature. Only change the temperature in small increments.
- 1 Your vehicle may be equipped with an airconditioning system in the rear compartment and/or a rear heater.

If both systems are installed and the temperature control is in the center position, only one of the systems operates and air-recirculation mode is active.

#### Setting the air vents



#### Warning

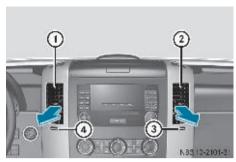
Air flowing out of the air vents may be very hot or very cold. There is therefore a risk of frostbite or burns to bare skin in the immediate proximity of these outlets. Keep bare skin away from these air outlets. If necessary, direct the airflow into a different area of the vehicle interior.

You can adjust the center and side air vents. The entire vehicle interior is ventilated via the air vents.

Observe the following instructions so air can flow freely through the air vents:

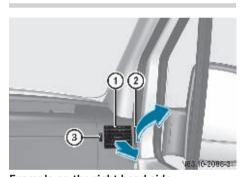
- keep the air inlet on the hood free from ice and snow.
- never cover the vents or air inlet and outlet grilles in the vehicle interior.
- for virtually draft-free ventilation, move the sliders on the center air vents to the central position.

#### Center air vents



- 1 Center air vent, left
- (2) Center air vent, right
- Thumbwheel for center air vent, right
- (4) Thumbwheel for center air vent, left
- ► Turn thumbwheel ③ or ④ clockwise to open and counterclockwise to close.

#### Side air vents



### Example on the right-hand side

► Turn thumbwheel ③ up to open and down to close side air vent ①.

If the symbol on thumbwheel 3 can be seen, demister vent (2) is open.

#### Air vents

You can use the air vents to ventilate the vehicle interior on the left and right, in the rear and the headroom.



#### Example on the right-hand side

- Air vent thumbwheel, left-hand side of the vehicle
- ② Air vent thumbwheel, right-hand side of the vehicle
- Turn thumbwheel ① or ② clockwise to open and counterclockwise to close the air vents.

#### Air vents in the roof air duct

On vehicles with an air-conditioning-system in the rear compartment, adjustable air vents are integrated in the roof air duct.



- Adjust the airflow by opening / closing the air flaps.
- Alter the air distribution by turning air vents (1).

Never close all the air vents; otherwise, there is a risk of damage to the air-conditioning system in the rear compartment.

# Setting air distribution

The air distribution symbols have the following meanings:

- Directs air through the center and side air vents
- Directs air to the windshield and through the air vents
- Directs air to the windshield, the air vents and into the footwell
- Directs air through the air vents and into the footwell

# Air-conditioning system / heater

Set the air-distribution control of airconditioning system (5) (▷ page 112) or heating (4) (▷ page 113) to the corresponding symbol.

## Setting the airflow

# Air-conditioning system / air-conditioning system in the rear

- ▶ On vehicles with rear-compartment air conditioning, make sure that the rear-compartment climate control is activated (▷ page 114).
- ▶ Press the <u>®</u> button to reduce the airflow; press the <u>\$</u> button to increase the air flow.

The blower speeds are shown in bars next to the buttons

# Heater/rear heating

- ► On vehicles with rear-compartment heating, make sure that the rear-compartment climate control is activated (> page 114).
- ► Set airflow control to the desired level (▷ page 114)(▷ page 113).

## **Demisting the windows**



#### Warning

Make sure that all windows are clear of ice and snow before starting a journey. Otherwise, your view of the traffic conditions may be obstructed, thereby causing an accident.

Only use the following settings until the windows are clear again.

Vehicles with window heating: Switch on the front and / or rear window heating (▷ page 81).

## Air-conditioning system

- ► Set temperature control ① to ∰ (▷ page 112).
- ► Press the ∰ button until the maximum blower output is reached.

All bars in the display next to the button light up.

- ► Close the center air vents and the air outlets for the headroom and the rear compartment (> page 115).
- Doen the side air vents and direct them towards the side windows and open the demister vents for the side windows (▷ page 115).

#### Heater

- Set temperature control ① and airflow control ② to ₩ (▷ page 113).
- ► Close the center air vents and the air outlets for the headroom and the rear compartment (> page 115).
- ➤ Open the side air vents and direct them towards the side windows and open the demister vents for the side windows (> page 115).

#### **Demisting windows**

#### Windows misted up on the inside

Only use the following settings until the windows are clear again.

- ➤ Vehicles with window heating: Switch on the front and / or rear window heating (> page 81).
- ➤ Switch off air-recirculation mode (> page 118).

### Air-conditioning system

- Activate cooling with air dehumidification (▷ page 114).
- ▶ Press the ७ button.

The reheat function is switched on. The indicator lamp in the switch lights up. To switch off the reheat function, press the button again. The indicator lamp in the button goes out.

#### Heater

- ➤ Set temperature control ① to a higher temperature (▷ page 113).
- ➤ Set airflow control ② to a higher blower setting. It should be set at least to level two (▷ page 113).

If the windows still mist up, set the control as described for demisting ( $\triangleright$  page 117).

# Windows misted up on the outside

Only use the following settings until the windshield is clear again.

- ➤ Switch on the windshield wipers (> page 80).
- Adjust air distribution to the footwell (▷ page 116).
- ► Close the air vents (> page 115).

# Switching air-recirculation mode on/off

You can switch off the flow of outside air if unpleasant odors are entering the vehicle from outside. The air inside the vehicle is then recirculated.



#### Warning

Only switch over to air-recirculation mode briefly if outside temperatures are low. The windows could otherwise fog up. As a result, you could be distracted from road and traffic conditions and cause an accident.

# Air-conditioning system/heater

▶ Press the Switch.

If the indicator lamp in the button lights up, air-recirculation mode is activated.

Air-recirculation mode is automatically switched off after about 10 to 30 minutes, depending on the outside temperature.

# Air conditioning in the rear/rear heating

If your vehicle is equipped with rear-compartment heating and rear-compartment air conditioning, you can activate / deactivate the air-recirculation mode of the rear-compartment climate control.

► To activate: set the temperature control of rear-compartment air conditioning ② (▷ page 113) or rear-compartment heating ③ (▷ page 114) to the center position.

Only one of the two climate control systems in the rear compartment is activated and is in air-recirculation mode.

To deactivate: turn the temperature control of rear-compartment air conditioning ② (▷ page 113) or rear-compartment heating ③ (▷ page 114) clockwise or counterclockwise. Only change the temperature in small increments.

## **Auxiliary heating**



#### Warning

Exhaust fumes are produced while the auxiliary heating is in operation. If you inhale these exhaust fumes, they could poison you. For this reason, switch off the auxiliary heating in enclosed spaces without an extraction system, e.g., a garage.



#### Warning

Parts of the vehicle can become very hot during operation of the auxiliary heating. Make sure that the exhaust system does not under any circumstances come into contact with highly flammable material, such as dry grass or fuels. Otherwise, the highly flammable material could ignite and set the vehicle on fire.

Operation of the auxiliary heating system is therefore prohibited at gas stations or when refueling your vehicle. The auxiliary heating must therefore be switched off at refueling stations.



#### Warning

Observe the relevant safety regulations in the case of vehicles used for the transport of hazardous goods.

Aerosols, gas cartridges and other pressurized containers transported in the vehicle may be highly flammable and could explode when heated. Make sure that the containers described are kept away from the flow of hot air from the auxiliary heating. Never stow containers of this type immediately next to or on top of the heater. Otherwise, you could endanger yourself and others.

The auxiliary heating can be operated with the engine switched on or off, and supplements the standard vehicle heating. It is equipped with a water heater. You can use the auxiliary heating at an outside temperature of up to 39 °F (4 °C), in order to:

- preheat the vehicle interior and to deice the windows
- provide the coolant with additional heating, thereby protecting the engine and saving fuel
- support the vehicle's heating system while the engine is running and outside temperatures are low (heater booster function) (> page 121).
- 1 At an outside temperatures above 39 °F (4 °C), the auxiliary heating system and the heater booster function switch off automatically.
- Witch on the auxiliary heating at regular intervals (at least once a month) for approximately 10 minutes.

Make sure that the hot air flow is not obstructed. The auxiliary heating would otherwise overheat and switch off.

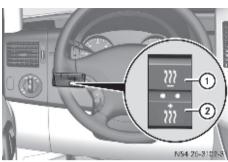
if the interior motion sensor (▷ page 54) is primed and the auxiliary heating is switched on, it is possible that the interior temperature monitoring may cause a false alarm. In this case, either deactivate the interior motion sensor or switch off the auxiliary heating.

# Before switching on

The fuel tank must be at least a quarter full to ensure that the auxiliary heating operates correctly.

- ▶ Adjust the heat output to the desired temperature using the temperature control selector of the air-conditioning system or heater (▷ page 114).
- ➤ Set the air distribution as required (> page 116).
- Open the center and side air vents and set them to their center position (▷ page 115).
- The auxiliary heating automatically switches to heater booster mode after the engine is started.

## Operation using the switch



- To switch the auxiliary heating on / off
   To switch the heater booster function on / off (▷ page 121)
- ► To switch the auxiliary heating on: Press and hold the <u>w</u> switch for more than 2 seconds:
  - the auxiliary heating heats the interior to a temperature that you have
  - the blower switches to the first speed.
  - the red indicator lamp in the switch comes on.
- ► To switch the auxiliary heating off: Press the switch.

or

► Turn the key to position **0** in the ignition lock.

The red indicator lamp in the switch goes out.

The auxiliary heating operates for around a further 2 minutes and then switches off automatically.

# Selecting a switch-on time

You can use the operating system to define up to 3 switch-on times, one of which can be selected to switch on the auxiliary heating.

# Operating system without steering wheel buttons

- Turn the key to position 2 in the ignition lock.
- ▶ Press the switch.

The symbol in the display flashes.

or

- ► Press the M menu button on the instrument cluster repeatedly until the symbol in the display flashes.
- ► Use the → or → button on the instrument cluster to select desired switch-on time 1 to 3.

The switch-on time selected is displayed.

Wait 10 seconds for the standard display to appear.

The switch-on time is selected. The yellow indicator lamp in the switch comes on.

If you have not selected a switch-on time and --:-- appears in the display, the automatic switch-on is deactivated. The yellow indicator lamp in the switch goes out.

If you turn the key to position **0** in the ignition lock, the yellow indicator lamp in the switch goes out after 30 minutes.

The red indicator lamp in the switch comes on when the auxiliary heating switches on.

# Operating system with steering wheel buttons

- Turn the key to position 2 in the ignition lock.
- ▶ Press the 💯 switch.

The Aux. heat. submenu is shown in the display.

The selected switch-on time is highlighted or Timer off is highlighted if no switch-on time has been selected.



- 1 You can reach the Aux. heat. submenu via the Settings menu (> page 90).
- ► Press the + or − button on the steering wheel to select the desired switch-on time.

The automatic switch-on is deactivated if the Timer off setting is selected.

Press the button on the steering wheel.

The switch-on time is selected.
The yellow indicator lamp in the switch comes on.

If you turn the key to position **0** in the ignition lock, the yellow indicator lamp in the switch goes out after 30 minutes.

The red indicator lamp in the switch comes on when the auxiliary heating switches on.

# Setting the switch-on time

# Operating system without steering wheel buttons

- Select a switch-on time as described under "Selecting a switch-on time" (▷ page 119).
- Press the (1) reset button on the instrument cluster to set the selected switch-on time.

The hour display flashes.

- ► Set the hours using the → or → button on the instrument cluster.
- Press the ① reset button.The minute display flashes.
- ► Set the minutes using the → or → button.

1 If you keep the button pressed, the values will change continuously.

To return to the standard display either press and hold the (M) menu button on the instrument cluster for more than 1 second or do not press a button for 10 seconds.

# Operating system with steering wheel buttons

- ➤ Select a switch-on time as described under "Selecting a switch-on time" (> page 119).
- ▶ Press the △ button on the steering wheel.

The Hours menu appears in the display.

- ► Set the hours using the + or button on the steering wheel.
- ▶ Press the 🏠 button.

The Minutes menu appears in the display.

- ► Set the minutes using the + or button.
- ▶ Press the button on the steering wheel.

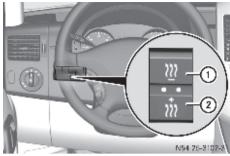
The switch-on time is set and selected.

To return to the standard display, press the display appears.

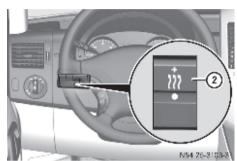
#### Heater booster function

At outside temperatures up to 39  $^{\circ}$ F (4  $^{\circ}$ C) the fuel-fired heater booster system heats the vehicle interior as quickly as possible while the engine is running.

The auxiliary heating automatically switches to heater booster mode after the engine is started.



Vehicles with auxiliary heating



- To switch the auxiliary heating on / off
   (▷ page 119)
- ② To switch the heater booster function on / off
- ► To switch on or off: press the 

  | tit | switch.

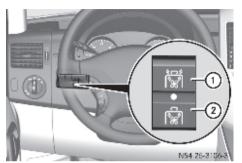
The indicator lamp in the switch lights up if the heater booster function is switched on.

After switching off, the auxiliary heating operates for about another three minutes and then switches off automatically.

If you switch off the engine without switching off the heater booster function, the system will be switched on the next time the engine is started (memory function).

# Roof ventilator in the load compartment

The roof ventilator can be used to ventilate or remove air from the load compartment.



- ► Turn the key to position 2 in the ignition lock.
- ► **Air out:** press upper part ① of the switch.

The roof ventilator removes used air from the load compartment.

▶ Air in: press lower part ② of the switch.

The roof ventilator feeds fresh air into the load compartment.

► To switch off: set the switch to the center position.

## **Driving systems**

Driving systems which may form part of your vehicle are described on the following pages:

- Cruise control (> page 122), which you can use to control the speed of your vehicle
- PARKTRONIC system (▷ page 124) and Rear-view camera (▷ page 127), which are an aid for parking and maneuvering
- Reverse warning feature, which helps you ensure the safety of other road users (> page 133)

The ABS, BAS, ESP<sup>®</sup>, ASR and EBV driving safety systems are described in the "Driving Safety Systems" section (▷ page 49).

#### **Cruise control**

Cruise control maintains the speed of the vehicle for you.

Use cruise control if road and traffic conditions make it appropriate to maintain a steady speed for a prolonged period. You can set any speed above 20 mph (30 km/h) in 1-mph increments (1-km/h increments).

↑ The increments for setting the speed and the threshold values for switching on or automatically switching off cruise control depend on the digital speedometer setting, mph or km/h (> page 91).



#### !\ Warning

The cruise control function cannot take account of road and traffic conditions.

Always pay attention to road and traffic conditions, even when cruise control is activated.

Cruise control is only an aid designed to assist driving. You are responsible for the vehicle's speed and for braking in good time.

If there is a change of drivers, advise the new driver of the cruising speed that is stored.



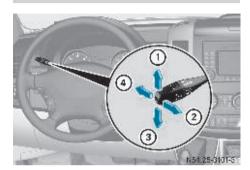
#### Warning

Do not use cruise control:

- if road and traffic conditions do not permit a constant driving speed to be maintained (e.g. heavy traffic or winding roads). You could otherwise cause an accident
- on slippery roads. The drive wheels may lose their grip when braking or accelerating and the vehicle could skid
- when visibility is poor, e.g. in fog, heavy rain or snow

Cruise control may be unable to maintain the stored speed on uphill or downhill gradients. The stored speed is resumed if the gradient evens out and the vehicle's speed has not fallen below 20 mph (30 km/h).

#### Cruise control lever



- 1) To store the current or a higher speed
- 2 To resume the last speed stored
- To store the current speed or a lower speed
- (4) To deactivate cruise control

# Storing the current speed

- ► Accelerate / decelerate the vehicle to the desired speed.
- ► Move the cruise control lever briefly upward ① or downward ③.
- Release the accelerator pedal.
   Cruise control is activated.
   The current speed is stored.

You cannot activate cruise control if:

- you are driving under 20 mph (30 km/h)
- you are braking
- you apply the handbrake and the indicator lamp in the instrument cluster is lit
- 1 Altered vehicles from body builders: Other driving and braking systems not described in these Operating Instructions may affect cruise control. Please refer to the body builder's instructions for more information.

#### Resuming the stored speed



#### Warning

Only resume the stored speed if you know what this speed is and the current situation is appropriate to do so. Otherwise, sudden acceleration or braking could endanger you or others.

- ▶ Pull the cruise control lever briefly in the direction of arrow (2).
- Release the accelerator pedal.
   Cruise control is activated and adjusts the vehicle's speed to the last speed stored.

When you pull the cruise control lever in direction of arrow ② for the first time after starting the engine, cruise control is switched on and the speed at which you are currently driving is stored.

### Setting the speed



#### Warning

The rate at which you increase the speed in 1 mph increments (1 km/h increments) may be faster than your vehicle is able to accelerate. Your vehicle may then continue to accelerate up to the newly set speed even after you have released the cruise control lever.

Only increase the speed if the current situation is appropriate to do so. Sudden acceleration could otherwise endanger you and others.

▶ Briefly press the cruise control lever upward ① to increase the speed or downward ③ to reduce the speed.

The last speed stored is increased or decreased in 1 mph increments (1 km/h increments).

or D

- Press and hold the cruise control lever up 1 or down 3 until the desired speed has been reached.
- Release the cruise control lever.
  The current speed is stored.
- Truise control is not deactivated if you depress the accelerator pedal. If you accelerate briefly to overtake, for example, cruise control adjusts the vehicle's speed to the last speed stored after you have finished overtaking.

#### **Deactivating cruise control**

There are various ways of deactivating cruise control:

▶ Briefly press cruise control lever forward (4).

or

Apply the brakes.

The last speed set remains stored.

1 The last speed stored is cleared when you switch off the engine.

Cruise control is automatically deactivated if:

- you are braking
- you apply the handbrake and the indicator lamp in the instrument cluster is lit
- you are driving under 20 mph (30 km/h)
- ESP® or ASR is intervening and the yellow ASR / ESP® warning lamp flashes in the instrument cluster
- you move the selector lever to position N while driving
- ESP®, ASR or ABS has malfunctioned

#### **PARKTRONIC**



#### Warning

PARKTRONIC is only an aid and may not detect all obstacles. This system does not relieve you of the need to pay attention.

You are always responsible for safety and must continue to pay attention to your immediate surroundings when parking and maneuvering. Otherwise, you could endanger yourself and others.



#### Warning

Make sure that no persons or animals are in the maneuvering range of the vehicle. They could otherwise be injured.

PARKTRONIC is an electronic parking aid and informs you visually and audibly of the distance between the vehicle and an obstacle.

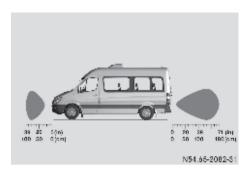
PARKTRONIC is automatically switched on when you turn the key to position **2** in the ignition lock and release the handbrake. You must also move the selector lever to position **D**, **N** or **R**.

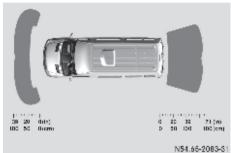
PARKTRONIC switches off at speeds of over 11 mph (18 km/h). It switches back on at speeds of less than 10 mph (16 km/h).

PARKTRONIC is equipped with sensors in the front and rear bumper to monitor the area around your vehicle.

# Range of the sensors

The sensors must be free from dirt, ice and slush. Otherwise they may not function correctly. Clean the sensors regularly, taking care not to scratch or damage them ( $\triangleright$  page 199).





#### Front sensors

Center	about 39 in (100 cm)
Corners	about 26 in (65 cm)

#### Rear sensors

Center	about 71 in (180 cm)
Corners	about 39 in (100 cm)

#### Minimum distance

Center	about 12 in (30 cm)
Corners, front	about 10 in (25 cm)
Corners, rear	about 12 in (30 cm)

If an obstacle is within this range, all segments of the warning displays light up and a warning tone sounds (the warning for the front sounds different from the warning for the rear). The distance may no longer be displayed if you drive the vehicle closer to the obstacle than the minimum distance.

Pay particular attention to obstacles above or below the sensors when parking, such as flower pots or trailer towbars.

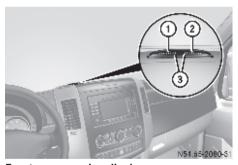
PARKTRONIC does not detect such objects in the immediate vicinity. You could damage the vehicle or objects.

PARKTRONIC can malfunction as a consequence of:

- ultrasonic sources such as a truck's compressed-air brakes, an automatic car wash or a pneumatic drill
- attachments to the vehicle, e.g. loadbearing implements or trailer couplings
- number plates (vehicle license plates) that are not affixed flat against the bumper
- dirty or icy sensors

## Warning displays

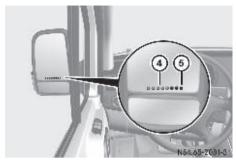
The warning displays indicate the distance between the sensor and the obstacle.



#### Front area warning display

- 1 Left-hand side of vehicle
- ② Right-hand side of vehicle
- ③ Indicator segments

The warning displays for the rear left-and right-hand sides are in the exterior mirror concerned.



Warning display in the left-hand exterior mirror for the area to the rear left-hand side

- (4) Left-hand side of vehicle
- (5) Indicator segments

The warning display is divided into 5 yellow and 2 red segments for each side of the vehicle. PARKTRONIC is operational if yellow indicator segments (3) and (5) light up.

There is a malfunction if only the red segments of the warning display light up (> page 238).

The selector lever position determines whether the front and / or rear area is monitored.

Transmission position	Monitoring
<b>D</b> or <b>N</b>	Front area
R or N	Front and rear area
Р	No areas activated

One or more segments light up as the vehicle approaches an obstacle, depending on the vehicle's distance from the obstacle.

#### From the:

- sixth segment, an intermittent warning tone sounds for approximately 2 seconds
- seventh segment, a continuous warning tone sounds. You have reached the minimum distance.

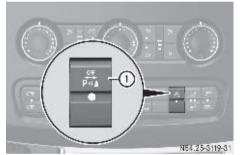
## Roll-back warning

PARKTRONIC automatically begins to monitor the area behind the vehicle if the vehicle begins to roll backwards without reverse gear engaged, e.g. after stopping on an uphill gradient.

If PARKTRONIC detects an obstacle no more than 31 in (80 cm) away, all the segments of the warning displays light up. A continuous warning tone sounds as the vehicle approaches the obstacle and for a further 2 seconds after the vehicle has come to a half

## Switching PARKTRONIC on / off

You can switch PARKTRONIC on and off manually.



Press upper part 1 of the switch.

If PARKTRONIC is switched off, the indicator lamp in the switch lights up.

# **Trailer towing**

If your vehicle has the corresponding electrical basic wiring for towing and you hitch up a trailer, PARKTRONIC is deactivated for the rear area as soon as the electrical connection is made between your vehicle and the trailer.

Remove a detachable trailer coupling when it is no longer required. PARKTRONIC measures the minimum detection range to an obstacle from the bumper, not from the ball coupling.

#### Rear-view camera

The rear-view camera is a visual parking aid. It shows you the area behind the vehicle on a separate monitor on the center console.

The rear-view camera is activated when you engage reverse gear.

The camera is positioned in the middle of the roof above the high-mounted brake lamp (▷ page 199).

The monitor can be rotated and tilted and is located in the storage compartment on the center console.



(1) Rear-view camera monitor



#### Warning

The rear-view camera is only an aid and may display potential obstacles in a skewed perspective, incorrectly or not at all. This system does not relieve you of your obligation to pay attention.

The camera is not able to display all objects which may be located in the immediate vicinity of the rear bumper and / or underneath the rear bumper.

The rear-view camera will not provide you with advance warning of a collision, persons or objects. You are always responsible for safety and must continue to pay attention to your immediate surroundings when parking and maneuvering.

This applies not only in the area to the rear of your vehicle, but also in the area in front of and to the side of it.

Failure to pay attention could mean that you fail to notice persons or objects and, by continuing to drive, cause injury to persons or damage to objects and your vehicle.

We recommend that you also use PARK-TRONIC when parking your vehicle.



#### Warning

The rear-view camera could function incorrectly or might not function at all if:

- it is raining or snowing very heavily, or if there is thick fog
- you have parked your vehicle in a very poorly lit location
- the camera is exposed to very bright white light (white stripes could appear on the monitor display)
- the surrounding area is lit by fluorescent light (the monitor display could start to flicker)
- the temperature changes suddenly (e.g., if you drive out of the cold and into a heated garage in the winter)
- ambient temperatures are very high
- the camera lens is dirty or obstructed
- the rear of your vehicle is damaged. In this case, have the camera's position and settings checked at an authorized Sprinter Dealer.



## Warning

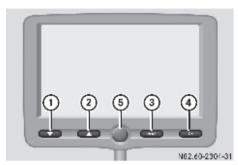
Make sure that there are no persons or animals in or in the vicinity of the area in which you are maneuvering your vehicle. They could otherwise be injured.

For information on cleaning the camera, see the "Operation" section (> page 199).

## Activating the rear-view camera

- ► Make sure that the key is turned to position 2 in the ignition lock.
- Engage reverse gear.
   The rear-view camera is switched on.

## Operating the monitor



#### **Monitor buttons**

- ① ▼ Down button ② ▲ Up button
- (3) MENU Menu/Confirm button
- (4) ON Monitor on / off switch
- 5 Loudspeaker cover

# Switching on the monitor

You can switch on the monitor by:

- engaging reverse gear.
   This activates the rear-view camera which switches the monitor on.
- pressing the ON button.
   This activates the input for auxiliary devices (AUX) on the monitor.
- If you switched the monitor off using the ON button, once you have engaged reverse gear, you will need to press the ON button. Only then will the monitor come on.



#### Input for auxiliary equipment (AUX)

If you engage reverse gear while using auxiliary equipment, the monitor switches to the rear-view camera.

When you disengage reverse gear, the monitor continues to show the picture from the rear-view camera for about 15 seconds before switching back to the auxiliary input (AUX).

#### Switching off the monitor

If the monitor was switched on by engaging reverse gear, it switches off automatically 15 seconds after you disengage reverse gear.

You can switch off the monitor by pressing the on button. In this case, the following message is shown for 7 seconds before the monitor goes off.



# Setting the volume

- ▶ Press the ▼ or ▲ button.
  The volume of the built-in loudspeaker is adjusted in increments.
- 1 The volume of the optional infrared headphones is adjusted on the headphones themselves.
- ► Press the MENU button to exit the volume control.
- If you do not press a button for 7 seconds, the monitor switches off the volume control.

# Menu guidance

#### Selecting the main menu

► Press the MENU button.

The menu selection for the main menu (menu level 1) is displayed.



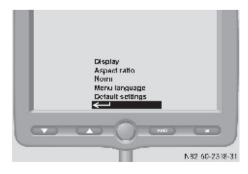
- ► Press the ▼ or ▲ button until the menu you want is highlighted.
- ► Press the MENU button.

The desired menu is selected.

You can select the following settings and menus:

- Display (⊳ page 129)
- Aspect ratio (⊳ page 131)
- Norm (⊳ page 131)
- Menu language (⊳ page 132)
- Default settings (▷ page 132)
- Back **◄** (⊳ page 129)

# Returning to the previous menu



- Press the ▼ or ▲ button until is highlighted.
- ► Press the MENU button.

  The higher-level menu is displayed.

## Display menu

You can customize the monitor display in the **Display** menu.

You can select the following submenus:

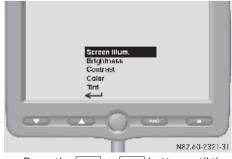
- Screen illumination
- Brightness (▷ page 130)
- Contrast (> page 130)
- Color (> page 130)
- Tint (> page 131)
- Back

#### Screen illumination submenu

You can adjust the background illumination of the monitor in the **Screen illum.** submenu.

- ► Press the MENU button.
  - The main menu (menu level 1) is displayed (▷ page 129).
- ► Press the ▼ or ▲ button until the Display menu is highlighted.
- ► Press the MENU button.

The **Display** menu is selected. The submenus (menu level 2) are displayed.



Press the ▼ or ▲ button until the Screen illum. submenu is highlighted. ▷▷

► Press the MENU button.

The lighting setting is displayed.



▶ Press the ▼ or ▲ button.

The background illumination is set in steps.

► Press the MENU button.

The submenus (menu level 2) are displayed.

f you do not press a button for 7 seconds, the menu will be exited automatically.

## Brightness submenu

You can adjust the brightness of the monitor in the **Brightness** submenu.

- ► Press the MENU button.

  The main menu (menu level 1) is displayed (> page 129).
- ► Press the ▼ or ▲ button until the Display menu is highlighted.
- ► Press the MENU button.

The **Display** menu is selected. The submenus (menu level 2) are displayed.

- ► Press the ▼ or ▲ button until the **Brightness** submenu is highlighted.
- ► Press the MENU button.

The brightness setting is displayed.

► Press the ▼ or ▲ button.

The brightness is adjusted in increments.

► Press the MENU button.

The submenus (menu level 2) are displayed.

#### Contrast submenu

You can adjust the picture contrast of the monitor in the **Contrast** menu.

- ► Press the MENU button.
  - The main menu (menu level 1) is displayed ( $\triangleright$  page 129).
- ► Press the ▼ or ▲ button until the Display menu is highlighted.
- ► Press the MENU button.

The **Display** menu is selected. The submenus (menu level 2) are displayed.

- ▶ Press the ▼ or ▲ button until the Contrast submenu is highlighted.
- ► Press the MENU button.

The contrast setting is displayed.

- ▶ Press the ▼ or ▲ button.
  The screen contrast is set in incre-
- ▶ Press the MENU button. The submenus (menu level 2) are displayed.

#### Color submenu

ments

You can adjust the color setting of the monitor in the **Color** submenu.

- ► Press the MENU button.

  The main menu (menu level 1)
  - The main menu (menu level 1) is displayed (▷ page 129).
- ► Press the ▼ or ▲ button until the Display menu is highlighted.
- ► Press the MENU button.

The **Display** menu is selected. The submenus (menu level 2) are displayed.

- ▶ Press the ▼ or ▲ button until the Color submenu is highlighted.
- ► Press the MENU button.

The color setting is displayed.

- ▶ Press the ▼ or ▲ button.
  The color is set in increments.
- Press the MENU button.
  The submenus (menu level 2) are displayed.

#### Tint submenu

You can adjust the color balance of the monitor in the **Tint** submenu.

- ► Press the MENU button.

  The main menu (menu level 1) is displayed (> page 129).
- ► Press the ▼ or ▲ button until the Display menu is highlighted.
- ► Press the MENU button.

The **Display** menu is selected. The submenus (menu level 2) are displayed.

- ▶ Press the ▼ or ▲ button until the Tint submenu is highlighted.
- ► Press the MENU button.

The color balance setting is displayed.

▶ Press the ▼ or ▲ button.
The color balance is set in increments.

► Press the MENU button.

The submenus (menu level 2) are displayed.

# Aspect ratio menu

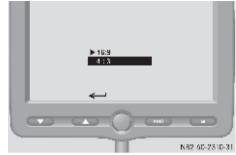
You can set the monitors' display format in the **Aspect ratio** menu.

- ► Press the MENU button.

  The main menu (menu level 1) is displayed (> page 129).
- ▶ Press the ▼ or ▲ button until the Aspect ratio menu is highlighted.

► Press the MENU button.

The picture formats are displayed. The current picture format is marked with the ▶ symbol.



- ► Press the ▼ or ▲ button until the picture format you want is highlighted.
- ► Press the MENU button.

  Your selected format is activated.
- The 16:9 format is full-screen format. The rear-view camera is set to display in 16:9 format. The 4:3 format usually needs to be selected for standard video signals.

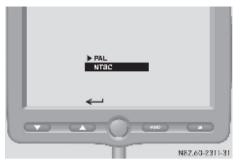
#### Norm menu

You can set the video standard for the monitor in the **Norm** menu.

- ► Press the MENU button.

  The main menu (menu level 1) is displayed (> page 129).
- ▶ Press the ▼ or ▲ button until the Norm menu is highlighted.
- ► Press the MENU button.

The video standards are displayed. The current video standard is marked with the **>** symbol.



- ▶ Press the ▼ or ▲ button until the required standard is highlighted.
- ► Press the MENU button.

The selected standard is activated.

The video signal from the rear-view camera uses the NTSC standard.

If you select → and press the MENU button, the monitor will revert to the main menu (menu level 1) (> page 129).

## Menu language menu

You can set the language for the monitor menu texts in the **Menu language** menu.

- ► Press the MENU button.

  The main menu (menu level 1) is displayed (> page 129).
- ► Press the ▼ or ▲ button until the **Menu language** menu is highlighted.
- ► Press the MENU button.

The languages in which the menus and messages are to be displayed are displayed.

The current language is marked with the **>** symbol.

- ► Press the ▼ or ▲ button until the required language is highlighted.
- ► Press the MENU button.

The selected language is activated.

If you select I and press the MENU button, the monitor will revert to the main menu (menu level 1) (> page 129).

## Default settings menu

You can reset the monitor to the factory settings in the Default settings menu.

- ► Press the MENU button.

  The main menu (menu level 1) is displayed (> page 129).
- ▶ Press the ▼ or ▲ button until the Default settings menu is highlighted.
- ► Press the MENU button.

The monitor displays the following message:



- ► Press the ▼ or ▲ button until the required setting is highlighted.
  - Yes: overwrite all settings with the default values.
  - return to the main menu without applying the default values.

# Monitor shutdown while driving

For safety reasons, the monitor will shut off at speeds above 6 mph (10 km/h).

The following message will be displayed for 7 seconds prior to the monitor shutting off.



If the speed falls below 5 mph (8 km/h), the monitor switches on again.

#### Reverse warning feature

On vehicles with a reverse warning feature, a warning signal sounds when reverse gear is engaged to alert other road users.

The volume of the warning signal can be reduced for nighttime operation.



#### Warning

The reverse warning feature signal could be ignored by other road users. For this reason, the reverse warning feature cannot guarantee that there are no people or objects behind your vehicle.

The reverse warning feature is a system which helps you ensure the safety of other road users. However, it does not relieve you in any way from the responsibility of personally ensuring that there are no people or objects behind your vehicle when reversing. For this reason, always observe the road and traffic conditions with due caution. Make sure that there are no people or objects behind your vehicle when reversing, in order to avoid injuring people or damaging property. If necessary, ask someone to direct you when maneuvering.

- Reducing the volume: select reverse gear twice in quick succession.
   The warning signal sounds more quietly.
- 1 The warning signal always sounds at normal volume and must be turned down again every time reverse gear is engaged.

## Operating the vehicle

## **Exhaust gas aftertreatment**

The exhaust gas aftertreatment requires a reducing agent, Diesel Exhaust Fluid (DEF), in order to function correctly. Filling up with DEF is normally part of the maintenance service. DEF consumption depends on the driving and operating conditions and must not last until the next maintenance due date. Refill the DEF tank regularly when operating the vehicle or at the latest after receiving the first warning message via the on-board computer.

Filling up and operating the vehicle with DEF is required in order to comply with emissions laws and regulations. If you attempt to operate the vehicle without DEF, diluted DEF or another reducing agent, the engine management recognizes this and, after first displaying warning messages, prevents the engine from being restarted.

If the DEF level falls below 1.5 US gal (5.5 I), an initial warning message is displayed and a warning tone sounds. After the message appears for the first time, and under normal driving conditions, the remaining DEF supply will last for approximately 1000 miles (1600 km) until you reach the reserve mark.

After that, the 0.8 US gal (3.0 I) reserve mark range is reached and you receive the next warning message and a warning tone sequence sounds. After the first message, the DEF reserve will last for approximately 1200 mi (1,900 km). You will subsequently be able to start the engine a further 20 times.

Without further delay, top up with a minimum of 2.0 US gal (7.6 l) DEF (▷ page 155) or have the DEF tank topped up at a qualified specialist workshop.

If the remaining number of times you can start the engine is 0, the engine management prevents the engine from starting.

When the engine diagnostic indicator lamp lights up, the exhaust gas aftertreatment is malfunctioning or an emissions relevant fault has occurred (> page 217). You can then drive a maximum of 500 mi (800 km) before engine management limits the number of remaining starts.

If there is a malfunction of the exhaust gas aftertreatment system, have it checked and repaired at an authorized Sprinter Dealer.

More information on DEF can be found in the "Technical data" section (⊳ page 284).

## Gauge

More information on DEF consumption can be found in the "Technical data" section (▷ page 289).

# Vehicles without steering wheel buttons

If the DEF level is below 1.5 US gal (5.5 l), the indicator lamp lights up in the instrument cluster and the def chk message is shown in the display.

If the DEF level falls below the reserve mark range of 0.8 US gal (3.0 I), the indicator lamp lights up in the instrument cluster and the StArtS RE xx message is shown in the display. Also shown is xx the number (20 to 0) of remaining starts.

# Vehicles with steering wheel buttons

If the DEF level is below 1.5 US gal (5.5 I), the Check Diesel Exhaust Fluid See Operator's Manual message is shown in the display.

If the DEF level falls below the reserve mark range of 0.8 US gal (3.0 I), the xx starts remaining message is shown in the display. Also shown is xx the number (20 to 0) of remaining starts.

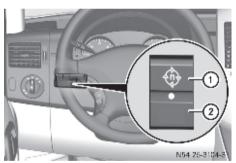
## Operating speed governor (ADR)

When activated, the operating speed governor (ADR) automatically increases the engine speed to a preset or adjustable operatinig speed (> page 135).

The idle speed of the engine automatically increases after a cold start. If the set operating speed is lower than the increased idle speed, the set operating speed is attained only after the engine has reached its operating temperature.

It is only possible to activate ADR with the vehicle stationary and the handbrake applied. The selector lever must be in position **P**.

## Activating / deactivating ADR



► To switch on: press upper part ① of the ⊕ switch with the engine running.

The indicator lamp in the switch comes on.

Vehicles without steering wheel buttons: the ADR indicator lamp in the instrument cluster comes on.

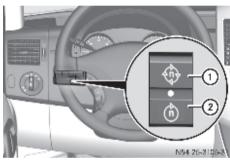
Vehicles with steering wheel buttons: The Operating speed governor active message appears in the display. ➤ To switch off: press lower part ② of the ⊕ switch with the engine running.

The indicator lamp in the switch and the ADR indicator lamp in the instrument cluster or the display message go out.

ADR is automatically deactivated if:

- you release the handbrake
- the vehicle moves
- the control unit detects a malfunction

## Adjusting the operating speed



- ► Switch on ADR (> page 134).
- ► To increase: press upper part ① of the ③ switch.
- ► **To reduce:** press lower part ② of the ⑤ switch.
- ① On vehicles with cruise control, you can also use the cruise control lever to increase or decrease the engine speed in the same way as for the road speed. Set the speed using the cruise control lever (> page 123).
- 1 The idle speed of the engine automatically increases after a cold start.

You can only reduce the operating speed to the current idle speed.

#### **Transporting**

## Loading guidelines



#### Warning

Secure and position a load as described in the loading guidelines. Otherwise, the load could slide or be thrown around in the event of heavy braking maneuvers, sudden changes of direction or poor road conditions, thereby injuring you or others. The same applies to dismantled seats if left inside the vehicle.

Please note that loads increase the risk of injury during an accident even if you comply with all loading guidelines.

Observe the notes in the "Securing a load" section (▷ page 137).



#### Warning

Do not exceed the vehicle's permissible gross weight or the permissible axle loads when loading the vehicle or carrying additional passengers.

If you exceed the vehicle's permissible axle loads or the maximum permissible gross weight when transporting items or carrying passengers, tire stability and driving safety are reduced. The vehicle's driving and steering characteristics would be greatly altered. Braking and stopping distances would be significantly longer.

Your vehicle's driving, steering and braking characteristics change as the vehicle's gross weight increases or its center of gravity is raised.

Always make sure that loads are distributed correctly and adapt your driving style in accordance with the load.



### Warning

After an accident, have a damaged load compartment floor or damaged load surface, the lashing eyes and lashing materials inspected by an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

If you are using a roof carrier system, observe the maximum roof load and maximum load-bearing capacity of the roof carrier system.

For more information about the maximum roof load and roof carrier systems, please refer to the "Technical data" section (> page 293).

## **Before loading**

- ► **Tire pressure:** check the tire pressures and correct them if necessary (> page 175).
- ▶ Load compartment floor: clean the load compartment floor.

