FILE TITLE Signa Ovation Power Cabinet SN62722

New Power Cabinet Introduction

Overview:

New power cabinet(2356272) is introduced from February, 2003.

Major differential is as follows.

- •Power Cabinet Chassis was modified.
- •PDU manufacturer is changed. (Specification is the same as before.)

Changes of Service Methods:

The following Service documents were updated because of the changes of Power Cabinet.

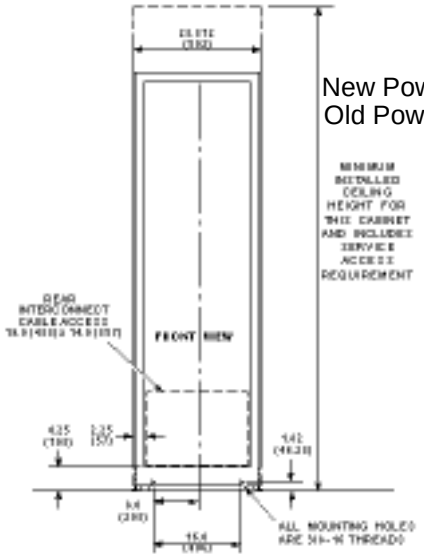
- •**Power Cabinet Cable Wiring**: Ovation Service Methods/Installation/3rd~4th day
  Reason: Cable wiring was modified because of the PDU modification and chassis modification.
- •**Hoist Installation for New Power Cabinet**: New document
  Reason: This document explains how to install Hoist kit to new Power Cabinet for the RF Sub Module replacement.
- •**Power Cabinet PDU with Cabinet chassis Replacement**: New document
  Reason: Power Cabinet PDU with Cabinet chassis was registered as FRU1. If Power Cabinet PDU Assy was broken, refer to this document and perform replacement.

Please see the attached documents if new Power Cabinet is shipped.

These documents will be included in the next Signa Ovation CD-ROM.

Changes of Pre-Installation Manual:

The minimum ceiling height of Equipment room is 94.5inches(2400mm) to install Hoist Kit.



New Power cabinet: 94.5(2400)
Old Power cabinet: 88.13(2238)

ALL DIMENSIONS ARE IN INCHES.
ALL BRACKETED () DIMENSIONS ARE IN MILLIMETERS.

This information will be included in the next Signa Ovation Pre-Installation Manual.

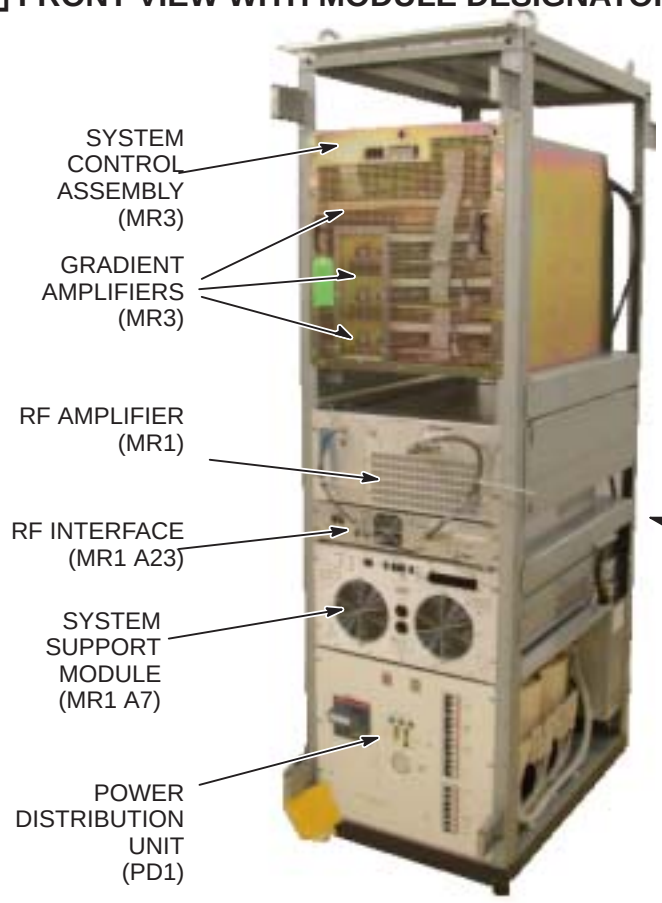
Yutaka Masumo

GEYMS TP Gr. -MR

POWER CABINET CABLE WIRING

TABLE OF CONTENTS

❑ FRONT VIEW WITH MODULE DESIGNATORS



DANGER!!

LETHAL VOLTAGES ARE PRESENT WITHIN THE PDU. MAKE SURE THAT POWER AT THE MAIN DISCONNECT IS OFF, LOCKED, AND TAGGED BEFORE PROCEEDING.

