DOSUN CT150 (International Version)

E-BIKE (Electrically Power Assisted Bicycle)

USER MANUAL

DOSUN®

Always on !

Preface

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 enjoyable cycling. We hope that through this product, enjoyable cycling will no longer be a slogan, and everyone can easily get healthy!

Use of the Manual

Thank you for choosing the DOSUN CT150 electrically power assisted, this manual will introduce you the correct knowledge and maintenance method of CT150 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 CT150, please contact our company or DOSUN authorized store immediately.

Sincerely thank you for purchasing "**DOSUN CT150**"

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.

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.

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!

Safety

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)
CT150	35PSI–45PSI|2.4bar–3.1bar

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

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 *17.00Ah.

(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 3 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.

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.

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.

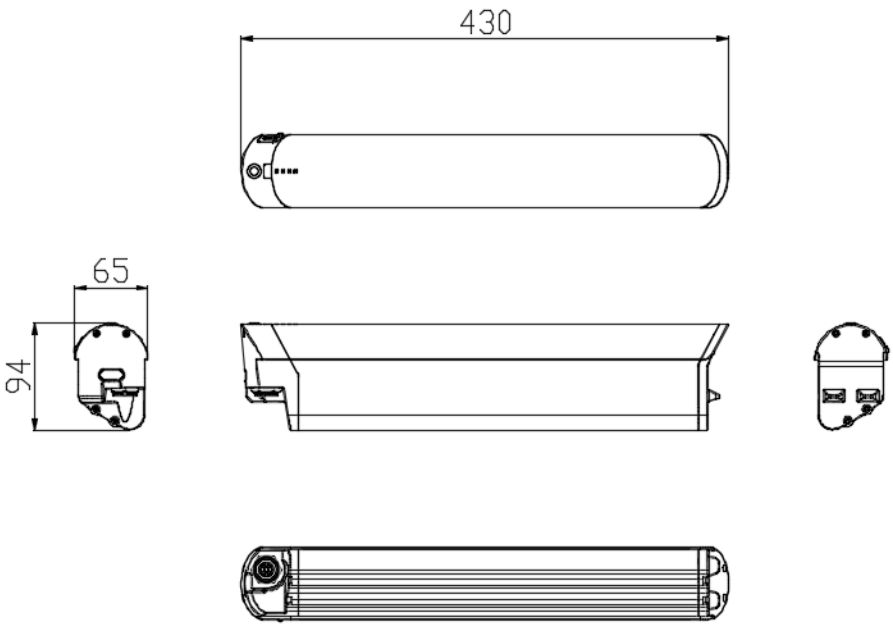
Never modify any original parts of the electric bike to fit a child seat. Never exceed the stand load capacity and/or the allowable total e-bike load weight stated in this manual.

