

VLCD-5

VLCD-5 Display Instrument

Operation Manual



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CATALOG

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Summarize

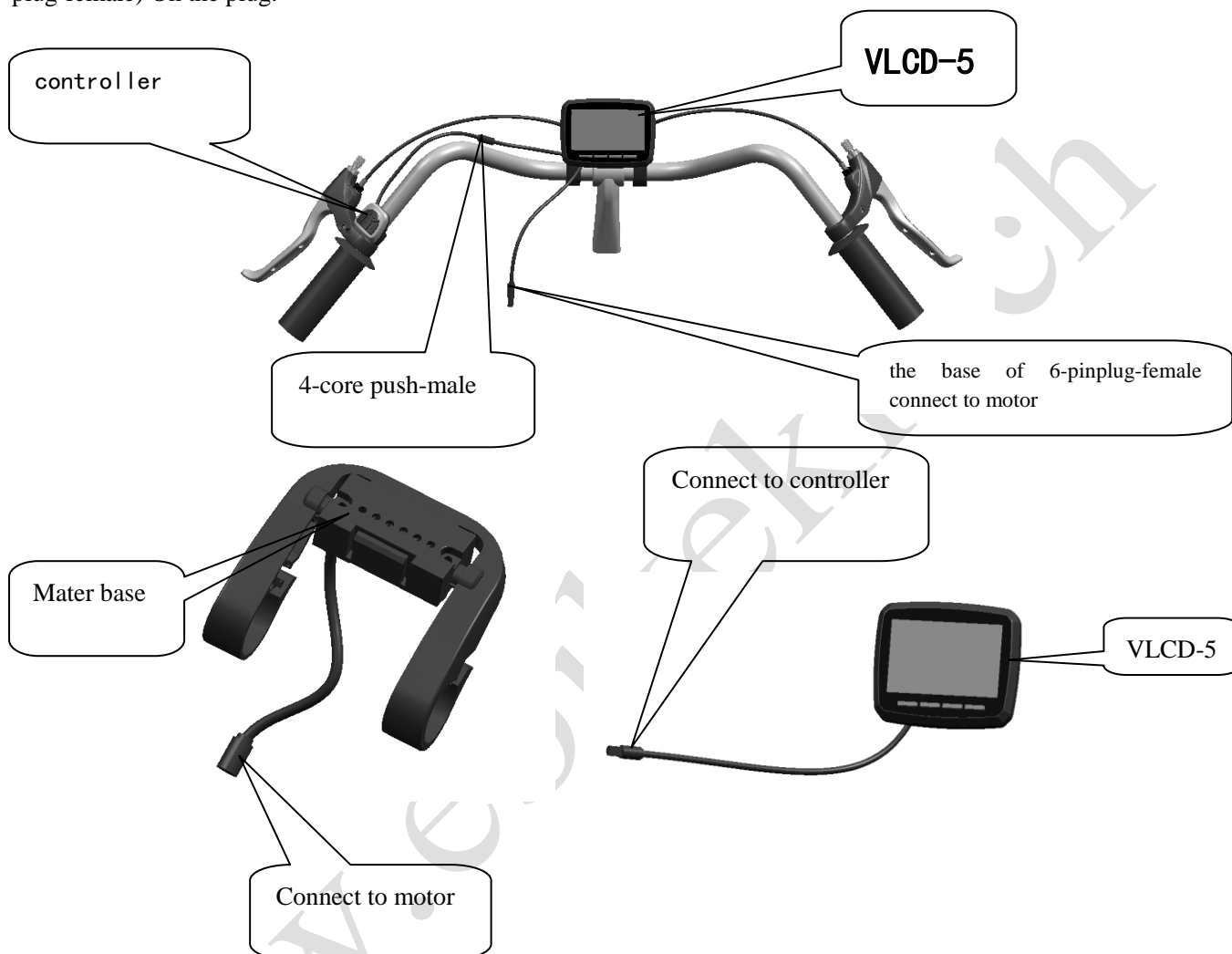
Intelligent VLCD-5 instrument is especially designed for electric bicycle. It's mainly used to control the power assist. And it can also show the energy of battery, measure the speed of electric bicycle, record the trip distance.

