TABLE OF CONTENTS

TABLE OF CONTENTS **1**
1 - OVERVIEW **2**
2 - LOCKOUT / TAGOUT PROCESS **3**
3 - RFI MODULE **7**
3-1 RFI Module Removal 7
3-2 RFI Module Replacement 9
REVISION HISTORY **11**

1 - OVERVIEW

This section describes the replacement procedures for the RFI module in Signa LX II 1.0T systems with the RF/PDU Cabinet installed.

Parts mentioned here include:

Manufacturer's Part Number	GEMS Part Number	Item Description
P620000.05.	2194013	RF Interface (RFI) Module

Tools Required

#1 Phillips Screwdriver
#2 Phillips Screwdriver

2 - LOCKOUT / TAGOUT PROCESS

POSSIBLE PERSONAL INJURY! AVOID SERIOUS INJURY OR DEATH BY ELECTROCUTION. REMOVE POWER FROM THE PDU MAIN INPUT CIRCUIT BREAKER BEFORE REMOVING THE RFI. VERIFY THAT LOCK OUT AND TAG OUT OF THE PDU MAIN INPUT CIRCUIT BREAKER IS PROPERLY PERFORMED.

1. Bring the PC software down.

   a. Toggle mouse control to the PC monitor using the hardkey on the top, left side of the keyboard housing.

   b. From the PC monitor use the mouse to select **Start → Shutdown → Shut down**.

2. Bring the Signa software down.

   a. Toggle mouse control back to the Signa monitor using the hardkey on the top, left side of the keyboard.

   b. Single-click on the **Toolbelt** icon.

   c. Single-click on the **System Shutdown** softkey on the Service Desktop Manager.

   d. Select **OK** to confirm the shutdown.

   e. Wait for the system to indicate on the monitor that it is safe to power off the computer before proceeding. This usually takes about 90 seconds before this message is seen.

3. Remove the cover from the front of the RF/PDU cabinet to expose the front of the PDU.

2 - LOCKOUT / TAGOUT PROCESS (CONTINUED)

4. Refer to Illustration 2-1 and power off the following circuit breakers:

a. **SGD 1**

b. **SGD 2**

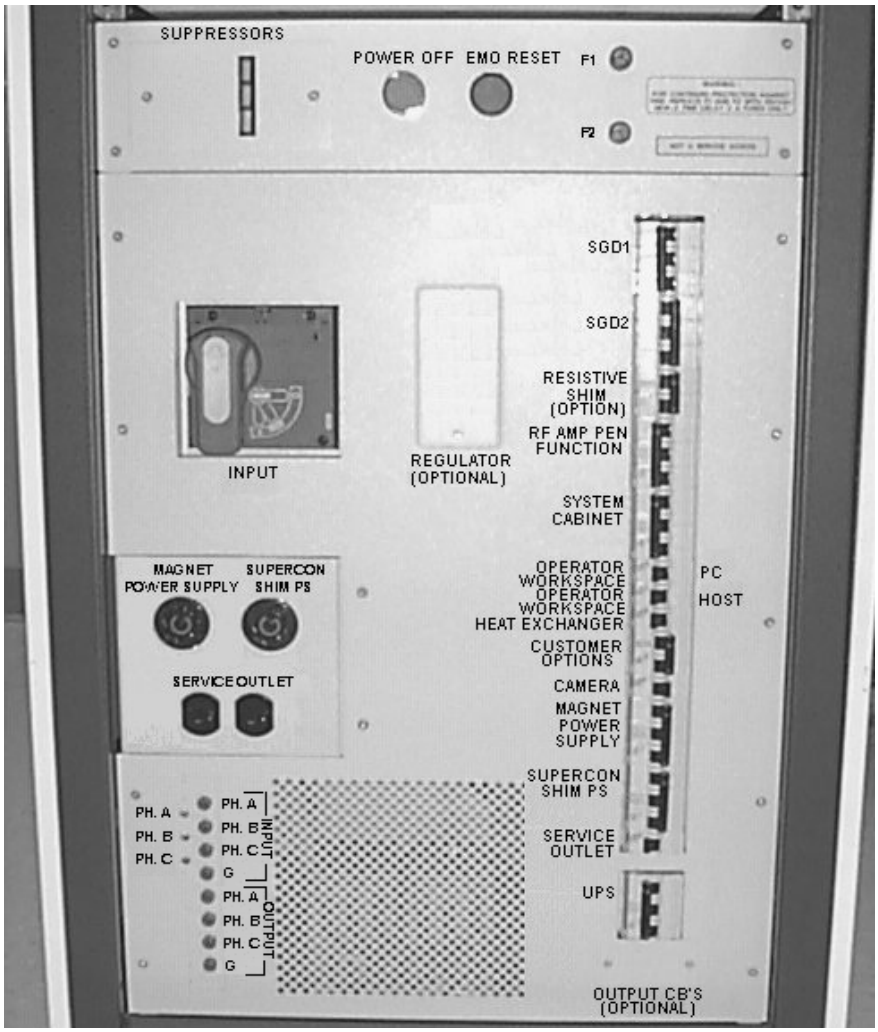
c. **RFI / AMP** (shown as RF Amp Pen Function in Illustration 2-1)