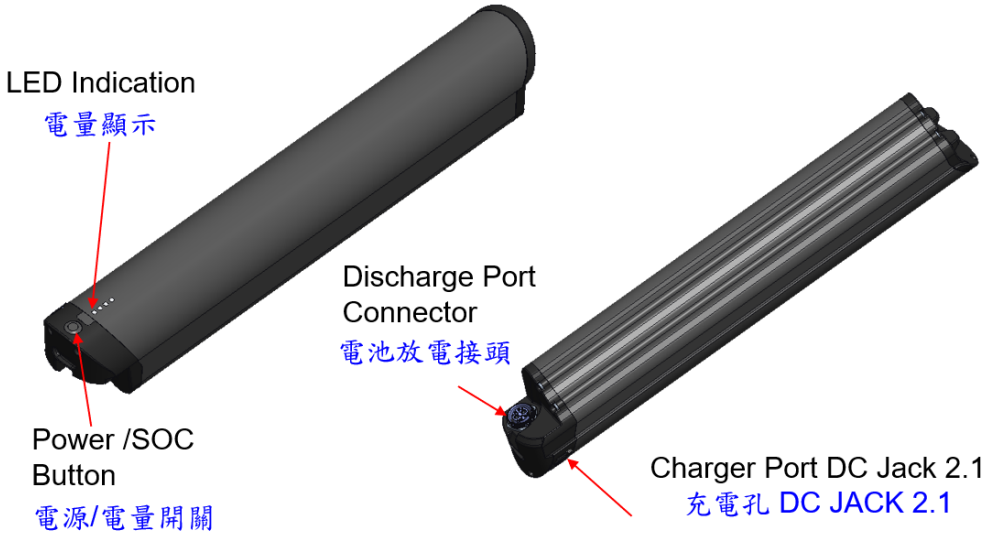
Batteries and Chargers

General Information

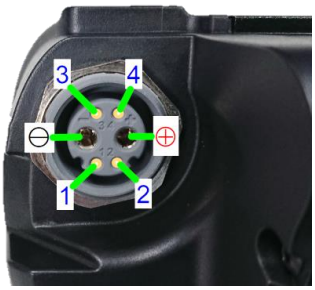
No	Items	Specifications
1	Dimension	L 430mm * W65mm * H 94
2	Weight	< 3.5kg
3	Material of outer case	PC+ABS with Aluminum
4	Material of cell holder	PC+ABS
5	IP Rating	IPX4
6	Fireproof grade	UL94-V0
7	Safety Certification	UN38.3, CE, FCC, EN ISO13849-1:2015,CNS15387

Drawing of the Housing





Connector Type and Pin Definition

No.	Items			Specifications
1	Discharge port / 6-PIN connector			
	PIN	PIN Definition		
	⊕	Pack positive termial		
	PIN 1	NA		
	PIN 2	CAN_L*	*	
	PIN 3	NA		
	PIN 4	CAN_H*		
	⊖	Pack negative terminal		
2	Charger port/ 2-PIN connector CNS-DC Jack 2.1 connector			
3	Power/SOC button LED light type: tricolor (see 5.3)			
4	Lock/ multiple key code			

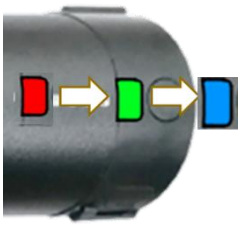
*CANBUS terminator resistors 120ohm are presented on BMS, only one more external device has 120ohm resistors on CANBUS.

Mode	Methods
Power On (Wake-up)	• The Power/SOC button wake-up: Please press the Power/SOC button to wake up and power on the battery pack. • The HMI power button wake-up*: please press the HMI power button to wake up and power on the battery pack. • Charger-In wake-up: please connect the charger to the battery pack. And the charger will wake up and power on the battery pack.
Power Off (Shutdown/Ship mode)	• The Power/SOC button: please press the Power/SOC button and hold it for 3 seconds until all LEDs are flashing. And then release the button to power down the battery pack. (For release protection modes) • Idle to the shutdown mode**: when the battery pack is idle for 1 minute the battery pack will enter the shutdown mode. • UV to the shutdown mode: when the under-voltage protection is triggered and no any release action for 30 seconds, the battery pack will enter the shutdown mode.
*The level of trigger HMI wakeup is more than 10mA ** idle state means discharge/charge current is less than 50mA	

LED Display

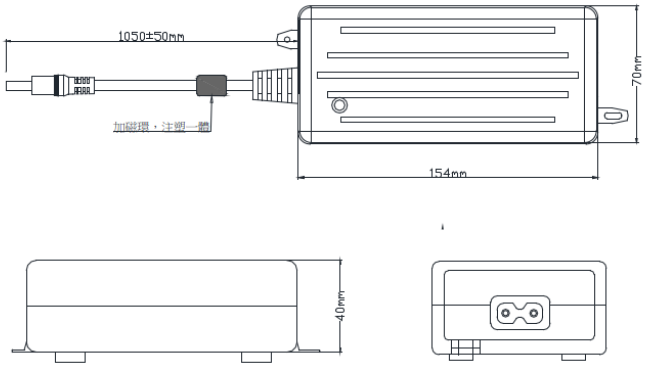
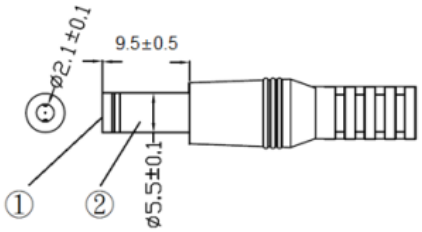
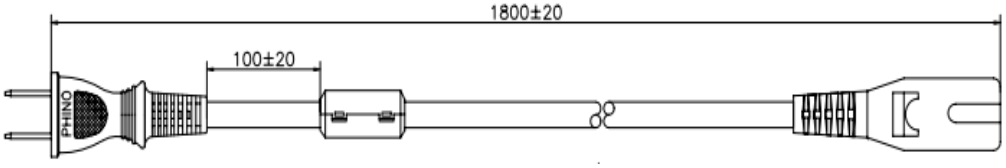
<table>
<tr><th>No.</th><th colspan="4">Items</th><th>Specifications</th></tr>
<tr><td rowspan="4">3</td><td colspan="5">LED light type: tricolor</td></tr>
<tr><td>LEDs indication</td><td>Bule solid
66% ≤ SOC ≤ 100%</td><td>Green solid
33% ≤ SOC < 66%</td><td>Red solid
10% ≤ SOC < 33%</td><td>Red flashing
0% ≤ SOC < 10%</td></tr>
<tr><td rowspan="2"> 
</td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>All LEDs flash 30sec
then blue flash
OC/SC protection</td><td>Green flash
OT/UT protection</td><td>Power On