  The load compartment floor must be dry, swept clean, and free of oil and dust to reduce the risk of the load slipping.
- ► If necessary, place anti-slip mats on the load compartment floor.
- As soon as the anti-slip mats start to show signs of permanent deformation, squashed areas or tears / holes, they are unsuitable for securing loads and must be replaced.

# **During loading**

- Observe the maximum permissible axle loads and permissible gross weight for the vehicle.
- In passenger vans with the maximum number of seats, the maximum payload would cause the permissible rear axle load to be exceeded.

- **1** Bear in mind that your vehicle's unladen weight is increased by the installation of optional equipment and accessories.
- Observe the notes on load distribution (▷ page 136).
- Secure the load (▷ page 137). All country-specific legal requirements must be observed.

#### Checks after loading

- ▶ **Securing a load:** before each journey and at regular intervals during longer journeys, check whether the load is properly secured and take additional securing measures, if necessary.
- Doors: close the sliding doors and rear doors.



#### 

Make sure that the sliding doors and rear doors are always closed when the engine is running.

Otherwise, exhaust fumes could enter the vehicle interior and poison you.

- Tire pressure: adjust the tire pressure in accordance with the vehicle's load (▷ page 175).
- ▶ **Driving characteristics:** adapt your driving style to the load.

### Load distribution

The load's overall center of gravity should be as low and central as possible, between the axles near the rear axle.

Excessive loads on individual points of the load compartment floor or load surface have a negative effect on handling characteristics and could damage the floor covering.

For crewbus models:

- Always transport loads in the load compartment.
- Always place loads flush against the seat backrests of the rear bench seat.
- Slide larger and heavier loads as far forward as possible when looking in the direction of travel. Stack items against each other behind the rear bench seat.
- Always secure loads with suitable transport aids or lashing materials.

Observe the following notes:

- do not stack loads higher than the upper edge of the backrests.
- transport loads behind seats that are not occupied.
- if the rear bench seat is not occupied, insert the seat belts in a crosswise pattern into the opposite belt buckles.

## Securing a load

As the driver of the vehicle, you are responsible for ensuring that the load is secured against slipping, tipping over, rolling or falling down, whether driving in normal traffic situations or on poor road surfaces or as a result of having to swerve to avoid an obstacle or applying the brakes fully.

Failing to secure the load in accordance with relevant requirements and sound practice may be a punishable offense, depending on national legislation and the consequences that arise.

For this reason, observe the legal requirements in all countries concerned.

Before each journey and at regular intervals during longer journeys, check whether the load is secure and take additional action to improve any incorrect or inadequate safety measures.

(1) Information about how to secure a load correctly can be obtained from the manufacturers of transport aids or lashing materials for securing loads.

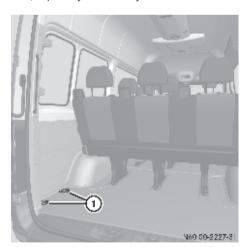
- ► Fill up any empty spaces between the load and the load compartment walls or wheel arches in a form-fitting manner. For this purpose, use solid transport aids, such as chocks, wooden blocks or storage cushions.
- ➤ Secure tilt- and tip-resistant loads in all directions by using the lashing points or lashing eyes and load rails in the load compartment or on the load surface, according to your vehicle's equipment.

Only use lashing materials that have been tested according to valid standards, such as lashing nets and straps.

Always use the lashing points closest to the load to secure it in place, and place padding around sharp edges.

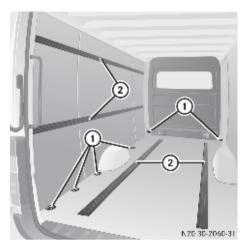
**1** Lashing materials that comply with valid standards can be obtained in any specialist shop or from an authorized Sprinter Dealer.

If possible, use the lashing eyes when securing a load, especially if it is heavy.



Lashing points (example illustration of crewbus)

 $\triangleright$ 



Lashing points (example illustration of panel van)

- (1) Lashing eyes
- (2) Load rails



### Warning

Do not carry out any modifications or repairs to the lashing points, lashing eyes or lashing materials. The load or the lashing points could accidentally come loose and cause serious injury to you or others as well as damage to property.

Distribute loads evenly between the lashing points or lashing eyes.

Observe the loading guidelines.

- 1 Loose loads should be secured with an approved lashing net or tarp.
- Always attach the lashing net or tarps to all available lashing points. While doing so, make sure that the mounting hooks cannot open accidentally.

Observe the data on the maximum load-bearing capacity of the individual lashing points (> page 292).

During full-braking applications, for example, forces can be involved that are much greater than the weight force of the load. Always use several lashing points in order to distribute force absorption, and make sure that the lashing points have an equal load.

i If your vehicle has load rails in the floor, you should position locking rods immediately in front of and behind the load. The locking rods absorb possible shifting forces directly.



#### Warning

If you tension the lashing straps between the sidewalls or between a sidewall and the load compartment floor, the permissible load for the lashing rails, lashing points or lashing eyes could be exceeded in the event of strong braking, sudden changes of direction or an accident

The load would no longer be secured, which could result in serious injuries caused by the load slipping.

For this reason, do not tension a lashing strap between the sidewalls or between a sidewall and the load compartment floor. Only locking bars or rods may be installed between the load rails near the sidewalls. Observe the Operating Instructions issued by the locking bar or locking rod manufacturer.

1 Securing loads to the load compartment floor is only recommended for lightweight loads and should be reinforced by using anti-slip mats.

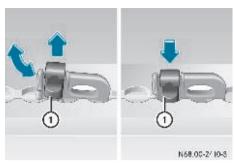


#### /!\ Warning

Before releasing lashing straps, make sure that the load is stable and would not tip over even without being lashed down.

Otherwise, you or others could be injured by a moving load.

#### Mounting lashing points for load rails



- ➤ **To install:** slide the lashing eye through a recess in the load rail close to the load until locking mechanism ① in the recess engages.
- When you pull locking mechanism 1 out of the recess, the lashing eye is able to move within the lashing rail or load rail. Make sure that locking mechanism 1 is always engaged in a recess.



#### Warning

If the lashing eye is not firmly anchored in the load rail, the lashing eye may slip or snap out of the load rail in the event of sudden braking or an accident.

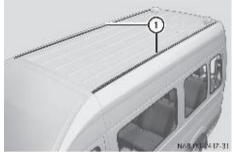
The load would no longer be secured, which could result in serious injuries caused by the load slipping.

For this reason, always check that the lashing eye is firmly in place whenever you install it.

- Check whether the lashing eye is firmly in place.
- ► To remove: pull locking mechanism ① upward and pull the lashing eye through a recess towards the locking mechanism and out of the load rail.

### **Carrier systems**

It is possible to mount a roof rack if your vehicle is equipped with securing rails on the roof.



(1) Securing rails

Special mountings (sliding blocks) are available as accessories. These are available from any authorized Sprinter Dealer.



## Warning

High roof loads may cause a significant deterioration in handling, steering and braking characteristics even if the maximum permissible gross vehicle weight or axle loads have not been exceeded. You could endanger yourself and others.

Always make sure that loads are distributed correctly and adapt your driving style in accordance with the load.

Observe the carrier system manufacturer's installation instructions. An incorrectly secured carrier system or load could come loose and fall off and thereby endanger you and others.

Observe the maximum roof loads (> page 293), the maximum axle load and the maximum load-bearing capacity of the roof rack. Loads transported on the roof must always be secured with particular care.

Make sure that:

- the securing bolts for the roof rack are tightened to a torque of 6.0 - 7.4 lb-ft (8 - 10 Nm) in the sliding blocks provided
- the bolts do not make contact with the rails when tightened
- the sliding blocks are not positioned near the plastic caps
- the sliding blocks have the correct cross-section
- the securing rails are free of dirt on the inside
- the securing bolts are retightened evenly after approximately 300 miles (500 km)
- Only install roof racks that have been approved or recommended for Sprinters. These are available at any authorized Sprinter Dealer. This will help to avoid damage to the vehicle.
- If you wish to retrofit securing rails, have them installed at an authorized Sprinter Dealer. You could otherwise damage the vehicle.

## **Trailer towing**

Observe the instructions in the "Operation" section (▷ page 148).

#### **Features**

## Interior storage compartments

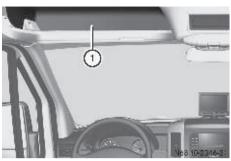


#### Warning

Only load the storage compartments in such a way that occupants cannot be injured by their contents in the event of an accident, braking or a sudden change in direction.

For this reason, do not transport heavy, bulky, pointed or sharp-edged objects in the storage spaces or compartments.

#### Storage compartments above the windshield



Example on the left-hand side

(1) Storage compartment

It is permissible to load the right- and lefthand storage compartments up to a maximum of 5.5 lbs (2.5 kg) each.

# Storage compartment above the roof trim



You can load stowage space ① on vehicles with a partition from the load compartment.

The entire storage compartment is permitted to hold a maximum load of 66 lbs (30 kg).

Do not store high, bulky loads in the storage compartment. You could otherwise damage the roof trim in the event of sudden braking.

# Storage compartments in the doors

You can use these storage compartments for the safe storage of small and light items.

#### Storage compartments on the dashboard



Example on the right-hand side



### Warning

Do not store any items in the storage compartment above the co-driver's airbag if they protrude from the compartment. The co-driver's airbag must be able to inflate unimpeded.

It is permissible to load the right- and lefthand storage compartments up to a maximum of 11 lbs (5 kg) each.



Covered storage compartment above the center console

- ► **To open:** pull release handle ②. Cover ① swings upwards.
- ► To close: close cover (1) and engage it.

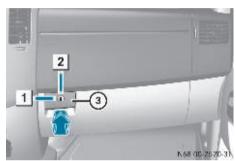
The cover on the storage compartment must remain closed while the vehicle is in motion.

# Storage compartment under the twin co-driver's seat

On vehicles with a twin co-driver's seat, the storage compartment is under the seat cushion (> page 70).

You can use the storage compartment for the safekeeping of tools and other small items.

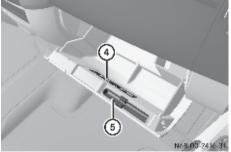
#### Glove box



- 1 Locked
- (2) Unlocked
- 3 Glove box handle

1 You can lock and unlock the glove box using the key.

► **To open:** pull glove box handle ③ in the direction of the arrow.



- (4) Card holder
- (5) Pen holder
- ► To close: fold the cover upwards and push against it until it engages in place.

# **Eyeglasses compartment**

The eyeglasses compartment is located in the overhead control panel.



► **To open:** press cover ① of the eyeglasses compartment.

The eyeglasses compartment folds out.

► To close: press cover ① of the eyeglasses compartment into the overhead control panel until it engages.

#### Paper holder

The control unit of the air-conditioning system / heating is equipped with a paper holder only on vehicles without rear-compartment air conditioning.



➤ To open: press top of paper holder ①.

#### Folding table in the backrest



- ▶ Pull folding table (1) forward by the tab.
- Fold folding table down in the direction of the arrow and onto the seat cushion.
- **1** The folding table is equipped with a pen holder and cup holders.

#### **Cup holders**



### **Warning**

Keep the closeable cup holders closed while the vehicle is in motion and do not leave drinks in the cup holders. You or others could otherwise be injured by objects in the cup holder being thrown around in the event of:

- sharp braking
- a sudden change of direction
- an accident

Only place sealable drinking containers of the correct size in the cup holders. The drinks could otherwise spill.

Avoid hot drinks. You could otherwise scald vourself.

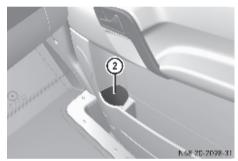
Do not use the recesses of the cup holders as an ashtray. You could otherwise damage the cup holders.

# Cup holders in the front



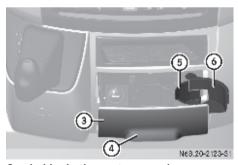
Example on the right-hand side

Cup holder in the storage compartment in the dashboard



Example on the right-hand side

(2) Bottle holder in the front door



Cup holder in the center console

► Pull out cup holder compartment ③ by recess ④.

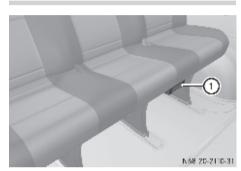
Cup holder (5) opens fully.

**1** Vehicles with the non-smoking package are equipped with an additional cup holder in place of the ashtray.

You can change the diameter of the cup holder.

- ▶ Place the container in cup holder (5).
- Press clamping arm 6 onto the container

# Cup holders in the rear



▶ Pull out cup holder (1).



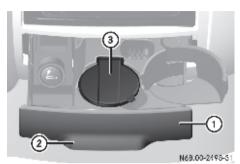
# Warning

Slide the cup holder back underneath the seat before leaving the vehicle. You could otherwise be injured by the protruding cup holder.

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## **Ashtray**

The ashtray is located in the ashtray compartment in the center console.



- ▶ Pull out ashtray compartment ① by recess ②.
- ► To open: fold cover (3) upwards.
- ► To remove the insert: reach into the left- and right-hand sides of the recesses on the ashtray and pull the insert out to empty it.
- ► To replace the insert: hold the insert and press it down into the retainer.

# Ashtray in the passenger compartment

The ashtrays are located on the right-hand and left-hand sides in the side trims.



► To open: open the ashtray.

- ► To remove the insert: press clip ①
  down and remove the entire ashtray
  from the trim.
- ➤ To replace the insert: insert the ashtray at the bottom into the trim and fold it closed.

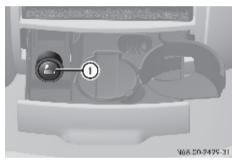
# Cigarette lighter



#### Warning

Only hold the hot cigarette lighter by its knob. Otherwise, you may burn yourself.

Remove the cigarette lighter if children are traveling with you. They could injure themselves on a hot cigarette lighter or start a fire.



#### Ashtray compartment in the center console

- ► Turn the key to position 2 in the ignition lock.
- ► Press in cigarette lighter ①.

The cigarette lighter will pop out automatically when the heating element is red-hot.



#### Warning

Do not press the cigarette lighter in with too much force. The ashtray compartment could otherwise close and trap your finger.

#### 12 V sockets

The 12 V sockets for accessories are:

- on the bottom of the center console (12 V, 25 A)
- on the inside of the driver's seat base (12 V, 15 A)
- in the corner trim next to each rear door in the passenger compartment (12 V, 15 A)
- in the load compartment next to the rear door on the left-hand side (12 V, 15 A)



Socket at the bottom of the center console

1 12 V, 25 A socket

You can use the 12 V sockets (15 A) for accessories with a maximum power consumption of 180 watts.

You can connect accessories with a maximum power consumption of 300 watts to the 12 V socket (25 A) at the bottom of the center console.

Only connect the electric air pump (Premium tire sealant) to the 12 V socket (25 A) on the bottom of the center console. You could otherwise damage the vehicle electrical system.

For more information about the electric air pump and the Premium tire sealant, please refer to the "Practical hints" section (> page 208).

1 The sockets are supplied with power even if the key is removed from the ignition lock. Please note that the battery may be discharged if you have connected an accessory, e.g. a coolbox, and the engine is switched off.

# **Telephone**



#### Warning

Excessive electromagnetic radiation may constitute a health hazard to yourself and others. Using an exterior antenna takes into account current scientific discussions relating to the possible health risk posed by electromagnetic fields.

For this reason, the exterior antenna should only be installed at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

For operation of telephones, we recommend connection to an approved exterior antenna. This is the only way to guarantee an optimum reception quality inside the vehicle and to minimize mutual interference between the vehicle electronics and telephones.



#### Warning

Observe the legal requirements of the country and state in which you are currently driving regarding the use of telephones in the vehicle.

If it is permitted to use telephones while the vehicle is in motion, you may only use them when the road and traffic conditions permit. You may otherwise be distracted from the traffic conditions, cause an accident and injure yourself and others.

In some countries and states, it is prohibited to use a telephone in vehicles without a hands-free system, either while you are driving or when the engine is running.

Observe the legal requirements for each individual country and state.

The telephone system has a hands-free system permanently installed in the vehicle. The microphone for the hands-free system is installed either in the overhead control panel or on the front interior lighting panel.

In order to use the hands-free system, you will need a special bracket. These brackets are available for various models in the Sprinter range of accessories. Cell phone brackets which are available from various manufacturers on the open market are not compatible with the vehicle's telephone system. For further information on suitable cell phone brackets contact the respective Customer Assistance Center named on the inside of the front cover.

Detailed instructions for use can be found in the Operating Instructions for the cell phone holder and in the separate supplement for the cell phone fixtures.

1 The telephone battery will be charged depending on the charge status and the position of the key in the ignition lock. The cell phone display indicates the charging process.

You will find information about retrofitting electrical / electronic equipment in the "Technical data" section (> page 279).

Vehicle equipment
The first 1000 miles (1500 km)
Driving tips
Refueling
Engine compartment
Battery
Battery isolating switch
Tires and wheels
Winter driving
Maintenance and servicing
Cleaning and care of the vehicle

### Vehicle equipment

This Operator's Manual describes all features, standard or optional, potentially available for your vehicle at the time of purchase. Please be aware that your vehicle might not be equipped with all features described in this manual.

# The first 1000 miles (1500 km)

You will find detailed information about operating, maintaining and caring for your vehicle in the "Operation" section.

It is of decisive importance for the operating life, reliability and economy of the vehicle that the engine is not subjected to its full rated load during the running-in period.

# Up to 1000 miles (1500 km)

- Break in the vehicle gently. Drive at varying road and engine speeds for the first 1000 miles (1500 km).
- Avoid heavy loads during this time, e.g. driving at full throttle. Do not exceed
   <sup>3</sup>/<sub>4</sub> of the maximum permissible engine speed for each gear.
- Avoid depressing the accelerator pedal in vehicles beyond the pressure point (kickdown).
- Do not downshift manually in order to brake.
- Only use shift ranges 4, 3, 2 and 1 for slow driving, e.g. in mountainous terrain.

# After 1000 miles (1500)

- Gradually bring the vehicle up to full road and engine speeds.
- 1 These instructions must also be observed if you have the engine, the transmission or the rear axle differential of your vehicle replaced.

# **Driving tips**

For information about driving in winter and with snow chains, see "Winter driving" (> page 191).

## Rail transport

Transporting your vehicle by rail may be subject to certain restrictions or require special measures to be taken in some countries due to varying tunnel heights and loading standards.

You can obtain information at any authorized Sprinter Dealer.

# **Trailer towing**



#### Warning

Failure to use proper equipment and driving technique can result in a loss of vehicle control when towing a trailer.

Improper towing or failure to follow the instructions contained in this guide can result in serious injury.

Follow the guidelines below carefully to assure safe trailer operation.

Ask your authorized Sprinter Dealer if you require an explanation of information contained in this manual.

#### **Trailer hitches**

Only install a trailer hitch receiver approved for your vehicle. For information on availability and installation, please see your authorized Sprinter Dealer. The notes on operation, care and maintenance issued by the trailer hitch manufacturer should be observed.

The bumpers on your vehicle are not designed for use with clamp-type hitches. Do not attach rental hitches or other bumper-type hitches to them. Damage to the bumpers which occurs as a result of fitting a ball hitch is not covered by the New Vehicle Limited Warranty.

1 To reduce the possibility of damage, remove the ball hitch adapter from the receiver when not in use.

#### **Electrical connections**

The Sprinter is available with a variety of pre-installed equipment (lines and turn signal indicator and brake module installed and / or not installed). Make sure that the correct trailer hitch receiver kit is used. For further information, please see your authorized Sprinter Dealer.

In order to prevent possible damage to the vehicle's electrical system by incorrectly installing the trailer wiring plug, we recommend having the harness connected at an authorized Sprinter Dealer.

# Attaching a trailer

Please observe the maximum permitted trailer dimensions (width and length).



#### Warning

Couple and decouple the trailer carefully. A trailer which is incorrectly coupled to the towing vehicle could break away. A correctly coupled trailer must be positioned horizontally behind the vehicle.

Most states and all Canadian provinces require safety chains between your tow vehicle and the trailer. The chains should be crisscrossed under the trailer tongue. They must be attached to the hitch receiver, and not to the vehicle's bumper or axle. Be sure to leave enough slack in the chains to permit turning corners.

1 Most states and all Canadian provinces require a separate brake system at various trailer weights.



#### Warning

Do not connect a trailer brake system (if the trailer so equipped) directly to the vehicle's hydraulic brake system, as your vehicle is equipped with anti-lock brakes. If you do, neither the vehicle's brakes nor the trailer's brakes will function properly. This could cause an accident resulting in damage to property, injury or death to you or others.

The provided vehicle electrical wiring harness for trailer towing has a brake signal wire for hook-up to a brake controller.

Most states and all Canadian provinces require a break-away switch on trailers with a separate brake system. The switch activates the trailer brakes in the event that the trailer could separate from the tow vehicle.

You should consider using a trailer sway control system. For further information, see your authorized Sprinter Dealer.

## Towing a trailer

Trailer towing is subject to numerous laws, including speed limit restrictions. Make sure that your vehicle-trailer combination will be legal, not only for where you reside, but also for where you will be driving.

A good source for this information can be the police or local authorities.

Before you start driving with the trailer, check the trailer hitch, break-away switch, safety chains, electrical connections, lighting and tires. Also adjust the mirrors to permit an unobstructed view beyond the rear of the trailer.

If the trailer has electric brakes, start your vehicle and trailer moving slowly, and then apply the trailer brake controller only by hand, to be sure that the brakes are working properly.

When towing a trailer, check occasionally to be sure that the load is secure, and that lighting and trailer brakes (if so equipped) are functioning properly.

Always secure items in the trailer to prevent load shifts while driving.

Take into consideration that when towing a trailer, the handling characteristics are different and less stable from those when operating the vehicle without a trailer. It is important to avoid sudden maneuvers.

The vehicle and trailer combination is heavier, and is therefore limited in acceleration and climbing ability, and requires longer stopping distances. It is more prone to reacting to side wind gusts, and requires more sensitive steering input.

Extreme care must be exercised since your vehicle with a trailer will require additional passing distance ahead than when driving without a trailer. Because your vehicle and trailer is longer than your vehicle alone, you will also need to go much farther ahead of the passed vehicle before you can return to your lane.

In order to gain skill and an understanding of the vehicle's behavior, you should practice turning, stopping and backing up in an area which is free from traffic.

If possible, do not brake abruptly, but rather engage the brake slightly at first to permit the trailer to activate its brake. Then increase the braking force.



#### Warning

Never ride the brakes during a journey, e.g. light dragging caused by continuous application of pedal pressure. This leads to overheating of the braking system, increased braking distance and ultimately results in complete brake failure.



#### Warning

Take into consideration that when towing a trailer, the handling characteristics are different and less stable from those when operating the vehicle without a trailer.

It is important to avoid sudden maneuvers. Sudden maneuvers may lead to loss of control over the vehicle-trailer combination. This could cause an accident resulting in property damage or injury to you or others.

If the trailer begins to swing from side to side:

- ▶ Do not accelerate.
- Do not counter-steer.
- Brake if necessary.



#### Warning

Do not attempt, under any circumstances, to straighten the vehicle-trailer combination by increasing vehicle speed.

1 You can reduce the risk of the trailer swinging and snaking by retrofitting anti-roll bars or trailer stability programs. For further information, please see your authorized Sprinter Dealer.

If the transmission hunts between gears on inclines, manually shift to a lower gear (select 4, 3, 2 or 1). A lower gear and reduction of speed reduces the chance of the engine overloading and/or overheating.

When going down a long hill, shift into a lower gear and use the engine's braking effect. Avoid riding the brakes, thus overheating the vehicle and trailer brakes.

If the engine coolant rises to an extremely high temperature (coolant temperature needle approaching the red zone) when the air conditioner is on, turn off the air conditioner. Heat from the engine coolant can be also be dissipated by opening the windows, switching the climate control fan speed to high and setting the temperature control to the maximum hot position.

# Vehicle and trailer weights and ratings

1 The GVWR and the front / rear GAWR of your vehicle are indicated on the certification label (> page 293).

# GVWR (Gross Vehicle Weight Rating)

The total permissible weight of the vehicle. All occupants, all cargo, and the trailer tongue load must never exceed the GVWR.

# GAWR (Gross Axle Weight Rating)

The total permissible weight that can be carried by a single axle (front (FA) or rear (RA)).

# GCWR (Gross Combination Weight Rating)

The total permissible weight of vehicle and trailer when weighed in combination including a 150 lbs (68 kg) allowance for the presence of a driver.

# GTW (Gross Trailer Weight)

The maximum permissible trailer weight to be towed.

# TWR (Trailer Tongue Weight Rating)

The maximum permissible weight of the trailer tongue (limit for Sprinter-approved hitch receiver).

## Permissible weights and ratings

Sprinter type	GVWR	GAWR (FA)	GAWR (RA)	GCWR	GTW	TWR
2500	8550 lbs (3878 kg)	3970 lbs (1801 kg)	5360 lbs (2431 kg)	13,500 lbs (6123 kg)	5000 lbs (2268 kg)	500 lbs (227 kg)
3500	9990 lbs (4531 kg)	4080 lbs (1851 kg) 4410 lbs (2000 kg)	7060 lbs (3202 kg)	15,250 lbs (6917 kg)	5000 lbs (2268 kg)	500 lbs (227 kg)
	11,030 lbs (5003 kg)	4080 lbs (1851 kg) 4410 lbs (2000 kg)	7720 lbs (3502 kg)	15,250 lbs (6917 kg)	5000 lbs (2268 kg)	500 lbs (227 kg)

For vehicle model type 3500, the allowable GCWR is less than the combined maximum weight of the GVWR and the GTW. Exceeding the GCWR can cause damage to the drive train, the transmission, or the trailer hitch.

Thus, the permissible values for GVWR and/or the GTW are reduced when either the trailer or the vehicle is fully laden. You may therefore only partly load the vehicle and/or the trailer.

# Loading the vehicle and/or a trailer

When loading the a trailer, you should make sure that the GCWR of your vehicle is not exceeded.

You must distribute total weight between the vehicle and the trailer so that neither the permissible GTW, nor the GVWR and front/rear GAWR, nor the TWR are exceeded. The tongue weight at the hitch ball must be added to the GVWR to prevent exceeding your Sprinter tow vehicle's rear GAWR.

Maximum permissible values are listed on the safety compliance certification labels for the vehicle and for the trailer to be towed. The lowest value listed must be selected when determining how the vehicle and trailer are loaded. For more information, refer to "Vehicle and trailer weights and ratings" (> page 151).

# Checking weights of vehicle and trailer

To assure that the tow vehicle and trailer are in compliance with the maximum permissible weight limits, and to know the actual weights, have the loaded vehicle-trailer combination (tow vehicle including driver, passengers and cargo, trailer fully loaded) weighed on a commercial scale.

Check the vehicle's front and rear Gross Axle Weight (GAW), the GTW, the TW and the Gross Combination Weight (GCW). The values as measured must not be exceeded, according to the weights listed under "Vehicle and trailer weights and ratings" (> page 151).

# Operating the vehicle outside the USA or Canada

If you plan to operate your vehicle in foreign countries, please be aware that:

- service facilities or replacement parts may not be readily available.
- fuel may have an increased fuel sulfur content; improper fuel can cause engine damage.

You will find information about diesel in the "Technical data" section (▷ page 282).

f you are traveling in countries where vehicles are driven on the opposite side of the road from that in which the vehicle is registered, you must have the headlamps:

- partially masked (halogen headlamps)
- switched over (bi-xenon headlamps)

Relevant information can be obtained at an authorized Sprinter Dealer.

# Programmed maximum speed

You can permanently limit the maximum speed of your vehicle to 75 mph (120 km/h).

We recommend that you have the maximum speed programmed at an authorized Sprinter Dealer. This has the necessary specialist knowledge and tools to carry out the required work.



#### Warning

Exceeding the permissible maximum speed can cause tire damage, which could lead to loss of control of the vehicle.

As the driver, you must find out about the maximum speed of the vehicle and the resulting permissible maximum speed of the tires (tire and tire pressure).

Never exceed the speed limit for your tires ( $\triangleright$  page 183).

You will find information about the speed limit for your tires under "Tires and wheels" in this section (> page 183).

# Regular checks

Check regularly, e.g. weekly or when refueling:

- the vehicle lighting
- the condition of the tires (▷ page 167) and the tire pressures (▷ page 174)
- the engine oil level (> page 158)

- the brake fluid level (▷ page 161)
- the fluid level in the windshield washer system / headlamp cleaning system reservoir (▷ page 162)
- the contamination level of the rear airconditioning air cleaner (> page 196)

## **Oxidation catalyst**

Your vehicle is equipped with an oxidation catalyst, an important element in conjunction with the oxygen sensors to achieve substantial control of the pollutants in the exhaust emissions. Keep your vehicle in proper operating condition by following our recommended maintenance instructions as outlined in your Maintenance Booklet



# Warning

As with any vehicle, do not idle, park or operate this vehicle in areas where combustible materials such as grass, hay, or leaves can come into contact with the hot exhaust system, as these materials could be ignited and cause a vehicle fire.

#### **Emission control**

Certain systems of the engine serve to keep the toxic components of the exhaust gases within permissible limits required by law.

These systems, of course, will function properly only when maintained strictly according to factory specifications. Any adjustments to the engine should therefore be carried out only by an authorized Sprinter Dealer.

Engine adjustments should not be altered in any way. Moreover, the specified service jobs must be carried out regularly according to the servicing requirements. For details refer to the Maintenance Booklet.



#### Warning

Inhalation of exhaust gas is hazardous to your health. All exhaust gas contains carbon monoxide (CO), and inhaling it can cause unconsciousness and lead to death.

Do not run the engine in confined areas (such as a garage) which are not properly ventilated. If you think that exhaust gas fumes are entering the vehicle while driving, have the cause determined and corrected immediately. If you must drive under these conditions, drive with at least one window fully open at all times.

# Radio, telephone, two-way radio, fax machine and navigation system



#### Warning

Please do not forget that your primary responsibility is to drive the vehicle safely. Only operate the electronic equipment when road and traffic conditions permit. Keep in mind that at a speed of just 30 mph (about 50 km/h), your vehicle travels 44 feet (about 14 m) per second.

A navigation system does not provide information about bridge load-bearing capacities or headroom clearances.

You are responsible for safety at all times.

Observe legal requirements.

Telephones, two-way radios and fax machines without an exterior antenna may interfere with the vehicle's electronics, thereby jeopardizing the vehicle's operating safety. The risk of an accident increases. Do not use this equipment while the vehicle is in motion.

The vehicle's general operating permit may be invalidated if you do not observe the installation specifications.

You will find information about retrofitting electrical / electronic equipment in the "Technical data" section (▷ page 279).

## Refueling



#### Warning

Fuel is highly flammable. Fire, open flames and smoking as well as the use of auxiliary heaters (sparks) are therefore prohibited when handling fuel.

For this reason, switch off the auxiliary heating when refueling.



# Warning

Do not allow fuel to come into contact with your skin or clothing. Your health may be damaged if:

- you spill fuel onto your bare skin
- you inhale fuel vapors



#### Environmental note

If fuels are handled improperly, they pose a danger to persons and to the environment. Do not allow fuels to run into the sewage system, the surface waters, the ground water or into the ground.

If you are using drums or canisters to refuel the vehicle, you should filter the fuel before filling.

This prevents the fuel system from being affected by dirt particles in the fuel.



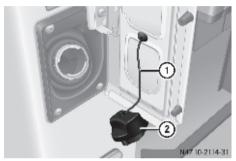
# Warning

Do not use gasoline to refuel vehicles with a diesel engine. Do not mix diesel with gasoline. This would result in damage to the fuel system and engine, which could lead to a vehicle fire.

Do not use gasoline to refuel vehicles with a diesel engine. Even small amounts of gasoline will cause damage to the injection system. Damage resulting from adding gasoline is not covered by the New Vehicle Limited Warranty.

If the wrong fuel has been added by mistake, do not switch on the ignition. If you do, the fuel could enter the fuel lines. The tank and the fuel lines must then be drained. Inform an authorized Sprinter Dealer and have the tank and the fuel lines drained completely.

The fuel filler flap is next to the driver's door. You can only open the fuel filler flap when the driver's door is open.



- Remove the key from the ignition lock
- ➤ Switch off the auxiliary heating (> page 119).
- ▶ Open the driver's door.
- Open the fuel filler flap.
- ► Close all the vehicle's doors, so that no fuel vapors can enter the vehicle.
- ► Turn fuel filler cap ② counterclockwise and let it hang by retaining strap ①.
- ► Only fill the tank until the pump nozzle switches off.
- ▶ Replace fuel filler cap ② and turn it clockwise.
  - A clicking sound indicates that the fuel filler cap is fully closed.
- ► Open the driver's door and close the fuel filler flap.

You will find information about diesel in the "Technical data" section (▷ page 282).

# **Diesel Exhaust Fluid (DEF)**

The exhaust gas aftertreatment requires a reducing agent, Diesel Exhaust Fluid (DEF), in order to function correctly.



# Warning

When opening the DEF fuel filler cap at high outside temperatures, ammonia vapors may escape. Ammonia vapors have a pungent smell and are particularly irritating to skin, mucous membranes and eyes. They can cause your eyes, nose and throat to burn, and induce coughing and cause your eyes to water

Do not inhale ammonia vapors.



#### Warning

Avoid contact with DEF.

DEF is hazardous to health. Do not allow DEF to come into contact with your skin. Rinse affected areas thoroughly with plenty of clean water and consult a doctor if necessary.



#### **Environmental note**

Dispose of DEF in an environmentally responsible manner.

Only use DEF in accordance with ISO 22241. Never mix DEF with additives or dilute it with tap water. The exhaust gas aftertreatment may otherwise be damaged.

Observe the MB Specification for Service Products, Sheet 352.0.

Damage that results from the use of additives or tap water leads to a loss of New Vehicle Limited Warranty entitlements.

If DEF comes into contact with painted surfaces or aluminum surfaces, rinse the affected areas immediately with plenty of water.

DEF is not a diesel additive and must not be mixed with fuel in the tank. Even small amounts of DEF can cause engine damage.

Damage resulting from adding DEF is not covered by the New Vehicle Limited Warranty.

① Top up at the latest after the second warning message (▷ page 133), if the DEF level has fallen below the reserve mark range of at least 2.0 US gal (7.6 l) DEF.

More information on DEF can be found in the "Technical data" section (▷ page 284).

# Panel van / crewbus

- ▶ Remove the key from the ignition lock.
- Close all vehicle doors so that no ammonia vapors can enter the vehicle.

① Do not inhale the ammonia vapors which escape when you unscrew the tank filler cap. Ammonia vapors have a pungent odor. However, they are neither toxic nor hazardous to health in this concentration.

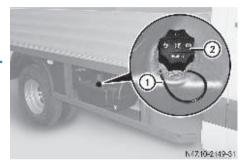


#### DEF filler neck in the engine compartment

- ► Turn tank filler cap ① counterclockwise and remove it.
- Only fill the tank via the filler neck until the DEF level can be seen in the filler neck.
- ► Position DEF tank filler cap ① on the filler neck and turn clockwise.
- ➤ You will hear a click when tank filler cap ① is fully closed.

#### Chassis

- ▶ Remove the key from the ignition lock.
- ► Close all vehicle doors so that no ammonia vapors can enter the vehicle.
- 1 Do not inhale the ammonia vapors which escape when you unscrew the tank filler cap. Ammonia vapors have a pungent odor. However, they are neither toxic nor hazardous to health in this concentration.



DEF tank on the right-hand side of the vehicle (example: platform truck)





#### DEF tank filler cap

- Remove tool ⑤ for unlocking the fuel filler cap ② from the footwell on the co-driver's side (▷ page 204).
- ▶ Pull cover ④ up, turn 90° and release.
- ▶ Insert tool ⑤ into holes ③ in fuel filler cap ②.

- ➤ Turn fuel filler cap ② counterclockwise, remove it and let it hang from retaining strap ①. Make sure that tool ⑤ remains in tank filler cap ② while doing so.
- Only fill the tank via the filler neck until the DEF level can be seen in the filler neck.
- ► Position fuel filler cap ② and turn clockwise to tighten.
- ► Pull tool ⑤ out of fuel filler cap ② and stow it with the vehicle tool kit in the footwell on the co-driver's side.
- ▶ Pull cover ④ up over holes ③ of fuel filler cap ② turn and release.
- ► Turn fuel filler cap (2).
- ► If fuel filler cap ② turns freely, the DEF tank is closed.

# **Engine compartment**

#### Hood



#### Warning

Do not pull the release lever while the vehicle is in motion. The hood could otherwise open, thereby impairing visibility and leading to loss of control of the vehicle.

For this reason, only open the hood when the vehicle is parked.

# **Opening**



## **!** Warning

There is a risk of injury if the hood is open, even if the engine is not running.

Some engine components can become very hot.

To avoid the risk of burns, only touch those components described in the Operating Instructions and observe the relevant safety notes.



#### Warning

The radiator fan between the radiator and the engine can start automatically, even if the key has been removed from the ignition lock. Keep away from the area of rotation of the fan blades. You could otherwise be injured.

The electronic injector control operates at high voltage. For this reason, you must never touch injection system components while:

- the engine is running
- the engine is being started
- the key is in position 2 in the ignition lock

You could otherwise receive an electric shock and be severely or fatally injured.

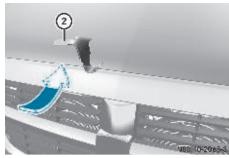


Release lever on the left-hand side in the driver's footwell

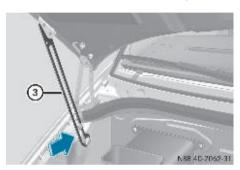
Pull release lever ① under the instrument panel on the left-hand side in the driver's footwell.

The hood is released.

Make sure that the windshield wipers are not folded away from the windshield. The windshield wipers or the hood could otherwise be damaged.



▶ Push up securing hook lever (2).





# Warning

If the hood support strut is not engaged, the hood can fall shut. You could be injured.

After opening the hood, you should therefore check whether the support strut is engaged.

 Swing the hood upward until support strut ③ engages and the hood is supported.

# Closing



#### !\ Warning

Make sure that nobody can become trapped as you close the hood.

- Lift the hood gently.
- ► Push back support strut ③.
- When you press the support strut back, make sure that you do not press it against the detent position and cause it to bend.

Let the hood drop from a height of approximately 1 ft (30 cm).

The hood engages audibly.



# Warning

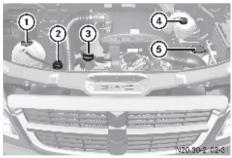
Make sure that the hood is securely engaged before driving off. Do not continue driving if the hood can no longer engage after an accident, for example. The hood could otherwise come loose while the vehicle is in motion and endanger you and / or others.

 Check to make sure the hood is fully closed.

If the hood can be raised slightly, it is not properly engaged. Open it again and allow it to drop from a slightly greater height.

Do not use your hands to push the hood down. Doing so could damage it.

## Maintenance points under the hood



- ① Coolant tank cap (⊳ page 160)
- ② Filler neck cap, Diesel Exhaust Fluid (DEF)<sup>1</sup> (▷ page 155)
- (a) Cap on engine oil filler neck (b) page 160)
- (4) Brake fluid reservoir cap (▷ page 161)
- (5) Windshield washer reservoir cap(▷ page 162)

# Service products

Mechanical elements and the lubricants used for them must be carefully matched.

For this reason, only tested and approved brands should be used. Please contact your Sprinter Dealer to obtain the necessary information.

No lubricant additives should be used. The use of such additives could affect your New Vehicle Limited Warranty rights. Information is available from any authorized Sprinter Dealer.

For specifications of engine oils, coolant and brake fluid, see "Service products and capacities" (> page 279) and contact your authorized Sprinter Dealer.



#### Warning

If handled incorrectly, service products can constitute a health risk for people and an environmental hazard. Always observe relevant guidelines for handling, storing and disposing of service products.

# **Engine oil**

Check the engine oil level on a regular basis, for example weekly or each time you refuel.

If the oil level exceeds the maximum level several times during operation, have the malfunction rectified immediately at an authorized Sprinter Dealer.

Only check the engine oil level when the engine is at operating temperature.

- Park the vehicle on a level surface.
- Switch off the engine.
- Wait for 5 minutes.

# Checking the engine oil level in the display

► Turn the key to position 2 in the ignition lock.

The display is activated.

i If at extremely low temperatures no engine oil level is displayed after 5 minutes, wait a further 5 minutes before repeating the engine oil level check.

