



Weller® Tech Sheet

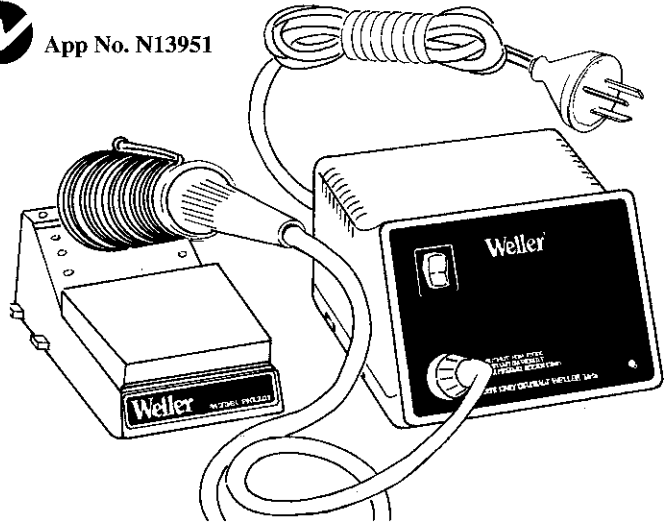
WTCPTD



App No. N13951

PRODUCT DESCRIPTION

A transformer powered soldering station, complete with a low voltage, temperature controlled soldering pencil. The special Weller "closed loop" method of controlling maximum tip temperature is employed, thereby protecting temperature sensitive components while the grounded tip protects voltage and current sensitive components. An earth terminal is provided for the connection of the work piece. This provides a means to balance the potential between the earthed soldering tip and work. The soldering pencil features a stainless steel heater construction, a non-burning silicon rubber cord and a large selection of iron plated tips in sizes from 0.4mm diameter to 6.0 mm diameter with a choice of tip-temperature of 315°C/600°F, 370°C/700°F and 430°C/800°F.



The transformer case features impact-resistant material for durability and protection against accidental damage, a quick connect/disconnect plug for the soldering iron, an off-on switch with a red insert indicating when on and a 2m flexible 3-wire power cord. The stand has a water well with a sponge.

The soldering iron is normally provided with a PTA7 1.6mm screwdriver 370° C/700°F tip.

This Soldering Iron is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with this soldering iron.

WARNING - The Soldering Iron must be placed on its stand when not in use.

SPECIFICATION

POWER UNIT: TC202DT2

1. Power Input 240 Volts 50 Hz 60 Watts.
2. Transformer Output Voltage – 24 Volts (Full Load)
3. Power Unit Size – 115mm x 150mm x 92mm.
4. 2 Metres, 3 Wire Power Cord.

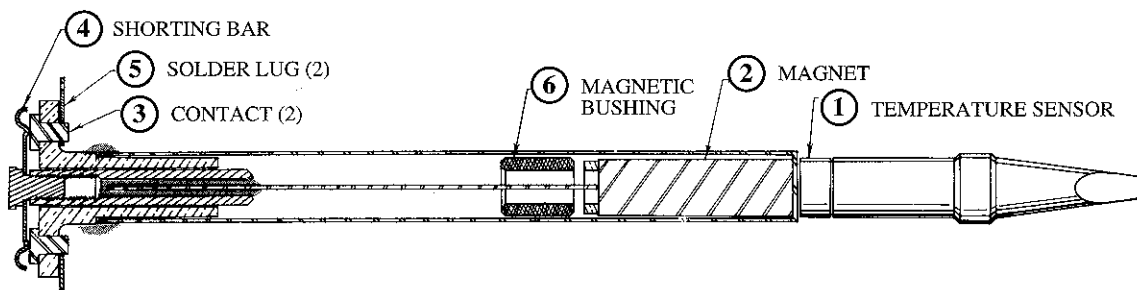
SOLDERING PENCIL: TC201B

1. Soldering Pencil Wattage – 48 Watts
2. Tip Grounded
3. Pencil Weight – 50 gram (W/O Cord)
4. Recovery Time (From 37°C Drop)
W/PTA7 Tip = 11 Sec.
5. Cord: Silicon Rubber – Burn Resistant – 1.2m.

PRINCIPLE OF OPERATION

When the soldering tip is cold, a ferromagnetic temperature sensor (1) attached to the tip attracts a permanent magnet (2). The magnet movement causes a shorting bar (4) to make contact with a set of isolated electrical contacts (3) thereby supplying power to the heating element through the solder lugs (5). When the tip reaches its idle temperature, the sensor becomes non-magnetic and no longer attracts the magnet. Then a magnetic bushing (6) attracts the magnets causing the shorting bar to break the circuit. In this manner, power to the heating elements is turned on and off automatically.

