

ECP-3202 80W Adjustable Soldering Station User manual

SPECIFICATIONS

Model	ECP-3202	
Power	80W	
Output voltage	120VAC(60Hz)	
Temp. range	100-500°C (212-932°F)	
Temp. stability	±2°C (±4°F) (>200°C (400°F))	
Temp. compensation	±50°C (±90°F)	
Temp. display	digital	
Tip to ground impedance	<0.1 Ω	
Tip to ground voltage	<2mV	
Heater	T60 integrated PTC ceramic heater	
Cable length	Power cord: 90cm	Handle cable: 1.2m
Dimensions	main unit: 80*184*142mm	handle: 24.5*224mm
Net weight	500g	

Note: specifications and appearance are subject to change for product improvement without prior notice

PACKING LIST

main unit*1	Handle*1	Sponge*1	Brass wool*1
User manual*1	Alligator clip support arms*2		

ATTENTION !!!

This product falls under electrical appliances and must be used in compliance with safety precautions to prevent accidents.
This manual provides essential information on accident prevention and product usage methods. Please read this manual carefully. Safely use this product, and after reading, store it for future reference.
The product undergoes testing before shipment, so the soldering tip may contain a small amount of tin and the S.S tube might have a slight yellowish tint, which is a normal occurrence.
Once powered on, the soldering tip can reach a high temperature of 500°F (230°C) within a short period. Please use it correctly and be cautious to avoid burns.
We require users to have some basic knowledge of electrical operations before using this product. For underage users, it is mandatory to use this product under the guidance of professionals or guardians.

WARNING

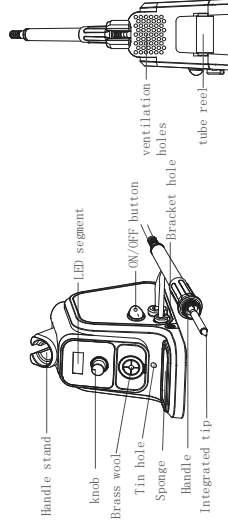
When power is on, the temperature of the soldering iron tip might reach 200-500°C (392-932°F). Misuse may cause burns and fire, please strictly observe the following precautions:

- Do not use it around combustibles
- This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety
- Children should be supervised to ensure that they do not play with the appliance
- Do not use or operate this product with wet hands or in damp environments to prevent electric shock.
- Do not modify this product or its accessories without authorization.
- When replacing parts or soldering tips, ensure the power is turned off and wait for the device to cool down completely before proceeding.
- Use original manufacturer parts when replacing components of the product.
- Always turn off the iron when the product is not in use or temporarily not needed.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

WARRANTY TERMS

- We offer a one-year limited warranty for this machine (excluding consumables such as soldering tips and heating elements).
- The warranty covers materials and manufacturing defects from factory shipment collection date and includes both replacement parts and labor.
- The warranty becomes void if the damage is caused by improper use or if the equipment has been altered or repaired by unauthorized personnel.

PRODUCT APPEARANCE



- Knob: used for temp. and parameter setting
- Blue light ring: to display the machine status
- Brass wool: to clean the soldering tip
- Sponge: to clean the soldering tip
- Bracket hole: to install alligator clip support arms
- Tube reel: used for solder wire spool

SCREEN DISPLAY EXPLANATION

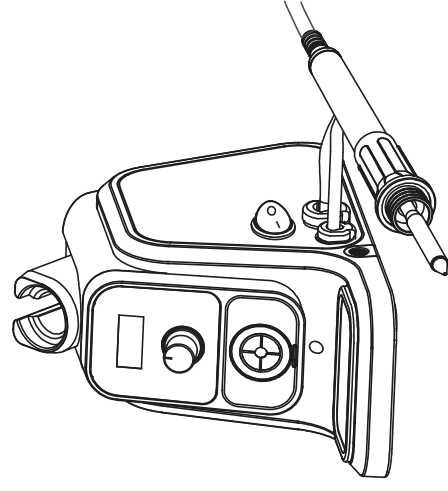
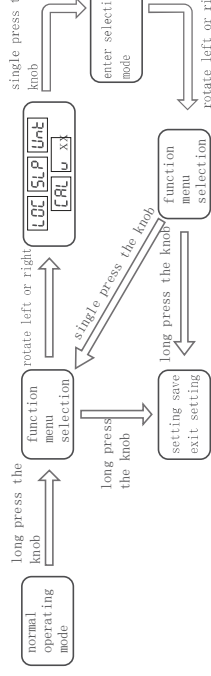
Screen display	Function	Screen display	Function
SLP	auto sleep	Urt	temp. unit
RL	temp. calibration	XX	software version
LOC	temp. locking	OFF	power off
Stb	auto standby		

OPERATION

Power On: plug in the power cord, turn on the ON/OFF button, and the blue halo lights up.
*If setting the temperature to 350°C (662°F), it takes approximately 17 seconds to heat up from room temperature of 28°C (82°F) to the set temperature.
Heating: after powering on, rotate the knob to set the appropriate temperature.
Power Off: turn off the ON/OFF button, and the blue halo turns off.

FUNCTIONS SETTING

ECP-3202 Function Settings



o standby/Auto sleep Function

g press the knob button to enter the function settings menu. Rotate left or right to switch until the screen displays **[SLP]**. Short press the knob to enter function selection. Rotate left or right to select

[OFF]. Once enabling the auto standby/auto sleep mode, the machine will enter standby status after 3 minutes of inactivity, and the display shows **[Stb]**. The heating temperature is reduced to set temperature (250°C maximum). If the machine remains in standby mode for another 10 minutes, it enters sleep mode and turns off the heating. During standby period, if the machine detects any movement, or if the adjustment knob is short-pressed, it will resume to the working mode. Short-press the knob button in **[OFF]** status to return to the working mode.

temperature unit switch
g press the knob button to enter the function settings menu. Rotate left or right to switch until the screen displays **[Jr-E]**. Short press the knob to enter function selection. Rotate left or right to select **[C-]**.
temperature calibration

Adjust the set temperature to 350°C (662°F). Wait for 1 minute to stabilize the temperature. Use a temperature measuring tool to confirm the current temperature of the heater.

