MODEL WTL1000S ELECTRONIC SOLDERING STATION

WARNING: This product, when used for soldering and similar applications, produces chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

OPERATING INSTRUCTIONS

Unpack unit carefully. Place spring and funnel in slot in top of tool stand. Attach tool stand to either side of 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 in receptacle. Insert line cord plug into properly grounded AC receptacle and turn station on. If the desired temperature “key” is not installed, the “key” may be changed while power is on. 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 no 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.

A WCM1 Calibration Unit is available that interfaces directly with the WTL1000S’s microprocessor through the iron receptacle and provides the ability to enable a timed setback mode, a temperature lock out feature, digital calibration of the unit to an outside temperature reference, and reset the unit to its original factory calibration. When the unit enters “Setback” mode, turn the unit off and back on to return to normal operation.

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

AVAILABLE MODELS AND HAND PIECES

PRODUCT	DESCRIPTION
WTL1000S-0	Power unit only, 120V 60 Hz, °F dial markings
WTL1000S-0D	Power unit only, 240V 50/60 Hz, °C dial markings
WTL1000S-1	Power unit, 120V 60Hz, °F dial markings, EC1201A tool with ETA tip and tool stand
WTL1000S-1D	Power unit, 240V 50/60Hz, °C dial markings, EC1201A tool with ETA tip and tool stand
WTL1000S-2	Power unit, 120V 60Hz, °F dial markings, EC1302B tool with EPH101 tip and tool stand
WTL1000S-2D	Power unit, 240V 50/60Hz, °C dial markings, EC1302B tool with EPH101 tip and tool stand
WTL1000S-3	Power unit, 120V 60Hz, °F dial markings, EC1503B tool with EMA tip and tool stand
WTL1000S-3D	Power unit, 240V 50/60Hz, °C dial markings, EC1503B tool with EMA tip and tool stand
EC1201A	40 Watt soldering tool w/ETA tip
EC1302B	20 Watt soldering tool w/EPH101 tip
EC1503B	42 Watt high capacity soldering tool w/EMA tip

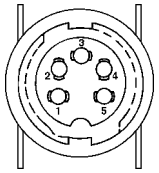
SPECIFICATIONS

1. Power Input: 120VAC ±10%, 60Hz, (240VAC ± 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 calibrated 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 made with Electrostatic Protective Material as required in MIL-B-81705.
11. Housing passes Static Decay test per Federal Test Method Standard No. 101, method 4046.
12. Weller® ESD tools comply with DOD-HDBK-263.
13. WTL1000S units are UL listed and meet DOD-STD-2000, MIL-STD-2000, MIL-S-45743, W-S-6536, W-S-570, DOD-STD-1686.

TROUBLESHOOTING GUIDE

WARNING: AC line voltage is present inside power unit even when power switch is off. Refer service to qualified personnel.

NOTE: Access to internal parts may be gained by removing four rubber feet, four screws under feet and top case.



TOOL DOES NOT HEAT

With line cord unplugged and power switch on, check for approximately 21 ohms at line cord blades for 120VAC units (55 ohms for 240VAC units).

- Check fuse, located on bottom of case - replace if required. Use slow blow fuse - 0.6A for 120VAC (0.3A for 240VAC).
- Check power switch - replace if defective.
- Check line cord - repair or replace if defective.
- Check transformer primary - replace transformer if defective.

With line cord plugged in and power switch on, check for 24VAC ±10% between pins #1 and #4 of tool receptacle.

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

With line cord plugged in and power switch on, check for 5 VDC ±1 VDC, between pins #3 and #4 of tool receptacle.

- 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 soldering iron tech sheet.

TOOL OVERHEATING

Replace soldering tool with known good tool and recheck.

- Troubleshoot soldering tool using guide in soldering iron 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 of measurement, or heavier gauge thermocouple wire, will cause errors. Thermocoupled tip 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 soldering iron tech sheet.

Calibrate station using WCM1 Calibration Unit. Instructions are in Calibration Unit tech sheet.

Calibrate tip temperature using WCM1 Calibration Unit; especially if a category B or C tip is used (see Tip and Tool Selection Sheet for category of tip). Instructions are in Calibration Unit Tech Sheet.

HIGH TIP VOLTAGE

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

- Troubleshoot soldering tool using guide in soldering iron 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 WTL1000S require repair or adjustment, it may be sent to the following addresses:

USA

Cooper Tools - Weller
1000 Lufkin Road
Apex, NC 27539
ATTN: Repair Department
FAX: 919-387-2640
Phone: 1-800-476-3030

CANADA

Cooper Tools
164 Innisfil Street
Barrie, Ontario, Canada L4N 3E7
ATTN: Repairs
FAX: 1-800-403-8665
Phone: 705-728-5564 Ext. 2026

