

# FOCAN ELECTRONIC CO., LIMITED

## LCD Display GZ-3

### User Manual

(for electric scooter only)

#### 1. Exterior Parameters

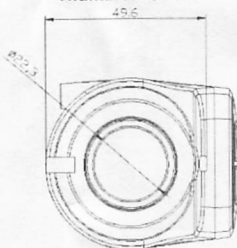
Casing Material: ABS

Display Material: High Hardness Acrylic (the same hardness value as tempered glass).

#### Front View



#### Thumb Throttle

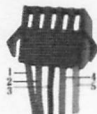


#### 2. Operating Voltage and Connections

a. **Operating Voltage:** DC24V / 36V Compatible, 36/48V Compatible (set by the control Display). Other operating voltage can be customized.

b. **Connections:**

Standard connector sequence



Controller Connector



Display End (Waterproof)



Controller End (Waterproof)

**Standard Connector Sequence Table**

Sequence No.	Wire Colour	Functions
1	Red (VCC)	Display Power Cord
2	Blue (K)	Controller Power Cord
3	Black (GND)	Display Ground Wire
4	Green (RX)	Display Data Receiving Wire
5	Yellow (TX)	Display Data Sending Wire

Note: Some products come with waterproof connectors, whose internal wire colors cannot be decided from outside.

### 3. Functions

#### a. Display

Speed Display, Battery Level Display, Error Indication, Total Mileage, Single Mileage

#### b. Control and Setting

Power Switch, Wheel Diameter Setting, Idleness Time Setting for Auto-Hibernation, Backlight Brightness Setting, Start Mode Setting, Drive Mode Setting, Voltage Level Setting, Controller Current Threshold Setting

#### c. Communications Protocol: UART

**Display Readings (display at start for 1 second)**



1. Light 

2. Voltage POWER 

3. Speed show 

MPH, KM/H

The meter show speed and get data according to Wheel size and signal (Motor phase and hall need set magnetic Number)

4. PAS display 

PAS Level 

Total Mileage: ODO (km or mile)

Single Mileage: TRIP

Rest Mileage: RM (software support of battery protection board needed)

Operation Time: TM

Error Code: ERR

### 3.3 Error Code

Error Code (decimal)	Indications	Note
0	Normal	
1	Reserved	
2	Brake	
3	PAS Sensor Failure (riding mark)	Not Realized
4	6km/h Cruise	
5	Real-Time Cruise	

6	Low Battery	
7	Motor Failure	
8	Throttle Failure	
9	Controller Failure	
10	Communications Receiving Failure	
11	Communications Sending Failure	
12	BMS Communications Failure	
13	Light Failure	

#### 4. Settings

P01: Backlight Brightness (1: darkest; 3: brightest)

P02: Mileage Unit (0: km; 1: mile)

P03: Voltage Class: 24V /36V (default) / 48V

P04: Hibernation Time (0: never, other figures refer to the hibernation time)

Unit: minute

P05: Power Gear – 0-3 Gears Mode

P06: Wheel Diameter Unit: Inch Precision: 0.1

P07: Magnet Steel Number for Speed Test Range: 1-255

P08: Speed Limit

Range: 0-50km/h, parameter 50 Indicates no speed limit.

1. Non-communications status (Display-controlled)

When the current speed exceeds the speed limit, the PWM output will be shut down; when the current speed falls to lower than the speed limit, the PWM output will be activated and the driving speed will be set as the current speed  $\pm$  1km/h (only applies to assist power speed, not applicable to the handlebar speed).

2. Communications status (Controller-controlled)

The driving speed will be kept constant as the limited value.

Error Value:  $\pm$  1km/h (applicable to both the assist power/handlebar speed)

Note: The above-mentioned values are measured by metric unit (kilometers). When the measuring unit is switched to imperial unit (mile), the speed value displayed on the Display will be automatically switched to corresponding Imperial unit, however the speed limit value in the imperial unit interface won't change accordingly.

P09: Direct Start / Kick-to-Start Setting:

0: Direct Start

1: Kick-to-Start

P10: Drive Mode Setting

0: Power Assist Drive Only- The specific gear of the assist drive decides the assist power value. In this status the handlebar does not work.

1: Electric Drive (Throttle) Only - The vehicle is driven by the handlebar. In this status the power gear does not work.

2: Power Assist + Electric Drive - Electric drive does not work in direct start mode.

P12: Assist Power Intensity Range: 0-5

P13: Power Magnet Steel Number: 5 / 8 / 12pcs

P14: Current Limit Value: 12A by default; Range: 1-20A

P15: Unspecified

P16: ODO Zero-Out: Long press the upper key for 5 seconds to zero out ODO.

## 5. Keys

### Introduction of Keys

Button key show



Manual

Press button by long press or short press ,Totether press.For example



1. Long press, starting up; Short press, Light turn on or turn off;



2. Boost gear plus cycle. **ECO MID HIGH** Cyclic switching :



3. Long Press, Open the cycle : Short press, DATA (ODO/TRIP/VOL) will be changed;



Together Long press + Enter set data .

**Note:** Due to product upgrade, the product you purchased may be slightly different from the descriptions in this user manual, and this won't affect normal usage.