## 7 USER MANUAL FOR DP C13.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 C13.CAN BUS
- The liquid crystal display is made of hardened PMMA, the key button is made of silicone rubber.



· The label marking is as follows:



e

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

# 7.3 PRODUCT DESCRIPTION

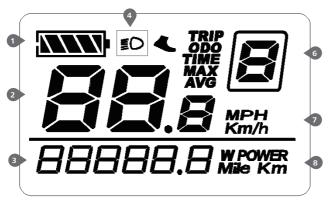
## 7.3.1 Specifications

- Operating temperature: -20  $^\circ\!\mathrm{C}\,{\sim}45\,^\circ\!\mathrm{C}$
- Storage temperature: -20 °C ~50 °C
- Waterproof: IP65
- Bearing humidity: 30%-70% RH

## 7.3.2 Functional Overview

- Speed display (switching between km and miles).
- Battery capacity indication.
- The lighting system.
- Indication of performance support.
- Kilometer stand (including single-trip distance, total distance).
- Time display for single journeys.
- Walk assistance.
- Energy consumption indicator CALORIES (Note: If the display has this function)
- Display for the remaining distance.(Depends on your riding style)
- Indication of error messages.

## 7.4 DISPLAY



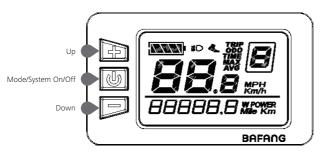
1 Display of battery capacity in real time

2 Speed display in real-time

3 Data: Display data, which corresponds to the current mode

- 4 The display shows **ID**, if the light is on.
- 5 Speed display in real-time
- 6 Support level
- 7 Speed unit
- 8 Unit indicator

## **7.5 KEY DEFINITION**





## **7.6 NORMAL OPERATION**

## 5

### 7.6.1 Switching the System ON/OFF

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

If the "automatic shutdown time" is set to 5 minutes (it can be reset with the "Auto Off" function, See **"Set Auto Off"**), the display will automatically be turned off within the desired time when it is not in operation.

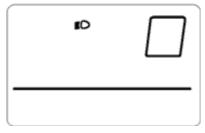
### 7.6.2 Selection of Support Levels

When the display is turned on, press the or button (>2S) to switch to the support level, the lowest level is 0, the highest level is 5 (the amount of support level can be set). When the system is switched on, the support level starts in level 1. There is no support at level 0.

### 7.6.3 Headlights / backlighting

Hold the **F** button (>2S) to activate the frontlight and taillights.

Hold the **F** button (>2S) again to turn off the frontlight and taillights. The brightness of the backlight can be set in the display settings **"Brightness"**.



### 7.6.4 Walk Assistance

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

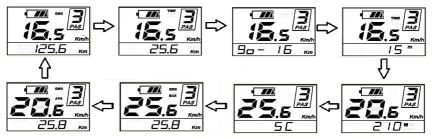
Activation: Press the continuously until this symbol appears. Next hold down the button whilst the symbol is displayed, now the Walk assistance will activate. The symbol will blink and the pedelec moves approx. 5 km/h. After releasing the button, the motor stops automatically and switches back to level 0.



### 7.6.5 Selection mode

Briefly press (0.5s) to view the different Kilometer stand: total kilometers (ODO) daily kilometers (TRIP) - Remaining distance (go) - Time (TIME) - Power Output (W) -Energy consumption (SC) - Maximum speed (MAX) - Average speed (AVG).

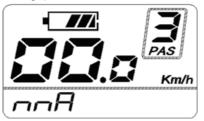
NOTE: Energy consumption is fitted only with torque sensor.



#### 7.6.6 "Service Tip"

If the "Service" function switch on, every 5000 km (the mileage of more than 5000 km) the indicator "**mA**" is displayed every time at switch on.

The "Service" function can be turned off and on in the setting interface. See details for operation in "Setting" part.



#### 7.6.7 "Error code" indication

When the pedelec is at failure, the display will automatically show the error code and the screen will flash. Please refer to the detailed error code in "**ERROR CODE DEFINITION**" part.

