

Product introduction

1 Product name and model

Intelligent LCD display, model: DZ41

2 Product introduction

- ✧ Simple, light and thin, left-hand display design
- ✧ High brightness 1.8-inch multicolor digital tube screen
- ✧ Excellent outdoor design IP65 waterproof ability
- ✧ Serial communication interface, convenient maintenance service

3 Scope of use

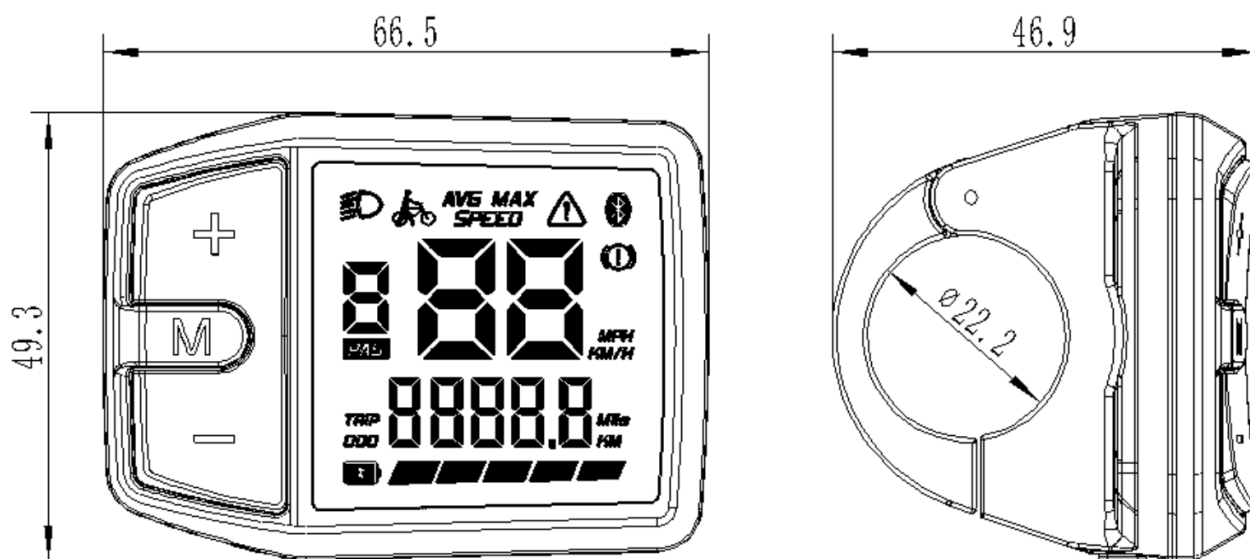
EN15194 electric power-assisted bicycle

4 Appearance and size

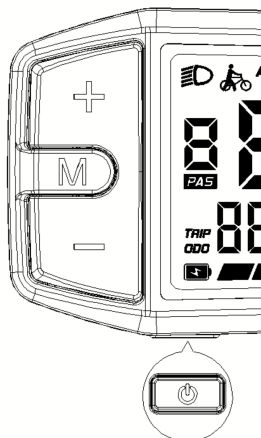
The shell material of the product is ABS, and the window is translucent PC.







4.1 Display overall dimensions




Key definition




Start button: , mode button: , adjustment button+: , adjustment button-: 

Normal operation

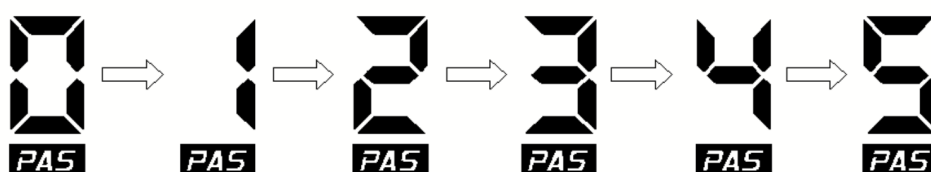
On/Off

Keep the normal connection state between the display and the controller, press the  key for 2 seconds when the display is turned off, and the display will fully display the startup

interface, then enter the basic interface normally and start working; Long press the  (2 seconds) in the power-on state, and the display will turn off. If the rider does not operate the meter for 5 minutes (speed is 0), the meter will automatically turn off.

