

>> ebike.

Translation of the original Owner's Manual



Symbols

- * Optional equipment
-  Warning
-  Environmental note
-  Possible vehicle damage
-  Tip
-  Instructions
-  Continuation symbols
-  (▷ page) Page reference
- Display** Message in the control console display

Sticker on the smart ebike



Before using the bike for the first time, read the Owner's Manual carefully



Warning against potentially explosive materials

Let the fun begin!

Before taking your first ride, read this Owner's Manual carefully and familiarise yourself with your smart ebike. For your own safety and a longer service life for your ebike, follow the instructions and warning notices in this manual. Disregarding them may lead to damage to the ebike or personal injury.

The printed Owner's Manual gives you a fast, concise overview of your ebike's most important functions. The electronic Owner's Manual on CD gives you detailed information on your ebike.

The equipment or product designation of your ebike may vary according to:

- model
- order
- country variant
- availability

Items of optional equipment are marked with an asterisk *.

smart is constantly updating its products to the state of the art.

smart therefore reserves the right to introduce changes in the following areas:

- design
- equipment
- technical features

The equipment on your ebike may therefore differ from that shown in the descriptions and illustrations.

The following are integral parts of the ebike:

- printed Owner's Manual
- electronic Owner's Manual on CD

If you sell your ebike, always pass the documents on to the new owner.

The technical documentation team at Daimler AG wishes you safe and pleasant riding.

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EU declaration of conformity

Daimler AG, Mercedesstraße 137, 70327 Stuttgart, Germany, hereby declares that, based on its concept and construction, and in the version distributed and sold by us, the equipment described in the following:

Designation: ebike
Function: Pedelec
Model: smart ebike
Type: EB 001
Trade name: smart ebike

complies with the relevant, primary EU directives based on the harmonised EU standards.

Relevant EU directives (including any amendments, where applicable):

- EU Machinery Directive 2006/42/EC incl. EN 15194:2009 + A1:2011 + IEC 62133:2002
- EU Electromagnetic Compatibility Directive 2004/108/EC including EN 15194:2009 + A1:2011

The associated battery charger described in the following:

Designation: Battery charger
Function: Charging of electrochemical energy storage devices
Item number: 01-4576
Model: SA190B-24U
Trade name: smart ebike battery charger

manufactured by BionX, 455 Magna drive, Aurora, ON L4G 7A9, Canada, complies with the following relevant EU directives:

- EU Low Voltage Directive 2006/95/EC incl. EN 60335-1 / -2-29
- EU Electromagnetic Compatibility Directive 2004/108/EC with applicable EN standards + EN 15194:2009 + A1:2011 item 4.2.5.3

This declaration is no longer valid in the event that modifications are made to the equipment named without our agreement.

Martin Hülder, smart brand and product management, Stuttgart, 16.04.2012



Felix Britsch, smart business strategy and development, Stuttgart, 16.04.2012



Protection of the environment

Environmental note

Daimler's declared policy is one of comprehensive environmental protection.

The objective is to use the natural resources which form the basis of our existence on this planet sparingly and in a manner which takes the requirements of both nature and humanity into account.

You too can help to protect the environment by operating your smart ebike in an environmentally-responsible manner.

Energy consumption and the rate of motor, gearing, brake and tyre wear depend on the following factors:

- the operating conditions of your ebike
- your personal riding style

You can influence both factors.

You should bear the following in mind:

Operating conditions:

- make sure that the tyre pressures are always correct.
- do not carry any unnecessary weight.
- keep an eye on energy consumption.
- a regularly serviced ebike will contribute to environmental protection. You should therefore adhere to the service intervals.
- always have service work carried out at a specialist workshop which is qualified to service smart ebikes.

Personal riding style:

- ride carefully and maintain a suitable distance from the vehicle in front.
- avoid frequent, sudden acceleration.

Environmental note

Have defective batteries disposed of in an environmentally responsible manner. Contact a specialist workshop which is qualified to service smart ebikes and has the

necessary specialist knowledge and tools to carry out the work required.

Product information

smart recommends that you use genuine smart parts, conversion parts and accessories that have been specifically approved for your ebike.

smart tests genuine parts and conversion parts and accessories that have been specifically approved for your ebike for their reliability, safety and suitability.

Despite ongoing market research, smart is unable to assess other parts. Therefore, smart accepts no responsibility for the use of such parts in smart ebikes. This is also the case, even if they have been independently or officially approved. The use of non-approved parts could affect the safety of your ebike.

Genuine smart parts, approved conversion parts and accessories are available from smart dealers. Here, you will receive advice about permissible technical modifications, and the parts will be professionally fitted.

Owner's Manual

General notes

Before taking your first ride, read this Owner's Manual carefully and familiarise yourself with your ebike.

For your own safety and a longer service life for your ebike, follow the instructions and warning notices in this manual. Disregarding them may lead to damage to the ebike or personal injury.

Printed Owner's Manual

The printed Owner's Manual (including any Supplements) must be observed in addition to this Owner's Manual.

There is no update to the electronic Owner's Manual on CD. Amendments are only made by means of supplements to the printed Owner's Manual.

Equipment

This Owner's Manual describes all models and all standard and optional equipment available for your ebike at the time of publication of the Owner's Manual. Country-specific differences are possible. Note that your ebike may not be fitted with all features described. This is also the case for systems and functions relevant to safety. Therefore, the equipment on your ebike may differ from that in the descriptions and illustrations. Should you have any questions concerning equipment and operation, please consult a smart dealer. The following items are included in the ebike scope of delivery:

- charger
 - transport locks for the brake system
 - printed Owner's Manual
 - electronic Owner's Manual on CD
- i** Keep the yellow transport locks for the brake system. They are needed to check the brake pad wear and are used as an aid in various repair tasks.

The following accessories are available:

- luggage carrier including net pockets
- smartphone cradle
- high handlebars
- seat and seatpost variants

Operating safety

Important safety notes

WARNING

Components can be damaged without it being visible on the surface:

- in the event of an accident or fall
- if the bike tips over

Components damaged in this way could fail unexpectedly, for example:

- the handlebars or the seat post could break while you are riding the bike
- the brakes could fail

There is a risk of accident and injury.

In this or similar cases, have the ebike checked at a qualified specialist workshop without delay.

WARNING

When being used, the mechanical components of the ebike are subjected to high loads and wear. Components react differently to these loads and show signs of fatigue or wear at different rates. If the operating life of a component is exceeded, the component could suddenly fail. There is a risk of accident and injury.

- Have your ebike checked regularly at a qualified specialist workshop.
- Pay attention to any sign of cracks, scratches or changes in colour. These signs indicate that the component has reached the end of its operating life.
- Have components showing signs of wear or fatigue replaced at a qualified specialist workshop.

The components affected are:

- Handlebars and stem
- Saddle and seat post
- Frame and fork
- Tyres and wheels
- Pedals and pedal cranks
- Brake pads and brake discs

- Drive belt and pulleys
- Battery

If work on electronic equipment and its software is carried out incorrectly, this equipment could stop functioning. The electronic systems are linked together by interfaces. Modifications to electronic systems may also cause systems that have not been modified to malfunction. These malfunctions could affect the operating safety of your ebike and therefore also have a considerable effect on your safety. You should therefore have all work and modifications to electronic components carried out at a qualified specialist workshop.

Do not make any modifications or carry out work, such as drilling, soldering or welding, on the frame or other load-bearing components. The stability and the service life of the components could be affected as a result.

If you remove warning stickers, you or others may not be aware of possible dangers. Leave warning stickers in position.

Rotating components, such as wheels, drive belt, pedal cranks or pedals, could trap and pull in parts of the body or clothing. Make sure that neither clothing nor objects being carried get caught in rotating parts. Wear close-fitting clothing. Never wear a scarf.

After braking, in particular after a long downhill stretch, the brake discs, brake callipers as well as quick-release devices and axle nuts may be very hot. Wait until these components have cooled down before touching them.

Do not ride without the battery or without the control console. If the battery or the control console are not fitted then the lighting system will not function. Riding without an operational lighting system is not permitted, depending on national regulations.

Qualified specialist workshop

A qualified specialist workshop has the necessary special skills, tools and qualifications to correctly carry out any necessary work on your ebike. This particularly applies to work relevant to safety.

Always have the following work on your ebike carried out at a qualified specialist workshop:

- work relevant to safety
- service and maintenance work
- repair work
- modifications, installations and conversions
- work on electronic components
- work on the drive system

smart recommends that you use a smart dealer which is qualified to carry out work on smart ebikes.

Correct use

Observe the following information when using the ebike:

- the safety notes in the printed Owner's Manual and in the electronic Owner's Manual on CD
- the technical data in the printed Owner's Manual and in the electronic Owner's Manual on CD
- traffic rules and regulations
- laws and safety standards applicable to vehicles

The configuration of your smart ebike can vary, depending on the country in which you purchased it. Using the ebike in other countries could therefore contravene local laws. If necessary, have the configuration of the ebike adjusted for the respective country.

Observe the respective applicable law in your country for Pedelecs regarding the following points:

- maximum assistance speed and power output of the electric motor
- required equipment in order to ride on public roads
- obligation to have a driver's license
- minimum age of the cyclist
- obligation to wear a helmet
- regulations for the use of cycle lanes

The smart ebike is designed to be ridden on asphalt roads and lanes as well as surfaced forest and country tracks. The tyres must not lose contact with the ground when doing so. The ebike is not designed for riding over obstacles, such as high kerbs. Equally, it is not designed for carrying more than one person. Nobody should be carried on the optionally available luggage carrier*.

The smart ebike is not suitable for competition.

The smart ebike together with rider, accessories and luggage may have a permissible gross weight of 140 kg (308 lbs). Never exceed the permissible gross weight.

The smart ebike is not approved for towing a trailer. Riding with a trailer or a trailer bike or pulling another bicycle using a bicycle connection system is not permitted.

Always make sure that your smart ebike is used for the purposes it was designed for. If the smart ebike is used in ways for which it was not designed, this could result in damage to the fitted components. This could then lead to accidents and injuries. The smart ebike is not intended for persons with limited physical, sensory or mental abilities. The ebike is not suitable for children under 14 years old.

Taking the battery for your smart ebike on a passenger plane is not permitted.

* optional

Transporting the ebike with the battery fitted on a vehicle rear-mounted cycle rack or roof carrier is not permitted. Remove the battery before transporting (> page 41). Before transporting also remove components which are not securely bolted on such as, e.g. the control console, smartphone and net pockets.

Pedelec (Pedal Electric Cycle)

Pedal-assist technology

The smart ebike belongs to a class of electrically assisted bicycles called pedelecs. Another name for pedelecs is EPAC (electric power assisted cycles). Pedelecs provide assistance only when you are exerting force on the pedals. A pedal sensor in the pedal-crank bearing measures the force you are exerting and determines how much propulsion power will be provided by the electric motor. When you stop pedalling, the electric motor switches off. Before reaching the maximum assisted speed, the power from the electric motor is gradually decreased until the pedal assistance finally shuts off. In European countries, for example, the maximum assisted speed is 25 km/h (15.5 mph). If you are not using the pedal-assist function, you can ride faster than the maximum assisted speed.

- i** The maximum assisted speed and the continuous rating of the electric motor are indicated on a sticker located on the ebike.

Pedal sensor in the pedal-crank bearing

- !** The sensor used to determine the pedalling power can lose its electronic calibration. This can result in malfunctioning of the pedal-assist function. Keep magnets and large metallic objects,

e.g. hammers, away from the pedal-crank bearing.

Generator mode (recuperation)

Your smart ebike is equipped with a so-called regenerative brake. This technology allows you to convert kinetic energy into electrical energy. When you apply the brakes, the electric motor acts as a generator (generator mode). Electrical energy generated in this way is returned to the battery. At the same time, the energy recuperation process brakes your ebike without wear on the brakes.

Serial number

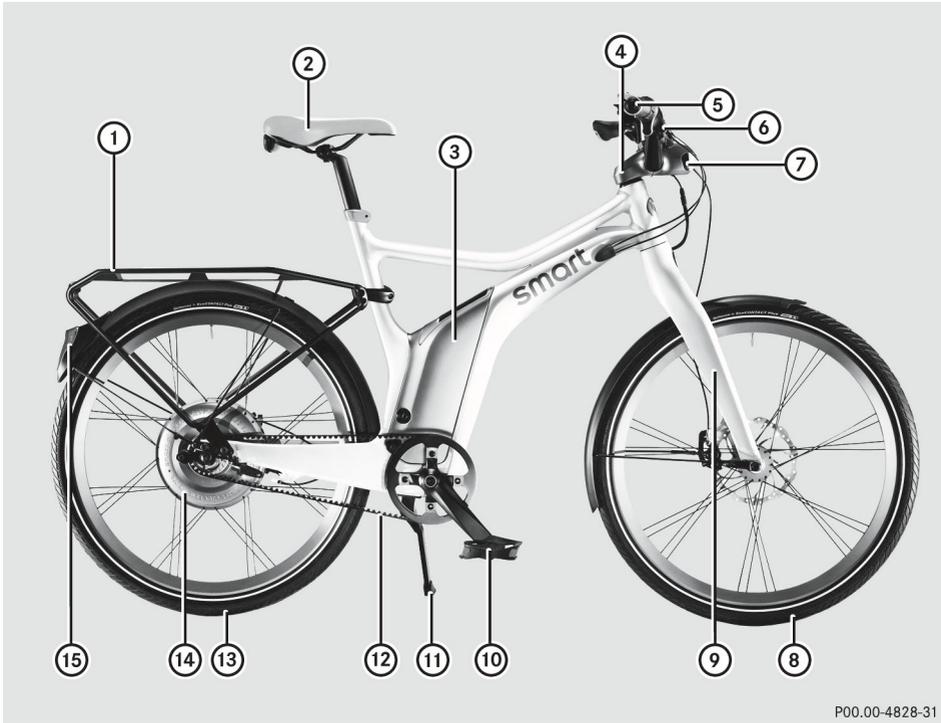
You will find the serial number of your ebike on the right-hand side of the frame, near the pedal-crank bearing. Write down the serial number and keep it in a safe place.



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Overall view

>> At a glance.