**NOTE:** Only when the fault is eliminated can you exit the fault interface. The pedelec will not be able to continue work at failure.



#### 7.6.8 Battery capacity indication

The battery capacity is displayed in real time as 100% to 0% (as shown in the figure below).



<5%

5%-20% 20%-40%

60%-80% 60%-100%

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40%-60%

# 7.7 SETTINGS

After the display is turned on, press and hold (>25) the i and i button at same time to access the "Setting" interface. pressing the i or i button, you can select and reset the items. Briefly press (<0.55) the j button your can see the

confirm your selected option or access the next "Setting" interface, you can also press

and hold (>2S) the **1** and **b** button at the same time to save them and exit to the "Setting" interface.

If no button is pressed within 1 minute in "Setting" interface, the display will automatically exit setting and no data will be saved.

### 7.7.1 Setting

#### 7.7.1.1 Reset mileage

When the system is on, press and hold (>2S) the and button at same time to access the "Setting" interface and "tC" appears on the display (as shown below). Now using the or button, choose between "y" or "n". If choose "y", will the Daily kilometers (TRIP), Maximum speed (MAX), Average speed (AVG) and time(TIME) be reset.

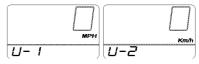
Once you have chosen your desired selection, press (<0.2S) the button to save and to enter next item "Selections in km/ Miles".



#### 7.7.1.2 Selections in km/Miles

When the system is on, press and hold (>2S) the and button at same time to access the "Setting" interface, repetitively press the button until the "U" appears on the display (as shown below). Now using the or button, choose between "mile/h" or "km/h" (U-1 or U-2).

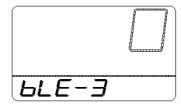
Once you have chosen your desired selection, press (<0.25) the value button to save and to enter next item "Set light sensitivity".



#### 7.7.1.3 Set display brightness

When the system is on, press and hold (>2S) the  $\blacksquare$  and  $\blacksquare$  button at same time to access the "Setting" interface, repetitively press the  $\boxed{10}$  button until the "bLE" appears on the display (as shown below). And then press  $\boxed{10}$  to increase or  $\boxed{10}$  to reduce (brightness for 1-8).

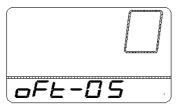
Once you have chosen your desired selection, press (<0.3S) the button to save and to enter next item "Set Auto Off".



#### 7.7.1.4 Set Auto Off

When the system is on, press and hold (>2S) the + and - button at same time to access the "Setting" interface, repetitively press the - button until the "oFt" appears on the display (as shown below). And then press + to increase or - to reduce (Auto Off for 1-9 minute).

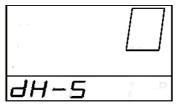
Once you have chosen your desired selection, press (<0.3S) the button to save and to enter next item "Service Tip".



#### 7.7.1.5 Set support level

When the system is on, press and hold (>2S) the i and i button at same time to access the "Setting" interface, repetitively press the button until the "dH" appears on the display (as shown below). And then press i or i to select support level (3,5,9), The level is 5 in default.

Once you have chosen your desired selection, press (<0.2S) the button to save and to enter next item "Wheel Size".



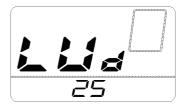
#### 7.7.2 View Information

All data in this item cannot be changed, only to be viewed.

#### 7.7.2.1 Wheel Size

When the system is on, press and hold (>2S) the f and button at same time to access the "Setting" interface, repetitively press the button until the "LUd" appears on the display (as shown below). And you can press and hold (>2S) the f and button together exit to the main interface.

Once you have viewed your desired information, press (<0.2S) the button to enter next item "Speed Limit".



#### 7.7.2.2 Speed Limit

When the system is on, press and hold (>2S) the **F** and **C** button at same time to access the "Setting" interface, repetitively press the **U** button until the "SPL" appears on the display (as shown below). And you can press and hold (>2S) the **F** and **C** button together exit to the main interface.

Once you have viewed your desired information, press (<0.2S) the U button to enter next item "Controller software info".