Specification

| | |
|----------------------------|--|
| Type | VLCD-5 |
| Working voltage | DC 11V-60V |
| Max working current | 70mA(11V) 32mA(50V) |
| Display type | 21*4 (21*4 segment LCD) |
| sampling | 1-12 1-12 pulses each circle of wheel |
| Working temperature | -20 ⁰ C—+70 ⁰ C |
| Backlight | LED 200cd/m ² (White LED mode, brightness:200cd/m ²) |
| Outline dimension | 102.5mm×74.5mm×28mm (102.5mm×75.5mm×28mm (not include thickness of rest)) |

Installation

Instruments mounted on the handlebar, plug-ins output line (4-core push-male) and operate on the (4-pin plug-female) On the plug.



VLCD wire system

- 1、 Orange (RX)
- 2、 Brown (TX)
- 3、 White (Weak current)
- 4、 Green (Power)
- 5、 Black (Earth)
- 6、 Purple (Brake)

Function Description

4. 1、 **Speed display**
Show current speed, unit Km/h and mile/h can be chosen.
4. 2、 **Energy indicator**
Four horizontal blocks show energy of battery (each block, 25 percents of electric energy), flickering to remind you to charge the battery.
4. 3、 **Trip distance(reset while power off)**
Show trip distance.
4. 4、 **Odograph**
Show total miles.
4. 5、 **Record movement time)**
Record time while sensor get signal.
4. 6、 **(Average speed (AVG))**
Show average speed.
4. 7、 **Power assist**
Show power assist.4 levels power assist adjustable.
4. 8、 **Backlight**
Switch among 2 levels brightness, default option is backlight off.
4. 9、 **Select wheel-diameter**
Select wheel-diameter among 14-32 inch. default option is 26-inch.
4. 10、 **Magnetic Steel number**
Select the magnetic steel number of the speed sensor, default value is 1.
4. 11、 **Speed**
Select Km/h or Mil/h, default is Km/h.
4. 12、 **Function aux. Speed**
Select function of 6km, default value is OFF.、
4. 13、 **Select Top Speed**
Select top speed from 15-45 Km/h .Default is 25Km/h.
4. 14、 **Power adjustment**
For TSDZ2 = 16.
Select power adjustment, default is 16.
4. 15、 **Language Selection**
Select mode, default is Europe. Do not change!
4. 16、 **25speedlimit activation**
Select function of 25km, default value is ON.
4. 17、 **Diagnostic code**
According to the failure condition, the diagnosis codes will be displayed. The fault detection will be launched automatically when rotating the handle and it will stop when the handle is reset.

Operation Flow

5.1 Button Definition



+ - information ON/OFF / Light

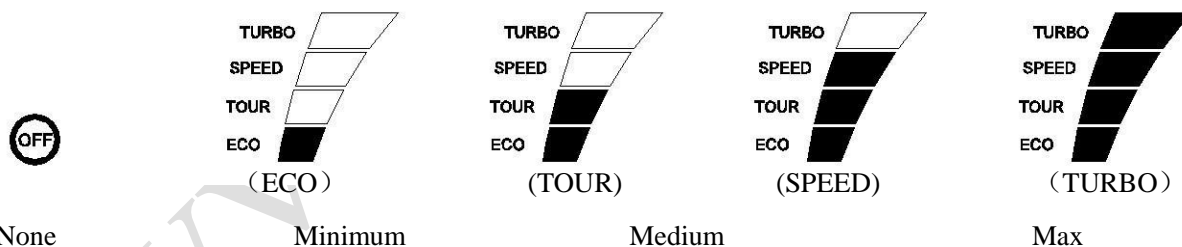
5.2 Operation and setting

- 1)

Press this button to power on the LCD display, long pressing the button for 2 seconds to power off. Automatically shut off without any operation in 5 minutes.

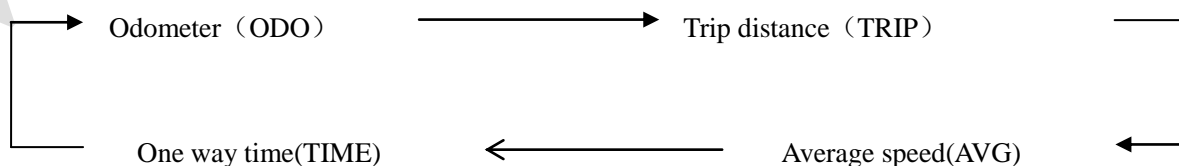
- 2) "OFF", "ECO", "TOUR", "SPEED", "TURBO" 5 "ECO"

There are 4 levels of power assist (none, low, medium, high). Press this button to adjust the power assist from low to high. Default is medium assist.




