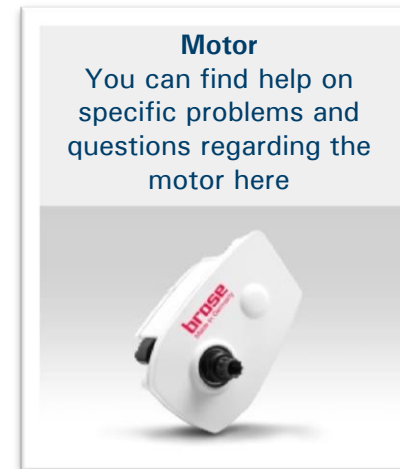
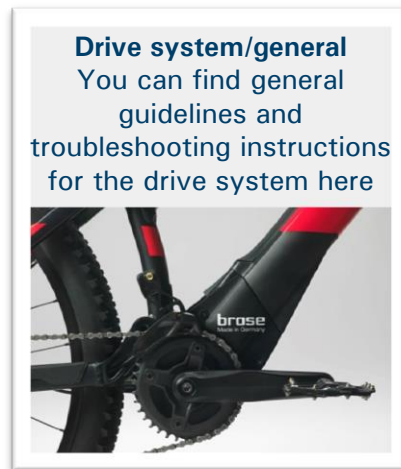


FAQs regarding the Brose drive system

You can find help on various questions regarding the Brose motor on the following pages. Select the category on which you require help here. Then click on the question which is closest to your problem.



You can always return to the home page using the Home button.

**Return to
home page**

In case of questions and ideas on the FAQs, please contact the following Email address stating "FAQ" in the subject line: service.berlin@brose.com

FAQs regarding the general guidelines and instructions on the drive system

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[Check plug connection/wiring](#)

[Rework contacts in battery plug on motor](#)

[Removal and assembly of motor](#)

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[Belt replacement and motor service](#)

[Damage check on motor through visual inspection](#)

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[No support from system, "Error 81" has occurred](#)

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FAQs regarding the motor

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Removal and assembly of motor

Motor stops and starts

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Adjustment of pushing aid

Motor update failed

Motor cleaning

Motor makes cracking noise during ride

Support stops during riding

Motor provides insufficient power

Motor has axial play

No support from motor

Motor tuning

Check plug connection – Page 1

General information and instructions

[Return to home page](#)

Procedural description

- Check plug connection from motor to switchpack/display
- Check correct fit of plug from the switchpack/display in the motor
- Check correct fit of battery plug and if applicable rework the battery plug acc. [Brose specification](#)
- Check correct fit of speed sensor plug in motor and connection of speed sensor cable
- Check whether wiring is kinked, clamped or crushed through cable ties

If a display is used:

- Check correct fit of display on holder dock

Continued on next page

Information

Generally, only one single component of the system is responsible for a problem. In order to find this component, a functioning plug connection is essential.

General information and instructions

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Procedural description

- Check bushings and plugs for visible defects; if applicable bend up contacts carefully.



- All contacts without plugs in the bushings on the motor must be closed using the correct dummy plugs/blind plugs in order to avoid corrosion damage on the motor!

Information

Generally, only one single component of the system is responsible for a problem. In order to find this component, a functioning plug connection is essential.

Rework of contacts in the battery plug on the motor

General information and instructions

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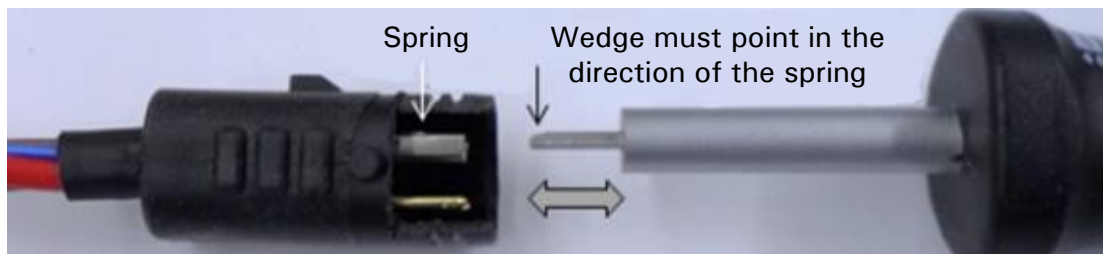
Procedural description

