



Training Equipment Directory

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<http://www.circuittechnology.com>



EXCELTA[®]

CORPORATION



7-SA-PI

Tweezer - Curved - fine points

4 1/2" Stainless Steel antimagnetic, made in Italy. Curved tips with high precision points. Curved tips allow maximum visibility under magnification.



00-SA-PI

Tweezers - Straight - Strong Tips

Stainless Steel antimagnetic, made in Italy. Medium tips with strong straight points. Our most popular designed tweezers in the electronics market today.



3C-SA-PI

Tweezer - Straight - fine tips

Stainless Steel antimagnetic, made in Italy. Very fine tips with precision points. The shorter body helps when working under magnification.



2A-SA-PI

Tweezer - Tapered - Round tip

Stainless Steel antimagnetic, made in Italy. Tapered tips with flat round points. This design works great for handling various types of micro components and wires.



104-SA

Tweezers - SMD Paddle - 3 Lead SOT

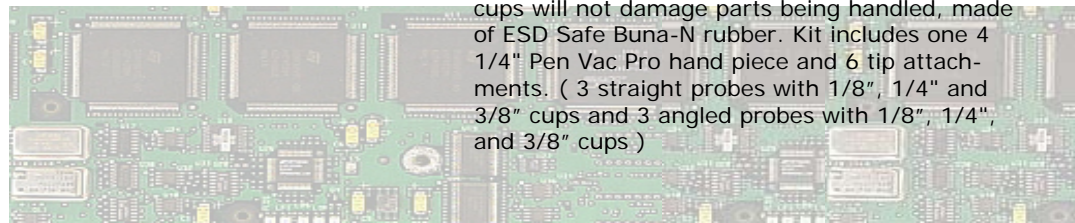
4 1/2" Stainless steel, antimagnetic, made in Switzerland. Excelta S.M.D. tweezers have a paddle tip designed for quick and easy placement of components. The improved "Air Flow Finger Grooves" provides for easy tip control. The wide paddle tips provide perfect control when manipulating and placing SOT-89 transistors and monolithic chip capacitors.



PV-3A-ESD

Pen Vac Pro with 6 tips

PV-3A-ESD Pen Vac is an easy to use self contained vacuum pick up tool. The soft suction cups will not damage parts being handled, made of ESD Safe Buna-N rubber. Kit includes one 4 1/4" Pen Vac Pro hand piece and 6 tip attachments. (3 straight probes with 1/8", 1/4" and 3/8" cups and 3 angled probes with 1/8", 1/4", and 3/8" cups)





7143E

Cutter - Tapered Head - Semi Flush

5 7/8" Five Star***** Tapered Head semi flush cutter. Made in the U.S.A. The 7100 series cutters have 1" longer Ergonomic handles and ESD safe foam cushion grips, stainless steel leaf springs. Made from 1% carbon tool steel hardened to 63/65 rockwell. Cutting range 18 AWG (.040") to 32 AWG (.008") soft copper leads and wires.



7271E

Cutter - Tip - Optimum Flush

5" Five Star***** Very Fine small tip optimum flush cutter. Made in the U.S.A. Cutting range 30 AWG (.010") to 50 AWG (.001") soft copper leads and wires. New ESD safe molded teal Ergonomic grips. Long lasting stainless steel leaf springs. Made from 1% carbon tool steel hardened to 63/65 Rockwell.



8140E-I

Cutter - Oval Head - Semi flush

Four Star **** 4 1/2" Small Round Head Maximum Flush Cutter General-purpose cutter used for trimming component leads after wave solder, the cutting capacity for soft wire is 18-22 AWG. Ergonomic handles and stainless steel leaf springs are standard.



2844

Plier - Stainless Steel Chain Nose

5" Chain nose pliers with smooth jaws, beveled edges and box joint. Our "Two Star" 2800 series pliers are made of stainless steel, they have ESD Safe, molded ergonomic grips with long lasting stainless steel leaf springs.



