SCIWIL	No.:	XSW-J-04-0007-2023			
	Name:	M58			
Issued on:	23rd Sept, 2023	Version:	A/0	Page 1 of 13	
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USERS GUIDE
M58-LCD

Contents

1. Introduction

Congratulations on purchasing your e-bike smart display. Before use, please read through this manual. It is important to acknowledge all the **WARNINGS, SAFETY NOTES AND INSTRUCTIONS**. This manual will walk you through assembly, settings and operations of Sciwil display products in easy steps, to facilitate operations on your e-bike.
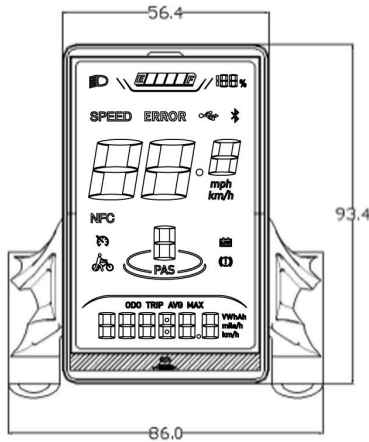
1.1 Product Size and Assembly

1.1.1 Product Name and Model
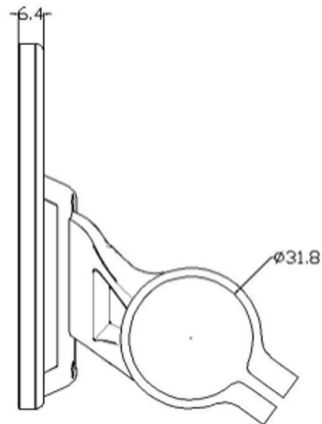
Product Name: E-Bike Display

Product Model: M58

1.1.2 Exterior Look and Size

Front View   Side View
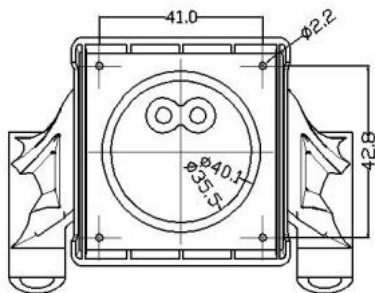
Front View of Holder   Side View of Holder
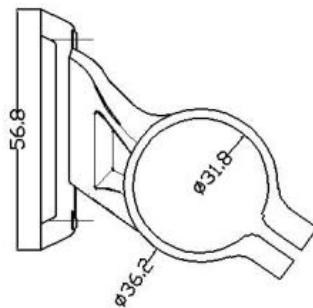
1.1.3 Assembly

1.1.3.1 Open the holder ring/rubber spacer of the display and fix the display on the handlebar, adjust it to a proper facing angle. Use a M4 Hex Wrench to fix and tighten the screws. Standard fixing torque: **0.8N•m**.
*Damage due to extra fixing torque is not covered by warranty.
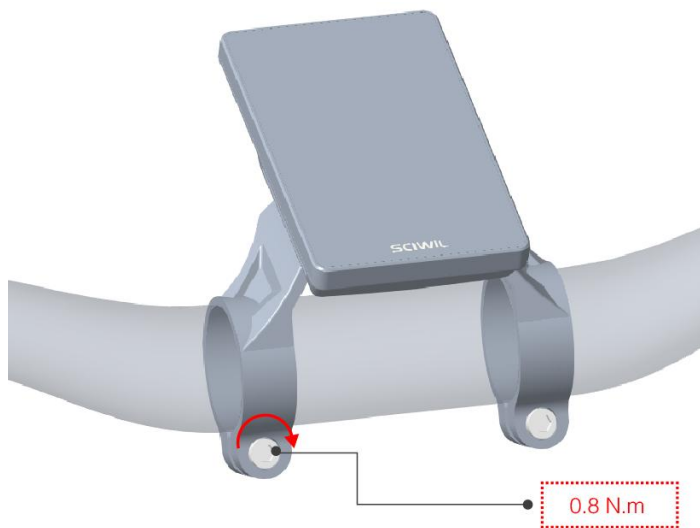
1.1.3.2 Plug the 5-pin connector of the display to the coupling connector of the Controller.

1.2 Working Voltage and Cable Connection

1.2.1 Working Voltage

DC24V-72V compatible，other working voltage level can be customized.

