

Bafang HMI

>> DP C090.CB



1. Important Notice

- If the error information from the display cannot be corrected according to the instructions, please contact your place of purchase.
- The product is designed to be waterproof. It is highly recommended to avoid submerging the display under water.
- Do not clean the display with a steam jet, high-pressure cleaner or water hose.
- Please use this product with care.
- Do not use thinners or other solvents to clean the display. Such substances can damage the surfaces.
- Warranty is not included due to wear and normal use and aging.
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions:
 - This device may not cause harmful interference.
 - This device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.

2. Introduction of Display



- Model: DP C090.CB
- The housing is made of PC/ABS and the TFT screen is made of aluminosilicate glass.

3. Product Description

3.1. Specification

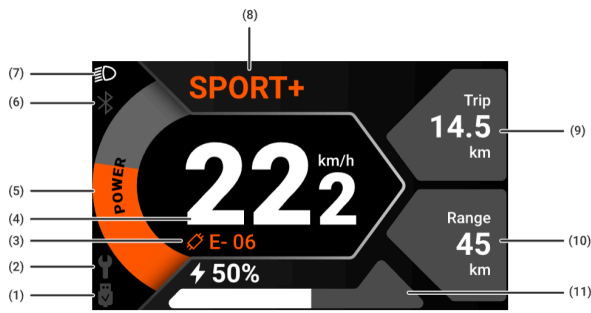
- Screen: TFT
- Power supply: 36/48/60 Vdc
- Operating temperature: -20~45 °C
- Storage temperature: -20~60 °C
- Protection rating: IPX6
- Storage Humidity: 30%-70% RH

3.2. Functional overview

- CAN communication protocol; Easy and user-friendly operation with three buttons.
- Speed indication: including real-time speed, maximum speed "MAX" and average speed "AVG".
- Km/mile selection: Unit can be set according to the user's habits.
- Smart power indication: Provides stable battery percentage alerts through optimized algorithms.
- Automatic control of light-sensing headlight: Automatically turn ON/OFF the HMI backlight and headlight when the environmental light changes.
- Backlight brightness 4-level adjustment: According to the user's habits set backlight brightness, 25% level the darkest, 100% level the brightest.
- Power-assisted modes: 6
- Mileage indication: The maximum mileage can be displayed up to 99999. TRIP and ODO can be shown.
- Smart indication: Remaining mileage can be shown as RANGE, energy consumed can be shown as Cal (calories).
- Error code indication.
- Walk assistance.
- Service tip.
- Bluetooth 5.0 communication.
- 6 languages: English, German, Dutch, French, Italian, Czech.

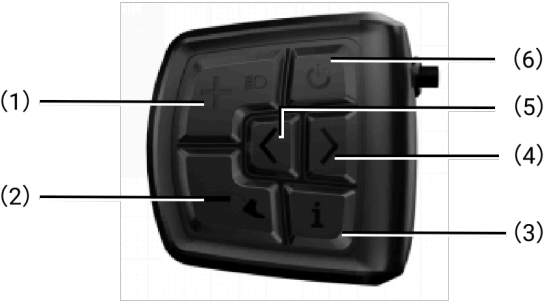
4. Overview

4.1. Display



1. USB charging indication
2. Service tip
3. Error/warning indication
4. Speed indication
5. Power
6. Bluetooth (if)
7. Headlight indication
8. Mode indication
9. Trip
10. Range
11. SOC indication

4.2. Control Unit

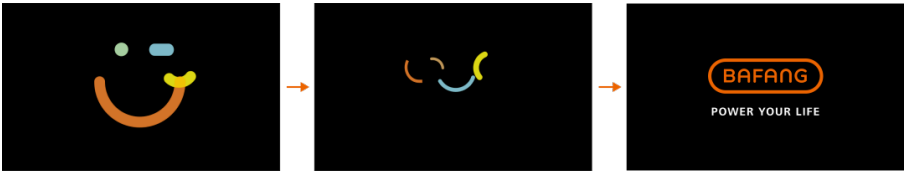


(1)	Button [+]	Up/Headlight	Press + or - to select your desired item on the menu.
(2)	Button [-]	Down/Walk Assistance	
(3)	Button [i]	Confirm	Press i to confirm your selection.
(4)	Button [➤]	Right signal	Press ➤ to turn on the right signal light.
(5)	Button [➤]	Left signal	Press ➤ to turn on the left signal light.
(6)	Button [⏻]	On/Off	Press and hold ⏻ to power on/off the HMI.

