

Product Technical Sheet

SW-Q30



Two-Wheeler Display

Model: SW-Q30

Version: V1.01



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I . 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 IT FOR AUTHORIZED REPAIR IN TIME.

II. Overview

1. Product Name and Model

Product Name: Electric Vehicle Display

Product Model: SW-Q30

2. Product Introduction

SW-Q30 features high-brightness color LCD and minimalist interface, working as an ideal HMI solution for EN15194 electric bikes.

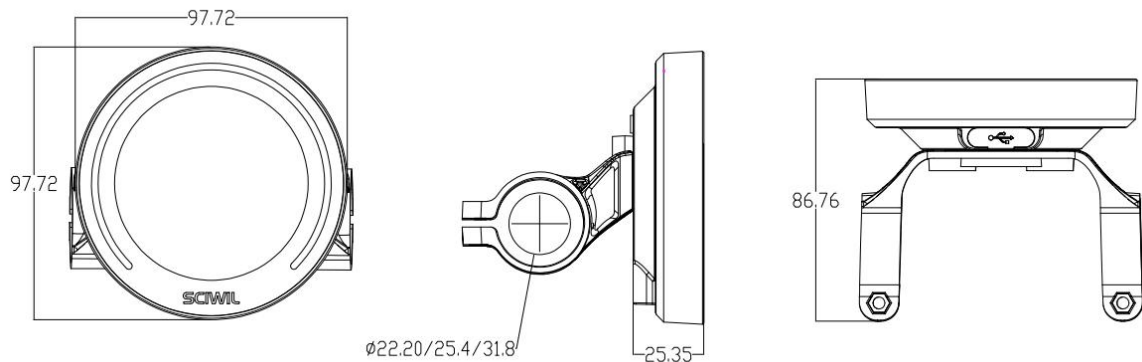
3. Specifications

Category		Specs
Size	L*W*H (mm)	97.72x97.72x25.35
	Visual Area (mm)	70.13x70.13
	Screen Size	2.8"
	Handlebar Size (mm)	22.2/25.4/31.8/Custom
Screen	Type	TFT-IPS
	Brightness	1000cd/m
	Resolution Ratio	480*480
	Viewing Direction	All O'clock
Connector	Type	Outlet Cable w/ Connector
	Specs	6-pin/9-pin/Custom
Performance	Working Voltage	12V-72V
	Working Current	60mA
	USB Charge	5V 0.6A
	Working Temperature	-30°C - 85°C
	Protection Rate	IP66
	Vibration	10G@30Hz
	Protocol	CAN/UART
Certification		CE RoHS FCC

4. Function

Category	Function
User Identification	Unlock by NFC
	Unlock by Bluetooth
	Unlock by Password
Display	Gear Level
	Speed
	Range/Distance
	Battery Info
	Mode
	Charge Status
	Dual Drive / Single Drive Status
	Power
	Temperature of Component (Motor/Controller...)
Indication	High Beam Light/ Low Beam Light
	Left Turn / Right Turn
	Side Positioning Light
	Error Alert
	Cruise
	Connection (USB/Bluetooth/NFC...)
Control	Auto Daylight Mode/ Dark Mode
	Brightness
Settings	System Unit
	Trip Clearance
	Gear Level
	Mode
	Sensitivity of Light Sensor
Advanced	Smart App
	OTA
	Boot Logo/Animation
	Customised UI
	Customised Protocol

5. Size



6. Assembly (Nylon Holder)

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: **1N·m**.

***Damage due to excessive fixing torque is not covered by warranty.**

② Open the holder ring/rubber spacer of the keypad and fix it on the handlebar, adjust it to a proper facing angle. Use a M3 Hex Wrench to fix and tighten the screws. Standard fixing torque: **1N·m**.

***Damage due to excessive fixing torque is not covered by warranty.**

③ Plug the 5-pin connector of the display to the coupling connector of the Controller.