1.2.2 Connection
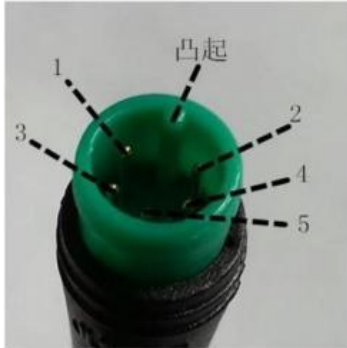
Display to Controller   **Controller to Display**   **Controller Connector**
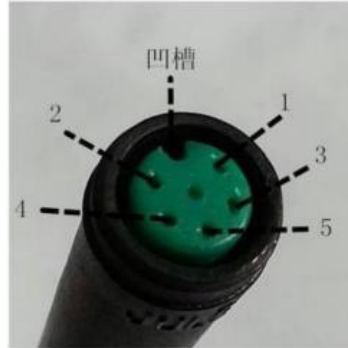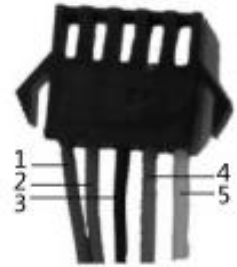
Standard Cable Connector Diagram

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

1.2.3 Extended Functions

Light: Brown (DD): The power wire (+) of the light

White (GND): The ground wire (≐) of the light.

*Note: Some products use waterproof connectors, in which internal wire arrangements cannot be identified from the exterior.

1.2.4 Specifications

1.2.4.1 Working Voltage: DC 24V/36V/48V/60V/72V

1.2.4.2 Rated Working Current: 12mA

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1.2.4.3 Leakage current: <1uA

1.2.4.4 Screen Size: 3.8" LCD

1.2.4.5 Communication Type: UART (by default)

1.2.4.6 Working Temperature: -20°C ~ 70°C

1.2.4.7 Storage Temperature: -30°C ~ 80°C

1.2.4.8 Waterproof Rating: IP65

1.3 Functions

1.3.1 General Description:

M58 provides various functions to facilitate your ride, main functions are:

1.3.1.1 Boot password (optional)

1.3.1.2 System unit switch (km/h or mph)

1.3.1.3 Battery indicator

1.3.1.4 Speed display：

real-time speed (SPEED), max speed (MAX), average speed (AVG)

