

Contents

Product name and model	1
Specifications	1
Appearance and dimension	1
Function and button definition	2
◆ Function summary	2
◆ Function layout	2
◆ Button definition	2
General operations	3
◆ Switch E-bike system ON/OFF	3
◆ Display interface	3
◆ light sensor function and switching the lighting ON/OFF manually	4
◆ Assist level selection	4
◆ Battery indicator	5
◆ Error code indication	5
General Settings	6
◆ Trip distance clearance	6
◆ Backlight brightness	6
◆ Toggle the unit KM/miles	6
◆ Wheel diameter	7
◆ Speed limit	7
Advanced settings	8
◆ Battery voltage segmented values settings	8
◆ Assist level settings	9
Assist level mode options	9
Assist level ratio settings	9
◆ Current limit (optional)	10
◆ Pedal assist sensor settings (optional)	10
Pedal assist sensor direction settings	10
Pedal assist sensor sensitivity settings	11
Pedal assist sensor magnet settings	11
◆ Speed sensor settings(optional)	11
◆ Throttle function settings(optional)	12
Throttle- 6km enable/disable settings	12

Throttle-PAS enable/disable settings	12
◆ System settings (optional)	13
Battery power delay time settings	13
Button- 6km enable/disable settings	13
Slow start up settings	13
◆ Power-on password settings	14
Power-on password Enable/Disable	14
Power-on password change	15
◆ Exit settings	15
Recover default settings	16
Quality assurance and warranty scope	16
Connector pin-out	17
Warnings	17
Appendix 1: Error code and definitions	18
Appendix 2: Advanced settings parameters symbols	18
Appendix 3: Assist level ratio defaults	18
Appendix 4: Other symbols	19

Product name and model

E-bike Intelligent LCD

Model: KD717

Specifications

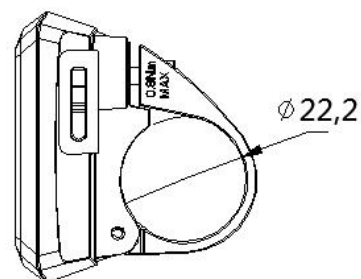
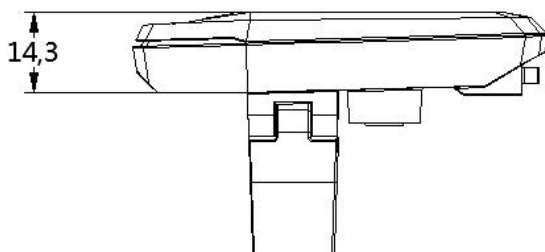
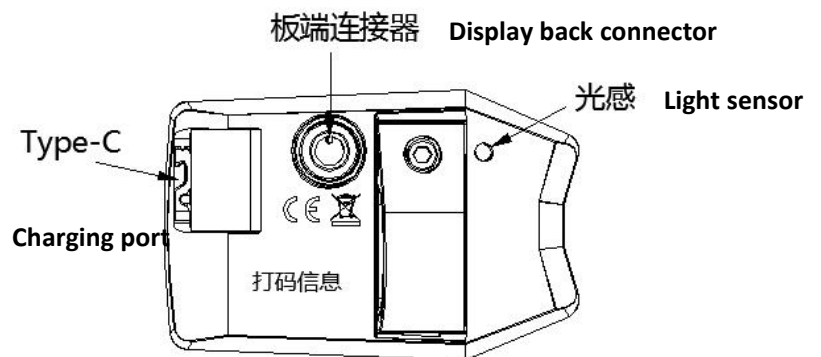
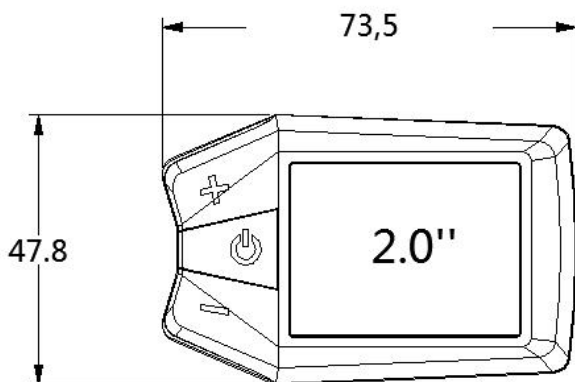
- 2.0" segment LCD screen
- communication: Uart / CANbus
- 24V/36V/48V /52V Power Supply
- Rated working current: 10mA
- The maximum working current: 30mA
- Off-state leakage current: <1μA
- Working temperature: -10°C~ 40°C
- Storage temperature: -20°C~ 60°C

Appearance and Size

Product appearance and dimensional drawing (unit: mm)



