

7 DEALER MANUAL FOR DP C250.CAN



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7.1 IMPORTANT NOTICE

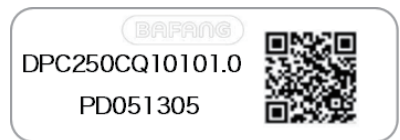
- If the error information from the display cannot be corrected according to the instructions, please contact your retailer.
- The product is designed to be waterproof. It is highly recommended to avoid submerging the display under water.
- Do not clean the display with a steam jet, high-pressure cleaner 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 C250.CAN BUS
- The housing material is PC, aluminum edge and high strength glass, as following:



- The label marking is as follows:



- i** **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.

- !** Please use with caution to avoid damage of housing caused by falling.

7.3 PRODUCT DESCRIPTION

7.3.1 Specifications

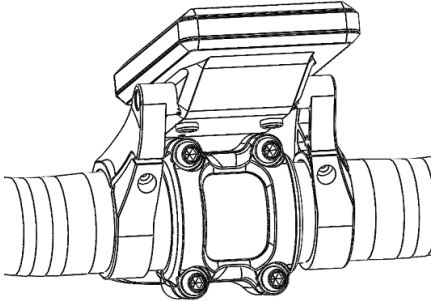
- Operating temperature: -20 °C~45 °C
- Storage temperature: -20 °C~50 °C
- Waterproof: IP65
- Bearing humidity: 30%-70% RH

7.3.2 Functional Overview

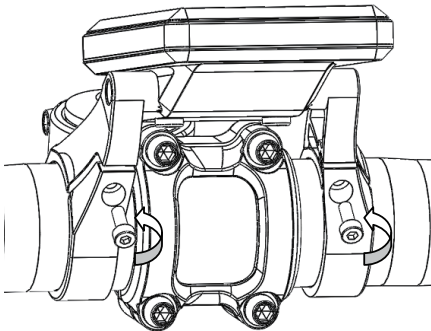
- Speed display (including speed in real time (SPEED), top speed (MAXS) and average speed (AVG))
- Switching between km and miles
- Battery capacity indicator
- Automatic sensors explanation of the lighting system
- Brightness setting for backlight
- Indication of assistance support
- Walk assistance
- Mileage show (including single-trip distance, total distance)
- Display for the remaining distance.(Depends on your riding style)
- Motor output power indicator
- Energy consumption indicator CALORIES (Note: If the display has this function)
- Error messages view
- Service
- USB charge function
- Button vibration function

7.4 DISPLAY INSTALLATION

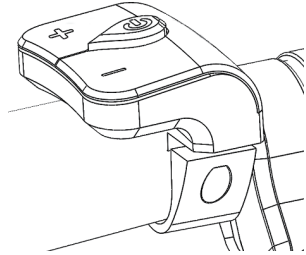
1. Open the clamps of display and insert the rubber rings on the handlebar. (it is suitable for handlebar: $\varnothing 22.2$ or $\varnothing 31.8$ mm)



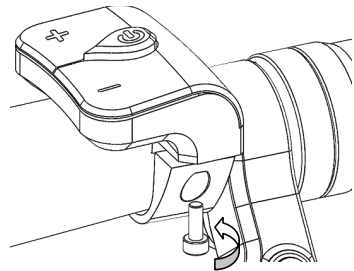
2. Now place the display on to the handlebar in the correct position, with two M3 screws, tighten the display into position. Torque requirement: 1N.m.



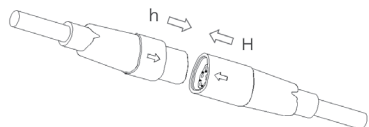
3. Open the clamp on the controller pad and place it in the correct position (it is suitable for handlebar: $\varnothing 22.2$ mm)



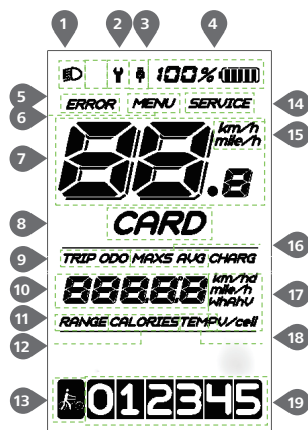
4. Using a M2.5 screw tighten the controller pad onto the handlebar. Torque requirement: 1N.m.






