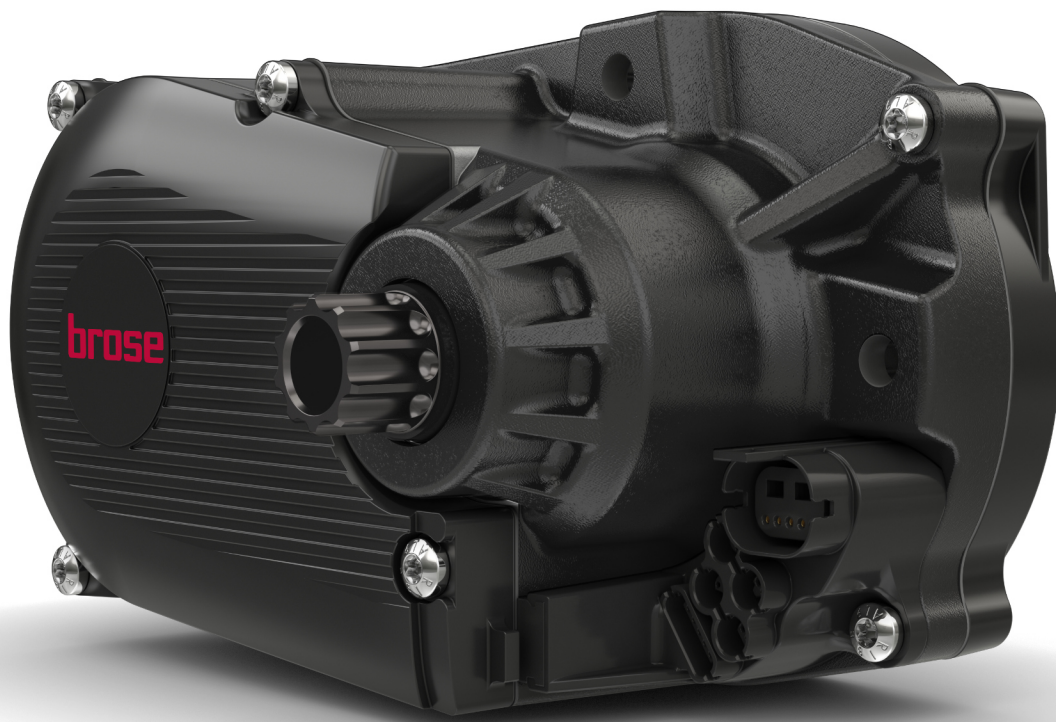


# INSTRUCTION MANUAL

## MOTOR BROSE S MAG FIT

500956 | 500952



NETWORKED  
CUSTOMISED  
INTELLIGENT

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## 1 PREFACE

Dear FIT customer,

The FIT system offers many useful functions and options and we are pleased that you have decided to choose our system.

Please read through the operating instructions carefully to ensure you use the system safely and get off to a quick start.

We hope you enjoy discovering the FIT's functions and have a fun ride every time you use it.

Thank you for placing your trust in FIT.

Your FIT Team

## 2 ABOUT THESE OPERATING INSTRUCTIONS

### 2.1 MANUFACTURER

Biketec GmbH  
Luzernstrasse 84  
CH-4950 Huttwil  
[fit-ebike.com/en-en/](https://fit-ebike.com/en-en/)

### 2.2 LANGUAGE

The original operating instructions are written in German. A translation is invalid without the original operating instructions.

### 2.3 DECLARATION OF CONFORMITY

Biketec GmbH hereby declares that the products described in these operating instructions comply with EU directives. The complete EU Declaration of Conformity is available online at: [fit-ebike.com/en-en/service/declaration/](https://fit-ebike.com/en-en/service/declaration/)

### 2.4 ON INFORMATION

Different markings are used in the operating instructions to make them easier to read.

### 2.5 WARNINGS IN THESE OPERATING INSTRUCTIONS

Warnings indicate hazardous situations and actions. You will find the following warnings in the operating instructions:

**DANGER**

May lead to serious or even fatal injuries if ignored. Medium-risk hazard.

**CAUTION**

May lead to minor or moderate injuries if ignored. Low-risk hazard.

**NOTICE**

May lead to material damage if ignored.

