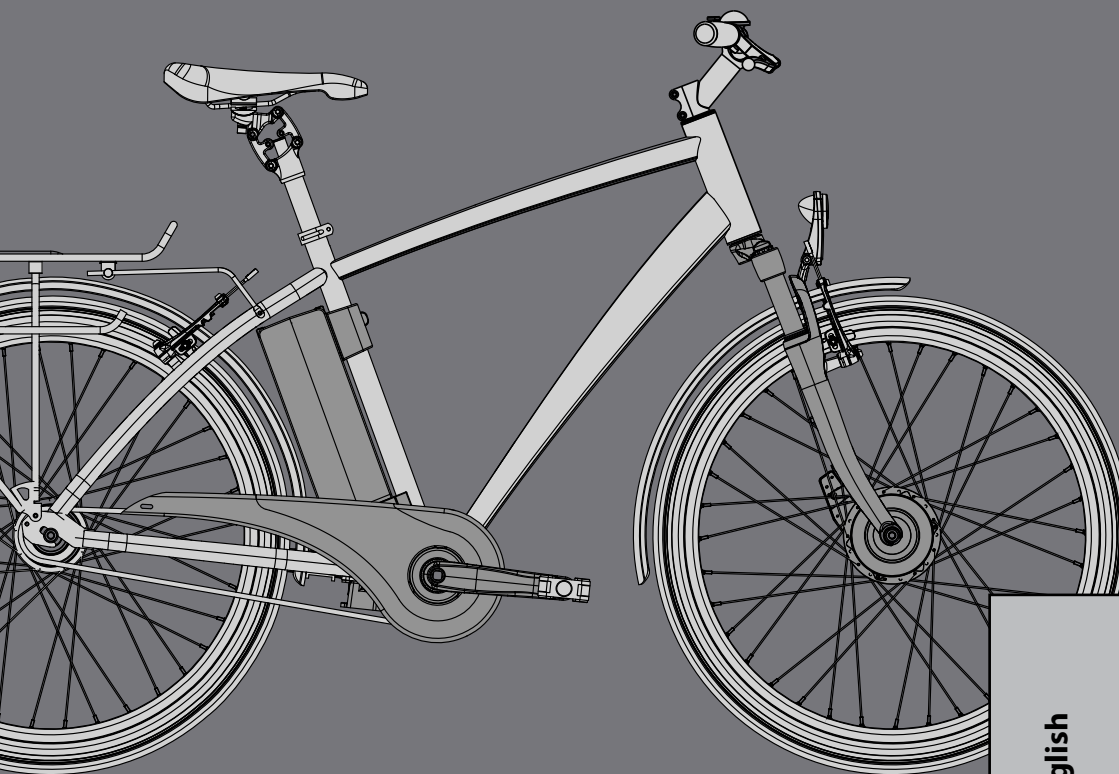




Owners Manual

SRS/SY pedelec



SRS/SY pedelec

English

**WARNING !**

Failure to comply with the given warnings and instructions may cause damage to the product, injuries or even death to the rider and user.

- ▶ Be sure to read this manual carefully before using your electric bicycle. Inappropriate usage of your electric bicycle may cause damage to the product, serious injuries or even death to the rider.
- ▶ Do not use damaged components – consult your authorised SR SUNTOUR dealer immediately.
- ▶ The battery of the electric bicycle contains chemicals which can be dangerous when used improperly, warnings included in this manual must be followed in order to reduce the possibility of dangerous situations resulting in injuries or possible death. Never try to open any SR SUNTOUR device of the electric bicycle, especially not the battery. Opening any SR SUNTOUR battery implies the risk of getting seriously injured.
- ▶ Do not let the battery come into contact with water or any other liquid other than rain or snowfall. The guarantee will be void if the battery gets in contact with water. Whenever the battery gets in contact with liquid immediately disconnect it to prevent dangerous situations.
- ▶ Do not store the battery above room temperature. The battery life expectancy will be significantly reduced if the battery is stored under higher temperatures.
- ▶ Do not place the battery immediately close to a flame or any other heat source. Extreme heat can cause the battery to explode. Keep the area where the battery is charged well ventilated. Keep it free from litter and anything combustible to avoid fire from sparks or overheating.
- ▶ The battery must only be charged with the supplied charger. Using a different charger can result in malfunction and reduced lifecycle of the battery.
- ▶ Charge the Li-ion battery indoors at a temperature between 0°C to 40°C (32°F -104 °F). The Li-ion battery charger cannot charge a battery with a temperature above 60° C or less than -3 °C.

- ▶ If you notice a strange smell or smoke, un-plug the charger immediately from the power socket and disconnect the battery from the charger! Take your battery and charger to your authorized dealer for service or replacement.
- ▶ Disconnect the charger when the battery is fully charged.
- ▶ Use only genuine SR SUNTOUR parts. The use of non-designated after-market accessories, replacement and spare parts voids the warranty of the electric bike drive unit and might cause failure to the system.
- ▶ Do not disassemble or modify any of the parts of the drive unit. The warranty will be void in case of any modification.
- ▶ SR Suntour electric bike units are designed for the usage on single seated bicycles for regular and common use on regular city- and trekking bikes. The intended use of the drive unit is accordingly.
- ▶ This instruction sheet contains important information about the correct installation, service and maintenance of your drive unit. Nevertheless please be informed that special knowledge and tools are essential to install, service and maintain SR SUNTOUR drive units for electric bicycles. Common mechanical knowledge may not be sufficient to repair, service or maintain the devices. Therefore we strongly recommend getting your system serviced and/or maintained by a trained and qualified bicycle mechanic. Improper installation, service or maintenance can result in failure of the product, accident, injury or even death.
- ▶ Always be equipped with proper safety gear. This includes a properly fitted and fastened helmet. Make sure your equipment is in flawless condition.
- ▶ Make sure to learn about the electric power assistance, the changed bicycle behaviour and handling of your bike. Learn how to ride and train your skills. Know your limits and never ride beyond those.

Foreword

Dear customer,

congratulations on your new electric bicycle purchase. The bike is equipped with the SR SUNTOUR SRS-SY-pedelec drive unit with a rechargeable Lithium-Ion battery, a display and user interface, a torque sensor, a controller and a brushless front hub motor..

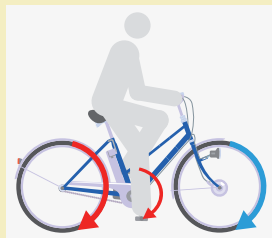
To make your ride smooth, safe and fun please take some time to read this manual carefully. It contains information on the proper care of the drive unit of your electric bicycle and advice on how to achieve the bikes' and batteries' full lifespan.

In case of any enquiries not covered by this manual please contact your local dealer.

Enjoy the riding!

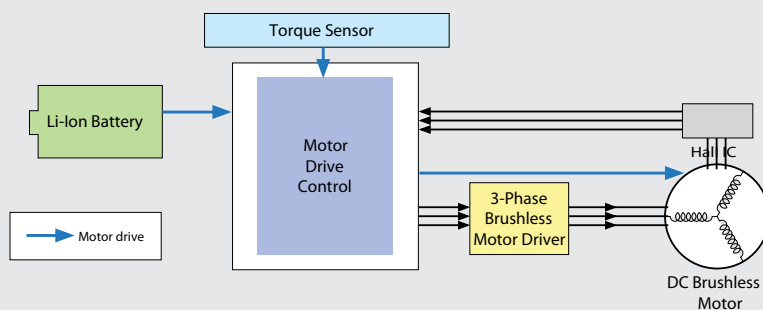
What is a Pedelec?

It is legally considered as a conventional bicycle, whereas the rider is enjoying some electrical power assistance based on the human power brought up by the rider. Just ride like on a conventional bike, the system will add some extra power. It feels like having tailwind or a continuous descending ride.



In European Countries the assistance is legally limited to 250W nominal power and a max. speed of 25km/h. Riding faster than that is possible, but there will be no assistance when riding faster than 25km/h.

A Pedelec is sometimes called EPAC, Light-Electric-Vehicle (LEV), Hybrid Bicycle or eBike or electric bicycle with Pedal-Assisted-System (PAS).



schematic functional diagram

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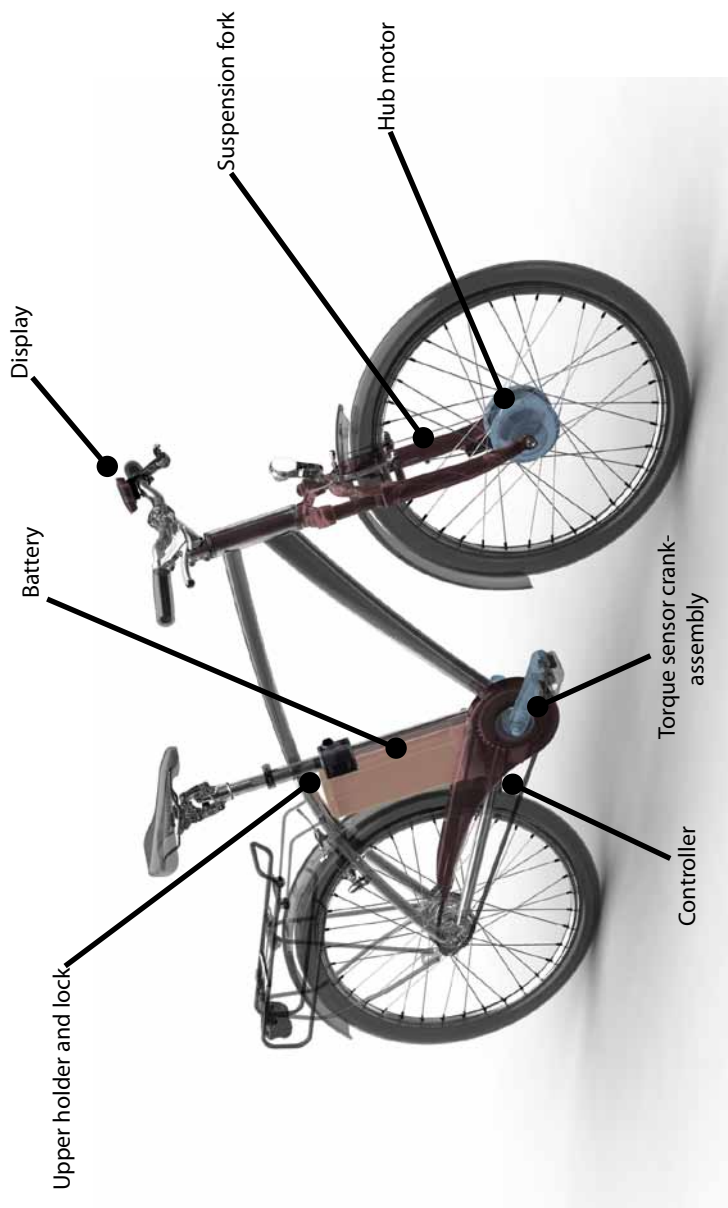
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Drive Unit Components