If no oil level reading is shown again, check the engine oil level with the dipstick.

Have the engine oil level display checked at an authorized Sprinter Dealer.

## Vehicles without steering wheel buttons

► Press the (M) menu button on the instrument cluster repeatedly until you see the (S) symbol in the display.

The --:-- display flashes during the measurement process.

The following messages may be displayed:

8		
OK	•	Do not add oil.
- 1.0 qts - 1.5 qts	•	Add the amount of oil shown (⊳ page 160).
- 2.0 qts	•	Check the engine oil level again after a few minutes.
HI	•	The engine oil level is too high. Have the oil siphoned off.

- 1 Engine oil level display:
- qts in USA only
- ltr in Canada only

# Vehicles with steering wheel buttons

Press the ⑤ button on the instrument cluster (▷ page 82). ► The following message is displayed for the duration of the measurement process:

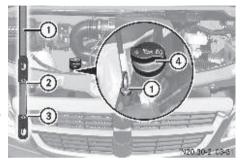
Engine oil level Measuring in progress

The following messages may be displayed:

<del>2</del>	
Engine oil level OK	► Do not add oil.
Engine oil Add 1.0 quart	► Add the amount of oil shown (▷ page 160).
Engine oil Add 1.5 quarts	Check the engine oil level again after a few minutes.
Engine oil Add 2.0 quarts	
Engine oil level Reduce oil level	► The engine oil level is too high. Have the oil siphoned off.
Eng. oil lev. Turn igni- tion on for level	► Turn the key to position 2 in the igni- tion lock.
Observe wait. period	Carry out another mea- surement after approx- imately 5 minutes, when the engine is at normal operating tem- perature.
	► Carry out another measurement after approximately 30 minutes, when the engine has cooled down.
Engine oil level Not when eng. run- ning	➤ Switch off the engine and wait for approxi- mately 5 minutes if the engine is at normal op- erating temperature.

- quart(s) in USA only
- liter(s) in Canada only

# Checking the engine oil level with the dipstick



- ▶ Pull out dipstick (1).
- ▶ Wipe it clean with a lint-free cloth.
- Insert it into the dipstick tube as far as the stop and pull it back out.
- ▶ Check the engine oil level.

The oil level is correct if the oil is between lower **min** ③ and upper **max** ② marks on the dipstick.

The difference in the quantity of oil between the upper and lower marks on the dipstick is approximately 2 US qts (2 l).

▶ Add engine oil if necessary.

# Adding engine oil

For specifications of engine oils see "Service products and capacities" (> page 279).

 Unscrew cap (4) on the engine oil filler neck.

The alternator is underneath the engine oil filler neck. For this reason, add the engine oil carefully. There is a risk of damage to the alternator from engine oil dripping down.

Make sure that you only fill the engine oil as far as the upper max (2) mark.

Have any excess engine oil drained or siphoned off at an authorized Sprinter Dealer. Otherwise, the engine or catalytic converter could be damaged.

# $\Phi$

#### **Environmental note**

When adding oil, take care not to spill any.

No engine oil must be allowed to enter sewage systems, surface water, ground water or soil.

You would otherwise be damaging the environment.

Dispose of engine oil in an environmentally responsible manner.

 Screw cap (4) on the engine oil filler neck.

#### Coolant

Only add coolant with the vehicle standing on a level surface and with the engine switched off. The coolant temperature must have dropped below 122 °F (50 °C).



Coolant expansion tank



## Warning

When opening the coolant expansion tank, there is a risk of scalding from hot coolant spraying out. The cooling system and the coolant expansion tank are pressurized when the engine is at normal operating temperature.

Wear gloves and eye protection. Only open the coolant expansion tank when the coolant temperature is less than 122 °F (50 °C).



#### Warning

Coolant contains glycol and is therefore toxic. Do not swallow coolant. Consult a doctor immediately if any coolant is swallowed.

Do not allow coolant to come into contact with your skin, eyes or clothing. In the event of contact with the eyes, rinse them thoroughly with clean water. Clean skin and clothes immediately with soap and water. Change out of soiled clothing without delay.

- ► Slowly unscrew cap ① counterclockwise to reduce excess pressure.
- Continue turning the cap and remove it.
- ► Add coolant up to the **MAX** mark. Observe the correct coolant mixture ratio and the required water quality (> page 279).
- ► Twist cap (1) back on.
- Check the cooling and heating systems regularly for leaks. If a large quantity of coolant is lost, have the cause traced and rectified at an authorized Sprinter Dealer.

#### **Brake fluid**



#### Warning

Brake fluid is hazardous to health. Do not swallow brake fluid. Consult a doctor immediately if any brake fluid is swallowed.

You should not allow brake fluid to come into contact with the skin, eyes or clothing. Wash affected areas with plenty of clean water and consult a doctor immediately if necessary.

You should always wear eye protection and gloves when you are adding brake fluid.

Only store brake fluid in its closed original container and keep out of the reach of children. Comply with safety regulations when handling brake fluid.



#### Warning

If the boiling point of the brake fluid is too low, vapor pockets may form in the brake system when the brakes are applied hard (e.g. when driving on long downhill stretches). This has a detrimental effect on braking efficiency, which could increase the stopping distance. This increases the risk of an accident. Have the brake fluid replaced every 2 years.

Check the brake fluid level:

- regularly, e.g. weekly or when refueling
- only with the vehicle standing on a level surface and with the engine switched off
- Brake fluid is corrosive to paintwork. If brake fluid comes into contact with the paintwork, immediately rinse with water.



#### Brake fluid reservoir

(1) Brake fluid reservoir cap

The brake fluid level must be between the **MIN** and **MAX** marks.

If the brake fluid does not reach the MIN mark, the vehicle's hydraulic system could be malfunctioning. Do not add brake fluid under any circumstances. This will not solve the problem.

Do not drive any further.

Have the system checked immediately at an authorized Sprinter Dealer.

1 There is usually a notice in the engine compartment to remind you when the next brake fluid change is due.

For specifications of brake fluid, see "Service products and capacities" (> page 286).

# Windshield washer system / headlamp cleaning system

Add windshield washer fluid concentrate to the water all year round.



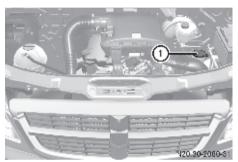
#### Warning

Windshield washer concentrate is highly flammable. Fire, open flames and smoking are prohibited when you are handling windshield washer concentrate.

Only use washer fluid concentrate which is suitable for plastic lamp lenses. Unsuitable washer fluid concentrate could damage the plastic lamp lenses of the headlamps.

Adapt the mixing ratio to the outside temperature. Use Summerwash to protect against smearing at temperatures above freezing and Winterwash when there is a risk of frost so that the water does not freeze onto the windshield.

The windshield washer reservoir holds approx. 6.3 US qt (6.0 I). On vehicles with a headlamp cleaning system, this is also supplied from the windshield washer reservoir.



#### Windshield washer reservoir

- Mix the windshield washer fluid in a container to the specified proportions.
- Remove cap ①.
- Fill up the windshield washer fluid.
- ▶ Press cap ① back on.

# Vehicle assemblies

Check assemblies regularly for leaks. In the event of fluid loss (e.g. spots of oil under the vehicle when it has been parked), have the cause traced and rectified immediately at an authorized Sprinter Dealer which has the necessary specialist knowledge and tools to carry out the work required.



### **Environmental note**

When used improperly, service products are harmful to the environment. Do not allow service products to run into the sewage system, the surface waters or into the ground.

## **Battery**



#### Warning



Risk of explosion. When batteries are charging, flammable gas is emitted. Only charge batteries in well-ventilated areas.



Risk of explosion. Because of the risk of explosion, avoid creating sparks from fire, open flames and smoking.



Battery acid is caustic. Wear acidproof protective gloves. Neutralize splashes of acid on skin or clothing immediately with soapy water or acid neutralizer and clean with water.



Wear eye protection. When mixing water and acid, the liquid can splash in your eyes. Rinse out your eyes immediately after acid splashes with clean water, and consult a doctor immediately.



Keep out of the reach of children. Children cannot appreciate the dangers involved in handling batteries and acid.



When handling batteries, observe the safety precautions and special protective measures contained in these Operating Instructions.



## **Environmental note**



Batteries contain pollutants. Do not dispose of old batteries with the household garbage.



Dispose of batteries in an environmentally responsible manner. Take batteries to an authorized Sprinter Dealer or a special collection point for old batteries. Transport and store filled batteries in an upright position. When transporting batteries, secure them so that they do not tip over. Battery acid can spill from the cell cap vents and cause damage to the environment.

The batteries must always be sufficiently charged so that they achieve their intended service life.

Have the battery charge status checked more frequently if you use the vehicle mainly for short trips or if you leave it parked up for a long period.

If you intend to leave your vehicle parked up for a long period, seek advice from an authorized Sprinter Dealer and switch off the electrical system at the battery isolating switch (> page 164).

Your vehicle may be equipped with two batteries, depending on the version:

- starter battery in the battery recess in the driver's footwell
- auxiliary battery in the engine compartment

The auxiliary battery in the engine compartment is not suitable for jump-starting operations. Only use the jump-starting connection in the engine compartment if you require jump-starting assistance or wish to provide jump-starting assistance (▷ page 268).

Have the batteries removed at an authorized Sprinter Dealer which has the necessary specialist knowledge and tools to carry out the work required.

You will find further information in the "Practical hints" section ( $\triangleright$  page 265).

#### Care of batteries

Please note the following points:

- dirty terminal clamps and battery contacts cause current drain, which lead to
  the batteries discharging. Always keep
  the terminal clamps and battery contacts clean and dry. Lightly grease the
  terminal clamps, particularly the undersides, with acid-proof grease.
- cleaning agents containing petroleum corrode the battery housing. Only clean with commercially available cleaning agents.
- only clean the battery casing with the cell caps screwed in. Otherwise, dirt could get into the battery cells.
- the vent holes in the cell caps must be unobstructed and the cell ventilation hoses must not be blocked. Otherwise, gas cannot escape. Unscrew the cell caps and clean blocked vent holes with a suitable implement, e.g. a piece of wire. You must unscrew the cell caps first. There is otherwise a risk of a short circuit.
- check the terminal clamps and the fastening of the negative cable to the chassis at regular intervals to ensure that they are correctly seated.
- batteries which are out of use should be recharged once a month.

# **Battery isolating switch**

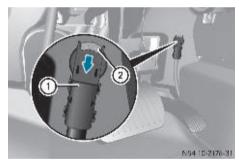
You can disconnect the current to all your vehicle's consumers by using the battery isolating switch. This will prevent uncontrolled battery discharge caused by quiescent current consumption.



#### Warning

If the vehicle is equipped with an auxiliary battery in the engine compartment, it is necessary to disconnect both batteries when working on the vehicle electrical system. Only then is the electrical system fully disconnected from the power supply.

• Only disconnect the vehicle electrical system from the power supply by using the battery isolating switch if the vehicle is to be parked up for a long period or if this is absolutely necessary. After the power supply is switched on, you must reset the side windows (▷ page 66) and the sliding sunroof (▷ page 67).



# Battery isolating switch on the right-hand side next to the accelerator pedal

Make sure that the key is in position 0 in the ignition lock and wait at least 20 seconds before disconnecting or connecting the battery isolating switch. You could otherwise damage electrical system components.

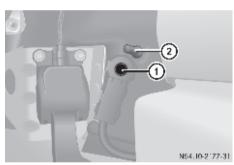
# Switching off the electrical system

- Take the key out of the ignition lock and wait for approximately 20 seconds.
- ► Press and hold button ② and unplug connector ① from the ground pin.
- Clamp connector ① under the accelerator pedal so that it cannot make contact with the ground pin.

The consumers of the vehicle battery are cut off from the electrical circuit.

When you clamp the connector under the accelerator pedal, make sure that the connector does not become dirty or damaged. It may otherwise not be possible to restore the electrical connection when the parts are reassembled.

## Switching on the electrical system



- ► Insert the key into the ignition lock.
- Press connector ① onto ground pin ② until you feel it engage and the lock inhibitor is released.

The connector must be in full contact with ground pin ②.

All consumers are reconnected to the power supply circuit.

#### Tires and wheels

The tires on a new vehicle provide a balance of many characteristics. They should be inspected regularly for wear and correct cold tire inflation pressure. We strongly recommend using tires equivalent to the originals, which have the same dimensions, quality and performance when replacement becomes necessary.

Refer to the tire and loading information label on the tire inflation pressure label on the driver's door B-pillar (> page 295) for the size designation of your tire.

The service description and load identification will be found on the original equipment tire. Failure to use equivalent replacement tires may adversely affect the safety, handling, and ride of your Sprinter.

Contact an authorized Sprinter Dealer or an authorized tire dealer with any questions you may have on tire specifications or capability.

Only use tires that have been tested and approved for your Sprinter. Tested and approved tires are developed to provide the best possible performance in conjunction with the driving safety systems on your Sprinter, such as ABS, BAS. ASR or ESP®.

Using non-approved tires may result in damage that is not covered by the New Vehicle Limited Warranty.

They can have detrimental effects, such as:

- poor handling characteristics
- increased noise
- increased fuel consumption

Non-approved tires and rims may, under load, exhibit dimensional variations and different tire deformation characteristics that could cause them to come into contact with the vehicle body or axle parts. Damage to the tires or the vehicle may be the result.

For more information on tire size designation, load and speed rating, see "Tire labeling" (▷ page 182).

See an authorized Sprinter Dealer for information on tested and recommended rims and tires for summer and winter operation. They can also offer advice concerning tire service and purchase.



#### Warning

Do not use a tire, wheel size or rating other than that specified for your Sprinter. Some combinations of unapproved tires and wheels may change suspension dimensions and performance characteristics, resulting in changes to steering, handling, and braking of your Sprinter. This can cause unpredictable handling, and stress steering and suspension components. You could lose control and have an accident resulting in serious injury or death.

Only use the tire and wheel sizes with load ratings approved for your Sprinter; refer to "Tire and loading information" ( $\triangleright$  page 170).

Never use a tire with a smaller load index or speed index or capacity other than what was originally equipped on your Sprinter. Using a tire with a smaller load index could result in tire overloading and failure. You could lose control and have an accident.

Failure to equip the vehicle with tires having adequate speed capability can result in sudden tire failure and loss of vehicle control.

Replacing original tires with tires of a different size may result in false speedometer and odometer readings.



#### Warning

Worn, old tires can cause accidents. If the tire tread is badly worn, or if the tires have sustained damage, replace them.

When replacing rims, only use genuine and approved wheel bolts specified for the particular rim type. Failure to do so can result in the bolts loosening, and possibly an accident.

Do not use retreaded / remolded tires. This process does not always permit previous damage to be detected. Therefore, vehicle safety cannot be guaranteed if retreaded / remolded tires are fitted.

Only use wheels and tires which have been tested and approved for your Sprinter.



#### Warning

Fitting other wheel sizes to the vehicle will change the vehicle's handling characteristics and may lead to an accident resulting in death, severe injury and property damage.

Only certain tires meeting the tire size /load / speed rating specifications are certified to conform to FMVSS 110 for the Sprinter at this time. Please check the sidewalls of your originally equipped tires for specific makes / sizes, and speed load ratings when the tires are replaced.

To prevent accidents resulting in possible death, severe injury or property damage, when replacing tires, use only the tire and wheel sizes with load ratings approved for your Sprinter.

Refer to "Tire and loading information" (▷ page 170).

For information on tire and wheel sizes with load ratings, refer to "Tire and loading information" (▷ page 170).

# Radial-ply tires



#### Warning

Combining radial ply tires with other types of tires on your Sprinter will change the vehicle's handling characteristics and may lead to an accident resulting in death, severe injury and property damage. Always use radial ply tires in sets of 4 (or 6, in case of vehicles with dual rear wheels).

Never combine them with other types of tires.

Cuts and punctures in radial tires may only be repaired in the tread area; repairs to the sidewalls cannot be performed due to flexing.

Consult an authorized tire dealer for radial tire repairs.

# Tire valves (snap-in valves)



#### Warning

Sprinter tire valves are tested and approved under rough operating conditions.

The installation of additional hub caps or other wheel simulators could cause damage to the tire valve and lead to a loss of tire pressure at the valve stem.

Do not install any of these parts on your Sprinter. To help ensure safe and reliable operation of your Sprinter, only use parts and accessories tested and approved for your Sprinter.



#### Warning

Vehicles not equipped with the Tire Pressure Monitoring System (TPMS):

For safety reasons, we recommend that you use only Schrader tire valves. These have been tested for use on your vehicle.

Use only tire valves of type:

- TR 600 for the vehicle type 2500
- TR 418 for the vehicle type 3500

Using tire valves from any other manufacturer could lead to a loss in tire pressure and impair driving safety.

# Important guidelines

- Only use sets of tires and rims of the same type and make.
- Tires must be of the correct size for the rim.
- Break in new tires for approximately 65 miles (100 km) at moderate speeds.
- Regularly check the tires and rims for damage. Dented or bent rims can cause tire inflation pressure loss or damage to the tire beads.
- If the vehicle is heavily loaded, check the tire inflation pressure and correct as required.
- Do not allow your tires to wear down too far. Grip on wet roads is significantly reduced at tread depths under 1/8 in (3 mm) for summer tires and 1/6 in (4 mm) for winter tires.
- When replacing individual tires, you should mount new tires on the front wheels first.

#### Tire care and maintenance



# Warning

Regularly check the tires for damage. Damaged tires can cause tire inflation pressure loss. As a result, you could lose control of your vehicle.

Worn, old tires can cause accidents. If the tire tread is badly worn, or if the tires have sustained damage, replace them.

The tire inflation pressure should be checked regularly, i.e. at least each time you refuel the vehicle. The preferred interval for checking the tire inflation pressure, however, is before each trip.

For more information on checking tire inflation pressure, refer to "Recommended tire inflation pressure" (> page 174).

# Tire inspection

Whenever the tire inflation pressure is checked, the tires should also be inspected for the following:

- excessive treadwear; refer to "Tread depth".
- the condition of the tread depths, i.e. uneven tread wear or excessive treadwear on one side. Turn the front wheels to full lock if necessary to enable you to check the inner edge of the front tires more easily. You must also always check the inside of the tire tread on the rear wheels.
- cord or fabric showing through the tire's rubber
- bumps, bulges, cuts, cracks or splits in the tread or side of the tire
- foreign objects between the tires (on vehicles with twin tires)

Replace the tire if any of the above conditions is found.

Also inspect the spare tire periodically for condition and inflation. Spare tires will age and become worn over time even if never used, and thus should be inspected and replaced when necessary.

# Tire damage



## Warning

Driving over curbs or sharp-edged objects can cause damage to the tire substructure which is not visible from the outside.

Damage to the tire substructure cannot be detected until later and can cause the tire to burst. You could lose control of the vehicle as a result, cause an accident and injure yourself or others.

Avoid driving up against curbs or parking the vehicle with part of the tire tread surface on the curb.

Tire damage can be caused by:

- the vehicle's operating conditions
- tire aging
- curbs
- foreign objects
- insufficient or excessive tire inflation pressures
- weather and environmental influences
- · contact with oil, grease, fuel, etc.

#### Life of tire



#### Warning

All tires, including the spare tire, should be replaced after 6 years, regardless of the remaining tread.

The service life of a tire depends on varying factors including but not limited to:

- driving style
- tire inflation pressure
- distance driven

## Tread depth

Do not allow your tires to wear down too far. Grip levels on wet roads are significantly reduced at tread depths under  $^{1}/_{8}$  in (3 mm) for summer tires and  $^{1}/_{6}$  in (4 mm) for winter tires.

Treadwear Indicators (TWI) are required by law. These indicators are located in six places on the tread circumference and become visible at a tread depth of approximately <sup>1</sup>/<sub>16</sub> in (1.6 mm), at which point the tire is considered worn and should be replaced.

Recommended minimum tire tread depth:

- summer tires <sup>1</sup>/<sub>8</sub> in (3 mm)
- winter tires <sup>1</sup>/<sub>6</sub> in (4 mm)

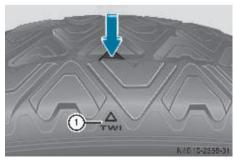


# Warning

Although the applicable federal motor safety laws consider a tire to be worn when the Treadwear Indicators (TWI) become visible at approximately  $^1/_{16}$  in (1.6 mm), we recommend that you do not allow your tires to wear down to that level.

As tread depth approaches  $^1/_8$  in (3 mm) for summer tires or  $^1/_6$  in (4 mm) for winter tires, the grip characteristics on a wet road are significantly reduced.

Depending upon the weather and/or road surface (conditions), the tire traction varies widely.



Treadwear Indicator ① appears as a solid band across the tread.

## Storing tires

Keep unmounted tires in a cool, dry place with as little exposure to light as possible. Protect tires from contact with oil, grease and gasoline/diesel.

# Cleaning tires

Never use a round nozzle to power wash tires. Using non-approved tires can have detrimental effects, such as:

- poor handling characteristics
- increased noise
- increased fuel consumption

Non-approved tires and rims may, under load, exhibit dimensional variations and different tire deformation characteristics that could cause them to come into contact with the vehicle body or axle parts. Damage to the tires or the vehicle may be the result.

An intense jet of water can result in damage to the tire.

Always replace a damaged tire.

#### **Direction of rotation**

An arrow on the sidewall indicates the intended direction of rotation (spinning) of the tire which means the wheel must be mounted in the direction of rotation.

If a tire does not have an arrow on the sidewall indicating the direction of rotation, the wheel can be mounted either way.

1 The Tire Identification Number (TIN) must always be visible on the outboard side of the tire.

Spare wheels may be mounted against the direction of rotation (spinning) even with a unidirectional tire for temporary use only until the regular drive wheel has been repaired or replaced. Always observe and follow applicable temporary use restrictions and speed limitations indicated on the spare wheel.

Have a spare wheel that was mounted against the direction of rotation replaced with a regular road wheel as soon as possible.

## Loading the vehicle

The following labels on the vehicle show how much weight it may properly carry.

# Tire and loading information label

For vehicles with a gross weight capacity less than 10,000 lbs (4536 kg) only.



# Tire and loading information label on driver's door B-pillar

Tire and loading information label ① provides important information about the number of people that can be in the vehicle and the total weight that can be carried in the vehicle.

It also contains information on the proper size and recommended tire inflation pressures for the original equipment tires on your vehicle.

#### Certification label

The certification label can be found below the driver's seat on an outward-facing position of the mounting pillar ( $\triangleright$  page 172).

This label tells you about:

- the gross weight capacity of your vehicle, called the Gross Vehicle Weight Rating (GVWR)
- the front and rear axle weight capacity, called the Gross Axle Weight Rating (GAWR)
- the gross combination capacity of your vehicle, called the Gross Combination Weight Rating (GCWR)

The GVWR includes the weight of the vehicle, all occupants, fuel and cargo.

The GAWR is the total allowable weight that can be carried by a single axle (front or rear).

The GCWR is the total allowable weight of vehicle and trailer when weighed in combination

Never exceed the GVWR, the GAWR for either the front axle or rear axle or the GCWR.

Following is a discussion on how to work with the information contained on the tire and loading information label with regards to loading your vehicle.

# Tire and loading information



#### Warning

Do not overload the tires by exceeding the specified load limit as indicated on the tire and loading information label on the driver's door B-pillar or on the certification label below the driver's seat on the mounting pillar. Overloading the tires can overheat them, possibly causing a blowout. Overloading the tires can also result in handling or steering problems, or brake failure.

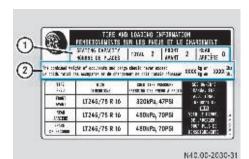
Overloading of tires is dangerous. Overloading can cause tire failure, affect vehicle handling, and increase the stopping distance. Use tires of the recommended load capacity for the vehicle. Never overload them.

# Tire and loading information label

For vehicles with a gross weight capacity less than 10000 lbs (4536 kg) only.

The tire and loading information label is located on the driver's door B-pillar.

The data shown on this label is for illustrative purposes only. The load limit data and seating data are specific to each vehicle and may vary from the data shown in the illustration below. Refer to the label on your vehicle for actual data specific to your vehicle.



#### Tire and loading information label

- Seating capacity
- (2) Load limit information

# Seating capacity

Seating capacity ① gives you important information on the number of occupants that can be in the vehicle. Observe front and rear seating capacity.

Never let more people ride in the vehicle than there are designated seating positions and seat belts available. Make sure that everyone riding in the vehicle is correctly restrained with a separate seat belt.

#### Load limit information

Locate statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." ② on the tire and loading information label. The combined weight of all occupants, cargo /luggage and trailer tongue load (if applicable) should never exceed the weight referenced in that statement.

# Steps for determining correct load limit

For vehicles with a gross weight capacity less than 10000 lbs (4536 kg) only.

The following steps have been developed as required of all manufacturers under Title 49, Code of U.S. Federal Regulations, Part 575 pursuant to the "National Traffic and Motor Vehicle Safety Act of 1966".

- ➤ **Step 1:** locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's label.
- ▶ **Step 2:** determine the combined weight of the driver and passengers that will be riding in your vehicle.
- Step 3: subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
- ▶ Step 4: the resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1400 lbs (650 kg) and there will be five 150-lb (70 kg) passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs (300 kg) (1400 750 (5 x 150) = 650 lbs (650 350 (5 x 70) = 300 kg)).
- ▶ Step 5: determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in step 4.
- ▶ Step 6 (if applicable): if your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

The following table gives examples of how to calculate total load, cargo load and towing capacities with varying seating configurations and number and size of occupants. The following examples use a load limit of 1500 lbs (700 kg).

# This is for illustrative purposes only.

Be sure to use the actual load limit for your vehicle stated on the vehicle's tire and loading information label ( $\triangleright$  page 171).

		Example 1	Example 2	Example 3
Step 1	Combined weight limit of occupants and cargo from label	1500 lbs (700 kg)	1500 lbs (700 kg)	1500 lbs (700 kg)
Step 2	Number of occupants (driver and passengers)	5	3	1
	Seating configuration	Front: 2 Rear: 3	Front: 1 Rear: 2	Front: 1 Rear: -
	Weight of occupants	Occupant 1: 150 lbs (70 kg)	Occupant 1: 200 lbs (90 kg)	Occupant 1: 150 lbs (70 kg)
		Occupant 2: 180 lbs (80 kg)	Occupant 2: 190 lbs (85 kg)	
		Occupant 3: 160 lbs (75 kg)	Occupant 3: 150 lbs (70 kg)	
		Occupant 4: 140 lbs (60 kg)		
		Occupant 5: 120 lbs (55 kg)		
	Combined weight of all occupants	750 lbs (340 kg)	540 lbs (245 kg)	150 lbs (70 kg)
Step 3	Available cargo / luggage and trailer	1500 lbs - 750 lbs =	1500 lbs - 540 lbs =	1500 lbs - 150 lbs =
	tongue weight (total load limit or vehicle ca-	750 lbs	960 lbs	1350 lbs
	pacity weight from tire and loading information	(700 kg - 340 kg =	(700 kg - 245 kg =	(700 kg - 70 kg =
	label minus combined weight of all occupants)	360 kg)	455 kg)	630 kg)

The higher the weight of all occupants, the less cargo and luggage load capacity is available.

### Certification label

Even after careful determination of the combined weight of all occupants, cargo and the trailer tongue load (if applicable) as to not exceed the permissible load limit, you must make sure that your vehicle never exceeds the Gross Vehicle Weight Rating (GVWR) and the Gross Axle Weight

Rating (GAWR) for either the front or rear axle and the Gross Combination Weight Rating (GCWR) (if applicable).

Under a maximum loaded vehicle condition, gross axle weight ratings (GAWR's) for the front and rear axles must not be exceeded.

You can obtain the GVWR, the front / rear GAWR and the GCWR from the certification label. The certification label can be found. below the driver's seat on an outward facing position of the mounting pillar (⊳ page 293).

For more information on the trailer tongue load, refer to "Trailer tongue load".

Gross Vehicle Weight Rating (GVWR): The total weight of the vehicle, all occupants, all cargo, and the trailer tongue load (if applicable) must never exceed the GVWR.

Gross Axle Weight Rating (GAWR): The maximum permissible weight that can be carried by a single axle (front (FA) or rear (RA)).

Gross Combination Weight Rating (GCWR): The total allowable weight of vehicle and trailer when weighed in combination, including a 150 lb (68 kg) allowance for the presence of a driver.

To assure that your vehicle does not exceed the maximum permissible weight limits (GVWR and GAWR for front and rear axle and GCWR), have the loaded vehicle (including driver, passengers and all cargo and, if applicable, trailer fully loaded) weighed on a suitable commercial scale.

# Permissible weights and ratings

Sprinter type	GVWR	GAWR (FA)	GAWR (RA)	GCWR
2500	8550 lbs (3878 kg)	3970 lbs (1801 kg)	5360 lbs (2431 kg)	13500 lbs (6 123 kg)
3500	9990 lbs (4531 kg)	4080 lbs (1851 kg) 4410 lbs (2000 kg)	7060 lbs (3202 kg)	15250 lbs (6917 kg)
	11030 lbs (5003 kg)	4080 lbs (1851 kg)	7720 lbs (3502 kg)	15250 lbs (6917 kg)
		4410 lbs (2000 kg)	(3302 Kg)	

# Trailer tongue load

The tongue load (tongue weight at the hitch ball) of any trailer is an important weight to measure because it affects the load you can carry in your vehicle. If a trailer is towed, the tongue load must be added to the weight of all occupants riding and any cargo you are carrying in the vehicle to prevent exceeding your Sprinter tow vehicle's rear GAWR. The tongue load is 10% of the trailer weight and everything loaded in it.

For example, if the trailer tongue load equals 140 lbs (63.5 kg) and the determined available cargo / luggage and trailer tongue weight equals 500 lbs (227 kg), the amount of available cargo and luggage load capacity is 360 lbs (163.5 kg) -500 lbs - 140 lbs = 360 lbs(227 kg - 63.5 kg = 163.5 kg).

For further information on vehicle and trailer weights and ratings, loading a trailer and

trailer towing, see "Trailer towing" (⊳ page 148).

## **Recommended tire inflation pressure**



## Warning

Follow recommended tire inflation pressures.

Do not underinflate tires. Underinflated tires wear excessively and / or unevenly, adversely affect handling and fuel economy, and are more likely to fail due to overheating.

Do not overinflate tires. Overinflated tires can adversely affect handling and ride comfort, wear unevenly, increase stopping distance, and result in sudden deflation (blowout) because they are more likely to become punctured or damaged by road debris, potholes, etc.



1 Tire and loading information label or tire inflation pressure label on driver's door B-pillar

The tire inflation pressure (including the spare wheel) should be checked regularly and adjusted as well as inspected for signs of tire wear or visible damage. Use a good quality pocket-type gauge to check tire inflation pressure.

Do not make a visual judgment when determining proper inflation. Radial tires may look properly inflated even when they are underinflated The tire inflation pressure should be checked regularly, i.e. at least each time you refuel the vehicle, and should only be adjusted on cold tires. The preferred interval for checking the tire inflation pressure, however, is before each trip.

The tires can be considered cold if the vehicle has been parked for at least 3 hours or driven less than 1 mile (1.6 km) at an ambient temperature of approximately 68 °F (20 °C).

Follow recommended cold tire inflation pressures listed on vehicle label.

Keeping the tires properly inflated provides the best handling, tread life and ride comfort.

The pressure difference between the tires on a single axle should not exceed 1.5 psi (10 kPa).

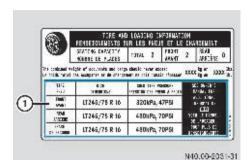
In addition to the label, also consult the tire inflation pressure table ( $\triangleright$  page 291).

For more information, refer to "Important notes on tire inflation pressure".

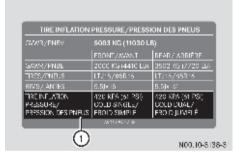
#### Label

The label is located on the driver's door B-pillar.

The data shown on the tire and loading information label 1 and on the tire inflation pressure label is for illustrative purposes only. Tire data is specific to each vehicle and may vary from the data shown in the illustration below. Refer to your vehicle's label for actual data specific to your vehicle.



Tire and loading information label<sup>1</sup>



#### Tire inflation pressure label

The label lists recommended cold tire inflation pressures ① for all load conditions up to the maximum permissible weight limits (GAWR). The tire inflation pressures listed apply to the tires installed as original equipment.

# Important notes on tire inflation pressure



#### Warning

If the tire inflation pressure repeatedly drops:

- check the tires for punctures from foreign objects.
- check to see whether air is leaking from the valves or from around the rim.

Tire temperature and tire inflation pressure are also increased while driving, depending on the driving speed and the tire load.

Tire inflation pressure changes by approximately 1.5 psi (0.1 bar) per 18 °F (10 °C) of air temperature change. Keep this in mind when checking tire inflation pressure where the temperature is different from the outside temperature.

#### For example:

If the inside temperature is 68 °F (20 °C) and the outside temperature is 32 °F (0 °C), then the cold tire inflation pressure should be increased by 3 psi (0.2 bar), which equals 1.5 psi (0.1 bar) for every 18 °F (10 °C) for this outside temperature condition.

Check tire inflation pressures more often if subject to a wide range of outdoor temperatures, as tire pressures vary with temperature changes.



# Warning

Tire pressure may increase during operation.

Never reduce this normal pressure build up or your tire pressure will be too low.

Underinflated tires wear excessively and / or unevenly, adversely affect handling and fuel economy, and are more likely to fail due to overheating.

# Checking tire inflation pressure

The tire inflation pressure should be checked regularly, i.e. at least each time you refuel the vehicle. The preferred interval for checking the tire inflation pressure, however, is before each trip.

The tire inflation pressures specified either on the tire and loading information label or on the tire inflation pressure label on the driver's door B-pillar are always cold tire inflation pressures.

Check and adjust the tire inflation pressure when the tires are cold. Cold tire inflation pressure is defined as the tire

pressure after the vehicle has been parked for at least 3 hours or driven less than 1 mile (1.6 km) at an ambient temperature of approximately 68 °F (20 °C).

The cold tire inflation pressure must not exceed the maximum tire inflation pressure molded into the tire sidewall; see "Tire labeling" (> page 182).

If you check the tire inflation pressure when the tires are warm (if the vehicle has been driven for several miles / kilometers or has been sitting for less than 3 hours), the reading will be higher than the cold reading. This is normal. Do not let air out to match the specified cold tire inflation pressure. Otherwise, the tire will be underinflated.



## Warning

Observe the recommended tire inflation pressures.

Do not underinflate tires. Underinflated tires wear excessively and / or unevenly, adversely affect handling and fuel economy, and are more likely to fail from being overheated.

Do not overinflate tires. Overinflated tires can adversely affect handling and ride comfort, wear unevenly, increase stopping distance, and result in sudden deflation (blowout) because they are more likely to become punctured or damaged by road debris, potholes, etc.

Do not overload the tires by exceeding the specified load limit as indicated on the tire and loading information label on the driver's door B-pillar or on the certification label below the driver's seat on an outward facing position of the mounting pillar.

Overloading the tires can overheat them, possibly causing a blowout.

# Checking tire inflation pressure manually

Follow the steps below to achieve correct tire inflation pressure:

- Remove the cap from the valve on one tire.
- Firmly press a tire gauge onto the valve.
- ▶ Read the tire inflation pressure on the tire gauge and compare it with the recommended tire inflation pressure on the label (> page 174) located on the driver's door B-pillar.

In addition to the label also consult the tire inflation pressure table (> page 291).

- If necessary, add air to achieve the recommended tire inflation pressure.
- if you have overfilled the tire, use an implement such as the tip of a pen to push the metal stem of the valve and release tire inflation pressure. Then recheck the tire inflation pressure with the tire gauge.
- Reattach the valve cap.
- After inspecting or adjusting the tire inflation pressure, always reattach the valve cap if equipped.

This will prevent moisture and dirt from entering the valve stem, which could damage the valve stem.

Repeat this procedure for each tire.

Checking tire inflation pressure electronically with the Tire Pressure Monitoring System (TPMS) (vehicles without steering wheel buttons)

USA only:

The Tire Pressure Monitoring System (TPMS) is equipped with a combination low tire pressure / TPMS (!) malfunction indicator lamp in the instrument cluster. Depending on how the indicator lamp comes on, it indicates a low tire pressure condition or a malfunction in the TPMS system itself:

- If the indicator lamp remains lit, one or more of your tires is significantly underinflated. There is no malfunction in the TPMS.
- If the indicator lamp flashes for 60 seconds and then remains lit, the TPMS system itself is not operating properly.

Canada only:

The Tire Pressure Monitoring System (TPMS) is equipped with a (!) low tire pressure indicator lamp in the instrument cluster. If the indicator lamp comes on illuminates, one or more of your tires is significantly underinflated.

The TPMS only functions on wheels that are equipped with the proper electronic sensors. It monitors the tire inflation pressure, as selected by the driver, in all four tires. A warning is issued to alert you to a decrease in pressure in one or more of the tires.



# Warning

The TPMS does not warn you against incorrectly selected tire inflation pressure and does not warn you when the tire pressures is not properly selected for the respective vehicle load. It warns you only when the pressure of one or more tires decreases significantly below the reference inflation pressure which was stored at the time of calibration of the TPMS after you inflated the tires.

Always make sure that you recalibrate the TPMS after you have inflated the tires to the recommended cold inflation pressure.

Always adjust tire inflation pressure according to the tire and loading information label on the driver's door B-pillar.

Underinflated tires wear excessively and / or unevenly, adversely affect handling and fuel economy, and are more likely to fail from being overheated.

Overinflated tires can adversely affect handling and ride comfort, wear unevenly, increase stopping distance, and result in sudden deflation (blowout) because they are more likely to become punctured or damaged by road debris, potholes, etc.

The TPMS is not able to issue a warning due to a sudden dramatic loss of pressure (e.g. tire blowout caused by a foreign object). In this case, bring the vehicle to a halt by carefully applying the brakes and avoiding abrupt steering maneuvers.



#### Warning

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the recommended inflation pressure on the tire and loading information label. (If your vehicle has tires of a different size than the size indicated on the vehicle label or the tire inflation pressure label, you should determine the proper tire inflation pressure for those tires).

As an added safety feature, your vehicle has been equipped with a Tire Pressure Monitoring System (TPMS) that illuminates a (!) low tire pressure indicator lamp when one or more of your tires is significantly underinflated. Accordingly, when the \(\bar{\lambda}\) low tire pressure indicator lamp illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly underinflated tire causes the tire to overheat and can lead to tire failure.

Underinflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if underinflation has not reached the level to trigger illumination of the TPMS (1) low tire pressure indicator lamp. USA only:

Your vehicle has also been equipped with a TPMS malfunction indicator lamp to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the 1 low tire pressure indicator lamp.

When the system detects a malfunction, the indicator lamp will flash for approximately 1 minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists. When the \( \frac{1}{2} \) malfunction indicator lamp is lit, the system may not be able to detect or signal low tire pressure as intended.

TPMS malfunctions may occur for a variety of reasons, including the installation of incompatible replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS [1] malfunction indicator lamp after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

If a condition causing the TPMS to malfunction develops, it may take up to 10 minutes for the system to signal a malfunction using the TPMS (1) indicator lamp flashing and illumination sequence. The (1) indicator lamp extinguishes after driving a few minutes if the malfunction has been corrected.

① Operating radio transmission equipment (e.g. wireless headsets, two-way radios) in or near the vehicle could cause the TPMS to malfunction.

# Reactivating the TPMS

The TPMS must be reactivated when you have adjusted the tire inflation pressure to a new level (e.g. because of different load or driving conditions). The TPMS is then recalibrated to the current tire inflation pressures.



#### Warning

It is the driver's responsibility to calibrate the TPMS on the recommended cold inflation pressure. Underinflated tires affect the ability to steer or brake the vehicle. You might lose control over the vehicle.

- Make sure that tire inflation pressure of all four tires is correct, using the tire and loading information label ¹ or the tire inflation pressure label located on the driver's door B-pillar (▷ page 174). In addition to the label, also consult the tire inflation pressure table (▷ page 291).
- **1** Reactivate the TPMS after adjusting the tire inflation pressure to the inflation pressure recommended for the vehicle operating condition. Tire pressure should only be adjusted on cold tires. Observe the recommended tire inflation pressure on the tire and loading information label on the driver's door B-pillar (▷ page 170).
- Turn the key to position 2 in the ignition lock.
- Press the M menu button on the instrument cluster until you see the +CAL- TPMS message in the display.
- Press the + button on the instrument cluster.