Power shift switch

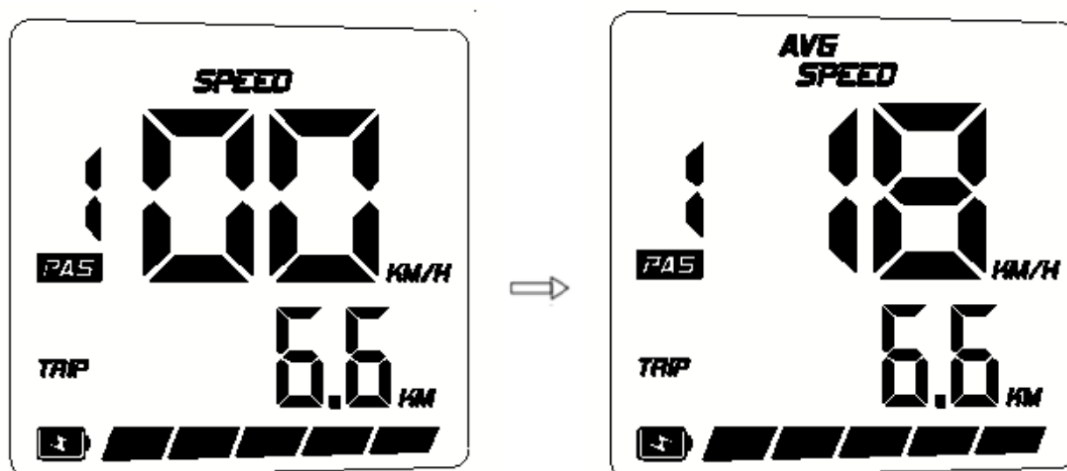
Press+or-to switch the power-assisted gear and change the power-assisted mode. (Default) There are six modes: 0/1/2/3/4/5. (Number of gears that can be opened) When the display is turned on, the default gear is 0, and when it is displayed, it is no power-assisted gear. (The power gear selection interface is shown below)



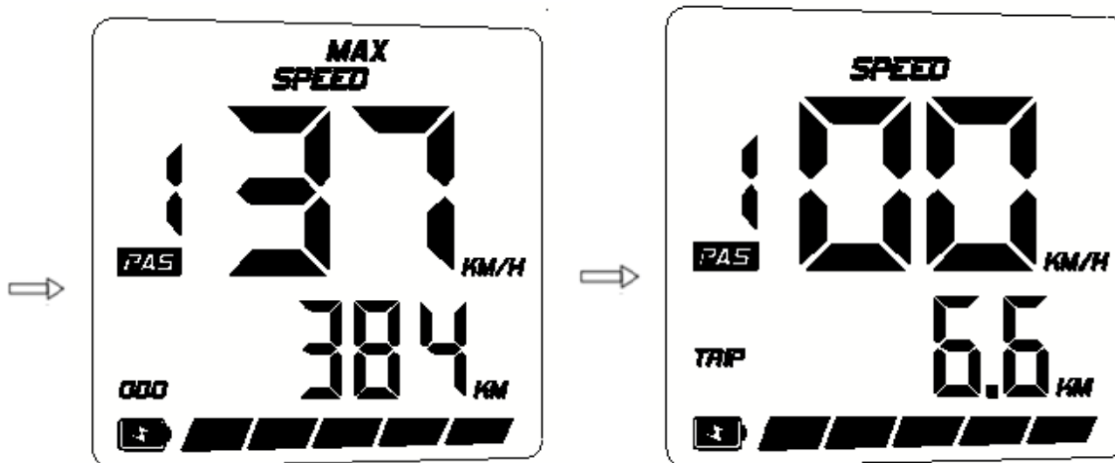
Display information switching

Short press in the boot state. **M**You can switch the display information of subtotal mileage, average speed, MAXimum speed and total mileage, and display it circularly: current speed/subtotal mileage (TRIP)- > average speed (AVG), total mileage (ODO)- > maximum riding speed (max), subtotal mileage (TRIP)- > current speed/subtotal mileage (TRIP).

