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## ALIENTEK T80P+C2C+4 type tips+PD 65W

# ALIENTEK T80/T80P Smart Soldering Iron User Manual

Model: T80P+C2C+4 type tips+PD 65W

Brand: ALIENTEK

## 1. INTRODUCTION

The ALIENTEK T80 and T80P Smart Soldering Irons are advanced, multi-functional tools designed for precision soldering. They feature a Type-C interface supporting PD/QC fast charge protocols, an OLED display for clear status indication, and adjustable heating power from 18W to 100W. These soldering irons are engineered for rapid heating, capable of melting tin in as little as 2 seconds (T80 model at 100W), and offer precise temperature control with a stability of 2%. Their intelligent induction system conserves energy, and the ergonomic design ensures a comfortable grip for extended use. The compact size makes them highly portable for various applications.

## 2. PRODUCT COMPONENTS

The ALIENTEK Soldering Iron Kit includes the following components:

- T80P Smart Soldering Iron
- C2C Cable
- 4 types of soldering tips
- PD 65W Power Adapter (if included in specific kit)
- Soldering Iron Stand



Figure 2.1: Overview of the ALIENTEK Soldering Iron Kit components, including the soldering iron, various tips, cable, and stand.

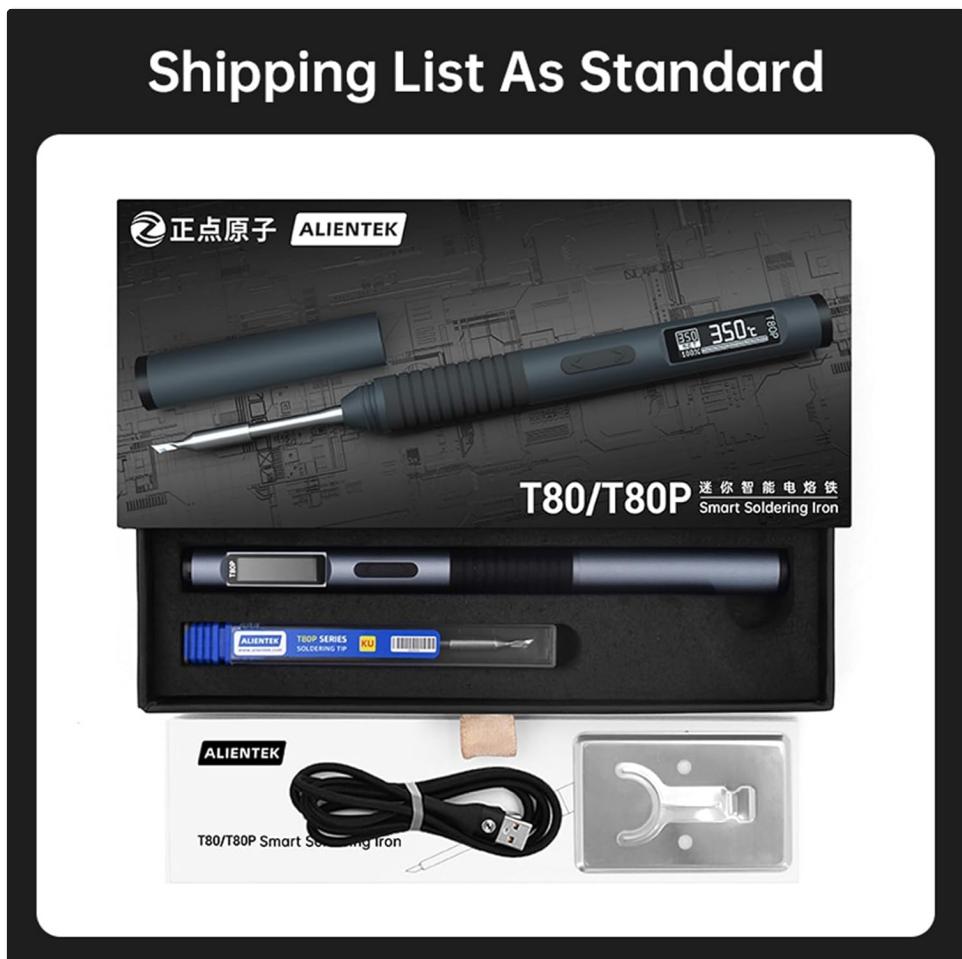


Figure 2.2: The standard shipping list for the ALIENTEK T80/T80P Smart Soldering Iron, showing the packaging and included accessories.

### 3. SETUP

Before first use, ensure all components are present and undamaged. The soldering iron requires an external power supply via its Type-C interface.

#### 3.1 Installing Soldering Tips

1. Select the appropriate soldering tip for your task.
2. Carefully insert the chosen tip into the heating core of the soldering iron. Ensure it is fully seated.
3. The design allows for easy installation by simply inserting the tip.

