Instructions for operating control units

Models: KD59E; DP C190.CAN, KD 786. CAN, KD986.CAN, DP C10

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KD59E - OPERATING INSTRUCTIONS FOR USE OF THE CONTROL UNIT



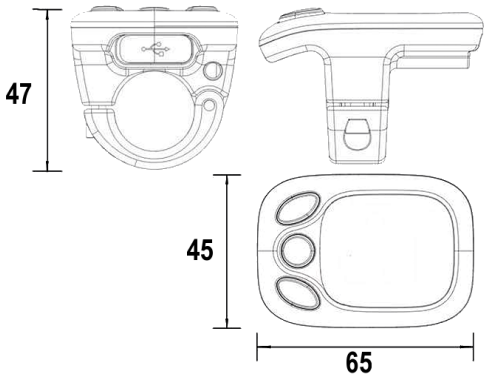
Specifications

- Power Supply: 36 V
- Rated working current: 10 mA
- The maximum working current: 30 mA
- Off leakage current: <1 μA
- The supply controller working current: 50 mA
- Working temperature: -20 ~ 60 °C
- Storage temperature: - 30 ~ 70 °C
- Degree of protection: IP65

Appearance and Size

Display appearance and dimension figure (unit: mm)





◆ Function Summary

KD59E can provide a lot of functions to fit the users' need. The indicating contents are as following:

- Smart battery indicator
- Assistance-level indicator
- The push-assistance function
- The Lighting On/Off (optional)

◆ Button Definition

There are three buttons (, ,), on the KD59E display that represented by the following functions respectively **MODE**, **„+“** a **„-“**.

◆ Switching the eBike System On/Off

To switch on the eBike system, hold the **MODE** button for 2s.

In the same way to hold the MODE button for 2s again, the eBike system will be switched off.

When switching off the eBike system the leakage current is less than 1 uA.

When parking the eBike for more than 10 minutes, the eBike system will switches off automatically.

◆ Switching the Lighting On/Off

To switch on the display headlight of the eBike, hold the button for 2s. The battery indicator light and power assistant level indicator light became faint at the same time.

In the same way to hold the button for 2s again, the headlight will be switched off.

If the front or rear light is not connected, the button can only be used to switch the display backlight on / off.

◆ Switching Push-assistance mode On/Off

To access the push-assistance mode, hold the button always, the eBike will go on at a uniform speed of 6 Km/h. Three power-assistance level indicator lights flash at the same time.

The push-assistance function switches off as soon as you release the button.

Push-assistance function may only be used when pushing the eBike. Danger of injury when the wheels of the eBike do not have ground contact while using the push-assistance function.

◆ PAS Level Selection

Assistance level indicates the output power of the motor. The default value is level “1”.

Press the or button to select power assistant level, the default power ranges from level “0” to level “5”. The output power is zero on Level “0”. Level “1” is the minimum power. Level “5” is the maximum power.

◆ Battery Indicator

The five battery bars represent the capacity of the battery. The four green lamps are lighting when the battery is in high voltage. When the battery is in low voltage, the left lamps will be red to notice that the battery needs to be recharged immediately.

Beware of safe use. Do not attempt to loosen or reconnect the connector while charging the battery or while the battery power is on. Avoid the risk of electric shock. Do not subject the display to shocks. Do not modify system parameters to avoid parameter mismatch.

DP C080.C – OPERATING INSTRUCTIONS FOR USE OF THE CONTROL UNIT



Specifications

- Screen: LCD
- Power Supply: 36 V / 48 V / 52 V DC
- Operating current: 10 mA
- Maximum operating current: 140 mA
- Off-state leakage current: <1 μ A
- Operating temperature: -20 ~ 45 °C
- Storage temperature: - 20 ~ 60 °C
- Degree of protection: IP X7
- Humidity: 30% - 70% relative humidity

Appearance and Size

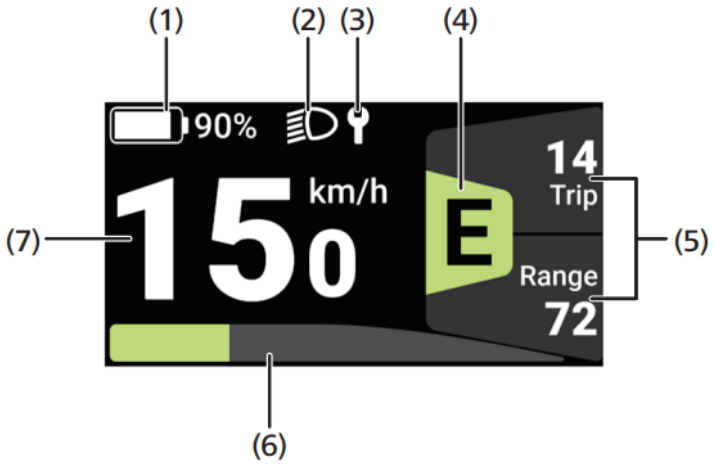
Product appearance and dimensional drawing (unit: mm)



◆ Functional Overview

- CAN communication protocol.
- Speed display (including top speed and average speed, switching between km and miles).
- Setting the km/mile units according to the user.
- Smart power indication: Provides stable battery percentage alerts through optimized algorithms.
- Automatic control of light-sensing headlight.
- Backlight brightness 4-level adjustment.
- Gear control: 6 modes in total.
- Mileage indication: The maximum mileage can be displayed up to 99999. Single mileage can be shown as TRIP; accumulated mileage can be shown as ODO.
- Smart indication: remaining mileage can be shown as RANGE, energy consumed can be shown as Cal (calories).
- Error code indication.
- Service interval reminder.
- Walk assistance.
- Maintenance prompt.
- 6 lagunages : (EN, DE, NL, FR, IT, CZ).

◆ Display information



1. Battery capacity
2. Headlight
3. Maintenance
4. Power-assisted mode
5. Multifunction indication
6. Watt
7. Real-time speed

◆ Key definition



"+" Up/headlight key.

Select the desired item in the menu.

"—" Down/Walk Assist key.

"⏻" Power On/Off/Confirm key. Confirm selection of the desired menu item.

Normal operation

◆ Switching the System On / Off

Turn on the power, press and hold the "⏻" for at least 2 seconds to turn on the display on. Press and hold the "⏻" again to turn off the display.

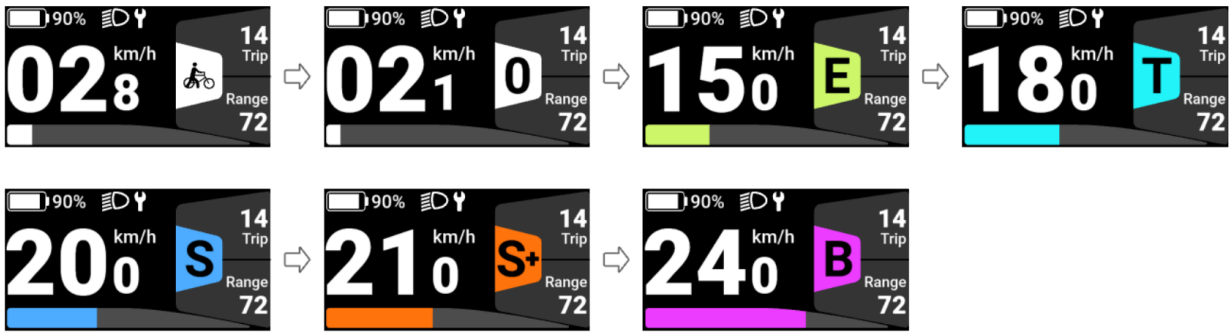


◆ Select the Power-Assisted Mode

Press the "+" or "−" to switch the power-assisted mode and change the power of the motor. The lowest gear is E, and the highest gear is B (user selectable). The default mode is E; 0 means the e-bike is in neutral position.

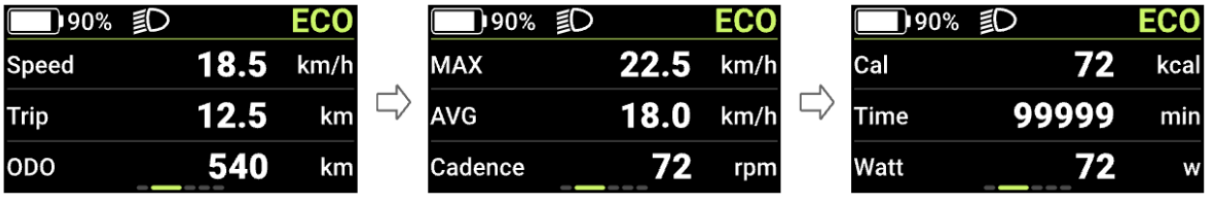
TIP: The lowest level is E, the highest level is B. When the display is on, the default setting is E. Mode 0 is unassisted mode.

0	White	Without assistance
E (Eco)	Green	ECO mode
T (Tour)	Blue	TOUR mode
S (Sports)	Indigo	SPORT mode
S+ (Sports+)	Orange	SPORT+ mode
B (Boost)	Purple	BOOST mode



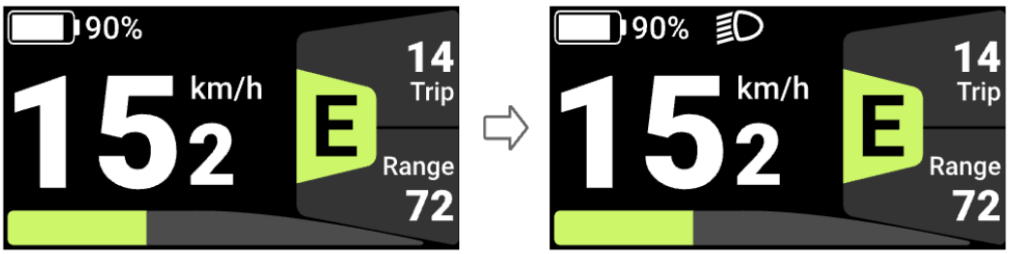
◆ Selection Mode

By briefly pressing the "⏻" you can switch between the differemt driving performance display modes in the following order: speed (SPEED) / distance traveled (TRIP) / total distance (ODO) maximum achieved speed (MAX) / average speed (AVG) / cadence (CADENCE) energy consumption (CALORIES) / time (TIME) / motor power (WATT). The units of energy consumption in CALORIES mode are kCal.



◆ Adjust the Headlight/backlight

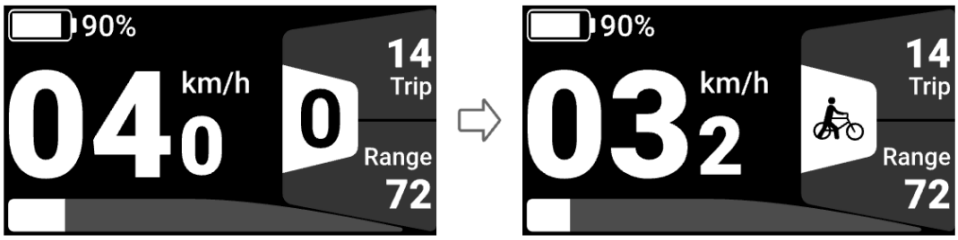
To turn on the e-bike lights, press and hold the "+" for 2 seconds. The display backlight brightness will automatically decrease, and the lighting icon will appear. To turn off the bike lights, press and hold the "+" again for 2 seconds, the display backlight brightness will return to the original value.



TIP: The e-bike lighting can be switched automatically according to the ambient light level, the automatic lighting function does not work if the user manually turns the headlight on/off. After restarting the control unit, the function works automatically again.

◆ Walk Assistance

When the system not in operation, press the "−" to shift to 0, and then press the "−" again, and the symbol will appear and be normally on. Press and hold the "−", the symbol will flash, and the e-bike will go into walk assistance mode (If no speed signal is detected, the HMI will display a speed of 2.5 km/h). Release the "−" to exit from the walk assistance mode, and the symbol will stop flashing and be will normally on. If no operation within 5s, the mode will be automatically switched to 0.



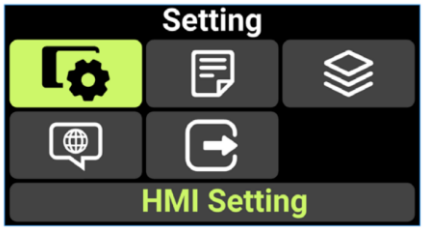
The walk assistant function can only be used when pushing the bike.
Attention! There is a risk of injury if the rear wheel does not come into contact with the ground when using the Walk Assist.

Settings

◆ Enter the display setting interface



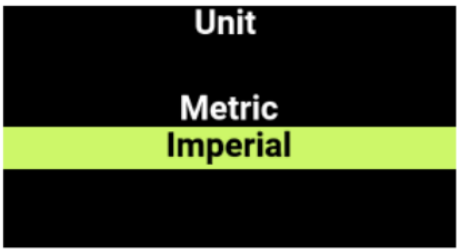
After the display is turned on, press, and hold the "+" and "−" to enter the “Settings”. By briefly pressing the "+" or "−" , you can select: HMI Settings, Information, Themes, Language, BACK → EXIT. Press the "⏻" to confirm the selected option.

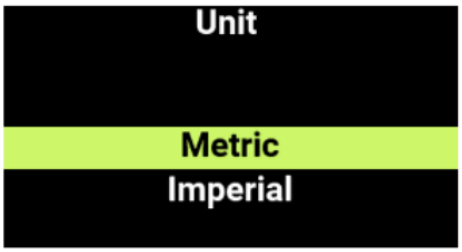


All settings are made with the e-bike parked.

◆ Units – switching between "Imperial" / "Metric"

Enter the "Setting", press the "+" or "−" to select “UNIT”. Press the "⏻" to enter the settings, press the "+" or "−" to select Metric (metric, km) / Imperial (imperial, miles), and press the "⏻" to save and return to the main interface, press and hold "+" and "−" simultaneously, or press BACK → EXIT.





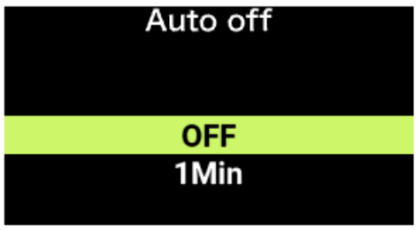
◆ Set the Automatic Shutdown Time

Enter the "Setting", press the "+" or "−" to select “Auto off” Press the "⏻" to enter the settings, press the "+" or "−" to select OFF or “1 Min” to “10 Min” press the "⏻" to save and return to "Auto Off". To save and return to the main interface, press, and hold "+" and "−" simultaneously, or press "BACK" → "EXIT".

"OFF" means to cancel the automatic shutdown function.



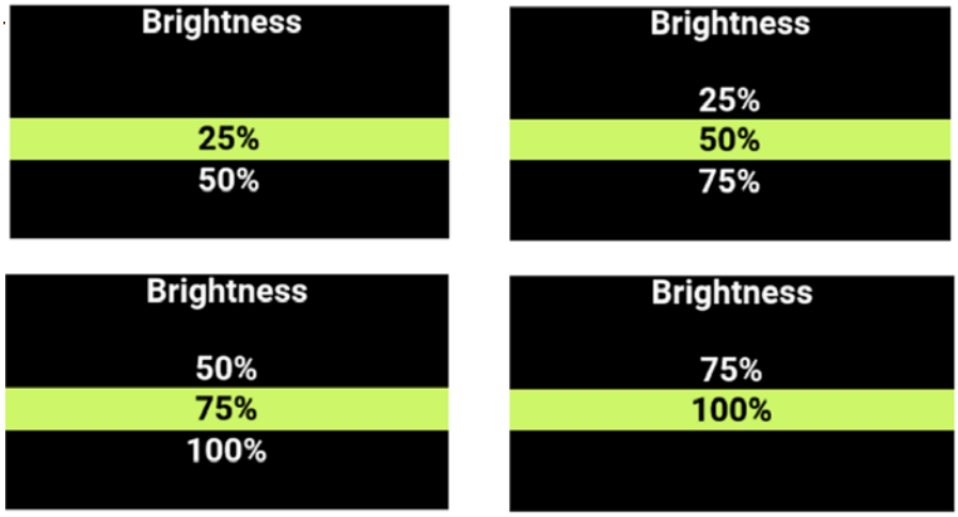




◆ Set the Backlight

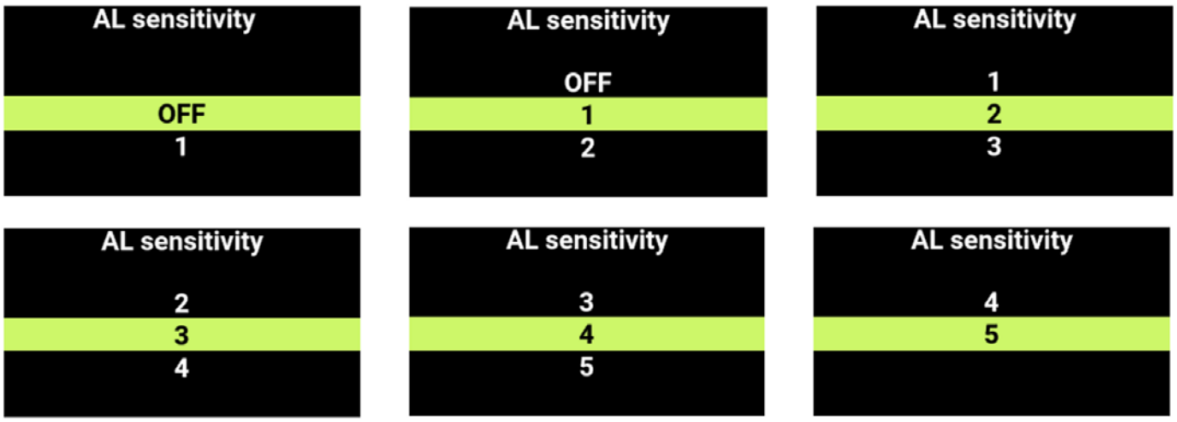
Enter the "Setting", press "+" or "−" to select "Brightness". Press "⏻" to enter the setting, "+" or "−" to select 100% / 75% / 50% / 25%, and press "⏻" to save and return to "Brightness". To save and return to the main interface, press and hold "+" and "−" simultaneously, or press "BACK" → "EXIT".

100% indicates the highest brightness, 25% the lowest brightness.



◆ Set the Light Sensitivity

Enter the "Setting", press "+" or "−" to select "AL sensitivity". Press "⏻" to enter the setting, press "+" or "−" to adjust the light sensitivity, OFF/0/1/2/3/4/5. OFF" means to turn off the function. The numbers 1 through 5 correspond to different levels of light sensitivity, from weak to strong. Press "⏻" to save and return to "AL sensitivity". To save and return to the main interface, press and hold "+" and "−" simultaneously, or press "BACK" → "EXIT".



◆ Reset the Trip

Enter the "Setting", press "+" or "−" to select "Trip reset". Press the "⏻" to enter the setting, press "+" or "−" to select "NO"/"YES" ("YES" means to clear, "NO" means not to clear), and press the "⏻" to save and return to "Trip reset". To save and return to the main interface, press and hold "+" and "−" simultaneously, or press "BACK" → "EXIT".



◆ Maintenance Prompt

Enter the "Setting", press "+" or "−" to select "Service". Press "⏻" to enter the setting, press "+" or "−" to select "OFF"/"ON" ("OFF" means to turn off the function; "ON" means to turn on the function). Press "⏻" to save and return to "Service". To save and return to the main interface, press and hold "+" and "−" simultaneously, or press "BACK" → "EXIT". (Note: The maintenance prompt function is turned off by default. When it is turned on and the ODO of the e-bike exceeds 5,000 km, "🔧" will appear on the HMI.



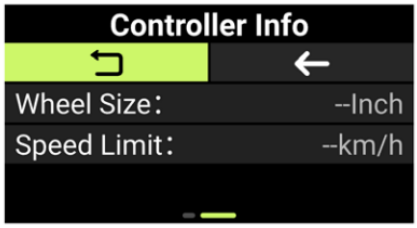
◆ Enter the Information interface



After the display is turned on "+" and "−" to enter the “Information”. By briefly pressing the "+" or button "−" , you can select: Controller Info, Battery Info, HMI Info, Sensor Info, Press the "⏻" to confirm the selected option. To save and return to the main interface, press and hold "+" and "−" simultaneously, or press "BACK" → "EXIT" You can use the menu to view all information, but it cannot be edited or interfered with.