The tricolor LEDs will flash Blue, Green and Red LED sequentially and the color light of the recent SOC status will be displayed.</td><td>Power Off

The tricolor LEDs are flashing until releasing the button to turn off.</td></tr>
<tr><td>  </td><td>  </td><td>  </td><td>  </td></tr>
</table>

Charger Information

No.	Item	Specification			Remark
1	Model No.	6AXH136V2A05			USA Type
2	Input AC voltage	AC 100~240V, 50/60HZ			
3	Output DC voltage	42V ± 0.2V			
4	Charge characteristic	Charge Mode	Battery Voltage	Charge Current	
		End of fully charged	42V + 0V/-0.3V	0.3A ± 0.15A	
		CC Mode	30V±0.5V~41.5V± 0.5V	2A ± 0.2A	
		CV Mode	41.5V ± 0.5V	Decrease from 2A	
		Pre-charge Mode	26 ± 1V ~ 30 ± 1V	0.5A ± 0.2A	
		Low voltage charge Mode	≤ 26V ± 1V	≤ 0.1A	
5	Efficiency	≧ 82% @AC 220Vac input			
6	Protection	Protection	Method/Value		
		OVP	When the charge voltage is over than the Vmax x 1.1, stop charging.		
		OCP	When the charge current is over than the rating current x 1.3, stop charging.		
		Short-circuit protection	When the charger positive and negative output terminals are short, stop charging.		
		Under-voltage pre-charge timer	The pre-charge time is more than 2 hours, stop charging.		
		Constant current fast charge timer	The constant current fast charger time is more than 15 hours, stop charging.		
		Ultra-low-voltage charging function	When the battery pack voltage is less than 26V, start the ultra-low voltage charging function.		
7	LED Indication	Battery disconnected	Green on		
		Charging	Red on		
		Full charged	Green on		
		Ultra-low-voltage charge	Red flashing		
8	Operating temperature	0°C～40°C			
9	Humidity	Storage: 10%~95% Working: 20% ~ 85%			

<table>
<tr><td>10</td><td>Storage temperature</td><td>-20°C～80°C</td><td></td></tr>
<tr><td>11</td><td>Used below the altitude</td><td>2000m</td><td></td></tr>
<tr><td>12</td><td>Dimension and weight</td><td>L154mm*W71.5mm*H40mm, 0.55kg
 
</td><td></td></tr>
<tr><td>13</td><td>Charger output PIN definition</td><td>2-PIN DC Jack Connector, Ø2.1*5.5mm
DC Jack 接頭
<table><tr><th>PIN</th><th>2PIN</th></tr><tr><td>1</td><td>Output （+）</td></tr><tr><td>2</td><td>Output （-）</td></tr></table> 
</td><td></td></tr>
<tr><td>14</td><td>AC Power Cord UL type</td><td>L 1800mm+20mm
 
</td><td></td></tr>
<tr><td>15</td><td>Safety</td><td>UL, CUL, FCC, TUV-GS, CE, ROHS, CNS 15425</td><td></td></tr>
</table>

Transport and Storage

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.

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.

Bike usage

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.

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).

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.

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.

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

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.

Charging inside the bike

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

Display/Remote User Manuel

Important Notice

1. If the error information from the display cannot be corrected according to the instructions, please contact your retailer.
2. The product is designed to be waterproof. Itis highly recommended to avoid submerging the display under water.
3. Do not clean the display with a steam jet,high-pressure cleaner or water hose.
4. Please use this product with care.
5. Do not use thinners or other solvents toclean the display. Such substances can damage the surfaces.
6. Warranty is not included due to wear andnormal use and aging.

