



SUPPORT PRODUCTS AND CONSUMABLES

SOLUTIONS FOR THE ELECTRONICS INTERCONNECTION PROCESS

Table of Contents

SECTION	CONTENT	PAGE NUMBER
Systems	ST Series Systems/Optional Items & Replacement Parts	3
	MBT 201 Systems/Optional Items & Replacement Parts	4
	MBT 220 and 250 Systems/Optional Items & Replacement Parts	5
	PRC Systems/Optional Items & Replacement Parts	6
	HW/TW Systems/Optional Items & Replacement Parts	7
	ST Hot Air Systems	8
	Hot Air Nozzles	9
	Hot Air Nozzles	10
Handpieces & Tips	SX-70 Handpiece Parts Diagram	11
	SX-70 Handpiece Replacement Parts	12
	SX-80 Handpiece Replacement Parts	13
	SX-70/SX-80 Endura Desoldering Tips	14
	PS-90 Handpiece and Surface Mount Removal Tips	15
	PS-90 Single Point Tips	16
	TT-65 Handpiece & Tips	17
	TT-65 Handpiece Tips	18
	TT-65 Handpiece Tips	19
	TP-65 Handpiece & Tips	20
	TJ-70/TJ-80 Handpiece(s) & Tips	21
	PACE Tip Kits	22
	Tip Heater Cartridge Handpieces	23
	TD-100 Single Point Tips	24
	TD-100 Single Point Tips (continued)	25
	TD-100 Surface Mount Removal Tips	26
	MT-100 Handpiece & Tips	27
	SMR Pulse Heat Handpieces	28
	MicroChine & PV-65 Handpiece(s)	29
Support Products	Support Products	30
	Support Products (continued)	31
	ThermoBond Cir-Kits	32
	ThermoBond Cir-Kits (continued)	33
	ThermoBond Cir-Kits (continued)	34
	ThermoBond Cir-Kits (continued)	35
	ThermoBond Installation Tips	36
	Non-ThermoBond Cir-Kits Frames and Replacement Parts	37
	Non-ThermoBond Cir-Kits Frames (continued)	38
	Non-ThermoBond Cir-Kits Frames (continued)	39
	Non-ThermoBond Cir-Kits Frames (continued)	40
	Non-ThermoBond Cir-Kits Frames (continued)	41
	Non-ThermoBond Cir-Kits Frames & Stencil Frames	42
	Training Kits & Aids	43
	TF 1500/1700 Optional Items and Replacement Parts	44
	TF 2500/2700 Optional Items and Replacement Parts	45
	BGA Rework Nozzles	46
	PACE Accessories	47

ST Systems

Optional Items and Replacement Parts



ST Series Systems/Replacement Parts

DESCRIPTION	PART NUMBERS
Power Cord (Domestic Systems only)	1332-0094-P1
Power Cord (Export Systems)	1332-0093-P1
Fuse, 1.0A Time Lag (Domestic Systems Only)	1159-0246-P5
Fuse, 0.5A Time Lag (Export Systems only)	1159-0213-P5
Fiber Cleaning Tool for Surface Mount Tips	1100-0232
Replacement Fiber Filler (for Fiber Cleaning Tool)	1127-0013-P2
Replacement Sponge filler (for sponge cleaning tip)	110-0233
Sponges for Tip maintenance Station	4021-0006-P5
Sponges for Tip Maintenance Station	4021-0007-P5
Replacement Sponges for Tip and Tool Stand	4021-0008-P3
Power Switch (All ST Series)	1157-0081-P1
PCB ST 25/25E	6020-0120-P1
PCB ST 25/25E metal case	6020-0188-P1
PCB ST 45/45E	6020-0123-P1
PCB ST 45/45E metal case	6020-0189-P1
PCB ST 75/75E	6020-0129-P1
PCB ST 115/115E	6020-0124-P1
PCB ST 125/125E	6020-0185-P1
PCB ST 145/145E	6020-0186-P1

MBT Systems

Optional Items and Replacement Parts



MBT 201/Optional Items

DESCRIPTION	PART NUMBERS
Motor Pump Assembly (MBT 201/201 E with date code of 37777 or higher)	1336-0063-P1
Motor Pump Rebuild Kit (Pump date code of 37780 or lower)	6993-0190-P1
Motor Pump Filter	1309-0020-P1
Fuse, 0.63 Amp Slo-Blo (MBT 201 Export Systems only)	1159-0214-P5
Fuse, 1.25 Amp Slo-Blo (MBT 201 Domestic Systems only)	1159-0217-P5
Power Cord (MBT 201 Domestic Systems only)	1332-0094-P1
Power Cord (MBT 201 Export Systems only)	1332-0093-P1
Fiber Cleaning Tool for Surface Mount Tips	1100-0232
Replacement Fiber Filler (for Fiber Cleaning Tool)	1127-0013-P2
Sponge Cleaning Tool for Surface Mount Tips	1100-0233
Replacement Sponge Filler (for Sponge Cleaning Tool)	4021-0006-P5
Replacement Sponges for Tip & Tool Stand (SX, PS, SP)	4021-0008-P3
Sponges for Tip Maintenance Station	4021-0007-P7
Main Power Switch (Units built before 8/00)	1157-0052
Main Power Switch (Units built after 8/00)	1157-0081-P1
Air Pressure Control Valve Assembly	1222-0081-P1
Vacuum, Panel Mount	1259-0085-P1
Quick-Disconnect Insert, Male	1259-0087-P1
Quick-Disconnect Receptacle, Female	1259-0086-P1
Vacuum Tubing, Black Silicon 1370mm (54")	1342-0015-08
Printed Circuit Board (MBT 201/201 E)	6020-0061-P1
Printed Circuit Board (MBT 201 A/201 AE)	6020-0090-P1
Temperature Potentiometer	1179-0186-P1
Rubber Foot	1274-0021-P4

MBT Systems

Optional Items and Replacement Parts

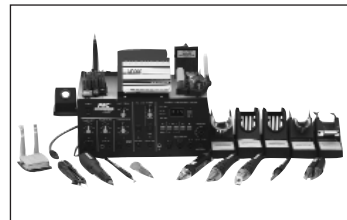


MBT 220 and 250/Optional Items

DESCRIPTION	PART NUMBERS
Motor Pump Rebuild Kit (Pump date code of 37780 or lower)	6993-0190-P1
Motor Pump Assembly MBT 250/E with date code of 37781 and higher	1336-0064-P1
Motor Pump Filter	1309-0020-P1
Power Cord (MBT 250 Domestic Systems only)	1332-0094-P1
Power Cord (MBT 250 Export Systems only)	1332-0093-P1
Fuse, 2.0A SloBlo (MBT 250 Domestic Systems only)	1159-0247-P5
Fuse, 1.25A SloBlo (MBT 250 Export Systems only)	1159-0217-P5
Fiber Cleaning Tool for Surface Mount Tips	1100-0232
Replacement Fiber Filler (for Fiber Cleaning Tool)	1127-0013-P2
Sponge Cleaning Tool for Surface Mount Tips	1100-0233
Replacement Sponge Filler (for Sponge Cleaning Tool)	4021-0006-P5
Replacement Sponges for Tip & Tool Stand (SX, PS, SP)	4021-0008-P3
Sponges for Tip Maintenance Station	4021-0007-P7
Quick-Disconnect Insert (Male)	1259-0087-P1
Quick-Disconnect Receptacle (Female)	1259-0086-P1
Vacuum Tubing, black silicon 1370mm (54")	1342-0015-08
Cable Marker Kit (Colored Tabs for hose/cord identification)	6993-0136-P1
Air Pressure Control Valve Assembly	1222-0081-P1
Vacuum, Panel Mount	1259-0085-P1
Main Power Switch (Units built before 8/00)	1157-0052
Main Power Switch (Units built after 8/00)	1157-0081-P1
Printed Circuit Board (MBT 250A / 250AE)	6020-0063-P1
Display Printed Circuit Board (MBT 250A / 250AE)	6020-0063-P1
Tip and Temperature Selection System (charts only)	5050-0251
Rubber Foot	1274-0021-P4

PRC Systems

Optional Items and Replacement Parts



PRC 2000/Optional Items

DESCRIPTION	PART NUMBERS
Tip Redi-Rak	6021-0007-P1
Tip & Tool Stand Tip Redi-Rak (included with Standard Version)	6021-0008-P1
Tip and Vacuum Cup Tool	1100-0239
Cushion Grip Kit for ThermoTweez Handpiece (requires a 6019-0056 TT Tip & Tool Stand)	6993-0184
One Year Consumables Kit	6550-0020
Auto Snap Vac Kit	6993-0193
Tip and Temperature Selection System (charts only)	5050-0251

PRC 2000/Replacement Parts

DESCRIPTION	PART NUMBERS
Motor Pump Assembly Kit (for desoldering function)	6993-0188
Pump Rebuild Kit (for desoldering function)	6993-0190-P1
Micro Pump Assembly (for Paste Dispenser)	1336-0027-P1
Low Pressure Pik Pump Assembly	1334-0021
Power Cord (PRC 2000 Domestic Systems only)	1332-0094-P1
Power Cord (PRC 2000 Export Systems only)	1332-0093-P1
Fuse, 5.0 Amp, Time Lag (PRC 2000 Domestic Systems only)	1159-0253-P5
Fuse, 12.0 Amp, (PRC 2000 Domestic and Export Systems)	1159-0257-P5
Air Pressure Control Valve Assembly	1222-0081-P1
Vacuum, Panel Mount	1259-0085-P1
Main Power Switch	1157-0052
Fiber Cleaning Tool for Surface Mount Tips	1100-0232
Replacement Fiber Filler (for Fiber Cleaning Tool)	1127-0013-P2
Sponge Cleaning Tool for Surface Mount Tips	1100-0233
Replacement Sponge Filler (for Sponge Cleaning Tool)	4021-0006-P5
Replacement Sponges for Tip & Tool Stand (SX, PS, SP)	4021-0008-P3
Sponges for Tip Maintenance Station	4021-0007-P7
Quick-Disconnect Insert (Male)	1259-0087-P1
Quick-Disconnect Receptacle (Female)	1259-0086-P1
Paste Dispense Tubing, Clear PVC 915mm (36")	1325-0003-10
Vacuum Tubing, Black Silicon 1370mm (54")	1342-0015-08
Cable Marker Kit (colored tabs for hose/cord identification)	6993-0136-P1
Paste Dispenser Cubby	6019-0038-P1
Accessory Kit for Paste Dispenser	6993-0152-P1
Vacuum Cups for Pik-Vac Wand	6993-0154-P1
PCB Assembly, Microprocessor, PPS-400/E	6020-0072-P1
PCB, Display, PPS-400/E	6020-0073
PCB, Multifunction, PPS-400/E	6020-0074-P1
Pressure Reservoir	1140-0034-P1
Foot Pedal MBT/PRC	6008-0115-P1
10cc Barrel Adapter	1259-0091
SMR Cubby Kit	6019-0022-P1
Redi-Rak Handpiece Kit	6019-0023-P1
Motor Pump Filter	1309-0020-P1
Solenoid, 12V, 6W	1194-0016
Terminal Post, Black	1205-0045-P1
Rubber Foot	1274-0021-P4

Heatwise & Tempwise

Optional Items and Replacement Parts



HW 50,TW 50, HW 100, TW 100 & HW 200 Systems

DESCRIPTION	PART NUMBERS
HW 50 PCB	6020-0140-P1
HW 100 PCB	6020-0191-P1
TW 50 PCB	6020-0200-P1
TW 100 PCB	6020-0192-P1
HW 200 PCB	6020-0203-P1
120V Power Cord	1332-0094-P1
230V Power Cord	1332-0093-P1
Power Source Mounting Bracket (TW 50 and HW 50 only)	1321-0609-P1
Power Source Mounting Bracket (TW 100 and HW 100 only)	1257-0288-P1
Tip & Tool Stand Interlock	1335-0251-P1
Tip Cartridge Stand	1321-0639-P1
Tip Case	1310-0034-P1
Instant Setback Cubby (TW50 & HW50 only)	6019-0071-P1
Power Modules (HW 50/HW 100/HW 200)	
POWER MODULE, SERIES 5 GREEN	1207-0362-01-P1
POWER MODULE, SERIES 5.5 BLUE	1207-0362-02-P1
POWER MODULE, SERIES 6 ORANGE	1207-0362-03-P1
POWER MODULE, SERIES 6.5 GOLD	1207-0362-04-P1
POWER MODULE, SERIES 7 RED	1207-0362-05-P1
POWER MODULE, SERIES 7.5 PURPLE	1207-0362-06-P1
POWER MODULE, SERIES 8 BLACK	1207-0362-07-P1
POWERMOD,SERIES 8.5 SILVER	1207-0362-08-P1

ST Hot Air Systems

Optional Items and Replacement Parts

ST 300, ST 325, ST 350, ST 500, ST 525, ST 550, Replacement Parts

DESCRIPTION	PART NUMBERS
ST 300 System Power Supply (Domestic) ST 300 System Power Supply (Export) ST 300 / 300E PCB Handpiece ST 300 / ST 325 (Domestic) Handpiece ST 300 / ST 325 (Export) Fuse, 7 A, 125 V, Fast Acting (ST 300) Fuse, 5 A, 230 V, Fast Acting (ST 300E) Fuse, 1 A, 125 V, Time Lag (ST 300) Fuse, 500 mA, Time Lag, (ST 300E)	8007-0427 8007-0428 6020-0163-P1 6010-0145-P1 6010-0146-P1 1159-0274-P5 1159-0266-P5 1159-0246-P5 1159-0213-P5
ST 325 System Power Supply (Domestic) ST 325 System Power Supply (Export) ST 325 / ST 325E PCB Fuse, 7 Amp, 125 V, Fast Acting (ST 325) Fuse, 5 Amp, 250 V, Fast Acting (ST 325E) Fuse, 0.5 Amp, 125 V, Time Lag (ST 325) Fuse, 0.5 Amp, 250 V, Time Lag (ST 325E) PC Control Software Calibration Nozzle	8007-0429 8007-0432 6020-0190-P1 1159-0274-P5 1159-0266-P5 1159-0248-P5 1159-0213-P5 1199-0019-P1 4028-2010
ST 350 System Power Supply (Domestic) ST 350 System Power Supply (Export) ST 350 / ST 350E PCB Fuse, 7 Amp, 125 V, Fast Acting (ST 350) Fuse, 5 Amp, 250 V, Fast Acting (ST 350E) Fuse, 0.5 Amp, 125 V, Time Lag (ST 350) Fuse, 0.5 Amp, 250 V, Time Lag (ST 350E) PCB Support PC Control Software Calibration Nozzle Heater Assembly 115V ST 300 / ST 325 / ST 350 Heater Assembly 230V ST 300E / ST 325E / ST 350E	8007-0437 8007-0438 6020-0190-P1 1159-0274-P5 1159-0266-P5 1159-0248-P5 1159-0213-P5 6000-0287-P1 1199-0019-P1 4028-2010-P1 6010-0009-P1 6010-0122-P1
Power Cord, 115V (ST 300, ST 325, ST 350) Power Cord, 230V (ST 300E, ST 325E, ST 350E) PV-65 Handpiece (ST 300, ST 325, ST 350) Nozzle Adapter (ST 300, ST 325, ST 350) Hot Grip Removal Pad (ST 300, ST 325, ST 350) Hose Retention Kit Cubby	1332-0094 1332-0093 7027-0001-P1 4028-0001-P1 1100-0307-P1 6018-0096-P1 6019-0048-P1
ST 500 Handpiece Fixture Swivel Ring ST 525 Board Holder ST 550 Board Holder	6018-0129-P1 1321-0320-P1 6993-0253-P1 6993-0254-P1

Hot Air Nozzles

Listed below are standard nozzles available from PACE. Custom nozzles can be designed and manufactured for special or non-standard applications. Contact PACE for more information. Alignment templates are included with BGA nozzle assemblies.