KD717



*** Display side is cable free.**

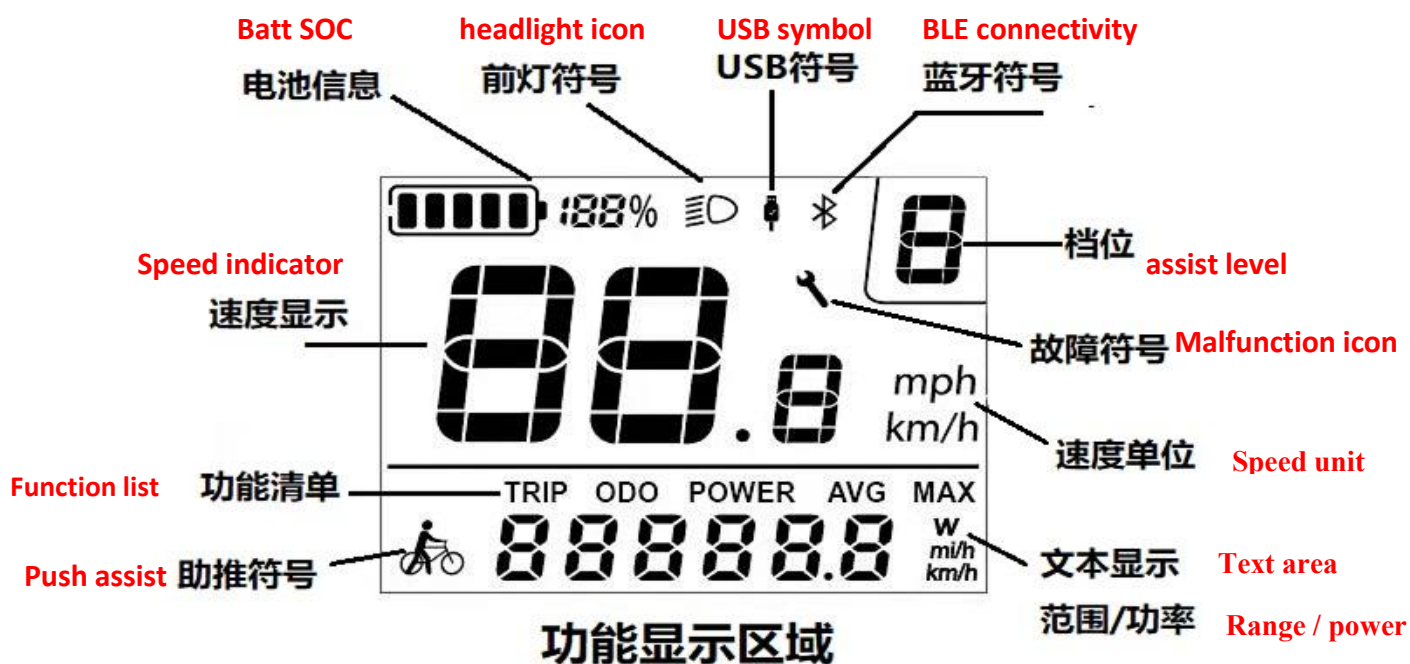
Function and Button Definition

◆Function Summary

KD717 has many functions to meet riders' needs. The indication elements are as follows:

- Intelligent battery SOC indication
- Motor output power indication
- Assist level selection and indication
- Speed indication (incl. current speed, Max. speed and Avg. speed)
- ODO and Trip
- Push-assistance function and indication
- Trip time indication
- Backlight ON/OFF and indication
- Error code indication
- Various Parameters Settings (e.g. wheel diameter, speed limit, battery power bar, assist level, current limit, password enable, etc.)
- Recover Default Settings
- Type-C charging port
- Built-in light sensor
- BLE connectivity(optional)

◆Function layout



Functional layouts information

◆Button Definition

Three buttons ( ON/OFF / mode,  plus and  minus) on KD717 display.

General Operations

◆Switching the E-bike System mode ON/OFF

Display automatically switches on/off when the battery power goes on/out.

When display is off, it will not use battery juice and the off-state leakage current is less than 1 μ A.

■When ebike is NOT in use in 5 mins, the E-bike system switches off automatically