d. **SYSTEM SUPPORT MODULE**

e. OPERATORS WORKSPACE (PC)

f. **OPERATORS WORKSPACE (HOST)**

g. **GRADIENT WATER CHILLER**



BREAKER LOCATION
ILLUSTRATION 2-1

2 - LOCKOUT / TAGOUT PROCESS (CONTINUED)

5. Rotate the larger main breaker labeled INPUT counter-clockwise to the green, O (OFF) position. See Illustration 2-2.

MAIN INPUT BREAKER IN THE OFF POSITION
ILLUSTRATION 2-2

6. Lock Out / Tag Out the PDU “INPUT” circuit breaker.

   a. Press on the left-pointing arrow on the end of the handle to expose the location where the lock and tag can be placed.

2 - LOCKOUT / TAGOUT PROCESS (CONTINUED)

b. Lock and tag out the PDU “INPUT” circuit breaker as shown in Illustration 2-3

PDU MAIN INPUT CIRCUIT BREAKER LOCKED AND TAGGED OUT
ILLUSTRATION 2-3

7. Verify all LEDs are OFF (not illuminated) on front of SSM and RFI. Verify all LEDs are OFF (not illuminated) at the rear of the RF Amplifier Power Module.

8. Using an AC voltmeter (DVM), measure the input power leads on the rear of one of the RF Amplifier Modules from the rear (right side) of the RF/PDU Cabinet.

   - Measure between L1 and L2; verify voltmeter measures 0 VAC.

3 - RFI MODULE

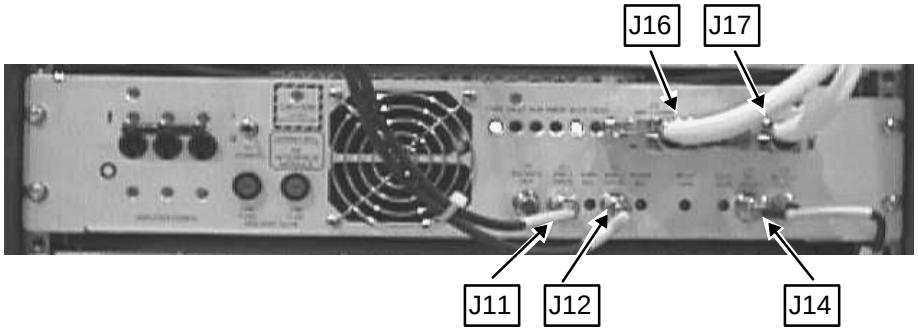
3-1 RFI Module Removal

DANGER!!

POSSIBLE PERSONAL INJURY! REMOVE POWER FROM THE PDU MAIN INPUT CIRCUIT BREAKER BEFORE REMOVING THE RFI. VERIFY THAT LOCK OUT AND TAG OUT OF THE PDU MAIN INPUT CIRCUIT BREAKER IS PROPERLY PERFORMED. SERIOUS INJURY OR DEATH BY ELECTROCUTION MAY OTHERWISE OCCUR.

1. Perform **Section 2 - LOCK OUT / TAG OUT PROCESS** (Refer to 8.X Service Methods CD-ROM, Safety (SYSMSA2.DOC), Section 6, OSHA LOCKOUT/TAGOUT REQUIREMENTS.)

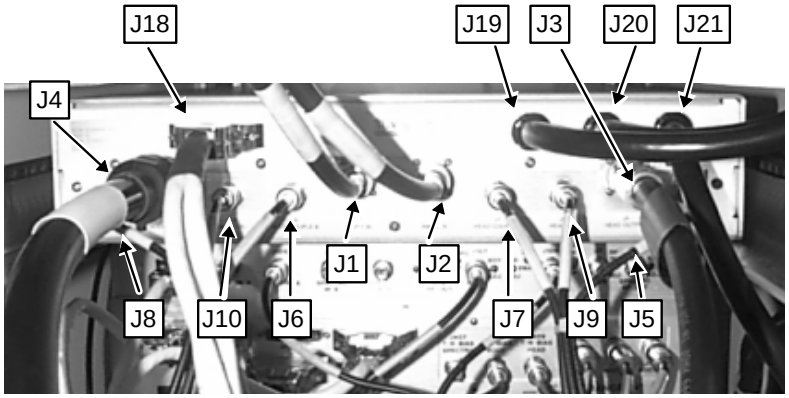
2. Remove the J11, J12, J16, J17, and J14 connections from front of the RFI Module. See Illustration 3-1.



