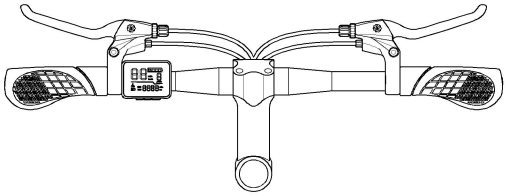
DZ29 Instruction

User Guide

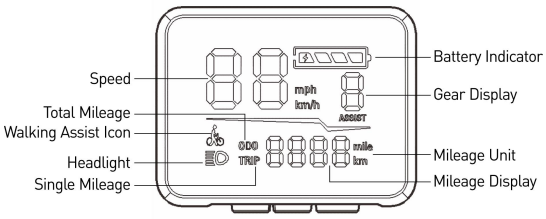
♦ It can be installed and used normally according to the operation instructions. The display is controlled by three buttons. Long press the button" ⏻ " to switch the machine on and off, and short press it to switch between ODO total mileage, TRIP single mileage, and fault code cycle. Short press the "**+** " key to increase the gear position, long press the "**+** " key to switch the headlights; short press the "**−**" key to decrease the gear position, long press the "**−**" key to enter the walk assist mode; Press "**+** "and "**−**" key at the same time for 3 seconds to enter the setting process, press "**+** or **−**" key to set and adjust the parameters; Simultaneously press "**+** and **−**" for 3 seconds to exit the setting mode. (For setting content, see the display setting manual).

♦ This display is mounted on the left-hand,it need to be installed on a horizontal pipe with ∅22.2 diameters. The appearance is small and round, it adopts high brightness LED light module to make sure the display is clear, black transparent window smooth and concision. The display is made of waterproof connector, easy to install and repair.

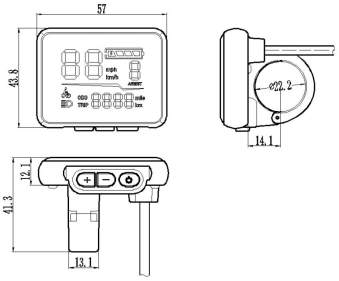
♦ The display is suitable for pedelec, e-scooter and other models. Assemble effect is show in the figure 1,2：



1：Interface（see figure 3）

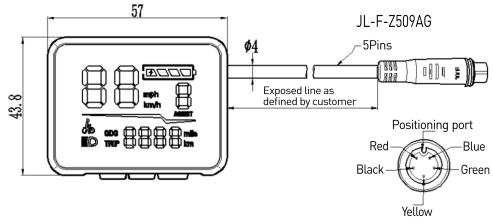


2：Dimension drawing（See figure 4）



Wiring Definition

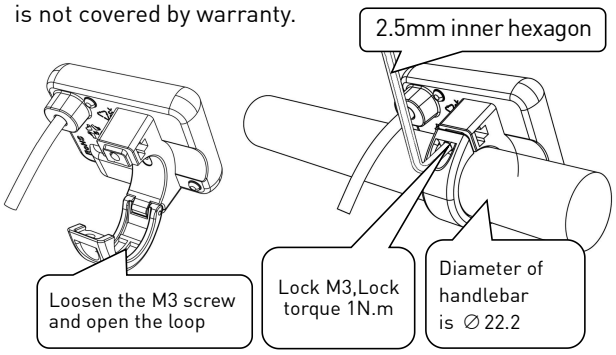
The wire of DZ29 is 5 core wire as normal, the wiring definition is show in the following figure. The connectors are according to customers'requirements.