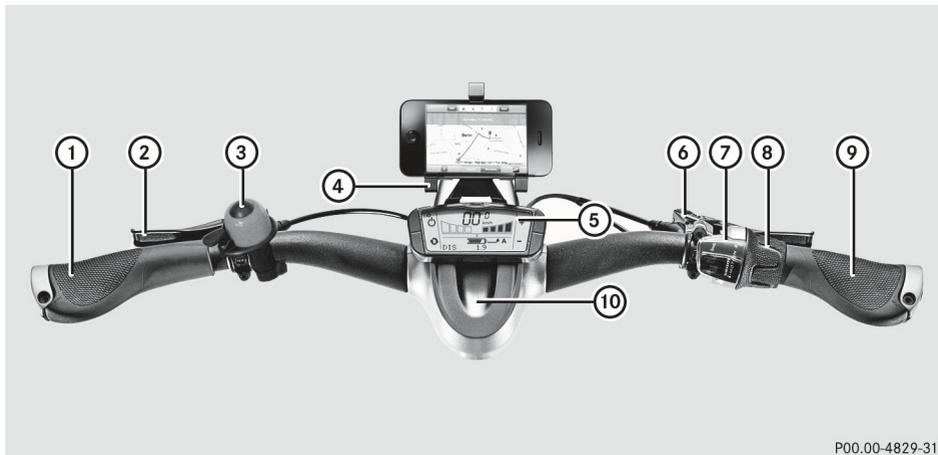
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* optional

Cockpit



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>> At a glance.

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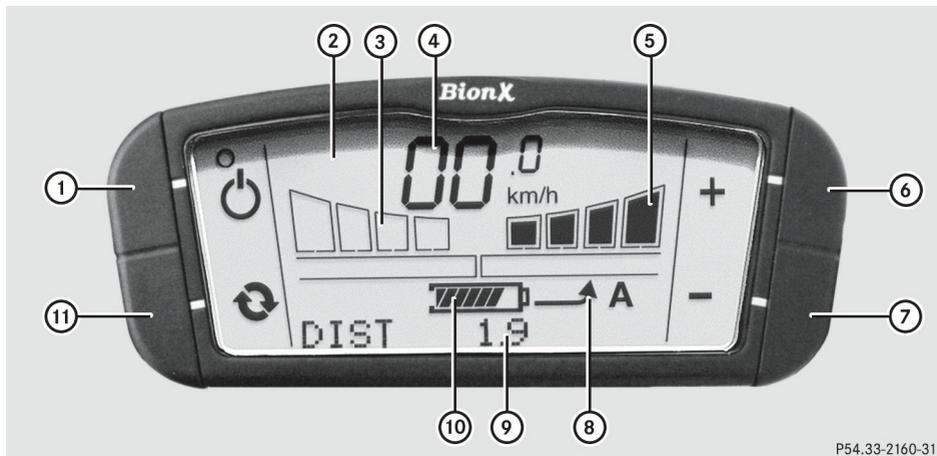
¹ United Kingdom: Rear wheel brake

² United Kingdom: Front wheel brake

* optional

Control console

>> At a glance.



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Useful information

- i** This Owner's Manual describes all models and all standard and optional equipment available for your ebike at the time of publication of the Owner's Manual. Country-specific differences are possible. Note that your ebike may not be fitted with all features described. This is also the case for systems and functions relevant to safety.
- i** Read the information on qualified specialist workshops: (> page 10).

Safety-relevant equipment

The lighting system does not work when you ride your ebike without the control console or battery. smart recommends that you always ride with the lights on, even during the daytime.

As a pedelec vehicle, the smart ebike is subject to laws governing the use of vehicles on public roads. In Germany, for example, this is the Road Traffic Licensing Regulation (StVZO) for vehicles. The smart ebike is equipped with a lighting system with the active and passive components required for use on public roads. It also has an appropriate brake system and a bell. The lighting system includes the following components:

- headlamp and tail light
- white reflector in the fork crown
- red reflector on the seat
- red reflector on the luggage carrier*
- reflective strips on the tyre sidewalls
- yellow reflectors on the pedals

Check the safety equipment regularly and have it repaired at a qualified specialist workshop as needed.

Suitable equipment

Depending on the country in which you use your smart ebike, you may be required to wear a helmet. Irrespective of any helmet law, smart recommends that you always wear a suitable helmet and goggles.

Wear conspicuous, bright clothing appropriate for cycling and shoes which are suitable for the bike's pedals. When riding in traffic, always be considerate and observe the traffic rules and regulations in order to avoid endangering yourself and others.

Inspection before starting a journey

Checking tyres and wheels

WARNING

If seated at an angle, valves may break off while the ebike is in operation. If this happens, the tyre will suddenly lose pressure. There is a risk of an accident.

Check the seating of the valves. The valves must extend from the wheel rim at right angles. Correct the position of any incorrectly seated valves immediately.

Before every ride, check the following:

- tyres and wheels for damage and foreign bodies lodged in the tyres. Damaged wheels can lead to a loss of pressure and result in further damage.
- tyre tread depth
- true running of the wheels by allowing both wheels to rotate freely. Out-of-round wheels can be an indication of tyres which have burst at the side, broken axles or torn spokes. Also investigate any rattling noises and check bearings and bolted connections if necessary.

Checking the drive belts

⚠ WARNING

Inadequately secured belt pulleys and safety guards may become loose while the ebike is in operation. Incorrectly aligned drive belts may become detached from the belt pulleys while the ebike is in operation. There is a risk of accident and injury.

- Before every ride, check to make sure the drive belt is properly aligned and tensioned, and the belt pulleys are bolted securely.
- Also check for proper installation of the slip guard to prevent the drive belt jumping teeth or slipping.

Always follow all the instructions on handling the drive belt – particularly every time the rear wheel is removed or fitted (▷ page 59). Extra caution is required in these cases in order to prevent damage to the drive belt.

Checking the battery lock

Before every ride, make sure the locking cylinder on the battery lock is engaged. If the battery is not retained by the lock, it could fall out while the ebike is in operation.

Checking the operation of the brake system



Before every ride, carry out a stationary brake test. To do so, pull the brake levers towards the handlebar using two fingers and normal braking force. The brake lever must not come into contact with the handlebar (▷ page 24). A distance “A” must remain between the brake lever and the handle, even when maximum hand force is applied.

Checking the brake system for wear

⚠ WARNING

After braking, particularly during long descents, the brake discs and callipers as well as the quick-release connections and axle nuts may become extremely hot. There is a risk of injury.

Wait until these components have cooled down before touching them.

Check the brake pads for wear before every ride (▷ page 48).

Carry out a visual inspection of the brake discs:

- the friction disc must not show any signs of scoring or breakout. It must be free of oil and dirt.
- All bolts must be present and securely in place.

Check the brake callipers for oil leakage.

Make sure that the brake cables are free of kinks. Check the brake cables for leaks.

Checking the bolted connections

Before every ride, check to make sure the bolted connections listed below are securely tightened:

- ▶ check to make sure the quick-release connector on the front wheel is securely seated.
The word “CLOSE” must be visible on the quick-release connector lever. It must

not be possible to rotate the quick-release connector.

- ▶ check the rear wheel for proper fit.
All bolted connections must be securely tightened. Alternate pushing and pulling on the rear wheel must not cause it to move.
- ▶ check to make sure the handles and brake handles are securely seated.
It must not be possible to rotate the handles or brake handles.
- ▶ check to make sure the seat and seatpost are securely seated.
Attempts to turn and tilt the seat must not cause it to move.
- ▶ check the luggage carrier* for proper fit.
All bolted connections must be securely tightened.



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Useful information

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i Read the information on qualified specialist workshops: (> page 10).

Adjusting the seat position

Notes

The optimum seat position is an important factor for your well-being on the smart ebike. A comfortable and fatigue-free seat position is an individual matter. smart gives you recommendations for the basic settings of the components below. The optimum setting may only become clear after going on a longer tour.

Adjust the settings of the following components to your requirements:

- adjust the seat height, angle and position
- adjust the angle of the grips
- adjust the angle and reach of the brake handles

i To suit individual requirements, higher handlebars as well as additional seat post variants are available as accessories. The length of the seat post can be adjusted to your individual body size. Further details can be obtained from any smart Centre.

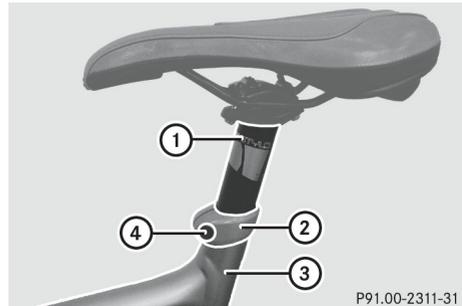
Adjusting the saddle

Adjusting the saddle height

⚠ WARNING

If you pull the seat post too far out of the seat tube, then the clamp can no longer secure the seat post sufficiently. The seat post could come loose or break during the tour. There is a risk of accident and injury.

Do not pull out the seat post beyond the minimum insertion depth.



P91.00-2311-31

- ① Seat post
- ② Seat post clamp
- ③ Seat tube
- ④ Clamping bolt

Minimum insertion depth: irrespective of any marking, the seat post must always be inserted at least 10 cm (3.9 in) into seat tube ③.

- ▶ Release clamping bolt ④ on clamp ② using a 5 mm (0.2 in) Allen key. Seat post ① can be moved in seat tube ③.

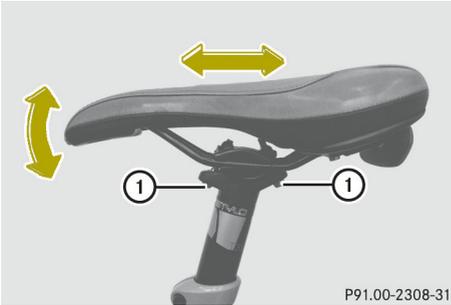
i Do not pull out seat post ① beyond the minimum insertion depth.

- ▶ Adjust the saddle to the desired height.

i If you put your heel on the pedal when it is at its lowest point and your leg is fully stretched, then the saddle is at the correct height.

- ▶ Tighten clamping bolt ④ with a torque of 9 Nm (6.64 lb-ft).
- ▶ After riding 30 km (19 miles), retighten clamping bolt ④ to the specified torque of 9 Nm (6.64 lb-ft).

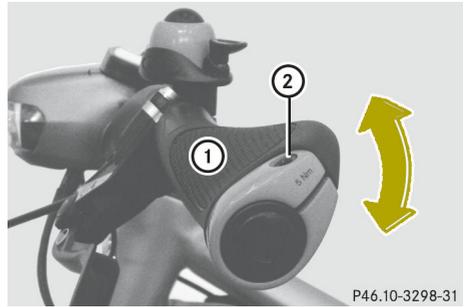
Adjusting the saddle position and angle



① Bolts for securing the seat

- ▶ Release both bolts ① with a 5 mm (0.2 in) Allen key. The horizontal position of the seat can be adjusted as well as its angle.
- ▶ Move the seat horizontally and adjust the angle to be level.
- ▶ **i** When the ball of your foot is on the pedal and the pedal is at its lowest point:
 - your knee should be slightly bent
 - your kneecap should be positioned in a vertical line to the pedal axle
 You have then set a good seat position.
- ▶ Tighten both bolts ① alternately, until a torque of 12 Nm (8.85 lb-ft) is achieved.
- ▶ After riding 30 km (19 miles), retighten bolts ① alternately to the specified torque of 12 Nm (8.85 lb-ft).

Adjusting the grips



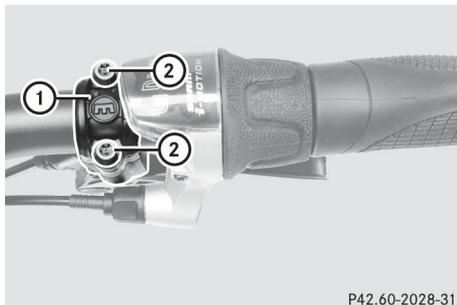
① Grip

② Clamping bolt

You can adjust grips ① so that the balls of the hands rest fully on the contact areas. The wrist should then be as straight as possible. Try out the most comfortable position of the grips for you.

- ▶ Release clamping bolt ② on both grips ① using a 4 mm (0.16 in) Allen key.
- ▶ Turn grips ① to a comfortable position.
- ▶ Make sure that grips ① finish flush with the ends of the handlebars.
- ▶ Tighten clamping bolts ② to a torque of 5 Nm (3.69 lb-ft). When grips ① have been tightened to the specified torque, it should no longer be possible to turn them.
- ▶ After riding 30 km (19 miles), retighten clamping bolts ② to the specified torque of 5 Nm (3.69 lb-ft).

Adjusting the brake handles



P42.60-2028-31

Example: rear wheel brake

- ① Brake handle
- ② Clamping bolts

You can adjust the brake handles to match the position of the grips. If your fingers, when extended from the arm, rest on the brake levers then the brake handles are set correctly. The wrist should be as straight as possible when doing so.

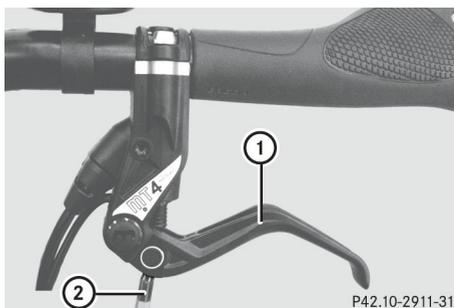
- ▶ Release both clamping bolts ② on brake handle ① using a T25 torx wrench.
- ▶ Turn brake handle ① to a comfortable position.
- ▶ Tighten both clamping bolts ② alternately to a torque of 3 Nm (2.21 lb-ft). When brake handles ① have been tightened to the specified torque, it should no longer be possible to turn them.
- ▶ After riding 30 km (19 miles), retighten clamping bolts ② to the specified torque of 3 Nm (2.21 lb-ft).

Adjusting the reach of the brake levers

⚠ WARNING

If you can pull the brake levers through to the handlebars, you cannot use the full braking force when braking hard. The braking distance is increased as a result. There is a risk of an accident.

Always adjust the brake lever as described.



P42.10-2911-31

Example: front wheel brake

- ① Brake lever
- ② T25 torx wrench

You can adjust the reach of the brake levers to the size of your hand. Adjust the brake lever so that you can grip it quickly and securely, and use plenty of hand strength at the same time.

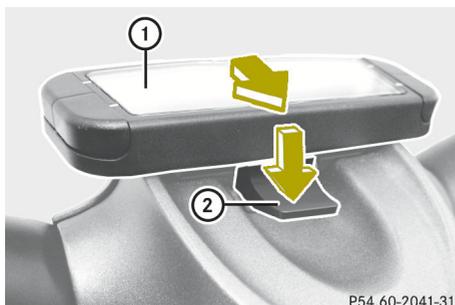
- ▶ Adjust the reach by turning the adjustment screw in brake lever ①. The gap between brake lever ① and the handlebar changes.
- ▶ Pull brake lever ① with maximum hand strength. Brake lever ① must not touch the handlebar.

Pedals

The pedals on your smart ebike are suitable for closed shoes with hard soles. Touring cycling shoes which are equally suitable for cycling and walking are ideal.

Removing/fitting the control console

Removing the control console



P54.60-2041-31

① Control console

② Fuse

- ▶ To unlock control console ①, press safety catch ②.

Slide control console ① out of the holder.

Inserting the control console

- ▶ Slide control console ① into the holder on the stem until safety catch ② engages.

