

# MAGNET CABLE WIRING INSTALLATION

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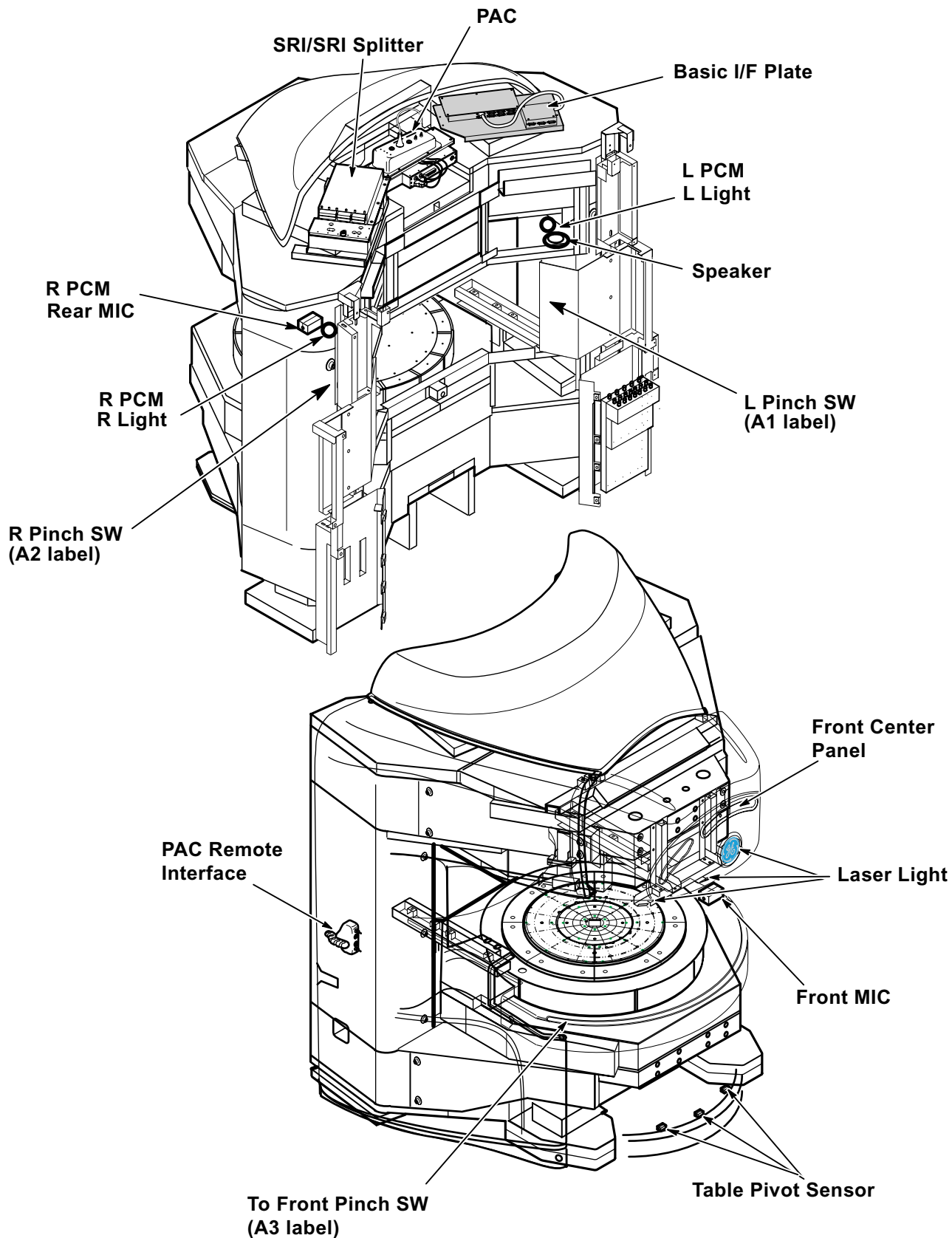
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**1. Preparation**

1. Verify that the following parts are already installed before starting the cable wiring.

**TBD**

## 2. Electrical Component Location



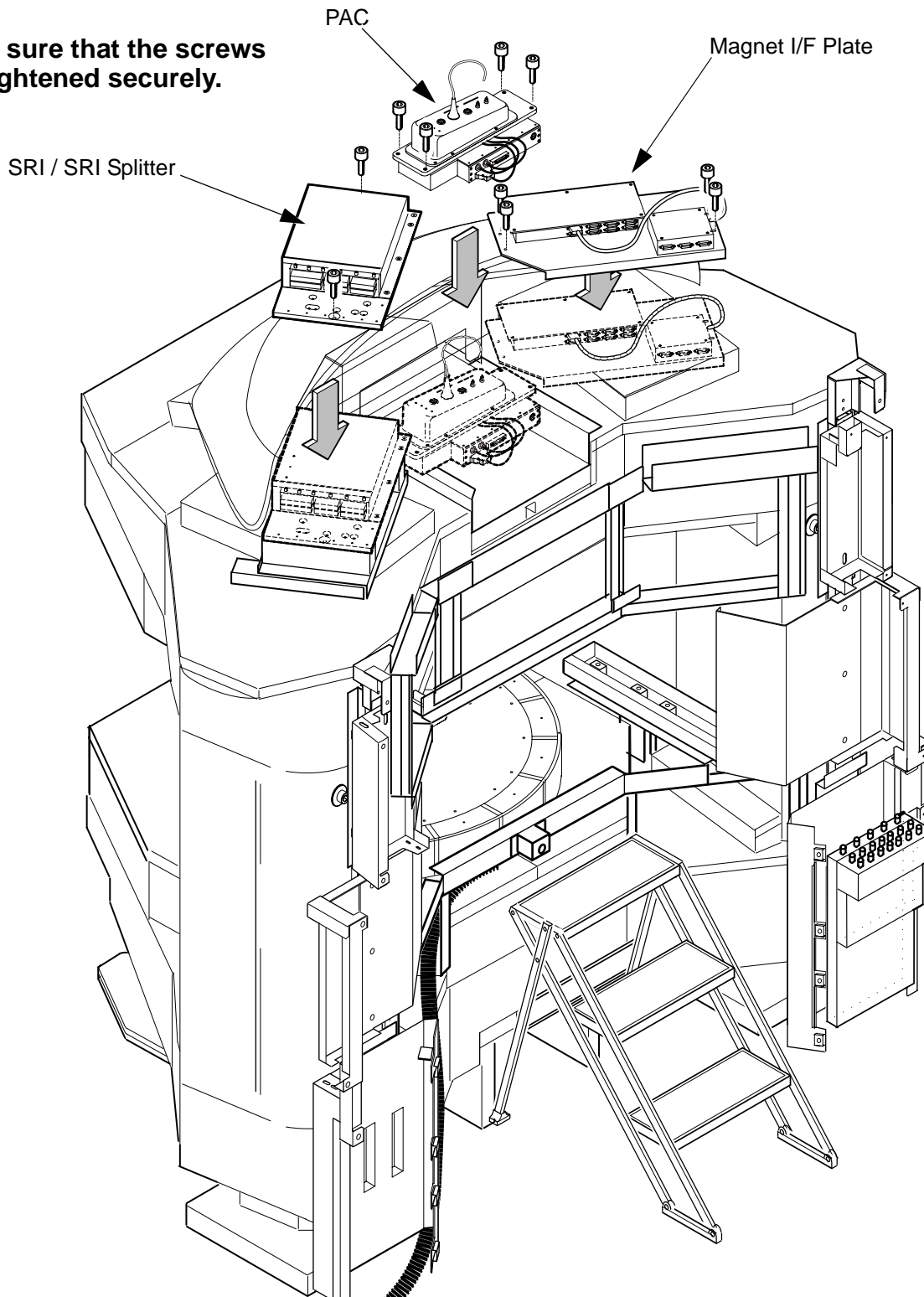
**FRAMES BEFORE STARTING THE INSTALLATION**  
ILLUSTRATION 1-2

### 3. Magnet Unit Installation

1. Install PAC onto the magnet with 4 screws. Make sure that screws are tightened securely.
2. Install Magnet I/F Plate Assy onto the magnet with 4 screws.
3. Install SRI/SRI Splitter onto the magnet with 2 screws. Make sure that screws are tightened securely.