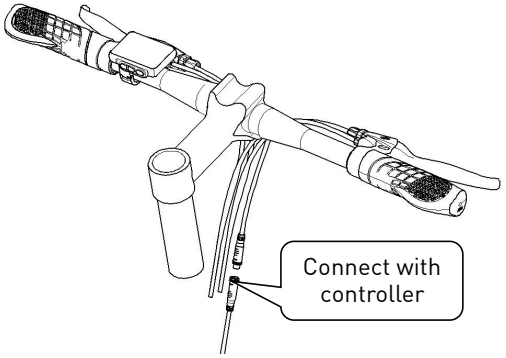
Five core wire(diameter:∅4.0)	
Color	Function
Red	VCC+
Black	GND
Blue	SD/KEY
Green	RX
Yellow	TX

Installation Instruction

①Open the locking ring of the display and put it onto the left hand handlebar (Standard handlebar specification: Φ22.2), then adjust it to the easy operating position, tighten the fixing screws by M3 inner hexagon. Locking torque: 0.8 N.m. The damage caused by excessive torque is not covered by warranty.



②Connect the display connector with the controller connector according to the following figure.



Switch Definition

On/Off：⏻ ， key **+**：，key **−**：

1. On/Off

Keep the connection between display and controller in normal , long-press the button ⏻（2s）, in shutdown

state , the display will be turned on, then it will start working.

Long-press the button (2s) , the display will be turned off.

2. Switch Speed Level

Short-press the button + or - can switch the gear and change the assistant mode, there are 0 ~ 5 gear mode status: default 0 in boot status(no icon), 0 means no assistant.(the assist gear interfaces are as follows)

3. Display information switch

Short-press the button in the boot status to cycle switch the subtotal mileage, total mileage and fault monitoring: total mileage (ODO) ->subtotal mileage (TRIP)->fault monitoring (E00). Mode switching mode interface are as follows:

4. Walk-assisted mode

Long-press the button - about 3s for entering the walk-assisted mode, and the lower left corner will appear this icon , loosening the button means existing the walk-assisted mode. The walk-assisted mode interface as shown below: :

5. Headlight switch

Long-press the button + about 3s for turning on the headlight (Need the support of controller) , and the headlight icon on the display interface will be lighted on, then the headlight will be turned off by long -pressing the button + about 3s, and the headlight icon will be gone out.

6. Battery

When the electricity quantity is normal, it is displayed in 4 squares according to the battery capacity. When the electricity quantity reaches the under-voltage warning, the last square will flash to remind users to charge immediately. The display of electricity quantity is showed in below :

Battery capacity (C) percentage and electricity quantity icon corresponding form (Tolerance ± 0.5V)

Battery%	Battery Level	24V	36V	48V
C≤5%		U≤23.1	U≤33	U≤42.9
5%<C<30%		23.1≤U<24.5	33≤U<34.8	42.9≤U<45.5
30%<C<50%		24.5≤U<25.5	34.8≤U<36.7	45.5≤U<47
50%<C<70%		25.5≤U<27	36.7≤U<38.5	47≤U<50.1
C≥70%		U≥27	U≥38.5	U≥50.1

User Settings

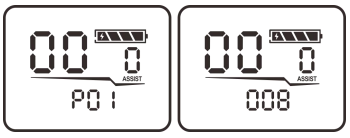
General setting item: backlight brightness, unit setting, voltage setting, automatic shutdown time,wheel diameter information and speed limit information, etc. (Other items are defaulted or associated with the controller, we can open the user setting option according to customers'requirements).

1. Enter the setting interface

Press the buttons " + - " about 3s at the same time in the boot state for entering the setting item, the press the button " " for setting parameters, press the button" + or - " to adjusting the parameters. Press the button " "

2. Backlight brightness setting

The mileage position will show P00 when entry the setting interface, press the button" + "for adjusting it to P01. Then press the button " " for view the backlight brightness value, factory default: 8, indication range:' 0-9 ', 0 means turning off the backlight.(specific interfaces is show below)



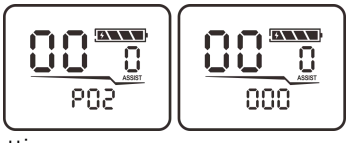
3. Unit setting

Enter the setting interface P02, press " " to view the unit, switching mile/kilometer mode, factory default: 0

Indication range:'0 , 1'

0 : kilometer, KM, KM/h

1 : mile, mile mph



4. Voltage setting

Go to setting interface and adjust the value to P03, press the button " " to view the voltage mode.

