

**SR SUNTOUR** ■

 **HESC**

**E-bike components**

**Owner's manual**

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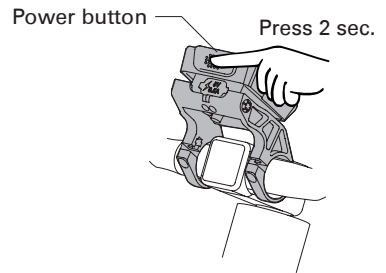
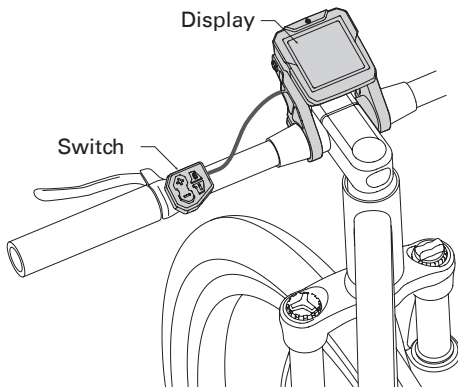
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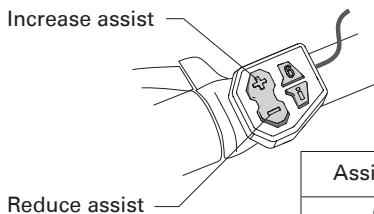
# Quick Start Guide

Please note that the chapter “Quick Guide” is here to provide you with an initial overview. For more information, please read the individual chapters of the enclosed user manual.




## 1. How do I turn the system on?



## 2. Support modes?



### Assist modes and Cruising range

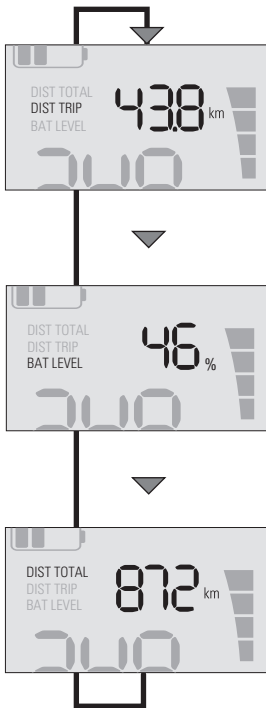
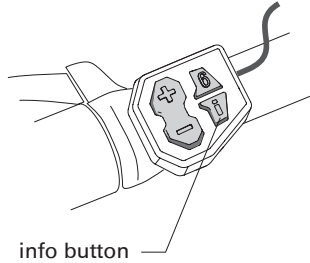
Assist mode	Icon	Cruising range
High		65km
Standard Default setting		90km
Economy		120km

For more information about cruising range, please read the chapter "Assist modes".

### 3. What information does the display offer you?

#### Information mode

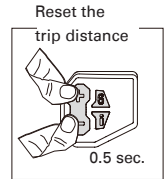
Information about total kilometers and trip distance are displayed in succession when you push the info "i" button.



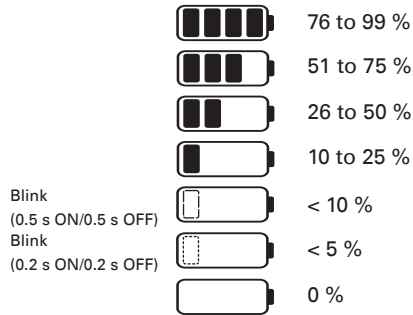
**DIST TRIP:**  
Traveling distance  
Unit: 0.1km  
Measurement range: 0.0 to 999.9km  
(Default setting)

**BAT LEVEL:**  
Battery level  
Unit: %  
Measurement range: 0 to 99%

**DIST TOTAL:**  
Total distance  
Unit: km  
Measurement range: 0 to 9999km



## Battery capacity



## 4. Battery charging



**In order to avoid damage, shut off the system before charging.**



- : Battery is not getting charged, please check a connections.
- : Battery is getting charged.
- : Battery is fully charged

1. Open the cover of the charging socket.
2. Connect the battery with the battery charger.
3. Connect the battery to the power supply. Next, turn on the battery charger. The status indicator should light up "red", if not, check the connection.