* Shown on a virtual bike which may look different to the bike which this owners manual came along with

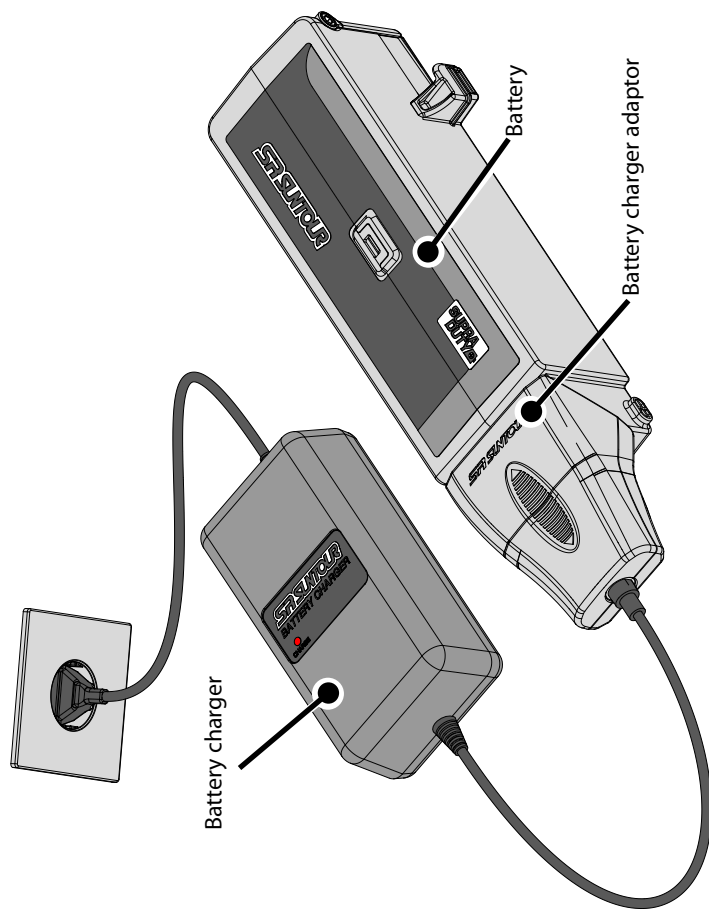
*

Display and User Interface



* Shown display layout may vary compared the display on the bike which this owners manual came along with

Battery, Charger and charger adaptor



Shown devices may vary compared the display on the bike which this owners manual came along with

*

Battery Charging

Your bike is delivered together with a charger and charger adaptor. Please only use these together and don't try to combine with other devices.

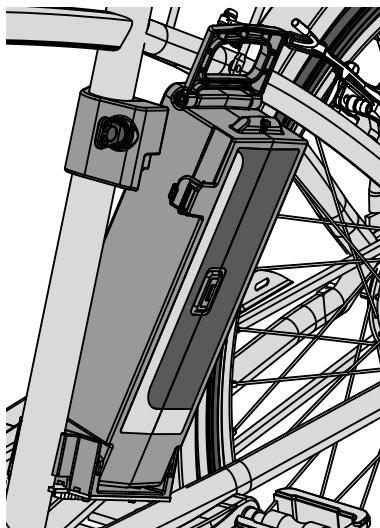
Please note: The battery needs an initial full charge before the first use of the bike and after every use, regardless of the remaining capacity of the battery. The battery doesn't need to be empty before charging it.

To charge the battery please follow these steps:

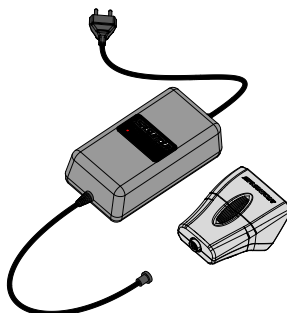
1. The system must be switched off by pressing the "on/off"-button on the display.



2. Insert the key of the battery lock into the upper battery holder, turn the key counter-clockwise and keep it so while you push the battery out to the left side of the bike.
3. After you have pushed out the battery a little bit to the side (depending on the frame design) the handle can be swung out for an easy and safe handling.

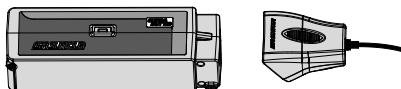


4. Pull the battery out upwards.
5. Connect the charger adaptor to the charger.

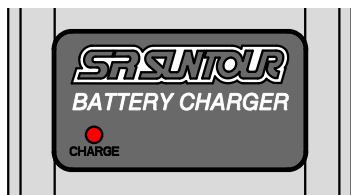


6. Connect the charger to a 110-240V wall socket.

7. Connect the battery to the adaptor.



8. The LED on the charger shows a red continuous light during charging.



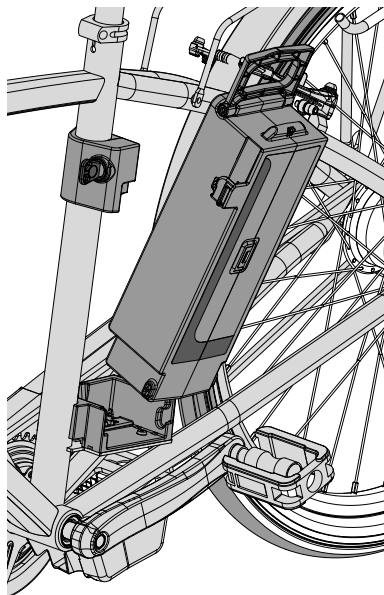
In case the LED starts flashing fast (0.2s on / 0.2s off) it means there is an abnormal situation. In this case please disconnect and reconnect the charger to the battery. If the same flashing is showing up again please unplug the charger and battery and contact your local dealer.

In case the LED starts flashing slowly (0.5s on / 1.0s off) the temperature of the battery is not within the specification for charging. Unplug the battery and wait until the battery is cooling down to room temperature.

9. When the LED is off the battery is fully charged.

If the battery is completely discharged a full charge will take approximately 400 minutes.

10. Insert the battery into the lower cradle and swing it back into the upper holder. Check if the lock has snapped in by pushing the battery back out to the left.



User Interface and Display

The user interface and display are located on the handlebar. When the system is switched on by using the on/off-switch, the LCD display is showing the remaining battery capacity, the chosen assist mode as well as information on the following features:

- Remaining battery capacity
- Speed
- Average speed
- Total riding distance
- Trip distance

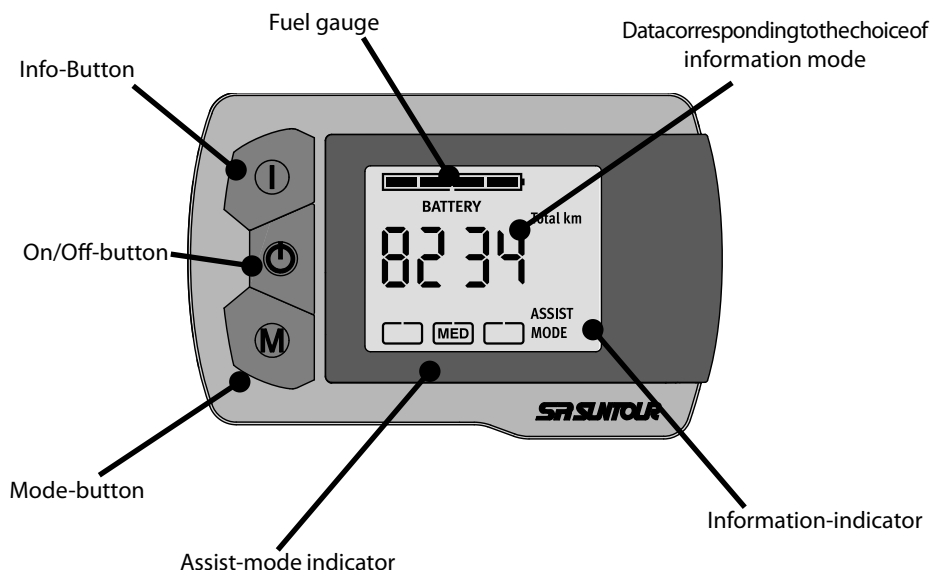
Any information will be displayed only when the system is activated.

The system will switch off automatically after 10 minutes of inactivity.

The 3-button design is providing a intuitive way to switch between the available assist modes and the desired ride information.

When it is dark the backlight of the screen display is turned on automatically when the drive unit is activated. The backlight is only on as the system is activated.

