EBIKE ESSENTIALS DPC18 Display Meter with Controller User Manual

DPC18 MANUAL

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INTRODUCTION

The DPC18 display includes the functions shown below:

- Multiple Power-Assist Levels
- Walk Assist (slow speed motor assist)
- Distance and Odometer (TRIP/TOTAL)
- Backlight / Headlight
- Speed based on current riding conditions
- Error codes
- Power meter (Watts or Amps)
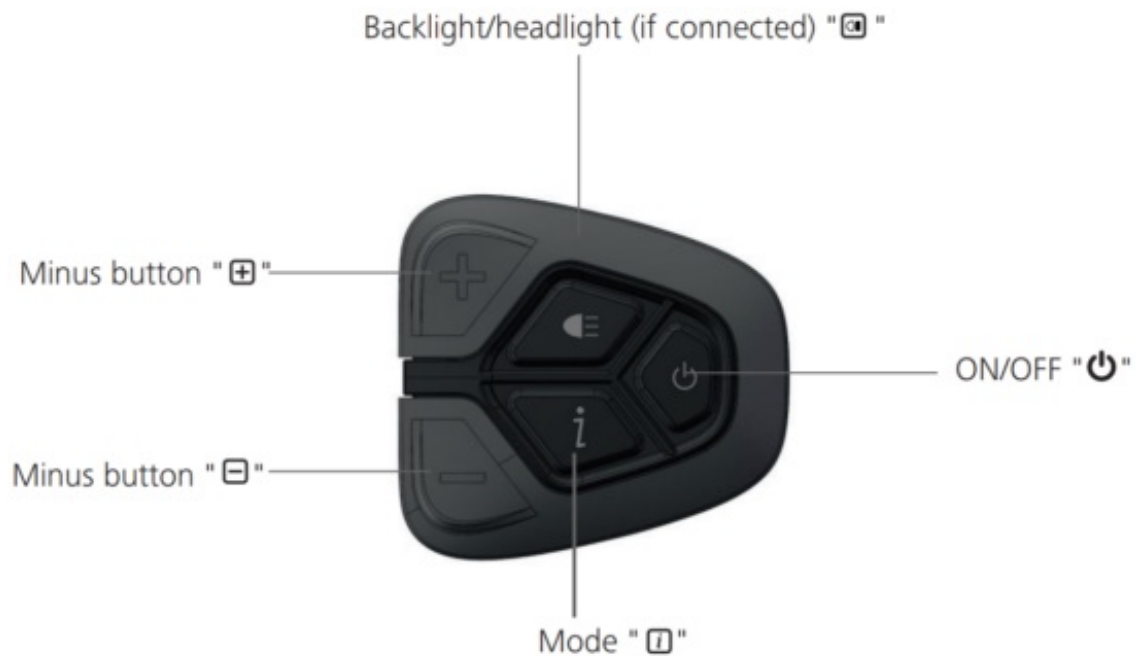- Battery Gauge (Voltage or Percentage)
  Note: Voltage is recommended for a more accurate battery capacity estimation
- USB charging port 5V at 0.5A (for small electronics not enough for a light)

Notes:

- Storage humidity 30 – 70%
- Operating temperature -4°F to 140°F
- IP65 waterproof

BUTTONS

Backlight/headlight (if connected) "⬕"

Minus button "⊞"

Minus button "⊟"

ON/OFF "⏻"

Mode "ⓘ"

OVERVIEW DRAWING

38.91

Ø22.20

42

96

62

Ø31.8

HARDWARE

The DPC 18 Display comes with all of the necessary hardware to mount on your handlebars.
You simply decide where you would like to install it on your handlebars and use the appropriate hardware to attach it.