7. Serial Code

Example:

111 22 333333 555 6666

36V

← **Marked at the back of display**

111: Customer Code

22: Protocol Code

333333: P.O. Date (YYMMDD)

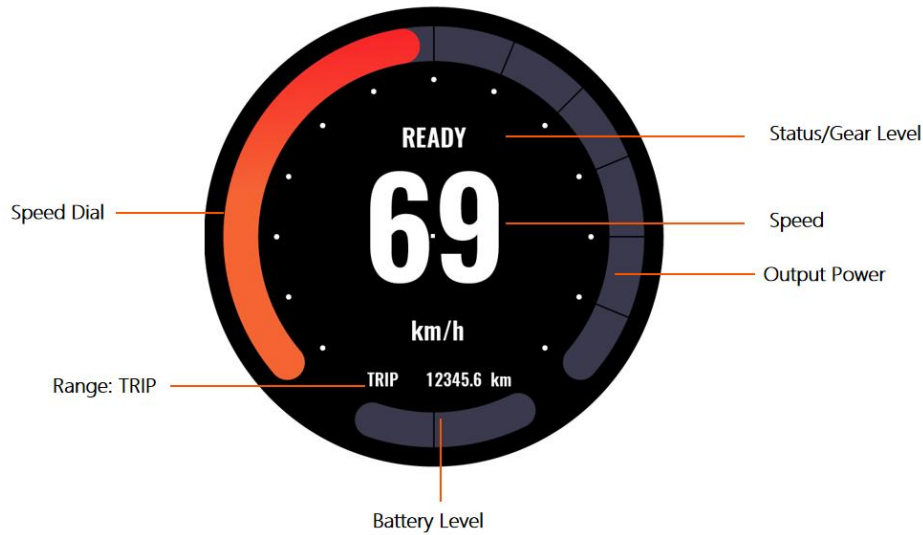
555: Order Receiving Number

6666: Production Date (YYMM)

III. Operation

1. Display Interface

1.1 Riding Interface



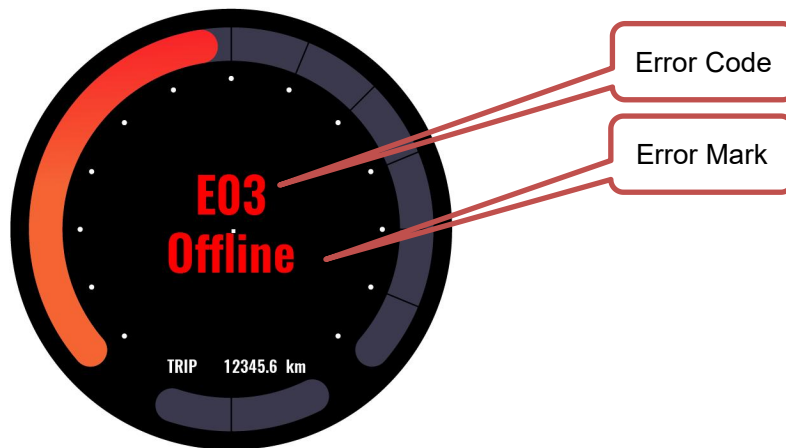
- Status: Real-time Riding Status: Bluetooth, Front Light, Brake, Low Voltage, Turning, Cruise, Drive Status, etc.
- Battery Status: Residual Battery Percentage
- Multi-Function Section: ODO (total range), TRIP (single ride range), MAX (max. speed), AVG (average speed), TIME (riding time), VOL (battery voltage), Wh (motor power), CUR (current), etc.
- Assist Level Mode: 3/5/9 Levels available.