5. Normal Operation

5.1. Power ON/OFF

1. Press and hold  button (≥2 s) to power on/off the HMI.



TIP:

If the drive system has not be operated for more than 5 minutes (the time can be set), the HMI will be automatically OFF.

5.2. Select the Power-assisted Mode

1. Press  or  to switch the power-assisted mode and change the power of the drive system.

TIP:

- The lowest mode is ECO, and the highest mode is BOOST (user settabble).
- The default mode is ECO; OFF means the eBike is in neutral position.

Eco:	Green	ECO mode
Tour:	Blue	TOUR mode
Sport:	Indigo	SPORT mode
Sport+:	Orange	SPORT+ mode
Boost:	Purple	BOOST mode



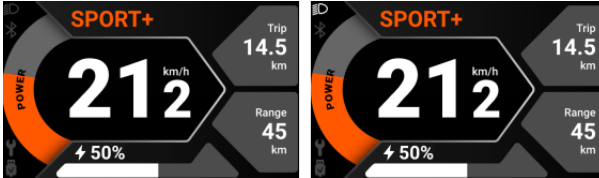
5.3. View the Data

1. In the primary data screen, press the i button to go to the quick-access menu screen.

ECO		
Trip - km	Range - km	Cadence - rpm
14.5	21	14
ODO - km	Watt - w	Cal - Kcal
8888	15	125
MAX - km/h	AVG - km/h	Time - min
21.5	14.5	123

5.4. Adjust the Headlight/backlight

1. Press and hold **+** ($\geq 2s$) to turn on the headlight, the backlight luminance of the HMI decreases, and the  appears.
2. Press and hold the **+** again to turn off the headlight, the HMI backlight luminance increases, and the  will disappear.



5.5. Walk Assistance

1. Press **—** to switch to 0/OFF, and then press the **—** again, and the symbol  will appear and be normally on.
2. Press and hold **—**, the symbol  will flash, and your eBike will go into walk assistance mode.

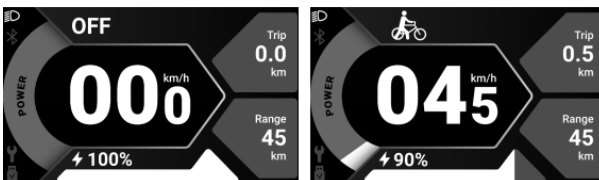
TIP:

If no speed signal is detected, the HMI will display a speed of 2.5 km/h.

3. Release **—** to exit from the walk assistance mode, and the symbol  will stop flashing and will be normally on.

TIP:

If no operation within 5s, the mode will be automatically switched to 0/OFF.



5.6. Power Indication

When the battery works normally, the power indicator displays the percentage of the current power and the total power (from 100% to 0%), based on the actual battery power.



5.7. Bluetooth Function

The product can be connected to Bafang Go app through *Bluetooth*[®].

1. Scan the QR code in the figure below to install the app.



Google Play

Android™



App Store

iOS™

5.8. USB Type-C Charging

1. Connect the USB Type-C cable with the HMI.

TIP:

If the HMI is OFF, connect the USB Type-C cable with the HMI and power ON the HMI.

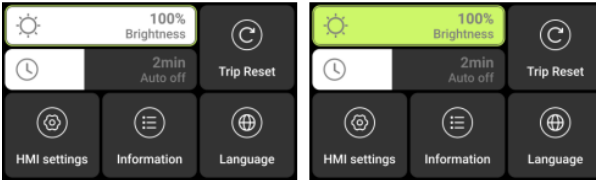


6. Information Viewing and Setting

6.1. Quick-access Menu

6.1.1. Set the Backlight

1. Go to "primary data screen", press **+** and **-** at the sametime to go to the quick-access menu.
2. Press **+** or **-** to select "Brightness", and press **⏻** to enter the setting.
3. Press and hold or press **+** or **-** to adjust the brightness (10%~100%).
4. To save and go back to the quick-access menu, press **⏻**. Or press and hold **+** and **-** at the same time to go back to the primary data screen.

