

# INSTRUCTION MANUAL

## FIT MASTER NODE BASIC + FIT REMOTE PURE LEFT

501301 | 501303



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 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.

The generic names used in these operating instructions, such as motor, battery and operating element, all refer to original FIT e-bike components.

### 3.2 CONTROL ELEMENT AND FIT MASTER NODE BASIC

**Don't let yourself be distracted by the LED display.** If you don't concentrate fully on traffic, you risk becoming involved in an accident.

**Do not open either the control element or the FIT Master Node Basic.** They can be damaged if they are opened and any warranty claims will be forfeited.

**Caution! Using the FIT Master Node Basic with Bluetooth may interfere with other devices and equipment, aircraft and medical devices (e.g. pacemakers, hearing aids). Nor can any injury to humans and animals in the immediate surroundings be fully ruled out.** Avoid operating for prolonged periods of time very close to your body. Pay attention to any local restrictions on its use, e.g. in aircraft, hospitals, near medical equipment, petrol stations, chemical installations, areas where there is a risk of explosions and in blasting areas.

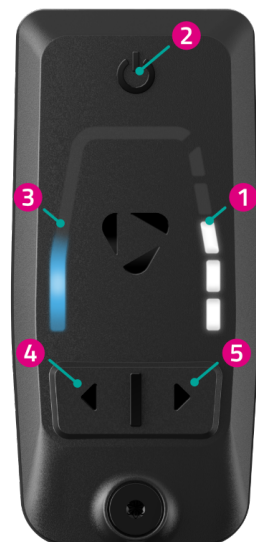
## 4 PRODUCT AND TECHNICAL SPECIFICATIONS

### 4.1 FIT MASTER NODE BASIC

The FIT Master Node Basic controls the e-bike system and uses LEDs to indicate the assistance level and the charge level of the e-bike battery. The Master Node Basic is installed in the upper tube of the e-bike. The Master Node Basic is secured with a spring at the top and a screw at the bottom. There are 3 buttons on the Master Node Basic. One button to switch the e-bike on or off, and two buttons to select the desired assistance level.



#### 4.1.1 CONTROL ELEMENTS AND DISPLAY



1. Battery charging status
2. On /off / light button
3. Current assistance level
4. Decrease assistance button
5. Increase assistance button

## 4.2 FIT REMOTE PURE LEFT

The FIT Remote Pure with ring control and function button is the ideal accessory for every e-bike rider who wants full control of their assistance level. The ring on the remote enables intuitive control of the assistance level by simply rotating it. The desired assistance level can be selected by turning the ring up or down. The function button on the remote is easy to use and offers quick access to other functions that can be selected via the app.



### 4.2.1 CONTROL ELEMENTS



1. Function button (The default configuration is the Boost function. Other configurations can be adjusted via the FIT E-Bike Control app, available soon)
2. Ring down
3. Ring up



### 4.3 INTENDED USE

The FIT Master Node Basic and the FIT Remote Pure Left are designed for controlling a FIT e-bike system and displaying riding data.

### 4.4 IMPROPER USE

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

### 4.5 TECHNICAL DATA

#### 4.5.1 FIT MASTER NODE BASIC

FIT Master Node Basic		
Product code		501301
Operating temperature	°C	-10 to +40
Storage temperature	°C	-20 to +50
Protection class		IPX5
Weight about	kg	0,043

#### 4.5.2 FIT REMOTE PURE LEFT

FIT Remote Pure Left		
Product code		501303
Operating temperature	°C	-10 to +40
Storage temperature	°C	-20 to +50
Protection class		IPX7
Weight about	kg	0,028

## 5 OPERATION

### 5.1 INITIAL OPERATION

#### 5.1.1 ELECTRIC DRIVE SYSTEM

**SWITCHING ON THE ELECTRIC DRIVE SYSTEM** The system can only be switched on if a sufficiently charged battery is installed.

Press the on /off / light button for at least one second to switch the system on. The assistance level display briefly lights up in magenta for confirmation.

**SWITCHING OFF THE ELECTRIC DRIVE SYSTEM** If the system does not detect any rider activity for a long time, it switches off automatically to save energy. To turn off the electrical system manually, press the on /off / light button for at least one second. The assistance level display briefly lights up in magenta for confirmation.

**OPERATION** You can select the assistance level with the Increase / decrease assistance buttons on the FIT Master Node Basic or by ring up / down on the FIT Remote Pure Left . More adjustment options will be available soon via the FIT E-Bike Control app.