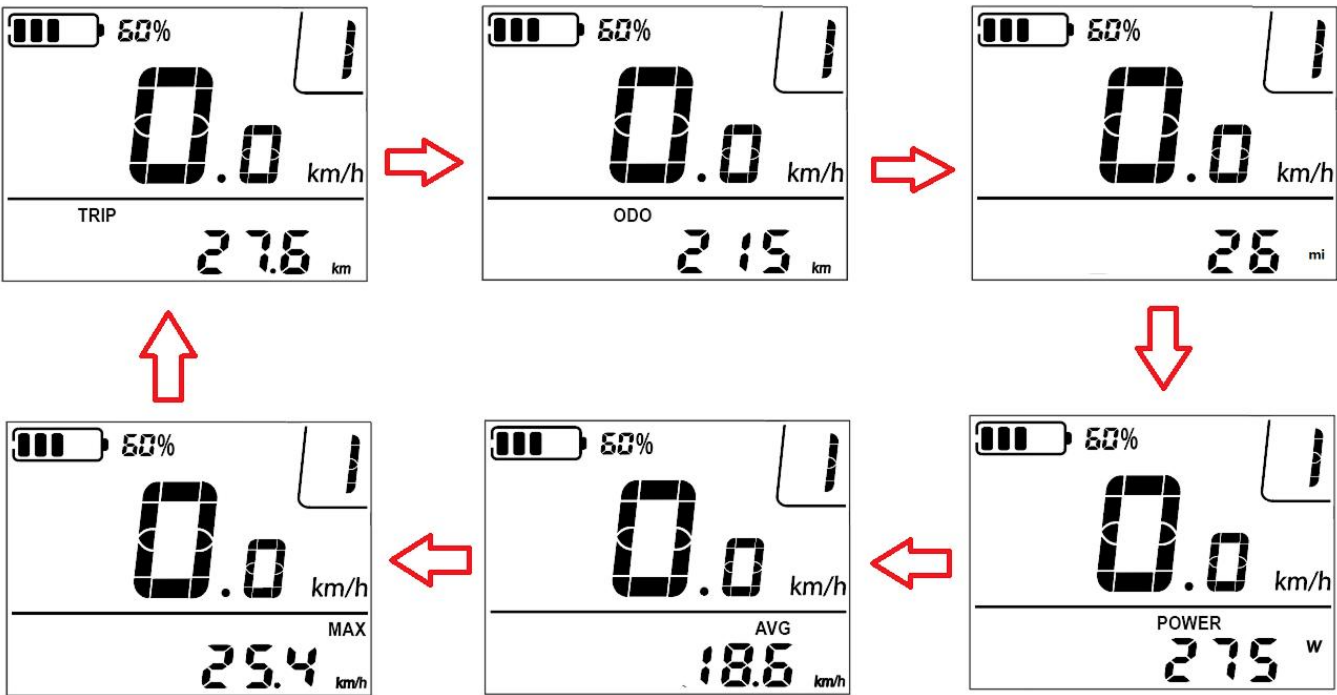
.

◆Display Interface

After switching on the E-bike system, the display shows Current Speed and Trip distance by default.

Press the **ON/OFF** button to switch between indication functions below:

Trip (Km) → ODO (Km)→ Trip time (in hours and mins) → Motor Power (W) → Avg. Speed (Km/h) → Max. Speed (Km/h) , it cycles back to Trip (km) again.



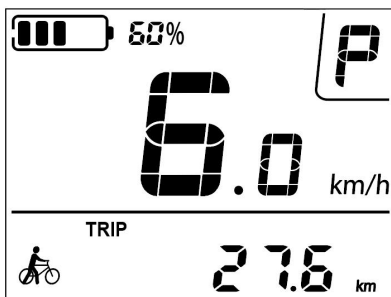
Display indication cycle interface

◆Switching Push-assistance mode ON/OFF

To activate the push-assistance function, first short press the ON/OFF button and then keep holding the - 

button. After 2 seconds, E-bike is activated to go at a uniform speed of 6 Km/h while the screen displays icon “ ” and level “P” is shown in the assist level text area.

The push-assistance function will be switched off as soon as you release the **DOWN** button and ebike gets back to the status before the push assistance is engaged.

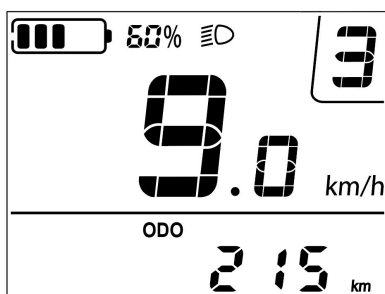


Push-assistance mode

■ Push-assist function may only be used when pushing the E-bike. Be aware of danger of injury when bike wheels do not have ground contact while using the push-assist function.

◆ light sensor function and switching the lighting ON/OFF manually

Display has a built-in light sensor which senses the ambient light conditions and automatically switches ON/OFF the lights. When there's a lack of ambient light or riders drive ebike at night, display backlight is on and in the meantime, display sends command to controller to turn on the bike headlight. When ambient light condition is good, display backlight and bike light will be off. However, when the user **manually** holds the + button for over 2 seconds, display will be turning on/off the headlight. In this case, the light sensor function is not in effect any more.

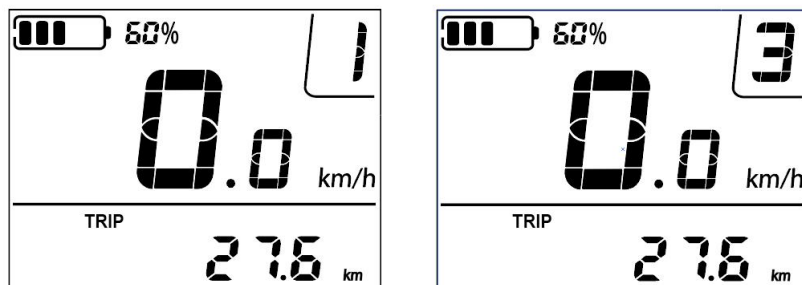


Lighting on/off

◆ Assist Level Selection

The assist level ranges from 0 to 5 (level 0 to level 5). The default assist level is “1” when the display is on. The output power is zero on Level “0”. Level “1” is the minimum output power. Level “5” is the maximum output power.