The following message is displayed: OK TPMS

The tire pressure monitor activation process has begun.

The tire pressures of the individual wheels are stored as the new reference values if they are determined to be plausible for the tire pressure monitor.

If you wish to cancel the activation process:

► Press the — button or the M menu button on the instrument cluster.

The activation process is canceled automatically if 30 seconds elapse with no input.

Checking tire inflation pressure electronically with the Tire Pressure Monitoring System (TPMS) (vehicles with steering wheel buttons)

USA only:

The Tire Pressure Monitoring System (TPMS) is equipped with a combination low tire pressure / TPMS malfunction indicator lamp ① in the instrument cluster.

Depending on how the indicator lamp comes on, it indicates a low tire pressure condition or a malfunction in the TPMS system itself:

- If the indicator lamp remains lit, one or more of your tires is significantly underinflated. There is no malfunction in the TPMS.
- If the (1) indicator lamp flashes for 60 seconds and then remains lit, the TPMS system itself is not operating properly.
- Canada only:

The Tire Pressure Monitoring System (TPMS) is equipped with a \(\frac{1}{2}\) low tire pressure indicator lamp in the instrument cluster. If the indicator lamp comes on, one or more of your tires is significantly underinflated.

The TPMS only functions on wheels that are equipped with the proper electronic sensors. It monitors the tire inflation pressure, as selected by the driver, in all four tires. A warning is issued to alert you to a decrease in pressure in one or more of the tires.

Tire pressure inquiries are made using the multifunction display. The present inflation pressures are displayed only after a few minutes travel time.

1 There may be differences between the readings of a tire pressure gauge of an air hose, e.g. gas station equipment, and the vehicle's control system. Usually the readings issued by the control system are more precise.

- ► Turn the key to position 2 in the ignition lock.
- ► Press the △ or ▽ button until the current inflation pressures for each tire appear in the multifunction display.



When the Tire pres. displayed after driving for several minutes message appears in the multifunction display, the individual inflation pressure values are matched with the tires. The individual values are displayed after a few minutes' driving.



#### Warning

It is the driver's responsibility to calibrate the TPMS on the recommended cold inflation pressure. Underinflated tires affect the ability to steer or brake the vehicle. You might lose control over the vehicle.

if a spare wheel without wheel sensors is mounted, the system may still indicate the tire inflation pressure of the removed wheel for some minutes. If this happens, keep in mind that the indicated value where the spare wheel is mounted does not reflect the actual spare tire inflation pressure.



## Warning

The TPMS does not warn you against incorrectly selected tire inflation pressures and does not warn you when the tire pressure is not properly selected for the respective vehicle load. It warns you only when the pressures of one or more tires decreases significantly below the reference inflation pressure which was stored at the time of calibration of the TPMS after you inflated the tires.

Always make sure that you recalibrate the TPMS after you have inflated the tires to the recommended cold inflation pressure.

Always adjust the tire inflation pressure according to the tire and loading information label on the driver's door B-pillar.

Underinflated tires wear excessively and / or unevenly, adversely affect handling and fuel economy, and are more likely to fail from being overheated.

Overinflated tires can adversely affect handling and ride comfort, wear unevenly, increase stopping distance, and result in sudden deflation (blowout) because they are more likely to become punctured or damaged by road debris, potholes, etc.

The TPMS is not able to issue a warning due to a sudden dramatic loss of pressure (e.g. tire blowout caused by a foreign object). In this case, bring the vehicle to a halt by carefully applying the brakes and avoiding abrupt steering maneuvers.

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the recommended tire inflation pressure on the vehicle label or the tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle label or the tire inflation pressure label, you should determine the proper tire inflation pressure for those tires).

As an added safety feature, your vehicle has been equipped with a Tire Pressure Monitoring System (TPMS) that illuminates a Ullow tire pressure indicator lamp when one or more of your tires is significantly underinflated. Accordingly, when the Ullow tire pressure indicator lamp comes on, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly underinflated tire causes the tire to overheat and can lead to tire failure.

Underinflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability. Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if underinflation has not reached the level to trigger illumination of the TPMS 1 low tire pressure indicator lamp.

#### USA only:

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the ① low tire pressure indicator lamp. When the system detects a malfunction, the ② indicator lamp will flash for approximately 1 minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists. When the ① malfunction indicator lamp is lit, the system may not be able to detect or signal low tire pressure as intended.

TPMS malfunctions may occur for a variety of reasons, including the installation of incompatible replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS ① malfunction indicator lamp after replacing one or more tires or wheels on your vehicle to make sure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

If a condition causing the TPMS to malfunction develops, it may take up to 10 minutes for the system to signal a malfunction using the TPMS (1) indicator lamp flashing and illumination sequence. The (1) indicator lamp extinguishes after driving a few minutes if the malfunction has been corrected

① Operating radio transmission equipment (e.g. wireless headsets, two-way radios) in or near the vehicle could cause the TPMS to malfunction.

## Reactivating the TPMS

The TPMS must be reactivated when you have adjusted the tire inflation pressure to a new level (e.g. because of different load or driving conditions). The TPMS is then recalibrated to the current tire inflation pressures.



### Warning

It is the driver's responsibility to calibrate the TPMS to the recommended cold inflation pressure. Underinflated tires affect the ability to steer or brake the vehicle. You might lose control over the vehicle.

Make sure that the tire inflation pressure of all four tires is correct, using the tire and loading information label or the tire inflation pressure label located on the driver's door B-pillar (▷ page 174).

In addition to the label, also consult the tire inflation pressure table (> page 291).

Reactivate the TPMS after adjusting the tire inflation pressure to the inflation pressure recommended for the vehicle operating condition. Tire inflation pressure should only be adjusted on cold tires.

Observe the recommended tire inflation pressure on the tire and loading information label  $^1$  or on the tire inflation pressure label on the driver's door B-pillar ( $\triangleright$  page 174).

- Turn the key to position 2 in the ignition lock.
- Press the ☐ or ☐ button on the multifunction steering wheel repeatedly until the standard display menu appears in the multifunction display (▷ page 88).
- ▶ Press the △ or ▽ button repeatedly until you see the current inflation pressures for each tire appear in the display or the following message appears in the display

Tire pres. displayed after driving for several minutes

 Press the ① reset button on the instrument cluster.

The following message will appear in the multifunction display:

Tire pres. Adjust pres.

► Press the + button.

The following message will appear in the multifunction display:

Tire pres. monitor reactivated

After a few minutes' driving, the current tire inflation pressure values are accepted as reference values and then monitored.

If you wish to cancel the activation process:

▶ Press the — button.

## Potential problems associated with underinflated and overinflated tires

Proper tire inflation pressure is essential to the safe and satisfactory operation of your vehicle. The following three primary areas are affected by improper tire inflation pressure:

## 1. Safety



#### Warning

Follow recommended tire inflation pressures.

Do not underinflate tires. Underinflated tires wear excessively and / or unevenly, adversely affect handling and fuel economy, and are more likely to fail from being overheated.

Do not overinflate tires. Overinflated tires can adversely affect handling and ride comfort, wear unevenly, increase stopping distance, and result in sudden deflation (blowout) because they are more likely to become punctured or damaged by road debris, potholes, etc.



#### Warning

Improperly inflated tires are dangerous and can cause accidents.

Unequal tire inflation pressures can cause steering problems. You could lose control of your vehicle.

Unequal tire inflation pressures from one side of the vehicle to the other can cause the vehicle to drift to the right or left. Always drive with each tire inflated to the recommended cold tire inflation pressure.

## 2. Economy

Improper inflation pressures can cause uneven wear patterns to develop across the tire tread. These abnormal wear patterns will reduce tread life, resulting in a need for earlier tire replacement. Underinflation also increases tire rolling resistance and results in higher fuel consumption.

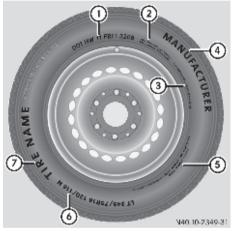
## 3. Ride comfort and vehicle stability

Proper tire inflation contributes to a comfortable ride. Overinflation produces a jarring and uncomfortable ride.

## Tire labeling

Besides the tire name (sales designation) and manufacturer's name, a number of markings can be found on a tire.

The following sections provide explanations regarding the markings on your vehicle's tires.



- ① DOT, Tire Identification Number (TIN)(▷ page 189)
- ② Maximum tire load (▷ page 186)
- (3) Maximum tire inflation pressure(▷ page 188)
- (4) Manufacturer
- ⑤ Tire ply material (▷ page 187)
- Tire size designation, load and speed rating (▷ page 183)
- (7) Tire name

for illustrative purposes only. The actual data on tires is specific to each vehicle and may vary from the data shown in the following illustration.

## Tire size designation, load and speed rating



- 1 Design standard
- (2) Tire width
- (3) Aspect ratio in %
- (4) Radial tire code
- (5) Rim diameter
- (6) Tire load rating
- (7) Tire speed rating

for illustrative purposes only. The actual data on tires is specific to each vehicle and may vary from the data shown in the following illustration.

## Tire sizes for Sprinters

	Sprinter
2500	LT 245/75 R 16 120/116 N
3500	LT 215/85 R 16 115/112 N
	LT 215/85 R 16 115/112 Q

## Design standard

Depending on the design standards used, the tire size molded into the sidewall may have no letter or a letter ① preceding the tire width or the tire load rating designation.

The letters "LT" preceding the size designation:

Light Truck tire based on U.S. design standards.

The letters "C" preceding the tire load designation: Commercial vehicle tire based on European design standards.

#### Tire width

Tire width ② indicates the nominal tire width in mm.

## Aspect ratio

Aspect ratio ③ is the dimensional relationship between tire section height and section width, and is expressed in percentage. The aspect ratio is arrived at by dividing section height by section width.

#### Tire code

Tire code (4) indicates the tire construction type. The "R" stands for radial tire type. The letter "D" means diagonal or bias ply construction; the letter "B" means belted-bias ply construction.

#### Rim diameter

Rim diameter (5) is the diameter of the bead seat, not the diameter of the rim edge. Rim diameter is indicated in inches (in).

## Tire load rating

Tire load rating (a) is a numerical code associated with the maximum load a tire can support.

For example, a load rating of 120 corresponds to a maximum load of 3042 lbs (1380 kg) the tire is designed to support.

If two values are given (as illustrated), the first value, preceding the slash "/", applies to single tires (rear axle). The second value, succeeding the slash "/", applies to twin tires (dual wheel rear axle).

Commercial vehicle tires based on European standards may have an additional value in the parentheses (as illustrated). In such cases, the value preceding the parentheses is valid for European countries and the parenthesized for the USA and Canada. Refer also to "Maximum tire load" (> page 186) where the maximum load associated with the load index is indicated in kg and lbs.



## Warning

The tire load rating must always be at least half of the GAWR of your vehicle. Otherwise, tire failure may result, which could cause an accident and / or serious injury to you or others.

Always replace rims and tires with the same designation, manufacturer and type as shown on the original part.



## Warning

Do not overload the tires by exceeding the specified load limit as indicated on the label located on the driver's door B-pillar. Overloading the tires can overheat them, possibly causing a blowout. Overloading the tires can also result in handling or steering problems, or brake failure.

1 Tire load rating 6 and tire speed rating 7 are also referred to as the "service description".

## Tire speed rating

Tire speed rating (7) indicates the approved maximum speed for the tire.

The commercial vehicle tires based on European standards may have an additional index in the parentheses. In such cases, the index preceding the parentheses is valid for European countries and the parenthesized for the USA and Canada.



## Warning

Even if permitted by law, never operate a vehicle at speeds greater than the maximum speed rating of the tires.

Exceeding the maximum speed for which tires are rated can lead to sudden tire failure, causing loss of vehicle control and possibly resulting in an accident and / or injury and possible death, for you and for others.

Always observe the speed rating of the winter tires installed on your Sprinter. If the maximum speed for which your tires are rated is below the speed rating of your Sprinter, you must place a notice to this effect where it will be seen by the driver.

Such notices are available at your tire dealer or any authorized Sprinter Dealer.

Index	Speed rating
F	up to 50 mph (80 km/h)
G	up to 56 mph (90 km/h)
J	up to 62 mph (100 km/h)
K	up to 68 mph (110 km/h)
L	up to 74 mph (120 km/h)
M	up to 80 mph (130 km/h)
N	up to 87 mph (140 km/h)
Р	up to 93 mph (150 km/h)
Q	up to 100 mph (160 km/h)
R	up to 106 mph (170 km/h)

1 Tire load rating (5) and tire speed rating (6) are also referred to as "service description".

## **DOT, Tire Identification Number (TIN)**

U.S. tire regulations require each new tire manufacturer or tire retreader to mold a TIN into or onto a sidewall of each tire produced.

The TIN is a unique identifier which facilitates efforts by tire manufactures to notify purchasers in recall situations or other safety matters concerning tires and gives purchasers the means to easily identify such tires.

The TIN is comprised of the "manufacturer's identification mark", "tire size", "tire type code" and "date of manufacture".



- ① DOT
- (2) Manufacturer's identification mark
- (3) Tire size
- (4) Tire type code (tire manufacturer's option)
- (5) Date of manufacture

for illustrative purposes only. The actual data on tires is specific to each vehicle and may vary from the data shown in the following illustration.

The TIN may be found on one or both sides of the tire; however, the date code may only be on one side. Tires with white sidewalls will have the full TIN including the date code located on the white sidewall side of the tire. Look for the TIN on the outboard side of black sidewall tires as mounted on the vehicle.

If the TIN is not found on the outboard side, then you will find it on the inboard side of the tire. In this case, the tire must be remounted. Make sure that the TIN is visible on the outboard side of the tire and, if applicable, that the direction of rotation is correct when remounting the tire.

For information regarding rotation (spinning) direction, see "Direction of rotation" (> page 169).

## **DOT (Department Of Transportation)**

Tire branding symbol ① denotes that the tire meets requirements of the U.S. Department of Transportation.

#### Manufacturer's identification mark

Manufacturer's identification mark ② denotes the tire manufacturer.

New tires have a mark with two symbols.

Retreaded tires have a mark with four symbols. For more information on retreaded tires, see (> page 165).

#### Tire size

Code (3) indicates the tire size.

## Tire type code

Code (4) may, at the manufacturer's discretion, be used as a descriptive code for identifying significant characteristics of the tire

#### Date of manufacture

Rate of manufacture (5) identifies the week and year of manufacture.

The first two figures identify the week, starting with "01" to represent the first full week of the calendar year. The second two figures represent the year.

For example, "3208" represents the 32nd week of 2008.

f the date of manufacture code indicated on the tire is less than 4 figures, do not use it.



#### Warning

Tires and spare tire should be replaced after 6 years, regardless of the remaining tread.

#### Maximum tire load

The maximum tire load is the maximum weight the tires are designed to support.



## Warning

Do not overload the tires by exceeding the specified load limit as indicated on the tire and loading information label on the driver's door B-pillar. Overloading the tires can overheat them, possibly causing a blowout. Overloading the tires can also result in handling or steering problems, or brake failure.

Never overload them.

The vehicle maximum load on the tire must not exceed the load carrying capacity of the tire on your vehicle. You will not exceed the tire's load carrying capacity if you adhere to the loading conditions, tire size and cold tire inflation pressures specified on the tire and loading information label.



(1) Maximum tire load rating

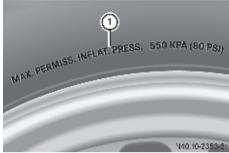
for illustrative purposes only. The actual data on tires is specific to each vehicle and may vary from the data shown in the following illustration.

For more information on tire load rating, refer to "Tire size designation, load and speed rating" (▷ page 183).

For information on calculating total and cargo load capacities, refer to "Tire and loading information" (▷ page 170).

## Maximum tire inflation pressure

This is the maximum permissible tire inflation pressure for the tire.



Maximum permissible tire inflation pressure

for illustrative purposes only. The actual data on tires is specific to each vehicle and may vary from the data shown in the following illustration.

Always follow the recommended tire inflation pressure (▷ page 174) for proper tire inflation.



#### Warning

Never exceed the maximum tire inflation pressure. Follow recommended tire inflation pressures.

Do not underinflate tires. Underinflated tires wear excessively and / or unevenly, adversely affect handling and fuel economy, and are more likely to fail from being overheated.

Do not overinflate tires. Overinflated tires can adversely affect handling and ride comfort, wear unevenly, increase stopping distance, and result in sudden deflation (blowout) because they are more likely to become punctured or damaged by road debris, potholes, etc.

## Tire ply material

This marking tells you about the type of cord and number of plies in the sidewall and under the tread



- 1) Plies in sidewall
- (2) Plies under tread

for illustrative purposes only. The actual data on tires is specific to each vehicle and may vary from the data shown in the following illustration.

## Tire and loading terminology

## Accessory weight

The combined weight (in excess of those standard items which may be replaced) of automatic transmission, power steering, power brakes, power windows, power seats, radio and heater, to the extent that these items are available as factory-installed equipment (whether installed or not).

## Air pressure

The amount of air inside the tire pressing outward on each square inch of the tire. Air pressure is expressed in pounds per square inch (psi), kilopascal (kPa) or bars.

## **Aspect ratio**

This is the dimensional relationship between the tire section height and the section width expressed in percentage.

#### Bar

Another metric unit for air pressure. There are 14.5038 pounds per square inch (psi) to 1 bar; there are 100 kilopascals (kPa) to 1 bar.

#### **Bead**

The tire bead contains steel wires wrapped by steel cords that hold the tire onto the rim.

## Cold tire inflation pressure

Tire inflation pressure when your vehicle has been sitting for at least 3 hours or driven no more than 1 mile (1.6 km).

## **Curb** weight

The weight of a motor vehicle with standard equipment including the maximum capacity of fuel, oil, and coolant, and, if so equipped, air conditioning and additional optional equipment, but without passengers and cargo.

## **DOT (Department Of Transportation)**

A tire branding symbol which denotes that the tire meets the requirements of the U.S. Department of Transportation.

## GAWR (Gross Axle Weight Rating)

The GAWR is the maximum permissible axle weight. The gross vehicle weight on each axle must never exceed the GAWR for the front and rear axle indicated on the certification label located below the driver's seat on the mounting pillar.

## GCWR ( $\underline{G}$ ross $\underline{C}$ ombination $\underline{W}$ eight $\underline{R}$ ating)

The GCWR is the total permissible weight of vehicle and trailer when weighed in combination, including a 150 lb (68 kg) allowance for the presence of a driver. It is indicated on the certification label located below the driver's seat on the mounting pillar.

## GTW (Gross Trailer Weight)

The GTW is the weight of the trailer plus the weight of all cargo, equipment, luggage, etc. loaded on the trailer.

## **GVW (Gross Vehicle Weight)**

The GVW comprises the weight of the vehicle including fuel, tools, spare wheel, installed accessories, passengers and cargo and, if applicable, trailer tongue load. The GVW must never exceed the GVWR indicated on the certification label located below the driver's seat on the mounting pillar.

## **GVWR (Gross Vehicle Weight Rating)**

This is the maximum permissible vehicle weight of the fully loaded vehicle (weight of the vehicle including all options, passengers, fuel, and cargo and, if applicable, trailer tongue load). It is indicated on the certification label located below the driver's seat on the mounting pillar.

## Kilopascal (kPa)

The metric unit for air pressure. There are 6.9 kPa to 1 psi; another metric unit for air pressure is bars. There are 100 kilopascals (kPa) to 1 bar.

## Maximum load rating

The maximum load in kg and pounds that can be carried by the tire.

## Maximum loaded vehicle weight

The sum of curb weight, accessory weight, vehicle capacity weight and production options weight.

## Maximum tire inflation pressure

This number is the highest air pressure that should be used in the tire under normal driving conditions.

## Normal occupant weight

The number of occupants the vehicle is designed to seat, multiplied by 68 kg (150 lbs).

## **Occupant distribution**

The distribution of occupants in a vehicle at their designated seating positions.

## **Production options weight**

The combined weight of those installed regular production options weighing over 5 lbs (2.3 kg) in excess of those standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery and special trim.

## PSI (Pounds per square inch)

A standard unit of measure for air pressure. Another metric unit for air pressure is bar or kilopascal (kPa).

## Recommended tire inflation pressure

Recommended tire inflation pressure for normal driving conditions listed on the tire and loading information label <sup>1</sup> or on the tire inflation pressure label located on the driver's door B-pillar.

Provides best handling, tread life and ride comfort.

#### Rim

A metal support for a tire or a tire and tube assembly upon which the tire beads are seated.

#### Sidewall

The portion of a tire between the tread and the bead.

## TIN (Tire Identification Number)

Unique identifier which facilitates efforts by tire manufacturers to notify purchasers in recall situations or other safety matters concerning tires and gives purchasers the means to easily identify such tires. The TIN is comprised of the "manufacturer's identification mark", "tire size", "tire type code" and "date of manufacture".

## Tire load rating

Numerical code associated with the maximum load a tire can support.

## Tire ply composition and material used

This indicates the number of plies or the number of layers of rubber-coated fabric in the tire tread and sidewall. Tire manufacturers also must indicate the ply materials in the tire and sidewall, which include steel, nylon, polyester and others.

## Tire speed rating

Part of the tire designation: indicates the speed range for which a tire is approved.

#### **Traction**

Force exerted by the vehicle on the road via the tires. The amount of grip provided.

#### Tread

The portion of a tire that comes into contact with the road.

#### **Treadwear Indicators**

Narrow bands, sometimes called "wear bars" that show across the tread of a tire when only  $^1/_{16}$  in (1.6 mm) of tread remains.

## TWR (Tongue Weight Rating)

Maximum permissible weight on the trailer tongue.

## Uniform tire quality grading standards

A tire information system that provides consumers with ratings for a tire's traction, temperature and treadwear. Ratings are determined by tire manufacturers using government testing procedures. The ratings are molded into the sidewall of the tire.

## Vehicle capacity weight

Rated cargo and luggage load plus 68 kg (150 lbs) times the vehicle's designated seating capacity.

#### Vehicle maximum load on the tire

Load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight and dividing it by two.

## **Rotating tires**



#### Warning

Rotate front and rear wheels only if they are of the same dimension.

Changing the tire dimension for an axle:

- could cause the tire to come into contact with the vehicle body or axle parts. Damage to the tire or the vehicle may be the result.
- could result in changes to steering, handling, and braking of your Sprinter. This
  can cause unpredictable handling, and
  stress the steering and suspension components. You could lose control and have
  an accident resulting in serious injury or
  death.
- could result in tire overloading and failure, if the tires' load indexes are not identical. You could lose control and have an accident.

Tires on the front and rear axles of vehicles operate at different loads and perform different steering, driving and braking functions.

For these reasons, they wear at unequal rates, and develop irregular wear patterns. These effects can be reduced by timely rotation of tires.

The benefits of rotation are especially worthwhile with aggressive tread designs such as those on ON / OFF road type tires. Rotation will increase tread life, help to maintain mud, snow, and wet traction levels, and contribute to a smooth ride.

If applicable to your vehicle's tire configuration, tires can be rotated according to the tire manufacturer's recommended intervals in the tire manufacturer's warranty pamphlet located in your vehicle literature portfolio. If none is available, tires should be rotated every 10000 miles (16000 km), or sooner if necessary, according to the degree of tire wear.

The same rotation (spinning) direction must be maintained when mounted; see "Direction of rotation" (> page 169).

Rotate tires before the characteristic tire wear pattern becomes visible (shoulder wear on front tires and tread center wear on rear tires).

The reasons for any rapid or unusual wear should be corrected prior to rotation being performed.

If your vehicle is equipped with the tire pressure monitor, each wheel has an electronic component.

Tire mounting tools should not be applied in the area of the valve, as this could damage the electronic components.

Have the tires changed only at an authorized Sprinter Dealer.

Thoroughly clean the mounting face of wheels and brake disks, i.e. the inner side of the wheels / tires, during each rotation.

Check for and ensure proper tire inflation pressure; refer to "Recommended tire inflation pressure" (> page 174).



#### Warning

In order to avoid losing a wheel and in order to reduce the risk of fatal or serious injuries or vehicle damage, please follow these safety instructions:

Always replace wheel bolts that are damaged or rusted.

Never apply oil or grease to wheel bolts.

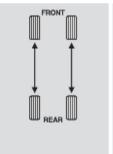
If a wheel hub thread is damaged, you must not drive the vehicle. Consult an authorized Sprinter Dealer.

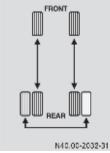
Only use genuine wheel bolts approved and specified for your vehicle's rims. Check tightness of wheel bolts or nuts regularly and retighten with a torque wrench, if necessary. Tighten wheel bolts or nuts in a crisscross pattern.

For information on mounting bolts and tightening torques, refer to "Installing a wheel" (> page 252).

After changing a wheel, the wheel bolts or nuts must be retightened after the vehicle has been driven for about 30 miles (50 km)

If new or repainted rims are fitted, the wheel bolts or nuts must be retightened again after about 600 to 3000 miles (about 1000 to 5000 km).





Rotation pattern for single and dual rear wheels

Single rear wheels:

- Rotate the tires by axle. Never change the direction of rotation of your tires.
- Make sure that on each axle just one type of tire (same size, type construction, load and speed rating) is used.

#### Dual rear wheels:

- Rotate front tires by axle and the outer rear tire side to side if there is no approved direction of rotation.
  - The tires used on dual wheel assemblies should be matched for wear to prevent overloading one tire in a set.
- ➤ To check if tires are even, lay a straight edge across all four tires.
- 3500 dual rear tires have only one approved direction of rotation. This is to accommodate the asymmetrical design (tread pattern) of the ON/OFF road tire and the use of Outline White Letter (OWL) tires.

When replacing a flat tire, the spare tire may have to be remounted on the rim or installed at a different location to maintain the correct placement of the tire on the wheel relative to the tire / wheel position on the vehicle.

For example, if the spare is used to replace an outer rear tire it will have to be remounted on the rim so that the wheel is dished inwards. In that way, the tread design of asymmetrical tires and the white lettering of the OWL tires will maintain the proper position.

For information on wheel change, see the "Practical hints" section (▷ page 252).

## Winter driving

Have your vehicle winterproofed at the onset of winter at an authorized Sprinter Dealer. This service includes the following:

- oil change, if the engine oil used does not have sufficient low temperature characteristics or these have deteriorated due to aging in operation (▷ page 280)
- the antifreeze / anti-corrosion concentration in the coolant is checked
- the addition of a concentrated cleaning agent to the water in the windshield washer system
- battery check
- a tire change

Prior to the onset of winter, make sure that snow chains are in the vehicle.

Do not cover the surface of the radiator or the radiator grille, even in winter. Doing so could cause the engine diagnostics to record false or incorrect data. In some countries, the recording of engine diagnostic data is required by law and must therefore be correct, clear and comprehensible at all times.

You will find information about diesel fuel for use at low outside temperatures in the "Technical data" section (> page 283).

Please also observe the information about winter driving (> page 192).

#### Winter tires

Winter tires should also be operated as printed on the tire and loading information label or on the tire inflation pressure label located on the driver's door B-pillar, refer to "Tires and wheels" (▷ page 174).

Not all M+S rated radial-ply tires provide special winter performance. Make sure that the tires you use show M+S and the mountain/snowflake marking on the tire sidewall.

These tires meet specific snow traction performance requirements of the Rubber Manufacturers Association (RMA) and the Rubber Association of Canada (RAC) and have been designed specifically for use in snow conditions. Use of winter tires is the only way to achieve the maximum effectiveness of ABS, BAS, ASR and ESP® in winter operation.

For safe handling, make sure that all winter tires mounted are of the same make and have the same tread design.



#### Warning

Winter tires with a tread depth under 1/6 in (4 mm) must be replaced. They are no longer suitable for winter operation.

Always observe the speed rating of the winter tires installed on your vehicle. If the maximum speed for which your tires are rated is below the speed rating of your vehicle, you must place a notice to this effect where it will be seen by the driver. Such notices are available at your tire dealer or any authorized Sprinter Dealer.

▶ Reactivate the tire pressure monitor.

While studded tires improve performance on ice, skid and traction capability on wet or dry surfaces may be poorer than that of non-studded tires. Some states prohibit studded tires; therefore, local laws should be checked before using these tire types.



#### Warning

If you use your spare tire when winter tires are fitted on the other wheels, be aware that the difference in tire characteristics may impair turning stability and overall driving stability may be reduced.

Adapt your driving style accordingly.

Have the spare tire replaced with a winter tire at the nearest authorized Sprinter Dealer.

When they have been removed, store wheels and tires in a cool, dry, and if possible dark place. Protect the tires from oil, grease, and gasoline / diesel.

## **Driving in winter**



#### Warning

Downshifting to brake could cause the drive wheels to lose grip on a slippery surface due to the increased difference in speed between the engine and the drive wheels at this time.

Do not downshift for additional engine braking on a slippery surface. Use the service brake in accordance with road conditions. Only downshift to a lower gear when traveling at a low engine speed.

Drive with particular care on icy roads. Avoid sudden acceleration, steering movements and braking.

If it seems likely that the vehicle is about to enter a skid or cannot be stopped at a low speed:

- move the selector lever to position N.
- try to maintain control of the vehicle using light corrective steering.

Road salt may adversely affect braking efficiency. It may therefore be necessary to apply the brakes more forcefully in order to achieve the same braking force as normal.

Apply the brakes regularly when making longer journeys on gritted or salted roads. This will have the effect of restoring the brakes to their normal level of performance.

When stopping the vehicle after traveling on roads that have been salted, check that the brakes are fully functional before proceeding further.

#### **Snow chains**

Use "Class U" chains, or other traction aids that meet SAE Type "U" specifications.

Snow chains must be the proper size for the vehicle, as recommended by the chain manufacturer. They should only be driven on snow-covered roads at speeds not to exceed 30 mph (50 km/h). Remove chains as soon as possible when driving on roads without snow.

Use snow chains on rear wheels only.

Some tire sizes do not leave adequate clearance for snow chains. To help avoid serious damage to your vehicle or tires, use of snow chains is not permissible with the spare wheel.

**1)** When driving with snow chains, you may wish to deactivate ASR (▷ page 51) before setting the vehicle in motion. This will improve the vehicle's traction.

Please observe the following guidelines when using snow chains:

- snow chains should only be used on rear wheels. In vehicles with dual rear wheels, they should be mounted on the exterior wheels. Follow the mounting instructions.
- only use snow chains approved for your Sprinter. For approved snow chains, please contact your authorized Sprinter Dealer.
- use of snow chains may be prohibited depending on location. Always check local and state laws before mounting snow chains.

To avoid damage to your vehicle, tires or chains, observe the following precautions:

- because of limited chain clearance between tires and other suspension components, it is important that only chains in good condition be used. Broken chains can cause serious vehicle damage. Stop the vehicle immediately if noise occurs that could suggest chain breakage. Remove the damaged parts of the chain before further use.
- install chains as tightly as possible and then retighten after driving about 0.5 mile (0.8 km).
- do not exceed 30 mph (50 km/h).
   Observe the tire chain manufacturer's instructions on operating speed.
   Always use the lowest recommended operating speed.
- drive cautiously and avoid severe turns and large bumps, especially with a loaded vehicle.
- do not install tire chains on the front wheels.
- do not drive for a prolonged period on dry paved surfaces.
- observe the tire chain manufacturer's instructions on method of installation and conditions for use.

## Maintenance and servicing



## Warning

Before carrying out maintenance operations and repairs, please make sure that you read the relevant sections of the technical documentation, such as:

Operating Instructions and workshop information

Familiarize yourself in advance in particular with legal requirements, such as:

safety at work and accident prevention regulations.

You may otherwise fail to recognize dangers and could injure yourself or others.

When working underneath the vehicle, you must place the vehicle on stands with sufficient load-bearing capacity.

Never use the vehicle jack instead. There is a risk that the vehicle jack could give way and the vehicle could drop, seriously injuring you or others, or causing damage to property. The jack is only designed to raise the vehicle for a short time.

Always have the maintenance work carried out and checked at an authorized Sprinter Dealer which has the necessary specialist knowledge and tools to carry out the work required. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

You will find information about the maintenance points on (> page 158).

## Service products

Mechanical elements and the lubricants used for them must be carefully matched.

For this reason, only tested and approved brands should be used. Please contact your Sprinter Dealer to obtain the necessary information. No lubricant additives should be used.

The use of such additives could affect your New Vehicle Limited Warranty rights. Information is available from any authorized Sprinter Dealer.

For specifications of engine oils, coolant and brake fluid, see "Service products and capacities" (▷ page 279) and contact your authorized Sprinter Dealer.

Observe the information on spare parts in the "Technical data" section (> page 278).



#### Warning

If handled incorrectly, service products can constitute a health risk for people and an environmental hazard.

Always observe relevant guidelines for handling, storing and disposing of service products.

## **Active Service System (ASSYST)**

ASSYST, the <u>Active Service System</u>, informs you when the next service is due.

A service that is due is displayed about a month in advance. A message is then displayed while the vehicle is in motion or the ignition is switched on.

Periods when the battery is disconnected will not be recorded by ASSYST. To make sure that you have the vehicle serviced at the correct time, you should therefore subtract periods when the battery is disconnected from the days shown.

The service indicator does not provide information about the engine oil level. The service indicator should not, therefore, be confused with the engine oil level display.

1 The service due date is displayed in days or miles (kilometers), depending on the total distance driven.

The symbols or letters  $\mbox{\ensuremath{\mathsf{A}}}$  or  $\mbox{\ensuremath{\mathsf{B}}}$  indicate the type of service that is due.

or A: minor service

🯂 or B: major service

## Service due date display

## Vehicles with steering wheel buttons

The following messages may be displayed:

- Service A due in ... days
- Service A due in ... miles (km)
- Service A Carry out now

## Vehicles without steering wheel buttons

The following messages may be displayed:

- for service A
- for service B

The remaining distance in miles (mi) or kilometers (km) or the remaining time in days is also shown.

## Missing the service due date

An authorized Sprinter Dealer, can reset the service indicator when the service has been carried out.

If you fail to have the specified service carried out, you could be in breach of relevant regulations and New Vehicle Limited Warranty and goodwill settlements could be invalidated.

## Vehicles with steering wheel buttons

If you have missed the service due date, one of the following messages appears in the display:

- Service A overdue by ... days
- Service A overdue by ... miles (km)

A signal also sounds.

## Vehicles without steering wheel buttons

If you have missed the service due date, the or symbol flashes in the display for 10 seconds after the ignition is switched on. You will also see a minus sign before the service due date.

## Calling up the service due date

► Turn key to position **2** in ignition lock. The display is activated.

## Vehicles with steering wheel buttons

- ▶ Press the or button on the steering wheel repeatedly until you see the standard display (▷ page 88).
- ► Press the △ or ▽ button on the steering wheel repeatedly until you see the following in the display, for example:
  - Service A due in ... days
  - Service A due in ... miles (km)

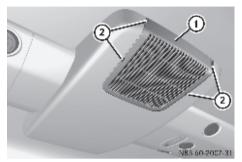
## Vehicles without steering wheel buttons

- ► Press the M menu button on the instrument cluster repeatedly until you see the following in the display:
  - for service A
  - for service B

The remaining distance in miles (mi) or kilometers (km) or the remaining time in days is also shown.

# Air cleaner for the air-conditioning system in the rear compartment

An increased amount of sand or dust may collect in the air cleaner when you drive on dusty or sandy roads.



## Air cleaner in the roof in the rear compartment

You must clean visible dirt from the air cleaner or replace it if necessary. The dirt can otherwise damage the air conditioning, which is not covered by New Vehicle Limited Warranty.

For this reason, check the air cleaner regularly for visible damage.

- ► Removing the air cleaner element: Carefully pry cover ① out of recesses ② and remove it.
- ▶ Remove the filter mat.
- Cleaning the filter mat: wash the filter mat with clean water.
- ▶ Leave the filter mat to dry.
- The filter mat must not be cleaned or dried in a machine.
- ► Installing the air cleaner element: insert the filter mat.
- ► Attach cover ①.

## Cleaning and care of the vehicle



#### Warning

Many care products can be hazardous. Some are poisonous, others are flammable.

Always follow the instructions on the particular container. Always open your vehicle's doors or windows when cleaning the interior.

Never use fluids or solvents that are not intended for cleaning your vehicle. Do not use fuel as a cleaning agent. Fuel is flammable and constitutes a health hazard.

Always lock away care products and keep them out of reach of children.



## **Environmental note**

Only clean the vehicle in a suitable place for washing vehicles. Dispose of empty containers and used cleaning materials in an environmentally responsible manner.



#### Warning

Never use an opening in the bodywork as a step. You could otherwise damage the vehicle or slip and injure yourself or others.

If you need to clean the areas towards the top of the vehicle, always use suitable ladders or secure steps.

Regular and proper care will help to maintain the value of your vehicle. The best way to protect your vehicle from harmful environmental influences is to wash it and use protective treatments regularly.

Do not cover the surface of the radiator or the radiator grille, e.g. with an insect screen.

Doing so could cause the engine diagnostics to record false or incorrect data. Recording of engine diagnostic data is required by law and must therefore be correct, clear and comprehensible at all times.

Never affix unsuitable stickers, films, magnets or similar items to painted surfaces. You could otherwise damage the paintwork.

We recommend that you use MB care products. These have been specially adapted to Sprinters and are state of the art. MB care products are available from any authorized Sprinter Dealer.

The following topics deal with the cleaning and care of your vehicle and give important "how-to" information as well as references to vehicle-care products.

## Cleaning the vehicle interior

#### Seat belts

- Remove stains or dirt immediately to prevent damage or the build-up of residues.
- Clean the seat belts with a mild washing solution. Do not dry the seat belts in direct sunlight or at temperatures above 176 °F (80 °C).

Do not bleach or dye the seat belts. This could impair the function of the seat belts.

## Dashboard and padded boss of the steering wheel



#### Warning

Do not use cleaners or cockpit care sprays containing solvents to clean the dashboard or the padded boss of the steering wheel. Cleaners containing solvents can make the surface porous, which could lead to serious injuries if plastic parts were to come loose when an airbag is triggered.

- Moisten a clean and lint-free cloth with water and clean the plastic parts and the dashboard.
- Use a mild soap solution for particularly stubborn dirt.
- Do not use dry, coarse or hard cloths and do not scrub. You will otherwise scratch or damage the surface.

## Radio display and rear-view camera monitor

- Switch off the radio or the rear-view camera monitor, and allow it to cool off.
- Clean the display surface with a commercially available microfiber cloth and cleaner for TFT / LCD displays.
- After drying, wipe the display surface with a dry microfiber cloth using only slight pressure.
- Do not use dry, coarse or hard cloths, abrasive material, solvent or solvent-based cleaning agent. Do not scrub or use high pressure.

You will otherwise damage the pressure- and scratch-sensitive display surface.

#### Windows

Do not use a dry cloth, abrasive material, solvent or solvent-based cleaning agent to clean the inside of the windows. Clean the inside of the windows with a damp cloth or a commercially available glass cleaner.

Do not touch the inside of the rear and side windows with hard objects, such as an ice scraper or a ring. You could otherwise damage the windows or the rear window heating.

## Cleaning the vehicle exterior

Scratches, corrosive deposits, areas affected by corrosion and damage caused by neglect or inadequate care cannot always be completely remedied.

In such cases, consult an authorized Sprinter Dealer.

Repair damage caused by loose chippings and remove the following substances immediately:

- insect remains
- bird droppings
- tree resin
- oils and grease
- fuel
- tar stains

Otherwise, consequential damage may occur. Wash the vehicle more frequently in winter to remove salt residue.

After cleaning your vehicle, especially the wheel rims with rim cleaner, do not simply park the vehicle and leave it. Rim cleaners can promote corrosion of the brake discs and the brake pads / linings. Before parking and leaving the vehicle after cleaning, always warm the vehicle up to normal operating temperature first.

## Steps



#### Warning

Dirty or iced-up steps and entrances create a risk of slipping or falling.

Keep steps, entrances and footwear free from dirt (e.g. mud, clay, snow and ice).

## Outside of windshield and wiper blades



## Warning

Turn the key to position **0** in the ignition lock before cleaning the windshield or the wiper blades. The windshield wipers could otherwise move and injure you.

