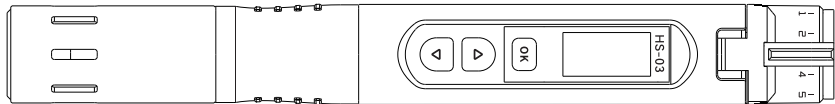


FNIRSI™

HS-03

# CORDLESS SOLDERING PEN USER MANUAL

V1.0



※Please read this instruction manual carefully before using the product and keep it properly.

# CONTENTS

**1. Safety Statement >>>** 01

---

**3. Specifications >>>** 03

---

**5. Operating Instructions >>>** 05

---

**7. Maintenance >>>** 13

---

**9. Contact Us >>>** 15

---

**Warranty Card >>>** Last Page

---

**2. Product Overview >>>** 01

---

**4. Product Status >>>** 03

---

**6. Firmware Upgrade >>>** 13

---

**8. Safety Precautions >>>** 14

---

**10. Warranty Information >>>** 16

---

# 1. Safety Statement

Please read this user manual carefully before using the product. It contains important safety information. Keep it in a safe place for future reference. You can also visit our official website to check for updates to the user manual.

## 1.1 User Notices

- Please read this user manual and all operating instructions carefully, and strictly follow the rules described.
- Keep this user manual in a safe place.
- Do not dispose of the device with household waste. Please follow national or local regulations for proper disposal.
- This unit only supports soldering tips officially sold by FNIRSI. Using non-official tips may cause incompatibility, malfunction, or serious hazards such as short circuits or damage.
- If the device has any quality issues or if you have questions about using it, please contact FNIRSI online support or the manufacturer. We will provide assistance promptly.
- Thank you for purchasing this product. For your convenience, please operate the device according to this manual.

# 2. Product Overview

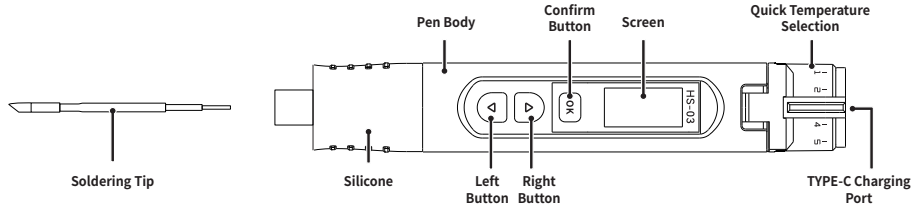
## 2.1 Product Introduction

The HS-03 is a portable, battery-powered smart soldering iron developed by our company. Its main features include:

- Compact and portable, easy to carry
- Fast temperature recovery and rapid heating
- Built-in 0.96-inch HD color display

- Ergonomic design for comfortable grip
- Precise temperature control

## 2.2 Instrument Description



### 3. Product Specifications

|                   |                           |               |                              |
|-------------------|---------------------------|---------------|------------------------------|
| Name              | HS-03                     | Power Supply  | Type-C                       |
| Operating Voltage | 5V                        | Power         | 10W (Max)                    |
| Temperature       | 100–450°C (212–842°F)     | Soldering Tip | HS-02B_T210-K/T210-I/T210-IS |
| Display           | 0.96" IPS HD Color Screen | Net Weight    | ≈134g                        |

### 4. Product Operating States

#### 4.1 Workflow Description



Startup Logo



Standby



Main Interface

03



Sleep Mode

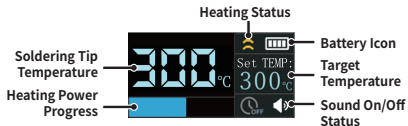
The HS-03 Smart Soldering Iron workflow is shown above. After powering on, the logo is displayed. Once the logo disappears, the unit enters standby mode. Press the **[OK]** button briefly to enter the main interface and start heating. When in the main interface, the soldering iron is in normal operating mode, which includes the following four states:

- **Working Mode:** In this mode, the iron heats up to the set temperature, and an audible alert will sound once the target temperature is reached.
- **Sleep Mode:** When sleep mode is enabled, the iron will enter sleep if left idle longer than the preset time. Shake the handle or press any button to wake it.
- **Standby Mode:** Upon startup, the iron enters standby mode, or if the iron is already in sleep mode, when standby mode is enabled and the iron remains idle longer than the preset standby time, it will enter standby. Press the **[OK]** briefly to exit standby and resume working.
- **Power Off Mode:** Press and hold the **[OK]** to power off.