2847

Plier - Stainless Steel Needle Nose

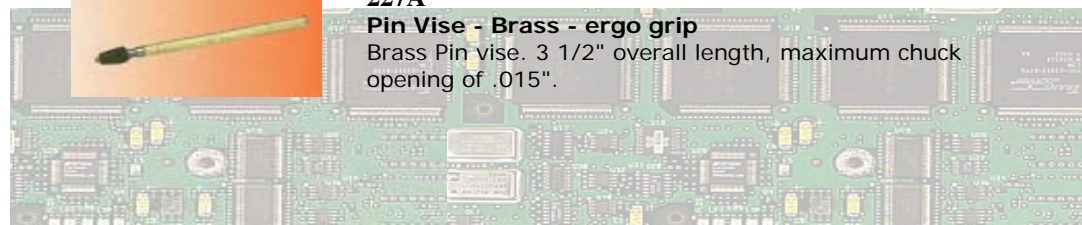
5" Needle nose pliers with smooth jaws, beveled edges and box joint. Our "Two Star" 2800 series pliers are made of stainless steel, they have ESD Safe, molded ergonomic grips with long lasting stainless steel leaf springs.



227A

Pin Vise - Brass - ergo grip

Brass Pin vise. 3 1/2" overall length, maximum chuck opening of .015".





MBT-350 Digital Solder/Desolder System

Power Requirements 120 VAC, 60Hz (240 watts maximum) & 120VAC, 50Hz (240 watts Maximum)

Handpiece Technology Compatability Blue Series handpieces with TempWise or SensaTemp Technology

Dimensions 5.3" x 6.5" x 9.25"

Weight 11 lbs

Tip to Ground resistance < 2ohms

Temperature Stability +/- 1.1C (2F)

Temperature accuracy Meets or exceeds ANSI-J-Std-001

Set Temp Range Tip Heater Compatible Handpieces = 205° to 454°C (400° to 850°F)

Nominal SensaTemp Compatible Handpieces = 176°(Dial) or 37°C (Digital Display) to 482°C (350°(dial) or 100° (Digital Display) to 900°F) Nominal

Vacuum Rise Time 150ms Average as measured with PACE Process Monitor

Vacuum 20in Hg max **Pressure** 18psi max **Air Flow** 8 SLPM max
115v 8007-0454



TD-100 Handpiece (IntelliHeat)

TD-100 Handpiece only for IntelliHeat Systems.
6010-0147-P1

MT-100 MiniTweez handpiece only (IntelliHeat)

Tip heater cartridge tweezers for SMD removal. For IntelliHeat Systems only.
6010-0148-P1



SX-90 Sodr-X-Tractor only (IntelliHeat)

Air handpiece ideal for Thru-Hole desoldering on extra high mass multilayer boards. For IntelliHeat Systems only.
6010-0149-P1

TJ-85 ThermoJet only (IntelliHeat)

Foot pedal activated precision air pencil for the installation or removal of SMD's. For IntelliHeat Systems only.
6010-0153-P1



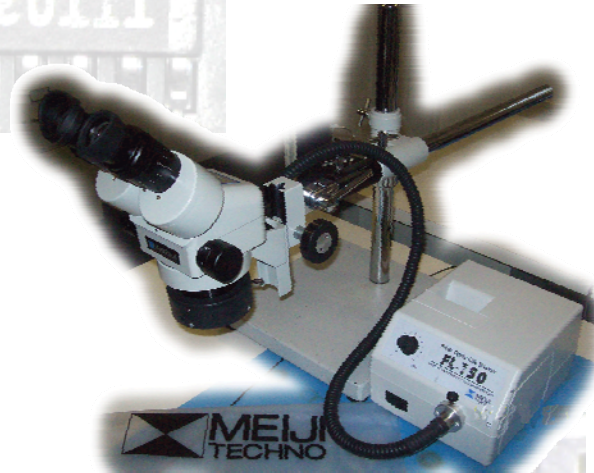
Thermo-Pik 100 Handpiece only (IntelliHeat)

Tip Heater Cartridge Pik Handpiece for QFP removal. For IntelliHeat Systems only. Requires cubby and footpedal, sold separately.
6010-0158-P1





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Zoom Stereo Binocular head, 12.5x eyepieces, .44 objective lens, heavy duty weighted boom stand, fiber optic lighting system, and adjustable focus block. 4x to 24x magnification range with 6 to 8 inches working distance.