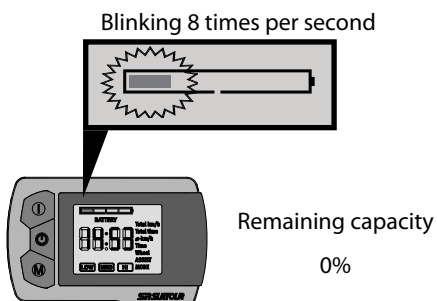
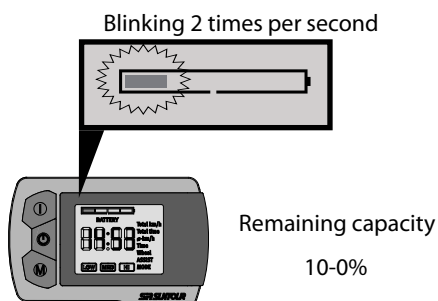
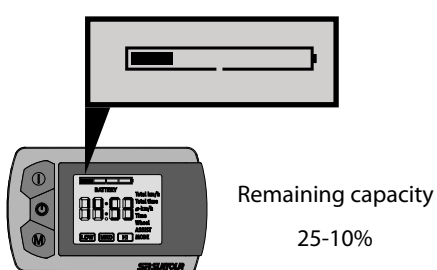
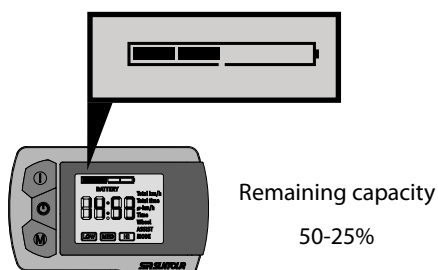
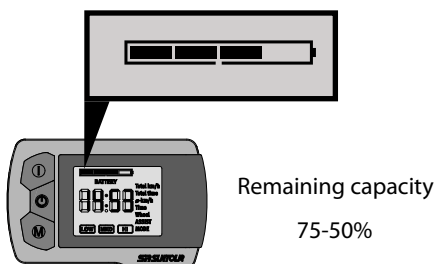
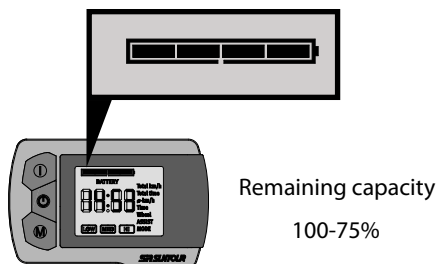
During the first setup of the bike the wheel size have to be set on this user interface.



Fuel Gauge

When the main switch is turned on, the battery fuel gauge shows up. with its 4 digit icon.

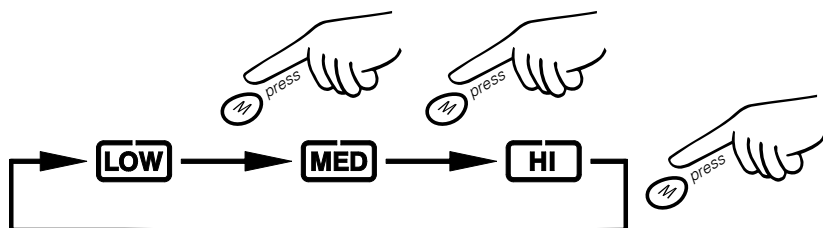
The remaining battery capacity is is represented by illustration as follows.



Assist Mode

The user can choose the ratio of assistance depending on his personal wish by pressing the Mode-button "M" on the user interface.

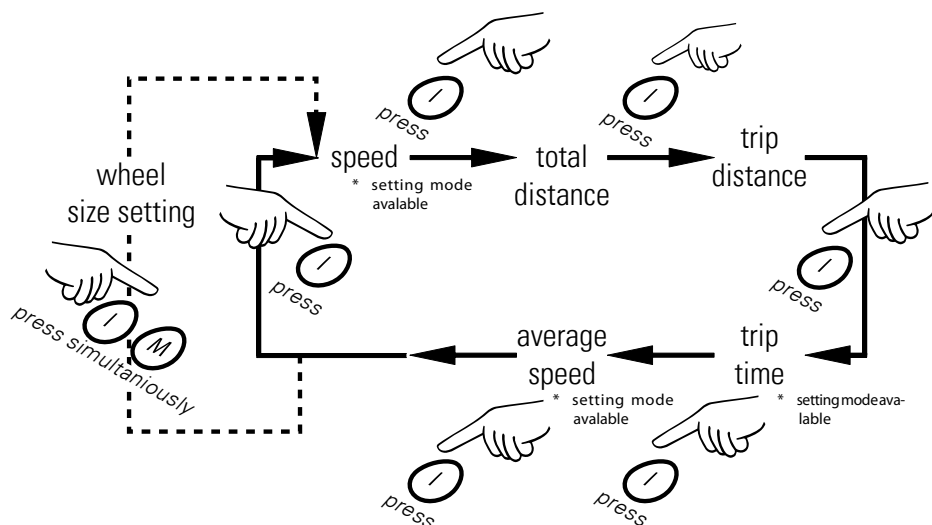
The percentage of assist power related to the input of the rider is varied from 50%, 100% and 150%.



Information Modes

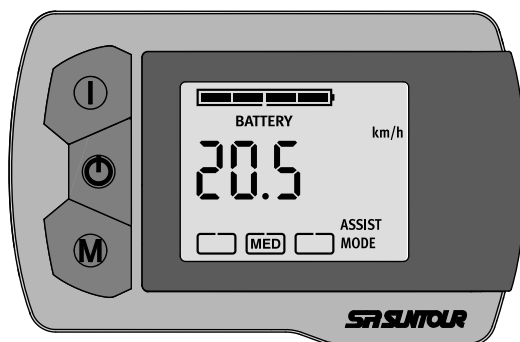
The ride information Speed, Total Distance, Trip Distance, Trip Time and Average Speed are shown one after another when pressing the Information-Button "I".

The setting mode and data re-setting modes are entered by pressing the Information Button "I" and Mode button "M" simultaneously when the related data is being displayed.



Speed

The speed is shown in kilometres per hour.



Display speed range: 0.0 .. 60.0km/h

Display accuracy: 0.1km/h

Total Distance

The total distance is counted when the system is activated and is displayed in kilometres.



Display range: 0.0 .. 9999km

Display accuracy: 1km

Trip Distance

The trip distance is counting when the system is activated.



Display range: 0.0 .. 999km

Display accuracy: 1km

Re-setting the trip distance

1. Reset the trip distance by pressing the mode- (M) and info-button (I) simultaneously while it is displayed.

Trip Time

The Average Speed is calculated on the trip distance.

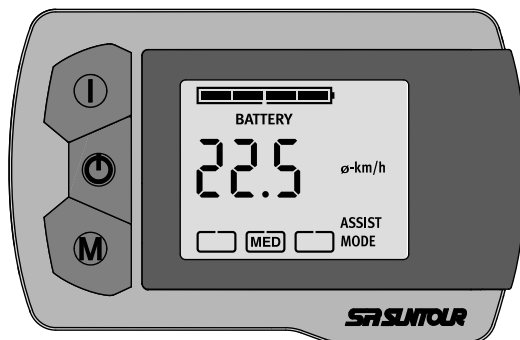


.Display range: 00.00 .. 99.59 hh:mm

Re-setting the trip time

1. Reset the trip time by pressing the mode- (M) and info-button (I) simultaneously while the trip time is displayed

Average Speed



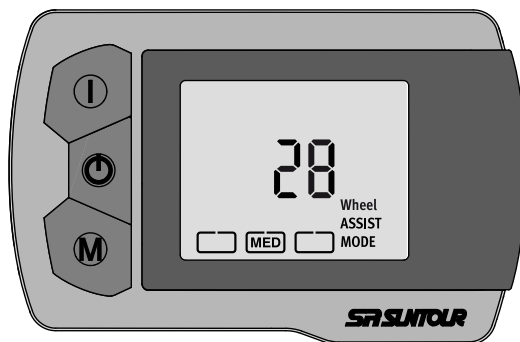
The average speed is calculated on the trip distance.

.Display range: 0.0 .. 60.0km/h

Display accuracy: 0.1km/h

Wheel Size

The Wheel Size need to be set in order to show the correct speed.



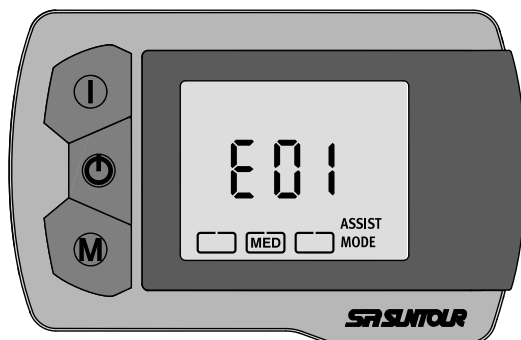
.Nominal Wheel Diameter: 26inch, 27inch or 28inch

Setting the wheel diameter

1. Set the wheel diameter by pressing the mode- (M) and info-button (I) simultaneously while the average speed is shown.
2. The hours start blinking and can value can be increased by pushing the mode button (M)
3. Press the info button (I) to adjust the diameter
4. Exit the setting mode by pressing the info-button (I)

Error Code

When an error is recognized by the system, it is shown on the display based on the error data from the controller. When an error is shown, the fuel gauge will not be displayed.



The error codes are shown in the chart on the following page.

