



Weller®

P.O. BOX 728, APEX, NORTH CAROLINA 27502

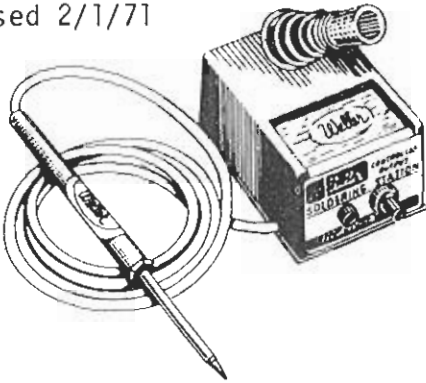
Series 4, No. 6C

MAINTENANCE, REPAIR
AND OPERATING BULLETIN

Model W-MCP

INDUSTRIAL BULLETIN

Revised 2/1/71



Model W-MCP-550 Unit with 550°F. Control
Model W-MCP-650 Unit with 650°F. Control
Model W-MCP-750 Unit with 750°F. Control

MINIATURE CONTROLLED OUTPUT LOW VOLTAGE
SOLDERING STATION. 20W 120V 50/60Hz.
3-wire cord. Miniature pencil, silicone
rubber cord. Power unit has stand for
pencil, sponge receptacle, on/off switch &
indicator light.

The Weller W-MCP series tools have a closed loop control system employing the patented Weller curie point "Magnastat" switching system for automatic control of both wattage and temperature at a preset level. With this method, not only is maximum temperature controlled, but loads are sensed and sufficient power is supplied to effect soldering at or below the defined temperature.

When selecting tips, the following suggestions may be found helpful. Although the control system will minimize the temperature drop across the tip, it must be remembered that a smaller tip will have more temperature drop than a larger diameter tip point. The tip should of course, be physically compatible with the size of the joint to be soldered. Optimum selection is a tip with the thickest cross section, at the lowest temperature that will give satisfactory production rates. Tip life is directly related to tip temperature. The lower the temperature, the longer the life. Heat sensitivity of components will also govern selection.

Maintenance and Operation

As with any tool operating under conditions existing in modern soldering lines, a few necessary procedures have to be followed to insure that you receive maximum value from your tools. The following list has been compiled for your use.

DO	DON'T
Provide a suitable stand which will prevent barrel and/or tip from touching metal parts, thereby resulting in a heat sink.	Drop iron as this may do permanent damage.
Keep tip tinned; wipe only before using. Use rosin or activated rosin fluxes.	Clean tip with abrasive materials.
Remove tips and clean tips and sockets on a regular basis. The frequency should be determined by the type of work and usage. Tips in constant production use should be cleaned at least once a week as noted above.	Use chloride or acid containing fluxes as this will reduce tip life.
	Remove excess solder before storing heated tool.
Use a suitable cleaner for rosin based fluxes, such as, isopropyl alcohol or equivalent.	File or attempt to reshape tip, as this will destroy tip coating.
	Use anti-seize on tip or socket, as these parts are already protected from oxidation.

Warning: When working with voltage/current sensitive components, assure that a proper ground exists, and do not defeat the purpose of the third (ground) wire of power cord of power unit.

CAUTION: Do not use soldering tools on energized circuits or chassis.

Trouble Shooting Guide

Symptom	Possible Cause
Pilot Light Out	No 120 V. supply input. Open primary circuit. Fuse blown. Switch off. Defective lamp. Broken leads, loose connections.
Iron Doesn't Heat	Blown fuse (pilot will not light). Open element in iron. Open iron supply cord (white or black lead). Green lead shorted to white or black.
Iron Overheats (not controlling)	Iron supply cord--green lead (control conductor) open. SCR (in power unit) shorted. Switch in iron not closing.
Blown fuse	Possible shorted cord (white to black lead). Shorted element.

Resistance measurements of iron:

- a. White to black lead--9 to 10 ohms.
- b. White or black to green conductor--open.

