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› FNIRSI HS-02A Portable Soldering Iron User Manual

## FNIRSI FNIRSI-HS-02A-6

# FNIRSI HS-02A Portable Soldering Iron Kit User Manual

Model: FNIRSI-HS-02A-6

## 1. INTRODUCTION

Thank you for choosing the FNIRSI HS-02A 100W Portable Corded Soldering Iron Kit. This smart digital soldering iron pen tool is designed for precision electronics repair, jewelry soldering, circuit board work, and micro soldering. It offers rapid heating, precise temperature control, and a user-friendly interface to enhance your soldering experience.

Key features include:

- 100W High Power & 3S Fast Heating for quick tinning.
- Adjustable temperature range from 212-842°F (100-450°C).
- Pre-set 3 Groups Temperature for fast adjustments.
- Smart features: sleep mode, automatic power-off, and child lock mode.
- Equipped with 6 F245 soldering tips (K, KU, JS, I, C2, B).
- Portable and lightweight design with a storage case.



Figure 1.1: FNIRSI HS-02A Portable Soldering Iron Kit

## 2. SAFETY INFORMATION

Please read and understand all safety instructions before using the FNIRSI HS-02A soldering iron. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always wear appropriate personal protective equipment (PPE), including safety glasses, when operating the soldering iron.
- Ensure the work area is well-ventilated to avoid inhaling solder fumes.
- The soldering iron tip reaches very high temperatures. Do not touch the tip or heating element when hot.
- Always place the hot soldering iron in its designated stand when not in use.
- Do not use the soldering iron near flammable materials or liquids.
- Keep out of reach of children.
- Only use the provided charging cable and adapter. The soldering iron does not support cordless use.

- Unplug the soldering iron from the power source when not in use or before performing maintenance.

### 3. PACKAGE CONTENTS

Verify that all items listed below are included in your FNIRSI HS-02A kit:

- FNIRSI HS-02A Soldering Iron Pen
- 6 x F245 Soldering Tips (K, KU, JS, I, C2, B)
- 100W PD Adapter
- PD Charging Cable
- Soldering Iron Stand
- Storage Case

**EXCELLENT QUALITY**  
**WITHOUT FEAR OF COMPARISON ,**  
 Commitment to the popularisation and diffusion of technology for the benefit of all

	HS-02	Others
Power	100W	65W
Tinning Time	3S	8S
Screen Display	0.96" IPS screen	0.87" OLED screen
Body Material	CNC Aluminium Alloy + Silicone	ABS Plastics
Adaptive Power	✓	✗
Static Protection	✓	✗
Preset Temperature	✓	✗
Hibernate Function	✓	✗
Storage Bag	✓	✗

Figure 3.1: Complete Package Contents

### 4. SETUP

## 4.1 Inserting Soldering Tips

1. Ensure the soldering iron is powered off and cool before handling tips.
2. Select the desired F245 soldering tip (e.g., K, KU, JS, I, C2, B) for your task.
3. Gently insert the tip into the heating element opening at the front of the soldering iron until it is fully seated. Do not force it.
4. To remove a tip, ensure it is cool, then gently pull it straight out.

## 4.2 Connecting Power

The FNIRSI HS-02A requires a constant power supply and does not operate wirelessly.

1. Connect the PD Charging Cable to the USB-C port on the back of the soldering iron.
2. Connect the other end of the PD Charging Cable to the 100W PD Adapter.
3. Plug the 100W PD Adapter into a suitable power outlet.



Figure 4.1: Multiple Power Supply Modes (PD/QC/DC)

## 4.3 Initial Power On

Once connected to power, the soldering iron display will activate. Press the 'OK' button to enter standby mode and begin heating.

Your browser does not support the video tag.

Video 4.1: FNIRSI HS-02A 100W Portable Soldering Iron Kit Overview. This video demonstrates the initial setup and basic functions of the soldering iron.

## 5. OPERATING INSTRUCTIONS

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### 5.1 Power On/Off

- **Power On:** After connecting to power, press the 'OK' button to activate the heating element. The display will show the current temperature and target temperature.
- **Power Off:** Press and hold the 'OK' button to turn off the heating element. The display will show 'OFF' or enter sleep mode based on settings.

### 5.2 Temperature Adjustment

The FNIRSI HS-02A allows for precise temperature control:

- **Manual Adjustment:** Use the ▲ (Up) and ▼ (Down) arrow buttons to increase or decrease the target temperature in 5°F (or 1°C) increments.
- **Pre-set Temperatures:** The iron has 3 pre-set temperature groups (CH1, CH2, CH3). Press the 'OK' button repeatedly to cycle through these pre-set temperatures for quick changes.