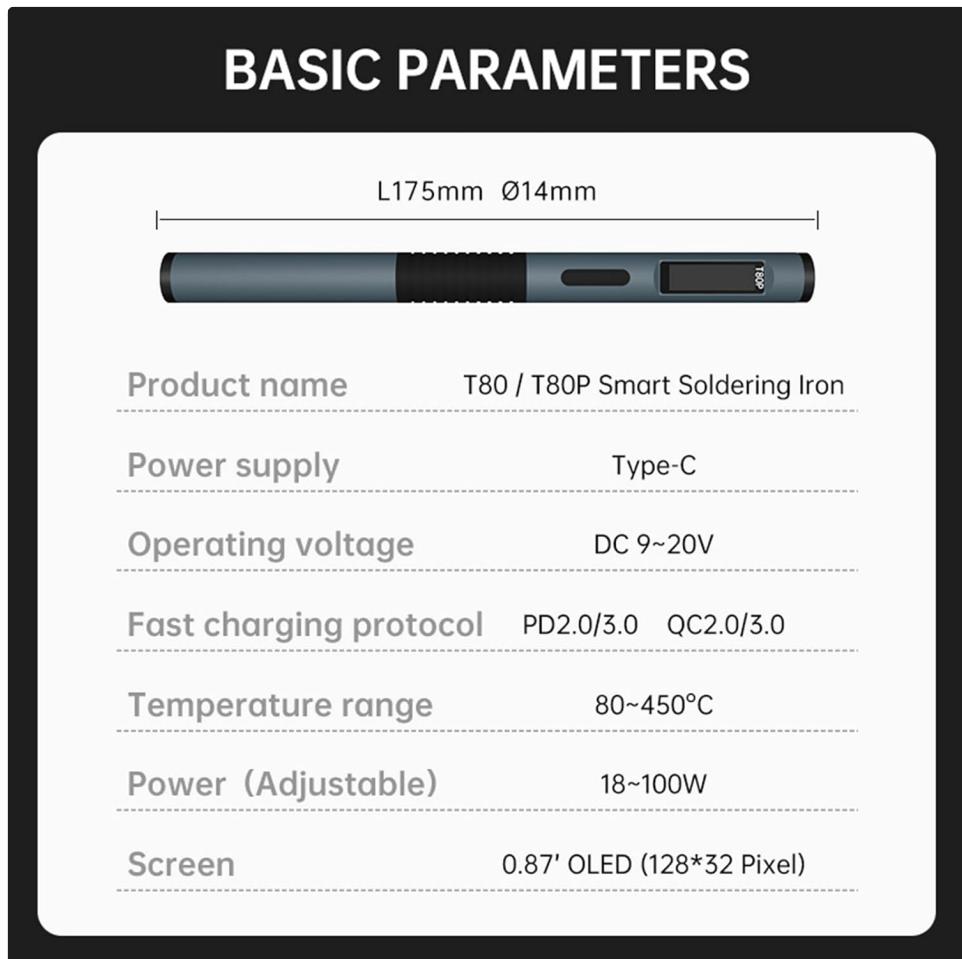


Figure 3.1: Demonstrates the simple process of installing a soldering tip into the ALIENTEK soldering iron. Just insert the tip firmly.

#### 3.2 Power Connection

Connect the soldering iron to a compatible PD/QC fast charge protocol power source using the provided Type-C cable. The device supports a working voltage range of 9V to 20V and adjustable heating power from 18W to 100W.

### 4. OPERATING INSTRUCTIONS

#### 4.1 Power On and Temperature Setting

Once connected to power, the OLED display will show the current status. Use the control buttons (Key A and Key B) to adjust the desired temperature. The device features PID precise temperature control for stable operation.

#### 4.2 Fast Heating Capability

The ALIENTEK soldering iron heats rapidly. The T80 model can melt tin in approximately 2 seconds when operating at 100W. The T80P model melts tin in approximately 5 seconds.



Figure 4.1: Key features of the ALIENTEK T80/T80P Smart Soldering Iron, highlighting 100W power, PD/QC protocol, CNC aluminum alloy, and 2-5 second tin melting.

#### 4.3 Power Adjustment

The soldering iron supports adjustable power from 18W to 100W, with 6 power gears available. You can fine-tune the current to match your specific soldering needs.

## 18~100W Power Adjustable

### Default Gear



6 power gears are available  
the current can be fine-tuned to achieve power adjustment

### Power Fine-Tuning



After entering the power fine-tuning interface:

- 1: Press A or B to select the adjustment item;
- 2: Long press B to select, short press to adjust, long press A to exit;
- 3: Select OK and press and hold B to save.