**! Note:** Do not touch the high-temperature parts when the soldering iron is heating or has reached working temperature.

## 4.2 Main Interface Description

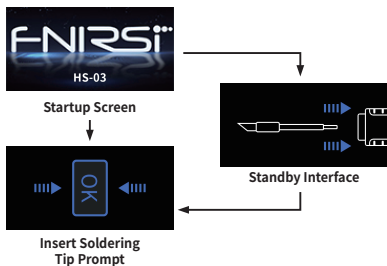
As shown in the figure, the main screen displays the real-time temperature and battery icons at the top right. Below them is the user-set target temperature. The bottom right shows the standby icon and sound on/off icon. The top left displays the iron's real-time temperature, and at the bottom, the heating power progress bar is shown.



## 5. Operating Instructions

### 5.1 Basic Settings

- **Power On:** Press and hold the [OK]. The startup icon appears on the screen, then the iron automatically switches to standby mode. Insert the soldering tip as shown in the figure (the buzzer will sound), and the screen will automatically return to standby.
- **Heating:** In standby mode, press the [OK] briefly to enter the heating page and start heating the iron.
- **Temperature Setting:** In working mode, when holding the pen in the right-hand position, press [←] briefly to decrease the temperature by one step and [→] to increase by one step. When holding the pen in the left-hand position, press [←] briefly to increase by one step and [→] to decrease by one step. The temperature range is 100°C–450°C.

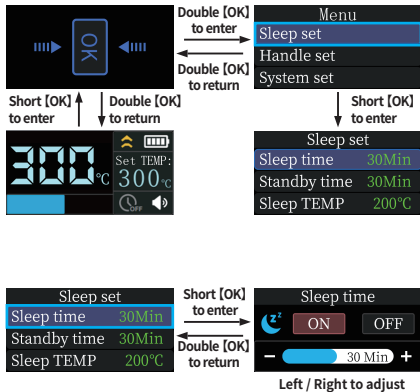


## 5.2 Sleep Settings

In the settings menu, short press [←] or [→] to select Sleep Settings, then press the [OK] to enter the Sleep Settings menu. In the Sleep Settings menu, short press [←] or [→] to choose the parameter you want to modify, and short press [OK] to enter the parameter editing interface. Double press [OK] to return to the settings menu. The system will automatically exit the settings mode if idle for more than 1 minute.

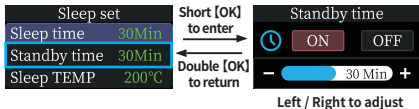
### • Sleep Time

In the Sleep Settings menu, short press [←] or [→] to select Sleep Time, then short press [OK] to enter Sleep Time settings. Short press [←] or [→] to choose On or Off, and short press [OK] to confirm. When On is selected, long press or short press [←] or [→] to adjust the sleep duration. After adjustment, short press or double press [OK] to confirm, then double press [OK] to return to the Sleep Settings menu. The default sleep time is 10 minutes, and the adjustable range is 0.5–60 minutes.



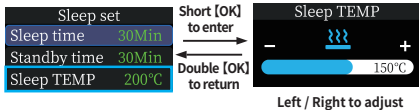
### • Standby Time

In the Sleep Settings menu, short press [←] or [→] to select Standby Time, then short press [OK] to enter Standby Time settings. Short press [←] or [→] to choose On or Off, and short press [OK] to confirm. When On is selected, long press or short press [←] or [→] to adjust the standby duration. After adjustment, short press or double press [OK] to confirm, then double press [OK] to return to the Sleep Settings menu. The default standby time is 10 minutes, and the adjustable range is 1–60 minutes.



### • Sleep Temperature Setting

In Sleep Settings mode, short press [←] or [→] to select Sleep Temperature, then short press [OK] to enter Sleep Temperature. Long press or short press [←] or [→] to adjust the value. After adjustment is completed, double press [OK] to return to the Sleep Settings menu. The setting range is 100–200 °C. When the working temperature is lower than the sleep temperature, the temperature in sleep mode will rise to the set sleep temperature. When the working temperature is higher than the sleep temperature, the temperature in sleep mode will drop to the set sleep temperature.