The mode switching interface is as follows:




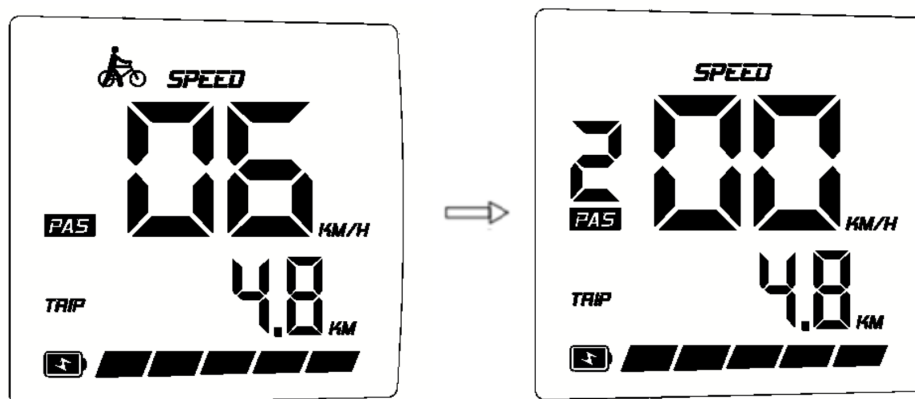
SPEED)/ TRIP Average speed (AVG SPEED)/ TRIP



MAX SPEED)/ total mileage (TRIP) speed/subtotal mileage (TRIP)

Helping to implement the model

Long press-, 2 seconds later, enter the power-assisted implementation state,  Show, release-, that is, exit the boosting mode and return to the normal display interface. The interface of power-assisted mode switching is as follows (only in the implementation state):



Power-assisted implementation mode normal mode

Headlight switch (backlight low switch)

Press the long+key, and after 1 second, the headlights are turned on (with the support of the controller), the display display interface, the headlight indicator icon lights up, and at the same time, the backlight of the display is low; Press and hold the+key again for a long time, and after 1 second, the headlight turns off, the headlight indicator icon goes out, and the backlight highlights.



Automatic headlight function (off by default)

In the auto headlight mode, when the ambient light is dim, the photosensitive delay is 2s, the headlight indicator icon lights up, and at the same time, the display backlight is low; After the brightness is restored for 3 seconds, the headlights are turned off, the headlight indicator icon goes out and the backlight is highlighted.

Note: The photosensitive sensor is in the display area of the window.

Power display

When the battery charge is normal, the 5-segment LED of the battery displays the charge according to the time and the outer frame lights up. When the battery runs out of power, the 5-segment LED of the battery completely goes out and the battery logo flashes, so it needs to be charged immediately. The battery charge is shown in the following figure:



Battery charge (C) displays the corresponding table (the charge indication can be adjusted according to the demand)

serial number	On the display (SOC)	Display on the meter	Voltage (24V)	Voltage (36V)	Voltage (48V)
one	$C \leq 5\%$	Battery outer frame flashing	$U \leq 23.1$	$U \leq 33$	$U \leq 42.9$
2	$5\% < C < 15\%$	One-grid quantity	$23.1 < U < 24.5$	$33 < U < 34.7$	$42.9 < U < 45.1$
three	$15\% \leq C < 35\%$	Two-grid quantity	$24.5 \leq U < 25.1$	$34.7 \leq U < 35.8$	$45.1 \leq U < 46.5$
four	$35\% \leq C < 55\%$	Three-grid quantity	$25.1 \leq U < 25.6$	$35.8 \leq U < 36.7$	$46.5 \leq U < 47.5$
five	$55\% \leq C < 75\%$	Four-grid power	$25.6 \leq U < 27$	$36.7 \leq U < 38.5$	$47.5 \leq U < 50.1$
six	$C \geq 75\%$	Five grid quantity	$U \geq 27$	$U \geq 38.5$	$U \geq 50.1$

User Settings

Settings: unit setting, clock setting (partial version), automatic shutdown time, * wheel diameter information, * speed limit information and * battery information.

(Items marked with * are displayed, and user setting options are not provided by default)

7.1 Enter the settings

- ✧ Within 10 seconds after the display is turned on, press and hold **M** (3 seconds), the system enters the user setting state, in which relevant parameters can be set and viewed;
- ✧ Long press **M**
- ✧ In the user's setting state, if it is not operated for 10 seconds, the meter will not save the setting and return to the normal riding state;
- ✧ In the user setting state, short press +/- Setting content;
- ✧ Short press **M**, cyclically switch setting items.