## 3 SAFETY INSTRUCTIONS

### 3.1 GENERAL INFORMATION

**Please read all safety instructions carefully.** Failure to comply with the warnings or to take residual risks into account may result in electric shock, fire and/or serious injury.

**Keep the operating instructions in a safe place and have them readily available to consult.** Pass these instructions on if you provide your e-bike for someone else's use.

When used in these operating instructions, the word "battery" refers to all original FIT e-bike batteries.

### 3.2 DRIVE UNITS

Do not make any changes that affect the power or the maximum speed that the drive supports, especially to increase it. You may endanger yourself and others and you may be using your e-bike illegally in public spaces.

Do not open up the drive unit yourself. Only qualified technical staff may repair the drive unit and only with original spare parts. This ensures that the drive unit remains safe. Unauthorised opening of the drive unit will void the warranty.

All components fitted to the drive unit and all other e-bike drive components may only be replaced with components of an identical design or ones specifically approved by your e-bike's manufacturer. This protects the drive unit from overloading and damage.

When the push assist system is switched on, the pedals may possibly turn as well. When the push assist system is activated, make sure that you are at a sufficient distance from the rotating pedals. There is a risk of injury.

The brakes and the motor may become very hot during operation. There is a risk of burns or fire in case of contact. Never touch the brakes or the motor directly after a ride. Never place the e-bike on a flammable surface, such as grass or wood, or near flammable objects directly after use.

### 3.3 WHAT TO DO IN AN EMERGENCY

#### 3.3.1 DANGEROUS SITUATION IN ROAD TRAFFIC

If you encounter any hazards or dangers in road traffic, apply the brake until the e-bike comes to a halt. The brake acts as an emergency stop system in such cases.

## 4 PRODUCT AND TECHNICAL SPECIFICATIONS

### 4.1 BROSE S MAG FIT

The S Mag provides a detailed pedalling frequency measurement. This brings clear advantages and guarantees a natural ride performance, especially during technically difficult climbs.



### 4.2 PROPER USE

All check lists and instructions for actions in these operating instructions met. The drive unit is designed to supply power to the e-bike only and must not be used for other purposes.

### 4.3 IMPROPER USE

Improper use refers to use which is not described under **proper use** or goes beyond **proper use**.

### 4.4 TECHNICAL DATA

#### 4.4.1 BROSE S MAG FIT VERTICAL



| Electric drive        | Brose S Mag FIT Eco vertical<br>Brose S Mag FIT Pro vertical |   |
|-----------------------|--|---|
|                       | Part nos.  | 500952 (Eco)<br>500952 & Upgrade 501061 (Pro) |
| Max. torque           | Nm   | 75 (Eco)<br>95 (Pro)                          |
| Nominal voltage       | V  | 36  |
| Operating temperature | °C   | -10 to +40                                    |
| Storage temperature   | °C   | -20 to +50                                    |
| Weight about          | kg   | 2.9   |
| Protection class      |  | IP 56   |

## 4.4.2 BROSE S MAG FIT HORIZONTAL



| Electric drive        |    | Brose S Mag FIT Eco horizontal | Brose S Mag FIT Pro horizontal |
|-----------------------|----|--------------------------------|--------------------------------|
| Part nos.             |    | 500956 (Eco)                   | 500956 & Upgrade 501061 (Pro)  |
| Max. torque           | Nm | 75 (Eco)                       | 95 (Pro)                       |
| Nominal voltage       | V  | 36                             |                                |
| Operating temperature | °C | -10 to +40                     |                                |
| Storage temperature   | °C | -20 to +50                     |                                |
| Weight about          | kg | 2.9                            |                                |
| Protection class      |    | IP 56                          |                                |

## 5 CLEANING AND SERVICING

### 5.1 CLEANING THE MOTOR

**CAUTION**

If water enters the motor, it will be permanently damaged.

- Never immerse the motor in water.
- Never clean with a pressure washer, water jet or compressed air.
- Never use cleaning agents.
- Carefully clean the motor with a soft, damp cloth.