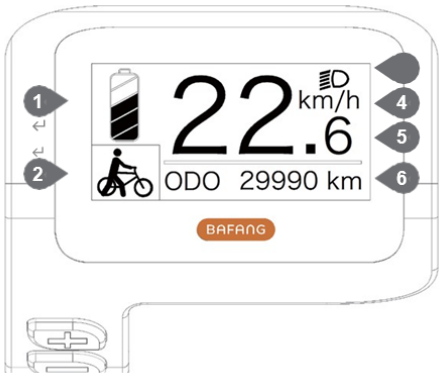
Product Description

1. Operating temperature: -20℃~45℃
2. Storage temperature: -20℃~50℃
3. Waterproof: IP65
4. Storage room Humidity: 30%-70% RH
5. Functional Overview

7. Speed display (including top speed and aver-age speed, switching between km and miles)
8. Battery capacity indicator
9. Lighting control
10. Brightness setting for backlight
11. Walk assistance
12. Indication of performance support
13. Motor output power indicator
14. Time display for single journeys

15. Kilometer stand (including single-trip distance, total distance and remaining distance)
16. Setting the support levels
17. Energy consumption indicator CALORIES (Note: If the display has this function)
18. Display for the remaining distance (Dependson your riding style)
19. Information View (battery, controller, HMIand sensor)
20. Error message's view

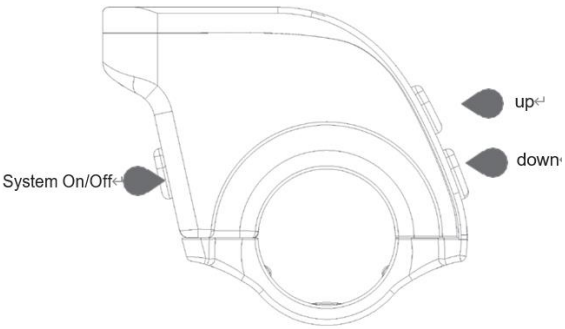
Display



1. Display of battery capacity in real time.
2. Support level
3. The display shows this symbol , When the lights are turned on.
4. Unit of speed
5. Digital speed display
6. Trip: Daily kilometers (TRIP) - Total kilometers (ODO) - Top speed (MAX) - Average speed (AVG) - Rremaining distance (RANGE) - Energy Consumption (CALORIES) - Output power (POWER)- Travel time (TIME).

Service: Please see the service section

Key Definition

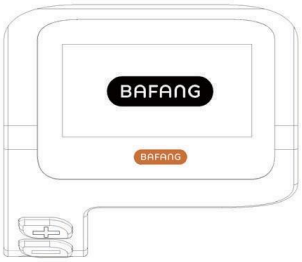


Normal Operation

Switching the System ON/OFF

Press and hold ⏻ (>2S) on the display to turn on the system. Press and hold ⏻ (>2S) again to turnoff the system.

If the "automatic shutdown time" is set to 5 minutes (it can be reset with the "Auto Off" function, see **"Auto Off"**), the display will automatically be turned off within the desired time when it is notin operation. If the password function is enabled, you must enter the correct password to use the system.



Selection of Support Levels

When the display is turned on, press the + or − button (<0.5S) to switch to the support level, thelowest level is 0, the highest level is 5. When the system is switched on, the support level starts in level 1. There is no support at level 0.

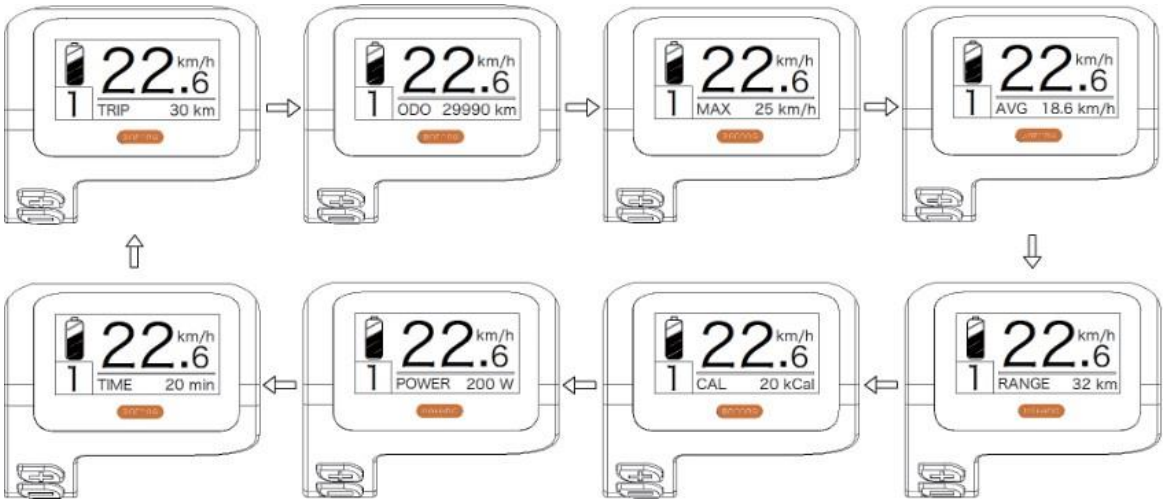
For different assist levels please see part "Assist Mode".