❑ INPUT VOLTAGE AND CIRCUIT BREAKER DIP SWITCH SETTINGS

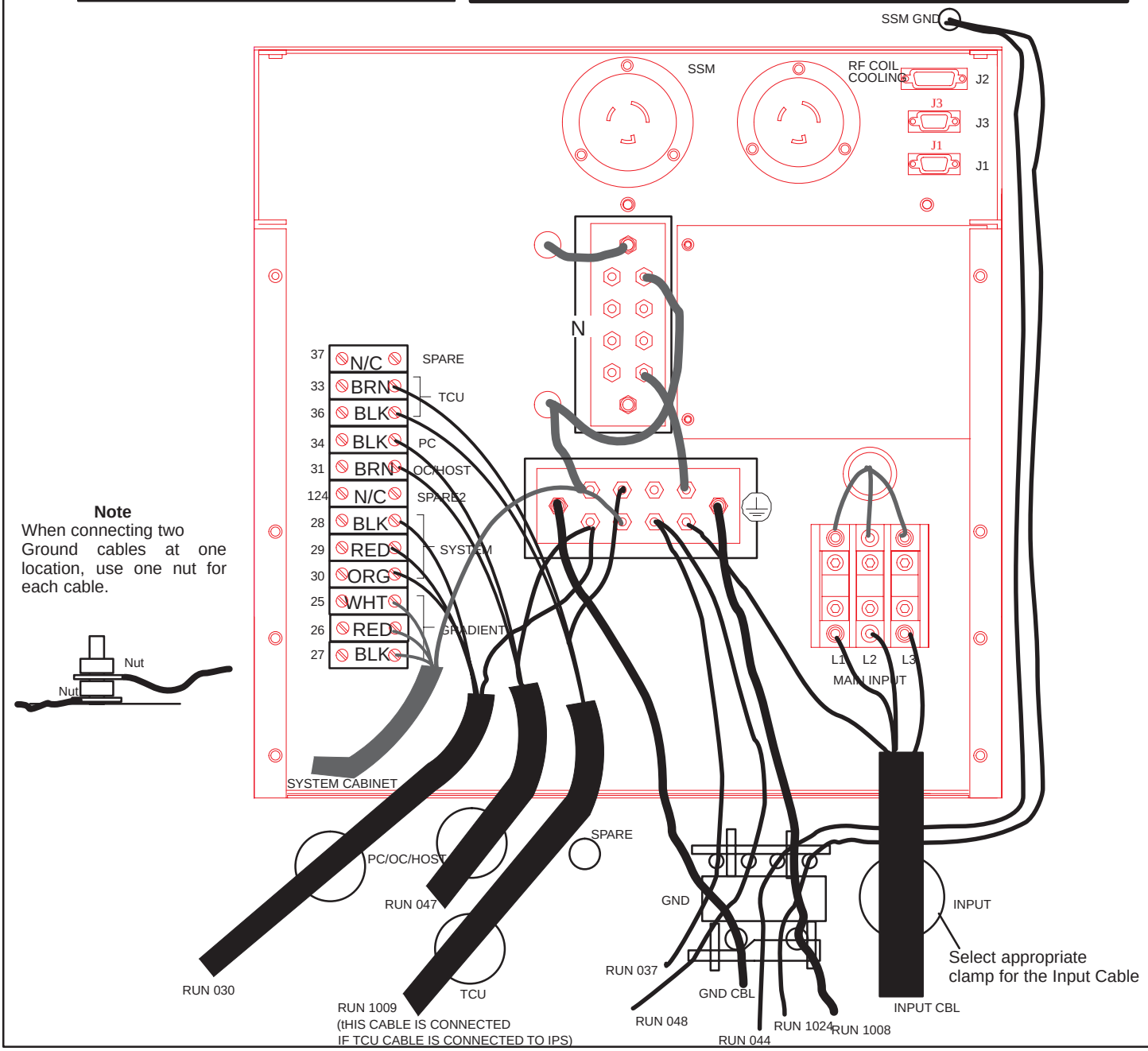
Refer to Direction 2266541, *Phoenix PDU Module in 0.7T Power Cabinet,* Section 3, Installation and Operation, for instructions on Input Voltage Selection and Circuit Breaker Dip Switch Settings.

A copy of the manual should be shipped with the cabinet. It can also be found on the MR Service Methods CD–ROM shipped with the system or the MR Service Engineering Web Site.

1. Route/connect power cables to pressure connectors on back of PDU module as shown in Table.
2. Trim and connect ground wire cables to ground bus connectors.

COLOR CODE: for remainder of cables:
3ϕ= Black, Red, Orange
Single ϕ = Brown, Black
Neutral = Light blue Gnd = Grn/Yel
Other 3–phase cable Phase Coding:
Black=Phase A, Red=Phase B,Org=Phase C

CONNECT TO	RUN	PHASE	DESTINATION
25,25,27		ϕ A, B, C	Gradient Amplifier 3ϕ, Neutral, Ground
28,29,30	030	ϕ A, B, C	System Cabient 3ϕ, Neutral, Ground
31,34	047	ϕ C,B	Operator Workspace Single ϕ, Neutral, Ground
33,36	1009	ϕ B,C	TCU Single ϕ, Ground
GROUND	037		PDU –> SC
GROUND	044		SSM –> P.P
GROUND	048		PDU –> OW
GROUND	1008		PDU –> Cooling Cabinet
GROUND	1024		SSM –> PCC
GROUND		–	Customer Supplied #1/0



Note
When connecting two Ground cables at one location, use one nut for each cable.

❑ ROUTE/CONNECT RUNS 703 AND 706 TO PDU MODULE

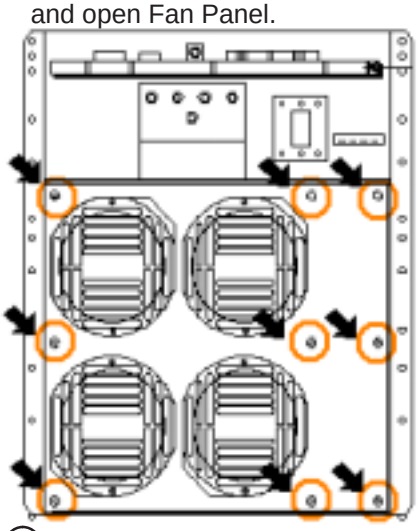
4. Connect Run 703 to J2.
3. Connect Run 706 to J3.
2. Attach rear PDU module cover.
1. Tighten clamps of interface panel to secure cables in place.

❑ CONNECT RUNS 1001, 1002, & 1003 OUTPUT CRADIENT CABLES

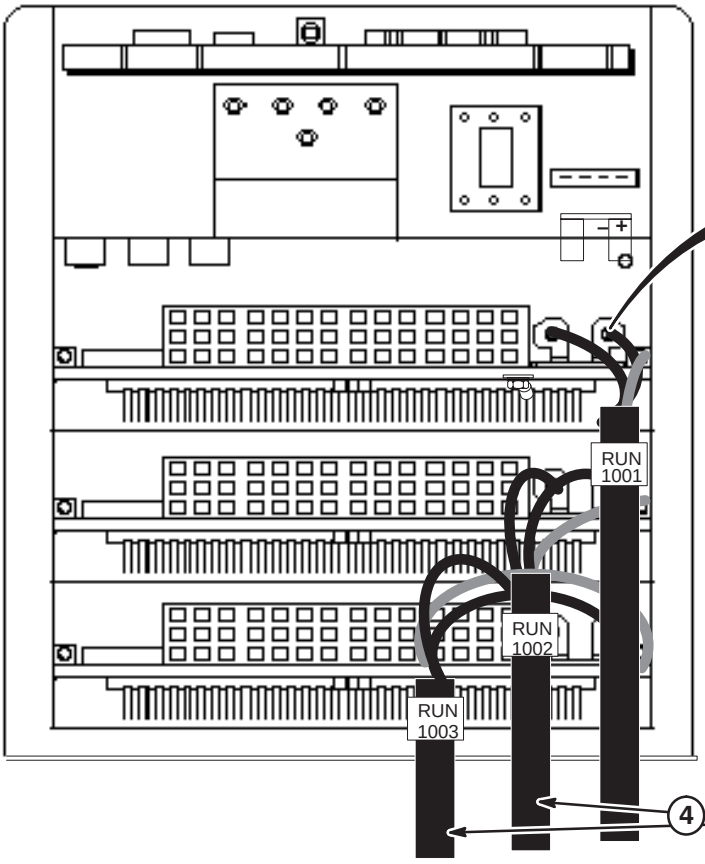
NOTE: Output cables (Runs 1001, 1002, and 1003) were previously routed, cut to length, and terminated.

