



# Operation and Maintenance Manual for the TD-100 and MT-100 Handpieces

P/N 5050-0532



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## Safety Guidelines

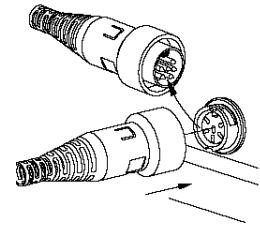
The following are safety precautions that personnel must understand and follow when using or servicing this product.

1. **POTENTIAL SHOCK HAZARD** - Repair procedures on PACE products should be performed by Qualified Service Personnel only. Line voltage parts may be exposed when the equipment is disassembled. Service personnel must avoid contact with these parts when troubleshooting the product.
2. To prevent personnel injury, adhere to safety guidelines in accordance with OSHA and other applicable safety standards.
3. Heater Cartridge Tips are hot when the handpiece is powered on and for a period of time after power off. **DO NOT** touch the cartridge. Severe burns may result.
4. PACE Tip & Tool Stands and handpiece cubbies are designed specifically for use with the associated handpiece and houses it in a manner that protects the user from accidental burns. Always store the handpiece in its holder. Be sure to place the handpiece in its holder after use and allow for cooling before storing.
5. Always use PACE systems in a well ventilated area. A fume extraction system such as those available from PACE are highly recommended to help protect personnel from solder flux fumes.
6. Exercise proper precautions when using chemicals (e.g., solder paste). Refer to the Material Safety Data Sheet (MSDS) supplied with each chemical and adhere to all safety precautions recommended by the manufacturer.

## Handpiece Connection

Connect the handpiece connector plug into the Power Receptacle in the following manner.

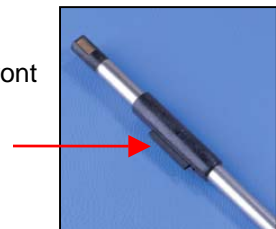
1. Align guide on the connector with slot on power receptacle.
2. Insert connector into power receptacle.
3. Turn the connector housing clockwise to lock in place.



## Tip Cartridge Installation

Both TD-100 and MT-100 tip cartridges are fitted with a key lock device. This feature ensures that tip cartridges are held firmly in position and will maintain their orientation. MT-100 tip cartridges CANNOT be fully inserted into the TD-100 and TD-100 tip cartridges CANNOT be fully inserted into the MT-100. To install a tip cartridge, please follow the procedure below.

1. Line up the key lock feature on the tip cartridge with the notch on the front of the handpiece.
2. Push the tip cartridge all the way into the handpiece.



To remove a tip cartridge, use the included **hot grip removal pad** to grasp the tip cartridge and pull the tip cartridge out of the handpiece. Be careful when completing this procedure as the tip cartridge may be hot and direct contact can cause injury.








**Tips**





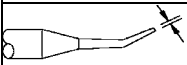
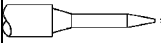
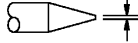

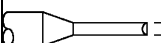




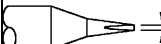
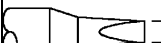

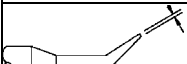


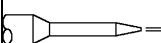
**cartridges can be changed at any time and without turning off the power to the unit.**

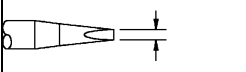
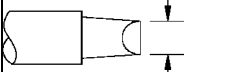
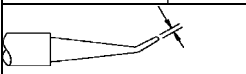
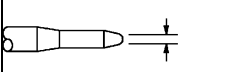
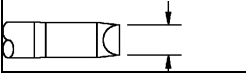
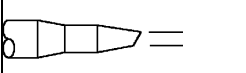
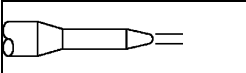
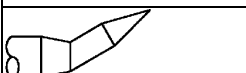


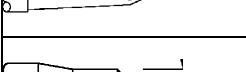

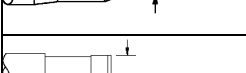
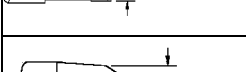
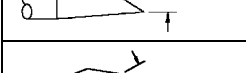
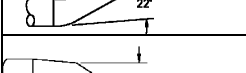
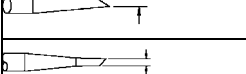
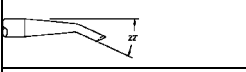

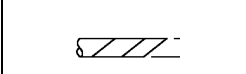
**Accessory and Replacement Parts**

	Description	PACE Part Number
	Tip Case – Holds 10 Tips (Tips not included)	1310-0034-P1
	Tip Stand – Allows for an additional 10 tips to be stored on the tool stand. (Shown with TD-100 Tool Stand, tips not included)	1321-0639-P1
	TD-100 Handpiece (Tip cartridge not included)	6010-0132-P1
	Replacement TD-100 cord assembly	3008-0131-P1
	Replacement O-rings for TD-100. Package of 5.	1213-0090-P5
	TD-100 Tool Stand (TD-100 Handpiece and tips not included)	1257-0258-P1
	MT-100 Handpiece (Tips not included)	6010-0140-P1
	MT-100 Tool Stand	6019-0069-P1
	Hot Grip Removal Pad	1100-0307-P1

**Available Tips**

A wide variety of tip cartridges are available for use with the TD-100 and the MT-100 Handpieces. Please refer to the table below for available tip cartridge styles.