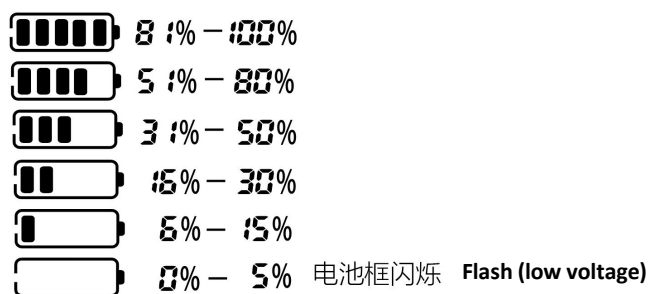
Press +/- button to switch between the E-bike system assist levels and change the motor output power.



Assist Levels switching

◆ Battery Indicator

The segments and percentage values represent the battery SOC. The five battery bars are bright when the battery is in full voltage. When the battery is in low voltage, battery frame will flash at the frequency of 1HZ to give a notice that the battery needs to be recharged immediately



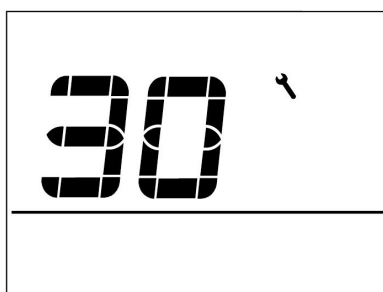
Battery Indicator

◆ Error Code Indication

The components of the E-bike system are continuously and automatically monitored.

When an error is detected, the error code and malfunction icon “” is indicated in the whole display UI.

Refer to detailed definition of the error codes in **Appendix 1**.



Error Code Indication

■ Have the display inspected and repaired when an error code appears. Or else, you will not be able to ride the bike normally. Please always refer to an authorized bicycle dealer.

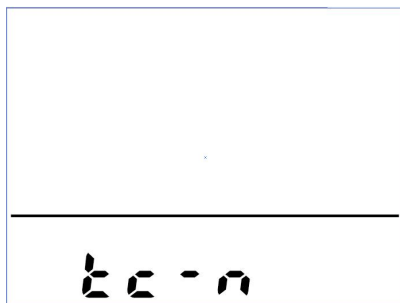
General Settings:

At home screen, hold + button and - button at the same time for 2 seconds to enter general settings menu page.

■ All settings are done to a stationary ebike with no speed.

◆ Trip Distance Clearance

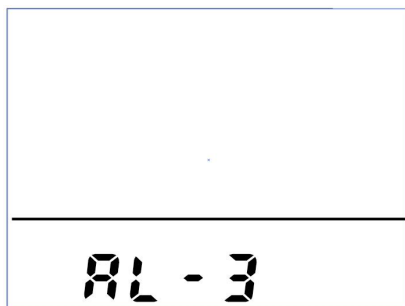
TC represents trip distance clearance settings. Press the **UP/DOWN** button to choose Y or N. The default value is N. To store a changed setting, press the **ON/OFF** button and access backlight settings. For symbols and their definitions



Trip Distance Clearance Settings Interface

◆ AL setting (light sensor sensitivity)

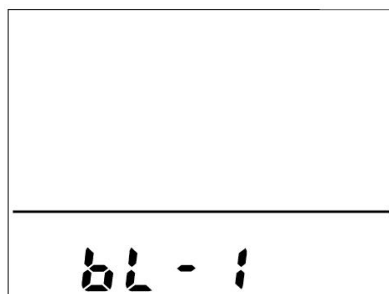
AL is for light sensor sensitivity setting. Press +/- to change the light sensor sensitivity levels from 0 to 5. the default value is level 3. 0 means light sensor function is disabled. Short press ON/OFF button to confirm a changed setting and enter the next setting parameter interface.



Light sensor sensitivity setting

◆ BL1 (backlight brightness setting)

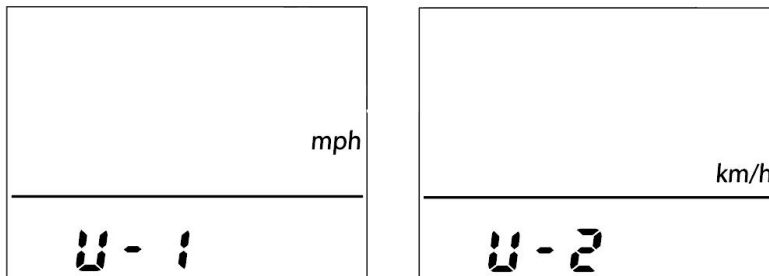
BL1 is for backlight brightness level settings. The settable values are 1(dimmest), 2 (standard), 3 (brightest). The default value is 1. Press +/- to change the brightness level and press ON/OFF to confirm a changed setting and enter the next setting parameter interface.



Backlight brightness settings

◆ U (toggling the unit)

U is for Unit. 1 is for imperial and 2 is for metric. Press +/- to switch the unit between mph and km/h. Short press +/- to confirm a changed setting and enter the next setting parameter interface.