1. Display Unit

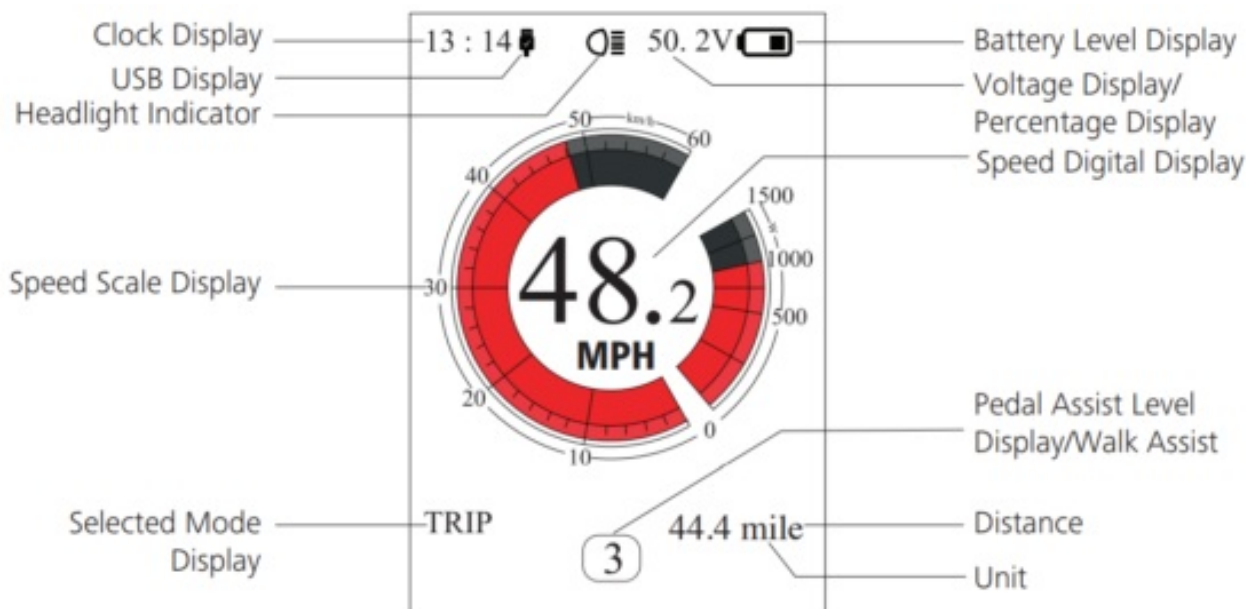2. M3 0.5 x 12 mm Bolts (Display Bracket Bolts)

3. Rubber Grommets

SPECIFICATIONS

- Maximum operating current: 30mA
- When power is off, the leak current is less than: 1uA
- The operating current supplied to the controller: 50mA

- Operation temperature: -4°F~113°F
- Storage temperature: -22°F~158°F
- IP level: IP65
- Storage humidity: 30%-70%

	Avoid collisions to prevent damage or malfunction.
	The unit is IP65 water-resistant.
	During installation do not overtighten the bolts as this will break the brackets!
	Bolts provided with the display are: 3 – M3 0.5 x 12mm (Control pad hardware and Mount bracket hardware)

INTERFACE

1. **Clock Display:**

   This displays the current time in the 24-hour time display system. Go to the "Set Clock" option in the display setting to set or change the time.

2. **USB Display:**

   The device will display the USB connector symbol on the screen when an external device is connected to the display.

3. **Backlight/Headlight Indicator:**

It will display the headlight indicator when the backlight/headlight is on.

4. **Speed Scale Display:**

    The speed scale display was designed to show both speeds as well as motor power information.

5. **Selected Mode Display:**

    This displays the current mode selected for use on the device. The display options include single-trip distance (TRIP), total distance (ODO), maximum speed (MAX), average speed (AVG), and time (TIME).

6. **Battery Level Display:**

    This shows the current battery level

7. **Voltage Display/Percentage Display:**

    This shows the actual battery level value in percentage or voltage. You can set this display option in the "SOC View" of the display settings menu.

8. **Speed Digital Display:**

    This displays the current travel speed value in the metric or imperial system. Set your preferred unit in the "Unit" option of the display setting menu.