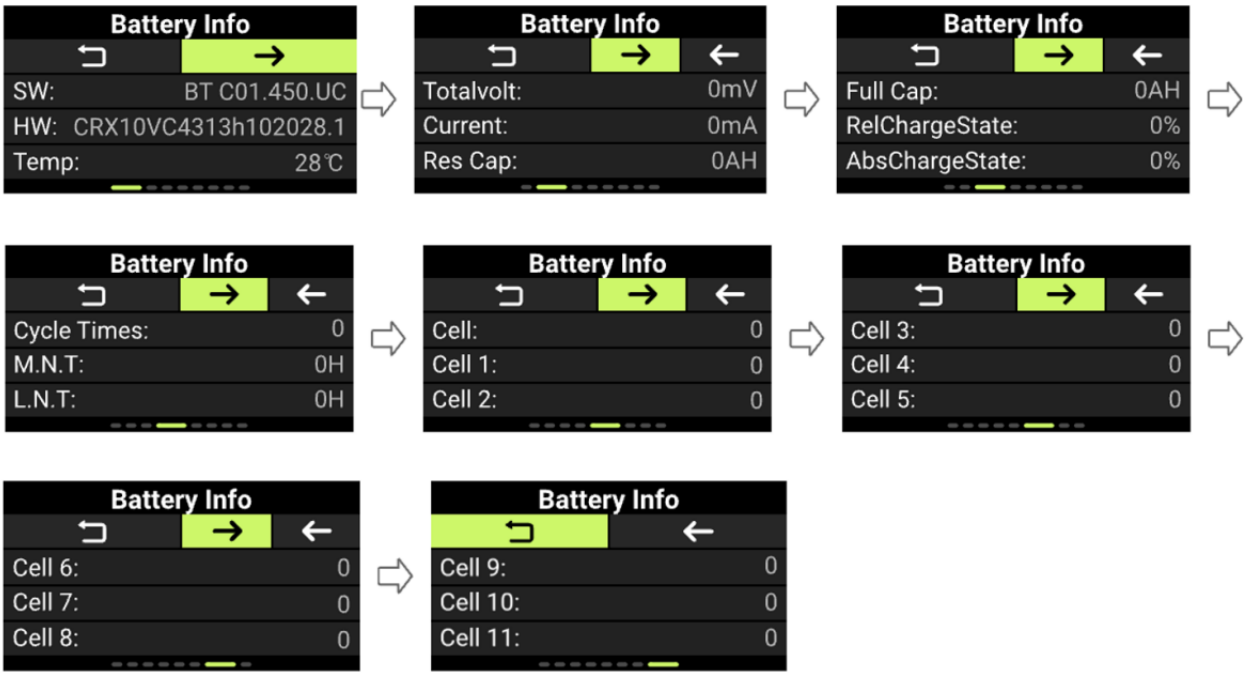
◆ View the Wheel Size and Speed Limit

Enter the “Information”, press "+" or "−" to select “Controller Info”, press the "⏻" to enter. Select the "←" icon and press "⏻" to enter to view the "Wheel Size" and "Speed Limit" information. To save and return to the main interface, press and hold "+" and "−" simultaneously, or press "BACK" → "EXIT".



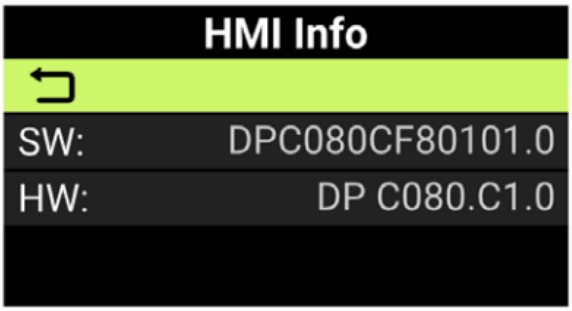
◆ View the Battery Info

Enter the “Information”, press "+" or "−" to select "Battery Info". Press the "⏻" to enter. Press "⏻" to view battery information. Select and "⮌" press "⏻" to return to Battery Info. To save and return to the main interface, press and hold "+" and "−" simultaneously, or press "BACK" → "EXIT".



◆ View the HMI Info

Enter the “Information”, press "+" or "−" to select "HMI info". Press the "⏻" to enter. he sequence is "SW: → HW:". Press "⏻" to return to "HMI Info". To return to the main interface, press and hold "+" and "−" simultaneously, or press "BACK" → "EXIT



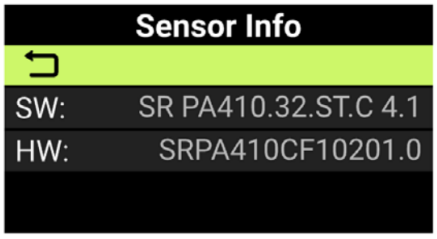
◆ View the Controller Info

Enter the "Information", press "+" or "−" to select "Controller Info". Press "⏻" to enter and press "+". The sequence is "SW: → HW". Press "⏻" to return to "Controller Info". To return to the main interface, press and hold "+" and "−" simultaneously, or press "BACK" → "EXIT".



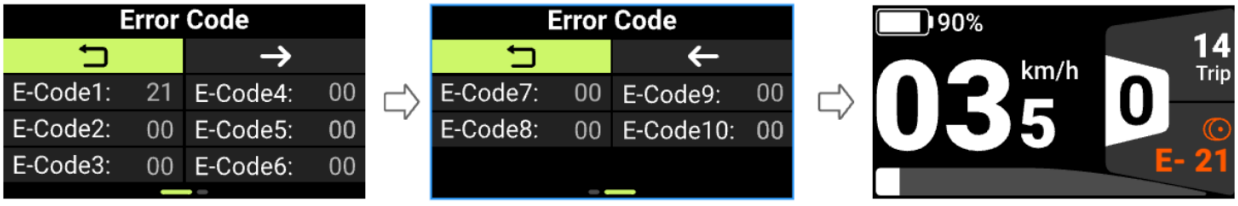
◆ View the Sensor Info

Enter the "Information", press "+" or "−" to select "Sensor Info". Press "⏻" to enter. The sequence is "SW: → HW". Press "⏻" to return to "Sensor Info". To return to the main interface, press and hold "+" and "−" simultaneously, or press "BACK" → "EXIT".



◆ View Historical Error Codes

Enter the "Information", press "+" or "−" to select "Error Code". Press "⏻" to enter and press "+" to view the last 10 error messages, "E-Code1" to "E-Code10". Press "⏻" to return to "Information", or press and hold "+" and "−" simultaneously to return to the main interface.



◆ Error code definition

The ebike system's parts are automatically monitored in real time. If a part is abnormal, the corresponding error code is displayed on the HMI. The DP C010.CB displays the error code on the HMI directly.

The troubleshooting methods in the list are listed in order according to the fault probability and the operability of the related parts. In practice, dealers can adjust the order based on the existing tools and spare parts. (For detailed disassembly steps, please refer to the dealer manual of the corresponding parts on the official website. <www.bafang-e.com>).

In order to protect the electric parts, before disassembling the parts, please switch off the system power first by pressing the control unit of HMI and then disconnect the power cable of the disassembled part. When installing the parts, please fix the parts first, then connect the power cable of the parts, and finnally switch on the system power by pressing the control unit of HMI.

Please contact Bafang after-sale service personnel <service@bafang-e.com> if the above troubleshooting fails to solve the problem or the error code is not in the above list.

Code	Cause	Troubleshooting
06	Low battery voltage.	1. Connect the charger and check if the charger is working properly. 2. Charge the battery to full capacity. 3. Install the battery on the e-bike and turn it on. 4. Check if the correct battery model is installed on the e-bike. 5. If the error persists, stop using the bike and contact your dealer or authorized service center.
07	System overvoltage protection.	1. Turn the power off and then on again. 2. Check if the correct battery model is installed on the e-bike. 3. If the error persists, stop using the bike and contact your dealer or authorized service center.
08	Hall signal in motor is abnormal	If the error persists, stop using the bike and contact your dealer or authorized service center.
09	Motor phase wire error.	If the error persists, stop using the bike and contact your dealer or authorized service center.
10	Motor overtemperature protection (Only occur when the motor is equipped with the temperature sensor.).	1. Turn off the power, leave the drive unit in a cool place out of direct sunlight until the internal temperature of the drive unit has sufficiently cooled, and then turn the power back on. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.
11	Motor temperature sensor abnormal (Only occur when the motor is equipped with the temperature sensor.).	If the error persists, stop using the bike and contact your dealer or authorized service center.
12	Controller current sensor abnormal.	If the error persists, stop using the bike and contact your dealer or authorized service center.
13	Control unit error.	If the error persists, stop using the bike and contact your dealer or authorized service center.
14	Control unit overheat.	1. Turn off the power, leave the drive unit in a cool place out of direct sunlight until the internal temperature of the drive unit has sufficiently cooled, and then turn the power back on. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.
15	Controller temperature sensor abnormal.	If the error persists, stop using the bike and contact your dealer or authorized service center.
18	Motor stops.	1. Turn the power off and back on and perform the test in assisted walking mode again. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.
21	Speed sensor abnormal.	1. Check whether the magnet unit has been moved or disconnected and whether the magnetism has been reduced. 2. Check whether the clearance between the magnet unit and the sensor is within the required range. 3. Check whether the sensor PIN connector is damaged and whether the sensor is correctly connected to the motor. 4. If the error persists, stop using the bike and contact your dealer or authorized service center.

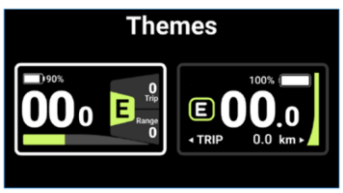
Code	Cause	Troubleshooting
25	Torque sensor error.	If the error persists, stop using the bike and contact your dealer or authorized service center.
26	Torque sensor abnormal (Only occur when the drive system is equipped with the torque sensor.).	1. Turn the power off and on again and ride the bike briefly. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.
30	Communication abnormal.	1. Check if the HMI cable is properly connected to the controller or if the PIN pins and cable are damaged. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.
33	Brake circuit error.	1. Turn the power off and on again. 2. Check if the brake cable is connected correctly or if the cable is damaged (from the brake to the control unit). 3. If the error persists, stop using the bike and contact your dealer or authorized service center.
35	Control unit error.	If the error persists, stop using the bike and contact your dealer or authorized service center.
36	ON/OFF Button detection circuit abnormal (Only occur when the drive system is equipped with Bafang CAN communication protocol.).	1. Turn the power off and then on again. 2. Check if the ON/OFF key on the control panel is stuck. 3. If the error persists, stop using the bike and contact your dealer or authorized service center.
37	WDT (Watch Dog Timer) in controller is abnormal.	If the error persists, stop using the bike and contact your dealer or authorized service center.
40	Battery error.	1. Check whether the battery power cable is connected properly or whether the cable is damaged. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.

Pay attention to safe use. Do not attempt to loosen or connect the connector while charging the batteries or while the battery power is on. This will avoid the risk of electric shock. Do not subject the display to shock. Do not adjust the system parameters to avoid parameter mismatch. If an error code is displayed, have the display repaired.

◆ Set the UI Theme



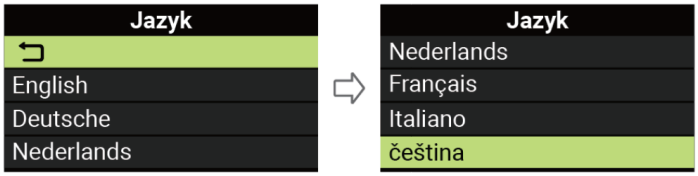
Enter the "Settings", press "+" or "−" to select “Themes”. Press "⏻" to enter it. Pres "+" or "−" to select the UI theme you want. Press "⏻" to save and the HMI will be reset and restarted. If you do not want to change the theme, press and hold "+" and "−" simultaneously to exit to the main interface.



◆ Language setting



Enter the "Settings", press "+" or "−" to select “Language”. Press the "⏻" to enter the setting, press "+" or "−" to select the desired language English, German, Dutch, French, Italian, Czech. Press "⏻" to save and return to main interface.



◆ Back



Enter the "Settings", press "+" or "−" to select “Back” option. Short press the button "⏻" to confirm the selected option and return to the main display interface.

DP C190.CAN - OPERATING INSTRUCTIONS FOR USE OF THE CONTROL UNIT

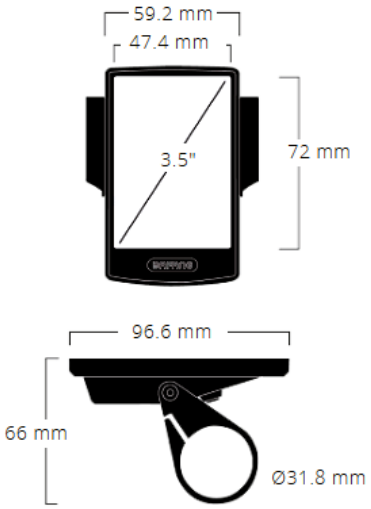


Specifications

- Power Supply: 36 V / 43 V / 48 V DC
- Operating temperature: -20 ~ 45 °C
- Storage temperature: - 20 ~ 50 °C
- Degree of protection: IP65
- Bearing humidity: 30% - 70%

Appearance and Size

Display appearance and dimension figure (unit: mm)



◆ 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.
- Parameter setting (default support level, wheel diameter, limit speed and so on).
- Six languages are available for users to choose (EN,DE,NL,FR,IT,CT).

◆ Display information



1. Time indicator.
2. Headlight indicator.
3. Error message indicator.
4. USB charging indicator will show, if any external USB device is connected to the display.
5. Indicator for the capacity of battery in real time.
6. Speed indicator and numerical value.
7. Power indicator and real-time value.
8. Single trip kilometres/Service indicator.
9. Support level/Walk assistance indicator .
10. Different modes: single-trip kilometres (TRIP)-total kilometres (ODO) – Maximum speed (MAX) – Average speed (AVG) – Range (RANGE) – Energy consumption (CALORIES) – Travel time (TIME) – cycle.

◆ 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 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.

◆ 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.



◆ Selection Mode

Briefly press the i (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).



◆ 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.



If the front or rear light is not connected, the button can only be used to switch the display backlight on / off.

◆ Walk Assistance

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.



The walk assistant function can only be used when pushing the bike.
Attention! There is a risk of injury if the rear wheel does not come into contact with the ground when using the Walk Assist.

◆ 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.



Settings

After the display is turned on, quickly press the i button twice, to access the “SETTINGS” menu. By pressing the + or - (<0.5S) button, you can select: Display Settings, Information or EXIT. Then press the i (<0.5S) button to confirm your selected option. Or select "EXIT" and press the i (<0.5S) button to return to the main menu or select "BACK" and press the i (<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 quickly press the i (<0.5S) button twice at any time, to return to the main screen.

◆ Enter the Display setting

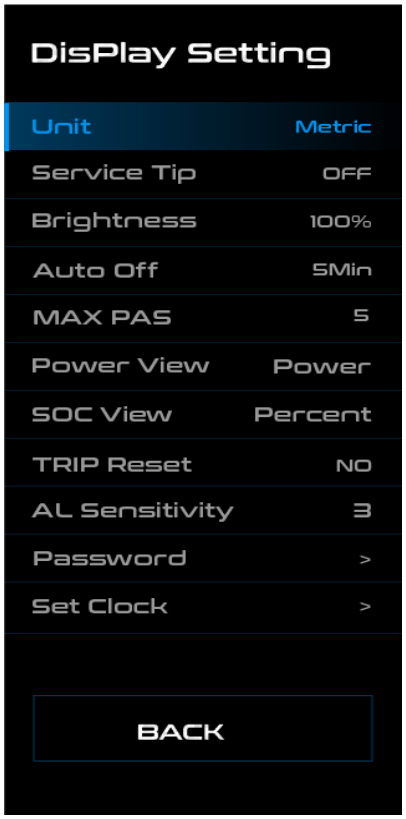
Press the + or - (<0.5S) button to select Display Settings, and then briefly press the i (<0.5S) button to access the following selections.

SETTING	Display Setting	Unit
		Service Tip
		Brightness
		Auto Off
		MAX PAS
		Power View
		SOC View
		TRIP Reset
		AL Sensitivity
		Password
		Set Clock
		BACK
	Information	Wheel Size
		Speed Limit
		Battery Information
		Controller Information
		Display Information
		Torque Information
		Warning codes
		BACK
	Language	English
		Deutsche
		Nederland’s
		Francais
		Italiano
		Čeština
		BACK
	EXIT	

All settings are made with the e-bike parked.

◆ **“Unit” Selections in km/Miles**

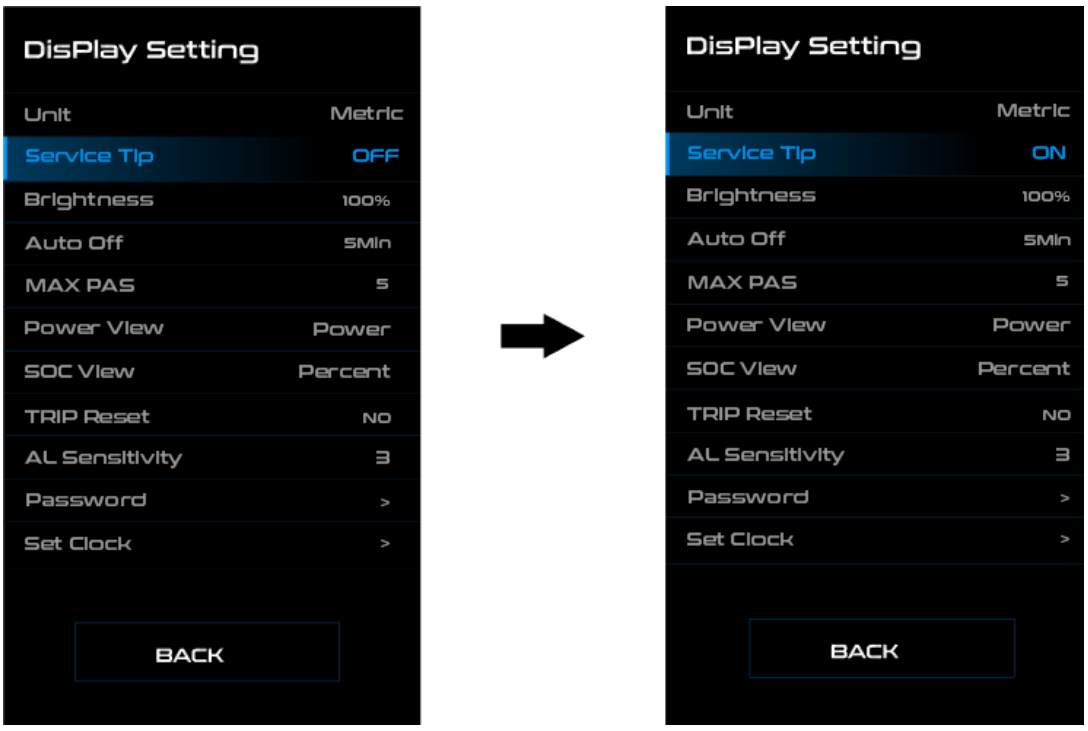
Press the + or - (<0.5S) button to high- light “Unit” in the Display settings menu, and then press the i (<0.5S) button to select. Then with the + or - button choose between “Metric” (kilometer) or “Imperial” (Miles). Once you have chosen your desired selection, press the i (<0.5S) button to save and exit to the "Display setting" interface.





◆ “Service Tip” Switching the notification on and

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

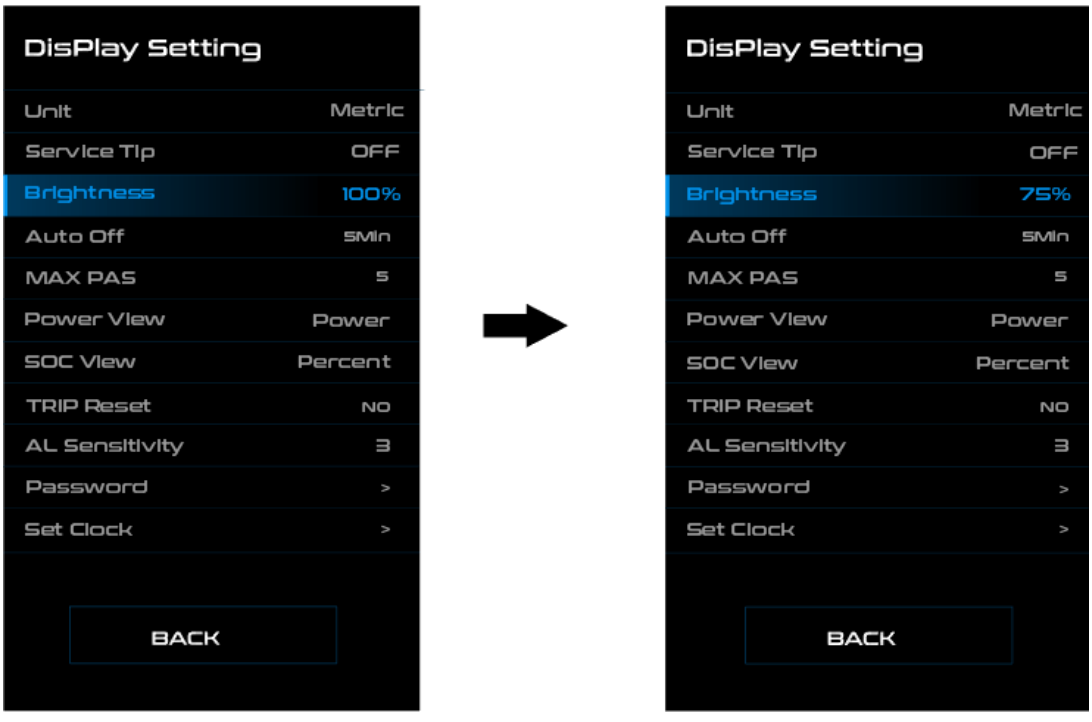


◆ “Brightness” Display brightness

Press the + or - (<0.5S) button to high- light “Brightness” in the Display settings menu. Then press i (<0.5S) to select.

Then with the + or - button choose between 25 % / 50 % / 75 % / 100 %.

Once you have chosen your desired selection, press the i (<0.5S) button to save and exit to the "Display setting" interface.