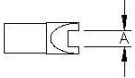
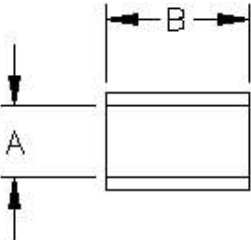
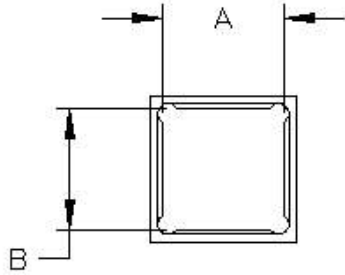
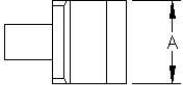
	<b>PACE P/N</b>	<b>Description</b>
	1124-0001-P1	1/32" Conical Sharp Extended
	1124-0002-P1	1/64" Conical Sharp
	1124-0003-P1	1/64" Conical Sharp Bent 30 Degrees
	1124-0004-P1	1/64" Conical Sharp Extended
	1124-0005-P1	1/32" Conical
	1124-0006-P1	3/128" Conical
	1124-0007-P1	1/16" 90 Degree Chisel
	1124-0008-P1	3/64" 30 Degree Chisel
	1124-0009-P1	3/64" 30 Degree Bevel
	1124-0010-P1	13/64" Chisel
	1124-0011-P1	1/64" 60 Degree Bevel
	1124-0012-P1	1/32" 30 Degree Chisel
	1124-0013-P1	3/32" 30 Degree Chisel
	1124-0014-P1	5/64" 60 Degree Bevel
	1124-0015-P1	1/64" Conical, Sharp, Bent 30 Degrees, Extended
	1124-0016-P1	3/64" Chisel Bent 30 Degrees
	1124-0017-P1	1/16" 60 Degree Chisel
	1124-0018-P1	1/32" Conical Sharp Extended

	1124-0019-P1	1/16" 30 Degree Chisel
	1124-0020-P1	1/8" 90 Degree Chisel
	1124-0021-P1	3/128" Conical Sharp Bent 30 Degrees
	1124-0022-P1	1/16" Conical Sharp
	1124-0023-P1	1/8" 90 Degree Chisel Extended
	1124-0024-P1	1/16" 30 Degree Bevel
	1124-0025-P1	1/16" Conical Sharp Extended
	1124-0026-P1	1/16" Chisel Bent 30 Degrees
	1124-0027-P1	3/128" Conical Sharp, Extended
	1124-0028-P1	3/64" Chisel, Bent 30 Degrees, Extended
	1124-0029-P1	1/32" 30 Degree Bevel
	1124-0030-P1	1/32" Conical Sharp
	1124-0031-P1	Heat Staking
	1124-0032-P1	MiniWave
	1124-0033-P1	Angled MiniWave, 3.3 mm
	1124-0034-P1	Single Sided Chisel
	1124-0035-P1	Angled MiniWave, 2.4mm
	1124-0036-P1	1/128" Conical
	1124-0037-P1	1/4 Flat Blade
	1124-0038-P1	Single Sided Chisel, Fine Pitch

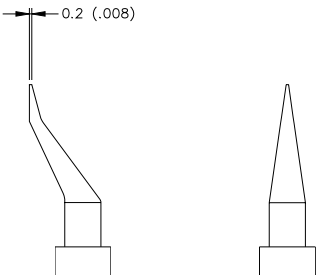
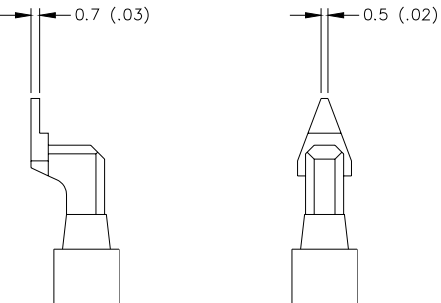
	1124-0039-P1	Angled MiniWave, Fine Pitch
	1124-0040-P1	MicroFine Single Sided Chisel, 0.9mm (.035")
	1124-0041-P1	MicroFine Single Sided Chisel, 1.1mm (.045")
	1124-0042-P1	MicroFine Conical, 0.25mm (.01")
	1124-0043-P1	MicroFine Bent Conical, 0.75mm (.03")
	1124-0044-P1	MicroFine Bent Conical, 0.5mm (.02")
	1124-0045-P1	Angled Micro-Wave Tip
	1124-0046-P1	Micro-Wave Tip