**Note:** The T80 will jump temperature when using the new heating core, and it will be stable after several uses

Figure 4.2: Illustrates the 18-100W adjustable power settings and the process for fine-tuning power on the device.

### 4.4 Intelligent Induction and Auto Sleep

The device features intelligent induction, which automatically puts the soldering iron into hibernation mode when placed down, saving energy and prolonging the life of the heating core. Picking up the host will wake it up.



Figure 4.3: Shows the intelligent induction feature, where the soldering iron enters hibernation mode when put down and wakes up when picked up.

#### 4.5 Visual Demonstration

Watch this official video for a visual guide on the usage scenarios and functions of the T80/T80P soldering iron:

Your browser does not support the video tag.

Video 4.1: Demonstrates the T80/T80P soldering iron in various usage scenarios and highlights its key functions, including tip installation, intelligent induction, and power selection.

### 5. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your soldering iron.

- **Tip Cleaning:** Always clean the soldering tip after each use. Use a damp sponge or brass wool to remove excess solder and oxidation.
- **Tinning the Tip:** After cleaning, re-tin the tip with a small amount of fresh solder to prevent oxidation and ensure efficient heat transfer.
- **Storage:** When not in use, store the soldering iron in a dry, safe place, preferably in its original packaging or a dedicated case. Ensure the tip is cool before storing.
- **Inspection:** Periodically inspect the cable and connections for any signs of wear or damage. Do not use if damaged.

### 6. TROUBLESHOOTING

If you encounter issues with your ALIENTEK soldering iron, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Soldering iron does not heat up.	No power supply, incorrect power adapter, loose connection, faulty tip.	Ensure the Type-C cable is securely connected to a compatible PD/QC power source (9-20V, 18-100W). Verify the power adapter is functioning. Check if the soldering tip is properly installed.
Temperature is unstable or too low.	Insufficient power, worn-out tip, incorrect temperature setting.	Ensure your power supply can deliver sufficient wattage (e.g., 65W or 100W for optimal performance). Clean or replace the soldering tip. Adjust the temperature setting via the OLED display.
Device enters sleep mode unexpectedly.	Intelligent induction activated.	This is a normal energy-saving feature. Simply pick up the soldering iron to wake it from hibernation.
Display shows error or no information.	Power issue, internal fault.	Disconnect and reconnect the power. If the issue persists, contact customer support.

*Note: The T80 model may experience a temporary temperature jump when using a new heating core; it will stabilize after several uses.*

## 7. SPECIFICATIONS

Feature	Detail
Brand	ALIENTEK
Model Number	T80P+C2C+4 type tips+PD 65W (also T80/T80P)
Power Source	PD/DC (Type-C interface)
Wattage	18 - 100 watts (adjustable)
Operating Voltage Range	9V - 20V
Fast Charge Protocol Support	PD2.0/3.0, QC2.0/3.0
Temperature Range	80 - 450°C
Temperature Control Accuracy	±2%
Display	0.87" OLED (128x32 Pixel)
Heating Core Type	T80-xx (T80), T80P-xx (T80P)
Tinning Time (T80 @100W)	2 seconds
Tinning Time (T80P)	5 seconds

Feature	Detail
Handle Material	Aluminum alloy
Item Weight	1.1 pounds
Special Feature	Portable, Auto Sleep, Digital Display