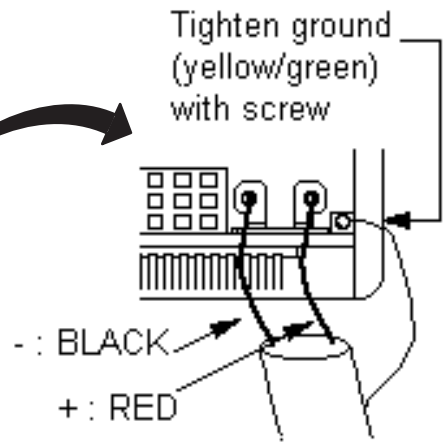
1. Loosen screws on J5 clamp on bottom of shelf below. Insert ends of Run 764 gradient output cable into Cabinet Interface J5. (Runs 762 will insert into J3, and Run 763 into J4)

At rear of Rack, Remove nine screws and open Fan Panel.



2. Connect gradient output cables with red–taped (+) #1 wires to + output terminals and black (–) #2 wires to – output terminals of the Z Amplifier.





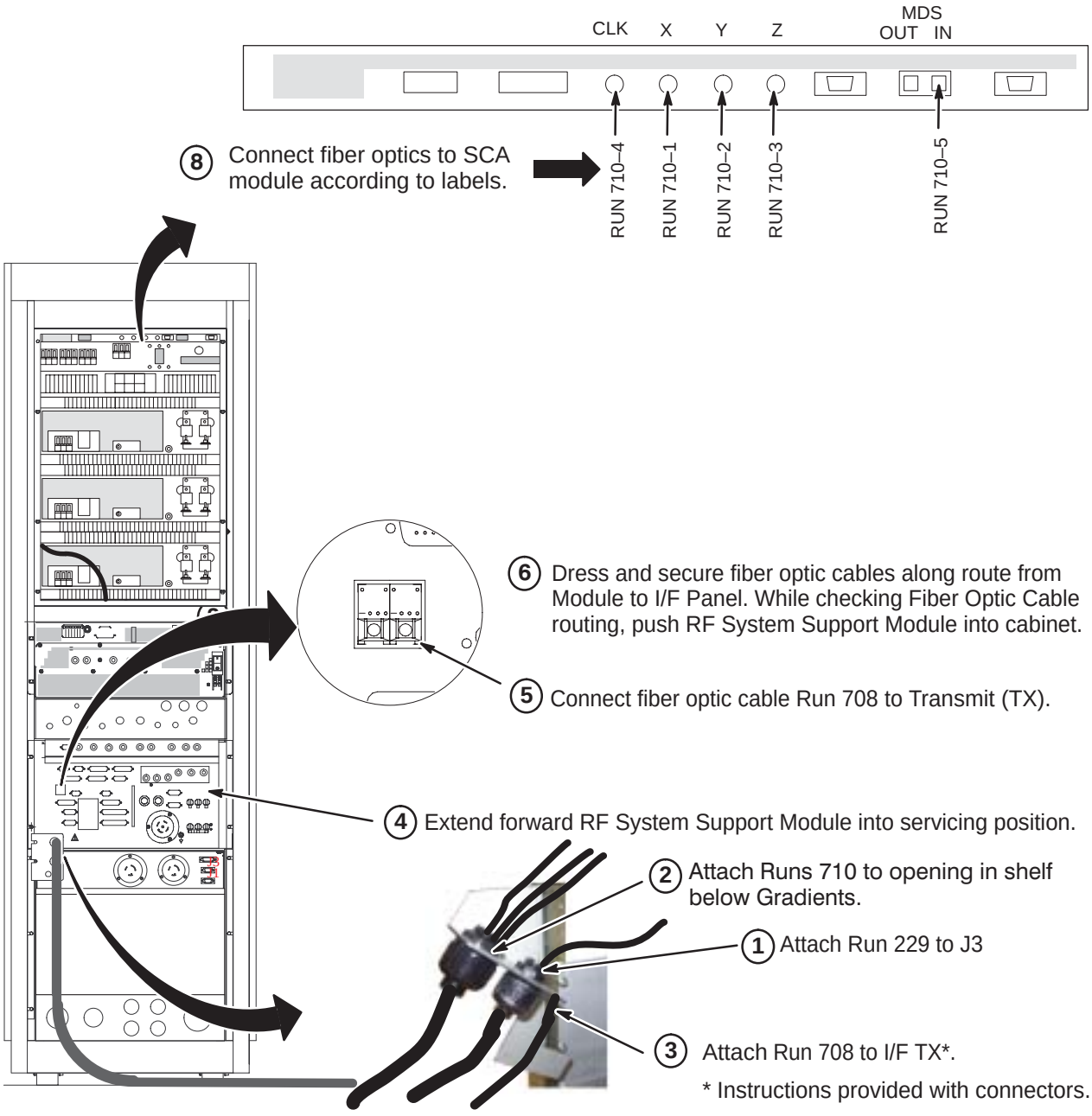
3. Connect the GND leads of each run to the Ground stud located on the back of amplifier.