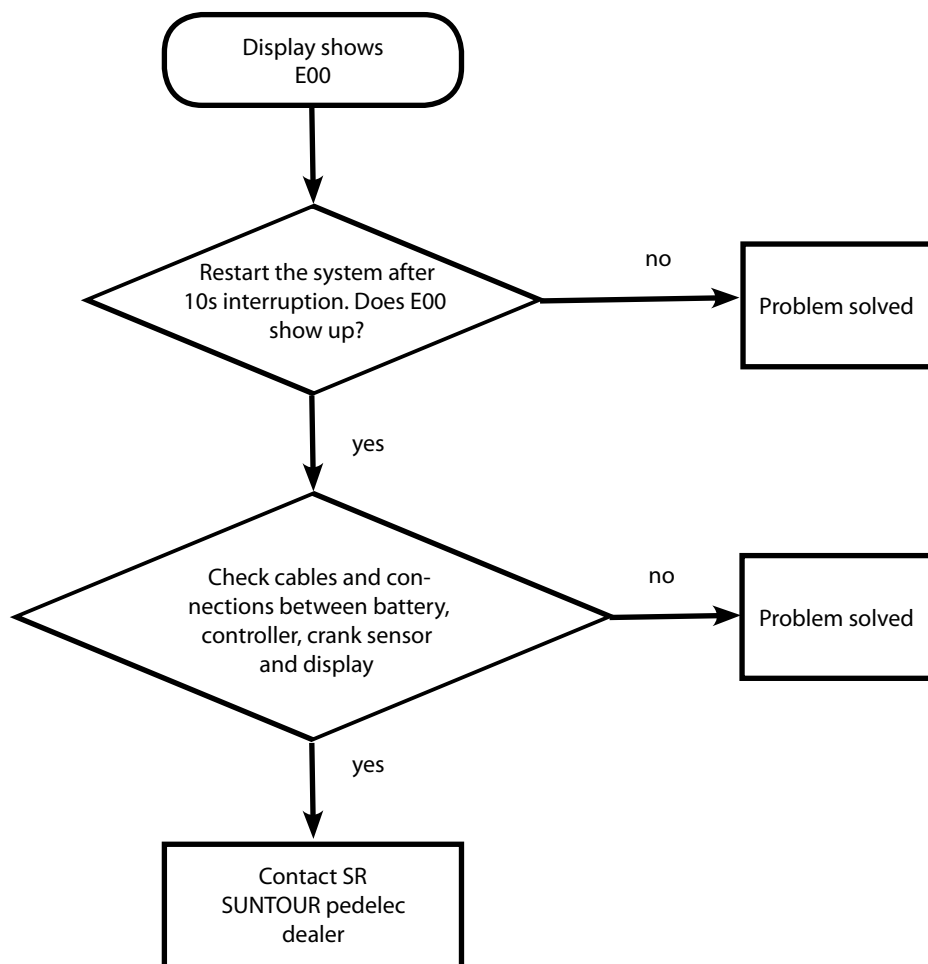
Error Codes

Error Code Chart

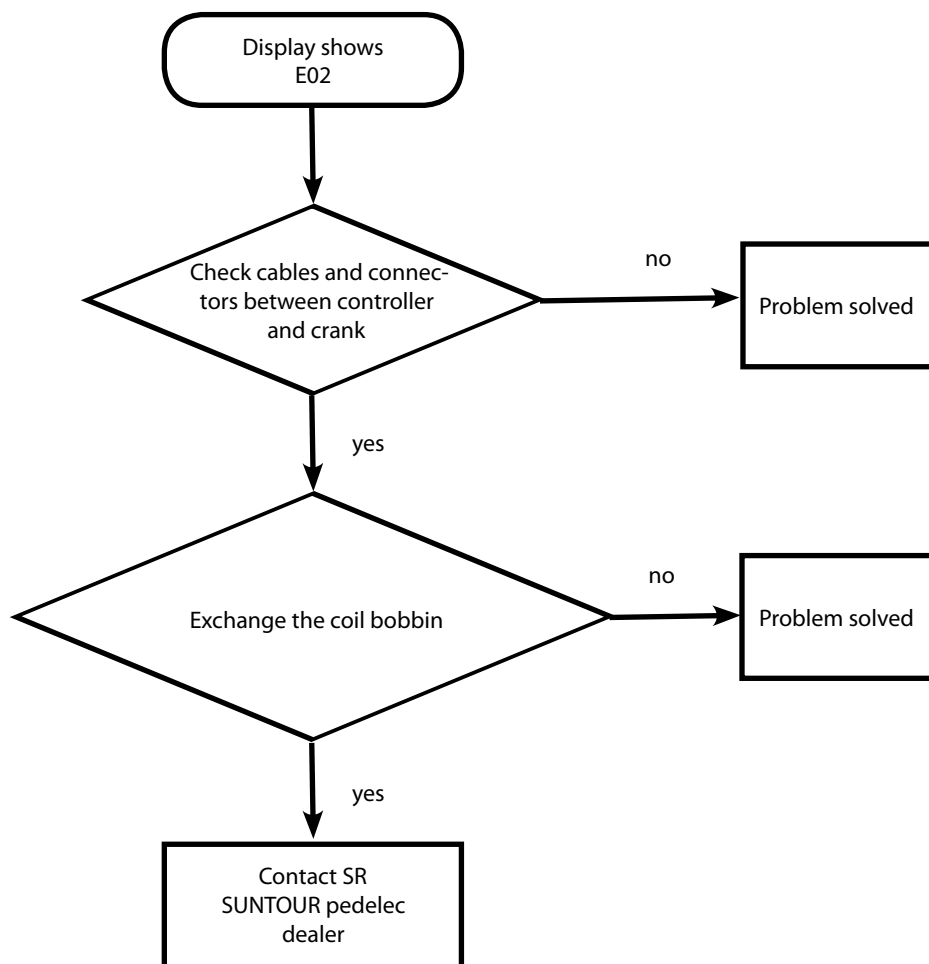
| Error code | Type of error |
|------------|--|
| E00 | Controller communication error |
| E01 | Coil sensor error |
| E02 | Electric potential error |
| E03 | Beyond of the torque sensor range |
| E05 | Torque sensor error |
| E11 | Beyond the battery voltage sensor range or battery current sensor range |
| E12 | Beyond the battery temperature sensor range |
| E13 | Beyond the motor temperature sensor range |
| E21 | Drive battery over current, lower/over voltage |
| E22 | Battery overheating |
| E23 | Motor overheating |
| E31 | Hall-IC signal error |
| E32 | Switch case communication error |
| E33 | Battery communication error |

