BAFANG

USER MANUAL
M420 Drive System

Original instruction manual
Read carefully before use. Keep for later reference.
BF-UM-S-M420-3-EN-PRINT, November 2019

SYMBOL INSTRUCTION

If you see the following symbols there is always a possibility of danger.

The warning symbols are as follows:

Note: This symbol indicates information about how to use the product and highlights specific parts of the User's Guide that are important.

Caution: This symbol warns against misuse of the products that can lead to it being damaged or polluting the environment.

Danger: This symbol indicates possible health and safety hazards that may arise, if certain measures are not taken into consideration.

User Manual: Please read the manual before using the pedelec. If you are not sure about any of the topics in the manual, please contact your retailer for assistance.

CONTENT

1 GUIDE

1.1 Quick start

This section provides important information and instructions that will allow you to use your pedelec in a safe manner. First, please read the safety instructions to find out about the legal regulations that apply to you.

Perform all safety checks in accordance with the "Before each trip" section.

• Fully charge the battery.

• Make sure the battery is securely locked.

• Please make sure your pedelec is adapted to your needs.

• To start the system, press and hold the"⏻" button on the control panel for 3 seconds.

• Select the support level.

The pedelec is now ready for operation.

Always press the brakes of your pedelec before placing your foot on the pedal! The motor starts assisting as soon as you start pedaling. Without the correct procedure, the pedelec can suddenly start, which can lead to injuries.
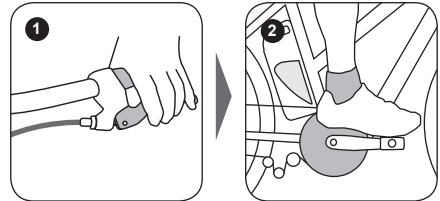
Practice using the pedelec in a quiet and safe environment. It is important to learn the characteristics of the pedelec before you drive on public roads.

Please also take note of additional user manuals that you received when you bought your pedelec.

1.2 Before Each Ride

Do not try to ride the bike if you think that your pedelec might be defected. Before the first ride, please make sure that the retailer has checked the complete bike before handing it over to you. It is also recommended to have all components of the bike checked regularly, especially if you ride on a regular basis. If you mistreat the pedelec, it can lead to accidents and injuries.

Please check the pedelec after an accident or if your pedelec has fallen over.

2 IMPORTANT NOTICE

ℹ️ Be sure to follow the instructions in the manual when using this product.

- If you are lending your pedelec to third parties, please give them the instruction manual along with the pedelec.
- Read the instruction manual carefully and keep it in a safe place, for future reference.

2.1 For Your Safety

- This product is not suitable for people with physical, sensory or mental disabilities, or children and adults without the necessary experience. Otherwise, the pedelec must be used under the supervision of the guardian responsible for their safety.
- The use of the pedelec is not suitable for children under 14 years of age.
- Before driving, make sure you are familiar with the original features of the pedelec.
- For safety reasons, do not try to focus too much on the display of the pedelec whilst driving. This can be distracting, which can lead to sudden accidents.
- Regularly check the battery charger for damage. Inspect cables, plugs and housings. If damage is detected, do not use the charger until it has been checked or repaired.
- Do not change the system without authorization, otherwise errors may occur which may result in an accident. Also, this can void the warranty.
- This product is waterproof for all types of weather. However, it is strongly recommended not to intentionally submerge the product in water or clean it with a steam jet.

2.2 Pedelec modifications are prohibited

❗ Do not change the pedelec drive system in any way shape or form. Any operation of the pedelec to improve performance or speed can cause legal problems and make the operation of the pedelec unsafe for use. Also, this can void the warranty.

Legal Implications:

- Before using the pedelec, familiarize yourself with the applicable laws and regulations, as well as with the road traffic code in your Country of origin.
- The performance and warranty of the pedelec are regulated by the manufacturer.