4. Repeat steps 1, 2, and 3 for connection of Runs 1002 and 1003 to X and Y Amplifiers.

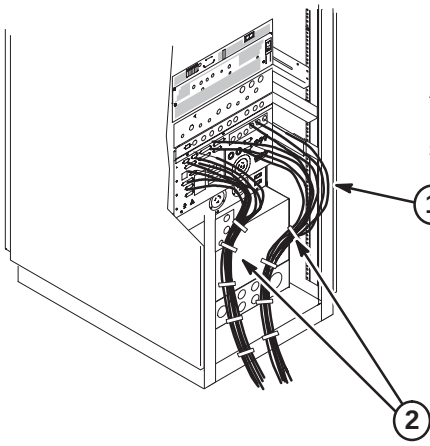
❑ ROUTE/CONNECT FIBER OPTICS AND RUN 229

CAUTION

Handle fiber optic cables carefully. Do not bend fiber optic cables to radius smaller than two inches. Avoid scratching connector ends. Keep connectors protected until ready to connect. Routing of fiber optic cables must be done with care to prevent damage to optical fibers.



❑ SYSTEM SUPPORT MODULE CABLE CONNECTIONS



CAUTION

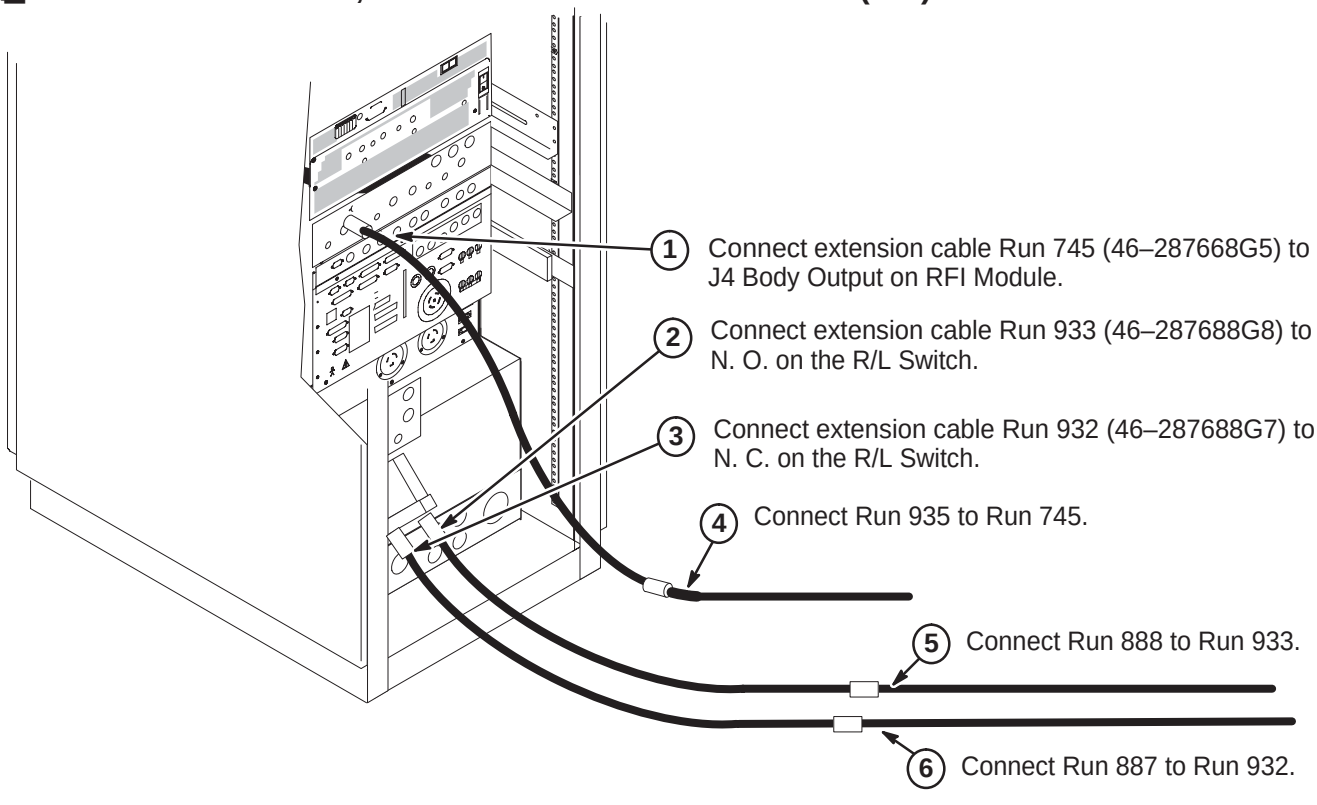
All cables connected to System Support Module Interface Panel must have a service loop of approximately 2 feet (610mm) to allow enough slack for serviceability when Module is moved completely forward.

1. Connect cables to System Support Module.

Note:
If needed, refer to Overview: Section 2 – System Cables, for Run descriptions and designator information located at end of each cable.

2. Dress and secure cables connected to System Support Module. Verify sufficient slack by moving Module completely forward and back again. Adjust as necessary.

❑ CONNECT RUNS 887, 888 and 935 TO RF INTERFACE (RFI) MODULE



1. Connect extension cable Run 745 (46–287668G5) to J4 Body Output on RFI Module.
2. Connect extension cable Run 933 (46–287688G8) to N. O. on the R/L Switch.
3. Connect extension cable Run 932 (46–287688G7) to N. C. on the R/L Switch.
4. Connect Run 935 to Run 745.
5. Connect Run 888 to Run 933.
6. Connect Run 887 to Run 932.

❑ ATTACH INSITE CABINET MAGNET

1. Attach all front and rear covers.
2. From the OpenSpeed InSite Kit (46–301708G5), locate the “Power (GRFD)” cabinet magnet (46–320095P15). Attach to front of cabinet as shown.

HOIST INSTALLATION FOR NEW POWER CABINET

TABLE OF CONTENTS

1. Introduction

This procedure describes how to install Universal Lift Hoist to the new Power Cabinet.

Universal Lift Hoist is used to replace RF Sub Assemblies.

The Universal Lift Hoist is assembled from parts stored in the Universal Lift Hoist Kit.

Lift attachments specially designed for the RF/PDU Cabinet are found in the outer-most compartments of the lift kit.

