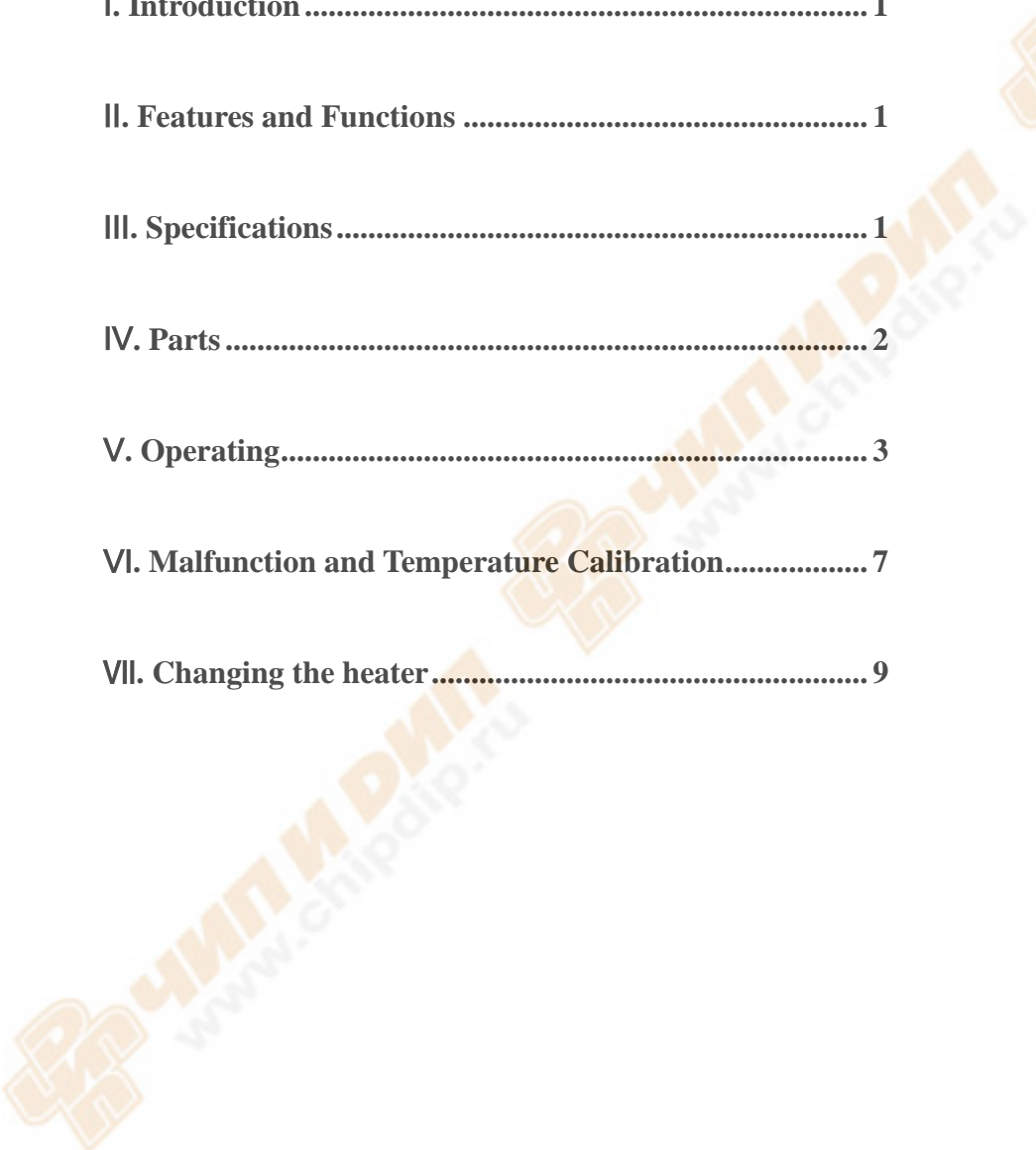


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I. Introduction

CT-84NP/84NPD Lead-free Automatic Rotary Tin-feeding Soldering Station is a multi-functional machine combines with lead-free soldering iron and automatic tin-feeder. Its advanced idea, good function & unique automatic soldering function can greatly improve the working efficiency during the automatic industrial production and can get twice the result with half the effort