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Zoom Stereo Trinocular head, 12.5x eyepieces, .44 objective lens, boom stand, fiber optic lighting system, and adjustable focus block. 4x to 24x magnification range . System includes high resolution CCD camera, monitor NOT INCLUDED.

MicroCare

The Catalyst



PowerClean™ II is a high performance circuit-board defluxer ideal for heavy duty jobs such as defluxing lead-free circuit boards, removing conformal coatings or degreasing metal components. It quickly dissolves and rinses flux residues, dirt, moisture, dust and oxides from electronic components. Widely used in electronics, laboratories, clean rooms and aerospace manufacturing. **NON—FLAMABLE**
MCC-PW2



Economical. For general precision cleaning. Medium absorption, convenient size, lint free, high purity. MCC-W66

SuprClean™ is engineered to be the electronics industry's most powerful benchtop defluxer and cleaner. Ideal for heavy duty jobs such as SMT defluxing, removing conformal coatings or defluxing lead-free flux, it quickly rinses dirt, moisture, dust and oxides from electronic components.

SuprClean also is versatile -- it cleans under tight fitting BGA chips, electrical connectors and motor windings. Use on all circuit boards, hybrids, connectors and soldered connections. Noncorrosive SuprClean dries instantly, has low odor and is nonflammable. SuprClean is safe on most components, insulators and connectors but may attack soft plastics. Test before use. **NON FLAMMABLE** MCC-SPR



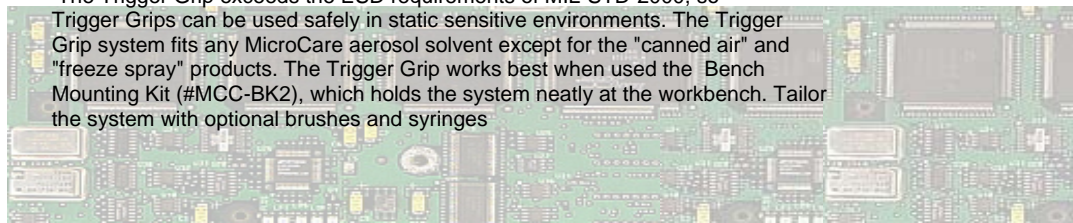
Flux Remover C is a versatile general purpose electronics cleaner. It cleans fluxes, solder paste, grease and organics and is often used on circuit boards, hybrids, cables and connectors and even metal substrates. With a very low surface tension and fast evaporation, it is ideal for cleaning under tight-fitting BGA chips. Noncorrosive and ultra-pure, this cleaner dries without residues, so rinsing is never required. Generally plastic-safe, this product is your best choice for cleaning a wide variety of different contamination (say, in a repair depot) or when you are uncertain about the plastics and materials to be cleaned.

This cleaner is available in the widest array of packaging options, from 85-gram TravelSAFE™ mini-pump sprays to aerosol cans and to drums and more. It is suitable for use in heated cleaning systems, such as vapor degreasers, which is convenient and simplifies chemical handling because one solvent can be used in so many applications. MCC-FRC

The MicroCare Solvent Miser™ Trigger Grip™ is the best way to use today's new, ozone safe cleaning solvents. The Trigger Grip makes each can of solvent last longer, saving money. The Trigger Grip is ideal for cleaning circuit boards, mechanical parts and stencils. When connected to a can of MicroCare solvents, this combined system removes fluxes, oils, tape residues, grease, and even white residues without damage to electronics. MCC-ESD