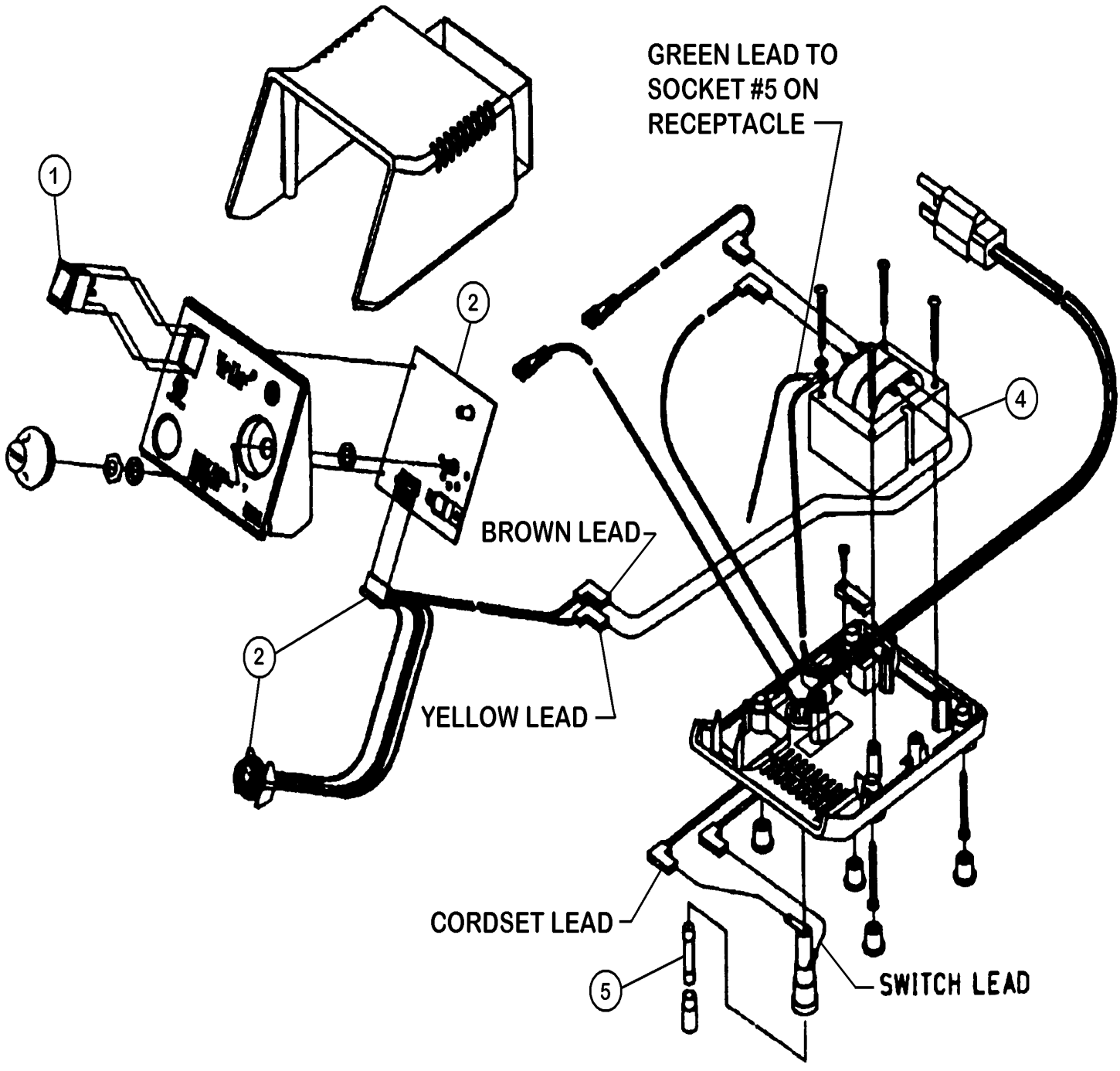
REPLACEMENT PARTS AND ACCESSORIES

KEY NO.	PART NO.	DESCRIPTION
1	SW110	Power Switch
2	EC270	Receptacle and Wire Harness
3	EC272	Circuit Board Assembly
4	TR234	Power Transformer, 120VAC, WTL1000S-0
5	FP3	Fuse, 0.6amp Slo Blo
Not Shown	TC205	Sponge
Not Shown	DS200K	Desoldering Adapter Kit
Not Shown	WA2000	Soldering Tool Analyzer
Not Shown	WCM1	Calibration Unit
Not Shown	K111	Temperature Test Kit for EC1201A Tool
Not Shown	K121	Temperature Test Kit for EC1302B Tool
Not Shown	K131	Temperature Test Kit for EC1503B Tool
Not Shown	WPB1	Weller® Polishing Bar
Not Shown	TC204	Spring and Funnel for EC1201A Tool
Not Shown	IHF225EC	Spring and Funnel for EC1302B Tool
Not Shown	EC254	Spring and Funnel for EC1503B Tool
Not Shown	EC1201AP	EC1201A Tool with Stand
Not Shown	EC1302AP	EC1302B Tool with Stand
Not Shown	EC1503AP	EC1503B Tool with Stand
Not Shown	SF60	Tool Funnel for SMT Tips
Not Shown	SMTA	Surface Mount Tip Adapter for EC1201A Tool

TEMPERATURE KEYS

PART NO.	DESCRIPTION
TL600A	600°F Key for Category A Tips
TL650A	650°F Key for Category A Tips
TL700A	700°F Key for Category A Tips
TL750A	750°F Key for Category A Tips
TL800A	800°F Key for Category A Tips
TL850A	850°F Key for Category A Tips
TL600B	600°F Key for Category B Tips
TL750B	750°F Key for Category B Tips
TL800B	800°F Key for Category B Tips
TL600C	600°F Key for Category C Tips
TL650C	650°F Key for Category C Tips
TL700C	700°F Key for Category C Tips
TL750C	750°F Key for Category C Tips
TL800C	800°F Key for Category C Tips

S1000A
Rev. 3/2002


GREEN LEAD TO
SOCKET #5 ON
RECEPTACLE
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2
2
4
BROWN LEAD
YELLOW LEAD
CORDSET LEAD
5
SWITCH LEAD