2.3 Installation and Maintenance

🔧 Make sure that the charger is disconnected from the mains before removing from the pedelec. Remove the battery before working on/maintaining the pedelec. Otherwise, it can lead to serious injuries and electric shocks.

🔧 After a fall or accident, the electrical components may be damaged. If you notice damage to the battery, remove the battery immediately, place it in a safe location and contact your retailer.

❗ Do not replace components, remove or open modules unless you are performing operations described in this Manual. If you have any questions about your system or components, please contact your authorized retailer first. If the battery charger, cable or components are defected or worn out, the components must be replaced. Please use the manufacturer's original

spare parts. Otherwise, the warranty will be void.The use of non-original or incorrect spare parts may cause the pedelec to malfunction. If the product has a defect, please contact your retailer for a replacement part. The authorized retailer can only use the original spare parts from Bafang for maintenance.

Do not use no high-pressure water jet or submerge in water to clean pedelec. This can cause water to enter into the electrical components or the drive system and short circuit or damage the system.

Dispose of the pedelec/battery according to the rules and regulations of your country's origin. For more information please contact an authorized recycling center or your retailer.

Depending on riding conditions and the frequency of use, the service interval may vary. Please keep in mind that the chain should be regularly treated with a suitable chain spray. Under no circumstances should an alkaline or acidic detergent be used to remove rust. When this detergent is used, it can damage the chain or other parts of the pedelec resulting in injury or damage.

Only trained personnel can maintain or repair the product.

- Remove the battery during transport and store the battery in a safe and dry place.

- Use this product carefully to allow a long service life.

- It is advised to write down the battery key number and keep it safe, in case of damage or loss.

- Natural wear and aging of the system is common after a period of time.

2.4 Laws and Regulations

Please observe the relevant road traffic rules and regulations of your country.

Before driving on public roads, please read the applicable countries regulations carefully. The use of pedelecs on public roads must comply with local regulations. Contact your local road traffic authority for more information.

Incorrect operation of the drive system, battery, charger or drive components can result in injuries. In this case, the manufacturer may refuse liability for the damage caused. Unauthorized changes to the pedelec system can lead to criminal offences, such as a change of the speed limit.

Please note the following information:

- Please ensure that the light sensor is in working order, before setting off.

- Please ensure that the braking system is operational before setting off.

3 VEHICLE TRANSPORT

Remove the battery during transport and store the battery in a safe and dry place.

Do not transport a battery without the correct procedure. Batteries are subject to hazard group 9 and are subject to a separate transport regulation. Please contact an authorized retailer or freight service provider. The battery can be damaged, burned or even explode if handled incorrectly.

When transporting the pedelec by train, the relevant laws and regulations must be complied with. Before using public transport, please find out which means of transport are suitable for transporting the pedelec. It is recommended to remove the battery from the pedelec before transport.

When transporting your pedelec, first Remove the battery and keep it in a safe place so it does not move whilst driving. When transporting your pedelec please be sure to use a pedelec carrier.

4 ENVIRONMENTAL TIPS AND HANDLING REQUIREMENTS

General cleaning and maintenance: take environmental aspects into consideration when maintaining and cleaning the pedelec. The product and detergents should be biodegradable. Use these products at any time just, please make sure that no cleaning agent does not get into the sewage.

The battery

Battery used in the pedelec is subject to the Battery Ordinance and may only be disposed of in accordance with the applicable regulations.
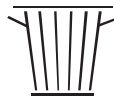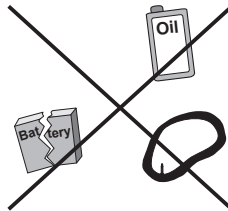
5 GUARANTY

ℹ All warranty and guarantee conditions are subject to applicable laws and regulations from your brand.

The condition for warranty and guarantee claims is that the instructions for the system are followed carefully.

Liability for material defects does not include normal aging or wear and tear.