Standard Nozzles

BGA NOZZLES	BGA SIZE (NOMINAL)	PART NUMBERS
	26.4mm x 26.4mm (1.04" x 1.04")	4028-5001
	22.3mm x 22.3mm (0.89" x 0.89")	4028-5002
	34.4mm x 34.4mm (1.35" x 1.35")	4028-5003
	12.3mm x 12.3mm (0.48" x 0.48")	4028-5004
	14.4mm x 14.4mm (0.57" x 0.57")	4028-5005
	15.5mm x 17mm (0.61" x 0.67")	4028-5006
	13.5mm x 15mm (0.53" x 0.59")	4028-5007
	10.5mm x 10.5mm (0.41" x 0.41")	4028-5008
	12mm x 13.3 mm (0.47" x 0.52")	4028-5009
	8.7mm x 8.90mm (0.34" x 0.35")	4028-5010
	24.3mm x 24.3mm (0.96" x 0.96")	4028-5011
	39.2mm x 39.2mm (1.54" x 1.54")	4028-5012
	41.7mm x 41.7mm (1.64" x 1.64")	4028-5013
	30.3mm x 30.3mm (1.19" x 1.19")	4028-5014
	16.3mm x 16.3mm (0.64" x 0.64")	4028-5015
	20.3 mm x 20.3 mm (0.80" x 0.80")	4028-5016
	20.3mm x 20.3mm (0.80" x 0.80")	4028-5017 (short adapter)
	36.8mm x 36.8mm (1.45" x 1.45")	4028-5018
	18.3mm x 18.3mm (0.72" x 0.72")	4028-5019
	31.3mm x 31.3mm (1.23" x 1.23")	4028-5020
	28.3mm x 28.3mm (1.11" x 1.11")	4028-5021
	15.3mm x 15.3mm (0.60" x 0.60")	4028-5022
	13.2mm x 21.2mm (0.52" x 0.83")	4028-5023
	18.5mm x 18.5mm (0.73" x 0.73")	4028-5024
	17.8mm x 17.8mm (0.70" x 0.70")	4028-5025
	25.7mm x 25.7mm (1.01" x 1.01")	4028-5026
	29.3mm x 29.3mm (1.15" x 1.15")	4028-5027
	24.3mm x 31.6mm (0.96" x 1.24")	4028-5028
	42.3mm x 42.3mm (1.66" x 1.66")	4028-5029
	43.3mm x 43.3mm (1.70" x 1.70")	4028-5030
	21.3mm x 21.3mm (0.84" x 0.84")	4028-5032
	32.3mm x 32.3mm (1.24" x 1.24")	4028-5033
	46.8mm x 46.8mm (1.84" x 1.84")	4028-5034
	20.3 mm x 24mm (0.80" x 0.94")	4028-5035
	16.3mm x 16.3 (0.64" x 0.64")	4028-5036 (short adapter)
	20.3mm x 20.3mm (0.80" x 0.80")	4028-5037 (small cup)
	6mm x 8mm (0.24" x 0.32")	4028-5501
	6.55mm x 8mm (0.26" x 0.32")	4028-5502

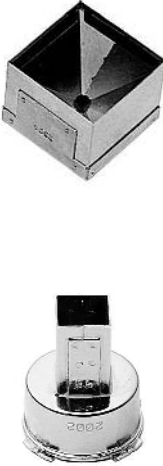
Hot Air Nozzles

Listed below are standard nozzles available from PACE. Custom nozzles can be designed and manufactured for special or non-standard applications. Contact PACE for more information.

Standard Nozzles

PATTERN NOZZLES	JET SPACING	JET LENGTH	PART NUMBERS
	4mm (0.16")	6.1mm (0.24")	4028-4001
	4mm (0.16")	10.9mm (0.43")	4028-4002
	7.9mm (0.31")	10.9mm (0.43")	4028-4003
	7.9mm (0.31")	13.5mm (0.53")	4028-4004
	7.9mm (0.31")	16mm (0.63")	4028-4005
	7.9mm (0.31")	18.5mm (0.73")	4028-4006
	11.7mm (0.46")	20.8mm (0.82")	4028-4007
	18.6mm (0.734")	11.68mm (0.460")	4028-4505
	10.4mm (0.41")	21.35mm (0.84")	4028-4506

SINGLE JET NOZZLES	SHAPE OF JET TUBING	NOZZLE SIZE (NOMINAL)	PART NUMBERS
	Curved, Round	3.0mm diameter (0.1" diameter)	4028-1001
	Curved, Round	8.0mm diameter (0.3" diameter)	4028-1003
	Straight, Round	3.0mm diameter (0.01" diameter)	4028-1011
	Straight, Round	5.0mm diameter (0.2" diameter)	4028-1012
	Straight, Round	8.0mm diameter (0.3" diameter)	4028-1013
	Flat Jet	13.2 mm length (0.52")	4028-1021
	Flat Jet	23.4mm length (0.92")	4028-1022

BOX NOZZLES	NOZZLE SIZE (NOMINAL)	PART NUMBERS
	8.6mm x 12.1 mm (0.34" x 0.48")	4028-2001
	10.3mm x 10.3mm (0.41" x 0.41")	4028-2002
	12.8mm x 12.8mm (0.51" x 0.51")	4028-2003
	12.8mm x 15.39mm (0.50" x 0.61")	4028-2004
	17.9mm x 17.9mm (0.70" x 0.70")	4028-2005
	20.5mm x 20.5mm (0.81" x 0.81")	4028-2006
	25.6mm x 25.6mm (1.01" x 1.01")	4028-2007
	30.6mm x 30.6mm (1.20" x 1.20")	4028-2008
	38.9mm x 38.9mm (1.53" x 1.53")	4028-2009
	18.2mm x 24.2mm (0.72" x 0.95")	4028-2501
	17.1mm x 17.1mm (0.67" x 0.67")	4028-2502
	27mm x 27mm (1.06" x 1.06")	4028-2503
	31.95mm x 31.95mm (1.26" x 1.26")	4028-2504
	31.6mm x 31.6mm (1.24" x 1.24")	4028-2505
	34.7mm x 34.7mm (1.37" x 1.37")	4028-2506
	27.2mm x 27.2mm (1.07" x 1.07")	4028-2602
	11.5mm x 11.5mm (0.453" x 0.453")	4028-3002
	15.5mm x 15.5mm (0.610" x 0.610")	4028-3004

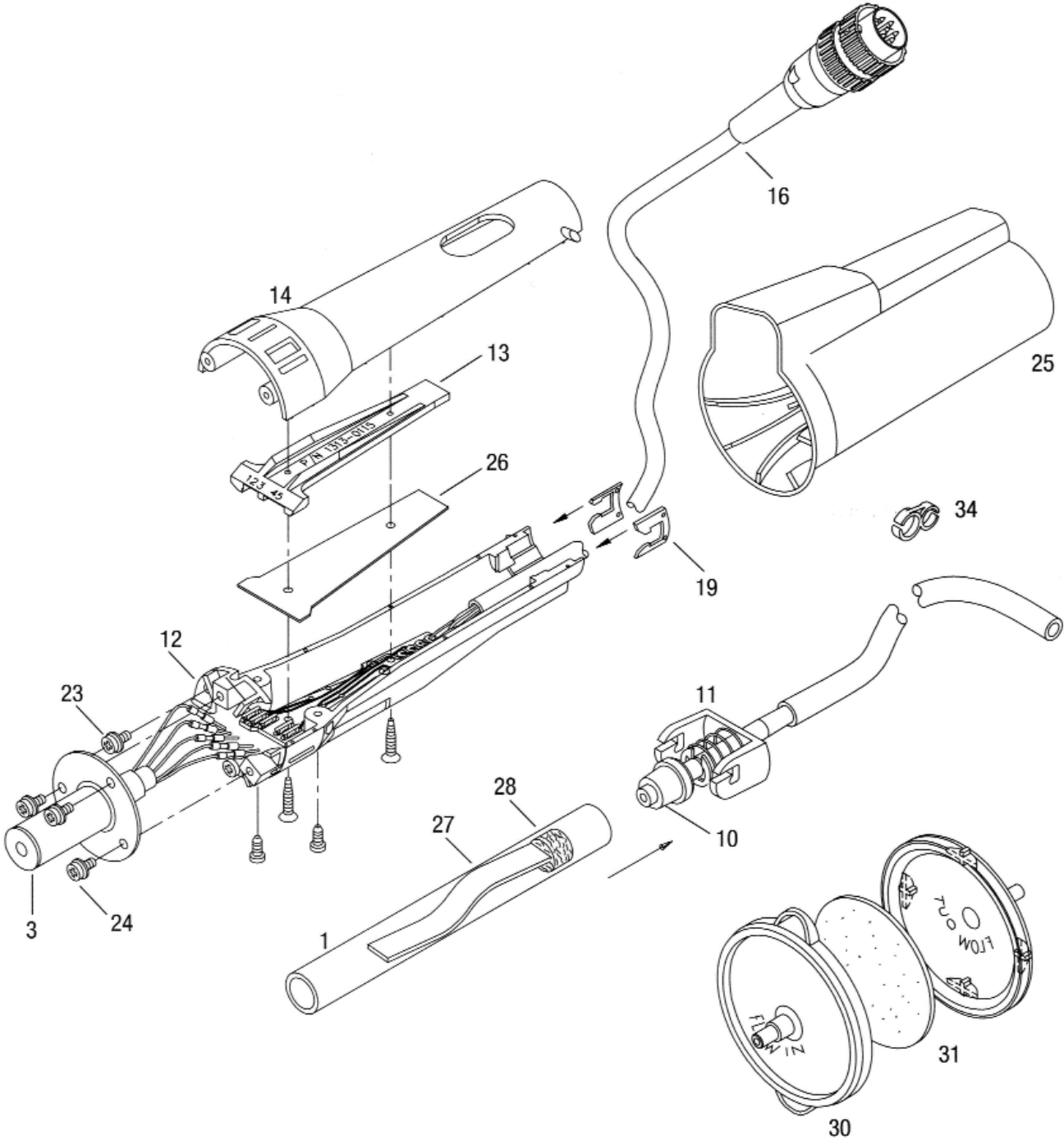
SX-70 Handpiece

SX-70 Replacement Parts Diagram



SX-70 parts Diagram

See page 12 for the description of parts



SX-70 Handpiece

SX-70 Replacement Parts



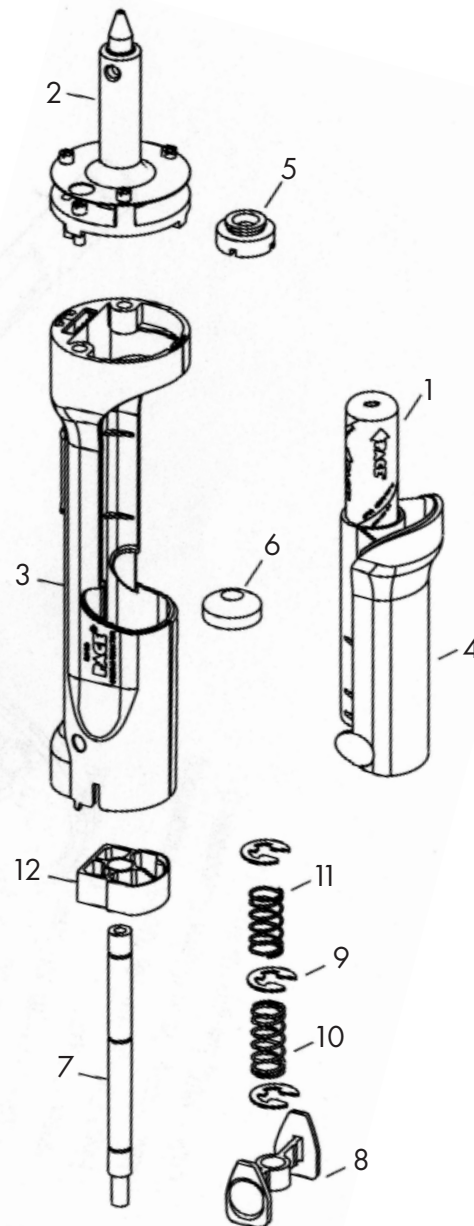
ITEM	DESCRIPTION	PART NUMBERS
1	Glass Chamber	1265-0009-P1
3	SX-70 Heater and Seal Assembly	6010-0080-P1
	Front Seal, Heater	1213-0033-P1
10	Rear Seal	1213-0001-P1
11	Rear Seal Retainer Assembly	4010-0106-P1
12	Heat Dissipator	1360-0005
13	PCB Guide Cover	1313-0115
14	Replacement Handle Kit (SX, TP, TJ) (includes Top/Bottom Plates, Heat Dissipator, and Hardware)	6993-0140
	Replacement Hardware Kit (SX, TP, TJ) (includes Screws and Handle Clips)	6993-0189-P1
16	Switch and Cord Assembly (SX-70 only)	4010-0098-P1
19	Handle Clips	1209-0006-P5
	Replacement Button	1119-0119-P1
23	Dissipator Mounting Screws (mounts dissipator to handle)	1405-0534-P3
24	Heater Mounting Screws, mounts heater to dissipator	1405-0395-P3
25	Thermal Insulative Handpiece Sleeve (optional)	1346-0065
26	Solder Shield (comes with the purchase of any Heater Assembly)	1213-0072-P10
27	"S" Baffle	4010-0033
28	Sodr-X-Tractor Filter	
	Package of 10	1309-0018-P10
	Package of 50	1309-0018-P50
	VisiFilter, Fixed	1309-0020-P1
30	VisiFilter, Replaceable	1309-0028-P1
31	Replaceable VisiFilter Elements	
	Package of 10	1309-0027-P10
	Package of 25	1309-0027-P25
	Package of 50	1309-0027-P50
	Tubing, Length 1370mm (54")	1342-0015-08
34	Black Hose Clamps	1321-0085-01-P6
	Hose Fitting, Female (Quick Disconnect)	1259-0086-P1
	Hose Fitting, Male (Quick Disconnect)	1259-0087-P1
	Tubing, Length (2 ") Translucent	1342-0001-01
	6 Conductor Cable Assembly	1332-0148

SX-80 Handpiece

SX-80 Replacement Parts



ITEM	DESCRIPTION	PART NUMBERS	
	SX-80 Handpiece	6010-0106-P1	
	SX-80 Kit (includes Handpiece, Tip & Tool Stand and Tip Tool)	6993-0213-P1	
	SX-80 Tip and Tool Stand	6019-0060-P1	
1	FLUX/SODR TRAP (Package of 10)	1309-0054-P10	
1	FLUX/SODR TRAP (Package of 100)	1309-0054-P100	
2	Heater Assembly	6010-0107 -P1	
3	Handle Assembly (Includes the Switch, PCB, and Cord Assembly)	6010-0115-P1	
4	Door Assembly	1119-0141-P1	
5	Front Seal	1213-0087-P1	
6	Rear Seal	1213-0086-P1	
7	Plunger Shaft	1261-0154-P1	
8	Plunger Lock	1500-0063-P1	
9	"C" Clips (3 pieces)	1348-0387-P3	
10	Spring "Long Side"	1221-0136-P1	
11	Spring "Short Side"	1221-0137 -P1	
12	Door Lock	1119-0142-P1	
	VisiFilter, Fixed	1309-0020-P1	
	VisiFilter, Replacement	1309-0028-P1	
	Replaceable VisiFilter Elements		
	Package of 10	1309-0027-P10	
	Package of 25	1309-0027-P25	
	Package of 50	1309-0027-P50	
	Tubing, 1370mm (54") Length Black	1342-0015-08	
	Hose Clamps	1321-0085-01-P6	
	Hose Fitting, Female (Quick Disconnect)	1259-0086-P1	
	Hose Fitting, Male (Quick Disconnect)	1259-0087 -P1	
	Tubing, Silicon, 2" Length	1342-0001-01	
	Heater Set Screws	1348-0547-P10	
	Button	1500-0064-P1	
	6 Conductor Cable Assembly	1332-0148	
	Heat Sleeve Kit	6993-0229-P1	
	Heat Sleeve Clip	1211-0064-P1	
	Glass Flux Solder Trap Kit	6000-0212-P1	
	V-Baffle (for Glass Chamber)	4010-0110-P2	
	Glass Chamber	1265-0011-P1	
	Sodr-X-Tractor Filters for Glass Chamber		
	Package of 10	1309-0018-P10	
	Package of 50	1309-0018-P50	

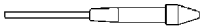
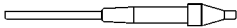
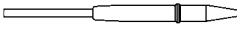
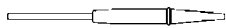


Endura Desoldering Tips

Tips Selection: One of the most important aspects for successful solder removal is the selection of the proper size tip. There are several points to keep in mind.