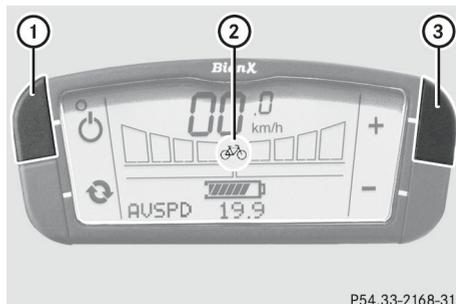
You will hear a clicking noise if the safety catch is correctly engaged.

Switching the system on the control console on/off

⚠ WARNING

Operating the ebike information systems and communication units when riding the ebike will distract you from the traffic conditions. You could also lose control of the ebike. There is a risk of an accident.

Only operate these units when the traffic situation permits. If this is not possible, pull over at a safe place and enter the information when the ebike is parked.



P54.33-2168-31

① Button

② Bike mode symbol

③ Button

- ▶ **To switch on:** press button ① or button ③ briefly on the control console.

An audible signal sounds to confirm the system has been switched on. The system runs through a self-diagnosis which ends with a countdown on the speedometer.

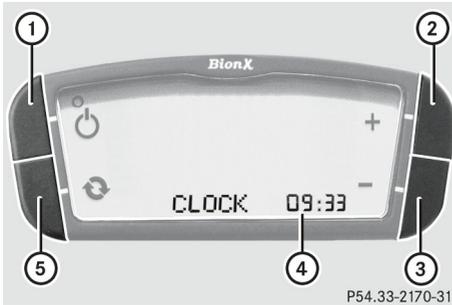
The light and display lighting are switched on. Indicator lamp appears in the display.

- ⓘ Once you have started the system, it remains in bike mode ② (i.e. normal bicycle operation with no electric pedal power assistance and with no generator operation).

- ▶ **To switch off:** press button ① briefly.

An audible signal sounds to confirm the system has been switched off.

Setting the time



P54.33-2170-31

- ① Button
- ② Button
- ③ Button
- ④ **CLOCK** display
- ⑤ Button

- ▶ Press button ① and button ⑤ simultaneously.
- CLOCK** and the time currently set are displayed; the hours will flash.
- ▶ Press button ② or button ③ to set the correct hour.
- ▶ Press button ① to change to the minutes.
- ▶ Press button ② or button ③ to set the correct minutes.
- ▶ Press ① to confirm.
- The time is now stored.

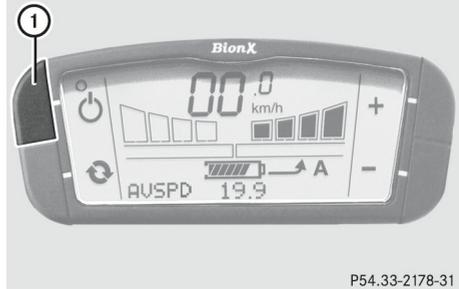
Lighting system

Notes

Your ebike's lighting system will be switched on automatically every time you switch the system on (daytime driving lights).

To increase safety, smart recommends that you always ride with the lighting system switched on. The LED lights consume minimum power and have almost no effect on the range of your smart ebike.

Switching the lights off



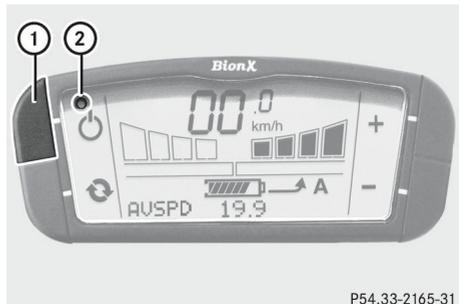
P54.33-2178-31

- ① Button

- ▶ **When the system is switched on:** press button ① for four seconds.
- The lights and display lighting are switched off.

- i** When you switch off the system, the lighting system will also switch off. If you switch the system back on, the lighting system will also be switched back on.

Switching the lights on



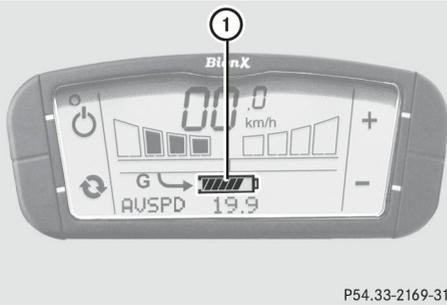
P54.33-2165-31

- ① Button
- ② Indicator lamp

- ▶ **When the system is switched off:** press button ① briefly.
- The system is switched on. The lights and display lighting are also switched on.
- Indicator lamp ② appears in the display.

Checking the charge level of the battery

Checking the charge level on the control console



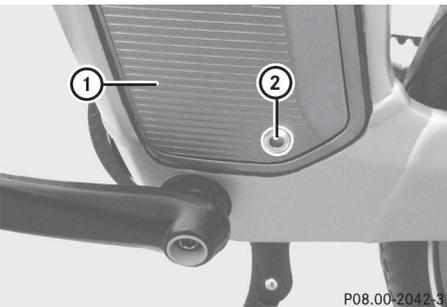
P54.33-2169-31

① Charge indicator

When the system is switched on, the battery symbol on charge indicator ① shows how much battery power is left.

If all the bars are visible, the battery is 100 % charged.

Checking the charge level directly on the battery



P08.00-2042-31

- ① Battery
- ② Charging socket

► Slowly slide your finger over charging socket ② on battery ①. The LED ring around charging socket ② lights up in colour.

❗ The system does not have to be switched on for this.

The colour of the LED ring indicates the battery charge level:

LED ring colour	Charge level
Green	100–85 %
Orange	85–25 %
Red	< 25 %

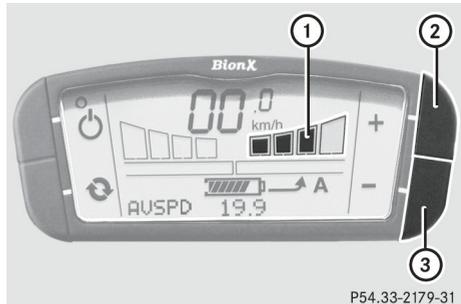
Selecting the drive/generator level

Selecting the drive level

WARNING

If pedal assist is activated on smooth or slippery road surfaces, the rear wheel can spin and lose grip when you accelerate. There is a risk of an accident.

Always deactivate pedal assist on smooth or slippery road surfaces.



P54.33-2179-31

Drive level 3 (example)

- ① Drive level bar indicator
- ② Button +
- ③ Button -

The drive level is used to select how much power the electric drive should provide to assist your own pedal power. You can select between four drive levels.

► **To increase the drive level:** press button ② on the control console.

A will appear in the display. Bar indicator ① shows which drive level you have selected. If you have already set a gen-

erator level, you must first reduce the generator level with button ②.

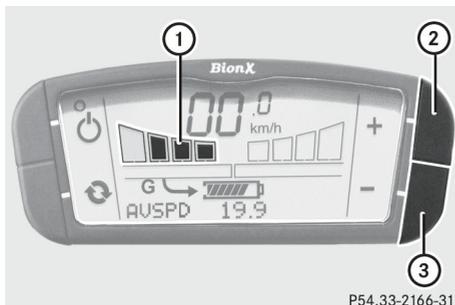
- ▶ **To reduce the drive level:** press button ③.

Generator mode: selecting the generator level

⚠ WARNING

If the generator mode is activated or you apply the front wheel brake, the electric motor will brake the rear wheel. The rear wheel could lock and lose grip on smooth or slippery road surfaces. There is a risk of an accident.

- Always deactivate the generator on smooth or slippery road surfaces.
- If possible, only brake with the rear wheel brake on smooth or slippery road surfaces.



P54.33-2166-31

Generator mode: generator level 3 (example)

- ① Generator level bar indicator
- ② Button +
- ③ Button -

The generator level determines how much braking power the electric motor should provide to brake the eBike in generator mode. The generator level also controls how much braking power is used to recharge the battery. You can select between four generator levels (▷ page 36).

i Please bear the following in mind:

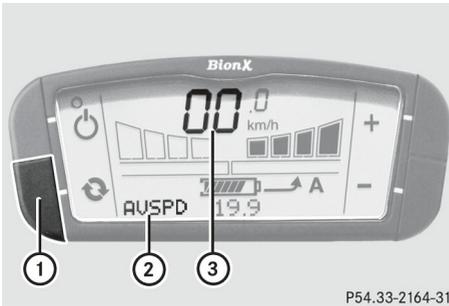
- Once you have selected a generator level, the eBike will use regenerative braking until the generator mode has been deactivated again.
- If you apply the front wheel brake, the electric motor will automatically apply the rear wheel brake even if the generator mode is deactivated. The level of braking power applied to the rear wheel depends on the riding speed and cannot be regulated. Exception: the rear wheel brake will not be applied automatically if the battery is fully charged.

- ▶ **To switch on the generator mode:** press button ③ on the control console.

G will appear in the display. Bar indicator ① shows which generator level you have selected. If you have already set a drive level, you must first reduce the drive level with button ③.

- ▶ **To increase the generator level:** press button ③.
- ▶ **To reduce the generator level:** press button ②.
- ▶ **To switch off the generator mode:** press button ② repeatedly until **G** disappears from the display.

On-board computer



P54.33-2164-31

① Button 

② Display of functions

③ Speedometer

Speedometer ③ displays the current speed in km/h (mph).

► **To change display ②:** press button ① briefly.

Press the button to switch display ② between:

- trip meter **DIST** in km (miles)
- odometer **ODO** in km (miles)
- journey time **CHRONO** in hours and minutes
- average speed **AVSPD** in km/h (mph)
- time **CLOCK**. Setting the time (▷ page 26)

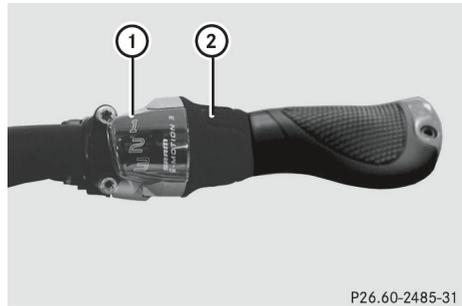
i Depending on the country, the speeds and distances are displayed in either "km/h" or "mph" and "km" or "miles".

► **To reset the values:** press and hold button ①.

The following displays ② are set to 0:

- trip meter **DIST**
- journey time **CHRONO**
- average speed **AVSPD**

Shifting gears



P26.60-2485-31

① Gear indicator

② Twist-grip

A transmission with 3 gear ratios is integrated into the smart ebike's drive. You change gear by turning twist-grip ② on the handlebars. Gear indicator ① on twist-grip ② displays which gear is engaged.

► Turn twist-grip ② until the gear you require is engaged. Gear indicator ① shows the engaged gear in red.

i You can shift gears when the ebike is stationary or when riding. The smoothest way to change gears when riding is to lighten the pressure on the pedals when shifting gears.

Kickstand

WARNING

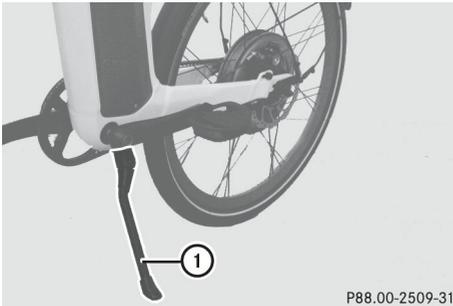
Riding the ebike with the kickstand down can cause a fall. There is a risk of accident and injury. Always kick up the kickstand before riding off.

! Parking the ebike on downhill slopes or on soft ground can cause the ebike to fall over and become damaged. Park your ebike on level, firm ground, if possible. On uphill or downhill gradients, always

park the ebike in the line of fall, with the front wheel facing uphill.

! If you push the ebike backwards with the kickstand down, the pedals will turn and may become jammed as a result. Always kick up the kickstand before moving the ebike backwards.

! The kickstand is not designed to hold a person's weight. Never sit on the ebike when the kickstand is down.



① Kickstand

Always kick up kickstand ① before pushing or riding the ebike.

Stowing and features

Luggage rack*

Important safety notes

! WARNING

A laden luggage carrier changes the riding characteristics of the ebike. Steering and braking are particularly impaired. The braking distance may increase. There is a risk of an accident.

- Make sure that you keep the centre of gravity of the load as low as possible. Stow heavier objects lower on the bike than lighter objects.
- Ride carefully in bends and when changing directions.

- Take into account the longer braking distances.
- Take into account the additional weight when stopping and while the ebike is stationary.

! WARNING

Objects that are not correctly secured may fall from the luggage carrier. Objects may become caught between the rear wheel spokes or in the drive belt and cause a fall. There is a risk of accident and injury.

- Only transport objects on the luggage carrier or in the mesh pockets provided.
- Always secure transported objects and bicycle panniers on the luggage carrier in such a way that they cannot fall down.
- Secure the transported objects and fastening belts so that:
 - they cannot fall down.
 - they cannot become caught between the rear wheel spokes or in the drive belt.

! WARNING

The luggage carrier may become detached from the ebike and fall onto the road. There is a risk of accident and injury.

- Always mount the luggage carrier as described.
- Before every journey, check that the luggage carrier screws are securely tightened.
- Do not make any modifications to the luggage carrier and its anchorage points.

! WARNING

If you overload the luggage carrier, it may become detached from the ebike and fall onto the road. There is a risk of accident and injury.

Always observe the permissible carrying capacity of the luggage carrier.

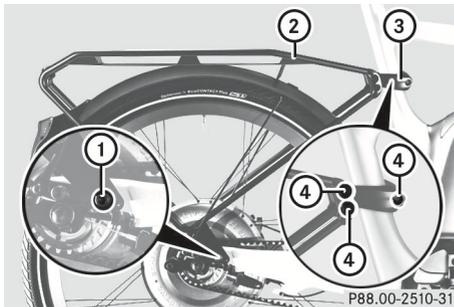
Maximum permissible carrying capacity of the luggage carrier: 15 kg (33 lbs).

* optional

When transporting objects on the luggage carrier, make sure that the tail light and the reflectors on the tyre sidewalls are clearly visible to other road users.

The luggage carrier designed for the smart ebike is not suitable for carrying a child seat.

Mounting the luggage carrier



- ① Front screw on dropout
 - ② Luggage carrier
 - ③ Frame clamp
 - ④ Clamp screws
- ▶ Loosen and unscrew screws ① on the left and right-hand side.
 - ▶ Loosen and unscrew screws ④ on clamp ③.
 - ▶ Position the luggage carrier above the rear wheel and insert screws ① on both sides.
 - ▶ Attach clamp ③ around the bike frame and insert screws ④.
 - ▶ Tighten screws ① on the left-hand and right-hand side to a torque of 22 Nm (16.23 lb-ft).
 - ▶ Tighten screws ④ on clamp ③ to a torque of 6 Nm (4.43 lb-ft).
 - ▶ After riding for 30 km (19 miles), re-tighten screws ① and ④ to the specified torques.