2. Tools Required

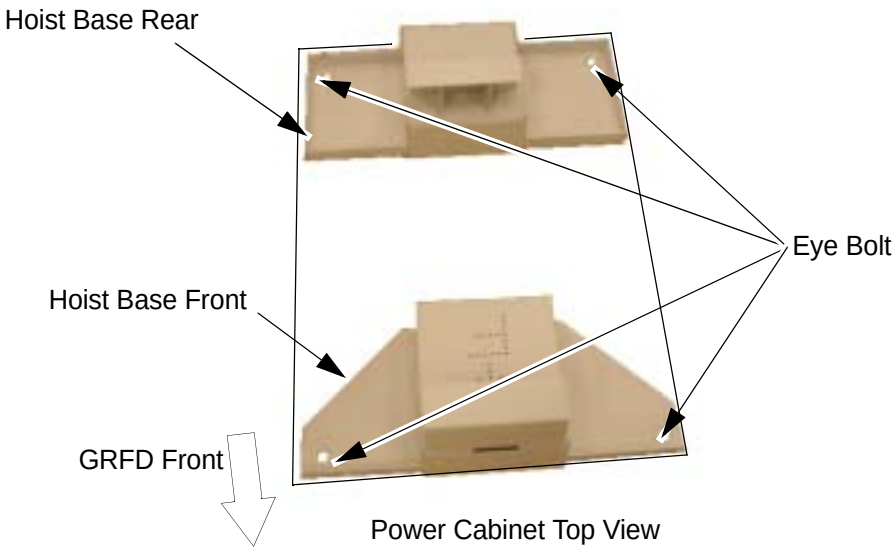
- Universal Lift Hoist Kit with RF/PDU attachments, 46-317266G5
- Hoist Bracket for New Power Cabinet
- Small hand tools including a Phillips-head screwdriver
- Two medium sized crescent wrenches

3. Procedure

1. Install the Hoist Bracket with eye bolts. See the following illustration.

CAUTION

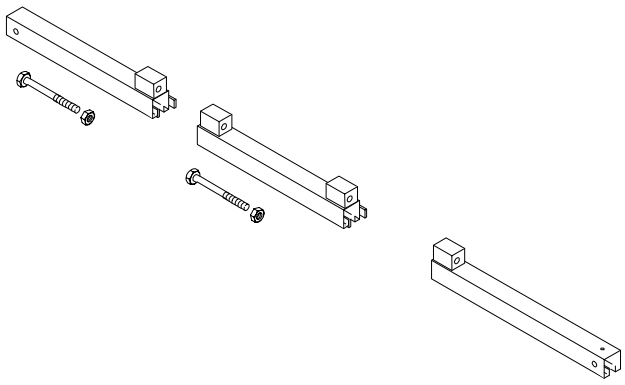
Tighten the eye bolt firmly using wrench.
Without doing this, it may cause serious problem.



HOIST BRACKET INSTALLATION
ILLUSTRATION 1

3. Procedure(continued)

2. Locate the three (3) large Steel Rail sections and place them on a flat surface for assembly.



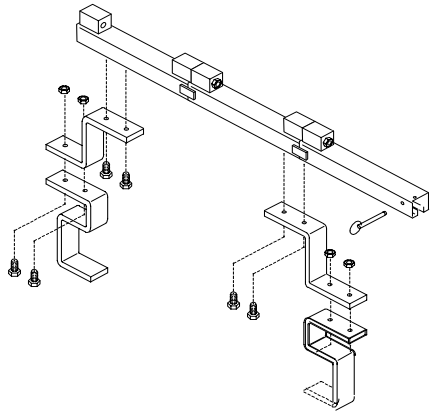
STEEL RAIL SECTIONS, HEX BOLTS, AND HEX NUTS

ILLUSTRATION 2

3. Arrange the rail sections in the proper order (rear, center, then front) and fasten them together with 4.75” X 1/2” caps crews and hex nuts.
4. Use the crescent wrenches to tighten the cap screws.

3. Procedure(continued)

5. Assemble and fasten the elevating brackets to the rail assembly.



HOIST TOP RAIL PARTS WITH ELEVATING BRACKETS
ILLUSTRATION 3

3. Procedure(continued)

6. Place the Steel Rail and elevating bracket assembly at the top of the 0.35T Power Cabinet. Center the Rail Assembly on the top of the RF Amplifier.

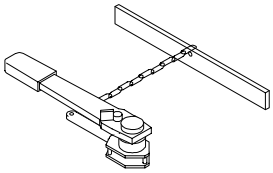
HOIST PARTS ASSEMBLED
ILLUSTRATION 4

7. Fix the Hois with screws..

FIX HOIST
ILLUSTRATION 5

3. Procedure(continued)

8. Locate the Hoist Assembly in the Lift Kit.



HOIST ASSEMBLY

ILLUSTRATION 6

9. Insert the Hoist Assembly into the open end of the front rail. Insert a locking pin into the holes near the front edge of the front rail. This locking pin prevents the Hoist Assembly from sliding out of the rails.

PLACEMENT OF HOIST ASSEMBLY INTO FRONT END OF STEEL RAIL ASSEMBLY

ILLUSTRATION 7

10. Refer to the RF Sub Assy Replacement doccument and proceed replacement.

Revision History

Rev	Date	Author	Primary Reasons For Change
0	Jan 27, 2003	Y. Masumo	Initial Release

POWER CABINET PDU WITH CABINET CHASSIS REPLACMENT

TABLE OF CONTENTS

1. Overview

This procedure describes how to replace the PDU with Cabinet.

2. Preparation

Item	Check
Shut Down the system.	
Turn the Main Breaker **OFF** from MDP or Facility PDU. Perform LOTO.	
Remove defective Power Cabinet front and rear covers	

Note

Do not step on the optical cables.

WARNING!