CAUTION: TIP IS GROUNDED. DO NOT SOLDER IN AN ENERGIZED CIRCUIT.



ABOUT WELLER SOLDERING PENCIL TIPS

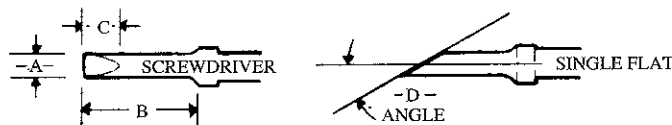
All Weller PT Series soldering pencil tips have been plated with an exclusive process that deposits three (3) protective coatings. The high conductivity copper tips are iron plated, then nickel plated and finally chromium plated on non-working surfaces. The working surface is then pre-tinned. The chromium and nickel plating of the tip prevents oxidation of the iron plating which can cause freezing of the tip in the pencil. The chromium also prevents solder "creep-up". Weller's "temperature-sensing" tips have a small ferromagnetic sensing element attached to the tip shank. The sensing element is coded with a number to indicate idle temperature in hundreds of degrees F. Thus a simple change of tips is all that is necessary to adapt the tool to an entirely different temperature range.

Use only original Weller soldering tips, parts and accessories for this product.

SELECTION OF WELLER PT SERIES TIPS

1. Select a tip configuration with the maximum working surface, thickest cross section and shortest reach compatible with the size, the accessibility, and the visual restrictions of the solder joint.
2. Select a tip temperature based on the size of the solder joint, the temperature sensitivity of the components, and the production rate required. Please note that tip life is directly related to tip temperature – the lower the tip temperature the longer the tip life.

Weller industrial soldering tips have heavy iron plating with anti-oxidation coating.



	Catalogue Numbers			Description	Dimension			
	600° F 315°C	700° F 370°C	800° F 430°C		A mm	B mm	C mm	D
 Screwdriver	PTA6	PTA7	PTA8	Screwdriver	1.6	16.0	2.4	15°
	PTAA6	PTAA7	PTAA8	Single Flat	1.6	16.0	2.4	30°
 Conical	PTB6	PTB7	PTB8	Screwdriver	2.4	16.0	2.4	22°
	PTBB6	PTBB7	PTBB8	Single Flat	2.4	16.0	2.4	30°
 Single Flat	PTC6	PTC7	PTC8	Screwdriver	3.2	16.0	3.2	22°
	PTCC6	PTCC7	PTCC8	Single Flat	3.2	16.0	3.2	30°
 Long Screwdriver	PTD6	PTD7	PTD8	Screwdriver	5.0	16.0	5.0	22°
	PTDD6	PTDD7	PTDD8	Single Flat	5.0	16.0	5.0	30°
 Long Conical	PTP6	PTP7	PTP8	Conical	0.8	16.0		
	PTK6	PTK7	PTK8	Long Sowdr.	1.2	25.4	11.0	7°
 Narrow Screwdriver	PTH6	PTH7	PTH8	Screwdriver	0.8	16.0	3.2	15°
	PTL6	PTL7	PTL8	Long Sowdr.	2.0	25.4	13	7°
 Screwdriver	PTF6	PTF7	PTF8	Conical Flat	1.2	16.0	1.2	40°
	PTM6	PTM7	PTM8	Long Sowdr.	3.2	25.4	19.0	7°
 Long Conical	PTE6	PTE7	PTE8	Screwdriver	6.0	16.0	5.0	22°
	PTO6	PTO7	PTO8	Long Conical	0.8	25.4		
 Narrow Screwdriver	PTR6	PTR7	PTR8	Narrow Screwdriver	1.6	15.6	2.3	25°
	PTS6	PTS7	PTS8	Long Conical	0.4	25.4		

ACCESSORIES

SK128-7-TCP	Reflow Tip 9.5mm	SK126-6-TCP	16 Pin D.I.L. Desoldering Tip
SK180-7-TCP	Reflow Tip 21.5mm	D.I.L.24	24 Pin D.I.L. Desoldering Tip
SK137-6-TCP	14 Pin D.I.L. Desoldering Tip	DS-7	Bulb Desoldering Attachment

CARE OF WELLER PT SERIES TIPS

1. Keep the tip tinned; wipe only before using.
2. Use rosin or activate rosin fluxes. Acid type fluxes will greatly reduce tip life.
3. Remove the tip and clean with a suitable cleaner for the flux being used. The frequency of cleaning will depend on the type of work and usage. Tips in constant use should be cleaned at least once per week.
4. Don't try to clean the tip with abrasive materials and never file the tip, to do so will greatly reduce tip life.
5. Don't remove excess solder from heated tip before storing. The excess solder will prevent oxidation of the wettable surface when tip is reheated.
6. Don't use anti-seize compounds on tips, they have been plated for oxidation protection.