# PRESET MULTIPLE GROUPS

Fast temperature adjustment,  
without time-consuming

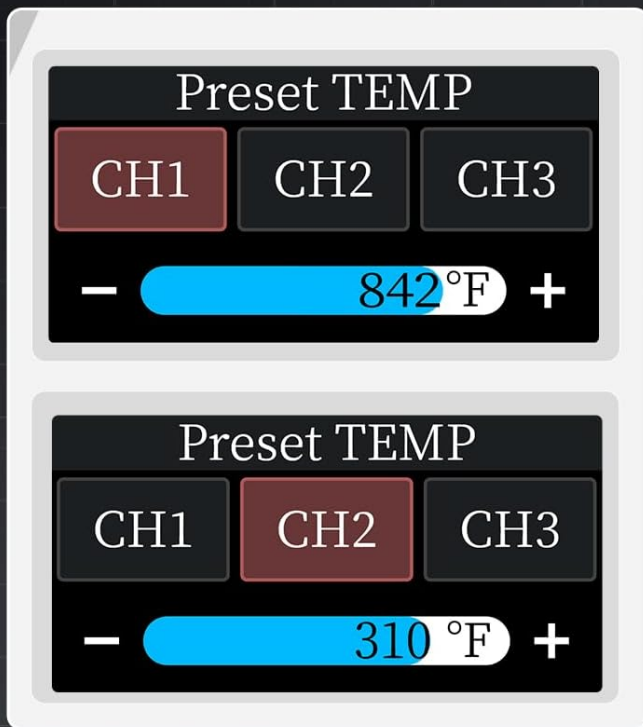


Figure 5.1: Pre-set Temperature Groups

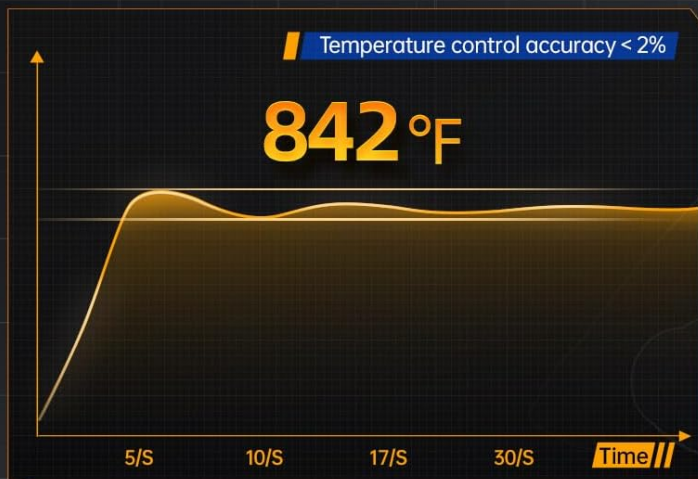
## 5.3 Adaptive Power & Fast Heating

The 100W high power output allows for extremely fast heating, achieving tin melting in as little as 3 seconds. The iron automatically adjusts its power output to maintain the set temperature efficiently.

# FNIRSI HS-02A

## UPGRADED TO 100W

### Power 5S Melting



Adjustable temperature  
212°F-842°F

5s

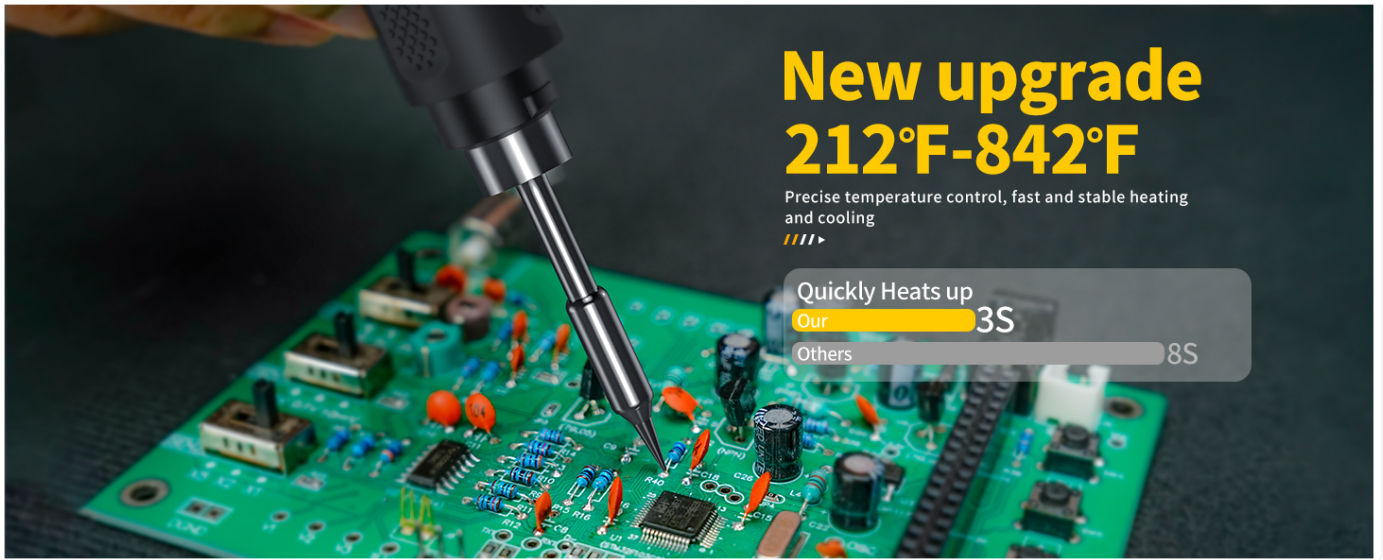


Figure 5.2: Fast Heating Performance

#### 5.4 Smart Features & Settings

The FNIRSI HS-02A includes several smart features for convenience and safety:

- **Sleep Mode:** The iron will automatically enter sleep mode after a period of inactivity (configurable). In sleep mode, the tip temperature will drop to a safe level (e.g., 212°F / 100°C) to conserve energy and prolong tip life.
- **Automatic Power-off:** If left in sleep mode for an extended period (configurable), the iron will automatically power off completely.
- **Child Lock Mode:** This mode prevents accidental activation. Refer to the on-screen menu for activation/deactivation.
- **Customizable Settings:** Access the menu by pressing and holding the 'OK' button to adjust sleep time, standby time, sleep temperature, hand mode (left/right-handed display orientation), unit switch (°C/°F), and display brightness.



Video 5.1: HS02 Soldering Iron Kit Features. This video demonstrates various operational features and settings of the soldering iron.

## 6. SOLDERING TIPS

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The FNIRSI HS-02A kit includes 6 different F245 series soldering tips, each designed for specific applications:

- **HS02A-K:** Knife-edge tip, ideal for drag soldering and large pads.
- **HS02A-KU:** Smaller knife-edge tip for finer drag soldering.
- **HS02A-JS:** Bevel tip, versatile for general soldering and desoldering.
- **HS02A-I:** Fine point tip, excellent for precision work and small components.
- **HS02A-C2:** Conical tip, good for general purpose soldering and reaching tight spots.
- **HS02A-B:** Small conical tip, suitable for very fine work and SMD components.

# HS-02A ADAPTATION

(total length 9cm) Tinning time:5S Heating core resistance 2.1Ω



HS02A-K



HS02A-KU



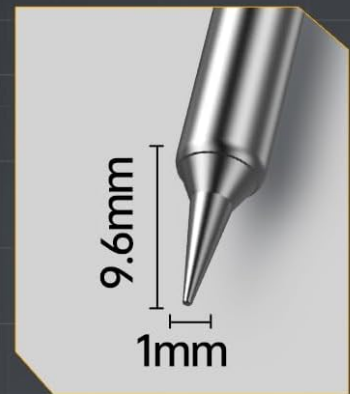
HS02A-JS



HS02A-I



HS02A-C2



HS02A-B

Figure 6.1: Included Soldering Tip Types and Dimensions

Note: The soldering iron tips compatible with HS-02A and HS-02B are not interchangeable. Ensure you use the correct tips for your model.



Figure 6.2: HS02A vs HS02B Tip Compatibility

## 7. MAINTENANCE

### 7.1 Tip Cleaning

Regular cleaning of the soldering tip is crucial for optimal performance and longevity:

- Use the included wet sponge or brass wool to wipe the tip clean of excess solder and oxidation.
- Always re-tin the tip with a small amount of fresh solder after cleaning and before storing.

### 7.2 Storage

When not in use, ensure the soldering iron is cool and stored properly:

- Allow the tip to cool completely before placing the protective cap or storing in the case.
- Store the soldering iron and all accessories in the provided storage case to protect them from dust and damage.

## 8. TROUBLESHOOTING

If you encounter issues with your FNIRSI HS-02A, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
Iron not heating	Not properly connected to power; Power adapter issue; Tip not fully inserted.	Ensure cable and adapter are securely connected. Try a different power outlet. Re-insert tip firmly.
Display is blank	No power; Iron in auto-off mode.	Check power connection. Press 'OK' button to wake from auto-off.
Temperature fluctuates	Loose tip; Insufficient power supply.	Ensure tip is firmly inserted. Use the provided 100W PD adapter.
Tip not melting solder	Temperature too low; Tip is oxidized/dirty.	Increase temperature. Clean and re-tin the soldering tip.

## 9. SPECIFICATIONS

Feature	Detail
Product Name	Intelligent Soldering Iron
Model Number	FNIRSI-HS-02A-6
Power	100W (MAX)
Power Supply	Type-C (PD/QC)
Screen	0.96inch IPS HD Color Screen
Temperature Range	212-842°F (100-450°C)
Working Voltage	9-20V
Material	Iron (Handle: Rubber or Silicone)
Item Weight	0.15 Ounces
Item Length	7.01 Inches

## 10. WARRANTY AND SUPPORT

FNIRSI products are designed for quality and reliability. This product comes with a standard manufacturer's warranty. For detailed warranty information, technical support, or service inquiries, please refer to the contact information provided with your product packaging or visit the official FNIRSI website.

Always ensure you have your product model number (FNIRSI-HS-02A-6) and purchase date available when contacting support.