

**Recovery of Electronic and Electrical Equipment from  
Catastrophic Water Damage****Overview**

Electrical equipment and electronic devices can be recovered from catastrophic water damage due to hurricanes, floods, fire suppression and other severe water impact situations. Water can be removed from electrical motors, electro-mechanical assemblies and electronic devices using cleaning solutions and processes that target water and trapped moisture removal. The assemblies can then be cleaned to remove debris, soot, deposited oil and grease, and other contaminants using a conventional cleaner/degreaser or contact cleaner. While water can cause extensive damage to electronic and electrical equipment, it does not mean that this equipment is lost. When used with the following procedures, ITW Chemtronics® products are an efficient and effective tool in recovery and restoration of water damaged equipment.

**Step 1: Rinse Equipment with Clean Water**

Electronics and electrical equipment should be flushed well with clean water to remove salt, sediment and particulate matter. Disassemble the equipment to allow access to all interior parts and flush with water until the rinsate is clean. If possible, dip the equipment into a drum or tank of clean water and agitate to dislodge trapped contaminants. After the equipment has been rinsed thoroughly, stand it on end and allow to drain. It must be noted that equipment already damaged by water will not be damaged further by the use of clean water.

**Step 2: Remove Remaining Oil, Grease, Sludge and Other Contaminants**

Cleaning will be necessary to remove oxidized oil, grease and other contamination. Most contacts and connectors contain sensitive plastics that will be destroyed using heavy degreasing products. For **plastic-safe** precision cleaning, remove the remaining contaminants with Electro-Wash® PX (part number ES1210), or for heavy-duty nonflammable degreasing use Electro-Wash® NX New & Improved (part number ES2211). Spray the equipment thoroughly or dip the equipment in the solvent and agitate while submerged. Allow the equipment and assemblies to drain and dry completely before returning the equipment to service. Make sure that all contaminated areas have been sprayed and completely cleaned.

Where removal of caked on grease, sludge and other contamination is required, and where there is little concern for plastic safety, Max-Kleen™ Lectro-Solv™ (part number ES2279) is used to remove debris and contamination. Spray the equipment thoroughly or dip the equipment in the solvent and agitate while submerged. Allow the equipment and assemblies to drain and dry completely before returning the equipment to service.

**Step 3: Protect Bare Metal**

After performing the previous cleaning processes on electrical equipment, electric motors, generators, power tools and switches, the use of contact lubricant is recommended to help prevent oxidation and corrosion. DPL Deep Penetrating Lubricant (part number ES1626) is a multi-purpose precision contact lubricant ideal for protecting the bare metal found in all electrical and electronic contacts, maximizing contact integrity. Spraying low voltage contacts with DPL will clean and protect the contacts. Electrical contacts that are not embedded in plastics can be cleaned and protected by using Kontakt Restore® New & Improved (part number ES1629). Battery terminals and semi-

permanent plug connectors can be further protected and electrical conductivity maximized by using CircuitWorks<sup>®</sup> Silver Conductive Grease (part number CW7100) on all connector surfaces.

**Step 4: Test Equipment**

Test electrical equipment to ensure correct resistance levels have been achieved prior to operating equipment. If correct levels have not been reached, then it may be necessary to repeat Step 3 of this procedure. When correct resistance levels have been reached, energize equipment under “no-load” conditions and allow operating for a period of time before returning to normal operations.

**TECHNICAL & APPLICATION ASSISTANCE**

ITW Chemtronics<sup>®</sup> provides a technical hotline to answer your technical and application related questions. The toll free number is: 1-800-TECH-401.

**Availability**

**Electro-Wash<sup>®</sup> PX Precision Cleaner**

ES1210 12.5 oz. aerosol

**Electro-Wash<sup>®</sup> NX New & Improved Degreaser**

ES2211 18 oz. aerosol

**Max-Kleen<sup>™</sup> Lectro-Solv<sup>™</sup> Heavy Duty Degreaser\*\***

ES2279 19 oz. aerosol

**Electro-Wash<sup>®</sup> NX New & Improved Degreaser**

ES2211 18 oz. aerosol

**DPL<sup>®</sup> Deep Penetrating Contact Cleaner/ Lubricant**

ES1626 11 oz. aerosol

**Kontakt Restorer<sup>®</sup> New & Improved  
Contact Cleaner / Lubricant**

ES1629 12 oz. Aerosol

**CircuitWorks<sup>®</sup> Silver Conductive Grease**

CW7100 6.5 gm syringe

**\*\*Not for sale or use in California.**

**NOTE:**

This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly.

ITW CHEMTRONICS<sup>®</sup> does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

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