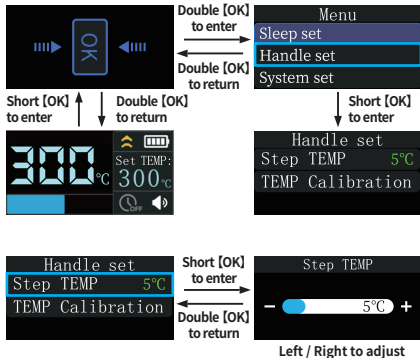


## 5.3 Handle Settings

In the Settings menu, short press [←] or [→] to select Handle Settings, then press [OK] to enter the Handle Settings menu. In the Handle Settings menu, short press [←] or [→] to select the handle parameter you want to modify, and short press [OK] to enter the parameter editing interface. Double press [OK] to return to the Settings menu. The system will exit settings mode automatically if idle for more than 1 minute.

### • Step Adjustment

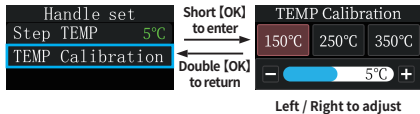
In Handle Settings mode, short press [←] or [→] to select Step Adjustment, then press [OK] to enter. Short press or long press [←] or [→] to adjust the soldering temperature step. After adjustment, double press [OK] to return to the Handle Settings menu. The system will automatically exit settings mode if idle for more than 1 minute. The default temperature step is 10°C, with an adjustable range of 1–50°C.



## • Temperature Calibration

In Handle Settings mode, short press [←] or [→] to select Temperature Calibration, then press [OK] to enter. Short press [←] or [→] to select the temperature point to calibrate, and short press [OK] to confirm the selection. After confirming the calibration point, short press [←] or [→] to adjust the calibration

value (positive or negative). Once the soldering iron temperature stabilizes, if the measured temperature is higher than the target calibration point, short press [←] to decrease the value; if the measured temperature is lower than the target, short press [→] to increase the value. When the measured temperature matches the calibration point, the calibration for that point is complete. Short press [OK] to confirm and return to select the next calibration point. After all three calibration points are completed, the system automatically saves the calibration values. Double press [OK] to return to the Handle Settings menu. The system will exit settings mode automatically if idle for more than 1 minute.



## 5.4 System Settings

In Settings mode, short press [←] or [→] to select System Settings, then press [OK] to enter the System Settings menu. In the menu, short press [←] or [→] to select the system parameter to modify, then press [OK] to enter the parameter adjustment interface. Double press [OK] to return to the Settings menu. The system will automatically exit settings mode if idle for more than 1 minute.

### • Language Setting

In the System Settings menu, short press [←] or [→] to select Language Setting, then press [OK] to enter. Short press [←] or [→] to switch the language. After switching, double press [OK] to return to the System Settings menu.

### • Handle Mode

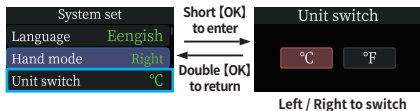
In the System Settings menu, short press [←] or [→] to select Handle Mode, then press [OK] to enter. Short press [←] or [→] to switch between left and right modes. After switching, double



press **[OK]** to return to the System Settings menu. After changing Handle Mode, the definitions of the left and right buttons for increase/decrease will also switch accordingly.

#### • Unit Setting

In the System Settings menu, short press **[←]** or **[→]** to select Unit Setting, then press **[OK]** to enter. Short press **[←]** or **[→]** to switch between °C and °F. After switching, double press **[OK]** to return to the System Settings menu.



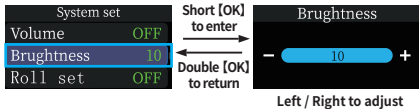
#### • Sound On/Off

In System Settings mode, short press **[←]** or **[→]** to select Sound On/Off, then press **[OK]** to enter. Short press **[←]** or **[→]** to select On or Off, then press **[OK]** to confirm. If On is selected, long press or short press **[←]** or **[→]** to adjust volume. After adjustment, short press or double press **[OK]** to confirm, then double press **[OK]** to return to the System Settings menu. The sound function is enabled by default, and the default volume level is 10.



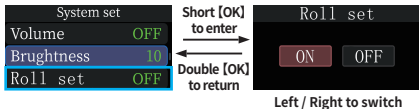
### • Screen Brightness

In the System Settings menu, short press [←] or [→] to select Screen Brightness, then press [OK] to enter. Short press [←] or [→] to adjust the brightness level. After adjustment, double press [OK] to return to the System Settings menu. Default brightness is 10, adjustable range is 1–10.



