7 DEALER MANUAL FOR DP E162.CAN/ DP E163.CAN

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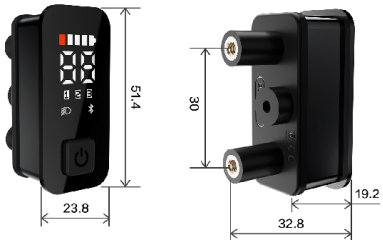
7.1 IMPORTANT NOTICE

- 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.

7.2 INTRODUCTION OF DISPLAY

- **Model:** DP E162.C/ DP E163.CAN
- **Appearance:**



- **Identification:**

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

7.3 PRODUCT DESCRIPTION

7.3.1 Specifications

- Operating temperature: -20℃~45℃
- Storage temperature: -20℃~60℃
- Waterproof: IP65
- Storage room Humidity: 30%-70% RH

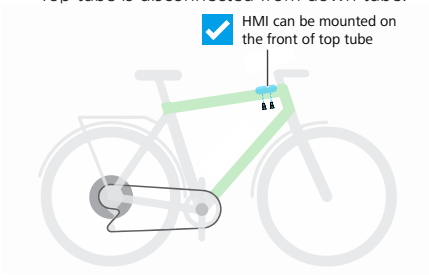
7.3.2 Functional Overview

- Battery capacity indication
- Support level indication
- Real-time speed indication
- Headlight control and indication
- Error code indication
- Automatic light sensitivity function
- Bluetooth function (only in DP E163.CAN)

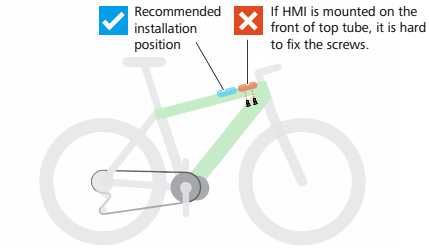
7.4 DISPLAY INSTALLATION

7.4.1 Installation Position

Top tube is disconnected from down tube:

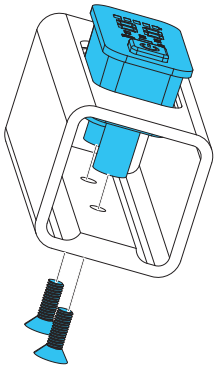


Top tube is connected to down tube:

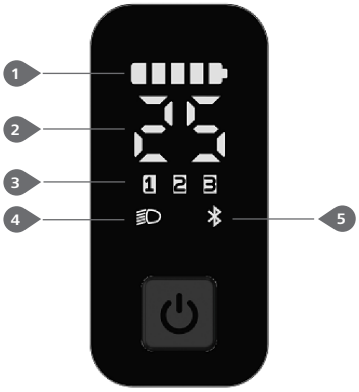


7.4.2 Installation Steps

Place the display into the tube from the upper mounting hole, then tighten the M4*12 screws from the bottom mounting holes.

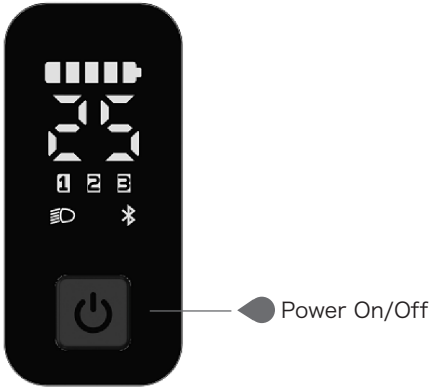


7.5 DISPLAY



1. Battery capacity indicator
2. Speed indicator
3. Support level indicator
4. Headlight indicator
5. Bluetooth indicator

7.6 KEY DEFINITION



7.7 NORMAL OPERATION

7.7.1 Power On/ Off

Press and hold ⏻ (>2.5S) on the display to turn on the system.

Press and hold ⏻ (>2.5S) again to turn off the system.

7.7.2 Support Level Selection

When the display is turned on, press the ⏻ (<0.5S) button to switch to the support level, the lowest level is 1, the highest level is 3. When the support level indicator doesn't light up, there is no power assistance.

7.7.3 Headlight/ Backlight

Double click the ⏻ button to turn on the headlight, and the display interface dims.

Double click the ⏻ button again to turn off the headlight and the display interface lights up.

7.7.4 Battery Capacity Indication

The battery capacity is indicated with 5 levels. When the lowest level indicator flashes that means battery needs to charge. The battery capacity is shown as follows:

Bars	Capacity Range	Example
5 bars	80%-100%	
4 bars	60%-80%	
3 bars	40%-60%	
2 bars	20%-40%	
1 bar	5%-20%	
1 flashing	<5%	

7.7.5 Bluetooth Indication

Note: Only DP E163.CAN is the Bluetooth version.

This display is equipped with OTA function, which can update firmware through the bluetooth.

This display can be connected to the Bafang Go APP through Bluetooth. The customer also can develop their own app based on the SDK provided by BAFANG.