Warranty and warranty exclusions:

- Modification, manipulation or improper repair of the product.
- Improper use of the product.
- Damage caused by inconvenience, misuse, negligence, incorrect installation, improper repair, incorrect maintenance or improper use.
- Modifications of the surface structure.
- Damage caused by improper transport or storage caused by the buyer.
- Damage caused by force majeure.
- Removal or alterations of serial number, plates or product markings.

6 USER MANUAL FOR M420 (MM G332.250/350.C/CCB)

CONTENT

6.1 INTRODUCTION

- **Product Model**

  MM G332.250.C

  MM G332.350.C

  MM G332.250.CCB

  MM G332.350.CCB

- **Scope**

  Applies only to electrically powered pedelecs developed or licensed by Bafang. It is suitable for city and trekking bikes, which have been developed for road use. The engine is not suitable for sport competitions.

- **Identification**

The following graphic, is the identification numbers of the product, which are shown on the housing:
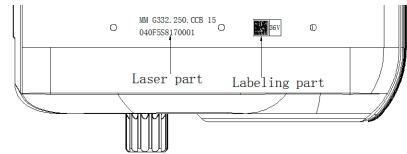
Note: Content in the label is important information about this product. Please do not remove the information from the motor.

6.2 SPECIFICATIONS

① Motor model: MM G332.250.C / MM G332.250.CCB

Rated power (W)	250
Rated voltage (V)	36 / 43 / 48
Waterproof	IP65
Certification	CE / ROHS / EN14766
Outdoor Temperatures	-20℃~45℃

② Motor model: MM G332.350.C / MM G332.350.CCB

Rated power (W)	350
Rated voltage (V)	36 / 43 / 48
Waterproof	IP65
Certification	CE / ROHS / EN14766
Outdoor Temperatures	-20℃~45℃

6.2.1 Surface

Shockproof black coating

6.2.2 Storage Information

The pedelec should be stored in a ventilated dry room. Avoid storing the pedelec near strong magnetic objects.

6.3 MAINTENANCE

- Maintenance must be carried out by autho-
rized personnel with the correct equipment.
- Do not disassemble the motor.
- Do not use thinners or other solvents to
clean the components. Such substances can
damage the surfaces.
- Avoid water submerging, to keep the com-
ponents protected.
- Avoid using high-pressure cleaning jets.
- For prolonged storage, turn off the battery
and avoid storing near heat sources.

7 USER MANUAL FOR DP C181.CAN

CONTENT

7.1 IMPORTANT NOTICE

- If the error information from the display cannot be corrected according to the instructions, please contact your retailer.

- The product is designed to be waterproof. It is highly recommended to avoid submerging the display under water.

- Do not clean the display with a steam jet, high-pressure cleaner or water hose.

- Please use this product with care.

- Do not use thinners or other solvents to clean the display. Such substances can damage the surfaces.

- Warranty is not included due to wear and normal use and aging.

7.2 INTRODUCTION OF DISPLAY

- Model: DP C181.CAN BUS

- The housing material is PC; the Display Glass is made of high-currentem material:

- The label marking is as follows:

DPC181CP10101.0
PD051505

Note: Please keep the QR code label attached to the display cable. The information from the Label is used for a later possible software update.

7.3 PRODUCT DESCRIPTION

7.3.1 Specifications

- Operating temperature: -20℃~45℃
- Storage temperature: -20℃~50℃
- Waterproof: IP65
- Bearing humidity: 30%-70% RH

7.3.2 Functional Overview

- Speed display (including top speed and average speed, switching between km and miles).
- Battery capacity indicator.
- Automatic sensors explanation of the lighting system.
- Brightness setting for backlight.
- Indication of performance support.
- Motor output power and output current indicator.
- Kilometer stand (including single-trip distance, total distance and remaining distance).
- Walk assistance.
- Setting the support levels.
- Energy consumption indicator CALORIES (Note: If the display has this function).
- Display for the remaining distance. (Depends on your riding style)
- Setting password.
- Bluetooth function. (the display can connect to the mobile through Bafang Go APP)