**Your ebike system battery is secured with a lock to avoid theft. Your bike should be equipped with 3 matching keys. Please keep one of these keys in a secure place. In the case that all 3 keys are lost, the entire lock must be replaced.**

## Important Safety Information!



### **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 chemical switch 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 closet or 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 aftermarket 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.
- ▶ Never lock your front wheel while the system is active as the motor might get damaged. Besides this it could result into a short circuit which might set the system on fire.
- ▶ Always make sure to fold center stand while moving the bike backwards.

## Before Each Ride!



**Do not ride your bike, if one of the following test criteria can't be passed! Riding your bike without eliminating any defect or carrying out the necessary adjustments can result into an accident, fatal injury or even death.**

- ▶ Do you notice any cracks, dents, bent or tarnished parts at your suspension fork or any other part of your bicycle? If so, please consult a trained and qualified bicycle mechanic to check your fork or bike.
- ▶ Can you notice any oil leaking out your fork? Also check out hidden areas like the bottom side of your fork crown. If so, please consult a trained and qualified bicycle mechanic to check your fork or bike.
- ▶ Compress your fork with your body weight. If it feels too soft, relating to the proper pressure to achieve an accurate SAG, inflate it until you have reached the required value. Please also refer to chapter "SETTING SAG"
- ▶ Make sure your brakes are properly installed/adjusted and work appropriate. This also applies to every other part of your bike like handlebars, pedals, crank arms, seat post, saddle etc. Also refer to the owner's manuals provided by all other component manufacturers.
- ▶ Make sure your wheels are centered perfectly in order to avoid any contact with your suspension fork or brake system.
- ▶ If you are using a quick release system to fasten your wheel set, make sure that all levers and nuts are adjusted properly. In case you are using a through axle system, make sure that all fixing bolts are tightened with the appropriate torque values.
- ▶ Check the cable length and routing of your components. Make sure they do not interfere your steering actions.
- ▶ If you are using reflectors for on-road cycling, make sure they are clean and properly installed.
- ▶ Bounce your bike slightly on the ground while looking and listening for anything which might be loose.

## Foreword

Dear customer,

Congratulations on your new electric bicycle purchase. The bike is equipped with the SR SUNTOUR HESC 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 ride!

SR SUNTOUR

What is a Pedelec?

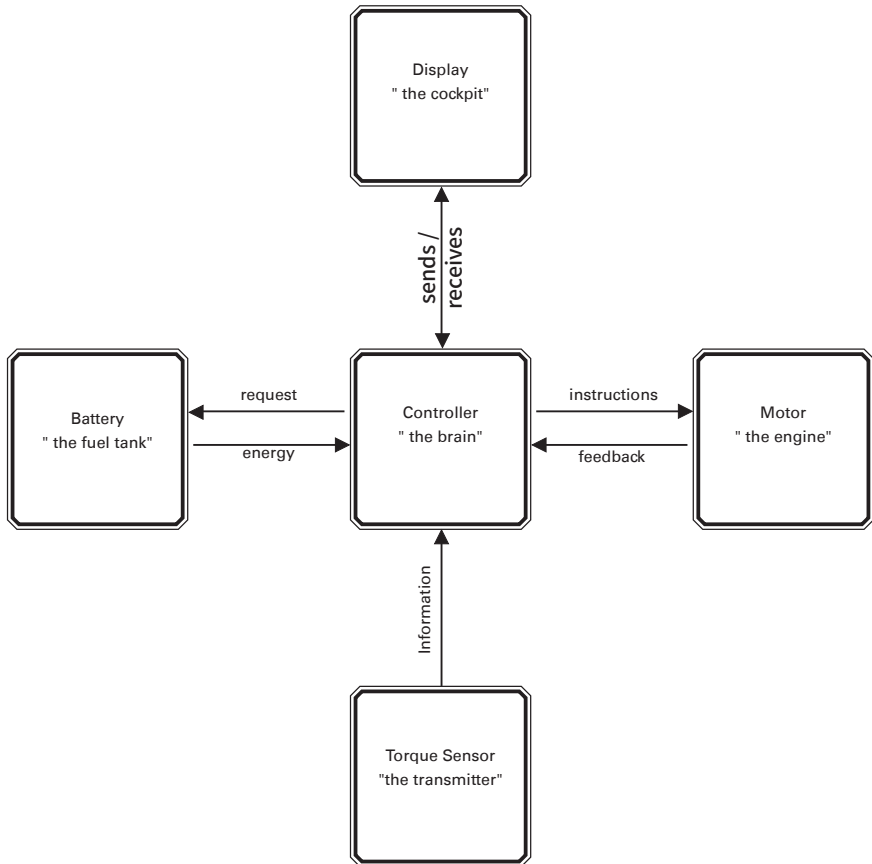
It is legally considered a conventional bicycle, where the rider is enjoying some electrical power assistance based on the human power brought up by the rider. Just ride like on a conventional bike, the system will add some extra power. It feels like having tailwind or a continuous descending ride.