The Trigger Grip exceeds the ESD requirements of MIL-STD-2000, so Trigger Grips can be used safely in static sensitive environments. The Trigger Grip system fits any MicroCare aerosol solvent except for the "canned air" and "freeze spray" products. The Trigger Grip works best when used the Bench Mounting Kit (#MCC-BK2), which holds the system neatly at the workbench. Tailor the system with optional brushes and syringes





[CTI Surface Mount Rework Certification](#) – 3 days, \$695.00 – Designed for personnel with some experience in SMT. Uses both conductive and convective installation and removal techniques. LeadFree solder technique and characteristics are covered.

[CTI Board Level Repair Certification](#) – 3 days, \$995.00 – Designed for experienced personnel whose mission includes repair of damaged PCB substrates. Will practice all basic techniques to bring damaged boards back to a functional level.

[CTI Advanced BGA, CSP, \$\mu\$ BGA Rework Certification](#) – 3 days, \$1495.00 – Basics of profiling leadless devices using PACE TF-2700 or Air-Vac DRS models and characterizing defects using x-ray technology. Students will install, remove, site-dress, and reball BGA's.

[IPC 7711 & 7721 Rework,& Repair Certified IPC Trainer](#) – 5 days, \$2695.00 – Designed for experienced personnel who's mission involves training others to perform complex PCB rework/repair/mods. Successful candidates can teach the IPC CIS training in a modularized format and certify their workers with an official IPC certificate.

[IPC 7711 7721 Certified IPC Specialist](#) – 5 days, Modules 1,3,4,5,6,7 \$1450.00
Price depends on modules – For somewhat experienced personnel who need/desire official IPC certification. Covers select modules of the IPC 7711 and 7721, Rework of Electronic Assemblies. (Common procedures, Wire splicing, PTH, 3 SMT modules 1 pad and track repair). Includes a copy of the 7711/7721 standard.

[IPC A-610 Certified IPC Trainer](#) – 4 days, \$1995.00 – Qualify the successful candidate to teach and certify workers to the universally accepted IPC 610 workmanship standards. This includes the accept/reject criteria for Class 1, 2 and 3 assemblies.

[IPC A-610 Certified IPC Specialist](#) – 4 days, \$850.00 – Certifies candidates to use the IPC-610 standard to distinguish between defective and acceptable PCB's. Now each student receives their own copy of the IPC 610 Rev D Standard with this class.

[IPC J-STD-001 Certified IPC Trainer](#) – 5 days, \$2495.00 – The IPC/EIA J-STD-001 Requirements for Soldered Electrical and Electronic Assemblies has emerged as the preeminent authority for electronics assembly manufacturing. The standard describes materials, methods and verification criteria for producing high quality soldered interconnections. The standard emphasizes process control and sets industry-consensus requirements for a broad range of electronic products.

[IPC J-STD-001 Certified IPC Specialist](#) – 5 days, \$1050.00 – Describes materials, methods, and verification criteria for high quality soldered interconnections. Emphasizes process control and sets industry consensus requirements. Now each student receives their own copy of the IPC JSTD-001 rev D Standard with this class

**Custom solder classes available. Including SMT Boot Camp and Lead Free Soldering
Other classes not listed please see our website for complete listing and schedules.**



Circuit Repair Kits

Professional Repair Kit



The Professional Repair Kit is the most complete and most versatile circuit board repair kit you'll find anywhere. It's the total package.

The kit includes dry film, epoxy-backed circuit frames, and unique replacement circuits that

do not use messy liquid epoxy. Includes eyelets and setting tools for plated through hole repair, Circuit Tracks to repair damaged circuits, epoxy and color agents for solder mask or base board repairs, and a comprehensive manual...all packaged in a convenient carrying case. If you need to repair damaged circuit boards, the all-in-one Professional Kit is what you need.