RFI MODULE FRONT CONNECTOR LOCATIONS
ILLUSTRATION 3-1

3. Remove the rear cabinet cover.

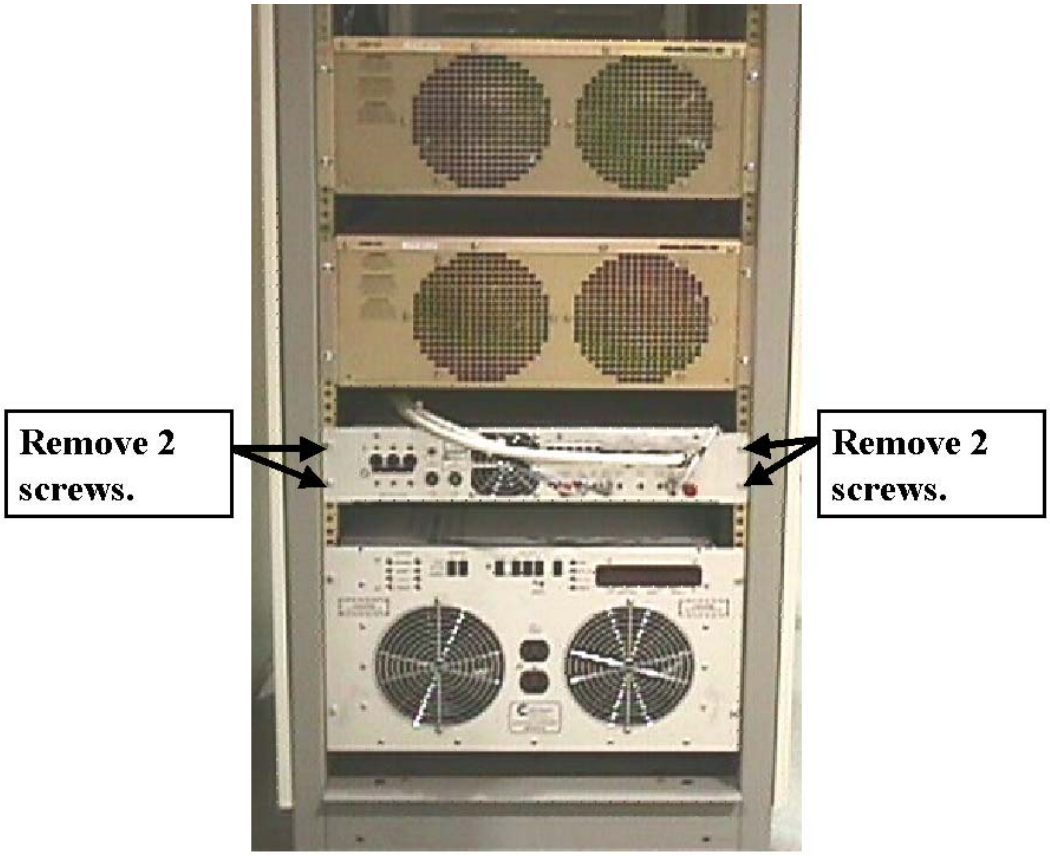
4. Remove connections J3, J4, J8, J18, J10, J6, J1, J2, J7, J9, and J5 from rear of RFI Module. Remove J19, J20, and J21 from the source to which they are attached. See Illustration 3-2.



RFI MODULE REAR CONNECTIONS
ILLUSTRATION 3-2

3-1 RFI Module Removal (Continued)

5. Remove the four screws securing the RFI Module to the cabinet. See Illustration 3-3.

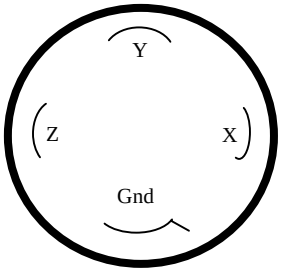


LOCATION OF SCREWS TO REMOVE RFI MODULE
ILLUSTRATION 3-3

6. Pull RFI Module out of cabinet.

NOTE

It may be necessary to re-use the power plug that was attached to the original Module. If needed, see Illustration 3-3A, which shows the connector from the front or Male connector side.



Gnd	Green/yellow wire
X	Orange wire
Y	Black wire
Z	Red wire

Note: The RFI Module **is not** phase sensitive.

