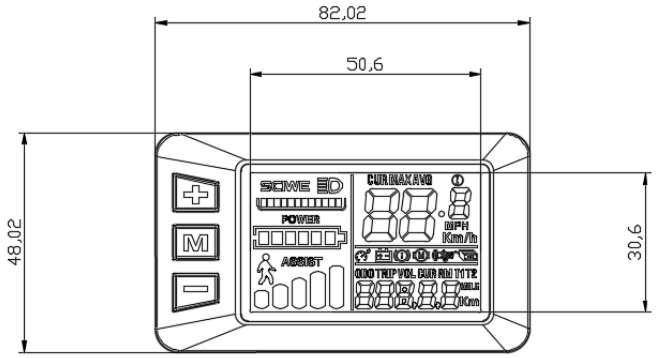
LCD Display G51

User Manual V.2017

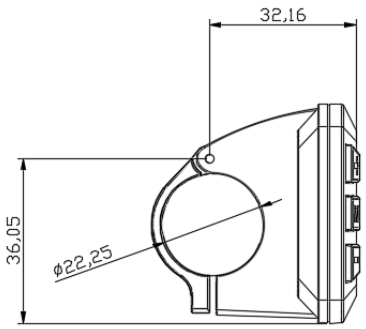
1. Exterior Parameters

Casing Material: ABS

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



正视图



侧视图

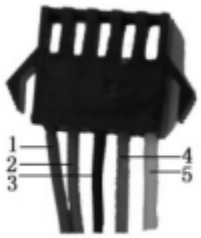
Front View **Side View**

2. Operating Voltage and Connections

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

b. Connections:

Standard connector sequence



Controller Connector

Panel Outlet Terminal

Wire Connector

Standard

Connector Sequence Table

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

Extended Functions

Light: Brown (DD): The positive electrode of the light

White (GND): The negative electrode of the light.

The wire colours of the PWM Voltage Motor Power Controller and the independent speed sensor will be defined otherwise.

Note: Some products are equipped with waterproof connectors, whose internal wire colors cannot be determined from outside.

3. Functions

a. Display

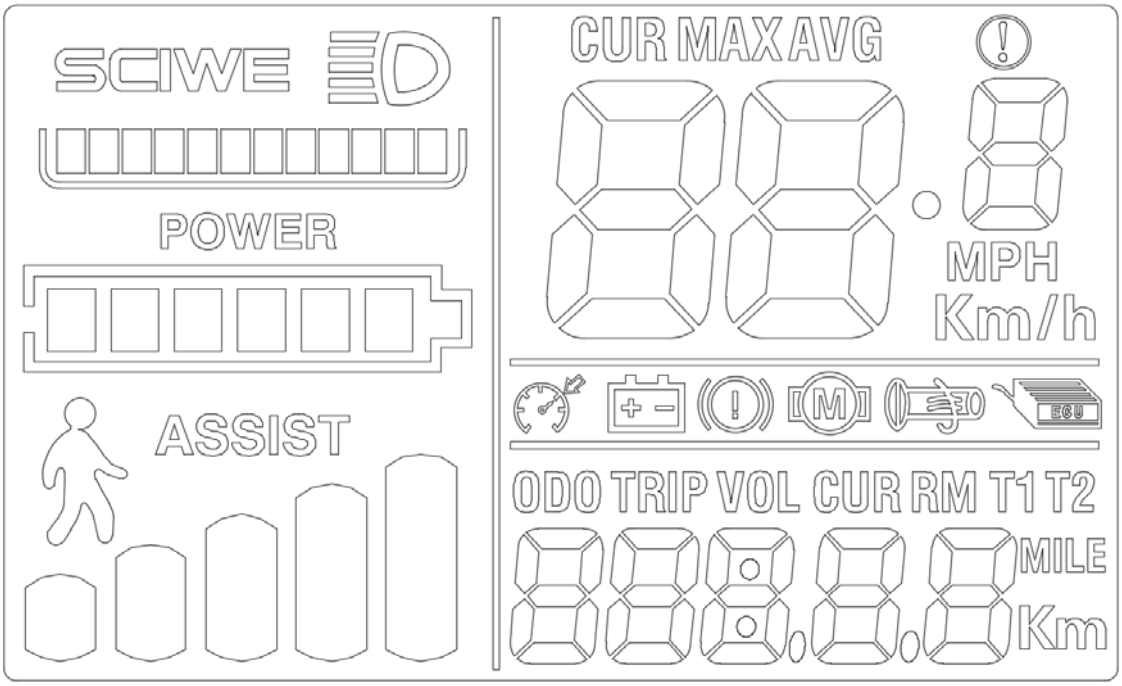
Speed Display, Motor Power Ratio Display, Battery Level Display, Error Indication, Total Mileage, Single Mileage, Cruise Control, Brake Indication, Light Signal