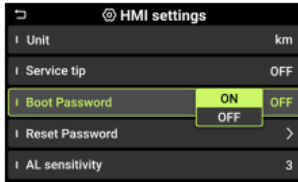
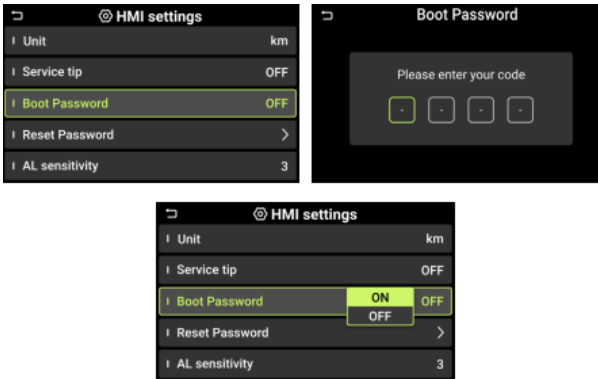


6.1.2. Set the Auto Off Time

1. Go to the quick-access menu, press **+** or **-** to navigate to "Auto Off".
2. Press **⏻** to enter it, press **+** or **-** to select your desired item.
3. To save and go back to the quick-access menu, press **⏻**. Or press and hold **+** and **-** at the same time to go back to the primary data screen.

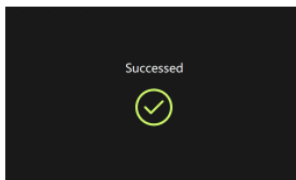
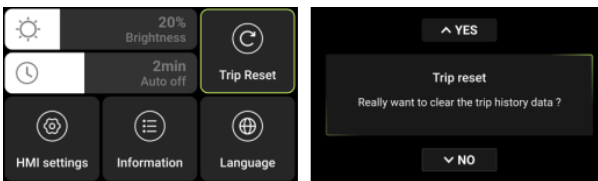
TIP:

"OFF" means to disable the function.



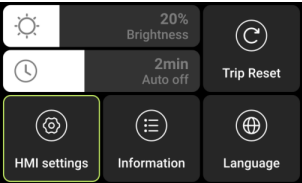
6.1.3. Reset the Trip

1. Go to the quick-access menu, press **+** or **-** to navigate to "Trip reset".
2. Press **⏻** to enter it, and a confirmation pop-up window appears at the same time. Press **+** to confirm to reset trip, and press **-** to cancel.
3. To save and go back to the primary data screen, press and hold **+** and **-** at the same time.



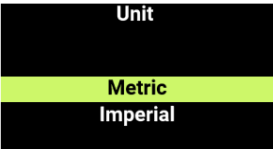
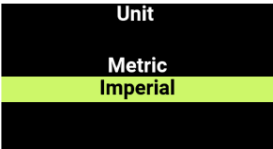
6.2. Basic Parameters Setting

In the primary data screen, press and hold the **+** and **—** at the same time to go to the quick-access menu. Select "HMI settings", and press **↵** to confirm your selection.



6.2.1. Set the Unit

- 1. Go to "HMI Settings", press **+** or **—** to select "Unit".
- 2. Press **↵** to confirm your selection.
- 3. Press **+** or **—** to select "km"/"mile", and press **↵** to confirm your selection.
- 4. To save and go back to the quick-access menu, press **↵**. Or press and hold **+** and **—** at the same time to go back to the primary data screen.