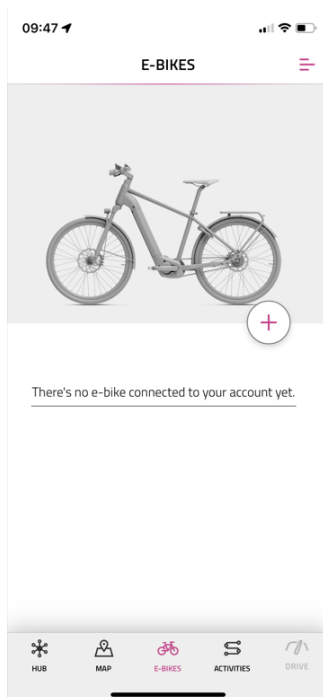
#### 5.1.2 PAIRING / COUPLING THE FIT KEY CARD WITH THE FIT E-BIKE CONTROL APP

The FIT Key Card is your ticket to the digital FIT world for every e-bike with FIT 2.0 integration. The individual ID is based on the SmartX technology from ABUS and ensures a secure connection to the e-bike with a unique key.

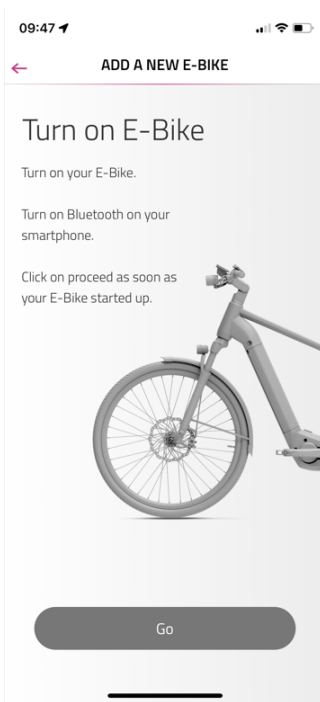


#### NOTICE

- Keep the card in a safe place as it serves as the e-bike's ID.
- Can be reordered subject to payment in the e-shop if lost.



- Select the menu **E-bikes** in the navigation bar
- Press the **+** icon to add your e-bike in the FIT E-Bike Control app



- Follow the instructions in the FIT E-Bike Control app

### 5.1.3 ASSISTANCE MODES

You can adjust the assistance level with the buttons Decrease assistance / increase (FIT Master Node Basic) and Ring Down / Up (FIT Remote Pure Left). Each assistance level has a specific position to make things easier for riders who are color blind.

#### HIGH



- Maximum motor assistance for active riding up to high pedaling frequencies.

#### AUTO



- The motor assistance adjusts to the rider's performance (more rider's performance = more motor assistance). This mode covers the entire range from ECO to HIGH.

**STD**

- Medium motor assistance for active riding in city traffic.

**ECO**

- Minimal motor assistance with optimum efficiency for maximum range.

**OFF**

- No motor assistance. The e-bike rides like a normal bicycle. All on-board computer functions are available.

**REC1**

- Weak recuperation. Motor brakes the e-bike slightly. The brake energy is used to recharge the battery. Use this assistance level to slow down the speed without applying the brakes when riding downhill. All on-board computer functions can be called up (availability depends on the built-in motor).

**REC2**

- Stronger recuperation. The motor brakes the e-bike harder. The brake energy is used to recharge the battery. Use this assistance level to slow down the speed without applying the brakes when riding downhill. All on-board computer functions can be called up (availability depends on the built-in motor).

**5.1.4 PUSHING AID**

(Only available in conjunction with FIT Remote Pure left.)



- Pushing aid mode enabled: all LEDs light up white.
- Pushing aid started: the white island moves up slowly.

The pushing aid makes it easier to push the e-bike. The e-bike can be moved out of underground parking or along steep paths comfortably by activating the pushing aid.

To activate the pushing aid mode, press the ring on the FIT Remote Pure left until the white LED display appears at the top. The pushing aid is started by pressing up again and holding the ring on the FIT Remote Pure left.

If you release the ring on the FIT Remote Pure left for longer than five seconds, you will quit the pushing aid mode. The choice of gear affects the force that is applied and speed of the pushing aid. Always use first speed for the pushing aid to protect the drive.

**CAUTION**

When using the pushing aid, the wheels must be in contact with the ground to avoid the risk of injury.

### 5.1.5 BOOST FUNCTION

(Only available in conjunction with FIT Remote Pure Left.)



- All LEDs are magenta and 1 slightly darker LED moves up quickly.

You can temporarily increase the motor assistance to HIGH with the boost function, no matter what assistance level is set (STD, ECO, AUTO). This function can be activated at speeds of 7 km/h and over and if at least one quarter pedal revolution has been detected. The Boost function cannot be used if the pushing aid mode is active. .

In order to activate the Boost function (only possible while riding), press and hold down either the function button or the ring up on the FIT Remote Pure Left. The Boost function is activated as long as the ring or button is held down.

