

## HGLRC RC2 Soldering Iron

# HGLRC RC2 Soldering Iron Kit User Manual

Model: RC2 Soldering Iron



## INTRODUCTION

This manual provides detailed instructions for the safe and efficient operation of your HGLRC RC2 Soldering Iron Kit. Please read this manual thoroughly before use and retain it for future reference.

The HGLRC RC2 Soldering Iron is a portable, intelligent temperature-controlled soldering iron designed for various applications, including FPV racing drones. It features an OLED digital display and supports multiple power supply methods.

## PRODUCT FEATURES

- Suitable for long and short soldering iron tips; maximum temperature of 450°C/842°F.
- Supports PD3.0, QC2.0, DC12V-25V, and 3S-6S battery power supply.
- 0.91-inch OLED display with adjustable brightness.
- Built-in buzzer reminder; automatic heating upon power-on (can be toggled).
- Intelligent temperature control algorithm with temperature compensation and self-calibration.
- Transparent, high-temperature resistant, and fireproof PC environmental protection material shell.
- Adjustable sensitivity to minimize environmental interference.
- Supports °C/°F switching and left/right hand screen flip.
- Low voltage protection, high temperature, and high voltage alarms for safety.
- Supports Chinese and English display switching and firmware upgrades.
- Plug and play design for TS/T12 soldering iron tips, no internal disassembly required.
- Rapid tinning in 9 seconds for quick temperature control and stable temperature return.

# Nine strong advantages

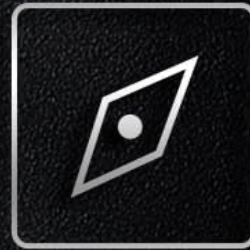
Outdoor/indoor to meet your welding needs



0.91 inch OLED display



Support PD3.0QC2.0 power supply



Sensitivity setting



Automatic temperature calibration



Built-in buzzer



Rapid heating



Light adjustment



Intelligent constant temperature



Environmental protection material

Image: Overview of the nine key advantages of the HGLRC RC2 Soldering Iron, including OLED display, power supply support, sensitivity setting, automatic temperature calibration, built-in buzzer, rapid heating, light adjustment, intelligent constant temperature, and environmental protection material.

## PACKING LIST

Upon opening the package, please verify that all items listed below are present and in good condition:

- HGLRC RC2 Soldering Iron Unit
- Soldering Iron Tip (pre-installed or included separately)
- Power Cable (e.g., XT60 to DC5525 cable)
- Portable Storage Bag



Image: Contents of the HGLRC RC2 Soldering Iron Kit package, showing the soldering iron, a power cable, and a black zippered storage case.

## SETUP

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### 1. Attaching the Soldering Tip

The HGLRC RC2 Soldering Iron is designed for plug-and-play use with TS/T12 soldering iron tips. Simply insert the desired soldering tip into the front end of the soldering iron handle until it is securely seated. No internal disassembly is required.

# Plug and play

Suitable for TS/T12 soldering iron tips,  
no need to disassemble internal parts



Image: Close-up of the HGLRC RC2 Soldering Iron demonstrating the plug-and-play insertion of a soldering tip into the main unit.

## 2. Power Supply Connection

The RC2 Soldering Iron supports various power supply methods:

- **PD3.0 / QC2.0:** Connect a compatible USB-C power delivery (PD3.0) or Quick Charge (QC2.0) power source to the Type-C socket.
- **DC12V-25V:** Use a DC5525 power adapter within the specified voltage range.
- **3S-6S Battery:** Connect a 3S to 6S LiPo battery using the appropriate XT60 to DC5525 cable.

Ensure the power source is stable and provides sufficient current for optimal performance. The soldering iron will automatically heat up when powered on.



# Various power supply methods

Support multiple occasions  
Support PD3.0, QC2.0, DC5525 12V-25V 3S-6S  
power supply mode



PD mobile power



3S-6S Li battery



12V-25V power adapter



PD/QC power

Image: Diagram illustrating different power supply options for the HGLRC RC2 Soldering Iron, including PD mobile power, 3S-6S Li battery, 12V-25V power adapter, and PD/QC power.

## OPERATING INSTRUCTIONS

### 1. Power On and Initial Heating

Once connected to a power source, the soldering iron will power on and begin heating automatically. The 0.91-inch OLED display will show the real-time temperature.

### 2. Temperature Control and Display

The OLED HD display shows the current working temperature and voltage. You can access the built-in menu options to adjust various settings:

- **Display Brightness:** Adjust the screen brightness for better visibility.
- **Unit Conversion:** Switch between Celsius (°C) and Fahrenheit (°F).

- **Screen Flip:** Rotate the display for left-hand or right-hand use.
- **Temperature Compensation:** Fine-tune temperature accuracy.
- **Voltage Alarm:** Set alerts for low or high voltage conditions.
- **Sleep Wake-up:** Configure settings for automatic sleep mode and wake-up sensitivity.