Unit Settings

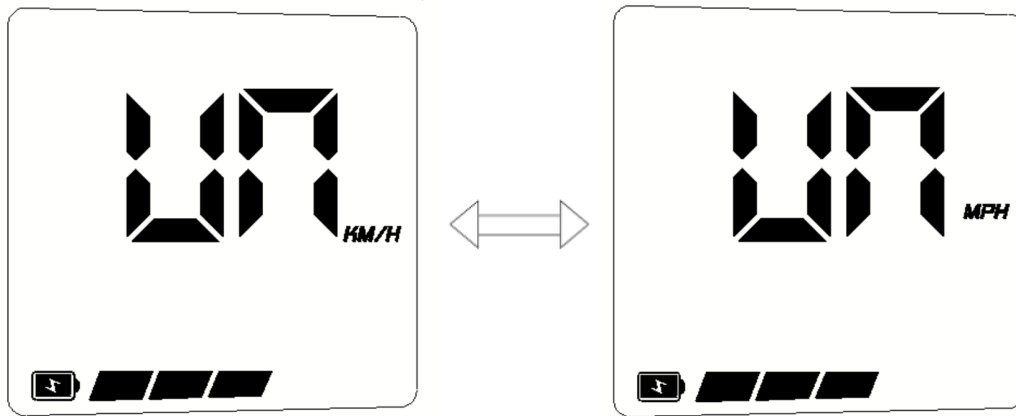
Under the company setting interface, press +/- Select the unit KM/H, MPH, and press briefly. **M** Switch the interface.

UN: represents the unit setting.

KM/H: it means subtotal mileage, the total mileage unit is km, and the current speed, average speed and maximum speed unit are km/h.

MPH: indicates subtotal Mileage, the total mileage unit is mile, and the current speed, average speed and maximum speed unit are MPH.

The display interface is as follows:



Unit setting (KM/H) Unit setting (MPH)

Automatic shutdown time

Under the automatic shutdown setting interface, press +/- Select the shutdown time, and press briefly. **M**

OFF: represents the unit setting.

1: 1 minute automatic shutdown time;

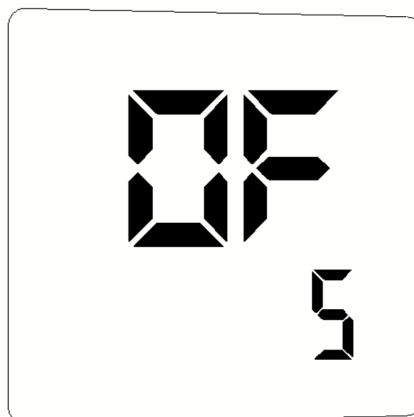
2: 2 minutes automatic shutdown time;

3: 3 minutes automatic shutdown time;

5: 5 minutes automatic shutdown time;

8: 8 minutes automatic shutdown time;

10: 10 minutes automatic shutdown time;



Wheel diameter information

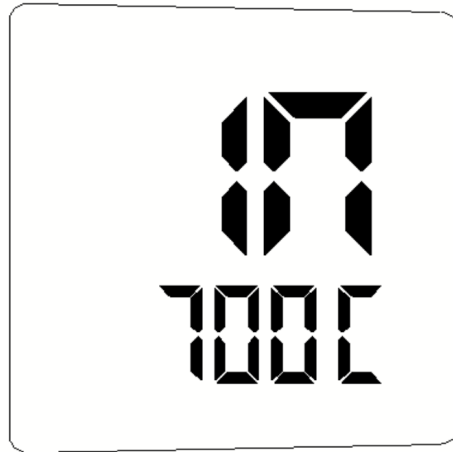
Wheel diameter information interface, short press **M**, switch to the speed limit interface

IN: represents wheel diameter information.

700C: It means that the current display is suitable for 700C wheel diameter cars.

Wheel diameter can be set with values: 16inch, 18inch, 20inch, 22inch, 24inch, 26inch, 700Cinch, 28inch and 29inch (depending on different communication protocols)

The display interface is as follows:



Wheel diameter information (700C)

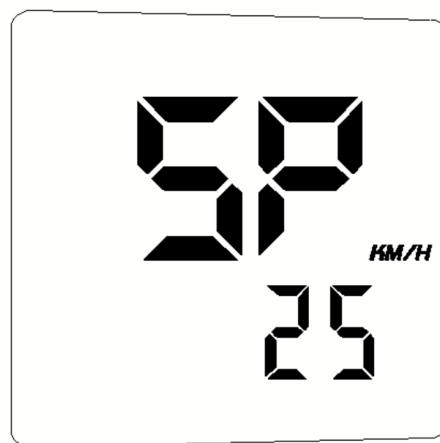
speed limit information

Speed limit information interface, short press **M** Return to the company setting interface.