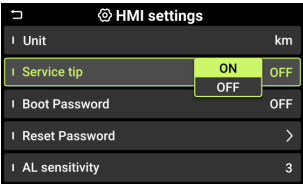


6.2.2. Service Tip

- 1. Go to "HMI Settings", press **+** or **—** to select "Service tip".
- 2. Press **↵** to enter the setting.
- 3. Press **+** or **—** to select "OFF"/"ON".
- 4. Press **↵** to confirm your selection.
- 5. To save and return to the primary data screen, press and hold **+** and **—** at the same time, or press **↵** twice to select **↩**, and press **↵** to go back to the quick-access menu screen.

TIP:

The "Service tips" function is turned off by default. When it is turned on and the ODO of the eBike exceeds 5,000 km, 🛠 will appear on the HMI.



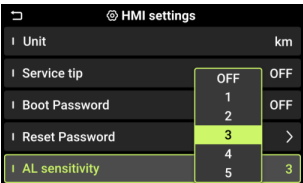
6.2.3. Set the Light Sensitivity

- 1. Go to "HMI Settings", press + or - to select "AL sensitivity", and press ⏻ to confirm your selection.
- 2. Press + or - to adjust the light sensitivity.
- 3. Press ⏻ to confirm your selection.

TIP:

"0"/"OFF" means to turn off the function.

- 4. To save and go back to the quick-access menu, press ⏻ twice to select ☰ . Or press and hold + and - at the same time to save and go back to the primary data screen.



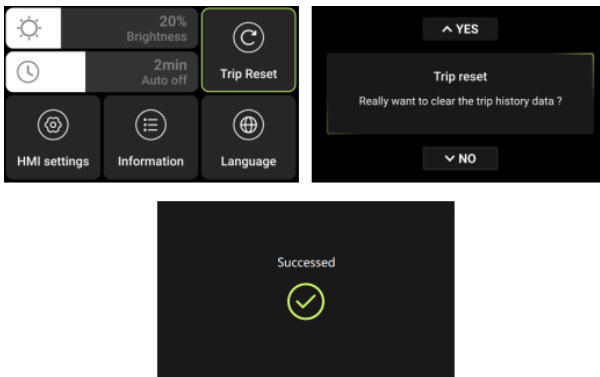
6.2.4. Boot Password

- 1. Go to the "HMI settings" menu, press + or - to navigate to "Boot password".
- 2. Press ⏻ to go to the authentication screen, press + or - to select your desired item.
- 3. Press ⏻ to confirm the entered number, and enter the password in sequence.

4. After successful authentication, press **+** or **-** to select "ON"/"OFF" to turn on/off the function, and press **⏻** to confirm your selection.
5. To save and go back to the previous screen, press **⏻** twice to select **↩**. Or press and hold **+** and **-** at the same time to save and go back to the primary data screen.

TIP:

- "OFF" means to disable the function.
- The default password is "0000".
- The function is OFF by default.

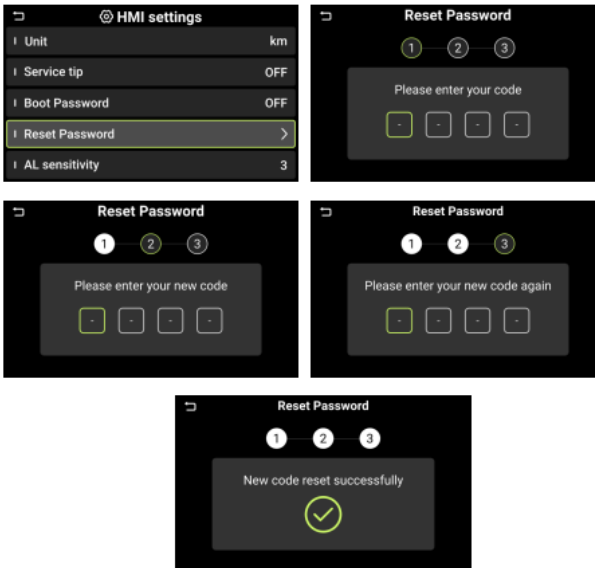


6.2.5. Reset Password

1. Go to the "HMI settings" menu, press **+** or **-** to navigate to "Reset Password".
2. Press **⏻** to go to the authentication screen.
3. Enter your original password first, enter a new password, and enter the new password again to confirm your entering.