**NOTE:**

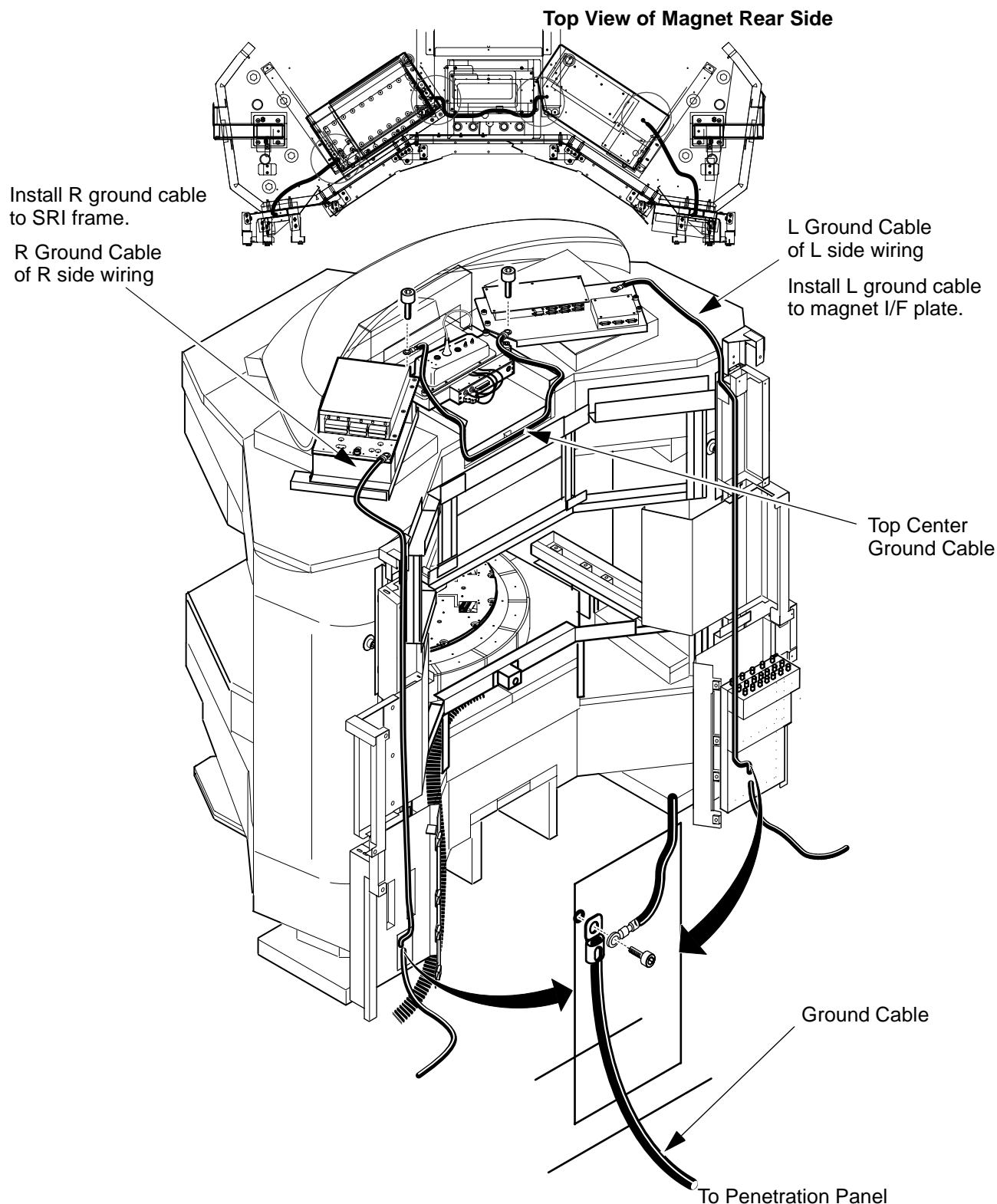
**Make sure that the screws are tightened securely.**



**UNIT INSTALLATION  
ILLUSTRATION 1-3**

### 4. Ground Cable Wiring

1. Install R or L Ground Cable according to site layout.
2. Install top center ground cable between magnet I/F plate and SRI frame.
3. Install ground cable and R or L ground cable to magnet R or L bottom side with screw.

