INSTRUCTION MANUAL
FIT DISPLAY COMFORT +
FIT REMOTE BASIC / ESHIFT

500084 | 500092 | 501262 | 500429

DRIVE   13:52

23.8 km/h   69%

204 Range   STD

NETWORKED
CUSTOMISED
INTELLIGENT

TABLE OF CONTENTS

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/

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/

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   OPERATING ELEMENT AND DISPLAY

Do not let the messages on the display screen distract you. If you do not focus solely on traffic on the road, you risk being involved in an accident.

Do not open up the operating element or the display. They both can be permanently damaged if they are opened and the warranty will become void.

Do not use the display as a handle. If you use the display to lift your e-bike, you can damage the display irreparably.

Do not place the e-bike upside down on its handlebars and saddle if the display or its mount project above the handlebars. The display or the mount can become irreparably damaged. Also remove the display before placing the e-bike on a work stand to ensure that the display does not fall off or get damaged.

Caution! If you use the operating element with Bluetooth, it may cause interference with other devices and equipment, aircraft, and medical devices, such as pacemakers and hearing aids. Likewise, it cannot be completely ruled out that you will cause harm to people and animals in the immediate vicinity. Avoid operating close to your body for extended periods of time. You must observe local restrictions on using Bluetooth when in aircraft or hospitals, for example, or in close proximity to medical devices, filling stations, chemical plants, blasting zones and areas at risk of explosion.

4   PRODUCT AND TECHNICAL SPECIFICATIONS

4.1   FIT DISPLAY COMFORT

The ergonomic operating element FIT Remote Basic allows you to control the FIT Display easily and safely, even while riding. The button backlit by LEDs and the vibration feedback ensure optimum usability, even in the dark or while wearing gloves.

4.1.1   DISPLAY AND SETTINGS

The following display elements remain the same on all screens and show the key settings and information about the vehicle and the current trip.

1. Messages / warnings
2. Time
3. Navigation bar
4. Current view
5. Current pulse (only available in conjunction with a pulse monitor)
6. Range (with current assistance setting / assistance level)
7. Navigation direction at the next navigation point (only displayed when navigation is active with the FIT E-Bike Control app)
8. eShift gear indicator
9. Light (main beam / low beam / off)
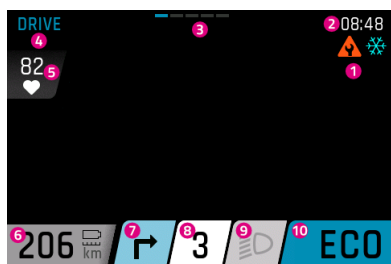10. Current assistance level

4.2   OPERATING ELEMENT

4.2.1   FIT REMOTE BASIC

The ergonomic operating element FIT Remote Basic allows you to control the FIT Display easily and safely, even while riding. The button backlit by LEDs and the vibration feedback ensure optimum usability, even in the dark or while wearing gloves.
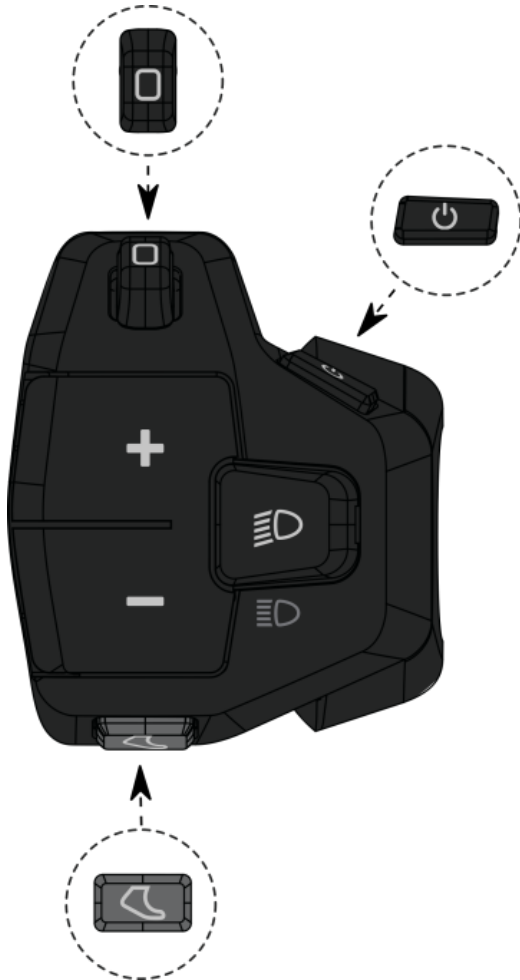
Operating element	Description
⏻	On-off button
▯	Rocker switch (right, left and press)
+ / −	Plus / minus button
◁	Push assist / boost button
☞D	Light button

4.2.2 FIT REMOTE ESHIFT

The ergonomic FIT Remote eShift control unit allows the FIT display to be controlled easily and safely, even while riding. The LED-backlit buttons and vibration feedback guarantee ease of operation even when wearing gloves or in the dark.
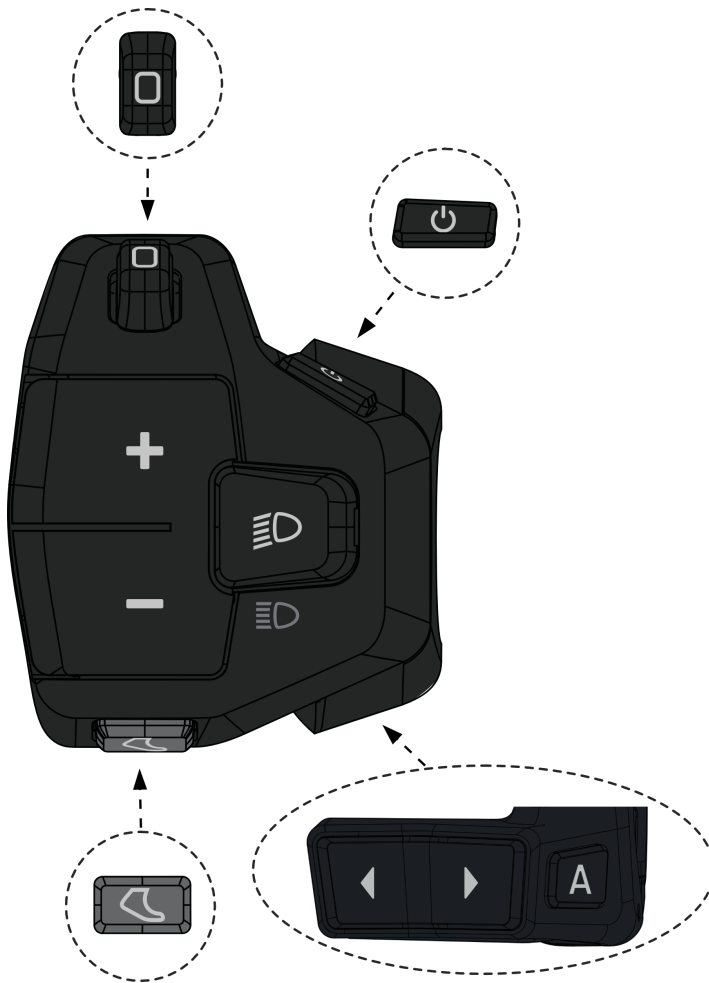
Control unit	Description
On-off button symbol	On-off button
Rocker switch symbol	Rocker switch (right, left and press)
Plus / minus button symbol	Plus / minus button
Push assist / boost button symbol	Push assist / boost button
Light button symbol	Light button
Gear shift button symbol	Up / Down gear shift button Decrease / increase cadence (in automatic mode)
Automatic gear shift button symbol	Automatic gear shift button

4.3   PROPER USE

The operating element and the display are designed to control a FIT e-bike system and display trip 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 DISPLAY COMFORT

Display		FIT Display Comfort
Product code		500084
Operating temperature	°C	–5 to +40
Storage temperature	°C	–10 to +50
Protection class		IPX7
Weight about	kg	0.1

4.5.2   FIT REMOTE BASIC

Operating element		FIT Remote Basic
Product code		500092 (without spacer)
		501262 (with spacer)
Operating temperature	°C	–10 to +40
Storage temperature	°C	–20 to +50
Protection class		IPX7
Weight about	kg	0.06

4.5.3   FIT REMOTE ESHIFT

Control unit		FIT Remote eShift
Product code		500429
Operating temp.	°C	–10 bis +40
Storage temp.	°C	–20 bis +50
Protection class		IPX7
Weight, approx.	kg	0,06

5   TRANSPORTATION AND STORAGE

5.1   TRANSPORTATION

⚠️ **CAUTION**
- Remove battery before transportation.
- There is a risk of injury if the drive system is switched on unintentionally.

