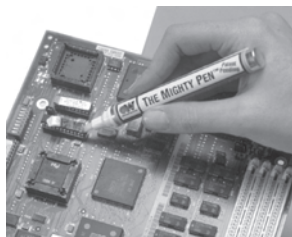


CIRCUITWORKS® REPAIR/PROTOTYPING TOOLS

CircuitWorks® brand's comprehensive line of conveniently packaged and precision dispensing rework and repair products makes circuit board repair and prototyping faster, easier and more accurate. The full range of products meets all of the technician's needs for electronic rework and prototyping—repairing, cleaning, protecting, lubricating, bonding and restoring electrical conductivity to circuit boards and components.



CIRCUITWORKS® THE MIGHTY PEN™

The powerful universal cleaning pen. **FEATURES:** Ideal for quick, convenient, and precise spot removal of ink stains, label adhesives, conformal coatings, and most stubborn-to-remove soils from PC boards and many other surfaces. Solvent provides low surface tension for superior wetting, is fast drying, has low toxicity. Mild citrus aroma.

Cat. No.	Description	Size	Net Price
♣ CW3700	Universal Cleaning Pen	11.0 (0.39 oz)	\$9.01

NOTE: Product Selection Guide found at the end of the Chemtronics section.



CIRCUITWORKS® CONDUCTIVE PEN

The pen dispenser for drawing highly conductive silver traces, jumpers and shielding with precision and control. **FEATURES:** Quickly creates conductive silver traces on most surfaces. Valved pen tip for easy applications. Solderable at low temperatures. Dries in minutes at room temperature. Choice of micro tip for fine line or standard tip for wider lines.

Cat. No.	Description	Size	Net Price
♣ CW2200STP	Standard Tip	8.5 g (0.3 oz)	\$22.30
♣ CW2200MTP	Micro Tip	8.5 g (0.3 oz)	22.30

NOTE: Product Selection Guide found at the end of the Chemtronics section.



CIRCUITWORKS® OVERCOAT PEN

The pen dispenser for precise application of a tough, protective acrylic conformal coating. **FEATURES:** Protects conductive pen traces. Repairs permanent solder mask. Protects against shorting, arcing, abrasion and moisture. Dries in minutes at room temperature. Choice of clear or green coating.

Cat. No.	Description	Size	Net Price
♣ CW3300G	Green	4.9 g (0.16 oz)	\$18.38
♣ CW3300	Clear	4.9 g (0.16 oz)	14.03

NOTE: Product Selection Guide found at the end of the Chemtronics section.



CIRCUITWORKS® CONFORMAL COATING REMOVER PEN

The pen for precise removal of silicone, acrylic and urethane coatings from PCBs. **FEATURES:** Removes most types of coatings in seconds. Spot cleans tight tolerance areas on circuit boards. Marker dispenser provides controlled and exact application. Evaporates quickly. Provides low surface tension for superior wetting.

Cat. No.	Description	Size	Net Price
♣ CW3500	Conformal Coating Remover Pen	9 g (0.32 oz)	\$12.81

NOTE: Product Selection Guide found at the end of the Chemtronics section.



CIRCUITWORKS® FLUX DISPENSING PEN

The pen for applying flux with precision and control. Chisel tip marker provides exact delivery of flux to surface. Easily remove with appropriate Flux Remover Pen or Flux-Off® flux remover. Flux meets ANSI/IPCJ-STD-004, Type ROL0. **CW8100 No Clean Flux Dispensing Pen:** Applies Patented noncorrosive, halide free, organic no-clean flux. Flux meets Bellcore TR-NWT-000078 and IPC SF-818 for Surface Insulation Resistance. **CW8200 Rosin Flux Dispensing Pen:** Applies a noncorrosive type R flux. Flux meets MIL-F-14256 E+ F Type R and RMA.

Cat. No.	Description	Size	Net Price
♣ CW8100	No Clean Flux	9 g (0.32 oz)	\$7.19
♣ CW8200	Rosin Flux	9 g (0.32 oz)	6.95

NOTE: Product Selection Guide found at the end of the Chemtronics section.



CIRCUITWORKS® FLUX REMOVER PEN

The pen for precise removal of flux from printed circuit boards. **FEATURES:** Completely removes flux in seconds. Spot cleans tight tolerance areas on circuit boards. Marker dispenser provides controlled and exact applications. Dries fast.

Cat. No.	Description	Size	Net Price
♣ CW9100	No Clean Flux Remover	9 g (0.32 oz)	\$9.95
♣ CW9200	Rosin Flux Remover	8 g (0.28 oz)	9.52

NOTE: Product Selection Guide found at the end of the Chemtronics section.