- 3) "ODO" "TRIP" "AVG", "TIME" "ODO" .

There are 4 levels of mode (odometer, trip distance, average speed, one way time). Press this button to adjust the mode. Default is odometer.






5.3 Accessorial function

Backlight

Use the  button to boot-time, press the button backlighting, press the button backlight is off. According that to switching the backlight state.

Odograph (ODO)

Under the condition of in odometer, press **the** three buttons    at the same time for 2s and the odograph reset.

ODO

8888 km

Odometer

Trip distance (TRIP)

In the trip distance state, press the  button 2s, Reset counter and time.

TRIP

888.8 km

Trip distance

Average speed (AVG)

Show average speed (average speed=trip distance / movement time), speed resolution is 0.1km/h (mil/h), full range is 99 km/h or 99.9mil/h.

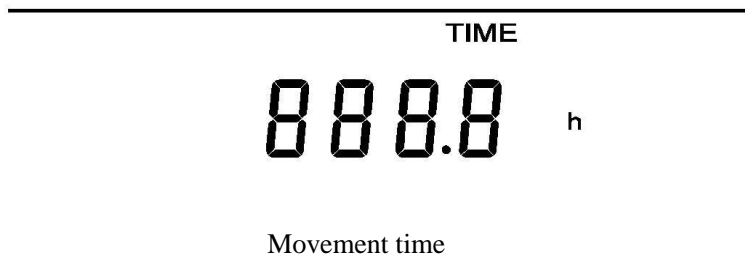
AVG

888.8 km/h

Average speed

Movement time (TIME)

Time corresponds to a single mileage required.





Show diagnostic code

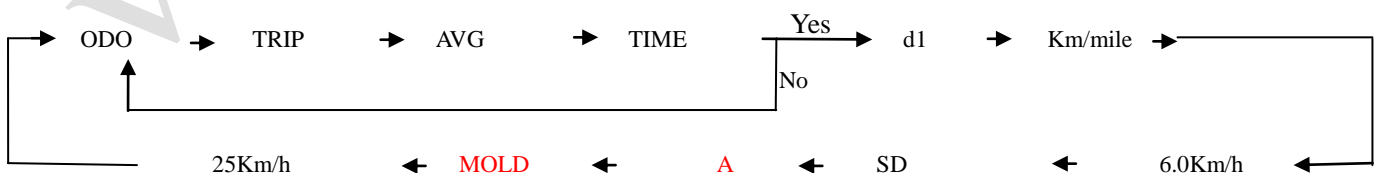


Show diagnostic code .Easy to detect the failure. Once the controller encounters an issue, the related error code will occur on the speed bar of the panel.



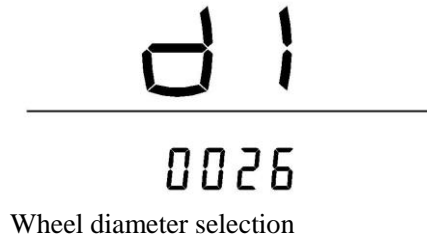
5.4 Hiding function and show

To enter the hiding function, at OFF state you should press these two buttons   at the same time for 3 seconds on startup screen, then all the items (including normal functions and special functions) shows up. Then wait for about a second until the screen changes. Then go quickly through the modes (menue steps). There are 11 levels of mode (odometer, trip distance, average speed, one way time, wheel diameter selection, magnetic steel number selection, speed units selection, 6/Km/h function selection, top speed selection, power adjustment selection, selection). Press this button to adjust the mode, 25/Km/h function selection. Default is odometer. (Tip: Just cycle time, the second will resume normal mode.)



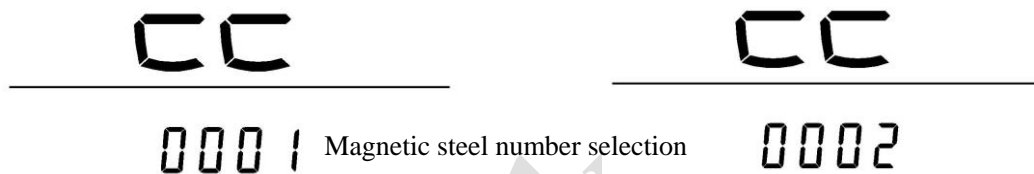
Wheel diameter selection(d1)

Use the **i** button to enter the speed units interface, press **+** or **-** button to switch between 14-32 inch. Default is 26.