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.

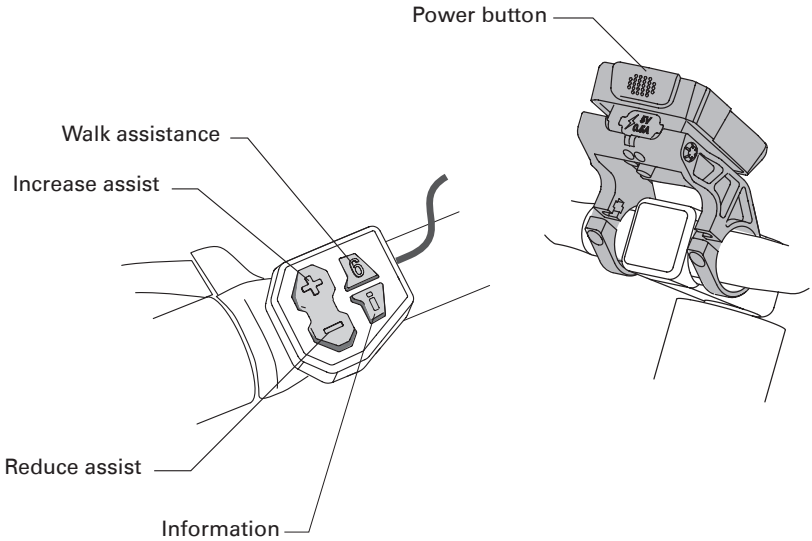
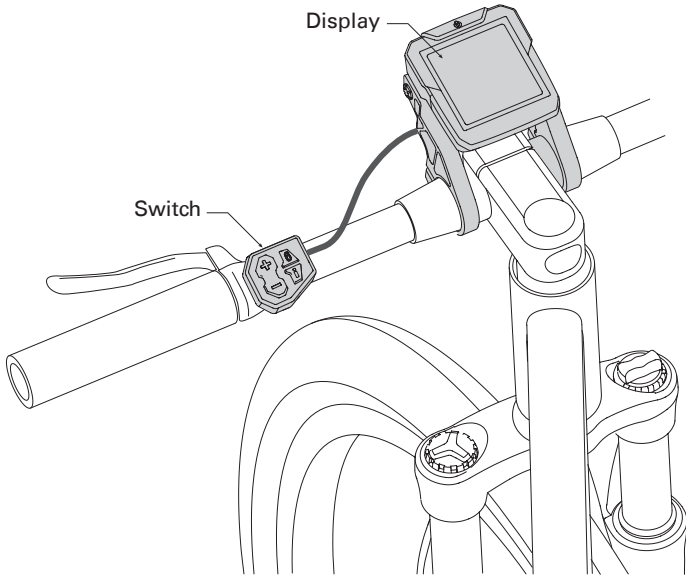
A Pedelec is sometimes called EPAC, Light-Electric-Vehicle (LEV), Hybrid Bicycle or eBike or electric bicycle with Pedal-Assisted- System (PAS).