9. **Power Scale Display/Current Scale Display:**

    This displays the current power output of the motor. You can set the output unit for this display in the "Power Unit" option of the display setting menu.

10. **Pedal Assist Level Display/Walk Assist:**

    This displays the level of the pedal-assist function. It also displays the walk assist symbol when the walk assist mode is engaged

FUNCTIONAL OVERVIEW

1. **On/off:**

    To turn the unit on, press and hold the power button to start the display.

    Press and hold the power button again to switch it off.

    Note: The battery must also be turned on (if applicable)

    If the password function of the display is activated, you will need to input the correct password to enter the normal user display interface.

2. **Display Information:**

    Press the button to cycle through the current information data available on the main menu of the display. The information is displayed on the bottom of the screen and includes the single-trip distance (TRIP), total distance (ODO), maximum speed (MAX), average speed (AVG), and riding time (TIME).

3. **Pedal Assist Level:**

    The display unit is integrated with the control pad to provide several levels of power. Press the or button to increase or decrease the power and speed levels.

    When the display is powered ON the default is PAS level 0.

    Note: Increasing your PAS level provides more power and speed.

4. **Walk Assist Mode:**

Press and hold the button to activate walking assist mode. The walking icon will be displayed on the screen and the motor will move the bicycle at about 4mph.

You need to keep holding down the button until you are done wanting to use the walk assist.

To turn off the walk assist, let go of the button.

The function is designed for walking alongside the bicycle only. Please do not use this function when riding.

5. **Backlight Display:**

Press and hold the light button for a few seconds to dim the display backlight of the device. This will change the backlight to a darker setting for night riding.

Press and hold the light button again to turn off this feature and return to the default backlight setting. If a front light is installed, this will also power the light.

DISPLAY SETTINGS

Preparation:
Make sure the display is turned ON.
To Enter Setting:
Press the button twice quickly And press the button again when "Display Settings" is selected to enter the Display Settings. This will enable you to adjust the default settings of the device to your preference.

1. **Speed Unit:**

This displays the unit of the speed in Metric (km/h) or Imperial (mph). Press the button to enter this setting and use the and buttons to toggle the options. Press the button once to save your preferred setting and exit this option. Use the button to scroll down to the next display setting option.

2. **Brightness:**

Use this setting to adjust the default brightness of your device. You may adjust this setting to pre-set values between 10%, which is the lowest available brightness, and 100% which is the highest available brightness.

Press the button to select this option and use the or button to increase or reduce the brightness. Select your desired brightness and press the button once to save your setting and exit this option. Press the button to scroll to the next display setting option.

3. **Auto-Off:**

This sets the time in minutes that the display system is inactive before turning off.

Press the button to select this option and use the and buttons to adjust the time to your preference. Press the button again to save your setting and exit this option. Use the button to scroll down

to the next display setting.

4. **Max PAS:**

This sets the number of pedal-assist levels for your motor. You can adjust this level to divisions of 3, 5, or 9 levels of the total motor power.

Press the [i] button to select this option and increase or decrease the level using the [+] or [−] button. Press the [i] button again to save your setting and exit this option.

Use the [−] button to scroll down to the next display setting.

Note: The number of pedal-assist levels (3, 5, or 9) you set in your display divides the total power of the motor among the number of pedal assist levels.

* We highly recommend setting your display to 9 Pedal Assist Levels to have access to more incremental and available power levels.

5. **Power View:**

This allows you to select your viewing preference for the power of the motor. This may either be in Watts or in Current (Amps).

Press the [i] button to select this option and toggle it using the [+] or [−] button. Press the [i] button again to save your setting and exit this option. Use the [−] button to scroll down to the next display setting.

SOC View (Battery Gauge voltage or

6. **Percentage):**

This sets how the battery power level is displayed on the screen. The sign can either be in percentage or in voltage. We recommend the voltage option, as this provides a more accurate gauge of the battery charge level.