* optional

Smartphone cradle*

Notes

WARNING

Operating the ebike information systems and communication units when riding the ebike will distract you from the traffic conditions. You could also lose control of the ebike. There is a risk of an accident.

Only operate these units when the traffic situation permits. If this is not possible, pull over at a safe place and enter the information when the ebike is parked.

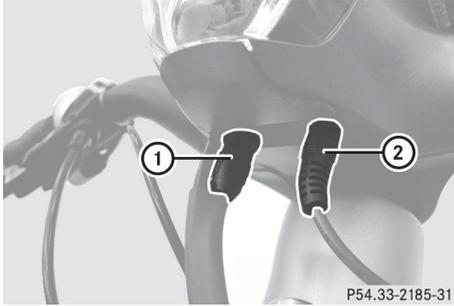
The e-bike smartphone cradle is suitable for smartphones with screen sizes of between 8.89 cm (3.5 in) and 10.92 cm (4.3 in).

You can rotate the smartphone cradle into a landscape or portrait mode to suit the application. It can also be adjusted into 4 different tilt positions without any tools. You can also charge your smartphone during a ride using the USB port underneath the headlamp.

Always make sure that your smartphone is securely engaged in the smartphone cradle.

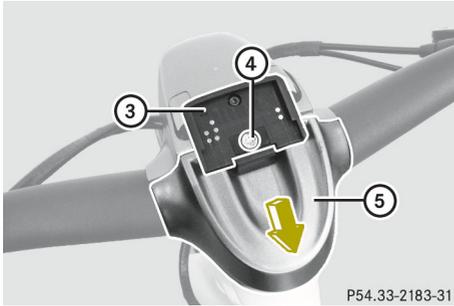
Mounting the smartphone cradle

Removing the stem face plate



P54.33-2185-31

Electrical connectors on the headlamp



P54.33-2183-31

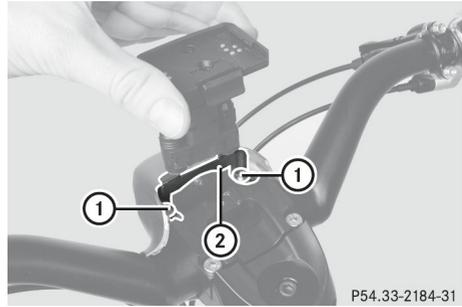
Control console contact plate

- ① Data cable
- ② Generator sensor cable
- ③ Control console contact plate
- ④ Screw
- ⑤ Stem face plate

- ▶ Remove control console (> page 25).
- ▶ Pull sensor cable ② off contact plate ③.
- ▶ Loosen retainer of data cable ① using a screwdriver and detach data cable ① from contact plate ③.
- ▶ Unscrew screw ④ using a T20 Torx wrench and pull contact plate ③ upwards slightly. As you do so, press against contact plate ③ from underneath around electrical connectors ① and ②.

- ▶ Pull face plate ⑤ backwards.
- ▶ Pull contact plate ③ upwards.

Removing the cover

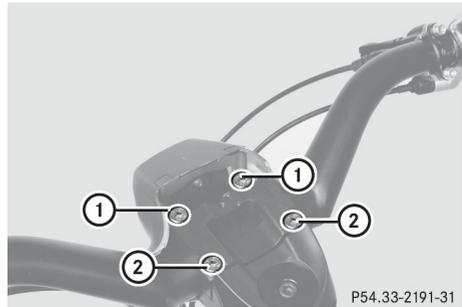


P54.33-2184-31

- ① Screws for cover/headlamp casing
- ② Cover

- ▶ Unscrew screws ① using a 2.5 mm (0.1 in) Allen key.
- ▶ Remove cover ②.
- ▶ Screw in screws ① for the headlamp casing again and tighten to a torque of 1 Nm (0.74 lb-ft).

Mounting the smartphone cradle



P54.33-2191-31

- ① Front handlebar clamp screws
- ② Rear handlebar clamp screws
- ▶ Unscrew front handlebar clamp screws ① using a 5 mm (0.2 in) Allen key.
- ▶ Position the smartphone cradle on the handlebar clamp.
- ▶ Insert screws ① through the smartphone cradle and handlebar clamp.

- ▶ Alternately tighten screws ① to a torque of 6 Nm (4.43 lb-ft).
- ▶ Alternately tighten both rear handlebar clamp screws ② to 6 Nm (4.43 lb-ft).
- ▶ After riding for 30 km (19 miles), re-tighten screws ① and ② to the specified torque of 6 Nm (4.43 lb-ft).

Mounting the stem face plate

- ▶ Insert the control console contact plate.
- ▶ Slide the face plate onto the stem.
- ▶ Push the contact plate down completely.
- ▶ Insert the contact plate screw and tighten to a torque of 1 Nm (0.74 lb-ft).
- ▶ Insert the electrical connectors for the data cable and the sensor cable into the contact plate.
- ▶ Insert the control console (> page 25)
- ▶ Check whether the lamp is on and all the information is displayed on the control console display.
- ▶ Take a test ride to check that braking assistance is working when the front wheel brake is applied.



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Storing the battery	43
Belt drive	43
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Transporting the ebike	45
Maintenance and care	46

Useful information

- i** This Owner's Manual describes all models and all standard and optional equipment available for your ebike at the time of publication of the Owner's Manual. Country-specific differences are possible. Note that your ebike may not be fitted with all features described. This is also the case for systems and functions relevant to safety.
- i** Read the information on qualified specialist workshops: (▷ page 10).

Driving tips

Riding with electric assistance

Pedal assist

WARNING

If pedal assist is activated on smooth or slippery road surfaces, the rear wheel can spin and lose grip when you accelerate. There is a risk of an accident.

Always deactivate pedal assist on smooth or slippery road surfaces.

The smart ebike only assists you when you apply force to the pedals. When you stop pedalling, the electric motor switches off. Pedal assist will also switch off if you exceed the maximum power assist speed (varies according to country) (▷ page 11). The drive power depends on the drive level you have selected (▷ page 27). The higher the drive level, the less effort you yourself have to provide to maintain a specific speed.

Drive level (A)	Riding situation
None	Riding without electrical pedal assist
1	Riding on level ground

Drive level (A)	Riding situation
2	Riding uphill, riding with headwind
3	Riding on steep uphill gradients, riding with strong headwind
4	Riding on extremely steep uphill gradients

- i** Pedal off by first pushing the left leg down on the pedal. In this way, the pedal force sensor can pick up your pedal force more effectively and can activate the electric motor more quickly to provide assistance. This is particularly of advantage when riding uphill.

Generator mode

WARNING

If the generator mode is activated or you apply the front wheel brake, the electric motor will brake the rear wheel. The rear wheel could lock and lose grip on smooth or slippery road surfaces. There is a risk of an accident.

- Always deactivate the generator on smooth or slippery road surfaces.
- If possible, only brake with the rear wheel brake on smooth or slippery road surfaces.

In generator mode, the electric motor is used as a generator and charges the battery during riding. The braking power generated during charging is used to brake the ebike. The amount of regenerative braking depends on the generator level selected in generator mode (▷ page 28).

- i** If you apply the front wheel brake, the electric motor will automatically apply the rear wheel brake even if the generator mode is deactivated. The level of braking power applied to the rear wheel

depends on the riding speed and cannot be regulated. Exception: the rear wheel brake will not be applied automatically if the battery is fully charged.

- i** The energy recuperated in generator mode can only be stored in the battery if the current charge level permits. Energy recovery may be deactivated when riding down mountains if the battery is fully charged. Riding in generator mode then has no braking effect.

Generator level (G)	Driving situation
None	No braking effect, no regenerative braking
1	Riding on gentle downhill slopes, tailwind
2	Riding on downhill slopes, tailwind
3	Riding on steep downhill gradients
4	Riding on extremely steep downhill gradients

Energy-saving driving style

Your smart ebike assists you with a brushless wheel hub motor integrated into the rear wheel.

Wheel hub motor power output:

- United Kingdom 200 W
- EU countries (except the United Kingdom) 250 W
- Canada 350 W

Depending on the drive level selected, the riding style and the topography, the drive assists you for a range of up to 100 km (62 miles).

If you wish to ride further, the smart ebike behaves like a completely normal bicycle without pedal assistance.

The range of the smart ebike with a fully charged battery depends on the following factors:

- the physical performance of the rider
- the drive and generator level selected
- the gear selected
- the gross weight of the ebike, rider and load
- the tyre pressure
- the road surface
- the topography
- the temperature
- the wind conditions
- the nature of use with frequent starts or even-paced stretches
- and the use of generator mode (energy recuperation) when braking

To achieve the maximum possible range, observe the following recommendations:

- select a drive level which is as low as possible and as high as necessary.
- to charge the battery during the tour, use generator mode as often as possible.
- select a low gear on an uphill gradient and a high gear on level ground or when riding downhill.
- do not carry any unnecessary weight.
- check the tyre pressures regularly every 14 days and correct them when required (▷ page 44).

Braking

Notes on disc brakes

WARNING

On wet roads:

- the frictional force between the tyres and the road is reduced.
- water between the brake pads and brake disks reduces the effect of the brake system.

The braking distance is increased. There is a risk of an accident.

- On wet roads brake sooner to compensate for the longer braking distance.
- On wet roads brake with greater care to prevent the wheels from locking.

WARNING

When braking the front wheel abruptly the rear wheel can lift up. You could be thrown over the handlebars in the process. There is a risk of an accident.

- Brake the ebike with the front and rear brake at the same time.
- Move your body's centre of gravity to the rear when braking abruptly.

The smart ebike is equipped with hydraulic disc brakes which will bring you to a standstill quickly and safely, if required. Disc brakes respond more quickly than rim brakes, in particular on wet roads.

A hydraulic disc brake builds up a high braking effect with only minimal hand strength. To distribute braking force to both wheels, use both brakes at the same time. The pedal assistance of the electric motor is interrupted by braking the front brake (or if you stop pedalling).

- i** Please be aware that your smart ebike does not have a coaster brake.

If you are not yet familiar with the braking effect of hydraulic disc brakes, first carry out some test braking manoeuvres on a high-grip surface away from traffic.

Avoid continuous braking. On long downhill stretches, brake with both brakes briefly but firmly. When you intermittently release the brakes they can cool down again. Stop at the first signs of overheating.

Symptoms indicating overheating include:

- increased hand strength
- the build up of odours
- loud scraping noises

Let the brake system cool down before riding on.

Wet conditions reduce the braking effect and lead to the tyres skidding more easily. On wet roads, allow for longer braking distances, ride more slowly and brake carefully.

Braking with the disc brakes

- **To brake with the front brake:** pull the left³ brake lever.

There is a sensor installed in the brake handle for the front brake which switches the electric motor to energy recuperation when the front wheel is braked (> page 28). In this way the electric motor always simultaneously brakes the rear wheel, even if generator mode is switched off. The level of the braking force on the rear wheel depends on the speed and cannot be modulated. Exception: if the battery is fully charged the rear wheel is not braked simultaneously.

- i** Adopt an anticipatory riding manner to try and avoid abrupt braking. If possible only brake the ebike through energy recuperation. If you only pull the brake lever for the front brake gently, the ebike brakes friction-free through energy recuperation alone.

- **To brake with the rear brake:** pull the right⁴ brake lever.

With disc brakes the pressure point must be immediately stable. If the pressure point has not been reached after two thirds of the travel, pull the lever several times (pumping), until the pads come into contact with the disc. If the pressure point shifts

³ United Kingdom: the right brake lever operates the front brake

⁴ United Kingdom: the left brake lever operates the rear brake

during the tour then the brake system must be bled at a qualified specialist workshop.

- i** Pressure point: each brake has a certain amount of free travel at the brake lever. Once this free travel is overcome with limited hand strength, the brakes grip and the pressure point has been reached. If the brake is correctly set and bled, increased hand strength increases the braking power with minimal brake lever travel.

Brake system wear

The brake pads and brake discs wear as a result of friction. The more often you ride in mountainous terrain and through rain or mud, the greater the wear.

The smart ebike brake system has fully automatic brake pad compensation. This balances out the brake pad wear and ensures that the pressure point remains the same always.

The wear on the brake pads (▷ page 48) and on the brake discs (▷ page 48) cannot be evaluated from the brake lever and must therefore be checked before every tour (▷ page 48). Have worn brake pads replaced at a qualified specialist workshop.

Bedding in new brake pads

New brake pads must be bedded in until they reach their optimum deceleration performance. To do this, accelerate your ebike approx. 30 – 50 times to about 30 km/h (19 mph) and brake to a standstill. When the required hand strength for braking no longer reduces then the bedding-in process is completed.

Charging the battery

Important safety notes

DANGER

High voltage is used to charge the battery. You could get an electric shock if the power cable or mains socket is damaged, wet or dirty. There is a risk of fatal injury.

- Only use the charger supplied to charge the battery.
- Only use a dry charger.
- Only use an undamaged power cable and charger. Immediately replace a damaged power cable and charger.
- Before connecting the charger cable, remove any foreign objects, such as dirt, ice or snow, from the charge socket.

WARNING

Using a charger other than the one supplied can cause the battery to overheat. There is a risk of explosion.

Only use the charger supplied to charge the battery.

WARNING

Deep battery discharge can cause an internal short circuit. The battery heats up to an extremely high temperature. There is a risk of fire.

- Avoid deep battery discharge during use as well as during storage.
- When not in use, fully charge the battery at regular intervals, and at least every 6 months.
- Do not carry a deeply discharged battery on the ebike.
- Only use the battery for the smart ebike.
- Do not expose the battery to storage temperatures below $-10\text{ }^{\circ}\text{C}$ ($14\text{ }^{\circ}\text{F}$) and above $45\text{ }^{\circ}\text{C}$ ($113\text{ }^{\circ}\text{F}$). Please note that temperatures above $45\text{ }^{\circ}\text{C}$ ($113\text{ }^{\circ}\text{F}$) can occur around heaters, in direct sunlight or in overheated vehicle interiors.

- Do not use the charger in damp locations or in ambient temperatures below $-10\text{ }^{\circ}\text{C}$ ($14\text{ }^{\circ}\text{F}$) or above $40\text{ }^{\circ}\text{C}$ ($104\text{ }^{\circ}\text{F}$).
- Do not immerse the battery into water.
- The battery and the charger do not have to be serviced. Do not try to disassemble or modify the battery or the charger. Do not subject the battery to a high pressure. Please note that high pressure can be applied as a result of load from heavy objects. You may not use a battery with a damaged casing.
- Keep the battery away from small children.
- If, while the battery is in use, is being charged or is in storage, you notice that the battery gets hot, develops a strong smell, alters in appearance or behaves abnormally in any way, stop using the battery immediately.