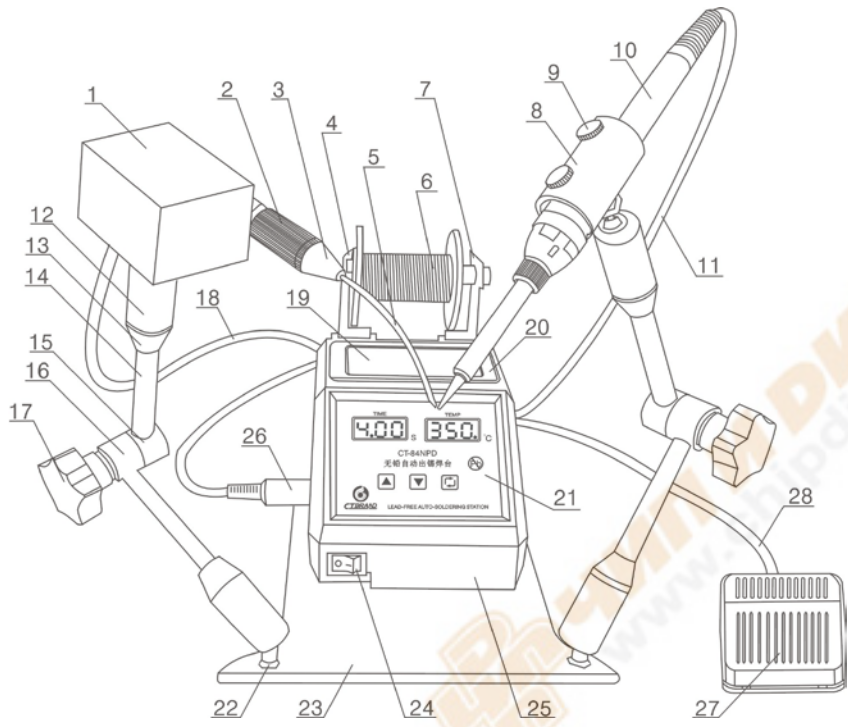
II. Features and Functions

- Independent iron and tin-feeder, easier installation, adjustment and maintenance.
- Special lead-free soldering iron is applicable for lead-free soldering and common soldering.
- Unique universal rotary tin-feeding device is easier to adjust the position.
- Accurate temperature control, rapid heat resumption, constant temperature and visual display.
- Tin feeding duration is adjustable and controllable.
- Double displays shows temperature and tin-feeding duration separately, easier control is available (available only CT-84NPD).
- Full automatic soldering mode releases the user from stepping the pedal and decreases the amount of human labor needed (available only CT-84NPD).
- Auto malfunction judgment is available. The digital display can show the malfunction of soldering iron.
- CT-84NPD with key tone, warning sound and different buzzers.

III. Specifications

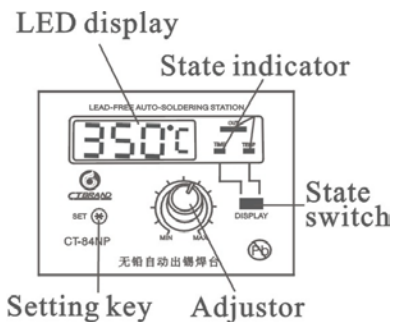
Model No.	Power	temperature range	tin-feeding duration	feeding-pause duration	speed of tin-feeding	display	automatic
CT-84NPD	100W	200°C~430°C	0.10—9.95S	01.0—99.5S	yes	dual	yes
CT-84NP	100W		0.10—9.95S	/	yes	single	/