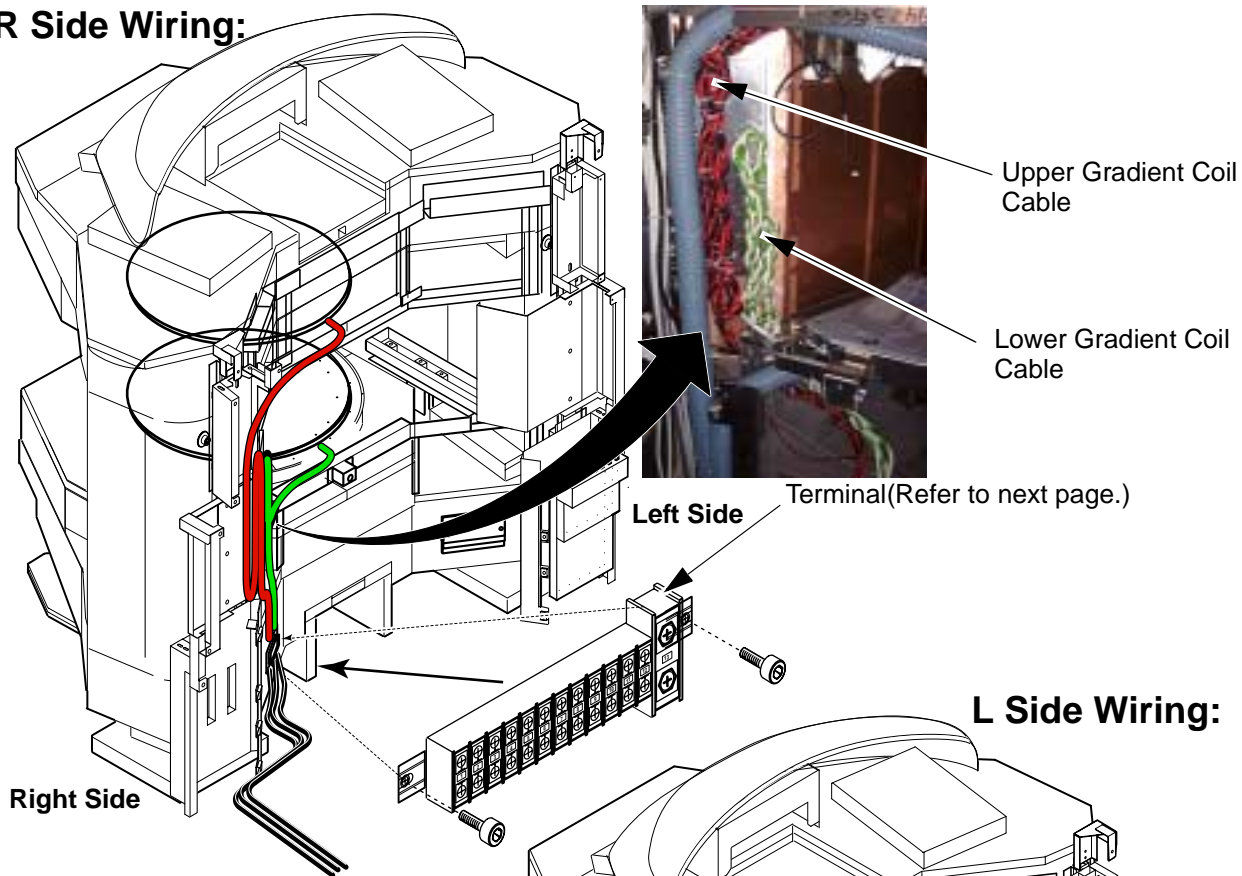


**MAGNET DECK PLATES INSTALLATION**  
ILLUSTRATION 1-4

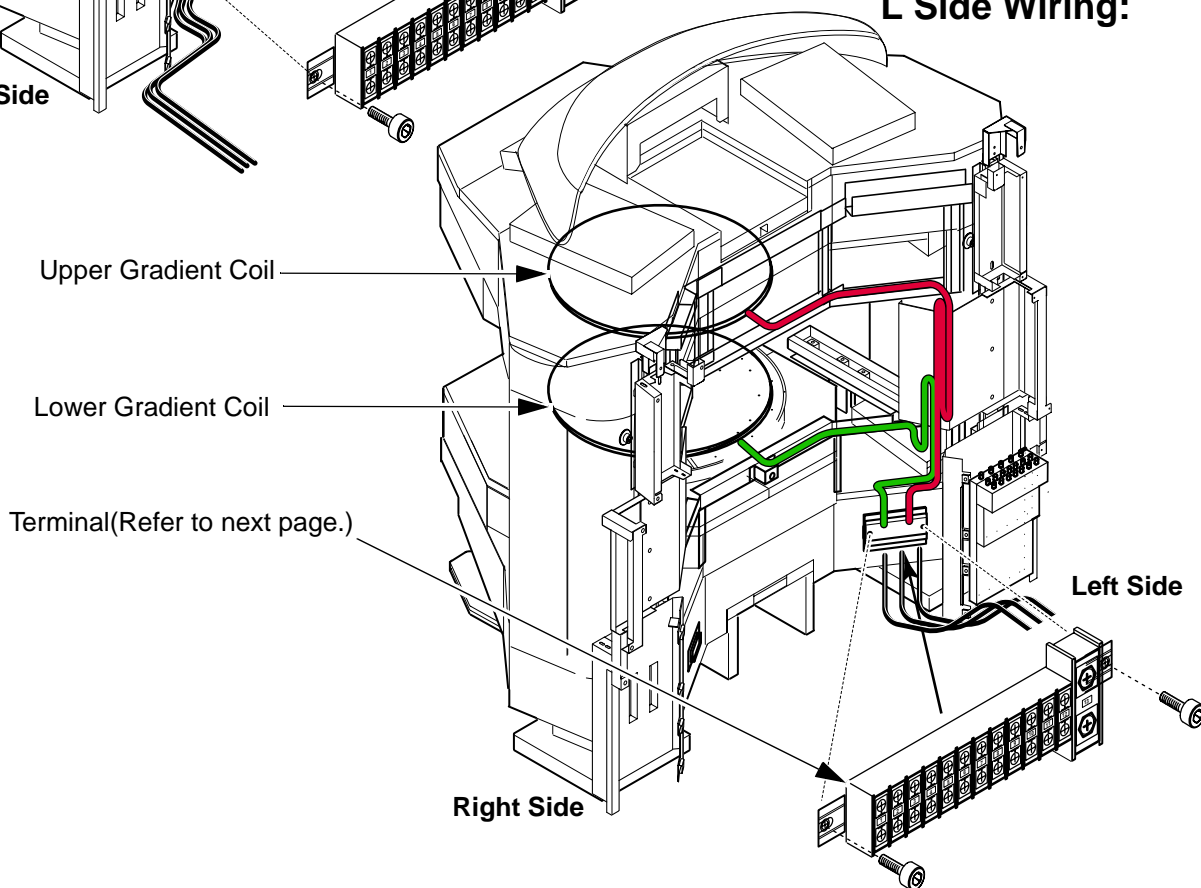
### 5. Gradient Cable Wiring (Cables)

1. Install the terminal with 2 screws to R or L side according to site layout.
2. Route the upper/lower gradient cables to R or L side according to site layout.