5.1.1   TRANSPORTING E-BIKES

Protect the electrical components and connections on the e-bike from the elements with suitable protective covers.

5.2   STORAGE

⚠️ **CAUTION**
- Store e-bike, display, battery and charger in a clean, dry place where they are protected from sunlight. Do not store outdoors to ensure a long service life.
- The optimum storage temperature for your e-bike is between 10° C and 20 °C.
- Temperatures under -10 °C or over +40 °C must generally be avoided.
- Store e-bike, display, battery and charger separately.

5.3   BREAK IN OPERATION

If you remove the e-bike from service for longer than four weeks, you need to prepare it for a break in operation.

5.3.1   CARRYING OUT A BREAK IN OPERATION

Store the e-bike, battery and charger in a dry, clean environment. We recommend storing them in uninhabited rooms with smoke alarms. Dry locations with an ambient temperature between 10 and 20 °C are ideal.

6   FITTING

6.1   FITTING THE FIT DISPLAY COMFORT

As the mount docks available to hold the display are identical, the FIT Universal Mount is used as an example to show how the display is fitted into place. The display is fitted in the same way on the FIT Display Center Mount.

FIT Display Universal Mount   **FIT Display Center Mount**

Inserting the FIT Display Comfort

1. Place the lower section of the display into the mount.
2. Gently press the display downwards until you feel it latch into place.
3. Optional: Secure display with anti-theft securing screw.

Removing the FIT Display Comfort

1. Remove the anti-theft securing screw if you have one fitted.
2. Press the unlocking mechanism.
3. Remove display, pulling it upwards.

7   OPERATION

7.1   INITIAL OPERATION

7.1.1   ELECTRIC DRIVE SYSTEM

SWITCHING ON THE ELECTRIC DRIVE SYSTEM   The system can only be switched on if a sufficiently charged battery and the display are inserted.
Press the on-off button for at least one second to switch on the system. The «Drive» menu is shown on the display screen.

SWITCHING OFF THE ELECTRIC DRIVE SYSTEM   The drive system switches off automatically to save energy if no rider activity is detected for a longer period of time. (The rider can adjust the time interval until switch-off in the settings menu -> MyBike -> Auto Power Off.) The display is operated using the rocker switch on the operating element so that your hands can remain on the handlebars while you are riding.
Press the on-off button for at least a second to switch off the electric system by hand.

OPERATION   You can use the rocker switch to access the different main screens (right / left) and their respective sub-screens (press). The settings menu can only be accessed when the e-bike is stationary. You can use the plus / minus button to select the level of assistance. You can use plus / minus to scroll up and down a list you have accessed, such as the Settings menu. If the light button and the rocker switch (press) have a new function (OK, Back), this is shown on the display.

7.1.2   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.
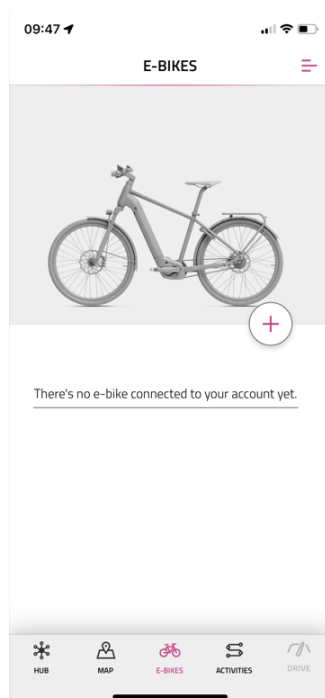
- Select the menu **E-bikes** in the navigation bar
- Press the **+** icon to add your e-bike in the FIT E-Bike Control app
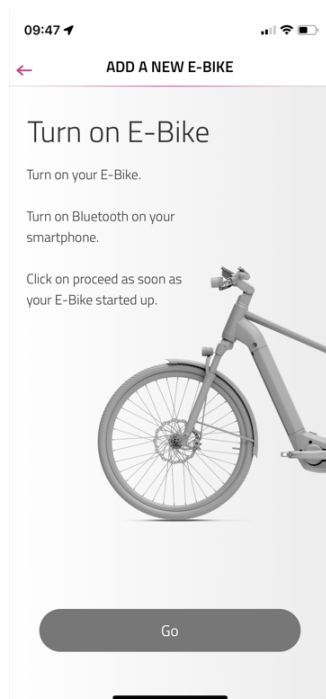
- Follow the instructions in the FIT E-Bike Control app

7.2   SUPPORT MODES

You can set the assistance levels using the + and − buttons on the control unit.

Symbol	Description
HIGH	Maximum motor assistance for active riding up to high pedaling frequencies.
AUTO	The motor assistance adapts to the driver's own performance (more rider's performance = more motor assistance). This mode covers the entire range from ECO to HIGH.
STD	Medium motor assistance for sporty 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).

7.2.1   PUSH ASSIST

Assistance mode icon:

Push assist makes it easier to push an e-bike. Do not use the push assist system to ride your e-bike. If you activate the push assist system, you can push your e-bike more comfortably out of an underground garage or up a steep section.
Push the push assist / boost button briefly to activate push assist mode. If you press again, the push assist system is then activated.
If you release the push assist / boost button for longer than five seconds, you abandon push assist mode.
The choice of gear can influence the power delivery and speed of the push assist system. Always use first gear when using push assist to protect the drive.

CAUTION
If you use the push assist system, the wheels must be in contact with the ground as otherwise there is a risk of injury.

7.2.2   BOOST FUNCTION

Assistance mode icon:

You can use the boost function to increase motor assistance to HIGH irrespective of the selected level of assistance (STD, ECO, AUTO). This function can be switched on at a speed of 7 km/h and above and if the pedal has been rotated at least a quarter turn. If the push assist mode is active, the boost function cannot be used.
Press the push assist / boost button to activate the boost function. The boost function is activated as long as the key is held down.

7.3   LIGHTING

You can use the light button to switch between the following lighting modes (availability depends on the model):

Symbol	Description
	Dimmed head-light
	Main beam
	Light off

Different lighting systems are fitted depending on the bike type and field of use. If the system features a daytime running light function, the bike switches between the dimmed and daytime running lights automatically.
The dimmed headlight is permanently activated on S pedelecs because of EU directives. Pressing the light button will activate or deactivate the main beam as well.

7.4   ESHIFT

You can select the gear shift manually with the Up / Down button. Use the automatic gear button to switch to automatic mode. (Availability depends on the model):

Symbol	Description
3	Current selected gear
A	Automatic gear shift
3 (up arrow)	Gear recommendation – change up a gear
3 (down arrow)	Gear recommendation – change down a gear

- In automatic mode, the Up / Down button is used to reduce / increase the cadence (availability depends on the model)
- If the cadence is changed, the cadence display appears briefly.

Different eShift models are installed depending on the area of use and bicycle type. The available settings depend on the model.

7.5   NOTICE / ERROR ICON

Symbol	Meaning	Action / limitation
❄	Risk of ice (temperature $\leq$ 4 °C)	Ride carefully
⚠	Warning / error	e.g. display configuration error Action: Re-start the system. Contact your FIT specialist dealer if the problem persists.
🔧	Service is due	You need to take your e-bike to your FIT specialist dealer for maintenance as soon as possible.
🌡	Motor overheating	Reduced power for riding assistance. (This is not an error; it is designed to protect the motor)
⚡	Battery protection mode (battery charge level and / or temperature too low)	Reduced power for riding assistance. (This is not an error; it is designed to protect the battery)
🛞	Low tire pressure	Perform a check on the tire pressure and adjust if necessary. (This function is only available with optional tire pressure sensors.)