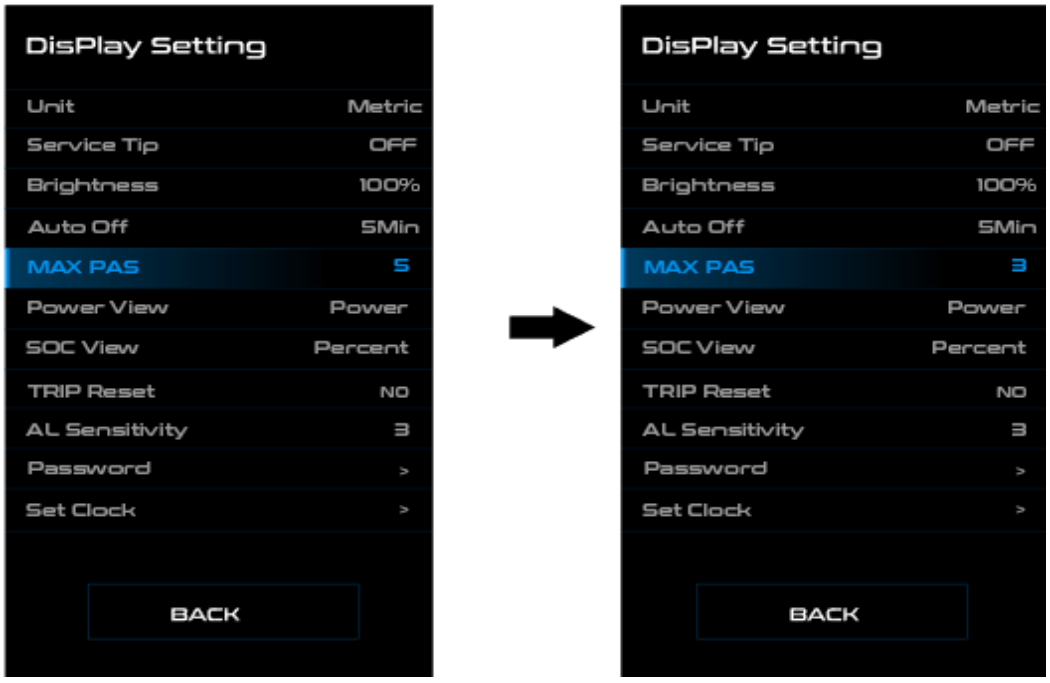
◆ “Auto Off” Set Automatic system switch off time

Press the + or − (<0.5S) button to highlight “Auto Off” in the Display settings menu, and then press i (<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 de- sired selection, press the i (<0.5S) button to save and exit to the "Display setting" interface.



◆ “MAX PAS” Support level

Press the + or − (<0.5S) button to highlight “Max Pass” in the Display settings menu, and then press i (<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 i (<0.5S) button to save and exit to the "Display setting"



◆ “Power View” Setting the power

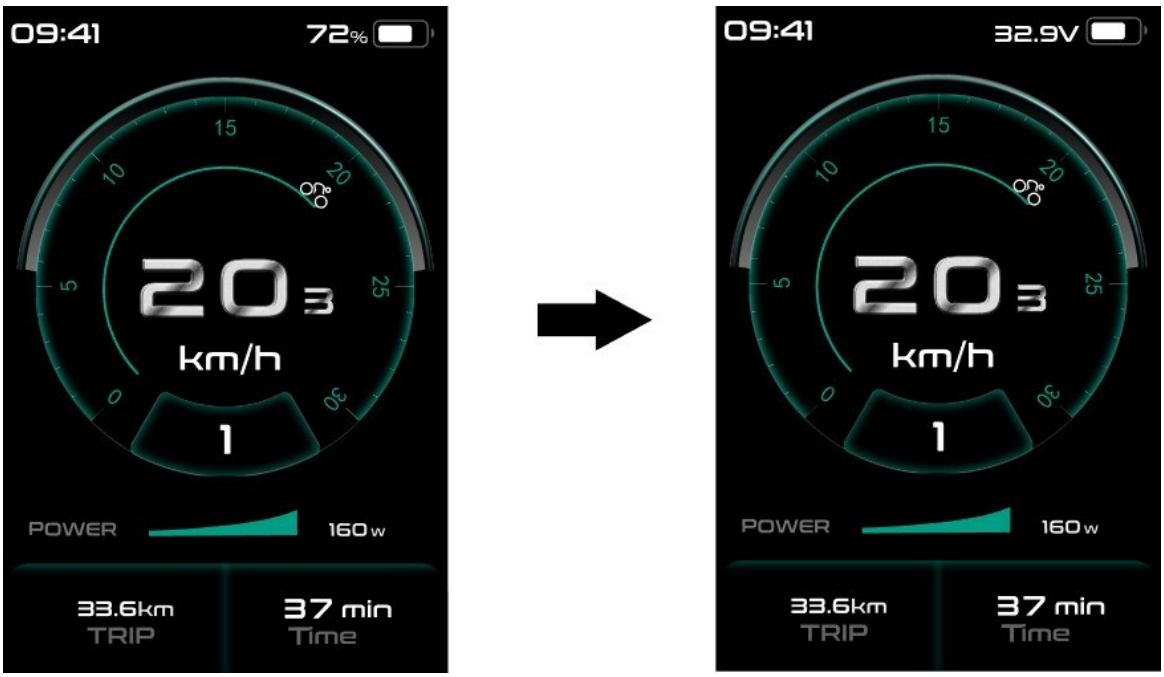
Press the + or - (<0.5S) button to high- light “Power View” in the Display settings menu, and then press i (<0.5S) to select. Then with the + or - button choose between “Power” or “Current”. Once you have chosen your desired selection, press the i (<0.5S) button to save and exit to the "Display setting" interface.

Note: The displayed value of the motor power corresponds to its current load and in some cases the peak motor power is displayed.



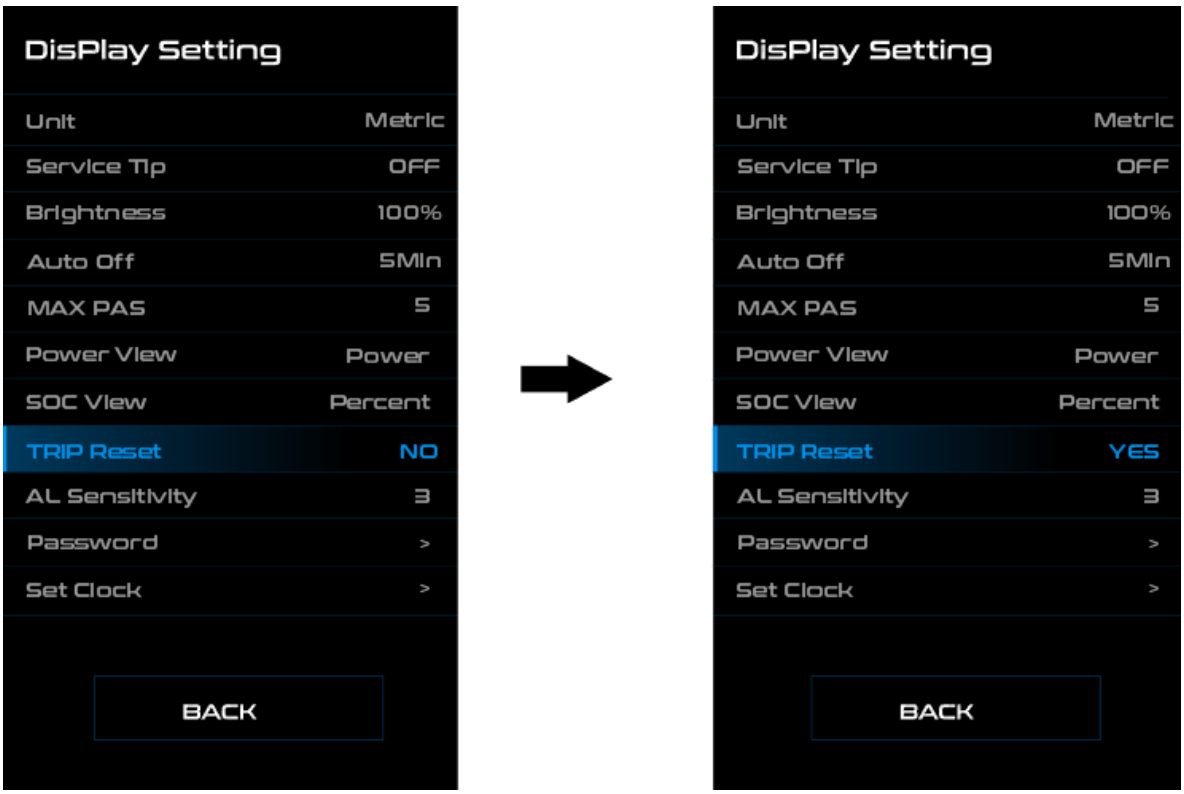
◆ “SOC View” Battery view in volt percent

Press the + or - (<0.5S) button to highlight “SOC View” in the Display settings menu, and then press i (<0.5S) to select. Then with the + or - button choose between “percent” or “voltage“. Once you have chosen your desired selection, press the i (<0.5S) button to save and exit to the "Display setting"



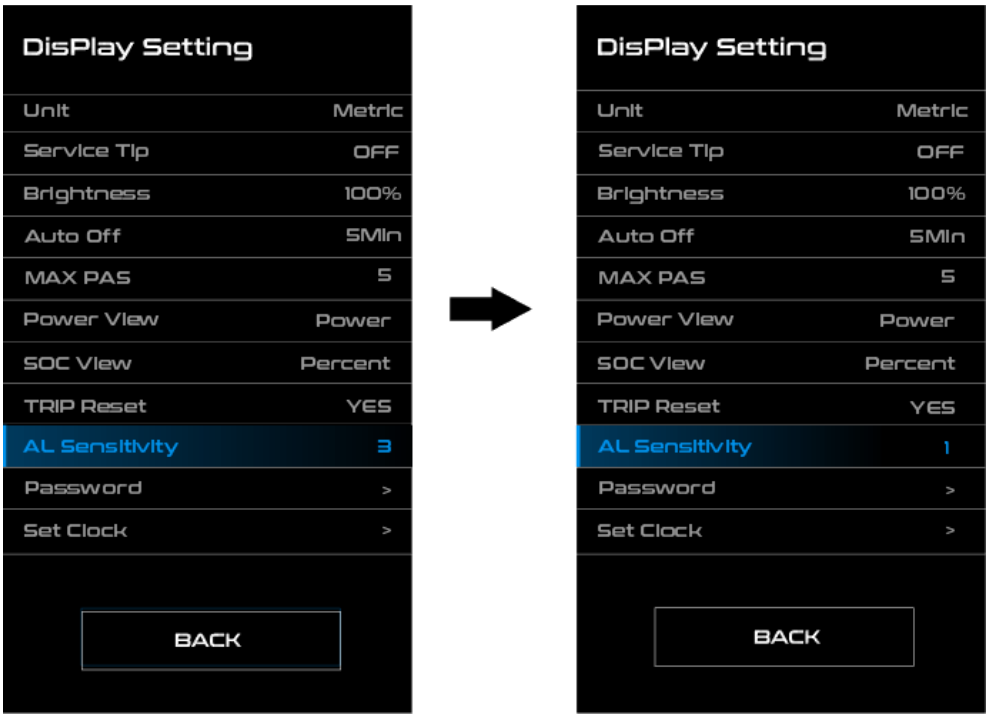
◆ **“TRIP Reset” Reset mileage**

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



◆ **“AL Sensitivity” Automatic headlight sensitivity**

Press the + or - (<0.5S) button to high- light “AL-Sensetivity” in the Display settings menu, and then press i (<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 i (<0.5S) button to save and exit to the "Display setting".



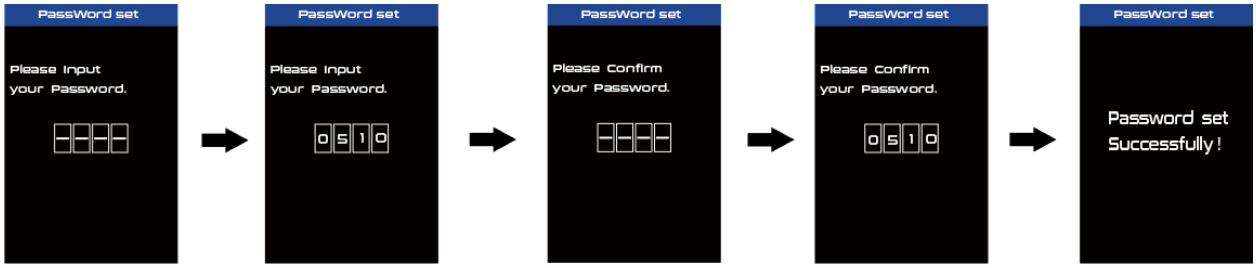
◆ “Password”

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

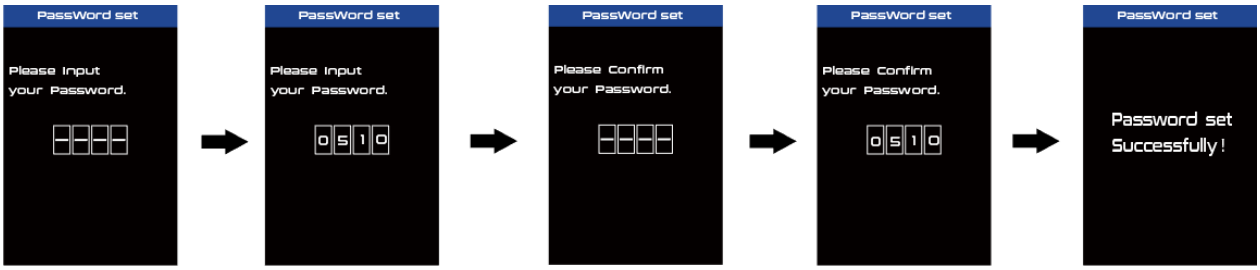
After selecting a password, the next time you turn on the system it will ask you to input your password. Press the + or - (<0.5S) button to select the numbers, then press briefly i (<0.5S) to confirm.

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



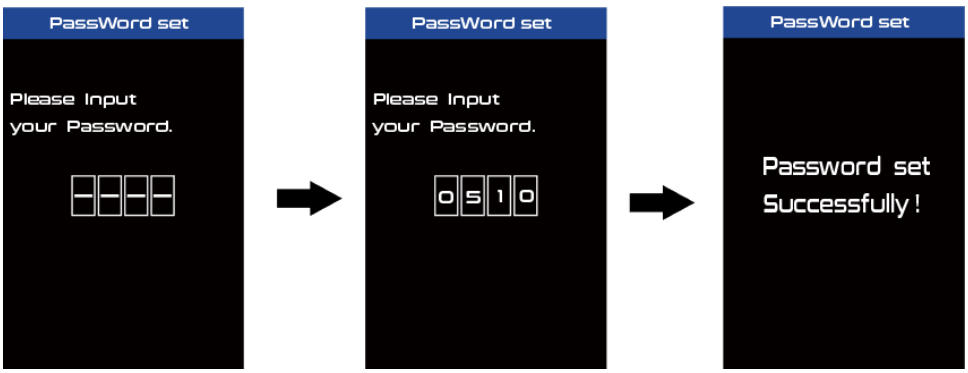
◆ Changing the password:

Press the + or - (<0.5S) button to choose Password in the menu. Then by briefly pressing i (<0.5S) to enter the password selection. Now again with the + or - (<0.5S) buttons highlight “Password set" and press the i (<0.5S) button to confirm. Now with the + or -. (<0.5S) buttons and highlight “Reset Password” and with the i (<0.5S) button to confirm. By entering your old password once, followed by inputting the new password twice, then your password will be changed.



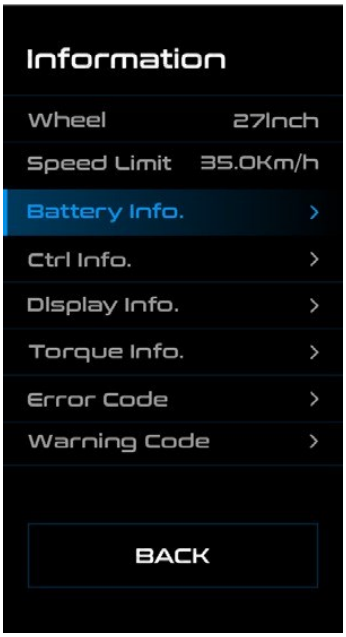
◆ Deactivating the password:

To deactivate the password, use the + or - buttons to get to the menu point “Password” and press the i (<0.5S) button to highlight your selection. Press the + or - (<0.5S) button until is shows “OFF”. Then press briefly i (<0.5S) to select. Now enter your password, to deactivate it. After 10 wrong passwords, the display will power-off automatically.



◆ “Set Clock”

Press the + or - (<0.5S) Button to access the “Set Clock” menu. Then briefly press the i (<0.5S) button to confirm selection. Now press the + or - (<0.5S) button and input the correct number (time) and press the i (<0.5S) button to move to the next number. After entering the correct time, press the i (<0.5S) button to confirm and save.



◆ “Information”

Once the system is turned on, quickly Press the i (<0.5S) button twice to access the "SET-TINGS" menu. Press + or - (<0.5S) button to select "Information", and then press the i (<0.5S) button to confirm your selection.

Or select the point "EXIT" by confirming with the i (<0.5S) button to return to the main menu.

◆ Wheel Size and Speed Limit

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

By default, the speed limit is set to 25 km / h so that it is in accordance with the applicable legislation for the operation of e-bikes on roads. If the maximum speed limit is set to a value higher than 25 km / h, the e-bike no longer complies with the relevant laws and may not be used for road use!

◆ Battery Information

Press the + or − (<0.5S) button to access the Battery Info menu, and then press the i (<0.5S) button to select confirm. Now press the + or − (<0.5S) button and select "Back" or "Next Page". Then press the i (<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 (Ah)
Full Cap	Total Capacity (Ah)
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	Last time in which no charge was made (Hr)
Total Cell	Number (individual)
Cell Voltage 1	Cell Voltage 1 (mV)
Cell Voltage 2	Cell Voltage 2 (mV)
Cell Voltage n	Cell Voltage n (mV)
HW	Hardware Version
SW	Software Version

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

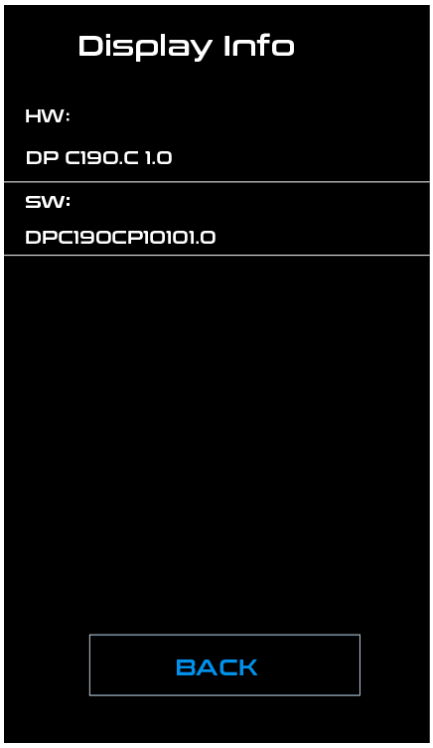
◆ Controller Information

Press the + or − (<0.5S) button and select "CTRL Info", and then press the i (<0.5S) button to confirm. Now you can read the controller information. To Exit press the i (<0.5S) button, once “EXIT” is highlighted to return to the information settings.



◆ Display Information

Press the + or − (<0.5S) button and select Display Info, then press the i (<0.5S) button to read the software and hardware data in the display. To Exit press the i (<0.5S) button, once “EXIT” is highlighted to return to the information settings.



◆ Torque Information

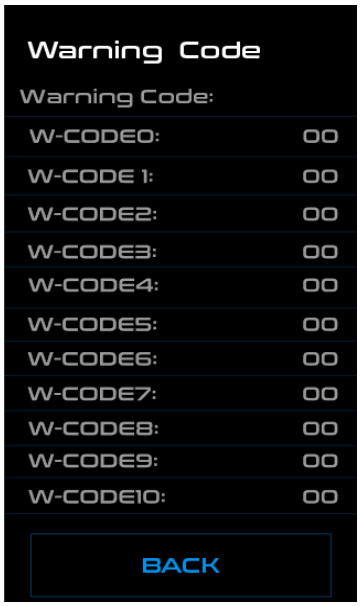
Press the + or − (<0.5S) button and select “Torque info”, then press the (<0.5S) i button to read the software and hardware data in the display. To Exit press the i (<0.5S) button, once “EXIT” is highlighted to return to the information settings.



◆ Warning Code

Press the + or - (<0.5S) button and select “warning Code”, and then press the i (<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 return to the menu press the i (<0.5S) button, once "BACK" is highlighted to return to the information settings.

Press the + or - (<0.5S) button and select “Warning Code”, and then press the i button to confirm. Press and hold+,- and ⏻ together (>2 S) to clear away the warning code.



◆ ERROR CODE DEFINITION

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. 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
05	Accelerator lever error	Check the cable connectors and make sure they are properly connected. Replace extension cable or throttle cable (if applicable). Replace the throttle lever, if the defect persists, contact the service center.
07	Battery overvoltage protection	Check that the rated voltage of the battery is the same as that of the power unit. Replace the battery with a new one, if the defect persists, contact the service center.
08	Error with the hall sensor signal inside motor	Check the cable connectors and make sure they are connected correctly, if the fault persists, contact the service center.
09	Error with the engine phase´s	Check the cable connectors and make sure they are connected correctly, if the fault persists, contact the service center.
10	The temperature sensor inside the engine has reached its maximum protection value	Stop, switch off the bike and wait for the engine to cool down. If the error appears when the wheel could not be overloaded, contact the service center.