## 5.2 LIGHTS



- On: LEDs come on in white from the bottom to the top and then disappear again.
- Off: LEDs come on in white from top to bottom and then disappear again.

The lights are switched on or off by briefly pressing the on /off / light button of the FIT Master Node Basic. Various lighting systems are installed depending on the area of use and bicycle type. If this has a daytime running light function, the system will always switch automatically between low beam and daytime running light.

## 5.3 STATE OF CHARGE OF THE BATTERY

### 5.3.1 IN OPERATION



- 80 to 100% charge
- Each battery charging status LED that comes on represents approximately 20% of the battery capacity.



- 5 to 9% charge
- The lowest LED flashes slowly



- 1 to 4% charge
- The lowest LED flashes quickly



- 0% charge
- The lowest LED flashes quickly and the assistance level LEDs light up red.

### 5.3.2 DURING CHARGING



- Each battery charging status LED that comes on represents approximately 20% of the battery capacity.
- The top battery charging status LED indicates the current charge level by pulsing.

## 5.4 ACCESSORIES

### 5.4.1 BIKE LOCK WITHOUT ELECTRONIC LOCK

(Only via FIT E-Bike: Control app or hand-held transmitter)



#### CLOSE

- LOCKING finished : All LEDs flash blue 4x quickly.
- LOCKED: All LEDs light up steady blue.



#### OPEN

- UNLOCKING finished: All LEDs flash green 4x quickly, then light up steady green.

### 5.4.2 BIKE LOCK WITH ELECTRONIC LOCK

(Only via FIT E-Bike: Control app or hand-held transmitter)



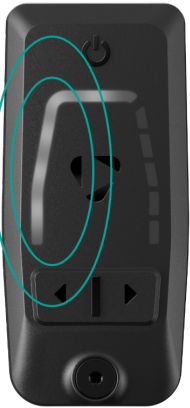
#### CLOSE

- LOCKING: All LEDs flash repeatedly 2x blue.
- LOCKING finished: All LEDs flash blue 4x quickly.
- LOCKED: All LEDs light up blue.



**OPEN**

- UNLOCKING: All LEDs flash repeatedly 2x green.
- UNLOCKING finished: All LEDs flash green 4x quickly, then light up steady green.

**5.5 SPECIAL OPERATING MODES****5.5.1 MAINTENANCE MODE**

- No battery display.
- All LEDs pulse gently in white always at full brightness
- The FIT Master Node Basic has to be restarted to quit the Maintenance mode.

**5.5.2 OEM, TEST, NOT FOR SALE MODE**

- The upper and lower LEDs flash alternately in green and red when starting up.

### 5.5.3 SOFTWARE UPDATE MODE



- Every second LED on the motor assistance indicator lights up green and every second LED on the battery indicator lights up white.

### 5.6 SIGNAL TONES

Beep	Meaning	Situation
Short high note	Highest assistance level reached	Sounds when you try to raise the assistance level even further in the assistance level High
Falling sound sequence	Battery level low	Sounding at 5% charging status and again at 0%
Two low notes	Error / Critical error	Sounds in case of an error or a critical error (no motor assistance)

## 6 ERROR MESSAGES

### 6.1 GENERAL

The parts of the e-bike system are constantly monitored for errors during use and charging.

### 6.2 ERROR DISPLAY



- LEDs flash orange.
- No motor assistance  
The motor assistance is not available again until the error has been remedied and the system restarted.

#### 6.2.1 ERROR TABLE

You can get more detailed information about the error with the FIT Drive Screen in the FIT E-Bike Control app.

If the last two digits are listed with "xx" as placeholders, they help the specialist dealer as additional information for error analysis.

