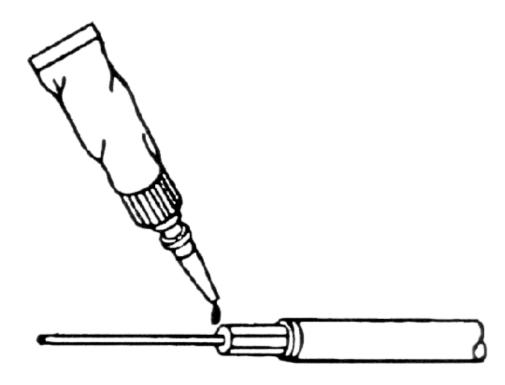


SERVICE INSTRUCTION LN-9229-00.2 (Replaces LN-9229-00.1) June - 2009

## FIBER OPTIC CABLE REPAIR KIT



## KIT: KK-4913

NOTE: Before using this kit, carefully read all instructions in this manual. Keep this Service Bulletin for future reference.



## KK-4913 FIBER OPTIC CABLE REPAIR KIT

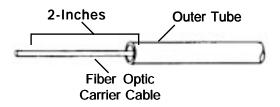
The KK-4913 Fiber Optic Cable Repair Kit contains the necessary items for repair of damaged fiber optic cables and assembly of custom length fiber optic cables. Standard fiber optic cables may be shortened or different length cables spliced together to create longer cables.

### MAINTENANCE PROCEDURES

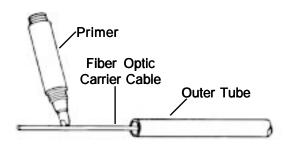
# Installation of Fiber Optic Ferrules

The same procedures apply to either repair of a damaged fiber optic cable, or to create custom length cables. When repairing damaged cables, cut out the damaged portion of the cable. When creating custom length cables, cut each piece of fiber optic cable to the desired length. After cutting the cables, apply a fiber optic ferrule to each end of the cable to be spliced. After installing the ferrules, the ends of the fiber optic cable must be polished to ensure a good clean fitting between the two cables. After the cable ends have been prepared, use the nylon splice fitting to secure the cable ends together. Proceed as follows:

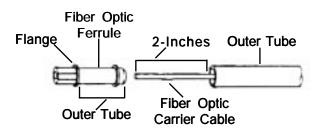
1. Cut the fiber optic carrier cable so that it extends 2-inches from the outer tube as shown.



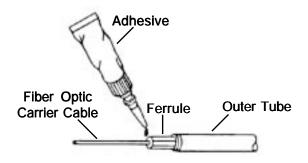
2. Apply the primer to the 2-inch piece of fiber optic carrier cable extending from the outer tube.



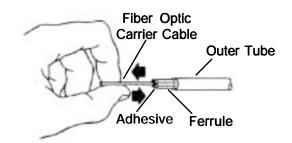
3. Install the fiber optic ferrule over the fiber optic carrier cable and push the stem end into the outer tubing until the flange contacts the outer tubing.



4. Place a small bead of adhesive on the fiber optic carrier cable next to the ferrule.



5. Slide the fiber optic carrier cable back and forth for a couple of seconds to promote a good bond to the fiber optic ferrule.



6. Allow a few minutes for the adhesive to set before polishing the fiber optic cable end.

# Polishing Fiber Optic Cable Ends

1. Use a sharp knife, flush cutter, or wire cutters to trim the fiber optic carrier cable to within 0.030-inch of the fiber optic ferrule.

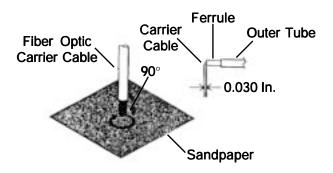
2. Place the #600 grit sandpaper on a flat surface.



Fiber Optic Cable Repair Kit

3. Keeping the fiber optic cable end at a right angle to the sandpaper, gently sand the end using a circular motion until the fiber optic carrier is smooth and flush with the end of the ferrule (about 10 orbits at 1-inch diameter).

4. Place the 1-micron (green) sandpaper on a flat surface.



5. Keeping the fiber optic cable end at a right angle to the sandpaper, gently sand the end using a circular motion until the end is smooth (about 15 orbits at 1-inch diameter).

6. Finish by using .3 micron (white) sandpaper.

7. Keeping the fiber optic cable end at a right angle to the back of the sandpaper, gently polish the end using a circular motion until the end is polished (about 20 orbits at 1-inch diameter).

#### Secure Cable Ends Together

#### NOTE

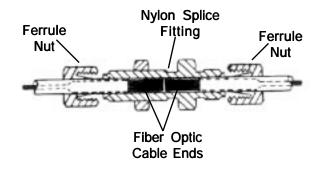
► Installing splices between fiber optic cables reduces the strength of the light signal being transmitted. When no splices are used, the maximum length of a fiber optic cable is 120 feet. If one splice is used, the total length of the two spliced cables must not exceed 90- feet. If two splices are used, the total length of the three spliced cables must not exceed 60feet. A fiber optic cable with more than two splices cannot be used with the Fiber Optic Pulse Track system.

#### WARNING

► Ungrounded metal objects in the spray area will store electricity and present an arcing hazard. The RMA-427 brass splice fitting (supplied with RMA control box for "RMA" type installations) must NOT be used to join spliced fiber optic cables in the spray area. Use SMC-426 nylon splice fitting ONLY.

1. Slide a ferrule nut onto each fiber optic cable end to be spliced.

2. Insert both fiber optic cable ends into the nylon splice fitting and tighten the ferrule nuts.



#### NOTE

 It is important that there is good contact between cable ends to ensure a maximum light signal.

### PARTS IDENTIFICATION

FIBER OPTIC CABLE REPAIR KIT - PARTS LIST			
Part #	Description	Qty	
SMC-426	Splice Fitting, Nylon	1	
	Fiber Optic Ferrule	2	
	Ferrule Nut	2	
	Sandpaper (1 micron - green)	1	
	Sandpaper (.3 micron - white)	1	
	Sandpaper #600	1	
	General Purpose Adhesive	1	
	Primer	1	

Manufacturing 1910 North Wayne Street Angola, Indiana 46703-9100 Telephone: 260/665-8800 Fax: 260/665-8516 www.itwransburg.com

Technical/Service Assistance	Telephone: 800/ 626-3565	Fax: 419/ 470-2040
	Telephone: 800/ 233-3366	Fax: 419/ 470-2071

Technical Support Representative will direct you to the appropriate telephone number for ordering Spare Parts.



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