Selection mode

Briefly press the button (<0.5s) to see the different trip modes.

Trip: daily kilometers (TRIP) - total kilometers (ODO) - Maximum speed (MAX) - Average speed (AVG)

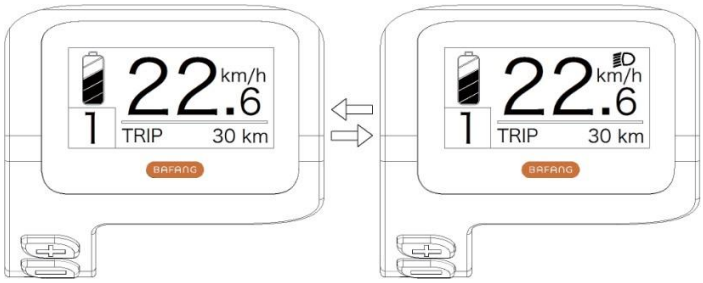
- Remaining distance (RANGE) - Energy consumption (CALORIES) - Output power (POWER) - Traveltime (TIME).



Headlights / backlighting

Hold the button (>2S) to activate the headlight and taillights.

Hold the button (>2S) again to turn off the headlight. The brightness of the backlight can be setin the display settings **"Brightness"**.



Walk Assistance

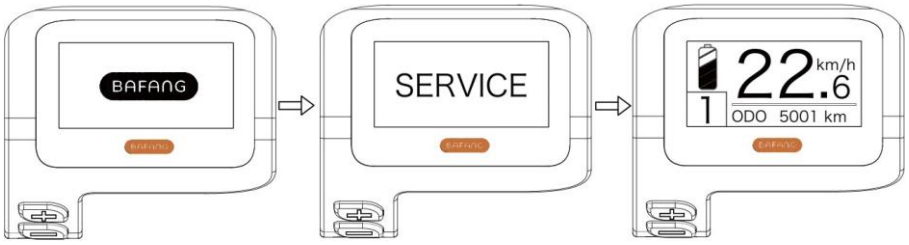
The Walk assistance can only be activated with a standing pedelec.

Activation: Press the button until this symbol appears. Next press and hold down the button whilst the symbol is displayed, now the Walk assistance will activate. The symbol will blink and the pedelec moves approx. 5 km/h. After releasing the button, the motor stopsautomatically and switches back to level 0.

The Walk assistance can only be activated with a standing pedelec.

SERVICE

The display shows "SERVICE" as soon as a certain number of kilometers or battery charges has beenreached. With a mileage of more than 5000 km (or 100 charge cycles), the "SERVICE" function is displayed on the display. Every 5000 km the display "SERVICE" is displayed every time. This functioncan be set in the display settings.



Battery capacity indicator

The battery capacity is shown in the top left of the display. Each full bar represents a remainingcapacity of the battery in a percentage.

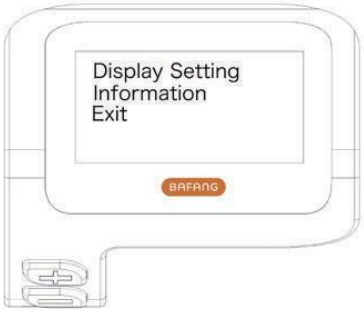
(as shown in the diagram below):

Capacity Range	Indicator
80%-100%	
60%-80%	
40%-60%	
20%-40%	
5%-20%	
<5%	blinking

SETTINGS

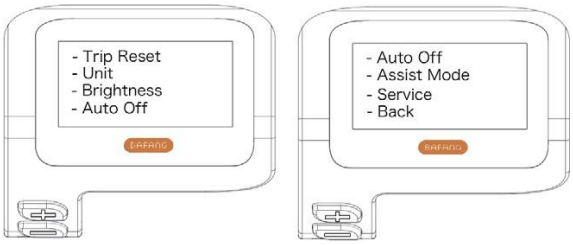
After the display is turned on, press and hold the + and − buttons (at the same time) to enter into the setting menu, by pressing the + or − button (<0.5S), you can highlight and select DisplaySetting, Information or Exit. Then press the ⏻ button (<0.5S) to confirm your selected option.