IV. Parts

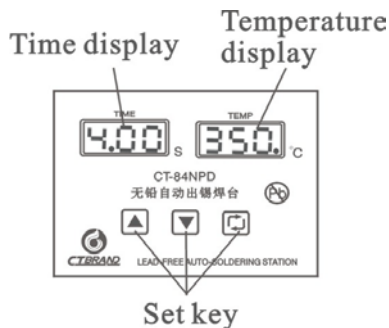


(FRONT VIEW)

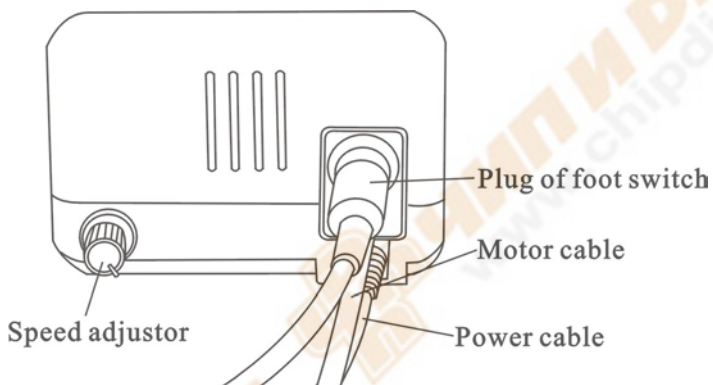
- 1.gear case ; 2. sleeve nut ; 3. fixer of soldering wick pipe ; 4. soldering wick fixer (I) ; 5. pipe of soldering wick ; 6. soldering wick ; 7. soldering wick fixer (II) ; 8. fixing sleeve ; 9. fixing bolt ; 10.soldering iron ; 11. cable ; 12.movable sleeve ; 13. limiting stopper ; 14. coupling sleeve ; 15. coupling sleeve A ; 16. coupling sleeve B ; 17. gimbal fastener ; 18. motor cable ; 19. sponge; 20. S.S. saucer; 21. panel ; 22. universal lug ; 23. base ; 24. power switch ; 25. soldering station ; 26. plug of soldering iron ; 27. foot switch ; 28. cable of foot switch ;



(CT-84NP panel)



(CT-84NPD panel)

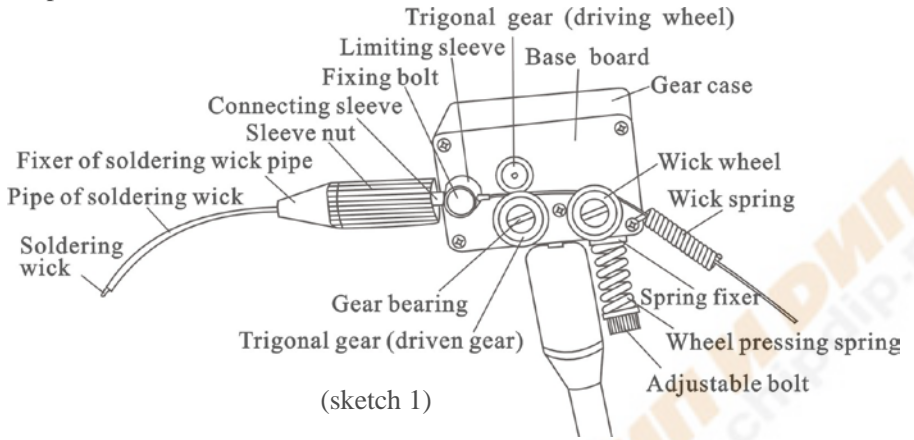


(rear view)

V. Operating

1. Install this unit according to above sketches, place it on flat working table and connect all wires well.
2. Install soldering wick (refer to. sketch 1)
 - 1) Choose proper soldering wick ($\Phi 0.4 - 1.6\text{mm}$);
 - 2) Install the roll of soldering wick on its fixer and press down the adjustable bolt, there will be a gap between driving wheel and driven

gear. Draw the soldering wick from wick spring and the gap between driving wheel and driven gear and slowly push the soldering wick throughout the pipe of soldering wick and let the wick in its proper position.