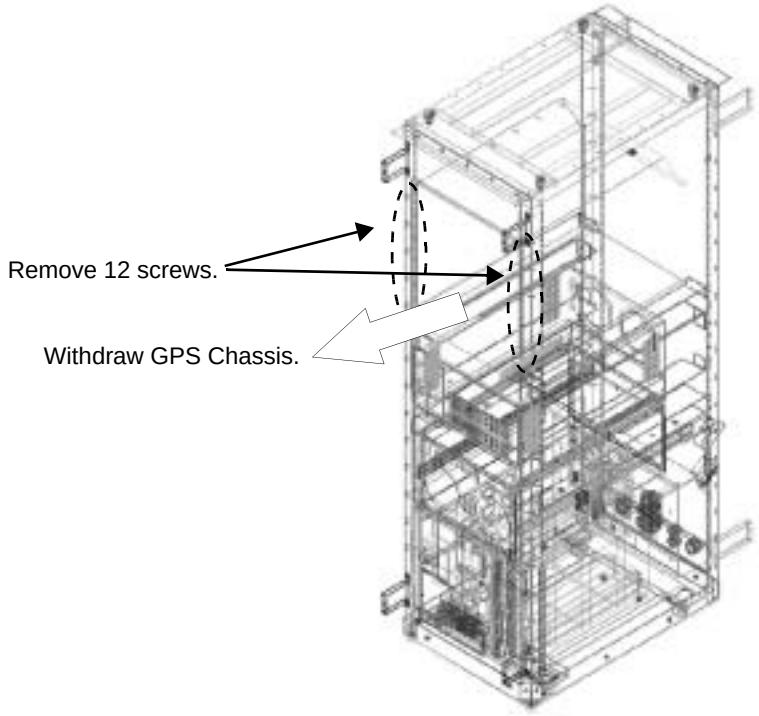
Wait five minutes after IPS is powered OFF.

3. Cable Deinstallation

1. Remove cables from Power Cabinet.
   Verify that label is attached to the cable to distinguish the destination.
   If there is no label on cable, attach tape and write down the destination.

4. GPS Deinstallation

1. Remove the following GPS parts according to the replacement document.
   (Signa Ovation Service Methods/Power Cabinet/Replacement)
   - •GCA (X,Y,Z)
   - •PSU
   - •SCA
   - •AUX Power
   - •FAN
   - •Display Board
2. Remove the GPS chassis by removing the 12 screws from front of Power Cabinet.
3. Withdraw GPS chassis.

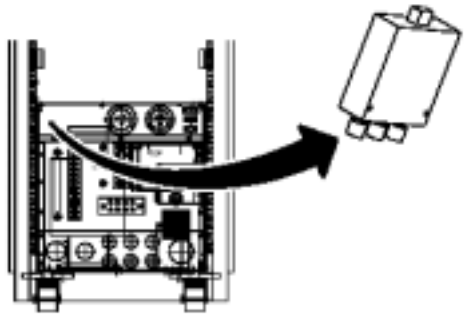


GPS DEINSTALLATION
ILLUSTRATION 1

5. RF Subsystem Deinstallation

1. Remove the following RF Sub-system parts according to the replacement document. (Signa Ovation Service Methods/Power Cabinet/Replacement)
   - •SSM and slide rail
   - •RF Interface
   - •RF Amp
   - •RF Switch

     Remve RF SW from old Power Cabinet.



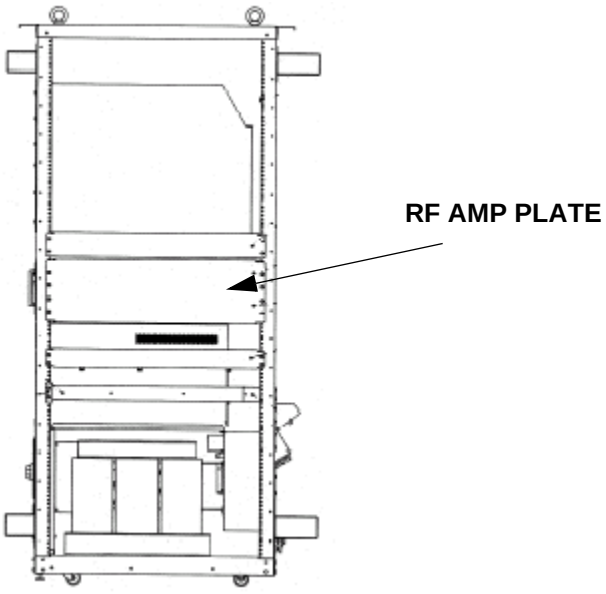
RF SWITCH
ILLUSTRATION 2

6. Cover Removal from New Cabinet

1. Remove all covers from new cabinet by removing the screws.
   - •Front Cover (4 screws)
   - •Rear Cover (4 screws)
   - •Right Side Cover (36 screws)
   - •Left Side Cover (36 screws)

7. RF Subsystem Installation

1. If RF Amp Type is Analogic, remove RF AMP plate from new Power cabinet and install RF Amp Plate for Analogic(2368006) to the new power cabinet with screws(P9510HR).



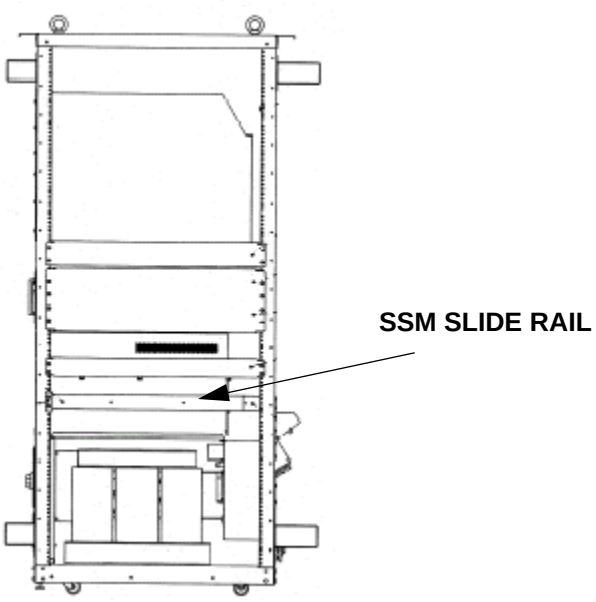
SSM SLIDE RAIL ADJUSTMENT
ILLUSTRATION 3

2. Install the following RF subsystems to new cabinet by the reverse order of removal. Refer to Hoist Installation procedure for new Power Cabinet also.
   - •SSM
     (Use screws(2356064) to fix SSM and slide Rail.
     Use screws(P9510HR) to fix SSM and Power Cabinet.)
   - •RF Interface
     (Use two screws(P9608YX to fix RF Interface from bottom,
     Use screws(P9510HR) to fix RF Interface from front.)
   - •RF Amp
     (Use screws(P9510HR) to fix RF Amp from front.)
   - •RF Switch
     (Use two screws(P9330JS) to fix RF switch.)