11	The temperature sensor inside the motor has an error	Stop, switch off the bike and wait for the engine to cool down. If the error appears when the wheel could not be overloaded, contact the service center.
12	Error with the current sensor in the controller	Check the cable connectors and make sure they are connected correctly, if the error persists, contact the service center.
14	The protection temperature inside the controller has reached its maximum value	Stop, switch off the bike and wait for the control unit to cool down. If the error appears when the wheel could not be overloaded, contact the service center.
15	Error with the temperature senor inside the controller	Stop, switch off the bike and wait for the control unit to cool down. If the error appears when the wheel could not be overloaded, contact the service center.
21	Speed sensor error	Restart the system. Check the position of the magnet relative to the sensor. Check the connectors. If the problem persists, contact the service center.
26	Speed signal of the torque sensor has an error	Check the cable connectors and make sure they are connected properly. If the problem persists, contact the service center.
30	Communication problem	Check the cable connectors and make sure they are connected properly. If the problem persists, contact the service center.
36	Detection circuit on the keyboard has an error	Restart the system. If the problem persists, contact the service center.
37	Controller WDT circuit is faulty	Please contact your service center
42	Total voltage from the battery is too low	Charge the battery. If the problem persists, contact the service center.
49	Low voltage of one of the battery cells	Charge the battery. If the problem persists, contact the service center.
4C	Voltage difference between individual battery cells	Replace the battery

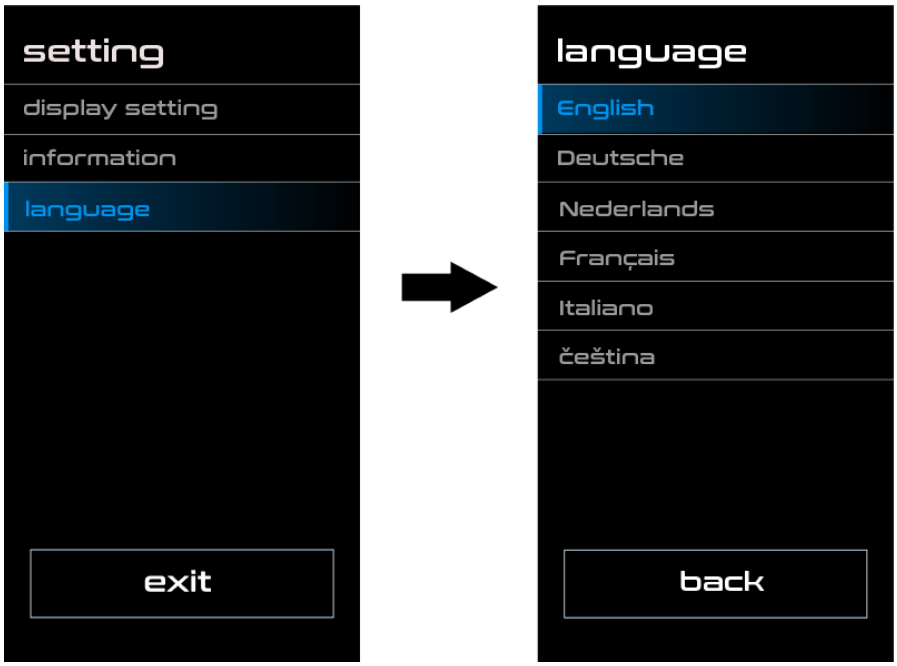
If error codes other than those listed above are displayed, contact the dealer's authorized service.

If an error code is displayed, have the problem corrected. Otherwise you will not be able to ride the e-bike normally. Always contact an authorized bicycle dealer.

Beware of safe use. Do not attempt to loosen or reconnect the connector while charging the battery or while the battery power is on.
Avoid the risk of electric shock.
Do not subject the display to shocks.
Do not modify system parameters to avoid parameter mismatch.

◆ Language

Once the system is turned on, double press the i button to access the „Setting“ menu Now by pressing the + or - (<,5S) button to highlight the „Language“ and press the i (<,5S) button to confirm. Now press the + or - (<,5S) button to select „English“, „Deutsche“, „Nederlands“, „Francais“, „Italiano“ or „Čeština“, Once you have chosen you desired selection, press the i (<,5S) button to save, then select „Back“ to return to the setting interface.



KD 786.CAN – OPERATING INSTRUCTIONS FOR USE OF THE CONTROL UNIT



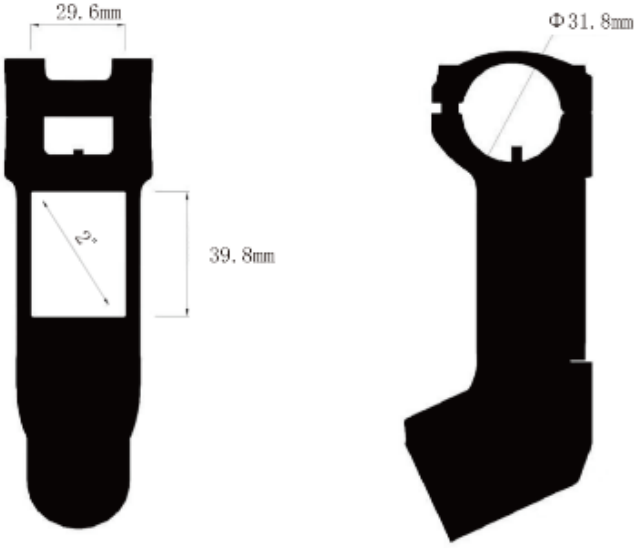


Specifications

- Power Supply: 36 V/ 48 V DC
- Rated working current: 22 mA
- Off-state leakage current: <1 μA
- Operating temperature: -20 ~ 60 °C
- Storage temperature: - 20 ~ 50 °C
- Degree of protection: IPX6
- Humidity: 30% - 70%

Appearance and Size

Product appearance and dimensional drawing (unit: mm)



◆ Function Summary

- CAN communication protocol.
- Smart battery indicator SOC, voltage value or battery percentage.
- Setting the km/mile units according to the user.
- Display of current speed, maximum (MAX) and average speed (AVG).
- Engine power indicator, driving time/excursion (min), range.
- Select and view support level.
- Walking assistant function.
- Turn on/off backlight and light indication.
- Displaying error messages.
- Setting various parameters (battery charge status column, current limit by regulator, password enable, etc.).
- Restore default settings.

◆ Display information



◆ Key definition



General Operations

◆ Switching the E-bike System On/Off

Hold the on/off button for 2s to switch on E-bike system. When display is on, hold the on/off button for 2s again, the E-bike system will be switched off. The E-bike system no longer uses the battery power.

When the E-bike system is switched off, the leakage current is less than < 1 μA.

If the bike is not in use, the display will automatically turn off after 5 minutes. The shutdown time can be set in the Automatic shutdown menu. If a password is set on the display, it must be entered correctly before starting.

◆ Display interface

After switching on the e-bike system, the display shows the current speed and the daily distance travelled, the total distance, the battery charge level, the selected motor assistance level, and the battery status.

Press the "i" button to view additional driving data, see below:

TRIP daily distance travelled (km) → **MAX** maximum speed (km/h) → **AVG** average speed (km/h) → **TIME** travelled time (min). → **Range** remaining range (km) → **CAL** energy consumption.



◆ Switching Push-assist Mode On/Off

To activate the push-assist function, keep holding "-" button. After 2 seconds, E-bike is activated to go at a uniform speed of 6 Km/h while the screen display .

The push-assist function is switched off as soon as you release the "-" button.



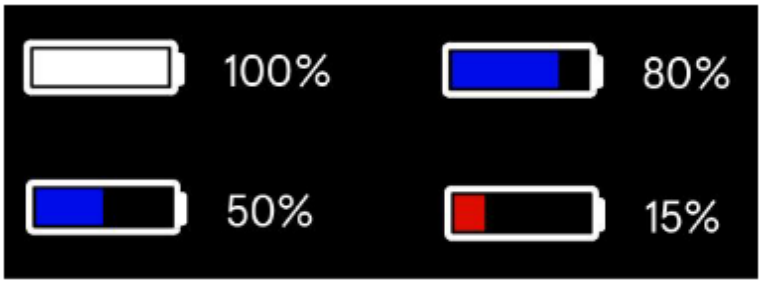
◆ Switching the lighting On/Off

Press and hold the "+" button for 2 seconds to turn on the light of the e-bike. The display backlight brightness will automatically decrease, and the lighting icon will appear. Turn off the wheel lighting by pressing and holding the "+" button again for 2 seconds, the brightness of the display backlight will return to its original value.



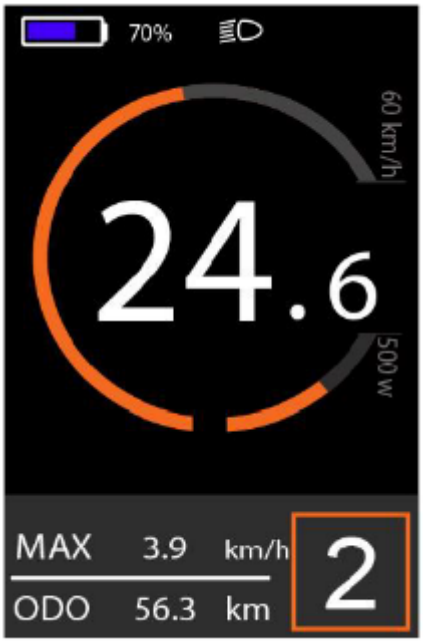
◆ **Battery level indicator**

The battery voltage is sensed by the control unit and the display shows the voltage. Battery capacity is indicated by the battery charge indicator bar. You can choose between displaying the battery voltage value or percentages.



◆ **Motor power indicator**

The motor power is shown on the digital display.



Note: The displayed motor power value corresponds to its current load and in some cases the peak power of the motor is displayed.

◆ **Error codes indication**

The components of the e-bike system are continuously monitored automatically. If an error is detected, the corresponding error code is displayed in the text part of the display. A detail of the error code message listed in the Error Code Table is displayed here.



Table of error codes

Error code	Description of a fault
21	Communication error
22	Controller fault
23	Engine error
24	Hall probe signal error
25	Brake failure
30	Communication error

If an error code is displayed, have the fault repaired. Otherwise, you will not be able to ride the e-bike normally. Always contact an authorized bicycle dealer.

Settings

Press the power button to turn on the display.

Press and hold the “i” or "+" and "-" (depending on the supplied SW version) button for 2 seconds to access the display settings, advanced settings or information display menu. Use the "+" or "-" buttons to select one of the menus. Press "i" to enter the desired menu. To return to the main interface, press and hold the "i" button or select the menu **End** by pressing the "i" button to confirm the selection.

Display Settings

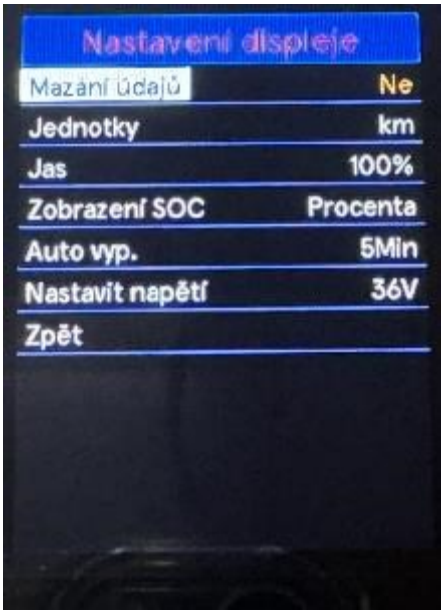
Use the "+" or "-" buttons to select the **Display Settings menu.** By pressing the "i" button confirm the option and enter the display settings menu. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



All the Settings are operated in the case of a parked E-bike.

◆ **Trip reset**

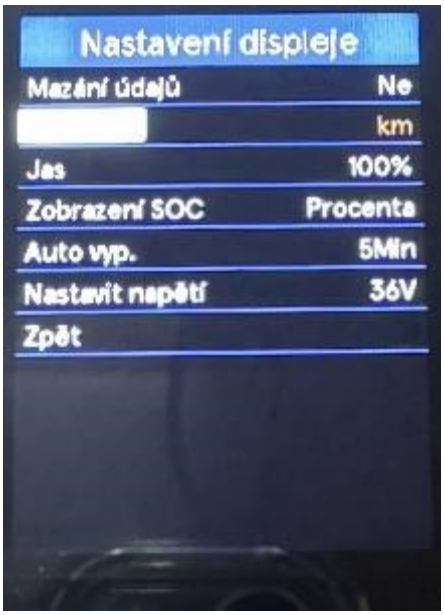
Use the "+" or "-" buttons to select a Trip reset menu by pressing the "i" button confirm the option and enter the menu for deleting the data of the last trip. Use the "+" or "-" buttons to select Yes or No. Selecting Yes will delete the distance travelled along with the maximum / average speed and duration of the trip. Press the "i" button to save the setting change. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



◆ **"Unit" setting**

Use the "+" or "-" buttons to select a menu **Units**, by pressing the "i" button confirm the option and enter the unit settings menu. The default units setting is "Metric" (km).

To switch units, press the "+" or "-" button, choose the desired units. Press the "i" button to save the setting change. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



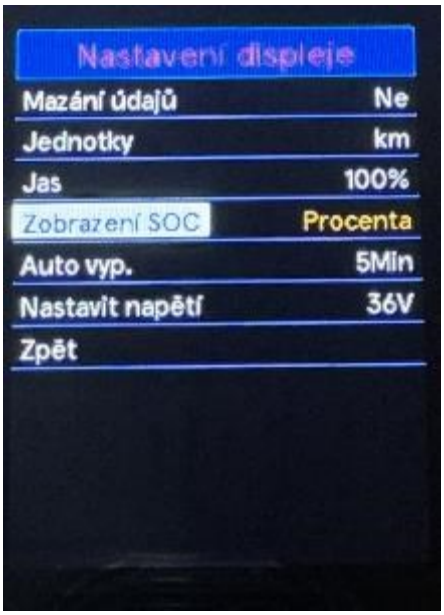
◆ **Brightness**

Use the "+" or "-" buttons to select the **Brightness b**y pressing the "i" button confirm the option and enter the brightness setting menu. The default brightness level setting is 100%. By pressing the "+" button or "- " select the desired value 100% / 75% / 50% / 30% / 15%. 100% indicates the highest brightness, 15% the lowest brightness. Press the "i" button to save the setting change. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



◆ **SOC View**

Use the "+" or "-" buttons to select the **SOC View b**y pressing the "i" button confirm the option and enter the battery level display mode setting menu. The default setting for displaying the battery level is percentage. With the "+" or "-" buttons you can choose between displaying the voltage value or percentages. Press the "i" button to save the setting change. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



◆ Auto off

Use the "+" or "-" buttons to select the **Auto off,** by pressing the "i" button confirm the option and enter the automatic shutdown settings menu. The default auto-off time is set to 5 min. By pressing the "+" button or "- " select the desired auto-off value in the range of 10-9-8-7-6-5-4-3-2-1 min or off. Press the "i" button to save the setting change. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



◆ Set Voltage

Use the "+" or "-" buttons to select the Voltage Settings menu, by pressing the "i" button confirm the option and the battery voltage information will be displayed. The battery voltage is sensed by the control unit and the display shows the voltage of the used battery. This setting cannot be changed. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



Advanced settings



◆ **Assist level setting**

Use the "+" or "-" buttons to select the **Max assist.,** by pressing the "i" button you confirm the option and enter the menu for setting the motor assistant assistance level. The default motor assist setting is 0-5. Use the "+" or "-" buttons to select one of the 3 motor assist ratio setting options 0-3 / 0-5 / 0-9. Press the "i" button to save the setting change. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



◆ **Wheel Size**

Use the "+" or "-" buttons to select the **Wheel Size, b**y pressing the "i" button confirm the option and information about the wheel size will be displayed. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



Note: Wheel size cannot be changed.

◆ **Speed limit**

Use the "+" or "-" buttons to select the **Speed limit,** by pressing the "i" button confirm the option and information about the speed limit will be displayed. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.

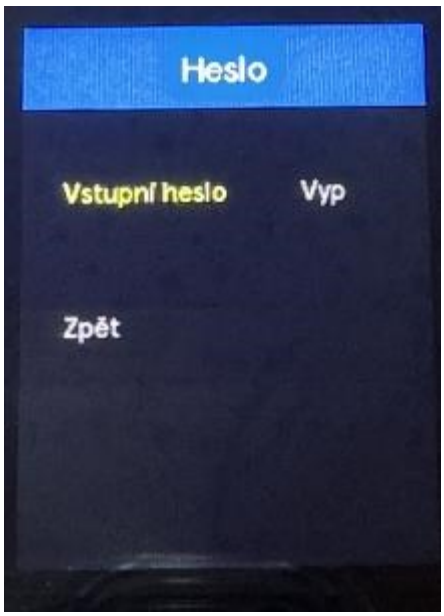


Note: The speed limit cannot be changed.

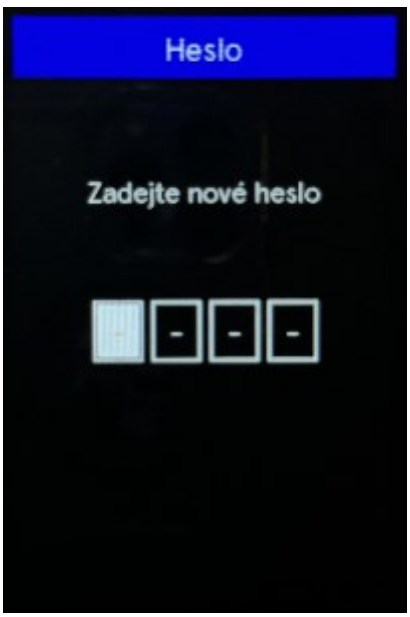
◆ Password

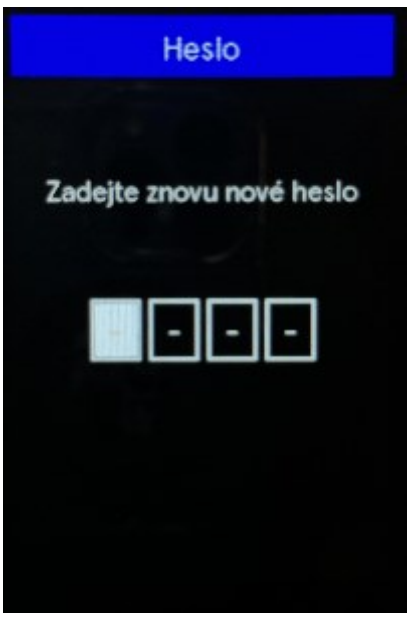
Use the "+" or "-" buttons to select the **Password,** by pressing the "i" button confirm the option and enter the boot password setting menu. By default, the password requirement is disabled. Use the "+" or "-" buttons to select the " PassWord" menu boot" Press the "i" key to switch from OFF to ON. Press the "i" button to confirm the option, then you will be prompted to enter a password.

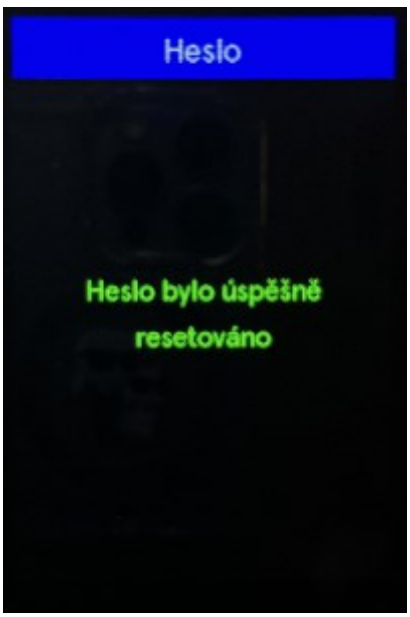




Use the "+" or "-" buttons to toggle between numbers 0-9. Press the "i" button to confirm the selected number and proceed to set the next digit of the password. After entering the 4 digits of the password, confirm the entry by pressing the "i" button. You will then be prompted to re-enter your password. Re-enter the set password in the same way. If the entered password matches the original password, the system will notify you that the password was entered successfully (the password was successfully restarted). Otherwise, you need to repeat the first step to enter a new password and confirm the password again. Select **Back** in the menu to return to the main interface Press the "i" button again to confirm the selection.

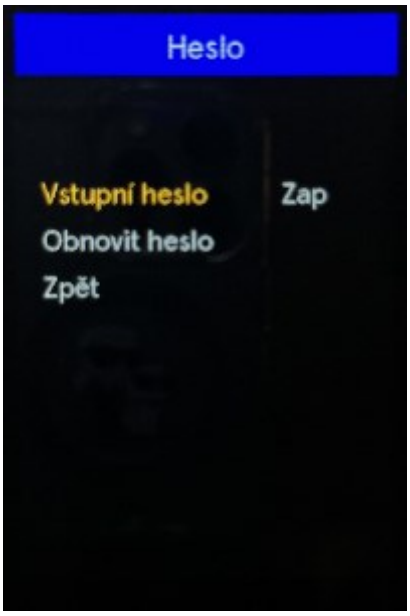






Reset password

When password is enabled. A **Reset your code** option is added to the password menu. Use the "+" or "-" buttons to select the reset password menu. By pressing the "i" button confirm the option and enter the password change menu after entering the current password. Enter the new password according to the instructions for entering a new password. After successfully entering the password, you will automatically return to the previous menu within two seconds. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



Disable password:

In the **Password menu,** select OFF. Press the "i" button to confirm the option, then you will be prompted to enter a password After entering the correct password will be cancelled and password cancelled will be displayed on the display, then within two seconds you will automatically return to the previous menu. Select **Back** in the menu to return to the main interface Press the "i" button again to confirm the selection.

◆ Battery info

Use the "+" or "-" buttons to select the Battery Info, by pressing the "i" button confirm the option and the battery information will be displayed. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.







Note: Only displayed when using batteries with BMS.