7.4 DISPLAY INFORMATION
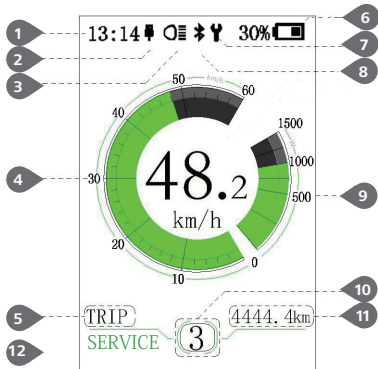
1 Time

2 USB charging indicator displays the icon, if an external USB device is connected to the display.

3 The display shows this symbol, if the light is on.

4 Speed Graphics

5 Trip: Daily kilometers (TRIP) - Total kilometers (ODO) - Top speed (MAX) - Average speed (AVG) - Range (RANGE) - Energy Consumption (CALORIES(only with torque sensor fitted)) - Travel time (TIME).

6 Display of battery capacity in real time.

7 Maintenance indicator.

8 Bluetooth indicator.

9 Power indicator in watts / amperes.

10 Support level/ Walking assistance

11 Data: Display data, which corresponds to the current mode.

12 Service: Please see the service section

7.5 KEY DEFINITION

Up
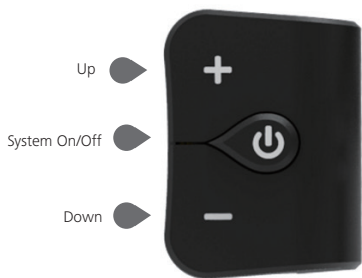
System On/Off

Down

7.6 NORMAL OPERATION

7.6.1   Switching the System ON/OFF

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

If the "automatic shutdown time" is set to 5 minutes (it can be set with the "Auto Off" function, See **"Auto Off"**), the display will automatically be turned off within the desired time when it is not in operation. If the password function is enabled, you must enter the correct password to use the system.

7.6.2   Selection of Support Levels

When the display is turned on, press the [+] or [−] (<0.5S) button to switch to the support level, the lowest 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.
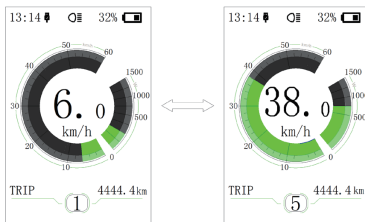
7.6.3   Selection Mode

Briefly press the [⏻] (0.5s) button to see the different trip modes.

Trip: daily kilometers (TRIP) - total kilometers (ODO) - Maximum speed (MAX) - Average speed (AVG) - Range (RANGE) - Energy consumption (CALORIES(only with torque sensor fitted)) - Travel time (TIME).
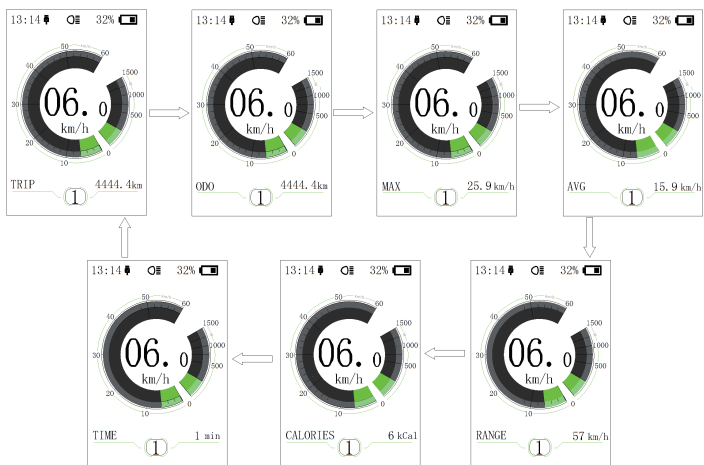
7.6.4 Headlights / backlighting