1. The Inside Diameter (I.D.) of the tip must be large enough to fit over the lead, while providing sufficient room so that air and solder can be drawn through the tip.
2. The Outside Diameter (O.D.) of the tip must be slightly smaller than the diameter of the pad to prevent tip contact to the board laminate and minimize the possibility of damage.

for the SX-80 and SX-70 - 3/16" Shank Diameter

TIPS	DESCRIPTION	DIAMETER	PART NUMBERS
  	Thermo-Drive	(0.76mm (0.030") I.D. X 2.03mm (0.080") O.D.	1121-0625-P5
	Thermo-Drive	1.02mm (0.040") I.D. X 2.29mm (0.090") O.D.	1121-0624-P5
	Thermo-Drive	1.52mm (0.060") I.D. X 3.05mm (0.120") O.D.	1121-0626-P5
	Thermo-Drive	2.29mm (0.090") I.D. X 5.1mm (0.200") O.D.	1121-0627-P5
	Thermo-Drive, Flathead	(0.050") x (0.090") I.D. X (0.110") X (0.190") O.D.	1121-0821-P5
	Extended Reach Thermo-Drive	0.78mm (0.030") I.D. X 2.29mm (0.090") O.D.	1121-0628-P5
	Extended Reach Thermo-Drive	1.02mm (0.040") I.D. X 2.54mm (0.10") O.D.	1121-0629-P5
	Extended Reach Thermo-Drive	1.52mm (0.060") I.D. X 3.05mm (0.120") O.D.	1121-0630-P5
	ThermoMax	0.76mm (0.030") I.D. X 1.91mm (0.075") O.D.	1121-0882-P5
	ThermoMax	1.02mm (0.040") I.D. X 2.20mm (0.085") O.D.	1121-0883-P5
	ThermoMax	1.52mm (0.060") I.D. X 2.69mm (0.106") O.D.	1121-0884-P5
	Precision	0.50mm (0.020") I.D. X 1.79mm (0.070") O.D.	1121-0680-P5
	Precision	0.76mm (0.030") I.D. X 2.03mm (0.080") O.D.	1121-0678-P5
	Precision	1.02mm (0.040") I.D. X 2.29mm (0.090") O.D.	1121-0679-P5
	Precision	1.52mm (0.060") I.D. X 2.79mm (0.110") O.D.	1121-0690-P5
 	Flo-D-Sodr	1.52mm (0.060") I.D. X 4.78mm (0.188") O.D.	1121-0631-P5
	Flo-D-Sodr, Precision	0.50mm (0.020") I.D. X 1.78mm (0.070") O.D.	1121-0681-P5
	Flo-D-Sodr, Precision	0.76mm (0.030") I.D. X 2.03mm (0.080") O.D.	1121-0682-P5
	Flo-D-Sodr, Precision	1.02mm (0.040") I.D. X 2.29mm (0.090") O.D.	1121-0683-P5

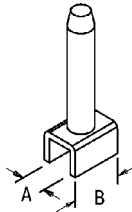
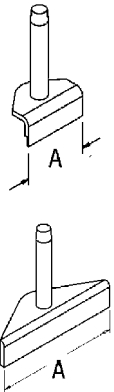
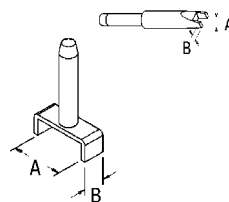
PS-90 Handpiece

Optional Items and Replacement Parts

PS-90 Universal Soldering Iron

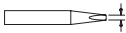
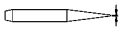
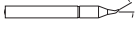
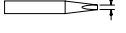
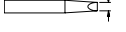
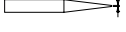
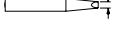
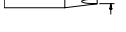
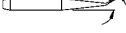
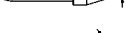
DESCRIPTION	PART NUMBERS
 PS-90 Soldering Iron Kit PS-90 Soldering Iron PS-90 Soldering Iron with 10' Cord PS-90N Kit PS-90N handpiece	6993-0199-P1
	6010-0131-P1
	6010-0096-01-P1
	6993-0275-P1
	6010-0116-P1
Replacement Parts	
PS-90 Heater Assembly (fits PS-80)	6010-0095-P1
PS-90N Heater Assembly	6010-0117-P1
PS-90 Heater Retaining Nut	1410-0122-P5
PS-90 Flared Ring	1500-0074-P5
PS-90 Flat Ring	1500-0076-P5

Surface Mount Removal Tips for PS-90

TIP (and application)	DESCRIPTION	TIP SIZE A x B	PART NUMBERS
	SOIC - 8 (JEDEC)	5.05mm x 5.08mm (0.199" x 0.200")	1121-0390-P1
	SOIC - 14 (JEDEC)	5.05mm x 8.99mm (0.199" x 0.354")	1121-0391-P1
	SOIC - 16 (JEDEC)	5.05mm x 10.2mm (0.199" x 0.404")	1121-0392-P1
	SOIC - 28 (EIAJ)	10.6mm x 17.5mm (0.416" x 0.690")	1121-0442-P1
	Flat Blade Tip	A = 7.6mm (0.3")	1121-0512-P1
		A = 10.2mm (0.4")	1121-0514-P1
		A = 12.7mm (0.5")	1121-0473-P1
		A = 17.8mm (0.7")	1121-0416-P1
		A = 20.3mm (0.8")	1121-0497-P1
		A = 25.4mm (1.0")	1121-0448-P1
	Chip Component	3.56mm x 2.03mm (0.14" x 0.08")	1121-0303-P1
	SOT-23	19.333mm x 8.1mm (0.76" x 0.32")	1121-0403-P1

Single Point Soldering Tips

The following tips fit the PS-90

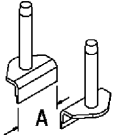
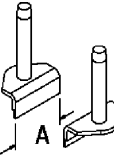
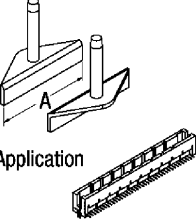
TIP	DESCRIPTION	SIZE	PART NUMBERS
	1/16" Chisel (High Capacity)	1.60mm (0.063")	1121-0414-P5
	1/64" Conical	0.40mm (0.016")	1121-0357-P5
	1/64" Sharp Bent Conical	0.40mm (0.016")	1121-0830-P5
	1/32" Conical	0.80mm (0.031")	1121-0336-P5
	1/16" Chisel	1.60mm (0.063")	1121-0335-P5
	1/16" Chisel Long Reach	1.60mm (0.063")	1121-0499-P5
	1/8" Chisel	3.20mm (0.125")	1121-0337-P5
	1/32" Chisel	0.80mm (0.031")	1121-0359-P5
	3/32" Chisel	2.40mm (0.094")	1121-0360-P5
	1/16" Chisel, Extended Reach	1.60mm (0.063")	1121-0533-P5
	1/64" Bent Conical	0.40mm (0.016")	1121-0363-P5
	1/64" Bent Conical	0.40mm (0.016")	1121-0828-P5
	1/32" Conical, Extended Reach	0.80mm (0.031")	1121-0527-P5
	3/16" Chisel	4.80mm (0.188")	1121-0358-P5
	1/16" Chisel (MicroFine)	1.60mm (0.063")	1121-0349-P5
	1/16" Chisel, Thermo-Drive	1.60mm (0.063")	1121-0510-P5
	1/32" Bent Chisel	0.80mm (0.031")	1121-0361-P5
	1/8" Chisel, Thermo-Drive	3.20mm (0.125")	1121-0518-P5
	3/32" Chisel, Extended Reach	2.40mm (0.094")	1121-0529-P5
	1/16" Bent Chisel, Long Reach	1.60mm (0.063")	1121-0500-P5
	1/64" Conical Long Reach	0.40mm (0.016")	1121-0528-P5
	Angled Mini-Wave, Fine Pitch	1.80mm (0.07")	1121-0564-P5
	Angled Mini-Wave	2.40mm (0.09")	1121-0610-P5
	Single-Sided Chisel, Fine Pitch	1.50mm (0.06")	1121-0563-P5
	Single-Sided Chisel	3.30mm (0.13")	1121-0406-P5
	Mini-Wave	3.30mm (0.13")	1121-0490-P5
	Flat Blade	6.60mm (0.25")	1121-0402-P1
	Flat Blade	10.2mm (0.40")	1121-0305-P5

TT-65 ThermoTweez Handpiece

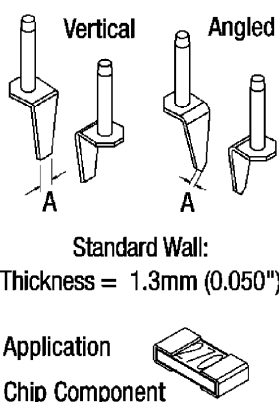
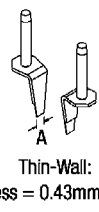
TT-65 ThermoTweez/Replacement Parts

DESCRIPTION	PART NUMBERS
	ThermoTweez Handpiece (shown)
	Heater Assembly, with Sensor
	Heater Assembly, without Sensor
	Cushion Grip Kit
	Pads for Cushion Grips
	Plastic Grip (2 ea.)
	Replacement Hinge Kit
	7025-0001-P1
	6010-0082-P1
	6010-0083-P1
	6993-0184
	1317-0029-P2
	1119-0123-P1
	6993-0156-P1

TT-65 ThermoTweez Handpiece Tips

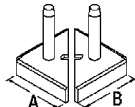
TIP	DESCRIPTION	TIP SIZE	PART NUMBERS
  Application	Narrow-body connectors, and SOIC Components	A=7.6mm (0.3") A=10.2mm (0.4")	1121-0512-P1 1121-0514-P1
 Application	SOIC, SOJ, SIMMs Component	A=12.7mm (0.5") A=17.8mm (0.7") A=20.3mm (0.8") A=25.4mm (1.0")	1121-0473-P1 1121-0416-P1 1121-0497-P1 1121-0448-P1

TT-65 ThermoTweez Handpiece Tips

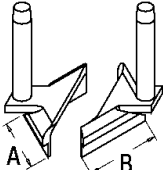
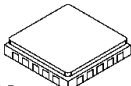
TIP	DESCRIPTION	TIP SIZE	PART NUMBERS
 Vertical Angled Standard Wall: Thickness = 1.3mm (0.050") Application Chip Component	Chip Component (vertical) Chip Component (vertical) Chip Component (vertical) Chip Component (vertical) Small SOIC	A=0.76mm (0.03") A=2.0mm (0.08") A=4.1mm (0.16") A=6.4mm (0.25")	1121-0398-P1 1121-0313-P1 1121-0399-P1 1121-0401-P1
 Thin-Wall: Thickness = 0.43mm (0.017")	Thin-Walled Chip Component (vertical) Thin-Walled Chip Component (vertical)	A=0.76mm (0.03") A=2.0mm (0.08")	1121-0520-P1 1121-0521-P1
 Application Chip Component	1/64" Angled Fine Point Conical Chip Component	A=0.43mm (0.017")	1121-0517-P1

TT-65 ThermoTweez Handpiece Tips

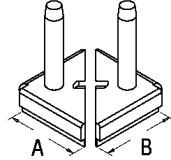
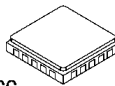
PLCC/PQFP Removal Tips

TIP	DESCRIPTION	TIP SIZE A x B	PART NUMBERS
 Standard Wall: Thickness = 1.3mm (0.050") Application PLCC  The ThermoTweez can also remove leadless components (LCCCs) if sized correctly. PQFP 	PLCC-20	6.86mm x 6.86mm (0.27" x 0.27")	1121-0316-P1
	PLCC-28	9.4mm x 9.4mm (0.37" x 0.37")	1121-0317-P1
	PLCC-32	12.2mm x 9.65mm (0.48" x 0.38")	1121-0352-P1
	PLCC-44, PQFP-84	14.5mm x 14.5mm (0.57" x 0.57")	1121-0318-P1
	PLCC-52, PQFP-100	17.0mm x 17.0mm (0.67" x 0.67")	1121-0319-P1
	PLCC-68, PQFP-132	21.9mm x 21.9mm (0.86" x 0.86")	1121-0320-P1
	PLCC-84, PQFP-160	26.9mm x 26.9mm (1.06" x 1.06")	1121-0321-P1

Thin-Walled Surface Mount Removal Tips

TIP	DESCRIPTION	TIP SIZE A x B	PART NUMBERS
 Application  LCCC	Removal Tips for Motorola Pager LCCC Packages and small, Fine-Pitch PQFPs	6.6mm x 6.6mm (0.26" x 0.26") 9.16mm x 8.89mm (0.40" x 0.35")	1121-0417-P1 1121-0425-P1
	Wall thickness = 0.025" (standard height = 0.275")		

LCCC Removal Tips

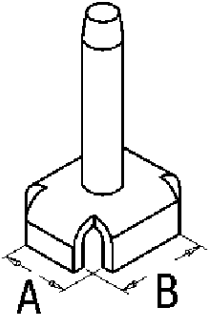
TIP	DESCRIPTION	TIP SIZE A x B	PART NUMBERS
 Application  LCCC	Removal Tips for LCCC Packages and small, Fine-Pitch PQFPs	8.89mm x 6.35mm (0.35" x 0.25") 21.6mm x 21.6mm (0.85" x 0.85")	1121-0452-P1 1121-0455-P1
	Wall thickness = 0.635mm (0.025") (reduced height = 0.2" for high mass boards)		