SP: Speed limit information

25KM: the maximum speed is 25 km/h;

The display interface is as follows:



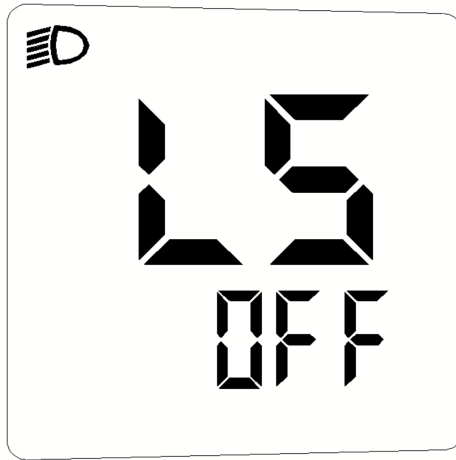
Automatic headlight setting

Automatic headlight setting interface, press +/- Select on or off, and press briefly. **M**

On: automatic headlights are on;

Off: automatic headlights off;

The display interface is as follows:

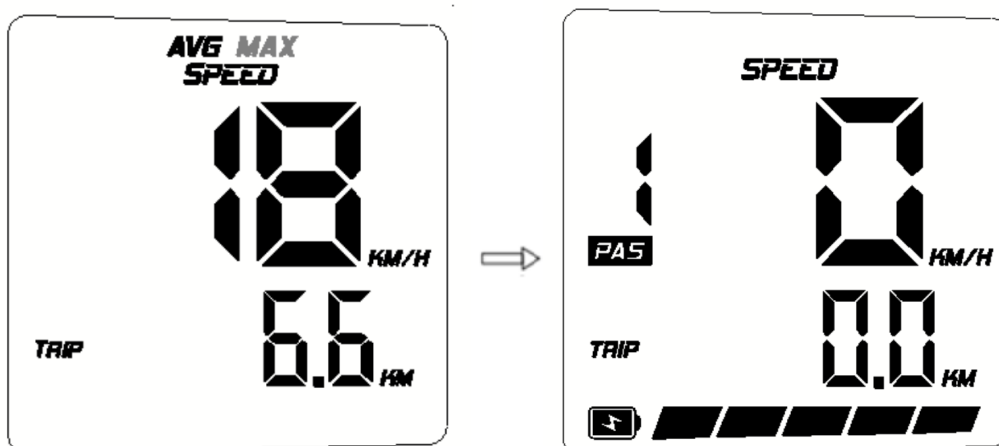


data clearing

After 10 seconds of power on, press and hold **M** (3 seconds), enter the data clearing interface, which displays: average speed and maximum speed alternately, subtotal mileage and its unit;

Short press **M**, clear the subtotal mileage (TRIP), average speed (AVG) and MAXimum speed (max), and return to the operation interface; If it is not operated within 5 seconds, return to the operation interface without clearing the data.

Normal shutdown and power failure do not automatically clear the above data.

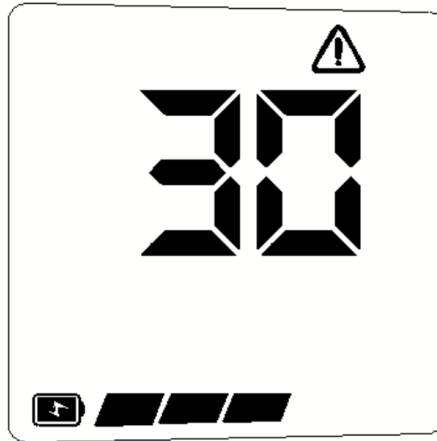


The data reset interface is normal after reset.

fault information

9.1 Fault display

Display fault code and fault icon prompt.



fault code definition

The comparison table of fault codes is as follows: (for reference only, please consult the protocol definition or controller for details)

"04" shown at speed	throttle doesn't turn back to zero position	Check if the throttle return to zero position
"05" shown at speed	throttle failure	check throttle
"07" shown at speed	overvoltage protection	check the voltage of the battery
"08" shown at speed	failure of motor's hall signal wire	check the motor
"09" shown at speed	failure of motor's phase wire	check the motor
"11" shown at speed	failure of the controller's temperature sensor	check the controller
"12" shown at speed	failure of the current sensor	check the controller
"13" shown at speed	failure of the temperature of the battery	check the battery
"14" shown at speed	failure of the temperature of the motor	check the motor
"21" shown at speed	failure of the speed sensor	check the position of the speed sensor
"22" shown at speed	failure of the BMS communication	check the battery
"30" shown at speed	communication failure	check the connector of the controller