## 6 TROUBLESHOOTING, FAULT CLEARANCE AND REPAIR

### 6.1 TROUBLESHOOTING AND FAULT CLEARANCE

#### 6.1.1 DRIVE SYSTEM OR DISPLAY DOES NOT START UP

If the display and/or the drive system do not start up, proceed as follows:

1. Check whether the battery is inserted correctly. If it is not, insert the battery correctly.
2. Start the drive system.
3. If the drive system won't start, remove the battery.
4. Clean all the contacts with a soft cloth.
5. Insert the battery.
6. Start the drive system.
7. If the drive system won't start, remove the battery.
8. Fully charge the battery.
9. Insert the battery.
10. Start the drive system.
11. If the drive system won't start, press the on-off button (operating element) for at least 8 seconds.
12. If the drive system does not start after about 6 seconds, press the on-off button (operating element) for at least 2 seconds.
13. Contact your specialist dealer if the drive system does not start.

#### 6.1.2 ERRORS IN THE ASSISTANCE SYSTEM

| Symptom                      | Cause   | Remedy  |
|------------------------------|---|---|
| Assistance is not available. | Is the speed too high?  | 1. Check display screen. The motor assistance is only active up to the maximum speed for which the e-bike is approved.  |
|                              | Is the battery charged sufficiently?  | 2. Check battery is charged.<br>3. Recharge the battery if it is almost flat.   |
|                              | The motor may become too hot during rides at high temperatures, up long inclines or when carrying a heavy load for a long time. | 4. Switch off the drive system.<br>5. Wait a moment and then check again.   |
|                              | The rechargeable battery, display or operating element may be connected incorrectly, or one or more of them may have a problem. | 6. Contact your specialist dealer.  |
| Assistance is not available. | Are the pedals being pushed?  | 1. Your e-bike is not a motorbike. Push the pedals.   |
|                              | Is the system switched on?  | 2. Press <b>on-off button</b> (operating element) to switch on the system.  |
|                              | Is the level of assistance set to <b>OFF</b> ?  | 3. Set the level of assistance to <b>HIGH, STD, ECO</b> or <b>AUTO</b> .<br>4. Contact your specialist dealer if you still feel that the no assistance is being supplied. |

| Symptom                                     | Cause   | Remedy  |
|---|---|---|
| The assisted journey distance is too short. | The battery does not perform as well in winter weather.   | This does not indicate a problem.   |
|   | The journey distance can be shorter depending on the road conditions, the level of assistance and the total light usage time. | 1. Check battery is charged.<br>2. Recharge the battery if it is almost flat.   |
|   | Is the battery fully charged?   | 3. If the distance covered with a fully charged battery has become shorter, the battery may be affected. Replace the battery with a new one.      |
|   | The battery is a consumable. Repeated charging and long periods of use cause the battery to degrade (loss of power).          | 4. If the distance you can cover with one single charge is very short, replace the battery with a new one.  |
| It is difficult to pedal.                   | Are the tyres pumped to an adequate pressure?   | 1. Pump up tyres.   |
|   | Is the level of assistance set to <b>OFF</b> ?  | 2. Set the level of assistance to <b>HIGH, STD, ECO</b> or <b>AUTO</b> .  |
|   | The battery charge might be low.  | 3. Check battery is charged.<br>4. Recharge the battery if it is almost flat.   |
|   | Have you switched on the system with your foot on the pedal?  | 5. Switch on the system again without applying pressure to the pedals.<br>6. If assistance is still not supplied, contact your specialist dealer. |

## 6.2 REPAIR

Special expertise and tools are required for many repairs. That is why only a specialist dealer may perform repairs.

### 6.2.1 ORIGINAL PART

The individual e-bike parts have been carefully selected and matched to one other. Only original parts must be used for maintenance and repair. Observe the operating instructions for the new components.

### 6.2.2 REPLACING THE LIGHTS

Replace components with ones in the right power class.

### 6.2.3 ADJUSTING THE HEADLIGHT

The headlight must be positioned so that its beam hits the road surface 10 m in front of the e-bike.

## 7 RECYCLING AND DISPOSAL

### 7.1 DISPOSAL



Mechanical and electrical devices, accessories and packaging should be taken for recycling in an environmentally responsible manner. Do not dispose of them in the household waste!



For EU countries only: According to the European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in national law, chargers that can no longer be used must be collected separately and recycled in an environmentally responsible manner.