Factory default: 36V

Indication range:'24,36,48, 60', unit: V

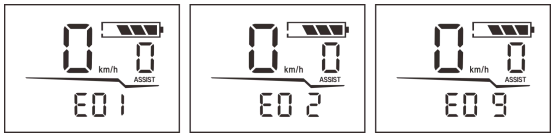
5. Automatic dormancy time setting

Go to setting interface to adjust the value to

P04,then press the button " ⏻ " for viewing the dormancy time.
Factory default value: 10 minutes
Indication range:'0-255', unit: minute
The value 0 means shutting down the dormancy mode.
6. Wheel diameter setting
Go to setting interface and adjust the value to P08, press the button " ⏻ " to viewing the wheel diameter.
Factory default value: 8.0 inch
Indication range:'1.0-50.0', unit: inch
7. Speed limit setting
Enter the setting interface and adjust the value to P10, press the button " ⏻ " for viewing the speed limit value, factory default value: 128
Indication range: '0-255'(The speed limit value of eight-party protocol is set by the controller)
8. Exit setting
Press the buttons"+ and - "about 3s at the same time to exit the setting mode.

Troubleshooting

♦ Short-press the button in the normal operating interface, short-press the button " ⏻ " to cycle view the following functions at the mileage position:
ODO(total mileage) → TRIP(single mileage) → error code → ODO(total mileage)
♦ The corresponding error code will flash in the error code interface when the vehicle get something wrong. (as shown in below)



Error code statement:
'E01' means the display cannot receive the data from the controller or the received data is wrong in currently. (1：To check if the wiring of TX/RX is correct. 2: To check if the wiring harness is off, broken, and the connector is loosen 3： whether the display protocol is match with the controller)
'E02' means the controller cannot receive the data from the display or the received data is wrong. (1：To check whether the wiring of TX、RX is correct.2: To check whether the wire harness is off, broken or the connector is loosen. 3: Whether the display protocol is match with the controller)
'E03' means the controller failure. (1: To check whether the voltage of the controller is normal; 2: Do the fault detection according to the controller instruction)
'E04' means the motor Hall failure in current. (whether there is intermittent lag phenomenon with the rotating motor; 2: Do the fault detection according to the controller instruction)
'E05'means the motor phase failure currently. (1：Rotating the motor to check whether there is a lag phenomenon; 2：Follow the motor instruction to do the fault detection)
'E06' means the throttle is out of order currently. (1: The throttle Hall was breakdown by high voltage, method: The input voltage of the Hall power line is 5V±0.2; 2： Check the initial voltage, it's 0.8V±0.1, the maximum voltage is 4.2V±0.1; 3：To check whether the wire harness is in a poor contact)
'E07' means the brake was broken currently (1：To check whether the function of brake power-off switch is failed currently. 2：To check whether the harness is loosen or broken.)
'E08' means the sensor was breakdown. (1: To check whether the harness is loosen; 2：Check whether the sensor is broken.)
'E09' means the motor is in the under-voltage protection. (1：Low power and need to be charged; 2：To check whether the battery is failed)

Maintenance and Maintenance

♦ Its necessary to check regularly whether the display connector is loosen.
♦ To check regularly whether the buttons and moving parts are spring-back normally, and check the decorate of display, fixing ring and screws are loose or not.
♦ Wipe the display window regularly to keep it clear for reading the data easily.

Attention

♦ Do not knock the LCD-screen window to avoid the LCD-screen or the shell being cracked, and please pay attention to the safety of operation.。
♦ Keep it away from the bad weather, such as heavy rain, heavy snow and be exposed in the strong sunlight.
♦ Don't pull and insert the plug-in in the case of power-on.
♦ Don't soak the whole display in the water to avoid shorting out. The display can not close to the fire source to prevent melting of plastic parts, cracking of LCD screen and environmental pollution.
♦ Display wiring is connected according to wire color definition, don't connect it at will to avoid the display being burned out.
♦ When the display is out of control, it should be repaired in time.