Unit toggling interface

★At general Settings screen, hold **ON / OFF** button and - button at the same time for 2 seconds to enter wheel size/speed limit page

◆ LD (wheel size settings)

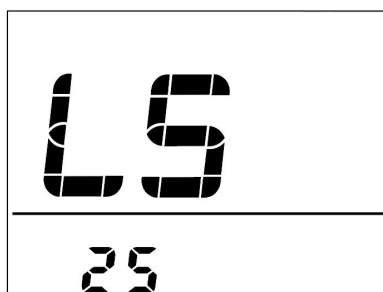
LD is for wheel diameter and the settable values are 16", 18", 20", 22", 24", 26", 700C, 28". Short press +/- to choose the desired wheel diameter to make the display shows correct speed and mileage. And then press ON/OFF button to confirm the setting and enter the next parameter.



Wheel diameter settings

◆ LS (speed limit settings)

LS is for the top speed limit. The settable range is 12 to 40 km/h. Short press +/- to change the speed limit values and press ON/OFF to confirm the setting and goes back to the first parameter BL0 in **Genera Settings**.



Speed limit interface

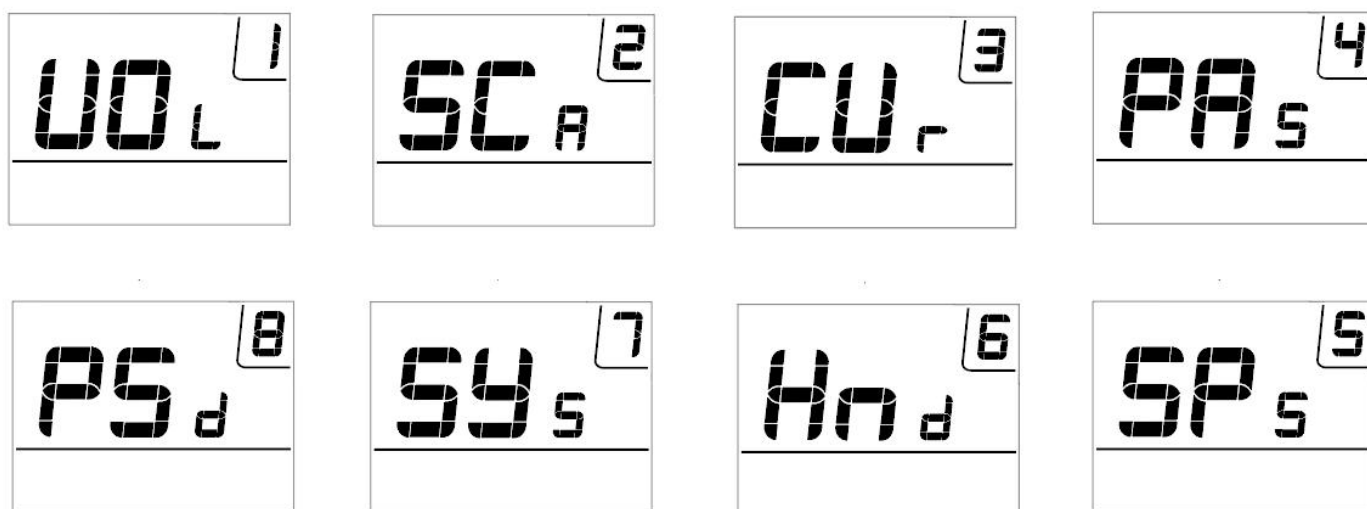
Advanced Settings:

At home screen, hold + button and - button at the same time for 2 seconds to enter **General Settings** page.

Advanced Settings can meet a variety of riders' personalized requirements. 8 settings are *Battery voltage segmented values setting*, *Assist level Settings*, *Current limit Settings*, *Pedal assist sensor Settings*, *Speed Sensor Settings*, *Throttle Function Settings*, *System Settings* and *Power-on Password Settings*. Please refer to **Appendix 2** for the definition of the symbols.

Hold + and - button simultaneously for 2 seconds to enter **General Settings** page. At **General settings** page, hold + and - button simultaneously for another 2 seconds to enter **Advanced settings**.

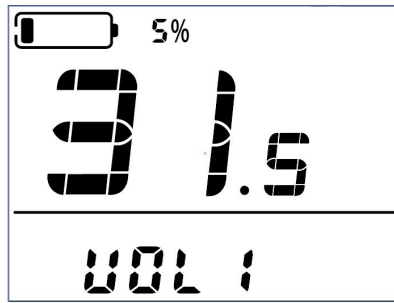
Press +/- button to choose the setting item, and then press ON/OFF button to enter the corresponding interface.



Advanced setting parameters interface

◆VOL (Battery voltage segmented values setting)

VOL is for battery voltage by 5 segments. The default 5 segmented values for a 36V battery are 31.5V-34.5V-35.6V-37.4V-39.2. Each of the 5 segments is to be set one by one. For example, VOL 1 is the first segment voltage value, the default value is 31.5V. Press +/- button to increase or decrease the value and press ON/OFF button to store a changed setting and access the second segment. Likewise, you can set the values in the same manner for other segments. After values for 5 bars are entered completely, **long press** ON/OFF button to confirm and return to Advanced setting parameters page.



