

Upgrade of P/N 7465-G501 Electrolytic Cell

For improved electrical contact

Purpose:

To ensure optimal electrical contact between the cell leads and the cell terminals.

Use Kit #8780-G501, containing:

- (1) Red vinyl over P/N 8776-01
- (1) Black vinyl over P/N 8776-02
- (2) Loop clamps P/N 7160-01
- (3) Hex nut, 1/4-20, 316 SS Nylok
- (2) Washer, flat 1/4", 316 SS
- (1) Hex head screw, 1/4-20 x 3-1/2", 316 SS
- (2) Hex head screws, 1/4-20 x 1", 316 SS
- (1) Red PVC terminal cover P/N 8694-02
- (1) Black PVC terminal cover P/N 8694-01
- (4) Cable ties P/N 8389-2-9
- (1) Vial copper-to-copper conductive paste

I. Disassemble.

- a. Cut away the rubber covers on the cable connections.
- b. Disconnect the cell leads from the bus bars.

II. Complete upgraded assembly.

- a. Slip the terminal covers onto the cell leads, maintaining color coding [red on anode (+); black on cathode (-)].
- b. Secure the cables to the cell edge as shown in Figure 1, using (2) loop clamps, (1) 3-1/2" screw, (1) Nylok nut, and (2) flat washers.
- c. Replace the 1" screws and Nylok nuts on the cell lead/bus bar connection if needed. Apply the conductive paste to that connection as shown in Figure 2.
- d. Reconnect the cell leads to the bus bars exactly as shown in Figure 2. The cell lead **must** be in direct contact with the conductive paste and the bus bar, with no nuts or washers in between.
- e. Install the new vinyl covers over the bus bars, maintaining color coding. Using the cable ties (2 per cover), secure the covers to the bus bars.
- f. Work the terminal cover on each side down snugly over the cell lead/bus bar connection.

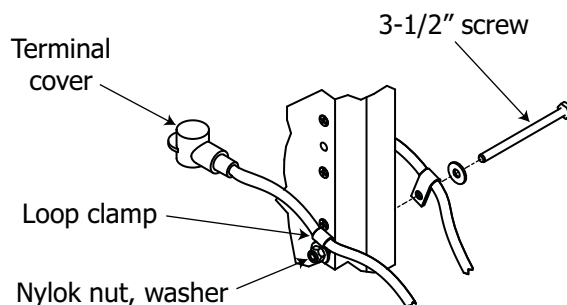


Figure 1. Loop Clamp Assembly

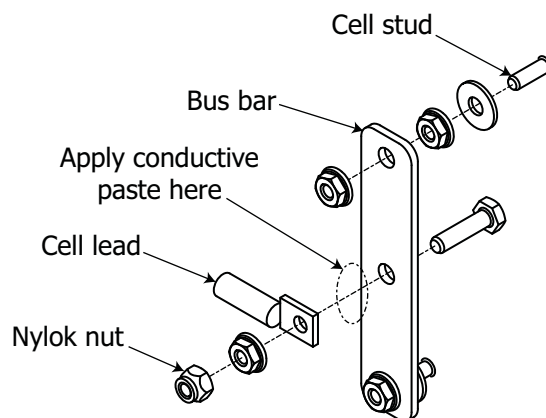


Figure 2. Cell Lead Connection

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MATERIAL SAFETY DATA SHEET
IDENTITY: PENETROX™ E OXIDE INHIBITING COMPOUND

SECTION 1

Manufacturer's Name, Address
 FCI USA INC.,
 BURNDY ELECTRICAL

Emergency & Information Telephone Number
 603-647-5000

Address
 47 EAST INDUSTRIAL PARK DRIVE
 P.O. BOX 9507
 MANCHESTER, NEW HAMPSHIRE 03108-9507

Signature of Preparer (optional)

Supersedes: February 04, 1998

Date Prepared: June 09, 1994

Date Revised: February 25, 1999

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components: Specific chemical identity (common name(s))/CAS Number