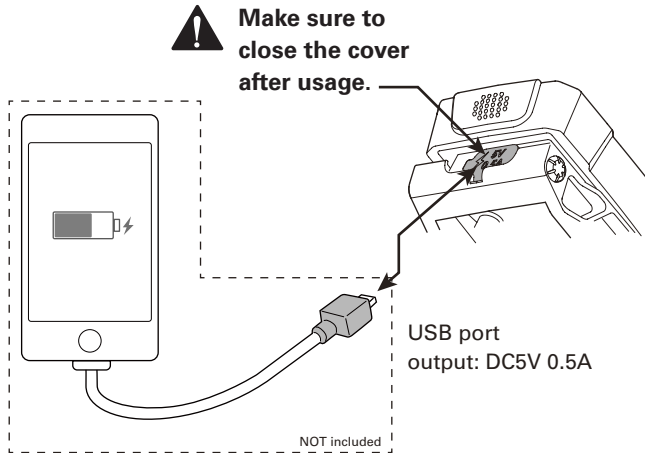
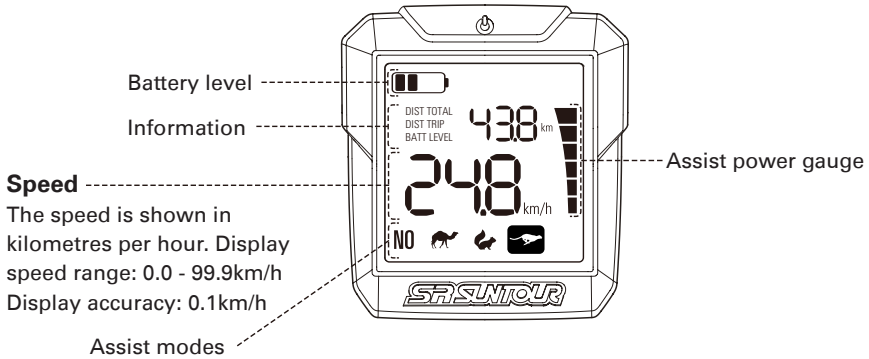
The below stated graphic gives you a better understanding how all HESC components interact with each other.



# Display / User Interface



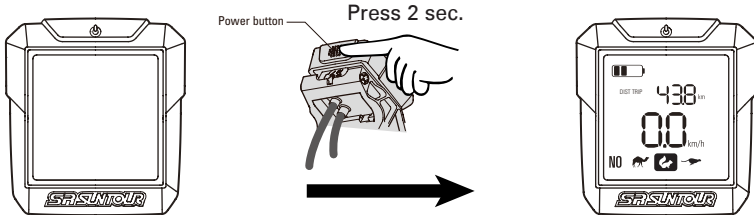
# How to operate the display



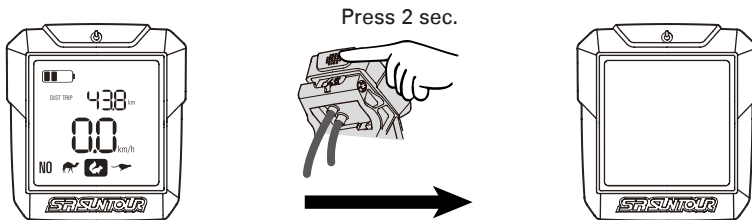
Power Supply for External Devices via USB Connection. With the USB connection, it is possible to charge most devices with a USB connection.