ITW Chemtronics® tradition of delivering top quality, innovative technology continues, exceeding the needs of the most demanding rework and repair applications. With the advent of lead-free solders and the changes required in lead-free processes, this exceptional new line of products will give you the ability to quickly and easily meet the demands of lead-free rework and repair. **Introducing the new standard in Lead-Free Rework and Repair. All products are engineered for high temperature lead-free applications; specifically designed for all lead-free solder; RoHS Compliant.** One product line, to exceed your expectations and take care of all your lead free rework and repair needs. Find out what the excitement is all about.



SODER-WICK® LEAD-FREE SD DESOLDERING BRAID

The fastest, safest desoldering braid specifically for use with lead free applications.

FEATURES:

- Engineered specifically for high temperature, lead-free solders
- Transfers heat to the solder joint more quickly and efficiently than conventional desoldering braids.
- Specifically designed for all lead-free solders
- Can also be used with Tin/Lead solders
- Soder-Wick® Lead-Free packaged in ESD-safe static dissipative bobbins
- Minimizes the risk of damage associated with static electricity
- Non-corrosive ultra high purity no-clean flux
- Will not leave ionic contamination on the boards
- Especially effective at removing residual solder from SMT pads
- RoHS Compliant
- Patent Pending

Cat. No.	Description	Net Price
5 FEET (1.5 M)/BOBBIN, 25 BOBBINS/BAG		
40-2-5	Size #2 (0.060" / 1.5mm)	\$3.80
40-3-5	Size #3 (0.080" / 2.0mm)	3.99
40-4-5	Size #4 (0.110" / 2.8mm)	4.48
10 FEET (3.0 M)/BOBBIN, 25 BOBBINS/BAG		
40-2-10	Size #2 (0.060" / 1.5mm)	6.87
40-3-10	Size #3 (0.080" / 2.0mm)	7.28
40-4-10	Size #4 (0.110" / 2.8mm)	7.96
5 FEET (1.5 M)/BOBBIN, 10 BOBBINS/CAN		
SW14025	Size #2 (0.060" / 1.5mm)	38.28
SW14035	Size #3 (0.080" / 2.0mm)	40.00
SW14045	Size #4 (0.110" / 2.8mm)	44.85



CW8400



CW9400

CIRCUITWORKS® LEAD-FREE FLUX DISPENSING PEN

The pen for applying lead-free flux with precision and control.

FEATURES:

- Applies a noncorrosive, halide free, no clean flux for high temperature, lead-free application
- Can also be used for Tin/Lead fluxes
- Flux meets Bellcore TR-N-NWT-000078 and IPC SF-818 for Surface Insulation Resistance
- Flux meets ANSI/IPC J-STD-004, Type ROL0
- Easily removed with Lead-Free Flux Remover Pen, or Flux-Off® Lead-Free Flux Remover
- RoHS Compliant

Cat. No.	Description	Net Price
CW8400	9 g (0.32 oz) pen	\$8.16

CIRCUITWORKS® LEAD-FREE FLUX REMOVING PEN

The pen for removing lead-free flux with precision and control.

FEATURES:

- Completely removes lead free flux residues in seconds
- Can also be used to remove Tin/Lead fluxes
- Marker dispenser provides controlled and exact application
- Dries fast
- RoHS Compliant

Cat. No.	Description	Net Price
CW9400	9 g (0.32 oz) pen	\$10.23



CIRCUITWORKS® LEAD-FREE POCKET SOLDER

The lead free, high purity pocket sized solder dispenser for convenient rework and repair.

FEATURES:

- Precision manufactured Lead-Free solder alloy
- 96.5% Tin (Sn), 3.0% Silver (Ag), 0.5% Copper (CU)
- Type ROL0 flux per IPC J-STD-004
- Ensures even, reliable solder connections
- Cleans and wets heavily tarnished copper surfaces
- RoHS Compliant

Cat. No.	Description	Net Price
S200	1.0 mm (0.04") diameter 3.18 m (125") Diameter	\$15.13



ES897B



ES1697



ES197

FLUX-OFF® LEAD-FREE FLUX REMOVER

The powerful flux remover for high temperature, lead-free flux removal.

FEATURES:

- Engineered for removing high temperature, lead free flux
- Can also be used to remove Tin/Lead fluxes
- Flammable
- Ozone safe
- Evaporates quickly without leaving residue
- RoHS Compliant

Cat. No.	Description	Net Price
ES1697	12 oz/340 gm aerosol	\$16.22
ES897B	6 oz/170 g BrushClean™ System	11.63
ES197	1 gal/3.7 L liquid	71.22



CLF8



CLF1

CHEMASK® LEAD-FREE SOLDER MASKING AGENT

The high temperature, peelable temporary mask ideal for lead-free applications.

FEATURES:

- Formulated for use with lead-free applications
- Can also be used with Tin/Lead solders
- Usable within five minutes of application with preheat cycles
- Provides short-term high temperature protection
- RoHS Compliant

Cat. No.	Description	Net Price
CLF8	8 fl oz/236 ml liquid squeeze bottle	\$16.88
CLF1	1 gal/3.7 L liquid	145.65