7.6   MAIN / SUB-SCREENS

MAIN DRIVE SCREEN
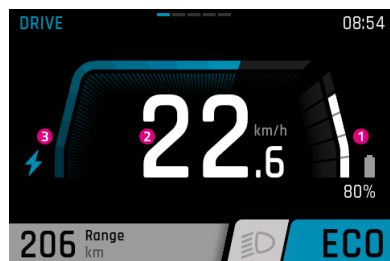
1. Battery level
2. Current speed
3. Current motor assistance

DRIVE SUB-SCREEN
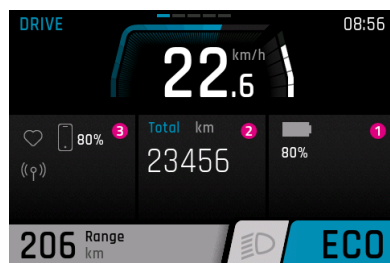
1. Battery charge level (if there is more than one battery, they are all displayed and are numbered consecutively)
2. Odometer (total number of kilometres that the e-bike has covered. This value cannot be reset)
3. Linked devices (heart rate sensor, smartphone, including smartphone battery charge level)

DRIVE SUB-SCREEN 2 (only available with installed FIT tire pressure sensors)
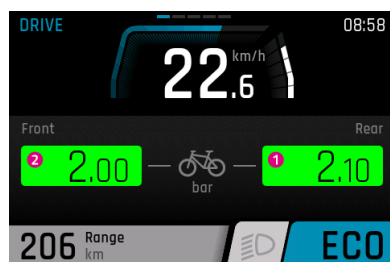
1. Current rear tire pressure
2. Current front tire pressure

TRIP MAIN SCREEN
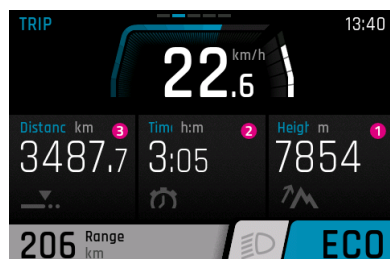
1. Difference in altitude ridden during the current trip
2. Duration of the current trip
3. Distance ridden during the current trip

TRIP SUB-SCREEN

1. Average speed of the current trip
2. Average battery consumption during the current trip
3. Maximum speed for the current trip

FITNESS MAIN SCREEN
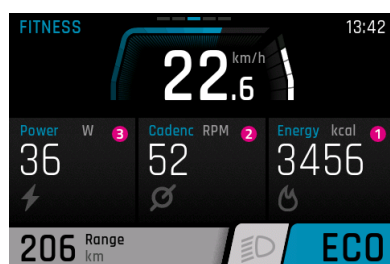
1. Calorie consumption during the current trip
2. Current pedal speed
3. The rider's current pedalling power

AREA MAIN SCREEN

1. Current temperature
2. Current ascent or descent as a percentage
3. Current altitude

7.6.1 NAVIGATION

Navigation is only available in conjunction with the FIT E-Bike Control app. To use the FIT E-Bike Control app, the smartphone must be connected to the e-bike using the FIT Key Card (see section 7.1.2).

There are two types of navigation available:
- **MAP**: Direct destination entry and navigation in the FIT E-Bike Control app.
- **ACTIVITIES**: Tour records and planned tours of the connected komoot account can be displayed here. Navigation is available on all routes under Planned Tours.

NOTICE
To use the navigation function, you must observe the following points:
- The e-bike must be switched on and connected to the smartphone.
- To ensure the connection (Bluetooth) between the e-bike and the FIT E-Bike Control app, the smartphone and e-bike must be no more than five meters apart.
- The e-bike must be linked to the FIT E-Bike Control app (see Section 7.1.2).
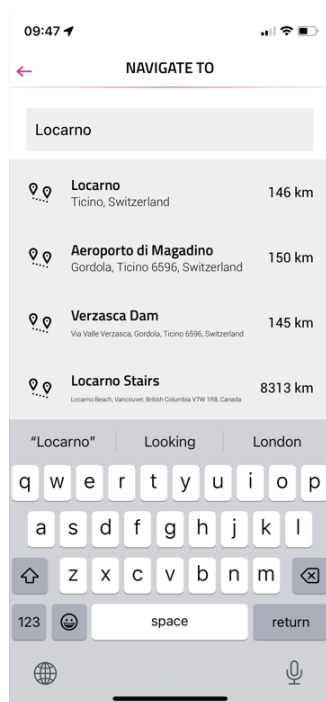
Navigate to:
- Enter the desired navigation destination.

After entering the start and end point, information about the selected route is displayed:

1. Distance to the target.
2. The red battery symbol indicates that the current charging status is not sufficient to reach the destination in any assistance level.
3. Current range in the various assistance levels (the black bar shows the assistance level currently selected on the e-bike).

Navigation can be started with **START**.
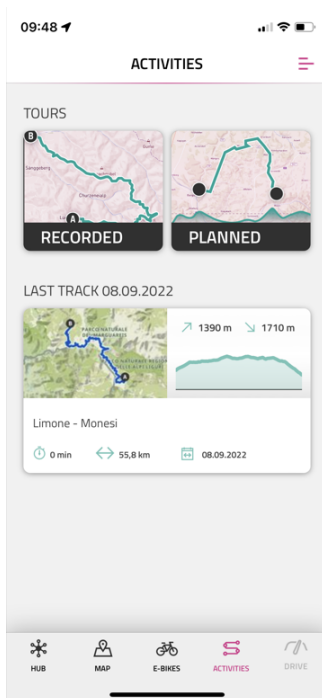
In the ACTIVITIES menu, you can choose between recorded and planned routes from the linked komoot account.
The last route is also available as a speed dial.

NOTICE
- After linking your komoot account for the first time, it will take a while for all planned routes to be synchronized.
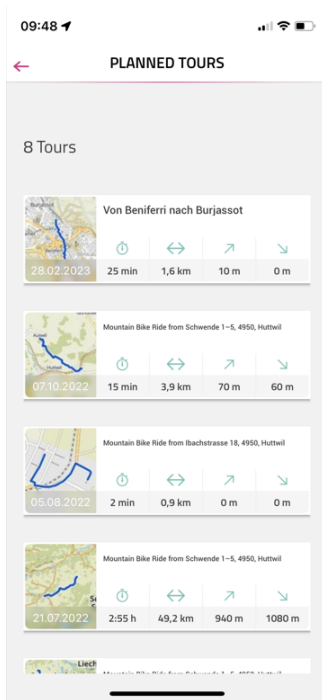
The PLANNED TOURS menu displays the planned routes of the linked komoot account with information on duration, route length, highest and lowest points.
Here you can select a tour for navigation.
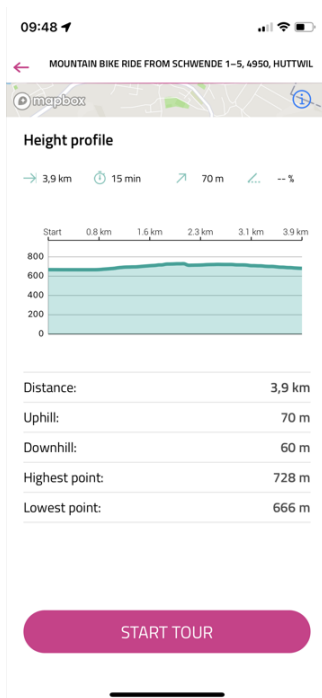
After selecting a tour, the details of the tour are displayed again in detail. Navigation can be started using **START TOUR**.

NAVI MAIN DISPLAY

If navigation on the smartphone has not been started, the following message appears.
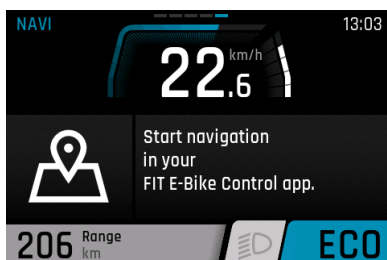
If navigation has been started on the smartphone, the following display appears.