#### 0A-xx up to 2B-xx

Error code	Error message displayed	Action / Restriction
0A-01, 0B-01	Remote motor communication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
0A-02, 0B-02	Remote display communication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Re-insert the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
0A-03, 0A-04, 0A-05, 0A-06, 0B-03, 0B-04, 0B-05, 0B-06	Remote battery communication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove the battery from the holder, check contacts and clean if necessary.</li> <li>4. Re-insert the battery and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
0A-07, 0B-07	Remote speed node communication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
0A-08, 0B-08	Remote gears communication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
0A-0A, 0B-0A	Remote charger communication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Disconnect the charger from the system and socket.</li> <li>4. Wait until status LED goes out.</li> <li>5. Check plug contacts on the e-bike and charger and clean if necessary.</li> <li>6. Reconnect the charger to the socket.</li> <li>7. Reconnect the charger to the system and start the system.</li> <li>8. If the problem persists, please contact your specialist dealer.</li> </ol>
0A-0B, 0B-0B	Remote lock communication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
0C-00	Remote identification error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
0C-01	Remote motor identification error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
0C-02	Remote display identification error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Re-insert the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
0C-03, 0C-04, 0C-05, 0C-06	Remote battery identification error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove the battery from the holder, check contacts and clean if necessary.</li> <li>4. Re-insert the battery and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
0C-07	Remote speed node identification error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
0C-08	Remote gears identification error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
0C-0A	Remote charger identification error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Disconnect the charger from the system and socket.</li> <li>4. Wait until status LED goes out.</li> <li>5. Check plug contacts on the e-bike and charger and clean if necessary.</li> <li>6. Reconnect the charger to the socket.</li> <li>7. Reconnect the charger to the system and start the system.</li> <li>8. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
OC-0B	Remote lock identification error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
OD-01	Motor authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
OD-02	Display authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Re-insert the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
OD-03, OD-04, OD-05, OD-06	Battery authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove the battery from the holder, check contacts and clean if necessary.</li> <li>4. Re-insert the battery and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
OD-07	Speed node authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
OD-08	Gears authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
OD-0A	Charger authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Disconnect the charger from the system and socket.</li> <li>4. Wait until status LED goes out.</li> <li>5. Check plug contacts on the e-bike and charger and clean if necessary.</li> <li>6. Reconnect the charger to the socket.</li> <li>7. Reconnect the charger to the system and start the system.</li> <li>8. If the problem persists, please contact your specialist dealer.</li> </ol>
OD-0B	Lock authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
OE-xx	Remote authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
OF-00	Remote update error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
OF-01	Motor update error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
0F-02	Display update error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Re-insert the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
0F-03, 0F-04, 0F-05, 0F-06	Battery update error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove the battery from the holder, check contacts and clean if necessary.</li> <li>4. Re-insert the battery and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
0F-07	Speed node update error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
0F-08	Gears update error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
0F-0A	Charger update error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Disconnect the charger from the system and socket.</li> <li>4. Wait until status LED goes out.</li> <li>5. Check plug contacts on the e-bike and charger and clean if necessary.</li> <li>6. Reconnect the charger to the socket.</li> <li>7. Reconnect the charger to the system and start the system.</li> <li>8. If the problem persists, please contact your specialist dealer.</li> </ol>
0F-0B	Lock update error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
10-xx	Remote software error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
11-xx	Battery remote communication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
12-01	Remote motor pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
12-02	Remote display pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Re-insert the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
12-03, 12-04, 12-05, 12-06	Remote battery pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove the battery from the holder, check contacts and clean if necessary.</li> <li>4. Re-insert the battery and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
12-07	Remote speed node pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
12-08	Remote gears pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
12-0A	Remote charger pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Disconnect the charger from the system and socket.</li> <li>4. Wait until status LED goes out.</li> <li>5. Check plug contacts on the e-bike and charger and clean if necessary.</li> <li>6. Reconnect the charger to the socket.</li> <li>7. Reconnect the charger to the system and start the system.</li> <li>8. If the problem persists, please contact your specialist dealer.</li> </ol>
12-0B	Remote lock pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
13-xx	Remote internal error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
14-xx	Remote configuration error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
15-01	Remote motor pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
15-02	Remote display pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Re-insert the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
15-03, 15-04, 15-05, 15-06	Remote battery pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove the battery from the holder, check contacts and clean if necessary.</li> <li>4. Re-insert the battery and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
15-07	Remote speed node pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
15-08	Remote gears pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
15-0A	Remote charger pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Disconnect the charger from the system and socket.</li> <li>4. Wait until status LED goes out.</li> <li>5. Check plug contacts on the e-bike and charger and clean if necessary.</li> <li>6. Reconnect the charger to the socket.</li> <li>7. Reconnect the charger to the system and start the system.</li> <li>8. If the problem persists, please contact your specialist dealer.</li> </ol>
15-0B	Remote lock pairing error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
16-00	Remote theft detection	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
16-01	Motor theft detection	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
16-02	Display theft detection	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Re-insert the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
16-03, 16-04, 16-05, 16-06	Battery theft detection	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove the battery from the holder, check contacts and clean if necessary.</li> <li>4. Re-insert the battery and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
16-07	Speed node theft detection	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
16-08	Gears theft detection	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>



