E-BIKE (Electrically Power Assisted Bicycles)

# USER MANUAL

V4.0

## CG135

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# 1. Preface

## 1.1 Welcome

EISO Enterprise Co., Ltd. has long been focusing on research and development, manufacturing and sales of its own brand DOSUN series products. Leading the market through innovative research and development applications, not only highly praised by consumers, but also repeatedly recognized by international awards. With the spirit of continuous innovation and profound research and development background, DOSUN has entered into the electric auxiliary bicycle industry and developed a new product line with the purpose of LOHAS. We hope that through this product, LOHAS will no longer be a slogan, and everyone can easily get healthy!

## 1.2 Use of the Manual

Thank you for choosing the DOSUN CG135 electrically power assisted cycles, as the authorized brand of EISO Enterprise Co., Ltd., this manual will introduce you the correct knowledge and maintenance method of CG135 in detail, please read it carefully, so that you can enjoy the fun of riding in a safe condition. If you have any questions about CG135, please contact our company or DOSUN authorized store immediately.

Sincerely thank you for purchasing "**DOSUN CG135**"

Be sure to read this manual before use.

This manual is also the product warranty card.

Please fill in the blanks such as "Purchase Date", "Dealer Name", read carefully and keep it properly.

## 1.3 Symbols used in the manual

DANGER: Death, serious personal injury and severe property damage will result if the safety instructions are not followed.

WARNING: Fail to follow the safety instructions can result in death, serious personal injury and serious property damage.

NOTE: that property damage may occur if the safety instructions are not followed.

## 1.4 Service and technical support

Consultation telephone **+886 03-359-6066 # 191**

DOSUN Customer Service Center Service Hours: Monday~ Friday 9:00am~6:00pm (closed on holidays)

Online consultation

Please use "DOSUN e-Bike " as the keyword search online, or visit our website https://shop.dosun.us/

※Before contacting, please confirm the model of the product you are using (recorded in the warranty).

We sincerely welcome suggestions for improving products and services, and thank you again for choosing DOSUN electrically power assisted cycles.

EISO ENTERPRISE CO., LTD.

EISO ENTERPRISE CO., LTD.

DOSUN®
Always on!

# 2. Safety

## 2.1 Safe use of bicycles

### Speed limit

To consumers,

In order to comply with the relevant domestic electrically power assisted cycles specifications, all electrically power assisted cycles models of EISO ENTERPRISE CO., LTD. ( DOSUN ) have a speed limit design. It is strictly forbidden to modify, replace, disassemble or even destroy the related electronic accessories of our products. And other behaviors, if the above situation occurs, our company will not provide product warranty and follow-up after-sales service. The user shall be solely responsible for any damage to personnel and property caused by unauthorized changes to the product specification and design.

### Before riding

The following items must be confirmed before each ride to ensure the safety of each ride. If any item does not meet the standard, please go to

EISO ENTERPRISE CO., LTD. (DOSUN) authorizes stores to repair/adjust.

1) Wheelset inspection

Please confirm whether the quick release of the front and rear wheels are locked, and at the same time confirm whether the tire pressure is normal. Depending on the weight and tire, please follow the Reference tire pressure on the tire. Please confirm whether the tire has cracks and whether the tread pattern is clear. If there is damage, be sure to replace the tire.

Tire pressure recommendation:

| model | Recommended tire pressure (MIN-MAX) |
|---|---|
| CG135 | 40PSI–65PSI\|2.8bar–4.5bar |

2) Brake inspection

Please confirm whether the front and rear brakes are normally, and whether the brake sensitivity conforms to your usage habits. You can follow your operating habits.

Make moderate fine-tuning, but be sure to make sure the braking force is on.

3) The operation of brake

When all models are produced, the braking operation is that the left brake lever corresponds to the front wheel brake, and the right brake lever corresponds to the rear

## 2.2 Battery and Charger Safety

### Battery Information

### General system description:

This document is the relevant information for the design and manufacture of rechargeable lithium battery packs. The power management system of this battery pack is a power management system with two or more safety protection (ISO13849 certification)

System Features:

(1) The electrical specification of this battery pack is 36V *16.75Ah.

(2) The continuous maximum current output of this battery pack is less than 28A.

(3) This battery pack includes over-voltage protection, under-voltage protection, over-temperature charging protection, over-temperature discharging protection, over-current charging protection, current discharging protection and short-circuit protection.

(4) Automatic shutdown and power off, the lowest self-power consumption, and automatic wake-up.

(5) Power management system, which can automatically record and access more than 500 transactions.

### Warnings and Precautions

### Precautions for proper handling

◎ Ensure that the battery pack is far away from heat sources, and should prevent sudden impact on the battery pack, and pay attention to prevent short circuit of terminals.