#### 7.7.2.3 Controller Software info

When the system is on, press and hold (>2S) the i and i button at same time to access the "Setting" interface, repetitively press the b button until the "CSc" (Controller Software check) appears on the display (as shown below). And you can press and hold (>2S) the i and i button together exit to the main interface.

Once you have viewed your desired information, press (<0.2S) the button to enter next item "Controller hardware info".



#### 7.7.2.4 Controller Hardware info

When the system is on, press and hold (>2S) the  $\boxed{\bullet}$  and  $\boxed{\bullet}$  button at same time to access the "Setting" interface, repetitively press the  $\boxed{\bullet}$  button until the "CHc" (Controller Hardware check) appears on the display (as shown below). And you can press and hold (>2S) the  $\boxed{\bullet}$  and  $\boxed{\bullet}$  button together exit to the main interface.

Once you have viewed your desired information, press (<0.2S) the b button to enter next item "Display software info".



#### 7.7.2.5 Display Software info

When the system is on, press and hold (>2S) the i and i button at same time to access the "Setting" interface, repetitively press the i button until the "dSc" (Display Software check) appears on the display (as shown below). And you can press and hold (>2S) the i and i button together exit to the main interface.

Once you have viewed your desired information, press (<0.2S) the button to enter next item "Display hardware info".



#### 7.7.2.6 Display Hardware info

When the system is on, press and hold (>2S) the i and i button at same time to access the "Setting" interface, repetitively press the i button until the "dHc" (Display Hardware check) appears on the display (as shown below). And you can press and hold (>2S) the i and i button together exit to the main interface.

Once you have viewed your desired information, press (<0.2S) the button to enter next item "Sensor Software info".



#### 7.7.2.7 Sensor Software info

When the system is on, press and hold (>2S) the i and i button at same time to access the "Setting" interface, repetitively press the i button until the "SSc" (Sensor Software check) appears on the display (as shown below). And you can press and hold (>2S) the i and i button together exit to the main interface.

Once you have viewed your desired information, press (<0.25) the button to enter next item "Sensor Hardware info".



#### 7.7.2.8 Sensor Hardware info

When the system is on, press and hold (>2S) the i and i button at same time to access the "Setting" interface, repetitively press the i button until the "SHc" (Sensor Hardware check) appears on the display (as shown below). And you can press and hold (>2S) the i and i button together exit to the main interface.

Once you have viewed your desired information, press (<0.2S) the button to enter next item "Service Tip".

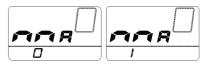


#### 7.7.2.9 "Service Tip"

When the system is on, press and hold (>2S) the + and - button at same time to access the "Setting" interface, repetitively press the - button until the "nn A" appears on the display (as shown below). And then press + or - to select "0" or "1". Chose 0 means turn off the notification.

You can also press and hold (>2S) the **F** and **C** button together exit to the main interface.

Once you have chosen your desired selection, press (<0.2S) the button to save and to enter next item "Message of Error Code".

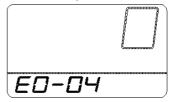


#### 7.7.2.10 Message of Error Code

When the system is on, press and hold (>2S) the **i** and **c** button at same time to access the "Setting" interface, repetitively press the **v** button until the "E0-00" appears on the display (as shown below). And then press **i** or **c** to view "E0-00" to "E9-00". Chose 0 means turn off the notification.

You can also press and hold (>2S) the **F** and **C** button together exit to the main interface.

Once you have viewed your desired selection, press (<0.2S) the button to enter next item "Battery info".



#### 7.7.2.11 Battery Information

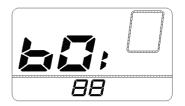
When the system is on, press and hold (>2S) the + and - button at same time to access the "Setting" interface, repetitively press the - button until the "b01" appears on the display (as shown below). And then press + or - to view "Battery info".

You can also press and hold (>2S) the and button together exit to the main interface.

Once you have viewed your desired selection, press (<0.25) the button to the main interface.