◆ Controller info

Use the "+" or "-" buttons to select the **Clr info**, by pressing the "i" button confirm the option and information about the control unit and software version will be displayed. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



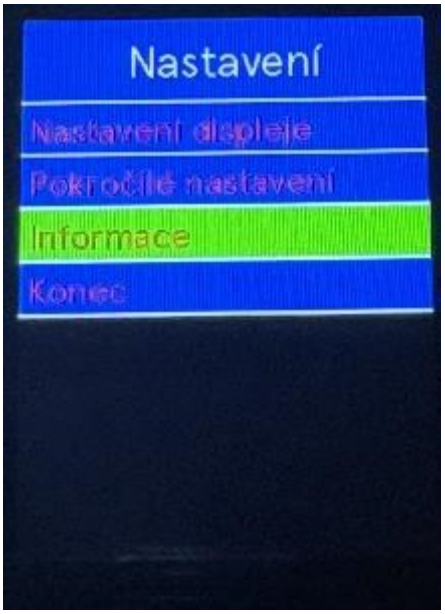


◆ Language

Use the "+" or "-" buttons to select the **Language** by pressing the "i" button confirm the option and enter the language settings menu. Use the "+" or "-" buttons to select the desired language. To save the change of selected language press the "i" button. To return to the main interface, press and hold the "i" button or select **Back** in the menu press the "i" button again to confirm the selection.



Information





Use the "+" or "-" buttons to select the Information menu by pressing the "i" button confirm the option. The software version of the control unit will be displayed. Select **Back** in the menu to return to the main interface Press the "i" button again to confirm the selection.

Beware of safe use. Do not attempt to loosen or reconnect the connector while charging the battery or while the battery power is on. Avoid the risk of electric shock. Do not subject the display to shocks. Do not modify system parameters to avoid parameter mismatch. If an error code is displayed, have the display repaired.

THIS VERSION OF THE OPERATING INSTRUCTIONS IS INTENDED FOR UNIVERSAL USE FOR KD 786. DISPLAYS. SOME VERSIONS OF THE DISPLAY SOFTWARE WILL DIFFERENT DEPENDING ON THE SPECIFICATIONS. ALWAYS USE THE CURRENT VERSION.

APPLICATION GUIDE Key-Disp

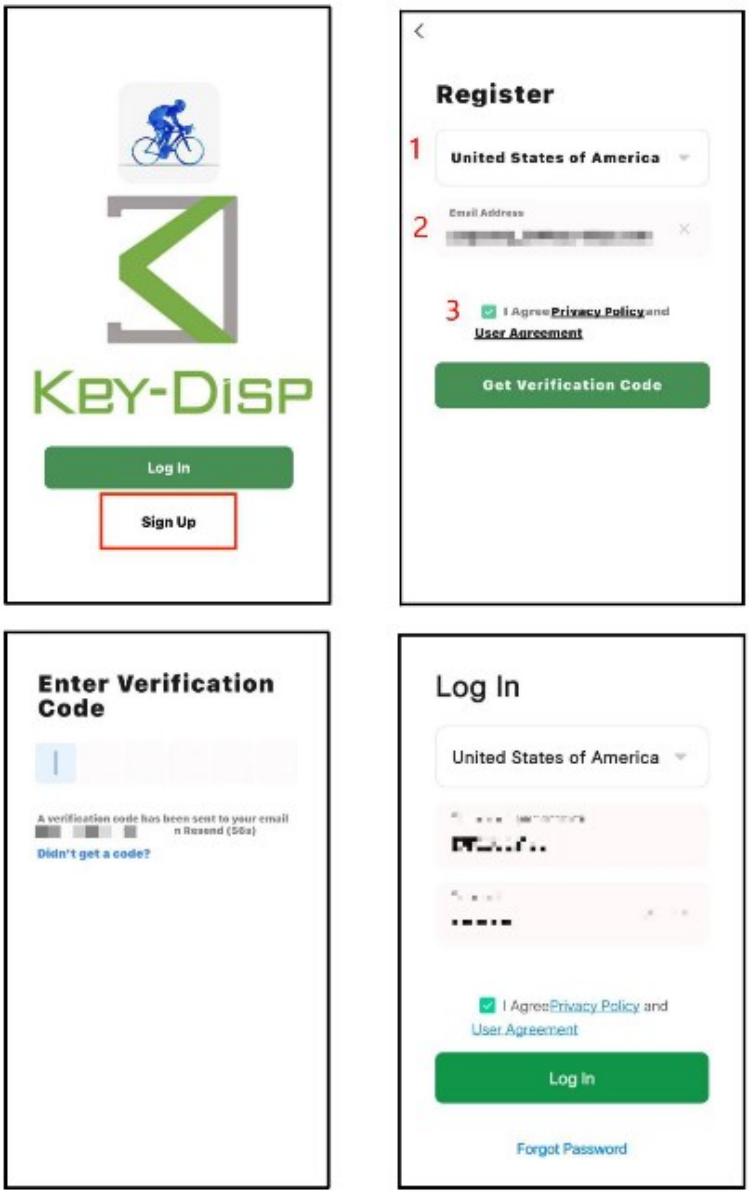
1 Download

Download from app from Apple Store / Google Store by searching the keywords " Key-Disp ". The application logo is as follows:



2 Sign Up and Log In

In order to use all functions of Key-Disp app, users should sign up first. Please fill in the required information according to pictures below, click "Get Verification Code" and request to enter the verification code. Check the code in your email account used for the register process and enter the correct code. Then you can log in.



3 App connection

With the control unit switched on in pairing mode, select **Add in the application Devices.** Available devices will be searched and displayed.

You connect the selected device by pressing the icon in the application. A successful connection is indicated by an icon next to the selected device. To end the pairing, select **Done.** To display all functions, the application must communicate with the E-bike control unit.



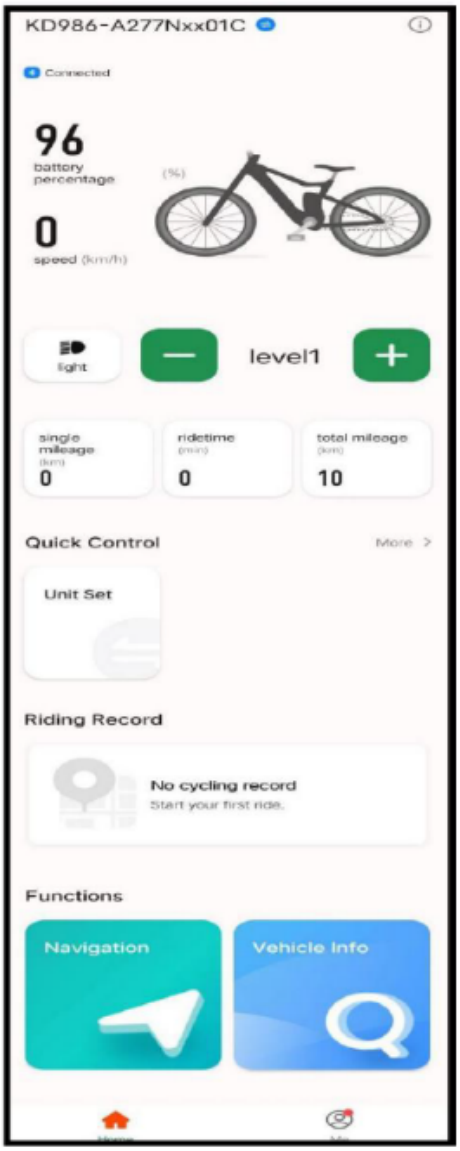






4. App operations & indication info

The app displays Bluetooth connection, battery status, speed, TRIP driving distance, driving time and ODO driving distance. Using the application, you can control the state of the headlights, switch support levels and set other parameters.

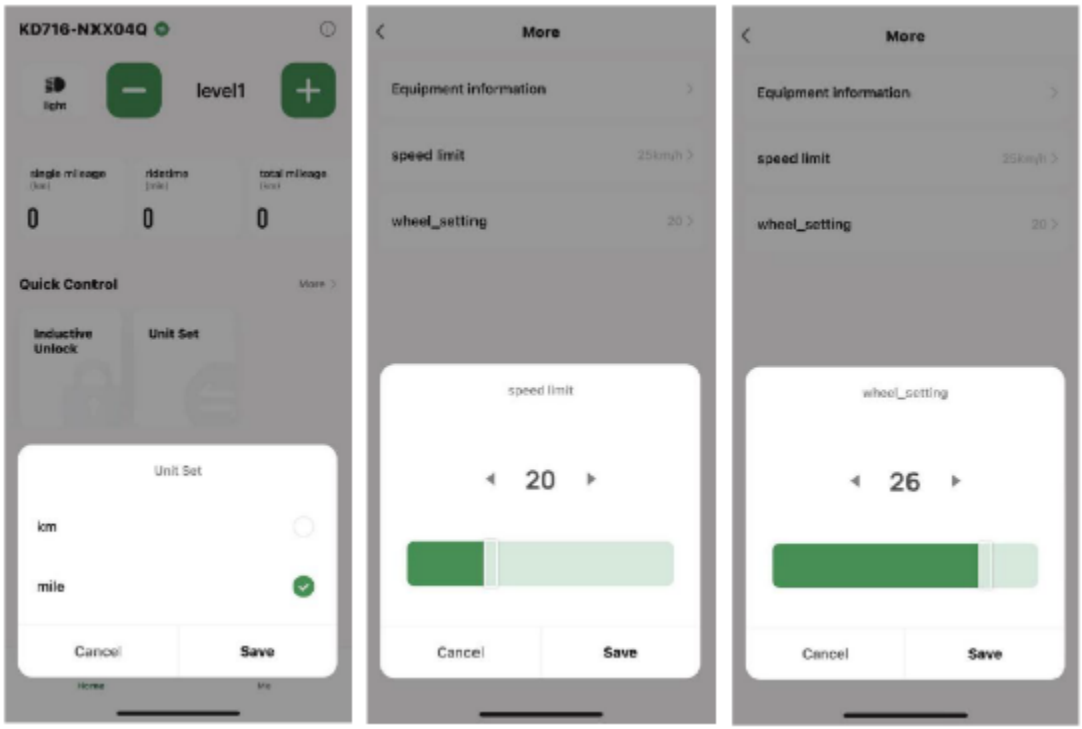




5 Fast operations

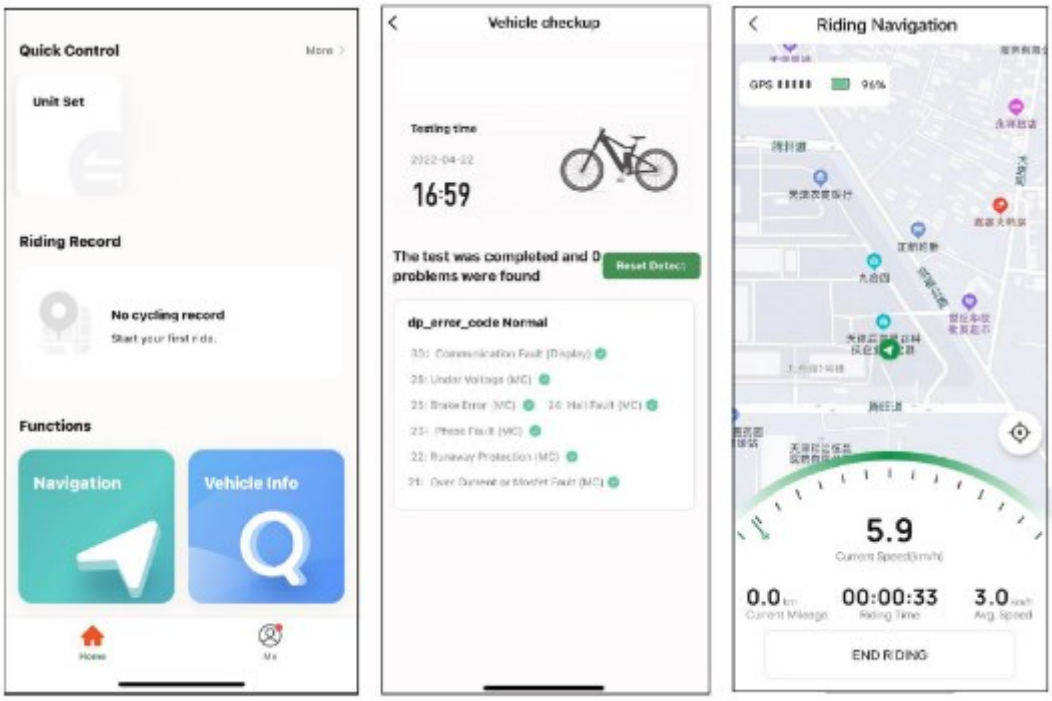
Unit Set settings (km/mile), speed limit settings, wheel size settings.

Note: Wheel size and speed limit cannot be set in the EU.



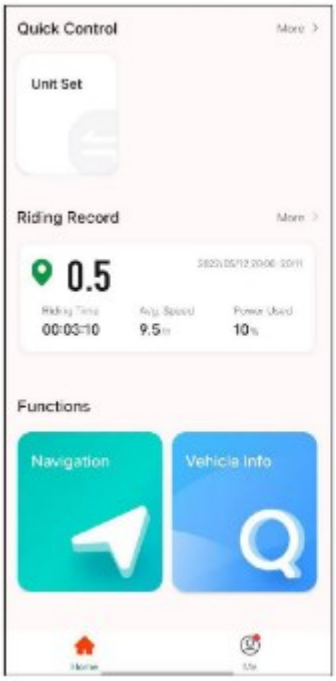
6 Map navigation, Vehicle check-up

By choosing **Vehicel info** to display error codes by selecting **Navigation** to start map data for navigation.



7 Riding record

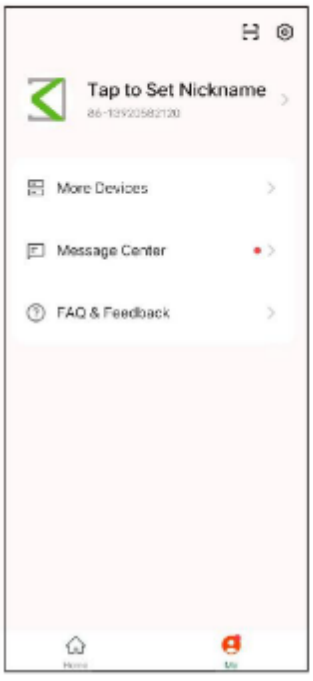
If the trip distance is greater than 0.1 km, the route will be saved.





8 Help and Guide

Click the icon to view the message centre, FAQ, and feedback.

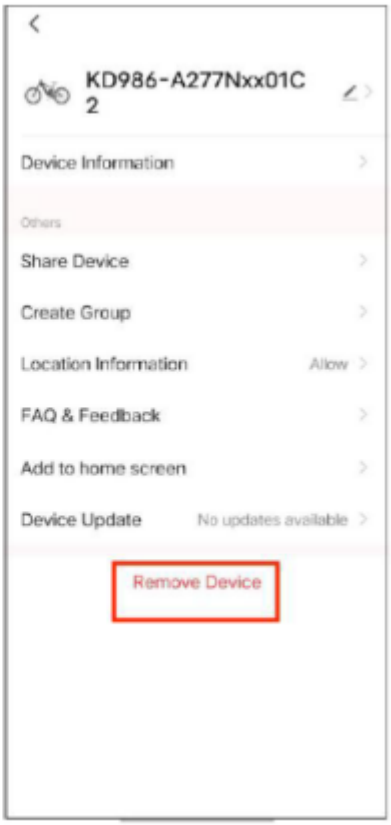




9 Bluetooth connection and remove

- After the control unit has been paired with the application for the first time, it will automatically connect every time. Note Mobile networks must be turned on when connecting to Bluetooth.
- If the application cannot find the Bluetooth device Press the "i" and "-" buttons on the control unit at the same time for 2 seconds. Or reset the control unit to factory settings.
- To remove a paired device, click the icon and on the next screen, select **Remove Devices.**





The display supports pairing with Apple's Find My app, which allows you to locate lost devices using GPS and Bluetooth signals. It also works offline by anonymously forwarding the location to other Apple devices. This feature is only available for devices with the iOS (iPhone) operating system.

Procedure:

1. Turn on the e-bike display.
2. Enable/Turn on Bluetooth on the iPhone.
3. Open the Find My app and add the device

a. In the device tab, click on "+" and select "add another item" in the list,

b. In the item tab, click on "add item" and select "add other supported devices".

4. Once the device appears in the list, press the connect button. You can then track the e-bike's location in the app.

DP C010.CB - OPERATING INSTRUCTIONS FOR USE OF THE CONTROL UNIT



Specifications

- 4.0”, 480*800 (RGB) TFT display
- Rated voltage: 36V/43V/48V/50.4V/60V/72V DC
- Operating current: 50 mA
- Maximum operating current: 280 mA
- Off-state leakage current: <1 μ A
- Operating temperature: -20 ~ 45 °C
- Storage temperature: - 20 ~ 60 °C
- Degree of protection: IP66
- Humidity: 30% - 70% relative humidity

Appearance and Size

Product appearance and dimensional drawing (unit: mm)



The label marking is as follows:

BAFANG
DPC010CBF80101.0
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.

◆ Functional Overview

- CAN communication protocol.
- Battery capacity indication.
- Power-assisted mode selection.
- Speed indication (including the max. speed and average speed).
- Unit switching between km and mile.
- Motor power indication.
- Mileage indication (including single-trip distance TRIP, total distance ODO, and remaining distance Range).
- Walk assistance.
- Automatic sensors explanation of the lighting system.
- Brightness setting for backlight.
- Intelligent indication (including energy consumption CAL and Cadence, only when the matching controller supports this function).
- Information of controller, HMI and battery.
- Error code and warn code indication.
- Bluetooth Function.
- USB charge (max. charge current: 1A).
- Service indication.
- Clock indication.
- 3 Themes (Sporty, Fashion, Technology).
- 6 Languages (English, German, Dutch, French, Italian, Czech).

◆ Display information



1. Battery capacity indication
2. Warn code indication
3. Speed in real-time
4. Speed bar
5. Power-assisted mode indication (4 Modes/ 6 Modes)
6. Unit switching of speed (km/h, mph)
7. Multifunction indication (Clock. TRIP, ODO, MAX, AVG, Range, CAL, Cadence, Time)
8. Symbol indication (Headlight, USB, Service, Bluetooth)

◆ Key definition

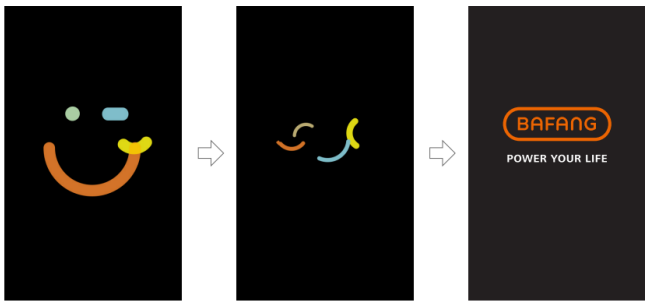


1. Up / Headlights
2. Down / Walk assistance
3. Power on/off

Normal operation

◆ Power ON/OFF

Press and hold ⏻ to power on the HMI, and the HMI displays the boot up LOGO.
Press and hold ⏻ again to power off the HMI.



◆ Display interface

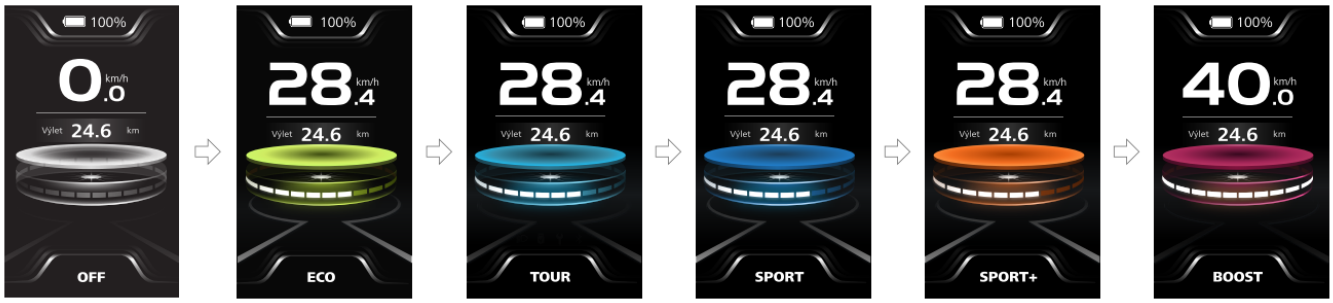
After turning on the e-bike system, the display shows the current speed and daily distance travelled, total distance, battery charge level, selected motor assistance level, and battery status.
To view additional driving data, press the button ⏻ below:

Time (TIME) displays the clock in real time → **Trip** (Trip) distance of one trip → **ODO** (ODO) total distance travelled (km) → **MAX** (MAX) maximum speed (km/h) → **Fast** (AVG) average speed (km / h) → **Range** remaining range (km) → **CAL** (CAL) energy consumption → **Cadence** (Cadence) driving cadence (rpm) → **Time** (TIME) driving time (min).