<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
16-0A	Charger theft detection	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Disconnect the charger from the system and socket.</li> <li>4. Wait until status LED goes out.</li> <li>5. Check plug contacts on the e-bike and charger and clean if necessary.</li> <li>6. Reconnect the charger to the socket.</li> <li>7. Reconnect the charger to the system and start the system.</li> <li>8. If the problem persists, please contact your specialist dealer.</li> </ol>
16-0B	Lock theft detection	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
17-00	Remote defective component	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
17-01	Motor defective component	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
17-02	Display defective component	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Re-insert the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
17-03, 17-04, 17-05, 17-06	Battery defective component	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove the battery from the holder, check contacts and clean if necessary.</li> <li>4. Re-insert the battery and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
17-07	Speed node defective component	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
17-08	Gears defective component	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
17-0A	Charger defective component	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Disconnect the charger from the system and socket.</li> <li>4. Wait until status LED goes out.</li> <li>5. Check plug contacts on the e-bike and charger and clean if necessary.</li> <li>6. Reconnect the charger to the socket.</li> <li>7. Reconnect the charger to the system and start the system.</li> <li>8. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
17-0B	Lock defective component	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
18-00	Remote start error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
18-01	Motor start error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
18-02	Display start error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Re-insert the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
18-03, 18-04, 18-05, 18-06	Battery start error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove the battery from the holder, check contacts and clean if necessary.</li> <li>4. Re-insert the battery and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
18-07	Speed node start error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
18-08	Gears start error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
18-0A	Charger start error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Disconnect the charger from the system and socket.</li> <li>4. Wait until status LED goes out.</li> <li>5. Check plug contacts on the e-bike and charger and clean if necessary.</li> <li>6. Reconnect the charger to the socket.</li> <li>7. Reconnect the charger to the system and start the system.</li> <li>8. If the problem persists, please contact your specialist dealer.</li> </ol>
18-0B	Lock start error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
19-xx	Remote safety error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
1A-01	Manipulation detected	<ol style="list-style-type: none"> <li>1. Check mounting position of the magnet and speed sensor.</li> <li>2. Restart the system.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
1A-02	Manipulation detected Speed sensor missing	<ol style="list-style-type: none"> <li>1. Check mounting position of the magnet and speed sensor.</li> <li>2. Restart the system.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
1B-xx	System voltage error	<ol style="list-style-type: none"> <li>1. Check whether the correct battery is installed (36V / 48V).</li> <li>2. Restart the system.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
1C-xx	Bluetooth module error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Restart FIT E-Bike Control (app), update if necessary.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
1D-xx	EMS mode active	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
1E-xx	OEM mode active	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
1F-xx	TEST mode active	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
20-xx	Reserve mode active (info text)	<ol style="list-style-type: none"> <li>1. Charge the battery.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
21-xx	Lock error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
22-xx	Full charge cycle active	Information: Battery is charged for calibration despite Long Life mode 100%.
23-09	Tire pressure sensor error Battery weak front	Sensor needs to be replaced soon, please contact your specialist dealer.
23-0A	Tire pressure sensor error Battery weak rear	Sensor needs to be replaced soon, please contact your specialist dealer.
23-0B	Tire pressure sensor error Battery weak front right	Sensor needs to be replaced soon, please contact your specialist dealer.
23-0C	Tire pressure sensor error Battery weak rear right	Sensor needs to be replaced soon, please contact your specialist dealer.
23-xx	Tire pressure sensor error	Sensor may need to be replaced, please contact your specialist dealer.
24-01	Charger multi-battery error	<ol style="list-style-type: none"> <li>1. Charge each battery individually.</li> <li>2. Have the charger software update done at your specialist dealer.</li> </ol>
25-xx	1-Wire communication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
26-xx	Battery lock (ABUS) error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

### 29-xx up to 47-xx

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
29-xx	Display communication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
2A-xx	Display software error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Replace the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
2B-xx	Display authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Replace the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
2C-xx	Display internal error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
2D-xx	Display identification error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Switch the system off.</li> <li>3. Remove display from holder, check contacts and clean if necessary.</li> <li>4. Replace the display and start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
2E-01	Display overheated Screen brightness reduced	<ol style="list-style-type: none"> <li>1. Cool display by riding.</li> <li>2. Protect the display from direct sunlight.</li> </ol>

### 48-xx bis 66-xx (Bafang)

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
48-xx	Motor communication error	<ol style="list-style-type: none"> <li>1. Check plug contacts on the battery and bicycle and clean if necessary.</li> <li>2. Restart the system.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
49-xx	Motor error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
4A-xx	Motor temperature error	<ol style="list-style-type: none"> <li>1. Switch the system off.</li> <li>2. Allow the motor to cool down and, if necessary, clean the motor's ventilation vents.</li> <li>3. Switch on the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
4B-01	Motor speed sensor error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Check mounting position of the magnet and speed sensor.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
4C-xx	Motor torque sensor error	<ol style="list-style-type: none"> <li>1. Restart the system with no pressure on the pedals.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
4F-xx	Motor authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
50-xx	Motor Current Error	<ol style="list-style-type: none"> <li>1. Remove battery and wait 60s.</li> <li>2. Reinsert battery and restart battery.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>