TP-65 ThermoPik Handpiece & Tips

TP-65 ThermoPik/Replacement Parts

HANDPIECE	DESCRIPTION	PART NUMBERS
	TP-65 ThermoPik Handpiece (shown)	7024-0001-P1
	Heater Assembly*	6010-0081-P1
	Handle Kit	6993-0140
	Hardware Kit	6993-0189-P1

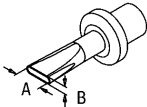
TP-65 ThermoPik Tips

TIP	DESCRIPTION	TIP SIZE	PART NUMBERS
 Application Flat Pack  Note: The TP-65 ThermoPik requires an SX Tip & Tool Stand.	FlatPack Tip	16.8mm x 22.9mm (0.66" x 0.90")	1121-0322-002-P1
	PQFP-68 Tip (bumper pack)	15.7mm x 15.7mm (0.62" x 0.62")	1121-0323-P1
	PQFP-64/80 (non-bumper pack)	15.7mm x 15.7mm (0.62" x 0.62")	1121-0484-P1
	PQFP-84 Tip	18.3mm x 18.3mm (0.72" x 0.72")	1121-0324-P1
	PQFP-100 Tip	20.8mm x 20.8mm (0.82" x 0.82")	1121-0325-P1
	PQFP-132 Tip	25.9mm x 25.9mm (1.02" x 1.02")	1121-0326-P1
	PQFP-144	29.2mm x 29.2mm (1.15" x 1.15")	1121-0456-P1
	PQFP-208	30.0mm x 30.0mm (1.18" x 1.18")	1121-0544-P1
	PQFP-160 Tip	31.0mm x 31.0mm (1.22" x 1.22")	1121-0351-P1
	PQFP-196	36.3mm x 36.3mm (1.43" x 1.43")	1121-0483-P1

TJ-70/80 ThermoJet Handpieces & Tips

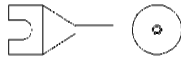
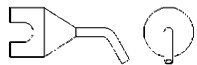
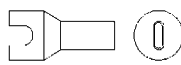
TJ-70 ThermoJet/Replacement Parts & Handpiece Tips

HANDPIECE	DESCRIPTION	PART NUMBERS
	TJ-70 ThermoJet Handpiece (shown)	7023-0002-P1
	Heater assembly	6010-0084-P1
	Handle Kit	6993-0140-P1
	Hardware Kit	6993-0189-P1
	*TJ-70 Heater Assembly is interchangeable with TJ-65 handpiece.	

TIP	DESCRIPTION	TIP SIZE A x B	PART NUMBERS
	Small, Straight, Single Jet Tip	0.060" I.D.	1121-0366-P1
	Small, Curved, Single Jet Tip	0.060" I.D.	1121-0338-P1
	SOIC Tip (dual-jet)	A = 4.32mm (0.17")	1121-0330-P1
	Flat End Tip	A = 7.11 mm (0.28") B = 1.88mm (0.074")	1121-0365-P1
		A = 6.10mm (0.24") B = 1.88mm (0.074")	1121-0371-P1

TJ-80 ThermoJet/Replacement Parts & Handpiece Tips

HANDPIECE	DESCRIPTION	PART NUMBERS
	Heater Retaining Nut, PS-70/90	1410-0122-P5
	Flared Ring (PS-70/90)	1500-0074-P5
	Heater Assembly, 51 Watts	6010-0143-P1

TIP	DESCRIPTION	TIP SIZE A x B	PART NUMBERS
	Straight Nozzle	0.06" Inner Diameter	1259-0129-P1
	Curved Nozzle	0.06" Inner Diameter, Bent 60 Degrees	1259-0130-P1
	Flat Nozzle	0.24" X 0.074" Inner flow Dimensions	1259-0131-P1

PACE Tip Kits

Many customers would like to try a variety of different tip shapes and sizes. PACE Tip Kits provide a variety of popular tip shapes and sizes. PACE offers nine Tip Kits for the SensaTemp family of handpieces.

PS-80/90 Soldering Iron Tip Kits

DESCRIPTION	TYPE/SIZE	PART NUMBERS
Chisel Tip Kit Includes one of each of the following tips:	1/16" Chisel 1/8" Chisel 3/32" Chisel 1/32" Bent Chisel 1/16" Thermo-Drive Chisel 3/16" Chisel Extended Reach Single Sided Chisel 1/8" Thermo-Drive Chisel	6993-0210 1121-0414 1121-0337 1121-0360 1121-0361 1121-0510 1121-0358 1121-0532 1121-0518

SX-80/SX-70 Desoldering Tip Kit

DESCRIPTION	TYPE/SIZE	PART NUMBERS
Endura Tip Kit Includes one of each of the following tips:	Thermo-Drive (0.030" I.D.) Thermo-Drive (0.040" I.D.) Thermo-Drive (0.060" I.D.) Thermo-Drive (0.090" I.D.) Precision (0.020" I.D.) Precision (0.030" I.D.) Precision (0.040" I.D.) Flo-D-Sodr (0.060" I.D.)	6993-0212 1121-0625 1121-0624 1121-0626 1121-0627 1121-0680 1121-0678 1121-0679 1121-0631

Tip Heater Cartridge Handpiece

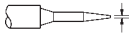
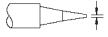
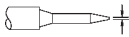
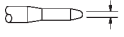
Optional Items and Replacement Parts

TD-100/Replacement Parts

HANDPIECE	DESCRIPTION	PART NUMBERS
	TD-100 Handpiece	6010-0132-P1
	TD-100 Tip & Tool Stand Kit (Includes TD-100 and Stand)	6993-0242-P1
	Replacement O-rings	1213-0090-P5
	Replacement Cord Assembly for TD-100 Handpiece	3008-0131-P1
	Cleaning Sponge, Tip & Tool Stands (SX, PS, SP)	4021-0008-P3
	Soft Grip & Cubby Kit	6993-0241-P1
	Replacement Soft Grips	1119-0161-P5
	TD-100 Tip & Tool Stand	6019-0068-P1
	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
	Instant SetBack Cubby tip and tool stand	6019-0071-P1

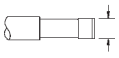
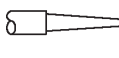
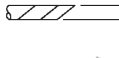
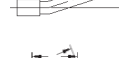
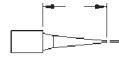
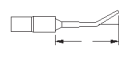
TD-100 Soldering Tips

TD-100 Soldering Tips

TIP	DESCRIPTION	PART NUMBERS
	1/32" Conical Sharp Extended	1124-0001-P1
	1/64" Conical Sharp	1124-0002-P1
	1/64" Conical Sharp Bent 30 Degrees	1124-0003-P1
	1/64" Conical Sharp Extended	1124-0004-P1
	1/32" Conical	1124-0005-P1
	3/128" Conical	1124-0006-P1
	1/16" 90 Degree Chisel	1124-0007-P1
	3/64" 30 Degree Chisel	1124-0008-P1
	3/64" 30 Degree Bevel	1124-0009-P1
	13/64" Chisel	1124-0010-P1
	1/64" 60 Degree Bevel	1124-0011-P1
	1/32" 30 Degree Chisel	1124-0012-P1
	3/32" 30 Degree Chisel	1124-0013-P1
	5/64" 60 Degree Bevel	1124-0014-P1
	1/64" Conical, Sharp, Bent 30 Degrees, Extended	1124-0015-P1
	3/64" Chisel Bent 30 Degrees	1124-0016-P1
	1/16" 60 Degree Chisel	1124-0017-P1
	1/32" Conical Sharp Extended	1124-0018-P1
	1/16" 30 Degree Chisel	1124-0019-P1
	1/8" 90 Degree Chisel	1124-0020-P1
	3/128" Conical Sharp Bent 30 Degrees	1124-0021-P1
	1/16" Conical Sharp	1124-0022-P1
	1/8" 90 Degree Chisel Extended	1124-0023-P1
	1/16" 30 Degree Bevel	1124-0024-P1
	1/16" Conical Sharp Extended	1124-0025-P1
	1/16" Chisel Bent 30 Degrees	1124-0026-P1
	3/128" Conical Sharp, Extended	1124-0027-P1
	3/64" Chisel, Bent 30 Degrees, Extended	1124-0028-P1
	1/32" 30 Degree Bevel	1124-0029-P1
	1/32" Conical Sharp	1124-0030-P1

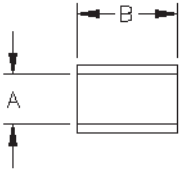
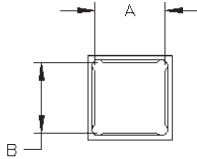
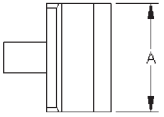
TD-100 Soldering Tips

TD-100 Soldering Tips

TIP	DESCRIPTION	PART NUMBERS
	Heat Staking	1124-0031-P1
	MiniWave	1124-0032-P1
	Angled MiniWave, 3.3 mm	1124-0033-P1
	Single Sided Chisel	1124-0034-P1
	Angled MiniWave, 2.4mm	1124-0035-P1
	1/128" Conical	1124-0036-P1
	1/4 Flat Blade	1124-0037-P1
	Single Sided Chisel, Fine Pitch	1124-0038-P1
	Angled MiniWave, Fine Pitch	1124-0039-P1
	MicroFine Single Sided Chisel, 0.9mm (.035")	1124-0040-P1
	MicroFine Single Sided Chisel, 1.1 mm (.045")	1124-0041-P1
	MicroFine Conical, 0.25mm (.01")	1124-0042-P1
	MicroFine Bent Conical, 0.75mm (.03")	1124-0043-P1
	MicroFine Bent Conical, 0.5mm (.02")	1124-0044-P1
	Angled Micro-Wave Tip	1124-0045-P1
	Micro-Wave Tip	1124-0046-P1
	Single Sided Chisel, (0.19")	1124-0048-P1
	Temperature Verification Tip (1/16" Chisel with T/C spot welded to tip)	7021-0008-P1

TD-100 Soldering Tips

TD-100 Surface Mount Removal Tips

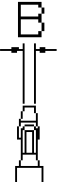
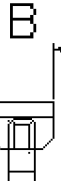
TIP	COMPONENT TYPE	DIMENSION A	DIMENSION B	PART NUMBERS
	Chip 402 Angle	2.2mm (.085")		1124-0518-P1
	Chip 1808	5mm (.195")		1124-0520-P1
	Chip 402	1mm (.04")		1124-0521-P1
	SOT 23	1.8mm (.07")		1124-0522-P1
	SOT 89	2.8mm (.11")		1124-0523-P1
	Chip 1206	3.6mm (.142")		1124-0524-P1
	Chip 0805	2.4mm (.095")		1124-0525-P1
	Chip 0201	1.22mm (.048")		1124-0533-P1
	Chip 0201	1.22mm (.048")		1124-0534-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")		1124-0501-P1
	Blade	16mm (.630")		1124-0502-P1
	Blade	21.2mm (.835")		1124-0503-P1
	Blade	25mm (.984")		1124-0532-P1
	Blade	6.7mm (.263")		1124-0536-P1

MT-100 Soldering Handpiece & Tips

MT-100/Replacement Parts

HANDPIECE	DESCRIPTION	PART NUMBERS
	MT-100 Handpiece	6010-0140-P1
	MT-100 Tip & Tool Stand Kit (Includes MT-100 and Stand)	6993-0243-P1
	Cleaning Sponge, Tip & Tool Stands (SX, PS, SP)	4021-0008-P3
	MT-100 Tip & Tool Stand	6019-0069-P1
	Soft Grip	1119-0165-P2

MT-100 Surface Mount Removal Tips

TIP	COMPONENT TYPE	DIMENSION A	DIMENSION B	PART NUMBERS
 	Chip	0.2mm (.008")	0.2mm (.008")	1124-1001-P1
	Chip	0.7mm (.03")	0.5mm (.02")	1124-1002-P1
	SOP 6	0.7mm (.03")	1mm (.04")	1124-1003-P1
 	SOP 8	0.7mm (.03")	2mm (.08")	1124-1004-P1
	SOP 10	0.7 mm (.03")	6mm (.24")	1124-1005-P1
	SOP 13	0.7mm (.03")	8mm (.31")	1124-1006-P1
 	SOP 18	0.7mm (.03")	10mm (.39")	1124-1007-P1
	SOP 28	0.7mm (.03")	13mm (.51")	1124-1008-P1
	SOIC, SOT, TSOPS	0.7mm (.03")	18mm (.74")	1124-1009-P1
	SOIC, SOT, TSOPS	0.7mm (.03")	28mm (1.09")	1124-1010-P1

SMR Handpieces

Optional Items and Replacement Parts



LF-15 LapFlo Pulse Heat Handpiece/Replacement Parts

HANDPIECE	DESCRIPTION	PART NUMBERS
	TLF-15 LapFlo Pulse Heat Handpiece (Static Dissipative)	7013-0004-02-P1
	LF-1 Single-Point SMD Soldering Tip (LapFlo)	6000-0008
	ThermoPart Coating Removal Tip	6000-0009
	LF-2 Multi-point SMD Soldering Tip (0.270")	1121-0298-P1
	LF-3 Multi-point SMD Soldering Tip (0.540")	1121-0299-P1
	LF-4 Multi-point SMD Soldering Tip (0.440")	1121-0300-P1
	Universal Power Cord	7000-0023

CT-15 ConducTweez Pulse Heat Handpiece /Replacement Parts

HANDPIECE	DESCRIPTION	PART NUMBERS
	CT-15 ConducTweez Pulse Heat Handpiece (Static Dissipative)	7020-0001-P1
	CT-1 Chip Component Tip	1121-0286-P1
	Guide Block Kit	6993-0105-P1
	CT-2 14, 16 lead SOIC Tip	1121-0271-P1
	CT-3 20 lead SOIC Tip	1121-0270-P1
	CT-4 24, 28 lead SOIC Tip	1121-0293-P1
	CT-5 SOT Tip	1121-0269-P1
	CT-6 Rounded End Auxiliary Heating Tip	1121-0004-P2
	Universal Power Cord	7000-0023
	Tip Mounting Screw	1405-0182-P5

TW-15 ResistTweez Pulse Heat Handpiece/Replacement Parts

HANDPIECE	DESCRIPTION	PART NUMBERS
	TW-15 ResisTweez Pulse Heat Handpiece (Static Dissipative)	7009-0005-P1
	Guide Block Kit	6993-0105-P1
	RT-1 18 Pin PLCC ThermoBond Tip	1121-0294-P1
	RT-2 20 Pin PLCC ThermoBond Tip	1121-0295-P1
	RT-3 28 Pin PLCC ThermoBond Tip	1121-0296-P1
	RT-4 44 Pin PLCC ThermoBond Tip	1121-0297-P1
	RT-5 Tapered Flat End Resistance Tips	1121-0301-P1
	RT-7 Flat End Resistance Tips	1121-0006-P2
	Universal Power Cord	7000-0023
	Tip Mounting Screw	1405-0182-P5

TS-15 StripTweez Pulse Heat Handpiece/Replacement Parts

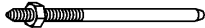
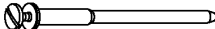
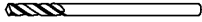
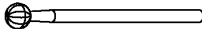
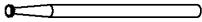
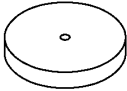
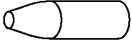
HANDPIECE	DESCRIPTION	PART NUMBERS
	TS-15 StripTweez Pulse Heat Handpiece (Static Dissipative)	7012-0002-P1
	Thermal Stripper Tips	1121-0003-P2
	Universal Power Cord	7000-0023
	Guide Block Kit	6993-0105-P1
	Tip Mounting Screw	1405-0106-P5