5. Link the male connector at the display with the female connector at the EB-BUS.



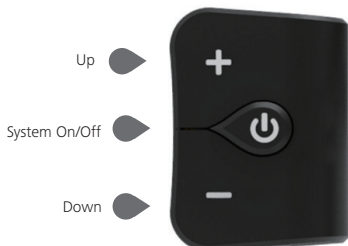
7.5 DISPLAY INFORMATION



- 1 The display shows  this symbol, if the light is on.
- 2 Maintenance indicator.
- 3 USB charging indicator displays the icon , if an external USB device is connected to the display.
- 4 Display of battery capacity in real time.



- 5 Error code indicator.
- 6 Menu.
- 7 Speed indicator.
- 8 Key card indicator.
- 9 Mileage indicator, Daily kilometers (TRIP) - Total kilometers (ODO).
- 10 Data: Display data, which corresponds to the current mode.
- 11 Remaining distance (RANGE).
- 12 Energy Consumption (CALORIES - only with torque sensor fitted)
- 13 Walking assistance .
- 14 Service: please see the service section.
- 15 Speed unit.
- 16 Speed mode , top speed (MAXS) - Average speed (AVG).
- 17 Unit indicator.
- 18 Temperature of cells indicator.
- 19 Support level.

7.6 KEY DEFINITION





7.7 NORMAL OPERATION

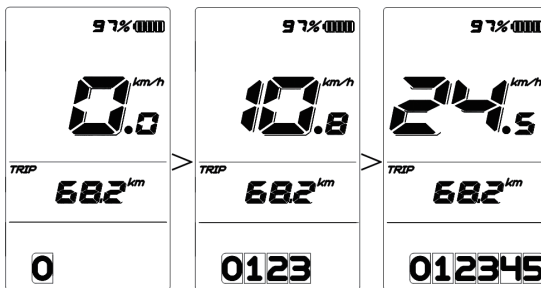
7.7.1 Switching the System ON/OFF

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.

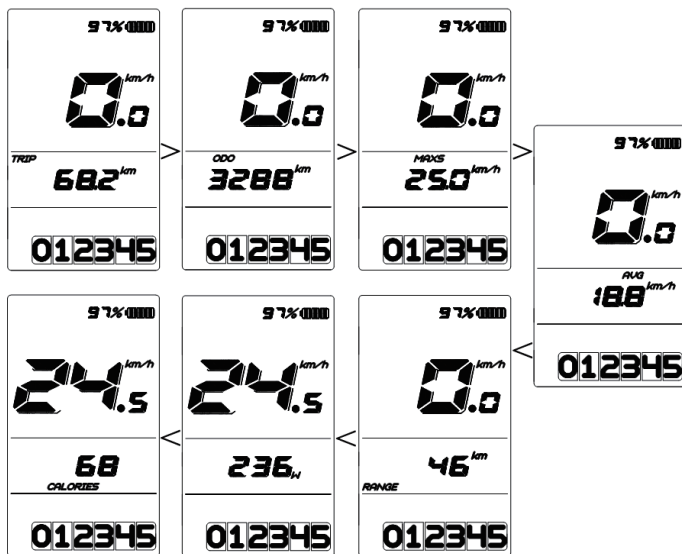
7.7.2 Selection of Support Levels

When the display is turned on, press the  or  (<0.5S) button to switch to the support level, the lowest level is 1, the highest level is 5. When the system is switched on, the support level starts in level 1. There is no support at level null.



7.7.3 Selection Mode

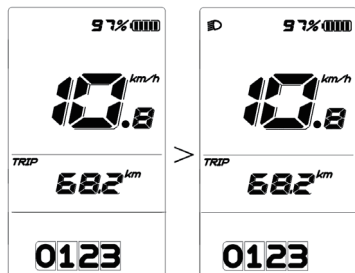
Briefly press (<0.5s) the  button to see the different trip modes. Trip: daily kilometers (TRIP) - total kilometers (ODO) - Maximum speed (MAX) - Average speed (AVG) - Remaining distance (RANGE) - Output power (POWER) - Energy consumption (CALORIES (only with torque sensor fitted)).








7.7.4 Headlights / backlighting

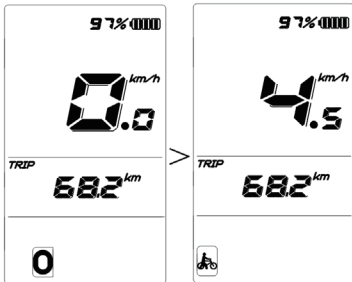
Hold the **+** (>2S) button to activate the headlight and taillights.

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 turned on in a dark environment, the display backlight/ headlight will be turned on automatically. 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.