The following problems may occur:

- Cannot switch system on
- After a short drive, the system switches off
- "Stopping and starting" of the display/pulse-type support
- Noises from the motor (similar to the grinding of a disc brake)

If one of the abovementioned problems or similar occurs:

- Dismantle the left-hand crank arm
- Remove the side cover
- Use a special tool and rework the two large contacts of the battery plug



Information

This occurs exclusively in the model year 2016.

The special tool can be obtained via the responsible Service Center.

Removal and installation of the motor

General information and instructions

[Return to home page](#)

Procedural description

Removal:

- Dismantle the crank arms
- Dismantle the chain ring unit
- Dismantle the side cover/cladding
- Pull out the wiring
- Undo the M8 housing screws/nuts (3x)
- Remove the drive from the frame

Installation

- Insert the drive into the frame up to the stop
- Screw in the M8 housing screws/nuts (3x) initially one after the other by hand, and then crosswise to a **tightening torque of 23 ± 2 Nm**
- Insert wiring and dummy plugs; all connections to the motor bushings must be closed prior to use
- Mount the side cover/cladding
- Mount the chain ring and crank arms correctly, tighten them, clamp them and observe the bicycle manufacturer's specifications.

Information

When installing the motor, it is essential that the specified tightening torque of the M8 housing screws/nuts is observed. The assembly instructions provide further information.

Complaint

General information and instructions

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Procedural description

- All the aids available were used
- The defective component on the drive system has been identified
- Even after cross-exchange of the defective components and software update, the error still occurs.
- Fill in the return slip **completely**
- An appropriate, accurate description of the error is the prerequisite for the processing of the complaint - complaints without a description of the error have to be rejected and the replacement article is to be invoiced including a service charge
- Send the drive with the return slip correctly packaged to the responsible Service Center
- If possible, also send the return slip digitally via Email to the responsible Service Center
- You will receive a replacement article subject to complaint acceptance

Information

Only send in the defective components of the drive system!
On sending non-defective components, the complaint will be rejected and the supplied replacement including service charge will be invoiced.

Belt replacement and motor service

General information and instructions

[Return to home page](#)

Procedural description

- The customer wants to have a motor service and belt replacement performed
- Brose specifies a maintenance interval of 15,000 km for the e-bike drive
- Report service case via Email to Brose Service through trader: service.ebike@brose.com
- [Removal of motor](#)
- Professional packaging and dispatch of motor by trader
- Execution of motor service by Brose: inspection of functionality
- Brose checks the functionality of the drive. If this is not provided, an alternative offer is made for a new or used motor with the same installation space. If it is provided, the belt replacement incl. cleaning and greasing is conducted within 48 hours including an inspection of the software and any required updates.
- Brose then returns the motor to the trader
- Brose invoices the trader within a time period of two weeks to the sum of € 100 for the described maintenance work and issues a new warranty of two years on the belt
- [Motor installation](#)

Information

Within the scope of the warranty, the drive may not be opened or screw connections changed. Otherwise the warranty claim expires.

Damage inspection on motor through visual inspection

General information and instructions

[Return to home page](#)

Procedural description

- Dismantle the side cover/cladding
- Check whether all connections on the motor bushings are assigned to plugs and dummy plugs
- [Remove motor](#)
- Check fastening screws for thread damage (loose fastening screws are possible)
- Check "Do not open" sticker for damage/existence: the warranty claim expires if the motor is opened or the screw connections are changed.
- [Check axial play on bottom bracket shaft](#): exercise pressure alternately from the right and left on the bottom bracket shaft in order to determine axial play.
- Visual inspection of motor bushing contacts for bent contacts or similar (carefully bend up bent contacts again)
- Inspect for exterior damage/ crash damage (dents etc.) on the motor

Information

If a problem occurs with the motor, an exterior damage inspection must be conducted to determine any misuse/crash damage or similar situations which might lead to expiry of the warranty.