- Turn the key to position 0 in the ignition lock or remove the key.
- Do not fold the windshield wipers away from the windshield unless the hood is closed. You will otherwise damage the hood.
- Fold the wiper arms away from the windshield until you feel them engage in place.
- You can now clean the windshield and the wiper blades.
- ► Fold the windshield wipers back again before you switch on the ignition.

## Headlamps

- Wipe the headlamp lenses with a damp sponge.
- ① Only use washer fluid which is suitable for plastic lamp lenses.

Unsuitable washer fluid may damage the plastic headlamp lenses.

For this reason, do not use a dry cloth, abrasive material, solvent or solvent-based cleaning agent. You could otherwise scratch or damage the lens surface.

## Light-alloy wheels

- Clean light-alloy wheels on a regular basis.
- Do not use any acidic or alkaline cleaning agents. They can cause corrosion of the wheel bolts (wheel nuts) or the balancing weight retainers.

## Plastic trims

Do not use dry, coarse or hard cloths and do not scrub or use high pressure. You will otherwise scratch or damage the surfaces.

## Light soiling

- ► Wipe plastic parts with a damp, lintfree cloth (e.g. a microfiber cloth).
- Use a low-foaming grease solvent (e.g. washing-up liquid) diluted in water as a cleaning agent.

The surface color may temporarily change shade during cleaning. Simply wait for the surface to dry.

## Heavy soiling

- ► Wipe plastic parts with a damp, lintfree cloth (e.g. a microfiber cloth).
- Use a solvent-free and non-caustic cleaning agent. We recommend that you use an MB product.

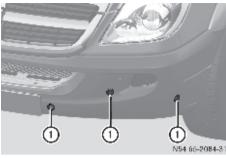
The surface color may temporarily change shade during cleaning. Simply wait for the surface to dry.

## Cleaning the sliding door

- Clean the contact plates and the tips of the contact pins around the sliding door with water, shampoo and a soft cloth.
  - Do not oil or grease the contact plates and contact pins.
- Remove foreign objects.

#### **PARKTRONIC** sensors

The sensors are located in the front and rear bumpers.



## (1) PARKTRONIC sensors

- ► Clean sensors ① in the bumpers using water, shampoo and a soft cloth.
- Do not use dry, coarse or hard cloths and do not scrub. You will otherwise scratch or damage the sensors.

If you clean the sensors with a high-pressure cleaner or steam cleaner, observe the information provided by the cleaner manufacturer regarding the distance to be maintained between the vehicle and the nozzle of the high-pressure cleaner.

#### Rear-view camera lens

The rear-view camera is located in the center of the roof above the third brake lamp.



- (1) Camera lens
- 2 Microphone openings
- Clean camera lens 1 using water and a soft cloth only.

Be careful not to apply wax to the camera lens ① when waxing the vehicle. If necessary, remove the wax using shampoo with plenty of water.

Do not use dry, coarse or hard cloths and aggressive cleaning agents. Do not scrub or use high pressure. You will otherwise scratch or damage the lens or the camera.

If you clean the vehicle with a high-pressure cleaner or steam cleaner, maintain a minimum distance of 1.6 ft (50 cm) to the rear-view camera. To prevent damage, do not aim directly at the rear-view camera or at the microphone openings on the underside of the rear-view camera.

## **High-pressure cleaners**



#### Warning

Do not use high-pressure cleaners with round-spray jets for cleaning the tires.

The pulsating water jet can cause damage to the substructure of the tires that is not visible from the outside. This type of damage only becomes noticeable at a much later stage and can cause the tires to burst. This could cause you to lose control of the vehicle, resulting in an accident and injuring yourself or others. Replace damaged tires immediately.

The minimum distance that must be maintained between the vehicle and the nozzle of the high-pressure cleaner is:

- approximately 2.2 ft (70 cm) for roundspray jets
- approximately 1 ft (30 cm) for 25° flatspray jets and concentrated-power jets
- Move the high-pressure cleaner nozzle around when cleaning your vehicle.
- I To avoid damage, do not aim directly at the:
  - door joints and seals
  - brake hoses
  - electrical components and connectors
  - the drive train, especially at the intermediate bearing of the propeller shaft
  - the rear-view camera or the microphone openings on the underside of the rearview camera. Maintain a minimum distance of 1.6 ft (50 cm).

## **Engine cleaning**

Do not allow water to enter the intake and ventilation openings. When cleaning with high-pressure water or steam cleaners, the spray must not be aimed directly at electrical components or at the end of electrical lines.

Treat the engine with preservative agents after cleaning. Protect the belt drive system from the preservative when you do so.

#### Automatic car wash

You can clean the vehicle in an automatic car wash from the very start. It is preferable to use a car wash that does not have brushes.

If the vehicle is very dirty, prewash it before you drive into the car wash.

- Remove the radio / telephone antenna and fold the exterior mirrors in before driving into the automatic car wash.
- Make sure that the automatic car wash is suitable for the size of the vehicle.

If you do not remove the radio / telephone antenna and fold in the exterior mirrors, there is a possibility that the antenna, the exterior mirrors or the vehicle could be damaged by the automatic car wash. Make sure that the antenna is refitted and that the exterior mirrors are fully folded out again when you leave the automatic car wash.

Make sure that the side windows are closed completely, that the blower for the air conditioning / heating is switched off and that the windshield wiper switch is set to **0**. The rain sensor could otherwise be activated, for example, and the windshield wipers could be triggered unintentionally. This could cause damage to the vehicle.

For information on the windshield wiper switch, see the "Controls in detail" section (> page 80).



#### Warning

If a wax preservative is applied after the vehicle is washed, you should remove the wax from the windshield and the wiper blades to prevent smearing. Smears impair the driver's view, and their effect is made worse in conditions where visibility is poor (e.g. glare, mist, darkness, snow). You may therefore fail to recognize dangers, or you may not recognize dangers in time, and thereby cause an accident.

After using an automatic car wash, wipe off wax from:

- the rear-view camera lens
   (▷ page 199)
- the windshield and the wiper blades.
   This prevents smears and reduces wiping noises which can be caused by residue on the windshield.

## After driving off-road or on construction sites



#### Warning

Dirt on the vehicle can affect road and operating safety.

In particular, the following dangers can arise:

**Stone chips.** Stones trapped between the tires can be thrown out while the vehicle is in motion and injure other road users or damage their vehicles (in particular the windshield).

**Risk of skidding.** Dirt and mud on the tires / road surface reduce wheel grip. This is especially so if the road surface is wet. The vehicle could then start to skid.

**Risk of slipping.** Dirt and mud on the steps and entrances make the steps less safe. As a result you could slip from the steps and injure yourself.

For this reason, always clean your vehicle carefully after driving off-road and on construction sites before using public roads.

If you use a high-pressure cleaner or automatic car wash for this purpose, you must follow the relevant safety instructions in this section.

- ► Clean the vehicle, particularly the:
  - lighting equipment
  - windows and exterior mirrors
  - steps, entrances and grab handles
  - wheels, tires and wheel housings
  - license plates
- Remove any trapped foreign objects, e.g. stones.
- ► Check the suspension for damage.



## Warning

Dirty brake discs and brake pads / linings can impair braking power (to the point of total failure). You could thereby cause an accident.

Check the brake system for operating safety by testing the brakes before driving the vehicle onto public roads.

If braking power is impaired, stop the vehicle as soon as it is safe to do so and consult an authorized Sprinter Dealer which has the necessary specialist knowledge and tools to carry out the work required. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

After driving in mud, sand, water or similar conditions:

- check the brake system for operating safety.
- clean the wheels, chassis and brake system.
- check them for damage and have any damage repaired by an authorized Sprinter Dealer if necessary.

Vehicle equipment
Where will I find...?
What to do if ...?
Replacing remote control batteries
Replacing bulbs
Replacing the wiper blades
Flat tire
Draining the fuel filter
Bleeding the fuel system
Releasing the parking lock manually
Battery
Jump-starting
Towing
Fuses

## Vehicle equipment

This Operator's Manual describes all features, standard or optional, potentially available for your vehicle at the time of purchase. Please be aware that your vehicle might not be equipped with all features described in this manual.

#### Where will I find ...?

#### lack and vehicle tool kit

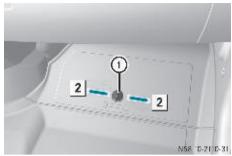


## Warning

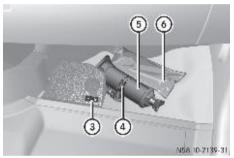
To avoid the risk of causing serious or fatal injury, or damage to the vehicle, please bear the following points in mind:

- the jack is designed only to raise the vehicle for a short time, for example while a wheel is being changed. It is not designed to enable work to be carried out underneath the vehicle.
- the jack must be placed on a firm, flat surface only.
- never change wheels on uphill or downhill gradients.
- do not crawl under the vehicle if it is only supported by the jack.
- make sure that no persons are inside the vehicle when it is raised.
- do not start the engine while the vehicle is raised.
- make sure that the distance between the underside of the tires and the ground does not exceed 1.2 in (30 mm).
- if work is to be carried out under the vehicle, the vehicle must be placed on stands.

The jack and the vehicle tool kit are located under the hatch in the co-driver's footwell.

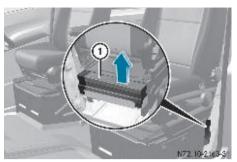


- ► **To unlock:** turn quick-release lock ① counterclockwise or clockwise ②.
- Remove the cover.
- ► **To lock:** press quick-release lock ① down until it engages.



- ► If necessary, remove the fixture using tool (3) for the DEF fuel filler cap.
- ▶ Remove vehicle tool kit (6).
- ▶ Pull tensioning lever ④ upward and unhook the retaining strap of jack ⑤.
- ► Remove jack ⑤ upward out of the retainer.
- Place the jack into the retainer as shown when storing it back into place. Make sure that the jack's retaining strap is hooked in and tensioned.

## Warning triangle

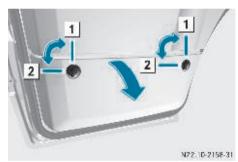


## Warning triangles behind the driver's seat

► Remove warning triangles ① from the brackets upward.

#### Road hazard lamp

The road hazard lamp is located in the storage compartment in the driver's door.



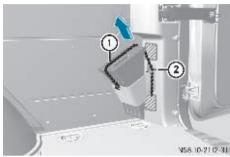
- 1 Locked
- 2 Unlocked



 Turn the two quick-release locks counter-clockwise to unlock 2 and fold out the cover. ► Take road hazard lamp ③ out of the bracket.

## Chock

## Panel van / crewbus

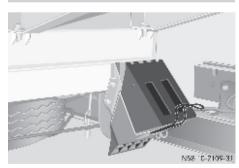


## Wheel chock in the load / passenger compartment

- ▶ Pull retaining band ① slightly downward and pull it out of retainer ②.
- Pull out the wheel chock.

i When storing it away, make sure that the chock is secured in the retainer by the retaining band.

#### Chassis

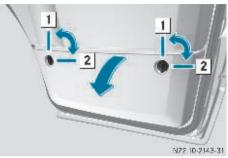


Wheel chock on the left-hand side of the vehicle

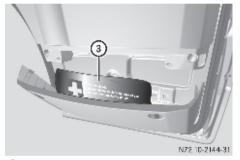
- Pull the retainer springs down and remove the chock.
- **1** When storing it away, make sure that the chock is secured in the retainer by the retainer springs.

#### First-aid kit

The first-aid kit is located in the storage compartment in the co-driver's door.

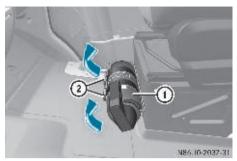


- 1 Locked
- 2 Unlocked



- 3 First-aid kit
- ► Turn the two quick-release locks clockwise to unlock 2 and fold out the cover.
- the check the expiration dates of the first-aid kit materials every year, and replace the contents if necessary.

## Fire extinguisher



Fire extinguisher in front of the co-driver's seat base.

- ▶ Pull tabs ② upward.
- ► Take fire extinguisher ① out of the bracket.
- Read the instructions on the fire extinguisher carefully and familiarize yourself with its operation.

## Spare wheel

If you are replacing the tires on the vehicle, you may use the spare wheel as a road wheel provided that:

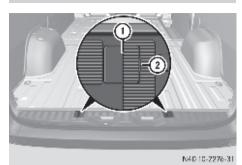
- the tires are no more than 6 years old
- the wheel and tire have the same specified design as the road wheels

The spare wheel is located in a spare wheel bracket under the rear of the vehicle.

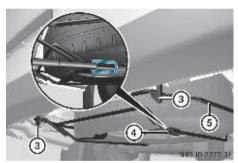
Check regularly that the spare wheel is secured correctly.

Information about tire inflation pressures can be found in the "Operation" section (> page 174).

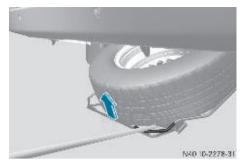
#### Panel van / crewbus



- Open the rear doors.
- ► Insert a screwdriver into recesses ② and pry off covers (1).
- ► Using the wheel wrench from the vehicle tool kit (> page 204), now unscrew the visible bolts approximately 20 turns counterclockwise.



- ► Raise spare wheel bracket ⑤ slightly and release left securing hook ③.
- ► Assemble the pump lever for the jack and slide it into sleeve ④ on spare wheel bracket ⑤.
- ▶ Raise spare wheel bracket ⑤ using the pump lever and release right securing hook ⑥.
- ► Slowly lower spare wheel bracket ⑤ to the ground.
- Raise spare wheel bracket (5) slightly and pull the pump lever out of sleeve (4).



 Use the pump lever to raise the spare wheel beyond the rear end of the spare wheel bracket.



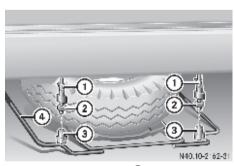
#### Warning

When the spare wheel is removed, the center of gravity changes due to the heavy weight of the wheel. The spare wheel could slip off or tip and cause injury to you or others. Pull the spare wheel out carefully.

Take care not to trap your fingers when lifting out the spare wheel.

 Carefully remove the spare wheel from the bracket.

#### Chassis



- ► Loosen thumb nuts ③ by hand and remove.
- ► Loosen fixing nuts ② to the thread end.
- ► Raise spare wheel bracket ④ slightly and release left securing hook ①.



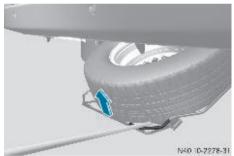
- ► Assemble the pump lever for the jack and slide it into sleeve on spare wheel bracket (4).
- Raise spare wheel bracket 4 using the pump lever and release right securing hook 1.
- ► Slowly lower spare wheel bracket ④ to the ground.
- Raise spare wheel bracket (4) slightly and pull the pump lever out of sleeve.



## Warning

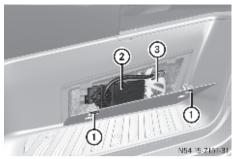
When the spare wheel is removed, the center of gravity changes due to the heavy weight of the wheel. The spare wheel could slip off or tip and cause injury to you or others. Pull the spare wheel out carefully.

Take care not to trap your fingers when lifting out the spare wheel.



- Use the pump lever to raise the spare wheel beyond the rear end of the spare wheel bracket.
- Carefully remove the spare wheel from the bracket.

#### Premium tire sealant



## Storage compartment in the right-hand doorway

- (1) Latching springs
- (2) Electric air pump
- (3) Premium tire sealant
- ➤ To open: press both latching springs ① down and remove the cover.
- ► To close: attach the cover at the bottom and fold it closed.
- Press both latching springs ① up until they engage.

### What to do if ...?

#### Accident

## Problem

Fuel is leaking from the vehicle.

## Possible cause / consequences and ▶ Solutions



#### Warning

The fuel line or fuel tank is malfunctioning.

There is a risk of fire and explosion from leaking fuel.

- Switch off the ignition immediately.
- ▶ Remove the key.
- ▶ Do not restart the engine under any circumstances.
- ► Consult an authorized Sprinter Dealer.

You are unable to determine the extent of the damage.

► Consult an authorized Sprinter Dealer.

You are unable to determine any damage to:

- the major components
- the fuel system
- the engine support

Start the engine as usual.

## Indicator and warning lamps in the instrument cluster



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

All warning / indicator lamps (except the turn signal indicator lamps) and the display are activated when the ignition is switched on.

Please check that they are working properly before commencing a journey. If a lamp in the instrument cluster fails to come on when the ignition is switched on, have it checked and replaced if necessary.



The yellow ASR / ESP® warning lamp flashes while the vehicle is in motion.

## Possible cause / consequences and ▶ Solutions



#### Warning

ESP® or ASR is intervening because at least one of the wheels has reached its tire grip limit.

- ► Adapt your driving style to suit the road and traffic conditions. Do not use too much throttle.
- Drive slowly.



The yellow ASR / ESP® warning lamp is lit while the engine is running.





The yellow ESP®, ABS, ASR/BAS indicator lamps and the red brake system indicator lamp are lit while the engine is running.



#### Warning

ASR is deactivated.

► Reactivate ASR. Exceptions (> page 51).



## Warning

EBV has malfunctioned.

The rear wheels could lock up sooner than expected when you apply the brakes.

- ► Also observe the messages in the display on vehicles with steering wheel buttons (▷ page 223).
- ► Stop your vehicle as soon as it is safe to do so.
- ▶ Do not drive any further.
- ► Consult an authorized Sprinter Dealer.



#### Warning

EBV has been deactivated due to undervoltage. The battery may not be being charged.

The rear wheels could lock up sooner than expected when you apply the brakes.

- ► Also observe the messages in the display on vehicles with steering wheel buttons (> page 223).
- ▶ Stop your vehicle as soon as it is safe to do so.
- Do not drive any further.
- Consult an authorized Sprinter Dealer.



(I) BRAKE The red brake system indicator lamp is lit while the engine is running.

> A signal also sounds.

## Possible cause / consequences and ▶ Solutions



#### Warning

There is insufficient brake fluid in the fluid reservoir.

- ► Also observe the messages in the display on vehicles with steering wheel buttons (▷ page 223).
- Stop your vehicle as soon as it is safe to do so.
- Check the brake fluid level in the brake fluid reservoir (⊳ page 161).

If the fluid is below the MIN mark:

- Do not drive any further.
- Do not top up the brake fluid. This will not rectify the fault.
- Consult an authorized Sprinter Dealer.

(I) BRAKE

When towing a trailer:

The red brake system indicator lamp is lit while the engine is running.

A signal also sounds



## /\ Warning

The trailer's brake booster is malfunctioning.

The vehicle's driving and braking characteristics may change. There is a risk of the trailer overbraking.

- ► Also observe the messages in the display on vehicles with steering wheel buttons (▷ page 223).
- Stop your vehicle as soon as it is safe to do so.
- Do not drive any further.
- Consult an authorized Sprinter Dealer.



The yellow ASR / BAS indicator lamp is lit while the engine is running.



#### Warning

ASR has been deactivated due to a malfunction. The engine power output may then be lower.

- Continue driving, but with even greater care.
- Consult an authorized Sprinter Dealer as soon as possible.



## Warning

BAS has been deactivated due to a malfunction.

The brake system continues to function with the normal braking effect but with no electronic support.

- Continue driving, but with even greater care.
- Consult an authorized Sprinter Dealer as soon as possible.



(ABS)

The yellow ASR / BAS indicator lamp is lit while the engine is running.

## Possible cause / consequences and ▶ Solutions



#### Warning

ASR and BAS have been switched off due to undervoltage. The battery may not be being charged.

The brake system is still available with the normal braking effect.

- ► Continue driving, but with even greater care.
- ► Consult an authorized Sprinter Dealer immediately.



## Warning

The yellow ABS indicator lamp is lit while the engine is running.

ABS has been deactivated due to a malfunction. ESP®, ASR and BAS as well as cruise control have also been deactivated as a result.

The brake system continues to function with the normal braking effect but with no electronic support. The wheels could therefore lock up, for example if the brakes are applied with maximum force.

- ▶ Also observe the messages in the display on vehicles with steering wheel buttons (▷ page 223).
- Continue driving, but with even greater care.
- Consult an authorized Sprinter Dealer immediately.



#### Warning

ABS is temporarily unavailable. Self diagnosis may not have been completed yet.

The brake system is still available with the normal braking effect.

Drive on for a distance of more than 13 mph (20 km/h).

ABS is available again if the message goes out.



The yellow ABS indicator lamp is lit while the engine is running.

## Possible cause / consequences and ▶ Solutions

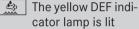


#### Warning

ABS has been deactivated due to undervoltage. The battery may not be being charged.

The brake system continues to function with the normal braking effect but with no electronic support. The wheels could therefore lock up, for example if the brakes are applied with maximum force.

- ► Continue driving, but with even greater care.
- ► Consult an authorized Sprinter Dealer immediately.



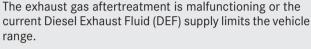
running.

cator lamp is lit while the engine is running.

The yellow ESP® in-

dicator lamp is lit

while the engine is



▶ Observe the messages in the display (> page 220).



## $\Lambda$

## Warning

ESP® has been deactivated due to a malfunction. Cruise control is also switched off as a result.

Vehicle stability is no longer automatically controlled in good time. Engine power output may be reduced.

- ▶ Also observe the messages in the display on vehicles with steering wheel buttons (▷ page 223).
- ► Continue driving, but with even greater care.
- Consult an authorized Sprinter Dealer as soon as possible.



#### Warning

ESP® has been deactivated due to undervoltage. Cruise control is also switched off as a result. The battery may not be being charged.

Vehicle stability is no longer automatically controlled in good time. Engine power output may be reduced.

- ► Continue driving, but with even greater care.
- Consult an authorized Sprinter Dealer as soon as possible.



The red SRS warning lamp does not go out after approx. 4 seconds after the ignition system is switched on or lights up again.

## Possible cause / consequences and ▶ Solutions



#### **Warning**

The restraint systems have malfunctioned. The airbags or emergency tensioning retractors could be triggered unintentionally, or not at all in the event of an accident.

- Continue driving, but with even greater care.
- Consult an authorized Sprinter Dealer immediately.



charge warning lamp lights up while the engine is running.

## Warning

The battery is not being charged. Possible causes are a malfunctioning alternator or a torn poly-V-belt.

- Stop your vehicle as soon as it is safe to do so.
- Check the poly-V-belt.

If it is torn: do not drive any further. Consult the nearest authorized Sprinter Dealer.

If it is not damaged: have your vehicle checked at an authorized Sprinter Dealer.



#### Warning

The battery is malfunctioning.

- Stop your vehicle as soon as it is safe to do so.
- Do not drive any further.
- Contact a breakdown service, e.g. an authorized Sprinter Dealer.



The yellow brake pad wear indicator lamp lights up after the engine is started or while the vehicle is in motion.



#### Warning

The brake pads / linings have reached their wear limit.

Have the brake pads / linings replaced as soon as possible at an authorized Sprinter Dealer.



The yellow engine oil level warning lamp lights up after the engine is started or while the vehicle is in motion.

The engine oil level has dropped to the minimum level.

- Check the engine oil level and add engine oil if necessary ( $\triangleright$  page 158).
- If there is visible oil loss from the engine, have the fault rectified immediately at an authorized Sprinter Dealer.

#### **Problem**



The yellow engine oil level warning lamp flashes, the - 2.0 ats (Canada: - 2.0 1tr) engine oil level message appears in the display and the warning buzzer sounds after the engine is started or while the vehicle is in motion

#### Possible cause / consequences and ▶ Solutions

There is insufficient or no oil in the engine.

There is a risk of engine damage.

- Stop your vehicle as soon as it is safe to do so.
- ► Check the engine oil level using the dipstick (⊳ page 160).

If the oil level is correct: have the malfunction rectified immediately at an authorized Sprinter Dealer.

If there is insufficient or no oil in the engine: have the vehicle towed to an authorized Sprinter Dealer.



The yellow engine oil level warning lamp lights up, the HI engine oil level message appears in the display and the warning buzzer sounds after the engine is started or while the vehicle is in motion.

The engine oil level has exceeded the maximum level.

Check the engine oil level and have any excess oil siphoned off at the nearest refueling station (⊳ page 160).

The engine or the catalytic converter could be damaged.

If the oil level is correct, have the malfunction rectified as soon as possible at an authorized Sprinter Dealer.



The yellow engine oil level warning lamp lights up repeatedly while the vehicle is in motion. The engine oil level indicator is malfunctioning.

► Have the vehicle checked immediately at an authorized Sprinter Dealer.



The vellow coolant level warning lamp lights up while the engine is running.

The coolant level is too low.

Never run the engine if the coolant level is too low. The engine could overheat and be damaged.

- Stop your vehicle as soon as it is safe to do so.
- Switch off the engine to cool down.
- ► Check the coolant level and add coolant as necessary (⊳ page 160).
- ▶ If you are having to add coolant frequently, have the cooling system checked at an authorized Sprinter Dealer.

lamp lights up or

flashes while the

engine is running.

#### Problem Possible cause / consequences and ▶ Solutions The red coolant The coolant temperature is too high. warning lamp lights Stop your vehicle as soon as it is safe to do so. up while the engine Do not drive any further. is running. If the vehicle is switched off after being subjected to extreme loads (for example driving in mountainous terrain, trailer towing, etc.), the coolant warning lamp may light up when the ignition is switched on or the engine is restarted. Run the engine for approximately 1 minute at idling speed. Consult an authorized Sprinter Dealer if the coolant warning lamp remains lit. The vellow reserve The fuel filler cap is not closed. fuel warning lamp Close the fuel filler cap. lights up while the A clicking sound indicates that the fuel filler cap is engine is running closed. and the gauge for If the malfunction continues to be indicated, have it the fuel tank shows 0 although there is rectified immediately at an authorized Sprinter Dealer. still fuel in the tank. The fuel level has fallen into the reserve mark range. The yellow reserve fuel warning lamp Refuel at the nearest gas station (▷ page 154). lights up while the vehicle is in motion. There is a malfunction in the pre-glow system. 000 | The yellow pre-glow indicator lamp Consult an authorized Sprinter Dealer. lights up while the engine is running. The fuel tank has run dry. The engine may be running in The yellow engine diagnostic indicator emergency mode.

Refuel at the nearest gas station ( $\triangleright$  page 154).

Start the engine three to four times after refueling.

Emergency mode will be canceled. You do not need to

Bleed the fuel system (⊳ page 265).

have your vehicle checked.

#### **Problem**



The yellow engine diagnostic indicator lamp lights up or flashes while the engine is running.

#### Possible cause / consequences and ▶ Solutions

There is a malfunction in the fuel injection system. The engine may be running in emergency mode. Engine power output may be reduced.

 Have the vehicle checked at an authorized Sprinter Dealer as soon as possible.

In some states it is required by law that you must contact a qualified specialist workshop immediately after the engine diagnostic indicator lamp lights up. Observe legal requirements.

The exhaust gas aftertreatment system is defective or an emissions-relevant malfunction has occurred. This malfunction or fault can damage the exhaust gas aftertreatment.

After the first message and under normal operating conditions, you can drive on for up to approximately 500 miles (800 km). Then a warning tone sequence sounds and the engine can only be started 20 times.

- ► Observe the messages in the display
  - on vehicles without steering wheel buttons (> page 221).
  - on vehicles with steering wheel buttons (▷ page 223).
- Have the vehicle checked at an authorized Sprinter Dealer as soon as possible.

In some states it is required by law that you must contact a qualified specialist workshop immediately after the engine diagnostic indicator lamp lights up. Observe legal requirements.

The yellow air filter indicator lamp lights up while the engine is running.

The service limit for the air filter has been reached. The air filter is dirty.

► Have the air filter element replaced at an authorized Sprinter Dealer.

The yellow water separator indicator lamp lights up while the ignition is on.

The water that has collected in the water separator has reached the maximum level.

▶ Drain the water separator (▷ page 264).

#### **Problem**



The yellow washer fluid level indicator lamp for the windshield washer/headlamp cleaning system lights up after the engine is started or while the vehicle is in motion.

#### Possible cause / consequences and ▶ Solutions

The washer fluid level is too low.

► Check the fluid level in the reservoir and add windshield washer fluid if necessary (> page 162).



USA only: Combination low tire pressure / TPMS malfunction indicator lamp for TPMS lights up continuously.

Canada only: Low tire pressure indicator lamp for TPMS lights up continuously.



#### Warning

The TPMS detects a loss of pressure in at least one tire.

- Carefully bring the vehicle to a halt, avoiding abrupt steering and braking maneuvers. Observe the traffic situation around you.
- ▶ Observe messages in the display (▷ page 220).

If the tire inflation pressure has been corrected in the respective tire or tires, the combination low tire pressure / TPMS malfunction indicator lamp goes out after a few minutes of driving.



USA only: Combination low tire pressure / TPMS malfunction indicator lamp for TPMS flashes 60 seconds and then stays illuminated. There is a malfunction in the TPMS.

- ▶ Observe messages in the display (> page 220).
- Have the TPMS checked at an authorized Sprinter Dealer as soon as possible.

After the malfunction has been remedied, the combination low tire pressure / TPMS malfunction indicator lamp goes out after a few minutes of driving.



#### Warning

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the recommended tire inflation pressure on the tire and loading information label or the tire inflation pressure label on the driver's door
B-pillar.

If your vehicle has tires of a different size than the size indicated on the vehicle label or the tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.

As an added safety feature, your vehicle has been equipped with a Tire Pressure Monitoring System (TPMS) that illuminates a low tire pressure indicator lamp when one or more of your tires is significantly underinflated.

Accordingly, when the low tire pressure indicator lamp comes on, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly underinflated tire causes the tire to overheat and can lead to tire failure. Underinflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if underinflation has not reached the level to trigger illumination of the TPMS low tire inflation pressure indicator lamp.

#### USA only:

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure indicator lamp. If the system detects a malfunction, the indicator lamp will

flash for approximately 1 minute, and then remain continuously illuminated. This sequence will continue upon subsequent vehicle startups as long as the malfunction exists.

When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of incompatible replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction indicator lamp after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

#### **Problem**

#### Possible cause / consequences and ▶ Solutions



The red seat belt indicator lamp lights up for approximately 6 seconds when the ignition is switched on.

A signal also sounds.

The indicator lamp reminds you to fasten your seat belt.

Fasten your seat belt (▷ page 35).

The yellow bulb indicator lamp lights up while the key is turned to position 2 in the ignition lock.

One of the bulbs of the exterior lighting (with the exception of the identification lamps as well as the trailer lighting) is malfunctioning<sup>1</sup>.

► Change the bulb as soon as possible (> page 245).

The vellow "door open" indicator lamp lights up while the vehicle is in motion.

You are already driving at walking pace, even though not all the doors or the hood are closed.

Close the doors or the hood.

1. The lamp failure monitor may not apply for all lamps depending on the equipment version with the exception of the turn signals.

#### Notes on display messages



#### Warning

No messages can be displayed if there is a failure of the instrument cluster and / or the display.

You will not then be able to see information about the vehicle status, such as speed and outside temperature, warning and indicator lamps, malfunction and warning messages or the failure of systems. Handling characteristics may be affected. You should therefore adapt your driving style and the vehicle speed accordingly.

Contact an authorized Sprinter Dealer immediately. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

All warning / indicator lamps (except the turn signal indicator lamps) and the display are activated when the ignition is switched on. Please check that they are working properly before commencing a journey.

## Vehicles without steering wheel buttons

Warnings, malfunctions or additional information may also be shown in the display. The following table shows messages which could appear in the display.

Certain messages are accompanied by a warning signal or a permanent tone.

Please respond in accordance with the messages and follow the additional notes in this Operator's Manual.

#### Vehicles with steering wheel buttons

The operating system shows warnings, malfunctions or additional information in the display.

Certain messages are accompanied by a warning signal or a permanent tone.

High-priority messages are highlighted in red in the display.

Please respond in accordance with the messages and follow the additional notes in this Operator's Manual.

Low-priority messages can be acknowledged using the [], [], [], [] or [] buttons on the steering wheel or using the (1) reset button on the instrument cluster.

Highest-priority messages cannot be acknowledged. These messages will continue to be shown in the display until their cause has been eliminated.

The on-board computer saves certain display messages in the **message memory** (> page 89).

The following table shows messages which could appear in the display. The messages are divided into two types and are sorted alphabetically.

to make it easier for you to find the relevant message:

- text messages (▷ page 223)
- symbol messages (▷ page 226)

#### Display messages

#### Display messages on vehicles without steering wheel buttons

Display messages	Possible cause / consequences and ▶ Solutions
NO TPMS	The message N0 is displayed for 30 seconds. The message TPMS is also displayed after 30 seconds.
	The TPMS is malfunctioning.
	► Have the TPMS checked at an authorized Sprinter Dealer as soon as possible.
	The message N0 is displayed for 30 seconds. The message TPMS is also displayed after 30 seconds.
	The TPMS is not receiving signals from one or more wheels because:
	a wheel was replaced with the spare wheel, which is not equipped with a wheel electronics unit
	the maximum temperature in one of the wheel electronics units has been exceeded
	one of the wheel electronics units is malfunctioning
	► Have wheels with wheel electronics units mounted at an authorized Sprinter Dealer.
— — TPMS	The message — — is displayed for 30 seconds. The message TPMS is also displayed after 30 seconds.
	The TPMS detects a moderate loss of pressure in at least one of the tires, or the difference in pressure on one axle is too great.
	► Check the tire pressure as soon as possible and correct it if necessary (> page 291).

Display me	ssages	Possible cause / consequences and ▶ Solutions
*	dEF Chk	In addition, the yellow engine diagnostic indicator lamp and the yellow DEF indicator lamp light up and a warning tone sounds.
		The DEF reducing agent is contaminated, diluted or is not compliant with ISO 22241.
		After the first message and under normal operating conditions, you can drive on for up to approximately 500 miles (800 km). Then a warning tone sequence sounds and the engine can only be started another 20 times.
		► Have the DEF tank cleaned and refilled at an authorized Sprinter Dealer as soon as possible.
		In addition, the yellow DEF indicator lamp lights up and a warning tone sounds.
		The Diesel Exhaust Fluid (DEF) supply has dropped below 1.5 US gal (5.5 I).
		After the message appears for the first time, and under normal driving conditions, the remaining DEF supply will last for approximately 1,000 miles (1,600 km).
		After that, the 0.8 US gal (3.0 I) reserve mark range is reached. A warning tone sequence sounds. The engine can then only be started another 20 times.
		► Top up the DEF supply (> page 155).
		After topping up, the system check takes approximately 20 seconds. The DEF indicator lamp then goes out.
~	XX starts remaining	In addition, the yellow engine diagnostic indicator lamp and the yellow DEF indicator lamp light up and a warning tone sounds. A warning tone sequence sounds.
		After the message appears for the first time, the engine can only be started another 20 times.
		The number of remaining engine starts $xx$ (20 to 0) is shown in the message every time the engine is started. Once the number 0 is shown, the engine can no longer be started.

#### Display messages



XX starts remaining

#### Possible cause / consequences and ▶ Solutions

The DEF reducing agent is contaminated, diluted or is not compliant with ISO 22241.

► Have the DEF tank cleaned and refilled at an authorized Sprinter Dealer as soon as possible.

The exhaust gas aftertreatment system is defective or an emissions-relevant malfunction has occurred. This malfunction or fault can damage the exhaust gas aftertreatment.

► Consult an authorized Sprinter Dealer immediately.

In addition, the <u>s</u> yellow DEF indicator lamp lights up and a warning tone sequence sounds.

The Diesel Exhaust Fluid (DEF) supply has dropped below the 0.8 US gal (3.0 l) reserve mark range.

After the message appears for the first time, the remaining DEF supply will last for approximately 1,200 miles (1,900 km). The engine can then only be started another 20 times.

The number of remaining engine starts xx (20 to 0) is shown in the message every time the engine is started. Once the number 0 is shown, the the period engine diagnostic indicator lamp lights up and the engine can no longer be started.

➤ Top up with at least 2.0 US gal (7.6 I) of DEF (> page 155).

After topping up, the system check takes approximately 20 seconds. The DEF indicator lamp then goes out.

#### Text messages on vehicles with steering wheel buttons

#### Display messages

### **↑** Warning

ABS

unavailable

ABS is temporarily unavailable.

Self diagnosis may not have been completed yet.

Possible cause / consequences and ▶ Solutions

The brake system is still available with the normal braking effect.

▶ Drive on for a distance of more than 13 mph (20 km/h).

ABS is available again if the message goes out.

Display mes	ssages	Possible cause / consequences and ▶ Solutions
ABS un	unavailable	ABS has been deactivated due to undervoltage. The battery may not be being charged.
		The brake system is still available with the normal braking effect.
		► Continue driving, but with even greater care.
		► Consult an authorized Sprinter Dealer immediately.
ABS	Visit work- shop	<b>⚠</b> Warning
	·	ABS has been deactivated due to a malfunction. ESP®, ASR and BAS as well as cruise control have also been deactivated as a result.
		The brake system is still available with the full brake boosting effect but without ABS.
		► Continue driving, but with even greater care.
		► Have the system checked immediately at an authorized Sprinter Dealer.
Check Diesel Exhaust	See Operator's Manual	The Diesel Exhaust Fluid (DEF) supply has dropped below 1.5 US gal (5.5 l).
Fluid	Папаа	After the message appears for the first time, and under normal driving conditions, the remaining DEF supply will last for approximately 1000 miles (1600 km).
		After that, the 0.8 US gal (3.0 I) reserve mark range is reached. A warning tone sequence sounds. The engine can then only be started another 20 times.
		► Top up the DEF supply (> page 155).
		► After topping up, the system check takes approximately 20 seconds. The display message then disappears.
		If the [ yellow engine diagnostic indicator lamp lights up in addition, the DEF reducing agent is contaminated, diluted or not compliant with ISO 22241.
		After the first message and under normal operating conditions, you can drive on for up to approximately 500 miles (800 km). Then a warning tone sequence sounds and the engine can only be started another 20 times.
		► Have the DEF tank cleaned and refilled at an authorized Sprinter Dealer as soon as possible.

Display mes	sages	Possible cause / consequences and ▶ Solutions
Cruise cont.	Visit work- shop	Cruise control is malfunctioning.
COIIC.	Shop	► Apply the brakes yourself as required.
		► Have cruise control checked at an authorized Sprinter Dealer.
ESP	unavailable	ESP® has been deactivated due to undervoltage. Cruise control is also switched off as a result. The battery may not be being charged.
		Vehicle stability is no longer automatically controlled in good time. Engine power output may be reduced.
		► Continue driving, but with even greater care.
		► Have the system checked at an authorized Sprinter Dealer as soon as possible.
ESP	Visit work- shop	<b>⚠</b> Warning
		ESP® has been deactivated due to a malfunction. Cruise control is also switched off as a result.
		Vehicle stability is no longer automatically controlled in good time. Engine power output may be reduced.
		► Continue driving, but with even greater care.
		► Have the system checked immediately at an authorized Sprinter Dealer.
Slid. sunroof	open	You have removed the key from the ignition lock and the sliding sunroof is still open.
		► If necessary, close the sliding sunroof (▷ page 66).
SRS	Restraint system	<b>⚠</b> Warning
	Visit work- shop	The restraint systems have malfunctioned. The airbags or emergency tensioning retractors could be triggered unintentionally, or not at all in the event of an accident.
		► Continue driving, but with even greater care.
		► Consult an authorized Sprinter Dealer as soon as possible.
Tire pres.	Adjust pres.	The pressure in one or more tires is too low or there is a significant difference between tire pressures on individual wheels.
		► Check the tire pressure as soon as possible and correct it if necessary (▷ page 291).

Display me	ssages	Possible cause / consequences and ► Solutions
	currently unavailable	The TPMS is unable to monitor the tire pressure due to undervoltage or a malfunction, e.g. a nearby radio interference source or excessive wheel sensor temperatures.
		► As soon as the causes of the malfunction have been removed, the TPMS automatically becomes active again after a few minutes of driving.
Tire pres.	inoperative	The TPMS is malfunctioning.
monitor		► Have the TPMS and the wheels checked at an authorized Sprinter Dealer.
monitor	inoperative No wheel sensors	The TPMS is not receiving any signals from one or more wheels because:
		a wheel was replaced with a spare wheel without wheel electronics.
		• the highest temperature has been exceeded in the electronics for one wheel.
		• the electronics for a wheel are defective.
		► Have wheels with wheel electronics units mounted at an authorized Sprinter Dealer

#### Symbol messages on vehicles with steering wheel buttons

Display me	ssages	Possible cause / consequences and ▶ Solutions
	xx starts remaining	The Diesel Exhaust Fluid (DEF) supply has dropped below the 0.8 US gal (3.0 l) reserve mark range.
		After the message appears for the first time, the remaining DEF supply will last for approximately 1200 miles (1900 km). The engine can then only be started another 20 times.
		The number of remaining engine starts xx (20 to 0) is shown in the message every time the engine is started. Once the number 0 is shown, the yellow engine diagnostic indicator lamp lights up and the engine can no longer be started.
		► Top up with at least 2.0 US gal (7.6 l) of DEF (> page 155).
		After topping up, the system check takes approximately 20 seconds. The display message then disappears.