Heat develops when charging the battery:

- Make sure that there are no combustible materials close to the battery when charging.
- When charging, place the charger and battery on a non-combustible surface.
- If you charge the battery while it is still installed on the ebike, position the bike in such way that a fire cannot spread.
- Do not charge the battery on carpeted floors.
- Do not cover the battery and charger during charging.

Notes on the charger

- i** The charger supplied is suitable for a voltage range of $100 - 240\text{ V}$. The charger does not need to be switched to the relevant voltage range as it automatically detects the voltage range.

The charger has no on/off switch. If you do not require the charger, disconnect the plug to save energy.

Notes on the battery

- !** A deep battery discharge causes irreversible damage and capacity loss. If you do not use the battery for longer periods, charge the battery fully at regular intervals and at least every 6 months.

Please follow the instructions below to guarantee a long battery life:

- ideally, charge the battery at a room temperature of $20\text{ }^{\circ}\text{C}$ ($68\text{ }^{\circ}\text{F}$). Before charging, give the battery sufficient time to reach this temperature.
- avoid frequent full discharges. The battery prefers partial discharges. Lithium ion batteries do not have memory effect.
- brief discharges with subsequent charges can cause an inconsistency between the charge indicator and the battery charge level. After approximately 30 charges, allow the battery to completely discharge and then re-charge it. This will allow the charge indicator to be periodically calibrated to the battery charge level.

Every lithium-ion battery is subject to operational wear. Cell oxidation occurs as a result of use and ageing. The battery capacity decreases. The typical lifespan of a lithium-ion battery is between 2 and 3 years, regardless of whether it is used or not.

Battery protection mode

The battery switches to protection mode if:

- the ebike is not used for two months
- the battery has been drained fully and is not charged within one week.

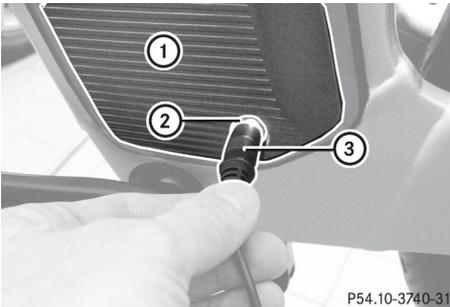
The battery is inactive in protection mode. You can only activate the battery again after a complete charge cycle.

The lighting system will not function if the battery is in protection mode. Depending on national regulations, it may be pro-

hibited to ride a bicycle without a functioning lighting system.

Connecting the charger

! Do not turn the pedals when charging the battery while installed. Otherwise, the charging socket on the battery may be damaged.



P54.10-3740-31

- ① Battery
- ② Charge socket with LED ring
- ③ Charge cable connector

The battery can be charged either on the bike or can be removed and charged separately.

When the battery is charged on the bike, the system can be switched on or off during charging.

- ▶ Connect the charger to charge cable connector ③ on battery ①.
- ▶ Connect the charger's mains plug to a socket.

LED ring ② around the charge socket on battery ① lights up depending on the charge level and then changes to orange. Battery ① is being charged.

i It takes approx. 5 hours for the battery to fully charge. Once the battery is fully charged, the LED ring colour changes from orange to green.

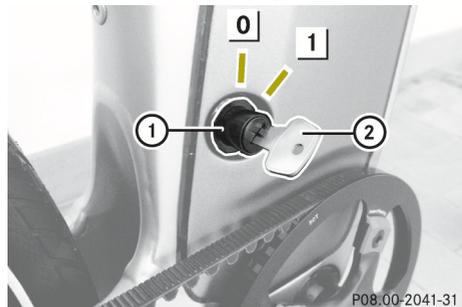
When charging the battery on the bike, you can switch on the system if you wish to check the current battery charge level.

The control console displays the current charge level.

- ▶ First disconnect charge cable connector ③ from battery ① and then remove the mains plug from the socket.

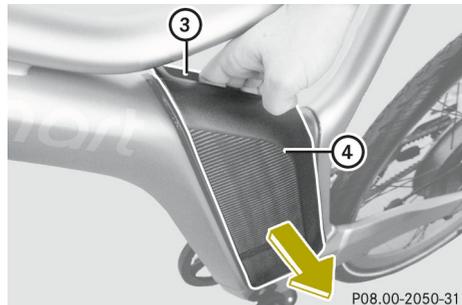
Removing/fitting the battery

Removing the battery



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On the right-hand side of the ebike, when viewed in the direction of travel: unlock the battery



P08.00-2050-31

On the left-hand side of the ebike, when viewed in the direction of travel: remove the battery from the battery holder

- 0 Locked
- 1 Unlocked
- ① Battery lock
- ② Key
- ③ Recess
- ④ Battery

- ▶ Switch off the system (▷ page 25).
- ▶ **On the right-hand side of the ebike:** unlock battery lock ① with key ②. The lock cylinder in battery lock ① moves out and battery ④ is unlocked ①.
- ▶ **On the left-hand side of the ebike:** hold recess ③ and lift battery ④ slightly and remove it from the side.
- ▶ Place the rubber cap over the connector in the battery holder.

Storing the battery

- ! Always place the battery on a solid base with the charge socket facing upwards. The charge socket and the connector plug to the battery holder could otherwise become damaged.

Installing the battery

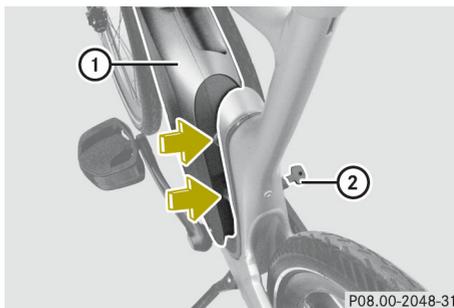
WARNING

If the battery's lock cylinder does not engage properly, the battery is not secured. The battery could fall out of the battery holder while you are riding the bike. There is a risk of an accident. Always install the battery as described in the instructions and make sure that the battery has been locked.



P08.00-2049-31

Battery holder guide rails



P08.00-2048-31

Battery guide pins

- ① Battery
- ② Battery lock
- ▶ Place battery ① in position with the guide pins on the guide rails.
- ▶ Allow battery ① to slide downwards slowly.
- ▶ Press in the lock cylinder of battery lock ② until you hear it engage. Battery ① is now locked and secured. The lock cylinder can also be pressed in without inserting the key in the lock.
- i The lock cylinder cannot be pressed in if the battery is not correctly positioned on the guide rails. In this case, insert the battery again.
- ▶ Remove the key from battery lock ②.

Storing the battery

WARNING

Deep battery discharge can cause an internal short circuit. The battery heats up to an extremely high temperature. There is a risk of fire.

- Avoid deep battery discharge during use as well as during storage.
- When not in use, fully charge the battery at regular intervals, and at least every 6 months.
- Do not carry a deeply discharged battery on the ebike.

Please observe the following if you do not use the ebike or the battery for long periods:

- do not store the battery at temperatures below $-10\text{ }^{\circ}\text{C}$ ($14\text{ }^{\circ}\text{F}$) or above $45\text{ }^{\circ}\text{C}$ ($113\text{ }^{\circ}\text{F}$).
- do not expose the battery to temperature fluctuations. The ideal storage temperature is between $10\text{ }^{\circ}\text{C}$ ($50\text{ }^{\circ}\text{F}$) and $25\text{ }^{\circ}\text{C}$ ($77\text{ }^{\circ}\text{F}$).
- protect the battery from moisture to prevent corrosion around the electrical contacts. Store the battery in a dry place.
- do not store the battery near flammable materials.
- disconnect the battery from the charger between charging cycles.

Belt drive

Important safety notes

WARNING

If you install or handle the drive belt incorrectly, e.g. if you bend or twist it, you may cause damage that is not visible from outside. This type of damage to the drive belt can cause it to tear unexpectedly, causing you to slip off the pedals. There is a risk of accident and injury.

- Handle the drive belt with utmost care and follow the instructions for use.
- Have a damaged drive belt replaced immediately at a qualified specialist workshop.

When handling the drive belt, avoid:

- kinking it in any direction
- twisting it
- turning it inside out
- reverse bending
- tying or binding it up with cable ties or cord
- using it as a tool
- mounting the drive belt by applying tension with a lever or by turning the foot pedal

Your smart ebike is fitted with an innovative drive belt, the Carbon Drive belt. It is a virtually maintenance-free system that does not require re-tensioning or lubricating when fitted and handled correctly.

Handle this product with the utmost care to avoid damaging the carbon fibres embedded into the belt.

Carbon fibres can withstand high tensile stress, but are sensitive to bending loads, shearing force, nicking and impact. Even though the belt's carbon fibres are sheathed, it is still extremely important to handle the Carbon Drive with care.

Incorrect handling results in damage to the carbon fibres inside the drive belt. This type of damage to the drive belt can cause the belt to tear suddenly under load during a ride.

Never use a drive belt that has been damaged.

Riding in ice and snow

WARNING

The belt pulleys can become clogged when riding the bike on ice and snow or clay mud.

This can cause the drive belt to skip or slip off and become damaged. This type of damage to the drive belt can cause it to tear unexpectedly, causing you to slip off the pedals. There is a risk of accident and injury.

Do not ride the ebike on surfaces that are covered with snow, ice or mud.

- Always replace a damaged tube.
- Before mounting a new tube, remove all foreign objects from inside the tyre.

Check the tyre pressure regularly, at least every 14 days. Only correct tyre pressures when the tyres are cold. The pressure of warm tyres should only be corrected if it is too low for the current operating conditions. Warm tyres always have higher pressures than cold ones.

The tyre pressure changes by around 10 kPa (0.1 bar, 1.45 psi) for every 10 °C (50 °F) change in ambient temperature. If you measure the tyre pressure in enclosed spaces where the temperature differs from the outside temperature, you will have to correct the measured value accordingly. When the ebike is ridden, the tyre temperature, and with it the tyre pressure, will increase depending on the speed and the load on the tyres.

Always check the tyre pressure with suitable measuring equipment, e.g. a stand pump with a manometer. As your smart ebike's tyres are fitted with robust puncture protection made from plastic, you cannot check the pressure simply by pressing down on the tyre with your thumb.

Tyre pressure specifications can be found in the "Technical data" section (> page 70).

Tyres and wheels

Notes

WARNING

The water jet from a high-pressure cleaner can cause damage to the tyres or drive belt that is not visible on the surface. Components damaged in this way can fail unexpectedly. There is a risk of an accident.

Do not use a high-pressure cleaner when cleaning the ebike. Have damaged tyres or drive belt replaced without delay.

The tyres establish the contact with the road surface. They provide grip and traction and, depending on the tyre pressure, absorb small bumps.

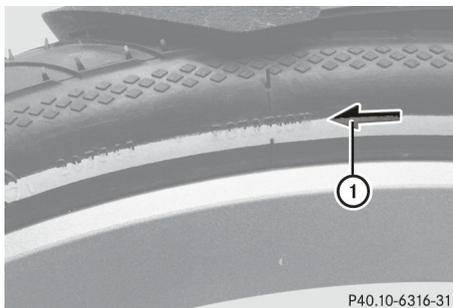
Although the wheels of your smart ebike are manufactured with great care and delivered trued, this does not prevent the spokes from losing tension on the first kilometres. For this reason, you should regularly inspect the tension of the spokes and have them re-centred by a smart dealer.

Tyre pressure

WARNING

If the tyre pressure drops repeatedly, inspect the tyres for foreign objects. Check whether the tube or the valve is leaking. If the tyre pressure is too low, the handling characteristics of the ebike may be impaired and could cause you to fall. There is a risk of an accident.

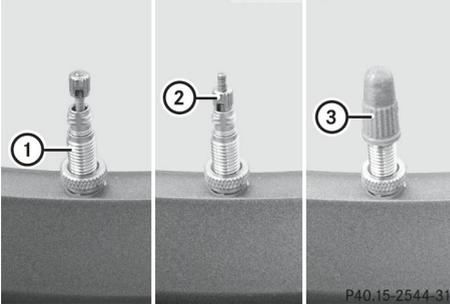
The tyre's direction of rotation



The approved tyres (▷ page 70) have a directional design. An arrow ① on the tyre wall shows the direction of rotation.

Make sure that arrow ① is pointing in the direction of travel when fitting the tyres.

Bicycle valve



- ① Slaverand valve
- ② Knurled nut (ride position)
- ③ Valve cap

The ebike rims are designed for tubes with Slaverand valve ①. Once you have checked the tyre pressure or inflated the tyre, tighten knurled nut ②.

Make sure that a valve cap is always used to protect valve ③.

Flat tyre

If possible, always replace the tube (▷ page 70) after a puncture. This ensures the optimum trueness of your wheels.

Transporting the ebike

! When transporting the ebike, make sure that no objects can become caught in the Carbon Drive belt. The Carbon Drive belt is particularly at risk when you transport the ebike with other bicycles or with the rear wheel removed.

Please observe the following information to avoid damaging your ebike during transport

- ▶ **With the wheels removed:** slide the yellow transport locks into the brake callipers.
- ▶ Pull on the brake lever and fasten it to the grip using a strong elastic band or a cable tie.
- ▶ Once you have removed the wheels, place or lay them down carefully to prevent the brake discs from becoming bent or dirty.
- ▶ **After storage or transport upside down:** check the operation of the brake system and if in doubt, have the brakes bled at a qualified specialist workshop.
- ▶ Remove the battery before transporting the ebike (▷ page 41).
- ▶ Place the rubber cap over the electrical contacts in the battery holder.
- ▶ Before transporting the ebike on a vehicle's rear rack or roof carrier, remove any accessories that are not permanently attached to the ebike, e.g. control console, smartphone and mesh pockets.
- i** It is not permitted to carry the smart ebike battery on board a passenger aeroplane.

The weight of the ebike and the frame design place specific demands on a vehicle's rear rack or roof carrier. Unsuitable bicycle racks may break during a journey or may not hold the ebike securely.

Only use suitable bicycle racks for transporting the ebike. Observe the information on roof load and noseweight in the vehicle Owner's Manual and the information in the bicycle rack's assembly/operating instructions.

Maintenance and care

Cleaning and care

Notes

Environmental note

Dispose of empty packaging and cleaning cloths in an environmentally responsible manner.

The value of your ebike will be retained by regular and proper care. The best protection from harmful environmental influences is regular cleaning and preservation. smart recommends performing a paint treatment twice a year (e.g. in spring and autumn).

- ▶ Use as little water as possible and keep water away from electrical contacts.
- ▶ Cover electrical contacts in the battery frame with the rubber cap.
- ▶ Clean the ebike with a soft sponge or brush.
- ▶ Clean the battery frame with a damp cloth.
- ▶ After cleaning, check the electrical connectors and let the ebike dry before using it.

>> Operation.

