

7 DEALER MANUAL FOR DP C020.CAN



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7.1 IMPORTANT NOTICE

- If the error information from the display cannot be corrected according to the instructions, please contact your retailer.
- The product is designed to be waterproof. It is highly recommended to avoid submerging the display under water.
- Do not clean the display with a steam jet, high-pressure cleaner or water hose.
- Please use this product with care.
- Do not use thinners or other solvents to clean the display. Such substances can damage the surfaces.
- Warranty is not included due to wear and normal use and aging.
- 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 two conditions: (1) This device may not cause harmful interference, and (2) 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: (1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and receiver. (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. (4) Consult the dealer or an experienced radio/TV technician for help.

7.2 INTRODUCTION OF DISPLAY



- Model: DP C020.C
- The housing is made of ABS; the LCD display window is made of aluminosilicate glass.

- The label marking is as follows:



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

7.3 PRODUCT DESCRIPTION

7.3.1 Specification

- Power supply: 36/43/48V DC
- Operating temperature: -20 °C~45 °C
- Storage temperature: -20 °C~60 °C
- Waterproof: IP66
- Storage Humidity: 30%-70% RH

7.3.2 Functional Overview

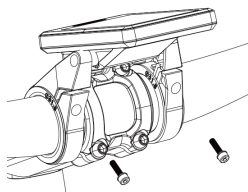
- CAN communication protocol, "3-key" allows convenient and fast operation for users.
- Intelligent Battery capacity indicator
- Power-assisted mode selection
- Speed indication (including the max. speed and average speed)
- Unit switch: km/mile
- Mileage indication (including single-trip distance TRIP, total distance ODO, up to 99999)
- Walk assistance
- Automatic sensors explanation of the lighting system
- Brightness setting for backlight
- Intelligent indication (including remaining mileage RANGE, energy consumed CAL)
- Error code indication
- Service indication

7.4 DISPLAY INSTALLATION

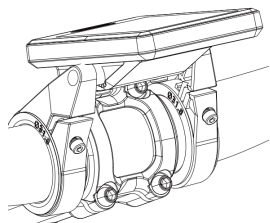
1. **Match the rubber sleeve:** Select the required rubber sleeve according to the diameter of the handlebar (for specifications: Ø22.2, Ø25.4, Ø31.8, Ø35). Open the two clamps of the HMI, then place the suitable rubber sleeves into the clamps.

Diameter of handlebar	Diameter of rubber sleeves
Ø35	Ø35
Ø31.8	Ø31.8
Ø25.4	Ø31.8 + Ø25.4
Ø22.2	Ø31.8 + Ø22.2

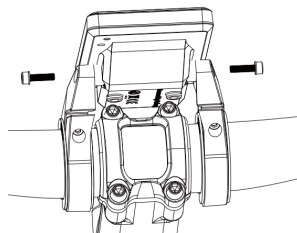
2. **Temporarily install the HMI:** Place the two clamps with rubber sleeves on the handlebar, then use an M3 hex wrench to tighten the fixing screws M3*12 temporarily.



3. **Fix the HMI:** Adjust the angle of the HMI to make it easier to see the screen when cycling, then tighten the screws. [Tightening Torque: 1 N.m]

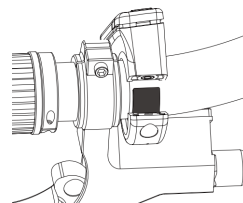


4. **Adjust the installation angle of the HMI:** Loosen the angle adjustment screws. After adjusting the angle of the HMI to make it easier to see the screen when cycling, then tighten the screws with an M3 hex wrench.

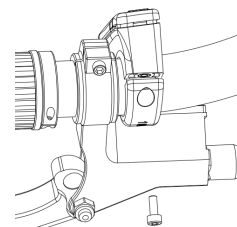


5. **Temporarily install the control unit:** Open the clamp of the control unit, then place the clamp with rubber sleeve on the suitable position. Adjust the angle of the control unit to make it easier to operate.