### **Surface Mount Removal Tips for TD-100 Soldering Iron**

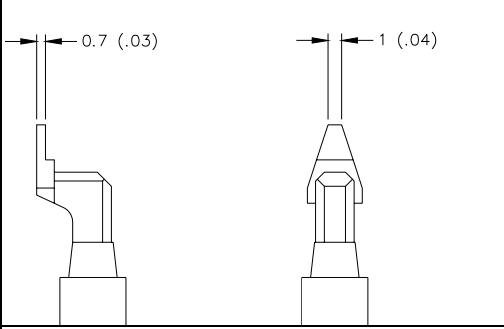
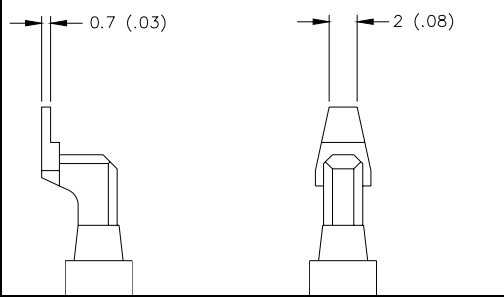
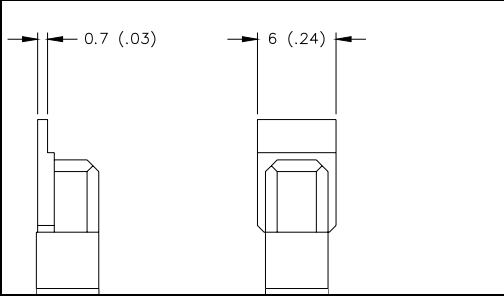
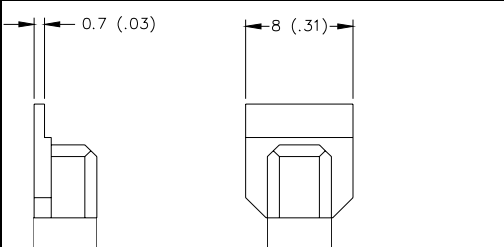
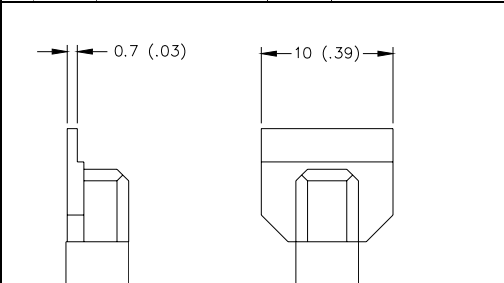
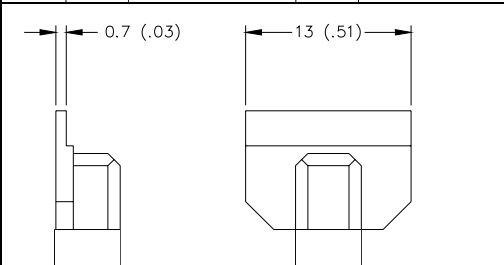
	<b>Component Type</b>	<b>Dimension A</b>	<b>Dimension B</b>	<b>Part Number</b>
	Chip 402 Angle	2.2mm (.085")		1124-0518-P1
	Chip 1808	5mm (.195")		1124-0520-P1
	Chip 402	1mm (.04")		1124-0521-P1
	SOT 23	1.8mm (.07")		1124-0522-P1
	SOT 89	2.8mm (.11")		1124-0523-P1
	Chip 1206	3.6mm (.142")		1124-0524-P1