High-pressure cleaning equipment

WARNING

The water jet from a high-pressure cleaner can cause damage to the tyres or drive belt that is not visible on the surface. Components damaged in this way can fail unexpectedly. There is a risk of an accident.

Do not use a high-pressure cleaner when cleaning the ebike. Have damaged tyres or drive belt replaced without delay.

- ❗ Do not use a high-pressure cleaner when cleaning the smart ebike. The powerful water jet could enter the bearings or damage the electrical components of the drive system.

Cleaning by hand

WARNING

Braking efficiency is reduced after washing the bike. There is a risk of an accident.

After washing, brake the ebike carefully, paying attention to traffic conditions, until full braking efficiency is restored.

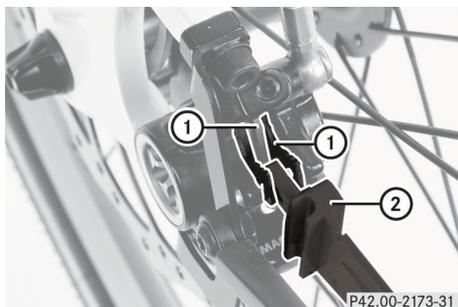
Maintenance

Regular work

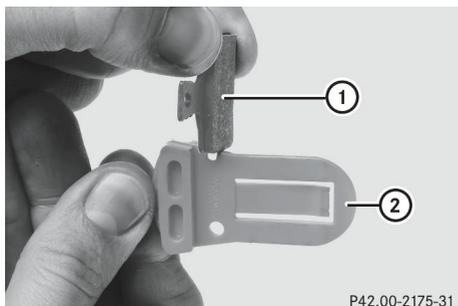
smart recommends that you have the ebike serviced once a year at a qualified specialist workshop.

Before each journey	Action
<ul style="list-style-type: none"> • Check tyres and wheels • Check the drive belt • Check the battery lock • Inspect the functioning of the brake system • Inspect the brake system for wear • Check bolt and screw connections 	Inspection before starting a journey (▷ page 18)
Every 300 - 500 km (186 - 310 miles)	Action
<ul style="list-style-type: none"> • Check the drive belt for wear and correct tension/routing • Remove dirt from the drive belt and belt pulleys • Check that all bolt and screw connections are fastened securely • Measure the brake disc wear 	Drive belt tension (▷ page 61) Brake disc wear (▷ page 48)
Every 3000 km (1864 miles)	Action
Check the following components and replace, if necessary: <ul style="list-style-type: none"> • headset • wheel hubs • pedals • drive belt • gear cable 	By a qualified specialist workshop
Once a year	Action
<ul style="list-style-type: none"> • Check torques of all screw and bolt connections. • Check gearshift, headset and brake settings • Check the drive belt for correct tension and wear • Check tyres and wheels • Check wear on parts subject to high stress 	By a qualified specialist workshop

Checking the brake pad wear



Brake pads fitted



Brake pads removed

- ① Brake pad
- ② Yellow transport lock

- ▶ Allow the components to cool down, if necessary.
- ▶ **When fitted:** insert thick end of transport lock ② between the tabs of the backing plates of brake pads ①. If transport lock ② no longer fits between the tabs, the brake pads are worn and must be replaced.
- ▶ **When removed:** remove brake pads ① (▷ page 63).
- ▶ Measure brake pad ① at its thinnest point with a calliper gauge. If the brake pad thickness is less than 2.5 mm (0.1 in), brake pads ① are worn and must be replaced.

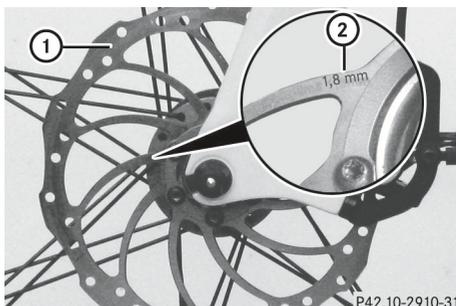
or

- ▶ Insert brake pad ① into the side slot on transport lock ②.

If brake pad ① fits into the slot, the brake pads are worn and must be replaced.

- ▶ Install brake pads ① (▷ page 64)

Checking the brake disc wear



Regularly measure the thickness of brake discs ① with a calliper gauge. The minimum thickness ② of 1.8 mm (0.07 in) is printed on the brake discs. The entire friction ring should not be below this thickness. If this is not the case, the brake disc must be replaced immediately at a qualified specialist workshop.

Checking the headset



- ① Frame
- ② Gap
- ③ Fork

The mount connecting the fork ③ to the frame ① is referred to as a headset. The headset is subject to considerable stress and must be regularly checked for wear.

- ▶ Place your right thumb on gap ② between fork ③ and frame ①.
- ▶ Operate the front wheel brake with your left hand.
- ▶ Push the ebike firmly back and forth. As you do so, do not move the handlebars. You must feel no movement on your thumb. You must also hear no cracking or grinding noise from around the gap ②.

The headset must be checked and adjusted if fork ③ moves noticeably relative to frame ① or if you hear cracking or grinding noises. Have this work carried out at a qualified specialist workshop.

Pedals

Special polymer bearings are fitted into the pedals. They are maintenance-free and lubricated for the entire service life of the pedals. However, signs of wear may be visible on the pedals depending on the duration and intensity of use. Pedals usually remain fully functioning for several years.



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Useful information

- i** This Owner's Manual describes all models and all standard and optional equipment available for your ebike at the time of publication of the Owner's Manual. Country-specific differences are possible. Note that your ebike may not be fitted with all features described. This is also the case for systems and functions relevant to safety.
- i** Read the information on qualified specialist workshops: (▷ page 10).

Troubleshooting

Control console

Problem	Possible causes/consequences and ► Solutions
The system will not switch on, the LCD display remains dark.	The battery is low or discharged. ► Check the charge level directly on the battery (▷ page 27), charge if necessary.
	The battery is not positioned correctly in the holder. ► Remove the battery and then reinstall (▷ page 42). The lock cylinder must fully engage.
	The control console has not locked in place, the electrical connectors have come loose. ► Check that the control console and the electrical connectors on the handlebars and around the motor are correctly seated.
	If the problem persists despite taking these measures: ► Have the electrical system checked at a qualified specialist workshop.

Lighting system

Problem	Possible causes/consequences and ► Solutions
The lighting system is not working.	The battery is low or discharged. ► Check the charge level directly on the battery (▷ page 27), charge if necessary.
	The electrical connectors have come loose. ► Check the electrical connectors at the handlebars.
	If the problem persists despite taking these measures: ► Have the lighting system checked at a qualified specialist workshop.

Battery

Problem	Possible causes/consequences and ► Solutions
The charge indicator on the control console is not showing that the battery is "full" even though a full battery charge has been performed.	<p>The battery has been affected by the ambient temperature. The battery heats up during the charging procedure.</p> <ul style="list-style-type: none"> ► Let the battery cool down and repeat the charging process. ► Follow the instructions for charging the battery.
The charge indicator on the control console is not reliably displaying the charge level.	<p>Due to frequent and brief charging and discharging of the battery, the synchronisation between the charge indicator and the actual battery charge level cannot be calibrated.</p> <ul style="list-style-type: none"> ► Perform a full discharge after approx. 30 charge cycles. This will calibrate the charge indicator to the charge level of the battery. The service life of the battery will not be affected by this.

Drive system/electric motor

Problem	Possible causes/consequences and ► Solutions
The system can be switched on but the electric motor does not provide any assistance.	<p>The electrical connections on the handlebars or near the motor are not inserted correctly or have become detached.</p> <ul style="list-style-type: none"> ► Check the electrical connections on the handlebars and near the motor and connect correctly, if required.
	<p>If the problem is not resolved by taking these measures:</p> <ul style="list-style-type: none"> ► Have the system checked at a qualified specialist workshop.
The system is continuously in generator mode (recuperation mode) and cannot be switched to assistance mode (▷ page 27).	<p>The brake sensor in the brake handle for the front wheel brake is not reacting.</p> <p>⚠ WARNING</p> <p>Generator mode and braking assistance do not function when the connector cable is disconnected. Braking distance may increase. There is a risk of an accident.</p> <ul style="list-style-type: none"> ► Switch the system off and on again (▷ page 25). <p>If this does not help:</p> <ul style="list-style-type: none"> ► Remove the cable connecting the brake handle to the control console from electrical connector. ► Have the system checked at a qualified specialist workshop immediately.

Brake system	
Problem	Possible causes/consequences and ► Solutions
Poor braking performance.	<p>The brake was not bedded in.</p> <ul style="list-style-type: none"> ► Bed in the brake (▷ page 39).
	<p>The brake discs or brake pads are fouled with oil.</p> <p> WARNING</p> <p>If brake discs or brake pads are fouled with oil, braking distances may be considerably longer. There is a risk of accident and injury. Do not ride with brake discs or brake pads that are fouled with oil. Visit a qualified specialist workshop immediately.</p> <ul style="list-style-type: none"> ► Clean the brake discs with alcohol. ► Replace the brake pads. ► Have the cause of the oil-fouled brake discs and brake pads repaired at a qualified specialist workshop.
Poor braking performance, no defined actuation point.	<p>Air in the braking system.</p> <p> WARNING</p> <p>Air in the braking system can result in considerably longer braking distances. There is a risk of accident and injury. Do not ride if there is air in the braking system. Visit a qualified specialist workshop immediately.</p> <ul style="list-style-type: none"> ► Have the brake system bled at a qualified specialist workshop.
	<p>The brake system is leaking.</p> <p> WARNING</p> <p>The loss of pressure caused by leaks in the brake system can result in considerably longer braking distances. There is a risk of an accident. Do not ride with a leaking brake system. Visit a qualified specialist workshop immediately.</p> <ul style="list-style-type: none"> ► Check the brake callipers, brake lines and connections. ► Have the leaks rectified at a qualified specialist workshop.
	<p>The brake is making grinding noises during the journey.</p> <p>There is dirt or water on the brake disc or brake pads.</p> <ul style="list-style-type: none"> ► Brake several times to remove any dirt and water from the brake discs and brake pads. <p>The brake calliper is not exactly aligned with the brake disc.</p> <ul style="list-style-type: none"> ► Have the brake calliper correctly aligned in a qualified specialist workshop.

Problem	Possible causes/consequences and ► Solutions
The brake squeaks when applied.	The brake calliper is not exactly aligned with the brake disc. ► Have the brake calliper correctly aligned in a qualified specialist workshop.
	There is insufficient tension in the spokes of the wheel. ► Have the tension of the spokes checked and corrected at a qualified specialist workshop.
	The wheel is not properly secured. ► Increase the pretension of the quick-release device on the front wheel. ► Tighten the axle nuts and bolts of the dropouts on the rear wheel to the specified torque (▷ page 72).
The brake makes metallic noises; deceleration is very rough.	 WARNING Worn brake pads can result in longer braking distances. There is a risk of an accident. The brake pads are worn to below the minimum thickness. The brake pad backing plate is grinding against the friction ring of the brake disc. ► Have the brake pads and, if necessary, the brake discs replaced immediately at a qualified specialist workshop.
The front or rear wheel cannot be mounted.	The gap remaining between the brake pads is smaller than the thickness of the brake disc. ► Carefully prise apart the brake pads with the yellow transport lock. ► When the wheel is removed, always clamp the yellow transport lock between the brake pads.

Shifting gear

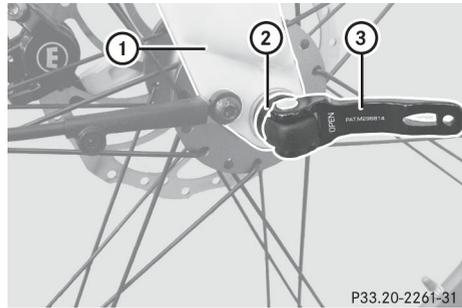
Problem	Possible causes/consequences and ► Solutions
It is not possible to engage first gear.	There is too much tension in the gear cable. ► Reduce the tension of the gear cable at the twist-grip (▷ page 61).
	If the problem persists despite taking these measures: ► Have the gearshift checked at a qualified specialist workshop.

Problem	Possible causes/consequences and ► Solutions
The gearshift shifts down from second to first of its own accord.	There is too much tension in the gear cable. ► Reduce the tension of the gear cable at the twist-grip (▷ page 61).
	If the problem persists despite taking these measures: ► Have the gearshift checked at a qualified specialist workshop.
It is not possible to engage third gear.	There is too much tension in the gear cable. ► Reduce the tension of the gear cable at the twist-grip (▷ page 61).
	There is too little tension in the gear cable. ► Increase the tension of the gear cable at the twist-grip (▷ page 61).
	If the problem persists despite taking these measures: ► Have the gearshift checked at a qualified specialist workshop.

Removing/mounting the front wheel

Removing the front wheel

! Hydraulic disc brakes must not be operated with the wheel removed. Otherwise, the brake pistons will fully extend and touch each other. After removing the wheel, immediately push the yellow transport lock between the brake pads.



Quick-release device open

- ① Fork dropouts
- ② Quick-release device
- ③ Hand lever

- If necessary, allow the components to cool down.
- Open quick-release device ② by moving hand lever ③.
The word "OPEN" shows that quick-release device ② has been released.

i Retention tabs on the fork prevent the front wheel from falling out uninten-

tionally once the quick-release device has been opened.

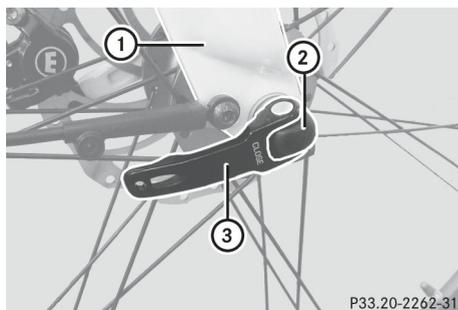
- ▶ Loosen the nut on the other end of quick-release device ② by a few turns. The retention tabs are bypassed and the front wheel can be slipped out from fork dropouts ①.
- ▶ Place the front wheel to one side, ensuring that the brake disc is protected.
- ▶ Slide the yellow transport lock between the brake pads.

Mounting the front wheel

WARNING

If the pretension of the quick-release device is too low, the wheel may come loose during the journey. There is a risk of an accident.

Always install the wheel as described. Before every journey, make sure the hand lever of the quick-release device is at a 90° angle to the front wheel axle and cannot be turned out of position.