Error troubleshooting guide

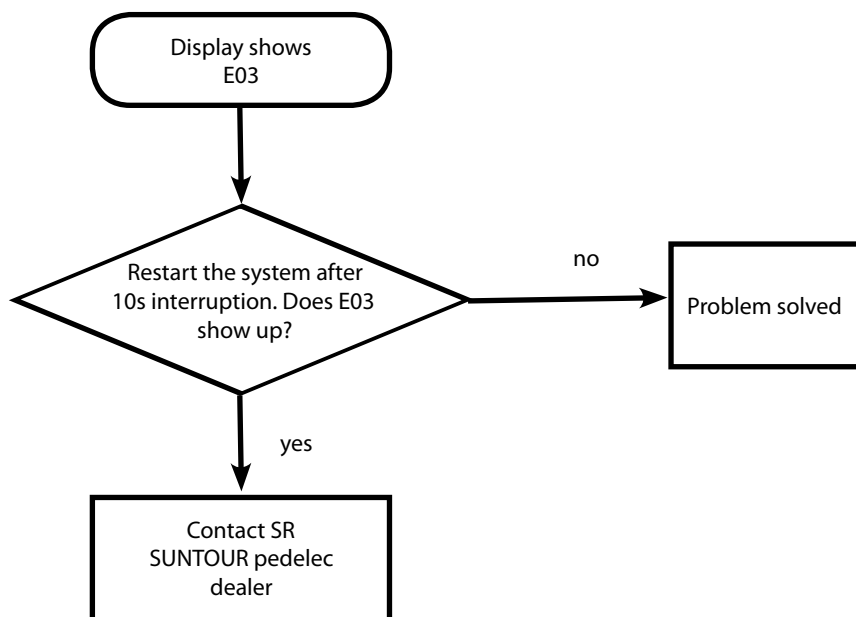
E00 - Controller Communication Error



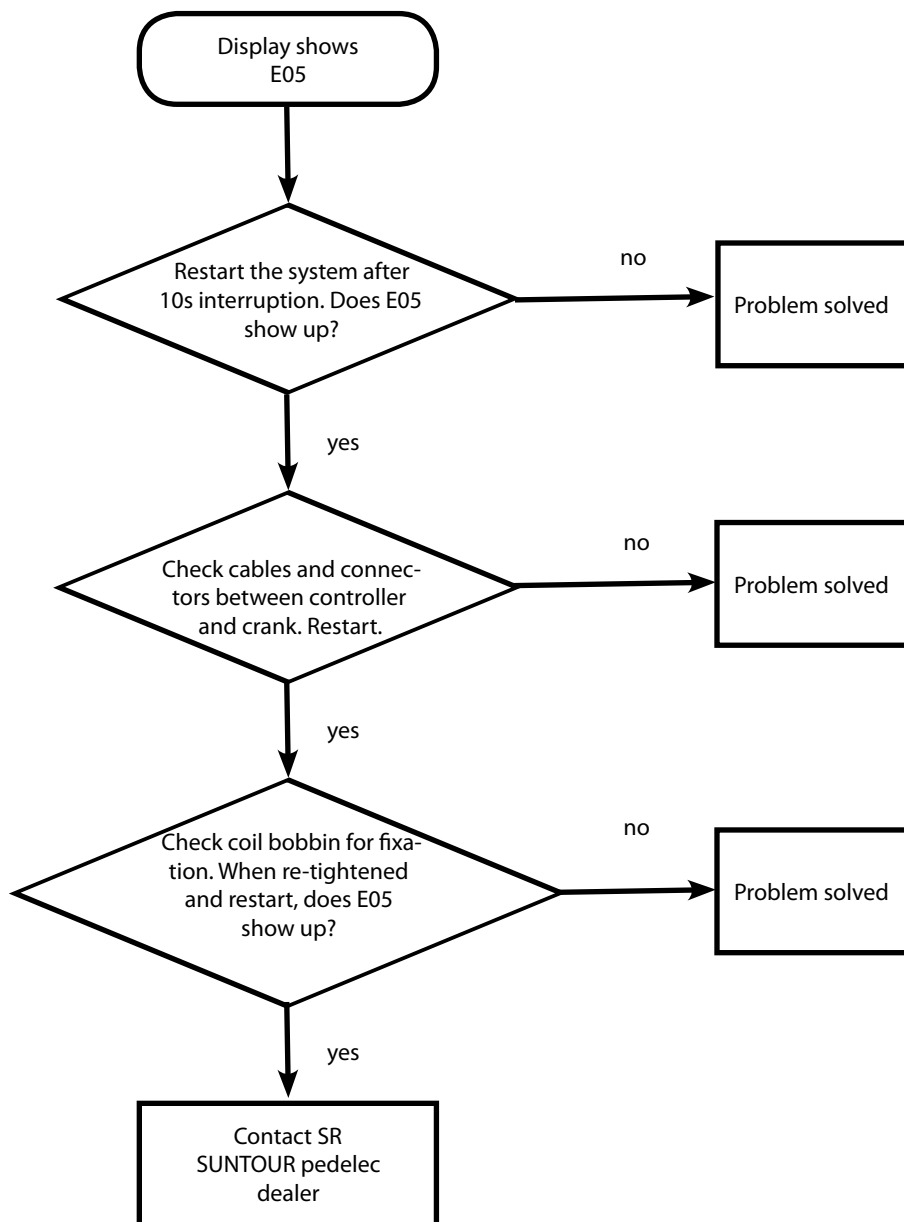
E01 - Coil Sensor Error



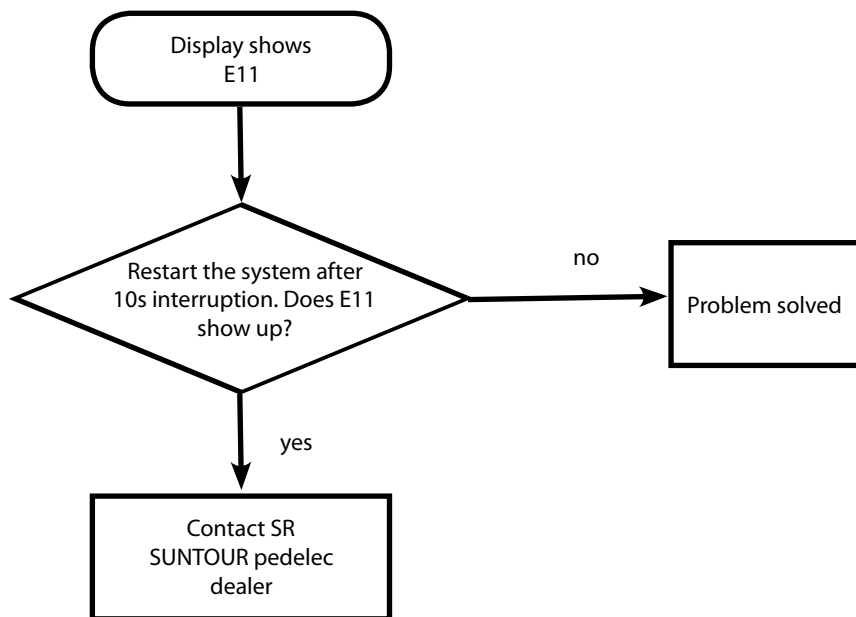
E03 - Outside of the torque sensor range



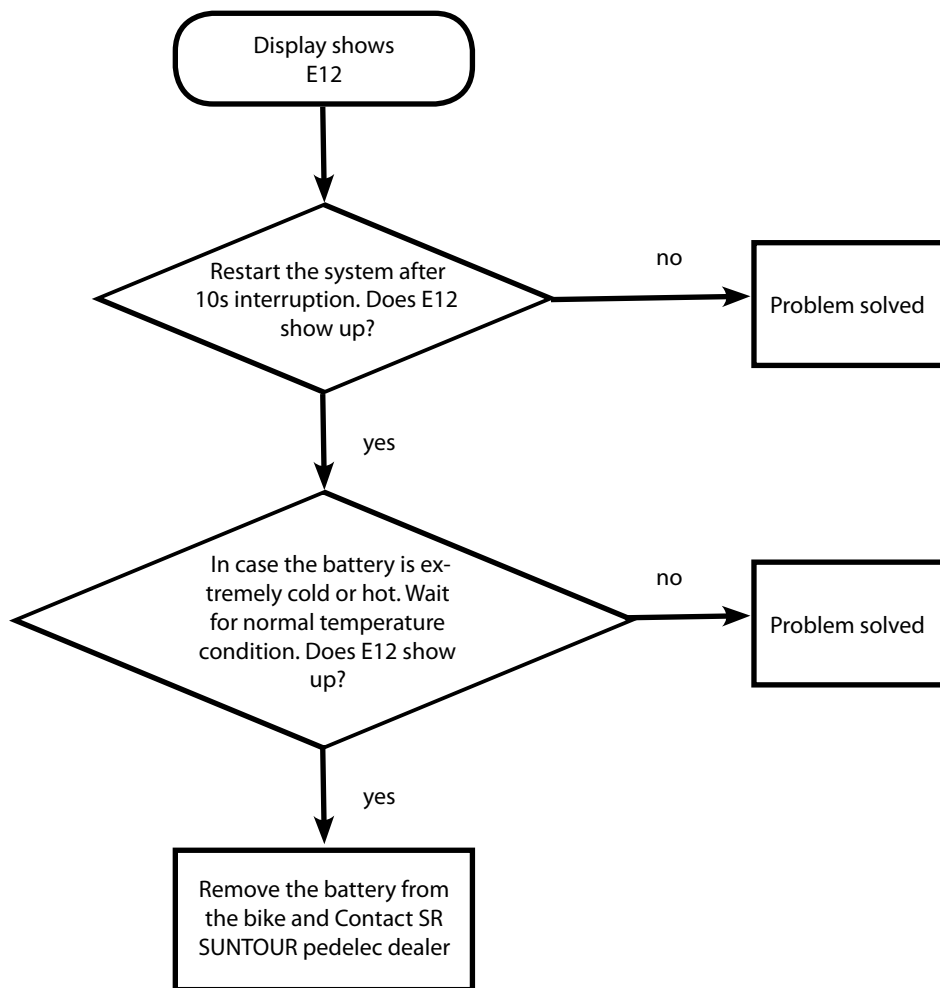
E05 - Torque Sensor Error



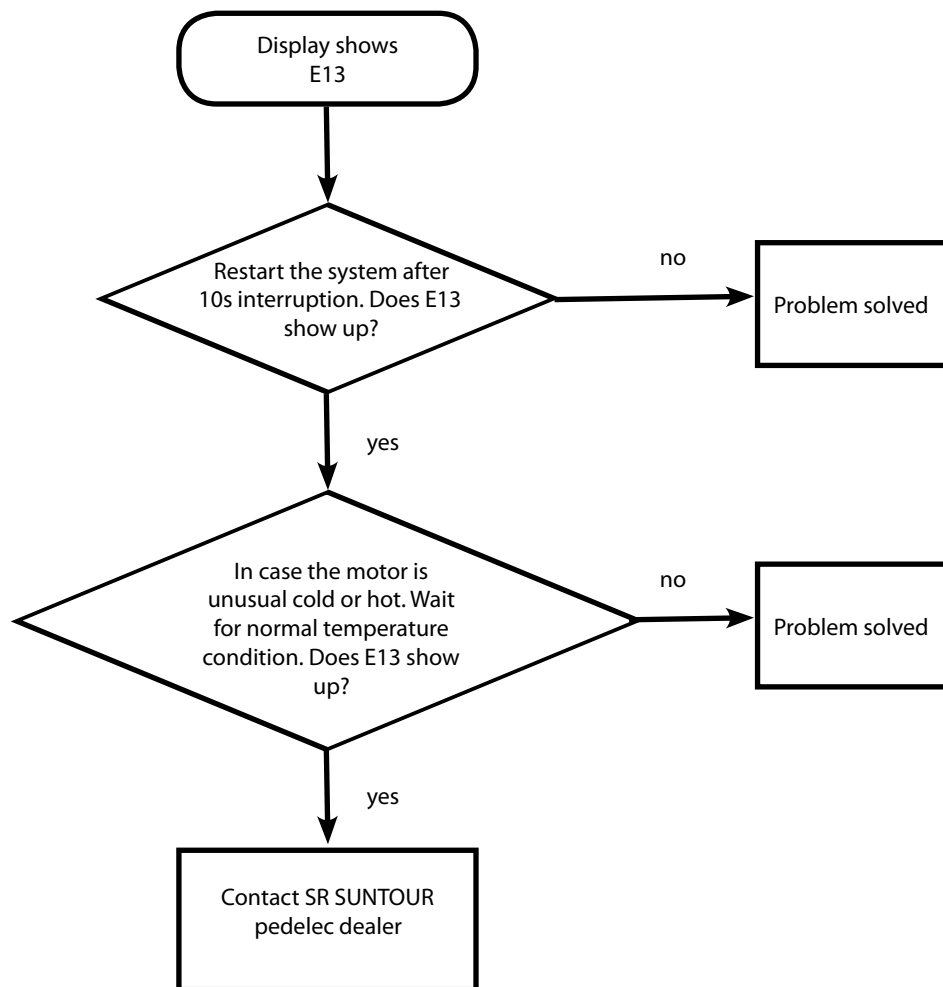
E11 - Beyond the battery voltage sensor- or battery-current sensor-range