◎The long-term storage of the battery pack should maintain 30%~50% of the power, and charge it every 6 months to avoid over-discharge and detract from the battery pack life.

◎ The battery pack should be kept away from young children.

◎The battery pack should be kept dry and clean. If the terminals of the battery pack are dirty, use a dry and clean towel to clean the terminals.

◎Please do not leave the battery pack unused for a long time in an uncharged state.

◎Please keep the product information for future use.

◎The battery pack can only be used in the product application of the specific design.

◎If the product is not used for normal time, please remove the battery pack from the frame.

## WARNINGS

◎The battery pack cannot be opened, disassembled, or damaged; The battery pack contains safety protection equipment, once the battery pack is damaged, it may cause heat, rupture, or burn.

◎The battery pack should not be exposed to or directly contact with heat sources and flames. Do not expose the battery pack to direct sunlight, and do not use or store the battery pack in a car in hot weather.

◎Do not pierce or puncture the battery pack with elongated objects, and do not try to squeeze the battery pack.

◎Do not immerse the battery pack in water or corrosive liquid.

## Charger Precautions

(1) There is high voltage inside, in order to prevent the danger of electric shock, please do not open the charger for maintenance;

(2) The charger is limited to indoor use;

(3) Do not charge non-rechargeable batteries;

(4) If you have any questions, please contact your dealer or repair station.

(5) Peripheral equipment must have a V-1 grade or higher fireproof enclosure.

 Notes on scrapping

(1) If you want to discard this machine, please follow the regulations of each local government regarding disposal.

(2) Depending on the local government, recycling services for discarding this machine may not be available. In this case, please contact DOSUN Customer Service Center.

## 2.3 Luggage Carrier

 WARNING: It is important to ensure that any cargo and features mounted on the luggage rack are securely installed in accordance with the manufacturer's instructions and that there are no loose belts or other items that could get caught on the wheels.

 Note: Only store cargo securely on the luggage rack. Do not attach cargo to any other part of the bike.

 NOTE: The bike may behave differently (especially steering and braking) when the rack is loaded.

 Note: The maximum capacity of the rear luggage rack: 22 kg.

## 2.4 Accessories and attachments

 NOTE: Please be aware that the use of (third party) bike trailers or trailer bikes will cause additional load stress and accelerated wear on the electronic and/or mechanical parts of the e-bike. Never modify any original parts of the e-bike to fit a (third party) trailer. Never exceed the allowable total electric bike load weight stated in this manual.

 NOTE: Please be aware that the use of child seats will not cause additional load stress and accelerated wear of the electronic and/or mechanical parts of the e-bike.

Never modify any original parts of the electric bike to fit a child seat. Never exceed the stand load capacity and/or the allowable total e-bike load weight stated in this manual.

# 3. Description

## 3.1 Introduction of vehicle components


(The picture above is reference only, please refer to the actual product for specific specifications!)

### Installation Notes

Depending on the purchase situation, you may need to install/adjust the following parts yourself. If you have any doubts about the following installation/adjustment methods, please go to the authorized store of EISO ENTERPRISE CO., LTD. (DOSUN) to accept the correct installation/adjustment. Improper installation or adjustment may result in hazardous riding and injury, and in the most serious cases, even death.

1) Front wheel installation

Please disassemble the front wheel from the package, align the front wheel and disc correctly and place them in the front fork hook and disc brake seat.

After the placement is complete, lock the quick release in a clockwise direction until it is half-tight, and then lock the quick release handle (need to feel tight).

2) Handlebar installation

First remove the front cover of the stem, and after turning the handlebar to the correct direction, install the handlebar on the stem and tighten the screws. Screw locking force Please refer to the value on the stem and do not over-tighten the screws.

3) Stem fixing

Align the stem with the front wheel and tighten the top cover screw with a locking force of 6-8N.m. After correct locking, please tighten the screws on the two sides of the stem Please refer to the value on the stem for the tightening force of the screws. Do not over-tighten the screws.

4) Seat post installation

Please disassemble the seat post and seat cushion from the package, and put them into

the seat tube of the frame. Please adjust the height of the seat post according to your personal shape, but it should not exceed the safety line of the seat post. After confirming the height, tighten the seat clamp.