1. The distance to the next navigation point
2. Road ahead
3. Navigation direction at next navigation point

From 100 m before a navigation point, the distance is also indicated by a bar.

1. The distance to the next navigation point

NAVI SUB-DISPLAY
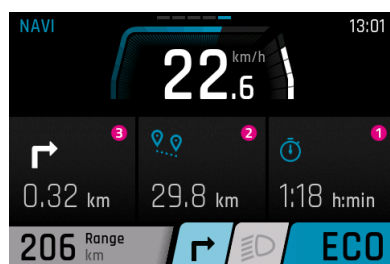
1. Current remaining time to the navigation destination
2. The distance to the next navigation point
3. Navigation direction at next navigation point

NAVI SUPERIMPOSED

From 100 m before a navigation point, the distance to the next navigation point and the road ahead are shown superimposed in every display (except for NAVI).

1. The distance to the next navigation point

DISPLAY CALLS

The call display is only available in conjunction with the FIT E-Bike Control app. To use the FIT E-Bike Control app, the smartphone must be connected to the e-bike using the FIT Key Card (see section 7.1.2).

> ⚠️ **CAUTION**
> Do not take calls while riding.
> When a call is displayed, first find a suitable place to stop before answering the call.

To enable the call to be displayed, the necessary authorizations must be granted to the FIT E-Bike Control app once on the smartphone. In the E-bike Settings menu, the call display must be activated in the **Connectivity** submenu.

The calls are only displayed. Calls cannot be accepted via FIT Remote.

> ℹ️ **NOTICE**
> ▪ Android – Only phone calls are displayed.
> ▪ iOS – Displays phone calls and messenger calls.
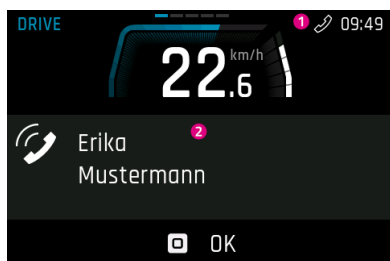
1. Incoming call icon.
   If the call display is acknowledged by pressing the select rocker switch, the caller's name disappears. The icon remains as long as the smartphone displays an incoming call.
2. Name of the caller (taken over by the connected smartphone).
   Only the most common special characters can be displayed. Unrepresentable characters and emoticons are replaced by a question mark (?) on the display.

7.7   CHARGE INDICATOR

Menu – Charge The charge indicator appears as soon as the charger is connected to the e-bike. Use the plus / minus button to select the charging mode (NORM, FAST, STORE) and save it by pressing the select rocker switch. The Long Life Mode can be switched on or off with the light button.

Charging mode	Description
NORM (Normal)	Normal charging
FAST (Fast)	Fast charging
STORE (Storage)	Storage mode If the battery is not used for an extended period of time, we recommend storage mode «Storage» and an optimum storage temperature between 5 and 15 °C. In storage mode, the battery is charged to about 60%, which allows the battery to bridge the time until it is reused as gently as possible.
Long Life	If the battery is used in LONG LIFE mode, slightly less capacity is available. On the other hand, the battery retains its capacity for longer. The LONG LIFE mode is available for both normal and fast charging. In LONG LIFE mode, the battery is charged to about 80%.

NORMAL CHARGING OF SINGLE BATTERY
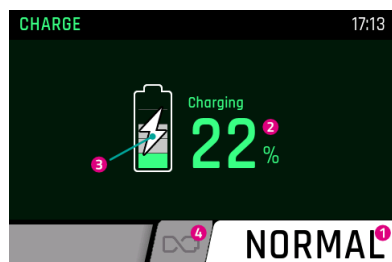
1. Current charging mode
2. Current battery charge level
3. Shows battery is currently being charged
4. Long Life mode (grayed out = switched off)

NORMAL CHARGING OF MULTIPLE BATTERIES
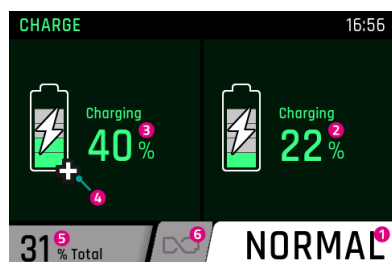
1. Current charging mode
2. Current charge level of the second battery
3. Current charge level of the first battery
4. Range Extenders are displayed with a plus sign
5. Charging status based on the total capacity of the batteries on the e-bike
6. Long Life mode (grayed out = switched off)

LONG LIFE MODE CHARGING
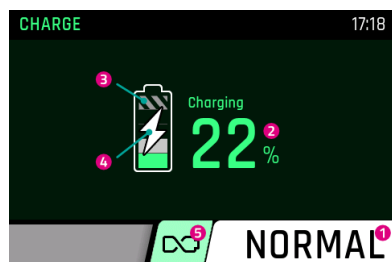
1. Current charging mode
2. Current battery charge level
3. As the battery is not fully charged in Long Life mode, the rest is gray-hatched
4. Shows battery is currently being charged
5. Long Life mode (green background = switched on)

CHARGING IN STORAGE MODE
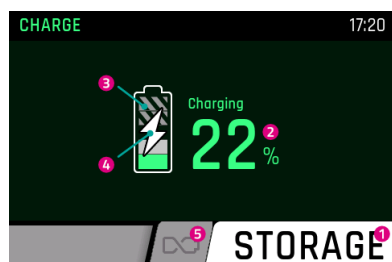
1. Current charging mode
2. Current battery charge level
3. As the battery is not fully charged in storage mode, the rest is gray-hatched
4. Shows battery is currently being charged
5. Long Life mode (grayed out = switched off)

8   SETTINGS MENU

The settings menu is the last screen, which can be accessed by pressing the rocker switch to the right. It can only be accessed when the e-bike is stationary.

8.1   DISPLAY COMFORT
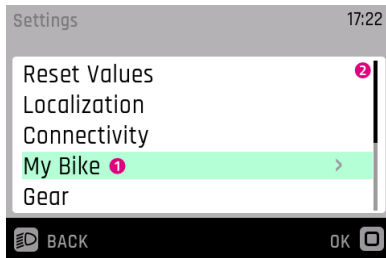
1. Currently selected sub-menu
2. Scroll bar
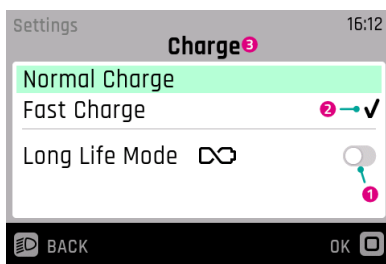
1. Option disabled (left slide switch and grayed out)
2. Currently selected setting
3. Current sub-menu
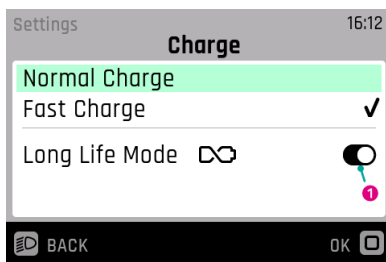
1. Option enabled (slide switch on the right and black)

8.2   MENU STRUCTURE

1. Reset values
   (a) Reset trip
       i. Reset manually
       ii. Automatic reset
   (b) Factory settings

2. Basic settings
   (a) Language
   (b) Date and time
       i. Time
       ii. Time zone (only after activation by the specialist dealer. Coming soon.)
       iii. Automatic daylight saving time (only after having been enabled by the specialist dealer. Coming soon.)
       iv. Set time automatically (only after having been enabled by the specialist dealer. Coming soon.)
       v. Time format
       vi. Date
   (c) Units (metric / imperial)

3. Connectivity
   (a) Connecting the pulse monitor
   (b) Disconnecting the pulse monitor
   (c) Call display

4. My Bike
   (a) Assistance
   (b) Altitude calibration
   (c) Automatic backlight
   (d) Power off
   (e) Vibration feedback
   (f) Engine shutdown when braking (S-Pedelec only)
   (g) Disable menu display (remote display only)
   (h) Push assist speed (only available with Panasonic motors)
   (i) Brake recuperation (only available on some motors)
   (j) Assistance speed limitation

5. Gears (only available with eShift)
   ▪ Setting options depend on the product

6. Charging
   (a) Normal charging
   (b) Fast charging
   (c) LONG LIFE Mode

7. Tire pressure (only available with tire pressure sensors)
   (a) Pressure unit
   (b) Front
   (c) Rear

8. Messages

9. About

8.3 SETTING OPTIONS

Menu – Reset values
The tour data and the system can be reset to the factory settings in this menu.