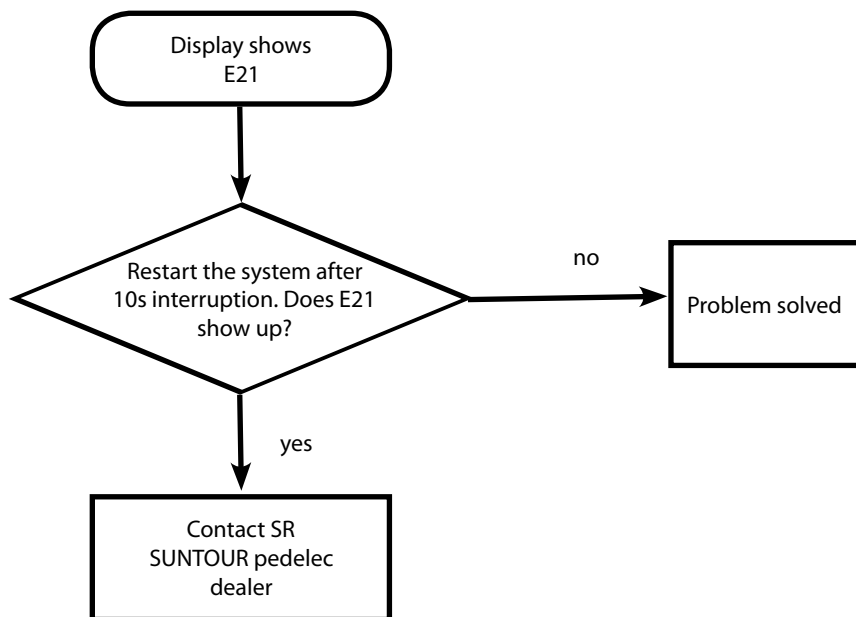
E12 - Beyond the battery temperature sensor range



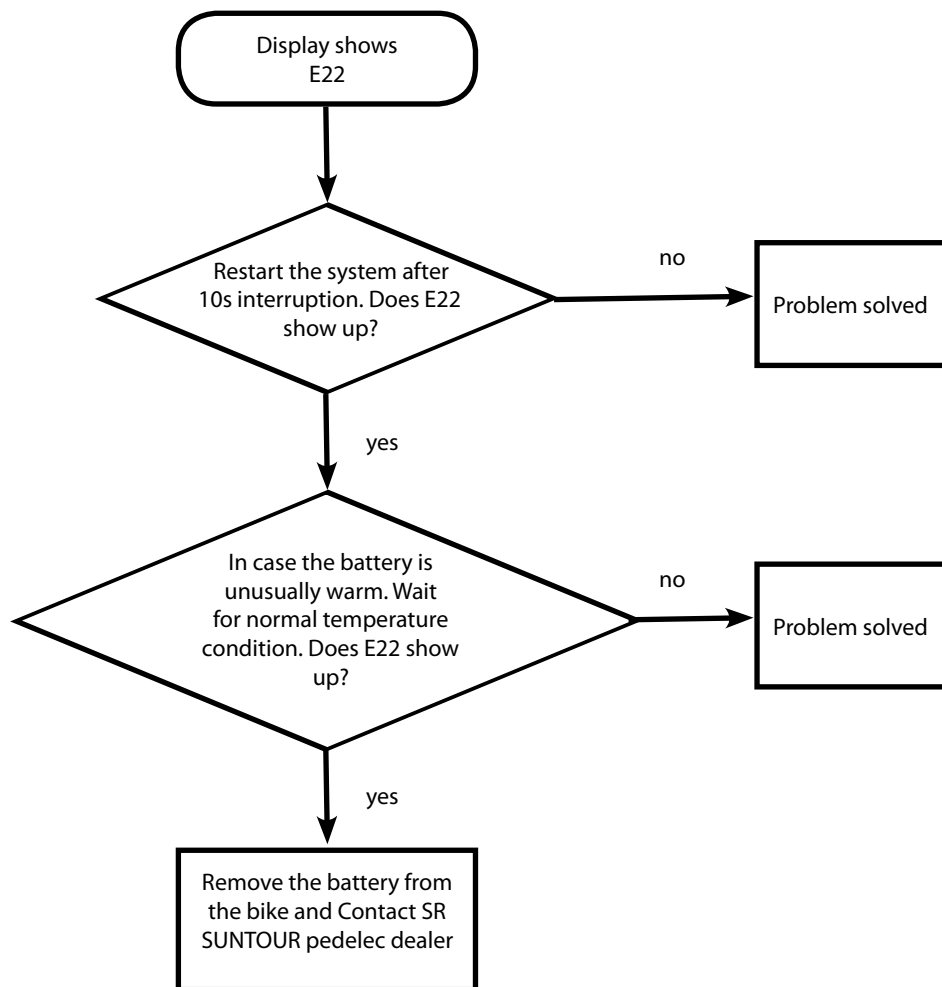
E13 - Beyond the motor temperature sensor range



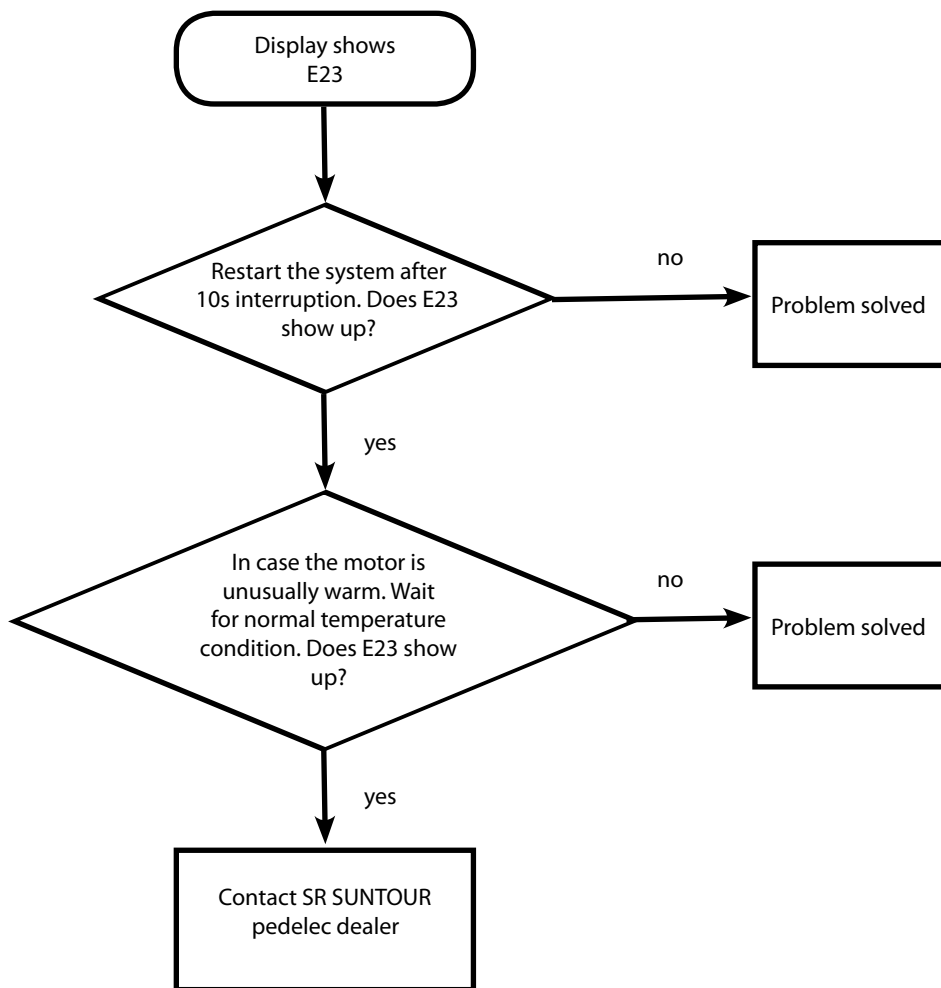
E21 - Drive Battery over current, low voltage or overvoltage