Calculate the compensation temperature: Compensation Temperature = (Selected Temperature 350°F) - (Actual Measured Temperature). If the result is a positive number, increase the temperature; if it's a negative number, decrease the temperature. Temperature compensation range: +50 to -50°C or +90 to -90°F.

Long press the knob button to enter the function settings menu. Rotate left or right to switch until the screen displays **[RL]**. Short press the knob to enter function selection. Rotate left or right to input temperature compensation value. Short press the knob button to exit the function settings menu interface.

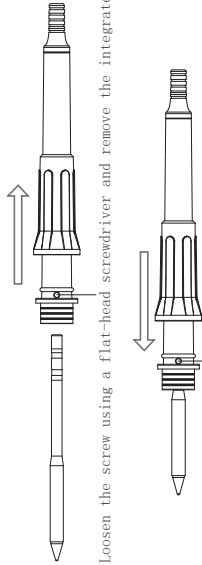
Long press or short press the knob to save the current settings and return to the heating interface.

temperature locking

g press the knob button to enter the function settings menu. Rotate left or right to switch until the screen displays **[DE]**. Short press the knob to enter function selection. Rotate left or right to switch between **[On]** **[OFF]** to enable or disable the temperature lock function. After enabling the temperature lock function, the temperature cannot be adjusted. When rotating the adjustment knob left or right, the screen displays

temperature version
g press the knob button to enter the function settings menu. Rotate left or right to switch until the screen displays **[XX]**.

INTEGRATED TIP REPLACEMENT



Loosen the screw using a flat-head screwdriver and remove the integrated tip

Insert the integrated tip and tighten the screw

To prevent electric shock, be sure to unplug the power cord before replacing the integrated tip!

1. Unplug the power cord and wait for the integrated tip temperature to drop to room temperature.
2. Refer to above picture, push the handle silicone sleeve to the right until the fixing screw of the integrated tip is exposed.
Then, remove the integrated tip.
3. Use a flat-head screwdriver to rotate counterclockwise and loosen the screw.
Then, remove the integrated tip.
4. Insert the replacement integrated tip into the handle. Note: Ensure the integrated tip is inserted to the bottom.
5. Reinsert the screw and tighten it. Be cautious not to overtighten the screw, just ensure the integrated tip is secure and not easily pulled out.
6. Push the handle silicone sleeve to the left to reset.

Note: When replacing the integrated tip, choose an integrated tip that corresponds to the machine's voltage.

MAINTENANCE

In order to ensure the durability of this product, regular maintenance is recommended. The lifespan of this product depends on the used temperature, quality of solder wire and soldering paste, frequency of use etc. Please repair and maintain it according to specific use conditions.

Warning
Please pay close attention when the product is in use at high temperature or operation status. Unless otherwise specified, cut off the power and unplug the product after use.

Excessive temperatures can reduce the soldering tip's lifespan. Before soldering, clean off any oxidation or old solder residues from the tip. After soldering, clean the soldering tip, re-tin it with new solder to prevent oxidation. Residues from solder flux can lead to oxidation and carbide formation on the soldering tip, impairing its performance and causing welding errors. For prolonged and continuous use of this product, it is advisable to clean off oxidation residues weekly.

Soldering iron tip maintenance

1. Set the temperature to 250°C (480°F).
2. After the temperature stabilizes, clean the soldering tip with a brass wool and check its condition.
3. If there is black oxide attached to the soldering tip, apply new solder (containing flux), and repeatedly wipe with a brass wool until the oxide is removed. Then apply new solder.
4. Turn off the power and remove the soldering tip using a heat-resistant pad; let it cool down.
5. If flux residues or other contaminants cause discoloration on the soldering tip, clean it with alcohol or an equivalent solution.
6. Do not use sharp tools like files to remove oxides.

soldering tip

TROUBLESHOOTING GUIDE

Failure phenomenon	Examination	Dealing method
Not working after power is on	Check if the power cord or the connecting plug is loose or disconnected	Reconnect the power cord or the connecting plug
The display shows [S-E]	Whether the heater is well inserted into the cartridge Check if the heater is damaged (Check resistance of the heater is within the specified range).	Reinsert the heater If damaged, replace the heater
The display shows [H-E]	Check if the heater installed securely Check if the heater is damaged (Check resistance of the heater is within the specified range).	Determine if the heater is damaged If damaged, replace the heater
The soldering tip is sometimes hot and sometimes not	Replace the heater	Determine if the heater is damaged Reinsert the heater
Solder won't attach to the soldering tip	Check if the heater has poor contact Check if the soldering tip temperature is too high	Adjust to suitable temperature Wipe off the oxidation with brass wool
The soldering tip temperature is too low	Check if there's oxidation on the soldering tip Check if there's oxidation on the soldering tip Check if the temperature is set correctly	Wipe off the oxidation with brass wool Readjust to the correct temperature

T60 INTEGRATED SOLDERING TIP



T60-32D
3.2mm Tip (Included)
Replacement: ECP-3212



T60-24D
2.4mm Tip (Optional)
ECP-3213



T60-4D
4mm Tip (Optional)
ECP-3214

POWER

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