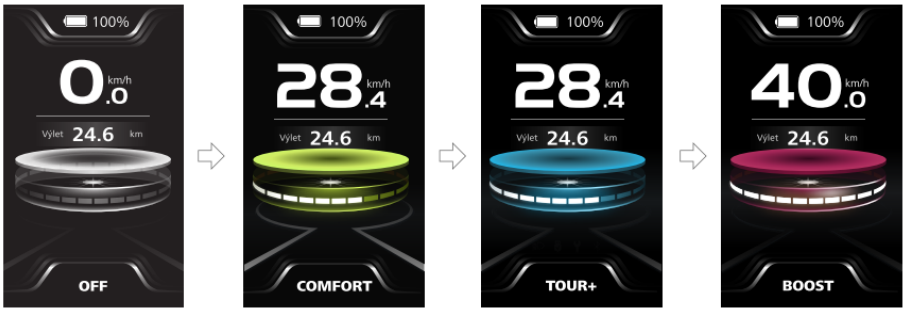


◆ Power-Assisted Mode Selection

When HMI powers on, briefly press or to select the power-assisted mode and change the output power of motor. 4 Modes or 6 Modes can be selected, but the default selection is 6 Modes of which the lowest mode is ECO and the highest mode is BOOST. The default mode is ECO after HMI powering on, mode OFF means no power assistance.



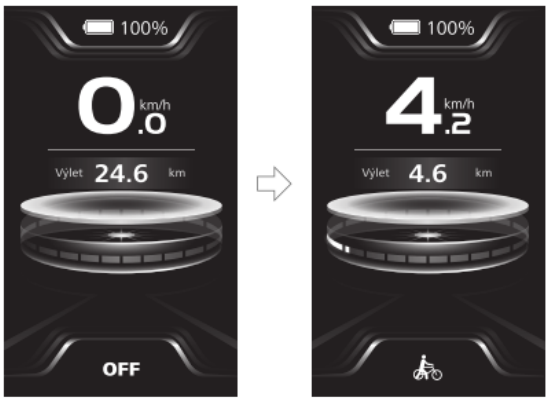
(6 Modes)



(4 Modes)

◆ Walk Assistance

Note: The walk assistance can only be activated with a standing e-bike. Briefly press button until this symbol appears. Next keep pressing the button until the walk assistance is activated and the symbol is flashing. (When the real-time speed is less than 2.5km/h, the speed indication is shown as 2.5km/h.) Once releasing the button, it will exit the walk assistance and the symbol stops flashing. If no operation within 5s, the HMI will automatically return to mode OFF.



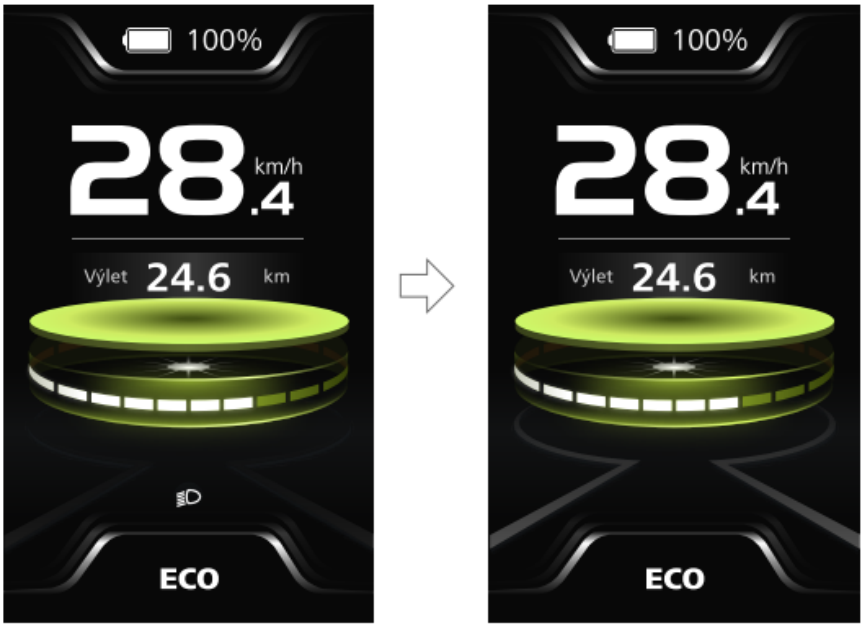
Note: Walking assistance can only be activated when the e-bike is stationary.

The walk assist function may only be used when pushing the bike.
Caution! There is a risk of injury when using the Walk Assist if the rear wheel is not in contact with the ground.

◆ Headlight / Backlight

The headlight can be switched on manually or automatically. When the HMI powers on, the auto light function works. Press and hold  to turn on the headlight and reduce the brightness of backlight. Press and hold  again to turn off the headlight and increase the brightness of backlight.

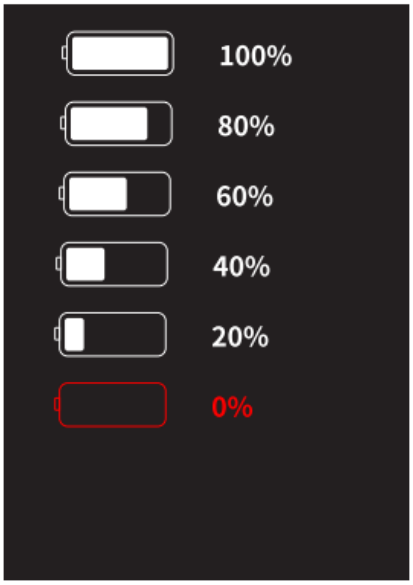
(Note: The headlight can be automatically switched according to the ambient light, but the auto light function fails once user manually switches the headlight on/off. After restarting the HMI, the function works again.).



TIP: The e-bike lighting can be switched automatically according to the ambient light level, the automatic lighting function does not work if the user manually turns the headlight on/off. After restarting the control unit, the function works automatically again.

◆ Battery Capacity Indication

HMI displays the real-time battery capacity from 100% to 0%. When the battery capacity is less than 5%, the indicator will blinks at frequency of 1 Hz to alert to recharge.



◆ **Bluetooth Function**

This HMI is equipped with OTA function, which can update the firmware of HMI, controller, sensor and battery through the Bluetooth.

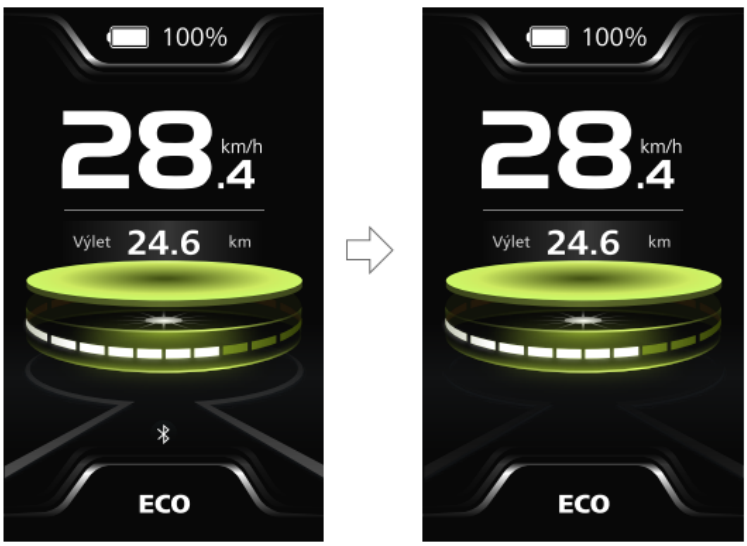
This HMI can be connected to the Bafang Go+ APP through Bluetooth

BAFANG GO + AndroidTM

BAFANG GO+ iOS ™

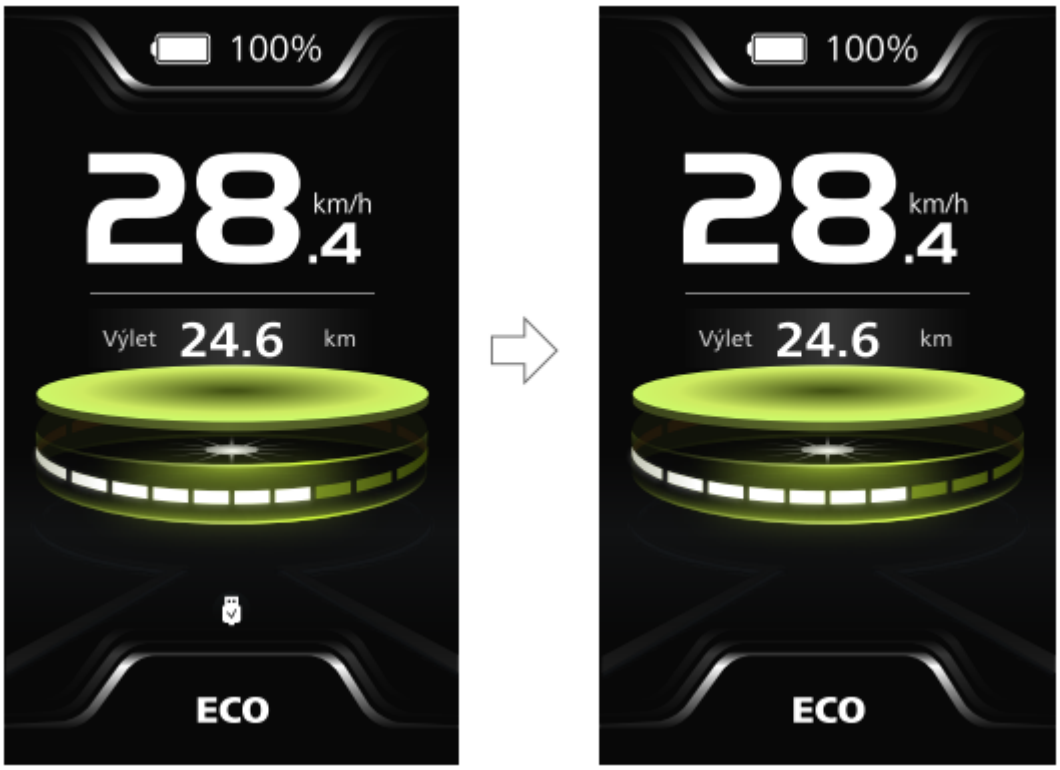
The data that can be sent to the APP are as follows:

No.	Function
1	Speed
2	Power Assisted Mode
3	Battery capacity
4	Headlight state
5	TRIP
6	ODO
7	Range
8	Heartbeat (customized)
9	Calorie
10	Sensor signal
11	Battery info.
12	System info.
13	Error code



◆ USB Charge Function

When the HMI is off, insert the USB cable to the charge port on the HMI, and then turn on the HMI to start charging. The maximum charge voltage is 5V and the maximum charge current is 1A.



◆ Service Tip

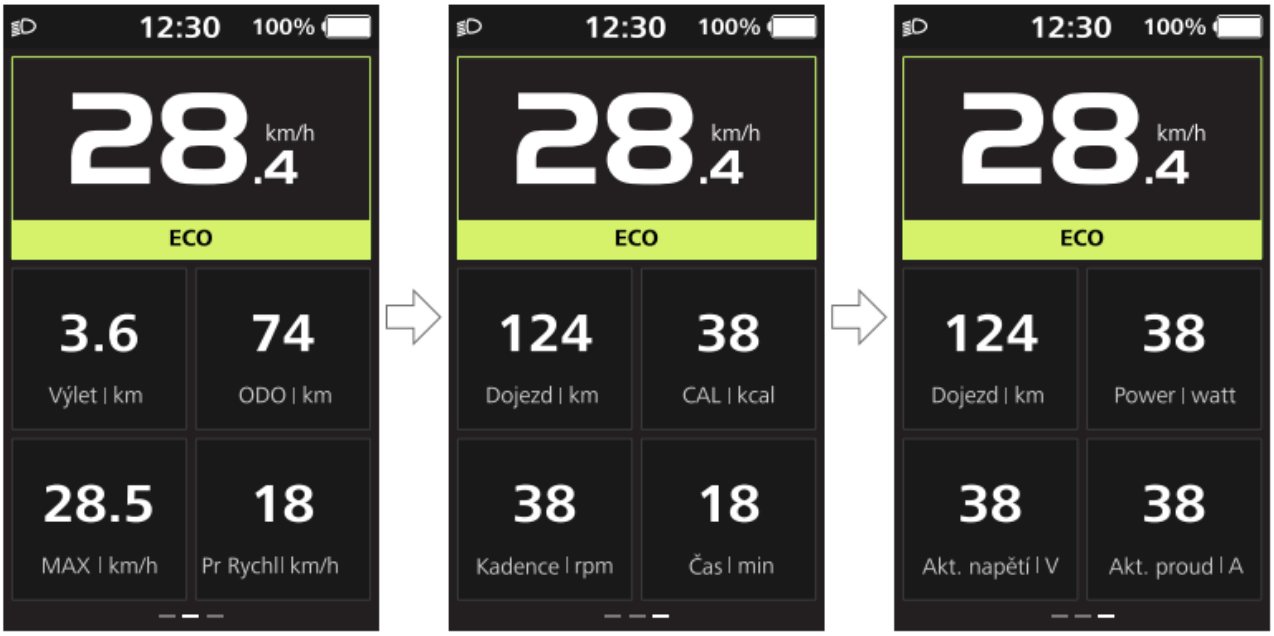
When the total mileage exceeds 5000 km, the symbol will be displayed on the HMI, reminding users to go to the after-sales outlet for maintenance. The function is off by default.



◆ **Riding Data Interface**

Double press the button to enter the interface of riding data. Press the button to switch the pages. Double press the button again to return the main interface.

When the real-time speed is less than 5 km/h and the power assisted mode is not walk assistance, press, and hold the button to clear the riding data of Trip, MAX, AVG, Time.



Settings

“Quick settings” Interface

When you are in the main interface, press and hold the and button (at the same time) to enter the "Quick settings" interface. When you in the "Quick settings" interface, press and hold the and button (at the same time) to exit back to the main interface.



◆ **Brightness” Set the brightness of backlight**

Briefly press the or button to select “Brightness”, and briefly press the to enter the item. Then select the desired percentage from 10% to 100% by pressing the or button, and briefly press the button to save and exit back to the "Quick settings" interface.



◆ **“Auto off” Set automatic off time**

Briefly press the or button to select “Auto off”, and briefly press the to enter the item. Then select the automatic off time as “OFF”/“1”/“2”/“3”/“4”/“5”/“6”/“7”/“8”/“9” with the or button. Once you have chosen your desired selection, press the button to save and exit back to the "Quick settings" interface.

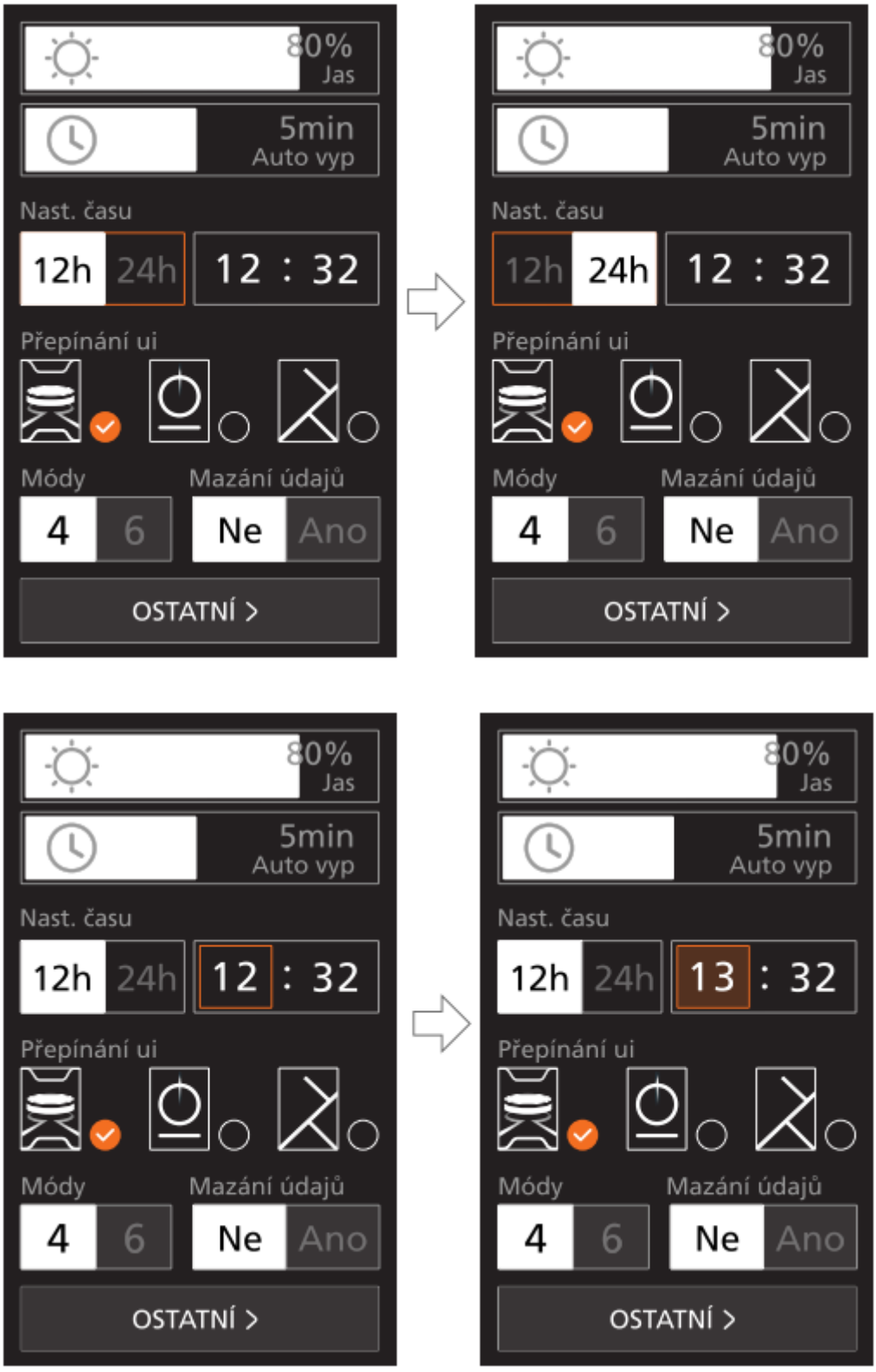


Note: “OFF” means the "Auto off" function is off.

◆ “Clock setting” Set the clock

Briefly press the or button to enter the "Time format" setting, and briefly press the button to select "12h" or "24h".

Briefly press the or button to select the “Clock setting“ item, briefly press the button to enter the item. Then set the accurate time by pressing the or button, and briefly press the button to save and exit back to the "Quick settings" interface.



◆ “Theme” Set the theme

Briefly press the ▲ or ▼ button to select the desired “Theme”, and briefly press the ⏻ button to save the selection.



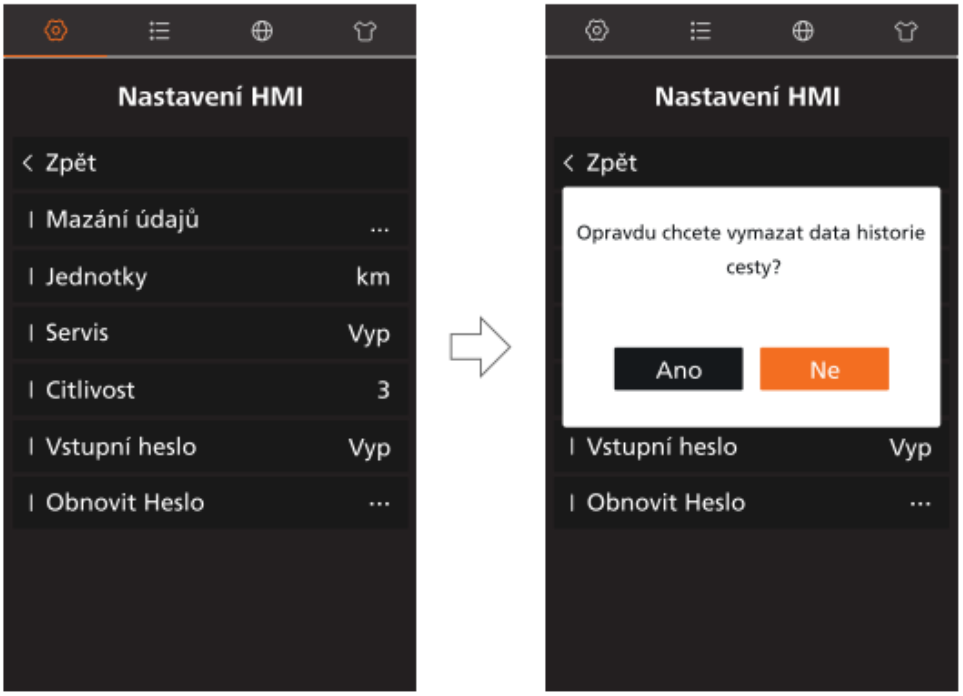
◆ “Modes” Set the power-assisted modes

Briefly press the ▼ or ▼ button to enter the "Modes" setting, and briefly ⏻ press the button to select "4 Modes" or "6 Modes".



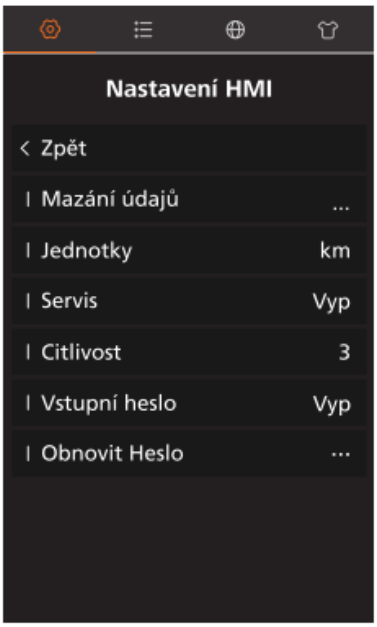
◆ **“Trip reset” Reset the single-trip**

Briefly press the or button to select the “Trip reset” item, and briefly press the button to enter the item. Then select “YES”/“NO” (“YES”- to clear, “NO”-no operation) with the or button and briefly press the button to save and exit back to the "Display settings" interface.
Note: The riding time (Time), average speed (AVG) and maximum speed (MAX) will be reset simultaneously when you reset TRIP.