## 3.2 Batteries and Chargers

Battery appearance

| NO | ITEMS | Specifications |
|---|---|---|
| 1 | Dimensions | L343.2mm*W98.6mm*H91.3mm(IR-5-U) |
| 2 | Appearance of Pack  | |
| 3 | Weight | <4.0kg |
| 4 | Material of outer case | AB+ABS and aluminum alloy |
| 5 | Material of cell holder | PC+ABS |
| 6 | Waterproof grade | IPX4 |
| 7 | Fireproof grade | 94-V0 |
| 8 | Safety Certification | CNS15387, CNS15424-1 |

Battery Specifications

| SAMSUNG INR18650-35E | | |
|---|---|---|
| NO | ITEMS | Specification |
| 1 | Capacity | Nominal: 3350mAh(0.2C, 2.50V discharge)<br>Minimum: 3250mAh(0.2C, 2.50V discharge) |
| 2 | Charging Voltage | 4.2V±0.05V |
| 3 | Nominal Voltage | 3.6V(0.2C discharge) |
| 4 | Charging Method | CC-CV (constant voltage with limited current) constant current-constant voltage (current will be limited at constant voltage) |
| 5 | Charging Current | Standard charge: 1.700mA |
| 6 | Charging Time | Standard charge: 4hours |
| 7 | Max. Charge Current | 2000mA(not for cycle life) |
| 8 | Max. Discharge Current | 8000mAh |
| 9 | Discharge Cut-off Voltage | 2.50V |
| 10 | Cell Weight | 50g |
| 11 | Cell Dimension | Diameter Maximum Diameter: 18.50mm<br>Height Maximum: 65.25mm |
| 12 | Operating Temperature<br>(cell surface temperature) | Charge: 0 to 45℃ Discharge: -10 to 60℃ |
| 13 | Storage Temperature | 1 year: -20~23℃ (1*)<br>3 months: -20~45℃ (1*)<br>1 month: -20~60℃ (1*) |

Note (1): If the battery cell is kept in the state of 30% charged at the factory, the recovery ratio of the capacity will be higher than 80%

Connector Type and Pin Definition

| NO | ITEMS | Specifications |
|---|---|---|
| 1 | Discharge port<br>⊕ Pack Positive Terminal Discharge positive<br>MRX signal transmitter<br>MTX signal transmitter S-V signal transmitter<br>Pack Negative Terminal |  |
| 2 | Charger port / DC Jack Connector |  |
| 3 | LED Indicators<br>75% < SOC ≤ 100% The LED1 ~ LED4 are on.<br>50% < SOC ≤ 75% The LED1 ~ LED3 are on.<br>25% < SOC ≤ 50% The LED1 and LED2 are on.<br>10% < SOC ≤ 25% The LED1 is on.<br>0% ≤ SOC ≤ 10%<br>(250ms on/off) The LED1 is flashing.<br><br>1. Press the SOC button on the battery pack, the LED will display the above lights according to the SOC.<br>2. When the battery pack is charging, the LED will display the above lights according to the SOC until the charger is removed.<br>3. Press the SOC button on the battery pack for 5 seconds, the BMS will enter Shutdown mode, and the LED will prompt as follows until the SOC button is released.<br>LED1, LED4 on / LED2, LED3 off<br>↕(250ms)<br>LED1, LED4 off / LED2, LED3 on |  |

Charger Information

Specifications: Input 110-240Vac, 50/60 Hz, 1.8A, Output 42V ⎓ 2.0A,

Rated input power: 84W

Working environment temperature: 0℃-40℃

Operating altitude: below 5000 meters

This product is a smart charger. Using switching power supply technology, it is a charger for lithium batteries with superior performance. It has the following advantages:

1) Self-adjusting input voltage range (110-240Vac);
2) Low output ripple noise;
3) The short-circuit current is 0, which can prevent short-circuit damage and avoid unnecessary power consumption caused by short-circuit, and can be short-circuited for a long time;
4) Fully sealed structure, safe and reliable to use;
5) Comply with EU ROHS Directive;
6) Complies with the Low Voltage Test Directive.

Scope of application: This charger is suitable for charging 10 strings of 2A/42V±1% 8-14 AH lithium-ion battery packs.

## 3.3 Motors

This motor technology uses an array of sensors and intelligent processing to provide pedaling assistance that responds fully in sync with human input. The result is a very natural and predictable power delivery pattern that maintains assistance in harmony with the rider. There are many variations of this motor, and all motor parameters are custom-adjusted by DOSUN to suit the intended use of the bicycle.

## 3.4 Control system


The control system offers an ergonomic configuration with easy-to-operate controls. Actionable feedback comes from a bright LCD indicator screen.

# 4. Transport and Storage

## 4.1 Transportation

NOTE: Do not leave the battery on the bike when transporting the bike by car. The battery must be removed from the bike for transport and placed in the car.

## 4.2 Storage

### Electrically Power Assisted Cycles

Store your bike in a place protected from snow, rain and sun. Snow and rain can cause your bike to corrode. The sun's UV rays can discolor the paint on your bike or crack any rubber or plastic parts.

