

YIHUA 947-IX

YIHUA 947-IX Adjustable Temperature Soldering Iron Kit User Manual

Model: 947-IX | Brand: YIHUA

INTRODUCTION

This manual provides detailed instructions for the safe and effective use of your YIHUA 947-IX Adjustable Temperature Soldering Iron Kit. This kit is designed for various soldering tasks, including DIY electronics, basic repairs, and general soldering applications. Please read this manual thoroughly before operation and retain it for future reference.

SAFETY INSTRUCTIONS

- Always work in a well-ventilated area to avoid inhaling solder fumes.
- Wear appropriate personal protective equipment, including safety glasses, to protect against splashes of molten solder.
- The soldering iron tip reaches high temperatures (220-480°C). Avoid direct contact with the tip or heating element.
- Always place the hot soldering iron in its designated stand when not in use. Never lay it on a workbench or other surfaces.
- Ensure the power cord is not damaged and is kept away from the hot tip.
- Disconnect the power when changing tips, performing maintenance, or when the tool is not in use.
- Keep out of reach of children.
- This product is ESD-safe, but proper grounding practices should still be followed when working with sensitive electronic components.

PACKAGE CONTENTS

Verify that all items are present in your package:

- YIHUA 947-IX Soldering Iron with EU Plug
- YIHUA X-4 Soldering Iron Stand (full-size)
- 5 x 900M Soldering Iron Tips

- Lead-Free Solder Wire
- Desoldering Pump
- Tweezers
- Wire Stripper/Cutter



Image: Complete YIHUA 947-IX Soldering Iron Kit showing all included components.

PRODUCT OVERVIEW

Familiarize yourself with the main parts of your soldering iron and stand.