Or highlight "EXIT" and press the ⏻ button (<0.5S) to return to the main menu, or highlight "BACK"and press (<0.5S) the ⏻ button (<0.5S) to return to the Settings interface.



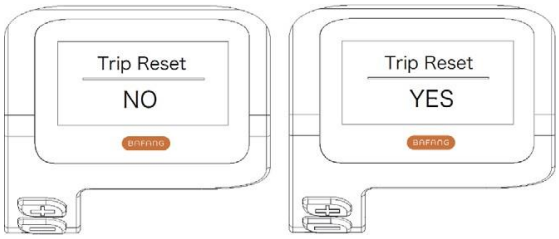
"Display Setting"

Press the + or − button (<0.5S) and highlight Display Setting, and then briefly press the ⏻ button(<0.5S) to access the following selections.



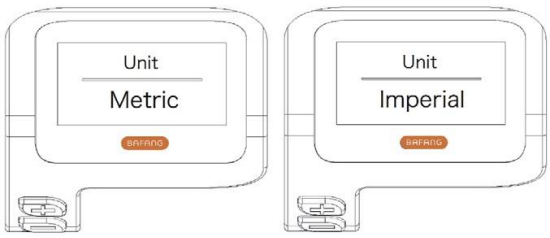
"TRIP Reset" Reset mileage

Press the +or − button (<0.5S) to highlight “Trip Reset” in the Display setting menu, and then press ⏻ button (<0.5S) to select. Then with the + or −button choose between “YES” or “NO”.Once you have chosen your desired selection, press the⏻button (<0.5S) to save and exit to the"Display setting"



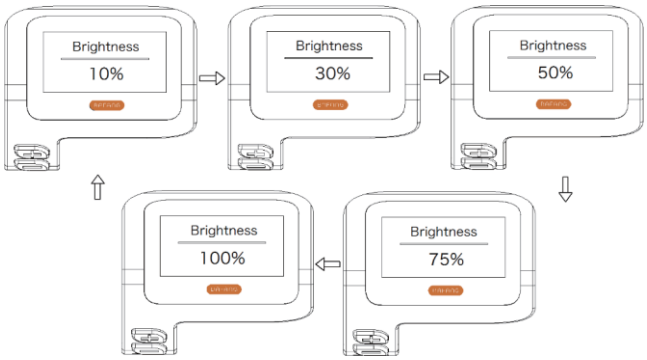
"Unit" Selections in km/Miles

Press the + or − button (<0.5S) to highlight “Unit” in the Display setting menu, and then press ⏻ button (<0.5S) to select. Then with the + or − button choose between “Metric” (kilometer) or “Imperial” (Miles). Once you have chosen your desired selection, press the ⏻ button (<0.5S) to saveand exit to the "Display setting".



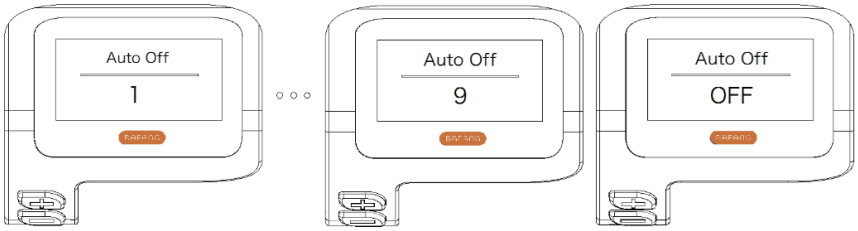
"Brightness" Display brightness

Press the ＋or － button (<0.5S) to highlight "Brightness" in the Display setting menu, and then press button (<0.5S) to select. Then with the ＋ or － button choose between "100%" / "75%"
/ "50%" /" 30%"/"10%". Once you have chosen your desired selection, press the ⏻ button (<0.5S)to save and exit to the "Display setting".



"Auto Off" Set Automatic system switch off time

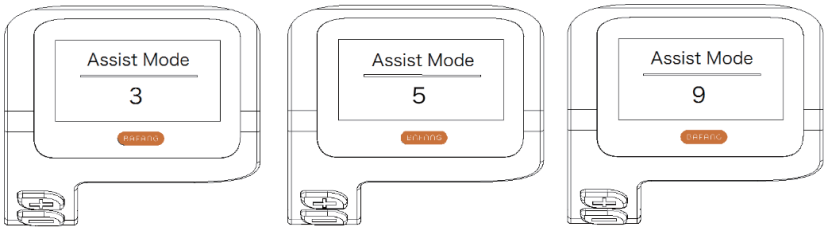
Press the ＋ or － button (<0.5S) to highlight "Auto Off" in the Display setting menu, and then press ⏻ button (<0.5S) to select. Then with the ＋ or － button choose between "OFF" , "9"/"8"/"7"/"6"/"5"/ "4"/"3"/"2"/"1", (The numbers are measured in minutes). Once you have chosen your desired selection, press the ⏻ button (<0.5S) to save and exit to the "Display setting".