CTI-PRKIT

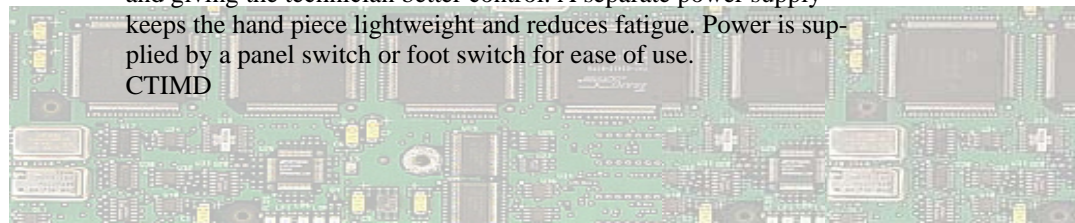
Micro-Drill System

Micro-Drill is a workhorse in a kit. This versatile powerhouse is ideal for milling, drilling, grinding, cutting and sanding circuit boards. It removes coating, cuts circuits, cuts leads, drills holes, cuts slots, shapes FR4 and performs many other procedures using various interchangeable bits.



Unlike most hand-held tools, the Micro-Drill has a tiny, high speed DC motor in the hand piece, eliminating bothersome drive cables and giving the technician better control. A separate power supply keeps the hand piece lightweight and reduces fatigue. Power is supplied by a panel switch or foot switch for ease of use.

CTIMD



Land Repair Kit



Problems with lifted or damaged lands on circuit boards? You'll find the solution in this kit that is specifically designed to make the repair process as simple and effective as possible. The handy ESD safe carrying kit contains replacement lands in a wide variety of sizes, epoxy, bonding tips, tape, and many other items to help you do a professional job.. CTI-LRKIT

Plated Through Hole repair Kit



Here are all the tools and materials you'll need to repair damaged plated through holes in circuit boards.

The kit includes a variety of eyelet sizes, carbide ball mills for drilling, and setting tools to form the eyelets conforming to IPC guidelines. Eyelets are made of pure copper electroplated with solder. Eyelet tooling is hardened steel. CTI-EYELETKIT

Call for replacement parts, pricing and information

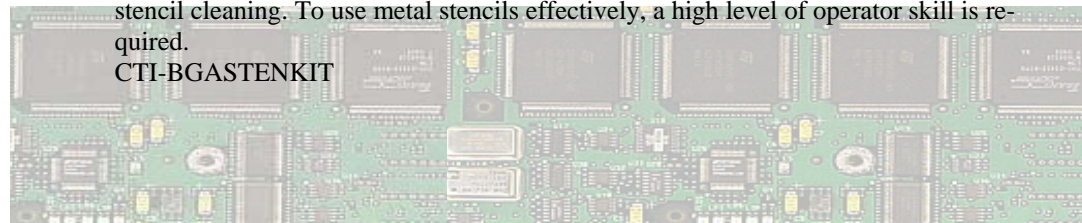
BGA Rework Kit



These flexible solder paste stencils are laser cut from high quality, anti-static polymer film with a residue-free adhesive backing. Because they are self-sticking, no tape or fixturing is needed. The adhesive seals around each BGA pad to prevent solder paste from bleeding under the stencil when the paste is applied. Flextac Stencils are easy to use and leave no residue on the board surface.

Typical BGA rework stencils are made from metal and require fixturing or taping to position them and hold them in place. Metal stencils warp easily, and if the circuit board has undulations in the board surface, the metal stencil will not sit flat. Since there is no gasket-like seal, solder paste can easily bleed under metal stencils when paste is applied with a squeegee. Also solder paste can spill out over the sides of flat metal stencils contaminating the circuit board surface. Metal stencils require tedious stencil cleaning. To use metal stencils effectively, a high level of operator skill is required.

CTI-BGASTENKIT



Solder Training Kits

Please see soldertrainingkit.com for the complete selection

JSTD-001 Kits

IPC Certified JSTD-001 Solder Training Kit. Kit includes all required components for JSTD-001 Certified IPC Specialist training. Parts packaged in ESD protective packaging to promote proper ESD prevention procedures. Enough components to complete the two circuit boards, one for practice and skills development and one for certification.