Magnetic steel number selection(cc)

Use the **i** button to enter the magnetic steel number selection, press **+** or **-** button to switch between 1-12. Default is 1. The number represents one turn of the wheel, the pulse signal output.



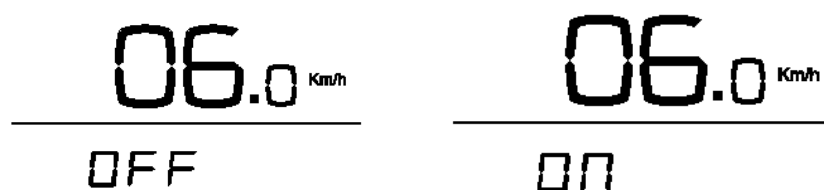
Speed units selection(km/h mil/h)

Use the **i** button to enter the speed units interface, press **+** button to switch between km/h and mil/h. Default is Km/h.



6km/h (max. Dumpgas speed selection)

Use the **i** button to enter the 6/Km/h function selection, press **+** buttons to switch between ON/OFF. Default is OFF. Kept press **-** button 3s in the neutral, enter the 6Km/h rotation motor, when selecting the open.



6/Km/h function selection

SD (Speed limit selection)

Use the **i** button to enter the speed limit selection, press **+** or **-** buttons to switch between 15-45. Default is 25.

A digital display showing the letters 'SD' in a large, black, seven-segment font.

25.0 Km/h

Speed limit selection

A (Power adjustment selection) → not available yet

Use the **i** button to enter the power adjustment selection, press **+** or **-** buttons to switch between 6-35. Default is 25. (This function not available, reserved for next version.)

A digital display showing the letter 'A' in a large, black, seven-segment font.

16

Power adjustment selection

MOLD SELECTION (LANGUAGE)

Use the **i** button to enter the mold selection, press **+** button to switch between Japan and Europe. Default is Europe.

A digital display showing the letter 'M' in a large, black, seven-segment font.

JAP

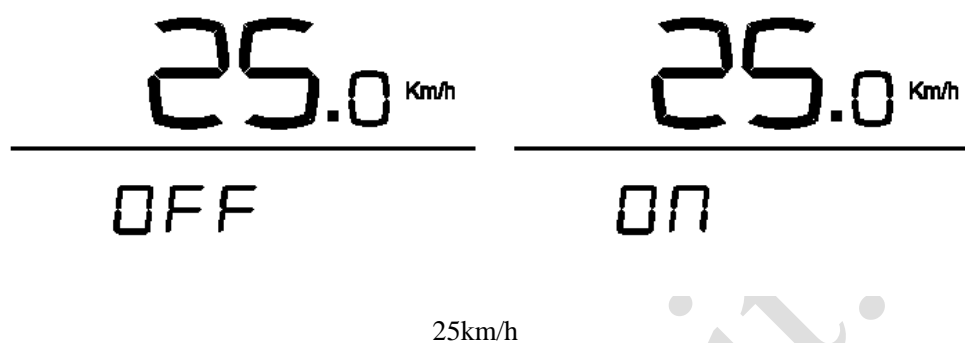
A digital display showing the letter 'M' in a large, black, seven-segment font.

EUR

mode selection

25km/h (speed limit function selection)

Use the **i** button to enter the 25/Km/h function selection, press **+** buttons to switch between ON/OFF. Default is ON.



5.5 Failure code

According to the failure condition, the diagnosis codes will be displayed. The fault detection will be launched automatically when rotating the handle and it will stop when the handle is reset.

| | |
|--------|--|
| ERR-02 | (Motor hall fault or motor short circuit) |
| ERR-03 | (Controller failure) |
| ERR-04 | (Turn the fault) |
| ERR-08 | (Low battery alarm) |
| ERR-06 | (Moment when the signal does not turn the motor) ⇒ At start you have to wait for 3 sec. until you touch the pedal, otherwise ERR-06 |