#### R Side Wiring:



#### L Side Wiring:



**MAGNET GRADIENT CABLE WIRING (CABLES)**  
ILLUSTRATION 1-5

6. Gradient Cable Wiring (Terminals)

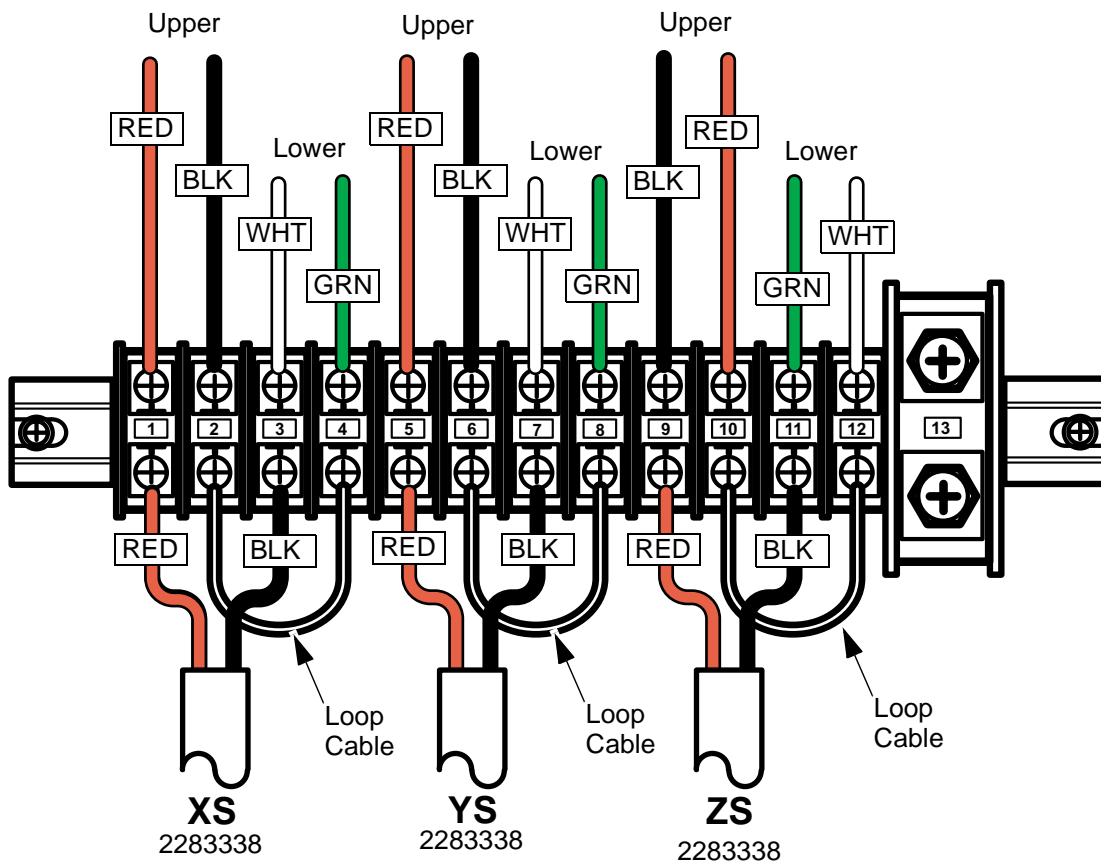


**BE CAREFUL TO ELECTRICAL SHOCK HAZARD.WHEN CONNECTING THE TERMINAL,CHECK THAT THE SYSTEM POWER OFF.**

1. Connect 6 upper / 6 lower gradient cables,3 loop cables and XS/YS/ZS cables to terminal.

**R/L Terminal Setting:**

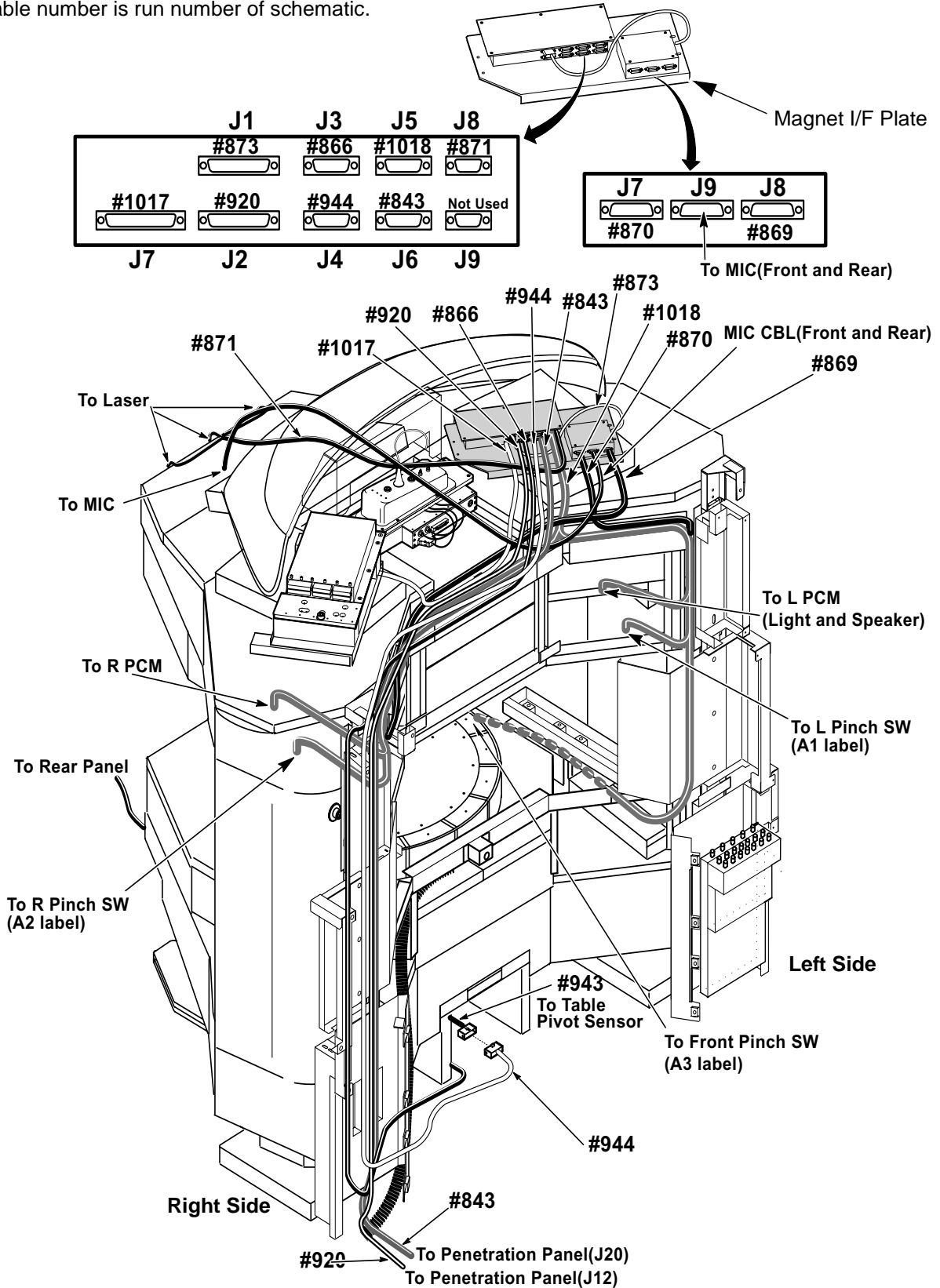
- 1,2,5,6,9 and 10 Terminals : Upper Gradient Cables
- 3,4,7,8,11 and 12 Terminals : Lower Gradient Cables



**MAGNET GRADIENT CABLE WIRING (TERMINALS)**  
ILLUSTRATION 1-6

**7. Basic I/F Plate Cable Wiring**

1. The run number 869,870,871,1017 and 1018 cables are common to R or L side wiring.  
The Cable number is run number of schematic.



**SIDE LOWER FRAME INSTALLATION**  
ILLUSTRATION 1-7

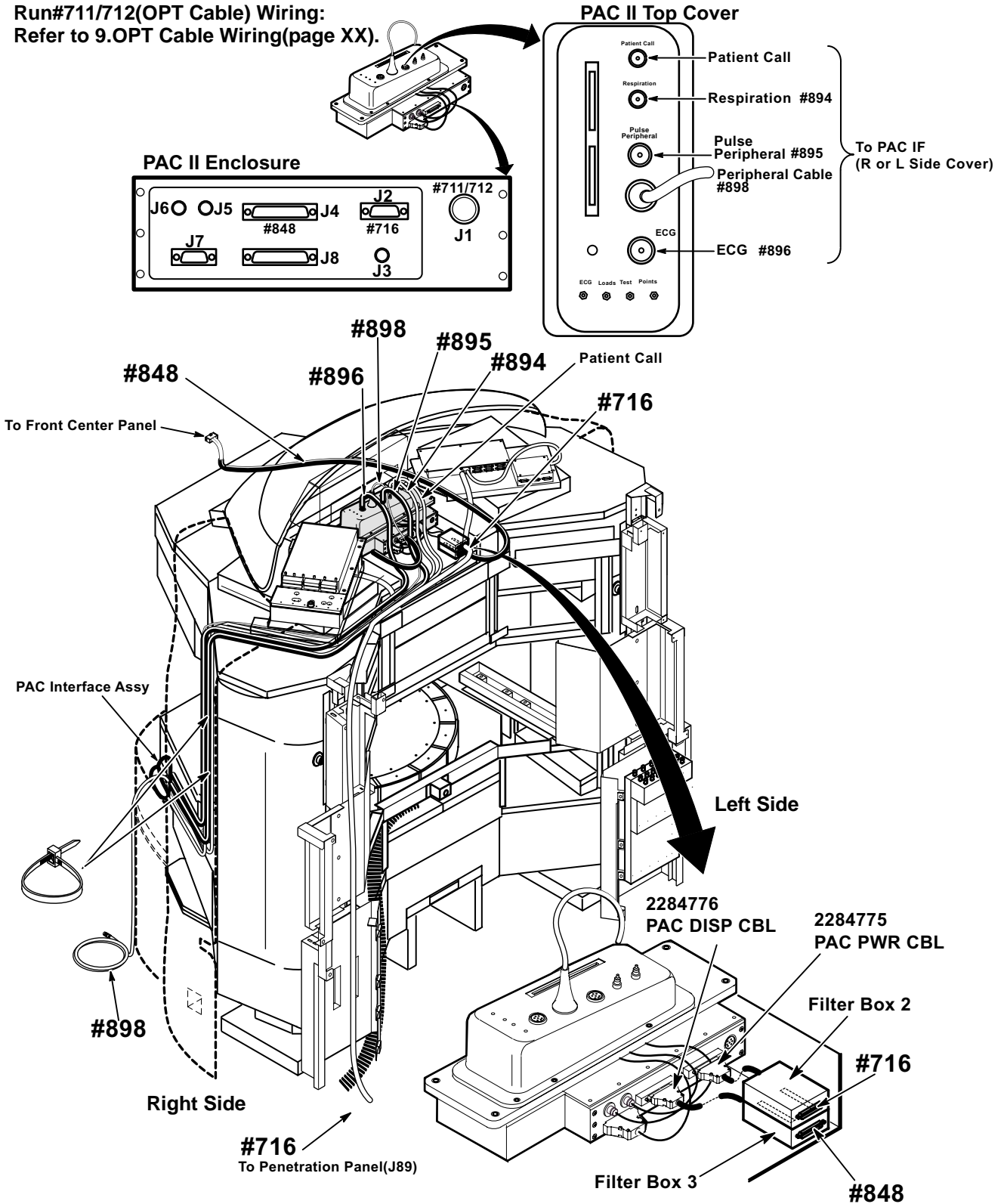
### 8. PAC Cable Wiring

1. The Illustration is R side wiring. The L side wiring is symmetry for illustration.

**NOTE:**

Run#711/712(OPT Cable) Wiring:

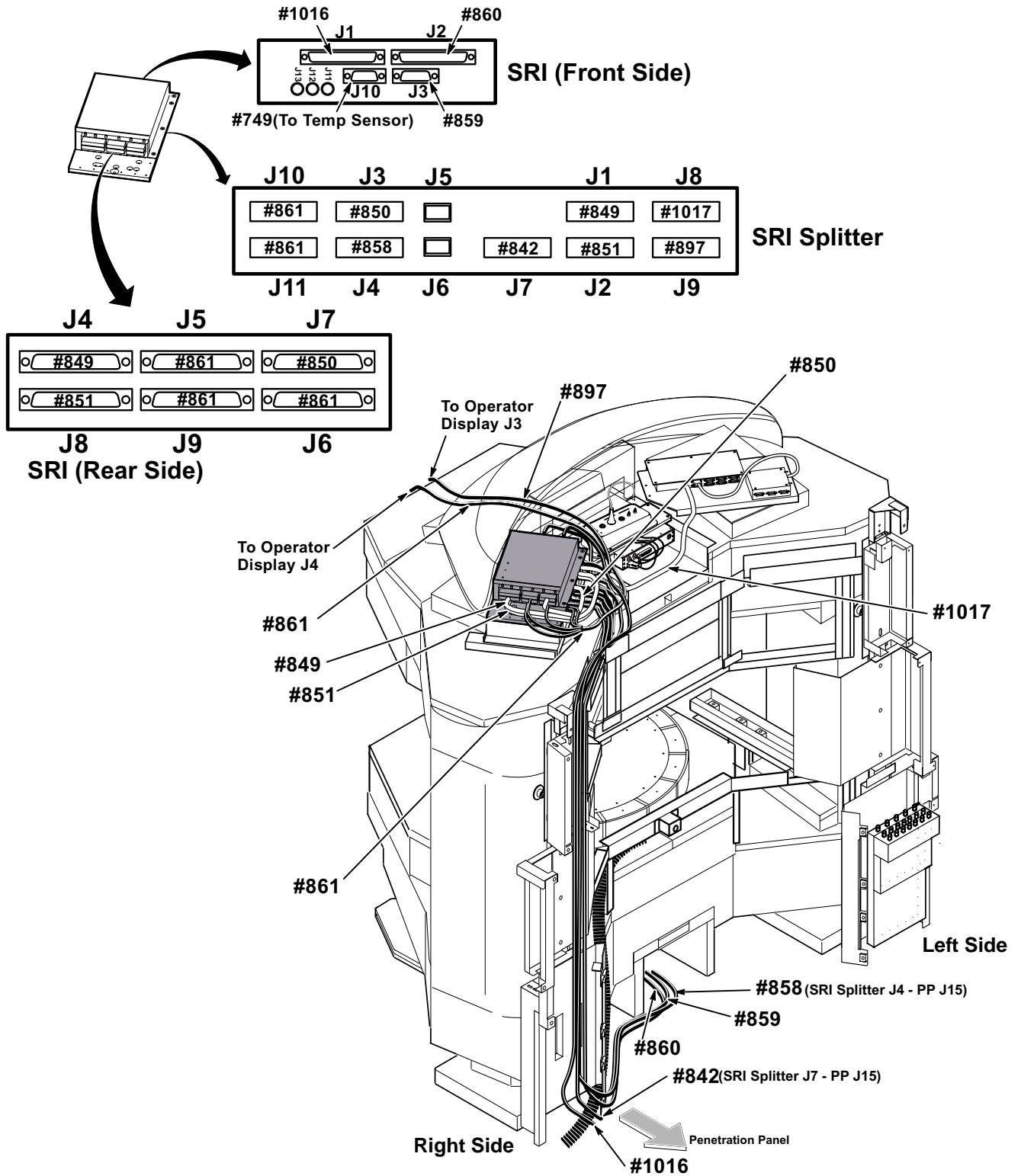
Refer to 9.OPT Cable Wiring(page XX).