**48-xx 66-xx (Brose)**

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
48-xx	Motor communication error	<ol style="list-style-type: none"> <li>1. Check plug contacts on the battery and bicycle and clean if necessary.</li> <li>2. Restart the system.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
49-xx	Motor error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
4A-xx	Motor temperature error	<ol style="list-style-type: none"> <li>1. Switch the system off.</li> <li>2. Allow the motor to cool down and, if necessary, clean the motor's ventilation vents.</li> <li>3. Switch on the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
4B-01, 4B-02	Motor speed sensor error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Check mounting position of the magnet and speed sensor.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
4C-xx	Motor torque sensor error	<ol style="list-style-type: none"> <li>1. Restart the system with no pressure on the pedals.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
4E-xx	Motor cadence sensor error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
4F-xx	Motor authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
50-xx	Motor Current Error	<ol style="list-style-type: none"> <li>1. Remove battery and wait 60s.</li> <li>2. Reinsert battery and restart battery.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
51-xx	Motor Voltage Error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
52-xx	Motor Angled Sensor Error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
53-xx	Motor Software Error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
54-xx	Motor error light output	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
55-xx	Motor Fehler 12V Ausgang	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

**48-xx 66-xx (Panasonic)**

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
48-xx	Motor communication error	<ol style="list-style-type: none"> <li>1. Check plug contacts on the battery and bicycle and clean if necessary.</li> <li>2. Restart the system.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
49-xx	Motor error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
4A-xx	Motor temperature error	<ol style="list-style-type: none"> <li>1. Switch the system off.</li> <li>2. Allow the motor to cool down and, if necessary, clean the motor's ventilation vents.</li> <li>3. Switch on the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
4B-01, 4B-02	Motor speed sensor error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Check mounting position of the magnet and speed sensor.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
4C-xx	Motor torque sensor error	<ol style="list-style-type: none"> <li>1. Restart the system with no pressure on the pedals.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
4D-xx	Motor Gear Error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
4F-xx	Motor authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

**67-xx up to 85-xx and FF-xx**

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
67-01, 67-03, 67-06, 67-12	Battery voltage error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
67-02, 67-07, 67-08, 67-09, 67-13	Battery voltage error	<ol style="list-style-type: none"> <li>1. Connect the battery to the charger.</li> <li>2. Restart the system.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
67-05, 67-0A, 67-0B, 67-11, 67-15	Battery voltage error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
68-01, 68-05, 68-06, 68-07, 68-09, 68-16, 68-17, 68-18, 68-19, 68-1A	Battery current error Discharging error	<ol style="list-style-type: none"> <li>1. Switch the system off.</li> <li>2. Remove the battery.</li> <li>3. Re-insert battery.</li> <li>4. Start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
68-02, 68-03, 68-08, 68-0A	Battery current error Charging error	<ol style="list-style-type: none"> <li>1. Disconnect the charger from the battery.</li> <li>2. Reconnect the charger and start charging.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
68-04, 68-11, 68-12	Battery current error Short circuit	<ol style="list-style-type: none"> <li>1. Switch the system off.</li> <li>2. Remove the battery.</li> <li>3. Re-insert battery.</li> <li>4. Start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
68-0B, 68-13	Battery current error Overcurrent error	<ol style="list-style-type: none"> <li>1. Switch the system off.</li> <li>2. Remove the battery.</li> <li>3. Re-insert battery.</li> <li>4. Start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
68-14	Battery current error Start error	<ol style="list-style-type: none"> <li>1. Switch the system off.</li> <li>2. Remove the battery.</li> <li>3. Re-insert battery.</li> <li>4. Start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
68-15	Battery current error	<ol style="list-style-type: none"> <li>1. Switch the system off.</li> <li>2. Remove the battery.</li> <li>3. Re-insert battery.</li> <li>4. Start the system.</li> <li>5. If the problem persists, please contact your specialist dealer.</li> </ol>
69-01, 69-08	Battery temperature error	<ol style="list-style-type: none"> <li>1. Disconnect the charger from the battery.</li> <li>2. Allow the battery to cool down (&gt; 60 minutes).</li> <li>3. Restart the charging process.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
69-02, 69-09	Battery temperature error	<ol style="list-style-type: none"> <li>1. Turn off the e-bike.</li> <li>2. Allow the battery to cool down (&gt; 60 minutes).</li> <li>3. Start the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
69-03, 69-0C	Battery temperature error	<ol style="list-style-type: none"> <li>1. Bring the battery to a warmer place.</li> <li>2. Allow the battery to warm up (&gt; 30 minutes).</li> <li>3. Restart the charging process.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>