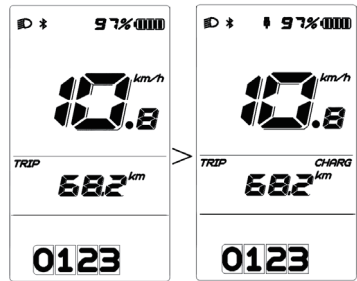
7.7.5 Walk Assistance

The Walk assistance can only be activated with a standing pedelec. Activation: Briefly press (<0.5s) the  button until to level null, and then press (<0.5s) the  button, the  symbol is displayed. Now hold down the  button and 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 null (if no any option be activated in 5 second). If no speed signal is detected, it shows 2.5km/h.



7.7.6 USB Charge Function

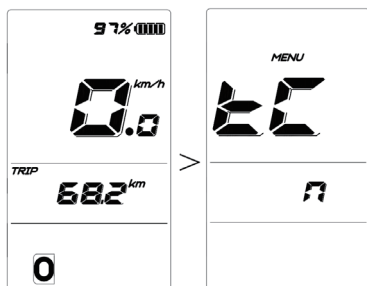
If an external USB device is connected to the display, the icon  appears, the device will be charged. The maximum charging voltage is 5V and the maximum charging current is 500mA.



7.8 SETTINGS

After the display is turned on, press and hold the **+** and **≡** (>1S) button, to access the 'MENU' setting page, if press and hold (>2S) the **+** and **≡** (<0.5S) button, you can select: Display Settings, Information or EXIT. Then press the **⏻** (>1S) button again, it can be return to the main page.

The display will automatically be turned back to the main page when it is not any in operation within the 10 seconds.



7.8.1 Setting

7.8.1.1 Reset mileage

When the system is turned on, press and hold the **+** and **≡** (>1S) button to access the "MENU" setting page. The "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) and Average speed (AVG) be reset.

Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "Selections in km/ Miles" .

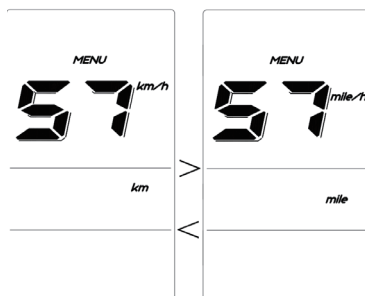
NOTE: If the daily kilometers accumulate 99999km, the daily kilometers will be reset automatically.



7.8.1.2 Selections in km/Miles

When the system is turned on, press and hold the **+** and **≡** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "S7" appears on the display (as shown below). Now using the **+** or **≡** button, choose between "km/h" or "mile/h" .

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

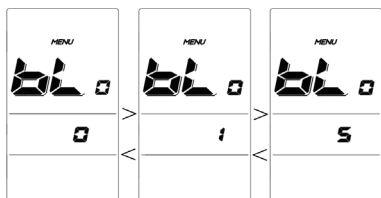


7.8.1.3 Set light sensitivity

When the system is turned on, press and hold the **+** and **≡** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "bL0" appears on the display (as shown below). And then

press **+** to increase or **-** to reduce (light sensitivity for 0-5). Chose 0 means turn off the light sensitivity.

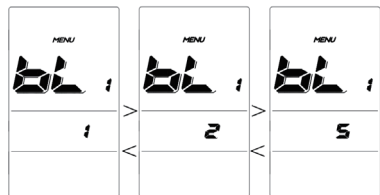
Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "Set display brightness".



7.8.1.4 Set display brightness

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "bl1" appears on the display (as shown below). And then press **+** to increase or **-** to reduce (brightness for 1-5).

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

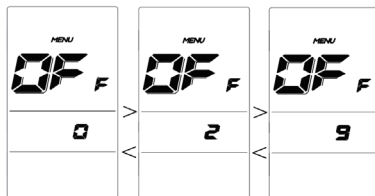


7.8.1.5 Set Auto Off

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "OFF" appears on

the display (as shown below). And then press **+** to increase or **-** to reduce (Auto Off for 1-9minute).

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

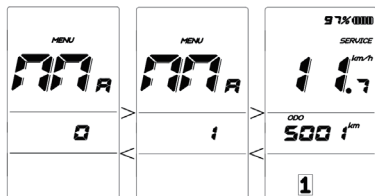


7.8.1.6 Service Tip -- Switching the notification on and off

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "nnA" appears on the display (as shown below). And then press **+** or **-** to choose between "0" or "1". Chose 0 means turn off the notification.