"Assist Mode" Set support level

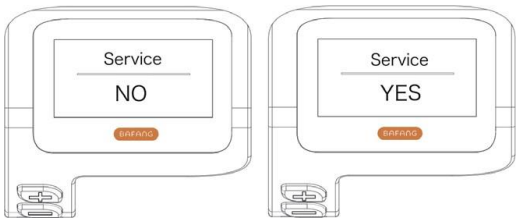
Press the ＋or － button (<0.5S) to highlight "Max Pass" in the Display setting

menu, and then press button (<0.5S) to select. Then with the or button choose between “3/5/9” (the amount of support levels). Once you have chosen your desired selection, press the button (<0.5S)to save and exit to the "Display setting".



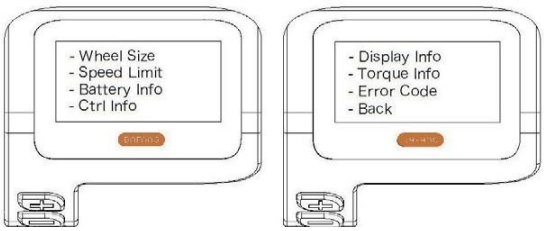
"Service" Switching the notification on and off

Press the or button (<0.5S) to highlight “Service” in the Display setting menu, and then press button (<0.5S) to select. Then with the or button choose between “NO” or “YES”. Once you have chosen your desired selection, press the button (<0.5S) to save and exit to the "Displaysetting"



"Information"

Once the display is turned on, press and hold the and buttons (at the same time) to enter into the setting menu, press the or button (<0.5S) to select “Information”, then press the button (<0.5S) to confirm and enter into "Information".



Wheel Size

Press the + or − button (<0.5S) to highlight "Wheel Size", then press the ⏻ button (<0.5S) to confirm and view the wheel size. To return, press the ⏻ button (<0.5S) to exit back to the "Information".

This information cannot be changed, this is only for information, about the pedelec.

Speed Limit

Press the + or − button (<0.5S) to highlight "Speed Limit", then press the ⏻ button (<0.5S) to confirm and view the speed limit. To return, press the ⏻ button (<0.5S) to exit back to the "Information".

This information cannot be changed, this is only for information, about the pedelec.

Battery Information

Press the + or − button (<0.5S) to highlight "Battery Info", then press the ⏻ button (<0.5S) toconfirm. Now press the + or − button (<0.5S) to view the

contents.

To return, press the ⏻ button (<0.5S) to exit back to the "Information".

Code	Code definition	unit	Code	Code definition	unit
Hardware ver	Hardware version		b10	Absolute SOC	%
Software ver	Software version		b11	Cycle	times
b01	Current temperature	℃	b12	Maximum not charging time	Hour
b04	Total voltage	mV	b13	Recently not charging time	Hour
b06	Average current	mA	d00	Number of battery cell	
b07	Remaining capacity	mAh	d01	Voltage of cell 1	mV
b08	Full charge capacity	mAh	d02	Voltage of cell 2	mV
b09	Relative SOC	%	dn	Voltage of cell n	mV

NOTE: If no data is detected, "--" is displayed.

Controller Information

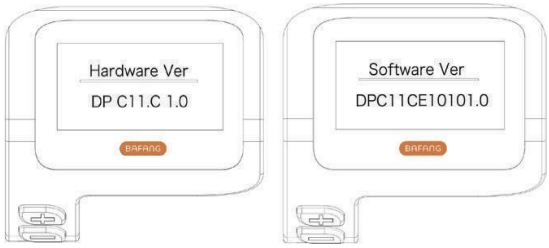
Press the + or − button (<0.5S) to highlight "Ctrl Info", then press the ⏻ button (<0.5S) to con-firm. Now press the + or − button (<0.5S) to view Hardware Version or Software Version.

To return, press the ⏻ button (<0.5S) to exit back to the "Information".

Display Information

Press the + or − button (<0.5S) to highlight “Display Info”, then press the ⏻ button (<0.5S) toconfirm. Now press the + or − button (<0.5S) to view Hardware Version or Software Version.

To return, press the ⏻ button (<0.5S) to exit back to the "Information".