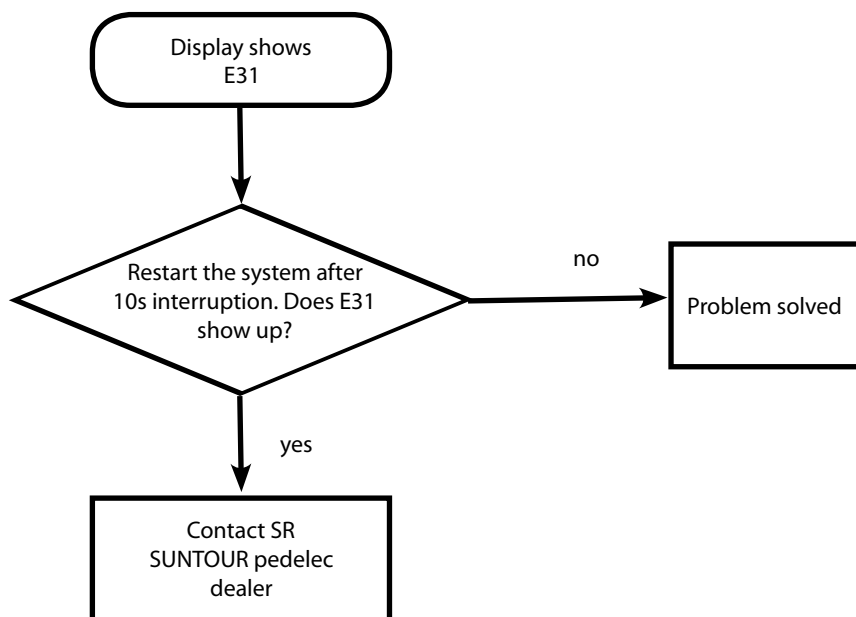
E22 - Battery Overheating



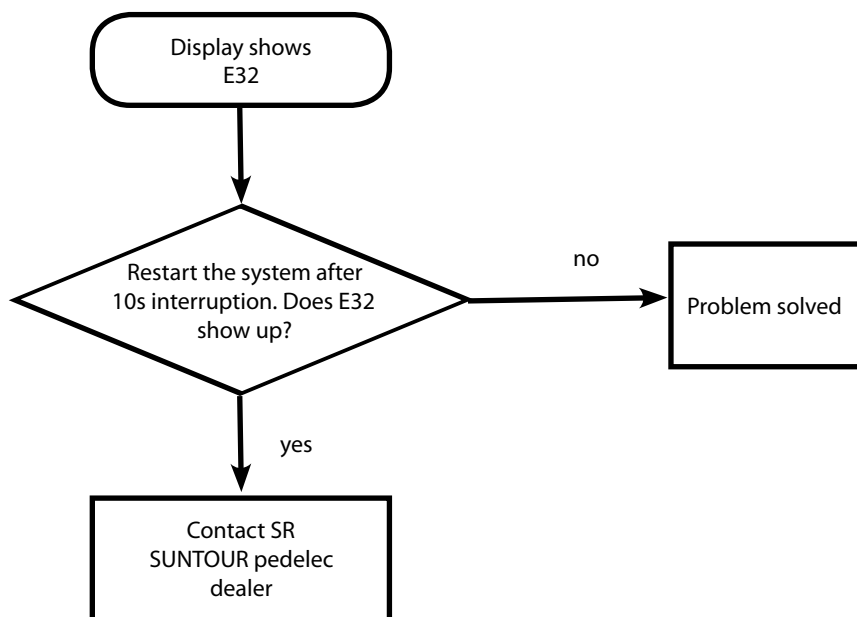
E23 -Motor Overheating



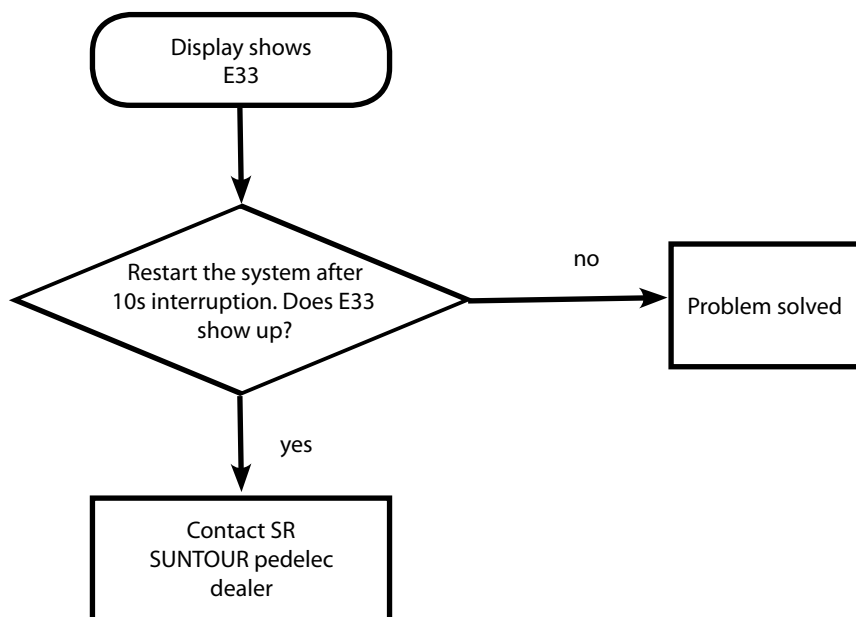
E31 - Hall-IC Error



E32 - Switch Box Communication Error



E33 - Battery Communication Error



Operating Range

| | Assist Mode | | |
|----------------------------|-------------|------------|-----------|
| | LOW | MED | HI |
| Countryside riding | 50-70km | 40-60km | 30-50km |
| Hilly Area and City Riding | 25-35km | 20-30km | 15-25km |

Range Influencing Factors

The operating range is influenced by several factors. By knowing them it can be compensated so that the range will not be limited too much. The factors are the following:

- Temperature
- Wind
- Hill climbs
- Riding style; alternating riding speeds, especially with ongoing braking situations
- Brake friction
- Tire pressure and rolling resistance of the tire
- Riders weight
- Chosen gear ratio
- Age and condition of the battery
- Use of dynamo generator

Maintenance and cleaning

Cleaning

If your bike or any component of the electric bike unit is dirty, be sure to remove the battery before cleaning the bike. Clean it with a soft, damp cloth and neutral cleaner or a solution of dishwashing detergent and water. Never use a high-pressure cleaner. Never bring the battery into direct contact with water. If the battery needs to get cleaned use a moistly sponge or similar to clean it. Never use industrial solvents or aggressive chemicals for cleaning.

Before inserting the battery make sure to dry the contacts of the lower battery holder and battery.



WARNING !
When the battery gets in contact with more water than it gets during common rain- or snowfall there is a danger of explosion.

Tightening Torque

| Item | Bolt dimensions | Torque [Nm] |
|----------------------------------|-----------------|-------------|
| Controller fixing bolt | M5*P0.8 | 6-8 |
| Controller cover fixing bolt | M4*P0.7 | 1-1.2 |
| Display fixing bolt | M4*P0.7 | 4-6 |
| Crank fixing bolt | M8*P1.0 | 45-50 |
| Coil bobbin fixing bolt | M4*P0.7 | 1.7-2.0 |
| Stay plate fixing bolt | M5*P0.8 | 6-8 |
| Stay cover fixing bolt | M4*P0.7 | 1.7-2.0 |
| Lock cylinder fixing bolt | M5*P0.8 | 6-8 |
| Upper battery holder fixing bolt | Tapping screw | 0.8-1.0 |
| Discharge plug fixing bolt | Tapping screw | 0.3-0.5 |
| Lower battery holder fixing bolt | M5*P0.8 | 4-6 |
| Hub Axle Nuts | M10x1 | 20 |
| Torque bar bolts | M5*P0.8 | 6-8 |
| Cover bolts | M4xP0.7 | 4 |

Disassemble and assemble front wheel

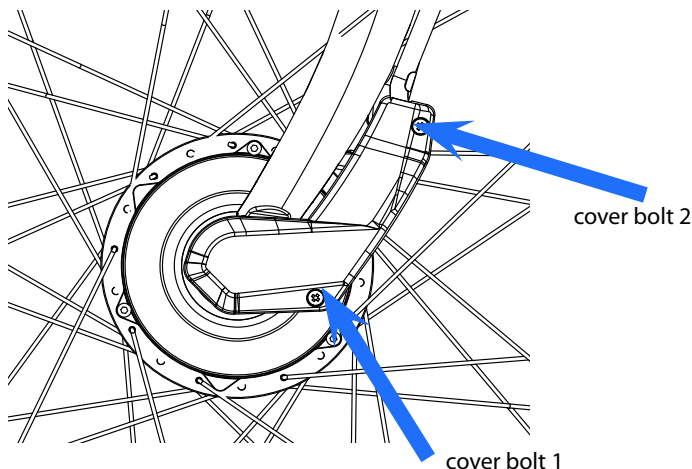
As the drive unit consists a front hub motor there are some electrical connections from the controller to the front hub. This means that there are some additional steps to do, in comparison with a standard bicycle, when removing and inserting the front wheel into the fork.



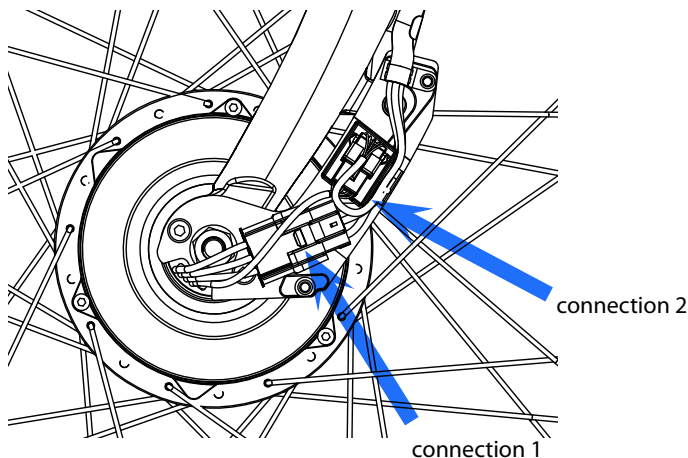
WARNING !

Remove the battery from the bike before opening any cable connection and before removing the front wheel.