The intelligent temperature control algorithm ensures stable temperature return and rapid heating, allowing for quick tinning in approximately 9 seconds (depending on power source and target temperature).



Image: The HGLRC RC2 Soldering Iron in use, highlighting its OLED HD display and various adjustable settings such as Celsius/Fahrenheit conversion, screen flip, temperature compensation, voltage alarm, and wake sensitivity.

### 3. Soldering Operation

Once the desired temperature is reached, the soldering iron is ready for use. Apply the tip to the component and solder joint, then feed solder wire to create a strong connection. The rapid heating capability minimizes waiting time.

# Rapid tinning in 9 seconds for temperature control and stable temperature return

Say goodbye to the long warm-up time,  
and start working immediately after booting



Image: The HGLRC RC2 Soldering Iron being used to solder a component on a circuit board, emphasizing its rapid tinning capability.

## 4. Power Off

To power off the soldering iron, disconnect it from the power source. Allow the tip to cool down completely before storing.

## MAINTENANCE

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### 1. Cleaning the Soldering Tip

Regularly clean the soldering tip using a damp sponge or brass wool to remove excess solder and oxidation. A clean tip ensures efficient heat transfer and prolongs tip life.

### 2. Storing the Soldering Iron

After use, allow the soldering iron to cool down completely. Store it in the provided portable storage bag to protect it from dust and damage. The transparent PC case is durable and fireproof, but proper storage is still recommended.



# Transparent case



Image: Close-up view of the HGLRC RC2 Soldering Iron, showcasing its transparent case and internal components, alongside a soldering tip.

## TROUBLESHOOTING

This section addresses common issues you might encounter with your HGLRC RC2 Soldering Iron. If you experience problems not listed here, please contact customer support.

Problem	Possible Cause	Solution
Soldering iron not heating up.	No power, incorrect power supply, or faulty tip.	Ensure power source is connected and functional. Verify power supply voltage and current. Check if the soldering tip is properly inserted and not damaged.
Temperature display is inaccurate.	Need for temperature calibration.	Perform temperature self-calibration through the OLED display menu.



Problem	Possible Cause	Solution
Buzzer constantly beeping.	Low voltage or high temperature alarm.	Check power supply voltage. Allow the iron to cool if overheating. Adjust alarm settings in the menu if necessary.
Screen display is dim or unreadable.	Brightness setting is too low.	Adjust the display brightness through the OLED display menu.

SPECIFICATIONS

Feature	Detail
Model	RC2 Soldering Iron
Wattage	65 watts (Max)
Voltage	24 Volts (Max)
Power Source	Battery Powered (PD3.0, QC2.0, DC12V-25V, 3S-6S battery)
Max Temperature	450°C / 842°F
Display	0.91-inch OLED
Handle Material	Polyvinyl Chloride (PVC)
Item Weight	0.13 Kilograms (approx. 4.6 ounces)
Dimensions	6.85 x 2.87 x 1.81 inches (Package Dimensions)
Included Components	Soldering Iron Tips, charger (cable), portable storage bag
UPC	734391069215

Heating Performance Table

Operating Voltage	Power	Time to heat from 30°C to 300°C
12V	16W	37S
19V	40W	14S
24V	65W	9S

# — Specification —

Type-C socket  
(PD3.0/QC2.0/firmware upgrade)

DC5525  
(DC12V-25V/3-6S)



Test delivery, there are traces of use

Type-C socket



0.91 inch OLED HD display

A key

B key




Soldering iron tip	Operating Voltage	Power	The fastest time to heat up from 30 degrees to 300 degrees
	12V	16W	37S
	19V	40W	14S
	24V	65W	9S

Image: Detailed specifications of the HGLRC RC2 Soldering Iron, including Type-C and DC5525 sockets, OLED display, control buttons, and a table showing heating performance at different voltages and wattages.

## SAFETY INFORMATION

Please observe the following safety precautions when using the HGLRC RC2 Soldering Iron:

- Always work in a well-ventilated area to avoid inhaling solder fumes.
- Wear appropriate personal protective equipment, such as safety glasses, to protect your eyes from splashes.
- The soldering iron tip reaches very high temperatures. Avoid direct contact with skin or flammable materials.
- Place the soldering iron in a stable, heat-resistant holder when not in use.
- Ensure the power supply is appropriate for the device and free from damage.
- Keep out of reach of children.
- Do not modify the soldering iron or use it for purposes other than intended.

- Disconnect power when changing tips or performing maintenance.

## WARRANTY AND SUPPORT

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HGLRC is committed to providing high-quality products. If you have any questions or require assistance with your RC2 Soldering Iron, please contact HGLRC customer support. As the original HGLRC manufacturer, we are dedicated to helping you within 24 hours.

For support, please refer to the contact information provided with your purchase or visit the official HGLRC website. This product is covered by a standard manufacturer's warranty. Please retain your proof of purchase for warranty claims.