#### Display messages Possible cause / consequences and ▶ Solutions <u>.</u>3 xx starts In addition, the vellow engine diagnostic indicator remaining lamp lights up. After the message appears for the first time, the engine can only be started another 20 times. The number of remaining engine starts xx (20 to 0) is shown in the message every time the engine is started. Once the number 0 is shown, the engine can no longer be started The DEF reducing agent is contaminated, diluted or is not compliant with ISO 22241. ► Have the DEF tank cleaned and refilled at an authorized Sprinter Dealer as soon as possible. The exhaust gas aftertreatment system is defective or an emissions-relevant malfunction has occurred. This malfunction or fault can damage the exhaust gas aftertreatment. Consult an authorized Sprinter Dealer immediately. Battery/ <del>- -</del> Warning Alternator Visit work-The battery is not being charged. Possible causes: shop malfunctioning alternator torn poly-V-belt ▶ Stop your vehicle as soon as it is safe to do so. Check the poly-V-belt. If it is torn: do not drive any further. Consult the nearest authorized Sprinter Dealer. If it is not damaged: have your vehicle checked at an authorized Sprinter Dealer. Brake fluid (①) BRAKE Warning Visit workshop There is insufficient brake fluid in the fluid reservoir. ▶ Stop your vehicle as soon as it is safe to do so. ► Check the brake fluid level in the brake fluid reservoir. (⊳ page 161). If the fluid is below the MIN mark: ▶ Do not drive any further. ▶ Do not top up the brake fluid. This will not rectify the fault.

Consult an authorized Sprinter Dealer.

Display mes	ssages	Possible cause / consequences and ► Solutions
d	Brake force distribu-	<b>↑</b> Warning
	tion	EBV has been deactivated due to undervoltage. The battery may not be being charged.
		The rear wheels could lock up sooner than expected when you apply the brakes.
		► Stop your vehicle as soon as it is safe to do so.
		► Do not drive any further.
		► Consult an authorized Sprinter Dealer.
(①) BRAKE	Brake force distribu-	<b>↑</b> Warning
	tion Visit work-	EBV has malfunctioned.
	shop	The rear wheels could lock up sooner than expected when you apply the brakes.
		► Stop your vehicle as soon as it is safe to do so.
		► Do not drive any further.
		► Consult an authorized Sprinter Dealer.
- <b>\</b> \$-	Brake lamp	The left-hand brake lamp is malfunctioning <sup>1</sup> .
	left	► Change the bulb as soon as possible (▷ page 245).
	Brake lamp	The right-hand brake lamp is malfunctioning i.
	right	► Change the bulb as soon as possible (▷ page 245).
	Brake wear Visit work-	Warning
	shop	The brake pads / linings have reached their wear limit.
		► Have the brake pads / linings replaced as soon as possible at an authorized Sprinter Dealer.
35 35 35 35 35	Check tire(s)	The TPMS detects a loss of pressure in at least one tire. If the tire pressure monitor has detected the affected wheel, the wheel position is also displayed.
		► Stop your vehicle as soon as it is safe to do so, avoiding abrupt steering and braking maneuvers.
		► Inspect the tires and change the wheel, if necessary (> page 252).
		► Check the tire pressure and correct it if necessary (> page 291).
		If the tire inflation pressure has been corrected in the respective tire or tires, the display message goes out automatically after a few minutes of driving.

Display mes	ssages	Possible cause / consequences and ▶ Solutions
	Check coolant	The coolant level is too low.
	level	Never run the engine if the coolant level is too low. The engine could overheat and be damaged.
		► Stop your vehicle as soon as it is safe to do so.
		► Switch off the engine to cool down.
		► Check the coolant level and add coolant as necessary (> page 160).
		► If you are having to add coolant frequently, have the cooling system checked at an authorized Sprinter Dealer.
======================================	Coolant	The coolant temperature is too high.
	Stop, turn engine off	► Stop your vehicle as soon as it is safe to do so.
		► Do not drive any further.
		If the vehicle is switched off after being subjected to extreme loads (for example driving in mountainous terrain, trailer towing, etc.), this message may be displayed when the ignition is switched on or the engine is restarted.
		Run the engine for approximately 1 minute at idling speed.
		► Consult an authorized Sprinter Dealer if the message remains displayed.
<u>₩</u>	Cornering lt. left	The left-hand front cornering lamp is malfunctioning <sup>1</sup> .
	it. Tert	► Consult an authorized Sprinter Dealer as soon as possible.
	Cornering	The right-hand cornering lamp is malfunctioning i.
	lt. right	► Consult an authorized Sprinter Dealer as soon as possible.
	Doors open	You are already driving at walking pace, even though not all the doors are closed.
		► Close the doors.
## I	Engine oil Add	The engine oil level is too low.
	1.0 quart (Canada: Add 1.0 liter)	► Check the engine oil level (▷ page 158) the next time you refuel and add oil if necessary.

Dieplay may	20200	Possible cause / consequences and N. Schutiens
Display mes		Possible cause / consequences and ▶ Solutions
<b>1</b>	Engine oil level Check oil level	The engine oil level has dropped to a critical level.  Check the engine oil level and have any excess oil si-
		phoned off at the nearest refueling station (▷ page 158).
		The engine or the catalytic converter could be damaged.
		► If the oil level is correct, have the malfunction rectified as soon as possible at an authorized Sprinter Dealer.
	Engine oil level Not when	You are attempting to check the engine oil level even though the engine is running.
	eng. run-	► Switch off the engine.
	ning	► Check the engine oil level (▷ page 158).
	Engine oil level Reduce	You have added too much engine oil. There is a risk of damage to the engine or the catalytic converter.
	oil level	<ul> <li>Check the engine oil level and have any excess oil siphoned off at the nearest refueling station</li> <li>(▷ page 158).</li> </ul>
		► If the oil level is correct, have the malfunction rectified as soon as possible at an authorized Sprinter Dealer.
	Engine oil level Stop, turn engine off	There is insufficient or no oil in the engine.
		There is a risk of engine damage.
		► Stop your vehicle as soon as it is safe to do so.
		Check the engine oil level using the dipstick (▷ page 160).
		If the oil level is correct: have the malfunction rectified immediately at an authorized Sprinter Dealer.
		If there is insufficient or no oil in the engine: have the vehicle towed to an authorized Sprinter Dealer.
- <b>\</b> \$-	Foglamp front left	The left-hand front foglamp is malfunctioning <sup>1</sup> .
		► Change the bulb as soon as possible (> page 245).
	Foglamp front right	The right-hand front foglamp is malfunctioning i.
		► Change the bulb as soon as possible (> page 245).
	High beam left High beam	The left-hand high-beam headlamp is malfunctioning <sup>1</sup> .
		► Change the bulb as soon as possible (> page 245).
		The right-hand high-beam headlamp is malfunctioning <sup>1</sup> .
	right	► Change the bulb as soon as possible (> page 245).
	Hood open	You are already driving at walking pace, even though the hood is not closed.
		► Close the hood.

Display me	essages	Possible cause / consequences and ▶ Solutions
<del>ф</del>	License	A license plate lamp is malfunctioning <sup>1</sup> .
	plate lamp	► Change the bulb as soon as possible (> page 245).
	Lights on	Automatic headlamps are active:
	automatic. Remove key	The light switch is in the <b>AUTO</b> position, and you have forgotten to remove the key.
		► Remove the key from the ignition lock.
	Low beam	The left-hand low-beam headlamp is malfunctioning <sup>1</sup> .
	left	► Halogen headlamp: change the bulb as soon as possible (> page 245).
		► <b>Bi-xenon headlamp:</b> consult an authorized Sprinter Dealer as soon as possible.
	Low beam	The right-hand low-beam headlamp is malfunctioning <sup>1</sup> .
	right	► Halogen headlamp: change the bulb as soon as possible (> page 245).
		► <b>Bi-xenon headlamp:</b> consult an authorized Sprinter Dealer as soon as possible.
	Oil sensor Visit work-	The measuring system is malfunctioning.
	shop	► Have the measuring system checked at an authorized Sprinter Dealer.
(P) PARK	Parking	A signal also sounds.
	brake Release	You are driving with the handbrake applied.
	brake	► Release the handbrake (▷ page 104).
<u>Ф</u> -	Parking lamp front left	The front left-hand standing lamp/side marker lamp is malfunctioning <sup>1</sup> .
	1010	► Change the bulb as soon as possible (> page 245).
	Parking lamp front right	The front right-hand standing lamp/side marker lamp is malfunctioning <sup>1</sup> .
	1 I gii c	► Change the bulb as soon as possible (> page 245).
	Marker lamp	A perimeter lamp is malfunctioning i.
		► Change the bulb as soon as possible (> page 245).
	Please	You have not yet entered your details in the telephone.
en	enter PIN:	► Enter the PIN for your SIM card.
<u>ф</u> .	Rear	The rear foglamp is malfunctioning <sup>1</sup> .
	foglamp	► Change the bulb as soon as possible (▷ page 245).
	Check immo- bilizer Visit work- shop	The authorization to drive must be checked. The key is no longer working.
		► Consult an authorized Sprinter Dealer.

Display mes	ssages	Possible cause / consequences and ▶ Solutions
	Reserve fuel Drive to a	The fuel level has fallen into the reserve mark range.  ▶ Refuel at the nearest gas station (▷ page 154).
本	gas station Reverse lamp	A reverse lamp is malfunctioning¹.  ▶ Change the bulb as soon as possible (▷ page 245).
*	Seatbelt sys. Visit work- shop	<ul> <li>✓ Warning</li> <li>The belt system has malfunctioned.</li> <li>► Have the system checked at an authorized Sprinter Dealer as soon as possible.</li> </ul>
<b>-</b> Ф;	Switch off lights	You have forgotten to switch off the lights when leaving the vehicle.  Turn the light switch to   O.
	Tail lamp left	The left-hand tail lamp is malfunctioning¹.  ▶ Change the bulb as soon as possible (▷ page 245).
	Tail lamp right	The right-hand tail lamp is malfunctioning¹.  ▶ Change the bulb as soon as possible (▷ page 245).
	Tank open Check filler cap	<ul><li>The fuel filler cap is not closed.</li><li>▶ Close the fuel filler cap.</li><li>A clicking sound indicates that the fuel filler cap is closed.</li></ul>
		▶ If the malfunction continues to be indicated, have it rectified immediately at an authorized Sprinter Dealer.
<u>₩</u>	Third brake lamp	<ul> <li>The third brake lamp is malfunctioning. This message will only appear if all LEDs have failed<sup>1</sup>.</li> <li>Consult an authorized Sprinter Dealer as soon as possible.</li> </ul>
	Turn signal left	The left-hand turn signal is malfunctioning.  ► Change the bulb as soon as possible (▷ page 245).
	Turn signal right	The right-hand turn signal is malfunctioning.  ▶ Change the bulb as soon as possible (▷ page 245).

Display mes	sages	Possible cause / consequences and ▶ Solutions
	unavailable	ASR as well as BAS have been switched off due to undervoltage. The battery may not be being charged.
		The brake system is still available with the normal braking effect.
		► Continue driving, but with even greater care.
		► Have the system checked immediately at an authorized Sprinter Dealer.
	Visit work- shop	<b>Marning</b>
		ASR has been deactivated due to a malfunction. Cruise control is also switched off as a result.
		Engine power output may be reduced.
		► Continue driving, but with even greater care.
		► Have the system checked immediately at an authorized Sprinter Dealer.
		<b>Marning</b>
		BAS has been deactivated due to a malfunction.
		The brake system continues to function with the normal braking effect but with no electronic support.
		► Continue driving, but with even greater care.
		► Have the system checked immediately at an authorized Sprinter Dealer.
35 35 35 34 35	Warning Tire defect	One or more tires are deflating. If the tire pressure monitor has detected the affected wheel, the wheel position is also displayed.
		► Carefully bring the vehicle to a halt, avoiding abrupt steering and braking maneuvers. Observe the traffic situation around you.
		▶ If necessary, change the wheel (▷ page 252).
	Check wash. fluid level	The washer fluid level has dropped to approximately $\frac{1}{3}$ of the reservoir capacity.
		► Add windshield washer fluid (▷ page 162).
	Water in Fuel Visit work-	The water that has collected in the water separator has reached the maximum level.
	shop	► Drain the fuel filter with water separator (▷ page 264).

<sup>1.</sup> The lamp failure monitor may not apply for all lamps depending on the equipment version, with the exception of the turn signals.

#### Indicator and warning lamps in switches



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

#### **Problem**

# One or both of the indicator lamps in the # switch for the seat heating are flashing.

#### Possible cause / consequences and ▶ Solutions

There is insufficient voltage available as too many consumers are switched on. The seat heating has been switched off automatically.

➤ Switch off all non-essential consumers, for example the reading lamps, interior lighting, etc.

The seat heating will switch back on automatically as soon as there is sufficient voltage again.

The indicator lamps in the switches for the windshield heating and / or rear window heating are flashing.

There is insufficient voltage available as too many consumers are switched on. The windshield heating and / or rear window heating have switched off automatically.

 Switch off all non-essential consumers, for example the reading lamps, interior lighting, etc.

If sufficient voltage is available again within 30 seconds, the windshield heating and/or rear window heating switch on again automatically.

#### Audible warning signals



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

Problem	Possible cause / consequences and ▶ Solutions
The anti-theft alarm system is suddenly triggered.	You have opened the vehicle using the key while the anti- theft alarm system was still primed.
	▶ Press the  or  button.
	or
	► Insert the key into the ignition lock.
	The anti-theft alarm system is deactivated.
You hear a warning signal.	A message appears in the display.
	▶ Observe the instructions on (> page 220).
	You are driving with the handbrake applied.
	► Release the handbrake (> page 104).
	You opened the driver's door and forgot to switch off the lights.
	► Turn the light switch to <b>o</b> .
	<b>⚠</b> Warning
	You are not wearing your seat belt.
	► Fasten your seat belt (▷ page 35).

#### **Engine**



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

Possible cause / consequences and ▶ Solutions	
<ul> <li>There may be air in the fuel system.</li> <li>Turn the key back to position 0 in the ignition lock before the next starting attempt.</li> <li>Start the engine again.</li> <li>Note that excessively long attempts to start the engine may drain the battery.</li> <li>If the engine still will not start after several starting attempts:</li> <li>Consult an authorized Sprinter Dealer.</li> </ul>	
The fuel tank has been run dry.  ▶ Refuel the vehicle (▷ page 154).  ▶ Bleed the fuel system (▷ page 265).	
The exhaust gas aftertreatment is defective, an emission-relevant malfunction has occurred or the DEF reserve has been used up. The engine management prevents the engine from starting.  This malfunction or defect can damage the exhaust gas aftertreatment.  ▶ Observe the messages in the display:  • on vehicles without steering wheel buttons (▷ page 221)  • on vehicles with steering wheel buttons (▷ page 223) and (▷ page 226)	
The battery isolating switch is disconnected.  ➤ Switch on the electrical system (▷ page 164).  The on-board voltage is too low (the battery has too little charge or is discharged).  ➤ The engine may be jump-started (▷ page 269).  If the engine does not start despite jump-starting:  ➤ Consult an authorized Sprinter Dealer.  The battery is discharged or is defective.  ➤ Check the battery for damage.  ➤ Charge the battery (▷ page 269).	

## **Problem**The engine does not start.

er motor working.

Possible cause / consequences and ▶ Solutions

The engine does not start. The starter motor is defective.

You cannot hear the start
Have the starter motor che

► Have the starter motor checked at an authorized Sprinter Dealer.

1. Only on vehicles without steering wheel buttons.

#### **Automatic transmission**



#### Warning

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Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

Problem	Possible cause / consequences and ▶ Solutions
The transmission no longer	The transmission is losing oil.
changes gear correctly.	► Have the transmission checked immediately at an authorized Sprinter Dealer.
The acceleration ability is deteriorating.  The transmission does not shift.	The transmission is in emergency mode.
	It is only possible to shift into second gear or reverse gear.
	▶ Stop your vehicle as soon as it is safe to do so.
Silit.	▶ Move the selector lever to position <b>P</b> .
	► Switch off the engine.
	▶ Wait at least 10 seconds before restarting the engine.
	▶ Move the selector lever to position <b>D</b> or <b>R</b> .
	▶ In position D, the transmission shifts into second gear; in position R, the transmission shifts into the reverse gear.
	► Have the transmission checked immediately at an authorized Sprinter Dealer.

#### **Driving system**



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

#### Problem

Only the red segments in the PARKTRONIC warning displays are lit. A warning tone also sounds for approximately 2 seconds.

PARKTRONIC switches off after approximately 20 seconds. The indicator lamp on the

PARKTRONIC switch comes on and the red segments in the PARKTRONIC warning display go out.

The PARKTRONIC warning displays indicate implausible distances.

For example, all the segments may be lit even though there is no obstacle present.

#### Possible cause / consequences and ▶ Solutions

PARKTRONIC has malfunctioned and has switched off.

When you press the PARKTRONIC switch, the red segments in the PARKTRONIC warning displays light up again and the warning tone sounds for approximately 2 seconds.

► Have the PARKTRONIC checked as soon as possible at an authorized Sprinter Dealer.

The PARKTRONIC sensors are dirty or iced up.

- ► Clean the PARKTRONIC sensors (> page 199).
- ► Turn the key again to position 2 in the ignition lock.

An external radio or ultrasonic source may be causing interference.

Check whether PARKTRONIC works at another location.

The license plate or other attachment parts near the sensors may not be secured correctly.

► Check the license plate and attachment parts near the sensors to see if they are securely in place.

Problem	Possible cause / consequences and ▶ Solutions
The speed cannot be set with cruise control activat-	The display is showing a message of high priority and cannot therefore show a change in speed.
ed <sup>1</sup> .	▶ Proceed as instructed by the message in the display (> page 223).
	▶ Deactivate cruise control if necessary (▷ page 124).
The rear-view camera monitor display starts to	The rear-view camera is exposed to very bright white or fluorescent light.
flicker or white stripes appear on the monitor display.	► Check whether the rear-view camera works at another location.
The rear-view camera functions incorrectly.	The surrounding area is poorly lit, the ambient temperature changes suddenly or is very high or the camera lens is dirty or obstructed.
	$\blacktriangleright$ Check the rear-view camera lens and clean it if necessary ( $\triangleright$ page 199).

1. Only on vehicles with steering wheel buttons.

#### **Auxiliary heating**



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

Problem	Possible cause / consequences and ▶ Solutions
The auxiliary heating does not switch on.	The ambient temperature is above 39 $^{\circ}\text{F}$ (4 $^{\circ}\text{C}). The auxiliary heating switches off automatically.$
	Lack of fuel.
	The fuel tank is less than a quarter full. The auxiliary heating switches off automatically.
	► Refuel at the nearest gas station (> page 154).
	► Then start the auxiliary heating repeatedly until the fuel lines are full.

#### **Problem**

The auxiliary heating does not switch on.

#### Possible cause / consequences and ▶ Solutions

The undervoltage protection circuit integrated in the control unit switches off the auxiliary heating because the onboard voltage is less than 10 V.

 If necessary, have the alternator and the battery checked.

The fuse has blown.

- ▶ Replace the fuse (> page 273).
- ► Have the cause of the blown fuse checked at an authorized Sprinter Dealer.

### $\triangle$

#### Warning

The auxiliary heating has overheated about ten times in succession. The engine or heater is malfunctioning.

Have the auxiliary heating checked at an authorized Sprinter Dealer.

The heater has overheated.

The coolant level is too low.

 Check the coolant level and add coolant if necessary (⊳ page 160).

#### **Central locking system**



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

#### **Problem**

It is no longer possible to lock the vehicle using the remote control.

The turn signals do not flash when the vehicle is locked.

#### Possible cause / consequences and ▶ Solutions

The doors are not closed properly.

► Close the doors properly and lock the vehicle again.

The central locking system has malfunctioned.

- Lock the vehicle using the key (▷ page 58).
- ► Have the central locking system checked as soon as possible at an authorized Sprinter Dealer.

Problem	Possible cause / consequences and ▶ Solutions	
It is no longer possible to lock or unlock the vehicle using the remote control.	<ul> <li>The remote control batteries are weak or discharged.</li> <li>Point the remote control towards the driver's door handle at close range and try again.</li> </ul>	
It is no longer possible to lock or unlock the vehicle	If this does not work:	
using the remote control.	► Lock or unlock the vehicle using the key (> page 58).	
	► Change the batteries of the remote control if necessary (▷ page 245).	
	The remote control is malfunctioning.	
	► Lock the vehicle using the key (> page 58).	
	▶ Have the central locking system checked as soon as possible at an authorized Sprinter Dealer.	
You have lost a remote control.	► Have the remote control canceled at an authorized Sprinter Dealer.	
	▶ Report the loss immediately to the vehicle insurers.	
	▶ If necessary, have the mechanical locks replaced.	
	Your authorized Sprinter Dealer will be happy to obtain a replacement for you.	
The key can no longer be	The on-board voltage is too low.	
turned in the ignition lock.	Switch off all non-essential consumers, for example the seat heating, interior lighting, and try to turn the key again.	
	If this does not work:	
	► Check the starter battery and charge it if necessary.	
	or	
	► The engine may be jump-started (▷ page 269).	
	or	
	► Consult an authorized Sprinter Dealer.	
The key can no longer be	The steering lock is mechanically stressed.	
turned in the ignition lock.	Remove the key and re-insert it into the ignition lock. At the same time, move the steering wheel in both rotational directions.	
The sliding sunroof is	The electric drive is malfunctioning.	
jammed.	► Have the sliding sunroof checked at an authorized Sprinter Dealer as soon as possible.	

#### Headlamps and turn signals



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

#### **Problem**

## The headlamps are fogged up on the inside.

#### Possible cause / consequences and ▶ Solutions

Air humidity is very high.

Drive with the lights on.
 The headlamps will demist after the vehicle has been driven a short distance

Moisture has penetrated the headlamp housing since it is not water-tight.

 Have the headlamps checked at an authorized Sprinter Dealer.

#### Windshield wipers



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

#### **Problem**

#### Possible cause / consequences and ▶ Solutions

The windshield wipers are iammed.

Leaves or snow, for example, are hindering the movement of the windshield wipers. The wiper motor has switched off.

- Stop the vehicle as soon as possible and, for safety reasons, remove the key from the ignition lock.
- Remove the cause of the obstruction.
- Switch on the windshield wipers again.

Problem	Possible cause / consequences and ▶ Solutions
The windshield wipers	The windshield wiper drive has malfunctioned.
have stopped working completely.	Select a different wiper speed on the combination switch.
	► Have the windshield wipers checked at an authorized Sprinter Dealer.

#### Fuel and fuel tank



#### Warning

The operating safety of your vehicle could be affected if maintenance work is carried out incorrectly. As a result, you could lose control of your vehicle and cause an accident. Also, the safety systems may no longer be able to protect you or others as they are designed to do.

Always have maintenance work carried out at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer. There is a risk of an accident and injury if this work is carried out incorrectly.

Problem	Possible cause / consequences and ▶ Solutions		
The fuel tank has been run	There is air in the fuel system.		
dry.	► Refuel the vehicle (> page 154).		
	▶ Bleed the fuel system (> page 265).		
Fuel is leaking from the vehicle.	Warning		
	The fuel line or fuel tank is malfunctioning.		
	There is a risk of fire and explosion from leaking fuel.		
	► Switch off the ignition immediately.		
	► Remove the key.		
	▶ Do not restart the engine under any circumstances.		
	► Consult an authorized Sprinter Dealer.		

#### Replacing remote control batteries

If the remote control batteries (remote keyless entry) are discharged, you will only be able to lock and unlock the vehicle manually using the key.

Always replace all the batteries at the same time. It is advisable to have the batteries changed at an authorized Sprinter Dealer.



#### Warning

Batteries contain toxic and corrosive substances. Keep batteries away from children.

Consult a doctor immediately if a battery is swallowed.

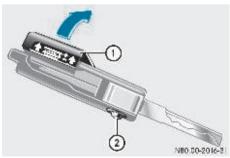


#### **Environmental note**

Batteries contain materials that can harm the environment if disposed of improperly. Recycling of batteries is the preferred method of disposal. Many states require sellers of batteries to accept old batteries for recycling.

You need two CR 2025 3 V cell batteries or equivalent.

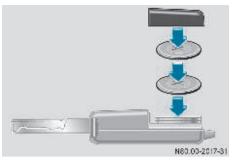
Do not operate the remote control while the batteries are being replaced.



► Release the mechanical key by pressing the release button (2).

The key folds out.

Remove battery cover 1 in the direction of the arrow.



- Remove old batteries from the battery tray.
- 1 Do not touch the battery contact surfaces. When inserting the batteries, make sure that they are clean and lint-free.
- Insert new batteries with the positive pole facing up. Use a lint-free cloth to do so.
- ► Press battery cover ① until it snaps into place.
- Check the function of all remote control buttons on the vehicle.

#### Replacing bulbs

Bulbs and lights are an important aspect of vehicle safety. For this reason, make sure that all bulbs are in working order at all times.



#### Warning

Bulbs and bulb holders can become very hot. For this reason, allow the light to cool down before changing a bulb. Otherwise, you could burn yourself when you touch it.

Keep bulbs out of the reach of children. Otherwise, they could, for example, damage the bulbs and injure themselves.

Never use a bulb which has been dropped. Such a bulb may explode and injure you.

Halogen bulbs are pressurized and may explode when changed, especially when they are very hot. You should therefore wear eye protection and gloves when you are changing them.



#### Warning

Xenon bulbs carry a high voltage. You could receive a serious or fatal electric shock if you touch the electrical contacts on the xenon bulbs. Do not remove housing covers if the headlamps are xenon headlamps.

Do not change xenon bulbs yourself. Instead, always have them changed at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

- Before replacing bulbs, switch off the lights to avoid a short circuit.
- Only touch new bulbs with a clean lintfree cloth or something similar. Do not work with wet or greasy fingers.
- Only fit 12 V bulbs of the same type as before and of the correct wattage.
- Have the headlamp setting checked regularly.
- If the newly installed bulb does not light up either, consult an authorized Sprinter Dealer.

Have the following LEDs and bulbs changed at an authorized Sprinter Dealer:

- the additional turn signals in the exterior mirrors
- the third brake lamp (cargo and passenger vans only)
- the bi-xenon headlamps
- the front foglamps

Make sure the bulbs are always securely fitted.

#### Front bulbs

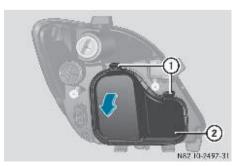


	Bulb	Model
1	Additional turn signal	PY 16 W
2	Turn signal	PY 21 W
3	Halogen headlamp: low-beam headlamp	H7 55 W
	Bi-xenon headlamp: low-beam headlamp/ high-beam headlamp	D1S-35 W

	Bi-xenon headlamp: low-beam headlamp/ high-beam headlamp	D1S-35 W
4	Halogen headlamp: high-beam headlamp	H7 55 W
	Cornering lamp	H7 55 W
5	Foglamp	H11 55 W
6	Parking lamp/side	WY 5 W

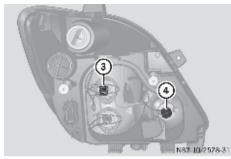
## High-beam headlamps / cornering lamps, low-beam headlamps

marker



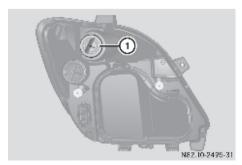
- Switch off the lighting.
- ▶ Open the hood (> page 156).

- Press catches ① down.
- Swing housing cover ② in the direction of the arrow and remove it.



- (3) Low-beam headlamps
- 4 Halogen high-beam headlamps / xenon headlamp cornering lamp
- ▶ Pull the connector off the bulb holder.
- Unclip the retainer spring and remove the bulb.
- ► Insert the new bulb so that the base locates in the recess of the bulb holder.
- ► Clip on the retainer spring and plug the connector onto the bulb.
- ► Insert housing cover ② into the lower brackets
- ► Fold housing cover ② against the headlamp casing.
- ► Push catches ① up until you feel them engage.

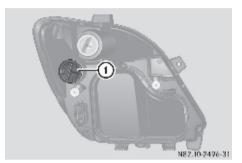
#### Turn signals



Switch off the lighting.

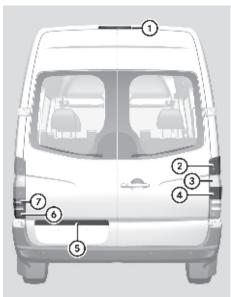
- ▶ Open the hood (> page 156).
- ► Turn bulb holder ① and the bulb counterclockwise and remove the holder.
- ▶ Press down on the bulb, turn it counterclockwise and remove it from bulb holder (1).
- ► Press the new bulb into bulb holder ① and screw it in clockwise.
- ► Place bulb holder ① into the lamp and turn it clockwise.

#### Parking lamps/side marker



- ► Switch off the lighting.
- ▶ Open the hood (▷ page 156).
- ► Turn cap ① counterclockwise and remove it.
- ► Remove the bulb holder together with the bulb.
- Pull the bulb out of the bulb holder.
- Press the new bulb into the bulb holder.
- Insert the bulb holder with bulb into the reflector.
- ► Replace cap ① and turn it clockwise to the stop.

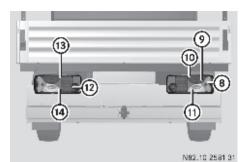
#### Rear bulbs



N82.10 2580 31

#### Panel van / crewbus

	Bulb	Model
1	Third brake lamp	LED
2	Brake lamp	P 21 W
3	Turn signal	PY 21 W
4	Tail lamp/side marker	R 5 W
5	License plate lamp	W 5 W
6	Rear foglamp (driver's side)	P 21 W
7	Reverse lamp	P 21 W

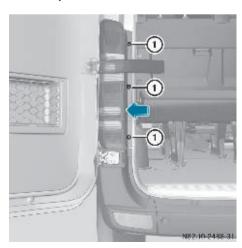


#### **Example illustration of chassis**

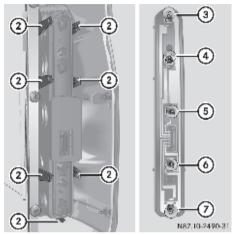
	Bulb	Model
8	Perimeter lamp / side marker	R 5 W
9	Turn signal	PY 21 W
10	Brake lamp	P 21 W
11)	Reverse lamp	P 21 W
12	Rear foglamp (driver's side)	P 21 W
13	Tail lamp	R 5 W
(14)	License plate lamp	R 5 W

## Changing the rear bulbs (panel van/crewbus)

#### Rear lamp units



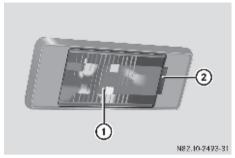
- Switch off the lighting.
- ► Undo screws ① and remove the rear lamp unit in the direction of the arrow.
- Remove the connector.



- (2) Retaining lugs
- (3) Brake lamp
- (4) Tail lamp / side marker
- ⑤ Reverse lamp
- (6) Turn signal lamp
- (7) Rear foglamp (driver's side)
- Release retaining lugs ② and remove the bulb holder from the rear lamp unit.
- Press down on the bulb, turn it counterclockwise and remove it from the holder.
- Press the new bulb into the bulb holder and screw it in clockwise.
- ► Plug the connectors into the bulb holder.
- ► Fit the rear lamp unit.

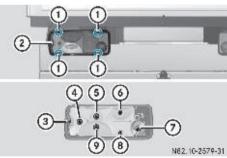
  To do this, clip the bulb holder into the three holes provided on the side and tighten screws (1).

#### License plate lamp W 5 W



- Switch off the lighting.
- Insert a screwdriver or similar implement into recess ② and carefully pry off lens ①.
- Pull the bulb out of the bulb holder.
- Insert the new bulb.
- ► Align lens ① and clip it in, making sure that it engages.

#### Changing the rear bulbs (chassis)



#### **Example illustration of chassis**

- (1) Securing screws
- (2) Lens
- ③ Perimeter lamp / side marker
- 4 Turn signal lamp
- (5) Brake lamp
- Tail lamp
- 7) Rear foglamp (driver's side)
- (8) License plate lamp
- (9) Reverse lamp
- Switch off the lighting.
- ▶ Undo screws ① and remove lens ②.

- Press the bulb into the bulb holder and screw it out in a counterclockwise direction.
- Press the new bulb into the bulb holder and screw it in clockwise.
- ► Replace lens ② and retighten screws ①.

#### Changing additional bulbs

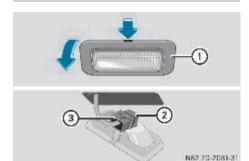
## Identification lamps W 5 W (cab chassis only)





- Switch off the lighting.
- ► Undo screws ① and remove lamp housing.
- ► Turn bulb holder ② and remove it together with the bulb.
- ▶ Press the new bulb into bulb holder ②.
- ► Screw bulb holder ② containing the bulb into the lamp housing.
- Carefully reattach the lamp housing and retighten screws 1.

#### Entry lamp W 5 W



- ▶ Switch off the lighting.
- ► Press in the latching springs of lamp housing ① using a suitable tool such as a screwdriver.
- ▶ Pry off lamp housing ①.
- ▶ Remove cable connector (3).
- ► Turn bulb holder ② in the direction of the arrow and remove it together with the bulb.
- ► Remove bulb ② from the bulb holder.
- ▶ Press the new bulb into bulb holder ②.
- ► Screw bulb holder ② together with the bulb into lamp housing ①.
- ► Connect cable connector ③.

  The connector's locking spring must engage.
- ► Align lamp housing ① and engage it.

#### Front interior lamp K 18 W



- Switch off the lighting.
- Press in the latching springs of lamp housing 1 using a suitable tool such as a screwdriver.
- ▶ Pry off lamp housing ①.
- ▶ Remove bulb (2) from the bulb holder.
- ▶ Insert new bulb ②.
- ► Align lamp housing ① on the right and engage it.

Have the interior lamps in the overhead control panel changed at an authorized Sprinter Dealer which has the necessary specialist knowledge and tools to carry out the work required.

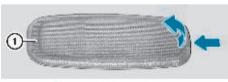
You could damage the overhead control panel.

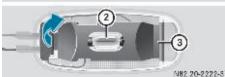
#### Rear interior lamps K 15 W





Interior lamp with switch

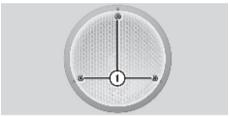




Interior lamp without switch

- Switch off the lighting.
- Insert a screwdriver or similar implement into the recess and carefully pry off lamp housing (1).
- ► Interior lamp without switch: fold shield ③ up.
- ▶ Remove bulb ② from the bulb holder.
- ► Insert new bulb ②.
- ► Interior lamp without switch: fold shield (3) back.
- ► Align lamp housing ① on the left and engage it.

#### Rear interior lamps W 5 W





- Switch off the lighting.
- Undo screws (1) and remove lens.
- ► Turn bulb holder ② and remove it together with the bulb.
- Press bulb ② into the socket, turn it counterclockwise and remove it from the holder.
- Press new bulb ② into the bulb holder and screw it clockwise.
- ► Carefully reattach the lens and retighten screws ①.

#### Replacing the wiper blades



#### Warning

Wiper blades are wear parts. Change the wiper blades every six months, ideally in the spring and fall. Otherwise, the windshield and rear window will not be wiped properly. This may prevent you from observing the traffic conditions, thereby causing an accident.

Do not open the hood while the wiper arms are folded away from the windshield. You would damage the hood and the wiper arms.

Do not fold the wiper arms onto the windshield

Do not fold the wiper arms onto the windshield without wiper blades being attached. You could scratch the windshield.

Only hold the wiper blade by the arm. You could otherwise damage the wiper blade rubber.

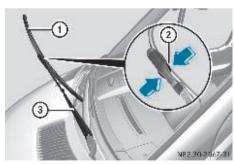


#### **Warning**

If intermittent wipe or the rain sensor is active, the windshield wipers could move at any time and injure you or others upon contact with them.

Always remove the key from the ignition lock before replacing the wiper blades.

- ► To remove: apply the handbrake.
- ► Turn the key to position 1 in the ignition lock.



Front wiper arm with wiper blade

- ► Fold wiper arms ③ away from the windshield.
- Press two retaining clips ② together in the direction of the arrow and fold wiper blade ① away from wiper arm ③.
- ► Pull wiper blade ① up and out of the retainer.
- ► To install: slide wiper blade ① into the retainer on the wiper arm.
- ▶ Press wiper blade ① onto wiper arm ③ until you hear retaining clips ② engage.
- ► Fold wiper arm ③ onto the windshield again.

#### Flat tire

The vehicle is either equipped with a spare wheel or the Premium tire sealant.

The spare wheel is located under the rear end of the vehicle (> page 206).

The Premium tire sealant is located in the stowage compartment in the right-hand doorway (⊳ page 208).



#### Warning

Defective or worn tires, and tire pressures that are either too high or too low, can cause significant changes in the vehicle's handling and braking characteristics. There is an increased risk of an accident.

Replace the tires, including the spare tire, at least every 6 years, regardless of the degree of treadwear.

Check the tire pressure on the spare wheel at regular intervals

When you replace a tire, we also recommend that you replace the tire valve.



#### Warning

Vehicles not equipped with Tire Pressure Monitoring System (TPMS):

For safety reasons, we recommend that you use only Schrader tire valves. These have been tested for use on your vehicle.

Use only tire valves of type:

- TR 600 for the vehicle model 2500
- TR 418 for the vehicle model 3500

Using tire valves from any other manufacturer could lead to a loss in tire pressure and impair driving safety.

You will find safety-relevant information on tires and wheels in the "Operation" section ( $\triangleright$  page 165).

#### Preparing the vehicle

- Park the vehicle as far away as possible from traffic and on a level, firm, and non-slip surface.
- ▶ Switch on the hazard warning lamps.
- Apply the handbrake.
- ▶ Move the selector lever to position **P**.
- Any passengers should leave the vehicle, ensuring that they are not endangered as they do so.
- ► Place the warning triangle or road hazard lamps at a suitable distance.

Observe legal requirements.

## Changing a wheel



#### Warning

To avoid the risk of serious or even fatal injury and to avoid damage to the vehicle, observe the following:

the jack is only designed to raise the vehicle for a short time when changing a wheel on a level raod.

- position the jack under the appropriate jacking point only (> page 254). Check that the jack is correctly seated under the jacking point before raising the vehicle.
- the jack must be placed on a firm, level surface.
- before raising the vehicle, also secure it against rolling away, by using chocks or similar aids. Never release the handbrake while the vehicle is raised.
- make sure that the distance between the underside of the tires and the ground does not exceed 1.2 in (3 cm). The vehicle could slip or topple off the jack.
- do not reach under the raised vehicle with your hands or feet.
- do not start the engine and avoid creating other vibrations while the vehicle is jacked up. The vehicle could slip off the jack.

#### Preparing the vehicle

Prepare the vehicle as described (> page 253).

▶ Prevent the vehicle from rolling away. Use the wheel chock (▷ page 205) or similar aid to do this.



#### Warning

The vehicle could slip off the jack on uphill and downhill gradients.

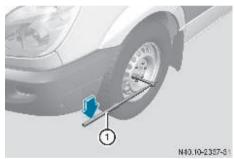
To avoid the risk of causing serious or fatal injury, or damage to the vehicle, do not change wheels on uphill and downhill gradients.

#### On a level road:

- Place the chocks in front of and behind the wheel diagonally opposite to the wheel that is to be changed.
- ► Take the vehicle tool kit and the jack from the footwell on the co-driver's side (> page 204).

- Remove the spare wheel from the spare wheel bracket (▷ page 206).
- ► For wheels with wheel bolts, remove the wheel cover.
- From the jack's three-part pump lever, assemble the medium rod and the rod with the largest diameter as a wheel wrench extension.
- Slide the wheel wrench extension with the medium rod along the wheel wrench to the stop.