Handpieces

MicroChine Miniature Machining Handpiece/Replacement Parts

HANDPIECE	DESCRIPTION	PART NUMBERS
	MC-65 MicroChine Handpiece	7026-0001-P1
	Optional Items and Replacement Parts:	
	Deluxe Tool Kit (optional)	6005-0013-P1
	Probe Brake Patch Cord (PRC 2000 Systems Only)	1332-0159
	Collet Nut	4005-0012
	Collet 2.39mm (0.094") diameter - Standard Collet	4005-0014

MicroChine Miniature Machining Handpiece/Replacement Parts

ITEM	DESCRIPTION	PART NUMBERS	
2	Mandrel with Screw Top	1115-0001-P10	
4	Drill, 0.79mm (1/32")	1112-0031-P10	
4	Drill, 1.19mm (3/64")	1112-0032-P10	
4	Drill, 1.59mm (1/16")	1112-0033-P10	
4	Drill, 1.98mm (5/64")	1112-0034-P10	
4	Drill, 2.39mm (3/32")	1112-0035-P10	
5	Ball Mill, 0.40mm (1/64")	1112-0001-P10	
5	Ball Mill, 0.78mm (0.03")	1112-0010-P10	
5	Ball Mill, 0.79mm (1/32")	1112-0002-P10	
5	Ball Mill, 1.19mm (3/64")	1112-0003-P10	
5	Ball Mill, 1.59mm (1/16")	1112-0004-P10	
5	Ball Mill, 2.38mm (3/32")	1112-0005-P10	
5	Ball Mill, 3.18mm (1/8")	1112-0006-P10	
5	Ball Mill, 3.97mm (5/32")	1112-0007-P10	
5	Ball Mill, 4.75mm (3/16")	1112-0008-P10	
5	Ball Mill, 6.35mm (1/4")	1112-0009-P10	
6	Saw, 2.38mm (3/32"), Mounted	1112-0061-P10	
8	Abrasive Wheel 7/8 Red	1129-0001-P10	

Pik-Vac Handpiece/Replacement Parts

HANDPIECE	DESCRIPTION	PART NUMBERS
	PV-65 Pik-Vac Vacuum Wand u/c	7027-0001-P1
	HP-65 HandiPik (self-contained component handling wand)	7028-0001-P1
	Kit, 1 Small Vacuum Cup, 1 Medium Vacuum Cup,	6993-0154-P1
	1 Large Vacuum Cup and 3 Vacuum Needles	

Support Products

HS Heat Wave Systems



HS-200/Optional Items and Replacement Parts

DESCRIPTION	PART NUMBERS
5.5" Heating Plate	1335-0177
Flo-Pump assembly	1336-0034-P1
Replacement Heater Assembly (115V)	1283-0087-01-P1
Board Support (bottom side)	6993-0197-P1
Fuse, 1.0A (Domestic Systems only)	1159-0246-P5
Fuse, 0.5A (Export Systems only)	1159-0213-P5
Power Cord (Domestic Systems only)	1332-0094-P1
Power Cord (Export Systems only)	1332-0093-P1
Main Power Switch	1157-0052
Heat Shield	1335-0227
PV-65 Pik-Vac Vacuum Wand	7027-0001-P1

ST 400 and ST 450 & Replacement Parts

DESCRIPTION	PART NUMBERS
ST 400 System Power Supply (Domestic)	8007-0435
ST 400 System Power Supply (Export)	8007-0436
ST 450 System Power Supply (Domestic)	8007-0433
ST 450 System Power Supply (Export)	8007-0434
Power Cord, 115V	1332-0094
Power Cord, 230V	1332-0093
Fuse, 7 Amp, 125 V, Time Lag	1159-0274-P5
Fuse, 3.15 Amp, 250 V, Time Lag	1159-0221-P5
Fuse, 1.25 Amp, 250 V, Time Lag	1159-0251-P5
Fuse, 0.63 Amp, 250 V, Time Lag	1159-0252-P5
PCB ST 400 / 400E	6020-0193-P1
PCB ST 450 / 450E	6020-0198-P1
ST 400 Replacement Heater (Domestic)	3018-0128-P1
ST 400 Replacement Heater (Export)	3018-0129-P1
ST 450 Replacement Heater (Domestic)	6000-0291-P1
ST 450 Replacement Heater (Export)	6000-0292-P1
ST 450 Focus Nozzle 1.5" Square	4058-0001-P1
ST 450 Focus Nozzle 3.0" Square	4058-0002-P1
ST 450 Focus Nozzle 4.5" Square	4058-0003-P1

Support Products

PM 200 Process Monitor

DESCRIPTION		PART NUMBERS
	PM 200 Process Monitor (Dual Voltage) Replacement sensor pack of 10	8007-0464-P1 1285-0046-P1

Tip Temperature Monitor

DESCRIPTION		PART NUMBERS
	Tip Temperature Monitor (switches from °C to °F) Replacement Sensors (10 included per pack)	8001-0087-P1 1285-0046-P1

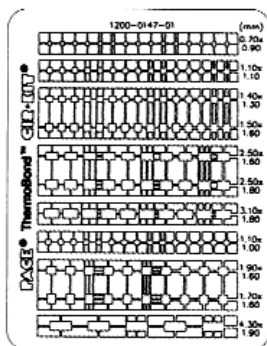
Support Products

ThermoBond Cir-Kits

DESCRIPTION	PART NUMBERS
ThermoBond Cir-Kit, Surface Mount Version Complete Consisting of: - ThermoBond Frames (solder plated on one side): - Chip Resistor/Capacitor - Inductors, MELFs, Tantalum Capacitors - SOTs - SOICs, TSOPs - PLCCs, LCCCs, SOJs, Ceramic QFPs, Basic Cir-Kit Material - and Dry Film Adhesive for Custom Shaping/Cutting - PQFPs Other Accessories: - Abrasive Stick, 1 piece - Kapton Tape, 12.7mm (0.5") x 76.2mm (3.0"), 10 pieces - Provis Kit (for cutting and scraping) - ThermoBond Tips	6993-0176 ThermoBond Cir-Kit Frames pictured on page 37 1200-0147-01-P1 1200-0148-01-P1 1200-0149-01-P1 1200-0150-01-P1 1200-0151-01-P1 1200-0152-01-P1 See spare parts on page 39 See spare parts on page 39 7016-0003-P1 ThermoBond Tips Part Numbers on page 38
ThermoBond Cir-Kit, Thru-Hole Version Complete Consisting of: - ThermoBond Frames (solder plated on one side): - Straight Run - Fine Traces - Variety Frame - Track Pad - DIP Pad - Lap/Trace Frames (solder plated on both sides): - Straight Run - Fine Traces Other Accessories: - Eyelets and Funnelets (#'s 4, 5, 6, 8, 10, 21) - Abrasive Stick, 1 piece - Kapton Tape, 12.7mm (0.5") x 76.2mm (3.0"), 10 pieces - Upper Setting Tool - Setting Tool Guide - Lower Setting Tool, Funnelet - Support Tool Base - Provis Kit (for cutting and scraping) - ThermoBond Tips	6993-0179 ThermoBond Cir-Kit Frames pictured on page 37 1200-0158-01-P1 1200-0159-01-P1 1200-0160-01-P1 1200-0161-01-P1 1200-0163-01-P1 ThermoBond Cir-Kit Frames pictured on page 37 1200-0164-03-P1 1200-0165-03-P1 Eyelets and Funnelets Part Numbers on page 40 See spare parts on page 39 See spare parts on page 39 6000-0051 6000-0054 1132-0017-P1 1321-0054 7016-0003-P1 ThermoBond Tips Part Numbers on page 38

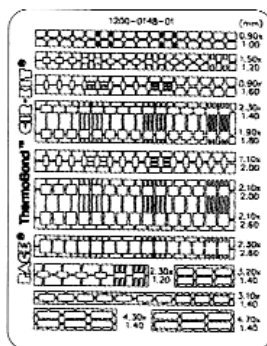
Support Products

ThermoBond Cir-Kits



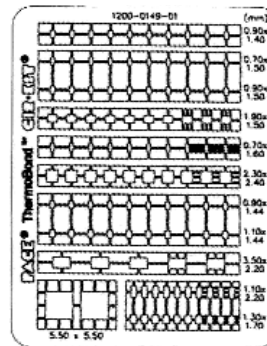
ROW	# OF PARTS	NOM. SIZE (mm)	SIZE ± .001 (IN)
1	15	0.7 x 0.9	.028 x .035
2	15	1.10 x 1.10	.043 x .043
3	15	1.40 x 1.30	.055 x .051
4	15	1.50 x 1.60	.059 x .063
5	10	2.50 x 1.60	.098 x .063
6	10	2.50 x 1.80	.098 x .071
7	10	3.10 x 1.80	.122 x .071
8	15	1.10 x 1.00	.043 x .039
9	10	1.90 x 1.60	.075 x .063
10	10	1.70 x 1.60	.067 x .075
11	5	4.30 x 1.90	.169 x .075

1200-0147-01-P1
Chip Resistor / Capacitor



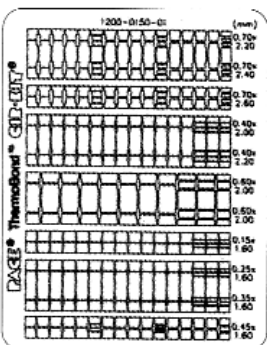
ROW	# OF PARTS	NOM. SIZE (mm)	SIZE ± .001 (IN)
1	15	0.9 x 1.0	.035 x .039
2	15	1.50 x 1.20	.059 x .047
3	15	0.9 x 1.60	.035 x .063
4	15	2.30 x 1.40	.091 x .055
5	15	1.90 x 1.80	.075 x .071
6	15	1.10 x 2.00	.043 x .079
7	15	2.10 x 2.00	.083 x .079
8	15	2.10 x 2.60	.083 x .102
9	15	2.30 x 2.60	.091 x .102
10	6	2.30 x 1.20	.091 x .047
10	6	3.20 x 1.40	.126 x .055
11	10	3.10 x 1.40	.122 x .055
12	6	4.30 x 1.40	.169 x .055
12	6	4.70 x 1.40	.185 x .055

1200-0148-01-P1
Inductors, MELFS, Tantalum Capacitors



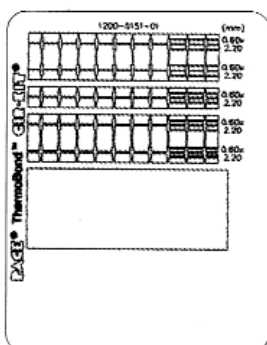
ROW	# OF PARTS	NOM. SIZE (mm)	SIZE ± .001 (IN)
1	10	0.9 x 1.40	.035 x .055
2	10	0.7 x 1.50	.028 x .059
3	10	0.9 x 1.50	.035 x .059
4	10	1.90 x 1.50	.075 x .059
5	10	0.7 x 1.60	.028 x .063
6	10	2.30 x 2.40	.091 x .094
7	10	0.9 x 1.44	.035 x .057
8	10	1.10 x 1.44	.043 x .057
9	5	3.50 x 2.20	.138 x .087
10	2	5.50 x 5.50	.217 x .217
11	10	1.10 x 2.20	.043 x .087
12	10	1.30 x 1.70	.051 x .067

1200-0149-01-P1
SOTs



ROW	# OF PARTS	NOM. SIZE (mm)	SIZE ± .001 (IN)
1	15	0.7 x 2.20	.028 x .087
2	15	0.7 x 2.40	.028 x .094
3	15	0.7 x 2.60	.028 x .102
4	15	0.4 x 2.00	.016 x .079
5	15	0.4 x 2.20	.016 x .087
6	10	0.6 x 2.00	.027 x .079
7	10	0.6 x 2.00	.024 x .079
8	15	0.15 x 1.60	.006 x .063
9	15	0.25 x 1.60	.010 x .063
10	15	0.35 x 1.60	.014 x .063
11	15	0.45 x 1.60	.018 x .063

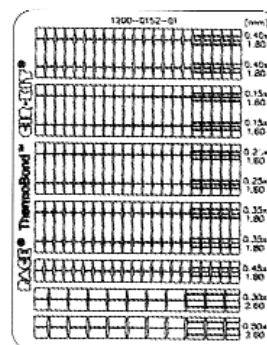
1200-0150-01-P1
SOICs, TSOPs



ROW	# OF PARTS	NOM. SIZE (mm)	SIZE ± .001 (IN)
1	10	0.6 x 2.20	.024 x .087
2	10	0.6 x 2.20	.024 x .087
3	10	0.6 x 2.20	.024 x .087
4	10	0.6 x 2.20	.024 x .087
5	10	0.6 x 2.20	.024 x .087
6	1	42.0 x 16.3	1.65 x .642
7	1	42.0 x 16.3	1.65 x .642

Row 6 is just adhesive only

1200-0151-01-P1
PLCCs, LCCCs, Ceramic QFPs

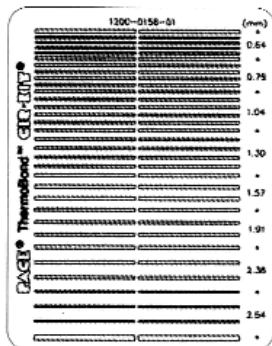


ROW	# OF PARTS	NOM. SIZE (mm)	SIZE ± .001 (IN)
1	20	0.4 x 1.80	.016 x .071
2	20	0.4 x 1.80	.016 x .071
3	20	0.15 x 1.60	.006 x .063
4	20	0.15 x 1.60	.006 x .063
5	20	0.25 x 1.60	.010 x .063
6	20	0.25 x 1.60	.010 x .063
7	20	0.35 x 1.80	.014 x .071
8	20	0.35 x 1.80	.014 x .071
9	20	0.45 x 1.80	.018 x .071
10	10	0.30 x 2.60	.012 x .102
11	10	0.50 x 2.60	.020 x .102

1200-0152-01-P1
PQFPs

Support Products

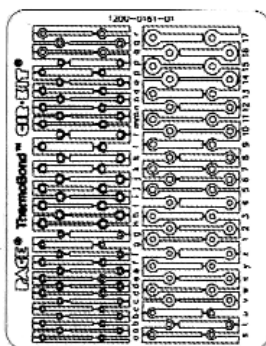
ThermoBond Cir-Kits



ROW	# OF TRACES	TRACE WIDTH NOM. (mm)	TRACE WIDTH ± .001 (IN)
1	5	0.64	0.025
2	5	0.79	0.031
3	5	1.04	0.041
4	5	1.3	0.051
5	3	1.57	0.062
6	3	1.91	0.075
7	3	2.36	0.093
8	3	2.54	0.1