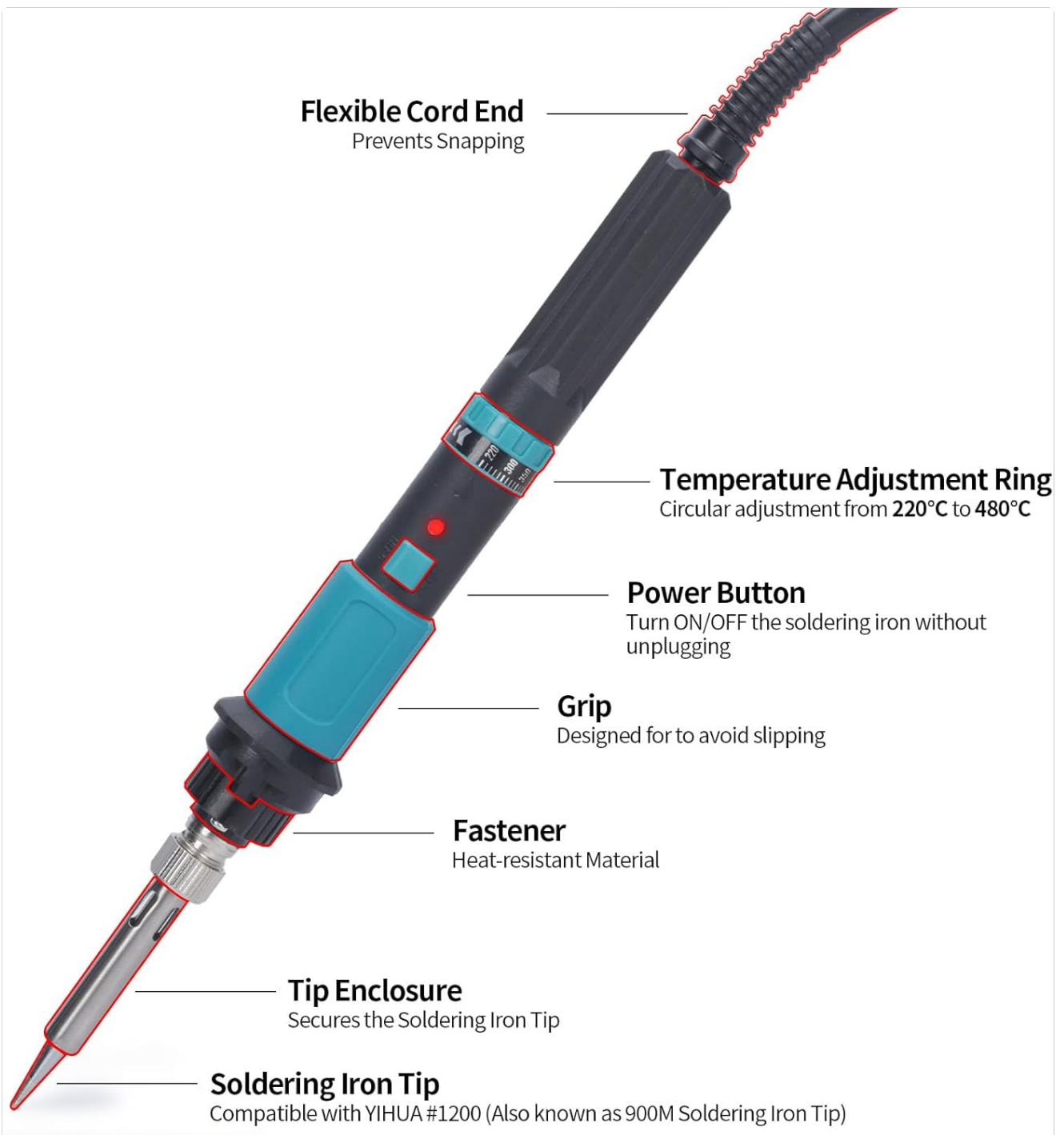


Image: Diagram labeling the components of the YIHUA 947-IX soldering iron, including the flexible cord end, temperature adjustment ring, power button, grip, fastener, tip enclosure, and soldering iron tip.



Image: Diagram labeling the components of the YIHUA X-4 soldering iron stand, showing the holder for the soldering iron, soldering tips storage, tip cleaner (brass wool), and cleaning sponge.

SETUP

1. **Assemble the Soldering Stand:** Place the metal spring holder into the base of the YIHUA X-4 stand. Ensure the brass wool tip cleaner and cleaning sponge are in their respective compartments.
2. **Insert Soldering Tip:** Select the desired soldering tip and securely insert it into the soldering iron's tip enclosure. Ensure it is tightened properly but do not overtighten.
3. **Position the Iron:** Place the soldering iron securely in the assembled stand.
4. **Connect Power:** Plug the soldering iron into a suitable 230V AC power outlet (Type F EU plug).

OPERATING INSTRUCTIONS

Power Button and Indicator Light

The soldering iron features an independent power button and an indicator light to show its status.

- **Stays ON (Red):** The iron is heating up.
- **Blinking (Red):** The iron has reached the set temperature and is ready for use.

- **OFF:** The iron is cooling down or disconnected from power.

Power Button & Indicator

(Independent) (ON/OFF/READY)



Stays ON:
Heating up



Blinking:
Ready for Use



Turns OFF:
Cooling/Disconnected



Image: Visual guide to the power button and indicator light states: heating up (stays on), ready for use (blinking), and cooling/off (off).

Temperature Adjustment

The YIHUA 947-IX allows for temperature adjustment from 220°C to 480°C using a circular adjustment ring. Rotate the ring to select your desired temperature.

Adjustable Temperature Ring 220~480°C



Image: Close-up of the soldering iron showing the circular temperature adjustment ring with markings from 220°C to 480°C.