1.3.1.5 Distance：single-trip distance (TRIP), total travel distance (ODO)

1.3.1.6 Assist Level Mode (3/5/9 Levels) Control

1.3.1.7 Assist Level Display

1.3.1.8 Error code indication

1.3.1.9 Cruise Mode

1.3.1.10 Braking Indicator

1.3.1.11 Front light indication: front light status supported by controller

1.3.2 Control Functions

Power On/Off, Front/Rear Light On/Off, 6km/h Walk Assist Mode, Real-Time

Cruise Mode, Wheel Size, PWM Settings, Speed Limit, Auto-Off Time

1.3.3 Standard Display Interface

1.3.3.1 Interface Overview (display at start for 1s)
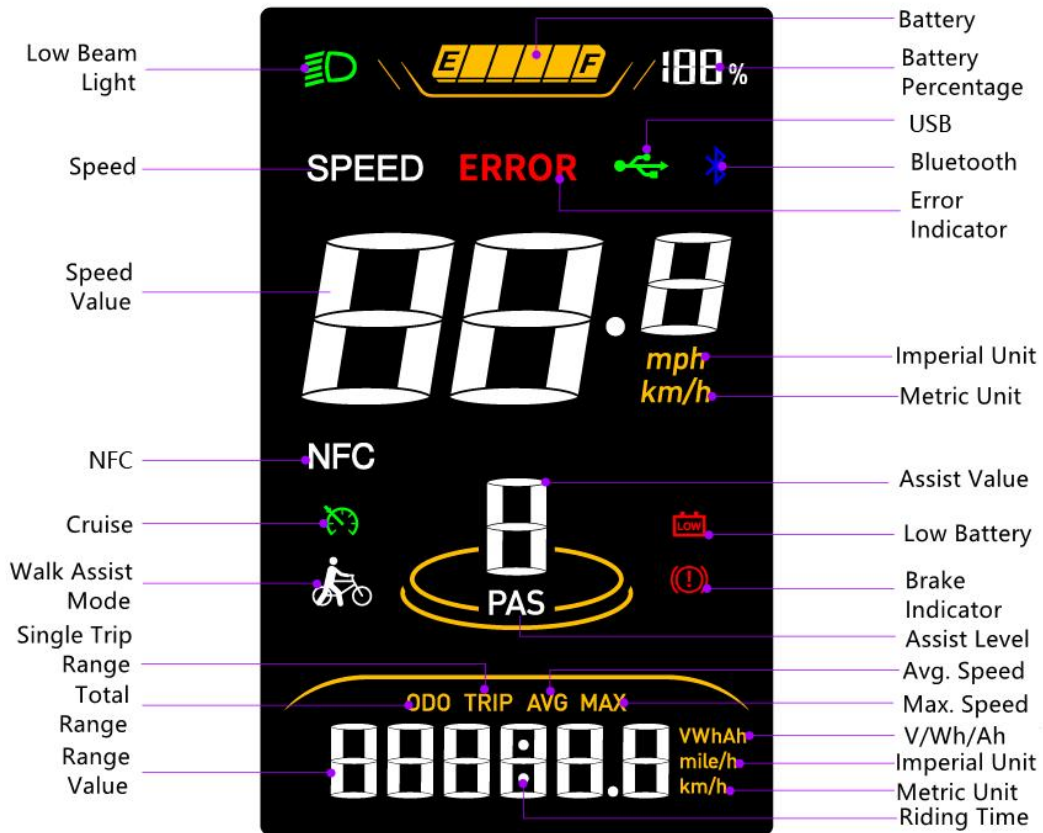
1.3.3.2 Introduction of Interface:

① Front Light Indication： shows icon when the front light is turned on by display

② Battery Indication： the current battery level

③ Multi-Function Section: Digital Voltage (VOL), Wh, Ah, Total Range (max. 99999.9), Single Trip Distance (max. 99999.9), Riding Time (Time).

④ Assist Level and Walk Mode： Assist Level 3/5/9 levels, can be changed.

⑤ Real-Time Speed (RT SPEED)： current riding speed, unit: km/h or mph

Average Speed (AVG SPEED)： average riding speed, unit: km/h or mph

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Maximum Speed (MAX SPEED)：the max speed during ride, unit: km/h or mph

⑥ Error Code Indication

⑦ Assist Status Indication

1.3.4 Setting Items

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

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

P03: Voltage Class (24V / 36V / 48V / 60V / 72V)

P04: Auto-Off Time

(0: never, other value means time interval for display auto-off) Unit: minute

P05: Pedal Assist Level

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 Size (Unit: inch   Precision: 0.1)

P07: Motor Magnets Number (for Speed Test; Range: 1-100)

P08: Speed Limit Range: 0-50km/h, no speed limit if set to 50)

1. Communications status (controller-controlled)

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

Error Value: ±1km/h (applicable to both the PAS/throttle mode)

Note: The above-mentioned values are measured by metric unit (kilometers). When the measuring unit is set to imperial unit (mile), the speed 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 (Throttle-on-demand); 1: Kick-to-Start

P10: Drive Mode Setting

0: Pedal Assist – The specific gear of the assist drive decides the assist power value. In this status the throttle does not work.

1: Electric Drive – The vehicle is driven by the throttle. In this status the power gear does not work.

2: Pedal Assist + Electric Drive – Electric drive does not work in direct-start status.

P11: Pedal Assist Sensitivity (Range: 1-24)

P12: Pedal Assist Starting Intensity (Range: 0-5)

P13: Magnets Number in Pedal Assist Sensor (5 / 8 / 12pcs)

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

P15: Unspecified

P16: ODO Clearance

Press and hold the up key for 5 seconds and ODO distance will be cleared.

P17: Cruise (0: without cruise function, 1: with cruise function)

1.3.5 Communication Protocol: UART

1.3.6 Key Pad

Function/Mode: M

Up/Plus: ⌃

Down/Minus: ⌄

Up Key

Mode Key

Down Key

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There are 3 keys on the key pad of M58. In the following descriptions, M Is called the "Mode Key", ∧ is called the "Up Key", ∨ is called the "Down Key".

1.3.6.1 Operations include short press, press and hold of one key or two keys:

① During ride, press Up or Down to change PAS/throttle level.

② During ride, press the Mode Key to switch items displayed in versatile area.

