

Classic Weller®

WCC100



The WCC100 is an electronically controlled soldering station that meets all government specifications including MIL-STD-2000. Temperature is adjustable from 350°F to 850°F $\pm 10^\circ\text{F}$, tip leakage is $\leq 2\text{mV}$ and tip-to-ground resistance is $\leq 2\Omega$. Zero voltage circuit ensures that no high voltage spikes or magnetic fields are present at tip to damage sensitive components. 40-watt iron comes with ETA (1/16" screwdriver) tip and is permanently attached to the power unit. Other features include built-in iron holder, lighted on/off switch, and 3-wire power cord with strain-relief design.

Weller discontinued production of the WCC100 soldering station in 1999. The WCC100 station uses the popular "ET" series soldering tips, which are used on other Weller soldering stations (EC series, WES51, WESD51).

Weller WCC100 Replacement Part Numbers

- WCC101 - Replacement Iron w/ETA tip
- WCC102 - Replacement Heater (120 V)
- WCC103 - Temperature Sensor w/Spring
- WCC104 - Sponge
- WCC105 - Spring and Funnel Assembly
- WCC106 - Control Board
- WCC108 - Weller Barrel Nut
- SW120 - Illuminated Rocker Switch (Carling LRA series)

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WCC100 Replacement parts were “in stock”, as of December 2007, at these Weller Distributors or Dealers:

Allied Electronics

<http://www.alliedelec.com/default.asp>

WCC103 Temperature Sensor (114 units in stock)

Allied part number: 984-2267, price: \$ 7.30

Santa Cruz Electronics

http://www.santacruzelectronics.com/forms/Query.cfm?q_class=TOOLS%20

WCC102 – Replacement Heater (120 V) - \$ 21.34

WCC106 – Control Board - \$ 5.74

WCC108 - Weller Barrel Nut - \$ 7.52

WCC104 and **WCC105** (Sponge and Spring Funnel) are readily available from Weller distributors and dealers, since these parts are used on the current WLC100 solder station (Orange colored) which has the same plastic case design (injection moldings).

GC Electronics

<http://www.gcelectronics.com>

SW120 - Replacement Illuminated Rocker switch

GC Electronics part number 35-3740 - ~ \$3.00

Carling Corvette LRA series - LRA211C: 125V Neon Lamp; 16A 125VAC; .250 QC Tabs; OFF-NONE-ON (SPST); Red Transparent, Black bezel.

WCC103 – Temperature Sensor

The Weller WCC103 temperature sensor is an iron-constantan Type J thermocouple.

Weller used Type K thermocouples for its EC series of soldering stations.

Sensitivity is believed to be about 50 $\mu\text{V}/^\circ\text{C}$

The relationship between temperature and voltage produced is Non-Linear.

WCC103 - Replacement

When replacing the WCC103 sensor the leads **MUST** be correctly installed inside the WCC101 soldering iron:

The Iron (magnetic) lead connects to the iron’s RED wire

The Constantan (copper-nickel alloy/non-magnetic) lead connects to the YELLOW wire

IF the WCC103 is improperly installed the soldering iron ***stays on continuously and eventually overheats.***

WCC103 SENSOR - REPLACEMENT INSTRUCTIONS

CAUTION: Disconnect station from power supply (unplug) before servicing unit.

1. Remove barrel nut and tip from soldering iron (WCC101).
2. Remove two Phillips screws from heater flange.
3. Remove cord guard by twisting until tabs line up with notches and press to one side until it releases. Using a small screwdriver, release the strain relief by inserting into rear of handle along side with flat. Slide handle down iron cord.
4. Unsolder five (5) leads from terminal board at heater end and slide heater out of flange insulator (holder). Remove old sensor (Type J thermocouple).
5. Place spring end of sensor into large hole of flange insulator. Tab on spring should be placed in slot in flange insulator. Route sensor lead wires through center hole. (See diagram reverse side).

Connect sensor's **iron lead** (one attracted by magnet) to terminal board making sure it is connected through terminal board to RED cord lead, then solder connection.

Connect sensor's **constantan lead** to terminal board pad connected to YELLOW cord lead, then solder connection.

WARNING: Reversing these leads will cause soldering iron to stay on continuously and overheat.

6. Route the heater's GREEN ground lead and one WHITE lead through large opening in one side of flange insulator and remaining WHITE heater lead through large opening in other side of flange insulator.
7. Solder the heater's ground lead to center pad on terminal board and sold the 2 heater leads (white) to remaining pads of terminal board.
8. Slide assembly back into handle aligning tapered end of strain relief with flat on handle. Pull strain relief into place until it snaps. Install cord guard on tabs of strain relief and twist to lock into place.
9. Replace Phillips screws in heater flange and then replace tip and barrel.

S747A

Rev. 12/1/1998

Weller WCC101 soldering iron used with WCC100 Soldering Station