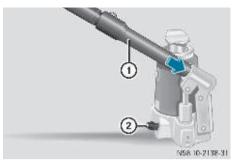
Only use the medium rod and the rod with the largest diameter from the jack's pump lever as the wheel wrench extension. Only insert this and the medium rod to the stop on the wheel wrench. Otherwise, the rods can bend and become so deformed that they can no longer be used as the jack's pump lever.



▶ Using the extended wheel wrench, loosen the wheel nuts or wheel bolts on the wheel to be changed ① by about one turn, but do not unscrew them.

## Hydraulic jack

Insert the third pump lever rod for the jack into the wheel wrench extension. The pump lever is now assembled as the jack.



- ► Close pressure release screw (2).
- ► To do this, turn the flattened section on the pump lever clockwise to the stop.

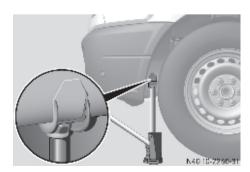
1 Never turn pressure release screw 2 more than 1 or 2 full turns. Hydraulic fluid could otherwise escape.

- Insert pump lever ① into the recess on the jack and secure it by turning it clockwise.
- Make sure that the jack is positioned vertically under the jacking points described below.
- Raise the vehicle by pumping the lever until the wheel is raised clear of the ground.

Make sure that the distance between the underside of the tires and the ground does not exceed 1.2 in (3 cm).

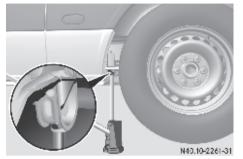
## Jacking point at the front axle

The vehicle jacking point is located under the longitudinal member in front of the front axle.

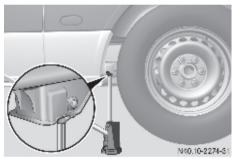


#### Jacking points at the rear axle

The vehicle jacking point is located under the longitudinal member in front of the rear axle.



Jacking point (example: vehicle model type 2500)



# Jacking point (example: v vehicle model type 3500)

Do not apply the jack to the leaf spring or the differential housing.

On platform trucks, the jacking point is located next to the front leaf spring support.



#### jacking point (example: chassis)

• Only position the jack on the jacking points intended for this purpose. You could otherwise damage the vehicle.

#### Removing a wheel

- Unscrew the wheel bolts or wheel nuts.
- Do not place the wheel bolts or the wheel nuts in sand or dirt. The bolt and wheel hub threads could otherwise be damaged.
- ► For wheels with wheel nuts, remove the wheel nut cover
- Remove the wheel.

## Mounting the new wheel



#### **\** Warning

To avoid the risk of serious or even fatal injury and to avoid damage to the vehicle, observe the following:

- replace the wheel bolts and wheel nuts if they are damaged or have become rusty.
- never oil or grease wheel bolts or wheel nuts.
- if a wheel hub thread is damaged, do not drive the vehicle.
- consult an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

- For safety reasons, we recommend that you only use wheel bolts and wheel nuts that have been approved for Sprinters.
   Other wheel bolts or wheel nuts could work loose
- Clean the wheel and wheel hub contact surfaces.
- Push the wheel onto the wheel hub and press it on.

If your vehicle is equipped with the tire pressure monitor system, each wheel has an electronic component.

Tire mounting tools should not be applied in the area of the valve, as this could damage the electronic components.

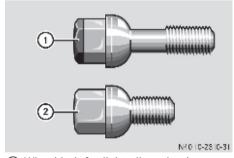
Only have the tires changed at an authorized Sprinter Dealer.



#### Warning

Do not tighten the wheel bolts and wheel nuts completely while the vehicle is still jacked up. The vehicle could tip.

Wheels with centering by wheel bolts:



- ① Wheel bolt for light-alloy wheel
- (2) Wheel bolt for steel wheel
- I The wheel bolts for steel wheel must be used when mounting the steel spare wheel. The use of any wheel bolts other than the wheel bolts for steel wheel will physically damage the vehicle's brakes.

- Screw in the wheel bolts and tighten them finger-tight.
- On vehicles with light-alloy wheels, you will find short wheel bolts suitable for the steel spare wheel in the vehicle tool kit.

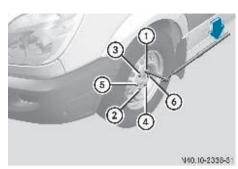
For wheels with wheel nuts:

- ► Center the wheel nut cover over the wheel and push it onto the wheel.
- Screw on three wheel nuts over the fixing discs of the wheel nut cover.
- ► Turn the wheel so that the wheel bolts are in the center of the holes.
- Screw on the remaining wheel nuts.
- ► Tighten all wheel nuts finger-tight.

#### Lowering the vehicle

- Slowly open the jack's pressure release screw one turn using the pump lever (▷ page 254) and lower the vehicle slowly.
- Put the jack to one side.
- ▶ Disconnect the rod with the smallest diameter from the pump lever.
  - The shortened pump lever acts as the wheel wrench extension.
- Slide the wheel wrench extension with the medium rod along the wheel wrench to the stop.
- Only use the medium rod and the rod with the largest diameter from the jack's pump lever as the wheel wrench extension. Only insert this and the medium rod to the stop on the wheel wrench. Otherwise, the rods can bend and become so deformed that they can no longer be used as the jack's pump lever.

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#### Tightening torque pattern

- 1 6 Wheel bolts
- ► Tighten all the wheel bolts or wheel nuts evenly in the sequence indicated using the extended wheel wrench.

The tightening torques are as follows:

- for wheel bolts 177 lb-ft (240 Nm) (steel wheel) / 133 lb-ft (180 Nm) (light-alloy wheel).
- for wheel nuts 133 lb-ft (180 Nm)

You can now fit the hub caps on steel wheels with wheel bolts. The fitting procedure depends on whether the hub cap covers the whole wheel or just the center.

- With a hub cap that covers the whole wheel, make sure that the opening for the tire valve is positioned over the valve.
- Push the edge of the hub cap with both hands against the wheel until it engages into place.
- With a hub cap for the center of the wheel, make sure that the clamping lugs of the cover are positioned over the wheel bolts.
- ► Hit the center of the hub cap to engage it on the wheel.

- Compress the piston of the hydraulic jack and close the pressure release screw.
- ► Place the defective wheel in the spare wheel bracket after changing the wheel (> page 206).
- ► Store the jack and the remaining vehicle tools (> page 204).
- ► Check the tire pressure (> page 291).
- Retighten the wheel bolts and wheel nuts to the specified tightening torque once the vehicle has been driven for 30 miles (50 km).



#### **Narning**

For safety reasons, you must observe the following after changing a wheel:

- have the tightening torque checked:
  - for wheel bolts 177 lb-ft (240 Nm) (steel wheel) / 133 lb-ft (180 Nm) (light-alloy wheel) or
  - for wheel nuts 133 lb-ft (180 Nm)
    The wheels could otherwise come loose.
- check the tire pressure and correct it if necessary.
- have the wheel bolts or wheel nuts retightened after 30 miles (50 km) to the tightening torque specified above.
- if new or repainted wheels are mounted, the wheel bolts or wheel nuts must be retightened again after approximately 600 to 3000 miles (about 1000 to 5000 km) to the tightening torque specified above.
- have the direction of tire rotation corrected, if reversed, as soon as possible at an authorized Sprinter Dealer.

Loose wheel nuts or bolts could cause the vehicle to lose a wheel while it is in motion. This would jeopardize the operating and road safety of the vehicle. You could lose control of the vehicle as a result, cause an accident and injure yourself or others.

#### **Using Premium tire sealant**

You can use the Premium tire sealant to seal small punctures, particularly those in the tire tread. Tire sealants can be used at outside temperatures down to -22 °F (-30 °C).



#### Warning

Smoking, fire and open flames are prohibited when handling Premium tire sealant.

Avoid creating sparks.



#### Warning

Your safety is at particular risk and the tire sealant is unable to repair a tire in the following situations:

- if there are cuts or punctures in the tire greater than 0.23 in (6 mm)
- · if the rim is damaged
- if you have driven with very low tire pressures or with flat tires

Do not drive any further. Consult an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

- Prepare the vehicle as described (▷ page 253).
- ► Try to park the vehicle in such a way that the tire puncture is close to the ground. If the tire puncture cannot be seen, park the vehicle in such a way that the tire valve of the flat tire is in horizontal alignment with the axle.

- It is beneficial to the sealing process if you remove the foreign body that has pierced the tire, for example the screw or nail.
- ► Remove the Premium tire sealant, the accompanying "max. 50 mph (80 km/h)" sticker and the electric air pump from the storage compartment in the right-hand doorway (> page 208).
- ► Affix the sticker within the driver's field of vision.



#### Warning

Comply with the safety instructions as seen on the sticker on the electric air pump and the tire sealant bottle.

You could otherwise fail to recognize dangers and injure yourself and others.



#### Warning

Tire sealant must not come into contact with your skin, eyes or clothing.

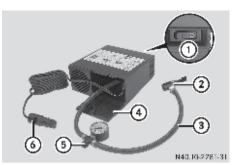
- If tire sealant comes into contact with your eyes or skin, immediately rinse thoroughly with clean water.
- Immediately change out of clothing that has been in contact with tire sealant.
- If an allergic reaction occurs, consult a doctor immediately.

Keep tire sealant away from children.

- If tire sealant is swallowed, immediately rinse your mouth out thoroughly and drink plenty of water.
- Do not induce vomiting. Consult a doctor immediately.

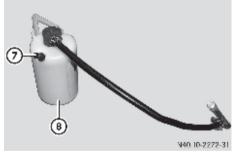
Do not inhale tire sealant fumes.

**1** The tire sealant is water-soluble. If tire sealant escapes, you can wash it away with water. ▷▷

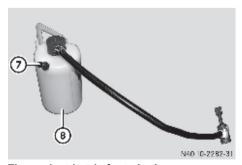


#### Electric air pump

- (1) Switch
- (2) Angle bracket
- (3) Electric air pump hose
- (4) Flap
- (5) Pressure gauge with release screw
- (6) Connector with cable
- ▶ Open flap 4 on the electric air pump.
- Pull connector 6 and hose 3 out of housing together with pressure gauge 5.



Tire sealant bottle for single tires



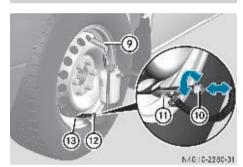
Tire sealant bottle for twin tires

- ► Shake tire sealant bottle (8).
- ► Unscrew and remove the cap from valve (7) on tire sealant bottle (8).
- ▶ Press angle bracket ② on hose ③ of the electric air pump all the way onto valve ⑦ of tire sealant bottle ⑧ and clamp it in place.

The following steps may vary depending on vehicle tires:

- single tires
- twin tires, inner wheel (▷ page 260)
- twin tires, outer wheel (> page 262)

#### Single tire



- ► Pull knob (10) out of valve core extractor (12) as far as the stop.
- ► Unscrew and remove the valve cap from tire valve (3) on the flat tire.
- ► Hook tire sealant bottle ® into the upper vent hole in the wheel using hook ⑨.
- ► Keep lever (1) pressed, connect valve core extractor (12) firmly to tire valve (13) and release lever (11).
- ► Press knob (10) into the valve core of tire valve (13), turning it gently as you do so, until the shaft of valve core extractor (12) engages.
- ► Turn knob (10) counterclockwise until the valve core is unscrewed.

- ▶ Pull knob (10) out of valve core extractor (12) as far as the stop.
  - This pulls the valve core into the valve core extractor and seals it against the valve core extractor stop.
- ► Make sure that the pressure release screw on pressure gauge (5) is closed.
- ► Connect connector (a) to the 12 V socket (12 V, 25 A, 300 watts) on the center console (▷ page 145).
- Only connect the electric air pump to the 12 V socket (▷ page 145) on the center console (12 V, 25 A, 300 watts). Do not connect the electric air pump connector to the cigarette lighter socket or to another 12 V socket. You could otherwise damage the vehicle electrical system.
- Start the engine.
- ▶ Press I on electric air pump switch (1).

The electric air pump is switched on. The tire sealant is then pumped into the tire and the tire pressure is increased

Allow the electric air pump to run for at least 10 minutes until tire sealant bottle (a) is completely empty and a minimum tire pressure of 43.5 psi (3.0 bar) is achieved.

- Do not run the electric air pump for more than 20 minutes without a break, otherwise it may overheat. The air pump can be used again once it has cooled down.
- ▶ Inflate the tire using the electric air pump until the recommended tire pressure (▷ page 291) is achieved.
- ► Then press **0** on electric air pump switch ①.

The electric air pump is switched off.

► Slide knob (10) quickly to the stop in valve core extractor (12).

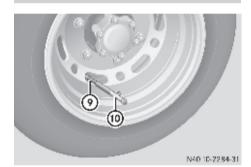
► Turn knob (10) clockwise until the valve core is firmly screwed into tire valve (13).

① Do not pull the valve core extractor from the tire valve while the valve core is unscrewed from the tire valve. Tire sealant could otherwise escape onto your hands.

The tire sealant is water-soluble. If tire sealant escapes, you can wash it away with water.

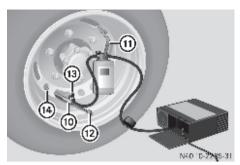
- ► Press lever (1) and remove valve core extractor (12) from tire valve (13).
- ► Screw the valve cap onto tire valve ③. After filling with tire sealant (▷ page 263).

#### Twin tires, inner wheel



- ► Unscrew and remove the valve cap from valve extension (9) on the flat tire.
- Screw valve core extractor (10) clockwise all the way onto valve extension (9).
- ► Continue to screw valve core extractor (10) about half a rotation to loosen the valve extension (9).
- Unscrew and remove valve extension (9) and valve core extractor (10) counterclockwise from tire valve.
- Unscrew and remove valve extension (9) from valve core extractor (10).





- ▶ Pull knob ② out of valve core extractor ③ as far as the stop.
- ► Screw valve core extractor (10) clockwise onto tire valve (14).
- Press knob ② into the valve core of tire valve ④, turning it gently as you do so, until the shaft of valve core extractor (1) engages.
- ► Turn knob (12) counterclockwise until the valve core is unscrewed.
- ▶ Pull knob (12) out of valve core extractor (10) as far as the stop.

This pulls the valve core into the valve core extractor and seals it against the valve core extractor stop.

- ► Hook tire sealant bottle (8) into the upper vent hole in the wheel using hook (11).
- ► Press angle bracket ③ on hose of tire sealant bottle ⑧ to the stop on the flange of valve extractor ⑩ and clamp it in place.
- ► Make sure that the pressure release screw on pressure gauge (5) is closed.
- Connect connector (§) to the 12 V socket (12 V, 25 A, 300 watts) on the center console (▷ page 145).

Only connect the electric air pump to the 12 V socket (▷ page 145) on the center console (12 V, 25 A, 300 watts). Do not connect the electric air pump connector to the cigarette lighter socket or to another 12 V socket. You could otherwise damage the vehicle electrical system.

- ▶ Start the engine.
- Press I on electric air pump switch ①.
  The electric air pump is switched on.
  The tire sealant is then pumped into the tire and the tire pressure is increased.

Allow the electric air pump to run for at least 10 minutes until tire sealant bottle (a) is completely empty and a minimum tire pressure of 43.5 psi (3.0 bar) is achieved.

Do not run the electric air pump for more than 20 minutes without a break; otherwise, it may overheat. The air pump can be used again once it has cooled down.

- Inflate the tire using the electric air pump until the recommended tire pressure (▷ page 291) is achieved.
- ► Then press **0** on electric air pump switch (1).

The electric air pump is switched off.

- ► Slide knob (12) quickly to the stop in valve core extractor (10).
- Turn knob (2) clockwise until the valve core is firmly screwed into tire valve (4).

① Do not unscrew the valve core extractor from the tire valve while the valve core is unscrewed from the tire valve. Tire sealant could otherwise escape onto your hands.

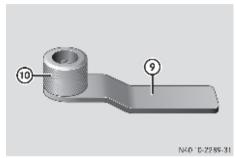
The tire sealant is water-soluble. If tire sealant escapes, you can wash it away with water.

- ► Pull knob ② out of valve core extractor ③ as far as the stop.
- ► Unscrew valve core extractor (10) counterclockwise and remove it from tire valve (14).
- Screw valve extension (9) onto tire valve (4) and tighten.
- ► Screw the valve cap onto valve extension ⑨.

After filling with tire sealant (⊳ page 263).

#### Twin tires, outer wheel

The tire valve is on the inside of the outer wheel and should be horizontal on the left-hand side of the vehicle for the repair procedure.

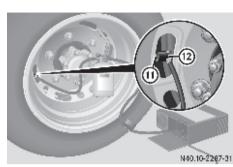


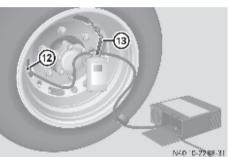
Valve tool with handle and turning workpiece



- ► Unscrew and remove the valve cap from tire valve (11) on the flat tire.
- Guide valve tool through the opening in the wheel and press it onto tire valve (11).
- ▶ Use one hand to hold handle ② on the valve tool firmly and use the other hand to unscrew and remove the valve core from the valve tool using turning workpiece ⑩.
- Remove the valve tool carefully through the opening in such a way that the valve core remains engaged in the valve tool.

1 If the valve insert is damaged or lost when it is unscrewed, you can use the valve insert of the tire sealant bottle after you have used the tire sealant.





- ► Hook tire sealant valve (8) into the upper vent hole in the wheel using hook (13).
- Press angle bracket ② on the hose of tire sealant bottle ⑧ to the stop on tire valve (f) and clamp it into place.
- ► Make sure that the pressure release screw on pressure gauge (5) is closed.
- Connect connector (a) to the 12 V socket (12 V, 25 A, 300 watts) on the center console (▷ page 145).
- ② Only connect the electric air pump to the 12 V socket (▷ page 145) on the center console (12 V, 25 A, 300 watts). Do not connect the electric air pump connector to the cigarette lighter socket or to another 12 V socket. You could otherwise damage the vehicle electrical system.
- Start the engine.

 $\blacktriangleright$  Press I on electric air pump switch ①.

The electric air pump is switched on. The tire sealant is then pumped into the tire and the tire pressure is increased.

Allow the electric air pump to run until tire sealant bottle (8) is completely empty.

- ► Press **0** on electric air pump switch ① after about 15 seconds.
- ► Unscrew angle bracket ② from tire valve (1) and remove it.
- Screw in the valve core with the valve tool again and take out the valve tool through the opening.

i If the valve insert is damaged or lost when it is unscrewed, you can use the valve insert of the tire sealant bottle after you have used the tire sealant.

- Unscrew the valve insert from the valve of the tire sealant bottle using the valve extractor.
- Do not run the electric air pump for more than 20 minutes without a break; otherwise, it may overheat. The air pump can be used again once it has cooled down.
- ► Press angle bracket ② on hose ③ of the electric air pump to the stop on tire valve (i) and clamp it into place.
- Press switch ① on the electric air pump to I and pump up the tire until the recommended tire pressure (▷ page 291) is achieved.
- ► Then press **0** on electric air pump switch (1).

The electric air pump is switched off.

- 1 The tire sealant is water-soluble. If tire sealant escapes, you can wash it away with water.
- ► Screw the valve cap onto tire valve ①. After filling with tire sealant (▷ page 263).

### After filling with tire sealant

- ► Turn the pressure release screw on pressure gauge ⑤ counterclockwise and bleed the system.
- ► Turn the key to position **0** in the ignition lock.
- Pull the electric air pump connector out of the 12 V socket.
- Store the electric air pump, tire sealant bottle (a) with valve core extractor (b) and, if used, the warning triangle and hazard warning lamps inside the vehicle.
- Unscrew and remove angle bracket 2 from valve 7 on tire sealant bottle 8 and screw the valve cap onto the valve.



#### Warning

Do not exceed the maximum speed of 50 mph (80 km/h).

The "max. 50 mph (80 km/h)" sticker must be affixed within the driver's field of vision.

The vehicle's handling characteristics may be affected.

- ► Pull away immediately.
  - This enables the tire sealant to distribute inside the tire and create a more effective seal.
- ► Stop after about 3 minutes and check the tire pressure using the electric air pump, for example.
- 1 You must connect the angle bracket on hose
  3 of the electric air pump directly to the tire
  valve on the tire.
- ► Correct the tire pressure accordingly if it does not correspond to the recommended tire pressure (> page 291).

- ► To increase the tire pressure: switch on the electric air pump.
- ➤ To reduce the tire pressure: open the pressure release screw on pressure gauge ⑤.
- ► Drive to the nearest workshop and have the tire repaired or replaced.
- ► Clean the valve core extractor using clean water.
- Have tire sealant bottle (8) replaced as soon as possible at an authorized Sprinter Dealer.



#### Warning

If the minimum tire pressure of 43.5 psi (3.0 bar) still cannot be achieved, the tire is too badly damaged.

Do not drive any further. Consult an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.



#### **Environmental note**

Have the used Premium tire sealant disposed of at an authorized Sprinter Dealer.

Have the tire sealant bottle replaced every 8 years at an authorized Sprinter Dealer.

### **Draining the fuel filter**

If the indicator lamp lights up, you must drain the fuel filter.

Drain the fuel filter with water separator immediately if the light indicator lamp lights up. The engine could be damaged.



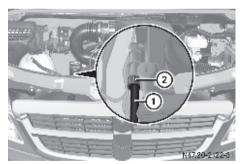
#### **Environmental note**

When handling, storing and disposing of diesel and diesel mixtures, please observe the relevant regulations.

To this end, have the fuel filter with water separator drained at an authorized Sprinter Dealer which has the necessary specialist knowledge and tools to carry out the work required.

The fuel filter with water separator is in the engine compartment.

- ► Apply the handbrake and move the selector lever to position **P**.
- ➤ Switch off the engine and open the hood (> page 156).



- Place a suitable receptacle under drain hose 1.
- ► Turn the key to position 2 in the ignition lock.
- ► Unscrew drain plug ② immediately until liquid flows out of drain hose ①.

  Make sure that the liquid flows into the container under drain hose ①.

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- Close drain plug ② as soon as approximately 0.2 US qt (0.2 I) of liquid has been collected.
- 1 The electric fuel delivery pump stops the flow of liquid automatically after 30 seconds.
- ▶ When you have drained the fuel filter with water separator, turn the key back to position 0 in the ignition lock.
- Dispose of the collected liquid in an environmentally responsible manner.



Have the drained liquid disposed of at an authorized Sprinter Dealer.

- ▶ Drain the fuel filter again if the indicator lamp remains lit.
- If the line indicator lamp remains lit even after draining for the second time, have the cause checked immediately at an authorized Sprinter Dealer.

## Bleeding the fuel system

If the fuel tank has been run dry, there is a possibility that the engine may not start immediately after refueling because air may remain in the fuel system.

- 1 Too many attempts to start the engine could drain the battery.
- After refueling: turn the key to position 2 in the ignition lock for approximately 10 seconds.
- Start the engine repeatedly for no more than 60 seconds until it runs smoothly.

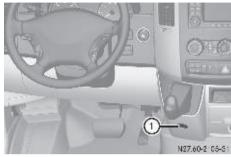
If the engine does not start:

- ► Wait approximately 2 minutes.
- ► Then start the engine repeatedly again for no more than 60 seconds until it runs smoothly.

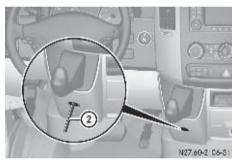
If this attempt also fails, do not continue to start the engine. Consult an authorized Sprinter Dealer.

## Releasing the parking lock manually

In the event of a malfunction, it is possible to manually release the selector lever from the lock in parking position **P**, for example to have the vehicle towed away.



▶ Remove cover cap (1).



- ► Insert a pencil ② or similar implement into the opening.
- Press pencil ② in and at the same time move the selector lever out of position P.
- Pull out pencil ②.
- ► Clip cover cap ① back on.

#### **Battery**

Your vehicle may be equipped with two batteries, depending on the equipment version:

- starter battery in the battery recess in the driver's footwell
- auxiliary battery in the engine compartment

The auxiliary battery in the engine compartment is not suitable for jump-starting operations. Only use the jump-starting connection in the engine compartment if you require jump-starting assistance or wish to provide jump-starting assistance (▷ page 269).



#### Warning

Observe the safety notes in the "Operation" section ( $\triangleright$  page 163). Do not place any metal objects on the battery. Doing so can cause a short circuit.

Use only impact-resistant batteries with a central gas release cover to prevent corrosion damage and to protect occupants from caustic burns in the event of an accident.

Have the batteries removed at an authorized Sprinter Dealer which has the necessary specialist knowledge and tools to carry out the work required.

#### Disconnecting the battery

If you intend to leave your vehicle parked up for a long period, seek advice from an authorized Sprinter Dealer and switch off the electrical system at the battery isolating switch (▷ page 164).



#### Warning

There is a risk of a short circuit if the positive terminal of the connected battery comes into contact with vehicle parts. The highly explosive gas mixture could ignite. You and others could be seriously injured as a result.

- Do not place any metal objects or tools on the batteries.
- When disconnecting the batteries, always disconnect the negative terminals first and then the positive terminals.
- When reconnecting the batteries, always reconnect the positive terminals first and then the negative terminals.
- Do not loosen or disconnect the terminal clamps on the batteries while the engine is running.
- Switch off all electrical consumers.
- Switch off the engine and take the key out of the ignition lock before you loosen or disconnect the terminal clamps. You might otherwise destroy electronic components such as the alternator.

Always disconnect the starter battery in the battery recess in the driver's footwell first.

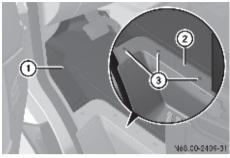
Always disconnect the battery in the described order. Never interchange the connection terminals. You could otherwise damage the vehicle's electrics.

## Disconnecting the starter battery

The starter battery is in the battery recess in the driver's footwell.

▶ Remove the key from the ignition lock. ▷▷

## Removing/installing the floor covering in the driver's footwell



- ► To remove: undo screws ③ and remove trim ②.
- ▶ Remove floor covering ①.
- ► To install: place floor covering ① into the driver's footwell.

## Warning

The movement of the pedals must not be obstructed. The vehicle's operating and road safety are otherwise jeopardized.

Make sure to push the floor covering under the bracket of the accelerator pedal. The floor covering may not slip between the bracket and the accelerator pedal.

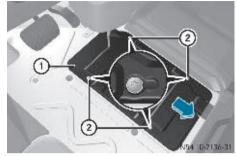
Otherwise, you may not be able to fully depress the accelerator pedal, which will restrict the vehicle's acceleration capability, for example when passing another vehicle.

 Push floor covering ① under the bracket of the accelerator pedal and align it with the driver's seat base and the doorway

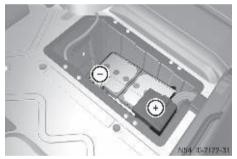
Make sure that the floor covering does not obstruct the accelerator's range of movement.

► Position trim ② and screw screws ③ back in.

## Removing the battery cover in the driver's footwell



- Undo screws ② and slide cover ① in the direction of the arrow.
  - The screws must protrude beyond the recesses.
- ► Remove cover ① upward.

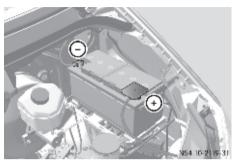


## Starter battery in the driver's footwell

- Loosen the negative terminal of the battery first and remove it so that the negative terminal cannot come into contact with the positive terminal.
- Remove the cover from the positive terminal.
- Loosen the positive terminal and fold the positive terminal and the prefuse box up to the side.

#### Disconnecting the auxiliary battery

- ▶ Remove the key from the ignition lock.
- ▶ Open the hood (▷ page 156).



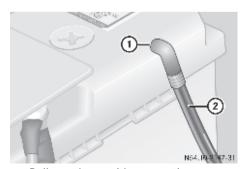
## Auxiliary battery in the engine compartment

- ► Loosen the negative terminal of the battery first and remove it so that the negative terminal cannot come into contact with the positive terminal.
- Remove the cover from the positive terminal.
- Loosen the positive terminal and remove it.

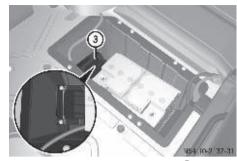
#### Removing the battery

## Starter battery

▶ Disconnect the battery (> page 267).



 Pull vent hose with connection angle ② from connection ① of the gas release cover.



 Loosen the bolts of retainer (3) preventing the battery from moving around.



- Pull retainer (3) upward and slide the battery out of its anchorage in the direction of travel.
- ► Fold the clip upward and remove the battery from the battery recess.

## Auxiliary battery in the engine compartment

- ▶ Disconnect the battery (> page 268).
- Unscrew the bolts preventing the battery from moving around in the engine compartment.
- Remove the battery retainer and take out the battery.

#### Recharging the battery



#### Warning

Only charge the battery in well-ventilated areas. As the battery is being charged, gases can escape and generate minor explosions, which can injure you and others and may cause damage to the paintwork or permit acid corrosion on the vehicle.

During the charge procedure, there is a risk of acid burns due to gases escaping from the battery. Do not, therefore, lean over the battery while it is being recharged.

- Recharge the removed battery. Observe the notes in the Operating Instructions for your battery charger.
- Reinstall the battery in the reverse order.
- Only charge the installed battery using a tested and approved battery charger. These devices allow you to charge the battery while it is installed. The vehicle's electronics system may otherwise be damaged.

1 It is also possible to charge the starter battery using the jump-starting connection point in the engine compartment (> page 270).

## **Reconnecting the battery**

- Switch off all electrical consumers.
- Always reconnect the battery in the described order. Never interchange the connection terminals. You could otherwise damage the vehicle's electrics.
- Connect the positive terminal and secure the cover.
- ► Connect the negative terminal.
- 1 After reconnecting the battery, you must reset the side windows ( $\triangleright$  page 66) and the sliding sunroof ( $\triangleright$  page 67).

#### **Jump-starting**

If the starter battery in the battery case in the driver's footwell is discharged, the engine can be jump-started from another vehicle using jump leads. For this purpose, the vehicle is equipped with a jump-starting connection point.

The auxiliary battery in the engine compartment is not suitable for jump-starting operations. Only use the jump-starting connection point in the engine compartment if you require jump-starting assistance or wish to provide jump-starting assistance.

Avoid repeated and lengthy starting attempts.

Never start the vehicle using a rapid battery charger.

#### Please note:

- jump-starting must be performed when the engine and catalytic converter are cold.
- do not start the engine if the battery has frozen. Let the battery thaw out first.
- only use a battery of the same rated voltage and of approximately the same capacity for jump-starting.
- only use jumper cables of adequate cross-section with insulated battery terminal clamps.



#### Warning

Explosive oxyhydrogen is produced when batteries are being charged. When working on batteries, always make sure that the work area is well ventilated.

Avoid creating sparks. Keep naked flames away from the battery, and do not smoke.

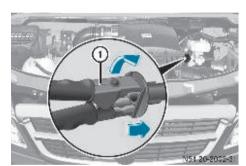
Comply with safety precautions and special protective measures when handling batteries (> page 163).



#### Warning

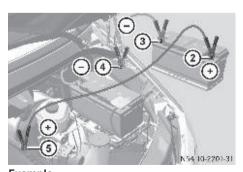
Due to the gases which escape from batteries, there is a risk of acid burns when jump-starting a vehicle. Do not lean over the batteries during a jump-start.

- Make sure that the two vehicles do not touch.
- Apply the handbrake.
- ▶ Move the selector lever to position **P**.
- ▶ Switch off all electrical consumers.
- ► Switch on the battery isolating switch if necessary (> page 164).
- ▶ Remove the key from the ignition lock.
- ▶ Open the hood (▷ page 156).



Jump-starting connection point on the lefthand side of the air cleaner

► Remove the positive terminal cover from the donor battery.



Example

- ► Connect positive terminal of donor battery ② to jump-starting connection point ⑤ with the jumper cable. Start with the donor battery.
- ▶ Using red positive terminal clamp ① of the jumper cable, slide the red protective cap of the jump-starting connection point back with a clockwise turn and connect the positive terminal clamp of the jumper cable to the positive terminal of jump-starting connection point ⑤.
- Do not connect the jumper cable to the auxiliary battery in the engine compartment. This is not suitable for jump-starting operations.
- ► Run the other vehicle's engine at idling speed.
- ► Connect negative terminal ③ of the donor battery to ground contact ④ of your own vehicle.
  - Start with the donor battery.
- Start the engine.
- 1 You can now reactivate electrical consumers, with the exception of lights.
- ▶ Disconnect the jumper cable from negative terminal ③ of the battery and ground contact ④ first, then from positive terminal ② of the battery and jump-starting connection point ⑤.
  - The red protective cap springs back to its initial position when terminal clamp (1) is removed from the jump-starting connection point.
- 1 You can now switch on the lights.
- ► Have the battery checked at an authorized Sprinter Dealer.

## **Tow-starting**

Your vehicle is equipped with an automatic transmission. Do not tow-start your vehicle.



#### Warning

When tow-starting another vehicle, its weight should not be greater than the permissible gross weight of your vehicle.

#### **Towing**



#### Warning

Tow the vehicle using a rigid towing bar if:

- the engine is not running.
- there is a malfunction in the power supply or the vehicle's electrical system.

There is no power assistance for the steering and braking when the engine is not running. You must then use significantly greater force to steer the vehicle and brake.

Do not tow the vehicle if the key cannot be turned in the ignition lock. The steering is then locked and it will not be possible to steer the vehicle.

When towing another vehicle, its weight should not be greater than the permissible gross weight of your vehicle.

Comply with legal regulations when towing.

Having the vehicle carried away on a transporter or trailer is preferable to towing it away. We recommend the use of a rigid towing bar if towing is necessary.

I Tow ropes and tow bars must be secured to the towing eyes. You could otherwise damage the vehicle.

① Deactivate the automatic locking while driving function when towing (▷ page 59). You could otherwise become locked out when pushing or towing the vehicle

- Do not exceed a towing speed of 31 mph (50 km/h); otherwise, the transmission could be damaged.
- Turn the key to position 2 in the ignition lock.
- For a distance of up to 30 miles (50 km), move the selector lever to position N.



#### Warning

A propeller shaft could fall off as it is being removed and injure you. Secure the propeller shaft before removal to prevent it from falling down, e.g., with the aid of another person or by tying the propeller shaft up.

- For a distance greater than 30 miles (50 km), remove the propeller shafts to the driven axles.
- Always use new bolts when fitting the propeller shafts.

#### Installing/removing the towing eye

The fixture for the front towing eye is located behind the cover in the bumper on the right-hand side when viewed in the direction of travel.



NS1 10-219A-3

## The fixture for the front towing eye is located in the bumper

If your vehicle is equipped with a rear towing eye, this is fitted to the rear of the chassis on the right-hand side when viewed in the direction of travel. **1** If your vehicle is equipped with a trailer-tow hitch, use this as a towing fixture.

#### Installing the front towing eye

- ► Press the bottom of cover ① in the direction of the arrow and remove it.
  - You will see the fixture for the towing eye.
- ► Take the towing eye and the wheel wrench from the vehicle tool kit (▷ page 204).
- ► Screw in the towing eye clockwise to the stop.
- ► Insert the wheel wrench handle into the towing eye and tighten.

#### Removing the front towing eye

- Remove the wheel wrench from the vehicle tool kit (⊳ page 204).
- Insert the wheel wrench handle into the towing eye and turn the wrench counterclockwise.
- Unscrew the towing eye.
- ► Insert the bottom of cover ① using the lug and press it in at the top until it engages.
- ► Return the towing eye and the wheel wrench to the vehicle tool kit.

## Towing out a vehicle that is stuck

Take great care when attempting to tow the vehicle free if its drive wheels have become embedded in loose earth or mud, particularly if the vehicle is loaded.

Tow the vehicle smoothly and straightahead. The chassis could otherwise be damaged.

Do not attempt to tow out the vehicle if a trailer is coupled up.

Where possible, tow the vehicle out backwards along the track previously made by the vehicle previously.

# Towing the vehicle in the event of particular malfunctions

#### With transmission damage



#### Warning

A propeller shaft could fall off as it is being removed and injure you. Secure the propeller shaft before removal to prevent it from falling down, e.g., with the aid of another person or by tying the propeller shaft up.

- ► Always remove the propeller shafts to the driven axles.
- Always use new bolts when fitting the propeller shafts.

#### With axle damage

- Turn the key to position 1 in the ignition lock.
- ► Raise the damaged axle.
- The ignition must be switched off (key in position **0** or **1** in the ignition lock) if the vehicle is to be towed with the front or rear axle raised. Active brake intervention by ESP<sup>®</sup> or ASR could otherwise lock the wheels and damage the brake system on the front or rear axle.

# In the event of a malfunction in the electrical system

If the battery is malfunctioning, the automatic transmission will be locked in position  $\mathbf{P}$ . To shift the automatic transmission to position  $\mathbf{N}$ , you must provide power to the vehicle's electrical system in the same way as jump-starting ( $\triangleright$  page 269).

Have the vehicle transported on a transporter or trailer.

### Transporting the vehicle

The towing eye can be used to pull the vehicle onto a special transporter or trailer for transportation.

- Only secure the vehicle at the wheels / rims and not to vehicle parts such as axle or steering components. Your vehicle could otherwise be damaged.
- Shift the transmission to neutral or move the selector lever to position N.

#### **Fuses**

A blown fuse must be replaced by an appropriate spare fuse (recognizable by its color or the fuse rating given on the fuse) of the amperage recommended in the fuse chart.

Any authorized Sprinter Dealer will be glad to advise you on the subject.



#### Warning

Only use approved fuses with the specified amperage for the system in question and do not attempt to repair or bridge a blown fuse. Using other than approved fuses or using repaired or bridged fuses may cause an overload leading to a fire, and/or cause damage to electrical components and/or systems.

Have the cause determined and remedied by an authorized Sprinter Dealer.

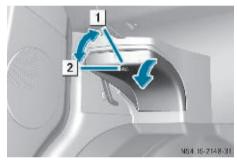
The fuses and relays for the standard equipment are in the main fuse box in the footwell on the left-hand side of the vehicle.

Additional fuses and relays for the optional equipment are in the fuse box in the driver's seat.

- The fuse allocation chart for the fuse boxes is in the vehicle document wallet in the glove box and names all the numbered fuses.
- Switch off the ignition and electrical consumers before replacing fuses.

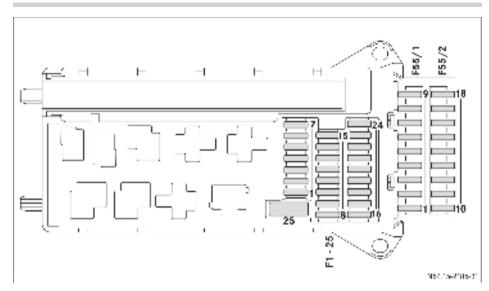
#### Main fuse box

The fuse box is in the footwell on the lefthand side of the vehicle.



- ► To open: release quick-release lock 1 and remove the cover.
- ► To close: attach the cover at the bottom and fold it closed.
- ► Lock quick-release lock 2.