Note: Press and hold of a single key is mainly used for switch mode/on/off

status. Press and hold of two keys is used for parameter settings.

(To avoid false operation, short press of two keys is not introduced.)

Set/Exit Walk Assist Mode/Cruise/Turn On and Off Front Light:
- When the e-bike is parked, press and hold the Down Key to enter walk assist mode. During ride, press and hold the Down Key to enter real-time cruise mode. When in cruise mode, press and hold the Down Key to exit.
- Press and hold the Up Key for 3s to turn on and off the front light.
- Press and hold the Mode Key for 3s to turn on/off the display.

1.3.6.2 Switch Items in Multi-Function Section:

When the display is on, press the M Key to switch displayed items in the multi-function section.

Custom Settings:
Press and hold both the Up Key and the Down Key together, to enter the Setting Menu. Setting items include: Backlight Brightness, System Unit, Battery Level, Auto-Off Time, Assist Level, Wheel Size, Magnetic Steel

Number for Speed Gauge, Speed Limit, Direct Start and Kick-to-Start, Drive Mode, PAS Sensitivity, PAS Start Strength, Disc Type of PAS Sensor, Current Limit of Controller, ODO Range Clearance, etc.

In the Setting Menu, press the Up Key or Down Key to set the value for the current item. The corresponding item will blink after setting, then press the M Key to save the set value and switch to the next item. Press and hold both the Up Key and Down Key to exit settings. Without any operation, the system will automatically save the set value and exit the Setting Menu.

1.3.7 Error Code

Error Code Table

Error Code (decimal)	Status	Note
E00	Normal	
E03	Brake Engaged	
E05	Throttle Failure	
E06	Low Voltage Protection	
E07	Over Voltage Protection	
E08	Motor Hall Signal Error	
E09	Motor Phase Error	
E16	Controller Error	
E23	Front Light Error	
E27	Controller Over Current Error	
E30	Communications Error	

2. Serial Code

Each Sciwil display product bears a unique Serial Code on the back shell, (as shown in the photo below): 192 2 1 210603011

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Explanation to the above Serial Code:

192： Customer Code

2： Protocol Code

1： Program can be overridden （0 means can not be overridden)

210603011： P.O. (purchase order number

3. Safety Notes

PLEASE TAKE CAUTION WHEN USE， DO NOT PLUG OR UNPLUG THE DISPLAY WHILE YOUR E-BIKE IS POWERED ON.

- AVOID CLASHES OR BUMPS TO THE DISPLAY.

- AVOID USING IN HEAVY RAINS, SNOWS OR LONG EXPOSURE TO STRONG SUNLIGHT. DO NOT TEAR THE WATER-PROOF FILM ON THE SURFACE OF THE SCREEN, OTHERWISE THE WATER-TIGHT PERFORMANCE OF THE PRODUCT MAY BE DEGRADED.

- DO NOT PLUG OR UNPLUG THE DISPLAY WHILE THE SYSTEM IS POWERED ON. UNAUTHORIZED ADJUSTMENT TO DEFAULT SETTINGS IS NOT SUGGESTED, OTHERWISE NORMAL USE OF YOUR E-BIKE CAN NOT BE GUARANTEED.

- WHEN THE DISPLAY PRODUCT DOES NOT WORK PROPERLY, PLEASE SEND THE IT FOR AUTHORIZED REPAIR IN TIME.

4. Quality and Warranty

4.1 Warranty Term

In compliance with local laws, Sciwil provides limited warranty period covering 24 months after the date of manufacturing (as indicated by the serial number), applies to quality issues during normal operations.

The limited warranty shall not be transferred to a third party other than as specified in the agreement with Sciwil.

Other situations may be covered, depending on the agreement between Sciwil and the buyer.

4.2 Warranty Exclusions:

1. Sciwil products that have been opened, modified or repaired without authorization.
2. Damage on the connectors.
3. Damage to the surface after leaving factory, including shell, screen, buttons, or other appearance parts.
4. Damage to wiring and cables after leaving factory, including breaks and exterior scratch.
5. Damage or loss due to force majeure (e.g. fire or earthquake) or natural disaster (e.g. lightening).
6. Out of the warranty period.

5. Version

This display user manual is in compliance with the general software version (A/0) of Changzhou Sciwil E-Mobility Technology Co., Ltd. There are chances that display products on some e-bikes may have a different software version, which should be subject to the actual version in use.