Battery segmented values setting

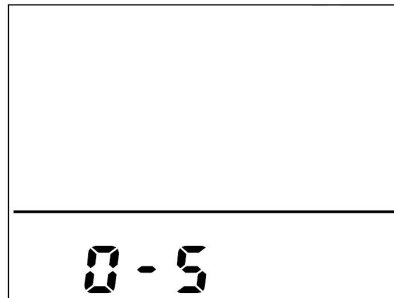
◆ SCA (Assist Level Settings)

Assist Level mode options

There are 8 assist level modes: 0-3, 1-3, 0-5, 1-5, 0-7, 1-7, 0-9, 1-9. The default mode is 0-5.

Press the **+/-** button to increase or decrease until the desired mode is displayed.

Press the **ON/OFF** button and access the assist level ratio settings automatically.



Assist level mode

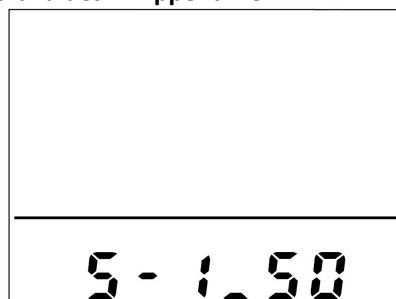
Assist level ratio settings

The speed of each assist level is adjustable to meet different riders' needs by setting the assist level ratios.

For example, the default ratio is 50% for level "1". To change the ratio of a certain assist level, press the **+/-** button to choose the desired ratio value, and then press the "ON/OFF" button to confirm and then move to the next level ratio setting. Up to 9 ratios can be set.

After ratios of all levels were input, hold the "ON/OFF" button for 2s to confirm and return to previous menu.

*Please refer to assist level ratio default values in **Appendix 3**



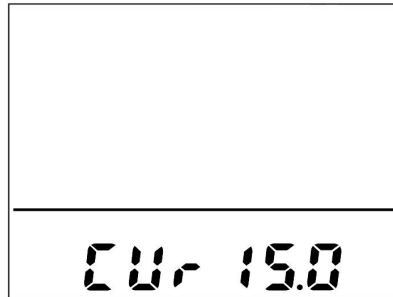
Assist level ratio settings

◆CUR (Current limit settings)

CUR represents controller top current limit settings. CUR value ranges from 7.0 A to 22.0 A.

Press the **+/-** button to increase or decrease the value of controller current limit.

Hold the **ON/OFF** button and then return to previous menu.



Current limit settings

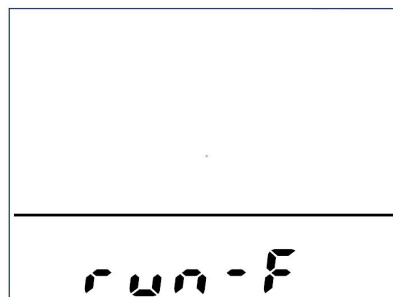
◆PAS (Pedal assist sensor setting)

Pedal Assist Sensor Direction Settings

“**run-F**” means forward direction while “**run-b**” means backward direction. The default value is “**run-F**”.

Press the **+/-** button to select **F** or **b** to change the direction of the pedal assist sensor.

Press the **ON/OFF** button to confirm the setting and access pedal assist sensor sensitivity settings.



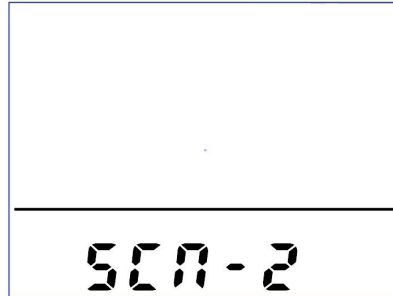
Pedal assist sensor direction settings

Pedal assist sensor Sensitivity Settings

SCN represents pedal assist sensor sensitivity settings. The sensitivity value ranges from “2” to “9”. “2” is the strongest, “9” is the weakest. The default value is “2”.

Press the +/- button to choose sensitivity value

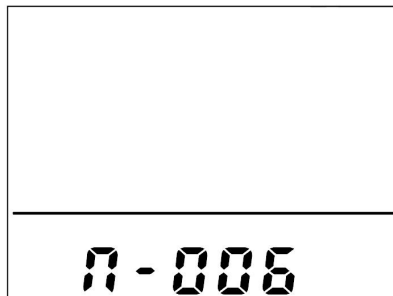
Press the **ON/OFF** button to confirm the setting and access pedal sensor magnet settings .



Pedal sensor sensitivity settings

Pedal sensor magnet settings

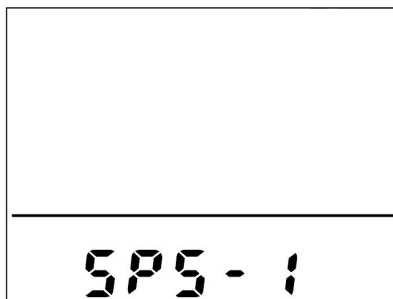
n is the numbers of magnets on the pedal sensor disk. Press +/- to choose the corresponding numbers for the magnets. Hold ON/OFF button to confirm the setting and return to the **Advanced settings** parameters page.



pedal sensor disk Magnet numbers.

◆ SPS (Speed sensor settings)

SPS is for speed sensor. The settable range is 1~9. Press +/- to choose the correct numbers according to the magnets numbers on the wheel spoke. Hold ON/OFF to confirm the setting and return to the **Advanced settings** parameters page.