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

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



7.8.2 View Information

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

7.8.2.1 Wheel size

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "LUd" appears on the display (as shown below).

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



7.8.2.2 Speed limit

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "SPL" appears on the display (as shown below).

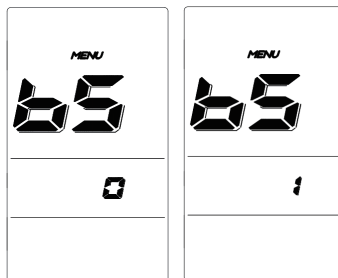
Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "Vibration setting".



7.8.2.3 Vibration setting

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "bS1" appears on the display (as shown below). And then press **+** or **-** to choose between "0" or "1". Chose 0 means turn off the vibration.

Once you have chosen your desired selection, press the **⏻** button to save and enter next item "Controller software info".



7.8.2.4 Controller software info

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "CSc (Controller Software check)" appears on the display (as shown below).

Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "Controller hardware info".



7.8.2.5 Controller hardware info

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "CHc (Controller Hardware check)" appears on the display (as shown below).

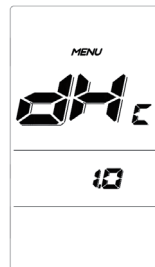
Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "Display hardware info".



7.8.2.7 Display hardware info

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "dHc (Display Hardware check)" appears on the display (as shown below).

Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "BMS software info".



7.8.2.6 Display software info

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "dSc (Display Software check)" appears on the display (as shown below).

Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "Display hardware info".



7.8.2.8 BMS software info

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "bSc (BMS Software check)" appears on the display (as shown below).

Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "BMS hardware info".



7.8.2.9 BMS hardware info

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "bHc (BMS Hardware check)" appears on the display (as shown below).

Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "Sensor software info".



7.8.2.10 Sensor Software info

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "SSc (Sensor Software check)" appears on the display (as shown below).

Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "Sensor hardware info".

NOTE: This information is not displayed, if there are no torque sensor in the drive system.



7.8.2.11 Sensor hardware info

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "SHc (Sensor Hardware check)" appears on the display (as shown below).

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

NOTE: This information is not displayed, if there are no torque sensor in the drive system.



7.8.2.12 Battery info

When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** button until the "b01" appears on the display. You can briefly press **⏻** (0.3s) to view all information of the battery.

Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter next item "Message of Error Code".



Code	Code Definition	Unit
b01	Current temperature	C
b04	Total voltage	mV
b06	Average current	mA
b07	Remaining capacity	mAh
b08	Battery capacity of Full charged	mAh
b09	Relative Charge in percentage	%
b10	Absolute Charge in percentage	%
b11	Cycle Times	times

Code	Code Definition	Unit
b12	Max Uncharge Time	Hour
b13	Last Uncharge Time	Hour
d00	The number of cell	
d01	Voltage Cell 1	mV
d02	Voltage Cell 2	mV
dn	Voltage Cell n	mV
Hardware Ver	Hardware Version	
Software Ver	Software Version	

NOTE: If no data is detected, it displays "--".

7.8.2.13 Message of Error Code

NOTE: It can show error information for the last ten errors of the pedelec.


When the system is turned on, press and hold the **+** and **-** (>1S) button to access the "MENU" setting page, repetitively press the **⏻** until the "E00" appears on the display (as shown below). You can briefly press **⏻** (0.3s) to view ten Error Code "E00" to "E09". Error code "00" means that there is no error.

Once you have chosen your desired selection, press (<0.3S) the **⏻** button to save and enter the main screen.



7.9 ERROR CODE DEFINITION



The HMI can show the faults of Pedelec. When a fault is detected, the icon  will appear on the display and 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.



Error	Declaration	Troubleshooting
04	The throttle has fault.	<ol style="list-style-type: none"> 1. Check the connector and cable of the throttle are not damaged and correctly connected. 2. Disconnect and reconnect the throttle, if still no function please change the throttle.
05	The throttle is not back in its correct position.	Check the connector from the throttle is correctly connected. If this does not solve the problem, please change the throttle.
07	Overvoltage protection	<ol style="list-style-type: none"> 1. Remove and re-Insert the battery to see if it resolves the problem. 2. Using the BESST tool update the controller. 3. Change the battery to resolve the problem.
08	Error with the hall sensor signal inside the motor	<ol style="list-style-type: none"> 1. Check all connectors from the motor are correctly connected. 2. If the problem still occurs, please change the motor.
09	Error with the Engine phase's	Please change the motor.
10	The temperature inside the engine has reached its maximum protection value	<ol style="list-style-type: none"> 1. Turn off the system and allow the Pedelec to cool down. 2. If the problem still occurs, please change the motor.
11	The temperature sensor inside the motor has an error	Please change the motor.
12	Error with the current sensor in the controller	Please change the controller or contact your supplier.

