

MODEL WES50 ELECTRONIC SOLDERING STATION

DESCRIPTION

The WES50 Soldering Station is part of the range of product which have been developed for industrial manufacturing as well as for the repair sector. A microcontroller makes operation simple and easy. The digital electronic control system guarantees good control performance for various soldering jobs.

A grounded soldering iron tip, zero power switching and anti-static design of the station and tool completes the high quality standard. The station features tip temperature calibration and the ability to lock the tip temperature setting; and the station will enter a sleep mode and shut off power to the tool and indicator LED after 99 minutes of inactivity.

Tip temperature is set in the range of 350°F to 850°F (175°C to 455°C) with the front panel knob and the LED power indicator will be green for normal operation or red if the temperature is locked. This soldering station is CUL approved and meets all applicable standards.

OPERATING INSTRUCTIONS

Unpack unit carefully. Place spring and funnel in slot in top of tool stand. Attach tool stand to either side of the power unit, if desired. Fill reservoir with water and wet sponge, distilled water is preferred. Insert tool in holder and connect tool plug to receptacle on power unit; rotate plug housing to lock plug into receptacle. Insert line cord plug into properly grounded AC receptacle and turn station on. Set temperature control knob to desired tip temperature. Wait 30 seconds. Remove tool from holder and tin tip with solder. Unit is now ready for use.

Always use the lowest temperature that will handle the load you are soldering. The Weller® electronic control provides maximum power to the heated load even when set to the lowest temperature; therefore, there is not need to use high temperature to handle heavy soldering loads. By using lower temperatures and properly selecting tip styles, sensitive components will be protected from heat damage.

WARNING: Do not remove ground prong from line cord plug. Removal may cause tip temperature control to be erratic.

AVAILABLE MODELS AND HAND PIECE

PRODUCT	DESCRIPTION
WES50	Power unit, 120V 60Hz, °F dial markings, PES50 tool and tool stand
WES50D	Power unit, 220V 50/60 Hz, °C dial markings, PES50 tool and tool stand
WES50DUK	Power unit, 230V 50/60 Hz, °C dial markings, PES50 tool and tool stand
WES50J	Power unit, 100V 50/60 Hz, °C dial markings, PES50 tool and tool stand
WES50T	Power unit, 110V 60 Hz, °C dial markings, PES50 tool and tool stand
PES50	50 watt Soldering Tool w/ETA Tip

SPECIFICATIONS

1. Power Input: 120VAC ±10%, 60 Hz, (230VAC ±10%, 50/60 Hz), 60 watts
2. Power unit output voltage: isolated 24VAC @ 2.1 amperes.
3. Size: 4.5" x 5.9" x 3.6"
4. Line Cord: 3 wire, UL recognized
5. Tip temperature control range: 350°F to 850°F (175°C to 455°C).
6. Control setting resolution: 10°F (5°C).
7. Stability: ±10°F (±6°C) per MIL-STD-2000.
8. Absolute accuracy: Average tip temperature is calibrateable to ±9°F (±5°C) at idle with no load.
9. Ambient temperature range: 60°F to 110°F (16°C to 44°C).
10. Housing and tool handle made with Electrostatic Protective Materials.
11. WES50 units are UL listed and meets all applicable standards.

ACTIVATION OF LOCKOUT FEATURE

1. Set the temperature set knob to the desired tip temperature.
2. Apply the Lockout Pencil to the ESD symbol on the front panel until the LED starts slowly (5 hz/sec) blinking red; remove the Lockout Pencil within 2.5 seconds and the temperature setting will be locked in. The indicator LED will be red and turning the temperature set knob will have no effect on the tip temperature.
3. Reverse the lockout by applying the Lockout Pencil to the ESD symbol until the LED is slowly blinking red; remove the Lockout Pencil within 2.5 seconds and the temperature set knob will function normally and the indicator LED will be green.

TIP TEMPERATURE CALIBRATION PROCEDURE

1. Monitor the tip temperature with a 30 gauge thermocouple resistance welded to the center of the wetted area, tinning should be removed before welding. K-111 temperature test kits are recommended; see Replacement Parts and Accessories Section.
2. Set the temperature set knob to the desired tip temperature and allow the tip temperature to stabilize.
3. Apply the Lockout Pencil to the ESD symbol on the front panel. The LED should slowly blink red for 2.5 seconds and then slowly blink green; set the temperature set knob to the observed tip temperature, remove the Lockout Pencil, and the calibration procedure is complete.