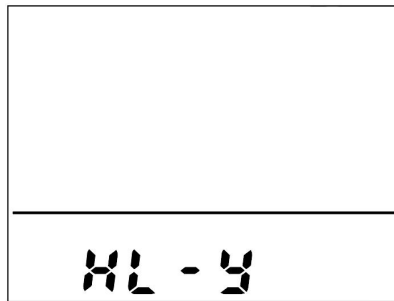
Speed sensor magnet numbers

◆Throttle Function Settings

Throttle- 6km function enable/disable settings

HL represents "throttle-6km" setting, i.e. push-assistance by turning the throttle.

HL-N means throttle - 6km is disabled. HL-y means throttle -6km is enabled. Press +/- to choose Y or N and press ON/OFF to confirm the setting. If N is set, then the user enters the Throttle-PAS settings. If Y is chosen, then go back to the Advanced settings parameters page. The default value is N.



Throttle - 6km settings

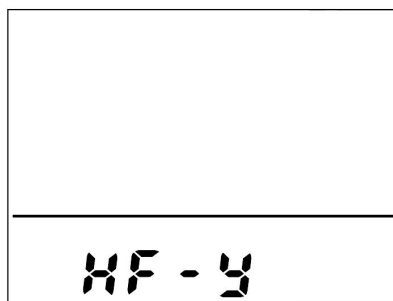
Throttle- PAS function enable / disable settings

HF represents "throttle-PAS" setting.

HF-y means throttle speed is limited by current assist level while HF-n means throttle speed is not limited by current pedal assist level. The default value is "n".

If you choose "y", the maximum throttle speed can only be the highest speed powered by current pedal assist level when you twist the throttle.

If you choose "n", the maximum throttle speed is not limited by current pedal assist level and you can override whatever pedal assist level you are at and reach rated maximum speed when you twist the throttle.



Throttle- PAS settings

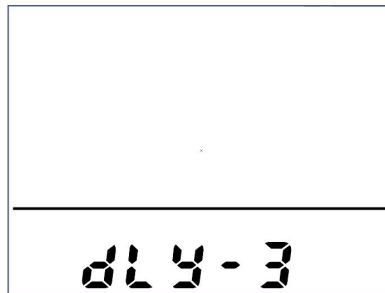
◆System Settings

Delay time settings for battery power

DLY represents battery power delay time settings. The default value is 3s.

Press the +/- button to choose delay time 3s, 6s, 12s to change the settings.

Press the **ON/OFF** button to confirm and access button- 6km settings.



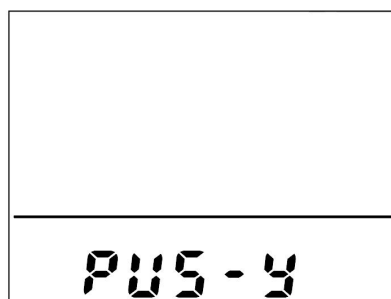
Battery power delay time Interface

Button - 6km enable/ disable.

PUS is for button- 6km, i.e. push assist by button pressing. "Y" means walk assist by the button is enabled, "N" means walk assist by the button is disabled. The default value is "Y".

Press the +/- button to choose "Y" or "N" to change settings.

Press the **ON/OFF** button to confirm and then access slow start up settings.



Push-assistance settings Interface

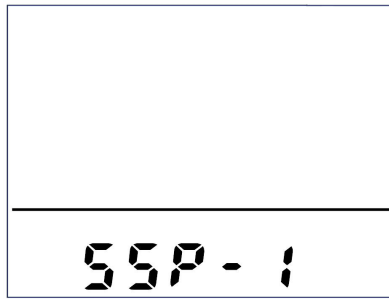
Slow Start up Settings

SSP represents slow start up. The range is "1-4", "4" is the slowest. The default value is "1".

To change slow start up settings, press the +/- button to choose the desired value.

Press the **ON/OFF** button and moves back to Delay time settings for battery power.

Hold the **ON/OFF** button for 2s to return to the **Advanced settings** parameter interface.



Slow Start-up Settings interface

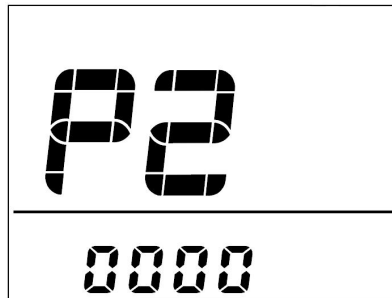
◆ Power-on Password Settings

PSd is power-on password settings. The password is a 4-digit code.

Press **ON/OFF** button to enter the interface where “P2, 0000” is shown on the screen. Please input the current password or default password ‘1212’.

Press **+/-** button to increase or decrease the number and press **i** button to confirm digits one by one until the correct 4-digit password is completed. Press **ON/OFF** button to access power-on password Enable/Disable Settings.

Otherwise stay in password input state.