FRONT UPPER FRAME INSTALLATION ILLUSTRATION 1-8

9. SRI / SRI Splitter Cable Wiring

1. The Illustration is R side wiring. The L side wiring is symmetry for illustration.

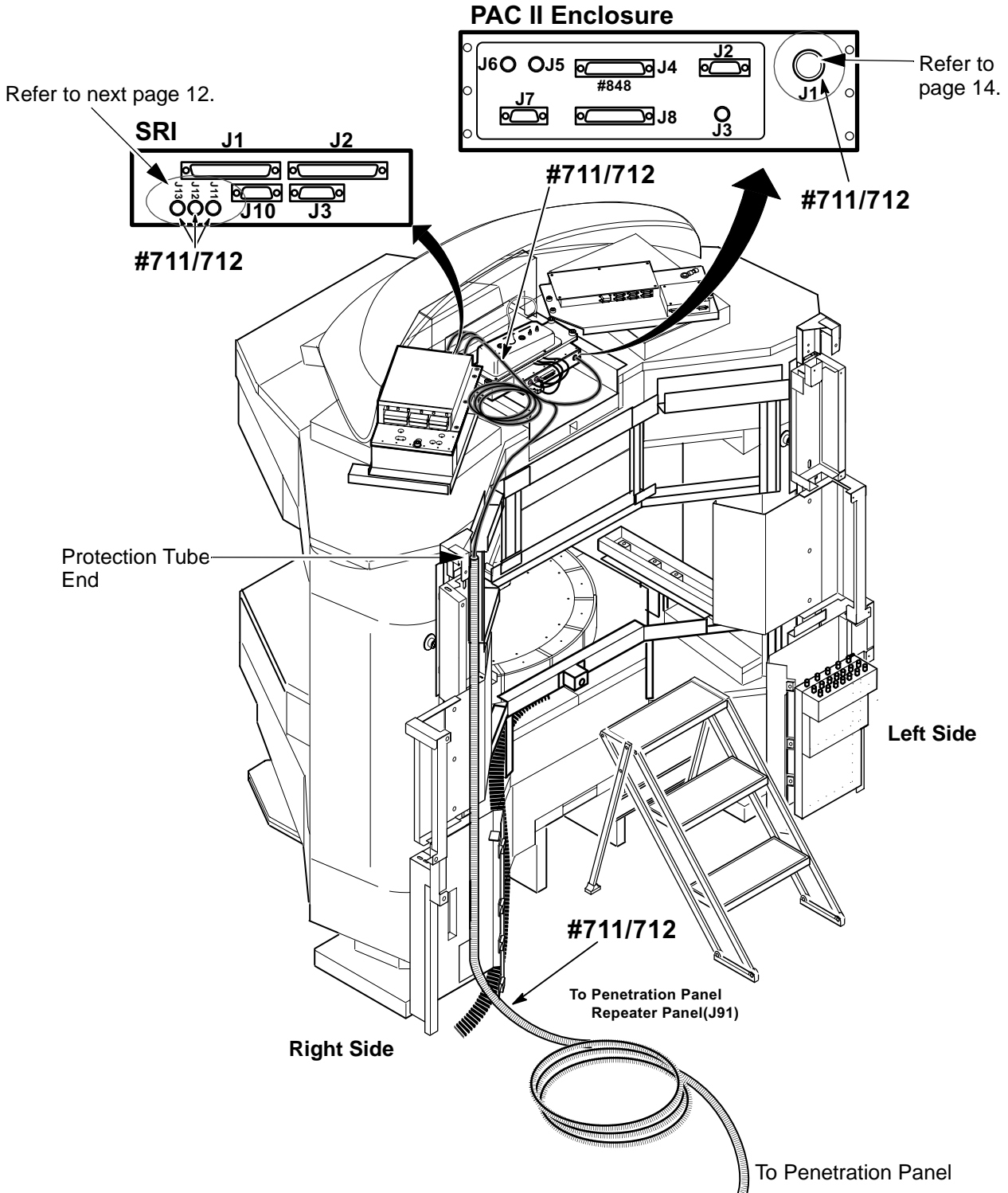


REAR LOWER FRAME INSTALLATION  
ILLUSTRATION 1-9

10.OPT Cable(Run#711/712) Wiring

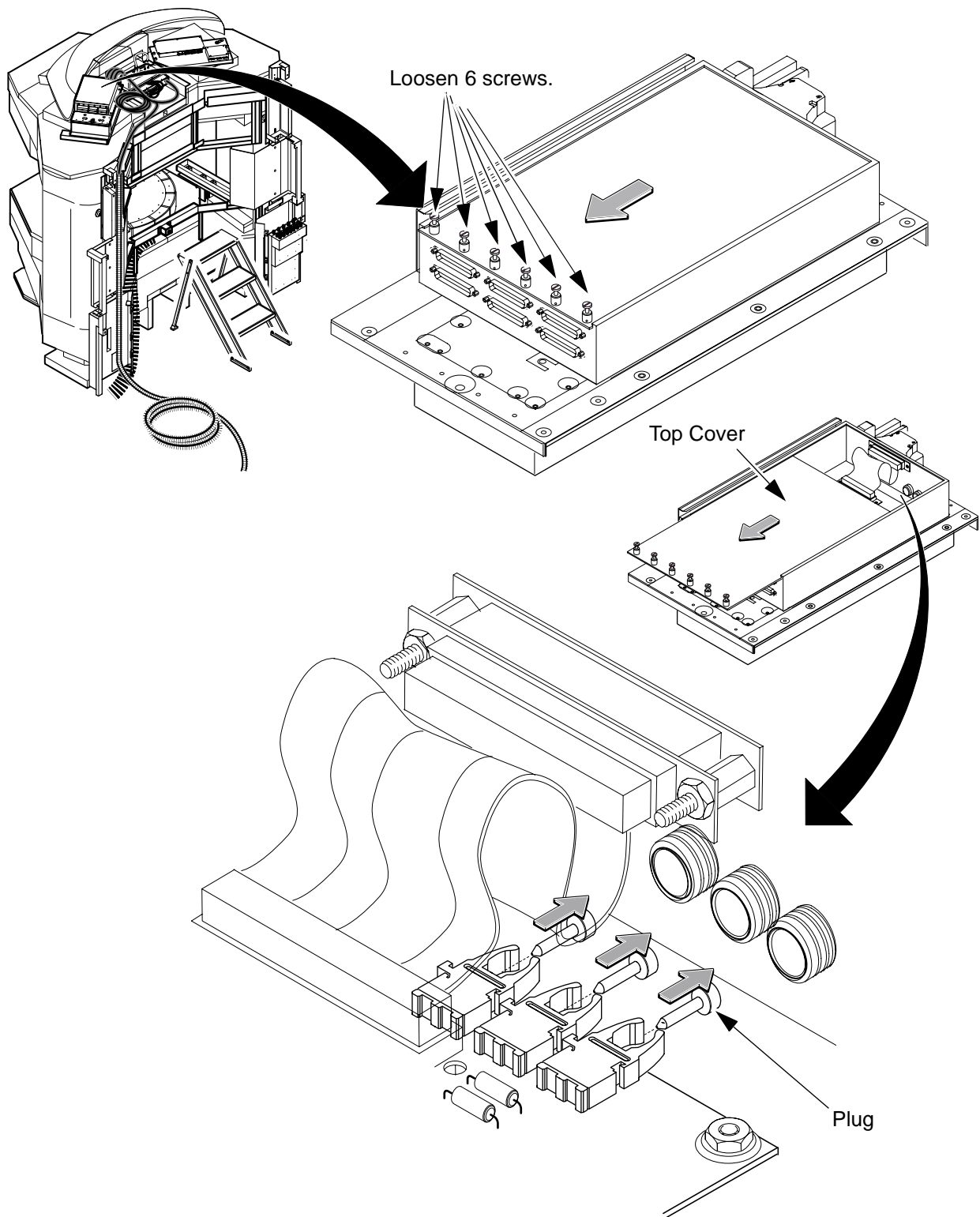
**CAUTION**

Fiber optic cables are easily damaged. Handle fiber optic cables very carefully. Failure to do so may cause intermittent problems difficult to isolate. Do not bend fiber optic cables to radius smaller than two inches.



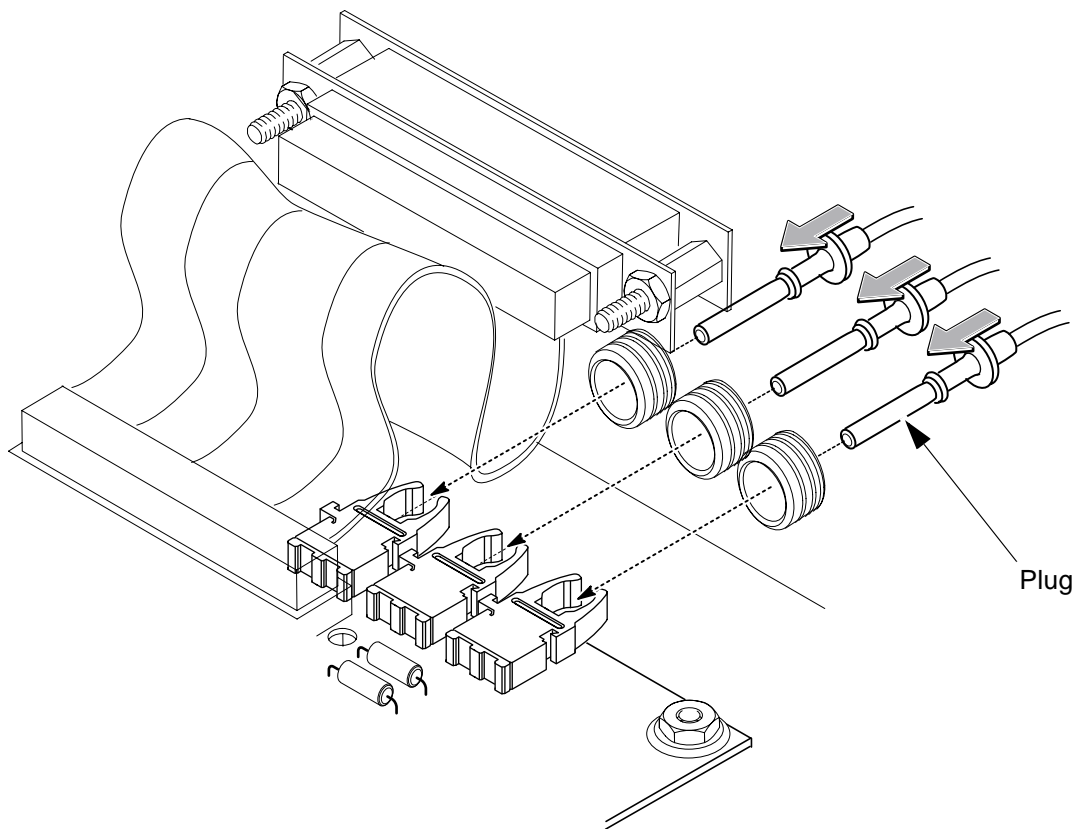
OPT CABLE(RUN#711/712) WIRING ILLUSTRATION 1-10

1. Loosen 6 screws on SRI top cover.
2. Slide and open SRI top cover.
3. Remove 3 plugs from OPT connector.



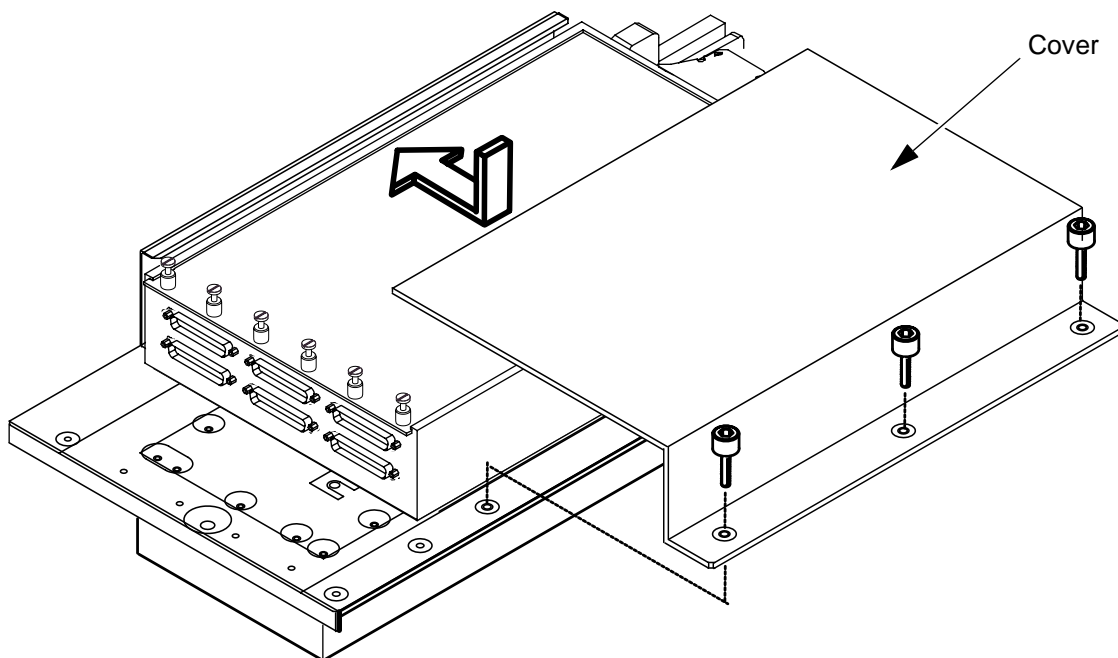
**OPT CABLE(RUN#711/712) WIRING**  
ILLUSTRATION 1-11