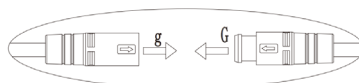
(Note: The diameter of the control unit is Ø22.2mm.)



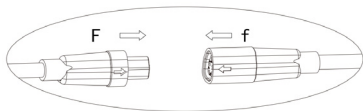
6. **Install the control unit:** Tighten the M3*12 screw with an M3 hex wrench to fix it. [Tightening Torque: 1 N.m]



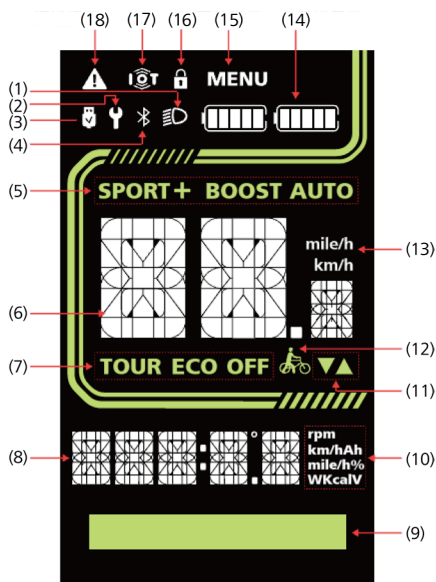
7. **Link the connectors:** Link the male connector of HMI (G) to the female connector of control unit (g).



8. **Link the connectors:** Link the male connector of HMI (F) to the female connector of EB-BUS (f).



7.5 DISPLAY



- (1) Head light
- (2) Service indication
- (3) USB indication
- (4) Bluetooth
- (5) Power-assisted mode
- (6) Speed in real time
- (7) Power-assisted mode
- (8) Number
- (9) Matrix area
- (10) Unit
- (11) Level switch indication
- (12) Walk assistance
- (13) Speed unit
- (14) Battery capacity indication
- (15) MENU indication
- (16) Lock indication
- (17) IOT
- (18) Error notification

7.6 KEY DEFINITION



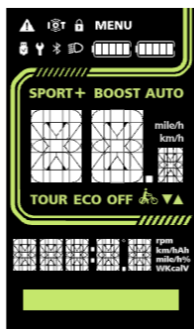
7.7 NORMAL OPERATION

7.7.1 Power ON/OFF

Press  and hold (>2S) to power on the HMI, and the HMI lights up.

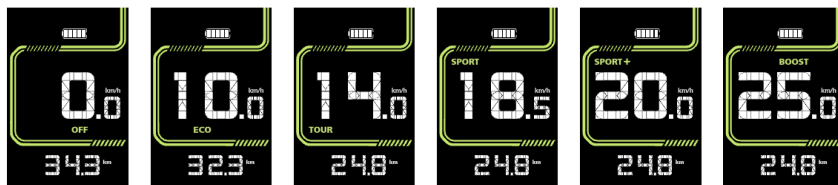
Press  and hold (>2S) again to power off the HMI.

Note: The system will automatically shut down if the user does not operate it for 5 minutes or more (The time can be set by the user).



7.7.2 Power-Assisted Mode Selection

When HMI powers on, press  or  to select the power-assisted mode and change the output power of motor. There are 6 modes can be selected, but the default lowest mode is ECO and the default highest mode is BOOST (user-selected). After HMI powers on, the default mode is ECO, and OFF means no power assistance.

**OFF**

No power assistance

ECO

Economic model

TOUR

Comfort mode

SPORT

Sport mode

SPORT+

Sport plus mode

BOOST

Max assistance mode

7.7.3 Headlight / Backlight

Press and hold key to turn on the headlight and the brightness of backlight reduces.

Press and hold key again to turn off the headlight and the brightness of backlight increases.

(Note: The backlight brightness can be adjusted in 5 levels by the user.)



7.7.4 Walk Assistance

Note: The walk assistance can only be activated with a standing e-bike.