Reset trip
Resets the trip data. You can choose between resetting manually (one-time) or resetting automatically according to the following criteria:

Selection	Description
Off	Automatic reset disabled
After rebooting	Reset automatically when the e-bike is switched off and on again
After 4 hours of inactivity	Reset automatically when the e-bike is switched off for more than 4 hours
Once a day	The tour dates are reset once a day (at 0h00)

Factory settings
Returns the system to its default state. All settings and saved values are deleted. The deletion cannot be undone.

Menu – Basic settings
The basic display settings can be carried out in this menu.

Language
Select the display language.

Date and time
In the Date and time menu, you can configure all the settings for the date and time.

Time
You can set the current time in the time menu. The current digit can be changed by pressing the plus / minus button. Select the number to be changed with the selection rocker switch. Press the selection rocker switch to save the time and quit the time menu. Press "Cancel" to leave the menu without saving the changes.

Time zone (only after having been enabled by the specialist dealer. Coming soon.)
Setting the current time zone.

Automatic daylight saving time (only after having been enabled by the specialist dealer. Coming soon.)
If the Automatic daylight saving time setting is activated, the time is automatically changed between summer and winter time.

Set time automatically (only after having been enabled by the specialist dealer. Coming soon.)
If Set time automatically is enabled, the time and date (UTC) are adopted from the connected mobile phone or installed FIT E-Bike Tracker.
The time and date can no longer be set manually on the e-bike if the automatic time setting is enabled.
The time zone, automatic daylight saving time and time format can still be set on the e-bike. This means that a different time zone can be displayed on the e-bike, regardless of the mobile phone setting.

Time format
Toggle the time display between 12h and 24h.

Date
You can set the current date in the date menu. The current digit can be changed by pressing the plus / minus button. Select the number to be changed with the selection rocker switch. Press the selection rocker switch to save the date and quit the menu. Press "Cancel" to leave the menu without saving the changes.

Units
You can switch between the metric and imperial system in the units menu. The following units are replaced:

Measured value	Metric	Imperial
Distance	km	mi
Speed	km/h	mph
Energy consumption	Wh/km	Wh/mi
Temperature	°C	°F
Elevation	m.a.s.l.	FAMSL

Menu – Connectivity
Information on the availability and use of add-on devices that can be connected can be found on the e-bike manufacturer's website.

Menu – My Bike
The user-related settings for the e-bike can be carried out in this menu.

Assistance
You can adjust the assistance level of the e-bike individually. Use the selection rocker switch in the assistance menu to set the desired assistance level. The preset assistance always affects the three levels («ECO», «STD», «AUTO») equally. In the "HIGH" stage, the motor always provides full assistance regardless of the individual assistance setting. If all the bars on the display are black, the maximum possible amount of assistance is set in the assistance levels «ECO», «STD» and «AUTO». This setting results in a shorter range. If only the bar at the far left of the display is black, the minimum amount of assistance is set in the assistance levels «ECO», «STD» and «AUTO». This setting enables the maximum possible range to be achieved in the «ECO» assistance level. The setting can be secured by pressing the selection rocker switch. If Expert mode is activated via the FIT E-Bike Control app, the e-bike's assistance is set via the app and cannot be changed on the e-bike.

Altitude calibration
The altimeter is calibrated in the calibration menu.
Important: The altitude measurement depends on the atmospheric pressure and can lead to deviations if this changes. We recommend that you carry out a calibration if the weather changes.

Auto. backlighting
You can choose between the automatic adjustment of the display's backlighting to the ambient light (ON) or a manual setting of the backlighting (OFF) between 10 and 100% in this menu. Pressing the selection rocker switch saves the selected backlight and exits the menu. Clicking Cancel exits the menu without saving any changes.

NOTICE
- If the Display gets too hot, the backlighting is automatically reduced to 20%.
  This is a precautionary measure to prevent temporary discoloration on the display. When the temperature has fallen back to normal, the brightness automatically switches back to the previously set value.

Power off
The Power off menu can be used to set the time after which the system switches off automatically when not in use.

Vibration feedback
The vibration can be set as feedback from the control unit in the vibration feedback menu. The following setting options are available:

Selection	Description
Off	No vibration feedback
On	Every button press / active message generates vibration feedback
Only for messages	Vibration feedback is only generated for messages

Motor cut-off during braking
In the menu Motor cut-off during braking, you can choose whether or not motor assistance should switch off automatically during braking. This function is only available for S-Pedelecs.

Disable menu display
In the Disable menu display menu, you can select whether, during the trip, the selection display appears while switching between the main displays or whether you want to switch directly between the main displays. This function is only available with the Remote display.

Push assist speed
The speed of the push assist function can be set in the Push assist speed menu. This function is only available for e-bikes with a Panasonic motor.

Brake recuperation
In the Brake recuperation menu, you can select whether the motor supports braking by means of recuperation. Part of the energy recovered recharges the battery. This function is only available for e-bikes with a hub motor.

Assistance speed limitation
In the Assistance speed limitation menu, you can set the speed up to which the motor assistance should be active.

Menu – Charge
The desired charging mode as well as the LONG LIFE mode for the battery can be set in the Charge menu.

Charging mode	Description
Normal	Normal charging
Fast	Fast charging
Long Life	If the battery is used in LONG LIFE mode, there is slightly less capacity available. On the other hand, the battery retains its capacity for longer. The LONG LIFE mode is available for both normal and fast charging.

Menu – Messages
The list of current error messages can be viewed in the messages menu.

Menu – About
The About menu shows the software version and settings of the individual system components. Motor shows, for example, the maximum torque and whether a motor upgrade has been activated.

8.4   ESHIFT SETTINGS

8.4.1   ENVIOLO AHI PRO 40T FIT AND AHI PRO 44T FIT ELECTRONIC GEARS
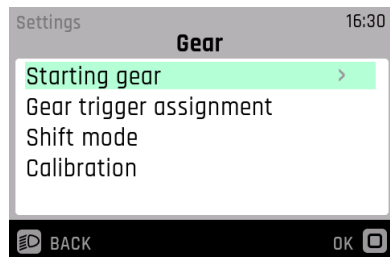
- Starting gear – choice of starting gear (only active in Automatic mode).
- Gear trigger assignment – selection of shift direction for the up/down button on the FIT remote eShift.
- Shift mode – selection of thresholds for automatic mode.
- Calibration – calibration of the gears (to be performed with the corresponding error message).
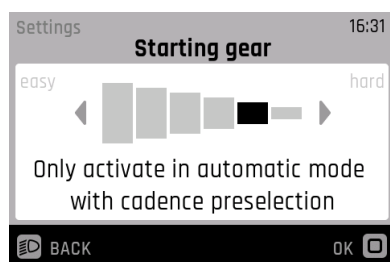
- Selection of the starting gear to be used in Automatic mode.
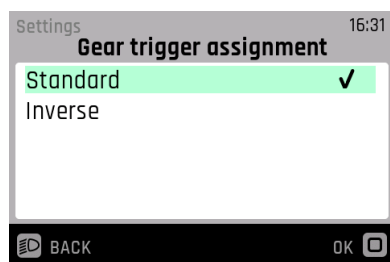
- Selection of the shift direction for the up / down button on the FIT remote eShift.
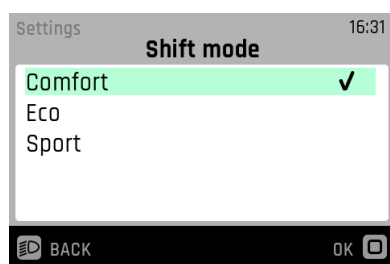
- Comfort – for comfortable driving (in Automatic mode)
- Eco – for eco-friendly driving (in Automatic mode)
- Sport – for sporty driving (in Automatic mode)

- Starting calibration

Settings	16:32
Calibration	
Calibration started. Slow pedaling required.	