Content	Explanation
b01	Current temperature (°C)
b04	Voltage (mV)
b06	Discharge (mA)
b07	Remaining Capacity (mAh)
b08	Total Capacity (mAh)
b09	Default Loader Status (%)
b10	Instant charge (%)
b11	Charging cycles (number)
b12	Maximum time in which no char- ge was made (Hour)
b13	Time since last charge (Hour)
d00	Amount of battery cells (number)
d01	Cell Voltage 1 (mV)
d02	Cell Voltage 2 (mV)
dn	Cell Voltage n (mV)
bSc	Software version
bHc	Hardware version

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





Hardware version of battery



Software version of battery

# **7.8 ERROR CODE DEFINITION**



The display can show the errors of a pedelec. If an error is detected, one of the following error codes will be displayed.

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.

Error	Declaration	Troubleshooting
04	The throttle is not back in its correct position.	Check the throttle can adjust back into its correct position, if the situation does not improve, please change to a new throttle.(only with this function)
05	The throttle has fault.	<ol> <li>Check the connector of throttle whether they are correctly connected.</li> <li>Disconnect the throttle, If the problem still occurs, please contact your retailer.</li> <li>(only with this function)</li> </ol>
07	Overvoltage protection	<ol> <li>Remove the battery.</li> <li>Re-Insert the battery.</li> <li>If the problem persists, please contact your retailer.</li> </ol>
08	Error with the hall sensor signal inside the motor	Please contact your retailer.
09	Error with the Engine phase's	Please contact your retailer.
10	The temperature inside the engine has reached its maximum protection value	<ol> <li>Turn off the system and allow the Pedelec to cool down.</li> <li>If the problem persists, please contact your retailer.</li> </ol>
11	The temperature sensor inside the motor has an error	Please contact your retailer.
12	Error with the current sensor in the controller	Please contact your retailer.
13	Error with the temperature sensor inside of the battery	Please contact your retailer.

Error	Declaration	Troubleshooting
14	The protection temperature inside the controller has reached its maxi- mum protection value	<ol> <li>Turn off the system and let the pedelec cool down.</li> <li>If the problem persists, please contact your retailer.</li> </ol>
15	Error with the temperature sensor inside the controller	Please contact your retailer.
21	Speed sensor Error	<ol> <li>Restart the system</li> <li>Check that the magnet attached to the spoke is aligned with the speed sensor and that the distance is between 10 mm and 20 mm.</li> <li>Check that the speed sensor connector is connected correctly.</li> <li>If the error persists, please contact your</li> </ol>
25	Torque signal Error	retailer. <ol> <li>Check that all connections are connected correctly.</li> <li>If the error persists, please contact your retailer.</li> </ol>
26	Speed signal of the torque sensor has an error	<ol> <li>Check the connector from the speed sensor to make sure it is connected correctly.</li> <li>Check the speed sensor for signs of damage.</li> <li>If the problem persists, please contact your retailer.</li> </ol>
27	Overcurrent from controller	Please contact your retailer.
30	Communication problem	<ol> <li>Check all connections are correctly connected.</li> <li>If the error persists, please contact your retailer.</li> </ol>
33	Brake signal has an error (If brake sensors are fitted)	<ol> <li>Check all connectors.</li> <li>If the error continues to occur, please contact your retailer.</li> </ol>

Error	Declaration	Troubleshooting
35	Detection circuit for 15V has an error	Please contact your retailer.
36	Detection circuit on the keypad has an error	Please contact your retailer.
37	WDT circuit is faulty	Please contact your retailer.
41	Total voltage from the battery is too high	Please contact your retailer.
42	Total voltage from the battery is too low	Please contact your retailer.
43	Total power from the battery cells is too high	Please contact your retailer.
44	Voltage of the single cell is too high	Please contact your retailer.
45	Temperature from the battery is too high	Please contact your retailer.
46	The temperature of the battery is too low	Please contact your retailer.
47	SOC of the battery is too high	Please contact your retailer.
48	SOC of the battery is too low	Please contact your retailer.
61	Switching detection defect	Please contact your retailer. (only with this function)
62	Electronic derailleur cannot release	Please contact your retailer. (only with this function)
71	Electronic lock is jammed	Please contact your retailer. (only with this function)
81	Bluetooth module has an error	Please contact your retailer. (only with this function)