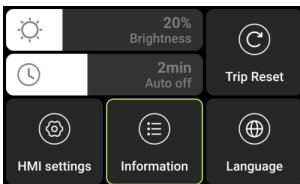
TIP:

The default password is "0000".



6.3. View the Information

In the primary data screen, press and hold the **+** and **-** at the same time to go to the quick-access menu. Select "Information", and press **⏻** to confirm your selection.

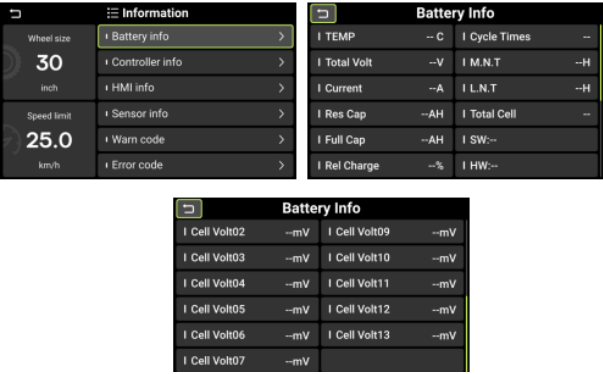


6.3.1. View the Battery Info

1. Go to "Information", press **+** or **-** to select "Battery Info".
2. Press **⏻** to enter.
3. Press **+** or **-** to view the battery information.



4. To save and go back to the "Information" menu, press . Or press and hold **+** and **-** at the same time to save and go back to the primary data screen.



6.3.2. View the Controller Info

1. Go to "Information", press **+** or **-** to select "Controller Info".
2. Press to enter.
3. To save and go back to the "Information" menu, press . Or press and hold **+** and **-** at the same time to save and go back to the primary data screen.



6.3.3. View the HMI Info

1. Go to "Information", press **+** or **-** to select "HMI Info".
2. Press to enter.

3. To save and go back to the "Information" menu, press . Or press and hold **+** and **-** at the same time to save and go back to the primary data screen.



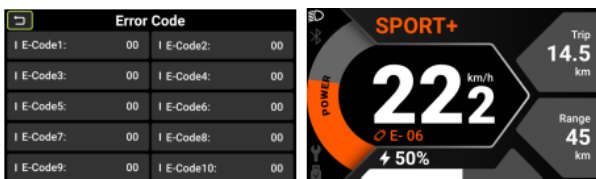
6.3.4. View the Sensor Info

1. Go to "Information", press **+** or **-** to select "Sensor info".
2. Press to enter.
3. To save and go back to the "Information" menu, press . Or press and hold **+** and **-** at the same time to save and go back to the primary data screen.



6.3.5. View Historical Error Codes

1. Go to "Information", press **+** or **-** to select "Error Code".
2. Press to enter.
3. To save and go back to the "Information" menu, press . Or press and hold **+** and **-** at the same time to save and go back to the primary data screen.



6.3.6. View Historical Warn Codes

1. Go to "Information", press **+** or **-** to select "Warn code".
2. Press to enter.



3. To save and go back to the "Information" menu, press . Or press and hold and at the same time to save and go back to the primary data screen.

Warn code			
I W-Code1:	00	I W-Code2:	00
I W-Code3:	00	I W-Code4:	00
I W-Code5:	00	I W-Code6:	00
I W-Code7:	00	I W-Code8:	00
I W-Code9:	00	I W-Code10:	00



7. Error Code

The HMI can show the faults of Pedelec. When a fault is detected, one of the following error codes will be indicated too.

Note: Please read carefully the description of the error code. When the error code appears, please first restart the system. If the problem is not eliminated, please contact your dealer or technical personnel.

See Appendix B for the detailed error code list.

The BAFANG logo consists of the word "BAFANG" in a bold, white, sans-serif font, centered within an orange rounded rectangle.

Bafang Electric (Suzhou) Co., Ltd
No.6 Dongyanli Rd., Suzhou Industrial Park 215125, Suzhou
www.bafang-e.com

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