BACK   OK
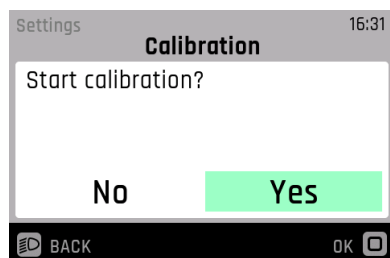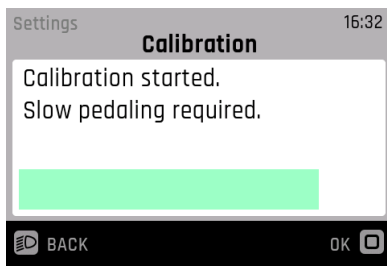
- Follow the instructions on the display

Settings	16:32
Calibration	
Calibration successfully completed.	
✓	

BACK   OK
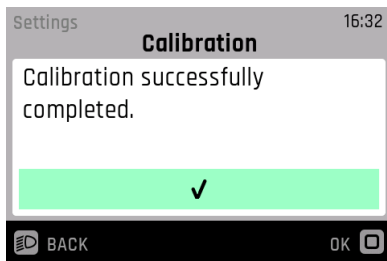
- Calibration completed successfully.

Settings	16:34
Calibration	
Calibration unsuccessful. Try again?	
No Yes	

BACK   OK
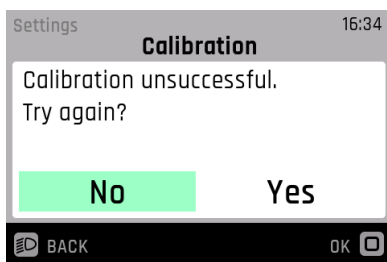
- The calibration could not be performed.

Settings	16:34
Calibration	
An error occured. Try again?	
No Yes	

BACK   OK
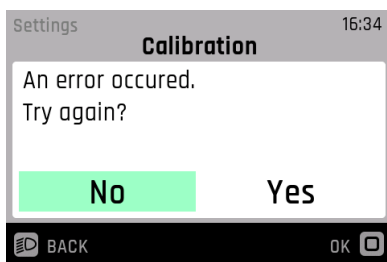
- An error occurred during calibration.

9 ERROR MESSAGES

9.1 GENERAL INFORMATION

The parts of the e-bike system are permanently monitored during use and charging. The error code is shown on the display when an error is detected. Press on the rocker switch to acknowledge the error and switch back to the default screen on the display. If the error cannot be acknowledged, use the table in section 9.3.1 to eliminate it or contact your specialist dealer. Power assistance is automatically stopped where necessary depending on the specific error code. You can still use the e-bike conventionally as a normal bicycle even if the motor no longer provides assistance. An error can be clearly categorised with the displayed category and the displayed code. A text which indicates the error category is also always displayed.

9.2 STATUS LED ON OPERATING ELEMENT AND DISPLAY

The operating element and the display each feature a status LED to indicate error statuses. The operating element's LED is located in the rocker switch. It is in the top left-hand corner in Display Compact and in the top right-hand corner in Display Comfort.

The statuses are listed in the following table:

Colour	Flash sequence	Status
Green	Continuously lit	System must be connected to the maintenance tool at the specialist dealer's.
Red	Continuously lit	Re-start the system if the status LED still lights up red. Have component replaced at the specialist dealer's.
Red	Flashing	Re-start the system if the status LED still flashes red. Have component replaced at the specialist dealer's.

9.3 INFORMATION / ERROR DISPLAY

There are five different types of error messages:

Type	Display	Effect
Information	Message on gray background	Motor assistance available The message can be acknowledged by pressing the selection rocker switch.
Note	Message on gray background	Motor assistance available The message can be acknowledged by pressing the selection rocker switch.
Warning	Message on orange background	Motor assistance available The message can be acknowledged by pressing the selection rocker switch.
Error	Message on red background	No motor assistance Motor assistance is only available once the error has been rectified.
Critical error	Message on red background and the selection rocker switch lights up red	No motor assistance Motor assistance is only available once the error has been rectified and the system has been restarted.

INFORMATION
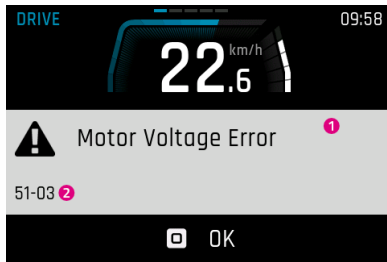
1. Error message
2. Error code

NOTE
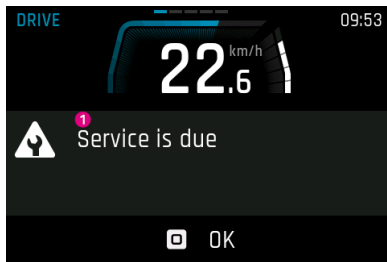
1. Notification

WARNING
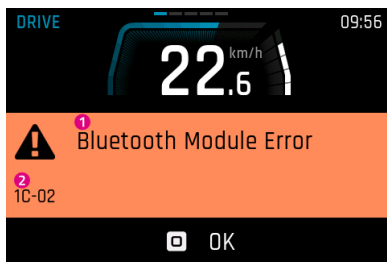
1. Error message
2. Error code

ERROR / CRITICAL ERROR
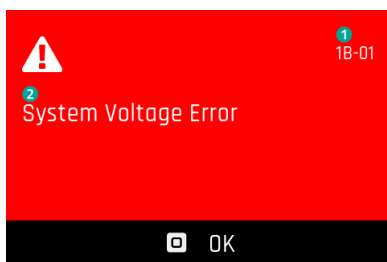
1. Error code
2. Error message

9.3.1 ERROR TABLE

If the last two digits are listed with "xx" as a placeholder, this provides the specialist dealer with additional information for error analysis.