## How to switch ON/OFF

### Power ON



### Power OFF



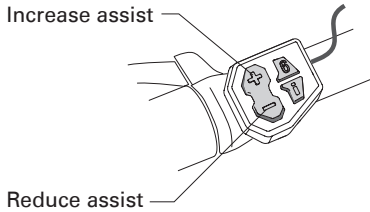
The display will automatically switch off after 10 min. if non of the below stated operations are carried out:

- Pushing the Mode Button
- Pushing "push up" support switch - Applying pressure on the pedal

## Headlamp control

The controller of the SR SUNTOUR HESC pedelec/ E-bike system is equipped with a power supply mechanism which will automatically supply power to the the light system of our bike if the system is turn on. As this is not a standard feature, it might not being used on every pedelec or ebike which is equipped with SR SUNTOUR HESC components, please refer to owner's manual of the manufacturer's bike. Before each ride, especially during dawn and darkness, please always check the proper function of your light system.

## Assist modes



### Assist modes and Cruising range

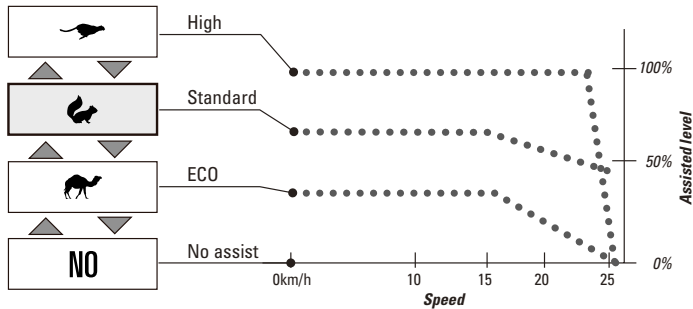
Assist mode	Icon	Cruising range
High		65km
Standard		90km
Economy		120km

## How to change the "Assist Mode"

The user can choose the ratio of assistance depending on his personal wish by pressing the "+" or "-" button on the user interface. He can use between 4 different modes: No assistance, ECO Mode, Standard Mode and High Power Mode.

The percentage of assist power varies from 30%(ECO-Mode), 70%(Standard Mode) and 100%(High-Power-Mode).

## Assist level



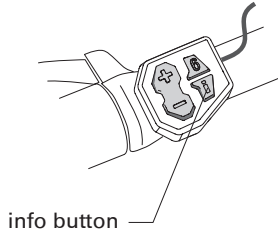
## Range influencing factors

The distances listed above are based on a speed of 20km/h, on a level road at 15-20 °C. Rideable distance might be lower due to below conditions.

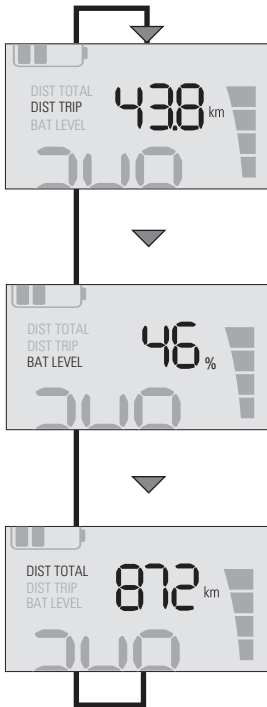
- ▶ Terrain with long and steep climbing.
- ▶ Average speed 20~25 km/h.
- ▶ Head wind
- ▶ 10 °C or less out-side temperature
- ▶ Too low air pressure of tires
- ▶ Wheel alignment is not straight that could create friction against the brake
- ▶ Weight of the rider
- ▶ Luggage
- ▶ Maintenance condition of the bike

## How to change the “Information Modes”

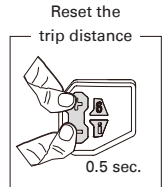
The trip information total distance, trip distance and battery level are shown one after another when pressing the Information-Button “i”.



Information about total kilometers and trip distance are displayed in succession when you push the info “i” button.



**DIST TRIP:** Traveling distance  
Unit: 0.1km  
Measurement range: 0.0 to 999.9km  
(Default setting)



**BAT LEVEL:** Battery level  
Unit: %  
Measurement range: 0 to 99%

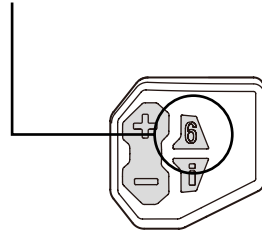
**DIST TOTAL:** Overall distance  
Unit: km  
Measurement range: 0 to 9999km

## Walk assist switch

Your HESC equipped ebike/pedelec features a so called “walk assist” switch. The walk assist knob supports you until 4-5km/h.