7. RF Subsystem Installation(continued)

Note

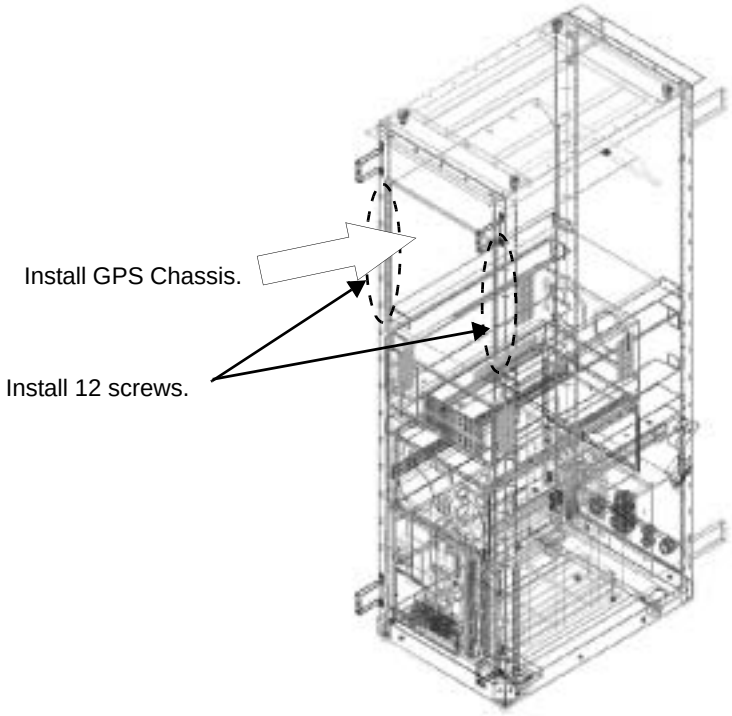
SSM Slide Rail is adjustable. Loosen the screw and adjust the slide rail position if necessary.



SSM SLIDE RAIL ADJUSTMENT
ILLUSTRATION 4

8. GPS Installation

1. Set the GPS Chassis to the Power cabinet. Then, install it with 12 screws(P9510HR).

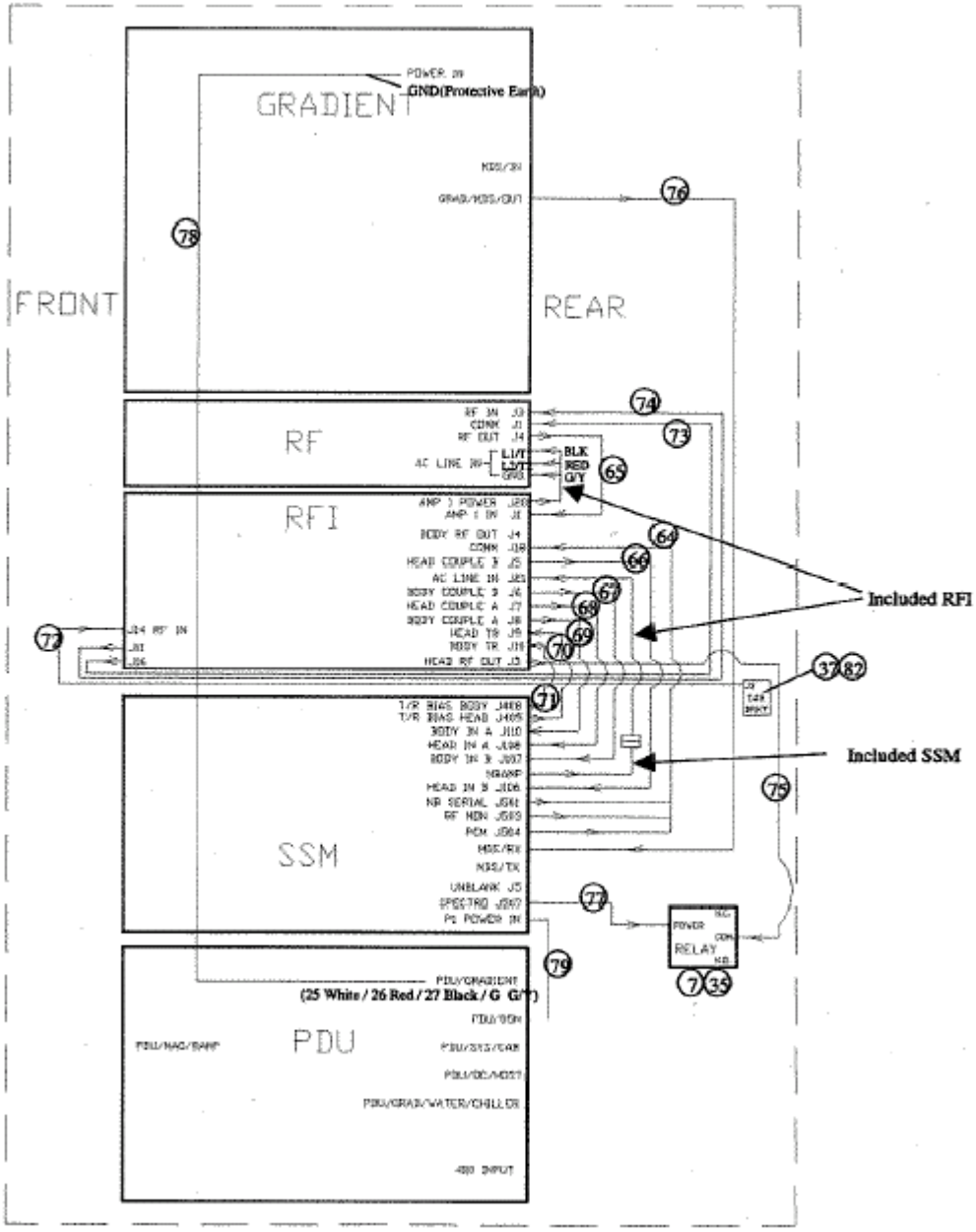


GPS DEINSTALLATION
ILLUSTRATION 5

2. Install the following GPS parts to the new power cabinet by the reverse order of removal.
   - •GCA (X,Y,Z)
   - •PSU
   - •SCA
   - •AUX Power
   - •FAN
   - •Display Board.