## Fuses



## Fuse and relay block SRB

No.	Consumer	Amp.
1	Horn	15 A
2	Electric steering lock ESTL (electronic ignition switch EIS)	25 A
3	Electronic ignition switch EIS	10 A
4	Light switch / center console switch unit	5 A
5	Windshield wipers	30 A
6	Fuel pump	15 A
7	MRM (jacket tube mod- ule)	5 A
8	Terminal 87 (2)	20 A
9	Terminal 87 (3)	25 A
10	Terminal 87 (4)	10 A
11	Terminal 15 R vehicle	15 A
12	Airbag control unit	10 A

No.	Consumer	Amp.	
13	Cigarette lighter / glove box lighting / radio	15	Α
14	Diagnostic socket / light switch / instrument cluster	5	Α
15	Front heating system	5	Α
16	Terminal 87 (1)	10	Α
17	Airbag control unit	10	Α
18	Terminal 15 vehicle, brake lamp switch	7.5	Α
19	Interior lights	7.5	Α
20	Power window, co-driver's side / terminal 30 / 2 signal acquisition and actuation module	25	Α
21	Engine control unit	5	Α
22	Anti-lock Brake System (ABS)	5	Α
23	Starter motor	25	Α

No.	Consumer	Amp.
24	Diesel engine components	10 A
25	12V socket (center console)	25 A

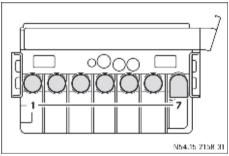
## Fuse block F55/1

No.	Consumer	Amp.
1	Control panel, left door	25 A
2	Diagnostic socket	10 A
3	Brake system (valves)	25 A
4	Brake system (delivery pump)	40 A
5	Terminal 87 (5) engine	7.5 / 10 A
6	Terminal 87 (6) engine	7.5 / 10 A
7	Headlamp cleaning system	30 A
8	Anti-theft alarm system (ATA)	15 A
9	Auxiliary indication module	10 A

## Fuse block F55/2

No.	Consumer	Amp.
10	Radio	15 A
11	Telephone	7.5 A
12	Front blowers / auxiliary heating blower speed 1	30 A
13	Pre-wiring mounting slot (center console)	7.5 A
14	Seat heating	30 A
15	Unassigned	_
16	Heater, rear heating/air- conditioning system, front/CD player	10 A

No.	Consumer	Amp.
17	Motion detector / convenience interior lighting	10 A
18	Air conditioning in the rear	7.5 A

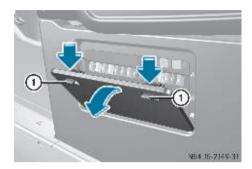


# Preliminary fuse box in the battery recess in the driver's footwell F59

No.	Consumer	Amp.
1	Pre-glow relay / secondary air pump	80/40 A
2	Engine fan air-condition- ing system – cab chassis / crewcab	60/40 A
3	Signal acquisition and actuation module SAM / fuse and relay block SRB	80 A
4	Auxiliary battery / retarder	150 A
5	Terminal 30 fuse boxes, signal acquisition and actuation module SAM / fuse and relay block SRB	150 A
6	Connecting point in drive's seat base	Bridge
7	Heat booster (PTC)	150 A

## Fuse box in the driver's seat

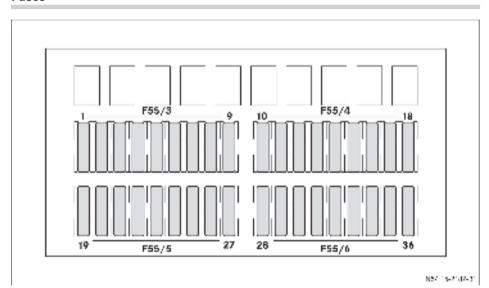
The fuse box is located in the base of the driver's seat on the outboard side.



- ► **To open:** adjust the seat to its highest position (> page 68).
- ► Press both latching springs ① down and remove the cover.
- ► To close: attach the cover at the bottom and fold it closed.

The cover must engage.

#### **Fuses**



## Fuse block F55/3

No.	Consumer	Amp.
1	Mirror adjustment/rear window heating	5 A
2	Rear window wiper	30 A
3	Rear-view camera / telephone / pre-wiring mounting slot (roof)	5 A

No.	Consumer	Amp.
4	Operating speed gover- nor (ADR) / PTO / trailer connection unit AAG	7.5 A
5	Electronic transmission control ETC, control unit	10 A
6	Unassigned	_

No.	Consumer	Amp.
7	Electronic selector level module ESM	10 A
8	Terminal 15, tapping wire body builder, drop side / 3-way tipper	10 A
9	Roof ventilator / siren	15 A

## Fuseblock F55/4

No.	Consumer	Amp.
10	Terminal 30, tapping wire body builder	25 A
11	Terminal 15, tapping wire body builder	15 A
12	D+, tapping wire body builder	10 A
13	Air conditioning in the rear	30 A
14	Trailer socket	20 A
15	Trailer recognition device	25 A
16	Tire pressure monitoring system (TPMS) / PARKTRONIC	7.5 A
17	PSM control unit	25 A
18	PSM control unit	25 A

## Fuse block F55/5

No.	Consumer	Amp.
19	Overhead control panel / sliding sunroof	5/25 A
20	Clearance lamps	7.5 A
21	Rear window heating 1	30 A
22	Rear window heating 2	15 A
23	12V socket rear left, load / passenger compartment / body builder electrics	15 A

No.	Consumer	Amp.
24	12V socket, driver's seat base	15 A
25	12V socket rear right, load / passenger com- partment	15 A
26	Auxiliary heating	25 A
27	Heater booster	25 A

## Fuse block F55/6

No.	Consumer	Amp.
28	Exhaust gas aftertreatment – SCR <sup>1</sup> – control unit	10 A
29	Unassigned	_
30	Brake booster	30 A
31	Blower unit rear heating / electric closing aid (sliding door, left)	30 / 15 A
32	Exhaust gas aftertreat- ment – SCR1 – relay power supply	10 A
33	Electric closing aid (sliding door, left)	15 A
34	Exhaust gas aftertreat- ment – SCR1 – heater 1 tank	15 A
35	Exhaust gas aftertreat- ment – SCR1 – heater 2 hose	15 A
36	Exhaust gas aftertreat- ment – SCR1 – heater 3 delivery pump	10 A

1. Selective Catalytic Reduction (SCR).

Vehicle equipment
Genuine Sprinter parts
Vehicle electronics
Service products and lubricants
Rims and tires
Tire inflation pressure
Lashing points and carrier systems
Identification labels

#### Vehicle equipment

This Operator's Manual describes all features, standard or optional, potentially available for your vehicle at the time of purchase. Please be aware that your vehicle might not be equipped with all features described in this manual.

#### **Genuine Sprinter parts**

Make sure that spare parts are suitable for your vehicle. Parts that constitute a modification to the vehicle by:

- changing the type of vehicle approved in the general operating permit
- creating a risk to road users or
- having an adverse effect on the vehicle's emissions and noise levels

will in many countries invalidate the general operating permit. The use of non-approved parts could have a detrimental effect on road safety.

Every authorized Sprinter Dealer maintains a stock of genuine Sprinter parts for maintenance and repair work.

Over 6 000 retailers around the world guarantee that you can be supplied with genuine Sprinter parts wherever you are. Over 300 000 different parts and assemblies, including parts for older vehicle models, are distributed from a central parts warehouse using an optimally tuned logistics concept.

Genuine Sprinter parts are subjected to the most stringent quality inspections and will ensure that the vehicle is maintained at a high level of operating efficiency and safety, and that it maintains its value. Each part has been specifically designed and manufactured or selected and approved for use in Sprinters.

It is therefore best to use only genuine Sprinter parts.

For cost-effective repairs in accordance with sound recycling principles, the use of nongenuine parts and non-authorized accessories could damage the vehicle or compromise its durability or safety.



#### **Environmental note**

We also supplies reconditioned assemblies and parts for cost-effective repairs in accordance with recycling principles. These parts have the same quality and warranty as new parts.

You can obtain further information about approved conversion parts and accessories and permitted technical modifications from your authorized Sprinter Dealer. Always quote the vehicle identification number and the engine number when ordering genuine parts. You will find these numbers on your vehicle's identification labels (> page 293).

#### Vehicle electronics

# Tampering with the engine electronics

Work on the engine electronics and all associated parts such as control units, sensors and connector leads should only be performed at an authorized Sprinter Dealer. Vehicle parts could otherwise wear more quickly and the New Vehicle Limited Warranty or general operating permit could be invalidated.



#### Warning

For safety reasons always have work on the engine electronics and associated parts performed at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

# Retrofitting electrical / electronic equipment

Electrical and electronic equipment can jeopardize the operational safety of your vehicle. If equipment of this kind is retrofitted, it must be type-approved and must bear the **e** mark.

If you wish to install telephones or two-way radios in the vehicle, you must obtain formal approval.

For operation of telephones and two-way radios, we recommend connection to an approved exterior antenna.

This is the only way to guarantee an optimum reception quality inside the vehicle and to minimize mutual interference between the vehicle electronics and telephones or two-way radios.



#### Warning

Excessive electromagnetic radiation may constitute a health hazard to yourself and others. Using an exterior antenna takes into account current scientific discussions relating to the possible health risk posed by electromagnetic fields. For this reason, the exterior antenna should only be installed at an authorized Sprinter Dealer. In particular, work relevant to safety or on safety-related systems must be carried out at an authorized Sprinter Dealer.

The transmission output of the cell phone or two-way radio must not exceed the maximum transmission outputs listed.

If electrical or electronic equipment which does not fulfill these conditions is retrofitted, the vehicle's general operating permit may be invalidated.

Frequency range	Maximum trans- mission output (PEAK)
Shortwave (f < 50 MHz)	100 W
4 m waveband	20 V
2 m waveband	50 V
Trunked radio / Tetra	35 V
70 cm waveband	35 V
GSM 900/AMPS	10 V
GSM 1800	10 V
UMTS	10 V

### Service products and lubricants

Service products are:

- brake fluid
- lubricants (e.g. engine oils, transmission oils, hydraulic fluids, greases)
- antifreeze additives, coolant
- brake fluid
- reducing agent for exhaust gas aftertreatment – Diesel Exhaust Fluid (DEF)

Service products are tested for suitability in our assemblies. Approved service products meet the highest quality standards and are listed in the **MB Specifications for Service Products**. For this reason, only use service products that have been approved for your vehicle. This is an important condition for warranty claims to be upheld.

Sprinter-approved service products can be identified by the following certifications:

MB Approval xxx.x (e.g. MB Approval 228.5)

Other labels and recommendations indicating the quality or a specification have not necessarily been approved for your Sprinter.

Information about approved service products is available from all authorized Sprinter Dealers and on the Internet under: http://bevo.mercedes-benz.com/.

It is neither necessary nor permissible to mix special additives with approved service products (except for approved fuel additives). Therefore, special additives must not be mixed with fuels or lubricants. The properties of the service products could be adversely affected by special additives and result in damage to the assemblies.

The vehicle operator is responsible at all times for any use of special additives. The use of special additives may result in a limitation or an invalidation of your New Vehicle Limited Warranty.



#### Warning

Failure to use fluids and lubricants which meet the standards and specifications described in this booklet or failure to adhere to the specified replacement intervals may result in damage to safety- and / or emissions related systems of your vehicle, such as the brake system, which could cause an accident and / or serious injury to you and others.

Use only fluids and lubricants meeting the standards and specifications and adhere to specified replacement intervals

Damage caused by the use of non-approved service products is not covered by the New Vehicle Limited Warranty.



#### Warning

Service products constitute a health hazard. They contain toxic and highly corrosive constituents.

For this reason, bear the following points in mind to avoid injury to yourself and others:

 do not inhale fumes. Make sure that enclosed spaces are adequately ventilated to prevent poisoning.

- service products must not come into contact with the skin, eyes or clothing. If contact is made with a service product, clean the affected areas of skin with water and soap to prevent burns and other injuries.
- rinse thoroughly with plenty of water in case of contact with eyes. Consult a doctor immediately if a service product is swallowed.
- change out of clothing soiled with service products immediately to avoid the risk of fire and other injuries.
- fire, open flames and smoking are therefore prohibited when handling service products due to their highly flammable nature.
- keep service products out of the reach of children.
- you must observe the notes on danger concerning the risk of poisoning, acid burns and fire on the service product containers.



#### Environmental note

Dispose of service products in an environmentally responsible manner.

## **Engine oils**

The containers of the various engine oils are labeled with the ACEA (Association des Constructeurs Européens d'Automobiles) and / or API (American petroleum Institute) classification marks.

Use only approved engine oils that comply with the Sprinter Specifications for Service Products and official ACEA and / or API classifications. Engine oils with a different grade are not permitted and may result in the loss of your New Vehicle Limited Warranty.

Using other, non-approved engine oils in diesel engines can damage the diesel particle filter (DFP).

Valid MB oil specification sheets for your vehicle:

- 228.51
- 229.31
- 229.51

They are of a high quality standard and have a beneficial effect on:

- · engine wear
- fuel consumption
- emissions

Multi-grade engine oils of the prescribed SAE class (viscosity) may be used all year round. Make sure that you always take the outside temperatures into account.

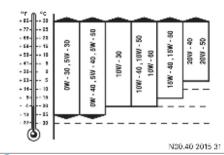
1 The oil change intervals may be shortened depending on the sulfur content of the fuel. Observe the details in your Maintenance Booklet.

Select the SAE class (viscosity) of the engine oil in accordance with the outside temperature.

If the SAE viscosity class of the engine oil used does not cover the outside temperature range in which you are operating the vehicle, it must be changed in good time, in particular before the cold season commences. Using an engine oil that does not have adequate temperature characteristics can lead to engine damage.

The temperature range information of the SAE classification always refers to that of fresh oil. The temperature characteristics of the engine oil may deteriorate significantly due to aging in operation especially at low outside temperatures.

For this reason, we recommend that the engine oil be changed before the cold season commences. Use an approved engine oil of the specified SAE class.



1 The maximum oil change interval can only be achieved using oils of a particularly high quality grade.

The following oils have been determined to meet our requirements:

MB approved engine oil	SAE	MB sheet
Addinol Extra Power MV 0538 LE	5W-30	229.31
Addinol Extra Truck MD 1049LE	10W-40	228.51
Chevron Supreme Synthetic Motor Oil SAE 5W-40	5W-40	229.31
Fuchs Titan Cargo Maxx SAE 10W-40	10W-40	228.51
Fuchs Titan GT1 SAE 5W-30	5W-30	229.51
Havoline Ultra S 5W-30	5W-30	229.31
Havoline Ultra S 5W-40	5W-40	229.31
Mobil 1 ESP Formula MB	5W-40	229.51
Motul 8100 X-clean 5W-40	5W-40	229.31
Motul Specific MB 229.31 5W-40	5W-40	229.31
Motul Specific MB 229.51 5W-30	5W-30	229.51

MB approved engine oil	SAE	MB sheet
OEST Dimo LS SAE 10W-40	10W-40	228.51
Pakelo Goldenstar LA 51	10W-40	228.51
Pento High Performance 5W-30 LA	5W-30	229.31
Pento High Performance 5W-40 LA	5W-40	229.31
Pentosin Diesel 10W-40 LA	10W-40	228.51
Q Diesel Plus	5W-30	229.51
Ravenol EURO IV Truck SAE 10W-40	10W-40	228.51
Ravenol HLS 5W-30	5W-30	229.31
Repsol Diesel Turbo UHPD MID SAPS	10W-40	228.51
Repsol Elite Evolution	5W-40	229.31
Shell Helix Ultra AX	5W-30	229.51
Shell Rimula Signia	10W-40	228.51
Texaco Havoline Synthetic Motor Oil SAE 5W-40	5W-40	229.31
Valvoline SynPower MST	5W-30	229.51

You can obtain further information from any authorized Sprinter Dealer.

We recommend that you only use engine oil of the same quality grade and SAE class as used when the engine oil was last changed.

If for any reason the:

- · engine oil brand
- quality grade (sheet number)
- SAE class (viscosity)

of the oil in the engine is not available, top up using another, approved mineral or synthetic engine oil <sup>1</sup>.

Subsequently have the engine oil changed at the earliest possible opportunity.

- Mixing oils reduces the benefits of using high grade engine oils.
- The MB sheet number (quality grade) and the SAE classification (viscosity) can be found on the designation on the oil container.
- There is a risk of damage to the engine or the catalytic converter if there is excess oil in the engine. Have excess oil siphoned off.

#### **Fuels**



#### Warning

Fuels are highly flammable and poisonous. They burn violently and can cause serious injury. Whenever you are around fuels, avoid inhaling fumes and skin contact, extinguish all smoking materials. Never allow sparks, flame or smoking materials near fuels. Direct skin contact with fuels and the inhalation of fuel vapors are damaging to health.

Switch off the engine before refueling.

Always follow basic safety rules when working with any combustible material.

If you are refueling the vehicle from drums or canisters, you should filter the fuel before adding it to the tank.

This will prevent malfunctions in the fuel system caused by contaminated fuel.

1. If the quality grade is not available for diesel engines, you may also top up with engine oils that comply with the MB Specifications for Service Products, sheet numbers 228.5, 229.3, and 229.5. The top up volume is then restricted to a maximum of 1 qt (1 l).

Only refuel with commercially available automotive diesel, ultra-low sulfur diesel with a sulfur content of a maximum of 15 ppm. Fuels such as fatty acid methyl ester FAME (biodiesel fuel), marine diesel fuel, heating oil etc. are also not permitted as diesel fuel mixtures.

Only refuel with B5 biodiesel fuel if it complies with the specifications described under "Fuel requirements".

Do not use fuel additives and, if necessary, only use approved flow improvers.

There is otherwise a risk of impaired engine performance or engine and catalytic converter damage. The use of fuel additives is always the responsibility of the vehicle operator and may result in the restriction or loss of your New Vehicle Limited Warranty.

#### **Fuel requirements**

1 Information on diesel quality can normally be found on the fuel pump.

Only use commercially available vehicular ULSD (ultra-low sulfur diesel) FUEL (15 ppm sulfur maximum).

We approve the use of B5 (standard ULSD with a maximum of up to 5% biodiesel by volume) in the Sprinter CDI engines.

As Biodiesel can be produced from a variety of raw materials resulting in widely varying qualities, the only approved Biodiesel for B5 is one that meets the ASTM D6751 specification and also has an adequate oxidation stability of a minimum of 6 hours (in accordance with EN 14112) to prevent damage to the system from deposits and /or corrosion.

Diesel fuels containing a higher percentage of Biodiesel, e.g. B20, as well as straight Biodiesel may cause severe damage to your engine / fuel system and are not approved.

Please ask your service station personnel for further information. If the B5 Biodiesel blend is not sufficiently labeled to clearly indicate that it meets the above standards, do not use it.

Damage or malfunctions resulting from poor fuel quality are not covered by the New Vehicle Limited Warranty.

The exhaust aftertreatment device (DPF) will be seriously damaged if you use:

- low-sulfur diesel fuel (500 ppm sulfur maximum)
- any other diesel fuel with a sulfur content of above 15 ppm
- any other diesel fuel with a Biodiesel content of above 5%
- any other diesel fuel with a Biodiesel content up to 5%, which does not meet the above mentioned standards

For more information on diesel fuels, contact your authorized Sprinter Dealer.

## Diesel fuels for use at very low temperatures

Only use commercially available vehicular ULSD (ultra-low sulfur diesel) FUEL (15 ppm SULFUR MAXIMUM).

To prevent malfunctions, diesel fuel with improved cold flow characteristics is offered in the winter months. Check with your fuel retailer.

At very low temperatures, the fluidity of diesel fuel may become insufficient due to paraffin separation. For this reason, the vehicle comes equipped with a fuel preheater. It permits trouble-free engine operation to a temperature of approximately 14 °F (–10 °C).

At temperatures below 14 °F (-10 °C), a certain quantity of fuel flow improver may be added. These substances may only be mixed within the vehicle's fuel tank.

#### Fuel additives

Do not use fuel additives (with the exception of flow improvers), since this could lead to malfunctions or engine damage. Damage caused by the use of such additives is not covered by the New Vehicle Limited Warranty.

i) Special fuel additives must not be added to winter diesel (with the exception of flow improvers). The cold-flow characteristics of the fuel can be impaired by the use of such a fuel additive.

At outside temperatures of below 14 °F (-10 °C) and for winter-grade diesel with less resistance to low temperatures, add a quantity of flow improver appropriate for the outside temperature. These substances may only be mixed within the vehicle's fuel tank.

Add the flow improver to the diesel in good time, i.e. before the flow properties of the diesel are affected by paraffin separation. Malfunctions caused by paraffin separation can only be rectified by heating the entire fuel system, e.g. by parking in a heated garage.



#### Warning

Adding gasoline lowers the flash point of the diesel fuel. This means that the fuel becomes more flammable.

Do not add gasoline to the diesel fuel.

Due to the highly flammable nature of fuels, fire, naked flames and smoking are prohibited when handling them.

Do not fill the tank with gasoline. Do not mix diesel fuel with gasoline or kerosene. The fuel system and engine will otherwise be damaged, which is not covered by the New Vehicle Limited Warranty.

Adding kerosene to diesel fuel is not recommended, even at low temperatures.

#### Flow improvers

The effectiveness of flow improvers cannot be guaranteed with all fuels. Observe the mixing ratio and comply with the handling instructions given from the flow improver manufacturer.

You can obtain further information from any authorized Sprinter Dealer.

#### **Diesel Exhaust Fluid (DEF)**

DEF is the reducing agent for the exhaust gas aftertreatment. DEF is a non-flammable, non-toxic, colorless, odorless watersoluble liquid.

• Only use DEF in accordance with ISO 22241. The exhaust gas aftertreatment may otherwise be damaged.

Observe the MB Specification for Service Products, Sheet 352.0.

Damages caused by the use of other reducing agents result in the loss of New Vehicle Limited Warranty entitlements.

If DEF comes into contact with painted surfaces or aluminum surfaces, rinse the affected areas immediately with plenty of water.

## High ambient temperatures

If DEF in the reservoir heats up to over 122 °F (50 °C) over a long period of time (e.g. due to direct sunlight), ammonia gas vapors may be created.



#### Warning

When opening the DEF fuel filler cap at high outside temperatures, ammonia vapors may escape.

Ammonia vapors have a pungent smell and are particularly irritating to skin, mucous membranes and eyes. They can cause your eyes, nose and throat to burn, and induce coughing and cause your eyes to water.

Do not inhale ammonia vapors.

#### Low ambient temperatures

DEF freezes at a temperature of approximately 12 °F (-11 °C). The vehicle is equipped with a DEF preheating system at the factory. This ensures that the vehicle can be operated in winter, even at temperatures below 12 °F (-11 °C).

#### Additives and tap water

Do not mix DEF with any special additives and do not dilute DEF with tap water. The exhaust gas aftertreatment may otherwise be damaged.

Observe the MB Specification for Service Products, Sheet 352.0.

Damage that results from the use of additives or tap water leads to a loss of New Vehicle Limited Warranty entitlements.

## Storage

Only store DEF in containers made of highalloy Cr-Ni steel or Mo-Cr-Nisteel in accordance with DIN EN 10 088-1/2/3 or plastic containers made of polypropylene or polyethylene. Containers made of aluminum, copper, copper alloys as well as unalloyed or galvanized steel are not suitable for storing DEF. If stored in these types of containers, DEF could cause constituents of these metals to dissolve and damage the exhaust gas aftertreatment.

Damage caused by dissolved components of the storage container will result in a loss of your New Vehicle Limited Warranty.

#### Disposal

Observe country-specific laws and regulations when disposing of DEF.



#### **Environmental note**

Dispose of diesel exhaust fluid in an environmentally responsible manner.

#### **Purity**

The purity of DEF is essential to avoid malfunctions in the exhaust gas aftertreatment.

If DEF is pumped out of the tank, e.g. during repair work, the same liquid must not be used to refill the tank. Its purity is no longer guaranteed.

Impurities in DEF (e.g. caused by other service products, cleaning agents, dust, etc.) result in increased emissions, malfunctions, catalytic converter damage or engine damage.

#### Coolants, lubricants, etc.

#### Air conditioning

The air conditioning system of your vehicle contains R-134a, a refrigerant that does not deplete the ozone layer in the upper atmosphere.

Coolants, lubricants, etc.	Service interval	Product name / product number	MB sheet
Refrigerant	_	Refrigerant R-134a	361.0

#### **Automatic transmission**

Coolants, lubricants, etc.	Service interval	Product name / product number	MB sheet
	60 000 mi	Shell ATF 3403 / M-115	236.10
	(96000 km) <sup>1</sup>	Fuchs / Shell ATF 3353	236.12

<sup>1.</sup> Follow the interval, time or mileage, that occurs first.

#### **Brakes**

Use brake fluid approved for MB Specifications for Service Products, MB 331.0 and / or brake fluid certified to DOT 4 Plus standards, that also maintains a minimum dry boiling point (ERBP) of 500 °F (260 °C), a minimum wet boiling point (WERBP) of 356 °F (180 °C) and a maximum viscosity of 1500  $\rm mm^2$  / s, conforming to FMVSS 116 and ISO 4925.

Coolants, lubricants, etc.	Service interval	Product name / product number	MB sheet
Brake fluid	2 years <sup>1</sup>	Intac B026E  Dry boiling point: 500 °F (260 °C)  Wet boiling point: 356 °F (180 °C)	331.0

1. Over the course of a brake fluid's service life, its boiling point falls due to the continuous absorption of moisture from the atmosphere. If the boiling point of the brake fluid is too low, vapor pockets may form in the brake system when the brakes are applied hard (e.g. when driving on long downhill stretches). This has a detrimental effect on braking efficiency, which could increase the stopping distance. This increases the risk of an accident. Have the brake fluid renewed every 2 years.

## Engine and engine cooling system

## Engine cooling system

The use of aluminum components in Sprinter engines requires that anticorrosive/antifreeze specifically formulated to

protect aluminum parts be used. The factory-approved service products are suitable for Sprinter engines and can be mixed with the original anti-corrosion / antifreeze filled at factory.

The cooling system design and anti-corrosion/antifreeze agent used stipulate the replacement interval for the coolant solution in your vehicle. Please observe the replacement interval specified in the Maintenance Booklet for your vehicle.

Failure to use MB 325.0 anti-corrosion / antifreeze and / or failure to adhere to the specified replacement interval may result in a significantly shortened service life. For coolant composition and water quality, contact your authorized Sprinter Dealer.

Whenever the coolant is replaced, a concentration of 50% by volume of corrosion inhibitor / antifreeze should be maintained.

This provides antifreeze protection down to  $-34.6~^{\circ}F$  ( $-37~^{\circ}C$ ). Do not exceed a concentration of 55% by volume (antifreeze protection down to approximately  $-49~^{\circ}F$  ( $-45~^{\circ}C$ )), as the heat dissipation properties deteriorate at higher concentrations. Observe the MB Specifications for Service Products, Sheet 325.0.

Coolants, lubricants, etc.	Service interval	Product name / product number	MB sheet
Coolant, anti- corrosion / antifreeze fluid	1st interval: 15 years or 180 000 mi (288 000 km) <sup>1</sup> Subsequent intervals: 5 years or 90 000 mi (144 000 km) <sup>2</sup>	EURO Peak Coolant / Antifreeze, OLD WORLD INDUSTRIES	325.0
		Zerex G05, The Valvoline Company	325.0
		Zerex G48, The Valvoline Company	325.0
		Glysantin G05, BASF AG	325.0

<sup>1.</sup> Follow the interval, time or mileage, that occurs first.

# Engine

Coolants, lubricants, etc.	Service interval	Product name / product number	MB sheet
Engine oil for diesel engine	2 years or 10 000 mi (16 000 km)	See "Engine oils" (▷ page 280)	228.51 229.31 229.51

# Power steering

Coolants, lubricants, etc.	Service interval	Product name / product number	MB sheet
Power steering fluid <sup>1</sup>	-	Mobil ATF-D, Exxon Mobil Corporation or equivalent	236.3

1. Power steering, no fluid service required

## Rear axle

Coolants, lubricants, etc.	Service interval	Product name / product number	MB sheet
Gear oil	10 years or (288 000 km) <sup>1</sup>	BP Energear Hypo DC 80W-90	235.20
		Mobil Delvac Synthetic Gear Oil 75W-90	235.8

1. Follow the interval, time or mileage, whichever occurs first.

# **Capacities**

Engine with oil filter	Fuel tank	DEF tank	Cooling system	Windshield washer/headlamp cleaning system
Engine oil	ultra-low sul- fur diesel	Diesel Ex- haust Fluid (DEF) <sup>1</sup>	Coolant <sup>2</sup>	Water with wind- shield washer fluid
3.21 US qt. (12.5 I)	25.0 US gal (100 I) <sup>3</sup>	4.9 US gal (18.5 I) / 5.8 US gal (22.0 I) <sup>4</sup>	10.75 US qt. (10.0 l)	approx. 6.30 US qt. (6.0 l)

- 1. DEF according to ISO 22241. Observe the MB Specifications for Service Products, sheet 352.0.
- 2. Whenever the coolant is replaced, a concentration of 50% by volume of corrosion inhibitor / antifreeze should be maintained. This provides antifreeze protection down to -34.6 °F (-37 °C). Do not exceed a concentration of 55% by volume (antifreeze protection down to approximately -49 °F (-45 °C)), as the heat dissipation properties deteriorate at higher concentrations. Observe the MB Specifications for Service Products, Sheet 310.1.
- 3. Including a reserve of 5.3 US gal (20 I).
- 4. Chassis only.

## **Fuel consumption**

Fuel consumption depends on:

- the vehicle version
- · the style of driving
- the operating conditions
- the fuel grade used

The vehicle will use more fuel than usual in the following conditions:

- at very low temperatures
- in urban traffic
- on short trips
- when towing a trailer
- when driving with a heavy load
- in mountainous terrain



## **Environmental note**

A vehicle's  ${\rm CO}_2$  emissions and fuel consumption depend on:

- efficient use of fuel by the engine
- the style of driving adopted
- other non-technical factors such as environmental influences or road conditions

Observe the advice in the "Protection of the environment" section to keep fuel consumption low ( $\triangleright$  page 19).

The following components of the different vehicle versions influence fuel consumption:

- tire size, tire tread, tire pressure, tire condition
- body
- drive unit gear ratios
- additional equipment (e.g. air-conditioning system, auxiliary heating system)

Details concerning fuel consumption are recorded in the on-board computer; use the steering wheel buttons to call up the **Trip computer** menu ( $\triangleright$  page 97).

# Diesel Exhaust Fluid (DEF) consumption

Depending on the vehicle version, the DEF consumption for the vehicle is either:

- approximately 2322 MPG (0.10 I/ 100 km) for version 2500
- approximately 1720 MPG (0.14 I/ 100 km) for version 3500

The consumption figure specified is an average of urban and extra-urban journeys. The consumption figure does not refer to an individual vehicle, but is intended to permit comparison between different vehicle types.

Like fuel consumption, DEF consumption varies significantly depending on driving style and operating conditions. Therefore, the actual consumption figures for your vehicle may deviate from the consumption figures determined.

# **Engine oil consumption**

The vehicle consumes a maximum of 1 US qt (1.0 I) oil per 620 miles (1000 km), depending on your driving style.

Engine oil consumption may even be higher if:

- the vehicle is new
- you mainly operate the vehicle under arduous operating conditions
- you often drive at high engine speeds

Regular maintenance is one of the preconditions for moderate rates of consumption. The engine oil consumption can only be judged after a lengthy distance has been covered.

## Rims and tires

Only use tires which have been tested and approved for your Sprinter. Approved tires are developed to provide the best possible performance in conjunction with the driving safety systems on your Sprinter such as ABS, BAS, ASR or ESP®.

Using tires other than those approved for your Sprinter can have detrimental effects, such as

- poor handling characteristics
- increased noise
- increased fuel consumption

Moreover, non-approved tires and rims may, under load, exhibit dimensional variations and different tire deformation characteristics that could cause them to come into contact with the vehicle body or axle parts. Damage to the tires or the vehicle may be the result.

Note in particular the vehicle approval regulations relating to tires that are applicable in the country concerned.

These regulations may specify certain tire types for the vehicle, or may prohibit the use of certain tire types that are permissible in other countries.

Observe the required tire load-bearing capacity and the speed index for your vehicle.

Observe the information on tire and wheel operating safety in the "Operation" section (> page 165).



# Warning

Loose wheel nuts or bolts could cause the vehicle to lose a wheel while it is in motion. This would jeopardize the operating and road safety of the vehicle. You could lose control of the vehicle as a result, cause an accident an injure yourself or others.

If a wheel was replaced or new wheel nuts are used, the wheel bolts or wheel nuts must be retightened to the specified tightening torque after 30 miles (50 km).

If new or repainted wheels are mounted, the wheel bolts or wheel nuts must be retightened again to the specified tightening torque after approximately 600 to 3,000 miles (about 1000 to 5000 km).

Further information on tires and rims is available at any authorized Sprinter Dealer.

A label with details on the genuine tire set and the recommended cold tire inflation pressure is located on the driver's door B-pillar (> page 295).

In addition to the label also consult the tire inflation pressure table ( $\triangleright$  page 291).

The tire inflation pressure should be checked regularly and should only be adjusted on cold tires.

Vehicle model type	2500	3500
Rims (steel)	6.5 J x 16	5.5 J x 16
Rims (light alloy)	6.5 J x 16	-
Wheel offset	2.13 in (54 mm)	-
Half dual spacing	-	4.82 in (122.5 mm)
Wheel fixture	Wheel bolts	Wheel nuts
Tightening torque (steel wheel)	177 lb-ft (240 Nm)	133 lb-ft (180 Nm)
Tightening torque (light-alloy wheel)	133 lb-ft (180 Nm)	-

Vehicle model type	2500	3500
Summer tires	-	-
All-season tires <sup>1</sup>	LT 245/75 R16 120/116N	LT 215/85 R16 115/112N
		LT 215/85 R16 115/112Q
Winter tires <sup>1</sup>	LT 245/75 R16 120/116N M+S	LT 215/85 R16 115/112N M+S 🛕

1. Radial-ply tires

## Tire inflation pressure

Observe the information on recommended tire inflation pressure in the "Operation" section ( $\triangleright$  page 174).

The following table lists the recommended cold tire inflation pressures for all load conditions up to the maximum permissible weight limits (GAWR). The tire inflation pressures listed apply to the tires installed as original equipment.

in addition to the following table, the recommended cold tire inflation pressures are listed on a label located on the driver's door B-pillar (> page 295).



## Warning

Follow recommended tire inflation pressures.

Do not underinflate tires. Underinflated tires wear excessively and / or unevenly, adversely affect handling and fuel economy, and are more likely to fail from being overheated.

Do not overinflate tires. Overinflated tires can adversely affect handling and ride comfort, wear unevenly, increase stopping distance, and result in sudden deflation (blowout) because they are more likely to become punctured or damaged by road debris, potholes, etc.

Set the correct tire pressure before loading the vehicle. If the vehicle has been loaded, check the tire pressures and correct them if necessary.

The tires can be considered cold if the vehicle has been parked for at least 3 hours or driven less than 1 mile (1.6 km) at an ambient temperature of approximately 68 °F (20 °C).

Keeping the tires properly inflated provides the best handling, tread life and ride comfort.

Tire temperature and tire inflation pressure are also increased while driving, depending on the driving speed and the tire load.

Tire inflation pressure changes by approximately 1.5 psi (0.1 bar) per 18 °F (10 °C) of air temperature change. Keep this in mind when checking tire inflation pressure where the temperature is different from the outside temperature.

## For example:

If the inside temperature is 68 °F (20 °C) and the outside temperature is 32 °F (0 °C), then the cold tire inflation pressure should be increased by 3 psi (0.2 bar), which equals 1.5 psi (0.1 bar) for every 18 °F (10 °C) for this outside temperature condition.

Check tire inflation pressures more often if subject to a wide range of outdoor temperatures, as tire inflation pressures vary with temperature changes.

The pressure difference between the tires on a single axle should not exceed 1.5 psi (0.1 bar).

Tire pressures of less than 43.6 psi (3.0 bar) are not permissible.

Tire	Permissib	Permissible axle loads (see certification label)				
	Front axle		Rear axle			
	3970 lbs (1801 kg)	4080 lbs (1851 kg)	4410 lbs (2000 kg)	5360 lbs (2431 kg)	7060 lbs (3202 kg)	7720 lbs (3502 kg)
LT 215 / 85 R 16 115 / 112 N	-	55 psi (3.8 bar)	61 psi (4.2 bar)	_	55 psi (3.8 bar)	61 psi (4.2 bar)
LT 215 / 85 R 16 115 / 112 Q	-	55 psi (3.8 bar)	61 psi (4.2 bar)	-	55 psi (3.8 bar)	61 psi (4.2 bar)
LT 245 / 75 R 16 120 / 116 N	47 psi (3.2 bar)	_	_	70 psi (4.8 bar)	_	_

# Lashing points and carrier systems

# **Lashing points**

Observe the data on the maximum loadbearing capacity of the individual lashing points.

During full-braking applications, for example, forces can be involved that are much greater than the weight force of the load.

Always use several lashing points in order to distribute force absorption, and make sure that the lashing points have an equal load.

You will find further information on the lashing eyes in the "Controls in detail" section (▷ page 137).

# Lashing eyes

The maximum tensile load of the lashing eyes is:

Lashing eyes	Permissible nom- inal tensile force
Crewbus	786.5 lbf (3500 N)
Panel van	1124.0 lbf (5000 N)

## Load rails

The maximum tensile load of the lashing points in the load compartment is:

Lashing point	Permissible nom- inal tensile force	
Load rails in the	1124.0 lbf	
load compartment floor	(5000 N)	
Lower load rail on	562.0 lbf	
the sidewall	(2500 N)	
Upper load rail on	337.0 lbf	
the sidewall	(1500 N)	

The specified values only apply to loads on the load compartment floor if:

- the load is secured to 2 lashing points on the rail and
- the distance to the next lashing point used on the same rail is about 3 ft (1 m).

# Roof carrier systems

Maximum roof load and minimum number of pairs of roof rack supports on vehicles with:

	Maximum roof load	Minimum number of pairs of supports
Standard roof	660 lbs (300 kg)	6
Raised roof	330 lbs (150 kg)	3

The data is valid when the load is distributed evenly over the entire roof area.

When using a shorter roof rack, reduce the load proportionately.

The maximum load is 110 lbs (50 kg) per pair of roof rack supports.

The weight of any load carried on the roof, including the roof rack, must not exceed the maximum permissible roof load.

The roof rack supports must be arranged at equal distances.

We recommend that you have an anti-roll bar installed on the front axle.



## Warning

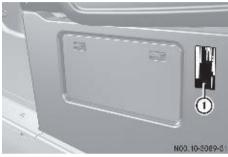
High roof loads may cause a significant deterioration in handling, steering and braking characteristics even if the maximum permissible gross vehicle weight or axle loads have not been exceeded.

Always make sure that loads are distributed correctly and adapt your driving style in accordance with the load.

## Identification labels

## Vehicle identification labels

The vehicle safety certification label with the vehicle identification number (VIN), the paint code number, and the data for the permissible weights is located on the base of the driver's seat.



## Base of the driver's seat

 Vehicle safety certification label or Incomplete vehicle safety certification label

The Vehicle Identification Number (VIN) is also embossed on the engine compartment rear bulk (⊳ page 294).

The data shown on the labels is for illustrative purposes only. The data is specific to each vehicle and may vary from the data shown in the illustration.

Refer to the label on your vehicle for data specific to your vehicle.



Example vehicle safety certification label (U.S. vehicles)



Example incomplete vehicle safety certification label (U.S. vehicles)

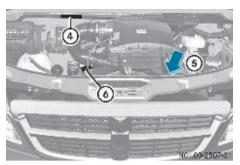


Example vehicle safety certification label (Canada vehicles)



Example incomplete vehicle safety certification label (Canada vehicles)

- ② VIN
- (3) Paint Code Number



**Example engine compartment** 

- (4) VIN (embossed on the engine compartment rear bulk)
- (5) Engine number (stamped on the crank-case)
- (6) Emission control information label and engine oil warning label 1



Example emission control information label



Example emission control information label (Canada vehicles)

 Read and observe the diesel engine oil information under "Engine oils" in the "Service products and capacities" section (▷ page 280).

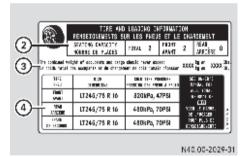
## Tire labels

The tire and loading information label 1 or the tire inflation pressure label is located on the driver's door B-pillar. Each label shows the required tire pressure values for the specified genuine tire set.

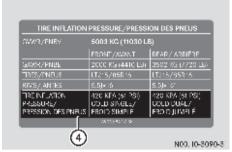
The tire and loading information label also gives the number of seats and permissible load.



1 Tire and loading information label or tire inflation pressure label



Tire and loading information label



#### Tire inflation pressure label

- (2) Number of seats
- (3) Permissible load
- (4) Recommended tire inflation pressure for cold tires

1 The data shown on the labels is for illustrative purposes only. The load limit data and seating data is specific to each vehicle and may vary from the data shown in the illustration.

Refer to the label on your vehicle for data specific to your vehicle.

The tire inflation pressure specifications are for all loads up to the maximum total permissible weight and only for genuine tires when they are cold.

For tire and loading information, see "Loading the vehicle" (> page 170).

## Internet

Further information about Mercedes-Benz vehicles can be found on the following website:

www mercedes-benz com

## Editorial office

You are welcome to forward any queries or suggestions you may have regarding this manual to the technical documentation team at the address mentioned on the inside of the front cover.

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