TROUBLE SHOOTING GUIDE

CAUTION: DISCONNECT POWER SUPPLY BEFORE ATTEMPTING ANY REPAIR

1. Pencil Cold

Check **Power Unit** for:

1. 240 volts at power supply receptacle.
2. Open in primary circuit by measuring the resistance between the power plug prongs. 77-94 ohms is normal.
3. Blown internal fuse in secondary by measuring resistance at pins of tool receptacle. 1-2 ohms is normal.

Check **Pencil** for:

1. Temperature sensor (fastened to back end of tip). Pencil will not heat or may overheat if sensor is missing.
2. Heater element resistance – unplug power unit, disassemble handle from pencil by removing three (3) outer perimeter screws, remove wire nuts from heater leads and measure resistance. 12/13 ohms is normal. Replace element if reading is high or low.
3. Switch operation – remove wire nuts from switch leads and connect ohm meter across switch leads. Measure resistance with tip sensor in contact with switch end and with tip removed. Replace switch if readings of zero (0) ohms and infinite (∞) ohms respectively are not obtained.
4. Secondary A. C. voltage – attach A. C. voltmeter to black and white leads coming from power unit to pencil. Plug power unit into 240V A. C. and measure secondary voltage. 27 volts is normal. If voltage is zero, check for opening in pencil cord by flexing cord. Watch meter for indication of voltage, replace cord if necessary. If cord is okay, unplug power unit and measure secondary circuit resistance (between black and white leads). 1-2 ohms is normal, if infinite (∞) ohms, check for open connection or blown secondary fuse in power unit.