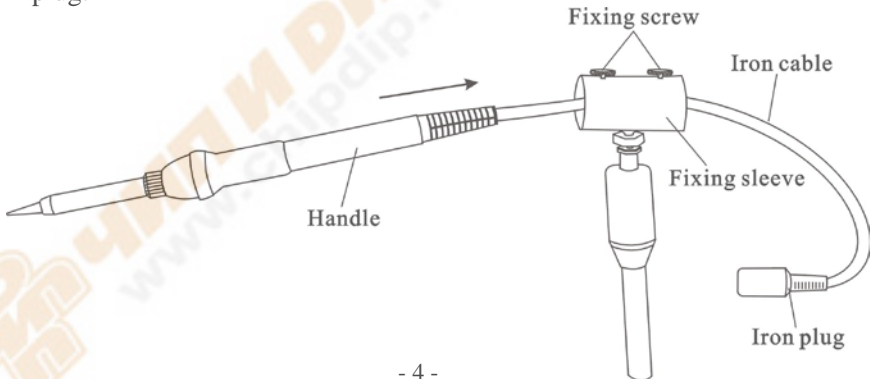


3. Pressure adjustment

During the working, please adjust the gear pressure according to different thickness of soldering wick to make the wick going smoothly. You can adjust the pressure by adjusting adjustable bolt.

4. Fix the soldering iron (refer to sketch 2)

Unscrew the fixing screw and pull the handle through the fixing sleeve, position the handle and screw the fixing screw, connect the iron plug.



(sketch 2)

5. Adjust the gimbal fastener to make the tip of iron and tip of soldering wick in their best working position, then stabilize it.
6. Switch on the power.
7. Display and setting work

CT-84NP

The display displays the tin-feeding duration, iron temperature and other setting parameters and malfunctions. DISPLAY switch is a switch to change the mode between time and temperature.





Turn DISPLAY switch to position “TEMP” to show temperature on display, the “TEMP” indicator is on and the last digit of display shows “°C” (temperature mode). Press key “SET”, the display begins to twinkle and display set temperature (200°C-430°C), turn adjuster to input the new setting value and press “SET” to confirm & save. Turn DISPLAY switch to position “TIME” to show time setting on display, the “TIME” indicator is on and the last digit shall be “T”(time state). Press key “SET”, the display begins to twinkle and display time of tin-feeding duration (010-9.95)S, turn adjuster to input new setting value and press “SET” to confirm & save.

Press foot switch to start the soldering work, the auto-feeding device begin to feed the soldering wick and the display shows “out”, the feeding will stop once tin-feeding duration is time out, at this time, the display will resume to previous state. You can change the speed of tin-feeding by turning speed adjuster. You can turn clockwise to increase the feeding speed, please adjust it according to actual working requirement (attention: if you only adjust the speed of tin-feeding but tin-feeding duration remains unchanged, the feeding of soldering wick quantity will be changed).


CT-84NPD


The left display displays the time and state of soldering wick feeding, the right one displays the temperature of iron, temperature setting and iron malfunction.

Normal soldering work




- ① Set time and temperature Press “” to set tin-feeding duration, the “TIME” display now twinkles and shows the present setting time of tin-feeding duration (010-9.95)S. press key“ Δ ”,“ ∇ ”to input the new setting value of time, it will automatically confirm and save the setting value after 3 seconds, or you can press “” to save, then you will see display “TEMP” twinkling and display the present setting temperature (200°C-430°C), press key“ Δ ”,“ ∇ ”to input the new setting value of temperature, it will automatically confirm and save the setting value after 3 seconds, you can also press “” to save. 
- ② Soldering Press foot switch to start soldering work, the auto-feeding device begins to feed the soldering wick and the display shows “out”, the feeding process will stop when tin-feeding duration is time out. The display will be back to previous state and waiting for next operation. You can change the speed of tin-feeding by turning speed adjuster. Please refer to above paragraph (CT-84NP).

