

No.: XSW-J-10-0011-2025

# **Product Technical Sheet**

# **SW-K82**



**Two-Wheeler Display** 

Model: SW-K82

Version: V1.01



Website

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Changzhou Sciwil E-Mobility Technology Co., Ltd.

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## I. Safety Notes

PLEASE TAKE CAUTION WHEN USE, DO NOT PLUG OR UNPLUG THE DISPLAY WHILE YOUR VEHICLE 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 Vehicle 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-K82

#### 2. Product Introduction

SW-K82 features high-brightness color TFT LCD and minimalist interface, working as an ideal HMI solution for electric bikes.

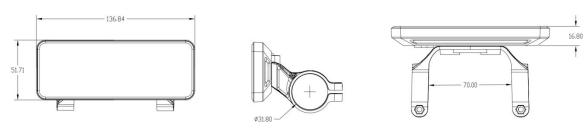
## 3. Specifications

| Category      |                     | Specs              |
|---------------|---------------------|--------------------|
|               | L*W*H (mm)          | 136.8x51.7x16.8    |
| Size          | Visual Area (mm)    | 112.56x47.95       |
|               | Screen Size         | 4.82"              |
|               | Handlebar Size (mm) | Custom             |
|               | Туре                | TFT-IPS            |
| Screen        | Brightness          | 1000cd/m           |
| Screen        | Resolution Ratio    | 1120*480           |
|               | Viewing Direction   | All O'clock        |
| Connector     | Туре                | Embedded Connector |
| Connector     | Specs               | 6-pin/9-pin/Custom |
|               | Working Voltage     | 12V-72V            |
|               | Working Current     | 60mA               |
|               | USB Charge          | 5V 0.6A            |
| Performance   | Working Temperature | -20℃ - 70℃         |
|               | Protection Rate     | IP66               |
|               | Viberation          | 10G@30Hz           |
|               | Protocol            | CAN/UART           |
| Certification |                     | CE                 |
|               |                     | RoHS               |
|               |                     | FCC                |

#### 4. Function

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

#### 5. Size



#### **6.Serial Code**



1111: Customer Code

22: Protocol Code

**333333:** P.O. Date (YYMMDD)

**555:** Order Receiving Number

6666: Production Date (YYMM)

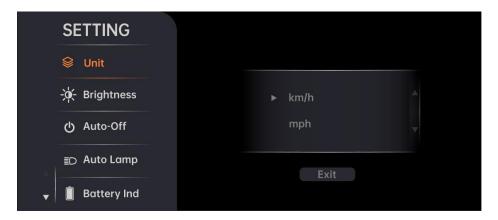
## **Ⅲ.** Operation

#### 1. Display Interface

#### 1.1 Riding Interface



### 1.2 Setting Interface



In the above interface: Setting Item: System Unit, Parameter

Value: km/h

#### 1.3 Error Interface

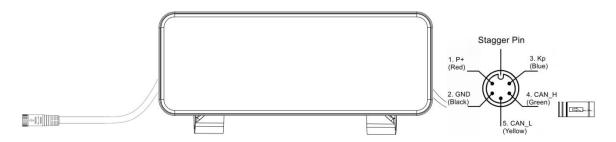


In the above interface: Error Code: E10, Error Note: Offline

## 2. Error Code (Sciwil CAN Default)

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

## 3. Connection



## **Display Keypad Cable**

## **Display to Controller Cable**

| Pin No. | Functions                   |  |
|---------|-----------------------------|--|
| 1       | Display Power Wire          |  |
| 2       | Electric Lock Wire/Empty    |  |
| 3       | Display Ground Wire         |  |
| 4       | High-Volt Signal of CAN Bus |  |
| 5       | Low-Volt Signal of CAN Bus  |  |
| 6-28    | Customise                   |  |

# **IV. Reliability Test**

| No. | <b>Test Item</b>   | Standard   | Equipment                              | Result |
|-----|--------------------|--|--|--------|
| 1   | Waterproof<br>Test | Product should comply with IPX6: protected against high pressure stream from any angle   | High<br>Pressure<br>Water Blast<br>Gun | Pass   |
| 2   | Viberation<br>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. | Viberation Test Stand                  | Pass   |

| 3 | High<br>Temperature<br>Test | Power on the product and test in high temperature chamber Test temperature: 85°C Test Duration: 3hrs   | High and<br>Low<br>Temperature<br>Test<br>Chamber | Pass |
|---|-----------------------------|--|---|------|
| 4 | Low<br>Temperature<br>Test  | Power on the product and test in high temperature chamber Test temperature: -30°C Test Duration: 6hrs  | High and Low Temperature Test Chamber             | Pass |
| 5 | Salt Spray<br>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<br>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<br>Box                                | Pass |

| 8 | Burn-in | Test Voltage: 90V      | Burn-in | Pass |
|---|---------|------------------------|---------|------|
|   | Test    | Power-on Duration: 60s | Rack    |      |
|   |         | Power-off Break: 5s    |         |      |
|   |         | Test Duration: 48h     |         |      |
|   |         |                        |         |      |

### 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. lightening).
- 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 Vehicles may have a different software version, which is subject to the actual version in use.