Display (HMI) settings Interface

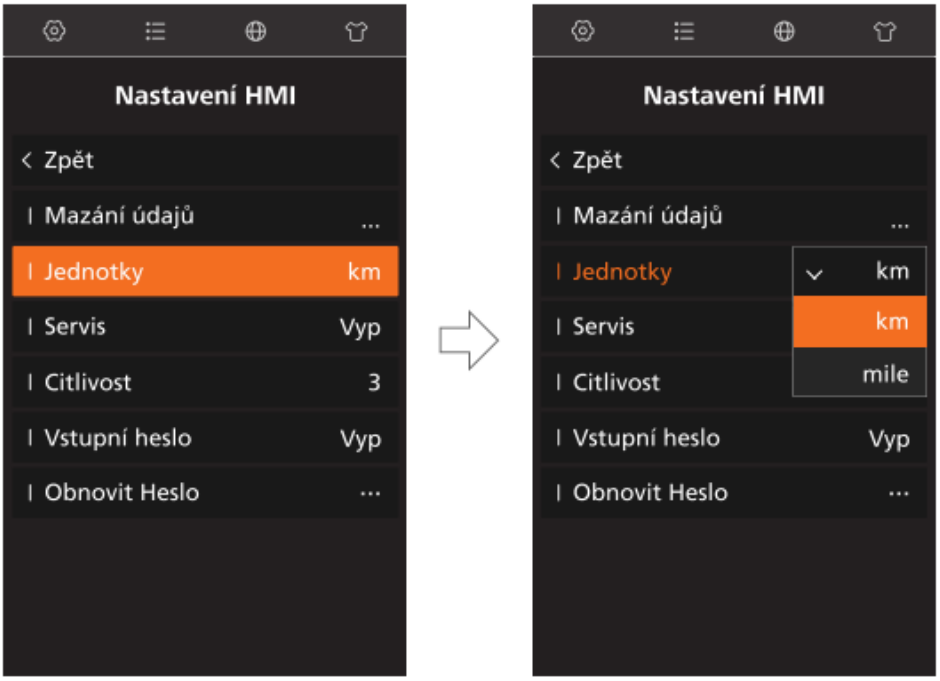
When you are in the "Quick settings" interface, briefly press the or button to select the "OTHERS" and enter the "Display settings" interface.



All settings have to be made with the e-bike parked.

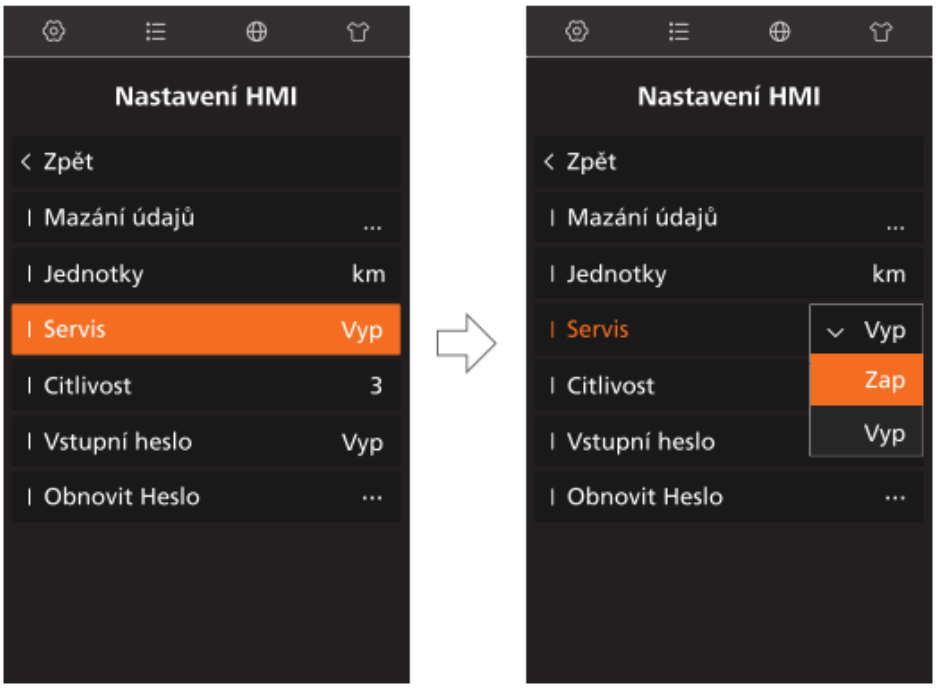
◆ “Unit” Select the mileage unit

Briefly press the ^ or v button to select the “Unit” item, and briefly press the ⏻ button to enter the item. Then select “km”/“mile” with the ^ or v button and briefly press the ⏻ button to save and exit back to the "Display settings" interface.



◆ “Service tip” Set the service tip

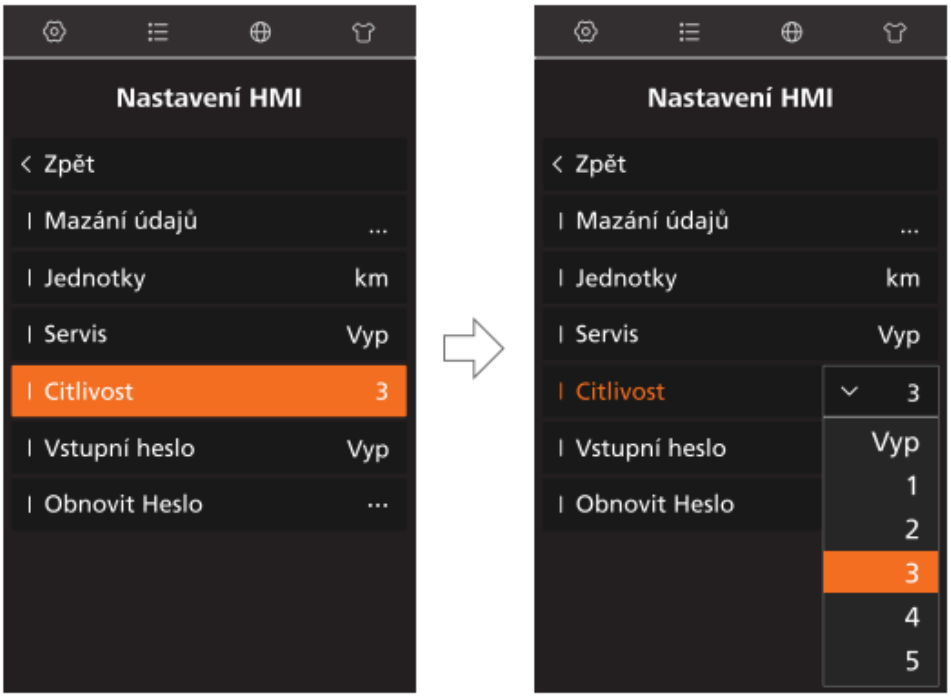
Briefly press the ^ or v button to select the “Service tip” item, and briefly press the ⏻ button to enter the item. Then select “ON”/“OFF” with the ^ or v button and briefly press the ⏻ button to save and exit back to the "Display settings" interface.



Note: The default setting is OFF. If the ODO is more than 5000 km, the "Service tip" indication will flash.

◆ **“AL Sensitivity” Set light sensitivity**

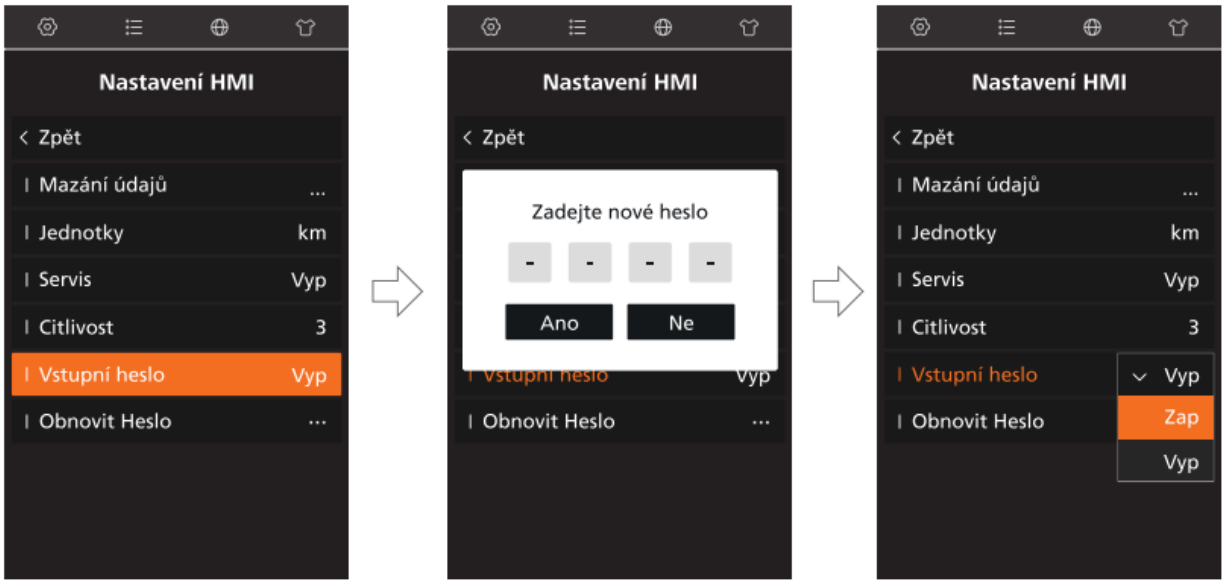
Briefly press the or button to select the “AL sensitivity” item, and briefly press the button to enter the item. Then select the level of the light sensitivity as “OFF”/“1”/ “2”/“3”/“4”/“5” with the or button and briefly press the button to save and exit back to the "Display settings" interface.



Note: “OFF” means the light sensor is off. Level 1 is the weakest sensitivity and level 5 is the strongest sensitivity.

◆ **“Boot Password” Set the boot password**

Briefly press the or button to select the “Boot Password” item, and briefly press the button to enter the item. Then select the 4-digit number as “0”/“1”/“2”/“3”/“4”/“5”/“6”/“7”/“8”/“9”with the or button. After setting, select the "YES" by briefly pressing the button to save and exit back to the "Display settings" interface. After back to the "Display settings" interface, briefly select “ON”/“OFF” with the or button and briefly press the button to save and exit back to the "Display settings" interface.

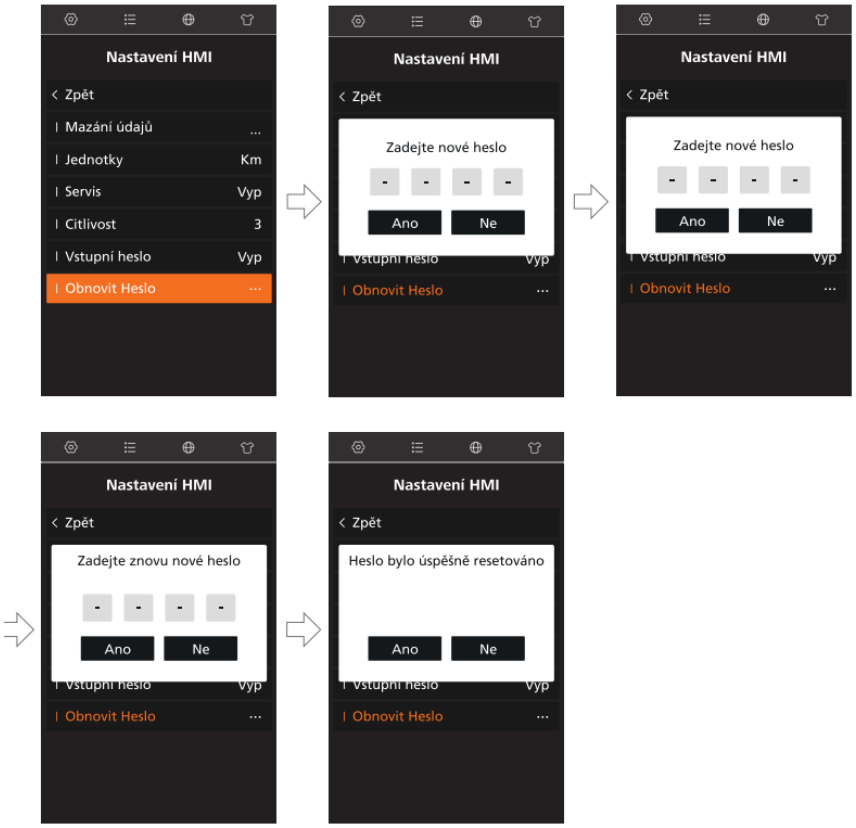


Note: The default password is 0000, and the default setting is OFF.
After successful setting, the HMI will request to enter the password when powering on. Select the 4-digit number as “0”/“1”/“2”/“3”/“4”/“5”/“6”/“7”/“8”/“9”with the or button, then enter the main interface.



◆ “Reset Password” Reset the boot password

Briefly press the or button (<0.5S) to select the “Reset Password” item, and briefly press the button to enter the item. Enter the 4-digit old password with the or button, then enter the new password and confirm the new password. After setting, select the "YES" by briefly pressing the button to save and exit back to the "Display settings" interface.



To disable password:

In the Password Entry menu, select OFF. Press the button to confirm the option, then you will be prompted to enter the password. After entering the correct password, the display will show Password cleared, then within two seconds it will automatically return to the previous menu.

"Information" Interface



Note: All information here cannot be changed, it is to be viewed only.

◆ **“Wheel size”**

After entering the "Information" page, you can see "Wheel size --inch" directly.

◆ **“Speed limit”**

After entering the "Information" page, you can see "Speed limit --km/h" directly.

◆ **“Battery info”**

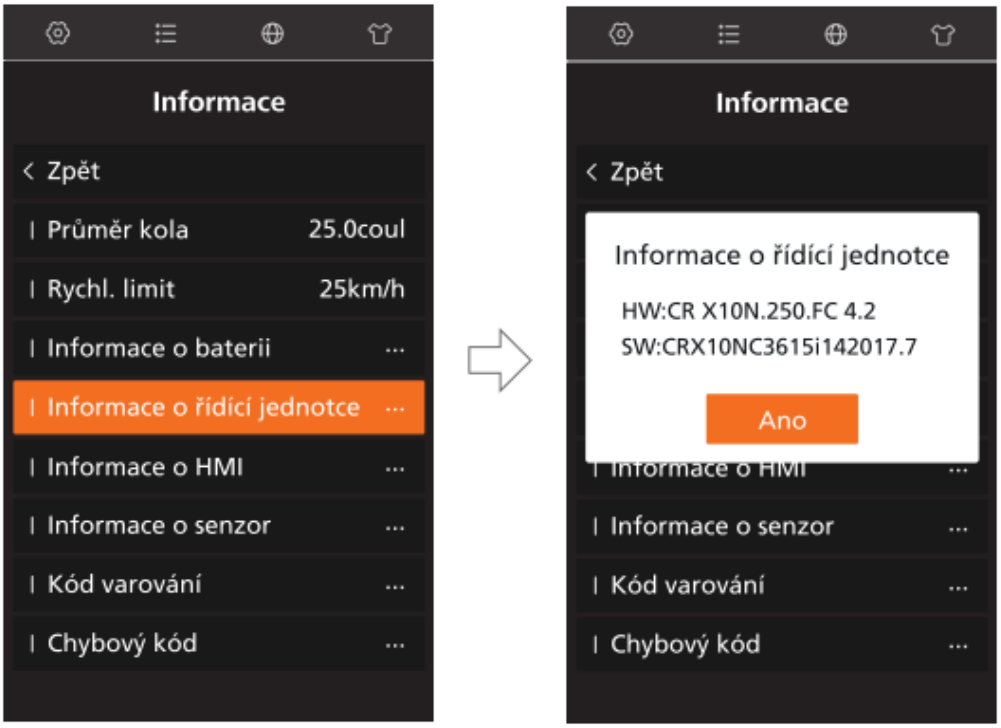
Briefly press the or button to select “Battery info”, and briefly press the button to enter, then briefly press the or button to view the battery information.



Note: If the battery doesn't have communication function, you won’t see any data from battery.

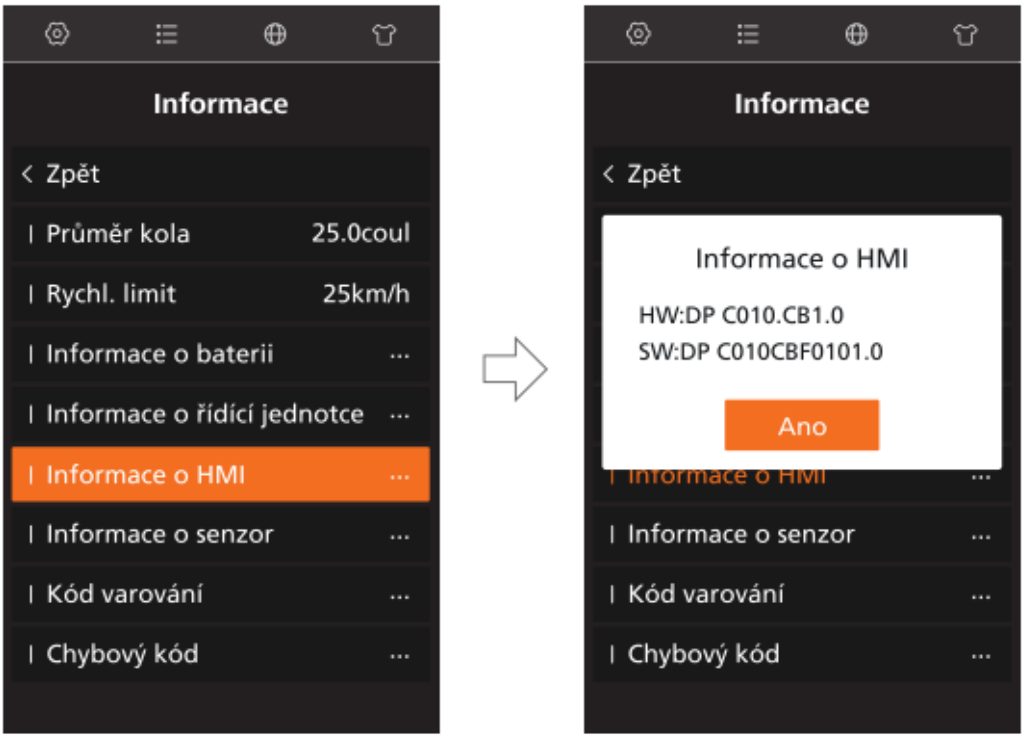
◆ “Controller info”

Briefly press the or button to select ”Controller info”, and briefly press the button to view the hardware version and software version. Press the button again to exit back to the "Information" interface.



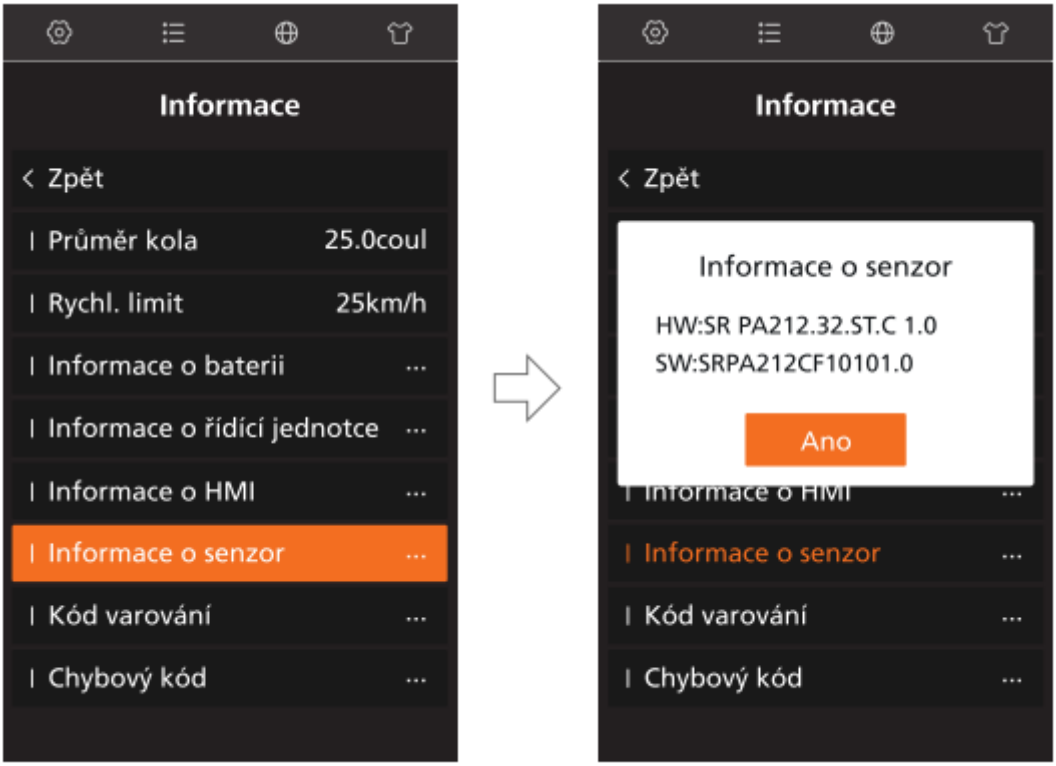
◆ “HMI info”

Briefly press the or button to select ”HMI info”, and briefly press the button to view the hardware version and software version. Press the button again to exit back to the "Information" interface.