**When using the walk assist support switch, always hold your handelbar with both hands.**



## Battery capacity



		76 to 99 %
		51 to 75 %
		26 to 50 %
		10 to 25 %
Blink (0.5 s ON/0.5 s OFF)		< 10 %
Blink (0.2 s ON/0.2 s OFF)		< 5 %
		0 %

## Battery - General information

Our HESC system is equipped with a Li-ion type battery. There is a possible types of battery your bike is being delivered with. Upright type battery which is located behind the seat tube of your bike. Li-ion batteries are very user friendly, however to assure a long battery life there are some points to adhere to.



### **Keys for your battery**

**To prevent against theft the battery of your ebike system is secured with a lock. Your bike should come with 3 keys each. Please store one key within a save place. If all 3 keys will be lost, the whole lock cylinder must be replaced.**

### **Maximum Range**

Charge the battery at room temperature 0 °C to 40 °C(32 °F to 104 °F) Discharge the battery as much as possible before recharging it.

Choose a lower gear when riding uphill.

Always make sure your tires are inflated with the proper value.

### **Battery Life**

Min. 500 charging cycles

If battery indication shows information that the battery is fully charged, but the distance you are able to ride does vary from the information given in this manual, your batteries life may have come to an end. In this case please contact your local SR SUNTOUR HESC dealer for further investigations.

### **Long-term storage**

If you are not going to use your battery for a long term period, there are some points to follow. Otherwise your battery might get damaged, which will affect the batteries life.

Remove the battery from the bike to avoid natural discharging.

Do not store the battery fully charged, approx. 40% is recommended.

Recommended storage temperature -20 °C to +35 °C(-4 °F to +95 °F).

As a battery discharges during a certain period of time, we recommend to recharge the battery every 3 month up to 40% of full capacity.

Only store the battery in a dark room.





## Always keep in mind!

- ▶ Recharge the battery before each journey - always recharge if it hasn't been used for at least one month.
- ▶ Li-ion batteries can't be charged at temperatures over 59 °C(138 °F) or under -2 °C(28 °F)
- ▶ Do not recharge your battery in direct sunlight or within a very hot environment.
- ▶ Avoid any contact with water or moisture when recharging your battery. If a plug or socket does get wet, dry it thoroughly before proceeding.
- ▶ Be sure to keep pets and small children away from the area where you are recharging.
- ▶ If you notice a strange smell or smoke, switch o the Power Socket instantly! Take your battery and charger to your authorized dealer for service or replacement.
- ▶ Do not recharge the battery continuously for more than 24 hours. This could seriously reduce the life of the battery.
- ▶ Keep the area where the battery is charged well ventilated. Keep it free from litter and anything combustibile to avoid re from sparks or overheating.
- ▶ Use only genuine SR SUNTOUR Batteries and Chargers with your bike, anything else invalidate your warranty and may cause irreparable harm.
- ▶ Do not throw the battery into a fire.
- ▶ Do not charge the battery with other chargers then the one which has been delivered with your ebike/pedelec.
- ▶ Never try to charge other batteries with the delivered charger.
- ▶ Do not disassemble or modify the battery or charger.
- ▶ Do not connect positive and negative terminals by using metallic objects; be especially careful when inserting any key to ensure that it is not accidentally inserted into the charger socket on any battery.
- ▶ Do not submerge the battery or charger. Soaking either in water may cause irreparable damage. Always make sure that all electronic contacts are free of moisture, grease, oil or any other kind of fluid.
- ▶ Do not subject the battery or charger to shocks, e.g. by dropping.
- ▶ Do not touch the charger with your skin for long periods during charging. Burning of the skin may result.
- ▶ Do not cover the charger or place objects on it.
- ▶ Place the charger rmlly on a at surface. Using the charger upside-down or stretching the
- ▶ The battery can go into sleep mode when not used for a longer period. In this case please keep the charger connected until the battery start re-charging again. This can take more time.