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

Hold the ➕ (>2S) button again to turn off the headlight. The brightness of the backlight can be set in the display settings **"Brightness"**. If the display /Pedelec is switched on in a dark environment, the display backlight/headlight will automatically be switched on. If the display backlight/headlight has been manually switched off, the automatic sensor function is deactivated. You can only turn on the light manually, after switching on the system again.
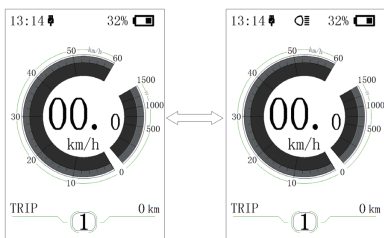
7.6.5 Walk Assistance

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

Activation: Press the ▬ button until this symbol 🚲 appears. Next hold down the ▬ button whilst the 🚲 symbol is displayed. Now the Walk assistance will activate. The symbol 🚲 will flashes and the pedelec moves approx. 6 km/h. After releasing the ▬ button, the motor stops automatically and switches back to level 0.

| 0 = No support | 🚲 = Ready for activation | 🚲 Blinking =
Walk assistance active |
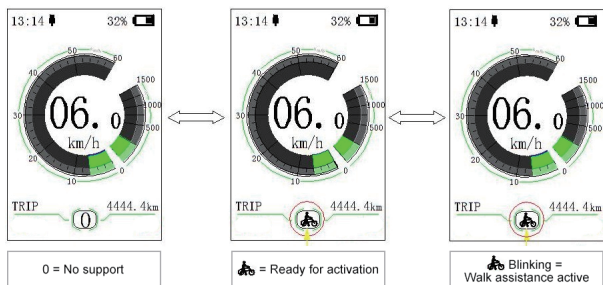
7.6.6 SERVICE

The display shows "Service" as soon as a certain number of kilometers or battery charges has been reached. 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 function can be set in the display settings.

Flicker for 5s
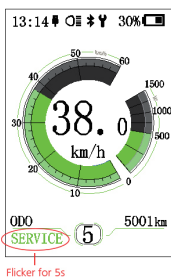
7.7 SETTINGS

After the display is turned on, press and hold the ➕ and ➖ (>1S) button, to access the "SETTINGS" menu. By pressing the ➕ or ➖ (<0.5S) button, you can select: Display Settings, Information or EXIT. Then press the ⏻ (<0.5S) button to confirm your selected option.

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

If no button is pressed within 20 seconds, the display will automatically return to the main screen and no data will be saved.
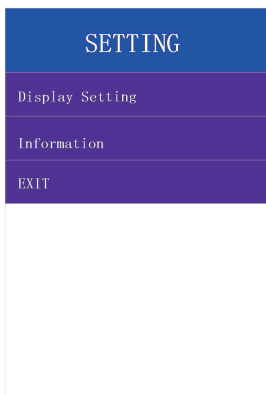
You can press and hold the ➕ and ➖ (>1S) button at any time, to return to the main screen.

7.7.1 "Display setting"

Press the ➕ or ➖ (<0.5S) button to select Display Settings, and then briefly press the ⏻ (<0.5S) button to access the following selections.

7.7.1.1 "Unit" Selections in km/Miles

Press the ➕ or ➖ (<0.5S) button to high-light "Unit" in the Display settings menu, and then press the ⏻ (<0.5S) button to select. Then with the ➕ or ➖ button choose between "Metric" (kilometer) or "Imperial" (Miles). Once you have chosen your desired selection, press the ⏻ (<0.5S) button to save and exit to the "Display setting" interface.
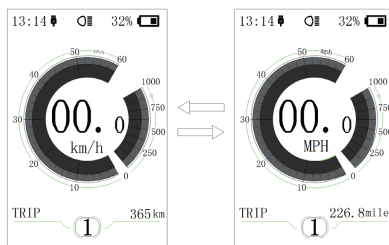
7.7.1.2 "Service" Switching the notification on and off

Press the ➕ or ➖ (<0.5S) button to highlight "Service" in the Display settings menu, and then press ⏻ (<0.5S) to select. Then with the ➕ or ➖ button choose between "ON" or "OFF". Once you have chosen your desired selection, press the ⏻ (<0.5S) button to save and exit to the "Display setting" interface.