Automatic soldering work

Turn on/off automatic function: press “” over 3 seconds (>3 seconds) to enter into automatic mode, “TIME” display shows “Aut”. Press foot switch to start the automatic soldering work, the display shows “Out” and the automatic tin-feeder begin to feed the soldering wick. When tin-feeding duration is time out, the display will show “OFF”, the feeding-pause duration begins, when feeding-pause duration is time out, the display will show “Out” again, You can press foot switch

to stop the automatic soldering work, at this time, the display will show “Aut”, press “” over 3 seconds (>3 seconds) (or turn off the power) to exit the mode of automatic function.

Time setting of automatic soldering work

Under the mode of automatic function (“TIME” display shows “Aut”), press “” to enter into the time setting of tin-feeding duration, it will display “Out” and present time appears and twinkles. Adjust the time by press “ Δ ” or “ ∇ ” (second: 0.10—9.95), press “” confirm and change to time setting of feeding-pause duration, it displays “OFF” and then present time appears, press “ Δ ” or “ ∇ ” to adjust the pause time (second: 0.10—9.95), press “” to confirm and quit from setting mode.

Temperature setting

Under the modes of normal soldering and automatic soldering, just press “ Δ ” or “ ∇ ” to temporarily set and control the temperature, such setting will not influence the working of tin feeding.

CT-84NPD designed with buzz warning signals for reminding or judging of different operations and malfunctions.

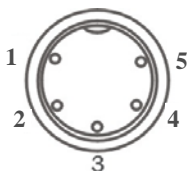
- 1) Key tone: you will hear one sound by each press of key.
- 2) Warning sound signals of malfunction: open circuit of sensor (ЕГГ), two warning sounds per second, which will stop after 20 seconds automatically.
- 3) Soldering sound: one sound per soldering.

The settings of above shall be adjusted by technicians according to actual production needs to fully exert function of this unit and improve the working efficiency greatly.

VI . Malfunction Judging and Temperature Calibration

1. CT-84NP series with function of malfunction judging, the following warning messages need for repair:

- 1) The display shows “Err”, usually it is the problem of open circuit of sensor (or soldering iron is not plugged properly).
- 2) Once display twinkles for a long time and temperature is not increasing anymore, usually it is the problem of open circuit of heating element. You can unplug the soldering iron and check according to below form:



a	4-5 about 12Ω under normal temperature	Heating element
b	1-2 about 1.2Ω under normal temperature	Sensor
c	3 tip $< 2\Omega$ under normal temperature	ground

After changed the heater or tip, there may be some temperature errors, you can calibrate the temperature of soldering station by following below steps:

1. Open the case and find potentiometer VR_2 (VR_1 of CT-84NPD).
2. Place soldering tip and thermometer tip closely (make sure they are well contacted, bad contacting will cause calibrating errors)
3. The setting temperature is 350°C .
4. Waiting for the constant temperature, then turn VR_2 by “--” screwdriver. When temperature in thermometer is the same as setting temperature, the calibrating is successful.

