

**Application Sheet****Recovery Of Telecom Equipment and Fiber Optic Connections From Catastrophic Water Damage****Overview**

Telecommunications equipment and fiber optic connections can be recovered from catastrophic water damage due to hurricanes, floods, fire suppression and other severe water impact situations. Water can be removed using cleaning solutions and processes that target water and trapped moisture. Once the moisture is removed, the assemblies can be cleaned to remove deposited oil and grease, soot, debris and other soils. While water can cause extensive damage, it does not mean that equipment is lost and cannot be replaced. When used with the following procedures, ITW Chemtronics' products are an efficient and effective tool for the recovery and restoration of fiber optic connections and telecommunications equipment.

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

Telecommunication and fiber optic equipment should be flushed well with clean water to remove salt, sediment and particulate matter. Flush with water until the rinsate is clear. After the equipment has been rinsed thoroughly, allow to stand and completely 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 Water and Moisture**

Water and moisture must be removed from all parts and assemblies. This can be effectively accomplished by using Flux-Off® Water Soluble (Part No. ES1530 and ES130). The hydrophilic nature of this solvent attracts moisture, dissolves and carries away water from the parts. The force of the aerosol spray will help dislodge and flush away trapped moisture in addition to excess surface contaminants. Equipment and components can also be dipped into Flux-Off® Water-Soluble to remove moisture and contaminants. After using Flux-Off® Water Soluble, allow the equipment and assemblies to completely dry. To speed the drying process, use UltraJet® Duster (part number ES1020). The high pressure of the UltraJet® Duster performs as a "portable compressor" to effectively dry excess moisture and solvent.

**Step 3: Remove Remaining Contaminants**

Additional cleaning may be necessary to remove other contaminants and excess moisture. Use Electro-Wash® PX Fiber Optic Cleaner (part number ES810) for plastic-safe cleaning. Spray equipment thoroughly and then allow to dry completely. Make sure all contaminated areas have been sprayed and completely cleaned. To speed the drying process, use UltraJet® All-Way Duster (part number ES1620) to remove the remaining solvent from components.

**Step 4: Clean Backplane Connections**

Cleaning and restoration of backplane connections can be effectively achieved through the use of the appropriate swab (2.5mm and 1.25 mm fiber optic swabs) and a small amount of Electro-Wash® PX Fiber Optic cleaner. Use the following procedure to clean backplane connections.

- Use the Coventry® 48040 swab for cleaning 2.5 mm connections and the Coventry® 25123X swab for 1.25 mm connections.
- Spray a small amount of the Electro-Wash® PX onto a clean QbE® wipe or another clean lint-free wiper (Coventry® 6704 Econowipe™).

- Dampen the swab by lightly touching the swab head to the moistened area. Do not over saturate the swab head.
- Feed the moistened swab tip through the alignment sleeve to clean the backplane connection, Repeat procedure a second time using a dry swab. The use of this process allows the first moistened swab to remove all types of contaminants while eliminating the static bond that holds contaminants to the end-face. The second dry swab removes any remaining solvent.

### **Step 5: Clean FO Connections With the Combination Cleaning procedure (CCp™)**

Use the QbE® cleaning system in combination with Electro-Wash® PX Fiber Optic Cleaner to remove contaminants from connector end-face. The large surface area of the QbE® system allows both standard and APC connectors to be cleaned with the same tool. Use the following procedure to clean connector end-face.

- Pull one QbE® wipe from the box over the neoprene platen.
- Spray a small spot (about quarter-size) of Electro-Wash® PX onto one corner of the wipe
- Move the end-face of the connector from the wet area of the QbE® lightly across the dry portion of the pad. Make sure to hold the end-face at 90° perpendicular to the platen.
- Repeat the wet to dry cleaning motion two more times, and make sure not to retrace your cleaning procedure of previously used areas of the wipe.
- Test connector with a fiberscope and, if necessary, repeat cleaning procedure.

Clean the barrel of the ceramic ferrule using a Coventry® 38540 swab moistened with Electro-Wash® PX Fiber Optic Cleaner. Spray a small amount of Electro-Wash® PX onto a clean QbE® wipe. Lightly moisten one side of the swab on the damp portion of the QbE®. Rotate the wet side of the swab on the ceramic ferrule 2 to 3 times. Reverse the swab and rotate the dry side of the swab on the ceramic ferrule 2 to 3 times.

### **TECHNICAL & APPLICATION ASSISTANCE**

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

#### **Availability**

#### **Electro-Wash® PX Fiber Optic Cleaner**

ES810 5 oz. aerosol

#### **Flux-Off® Water Soluble Water Remover**

ES1530 13.5 oz. aerosol

ES130 1 gallon liquid

#### **UltraJet® Duster**

ES1020 10 oz. aerosol

ES1620 8 oz. All-Way Spray aerosol

#### **QbE® Cleaning System**

QBE 200 perforated wipes per box  
2.75" x 3" (7.0 cm x 7.6 cm)

#### **Coventry® Fiber Optic Foam Swabs**

48040 500 swabs per bag

#### **Coventry® Econowipe™**

6704 1200 lint-free wipes - 4" x 4"  
(10.2 cm x 10.2 cm)

#### **Coventry® 1.25mm Fiber Optic Sleeve Cleaning Swab**

25123X 100 swabs per bag

#### **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® does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

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#### **MANUFACTURED BY:**

ITW CHEMTRONICS INC.  
8125 COBB CENTER DRIVE  
KENNESAW, GA 30152  
1-800-645-5244 / 1-770-424-4888  
[www.chemtronics.com](http://www.chemtronics.com)  
REV-0905-REV. 1

**TECHNICAL HOT LINE 1-800-TECH-401**