Error code	Displayed error message	Action / limitation
0A-01, 0B-01	Remote-Motor Communication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0A-02, 0B-02	Remote-Display Communication Error	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
0A-03, 0A-04, 0A-05, 0A-06, 0B-03, 0B-04, 0B-05, 0B-06	Remote-Battery Communication Error	1. Restart system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert battery and start system. 5. Contact your specialist dealer if the problem persists.
0A-07, 0B-07	Remote-Gear Shift Communication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0A-08, 0B-08	Errore comun. Remote-cambio	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0A-0A, 0B-0A	Remote-Charger Communication Error	1. Re-start the system. 2. Switch off system. 3. Disconnect charger from system and socket. 4. Wait until the status LED goes out. 5. Check plug contacts on the e-bike and charger and clean if necessary. 6. Plug charger into the socket again. 7. Plug charger into the system again and start system up. 8. Contact your specialist dealer if the problem persists.
0A-0B, 0B-0B	Remote-Lock Communication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0C-00	Remote Identification Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0C-01	Remote-Motor Identification Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
0C-02	Remote-Display Identification Error	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
0C-03, 0C-04, 0C-05, 0C-06	Remote-Battery Identification Error	1. Restart system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert battery and start system. 5. Contact your specialist dealer if the problem persists.
0C-07	Remote-Speednode Identification Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0C-08	Remote-Gear Shift Identification Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0C-0A	Remote-Charger Identification Error	1. Re-start the system. 2. Switch off system. 3. Disconnect charger from system and socket. 4. Wait until the status LED goes out. 5. Check plug contacts on the e-bike and charger and clean if necessary. 6. Plug charger into the socket again. 7. Plug charger into the system again and start system up. 8. Contact your specialist dealer if the problem persists.
0C-0B	Remote-Lock Identification Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0D-01	Motor Authentication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0D-02	Display authentication error	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
0D-03, 0D-04, 0D-05, 0D-06	Battery Authentication Error	1. Restart system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert battery and start system. 5. Contact your specialist dealer if the problem persists.
0D-07	Speednode Authentication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
0D-08	Gear Switch Authentication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0D-0A	Charger Authentication Error	1. Re-start the system. 2. Switch off system. 3. Disconnect charger from system and socket. 4. Wait until the status LED goes out. 5. Check plug contacts on the e-bike and charger and clean if necessary. 6. Plug charger into the socket again. 7. Plug charger into the system again and start system up. 8. Contact your specialist dealer if the problem persists.
0D-0B	Lock Authentication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0E-xx	Remote-Authentication Error	1. Restart system. 2. Contact your specialist dealer if the problem persists.
0F-00	Remote Update Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0F-01	Motor Update Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0F-02	Display Update Error	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
0F-03, 0F-04, 0F-05, 0F-06	Battery Update Error	1. Restart system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert battery and start system. 5. Contact your specialist dealer if the problem persists.
0F-07	Speednode Update Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
0F-08	Gear Shift Update Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
0F-0A	Charger Update Error	1. Re-start the system. 2. Switch off system. 3. Disconnect charger from system and socket. 4. Wait until the status LED goes out. 5. Check plug contacts on the e-bike and charger and clean if necessary. 6. Plug charger into the socket again. 7. Plug charger into the system again and start system up. 8. Contact your specialist dealer if the problem persists.
0F-0B	Lock Update Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
10-xx	Remote Software Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
11-xx	Remote-Battery Communication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
12-01	Remote-Motor Pairing Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
12-02	Remote-Display Pairing Error	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
12-03, 12-04, 12-05, 12-06	Remote-Battery Pairing Error	1. Restart system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert battery and start system. 5. Contact your specialist dealer if the problem persists.
12-07	Remote-Speednode Pairing Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
12-08	Remote-Gear Shift Pairing Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
12-0A	Remote-Charger Pairing Error	1. Re-start the system. 2. Switch off system. 3. Disconnect charger from system and socket. 4. Wait until the status LED goes out. 5. Check plug contacts on the e-bike and charger and clean if necessary. 6. Plug charger into the socket again. 7. Plug charger into the system again and start system up. 8. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
12-0B	Remote-Lock Pairing Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
13-xx	Remote Internal Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
14-xx	Remote Configuration Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
15-01	Remote-Motor Pairing Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
15-02	Remote-Display Pairing Error	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
15-03, 15-04, 15-05, 15-06	Remote-Battery Pairing Error	1. Restart system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert battery and start system. 5. Contact your specialist dealer if the problem persists.
15-07	Remote-Speednode Pairing Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
15-08	Remote-Gear Shift Pairing Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
15-0A	Remote-Charger Pairing Error	1. Re-start the system. 2. Switch off system. 3. Disconnect charger from system and socket. 4. Wait until the status LED goes out. 5. Check plug contacts on the e-bike and charger and clean if necessary. 6. Plug charger into the socket again. 7. Plug charger into the system again and start system up. 8. Contact your specialist dealer if the problem persists.
15-0B	Remote-Lock Pairing Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
16-00	Remote Theft Detection	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
16-01	Motor Theft Detection	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
16-02	Display Theft Detection	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
16-03, 16-04, 16-05, 16-06	Battery Theft Detection	1. Restart system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert battery and start system. 5. Contact your specialist dealer if the problem persists.
16-07	Speednode Theft Detection	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
16-08	Gear Shift Theft Detection	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
16-0A	Charger Theft Detection	1. Re-start the system. 2. Switch off system. 3. Disconnect charger from system and socket. 4. Wait until the status LED goes out. 5. Check plug contacts on the e-bike and charger and clean if necessary. 6. Plug charger into the socket again. 7. Plug charger into the system again and start system up. 8. Contact your specialist dealer if the problem persists.
16-0B	Lock Theft Detection	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
17-00	Remote Defective Components	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
17-01	Motor Defective Components	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
17-02	Display Defective Components	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
17-03, 17-04, 17-05, 17-06	Battery Defective Components	1. Restart system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert battery and start system. 5. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
17-07	Speednode Defective Components	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
17-08	Gear Shift Defective Components	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
17-0A	Charger Defective Components	1. Re-start the system. 2. Switch off system. 3. Disconnect charger from system and socket. 4. Wait until the status LED goes out. 5. Check plug contacts on the e-bike and charger and clean if necessary. 6. Plug charger into the socket again. 7. Plug charger into the system again and start system up. 8. Contact your specialist dealer if the problem persists.
17-0B	Lock Defective Components	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
18-00	Remote Starting Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
18-01	Motor Start Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
18-02	Display Start Error	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
18-03, 18-04, 18-05, 18-06	Battery Start Error	1. Restart system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert battery and start system. 5. Contact your specialist dealer if the problem persists.
18-07	Speednode Start Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
18-08	Gear Shift Start Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
18-0A	Charger Start Error	1. Re-start the system. 2. Switch off system. 3. Disconnect charger from system and socket. 4. Wait until the status LED goes out. 5. Check plug contacts on the e-bike and charger and clean if necessary. 6. Plug charger into the socket again. 7. Plug charger into the system again and start system up. 8. Contact your specialist dealer if the problem persists.
18-0B	Lock Start Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
19-xx	Remote Safety Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
1A-01	Manipulation detected	1. Check mounting position of the magnet and speed sensor. 2. Restart the system. 3. If the problem persists, please contact your specialist dealer.
1A-02	Manipulation detected Speed sensor missing	1. Check mounting position of the magnet and speed sensor. 2. Restart the system. 3. If the problem persists, please contact your specialist dealer.
1B-xx	System Voltage Error	1. Check that the correct battery has been inserted (36V / 48V). 2. Re-start the system. 3. Contact your specialist dealer if the problem persists.
1C-xx	Bluetooth Module Error	1. Re-start the system. 2. Re-start FIT E-Bike Control (app); update if necessary. 3. Contact your specialist dealer if the problem persists.
1D-xx	EMS mode active	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
1E-xx	OEM mode active	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
1F-xx	TEST mode active	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
20-xx	Reserve mode active (info text)	1. Charge battery. 2. Contact your specialist dealer if the problem persists.
21-xx	Lock Error	1. Restart system. 2. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
22-xx	Full load cycle active (info text)	Info: battery is charged 100% for the purposes of calibration despite LONG LIFE mode.
23-09	Tire pressure sensor error Low front battery	Sensor must be replaced soon, please contact your specialist dealer.
23-0A	Tire pressure sensor error Low rear battery	Sensor must be replaced soon, please contact your specialist dealer.
23-0B	Tire pressure sensor error Low battery front right	Sensor must be replaced soon, please contact your specialist dealer.
23-0C	Tire pressure sensor error Low battery rear right	Sensor must be replaced soon, please contact your specialist dealer.
23-xx	Pressure Sensor Error	Sensor may need to be replaced. Contact your specialist dealer.
29-xx	Display Communication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
2A-xx	Display Software Error	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
2B-xx	Display Authentication Error	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
2C-xx	Display Peripheral Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
2D-xx	Display Identification Error	1. Re-start the system. 2. Switch off system. 3. Remove display from the mount, check contacts and clean if necessary. 4. Re-insert display and start system. 5. Contact your specialist dealer if the problem persists.
18-xx	Motor Communication Error	1. Check plug contacts on the battery and bicycle and clean if necessary. 2. Re-start the system. 3. Contact your specialist dealer if the problem persists.
49-xx	Motor Unit Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
4A-xx	Motor Overheat	1. Switch off system. 2. Allow motor to cool and clean motor ventilation slots if necessary. 3. Switch on system. 4. Contact your specialist dealer if the problem persists.
4B-01, 4B-02	Motor Speed Sensor Error	1. Restart system. 2. Check that the magnet and speed sensor are correctly positioned. 3. Contact your specialist dealer if the problem persists.
4C-01	Motor Torque Sensor Error	1. Re-start the system without applying pressure to the pedals. 2. Contact your specialist dealer if the problem persists.
4D-01	Motor Gear Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
4E-xx	Motor Cadence Sensor Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
4F-xx	Motor Authentication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
50-xx	Motor Current Error	1. Remove battery and wait 60s. 2. Reinsert battery and restart battery. 3. Contact your specialist dealer if the problem persists.
51-xx	Motor Voltage Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
52-xx	Motor Angled Sensor Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
53-xx	Motor Software Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
67-01, 67-03, 67-06, 67-12	Battery Voltage Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
67-02, 67-07, 67-08, 67-09, 67-13	Battery Voltage Error	1. Connect battery to the charger. 2. Re-start the system. 3. Contact your specialist dealer if the problem persists.
67-05, 67-0A, 67-0B, 67-11, 67-15	Battery Voltage Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
68-01, 68-05, 68-06, 68-07, 68-09, 68-16, 68-17, 68-18, 68-19, 68-1A	Battery current error Discharge error	1. Switch the system off. 2. Remove the battery. 3. Re-insert battery. 4. Start the system. 5. If the problem persists, please contact your specialist dealer.
68-02, 68-03, 68-08, 68-0A	Battery current error Charging error	1. Disconnect the charger from the battery. 2. Reconnect the charger and start charging. 3. If the problem persists, please contact your specialist dealer.
68-04, 68-11, 68-12	Battery current error Short circuit	1. Switch the system off. 2. Remove the battery. 3. Re-insert battery. 4. Start the system. 5. If the problem persists, please contact your specialist dealer.
68-0B, 68-13	Battery current error Overcurrent error	1. Switch the system off. 2. Remove the battery. 3. Re-insert battery. 4. Start the system. 5. If the problem persists, please contact your specialist dealer.
68-14	68-14 Battery current error Start error	1. Switch the system off. 2. Remove the battery. 3. Re-insert battery. 4. Start the system. 5. If the problem persists, please contact your specialist dealer.
68-15	Battery current error	1. Switch the system off. 2. Remove the battery. 3. Re-insert battery. 4. Start the system. 5. If the problem persists, please contact your specialist dealer.
69-01, 69-08	Battery Temperature Error	1. Disconnect charger from the battery. 2. Leave battery to cool down (> 60 minutes). 3. Start the charging process again. 4. Contact your specialist dealer if the problem persists.
69-02, 69-09	Battery Temperature Error	1. Switch off e-bike. 2. Leave battery to cool down (> 60 minutes). 3. Start system. 4. Contact your specialist dealer if the problem persists.
69-03, 69-0C	Battery temperature error	1. Take battery into warm environment. 2. Leave battery to warm up (> 30 minutes). 3. Start charging again. 4. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
69-04, 69-0D	Battery Temperature Error	1. System is operated below the permitted temperature. 2. Allow battery to warm up in a warm environment (> 30 minutes). 3. Start system. 4. Contact your specialist dealer if the problem persists.
69-05, 69-0A, 69-0F, 69-11, 69-12	Battery temperature error	1. Switch off e-bike. 2. Leave battery to cool down (> 60 minutes). 3. Start system. 4. Contact your specialist dealer if the problem persists.
69-06, 69-0B, 69-10	Battery Temperature Error	1. System is operated below the permitted temperature. 2. Allow battery to warm up in a warm environment (> 30 minutes). 3. Start system. 4. Contact your specialist dealer if the problem persists.
69-13	Battery Temperature Error	1. Start system. 2. Contact your specialist dealer if the problem persists.
6A-xx	Battery Software Error	1. Check that the correct battery has been inserted (36V / 48V). 2. Check plug contacts on the battery and bicycle and clean if necessary. 3. Carry out system restart. 4. Contact your specialist dealer if the problem persists.
6B-xx	Battery Hardware Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
6C-xx	Battery Communication Error	1. Check whether the correct battery has been inserted (36V / 48V). 2. Check 2 plug contacts on the battery and bicycle and clean if necessary. 3. Carry out system restart. 4. Contact your specialist dealer if the problem persists.
6D-xx	Battery Authentication Error	1. Check that the correct battery has been inserted (36V / 48V). 2. Check plug contacts on the battery and bicycle and clean if necessary. 3. Perform system restart. 4. Contact your specialist dealer if the problem persists.
6E-xx	Unknown Battery Error	1. Check that the correct battery has been inserted (36V / 48V). 2. Check plug contacts on the battery and bicycle and clean if necessary. 3. Perform system restart. 4. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
FF–xx	Permanent Battery Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
86-xx	Speednode Software Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
87-xx	Speednode Authentication Error	1. Re-start the system. 2. Contact your specialist dealer if the problem persists.
8C-06	Gears hardware error Calibration required	1. Calibrate the gears according to the instructions in the corresponding operating instructions. 2. If the problem persists, please contact your specialist dealer. .
8C-xx	Gears hardware error	1. Restart the system. 2. If the problem persists, please contact your specialist dealer.
95-xx	Charger Software Error	1. Check that the correct battery has been inserted (36V / 48V). 2. Disconnect charger from system and socket. 3. Wait until the status LED goes out. 4. Plug charger into the socket again.. 5. Plug charger into the system again. 6. Contact your specialist dealer if the problem persists.
96-xx	Charger Voltage Error	1. Check that the correct battery has been inserted (36V / 48V). 2. Disconnect charger from system and socket. 3. Wait until the status LED goes out. 4. Plug charger into the socket again. 5. Plug charger into the system again. 6. Contact your specialist dealer if the problem persists.
97-xx	Charger Current Error	1. Check that the correct battery has been inserted (36V / 48V). 2. Disconnect charger from system and socket. 3. Wait until the status LED goes out. 4. Plug charger into the socket again.. 5. Plug charger into the system again. 6. Contact your specialist dealer if the problem persists.
98-xx	Charger Temperature Error	1. Disconnect charger from the battery. 2. Leave charger to cool down (> 30 minutes). 3. Start the charging process again. 4. Contact your specialist dealer if the problem persists.
9A-xx	Lock Authentication Error	1. Check that an original FIT lock is installed. 2. Restart system. 3. Contact your specialist dealer if the problem persists.
9B-xx	Lock blocked	1. Restart system. 2. Check lock for dirt. 3. Contact your specialist dealer if the problem persists.