9. Cable Installation

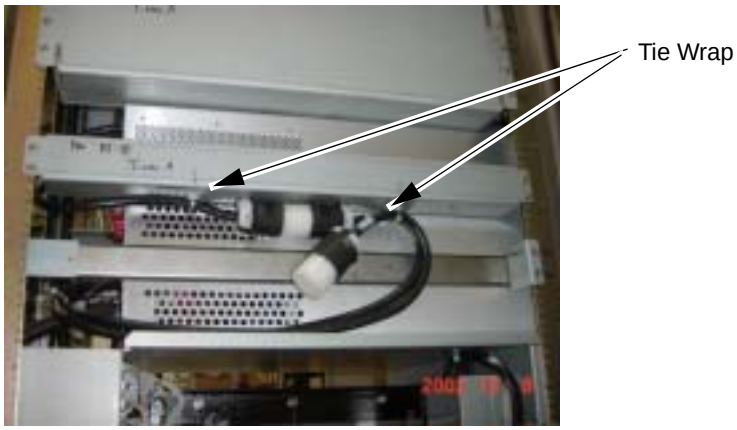
1. Connect the cables to GRFD cabinet.
   See following diagram.



CABLE WIRING
ILLUSTRATION 6

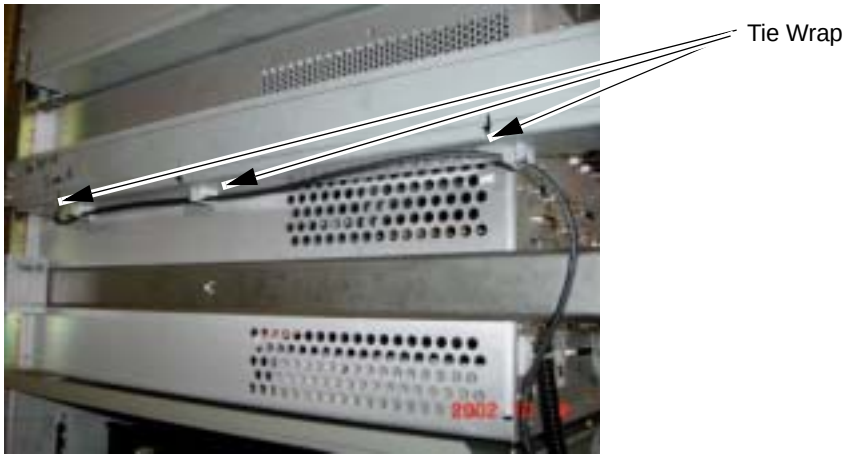
9. Cable Installatin (continued)

2. Clamp the SSM Power cable by two tie wraps.



CLAMP SSM POWER CABLE
ILLUSTRATION 7

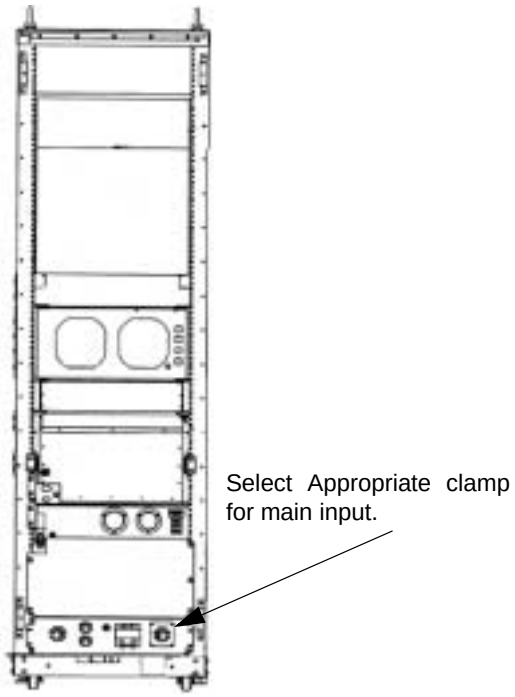
3. Clamp RFI cable by three tie wraps.



CLAMP RFI CABLE
ILLUSTRATION 8

9. Cable Installation (continued)

4. Refer to Power Cabinet Installation for the external cable connection.
   (Signa Ovation Service methods/Installation/3rd day/Cable Installation/
   Power Cabinet Cable Wiring)
   Select Appropriate Clamp for Main Input. See illustration



MAIN INPUT CLAMP
ILLUSTRATION 9

10.Functional Check

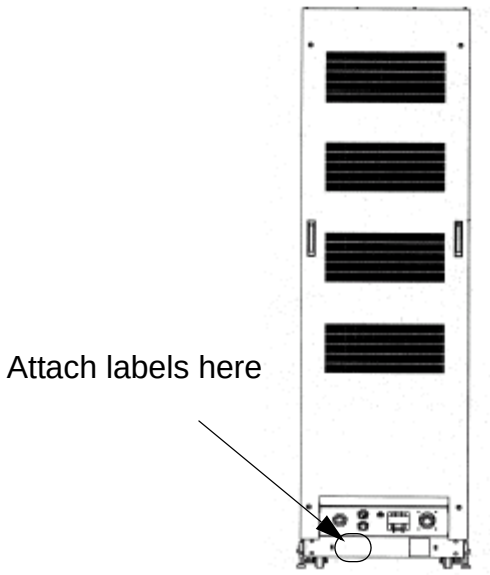
1. Perform PDU Tap Check.
   (Signa Ovation Service Methods/Installation/3rd~4th day/PDU Tap Check).
2. Turn the Main Breaker **ON** (MDP or Facility PDU.)
3. Turn the system Power ON.
4. Verify that the GRFD fans working without any problem.
5. Perform "Head Image Quality Check".
   (Signa Ovation Service Methods/Installation/9th day/SPT Head Quick Check).

11.Cover Restration

1. Restore covers by the reverse order of removal.

12.Attachment of Labels(Japanese Site Only)

1. Remove the System Rating Plate from old Power Cabinet and attach them to the new power cabinet.



Rear View

LABEL ATTACHMENT
ILLUSTRATION 10

Revision History

Rev	Date	Author	Primary Reasons For Change
0	Jan 27, 2003	Y. Masumo	Initial Release