### Battery

If the bicycle will not be used for an extended period of time (one month or more), the battery should be stored in the following optimal conditions:

Store of separately from bicycle.

The temperature is between 0 and 40 degrees.

NOTE: Check the battery once a month to see if at least one LED is still blinking. Charge the battery if necessary.

NOTE: Charge the battery every 3 months. Ignoring this will void the battery warranty.

# 5. Bike usage

## 5.1 Riding Miles

The riding range on a single charge is highly dependent on several factors, such as (but not limited to):

1) Weather conditions such as ambient temperature and wind;

2) Road conditions such as elevation and road surface;

3) Bike conditions such as tire pressure and maintenance level;

4) Use of the bicycle, such as acceleration and shifting;

5) the weight of the rider and luggage items;

6) charge count and discharge cycle;

7) The age and condition of the battery.

## 5.2 Battery Information

General System Descriptions

This document is related information for the design and manufacture of rechargeable lithium battery packs. The power management system of this battery pack is a two-level or more safety protection power management system (ISO13849 certification).

## 5.3 Charging

ⓘ NOTE: Charge the battery at room temperature (± 20°C / 68°F ) .

ⓘ Note: Charging below 0°C or above 40°C ( 32°F~104°F ) may result in insufficient charging and may negatively affect the battery life cycle.

### 5.3.1 Charger usage

1). When using, plug in the plug of the battery box first, and then plug in the AC power plug;

2). During normal charging, the power charging indicator light shows red, and when fully charged, the charging light shows green;

3). After the battery is fully charged (the charging indicator is green), if you want to stop charging, you should first unplug the AC power plug, and then unplug the battery box.

## 5.3.2 Battery removal and installation

NOTE: Always turn off the power before removing the battery.

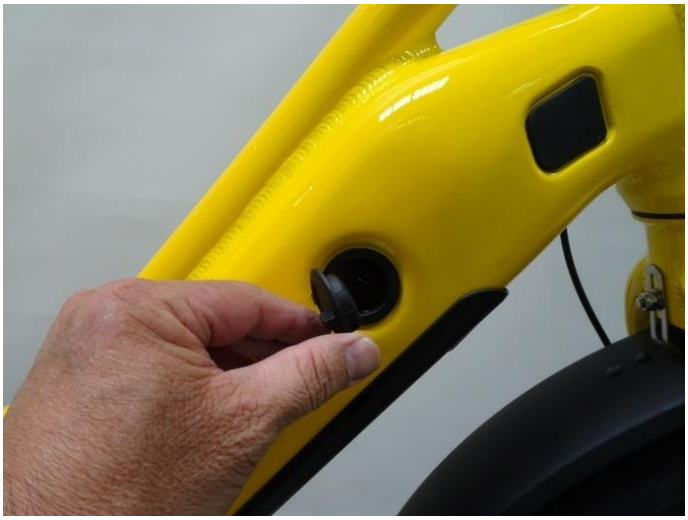
## 5.3.3 Charging the removed battery

NOTE: Always turn off the power before removing the battery.

NOTE: Before connecting, it is important to take care to align all connectors properly.

## 5.3.4 Charging inside the bike

NOTE: Before connecting, it is important to take care to align all connectors properly.



### 5.3.5 Charging time table

| | |
|---|---|
| battery capacity | 3350mAh |
| AC voltage | 110-240V |
| Charge 100% | 3:30h |

## 5.4 Control

### 5.4.1 Power on and off

Press and hold the power button (2 seconds) to turn on the power, long press the power button (2 seconds) to turn off the power, and automatically turn off the power if it is not used for 5 minutes (can be set in the system function)


Boot interface

### 5.4.2 Screens

Instructions for use of electric accessories

Dashboard Description


(1) The lights show:

Display the current working status of the lights

(2) USB connection instructions:

Display the current connection status between the USB port and the external device

(3) Battery capacity display:

Display of current battery capacity

(4) Speed display:

(5) Display current riding speed

(6) Multiple data shows:

Single mileage (TRIP), total mileage (ODO), maximum speed (MAX), average speed (AVG), remaining distance (RANGE), output power (POWER), energy consumption (Cal), riding time (TIME); (Note: Energy consumption/calorie will only appear when the monitor recognizes a torque signal from the sensor within 10 seconds of power on)

Auxiliary Mode Indication:

Display the current auxiliary mode, this display has 0/1/2/3/4/5 mode, the selected mode will be displayed in the enlarged screen

Level 0 is no power assist

Indicates walk assistance mode.