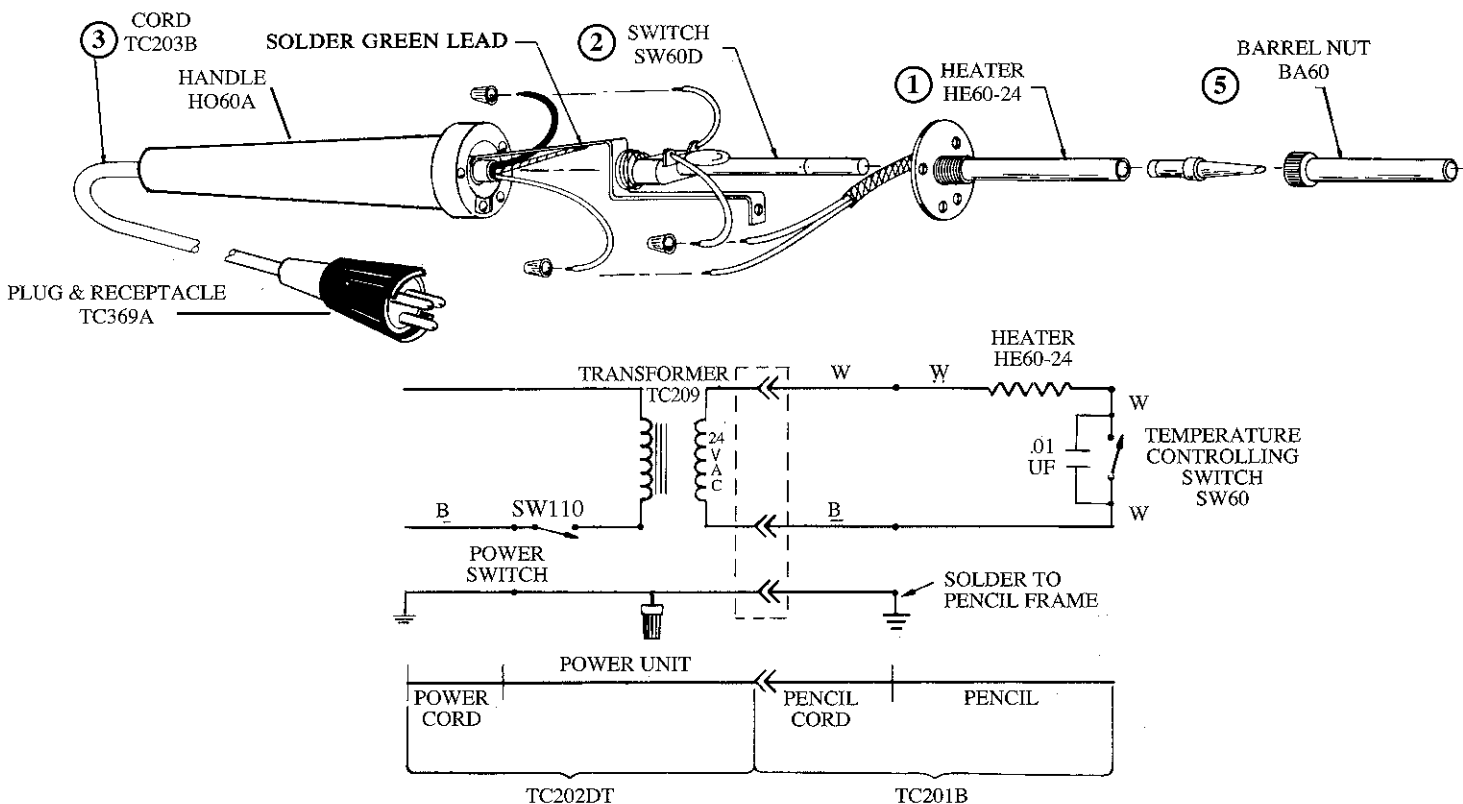
2. Pencil Too Hot

Check pencil as above.

3. Excessive Tip Voltage.

Check **Power Unit** and **Pencil** for:

1. Ground continuity from tip to power cord plug ground prong.
2. Power supply receptacle ground continuity.

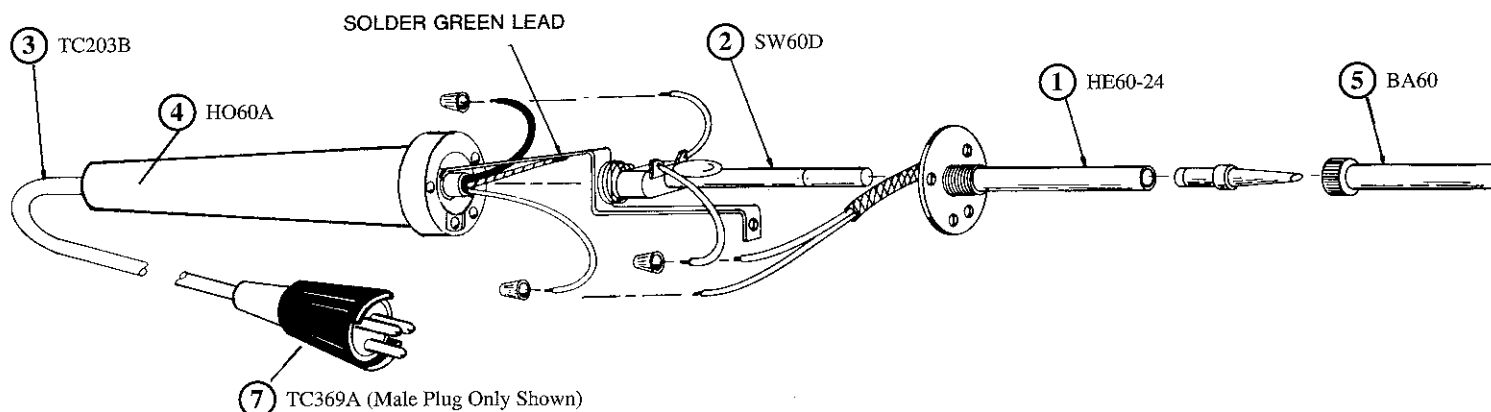


REPAIR PARTS LIST

Key	Part No.	Description
1.	HE60-24	Heater
2.	SW60D	Switch Assembly
3.	TC203B	Cord Set and Handle
4.	HO60A	Handle
5.	BA60	Barrel Nut Assembly
6.	SW110	Switch 240V
7.	TC369A	Plug/Receptacle Kit
-	TC209	Transformer
-	TC210	Fuse