Quick-release device closed

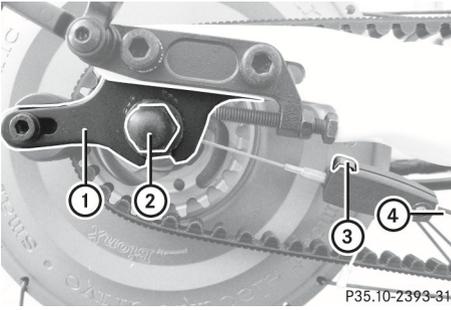
- ① Fork dropouts
- ② Quick-release device
- ③ Hand lever

- ▶ Remove the yellow transport lock from between the brake pads.
 - ▶ Carefully insert the front wheel. Make sure that the brake disc slides between the brake pads. The front wheel axle must be positioned evenly in dropouts ①.
 - ▶ Position hand lever ③ in such a way that it forms an extension to the axis of quick-release device ②.
 - ▶ Tighten the nut on the other end of quick-release device ② until it rests against dropout ①.
 - ▶ Turn hand lever ③ through 90° as far as the end stop. Considerable force should be required to do this. The hand lever is at a 90° angle to the front wheel axle. The word "CLOSE" is visible.
- i** If you cannot exert enough force to push the hand lever to the end stop, slightly loosen the nut at the other end of quick-release device ②. If too little force was required, tighten the nut at the other end of quick-release device ② a little more.

Removing/mounting the rear wheel

Removing the rear wheel

- !** Hydraulic disc brakes must not be operated with the wheel removed. Otherwise, the brake pistons will fully extend and touch each other. After removing the wheel, immediately push the yellow transport lock between the brake pads.

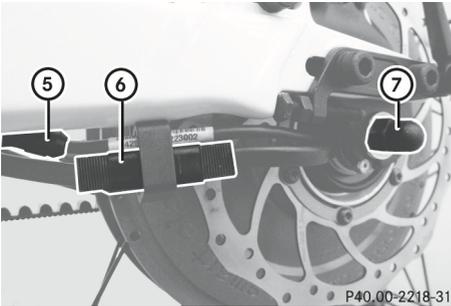


ebike with direction of travel to the right

- ① Dropouts
- ② Axle nut, right
- ③ Catch
- ④ Gear cable

i Observe the instructions on handling the drive belt (▷ page 43)

- ▶ Remove the battery (▷ page 41).
- ▶ Engage first gear (▷ page 29).
- ▶ Press catch ③ and detach gear cable ④.



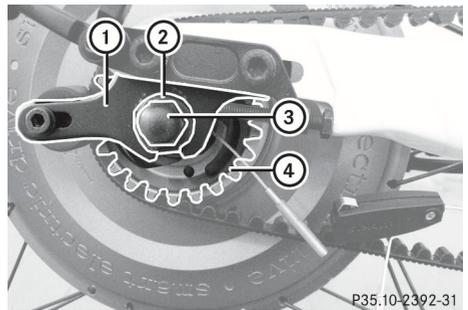
ebike with direction of travel to the left

- ⑤ Data cable connector
- ⑥ Power cable connector
- ⑦ Axle nut, left

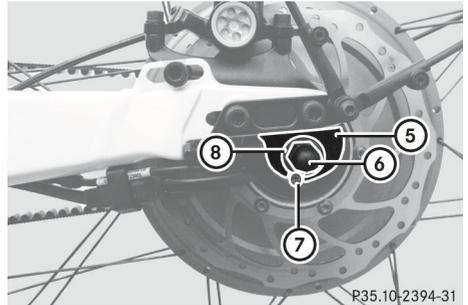
- ▶ If necessary, allow the components to cool down.
- ▶ Detach data cable connector ⑤.
- ▶ Detach power cable connector ⑥.
- ▶ Loosen axle nuts ② and ⑦ (wrench size 15 mm (0.59 in)).

- ▶ Hold rear wheel in place, lift the ebike by the saddle.
The rear wheel slides out of dropouts ①
- ▶ Carefully remove the drive belt from the pulley.
- ▶ Set the rear wheel aside, ensuring that it cannot fall over.
- ▶ Slide the yellow transport lock between the brake pads.

Mounting the rear wheel



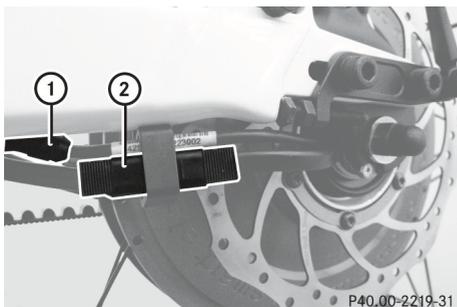
ebike with direction of travel to the right



ebike with direction of travel to the left

- ① Dropout, right
- ② Washer with anti-twist lock (right)
- ③ Axle nut, right
- ④ Belt pulley, rear wheel
- ⑤ Dropout, left
- ⑥ Axle nut, left
- ⑦ Torque support
- ⑧ Washer (left)

- i** Observe the instructions on handling the drive belt (▷ page 43)
- ▶ Remove yellow transport lock.
 - ▶ Carefully place the drive belt on rear wheel belt pulley ④.
 - ▶ **Carefully insert the rear wheel:** position the rear wheel in such a way that torque support ⑦ can slide into left dropout ⑤.
 - ▶ Make sure that the brake disc slides between the brake pads. The rear wheel axle must be evenly positioned in dropouts ① and ⑤.
 - ▶ Push washer with anti-twist lock ② onto the right side of the axle. The flanged tab of washer ② must protrude into dropout ①.
 - ▶ Push washer ⑧ onto the left side of the axle.
 - ▶ Place axle nuts ③ and ⑥ in position and tighten them alternately.
 - ▶ Tighten both axle nuts ③ and ⑥ to a torque of 40 Nm (29.5 lb-ft).



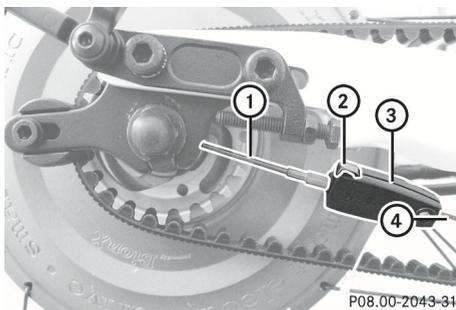
ebike with direction of travel to the left

- ① Data cable connector
- ② Power cable connector
- ▶ Connect power cable connector ②
- ▶ Connect data cable connector ①
- ▶ Install the battery (▷ page 42).
- ▶ Connect and adjust the gear cable (▷ page 60).

smart recommends that you have the drive belt tension checked at a qualified specialist workshop.

Connecting and adjusting the gear cable

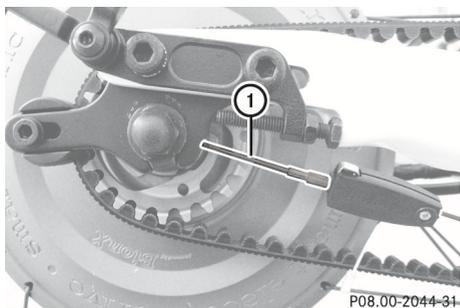
Connecting the gear cable



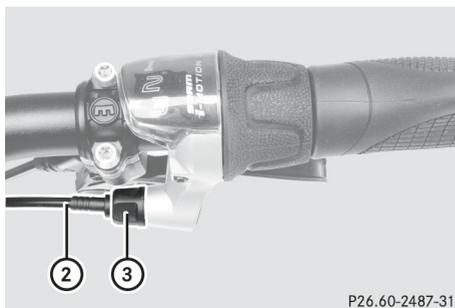
ebike with direction of travel to the right

- ① Shift cable
- ② Catch
- ③ Sleeve
- ④ Gear cable
- ▶ Using the twist-grip gearshift, engage first gear (▷ page 29).
- ▶ Press and hold catch ② and slide sleeve ③ as far as possible onto shift cable ①. Do not pull on shift cable ①.
- ▶ Release catch ②. Gear cable ④ is now connected.
- ▶ Shift through the gears several times to test the gearshift. If all gears are easily engaged and remain engaged, the gear cable does not need to be adjusted. If this is not the case, the gear cable needs to be adjusted (▷ page 61).

Adjusting the gear cable



ebike with direction of travel to the right



Gearshift twist-grip

- ① Shift cable
- ② Gear cable
- ③ Nut

► Engage third gear (▷ page 29). Move the pedal crank to ensure the gear is engaged.

► **If it is possible to engage the third gear:** pull on shift cable ①.

In third gear, it should not be possible to pull shift cable ① any further out of the wheel hub. If this is possible, then gear cable ② is insufficiently tensioned.

► If shift cable ① can be pulled out, unscrew nut ③ on the gearshift twist-grip (turning it in an anti-clockwise direction).

► **If it is not possible to engage third gear:** screw in nut ③ on the gearshift twist-grip (turning it in a clockwise

direction) because the tension of gear cable ② is too high.

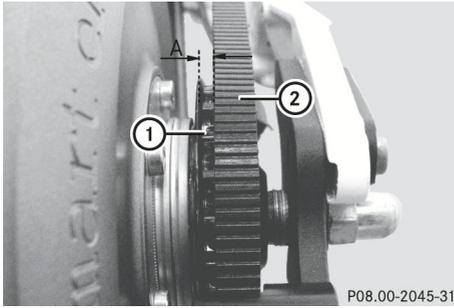
► After adjustments have been made, shift through the gears several times to test the gearshift.

Tightening and aligning the drive belt

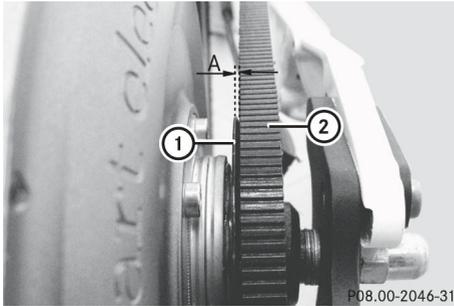
! If the drive belt tension is not correctly adjusted, the drive belt and other components may be damaged.

If there is not enough tension in the drive belt, the belt may slip on the belt pulleys. This, in turn, may damage the carbon fibres inside the drive belt. If the drive belt has slipped, it should be replaced at a qualified specialist workshop.

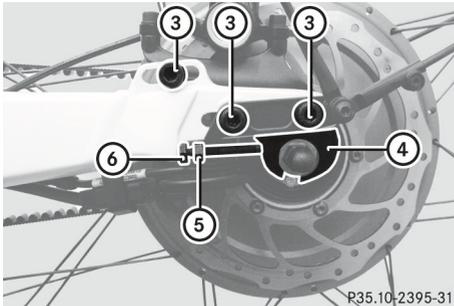
If there is too much tension in the drive belt, bearings and seals in the wheel hub may be damaged. Wear and friction losses in the drive system as a whole will also increase.



Drive belt routed incorrectly



Drive belt routed correctly



ebike, left-hand side

A Clearance between ① and ②

- ① Pulley stop
- ② Drive belt
- ③ Dropout bolt
- ④ Dropout
- ⑤ Lock nut
- ⑥ Adjustment screw

i Observe the instructions on handling the drive belt (▷ page 43)

- ▶ Loosen bolts ③ at both dropouts ④ using a 6 mm (0.24 in) Allen key (5 bolts in total).
- ▶ Loosen lock nut ⑤ at both dropouts ④ using a 10 mm (0.39 in) open-end wrench. To do this, use a second 10 mm (0.39 in) open-end wrench to counterhold adjustment screw ⑥.
- ▶ **To increase the drive belt tension:** unscrew both adjustment screws ⑥ from dropouts ④ by the same amount (turning them in an anti-clockwise direction).
- ▶ **To reduce the drive belt tension:** screw both adjustment screws ⑥ into dropouts ④ by the same amount (turning them in a clockwise direction). Push the rear wheel towards the front wheel.
- ▶ When checking the tension of drive belt ②, turn the pedal crank a quarter of a turn 4 times, each time pressing down on drive belt ②.

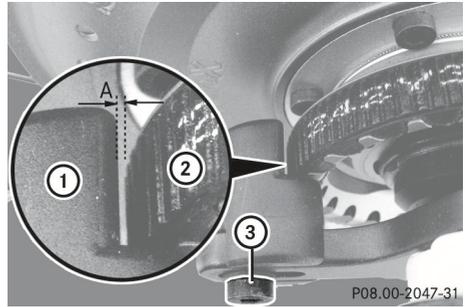
i The drive belt is correctly tensioned if it can be pressed down in the centre between the two pulleys by approx. 10 mm (0.39 in). The force exerted with the thumb when pressing down on the drive belt should be approx. 1 kg (2.2 lbs). smart recommends that you have the drive belt tension checked at a qualified specialist workshop.

- ▶ **To check and adjust the routing:** turn the pedal crank 10 to 15 times in both directions, checking the routing of drive belt ② as you do so.

i The drive belt is correctly routed if there is an optimum clearance "A" of 0.5 mm (0.02 in) between drive belt ② and the stop on rear belt pulley ①. The maximum clearance is 1 mm (0.04 in).

- ▶ **To reduce clearance "A":** unscrew adjustment screw ⑥ on the right-hand side (turning in an anti-clockwise direction) or, depending on the drive belt tension,
- ▶ tighten adjustment screw ⑥ on the left-hand side (turning it in a clockwise direction).
- ▶ **To increase clearance "A":** screw adjustment screw ⑥ on the right-hand side into dropout ④ (turning it in a clockwise direction) or, depending on the drive belt tension,
- ▶ Unscrew adjustment screw ⑥ on the left-hand side from dropout ④ (turning it in an anti-clockwise direction).
- ▶ Once the tension and routing of drive belt ② have been correctly adjusted, alternately tighten all 5 bolts ③ using a 6 mm (0.24 in) Allen key. As you do so, ensure that the rear wheel stays in position.
- ▶ Finally tighten all 5 bolts ③ to a torque of 22 Nm (16.23 lb-ft).
- ▶ At both dropouts ④, tighten lock nut ⑤ using a 10 mm (0.39 in) open-end wrench. As you do so, use a second 10 mm (0.39 in) open-end wrench to counterhold adjustment screw ⑥.
- ▶ Check and adjust the slip guard clearance (▷ page 63).

Adjusting the drive belt slip guard



- A Gap
- ① Slip guard
- ② Drive belt
- ③ Bolt

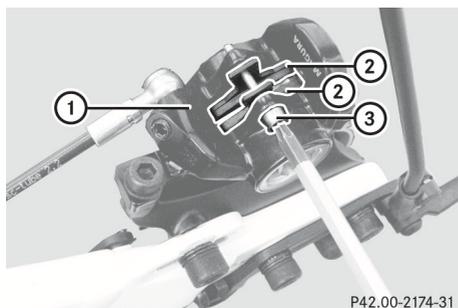
Slip guard ① prevents drive belt ② from slipping off the belt pulley. It also prevents drive belt ② from jumping teeth on the rear belt pulley.

- ▶ Check gap "A".
If gap "A" is larger or smaller than 1 - 1.5 mm (0.04 - 0.06 in), adjust guard ①.
- ▶ **To adjust the guard:** loosen bolt ③ using a 5 mm (0.2 in) hexagon socket wrench.
- ▶ Adjust gap "A" by moving guard ① until the gap is 1 - 1.5 mm (0.04 - 0.06 in).
- ▶ Tighten bolt ③ to a torque of 6 Nm (4.43 lb-ft).