7.7.1.3 "Brightness" Display brightness

Press the ➕ or ➖ (<0.5S) button to highlight "Brightness" in the Display settings menu. Then press ⏻ (<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 ⏻ (<0.5S) button to save and exit to the "Display setting" interface.

7.7.1.4 "Auto Off" Set Automatic system switch off time

Press the ➕ or ➖ (<0.5S) button to highlight "Auto Off" in the Display settings menu, and then press ⏻ (<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 ⏻ (<0.5S) button to save and exit to the "Display setting" interface.

7.7.1.5 "MAX PAS" Support level

Press the ➕ or ➖ (<0.5S) button to highlight "Max Pass" in the Display settings menu, and then press ⏻ (<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 ⏻ (<0.5S) button to save and exit to the "Display setting"

7.7.1.6 "Power View" Setting the power indicator

Press the ➕ or ➖ (<0.5S) button to highlight "Power View" in the Display settings menu, and then press ⏻ (<0.5S) to select. Then with the ➕ or ➖ button choose between "Power" or "Current". Once you have chosen your desired selection, press the ⏻ (<0.5S) button to save and exit to the "Display setting" interface.

7.7.1.7 "SOC View" Battery view in volt percent

Press the ➕ or ➖ (<0.5S) button to highlight "SOC View" in the Display settings menu, and then press ⏻ (<0.5S) to select. Then with the ➕ or ➖ button choose between "percent" or "voltage ". Once you have chosen your desired selection, press the ⏻ (<0.5S) button to save and exit to the "Display setting"
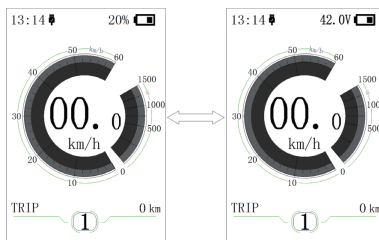
7.7.1.8 "TRIP Reset" Reset mileage

Press the ➕ or ➖ (<0.5S) button to highlight "TRIP Reset" in the Display settings menu, and then press ⏻ (<0.5S) to select. Then with the ➕ or ➖ button choose between "YES" or "NO". Once you have chosen your desired selection, press the ⏻ (<0.5S) button to save and exit to the "Display setting"
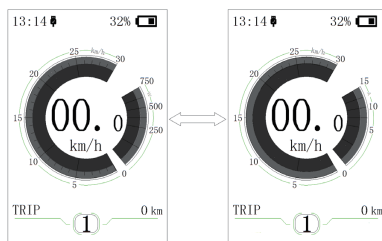
7.7.1.9 "AL Sensitivity" Automatic headlight sensitivity

Press the ➕ or ➖ (<0.5S) button to highlight "AL-Sensetivity" in the Display settings menu, and then press ⏻ (<0.5S) to select. Then with the ➕ or ➖ button choose between "0" / " 1" / " 2"/ "3" / "4"/ "5"/ "OFF". Once you have chosen your desired selection , press the ⏻ (<0.5S) button to save and exit to the "Display setting"

7.7.1.10 "Password"

Press the ➕ or ➖ (<0.5S) button to choose Password in the menu. Then by briefly pressing ⏻ (<0.5S) to enter the password selection. Now again with the ➕ or ➖ (<0.5S) buttons highlight "Start Password" and press the ⏻ (<0.5S) button to confirm. Now again using the ➕ or ➖ (<0.5S) Button choose between "ON" or "OFF" and press the ⏻ (<0.5S) button to confirm.