Attention: to avoid bigger errors, the above steps are suggested to

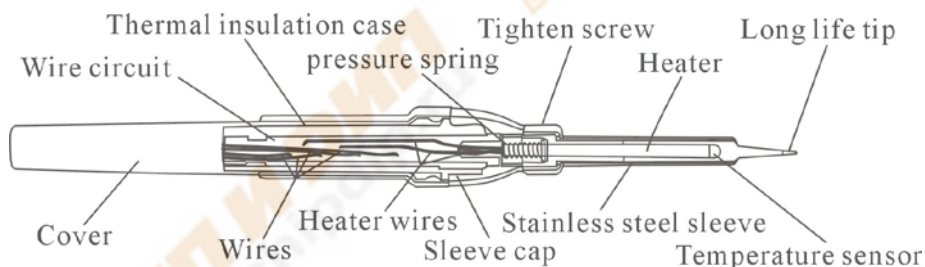
be operated by technicians

VII. Changing the heater

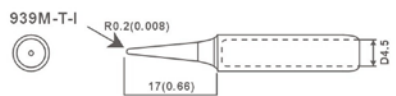
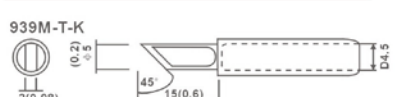
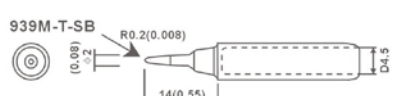
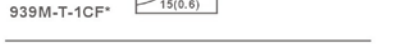
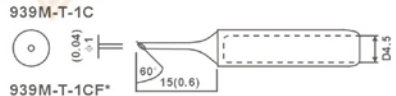
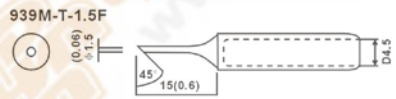
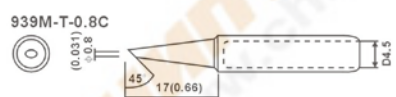
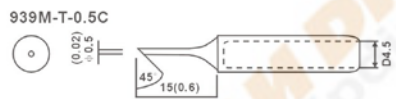
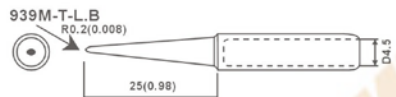
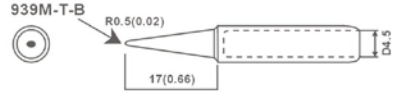
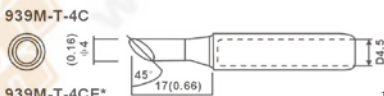
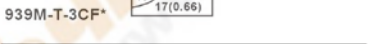
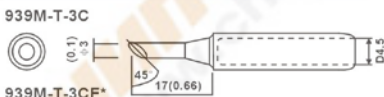
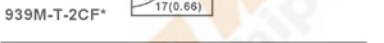
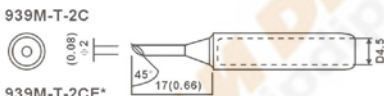
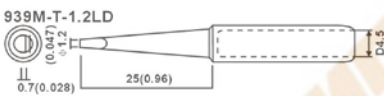
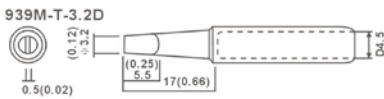
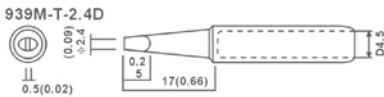
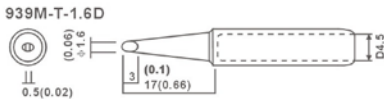
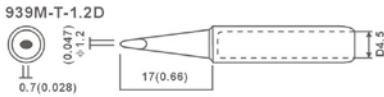
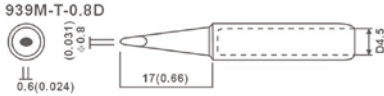
If the heater is broken, switch off the power firstly, unplug the cable of soldering iron and uninstall the soldering iron from fixing sleeve.

Please refer to below sketch to take out the handle case and unsoldering the heater from wire circuit, replace with new heater, be careful not to wrongly connect the wires. Steps as follows:

- (1) Release the tighten screw, draw stainless steel sleeve out, take tip out.
- (2) Release the sleeve cap and pull wire circuit out, unsoldering the wires to heater.
- (3) Replace with new heater (be cautious not to wrongly connect the wires, red is positive, blue is negative and white is heating wire).
- (4) Assemble the soldering iron in reverse order from step (1) to (4).



CT-84NP/84NPD Tips





CT-84NP、 84NPD

**Lead-free Automatic Rotary
Tin-feeding Soldering Station**

Manual

WAHLUEN ELECTRONIC TOOLS CO., LTD.