4. Connect 3 OPT cables to OPT connector securely.



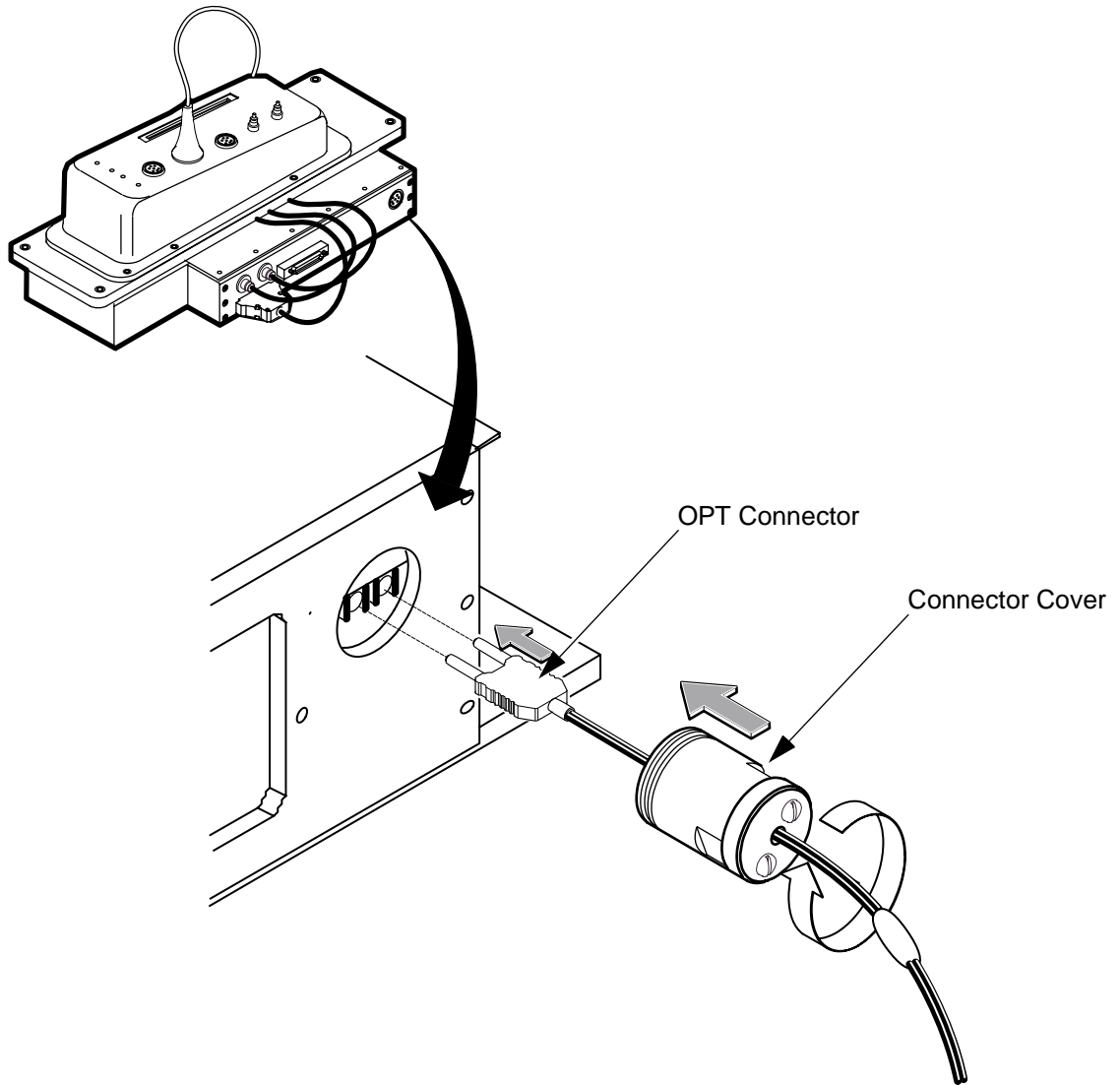
**OPT CABLE(RUN#711/712) WIRING**  
ILLUSTRATION 1-12

5. Install SRI cover with 3 screws securely.



**OPT CABLE(RUN#711/712) WIRING**  
ILLUSTRATION 1-13

6. Connect OPT connector to PAC.
7. Install connector cover to PAC.



**OPT CABLE(RUN#711/712) WIRING**  
 ILLUSTRATION 1-14

## 11.OPT Cable Repair

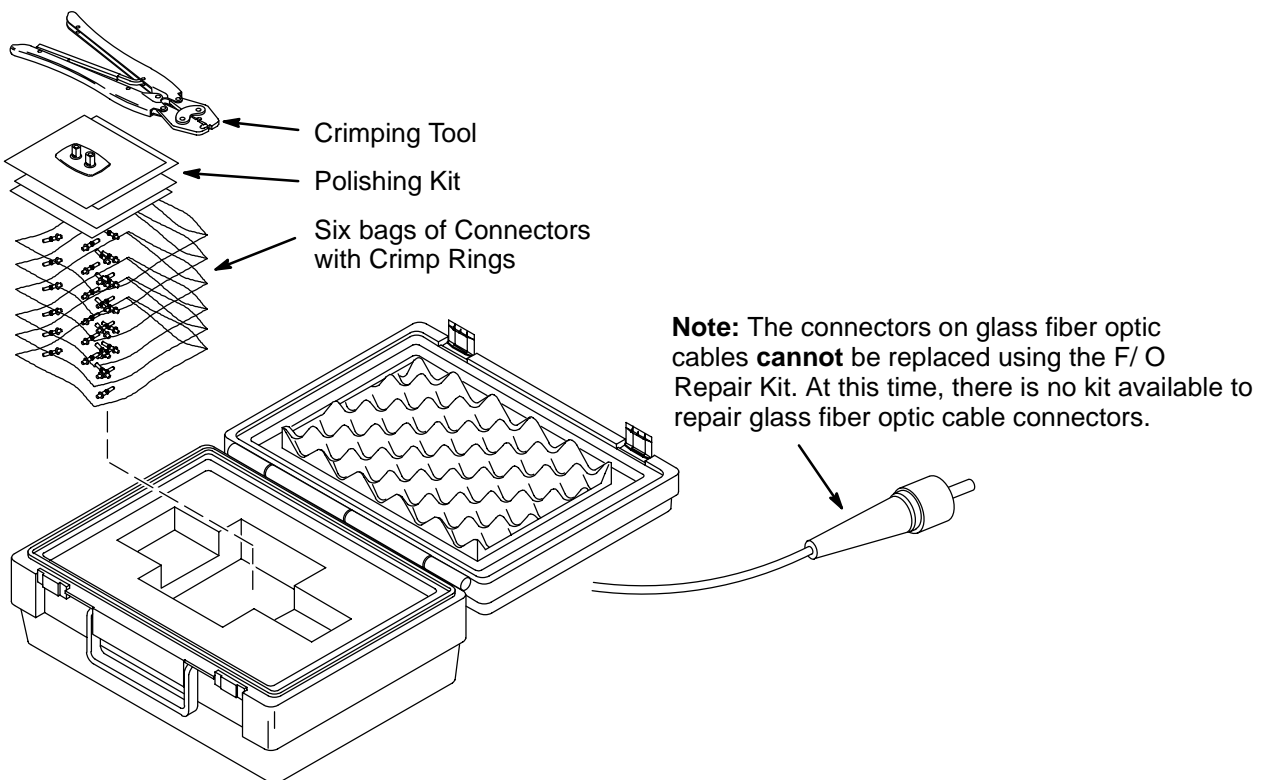
### WARNING!

**FERROUS MATERIAL HAZARD! CRIMP TOOL AND OTHER TOOLS REQUIRED FOR THIS PROCEDURE CONTAIN FERROUS MATERIAL AND WILL BE STRONGLY ATTRACTED TO MAGNET AND MAY BECOME DANGEROUS PROJECTILES. KEEP ALL FERROUS TOOLS AT LEAST 10 FEET AWAY FROM THE MAGNET.**

### 11-1 FIBER OPTIC CABLE TERMINATION KIT

**NOTE:**The connectors on plastic fiber optic cables can be replaced if damaged or cut off to shorten.

1. The Fiber Optic Repair Kit, 46– 301450G1, contains all the necessary materials to replace a damaged connector.
2. The “Spares Kit”, delivered with the Shipping Collector, contains a 46– 320119P1 Termination Kit for Fiber Optic Cables. This kit consists of consumables such as terminals and polishing sheets used to terminate cables during installation.
3. Remove the end of fiber optic cable to be re-terminated from magnet room if possible.
4. If it is not possible to remove the end to be repaired from the magnet room, the cable must be at least 10 feet away from the magnet before it can be worked on.
5. Cut cable to desired length.