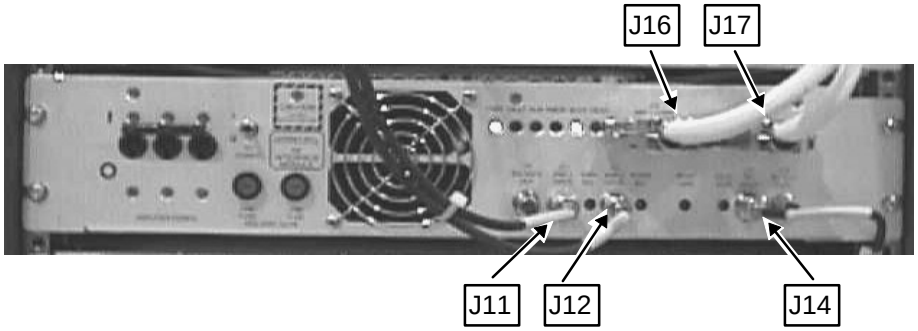
POWER CORD CONNECTION
ILLUSTRATION 3-3A

3-2 RFI Module Replacement

1. Place new RFI Module on shelf in cabinet and slide module into cabinet.

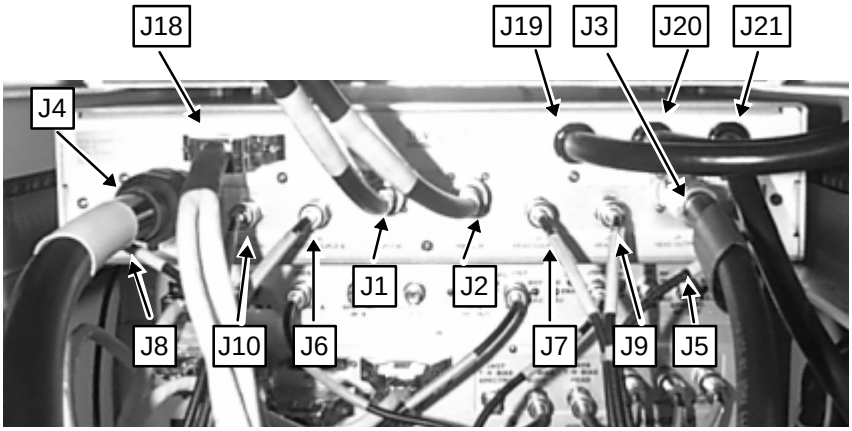
2. Insert four screws into front of RFI Module to secure to cabinet.

3. Reconnect cables to J11, J12, J16, J17, and J14 to front of RFI Module. See Illustration 3-4.



RFI MODULE FRONT CONNECTOR LOCATIONS
ILLUSTRATION 3-4

4. Reconnect cables to J3, J4, J8, J18, J10, J6, J1, J2, J7, J9 and J5 to rear of RFI Module. Reconnect J19, J20, and J21 to their source. See Illustration 3-5.



RFI MODULE REAR CONNECTIONS
ILLUSTRATION 3-5

5. On the front of the RFI module place the Amplifier Power breaker and the RFI Power switch into the up (ON) positions.

6. Remove Lock Out / Tag Out hardware from the PDU “INPUT” circuit breaker and rotate the breaker fully clockwise into the red, 1 (ON) position to restore power to the system.

7. Push the red **EMO RESET** button on the top, front of the PDU once to reset the emergency stop circuit.

3-2 RFI Module Replacement (Continued)

8. Place the following circuit breakers on the front of the Power Distribution Unit (PDU) into the right (ON) position:

    a. **SGD 1**

    b. **SGD 2**

    c. **RFI / AMP** (shown as RF Amp Pen Function in Illustration 2-1)

    d. **SYSTEM SUPPORT MODULE**

    e. OPERATORS WORKSPACE (PC)

    f. **OPERATORS WORKSPACE (HOST)**

    g. **GRADIENT WATER CHILLER**

9. Power the Host and PC computers on and then boot the SIGNA and PC software as required.

10. Calibrate the new RFI by performing the RFI calibration procedure described in **1.0T RF/PDU Max Power RF Out Setup and Calibration** (RC3SCA3.DOC) on the 8.X Service Methods CDROM.

11. Successfully complete one head and body scan.

12. Replace rear and front RF/PDU cabinet covers.

REVISION HISTORY

REV	DATE	AUTHOR	PRIMARY REASONS FOR CHANGE
A	Mar. 23, 1998	K.Keshena	Preliminary version.
0	May 13, 1998	wek	Update lock out/tag out info
1	May 3, 2001	Don Thome'	Added Lockout/Tagout information.
2	May 15, 2001	Don Thome	Modified Lockout/Tagout information.
3	Dec 5, 2005	P. Kargard	Added power cord information