1.2 Setting Interface

MENU	
Display Settings	Basic Settings
→ System Unit	km/h
Brightness	
Auto-off	OFF
Auto Lamp	OFF

In the above interface: Setting Item: System Unit, Parameter Value: km/h

1.3 Error Interface

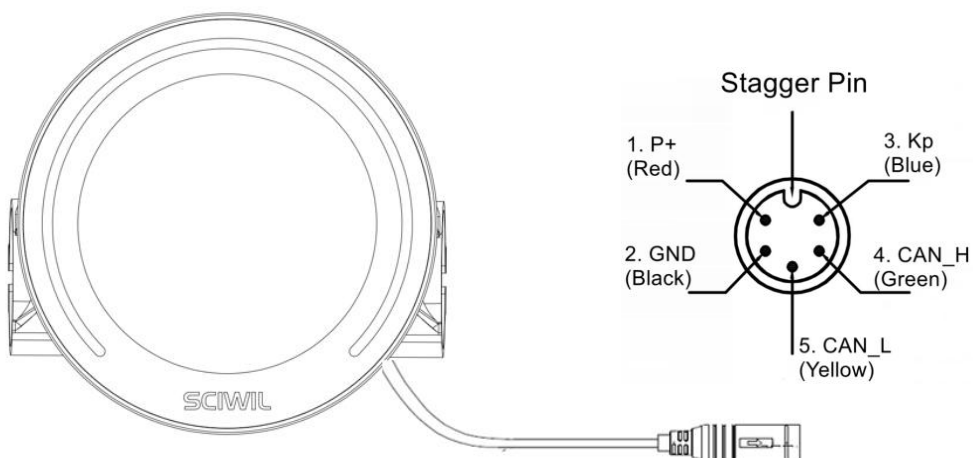


In the above interface: Error Code: E03, Error Note: Offline

2. Error Code (Sciwil CAN Default)

Error Code (decimal)	Status	Ref. Solutions
E2	Throttle Error	E2
E3	Communications Error	E3
E4	Hardware Over-Current	E4
E5	Low Battery	E5
E6	Over-Voltage	E6
E7	Motor Sensor Error	E7

3. Connection



Pin No.	Wire Color	Functions
1	Red (VCC)	Display Power Wire
2	Blue (Kp/Empty)	Electric Lock Wire/Empty
3	Black (GND)	Display Ground Wire
4	Green (CAN_H)	High-Volt Signal of CAN Bus
5	Yellow (CAN_L)	Low-Volt Signal of CAN Bus

IV. Reliability Test

No.	Test Item	Standard	Equipment	Result
1	Waterproof Test	Product should comply with IPX6: protected against high pressure stream from any angle	High Pressure Water Blast Gun	Pass
2	Vibration Test	Fix the product on the rack on the test stand. The product should be able to withstand sweep-frequency vibration tests in the X, Y, and Z directions. Vibration frequency range: 20~30 Hz, Amplitude: 1.5 mm Test duration: 48 minutes per cycle.	Vibration Test Stand	Pass
3	High Temperature Test	Power on the product and test in high temperature chamber Test temperature: 85°C Test Duration: 3hrs	High and Low Temperature Test Chamber	Pass
4	Low Temperature	Power on the product and test in high temperature chamber	High and Low	Pass

	Test	Test temperature: -30°C Test Duration: 6hrs	Temperature Test Chamber	
5	Salt Spray Test	Power on the product and test in salt spray chamber Test temperature: 35°C+2°C Test Duration: 72hrs or as per customer requirements Concentration of sodium chloride solution: 5% ± 1%. PH of the solution: 6.5~7.2.	Salt Spray Test Chamber	Pass
6	Drop Test	Drop the product in X/Y/Z direction from a height of 1m. After each test turn on the display to confirm normal function.		Pass
7	Function Test	All the indicators on the test box signs correctly. Function of keys comply with drawing and customer requirement. No visual variation of brightness or missing patterns.	System Test Box	Pass
8	Burn-in Test	Test Voltage: 90V Power-on Duration: 60s Power-off Break: 5s Test Duration: 48h	Burn-in Rack	Pass

V. Warranty

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.

Warranty Exclusions:

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

VI. 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 is subject to the actual version in use.