Torque Information

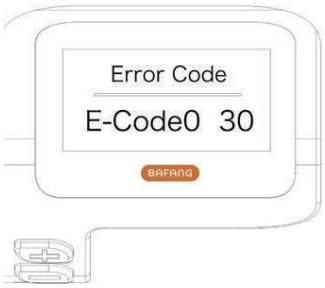
Press the + or − button (<0.5S) to highlight “Torque Info”, then press the ⏻ button (<0.5S) toconfirm. Now press the + or − button (<0.5S) to view Hardware Version or Software Version.

To return, press the ⏻ button (<0.5S) to exit back to the "Information".

Error Code

Press the + or − button (<0.5S) to highlight “Error code”, then press the ⏻ button (<0.5S) to confirm. Now press the + or − button (<0.5S) to view a list of error codes from the pedelec. It canshow information for the last ten errors of the pedelec. The error code "00"means that there is noerror.

To return, press the button (<0.5S) to exit back to the "Information".



ERROR CODE DEFINITION

The display can show the errors of a pedelec. If an error is detected, one of the following error codes will bedisplayed.

Note: Please read the description of the error code carefully. If you see the error code, restart the system first. If theproblem is not resolved, please contact your dealer.

Error	Declaration	Troubleshooting
04	The throttle is not back in its correct position.	Check the throttle can adjust back into its correct position, if the situation does not improve, please change to a new throttle.(only with this function)
05	The throttle has fault.	1. Check the connector of throttle whether they are correctly connected. 2. Disconnect the throttle, If the problem still occurs, please contact your retailer. (only with this function)

07	Overvoltage protection	1. Remove the battery. 2. Re-Insert the battery. 3. If the problem persists, please contact your retailer.
08	Error with the hall sensor signal inside the motor	Please contact your retailer.
09	Error with the Engine phase's	Please contact your retailer.
10	The temperature inside the engine has reached its maximum protection value	1. Turn off the system and allow the Pedelec to cool down. 2. If the problem persists, please contact your retailer.
11	The temperature sensor inside the motor has an error	Please contact your retailer.
12	Error with the current sensor in the controller	Please contact your retailer.
13	Error with the temperature sensor inside of the battery	Please contact your retailer.
14	The protection temperature inside the controller has reached its maximum protection value	1. Turn off the system and let the pedelec cool down. 2. If the problem persists, please contact your retailer.
15	Error with the temperature sensor inside the controller	Please contact your retailer.
21	Speed sensor Error	1. Restart the system 2. Check that the magnet attached to the spoke is aligned with the speed sensor and that the distance is between 10 mm and 20 mm. 3. Check that the speed sensor connector is connected correctly. 4. If the error persists, please contact your retailer.

25	Torque signal Error	1. Check that all connections are connected correctly. 2. If the error persists, please contact your retailer.
26	Speed signal of the torque sensor has an error	1. Check the connector from the speed sensor to make sure it is connected correctly. 2. Check the speed sensor for signs of damage. 3. If the problem persists, please contact your retailer.
27	Overcurrent from controller	Please contact your retailer.
30	Communication problem	1. Check all connections are correctly connected. 2. If the error persists, please contact your retailer.
33	Brake signal has an error (If brake sensors are fitted)	1. Check all connectors. 2. If the error continues to occur, please contact your retailer.
35	Detection circuit for 15V has an error	Please contact your retailer.
36	Detection circuit on the keypad has an error	Please contact your retailer.
37	WDT circuit is faulty	Please contact your retailer.
41	Total voltage from the battery is too high	Please contact your retailer.
42	Total voltage from the battery is too low	Please contact your retailer.
43	Total power from the battery cells is too high	Please contact your retailer.
44	Voltage of the single cell is too high	Please contact your retailer.
45	Temperature from the battery is too high	Please contact your retailer.
46	The temperature of the battery is too low	Please contact your retailer.
47	SOC of the battery is too high	Please contact your retailer.
48	SOC of the battery is too low	Please contact your retailer.

61	Switching detection defect	Please contact your retailer. (only with this function)
62	Electronic derailleur cannot release.	Please contact your retailer. (only with this function)
71	Electronic lock is jammed	Please contact your retailer. (only with this function)
81	Bluetooth module has an error	Please contact your retailer. (only with this function)

Maintenance

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.

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.

Legal documents

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
◎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: 1 years</td><td>C. Battery: 1 year</td><td>D. Motor: 1 year</td><td>E. Dashboard: 1 year</td></tr>
<tr><td colspan="4">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)</td></tr>
</table>

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.

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.

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

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.