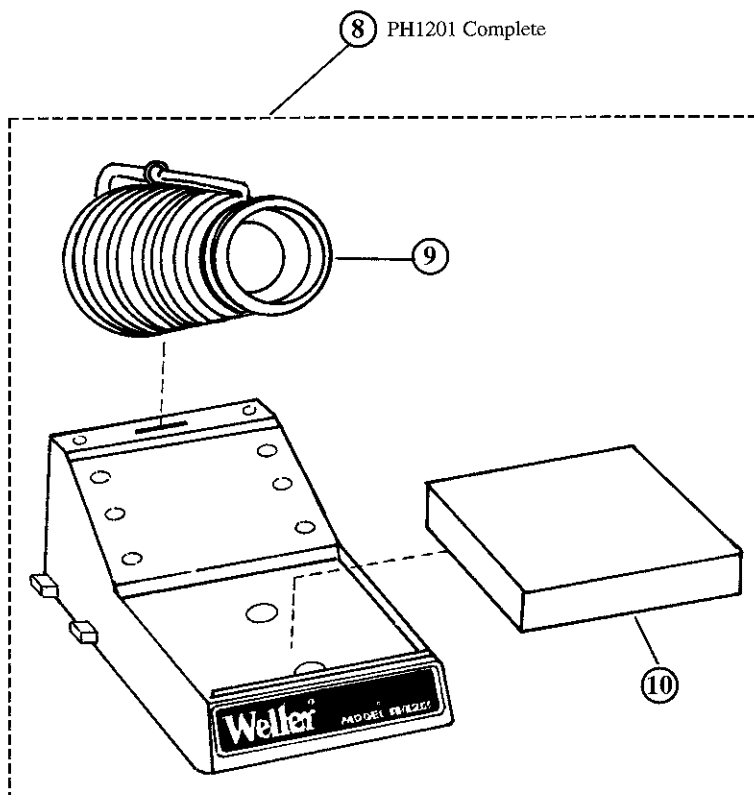
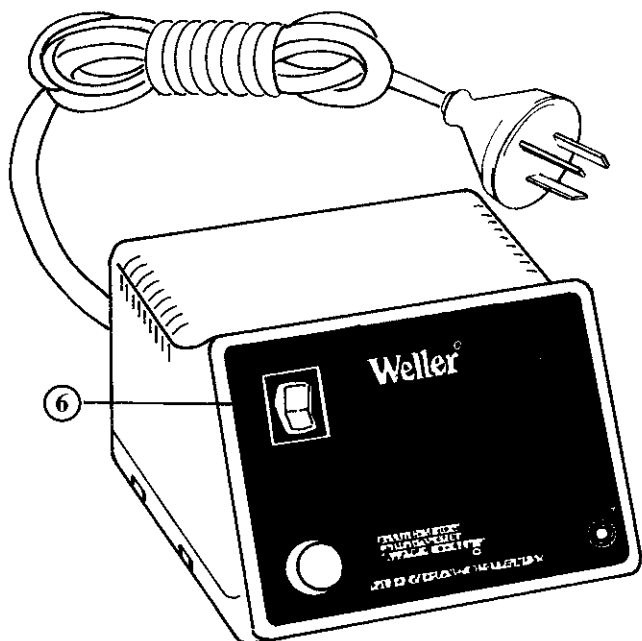
REPLACEMENT PARTS LIST

Key	Part No.	Description
-	TC201B	Soldering pencil, includes BA60 and PTA7 tip
-	TC202DT2	Power Unit Only
8.	PH1201	Stand, includes Iron Holder and Sponge
9.	TC204	Iron Holder W/Funnel
10.	TC205	Sponge (10 per package)



The receptacle and pencil plug pin-out has changed on this WTCPTD model. Use repair part TC203B, Cord Set & Handle and TC201B, Soldering Pencil.

TC201 Pencils manufactured pre 2000 will require a pin-out change to work with this station.



The Weller Guarantee

Cooper Hand Tools quality Electrical / Electronic products are guaranteed against defective workmanship or materials for one year. Damage caused by abuse, improper use or excessive wear is not covered by this guarantee.

Repair and replacement warranty claims should be referred to the place of purchase or returned prepaid to:

Cooper Tools Pty. Limited
(A.B.N. 50 002 965 826)
519 Nurigong Street,
ALBURY, N.S.W. 2640 AUSTRALIA

No distributor is authorised to replace Electrical or Electronic products with new merchandise, or to make repairs, except for authorised repair stations.



COOPER Hand Tools