Press the [i] button to select this option and switch to your preferred setting using the [+] or [−] button. Press the [i] button again to save your setting and exit this option. Use the button [−] to scroll down to the next display setting.

7. **TRIP Reset:**

This allows you to reset the TRIP readings of the odometer on your display. It is a one-time setting and once cleared, your TRIP readings will go back to reading zero.

This reset includes maximum speed (MAXS), average speed (AVG), and single trip distance (TRIP).

Press the [i] button to select this option and toggle it using the [+] or [−] button.

Press the [i] button again to save your setting and exit this option. Use the [−] button to scroll down to the next display setting.

8. **Wheel Size Setting:**

This sets the wheel diameter size in inches and should be done before riding your bike.

Please input the correct tire size into the display to enable accurate measurement of speed and other ride information.

Available Wheel Sizes are:

6", 7", 8", 9", 10", 11", 12", 13", 14", 15", 16", 17", 18", 19", 20", 21", 22", 23", 24", 25", 26", 28", 29", 30", 31", 32", 33", 34"

Press the [i] button to select this option and use the [+] or [−] button to input the correct wheel size.

Press the [i] button again to save your setting and exit this option. Use the [−] button to scroll down to the next display setting.

9. **Speed Limit:**

Press the [i] button to select this option and adjust the speed limit to your preference. Press the [i] button again to save your setting and exit this option. Use the [−] button to scroll down to the next display setting.

Note: Check your local laws regarding e-bike speeds. Setting the speed above the legal limit is not advised.

10. **AL Sensitivity:**

This is used to adjust the back-light dim setting in low light conditions. It will set the light sensitivity of your device.

Press the [i] button to enter this option and adjust the setting to your preference by using the [+] and [−] buttons. Use the [+] button to increase the value to the highest (Level 5) and press the [−] button to reduce it to the lowest value (Level 1). Press it one more time at the lowest value to turn off this setting.

Press the [i] button again to save your setting and exit this option. Use the [−] button to scroll down to the next display setting.

11. **Password:**

This option is used to lock the display device and prevent unauthorized access. If activated, a 4-digit input password will be required to enter the normal user interface when the device is turned on.
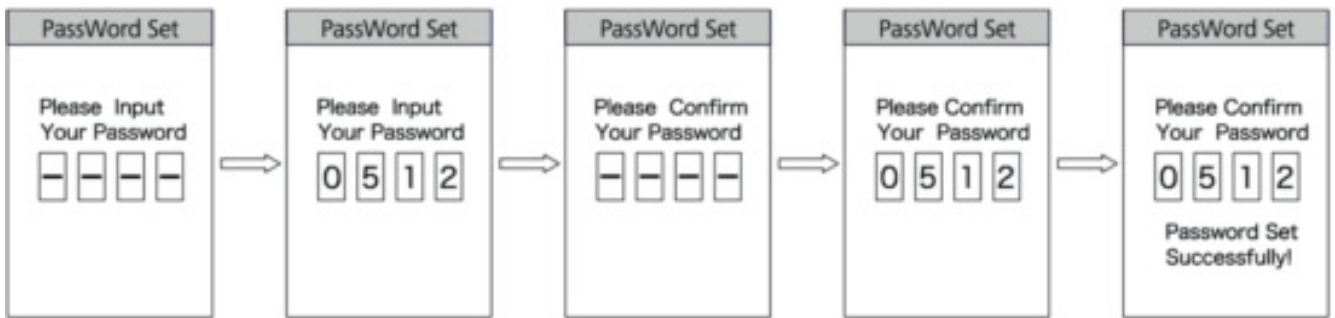
i. Setting Password

• Cycle to this password option using the [−] button and select "ON". The display will show an interface to input your preferred password.

• Scroll and Select between numbers "0–9" using the [+] and [−] buttons for each entry slot.

Press the [i] button to confirm your selection for each slot. Press the [i] button again to confirm the inputted password.