1200-0158-01-P1

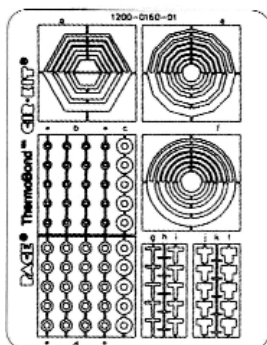
Straight Run



1200-0161-01-P1

Fine Traces

SEC.	# OF TRACES & PADS	TRACK WIDTH ± .001 (IN)	TRACK WIDTH (mm) NOM.	PAD SIZE I.D. ± .001 (IN)	PAD SIZE I.D. (mm) NOM.	PAD SIZE O.D. ± .001 (IN)	PAD SIZE O.D. (mm) NOM.
A	4	0.02	0.51	0.033	0.084	0.05	1.27
B	4	0.025	0.64	0.033	0.084	0.05	1.27
C	4	0.031	0.79	0.033	0.084	0.05	1.27
D	4	0.02	0.51	0.033	0.084	0.062	1.57
E	4	0.025	0.64	0.033	0.084	0.062	1.57
F	4	0.031	0.79	0.033	0.084	0.062	1.57
G	4	0.05	1.27	0.033	0.084	0.062	1.57
H	4	0.02	0.51	0.049	1.24	0.075	1.91
I	4	0.025	0.64	0.049	1.24	0.075	1.91
J	4	0.031	0.79	0.049	1.24	0.075	1.91
K	4	0.05	1.27	0.049	1.24	0.075	1.91
L	4	0.062	1.57	0.049	1.24	0.075	1.91
M	4	0.02	0.51	0.04	1.02	0.062	1.57
N	4	0.025	0.64	0.04	1.02	0.062	1.57
O	4	0.031	0.79	0.04	1.02	0.062	1.57
P	4	0.05	1.27	0.04	1.02	0.062	1.57
Q	4	0.02	0.51	0.04	1.02	0.075	1.91
R	2	0.025	0.64	0.04	1.02	0.075	1.91
S	2	0.031	0.79	0.04	1.02	0.075	1.91
T	2	0.05	1.27	0.04	1.02	0.075	1.91
U	2	0.062	1.57	0.04	1.02	0.075	1.91
V	2	0.02	0.51	0.04	1.02	0.093	2.36
W	2	0.025	0.64	0.04	1.02	0.093	2.36
X	2	0.031	0.79	0.04	1.02	0.093	2.36
Y	2	0.05	1.27	0.04	1.02	0.093	2.36
Z	2	0.062	1.57	0.04	1.02	0.093	2.36
1	2	0.025	0.64	0.04	1.02	0.1	2.54
2	2	0.031	0.79	0.04	1.02	0.1	2.54
3	2	0.05	1.27	0.04	1.02	0.1	2.54
4	2	0.062	1.57	0.04	1.02	0.1	2.54
5	2	0.02	0.51	0.049	1.24	0.062	1.57
6	2	0.025	0.64	0.049	1.24	0.093	2.36
7	2	0.031	0.79	0.049	1.24	0.093	2.36
8	2	0.05	1.27	0.049	1.24	0.093	2.36
9	2	0.062	1.57	0.049	1.24	0.093	2.36
10	2	0.025	0.64	0.049	1.24	0.1	2.54
11	2	0.031	0.79	0.049	1.24	0.1	2.54
12	2	0.05	1.27	0.049	1.24	0.1	2.54
13	2	0.062	1.57	0.049	1.24	0.1	2.54
14	2	0.025	0.64	0.049	1.24	0.125	3.18
15	2	0.031	0.79	0.049	1.24	0.125	3.18
16	2	0.05	1.27	0.049	1.24	0.125	3.18
17	2	0.062	1.57	0.049	1.24	0.125	3.18



SEC.	# OF TRACES	TRACE WIDTH ± .001 (IN)	TRACK WIDTH (mm) NOM.
F	2	0.005	0.13
	3	0.01	0.25
	2	0.02	0.51
	2	0.031	0.79
	1	0.05	0.127
	1	0.062	0.158

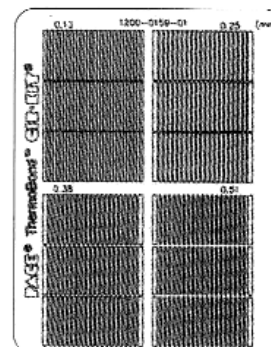
SEC.	# OF TRACES	TRACK WIDTH ± .001 (IN)	TRACK WIDTH (mm) NOM.
A	3	0.005	0.13
	2	0.01	0.25
	1	0.02	0.51
	1	0.031	0.79
	1	0.05	0.127
	1	0.062	0.158
E	2	0.005	0.13
	3	0.01	0.25
	2	0.02	0.51
	2	0.031	0.79
	1	0.05	0.127
	1	0.062	0.158

SEC.	# OF TRACES	TRACK WIDTH ± .001 (IN)	TRACK WIDTH (mm) NOM.
G	5	0.02	0.51
H	5	0.01	0.25
I	5	0.031	0.79
J	5	0.05	1.27
K	5	0.01	0.25
L	5	0.062	1.58

SEC.	# OF TRACES	ID ± .001 (IN)	ID (mm) NOM.	OD ± .001 (IN)	OD (mm) NOM.
B	20	0.031	0.79	0.062	0.158
C	20	0.051	0.13	0.125	3.18
D	10	0.051	0.13	0.093	2.36

1200-0160-01-P1

Variety Frame



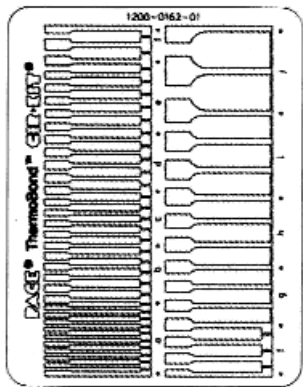
SEC.	# OF TRACES	TRACE WIDTH NOM. (mm)	TRACE WIDTH ± .001 (IN)
1	29	0.127	0.005
2	20	0.381	0.015
3	20	0.254	0.01
4	20	0.508	0.02

1200-0159-01-P1

Fine Traces

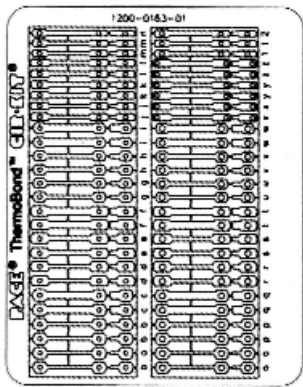
Support Products

ThermoBond Cir-Kits



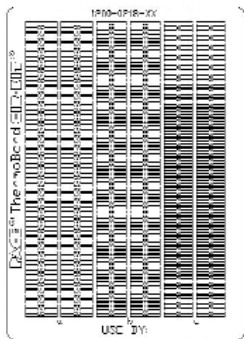
SEC.	# OF PADS	WIDTH OF PAD $\pm$.001(IN)	WIDTH OF PAD (mm) NOM.	WIDTH OF TRACK $\pm$.001(IN)	WIDTH OF TRACK (mm) NOM.
A	10	0.031	0.79	0.02	0.51
B	5	0.051	1.3	0.025	0.64
C	5	0.051	1.3	0.031	0.79
D	5	0.062	1.57	0.031	0.79
E	5	0.062	1.57	0.041	1.04
F	5	0.08	2.03	0.041	1.04
G	3	0.1	2.54	0.051	1.3
H	3	0.125	3.18	0.062	1.57
I	3	0.156	3.96	0.062	1.57
J	2	0.25	6.35	0.093	2.36

1200-0162-02-P1
Edge Connector (Gold Plated)



SEC.	# OF PADS	TRACK WIDTH $\pm$.001(IN)	TRACK WIDTH (mm) NOM.	PAD SIZE L.D. $\pm$.001(IN)	PAD SIZE L.D. (mm) NOM.	PAD SIZE O.D. $\pm$.001(IN)	PAD SIZE O.D. (mm) NOM.	PAD WIDTH $\pm$.001(IN)	PAD WIDTH (mm) NOM.
A	6	0.02	0.51	0.031	0.79	0.1	0.254	0.08	2.03
B	6	0.025	0.64	0.031	0.79	0.1	0.254	0.08	2.03
C	6	0.05	1.27	0.031	0.79	0.1	0.254	0.08	2.03
D	6	0.025	0.64	0.031	0.79	0.125	3.18	0.07	1.78
E	6	0.031	0.79	0.031	0.79	0.125	3.18	0.07	1.78
F	6	0.05	1.27	0.031	0.79	0.125	3.18	0.07	1.78
G	6	0.025	0.64	0.031	0.79	0.09	2.29	0.07	1.78
H	6	0.031	0.79	0.031	0.79	0.09	2.29	0.07	1.78
I	6	0.05	1.27	0.031	0.79	0.09	2.29	0.07	1.78
J	6	0.025	0.64	0.031	0.79	0.125	3.18	0.05	1.27
K	6	0.031	0.79	0.031	0.79	0.125	3.18	0.05	1.27
L	6	0.031	0.79	0.031	0.79	0.125	3.18	0.05	1.27
M	6	0.025	0.64	0.031	0.79	0.125	3.18	0.041	1.04
N	3	0.031	0.79	0.031	0.79	0.125	3.18	0.041	1.04
O	6	0.02	0.51	0.041	1.04	0.1	2.54	0.08	2.03
P	6	0.025	0.64	0.041	1.04	0.1	2.54	0.08	2.03
Q	6	0.05	1.27	0.041	1.04	0.1	2.54	0.08	2.03
R	6	0.025	0.64	0.041	1.04	0.125	3.18	0.07	1.78
S	6	0.031	0.79	0.041	1.04	0.125	3.18	0.07	1.78
T	6	0.05	1.27	0.041	1.04	0.125	3.18	0.07	1.78
U	6	0.025	0.64	0.041	1.04	0.09	2.29	0.07	1.78
V	6	0.031	0.79	0.041	1.04	0.09	2.29	0.07	1.78
W	6	0.05	1.27	0.041	1.04	0.09	2.29	0.07	1.78
X	6	0.025	0.64	0.031	0.79	0.125	3.18	0.05	1.27
Y	6	0.031	0.79	0.031	0.79	0.125	3.18	0.05	1.27
Z	6	0.031	0.79	0.031	0.79	0.125	3.18	0.05	1.27
1	6	0.025	0.64	0.031	0.79	0.125	3.18	0.041	1.04
2	3	0.031	0.79	0.031	0.79	0.125	3.18	0.041	1.04

1200-0163-01-P1
Dip Pad

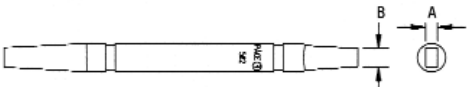


SEC.	PAD SIZE DIA $\pm$.001(IN)	PAD SIZE DIA (mm) NOM.	WIDTH OF TRACK $\pm$.001(IN)	WIDTH OF TRACK (mm) NOM.
A	0.03	0.76	0.008	0.2
B	0.023	0.58	0.008	0.2
C	0.017	0.43	0.008	0.2

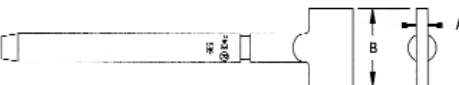
1200-0218-01-P1
BGA Variety

ThermoBond Tips

Double Sided Tips

TIP	DESCRIPTION	PART NUMBERS
	3.2mm (0.125") diameter & 2mm x 3mm (0.08" x 0.12") Rectangle (A x B)	1121-0582-P1

Single Sided Tips

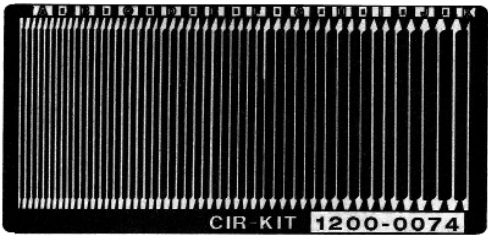
TIP	DESCRIPTION	PART NUMBERS
	0.79mm x 12.7mm (0.031" x 0.5") Rectangle (A x B)	1121-0586-P1
	1.9mm x 13.46mm (0.075" x 0.53") Rectangle (A x B)	1121-0589-P1

Support Products

Cir-Kit Replacement Parts

DESCRIPTION	PART NUMBERS
Setting Tool Assembly, Upper Setting Tool	6000-0051
Setting Tool Guide	6000-0054
Support Tool Base	1321-0054
Edge Connector Clamp Assembly	6000-0130
Bonding Kit	6999-0005
Kapton Tape, 12.7mm (0.5") x 76.2mm (3.0") 25 pieces	1289-0016-01 P25

Non-ThermoBond Cir-Kits Frames

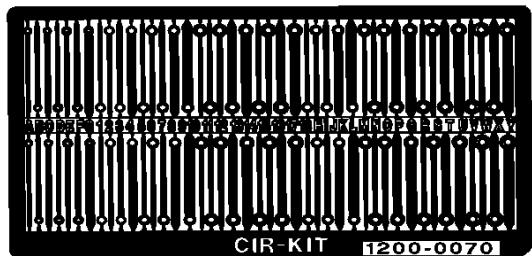


Straight Run Frame
1200-0074-P1

RUN TABULATION CHART		
RUN DESIGNATIONS	RUN WIDTH	# OF RUNS
A	0.015	9
B	0.02	6
C	0.025	6
D	0.031	6
E	0.041	6
F	0.051	6
G	0.062	6
H	0.075	4
J	0.093	3
K	0.1	4

Support Products

Non-ThermoBond Cir-Kits Frames

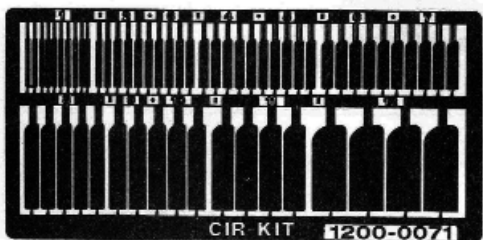
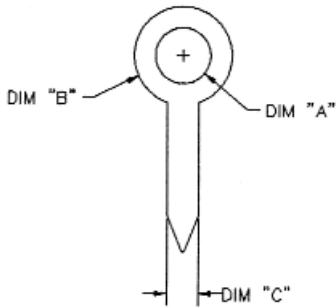


Track Pad Frame, (Selector Type) 1200-0070-P1
Track-Pad Frame, choice of one size on the above frame

B, G, (letter size)
↓
1200-0011 _

An example would be 1200-0011 B.
This would be a frame containing pad B only.