Spare parts

General information and instructions

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Procedural description

- Always contact the bicycle manufacturer to order spare parts for the Brose drive system. They can inform you which spare part exactly you require for the respective bicycle model.
- You can also contact the Service Center responsible for you for the procurement of spare parts.
- Amongst other things, all the components of the Brose drive system are available as spare parts:
 - Motor
 - Batterypack
 - Speed sensor/magnet
 - Dummy plug (for motor bushing)
 - Plug/cable
 - Switchpack/display

Information

System/wheel cannot be switched on

Drive system

[Return to home page](#)

Initial situation

- The batterypack is fully charged
- When the batterypack is switched on, the system does not switch on
- No support from motor

Information

Generally, only one single component of the system is responsible for a problem. The defective component must be identified in accordance with the description. If non-defective components are returned, the complaint will be rejected and the supplied replacement including service charge will be invoiced.

Procedure

- Dismantle the side cover/cladding
- If light available: pull out both light plugs on the plug connection
- Connect system with PC, carry out update and test it
- [Check plug connection](#)

If this is not successful:

- Cross-exchange of components (battery, if applicable switchpack/display, speed sensor, motor)
- Identify and return defective components

System range is insufficient

Motor

[Return to home page](#)

Initial situation

- The support from the motor is considered insufficient
- The system range is considered insufficient

Information

For improved performance/range, a suitable gear and pedaling frequency must be selected. The optimum degree of efficiency lies at a pedaling frequency of 70-100 rpm.

Procedure

- Run battery pack completely empty 2x and charge without interruption
- Inspection of the set wheel circumference - it is essential that you use the actual wheel circumference of the e-bike
- Correct fit and if applicable [rework of the battery plug acc. instructions](#)
- [Adapt support levels](#)
- Take environmental influences, riding profile and tire pressure into account

S-Pedelec motor in an e-bike

Drive System

[Return to home page](#)

Initial situation

- An S-Pedelec motor should be installed in the existing e-bike

Information

On using an S-Pedelec motor in an e-bike or after manipulation of an e-bike motor, the warranty claim expires.

Procedure

- For certification legislation reasons, a S-Pedelec motor may not be installed in a "normal" e-bike
- S-Pedelec motors can exclusively be installed in S-Pedelecs certified for road traffic

Cleaning of drive system components

Drive System

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Initial situation

- Components of the drive system are contaminated on the outside.
- The components should be cleaned

Information

Further information on cleaning can be found on Page 8 of the user manual under "Maintenance & cleaning".

Procedure

- Keep all the components on your e-bike clean
- Always clean the contacts on the batterypack, plugs, bushing and holder carefully with a dry, soft cloth
- All components including the motor may not be submerged in water or cleaned using a high pressure cleaner.

No support from system, "Error 81" has occurred

Drive System

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Initial situation

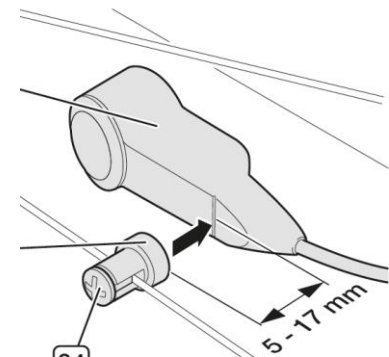
- No support from drive system
- A problem has occurred with the speed sensor; the speed signal is not detected
- "Error 81" has occurred

Information

The different error codes are described in the Section "Troubleshooting" from Page 21 of the user manual.

Procedure

- Check whether the spoke magnet is available
- The spoke magnet must be correctly positioned relative to the speed sensor
- Check the cable of the speed sensor and the fit of the plug in the motor



Support stops at less than 25 km/h

Drive System

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Initial situation

- The speed displayed/measured is not plausible
- The system supports, but stops too early on or too late

Information

Correct speed measurement is the prerequisite for the function of the drive system.