, **b. Control and Setting**

Power Switch, Front Light Control, 6km/h Cruise Control, Real-time Cruise Control, Wheel Diameter Setting, 5-Gear Motor Power Setting, Top Speed Setting, Sleep Interval Setting, Backlight Brightness Setting, Voltage Level Setting

c. Communications Protocol: UART

Display Readings (display at start for 1 second)



Display Details

3.1 Light

3.2 Battery

3.3 Multi-Function Display ODO TRIP VOL CUR RM T1 T2

Total Mileage: ODO
Single Mileage: TRIP
Error Code: ERROR
Power: WATT
Maintenance: Maintain
Rest Mileage: DST TO GO (not in use)

3.4 Vehicle Mode POWER

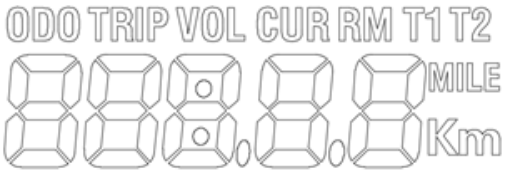
3.. Speed Display

Maximum Speed: MAX

Average Speed: AVG

Measuring Unit: MPH or KM/H

The display will calculate the actual travelling speed based on the wheel diameter and signal data (number of magnet steel is needed for Hall motors).



3.6 Vehicle Status

Digital Voltage VOL

Motor Failure 

Throttle Failure 

Controller Failure 

Brake Indication 

Wheel Diameter 

3.7 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	

3.8 Settings

P00: Restore Factory Settings Set this value to 10 and switch to next setting, the display items will show all contents and restore original factory settings.

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

P02: Mileage Unit (0: KM; 1: MILE)

P03: Voltage Class 24V / 36V / 48V

P04: Sleep Interval

(0: never, other value means display sleep interval) Unit: minute

P05: Power Assist Gear

0/3 Gear Mode: Gear 1: 2V Gear 2: 3V Gear 3: 4V

1/5 Gear Mode: Gear 1: 2V Gear 2: 2.5V Gear 3: 4V Gear 4: 3.5V Gear 5: 4V

P06: Wheel Diameter Unit: inch Precision: 0.1

P07: Magnet Steel Number (for Speed Test) Range: 1-100

P08: Speed Limit

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

1. Non-communications status (panel-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 ± 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: ±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 panel 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 – The specific gear of the assist drive decides the assist power value. In this status the handlebar does not work.

1: Electric Drive – 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 zero-start status.

P12: Power Assist 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 up key for 5 seconds and ODO value will be erased.

special setting function:

P17: (Available Only if Customer Required) Auto Cruise Option.

0: No Auto-cruise

1: Auto-Cruise On. Trigger time of auto-cruise is decided by the controller.

P17: (K5S, APT Protocol Bound) Forward / Backward PAS Option.

0: Forward PAS. 1: Backward PAS.

P18: (K5S Protocol Bound) Throttle Level Option.

0: No throttle level. 1: Has throttle levels.

P19: (K5S Protocol Bound) 6km/h Cruise Throttle Definition.

0: Throttle without 6km/h cruise definition.

1: Throttle with 6km/h cruise definition.

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.