Now you can input your 4-digit pin code. By using the ➕ or ➖ (<0.5S) button choose numbers between "0-9". By briefly pressing the ⏻ (<0.5S) button you can move on to the next number.

After entering your desired 4-digit code, you must re-enter the 4-digits you chose, to ensure the code is correct.

After selecting a password, the next time you turn on the system it will ask you to input your password. Press the ➕ or ➖ (<0.5S) button to select the numbers, Then press briefly ⏻ (<0.5S) to confirm.

After entering the wrong number three times, the system switches off. If you have forgotten the password, please contact your retailer.
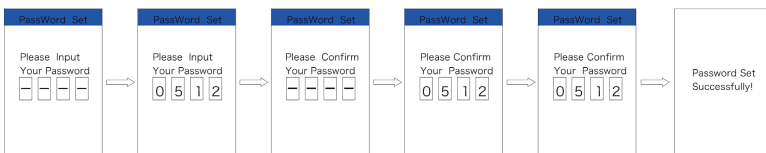
Changing the password:

Press the ➕ or ➖ (<0.5S) button to choose Password in the menu. Then by briefly pressing ⏻ (<0.5S) to enter the password section. Now again with the ➕ or ➖ (<0.5S) button highlight "Password set" and press the ⏻ (<0.5S) button to confirm. Now with the ➕ or ➖ (<0.5S) buttons and highlight "Reset Password" and with the ⏻ (<0.5S) button to confirm.

By entering your old password once, followed by inputting the new password twice, then your password will be changed.

PassWord Set	PassWord Set	PassWord Set	PassWord Set	PassWord Set
Please Input The Current Password	Please Input The Current Password	Please Input The New Password	Please Input The New Password	Please Confirm Your Password
□ □ □ □	0 5 1 2	□ □ □ □	1 2 3 4	□ □ □ □

PassWord Set	
Please Confirm Your Password	Password Reset Successfully!
1 2 3 4	
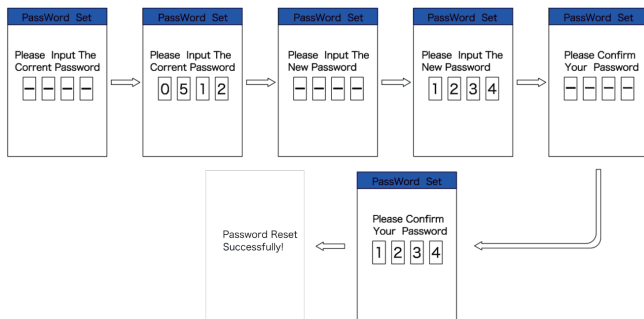
Deactivating the password:

To deactivate the password, use the ✚ or ▬ buttons to get to the menu point "Password" and press the ⏻ (<0.5S) button to highlight your selection. Press the ✚ or ▬ (<0.5S) button until is shows "OFF". Then press briefly ⏻ (<0.5S) to select.

Now enter your password, to deactivate it.

PassWord Set	PassWord Set	
Please Input Your Password	Please Input Your Password	Password canceled Successfully!
□ □ □ □	1 2 3 4	
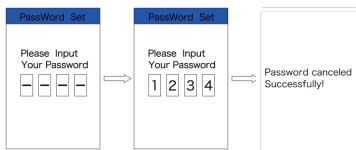
7.7.1.11 "Set Clock"

Press the ✚ or ▬ (<0.5S) Button to highlight "Set Clock" in the Display settings menu. Then briefly press the ⏻ (<0.5S) button to confirm selection. Now press the ✚ or ▬ (<0.5S) button and input the correct number (time) and press the ⏻ (<0.5S) button to move to the next number. After entering the correct time, press the ⏻ (<0.5S) button to confirm and save.