<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
69-04, 69-0D	Battery temperature error	<ol style="list-style-type: none"> <li>1. System operating below the permissible temperature.</li> <li>2. Allow the battery to warm up in a warm environment (&gt; 30 minutes).</li> <li>3. Start the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
69-05, 69-0A, 69-0F, 69-11, 69-12	Battery temperature error	<ol style="list-style-type: none"> <li>1. Turn off the e-bike.</li> <li>2. Allow the battery to cool down ((&gt; 60 minutes).</li> <li>3. Start the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
69-06, 69-0B, 69-10	Battery temperature error	<ol style="list-style-type: none"> <li>1. System operating below the permissible temperature.</li> <li>2. Allow the battery to warm up in a warm environment (&gt; 30 minutes).</li> <li>3. Start the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
69-13	Battery temperature error	<ol style="list-style-type: none"> <li>1. Start the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
6A-xx	Battery software error	<ol style="list-style-type: none"> <li>1. Check whether the correct battery is installed (36V / 48V).</li> <li>2. Check the plug contacts on the battery and bicycle and clean if necessary.</li> <li>3. Restart the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
6B-xx	Battery hardware error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
6C-xx	Battery communication error	<ol style="list-style-type: none"> <li>1. Check whether the correct battery is installed (36V / 48V).</li> <li>2. Check the plug contacts on the battery and bicycle and clean if necessary.</li> <li>3. Restart the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
6D-xx	Battery authentication error	<ol style="list-style-type: none"> <li>1. Check whether the correct battery is installed (36V / 48V).</li> <li>2. Check the plug contacts on the battery and bicycle and clean if necessary.</li> <li>3. Restart the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>
6E-xx	Battery unknown error	<ol style="list-style-type: none"> <li>1. Check whether the correct battery is installed (36V / 48V).</li> <li>2. Check the plug contacts on the battery and bicycle and clean if necessary.</li> <li>3. Restart the system.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
FF-xx	Battery start error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

**86-xx up to 8A-xx**

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
86-xx	Speed node software error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
87-xx	Speed node authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

**95-xx up to 99-xx**

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
95-xx	Charger software error	<ol style="list-style-type: none"> <li>1. Check whether the correct battery is installed (36V / 48V).</li> <li>2. Disconnect the charger from the system and socket.</li> <li>3. Wait until status LED goes out.</li> <li>4. Reconnect the charger to the socket.</li> <li>5. Reconnect the charger to the system.</li> <li>6. If the problem persists, please contact your specialist dealer.</li> </ol>
96-xx	Charger voltage error	<ol style="list-style-type: none"> <li>1. Check whether the correct battery is installed (36V / 48V).</li> <li>2. Disconnect the charger from the system and socket.</li> <li>3. Wait until status LED goes out.</li> <li>4. Reconnect the charger to the socket.</li> <li>5. Reconnect the charger to the system.</li> <li>6. If the problem persists, please contact your specialist dealer.</li> </ol>
97-xx	Charger current error	<ol style="list-style-type: none"> <li>1. Check whether the correct battery is installed (36V / 48V).</li> <li>2. Disconnect the charger from the system and socket.</li> <li>3. Wait until status LED goes out.</li> <li>4. Reconnect the charger to the socket.</li> <li>5. Reconnect the charger to the system.</li> <li>6. If the problem persists, please contact your specialist dealer.</li> </ol>
98-xx	Charger temperature error	<ol style="list-style-type: none"> <li>1. Disconnect the charger from the battery.</li> <li>2. Allow the charger to cool (&gt; 30 minutes).</li> <li>3. Restart the charging process.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>

**8B-xx up to 92-xx**

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
8B-xx	Gears authentication error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
8C-06	Gears hardware error Calibration required	<ol style="list-style-type: none"> <li>1. Calibrate the gears as described in the corresponding operating instructions.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>
8C-xx	Gears hardware error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. If the problem persists, please contact your specialist dealer.</li> </ol>

**9A-xx up to 9E-xx**

<b>Error code</b>	<b>Error message displayed</b>	<b>Action / Restriction</b>
9A-xx	Lock authentication error	<ol style="list-style-type: none"> <li>1. Check whether an original FIT lock is installed.</li> <li>2. Restart the system.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
9B-xx	Lock blocked	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Check lock for contamination.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
9C-xx	Lock hardware error	<ol style="list-style-type: none"> <li>1. Restart the system.</li> <li>2. Check lock for damage.</li> <li>3. If the problem persists, please contact your specialist dealer.</li> </ol>
9D-xx	Lock movement detected	<ol style="list-style-type: none"> <li>1. Resend lock command</li> <li>2. Restart the system.</li> <li>3. Check lock for damage.</li> <li>4. If the problem persists, please contact your specialist dealer.</li> </ol>

## 7 CLEANING AND SERVICING

### 7.1 BASIC CLEANING

#### 7.1.1 CLEAN FIT MASTER NODE BASIC AND FIT REMOTE PURE LEFT

**Note**

If water enters the FIT Master Node Basic or the FIT Remote Pure Left, they will be destroyed.