PAD TABULATION CHART							
PAD DESIGNATION	"A"	"B"	"C"	PAD DESIGNATION	"A"	"B"	"C"
B	0.033	0.051	0.025	1	0.041	0.062	0.02
G	0.033	0.062	0.051	2	0.041	0.062	0.025
				3	0.041	0.062	0.031
				4	0.041	0.062	0.051
				5	0.041	0.075	0.02
				6	0.041	0.075	0.025
				7	0.041	0.075	0.031
				8	0.041	0.075	0.051
				9	0.041	0.075	0.062
				10	0.041	0.093	0.02
				11	0.041	0.093	0.025
				12	0.041	0.093	0.031
				13	0.041	0.093	0.051
				14	0.041	0.093	0.062
				15	0.041	0.1	0.025
				16	0.041	0.1	0.031
				17	0.041	0.1	0.051
				18	0.041	0.1	0.062



Edge Connector Frame
1200-0071-P1

EDGE CONNECTOR TABULATION CHART			
CONNECTOR DESIGNATION	"A" WIDTH	"B" WIDTH	# OF CONNECTORS
1	0.031	0.02	10
2	0.051	0.025	5
3	0.051	0.031	5
4	0.062	0.031	5
5	0.062	0.041	5
6	0.08	0.041	5
7	0.08	0.041	5
8	0.1	0.051	5
9	0.125	0.051	2
10	0.125	0.062	3
11	0.156	0.062	4
12	0.25	0.093	4

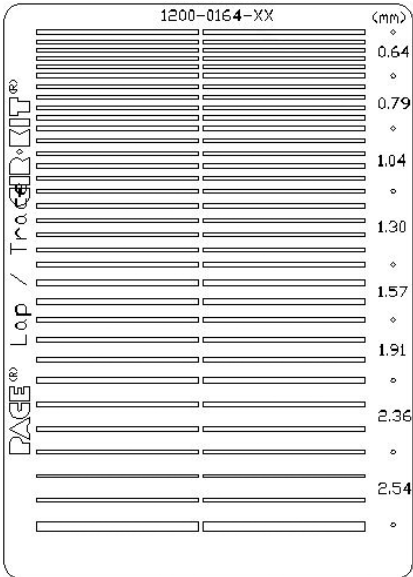


* These Frames do not have a dry-film adhesive backing

NOTE: Dimensions are ± .003"

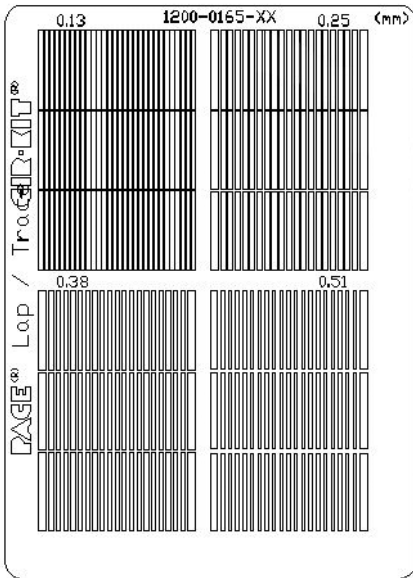
Support Products

Non-ThermoBond Cir-Kits Frames



Lap / Trace (Straight) 1200-0164-03-P1

SEC.	# OF TRACES	TRACE WIDTH NOM. (mm)	TRACE WIDTH ± .001 (IN)
1	29	0.127	0.005
2	20	0.381	0.015
3	20	0.254	0.01
4	20	0.508	0.02



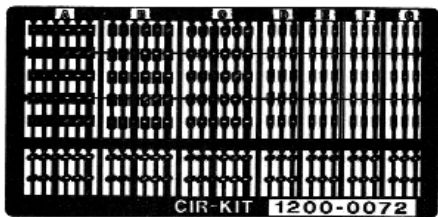
Lap / Trace (Fine) 1200-0165-03-P1

ROW	# OF TRACES	TRACE WIDTH NOM. (mm)	TRACE WIDTH ± .001 (IN)
1	5	0.64	0.025
2	5	0.79	0.031
3	5	1.04	0.041
4	5	1.3	0.051
5	3	1.57	0.062
6	3	1.91	0.075
7	3	2.36	0.093
8	3	2.54	0.1

* These Frames do not have a dry-film adhesive backing

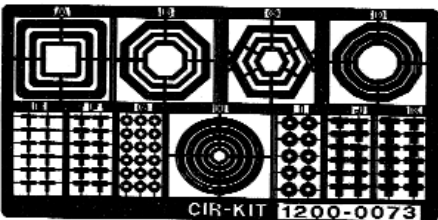
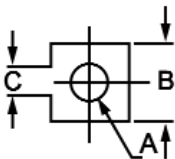
Support Products

Non-ThermoBond Cir-Kits Frames



Dip Pad Frame 1200-0072-P1

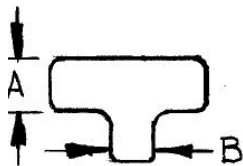
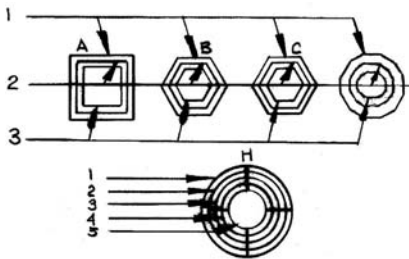
DIP PAD TABULATION CHART				
FRAME DESIGNATION	"A" WIDTH	"B" Width		"B" WIDTH
		RECT. PADS	ROUND PADS	
A1	0.031	0.08	0.07	0.02
A2	0.031	0.08	0.07	0.025
A3	0.031	0.08	0.07	0.05
A4	0.041	0.08	0.07	0.02
A5	0.041	0.08	0.07	0.025
A6	0.041	0.08	0.07	0.05
B1	0.031	0.07	0.07	0.025
B2	0.031	0.07	0.07	0.031
B3	0.031	0.07	0.07	0.05
B4	0.041	0.07	0.07	0.025
B5	0.041	0.07	0.07	0.031
B6	0.041	0.07	0.07	0.05
C1	0.031	0.07	0.07	0.025
C2	0.031	0.07	0.07	0.031
C3	0.031	0.07	0.07	0.05
C4	0.041	0.07	0.07	0.025
C5	0.041	0.07	0.07	0.031
C6	0.041	0.07	0.07	0.05
D1	0.041	0.05	0.062	0.025
D2	0.031	0.05	0.062	0.031
D3	0.031	0.05	0.062	0.031
E1	0.031	0.05	0.062	0.025
E2	0.031	0.05	0.062	0.031
E3	0.031	0.05	0.062	0.031
F1	0.031	0.05	0.062	0.02
F2	0.031	0.05	0.062	0.031
F3	0.031	0.05	0.062	0.031
G1	0.031	0.041	0.062	0.025
G2	0.031	0.041	0.062	0.031
G3	0.031	0.041	0.062	0.031



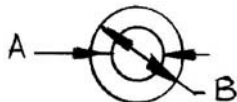
Dip Pad Frame 1200-0073-P1

FRAME DESIGNATION	ANGLE TRACK TABULATION CHART				
	Track Width				
	1	2	3	4	5
A	0.062	0.051	0.031		
B	0.062	0.051	0.031		
C	0.062	0.051	0.031		
D	0.062	0.051	0.031		
H	0.062	0.051	0.031	0.031	0.02

"T" TABULATION CHART			
FRAME DESIGNATION	"A" WIDTH	"B" WIDTH	# OF T'S
E	0.02	0.02	12
F	0.061	0.031	12
K	0.051	0.051	12
L	0.062	0.062	12



PAD TABULATION CHART			
FRAME DESIGNATION	"A" WIDTH	"B" WIDTH	# OF PADS
G	0.051	0.093	18
J	0.051	0.125	10



* These Frames do not have a dry-film adhesive backing

Support Products

Non-ThermoBond Cir-Kits

DESCRIPTION	PART NUMBERS
Cir-Kit, Basic Version (A Selection for Mixed Technology Repairs) Complete Consisting of: - Track Pad Frame (Selector Type) - Straight Run Frame Other Accessories: - Eyelets and Funnelets (qty of 100 each in kits) - Setting Tool Assembly, Upper Setting Tool - Support Tool, Lower Setting Tool - Support Tool Base	6993-0037 1200-0070-P1 1200-0074-P1 1347-0013-P100 1347-0016-P100 1347-0007-P100 1347-0009-P100 6000-0051 1132-0017-P1 1321-0054
Cir-Kit, Advanced Version Complete Consisting of: - Cir-Kit Frames - Track Pad Frame (Selector Type) - Straight Run Frame - Dip Pad Frame - Variety Frame (Angles, T's, Pads) Other Accessories: - Eyelets and Funnelets (qty of 100 each in kits) - Abrasive Stick - Setting Tool Assembly, Upper Setting Tool - Setting Tool Guide - Support Tool, Lower Setting Tool - Support Tool Base	6993-0077 1200-0070-P1 1200-0074-P1 1200-0072-P1 1200-0073-P1 1347-0013-P100 1347-0016-P100 1347-0007-P100 1347-0009-P100 1347-0010-P100 1347-0051-P100 1347-0053-P100 1129-0014 6000-0051 6000-0054 1132-0017-P1 1321-0054

Support Products

Non-ThermoBond Cir-Kits and Stencils

DESCRIPTION	PART NUMBERS
Cir-Kit, Master Version	6993-0082
Complete Consisting of:	
Cir-Kit Frames	
Track Pad Frame (Selector Type)	1200-0070-P1
Straight Run Frame	1200-0074-P1
Dip Pad Frame	1200-0072-P1
Variety Frame (Angles, T's, Pads)	1200-0073-P1
Edge Connector Frame	1200-0071-P1
Other Accessories:	
Eyelets and Funnelets	1347-0013-P100
(qty of 100 each in kits)	1347-0016-P100
	1347-0007-P100
	1347-0009-P100
	1347-0010-P100
	1347-0051-P100
	1347-0053-P100
Adhesive Kit	1239-0011
Abrasive Stick	6000-0130
Edge Connector Clamp Assembly	1129-0014
Setting Tool Assembly, Upper Setting Tool	6000-0051
Setting Tool Guide	6000-0054
Support Tool, Lower Setting Tool	1132-0017-P1
Support Tool Base	1321-0054

Stenciling Kits - Requires Stencil Bracket Kit (Part Number 6993-0248)

OPTIONAL STENCIL	PART NUMBERS	OPTIONAL STENCIL	PART NUMBERS
Stencil, 35mm x 388	1035-0388-P1	Stencil, 13mm x 144	1013-0144-P1
Stencil, 35mm x 456	1035-0456-P1	Stencil, 13mm x 64	1013-0064-P1
Stencil, 35mm x 313	1035-0313-P1	Stencil, 12mm x 144	1012-0144-P1
Stencil, 35mm x 352	1035-0352-P1	Stencil, 12mm x 160	1012-0160-P1
Stencil, 35mm x 480	1035-0480-P1	Stencil, 11mm x 8 x 72	1011-0072-P1
Stencil, 27mm x 352	1027-0352-P1	Stencil, 40mm x 503	1040-0503-P1
Stencil, 27mm x 316	1027-0316-P1	Stencil, 40mm x 432	1040-0432-P1
Stencil, 27mm x 225	1027-0225-P1	Stencil, 25mm x 357	1025-0357-P1
Stencil, 27mm x 256	1027-0256-P1	Stencil, 25mm x 360	1025-0360-P1
Stencil, 27mm x 272	1027-0272-P1	Stencil, 19mm x 225	1019-0225-P1
Stencil, 27mm x 292	1027-0292-P1	Stencil, 19mm x 52	1019-0052-P1
Stencil, 27mm x 324	1027-0324-P1	Stencil, 16.5 x 8 x 52	1016-0052-P1
Stencil, 27mm x 328	1027-0328-P1	Stencil, 33mm x 503	1033-0503-P1
Stencil, 27mm x 336	1027-0336-P1	Stencil, 14 x 22 x 119	1014-0119-P1
Stencil, 23mm x 169	1023-0169-P1	Stencil, 4mm x 24	1004-0024-P1
Stencil, 23mm x 288	1023-0288-P1	Stencil, 4mm x 28	1004-0028-P1
Stencil, 23mm x 324	1023-0324-P1	Stencil, 4mm x 24	1004-2024-P1
Stencil, 23mm x 208	1023-0208-P1	Stencil, 31mm x 304	1031-0304-P1
Stencil, 23mm x 256	1023-0256-P1	Stencil, 31mm x 329	1031-0329-P1
Stencil, 23mm x 484	1023-0484-P1	Stencil, 31mm x 316	1031-0316-P1
Stencil, 17mm x 208	1017-0208-P1	Stencil, 8mm x 48	1008-0048-P1
Stencil, 17mm x 256	1017-0256-P1	Stencil, PLCC 28	1012-0028-P1
Stencil, 15mm x 156	1015-0156-P1	Stencil, 9mm x 56	1009-0056-P1
Stencil, 15mm x 160	1015-0160-P1	Stencil, 24mm x 241	1024-0241-P1
Stencil, 15mm x 196	1015-0196-P1	Stencil, 6mm x 40	1006-0040-P1
Stencil, 15mm x 196	1015-0196-P1		

Accessories

Training Kits & Aids

DESCRIPTION		PART NUMBERS
Soldering	Terminal Soldering Kit	6030-0062
	Axial Lead Component Soldering Kit	6030-0063
	I.C. Soldering Kit	6030-0019
	SOICL-20 Kit	6030-0065
	Soldering Skill Evaluation Kit	6030-0001
Repair	Repair Skills Development Kit	6030-0229
	Desoldering Demonstration Board (Mounted Components)	6030-0011
	Multilayer Training Kit	6993-0104
	Flex-Circuit Training Kit	6993-0103
Surface Mount	SMD Kit, Small Components (SOIC, chip caps, SOT, MELF)	6030-0017
	SMD Kit, Large Components (SOIC, OFP, PLCC-28, PLCC-68, SOLIC)	6030-0018
	Board only, for above	1200-0208
	Small Populated SMD Board	6020-0068
	Large Populated SMD Board	6020-0130-P1
Replacement Parts	QFP 160	1187-0178-P24
	TQFP 100	1187-0179-P90
	TSOP 32	1187-0180-P156
	SOIC 14-Pin, Dummy	1187-0081-P5
	Chip Cap, 0805 Dummy	1187-0082-P10
	Chip Cap, 1206 Dummy	1187-0083-P10
	SOT-23 Transistor, Dummy	1187-0084-P10
	PLCC-28 lead, Dummy	1187-0086-P3
	PLCC-68 lead, Dummy	1187-0087-P3
	SOICL-20 pin, Dummy	1187-0088-P3
	Turret Terminals	1205-0012-P100
	Hook Terminals	1205-0048-P100
	Connector Pins	1205-0014-P100
	Epoxy Kit, Two-Part	1233-0004-P1

PACE BGA Rework Systems

TF 1500/1700 Optional Items and Replacement Parts



TF 1500/1700 Optional Items

DESCRIPTION	PART NUMBERS
PV-65 Pik Vac Vacuum Wand	7027-0001-P1
Alignment PCB	4018-0100-P1
Vacuum Pik Kit TF1500	6993-0060-P1
Vacuum Pik Kit TF1700	6993-0276-P1
Small Vacuum Pik (TF1500/TF2500 only)	1121-0918-P1
Small Vacuum Pik (TF1700/TF2700 only)	1121-0927-P1

TF 1500/1700 Replacement Parts

DESCRIPTION	PART NUMBERS
Component Leads Stencil	1001-0001-P1
Nozzle/Chip Assembly Tool	1100-0231-P1
Fuse Holder 5 x 20 mm	1161-0008-P1
Micro-Positioner	1251-0117-P1
Panel Mount Fitting (vacuum)	1259-0085-P1
Low Pressure Pump	1334-0021-P1
Nitrogen Solenoid	1336-0047-P1
Thermo-couples (pack of two)	1340-0174-P1
Flowmeter	1348-0613-P1
Diaphragm Pump (vacuum) TF 1500 Only	1348-0614-P1
Diaphragm Pump (vacuum) TF 1700 Only	1336-0084-P1
Blower Pump (230 volt)	1360-0320-P1
Blower Pump (120 volt)	1360-0368-P1
Air Flow Sensor	3008-0138-P1
External Video Cable	3008-0168-P1
RS232 Cable	3008-0175-P1
PCB Support	6000-0237-P1
Laser Pointer	6000-0239-P1
Flux Tray Assembly	6000-0245-P1
Centering Clamp	6000-0285-P1
Stencil Platform	6000-0247-P1
Board Cooling Fan	6000-0255-P1
Top Heater Assembly (120 volt) TF 1500	6008-0203-P1
Top Heater Assembly (230 volt) TF 1500	6000-0243-P1
Pre-heater Assembly (120 volt) TF 1500	6000-0265-P1
Pre-heater Assembly (230 volt) TF 1500	6000-0266-P1
Hex Key Set	6016-0033
High Voltage PCB (TF 1500/TF 1700)	6020-0155-P1
PCB Main TF 1500	6020-0171-P1
Suction Cup (includes 3)	6993-0202-P1
Odd Shape Board Holder Kit	6993-0250-P4
Flat Screen Monitor 15" inch	7015-0010-P1
PCB Main TF 1500	6020-0171-P1
PCB Main TF 1700	6020-0205-P1
Top Heater (120 volt) TF 1700	6000-0308-P1
Top Heater (230 volt) TF 1700	6000-0317-P1
Pre Heater (120 volt) TF 1700	6000-0301-P1
Pre Heater (230 volt) TF 1700	6000-0316-P1