	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (Optional)
Copper / 7440-50-8 (dust)	5, 15 mg/m ³	10.0 mg/m ³	5.0 mg/m ³ (NIOSH)	15%
Castor Oil / 8001-79-4	Not Applicable	5 mg/m ³	Not Applicable	—
Formula: Proprietary Compound				
Hazardous Material Information System (HMIS/NFPA) Rating: Health = 1 Flammability = 0 Reactivity = 0				
WHMIS Hazard Identification System: D2B				

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	Not Applicable	Specific Gravity (H₂O =1)	≈ 1.27
Vapor Pressure (mm Hg)	Not Applicable	Melting Point	Not Applicable
Vapor Density (AIR = 1)	Heavier than air	Appearance and Odor	Mild odor - thick, copper colored grease
Evaporation Rate (Butyl Acetate = 1)	Not Applicable	Reactivity in Water	Not Applicable

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Flammable Limits	LEL	UEL
500°F per ASTM D92	Not Volatile	Not Applicable	Not Applicable
Extinguishing Media:	Foam, CO ₂ , dry chemical		
Special Fire Fighting Procedures:	Standard fireman's body protection and self-contained breathing apparatus is recommended.		
Unusual Fire and Explosion Hazards:	Keep container tightly closed and away from heat and open flames. Closed containers may explode. Fire may produce dense, black smoke and noxious copper compounds.		



SECTION V - REACTIVITY DATA

Stability - Stable Conditions to Avoid - Elevated storage temperatures, contact with incompatible materials.
Incompatibility (Materials to Avoid) Contact with oxidizing material, acids, alkalis, chlorates, and bromates.
Hazardous Decomposition or Byproducts - On burning, carbon monoxide, carbon dioxide, and dense black smoke.
Hazardous Polymerization - Will not occur

SECTION VI - HEALTH HAZARD DATA

Route(s) of Entry - Principle routes of entry through absorption or ingestion.

<u>Inhalation</u>	<u>Skin</u>	<u>Ingestion</u>	<u>Health Hazards (Acute & Chronic)</u>
	YES	YES	Skin and eye irritation
<u>Carcinogenicity</u>	<u>NTP</u>	<u>IARC Monographs</u>	<u>OSHA Regulated</u>
Not Applicable	NO	NO	Not Applicable

Signs and Symptoms of Exposure - Prolonged skin contact may cause skin irritation in some individuals.

Medical Conditions Generally Aggravated by Exposure - Skin irritation resulting from prolonged skin contact.

Emergency and First Aid Procedure

EYES - Flush with water for 15 minutes; Consult Doctor.

SKIN - Wash off with soap and water

INHALATION - Remove to fresh air; Consult Doctor

INGESTION - Call Doctor immediately

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled - Recover free product; add sand, earth sawdust or other absorbent if necessary.

Waste Disposal Method - Dispose of as solid waste in accordance with Federal, State and Local regulations.

Precautions to be taken in handling and storing - Store in closed containers. Protect from contamination with other materials. Do NOT transfer into unmarked containers. Avoid storage in temperatures exceeding 150°F (66°C). Avoid strong oxidizers such as hydrogen peroxide, bromine, etc. Other precautions - None

SECTION VIII - Control Measures

Respiratory Protection (Specify Type) - None, under normal conditions.

Ventilation - Use in open, well-ventilated area.

Local Exhaust - None

Mechanical (General) - None

Other - None

Special None

Protective Gloves - Chemical resistant gloves, especially where prolonged skin contact may occur.

Eye Protection - Safety Glasses when eye contact may occur.

Other Protective Clothing or Equipment - As required to prevent dermal contact. Safety shower and eye wash should be provided.

Work/Hygienic Practices - Avoid eye and prolonged skin contact; wash before eating.

SARA NOTICE

FCI is required to notify you that you have purchased product which contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR, Part 372. FCI is providing the name of each toxic chemical, the associated Chemical Abstract Service (CAS) registry number and percent by weight of each toxic chemical in the product. This notification must not be detached from the MSDS and any copying or re-distribution of the MSDS shall include a copy of this notice.

Product: PENETROX™ PEN-E Oxide Inhibiting Compound

SARA Toxic Chemical: Copper (fume or dust) CAS No: 7440-50-8
Percentage by Weight: 15%