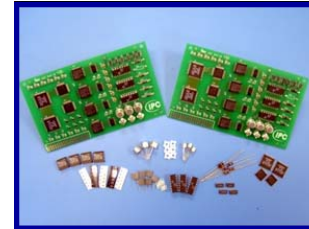
CTI—JSTD



IPC7711 CIS Kits

These 7711 kits come with two boards fully assembled and soldered with an additional set of component parts for removal and replacement training exercises. The components are packed in ESD Static Shield bags to promote ESD awareness.

CTI-7711



Plated Through Hole Kit

This solder training kit is designed to allow the beginner to develop his soldering skills and the experienced solderer to refine and demonstrate his expertise.

The training kit board is designed in two sections: The left 2/3rds is designed for practice installations and removals and includes many common PTH components. The right 1/3rd is designed as a functional circuit and can be used to assess soldering workmanship, use of spacers, understanding of polarity and orientation, etc. The functional side can be separated from the practice side at the provided score line

SMT Kits

Beginners will find this soldering kit offers a wide variety of the common and some not so common surface mount devices. This SMT soldering kit will familiarize the student with component placement, polarity recognition and soldering techniques. Experienced solder-ers will be able to refine and demonstrate their expertise.

The board is .062" thick, HASL finish with double sided metalization with duplicate land patterns on the secondary side.

CTI-SMT

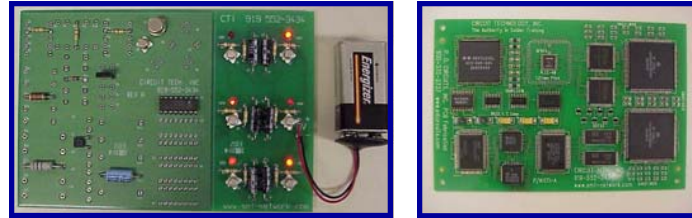


Student Hand Books Available for all Kits

Quantity discounting available for orders greater than 10 kits
LeadFree Versions of all kits available

IPC7711 CIS Kits

This bulk packed 7711 training kit for modules 1,3,4,5,6, is a combination of our smt and pth kits .



CTI-7711Bulk

BGA Rework Kits

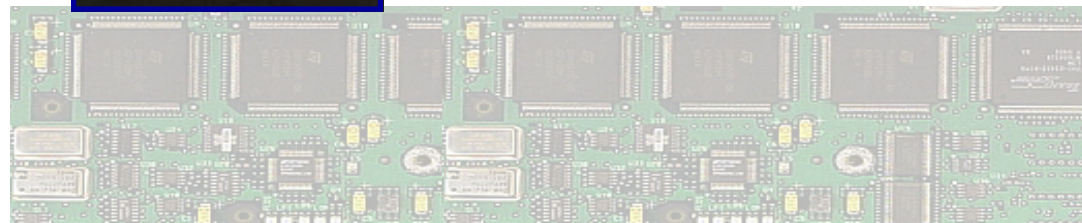
The parts are packaged in static shielded bags to promote ESD awareness. Profiles can be consistent for the process or training being accomplished. The BGA Kit comes with three variations to allow selection of a kit that is correct for the process.

CTI-BGA



ESD Solutions

A full line of ESD products available and necessary for any soldering operation including wrist straps, mats, heel grounders, static bags and packaging materials, along with flooring solutions and work station solutions.



Websites of Equipment Manufacturers

Excelta tools	Excelta.com
Pace Soldering Stations	Paceworldwide.com
Microcare Cleaning chemicals	Microcare.com
Meiji Techno Microscopes	Circuittechnology.com/cti/meiji
IPC Training	Circuittechnology.com/training
Training Kits and Tools	Soldertrainingkit.com

*Check with your local Distributor for
Current Pricing and availability*



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