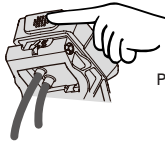
## Battery charging

Your bike is delivered together with a charger. Please only use this charger, 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.

One full charge takes up to 4.0 - 4.5hours, depending on the condition of battery.

### To charge the battery please follow these steps:



Press 2 sec.

1. Switch off the system.



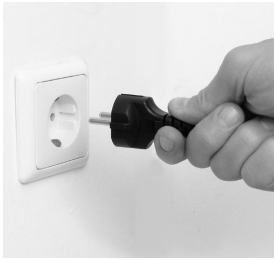
2. Unplug the battery from its docking station.  
Please note! You can also charge the battery while mounted on the bike.



3. Open the cover which protects the socket.



4. Plug the charger cable in.



5. Plug charger into power outlet



6. The status indication should now shine "red" ( ready for use)

Charging status

- : Battery is not getting charged, please check a connections.
- : Battery is getting charged.
- : Battery is fully charged

7. Remaining capacity (press button for 1sec)  
Provides you with information about the remaining capacity of your battery.



LED Indicator	Remaining capacity
● ● ● ●	100 - 75%
● ● ● ○	75 - 50%
● ● ○ ○	50 - 25%
● ○ ○ ○	25 - 10%
⊙ ○ ○ ○	10 - 0%
⊙ ⊙ ⊙ ⊙	Over Temperature

○ no light ● light ⊙ blinking

**Battery information**

LED IndicatorA	bsolute capacity
● ● ● ◎	100 - 80%
● ● ◎ ○	79 - 70%
● ◎ ○ ○	69 - 60%
◎ ○ ○ ○	59 - 0%

○ no light ● light ◎ blinking

Absolute capacity (press button for 6 sec.)

Gives information about the total absolute capacity of your battery. It can also be seen as a indicator of battery life. Please also refer to the section "Long term storage" and "Battery Charging - General Information".

LED IndicatorC	harge count
● ● ● ●	0 - 99
● ● ● ○	100 - 189
● ● ○ ○	190 - 269
● ○ ○ ○	270 - 349
◎ ○ ○ ○	350 -

○ no light ● light ◎ blinking

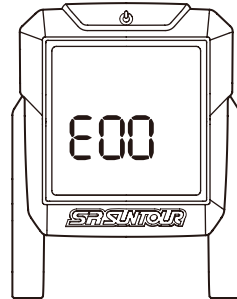
Charge count (press button for 10 sec.)

Provides information about how many times your battery has been charged.

## Error Codes



Your SR SUNTOUR HESC E-bike/pedelec system is equipped with an automatic error message report system (EMRS). This system has been developed to provide you with immediate and effective feedback in case your system detected a major problem. This system has to be seen as first aid help tool. In case an error message is shown in the display. Please contact your local dealer.



## Maintenance and 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 moist 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.**

## How to disassemble the front wheel

To remove the front wheel off your bike, please follow the steps indicated below.



### **WARNING !**

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



1. Remove the cable guide using a 4mm Allen key.



2. Unplug the cord



3. Unfasten the nuts using a 19mm flat wrench key



4. Remove the washer which secures the axle

## How to re-assemble the front wheel

In order to re-assemble the front wheel execute the above explained steps in reversed order.

PLEASE NOTE! Fixing bolts cable guide : 1Nm (4mm Allen key)

PLEASE NOTE! Fixing bolts wheel axle : 40Nm (19mm flat wrench)

## Limited Warranty

SR SUNTOUR warrants its E-bike / 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. Excluded from this warranty is the Li-Ion Battery. The battery warranty is 1 (ONE) year. 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 any 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 component caused by: improper installation, disassembling and re-assembling, intentional breakage, alterations or modifications to the component, 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 components 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.

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