Activate walk assistance:

Press key until this symbol shows.

Press and hold the key until the walk assistance is activated and the symbol is flashing.
(When the real-time speed is less than 2.5 km/h, the speed indication is shown as 2.5 km/h.)

Stop walk assistance:

Release the key, walk assistance stops and the symbol stops flashing. If there is no operation within 5s, the HMI will automatically return to OFF mode.



7.7.5 Multifunction Selection

Press key (<0.5s) to switch the different functions.

The position of multifunction indication displays **TRIP** (single trip distance, km) → **ODO** (total distance, km) → **MAX** (maximum speed, km/h) → **AVG** (average speed, km/h) → **CAL** (energy consumption, kcal) → **TIME** (riding time, min) → **CAD** (riding cadence, rpm) → **RANGE** (remaining distance, km) → **POWER** (motor power) → **BAT** (remaining power percentage) → cycle.



7.7.6 Battery Capacity Indication

Press  key (<0.5S), it can be switched to BAT, which shows the real-time battery capacity from 1% to 100%.



7.8 SETTINGS

1. Press and hold the  and  key at the same time to enter "MENU".
2. Press the  or  key to switch "SET", "INFO" and "EXIT", and press  key to select.
3. To exit "MENU" to the riding interface, press and hold the  and  key at the same time to exit "MENU", or switch to "EXIT" and press  key.

Note: If there is no operation more than 20s, the screen will automatically exit to the riding interface.



7.8.1 Reset TRIP

1. Press and hold the or key at the same time to enter "MENU", and press the key to enter "SET".
2. Press key to select "CLEAR".
3. Press the or key to select "N" or "Y" ("Y" - to clear; "N" -no operation).
4. Press the key to save.
5. Press and hold the or key at the same time to exit back to the riding interface.

Note: The riding time (TIME), average speed (AVG) and maximum speed (MAX) will be reset simultaneously when you reset TRIP.



7.8.2 Switch mileage unit

1. Press and hold the or key at the same time to enter "MENU", and press the key to enter "SET".
2. Press the key to select the "Unit".
3. Press the or key to switch between "km" and "mile".
4. Press the key to save.
5. Press and hold the or key at the same time to exit back to the riding interface.

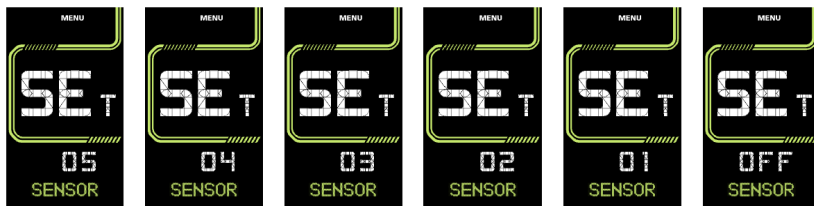


7.8.3 Set light sensitivity

1. Press and hold the or key at the same time to enter "MENU", and press the key to enter "SET".
2. Press the key to select the "SENSOR".

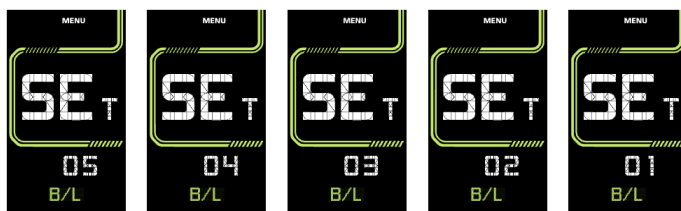
3. Press the  or  key to select the level of the light sensitivity as "OFF"/"01"/"02"/"03"/"04"/"05".
4. Press the  key to save.
5. Press and hold the  or  key at the same time to exit back to the riding interface.