### • Scroll Setting

In the System Settings menu, short press [←] or [→] to select Scroll Setting, then press [OK] to enter. Short press [←] or [→] to select On or Off. After adjustment, double press [OK] to return to the System Settings menu. Scroll function is enabled by default.



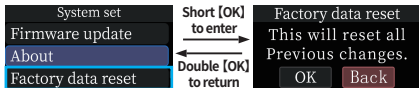
### • About

In the System Settings menu, short press [←] or [→] to select About, then press [OK] to enter the About interface. Detailed device information can be viewed on the About interface.



### • Restore Factory Settings

In the System Settings menu, short press [←] or [→] to select Restore Factory Settings, then press [OK] to enter. Short press [←] or [→] to switch between Confirm and Back, then press [OK] to confirm. Selecting Confirm restores all modified settings to factory defaults and returns to the main interface (language must be reselected). Selecting Back returns directly to the System Settings menu. Double press [OK] to return to the System Settings menu.



## 6. Firmware Upgrade

- Turn off the device. Hold [←] and connect it to a computer with a USB Type-C cable to power on.
- Enter the Bootloader interface to perform a firmware upgrade, or select Firmware Upgrade in the System Settings to enter the Bootloader interface for upgrading.
- In the Bootloader interface, short press [OK] to exit Bootloader manually.

## 7. Maintenance

- When using a new soldering tip for the first time, heat it to 250°C and apply solder to prevent dry burning and oxidation.
- After use, apply a thin layer of solder on the tip to prevent oxidation.

- The normal working temperature of the soldering tip is around 300–380°C. Prolonged use at higher temperatures may shorten its lifespan.
- Avoid striking the soldering tip during soldering operations.
- When using a damp sponge, avoid excess water; a semi-dry condition is optimal.
- Do not use flux containing high levels of chlorine or acid to prevent tip surface corrosion.
- If the soldering tip surface is oxidized and solder does not adhere, carefully wipe off the oxide layer with gauze or another tool, heat to 250°C, and immediately apply solder to protect the surface from re-oxidation.

## 8. Safety Precautions

- The soldering tip can reach 100–450°C during operation. Do not touch the tip.
- Keep the device out of reach of children.
- Do not expose the device to water or use it in a damp environment.
- Disconnect the power when the device is not in use for an extended period.
- The handle may become warm during normal operation. This is normal and safe to use.

## 9. Contact Us

Product Name: Cordless Soldering Pen

Model: HS-03

Manufacturer: Shenzhen FNIRSI Technology Co., Ltd.

Address: 8th Floor, West Side, Building C, Weihua Da Industrial Park,  
Dalang Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86 755 28020752

Service Email: support@fnirsi.com

Business Email: business@fnirsi.com

Website: www.fnirsi.com

Standard Implemented: GB/T 7157-2019



<http://www.fnirsi.com/>

## 10. Warranty Information

※**This page is the basic warranty card. Please keep it.**




Thank you for choosing our company's products. The warranty period of this product starts from the date of sale. During the product warranty period, if the product is installed and used in accordance with the product manual and used in normal environment and conditions, and the fault is caused by defects in the original materials and processing, you can enjoy free repair services according to the content of this warranty clause. Please keep this warranty card properly as a warranty certificate. No reissue will be issued if it is lost.

### **The following situations will incur paid repair services:**

- Failure to present a valid original warranty card;
- Damage caused by improper installation not complying with product requirements, standards, or related regulations;
- Damage caused by accessories in the installation environment that do not meet product requirements, standards, or related regulations;
- Damage caused by improper use, poor maintenance, unauthorized disassembly, or unauthorized repairs;
- Warranty period has expired.

# Warranty Card



|   |   |   |     |
|---|---|---|-----|
| <b>Product Model</b>  | HS-03   | <b>Qty.</b>                             |     |
| <b>Distributor Name</b><br>(where to buy)   |   | <b>Contact</b>                          |     |
| <b>Address</b>  |   | <b>Invoice Number</b><br>(Order Number) |     |
| <b>Purchase Date</b><br>(as per invoice)  | Year  | Month                                   | Day |
| <b>User Name:</b>   | <b>Address:</b><br>           |   |     |
| <b>Contact:</b><br> | <b>Fault Description:</b><br> |   |     |



Download User manual&APP&Software