Without correct speed measurement, problems can be caused regarding the support and function of the system.

Procedure

- Inspection of the set wheel circumference - it is essential that you use the actual wheel circumference of the e-bike
- [Check position of magnet relative to speed sensor](#)
- Check fit and laying of speed sensor cable
- Check speed sensor cable for defects (kinks, crushing)

If this is not successful:

- Cross-exchange, one after the other, of the components speed sensor, spoke magnet. if applicable switchpack

Accessories – lamps

Drive System

[Return to home page](#)

Initial situation

- Lamps should be installed on a bicycle without illumination
- The customer wants a different lamp

Information

The technical data on illumination can be found on Page 13 in the user manual.

Procedure

- The lamps used must accord with the specified rated power (front light max. 2.6 W and rear light 0.6 W):

Illumination	
Rated voltage	6 V ---
Rated current max.	500 mA
Rated output	
- Front lamp	2,6 W
- Rear lamp	0,6 W

Motor stops and starts

Motor

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Initial situation

- The system functions but the motor temporarily ceases support during the ride
- The other system components function
- No difference can be ascertained between the second and third support levels

Information

The motor features an overload protection. Complete switch-off of the support on overload has been replaced through a reduction of the support on overload.

Procedure

- Perform a software update
- [Check plug connections, in particular the battery plug](#)
- During the ride, select a suitable gear and pedaling frequency (70-100 rpm)
- Observe the overload protection - this will temporarily reduce the support in case of particularly high loads.

The motor can switch to overload protection due to:

- High additional load/exterior temperature
- High gradients with high altitudes without interruption
- A lack of performance from the cyclist

Belt maintenance and belt replacement

Motor

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Initial situation

- Belt is broken
- Other problems specifically to do with the belt occur
- The customer wants a new belt
- Or: The motor has achieved a running performance of 15,000 km

Information

Within the scope of the warranty, the drive may not be opened or screw connections changed.

Procedure

- Check whether the user manual indicates a pending belt inspection (15,000 km)
- Brose provides a belt service
- [Observe belt replacement and motor service process](#)

Adaptation of the support levels

Motor

[Return to home page](#)

Initial situation

- The support levels should be individually adapted

Information

The option of the individual adjustment of the support levels is not available for every bicycle model.

Procedure

- The procedure is dependent on the bicycle model
- Please contact the responsible Service Center
- The support levels can generally be continuously adjusted

Adjustment of the pushing aid

Motor

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Initial situation

- The pushing aid is considered "too weak"
- The pushing aid should be stronger

Information

The pushing aid is not designed to pull the bicycle up steep inclines, but rather is conceived purely as a support for manual pushing.

Procedure

- Changes to the strength of the pushing aid are not possible
- For improved support of the pushing aid, select the easiest gear

Motor update has failed

Motor

[Return to home page](#)

Initial situation

- After the update, the motor does not function
- The software update on the motor has failed
- The update was cancelled

Information

Repeat update again if problems occur - prior to this, switch the system off completely and disconnect all wiring.

Procedure

- Disconnect connection to PC
- Dismantle the side cover/cladding
- If light available: remove light cable on motor
- Switch off batterypack and remove battery plug before reinserting it after 5 seconds
- Switch on batterypack and reconnect system with PC
- Repeat complete software update

Motor cleaning

Motor

[Return to home page](#)

Initial situation

- The bicycle frame is contaminated
- The motor bracket and the motor cladding are contaminated
- The motor is contaminated

Information

Further information on cleaning can be found on Page 8 of the user manual under "Maintenance & cleaning".

Procedure

- **Never** clean the motor with a high-pressure cleaner
- Also do not clean the bicycle frame in the area of the pedals or the motor bracket or the motor cladding with a high-pressure cleaner
- Never submerge the motor (and other components) in water
- Use a dry cloth for cleaning
- In order to clean contacts on plugs/motor bushings, use a dry, soft cloth

Motor makes cracking noise during ride

Motor

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Initial situation

- When riding, a cracking noise can be heard
- The cracking noise is regular/permanent

Information

Usually, the cracking noise is triggered through other components on the bicycle and it is not clear where the sound is coming from.