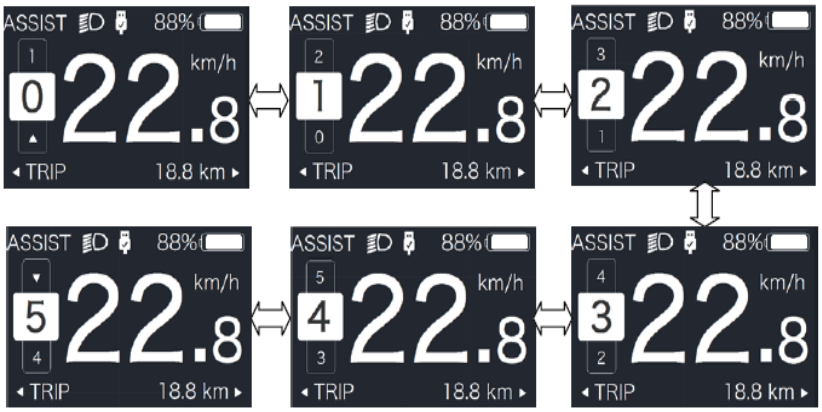
## 5.4.3 Settings

Definition of control buttons:

Screen controller has 3 buttons including [+] and [-] and [Boost/on-off]


Electric auxiliary mode selection:

After the system is turned on, short press [+] or [-] to select the assist mode, the lowest is 0, the highest is 5, the default value of the system is 1, 0 means no assist, the interface is as follows.




※The system has boost mode, you can press【+】to select this mode

Multiple data toggles:

Short press the power button after power on to  switch between different information modes

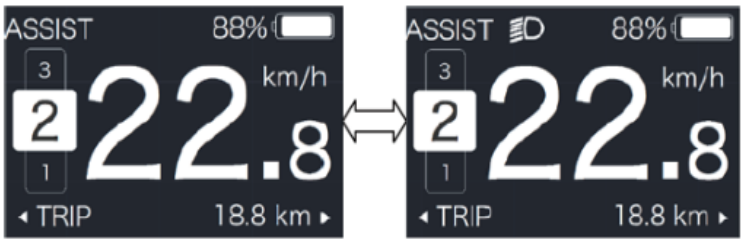
Cycle display single mileage (Trip, km) → total mileage (ODO, km) → maximum speed (MAX, km/h) → average speed (AVG, km/h) → remaining distance (RANGE, km) → energy consumption ( CALORIES/CAL,K Cal) → output power (POWER, w) → riding time (TIME, min) → cycle.


Walk assistance features:

When you stop pedaling, short press [-] to switch to  the light to enter the walk assistance mode, then press and hold [-] to start the walk assistance mode, and release the [-] to stop, when the walk assistance function is at 5 If no operation is performed within seconds, the system will automatically jump back to the 0th mode.

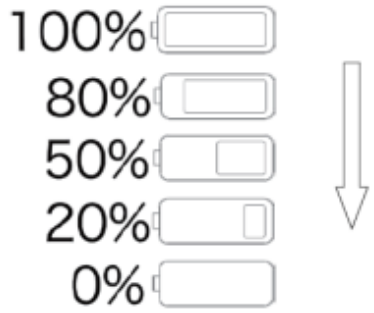

Screen backlight and headlights:

When the system is turned on, press and hold [+] for 2 seconds, the screen backlight and headlights will be turned on, and the light indicator pattern on the screen will light up, otherwise, long press [+] to turn off the light source.




Battery capacity indication:

The current battery capacity/total battery capacity is displayed in percentage figures, and the battery graph shows the capacity as follows.




Information button

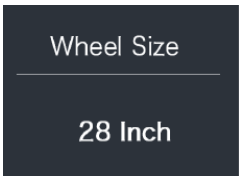
Information interface:

Enter the Information menu on the main setting screen to enter the information interface.


※The information of this option does not provide changes, only the function of viewing

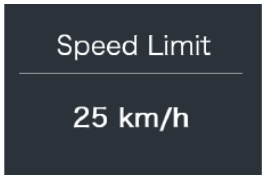
Wheel Size

This option can view the currently set wheel size (rear wheel)




Speed Limit

This option allows you to view the current power-off speed setting




Battery Info

Select battery information to view battery data b01→b04→b06→b07→b08→b09→b10 →b11 → b12 → b13 → d00 → d01 → d02 →dn → Hardware Ver → Software Ver