Error code	Displayed error message	Action / limitation
9C-xx	Lock Hardware Error	1. Restart system. 2. Check lock for damage. 3. Contact your specialist dealer if the problem persists.
9D-xx	Lock movement detected	1. Restart system. 2. Check lock for damage. 3. Contact your specialist dealer if the problem persists.

10   CLEANING AND SERVICING

10.1   BASIC CLEANING

10.1.1   CLEANING THE DISPLAY AND OPERATING ELEMENT

NOTICE
The display and operating element will be permanently damaged if water enters them.
- Never immerse the display or operating element in water.
- Never clean with a pressure washer, water jet or compressed air.
- Never use cleaning agents.
- Remove the display from the e-bike before cleaning.
- Carefully clean the display and operating element with a soft, damp cloth.

11 TROUBLESHOOTING, FAULT CLEARANCE AND REPAIR

11.1 TROUBLESHOOTING AND FAULT CLEARANCE

11.1.1 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 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 a specialist dealer for a detailed check.

11.1.2 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. 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. 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 **on-off button** (operating element) to switch on the system.
	Is the level of assistance set to **OFF**?	3. Set the level of assistance to **HIGH**, **STD**, **ECO** or **AUTO**. 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. 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 tires pumped to an adequate pressure?	1. Pump up tires.
	Is the level of assistance set to **OFF**?	2. Set the level of assistance to **HIGH**, **STD**, **ECO** or **AUTO**.
	The battery charge might be low.	3. Check battery is charged. 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. 6. If assistance is still not supplied, contact your specialist dealer.

11.2   REPAIR

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

11.2.1   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.

11.2.2   REPLACING THE LIGHTS

Replace components with ones in the right power class.

11.2.3   ADJUSTING THE HEADLIGHT

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

12   RECYCLING AND DISPOSAL

12.1   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.