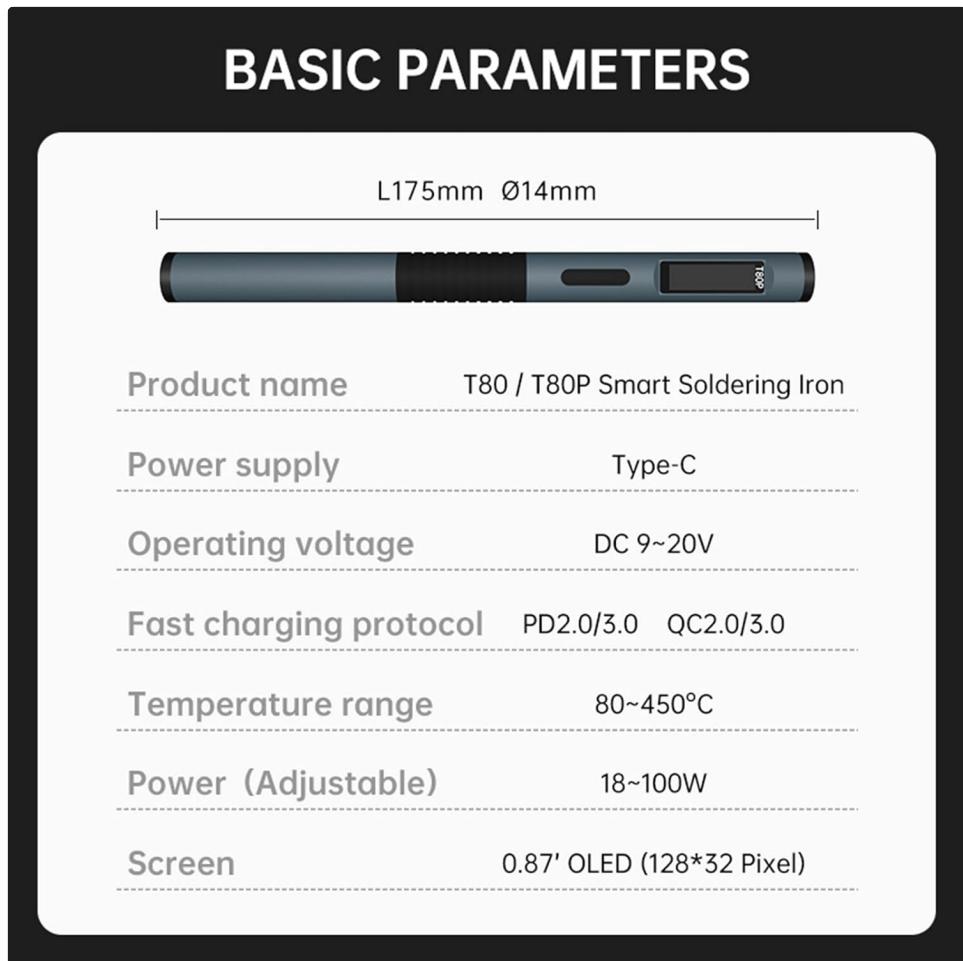
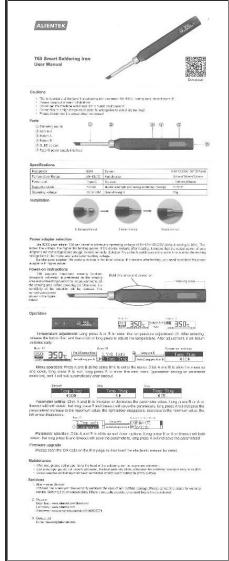
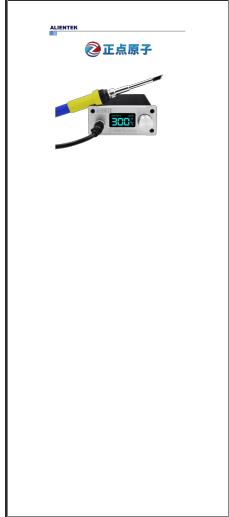
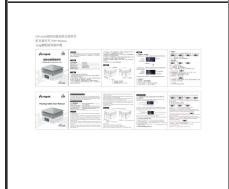


Figure 7.1: Detailed basic parameters of the T80/T80P Smart Soldering Iron, including dimensions, power supply, operating voltage, and screen type.

## 8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official ALIENTEK website or contact their customer service directly. Keep your purchase receipt as proof of purchase.

For further assistance, you may visit the [ALIENTEK Store on Amazon](#).

	<p><b><a href="#">ALIENTEK T80/T80P Smart Soldering Iron User Manual</a></b></p> <p>User manual for the ALIENTEK T80/T80P Smart Soldering Iron, a pocket-sized, multi-functional soldering iron with Type-C power, OLED display, and adjustable heating power.</p>
	<p><b><a href="#">ALIENTEK T65 Smart Soldering Iron User Manual</a></b></p> <p>Comprehensive user manual for the ALIENTEK T65 Smart Soldering Iron. Learn about its specifications, installation, power adapter selection, operation, temperature adjustment, firmware upgrades, maintenance, and after-sales service.</p>
	<p><b><a href="#">ALIENTEK T100 Smart Soldering Station User Manual - Features, Specs, Operation</a></b></p> <p>Comprehensive user manual for the ALIENTEK T100 Smart Soldering Station. Covers specifications, parts, operation, settings, firmware upgrade, maintenance, precautions, and warranty information.</p>
	<p><b><a href="#">ALIENTEK UT70 USB Tester User Manual: High-Performance USB Analysis &amp; Testing</a></b></p> <p>Explore the ALIENTEK UT70 USB Tester with this detailed user manual. Learn about its features for measuring voltage, current, power, and supporting fast charging protocols for efficient USB device analysis and testing.</p>
	<p><b><a href="#">HP-65M Constant Temperature Heating Table User Manual</a></b></p> <p>User manual for the HP-65M Type-C Mini Welding Table, a 65W constant temperature hot plate designed for digital soldering iron components and welding. Includes features, specifications, safety, operation, and troubleshooting.</p>