• After the input, it will display the input password interface again, repeat the above step and input the same password. If the password is the same as the previous entry, the system will display a prompt showing that you have successfully set your password. With an incorrect entry, you will need to repeat the first step and input the password, and reconfirm.
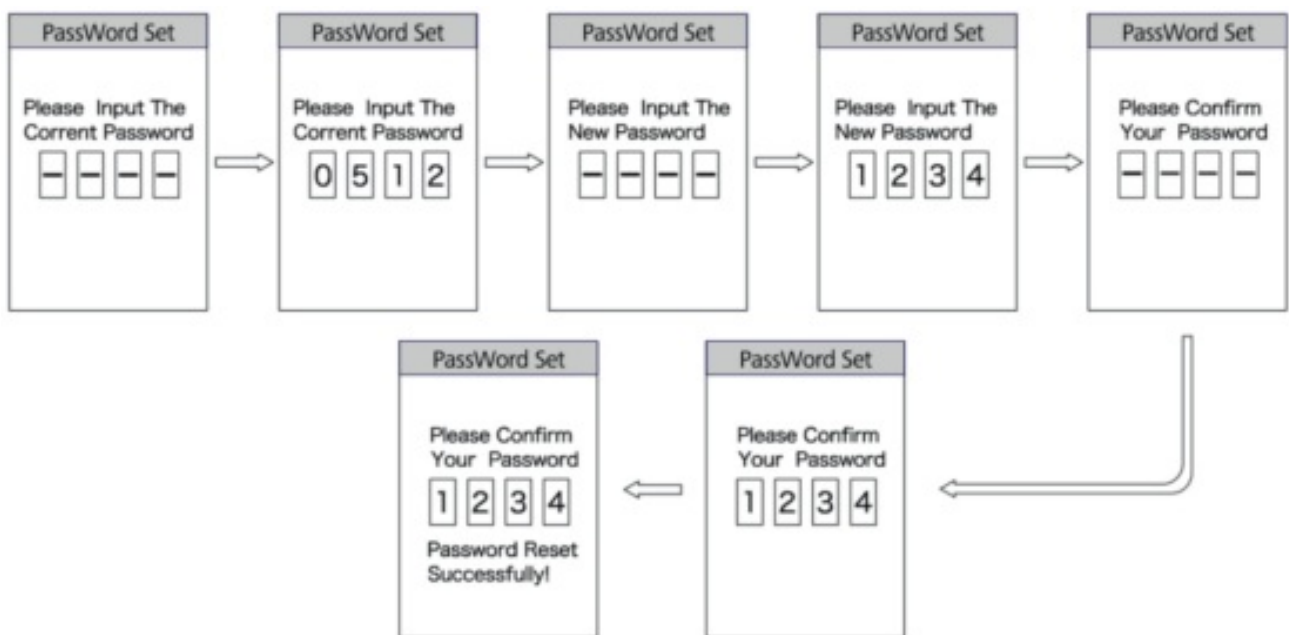
• After correctly inputting the password, the interface will automatically exit to the password menu.
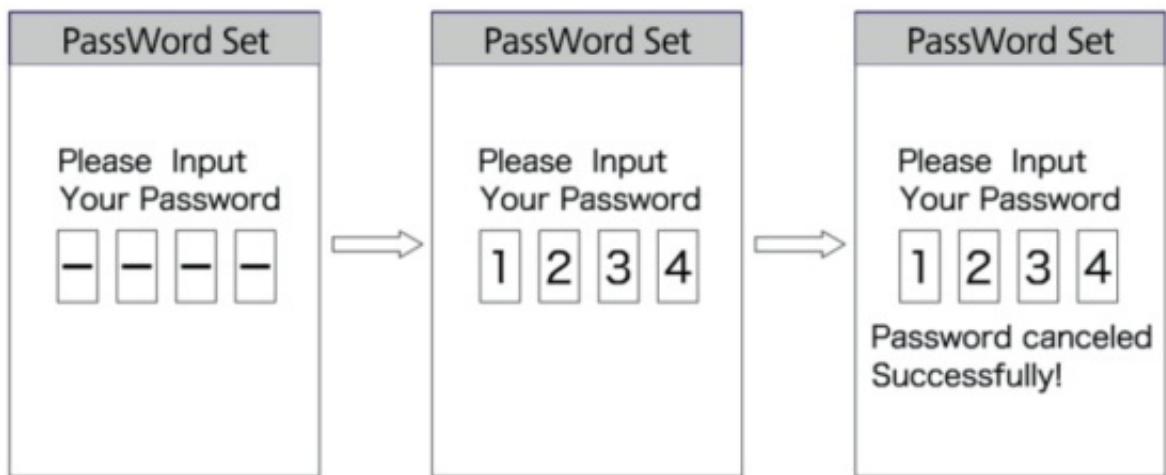
ii. Change Password