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



7.8.4 Set backlight brightness

1. Press and hold the  or  key at the same time to enter "MENU", and press the  key to enter "SET".
2. Press the  key to select the "B/L".
3. Press the  or  key to select the level of the light sensitivity as "05"/"04"/"03"/"02"/"01".
4. Press the  key to save.
5. Press and hold the  or  key at the same time to exit back to the riding interface.



7.8.5 Set automatic off time

1. Press and hold the  or  key at the same time to enter "MENU", and press the  key to enter "SET".
2. Press the  key to select "OFF".
3. Press the  or  key to select the automatic off time as "OFF"/"10"/"09"/"08"/"07"/"06"/"05"/"04"/"03"/"02"/"01".
4. Press the  key to save.
5. Press and hold the  or  key at the same time to exit back to the riding interface.



7.8.6 Set the maintenance tip

1. Press and hold the or key at the same time to enter "MENU", and press the key to enter "SET".
2. Press the key to select "MAINT".
3. Press the or key to select "N" or "Y" ("Y" - to set the maintenance tip; "N" -not to set the maintenance tip).
4. Press the key to save.
5. Press and hold the or key at the same time to exit back to the riding interface.



7.8.7 See the wheel size

1. Press and hold the or key at the same time to enter "MENU".
2. Press the key to switch to "INFO".
3. Press the key to select "INFO".
4. Press the key to select "WHEEL", and see the wheel size.
5. Press and hold the or key at the same time to exit back to the riding interface.



7.8.8 See the speed limit

1. Press and hold the  or  key at the same time to enter "MENU".
2. Press the  key to switch to "INFO".
3. Press the  key to select "INFO".
4. Press the  key to switch to "LIMIT", and see the speed limit.
5. Press and hold the  or  key at the same time to exit back to the riding interface.



7.8.9 See the controller information

1. Press and hold the  or  key at the same time to enter "MENU".
2. Press the  key to switch to "INFO".
3. Press the  key to select "INFO".
4. Press the  key to switch to "CTR-S" or "CTR-H", and see the controller software and hardware information.
5. Press and hold the  or  key at the same time to exit back to the riding interface.



7.8.10 See the HMI information

1. Press and hold the  or  key at the same time to enter "MENU".
2. Press the  key to switch to "INFO".
3. Press the  key to select "INFO".
4. Press the  key to switch to "HMI-S" or "HMI-H", and see the HMI software and hardware information.

- Press and hold the  or  key at the same time to exit back to the riding interface.



7.8.11 See the battery information

Note: The function only exists within battery communication protocol.

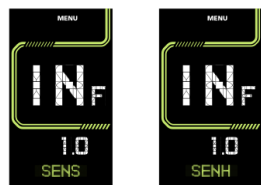
- Press and hold the  or  key at the same time to enter "MENU".
- Press the  key to switch to "INFO".
- Press the  key to select "INFO".
- Press the  key to switch to "BMS-S" or "BMS-H", and see the battery software and hardware information.
- Press and hold the  or  key at the same time to exit back to the riding interface.



7.8.12 See the torque speed sensor information

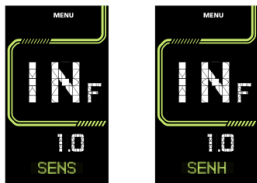
Note: The function only exists with sensor communication protocol.

- Press and hold the  or  key at the same time to enter "MENU".
- Press the  key to switch to "INFO".
- Press the  key to select "INFO".
- Press the  key to switch to "SEN-S" or "SEN-H", and see the sensor software and hardware information.
- Press and hold the  or  key at the same time to exit back to the riding interface.



7.8.13 See the error code information

1. Press and hold the  or  key at the same time to enter "MENU".
2. Press the  key to switch to "INFO".
3. Press the  key to select "INFO".
4. Press the  key to switch to "ERROR", and see the error code information.
(Last 10 historical error codes can be saved.)
5. Press and hold the  or  key at the same time to exit back to the riding interface.



7.9 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 display flashes the code at a frequency of 1 Hz.

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 finally 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.

See Appendix A for the detailed error code list.