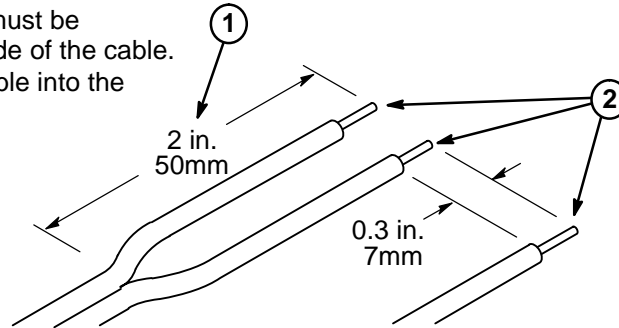


**OPT CABLE REPAIR**  
ILLUSTRATION 1-15

**11-2 STRIPPING FIBER OPTIC OUTER JACKET**

1. For Duplex Cables, separate the two fibers approximately 2 in. (50mm) back from the ends.
2. Strip off approximately 0.3 in. (7 mm) of the outer jacket with the 16 gauge wire strippers. Excess webbing on duplex cable may have to be trimmed to allow the connector to slide over the cable.

**Note:** The separated duplex cable must be stripped to equal lengths on each side of the cable. This allows proper seating of the cable into the connector.

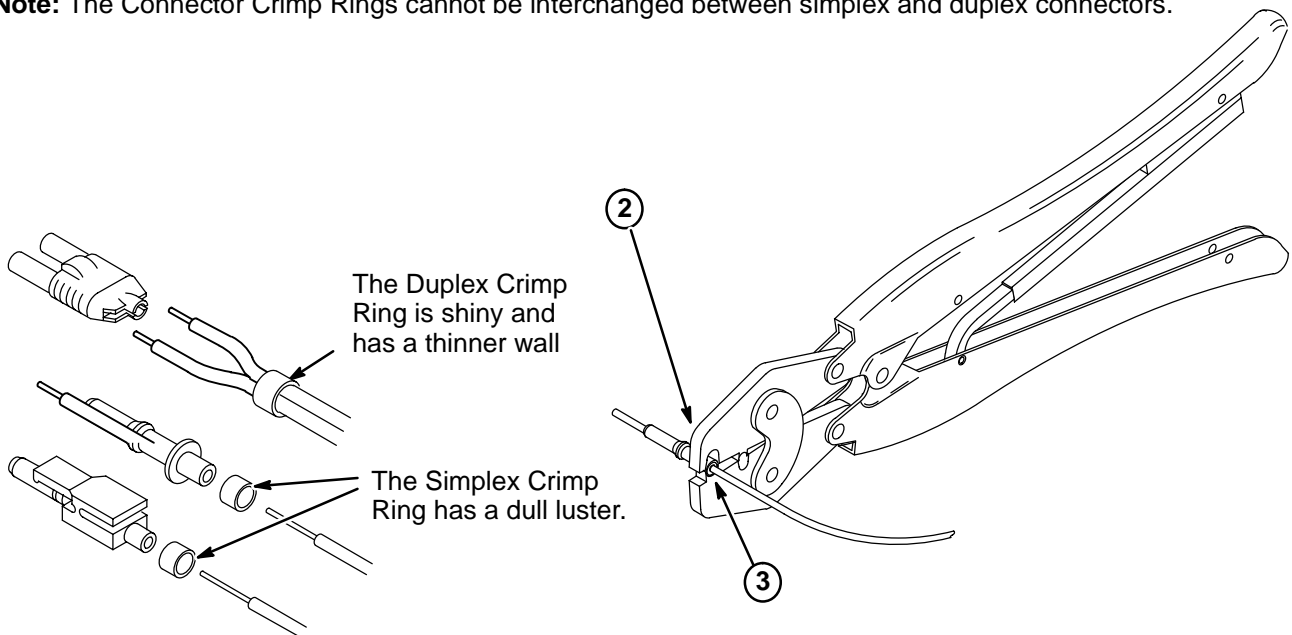


**OPT CABLE REPAIR**  
ILLUSTRATION 1-16

**11-3 CRIMPING CONNECTOR TO FIBER OPTIC CABLE**

1. Place the Crimp Ring and Connector over the end of the cable.
2. The fiber should extend approximately 0.12 in. (3mm) through the end of the connector.
3. Carefully position the ring so that it is entirely on the connector and then crimp the ring in place with the crimping tool.

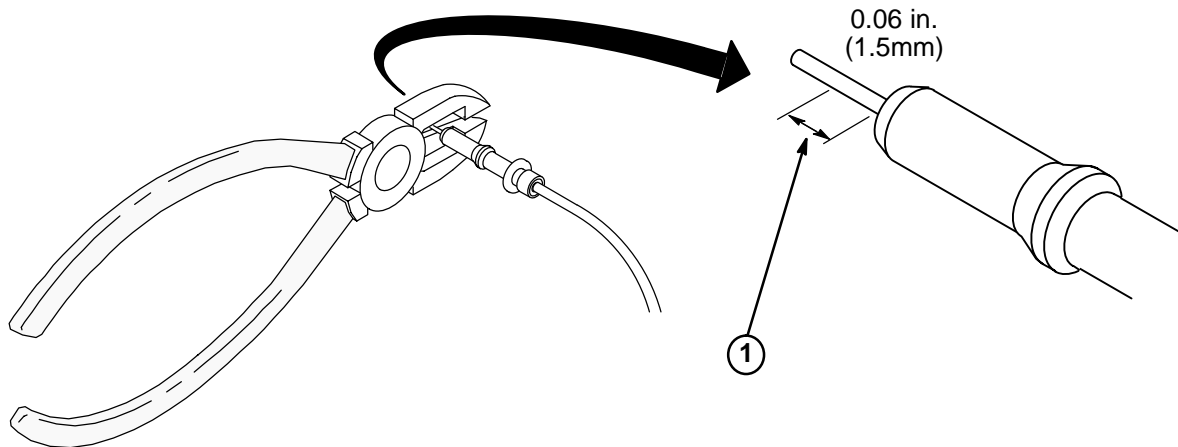
**Note:** The Connector Crimp Rings cannot be interchanged between simplex and duplex connectors.



**OPT CABLE REPAIR**  
ILLUSTRATION 1-17

### 11-4 TRIMMING EXCESS FIBER FROM CONNECTOR

1. Cut off excess fiber protruding from the connector. The trimmed fiber should extend approximately 0.06 in. (1-1/2mm).

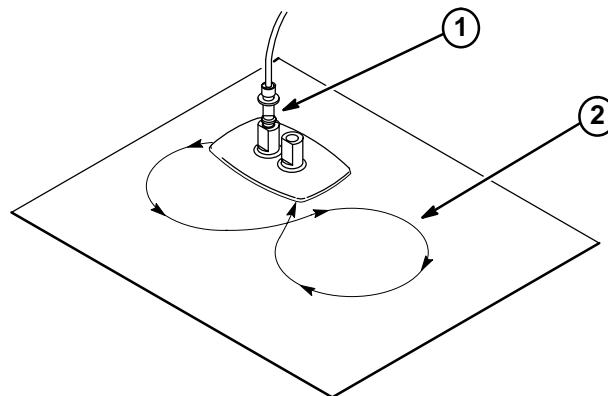


OPT CABLE REPAIR  
ILLUSTRATION 1-18

### 11-5 POLISHING FIBER OPTIC END

1. Insert the connector fully into the polishing fixture with the trimmed fiber end protruding from the bottom of the fixture.
2. Place the 600 grit abrasive paper on a flat smooth surface. Pressing down on the indicator, polish the fiber and the connector using a figure eight motion until the connector is flush with the end of the polishing fixture.
3. Wipe the connector and fixture with a clean cloth or tissue.
4. Place the flush connector and polishing fixture on the dull side of the 3 micron pink lapping film and continue to polish the fiber and connector for approximately 25 strokes.
5. The fiber end should be flat, smooth and clean. The cable end can now be connected.

**Note:** The four dots on the bottom of the polishing fixture are wear indicators. Replace the polishing fixture when any dot is no longer visible.



OPT CABLE REPAIR  
ILLUSTRATION 1-19