Recommended Soldering Temperatures

For optimal soldering results and to ensure a smooth soldering experience, consider the following guidelines:

- The set temperature for a soldering iron should be approximately 50°C (90°F) above the solder's melting point to achieve a better solder connection.
- An additional approximately 100°C (180°F) higher temperature can provide a heat reserve for quick thermal recovery of the tip after the solder connection is made.
- **Example for Lead-Free Solder (Sn-Ag-Cu) with a melting point of 220°C:**
 - Melting Point: 220°C
 - Recommended Operating Temperature: $220^{\circ}\text{C} + 50^{\circ}\text{C} + 100^{\circ}\text{C} = 370^{\circ}\text{C}$

Recommended Temperature for Soldering

General Rule of Thumb

Your preferred

Solder's Melting Point + 50°C + 100°C =

Smoother

Soldering

Experience

For example:



If you use Lead-Free Solder

Lead-Free Solder (Sn-Ag-Cu)

220°C

220°C + 50°C + 100°C = **370°C**



1. The set temperature for a **soldering iron/station** should be approximately **50°C / 90°F** above its melting point to make a better solder connection.

2. The set temperature for a **soldering iron/station** should be an additional approximately **100°C / 180°F** higher to provide a heat reserve for the quick thermal recovery of the tip after the solder connection is made.

Image: Infographic explaining the general rule of thumb for setting soldering iron temperatures based on solder melting point for a smoother soldering experience.

MAINTENANCE

Soldering Tip Care

- **Clean Regularly:** During operation, frequently clean the soldering tip using the brass wool tip cleaner provided in the stand. This removes oxidation and old solder, ensuring efficient heat transfer.
- **Use Cleaning Sponge:** Dampen the cleaning sponge with water (do not soak) and use it to wipe the tip clean. Ensure the sponge is not dripping wet to avoid thermal shock to the tip.
- **Tinning:** After cleaning and before storing, always "tin" the tip by applying a small amount of fresh solder. This protects the tip from oxidation and prolongs its lifespan.
- **Tip Replacement:** Replace tips when they become excessively pitted, corroded, or no longer hold solder effectively. Ensure the iron is cool and unplugged before changing tips.

Storage

Always allow the soldering iron to cool completely before storing. Store the iron in its stand or in a safe, dry place

away from moisture and dust.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Iron not heating up.	Not plugged in; Power button off; Faulty power outlet; Damaged heating element.	Check power connection; Press power button; Test outlet with another device; Contact support if element is damaged.
Solder not melting or poor joints.	Temperature set too low; Oxidized or dirty tip; Incorrect tip for task; Insufficient contact time.	Increase temperature; Clean and tin tip; Use appropriate tip; Ensure proper heat transfer.
Tip turning black quickly.	Tip not tinned; Too high temperature; Infrequent cleaning.	Always tin tip after cleaning and before storage; Adjust temperature; Clean tip frequently during use.
Smoke/fumes excessive.	Poor ventilation; Solder flux burning.	Ensure adequate ventilation; Use a fume extractor if available.

SPECIFICATIONS

Model Number	YIHUA 947-IX
Power	60 Watts
Input Voltage	230V AC (EU Plug Type F)
Temperature Range	220°C - 480°C
Heating Performance	Heats from 28°C to 350°C in 35 seconds
Special Features	Adjustable Temperature Control, Circular Temperature Adjustment Ring, Independent Power Button, Temperature Indicator Light, Robust Stand, ESD-Safe
Handle Material	Iron
Dimensions (Soldering Iron)	Length: 21.5 cm, Tip enclosure length: 6.5 cm, Diameter: 2.5 cm
Weight (Soldering Iron)	173 grams
Cord Length	125 cm
Manufacturer	Guangzhou Yihua Electronic Equipment Co.,Ltd.
Country of Origin	China

Size & Dimensions



Image: Diagram illustrating the size and dimensions of the YIHUA 947-IX soldering iron and its power cord, including its weight.

WARRANTY AND SUPPORT

Your YIHUA 947-IX Soldering Iron Kit is covered by an exclusive EU 12-month technical warranty. Our dedicated team provides professional technical support 24/7. For any questions, suggestions, or technical assistance, please contact YIHUA customer support through the platform where you purchased the product.