7.7.1.12 "Vibration"

Press the ✚ or ▬ (<0.5S) Button to highlight "Vibration" in the Display settings menu. Then briefly press the ⏻ (<0.5S) button to confirm selection. Then press the ✚ or ▬ (<0.5S) button to choose between "ON" or "OFF". After entering the correct time, press the ⏻ (<0.5S) button to confirm and save.

7.7.2 "Information"

Once the system is turned on, press and hold the ![+] and ![-] (>1S) button to access the "SET-TINGS" menu. Now by pressing the ![+] or ![-] (<0.5S) button, Highlight the "information" in the display Settings, and press the ![power] (<0.5S) button confirm your selection.

Or select the point "Back" by confirming with the ![power] (<0.5S) button to return to the main menu.

Information	
Wheel Size	27"
Speed Limit	25km/h
Battery Info	>
Ctrl Info	>
Display Info	>
Torque Info	>
Back	

7.7.2.1 Wheel Size and Speed Limit

The "Wheel Size" and "Speed Limit" cannot be changed, this information is here to be viewed only.

7.7.2.2 Battery Information

Press the ![+] or ![-] (<0.5S) button to access the "Battery Info" menu, and then press the ![power] (<0.5S) button to select confirm. Now press the ![+] or ![-] (<0.5S) button and select "Back" or "Next Page". Then press the ![power] (<0.5S) button to confirm, now you can read the battery information.

Content	Explanation
TEMP	Current temperature in degrees (°C)
TotalVolt	Voltage (V)
Current	Discharge (A)
Res Cap	Remaining Capacity (A/h)
Full Cap	Total Capacity (A/h)
RelChargeState	Default Loader Status (%)
AbsChargeState	Instant charge (%)
Cycle Times	Charging cycles (number)
Max Uncharge Time	Maximum time in which no charge was made (Hr)
Last Uncharge Time	
Total Cell	Number (individual)
Cell Voltage 1	Cell Voltage 1 (m/V)
Cell Voltage 2	Cell Voltage 2 (m/V)
Cell Voltage n	Cell Voltage n (m/V)
HW	Hardware Version
SW	Software Version

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

7.7.2.3 Controller Information

Press the ➕ or ➖ (<0.5S) button and select "CTRL Info", and then press the ⏻ (<0.5S) button to confirm. Now you can read the controller information. To Exit press the ⏻ (<0.5S) button, or select "Back" to return to the information interface.

Ctrl Info	
HW	**********
SW	**********
Back	

7.7.2.4 Display Information

Press the ➕ or ➖ (<0.5S) button and select "Display Info", then press the ⏻ (<0.5S) button to read the software and hardware data in the display. To Exit press the ⏻ (<0.5S) button, or select "Back" to return to the information interface.

Display Info	
HW	**********
SW	**********
Back	

7.7.2.5 Torque Information

Press the ➕ or ➖ (<0.5S) button and select "Torque info", then press the (<0.5S) ⏻ button to read the software and hardware data in the display. To Exit press the ⏻ (<0.5S) button, or select "Back" to return to the information interface.

Torque Info	
HW	**********
SW	**********
Back	

7.7.2.6 Error Code

Press the ➕ or ➖ (<0.5S) button and select "Error Code", and then press the ⏻ (<0.5S) button to confirm. It shows error information for the last ten errors of the pedelec. Error code "00"means that there is no error. To Exit press the ⏻ (<0.5S) button, or select "Back" to return to the information interface.

7.8 ERROR CODE DEFINITION

ℹ️ The display can show the errors of a pedelec. If an error is detected, the wrench icon 🔧 appears on the display and one of the following error codes will be displayed.

Note: Please read the description of the error code carefully. If you see the error code, restart the system first. If the problem 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.

Error	Declaration	Troubleshooting
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.

Error	Declaration	Troubleshooting
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)