1. Remove the cable connector cover



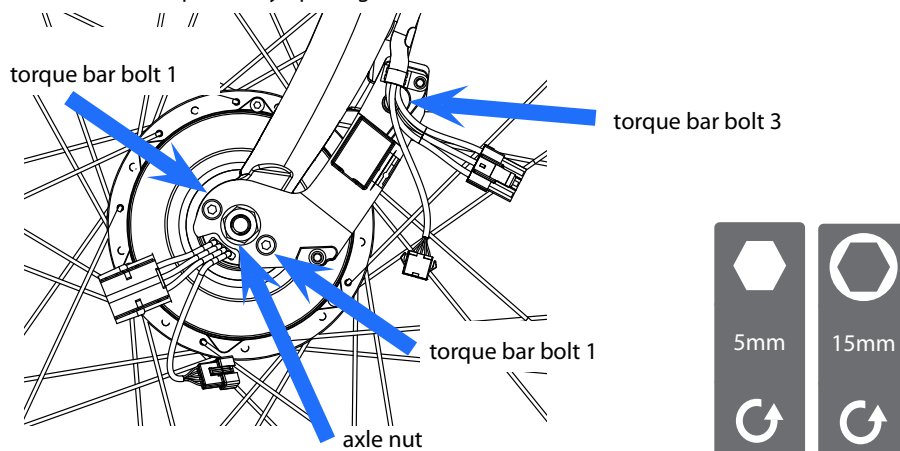
2. Open the cable connections



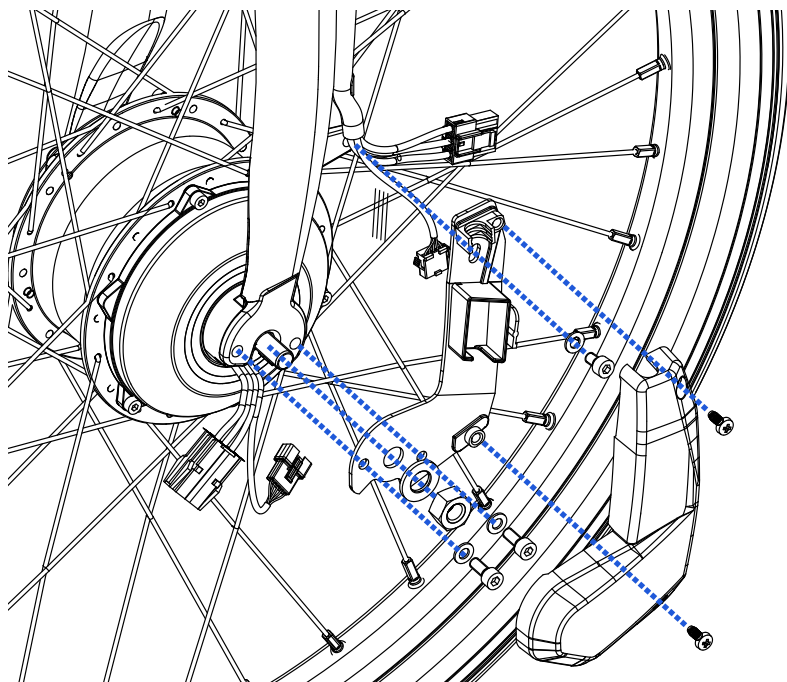
PH3



3. Take off the torque bar by opening the rest of the bolts and nuts

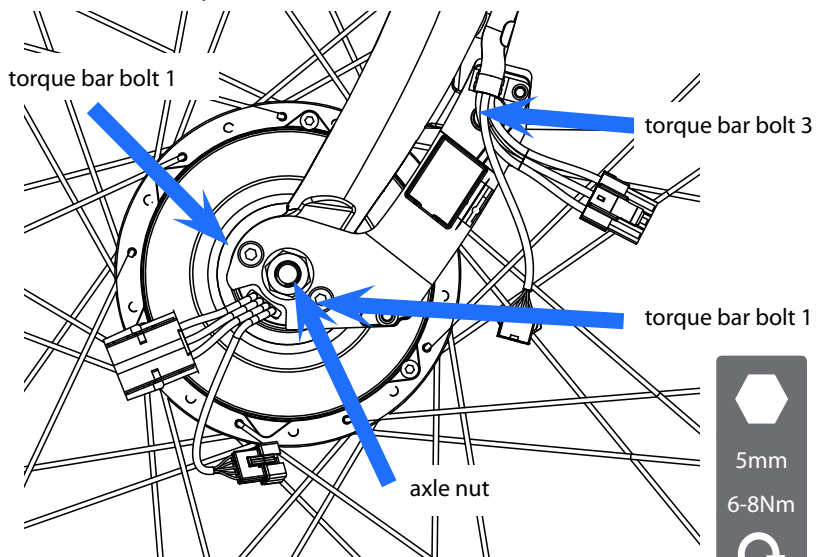


4. Exploded View

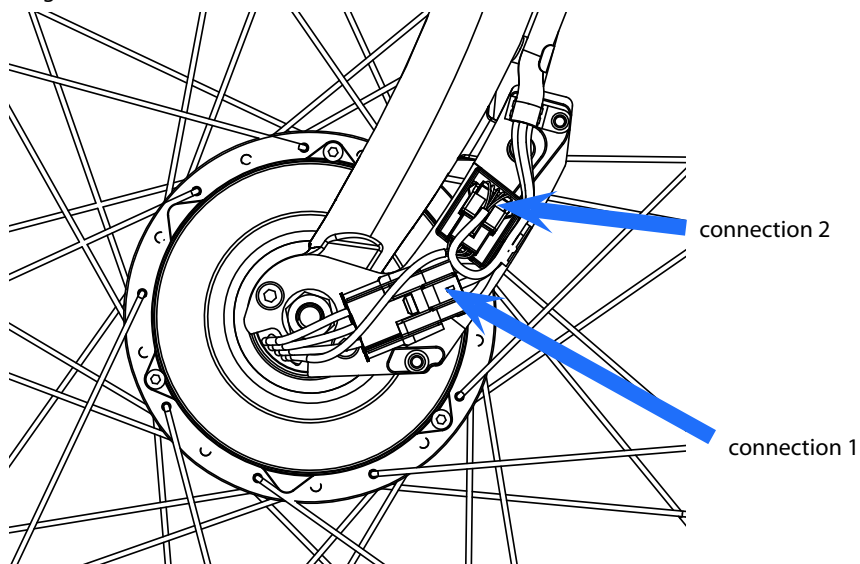


5. Remove the front wheel

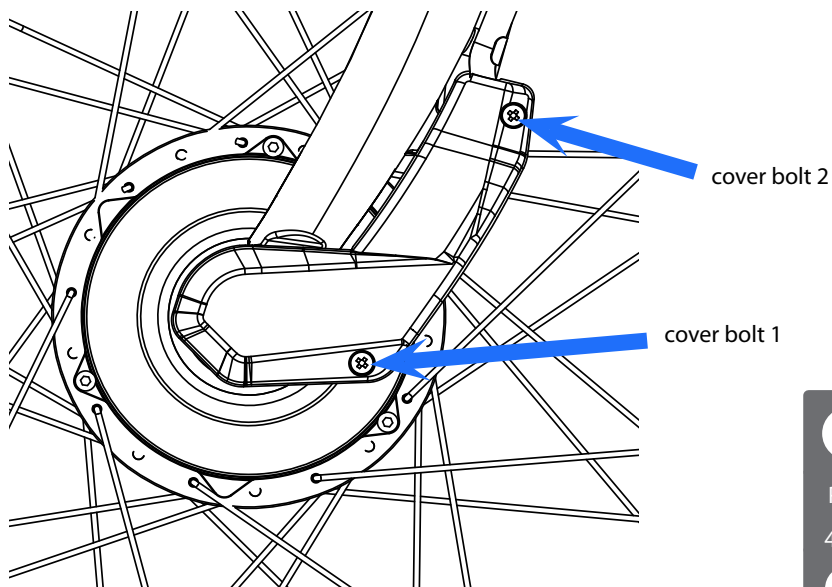
6. Assemble the torque bar



7. Plug-in the two connectors



8. Attach the cable connector cover.



PH3

4Nm



9. Turn on the drive unit and check the function.

Technical Specification

Motor

- Brushless Design
- Planetary Gear System
- Max. nominal Assistance Power:.....250W
- Dropout width:135mm

Controller features

- Legal Constraints:.....EN15194
- Tire Diameter:26inch and 700c
- max. Speed:25km/h
- Optional relais for Light System Power Supply (6V/3W) can be used also with additional dynamo

Charger

- Model:.....NC-SSC04ST
- Input Voltage and current:.....AC100V-240V, 50-60Hz, 1.2A
- Output Voltage and current:DC29.2V / 2.0A
- Weight:.....680g
- Operating Temp. and humidity:0 - 40°C / 20 - 85%RH
- Storage Temp. and humidity:.....-20 - 60°C / 20 - 85%RH

Battery

- Model:.....
- Chemistry:Lithium Ion Manganese
- Voltage:24V
- Capacity10.8Ah
- Weight:2800g
- Charging Temp.:0 - 60°C
- Best charging Temp.:15 - 40°C

Conformity



Hereby, SR SUNTOUR Inc. declares that the drive unit SRS/SY is in compliance with the essential requirements and other relevant provisions of EN15194.

Limited Warranty

SR SUNTOUR warrants its pedelec drive unit to be free from defects in material and workmanship under normal use for a period of two years from the date of original purchase. This warranty is made by SR SUNTOUR Inc. only with the original purchaser and is not transferable to any third party. Lodging a claim under this warranty must be made through the dealer where the bicycle equipped with the drive unit was purchased. To prove the original purchase the original retail invoice has to be provided.

LOCAL LAW:

This warranty gives you specific legal rights. According to the state (USA) or province (Canada) or every other country you are living in, you may have other rights than explained within these warranty regulations. These regulations shall be insofar adapted to the local law to be consistent with such law.

LIMITATION OF WARRANTY

This limited warranty does not apply to any defect of the suspension fork caused by: improper installation, disassembling and re-assembling, intentional breakage, alterations or modification to the fork, any unreasonable use or abuse of the product or any use for which this product was not intended for, accidents, crashes, improper maintenance, repairs improperly performed.

The obligation of this "Limited Warranty" is restricted to repairs and replacements of the suspension fork or any parts of it in which there is a defect in materials or workmanship within a period of two years.

SR SUNTOUR makes no express or implied warranties of fitness or merchantability of any kind, except as set forth above. Under no circumstances will SR SUNTOUR be liable for incidental or consequential damages.

Damages which are caused by the use of other manufacturer's replacements parts or damages which are caused by the use of parts that are not compatible or suitable to SR SUNTOUR drive units are not covered by this warranty.

This warranty does not apply to normal wear and tear.



www.srsuntour-cycling.com

www.srsuntour-tuning-base.com

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