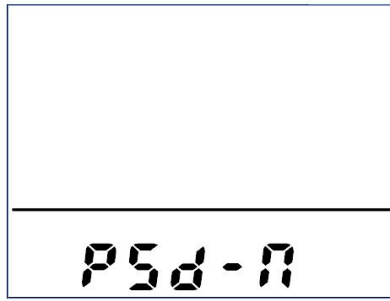
Password Input Interface

Power-on Password Enable/Disable

Press **+/-** button to choose Y or N and press **i** button to confirm. Y means power-on password is enabled. N means power-on password is disabled. The default value is N.

If you choose Y, press the “**i**” button and then access power-on password change interface.

If you choose N, you will exit the power-on password settings interface and return to previous menu.



Power-on Password Disable/Enable Interface

Power-on Password Change

When the display shows P3, 0000, press +/- to change the number and then press **ON/OFF** button to confirm digits one by one until a new 4-digit password is completed.

To store the new power-on password, hold **ON/OFF** button for 2 s and then exit settings.

When you switch on the E-bike system next time, the display will show P1,0000, please input the new password to power on.



Power-on Password Change Interface

◆Exit the settings

In setting pages, short press ON/OFF is confirm the input and save current settings; Long press ON/OFF (for more than 2 seconds) is confirm, save current settings and exit current settings.

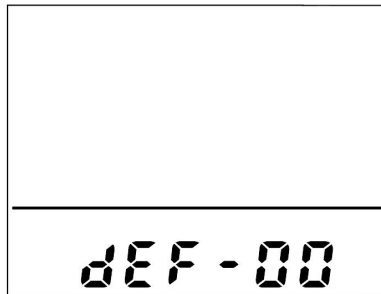
■ If there's no operations within 1 minute, display exits the settings page automatically.

Recover default settings

dEF is for recover the default settings. The default value is N.

To access recover default settings, hold both + and ON/OFF button at the same time for 2s . Press the +/- button to choose “Y” or “N” . “N” means not recovering default settings. Y means recovering default settings.

When it is “Y” , hold the ON/OFF button for 2s to recover default settings, the display shows DEF-00 at the same time and returns to display home screen .



Recover default settings

Quality assurance and warranty scope

I Warranty

- 1) The warranty will be valid only for products used in normal usage and conditions.
- 2) The warranty is valid for 24 months after the shipment or delivery to the customer.

II Others

The following cases do not belong to warranty scope:

- 1) The display is demolished.
- 2) The damage of the display is caused by wrong installation or operation.
- 3) The shell of the display is broken after the display is out of the factory.
- 4) The cable of the display is broken.
- 5) Beyond warranty period.
- 6) The fault or damage of the display is caused by the force majeure (e.g., fire, earthquake, etc.)

Connector pin-out

This display is cable free. The controller cable connector can be directly inserted into the display back connector. Display back connector default model is **JL-F39-Z508JG, Julet 5 pins male**.



Display back connector pin-out table

Pin serial	Code	Function
1	VCC	Display power pin
2	KP	Controller power pin
3	GND	Ground/earth
4	RX	Display side- comm RX
5	TX	Display side- comm TX

Warnings:

1. Use the display with caution. Don't attempt to release or link the connector when battery is power on.
2. Try to avoid hitting the display.
3. Don't modify system parameters to avoid parameter disorder.
4. Make the display repaired when error code appears.

■ This manual instruction is a universal version for KD717 display. Software specific, versions of this display may be different. Please always refer to an actual version.

Appendix 1: error code and definition

Error code	Definition
21	Current failure
22	Throttle failure
23	Motor phase wire absence
24	Motor hall sensor failure
25	Brake failure
30	Display-controller Communication failure
31 (new EN standard)	Display MOSFET short-circuited
32 (new EN standard)	ON/OFF button is sticky
33 (new EN standard)	Minus(-) button is sticky
34 (new EN standard)	Over voltage protection

Appendix 2: Advanced settings parameter symbols

Serial	Setting item	Symbols
1	Battery voltage segmented values	48.2
2	Assist level settings	52.8
3	Current limit settings	24.2
4	Pedal sensor settings	22.5
5	Speed sensor settings	52.5
6	Throttle function settings	44.2
7	System settings	59.5
8	Power-on password settings	25.2

Appendix 3: assist level ratio defaults

Level	1	3	4	5	6	7	8	9
Assist level mode								
0-3/1-3	50%	92%	—	—	—	—	—	—
0-5/ 1-5	50%	73%	85%	96%	—	—	—	—
0-7/ 1-7	40%	60%	70%	80%	90%	96%	—	—
0-9/ 1-9	25%	43%	52%	61%	70%	79%	88%	96%

Appendix 4: other symbols

Serial	Symbol	Meaning
1	EE	Trip distance clearance
2	BL ₀	Light sensor
2	BL ₁	Backlight
3	U	Unit
4	UOL	Voltage
5	Ld	Wheel diameter
6	LS	Speed limit
7	cur	Current limit
8	run-b	Backward
9	run-F	Forward
10	scn	Pedal sensor sensitivity
11	SPS	Speed sensor
12	dLY	Delay
13	HL	Throttle- 6km
14	HF	Throttle - PAS
15	PUS	Button - 6km
16	SSP	Slowly start-up
17	PSd	Password
18	DEF	Recover the defaults
19	Y	Yes
20	n	No