◆ “Sensor info”

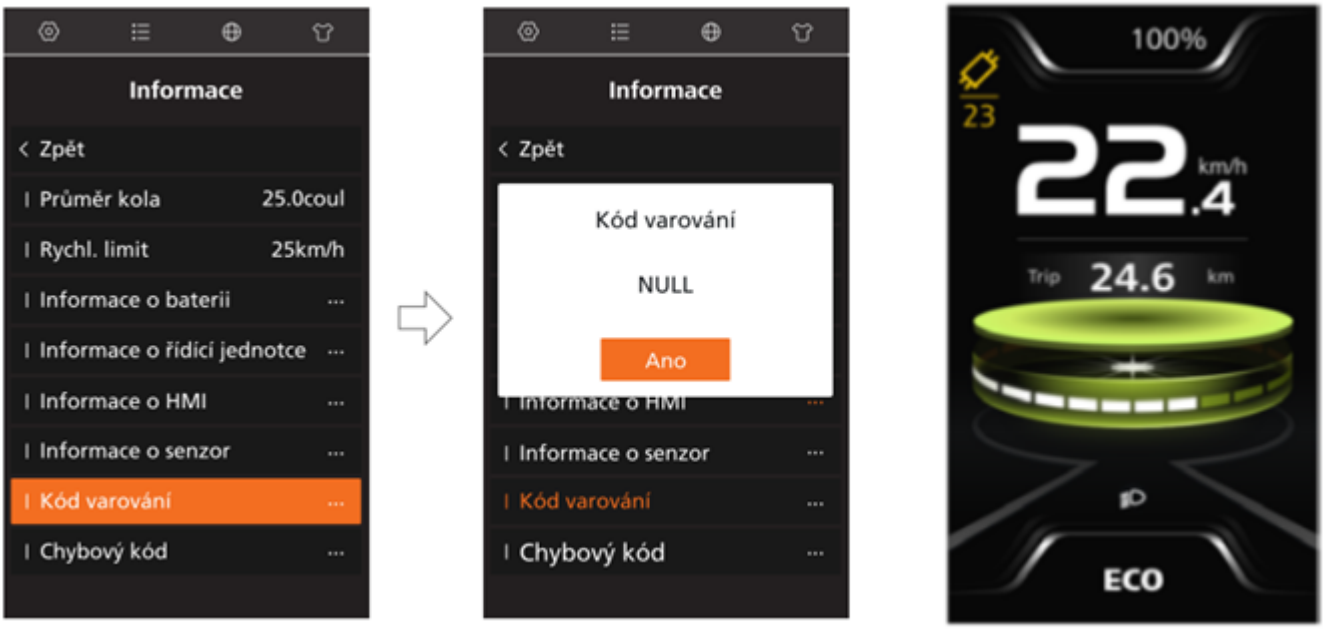
Briefly press the or button to select ”Sensor info”, and briefly press the button to view the hardware version and software version. Press the button again to exit back to the "Information" interface.



Note: If your e-bike doesn't have torque sensor, "--" will be displayed.

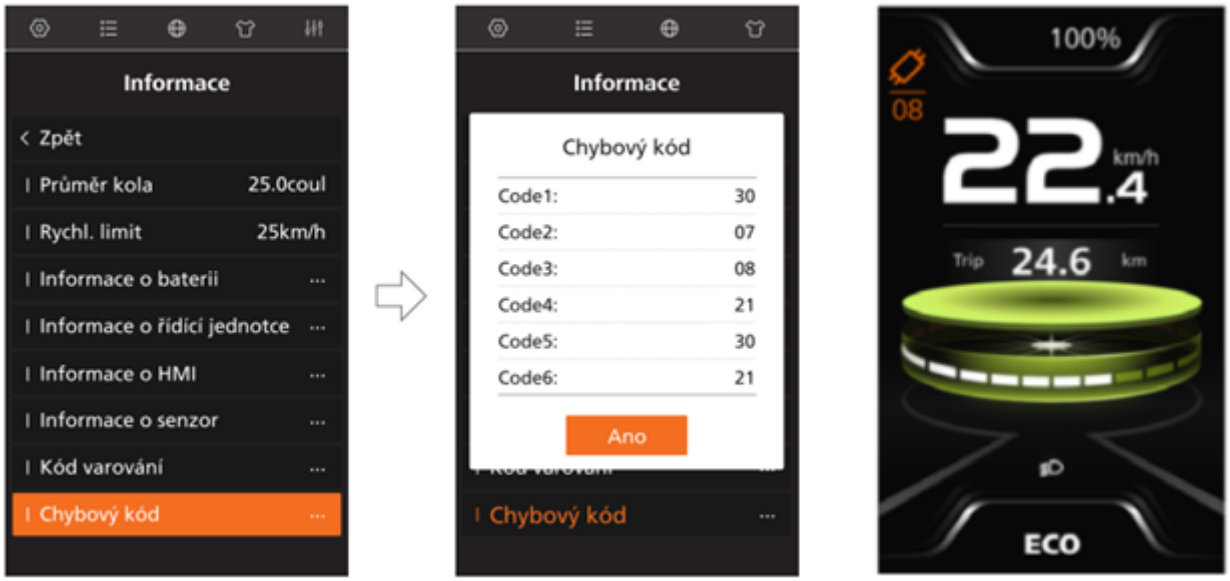
◆ "Warn code"

Briefly press the or button to select ”Warn code”, and briefly press the button to view the message of warn code. Press the button again to exit back to the "Information" interface.



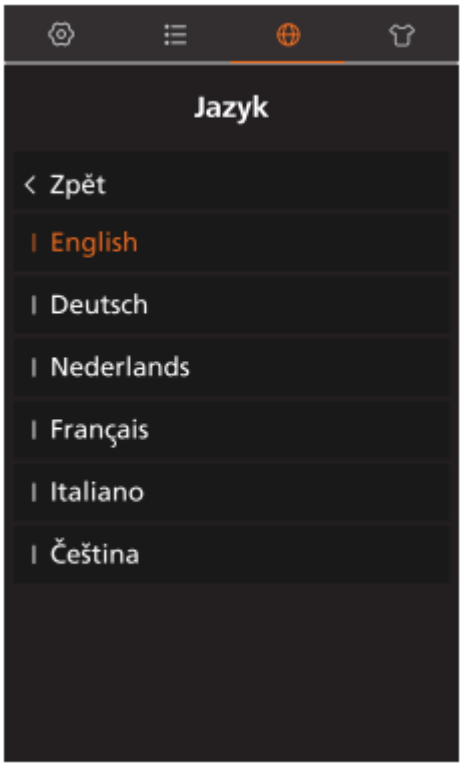
◆ "Error code"

Briefly press the or button to select ”Error code”, and briefly press the button to view the message of error code. Press the button again to exit back to the "Information" interface.



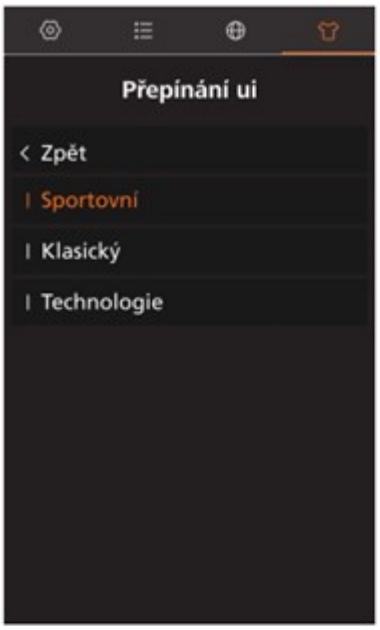
◆ “Language” Interface

When you in the "Language" interface, briefly press the or button to select the desired language as "English"/"Deutsch"/"Nederlands"/"Français"/"Italiano"/"Čeština" and briefly press the button to save the selection.



“Theme” Interface

When you in the "Theme" interface, briefly press the ^ or v button (<0.5S) to select the desired theme as "Sporty"/"Technology"/"Fashion" and briefly press the ⏻ button to save the selection.





(Sports)



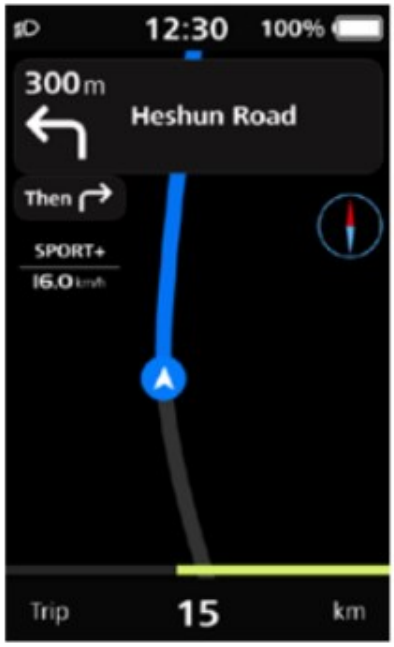
(Technology)



(Classical)

◆ Navigation Mapping

The function is enabled when the user uses the HMI with BAFANG GO+. When the user starts navigation with the app, the navigation route will map to the HMI in real time. For detailed operation, see BAFANG GO+ App Operation Manual.

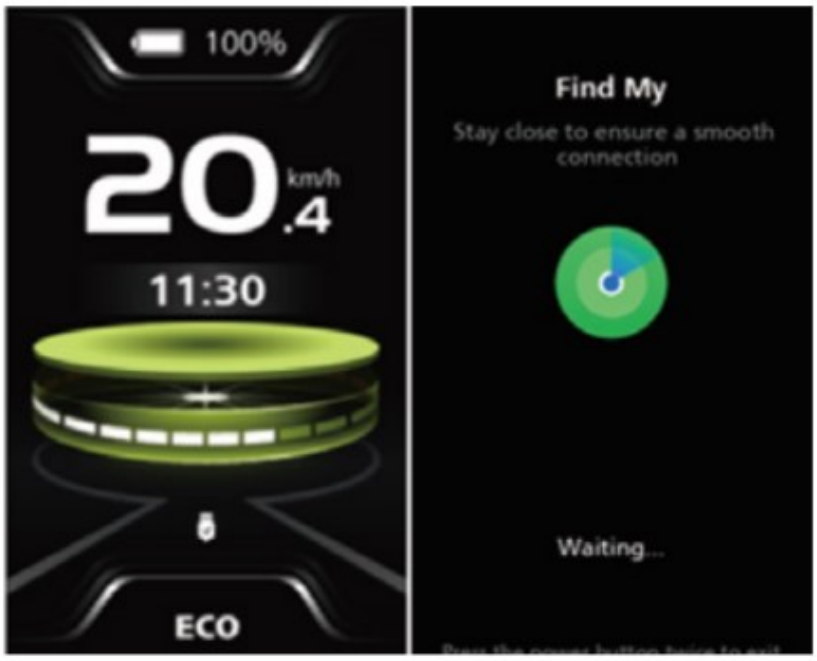


◆ Find My

The display supports pairing with Apple's Find My app, which allows you to locate lost devices using GPS and Bluetooth signals. It also works offline by anonymously sharing your location with other Apple devices. This feature is only available for devices running the iOS (iPhone) operating system.

Turn on Find My

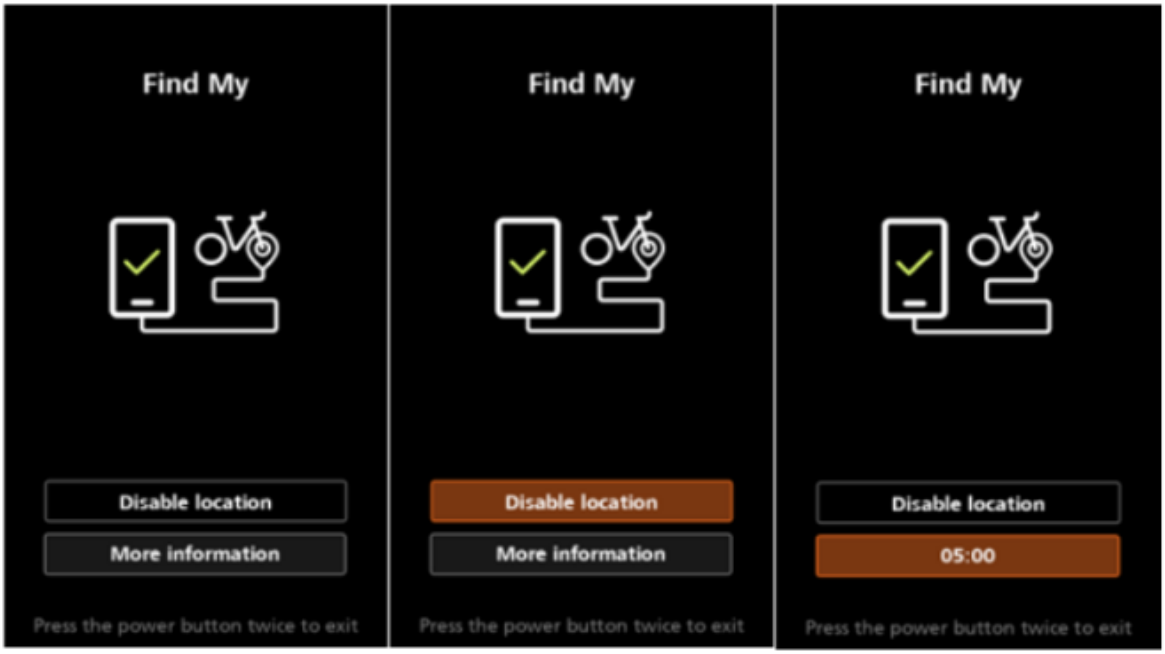
To go to Find My function interface, press and hold, and the button at the same time under the main interface.



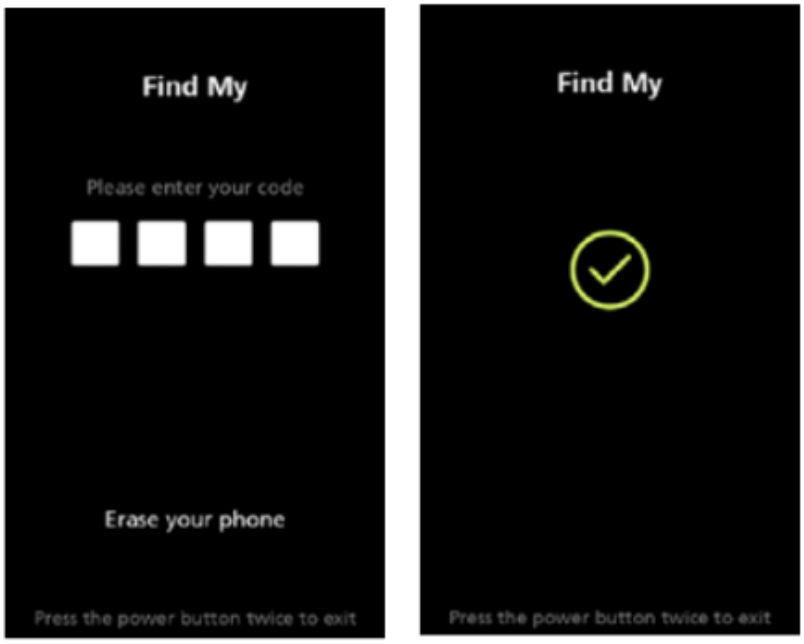
After successful pairing, it will go to the Find My interface, where there are two options:

1."Disable location": Select it to disable the Find my function;

2."More information": Go to the interface to allow other iPhones to view the information about the HMI for 5 minutes.



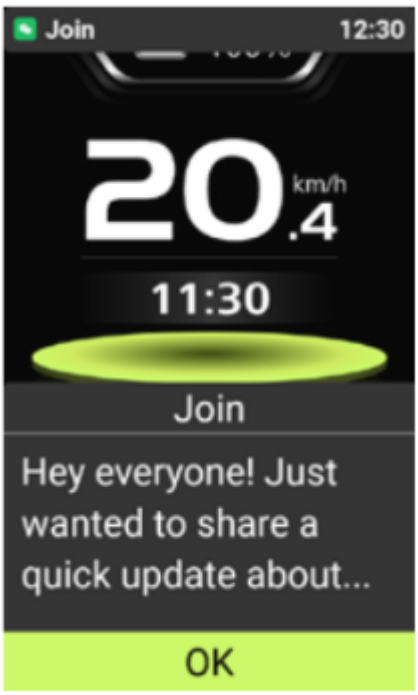
Additionally, press and hold, and the button at the same time to go to the Find My force deleting interface, and enter the power-on password to complete the deletion.



Note: The HMI cannot be found via iPhone after deletion. To restore the setting, delete the HMI from you iPhone, and pair them again.

◆ Message Mapping

Make relevant settings through BAFANG GO+ app, and the messages received by the mobile phone can appear on the HMI synchronously. For the specific operation process, see the BAFANG GO+ app Operation Manual.



THIS INSTRUCTION MANUAL IS INTENDED FOR UNIVERSAL USE FOR THE DP C010.CB DISPLAY. SOME AVAILABLE FUNCTIONS MAY VARY DEPENDING ON THE SW AND HW VERSION.

◆ Error code definition

The ebike system's parts are automatically monitored in real time. If a part is abnormal, the corresponding error code is displayed on the HMI. The DP C010.CB displays the error code on the HMI directly.

The troubleshooting methods in the list are listed in order according to the fault probability and the operability of the related parts. In practice, dealers can adjust the order based on the existing tools and spare parts. (For detailed disassembly steps, please refer to the dealer manual of the corresponding parts on the official website. <www.bafang-e.com>).

In order to protect the electric parts, before disassembling the parts, please switch off the system power first by pressing the control unit of HMI and then disconnect the power cable of the disassembled part. When installing the parts, please fix the parts first, then connect the power cable of the parts, and finnally switch on the system power by pressing the control unit of HMI.

Please contact Bafang after-sale service personnel <service@bafang-e.com> if the above troubleshooting fails to solve the problem or the error code is not in the above list.

Code	Cause	Troubleshooting
06	Low battery voltage.	1. Connect the charger and check if the charger is working properly. 2. Charge the battery to full capacity. 3. Install the battery on the e-bike and turn it on. 4. Check if the correct battery model is installed on the e-bike. 5. If the error persists, stop using the bike and contact your dealer or authorized service center.
07	System overvoltage protection.	1. Turn the power off and then on again. 2. Check if the correct battery model is installed on the e-bike. 3. If the error persists, stop using the bike and contact your dealer or authorized service center.
08	Hall signal in motor is abnormal	If the error persists, stop using the bike and contact your dealer or authorized service center.
09	Motor phase wire error.	If the error persists, stop using the bike and contact your dealer or authorized service center.
10	Motor overtemperature protection (Only occur when the motor is equipped with the temperature sensor.).	1. Turn off the power, leave the drive unit in a cool place out of direct sunlight until the internal temperature of the drive unit has sufficiently cooled, and then turn the power back on. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.
11	Motor temperature sensor abnormal (Only occur when the motor is equipped with the temperature sensor.).	If the error persists, stop using the bike and contact your dealer or authorized service center.
12	Controller current sensor abnormal.	If the error persists, stop using the bike and contact your dealer or authorized service center.
13	Control unit error.	If the error persists, stop using the bike and contact your dealer or authorized service center.
14	Control unit overheat.	1. Turn off the power, leave the drive unit in a cool place out of direct sunlight until the internal temperature of the drive unit has sufficiently cooled, and then turn the power back on. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.
15	Controller temperature sensor abnormal.	If the error persists, stop using the bike and contact your dealer or authorized service center.
18	Motor stops.	1. Turn the power off and back on and perform the test in assisted walking mode again. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.
21	Speed sensor abnormal.	1. Check whether the magnet unit has been moved or disconnected and whether the magnetism has been reduced. 2. Check whether the clearance between the magnet unit and the sensor is within the required range. 3. Check whether the sensor PIN connector is damaged and whether the sensor is correctly connected to the motor. 4. If the error persists, stop using the bike and contact your dealer or authorized service center.

Code	Cause	Troubleshooting
25	Torque sensor error.	If the error persists, stop using the bike and contact your dealer or authorized service center.
26	Torque sensor abnormal (Only occur when the drive system is equipped with the torque sensor.).	1. Turn the power off and on again and ride the bike briefly. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.
30	Communication abnormal.	1. Check if the HMI cable is properly connected to the controller or if the PIN pins and cable are damaged. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.
33	Brake circuit error.	1. Turn the power off and on again. 2. Check if the brake cable is connected correctly or if the cable is damaged (from the brake to the control unit). 3. If the error persists, stop using the bike and contact your dealer or authorized service center.
35	Control unit error.	If the error persists, stop using the bike and contact your dealer or authorized service center.
36	ON/OFF Button detection circuit abnormal (Only occur when the drive system is equipped with Bafang CAN communication protocol.).	1. Turn the power off and then on again. 2. Check if the ON/OFF key on the control panel is stuck. 3. If the error persists, stop using the bike and contact your dealer or authorized service center.
37	WDT (Watch Dog Timer) in controller is abnormal.	If the error persists, stop using the bike and contact your dealer or authorized service center.
40	Battery error.	1. Check whether the battery power cable is connected properly or whether the cable is damaged. 2. If the error persists, stop using the bike and contact your dealer or authorized service center.

Pay attention to safe use. Do not attempt to loosen or connect the connector while charging the batteries or while the battery power is on. This will avoid the risk of electric shock. Do not subject the display to shock. Do not adjust the system parameters to avoid parameter mismatch. If an error code is displayed, have the display repaired.