Removing/fitting brake pads

Removing the brake pads

- ❗ The brake calliper pistons may be damaged. Only push back the brake calliper pistons with the brake pads installed.
- ❗ Hydraulic disc brakes must not be operated if the wheel has been removed. Otherwise, the brake pistons will fully extend and touch each other.



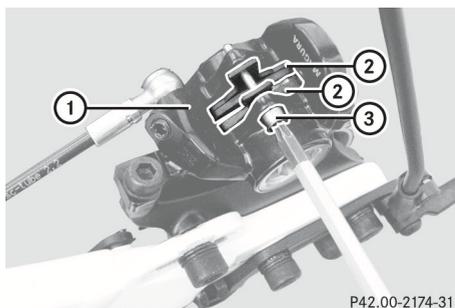
P42.00-2174-31

Removing the brake pads (example: rear wheel)

- ① Brake calliper
- ② Brake pads
- ③ Brake pad retaining pin

The description for changing the brake pads is valid for both the front and rear wheel.

- ▶ If necessary, allow the components to cool down.
- ▶ Remove the front wheel (▷ page 57)
- or
- ▶ Remove the rear wheel (▷ page 58).
- ▶ Carefully prise apart brake pads ② with the yellow transport lock.
- ▶ Unscrew and remove retaining pin ③ with a T25 Torx wrench.
- ▶ Pull brake pads ② up and out of brake calliper ①.
- Do not operate the brake.
- ▶ Clean brake calliper ① around the pistons using a soft cloth.



P42.00-2174-31

Installing the brake pads (example: rear wheel)

- ① Brake calliper
 - ② Brake pads
 - ③ Brake pad retaining pin
- ▶ Insert brake pads ② into brake calliper ① with the friction surface facing the brake disc.
 - ▶ Screw new retaining pin ③ into brake calliper ①.
 - Make sure retaining pin ③ passes through the eyelets of both brake pads ②.
 - ▶ Tighten retaining pin ③ to a torque of 2.5 Nm (1.84 lb-ft).
 - ▶ Install the front wheel (▷ page 58)
 - or
 - ▶ Install the rear wheel (▷ page 59).
 - ▶ Pull the brake lever several times until the pressure point is stable.
 - ▶ Bed in brake pads ② (▷ page 39).

Installing the brake pads

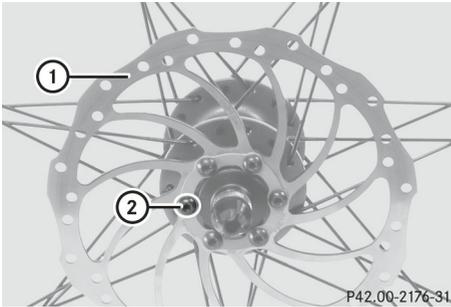
WARNING

The retaining pin for the brake pads has a single-use threadlock. If the retaining pin is reused, it may come loose during the journey. This may result in brake failure. There is a risk of an accident.

Always replace the retaining pins with new ones once they have been loosened. Dispose of the used retaining pins immediately.

Removing/fitting brake discs

Removing the brake discs



Brake disc (example: front wheel)

- ① Brake disc
- ② Bolt

The description for removing the brake disc is valid for both the front and rear wheel.

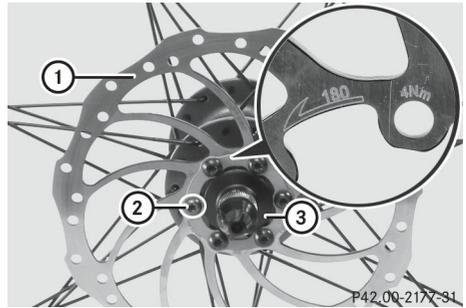
- ▶ If necessary, allow the components to cool down.
- ▶ Remove the front wheel (▷ page 57)
- or
- ▶ Remove the rear wheel (▷ page 58).
- ▶ Unscrew and remove bolts ② with a T25 Torx wrench.
- ▶ Remove brake disc ① from the wheel flange.

Installing the brake disc

WARNING

The bolts for attaching the brake disc have a single-use threadlock. If the bolts are reused, they may come loose during the journey. This may result in brake failure. There is a risk of an accident.

Always replace the bolts for attaching the brake disc with new ones once they have been loosened. Dispose of the used bolts immediately.

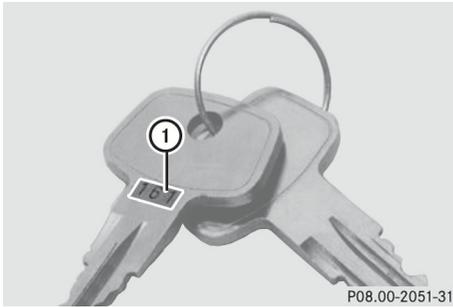


- ① Brake disc
- ② Bolt
- ③ Wheel flange

The description for installing the brake disc is valid for both the front and rear wheel.

- ▶ Place brake disc ① on wheel flange ③ with the lettering facing outwards. Observe the direction of rotation of brake disc ①. The embossed arrow on brake disc ① must point in the direction of travel.
- ▶ Place new bolts ② in position and tighten them slightly with a T25 Torx wrench.
- ▶ Turn brake disc ① on wheel flange ③ towards the rear, against the direction of travel.
- ▶ Tighten bolts ② to a torque of 4 Nm (2.95 lb-ft). Observe the correct tightening sequence: bolts ② must be tightened in opposite pairs.

Key of the battery lock

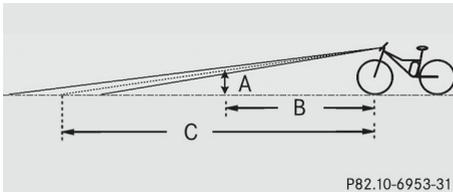


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Your smart ebike comes as standard with two keys for the battery lock. Store one of the keys in a safe place.

Note down key number ①. If you require a replacement key, please contact a smart dealer and have key number ① ready.

Setting the headlamp range



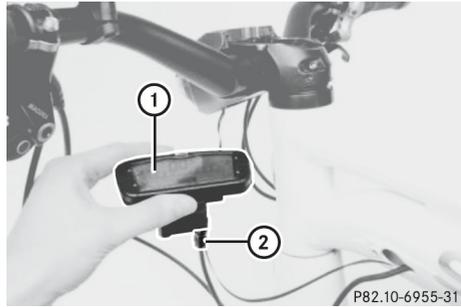
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Angle of the light cone (example)

A Clearance 0.5 m (1.64 ft)

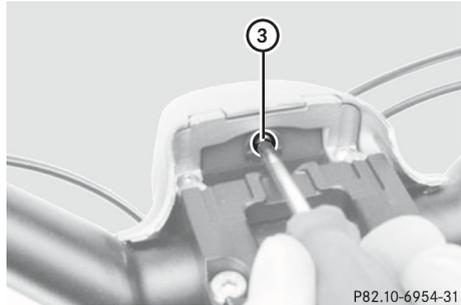
B Distance 5 m (16.4 ft)

C Distance 10 m (32.8 ft)



P82.10-6955-31

Connecting the control console



P82.10-6954-31

Adjustment screw on headlamp

- ① Control console with contact plate
- ② Data cable
- ③ Adjustment screw

- ▶ Park the ebike on level ground.
 - ▶ Remove the front end cover (▷ page 32).
 - ▶ Place control console ① on the contact plate (▷ page 25) and connect data cable ②.
 - ▶ Switch on the light (▷ page 26).
 - ▶ Adjust the headlamp range by turning adjustment screw ③
- Example: At a distance "B" of 5 m (16.4 ft), the clearance "A" between the centre of the light cone and the ground must be 0.5 m (1.64 ft).

- i** The distances given are examples. Observe your respective country's regulations when adjusting the headlamp range.
- ▶ Switch off the system (▷ page 25).

- ▶ Loosen the retainer for data cable ② with a screwdriver and detach the data cable from contact plate ①.
- ▶ Remove control console ① from the contact plate (▷ page 25).
- ▶ Mount the front end cover (▷ page 33).
- ▶ Check whether the light comes on and whether all information is shown in the control console display.
- ▶ During a test ride, check whether the braking assistance functions by applying the front-wheel brake.



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Useful information

i This Owner's Manual describes all models and all standard and optional equipment available for your ebike at the time of publication of the Owner's Manual. Country-specific differences are possible. Note that your ebike may not be fitted with all features described. This is also the case for systems and functions relevant to safety.

i Read the information on qualified specialist workshops: (> page 10).

Tyres and wheels

Tyres

The approved tyres have been specially designed for pedelecs. The use of any other type of tyre may result in increased rolling resistance and consequently in a reduced range. Furthermore, handling characteristics, resistance to flats and noise may be adversely affected.

Therefore, when replacing the tyres, ensure that the new tyres are of the same type and size with a suitable tread. If in doubt, contact your nearest smart dealer.

The reflective strips on the tyre sidewalls replace the spoke reflectors in accordance with legal requirements.

Observe the direction of rotation when fitting a tyre. An arrow on the tyre sidewall indicates the direction of rotation.

Further information on tyres and wheels can be found in the "Operation" section (> page 44).

Tyres and inner tubes

Approved tyres

Front and rear wheel

Tyres	Continental Eco-Contact Plus
ETRTO dimensions	47-559
Dimensions in inches	26 x 1.75

Suitable inner tube

Front and rear wheel

Valve	Sclaverand
ETRTO dimensions	37/47-559/597
Dimensions in inches	26 x 1 3/8 - 1.75 650 A/B

Tyre pressure

! Observe the manufacturer's information on the tyre sidewall regarding air pressure. Exceeding the maximum permitted air pressure level when inflating the tyre may result in a tyre blow-out.

Continental EcoContact Plus 47-559

Front wheel	400 kPa (4.0 bar/ 58 psi)
Rear wheel	400 kPa (4.0 bar/ 58 psi)

Technical data ebike

i The unladen weight given is for the standard scope of delivery. Accessories and items of optional equipment increase the unladen weight and reduce the maximum payload.

Weights	
Unladen weight	26.1 kg (57.5 lbs)
Permissible gross weight (ebike with rider, accessories and luggage)	140 kg (308 lbs)
Maximum payload for the luggage carrier*	15 kg (33 lbs)

Ratios	
Primary ratio	50/22: i = 2.27
Overall gearing range	186 %

Brake system	
Brake pads	MT model series
Front brake disc (steel, 6-hole)	180 mm (7.09 in)
Rear brake disc (steel, 6-hole for ebike)	180 mm (7.09 in)
Brake disc thickness wear limit	1.8 mm (0.07 in)

Electric motor	
Continuous rated power (United Kingdom; see identification on the ebike)	200 W
Continuous rated power (EU countries except the United Kingdom; see identification on the ebike)	250 W
Continuous rated power (Canada; see identification on the ebike)	350 W

Electric motor	
Maximum assistance speed (EU countries; see identification on the ebike)	25 km/h (15.5 mph)
Maximum assistance speed (Canada; see identification on the ebike)	32 km/h (20 mph)
Maximum torque	35 Nm (25.81 lb-ft)
Permissible operating temperature	-10 °C (14 °F) to 40 °C (104 °F)
Permissible storage temperature	-30 °C (-22 °F) to 60 °C (140 °F)

Battery	
Battery voltage	48 V
Capacity	8.4 Ah
Charging time	Approx. 5 hours
Permissible operating temperature	-10 °C (14 °F) to 40 °C (104 °F)
Permissible ambient temperature when charging the battery	0 °C (32 °F) to 40 °C (104 °F)
Permissible storage temperature	-10 °C (14 °F) to 45 °C (113 °F)

Battery charger	
Battery charger voltage	100 - 240 V
Battery charger frequency	50 - 60 Hz
Permissible operating temperature	-10 °C (14 °F) to 40 °C (104 °F)
Permissible storage temperature	-30 °C (-22 °F) to 60 °C (140 °F)

* optional

Tightening torques

 **WARNING**

Bolts or nuts which have been tightened using the incorrect torque:

- may come loose if the torque is too low
- may be overstretched if the torque is too high and consequently break off

A torque that is too high may also damage the components. There is a risk of an accident.

Always tighten the bolts and nuts to the specified torque. If you do not own a torque wrench, have this work carried out at a qualified specialist workshop.

Rear wheel	Tightening torque
Axle nut	40 Nm (29.50 lb-ft)
Dropouts	22 Nm (16.23 lb-ft)

Brake system	Tightening torque
Brake disc (steel) to wheel flange	4 Nm (2.95 lb-ft)
Brake calliper to frame/fork	6 Nm (4.43 lb-ft)
Brake lever	3 Nm (2.21 lb-ft)
Brake pad retaining pin	2.5 Nm (1.84 lb-ft)

Saddle	Tightening torque
Seatpost clamp	9 Nm (6.64 lb-ft)
Saddle to seat post	12 Nm (8.85 lb-ft)

Drive	Tightening torque
Pulley at pedal crank	4 Nm (2.95 lb-ft)
Drive belt guide	6 Nm (4.43 lb-ft)
Inner bearing	30 Nm (22.13 lb-ft)
Pedal at bottom bracket spindle	34 - 44 Nm (25.08 - 32.45 lb-ft)
Pedal, left (left-hand thread)	20 Nm (14.75 lb-ft)
Pedal, right (right-hand thread)	20 Nm (14.75 lb-ft)

Handlebars	Tightening torque
Clamp, front end to fork stem	6 Nm (4.43 lb-ft)
Handles	5 Nm (3.69 lb-ft)
Control console contact plate to front end	1 Nm (0.74 lb-ft)
Clamp, handlebars to front end (handlebar clamp)	6 Nm (4.43 lb-ft)
Smartphone cradle trim panel	1 Nm (0.74 lb-ft)
Smartphone cradle* to handlebar clamp	6 Nm (4.43 lb-ft)

Battery, electrical system	Tightening torque
Battery holder	4 Nm (2.95 lb-ft)
Cable guides	2 Nm (1.48 lb-ft)

Frame, attachments	Tightening torque
Stand plate to frame	6 Nm (4.43 lb-ft)
Mudguard stay adapter	2 Nm (1.48 lb-ft)
Mudguard stay to dropouts	4 Nm (2.95 lb-ft)
Luggage carrier*, dropout bolts	22 Nm (16.23 lb-ft)
Luggage carrier*, clamp bolts	6 Nm (4.43 lb-ft)

* optional

Publication details

Internet

Further information about smart vehicles and about Daimler AG can be found on the following websites:

<http://www.smart.com>

<http://www.daimler.com>

Editorial office

You are welcome to forward any queries or suggestions you may have regarding this Owner's Manual to the technical documentation team at the following address:

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