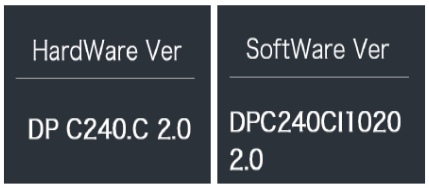

battery information

Battery data description

| code | illustrate | unit |
|---|---|---|
| b01 | Current temperature | °C |
| b04 | Battery voltage | mV |
| b06 | Current | mA |
| b07 | Remaining battery capacity | mAh |
| b08 | Battery capacity of Full charged | mAh |
| b09 | Relative SOC | % |
| b10 | Absolute SOC | % |
| b11 | Cycle Times | times |
| b12 | Max Uncharged Time | Hour |
| b13 | Last Uncharged Time | Hour |
| d00 | The number of cells | |
| d01 | Voltage Cell 1 | mV |
| d02 | Voltage Cell 2 | mV |
| dn | Voltage Cell n | mV |
| Hardware Ver | Battery Hardware Version | |
| Software Ver | Battery Software Version | |

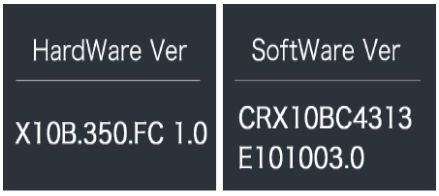
Display Info

This option can display the hardware model and software version of the current monitor



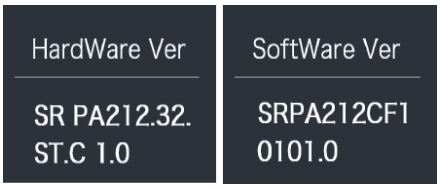

Controller Info

This option can display the hardware model and software version of the current controller



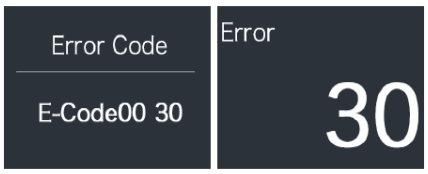

Torque Info (sensor information)

This option can display the hardware model and software version of the current sensor




Error Code (error code information)

This option can view the error code information, the error code E-Code00~E-Code09, 00 means there is not exist error




## 5.4.4 USB- A port

USB charging function:

When the system is off, connect the USB device to the system USB port, press and hold the power button to start the system, and the USB device can be charged. The maximum charging voltage is 5V, and the maximum charging current is 500mA.

## 5.4.5 System events

The system interface can detect faults. When a fault is detected, one of the following error codes will be displayed

Error code definition

※Please read the explanation of the error code carefully. When an error code appears,

please restart the system, the problem is not eliminated, please contact your dealer or technician.

| Error code | Declaration | Troubleshooting |
|---|---|---|
| 04 | Throttle handle not returning to correct position | Check the throttle to see if it can be adjusted back to the normal state, if the situation does not improve, please replace with a new throttle |
| 05 | Throttle handle failure | 1. Check if the connector is connected correctly<br>2. Disconnect the throttle, if the problem persists, please contact your dealer |
| 07 | Over Voltage protection | 1. Remove the battery<br>2. Reinstall the battery<br>3. If the problem persists, please contact your dealer |
| 08 | Hall sensor signal error (inside the motor) | Please contact your dealer |
| 09 | Motor phase error | Please contact your dealer |
| 10 | High temperature protection inside the motor | 1. Turn off the system to let the e-bike cool<br>2. If the problem persists, please contact your dealer |
| 11 | Motor internal temperature sensor error | Please contact your dealer |
| 12 | Current sensor error in controller | Please contact your dealer |
| 13 | Battery internal temperature sensor error | Please contact your dealer |
| 14 | High temperature protection inside the controller | 1. Turn off the system to let the e-bike cool<br>2. If the problem persists, please contact your dealer |
| 15 | Controller internal temperature sensor failure | Please contact your dealer |

| | | |
|---|---|---|
| 21 | Speed sensor error | 1. Restart the system<br>2. Check whether the induction magnet is on the spoke and keep a distance of 10~20mm from the speed sensor<br>3. Check whether the speed sensor is connected correctly<br>4. If the problem persists, please contact your dealer |

| Error code | Declaration | Troubleshooting |
|---|---|---|
| 25 | Torque sensor error | 1. Check that all connections are made correctly<br>2. If the problem persists, please contact your dealer |
| 26 | Torque sensor speed signal error | 1. Check that the speed sensor is properly connected<br>2. Check the speed sensor for signs of damage<br>3. If the problem persists, please contact your dealer |
| 27 | Over current protection of the controller | Please contact your dealer |
| 30 | system communication problems | 1. Check that all connections are made correctly<br>2. If the problem persists, please contact your dealer |
| 33 | Brake signal error (with power off brake lever installed) | 1. Check that all connections are made correctly<br>2. If the problem persists, please contact your dealer |
| 35 | 15V detection circuit error | Please contact your dealer |
| 36 | Button detection circuit error | Please contact your dealer |
| 37 | WDT circuit abnormality | Please contact your dealer |
| 41 | The total voltage of the battery is too high | Please contact your dealer |