When assembling the motor, pedals, crank arm and chain, the correct specifications regarding the tightening torque etc. must always be adhered to, otherwise cracking noises may occur.

Procedure

- Test whether the cracking noise comes from the motor: tension chain, check crank arms and pedals and retighten
 - [Remove motor](#)
 - [Reinstall the motor](#), tighten the fastening nuts and tighten crosswise to the correct tightening torque of 23 ± 2 Nm
 - Mount, clamp and tighten the chain, pedals and crank arms correctly
- If the motor continues to permanently/regularly make cracking noises:
- Cross-exchange motor; if this is remedied through cross-exchange, lodge a complaint

Support switches off during ride

Motor

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Initial situation

- Support stops working during normal ride without particularly high load
- Basically, the system and the support work through the motor
- If the problem only occurs in case of high load, you can find more detailed help [here](#)

Information

If the system temporarily stops working during normal rides (under no particular load), this is probably due to a communications problem between the components.

Procedure

- [Check magnet position relative to speed sensor](#)
- Check battery charging status
- [Check plug connection](#); the cable may be crushed and thus damaged if the cable tie is too tight
- Perform a software update

If this does not prove successful:

- Conduct a cross-exchange one after the other for the switchpack/display, battery, monitor, speed sensor, identify defective component and lodge a complaint accordingly.

Motor provides insufficient performance

Motor

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Initial situation

- The support from the motor is considered insufficient
- The range is considered insufficient

Information

For improved performance/range, a suitable gear and pedaling frequency must be selected. The optimum degree of efficiency lies at a pedaling frequency of 70-100 rpm.

Procedure

- Run battery pack completely empty 2x and charge without interruption
- Inspect set wheel circumference
- Correct fit and if applicable [rework of the battery plug acc. instructions](#)
- [Adapt support levels](#)
- Take environmental influences, tire pressure and riding profile into account

Motor has axial play

Motor

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Initial situation

- It is possible to feel play when pedaling
- On the deinstalled motor, the bottom bracket shaft can be pushed to the right and to the left

Information

Axial play on the motor can be generated through an impact or if the bicycle falls onto the bottom bracket shaft /crank arm. This concerns misuse, through which the warranty expires. The costs of the replacement are to be borne by the person causing the damage (customer, manufacturer or similar).

Procedure

- Undo pedals and crank arms
- Then reinstall both and tighten them correctly

If axial play is still permanently perceptible:

- [Remove motor](#)
- Determine axial play by exercising pressure alternately on the right and left on the bottom bracket shaft: the motor shaft can easily be pushed back and forth in case of axial play - if this is not the case then there is no axial play, and the motor can still be used
- If axial play is found and there is no other problem with the motor, a complaint will be rejected by Brose. You can find the reasons for this in the notes on the right-hand side.

No support from motor

Motor

[Return to home page](#)

Initial situation

- Support proves permanently unavailable
- The system functions properly (pushing aid, switchpack/display), but there is no support when riding
- The batterypack is OK and charged

Information

Always check which component is responsible for the error.

If non-defective components are returned, the complaint will be rejected and the supplied replacement including service charge will be invoiced.

Procedure

- [Check position of magnet relative to speed sensor](#)
- [Check plug connection](#)
- Carry out a software update - then test function again
- Carry out a cross-exchange on the motor

If this is not successful:

- [Lodge a complaint for motor](#)

Motor tuning

Motor

[Return to home page](#)

Initial situation

- The motor should provide support for longer than up to the legal speed limit of 25 km/h or 45 km/h on the S-Pedelec

Information

"Tuning" or any other motor manipulations will cause the warranty claim to expire.

Participation in road traffic with a tuned or otherwise-manipulated motor is a criminal act.

Procedure

- "Tuning" of the motor is not permitted
- No independent changes may be made to the motor - or to the software
- The motor can only be improved through updated and more efficient motor software. Carry out a software update accordingly