Error	Declaration	Troubleshooting
13	Error with the temperature sensor inside of the battery	<ol style="list-style-type: none"> 1. Check all connectors from the battery are correctly connected to the motor. 2. If the problem still occurs, please change the Battery.
14	The protection temperature inside the controller has reached its maximum protection value	<ol style="list-style-type: none"> 1. Allow the pedelec to cool down and restart the system. 2. If the problem still occurs, please change the controller or contact your supplier.
15	Error with the temperature sensor inside the controller	<ol style="list-style-type: none"> 1. Allow the pedelec to cool down and restart the system. 2. If the problem still occurs, Please change the controller or contact your supplier.
21	Speed sensor Error	<ol style="list-style-type: none"> 1. Restart the system 2. 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. 3. Check that the speed sensor connector is connected correctly. 4. Connect the pedelec to BESST, to see if there is a signal from the speed sensor. 5. Using the BESST Tool- update the controller to see if it resolves the problem. 6. Change the speed sensor to see if this eliminates the problem. If the problem still occurs, please change the controller or contact your supplier.
25	Torque signal Error	<ol style="list-style-type: none"> 1. Check that all connections are connected correctly. 2. Please connect the pedelec to the BESST system to see if torque can be read by the BESST tool. 3. Using the BESST Tool update the controller to see if it resolves the problem, if not please change the torque sensor or contact your supplier.

Error	Declaration	Troubleshooting
26	Speed signal of the torque sensor has an error	<ol style="list-style-type: none"> 1. Check that all connections are connected correctly. 2. Please connect the pedelec to the BESST system to see if speed signal can be read by the BESST tool. 3. Change the Display to see if the problem is solved. 4. Using the BESST Tool update the controller to see if it resolves the problem, if not please change the torque sensor or contact your supplier.
27	Overcurrent from controller	Using the BESST tool update the controller. If the problem still occurs, please change the controller or contact your supplier.
30	Communication problem	<ol style="list-style-type: none"> 1. Check all connections on the pedelec are correctly connected. 2. Using the BESST Tool run a diagnostics test, to see if it can pinpoint the problem. 3. Change the display to see if the problem is solved. 4. Change the EB-BUS cable to see if it resolves the problem. 5. Using the BESST tool, re-update the controller software. If the problem still occurs please change the controller or contact your supplier.
33	Brake signal has an error (If brake sensors are fitted)	<ol style="list-style-type: none"> 1. Check all connectors are correctly connected on the brakes. 2. Change the brakes to see if the problem is solved. <p>If problem continues Please change the controller or contact your supplier.</p>
35	Detection circuit for 15V has an error	Using the BESST tool update the controller to see if this resolves the problem. If not, please change the controller or contact your supplier.
36	Detection circuit on the keypad has an error	Using the BESST tool update the controller to see if this resolves the problem. If not, please change the controller or contact your supplier.

Error	Declaration	Troubleshooting
37	WDT circuit is faulty	Using the BESST tool update the controller to see if this resolves the problem. If not, please change the controller or contact your supplier.
41	Total voltage from the battery is too high	Please change the battery.
42	Total voltage from the battery is too low	Please Charge the battery. If the problem still occurs, please change the battery.
43	Total power from the battery cells is too high	Please change the battery.
44	Voltage of the single cell is too high	Please change the battery.
45	Temperature from the battery is too high	Please let the pedelec cool down. If problem still occurs, please change the battery.
46	The temperature of the battery is too low	Please bring the battery to room temperature. If the problem still occurs, please change the battery.
47	SOC of the battery is too high	Please change the battery.
48	SOC of the battery is too low	Please change the battery.
61	Switching detection defect	1. Check the gear shifter is not jammed. 2. Please change the gear shifter.
62	Electronic derailleur cannot release.	Please change the derailleur.
71	Electronic lock is jammed	1. Using the BESST tool update the Display to see if it resolves the problem. 2. Change the display if the problem still occurs, please change the electronic lock.
81	Bluetooth module has an error	Using the BESST tool, re-update the software onto the display to see if it resolves the problem. If not, Please change the display.