RESET STATION TO FACTORY NOMINAL CALIBRATION

With station turned off, set temperature set knob to 600°F (315°C), apply the Lockout Pencil to ESD symbol on front panel and turn station on. Remove the Lockout Pencil and the procedure is complete. Any tip temperature calibration programmed above will reset.

7. Use the appropriate soldering tool.

With line cord plugged in and power switch on, check for 24VAC \pm 10% between pins #2 and #4 of tool receptacle.

- Check transformer secondary for 24VAC \pm 10% - replace transformer if defective.
- Check wiring to printed circuit board assembly - repair or replace if defective.
- Replace printed circuit board assembly.

Check wiring from tool receptacle to printed circuit board.

- Repair or replace if defective.

Replace soldering tool with known good tool and recheck.

- Troubleshoot soldering tool using guide in tool tech sheet.

Replace printed circuit board assembly.

TOOL OVERHEATING

Replace soldering tool with known good tool and recheck.

- Troubleshoot soldering tool using guide in tool tech sheet.

Replace printed circuit board assembly in station.

TIP TEMPERATURE TESTING ERRORS

NOTE: Tip temperature testing must be done using 30 gauge thermocouple wire resistance welded to the center of the wetted area on the tip, tinning should be removed before welding. Other methods, or heavier thermocouple wire, will cause errors. K-111 temperature test kits are available; see Replacement Parts and Accessories Section.

Replace soldering tool with known good tool and recheck tip temperature.

- Troubleshoot soldering tool using guide in tool tech sheet.

Calibrate station according to Tip Temperature Calibration Procedure.

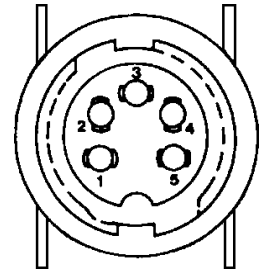
HIGH TIP VOLTAGE

Replace soldering tool with known good tool and recheck tip voltage.

- Troubleshoot soldering tool using guide in tool tech sheet.

Check for continuity from pin #5 of tool receptacle to line cord ground pin.

- Check wiring from tool receptacle to line cord ground pin - repair if defective.



CUSTOMER SERVICES

Should your WES50 require repair or adjustment it may be sent to the following address:

**Cooper Tools
Weller Division
1000 Lufkin Road
Apex, NC 27539
ATTN: Repair Department**

REPLACEMENT PARTS AND ACCESSORIES

KEY NO.	PART NO.	DESCRIPTION
1	SW110	Power Switch
2	WES204	Circuit Board Assembly
3	WES201	Power Transformer, 120VAC, 60 Hz
4	WES202	Power Transformer, 230VAC, 50/60 Hz
5	WES203	Power Transformer, 100VAC, 50/60 Hz
Not Shown	PW50	Lockout Pencil
Not Shown	TC405	Sponge
Not Shown	DS200K	Desoldering Adapter Kit
Not Shown	PH50	Tool Stand w/Spring and Funnel for PES50 Tool
Not Shown	PES50	PES50 Tool
Not Shown	SMTA	Surface Mount Tip Adapter for PES50 Tool
Not Shown	WA2000	Soldering Tool Analyzer
Not Shown	WPB1	Weller® Polishing Bar
Not Shown	K-111	Temperature Test Kit
Not Shown	WES50PU	Power unit only, 120V 60 Hz, °F dial markings, US style 120VAC plug.
Not Shown	WES50DPU	Power unit only, 220V 50/60 Hz, °C dial markings, US style 120VAC plug.
Not Shown	WES50DUKPU	Power unit only, 230V 50/60 Hz, °C dial markings, UK style fused AC plug.
Not Shown	WES50JPU	Power unit only, 100V 50/60 Hz, °C dial markings, US style 120VAC plug.
Not Shown	WES50TPU	Power unit only, 110V 60 Hz, °C dial markings, US style 120VAC plug.

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