The data that can be sent to APP are as follow:

No.	Function	No.	Function
1	Speed	8	Range
2	Support level	9	Heart beat
3	Battery	10	Calories
4	Current	11	Sensor signal
5	Headlight state	12	Battery Info.
6	Trip	13	Ststem Info.
7	ODO	14	Error code

7.8 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 E162.CAN/ E163.CAN 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 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	
		Hub Motor System	Mid Motor System
05	Throttle not in place	1. Check whether the throttle is in place. 2. Check whether the throttle cable is connected correctly or the cable (from throttle to controller) is damaged. 3. Troubleshoot the faulty part: 1) Replace the throttle 2) Replace the controller	1. Check whether the throttle is in place. 2. Check whether the throttle cable is connected correctly or the cable (from throttle to drive unit) is damaged. 3. Troubleshoot the faulty part: 1) Replace the throttle 2) Replace the drive unit
07	System overvoltage protection	1. Check whether the nominal voltage of the battery is the same as the controller. 2. Troubleshoot the faulty part: 1) Replace the battery 2) Replace the controller	1. Check whether the nominal voltage of the battery is the same as the drive unit. 2. Troubleshoot the faulty part: 1) Replace the battery 2) Replace the drive unit
08	Hall signal in motor is abnormal	1. Check whether the motor cable is connected correctly or the cable (from motor to controller) is damaged. 2. Troubleshoot the faulty part: 1) Replace the motor 2) Replace the controller	Replace the drive unit

Code	Cause	Troubleshooting	
		Hub Motor System	Mid Motor System
09	Phase wire in motor abnormal	1. Check whether the motor cable is connected correctly or the cable (from motor to controller) is damaged. 2. Troubleshoot the faulty part: 1) Replace the motor 2) Replace the controller	Replace the drive unit
10	Motor overtemperature protection (Only occur when the motor is equipped with the temperature sensor.)	1. If riding for a long time, turn off the system and let the motor cool down. 2. If no ride or riding for a short time, troubleshoot the faulty part: 1) Replace the motor 2) Replace the controller	1. If riding for a long time, turn off the system and let the drive unit cool down. 2. If no ride or riding for a short time, replace the drive unit.
11	Motor temperature sensor abnormal (Only occur when the motor is equipped with the temperature sensor.)	1. Check whether the motor cable is connected correctly or the cable (from motor to controller) is damaged. 2. Troubleshoot the faulty part: 1) Replace the motor 2) Replace the controller	Replace the drive unit
12	Controller curent sensor abnormal	Replace the controller	Replace the drive unit
14	Controller overtemperature protection	1. If riding for a long time, turn off the system and let the controller cool down. 2. If no ride or riding for a short time, replace the controller.	1. If riding for a long time, turn off the system and let the drive unit cool down. 2. If no ride or riding for a short time, replace the drive unit.
15	Controller temperature sensor abnormal	Replace the controller	Replace the drive unit

Code	Cause	Troubleshooting	
		Hub Motor System	Mid Motor System
21	Speed sensor abnormal	1. Check whether the motor cable is connected correctly or the cable (from motor to controller) is damaged. 2. Troubleshoot the faulty part: 1) Replace the motor 2) Replace the controller	1. Check whether the spoke magnet has fallen off or the clearance between the spoke magnet and the speed sensor is within the normal range (10-15mm). 2. Check whether the speed sensor cable is connected correctly or the cable (from sensor to drive unit) is damaged. 3. Troubleshoot the faulty part: 1) Replace the speed sensor 2) Replace the drive unit
26	Torque sensor abnormal (Only occur when the drive system is equipped with the torque sensor.)	1. Check whether the torque sensor cable is connected correctly or the cable (from sensor to controller) is damaged. 2. Troubleshoot the faulty part: 1) Replace the torque sensor 2) Replace the controller	Replace the drive unit
30	Communication abnormal	1. Check whether the HMI cable is connected correctly or the cable (from HMI to controller) is damaged. 2. Troubleshoot the faulty part: 1) Replace the controller if the HMI turns off automatically after appearing error code for 20 seconds. 2) Replace the HMI if the HMI doesn't turn off automatically after appearing error code for 20 seconds. (move to the next page)	1. Check whether the HMI cable is connected correctly or the cable (from HMI to drive unit) is damaged. 2. Troubleshoot the faulty part: 1) Replace the drive unit if the HMI turns off automatically after appearing error code for 20 seconds. 2) Replace the HMI if the HMI doesn't turn off automatically after appearing error code for 20 seconds. (move to the next page)

Code	Cause	Troubleshooting	
		Hub Motor System	Mid Motor System
30	Communication abnormal	3) If the BESST tool is available, connect it with HMI and controller, read the information of HMI and controller and replace the part that cannot read information.	3) If the BESST tool is available, connect it with HMI and drive unit, read the information of HMI and drive unit and replace the part that cannot read information.
36	ON/OFF Button detection circuit abnormal (Only occur when the drive system is equipped with Bafang CAN communication protocol.)	1. If keep pressing the ON/OFF button when the HMI powers on, the error code will alarm. Release the button and observe whether the code disappears. 2. Troubleshoot the faulty part: 1) Replace the HMI 2) Replace the controller	1. If keep pressing the ON/OFF button when the HMI powers on, the error code will alarm. Release the button and observe whether the code disappears. 2. Troubleshoot the faulty part: 1) Replace the HMI 2) Replace the drive unit
37	WDT (Watch Dog Timer) in controller is abnormal	Replace the controller	Replace the drive unit
42	Discharge voltage of battery pack is too low	1. Charge the battery 2. Replace the battery	
49	Discharge voltage of single cell is too low	1. Charge the battery 2. Replace the battery	
4C	Voltage difference between single cell	Replace the battery	

The battery error codes of 42, 49, 4C only occur when the drive system is equipped with the smart BMS and Bafang CAN communication protocol.