	Chip 0805	2.4mm (.095")		1124-0525-P1
	SOIC 14/16	5.2mm (.205")	10.5mm (.415")	1124-0504-P1
	SOIC 20	9.6mm (.377)	13.6mm (.535")	1124-0505-P1
	SOP 28	10.8mm (.426")	18.6mm (.734")	1124-0506-P1
	SOP 40	11.9mm (.467")	25.7mm (1.01")	1124-0507-P1
	SOP 44	13.1mm (.516")	28.4mm (1.12")	1124-0508-P1
	TSOP 56	18.8mm (.739")	14.1mm (.557")	1124-0509-P1
	TSOP 28	12mm (.471")	8.5mm (.333")	1124-0510-P1
	SOIC 8	5.1mm (.202)	4.65mm (.183")	1124-0519-P1
	TSOP 40	18.8mm (.74")	10.4mm (.410)	1124-0526-P1
	PLCC 28 Socket	9.3mm (.365")	9.3mm (.365")	1124-0511-P1
	PLCC 32	14.2mm (.561")	11.7mm (.459")	1124-0512-P1
	PLCC 44	16.8mm (.662")	16.8mm (.662")	1124-0513-P1
	QFP 144	20.6mm (.81")	20.6mm (.810")	1124-0514-P1
	PLCC 28	11.8mm (.465")	11.8mm (.465")	1124-0515-P1
	QFP 100/128	22mm (.865")	16mm (.628")	1124-0516-P1
	PLCC 20	9.3mm (.365")	9.3mm (.365")	1124-0527-P1
	PLCC 18	7.6mm (.3")	12.8mm (.505")	1124-0528-P1
	TQFP 80	12.5mm (.491")	12.5mm (.491")	1124-0529-P1
	PLCC 52	19.4mm (.762")	19.4mm (.762")	1124-0530-P1
	QFP 80/100	26.6mm (1.05")	26.6mm (1.05")	1124-0531-P1
		Blade	10.8mm (.425")	
Blade		16mm (.630")		1124-0502-P1
Blade		21.2mm (.835")		1124-0503-P1
Blade		25MM (.984")		1124-0532-P1

### Surface Mount Removal Tips for MT-100 MiniTweez

	<b>PACE P/N</b>	<b>Description</b>
	1124-1001-P1	Chip 0.2mm (.008")
	1124-1002-P1	Chip 0.5mm (.02")



	<p>1124-1003-P1</p>	<p>Chip 1mm (.04")</p>
	<p>1124-1004-P1</p>	<p>Chip 2mm (.08")</p>
	<p>1124-1005-P1</p>	<p>SOP 6 6mm (.24")</p>
	<p>1124-1006-P1</p>	<p>SOP 8 8mm (.31")</p>
	<p>1124-1007-P1</p>	<p>SOP 10 10 mm (.39")</p>
	<p>1124-1008-P1</p>	<p>SOP 13 13mm (.51")</p>

## Corrective Maintenance

The TD 100 handpiece features a replaceable O-ring that protects the contact area from flux fume and other contamination. The O-ring may need to be replaced over time. To replace the O-ring follow the procedure below:

1. Disconnect the TD 100 from the power source
2. Remove the tip cartridge
3. Unscrew the cap from the back of the TD 100
4. Slide the connector assembly out of the handle
5. Remove and replace the old O-ring from the connector assembly (Old "O-ring" may remain in handle)
6. Reinstall the connector assembly. Be sure to line up the keyways on the handle and connector assembly. Do not force the connector assembly into the handle.
7. Reinstall the cap and make sure it is fully seated against the handle
8. Install a tip cartridge

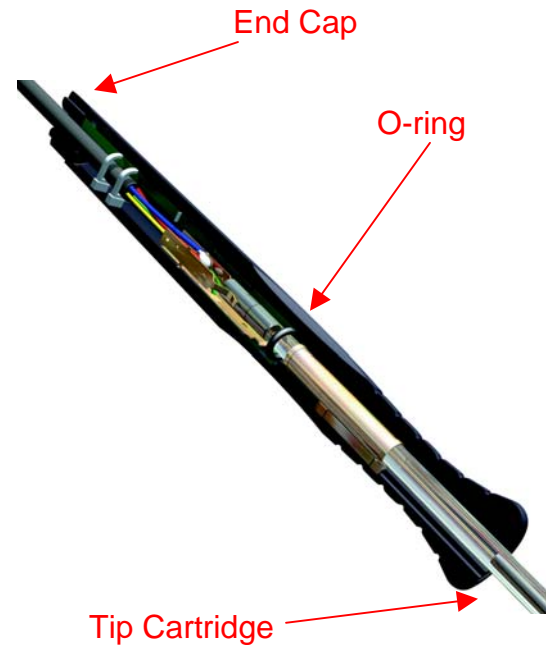
The O-rings on the MT-100 do not need to be replaced.

### **Handpiece Troubleshooting**

Most malfunctions are simple and easy to correct. Refer to Table 3.

Symptom	Probable Cause	Solution
Handpiece will not heat	Defective Heater	Change Tip Cartridge
	Power Source Malfunction	Contact PACE

Table 3: Troubleshooting



## Service

Please contact PACE or your local distributor for service and repair.

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**PACE USA**  
9030 Junction Drive  
Annapolis Junction, MD 20701  
USA

**PACE Europe**  
Sherbourne House  
Sherbourne Drive  
Tilbrook, Milton Keynes  
MK7 8HX  
United Kingdom

Tel: (301) 490-9860

(44) 01908-277666

Fax: (301) 498-3252

(44) 01908-277777