- Never immerse the FIT Master Node Basic or the FIT Remote Pure Left in water.
- Never clean with a high-pressure cleaner, water jet or compressed air.
- Never use cleaning agents.
- Clean the FIT Master Node Basic and FIT Remote Pure Left carefully with a damp, soft cloth.

## 8 TROUBLESHOOTING, FAULT CLEARANCE AND REPAIR

### 8.1 TESTING AND TROUBLESHOOTING

#### 8.1.1 THE DRIVE SYSTEM OR FIT MASTER NODE BASIC DO NOT START

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

1. Check if the battery is inserted correctly. If not, insert the battery correctly.
2. Start the drive system.
3. If the drive system does not start, remove the battery, check the charging status and charge if necessary.
4. Clean all contacts with a soft cloth.
5. Insert the battery.
6. Start the drive system.
7. If the drive system does not start, contact the specialist dealer.



#### NOTICE

If the battery terminal contacts are heavily soiled/oxidized, take your e-bike to the specialist dealer for a detailed check.

#### 8.1.2 ERROR IN ASSISTANCE

Symptom	Cause / Possibility	Remedy
No assistance is provided.	Is the speed too high?	1. Motor assistance is only active up to the maximum speed for which the e-bike is approved. You can display the current speed with the optional FIT Drive Screen in the FIT E-Bike Control app.
	Is the battery sufficiently charged?	2. Check battery charge. 3. If the battery is almost empty, recharge the battery.
	Driving at high temperatures, on long inclines or for a long time with heavy loads may cause the motor to overheat.	4. Turn off the drive system. 5. Wait a while and check again.
	The battery, the FIT Master Node Basic or the FIT Remote Pure Left may be incorrectly connected or there may be a problem with one or more of them.	6. Contact the specialist dealer.
No assistance is provided.	Are you pedaling?	1. The e-bike is not a motorcycle. Start pedaling.
	Is the system switched on?	2. Press the <b>on /off / light button</b> (control element) to turn the system on.
	Is the assistance level set to <b>OFF</b> (Off)?	3. Set the assistance level to <b>HIGH, STD, ECO</b> or <b>AUTO</b> . 4. If you still feel that no assistance is being provided, contact your specialist dealer.

Symptom	Cause / Possibility	Remedy
The assisted journey distance is too short.	The battery properties deteriorate in winter weather.	This does not indicate a problem.
	The journey distance may be shorter depending on road conditions, the assistance level and the lights' total operating time.	1. Check battery charge. 2. If the battery is almost empty, recharge the battery.
	Is the battery fully charged?	3. If the total distance that can be covered with a fully charged battery has become shorter, the battery may be impacted. Replace the battery with a new one.
	The battery is a wearing part. Repeated charging and long periods of use lead to a drop in the battery performance (power loss).	4. If the distance that can be driven with a single charge is very short, replace the battery with a new one.
Pedaling has become difficult.	Are the tires pumped up to sufficient pressure?	1. Pump up the tires.
	Is the assistance level set to <b>OFF</b> (Off)?	2. Set the assistance level to <b>HIGH, STD, ECO</b> or <b>AUTO</b> .
	Battery charge may be low.	3. Check battery charge. 4. If the battery is almost empty, recharge the battery.
	Was the system switched on with a foot on the pedal?	5. Switch the system on again Without pressing the pedals. 6. If assistance is still not provided, contact your specialist dealer.

## 8.2 REPAIR

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

### 8.2.1 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.

### 8.2.2 REPLACING THE LIGHTS

Replace components with ones in the right power class.

### 8.2.3 ADJUSTING THE HEADLIGHT

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

## 9 RECYCLING AND DISPOSAL

### 9.1 DISPOSAL



Mechanical and electrical equipment, accessories and packaging should be recycled in an environmentally sound manner. Don't throw them in the garbage!



Only for EU countries: According to European Directives 2012/19/EU, 2006/66/EC and their transposition into national law, defective or unusable waste electrical and electronic equipment, rechargeable batteries and batteries must be collected separately and recycled in an environmentally sound manner.