After setting the password, the option "Reset Password" will appear in the password menu. To reset the password:

• Scroll to the option using the ⊞ or ⊟ button and press the 𝒊 button to select "Reset Password". The interface will display a prompt to input the current password to gain access to this option. Please input the correct current password.

• Inputting the wrong password 10 times will cause the display system to switch off automatically.

• If the password is correct, the interface will display a prompt to input the new password. Repeat the process of "Setting Password" reconfirming the password as described above. The interface will automatically return to the password menu at the end of this action.

• Select the back 𝒊 button to exit this menu.

iii. Close Password:

• To disable the password option, enter the start password interface and select the "OFF" option.

The interface will display a prompt to input the current password to disable the password option. After correctly entering the current password, the interface will display a prompt showing you have successfully disabled the password. It will exit back to the password menu automatically.

• If you enter the incorrect password 10 times, the display will turn off automatically.

PassWord Set	PassWord Set	PassWord Set
Please Input Your Password [−][−][−][−]	Please Input Your Password [1][2][3][4]	Please Input Your Password [1][2][3][4] Password canceled Successfully!

12. **Clock Setting:**

The clock in this display uses 24-hour notation. Please note that the clock will reset every time you remove the battery of the device.

• To set the clock, press the [i] button on the option and use the [+] and [−] buttons to adjust each value.

• The cursor will appear on the first input digit of the hour section, adjust this input using the [+] and [−] buttons. Press the [i] button to confirm the selection and switch to the second input digit. Adjust this as well, using the [+] and [−] buttons. Confirm your selection and switch to the minute by pressing the [i] button.

Repeat this for the remaining input digit of the clock and press the [i] button to save the setting and exit this option.

Use the [−] button to scroll down to the "Back" option and select it by pressing the [i] button to exit the display setting menu.

INFORMATION SETTING

Preparation:
Please make sure the device is turned on
To Enter Settings
Scroll to the "Information" option on the user setting interface and press the button to enter the information settings page. This will display the following:

1. Battery Information: This information is currently unavailable on the Mid-drive models

2. Error Code Information: This information provides a list of previous error codes to assist with diagnostics.

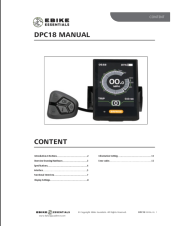   Note: These are not current error codes and should not cause concern

[i] DPC18 display can show e-bike faults. When a fault is detected, the icon 🔧 will be displayed. One of the following error codes will be displayed.

Error code	Error definition
5-Apr	Throttle fault
6	Low voltage cut-off protection
7	High voltage cut-off protection
8	Hall sensor fault
11-Oct	Max temperature protection cut-off
12	Controller fault
21	Speed sensor fault
22	Battery communication fault
30	Communication fault

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Documents / Resources

EBIKE ESSENTIALS DPC18 Display Meter with Controller [pdf] User Manual
DPC18, Display Meter with Controller, DPC18 Display Meter with Controller

References

- ⊛ **Mid-Drive e-Bike Kits | Ebike Essentials**