PACE BGA Rework Systems

TF 2500/2700 Optional Items and Replacement Parts



TF 2500/2700 Optional Items

DESCRIPTION	PART NUMBERS
PV-65 Pik Vac Vacuum Wand	7027-0001-P1
Alignment PCB	4018-0100-P1
Vacuum Pik Kit TF 2500	6993-0060-P1
Vacuum Pik Kit TF 2700	6993-0276-P1
Small Vacuum Pik (TF1500/TF2500 only)	1121-0918-P1
Small Vacuum Pik (TF1700/TF2700 only)	1121-0927-P1

TF 2500/2700 Replacement Parts

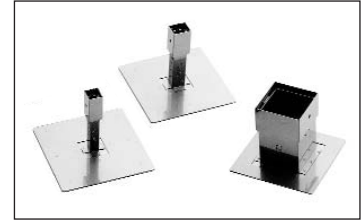
DESCRIPTION	PART NUMBERS
Component Leads Stencil	1001-0001-P1
Nozzle/Chip Assembly Tool	1100-0231-P1
Fuse, 0.5 A, Slo Blo (230 volt)	1159-0213-P5
Fuse Holder 5 x 20 mm	1161-0008-P1
Micro-Positioner	1251-0117-P1
Panel Mount Fitting (vacuum)	1259-0085-P1
Low Pressure Pump	1334-0021-P1
Air Pump	1336-0045-P1
Nitrogen Solenoid	1336-0047-P1
Thermo-couples (pack of two)	1340-0174-P1
Diaphragm Pump (vacuum) TF 2500 Only	1348-0614-P1
Diaphragm Pump (vacuum) TF 2700 Only	1336-0084-P1
Blower Pump (230 volt)	1360-0320-P1
Blower Pump (120 volt)	1360-0368-P1
Air Flow Sensor	3008-0138-P1
External Video Cable	3008-0168-P1
RS232 Cable	3008-0175-P1
PCB Support	6000-0237-P1
Laser Pointer	6000-0239-P1
Flux Tray Assembly	6000-0245-P1
Centering Clamp	6000-0285-P1
Stencil Platform	6000-0247-P1
Board Cooling Fan	6000-0255-P1
Top Heater Assembly (120 volt) TF 2500	6000-0278-P1
Top Heater Assembly (230 volt) TF 2500	6000-0279-P1
Pre-heater Assembly (120 volt) TF 2500 & TF 2700	6000-0265-P1
Pre-heater Assembly (230 volt) TF 2500 & TF 2700	6000-0266-P1
Hex Key Set	6016-0033
High Voltage PCB (TF 2500/TF 2700)	6020-0155-P1
PCB Main TF 2500/TF 2700	6020-0171-P1
Suction Cup (includes 3)	6993-0202-P1
Odd Shape Board Holder Kit	6993-0250-P4
Flat Screen Monitor 17" inch	1107-0032-P1
Top Heater (120 volt) TF2700	6000-0318-P1
Top Heater (230 volt) TF 2700	6000-0319-P1

ThermoFlo BGA Nozzles

(for use with TF 1500 / TF 1700 / TF 2500 / TF 2700)

Listed below are standard nozzles available from PACE. Custom nozzles can be designed and manufactured for special or non-standard applications. Contact PACE for more information. Alignment templates are included with the nozzle assemblies.

ThermoFlo Nozzle Chart



MAXIMUM COMPONENT SIZE	NOZZLE DIMENSIONS	NOZZLE P/N
5mm x 5mm (0.19" x 0.19")	8mm x 8mm (0.31" x 0.31")	4038-7001
6mm x 6mm (0.24" x 0.24")	9mm x 9mm (0.35" x 0.35")	4038-7042
6mm x 8mm (0.24" x 0.31")	9mm x 11mm (0.35" x 0.43")	4038-7002
7.3mm x 7mm (0.29" x 0.28")	10.3mm x 10mm (0.40" x 0.40")	4038-7040
8mm x 8mm (0.31" x 0.31")	11mm x 11mm (0.43" x 0.43")	4038-7041
8.1mm x 8.1mm (0.31" x 0.31")	11.1mm x 11.1mm (0.43" x 0.43")	4038-7055
8.2mm x 12.7mm (0.32" x 0.50")	11.2mm x 15.7mm (0.44" x 0.62")	4038-7003
9mm x 9mm (0.35" x 0.35")	12mm x 12mm (0.47" x 0.47")	4038-7004
10mm x 10mm (0.39" x 0.39")	13mm x 13mm (0.51" x 0.51")	4038-7005
11.4mm x 5.1mm (0.49" x 0.20")	14.4mm x 8.1mm (0.56" x 0.31")	4038-7050
13mm x 10mm (0.51" x 0.40")	16mm x 13mm (0.63" x 0.51")	4038-7039
13mm x 13mm (0.51" x 0.51")	16mm x 16mm (0.63" x 0.63")	4038-7006
14mm x 22mm (0.55" x 0.87")	17mm x 25mm (0.67" x 0.99")	4038-7021
15mm x 15mm (0.59" x 0.59")	18mm x 18mm (0.71" x 0.71")	4038-7007
15.34mm x 12.7mm (0.60" x 0.50")	18.34mm x 15.7mm (0.72" x 0.61")	4038-7063
15.6mm x 5.1mm (0.61" x 0.20")	18.6mm x 8.1mm (0.73" x 0.31")	4038-7062
16.5mm x 8mm (0.65" x 0.31")	19.5mm x 11mm (0.77" x 0.43")	4038-7027
17mm x 11mm (0.67" x 0.43")	20mm x 14mm (0.79" x 0.55")	4038-7052
17mm x 17mm (0.67" x 0.67")	20mm x 20mm (0.79" x 0.79")	4038-7008
19mm x 19mm (0.75" x 0.75")	22mm x 22mm (0.87" x 0.87")	4038-7026
20mm x 8mm (0.79" x 0.31")	23mm x 11mm (0.90" x 0.43")	4038-7058
20mm x 20mm (0.79" x 0.79")	23mm x 23mm (0.90" x 0.90")	4038-7061
21mm x 12.75mm (0.83" x 0.50")	24mm x 15.75mm (0.94" x 0.62")	4038-7060
21mm x 25mm (0.83" x 0.98")	23mm x 28mm (0.91" x 1.1")	4038-7029
22mm x 22mm (0.86" x 0.86")	25mm x 25mm (0.98" x 0.98")	4038-7057
23mm x 23mm (0.90" x 0.90")	26mm x 26mm (1.02" x 1.02")	4038-7009
25mm x 25mm (0.98" x 0.98")	28mm x 28mm (1.1" x 1.1")	4038-7025
27mm x 27mm (1.06" x 1.06")	30mm x 30mm (1.18" x 1.18")	4038-7010
28mm x 16mm (1.1" x 0.63")	31mm x 19mm (1.22" x 0.75")	4038-7038
28mm x 28mm (1.1" x 1.1")	31mm x 31mm (1.22" x 1.22")	4038-7048
28.5mm x 17mm (1.12" x 0.67")	31.5mm x 20mm (1.12" x 0.79")	4038-7059
29mm x 29mm (1.14" x 1.14")	32mm x 32mm (1.26" x 1.26")	4038-7030
30mm x 30mm (1.18" x 1.18")	33mm x 33mm (1.3" x 1.3")	4038-7044

MAXIMUM COMPONENT SIZE	NOZZLE DIMENSIONS	NOZZLE P/N
31mm x 31mm (1.22" x 1.22")	33mm x 33mm (1.3" x 1.3")	4038-7031
32mm x 17mm (1.26" x 0.67")	35mm x 20mm (1.37" x 0.79")	4038-7053
32.5mm x 23mm (1.28" x 0.90")	35.5mm x 26mm (1.40" x 1.02")	4038-7051
32.5mm x 25mm (1.28" x 0.98")	35.5mm x 28mm (1.40" x 1.1")	4038-7056
33mm x 33mm (1.29" x 1.29")	36mm x 36mm (1.42" x 1.42")	4038-7028
35mm x 35mm (1.37" x 1.37")	38mm x 38mm (1.5" x 1.5")	4038-7011
38.1mm x 25.8mm (1.50" x 1.01")	41.1mm x 28.8mm (1.61" x 1.13")	4038-7066
40mm x 40mm (1.57" x 1.57")	43mm x 43mm (1.7" x 1.7")	4038-7024
41mm x 41mm (1.61" x 1.61")	43mm x 43mm (1.7" x 1.7")	4038-7047
42mm x 42mm (1.65" x 1.65")	45mm x 45mm (1.77" x 1.77")	4038-7032
42.5mm x 32.5mm (1.67" x 1.40")	45.5mm x 35.5mm (1.80" x 1.39")	4038-7054
43mm x 43mm (1.7" x 1.7")	46mm x 46mm (1.81" x 1.81")	4038-7045
44mm x 33mm (1.73" x 1.29")	47mm x 36mm (1.85" x 1.41")	4038-7064
44mm x 44mm (1.73" x 1.73")	47mm x 47mm (1.85" x 1.85")	4038-7043
44.5mm x 44.5mm (1.75" x 1.75")	47.5mm x 47.5mm (1.87" x 1.87")	4038-7012
46mm x 46mm (1.81" x 1.81")	49mm x 49mm (1.93" x 1.93")	4038-7046
48mm x 48mm (1.89" x 1.89")	51mm x 51mm (2" x 2")	4038-7049
50mm x 50mm (1.97" x 1.97")	53mm x 53mm (2.1" x 2.1")	4038-7022
56mm x 17mm (2.2" x 0.67")	59mm x 20mm (2.32" x 0.79")	4038-7037
60mm x 60mm (2.36" x 2.36")	63mm x 63mm (2.5" x 2.5")	4038-7023
Connector, 16mm x 13mm (0.63" x 0.51")	19mm x 16mm (0.75" x 0.63")	4038-7033
Connector, 19mm x 8mm (0.75" x 0.31")	22mm x 11mm (0.87" x 0.43")	4038-7036
Connector, 27mm x 13mm (1.06" x 0.51")	30mm x 16mm (1.18" x 0.63")	4038-7034
Connector, 30mm x 12mm (1.18" x 0.47")	33mm x 15mm (1.3" x 0.59")	4038-7035
LQFP 9mm x 9mm (0.35" x 0.35")	12mm x 12mm (0.47" x 0.47")	4038-7016
LQFP 12mm x 12mm (0.47" x 0.47")	15mm x 15mm (0.59" x 0.59")	4038-7017
LQFP 14mm x 14mm (0.55" x 0.55")	17mm x 17mm (0.67" x 0.67")	4038-7020
LQFP 16mm x 16mm (0.63" x 0.63")	19mm x 19mm (0.75" x 0.75")	4038-7014
LQFP 16mm x 22mm (0.63" x 0.87")	19mm x 25mm (0.75" x 0.99")	4038-7019
LQFP 22mm x 22mm (0.87" x 0.87")	25mm x 25mm (0.98" x 0.98")	4038-7013
LQFP 26mm x 26mm (1.02" x 1.02")	29mm x 29mm (1.14" x 1.14")	4038-7018
LQFP 30mm x 30mm (1.18" x 1.18")	33mm x 33mm (1.29" x 1.29")	4038-7015
Nozzel Kit	1mm (.04") to 7mm (.28")	6993-0244

PACE Accessories

FLUX APPLICATOR	DESCRIPTION	PART NUMBERS
	Allows for precise and repeatable application of flux by dipping component.	6993-0218

STENCILING PRODUCTS	DESCRIPTION	PART NUMBERS
	Stencil Bracket Kit Applies solder paste to component, reducing the difficulty and mess associated with PCB stenciling. The Stencil Bracket Kits do not include stencils. Stencils are purchased separately as required by solder ball count geometry on component packages. Both the Stencil Bracket Kit and a stencil are required to apply solder paste to the component. The Stencil Bracket Kits may be used on any of our currently sold stencils.	6993-0248

A WORLDWIDE COMMITMENT

With offices worldwide, PACE is a recognized world leader in the development of solutions for the assembly and repair of highly advanced electronics. Our expertise extends back to the dawn of the modern electronics industry. In 1958, PACE introduced training programs for the repair of printed wire assemblies, and soon after, revolutionized the industry by creating the first self-contained vacuum desoldering system.

Today, PACE continues to provide innovative solutions, products and training for the rework, repair and testing of printed circuit assemblies. Our unique capabilities and evolving vision have provided universal solutions for thru-hole and surface mount assembly and rework problems for the most advanced electronics.

Additionally, PACE manufactures Fume Extraction Systems to reduce exposure to harmful particulates and gases created from hand soldering operations. PACE Fume Extraction Systems effectively remove these contaminants from the worker's breathing zone thereby reducing or eliminating health risks and improving productivity.

Our strong commitment and history of achievement has resulted in an unparalleled range of Assembly, Repair and Fume Extraction solutions to meet your needs whether working to ISO-9000, industrial, military or your own internal specifications. Whatever the challenge, PACE stands ready to help you set a new standard.



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A CUSTOMER COMMITMENT

In 2001 the distinguished Frost & Sullivan Award for the World Surface Mount Technology Rework and Repair Equipment Industry was bestowed upon PACE.

The Frost & Sullivan Market Engineering Customer Service Leadership Award is presented to companies that have demonstrated superior responsiveness to customer needs and value-added support in technology and services.

PACE was selected based upon independent research with customers, key market participants and even our competition. This award reiterates PACE's commitment to excellence from product concept to customer service in the field. Frost & Sullivan's research recognizes that the key to PACE's success in the industry is our interactive approach with customers to provide solutions and respond to end-user feedback when developing products.



In 2002 PACE was awarded World Class Status, signifying that PACE uses best practices in its design, development and manufacturing processes to provide the finest quality products to its customers at the lowest possible cost. The first Maryland based company to receive this coveted award, PACE stands alone in its market segment in achieving this highly regarded status.

SOLUTIONS FOR THE ELECTRONICS INTERCONNECTION PROCESS

The following are trademarks and/or service marks of PACE, Incorporated, Annapolis Junction, MD USA: INSTACAL™, ENDURA™, FUMEFLO™, HI-FLO™, MINITWEEZ™, PACEWORLDWIDE™, POWERMODULE™ and POWERPORT™.

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PACE products meet or exceed all applicable military and civilian EOS/ESD, temperature stability and other specifications, including MIL-STD-2000, ANSI/J-STD-001, IPC 7711, IPC 7721 and IPCA-610.

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