| | | |
|---|---|---|
| 42 | The total voltage of the battery is too low | Please contact your dealer |
| 43 | Total battery cell power is too high | Please contact your dealer |
| 44 | The voltage of a single cell of the battery is too high | Please contact your dealer |
| 45 | Battery temperature is too high | Please contact your dealer |
| 46 | Battery temperature is too low | Please contact your dealer |
| 47 | The SOC of the battery is too high | Please contact your dealer |
| 48 | The SOC of the battery is too low | Please contact your dealer |
| 61 | handoff detection error | Please contact your dealer |
| 62 | Problem with electronic shifting | Please contact your dealer |
| 71 | Electronic lock cannot be opened | Please contact your dealer |
| 81 | Bluetooth module error | Please contact your dealer |

## 5.4.6 Quick Troubleshooting Steps

1). The power indicator light is off:

a. Check if there is AC input

b. Check whether the input line interface is in poor contact

If the above may be excluded, please send it to the factory for repair, do not repair it yourself.

2). The charging indicator does not light up:

a. Is the output connector connected?

b. Whether the battery is damaged

If the above may be excluded, please send it to the factory for repair, do not repair it yourself.

3). The red light for charging is always on:

a. Whether the battery is damaged

If the above may be excluded, please send it to the factory for repair, do not repair it yourself.

4). Visual inspection for any obvious cause.

a. When safe to do so, address any simple and obvious cause (reinstalling a battery that

was not positioned correctly).
5). Restart the system. If the issue is resolved:
a. You can continue to use it normally.
b. Schedule a maintenance inspection at an authorized dealer.
6). If the problem persists:
a. Stop riding a bicycle.
b. Please contact an authorized dealer for diagnosis and repair.

## 5.5 Bicycle Headlights

Certain models of bicycle headlights can be attached to improve rider visibility in daytime traffic.

## 5.6 Keys

The bike comes standard with two keys for the battery lock. A qualified locksmith can match the above keys. When the battery is locked, it cannot be removed without damage. It is important to ensure that at least one key is readily available for maintenance or repair.
NOTE: Store key codes and unused keys in a safe place for repairs and emergencies.
NOTE: Always carry the key with you when going to the dealer for maintenance or repairs.

# 6. Maintenance

## 6.1 Cleaning

DOSUN electrically power assisted cycles use plastic casings to cover electrical parts. Do not use too much water to wash plastic. Use a soft cloth and a neutral solution to wipe dirt off the plastic case. Then dry with a clean soft cloth.
NOTE: Do not use high pressure water or air hoses when cleaning. It forces water into the electronic components, potentially causing them to malfunction.
Note: Do not use excess water to wash e-bike parts. Water entering the internal electrical parts may corrode the insulating materials, resulting in power failure or other problems.
Note: Do not use non-neutral soap solutions to clean plastic parts. Non-neutral solutions may cause color changes, deformation, scratches, etc.

## 6.2 Drivetrain

On models without an automatic chain-tensioner, the chain tension must be checked and adjusted manually.
How to check chain tension:

To check chain tension, hold the center of the chain between the front and rear sprockets.
Move the chain up and down to check the slack on the chain;
Vertical movement should be a distance between 10-15 mm;
If the movement is more or less, the chain tension to be adjusted.
NOTE: This adjustment should only be done by a trained technician using the appropriate tools.
Note: Please contact your local DOSUN dealer for details on technical maintenance and related support for electrically power assisted cycles.

# 7. Legal documents

## 7.1 Warranty

### Statement:

The warranty terms are limited to the purchase of authorized passages from EISO ENTERPRISE CO., LTD. (DOSUN), and are limited to first-hand purchasers, and are assembled and adjusted by store technicians. In order to protect your rights and interests, please be sure to ask for the user manual and purchase certificate when purchasing a bicycle. The color, specifications and equipment of the bicycle model are mainly based on the actual product. The original factory reserves the right to change the painting specifications.

### Warranty content and regulations:

During the warranty period, according to the provisions of the user manual, the damage that occurs under normal use will be judged as abnormal quality by the original factory inspection, and the authorized store will provide perfect after-sales service. Damage caused by improper use. Relevant parts and maintenance costs will be charged.
During the warranty period, if there is any abnormal condition of the product, according to the contents recorded in this manual, you can apply for warranty maintenance; the warranty scope will mainly be parts repair or replacement, and the replaced parts are owned by EISO ENTERPRISE CO., LTD. (DOSUN).