To take resistance measurements, unscrew plastic handle to expose terminals. Unsolder black and white leads, measure resistance between terminals.

REPLACEMENT & REPAIR PARTS
W-MCP Series

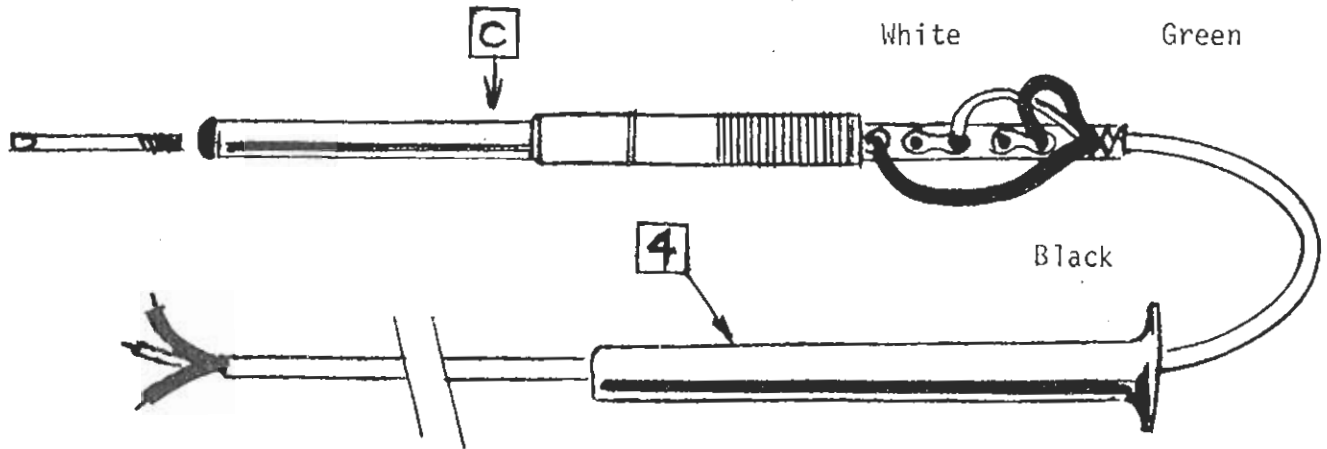
Key #	Part #	Description
	MCP-550	Soldering pencil only with silicone cord. 550°F. control element, MP5C tip (formerly part #MCP-2)
	MCP-650	Soldering pencil only with silicone cord. 650°F. control element, MP5C tip (formerly part #MCP-1)
	MCP-750	Soldering pencil only with silicone cord. 750°F. control element, MP5C tip (formerly part #MCP-3)
	MPU1	Power unit w/cord set 120 V. 20 W. 50/60Hz.
6	MSH	Spring and funnel
5	MSF1	Funnel only
3, 4	MCS	Cord set, silicone (iron to power unit), and handle assembly
8	MLN	Lamp, neon
	MFP1	Fuse, line
9	PUS	Switch, power unit
	MSP1	Sponge, W-MCP

See page 4 for replacement Wellercote tips.

Weller®

MODEL W-MCP SOLDERING STATION

ISOLATED POWER SUPPLY



ASSEMBLY AND DISASSEMBLY NOTES:

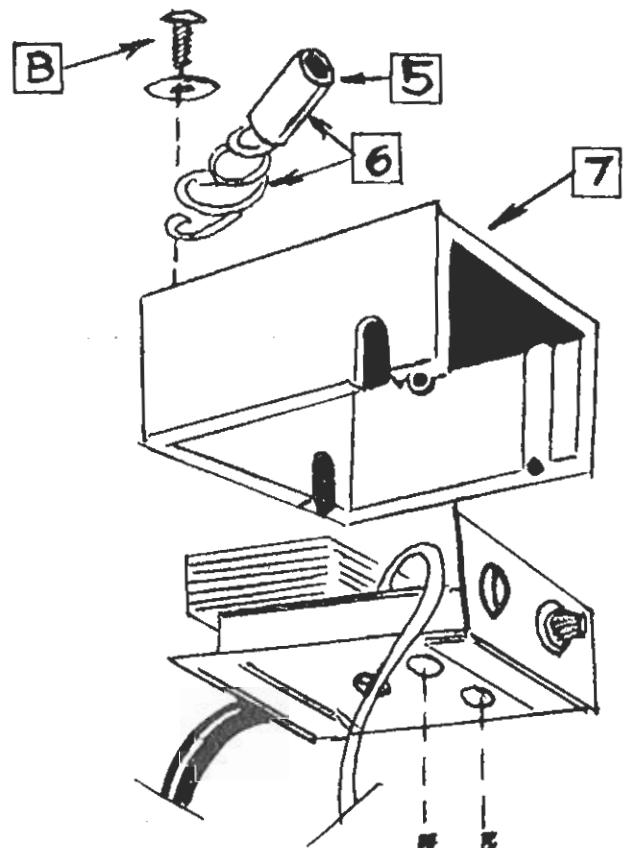
WARNING: DISCONNECT POWER SUPPLY CORD BEFORE SERVICING UNIT

ALLOW TOOL TO COOL.

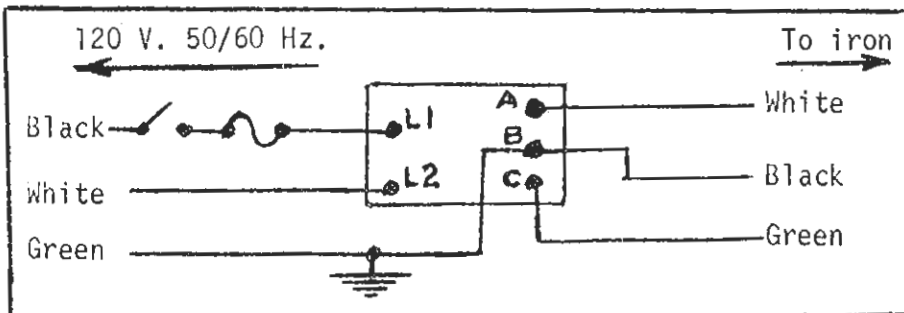
To disassemble pencil iron, gently hold barrel **C** and unscrew handle **4**. To avoid crushing barrel, do not use pliers or wrenches. Slide handle back along cord.

To assemble iron, reverse above procedure. Finger tighten only.

To disassemble power supply unit, remove screws at positions **A** and **B** only. Lift off power unit cover.



POWER UNIT ELECTRICAL SCHEMATIC



"Wellercote" Replacement Tips for Model W-MCP Series

Key #	Part #	Description
1	MP2C	2/64" (1/32") chisel tip, bent
1	MP3C	3/64" chisel tip, bent
1	MP5C	5/64" chisel tip
1	MP8C	8/64" (1/8") chisel tip
1	MP2S	1/32" spade tip 45°
1	MP3S	3/64" spade tip 45°
1	MP1MP	.010 conical tip

FOR GREATER EFFICIENCY....LOWER OPERATING COSTS

consider these Weller Controlled Output Industrial Soldering Tools:



MODEL W-TCP-L

- Predetermined temperature by tip selection
- Tip will not freeze
- Cord set will not burn
- Isolation for protection of sensitive devices
- Low voltage operation
- Built-in on-off switch
- Built-in indicating light
- Available less light & switch as Model W-TCP



SOLDERING TOOL STANDS

- PH series includes heavy base with sponge receptacle.
- SFA series are less base, intended for attachment to bench or side rail.
- #PH60 for Model W60 Irons
- #PH100 for Model W100 Irons
- #SFA60 (less base) for Model W60 Irons
- #SFA100 (less base) for Model W100 Irons



MODEL W60 and W100

- Low cost
- Portable
- Line voltage operation
- Automatic control of output and temperature