### Warranty period

<table>
<tr><td colspan="4">A. Frame: 3 years</td></tr>
<tr><td colspan="4">◎Replacement principle: Replace it with the same frame. If the product has been discontinued, it will be replaced with a similar product.</td></tr>
<tr><td>B. Front fork: 2 years</td><td>C. Battery: 1 year</td><td>D. Motor: 1 year</td><td>E. Dashboard: 1 year</td></tr>
</table>

F. Other non-consumable parts: 1 year, such as: non-suspension front fork, saddle, seat post, shifting handle, front derailleur, rear derailleur, Spindle, front hub, rear hub, handlebar, stem, folding mechanism, front caliper, rear caliper, brake lever, front mudguard, rear mudguard, Carrier, pedals, bearings, connecting rods and connecting rod connecting screws. (Based on the warranty period provided by the parts factory)

Regarding customer personal data protection policy:

1) For the purpose of responding to customers, maintenance and related information, etc., the personal data of customers will be used, and records of the contents of customer inquiries will be kept for this purpose.
2) Except in the following cases, the company will not provide personal data to third parties.
   → When requesting repairs or confirming business.
   → When required by law.
3) For inquiries about personal data, please contact DOSUN Customer Service Center.

This manual is also the product warranty card.
Please fill in the items such as "Purchase Date", "Dealer Name", read carefully and keep it properly.

## 7.2 Exclusions

Warranty Exclusions Failures and damages caused by the reasons listed below are not covered by the warranty (users should bear the cost).

1). The pedals, front and rear hubs, steering system, shock absorbers, freewheels and other rotatable parts produce sounds and vibrations that will not affect general functions.
2). Consumable parts: handle belts (sleeves), inner and outer tires, brake blocks (rear pads), discs, inner and outer brake cables, inner and outer cables for shifting, chainwheels, cranks, chains, freewheels, rims, hubs, Parts such as spoke will gradually wear out with use.
3). The painted surface of the frame and parts may be corroded or peeled off due to external environmental factors such as sweat, collision, and friction.
4). Failure to do proper maintenance in accordance with the instruction manual.
5). The storage place is not good, or after long-term use, the coating and baking paint are peeled off, and the metal surface or plastic parts are naturally faded.
6). When used for performing actions such as stunts or jumping, which will cause damage to parts

or failure of functions.
7). Business rental or unauthorized use. (Repeatedly rented for frequent use by an unspecified majority of people; improper use, not the original purpose and method of use set by the product)
8). Damage caused by the use of the vehicle not according to the characteristics of the vehicle. (Different types of vehicles have their own suitable terrain environment, if they are used in places that should not be ridden, such as mountain roads, stairs, etc., the fault will be damaged.)
9). Arbitrarily disassemble, modify parts or use non-original parts.
10). Product damage caused by external force (traffic accident, vehicle collision, impact damage, transportation damage, misuse, overturning, falling into ditch or other accidental collision, etc...)
11). Causes of natural disasters or human force majeure.
12). Failures caused by violations of relevant laws and regulations, such as overloading, double-loading, installation of foot levers, etc.
13). Consumable wear and tear of parts, fatigue and deformation of parts or cracks after use.
14). Tire puncture and air leakage caused by sharp objects such as nails, glass, and gravel.
15). Bending, deformation and fracture caused by road obstacles or potholes such as rims and frame parts.
16). Small parts such as small screws and nuts fallen off.
17). Cutting injuries caused by inverting the saddle or man-made damage.
18). The chain after use is loose and fallen off or the transmission does not work properly.
19). The chain cover, fender, rear carrier, child seat, etc. are scratched, deformed or broken due to falling or collision.
20). The stem, handlebar and seat post are not used in accordance with the safety instructions, which will cause damage to the frame such as deformation and breakage.

## 7.3 Conformity

This electrically power assisted cycles complies with the following regulatory standards:
Electrically power assisted cycles with a maximum support speed of 25km/h meet the requirements of the EU Machinery Directive 2006/42/EC.
Bicycle Standard: ISO 4210-2
Electrically power assisted cycles: EN 15194

## 7.4 Disclaimer

In order to comply with the relevant domestic electrically power assisted cycles specifications, all electrically power assisted cycles models of EISO ENTERPRISE CO., LTD. (DOSUN) have a speed limit design. It is strictly forbidden to modify, replace, disassemble or even destroy the related electronic accessories of our products. And other behaviors, if the above situation occurs, our company will not provide product warranty and follow-up after-sales service. The user shall be solely responsible for any

damage to personnel and property caused by unauthorized changes to the product specification and design.