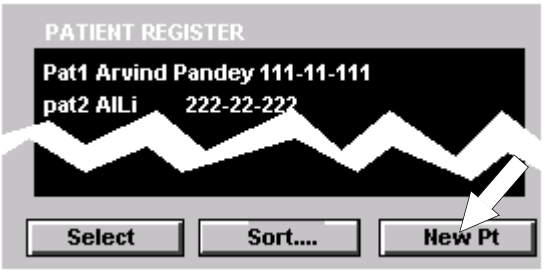
TABLE OF CONTENTS

1. Patient Information

1. Select Patient Information and Protocol Icon.

PATIENT INFORMATION AND PROTOCOL ICON
ILLUSTRATION 1

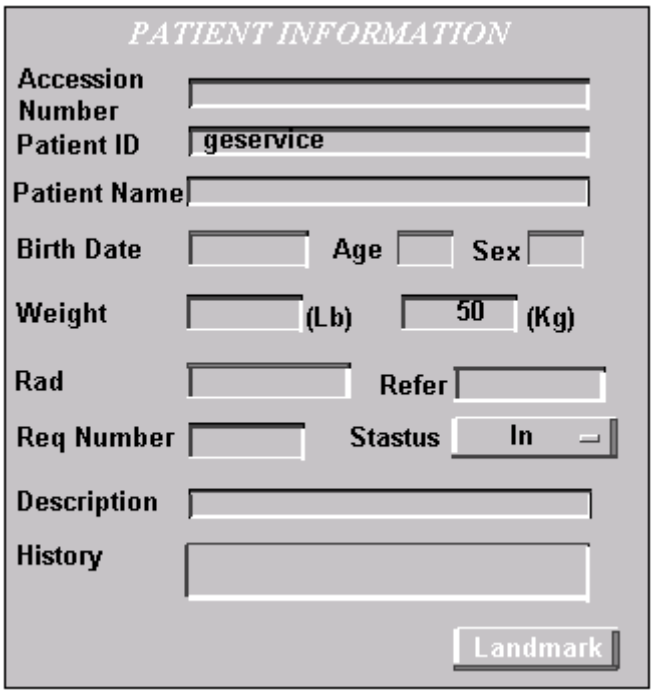
2. Click [**New Pt**] button in "PATIENT REGISTER".



[NEW PT] BUTTON
ILLUSTRATION 2

1. Scan Parameter Setting(continued)

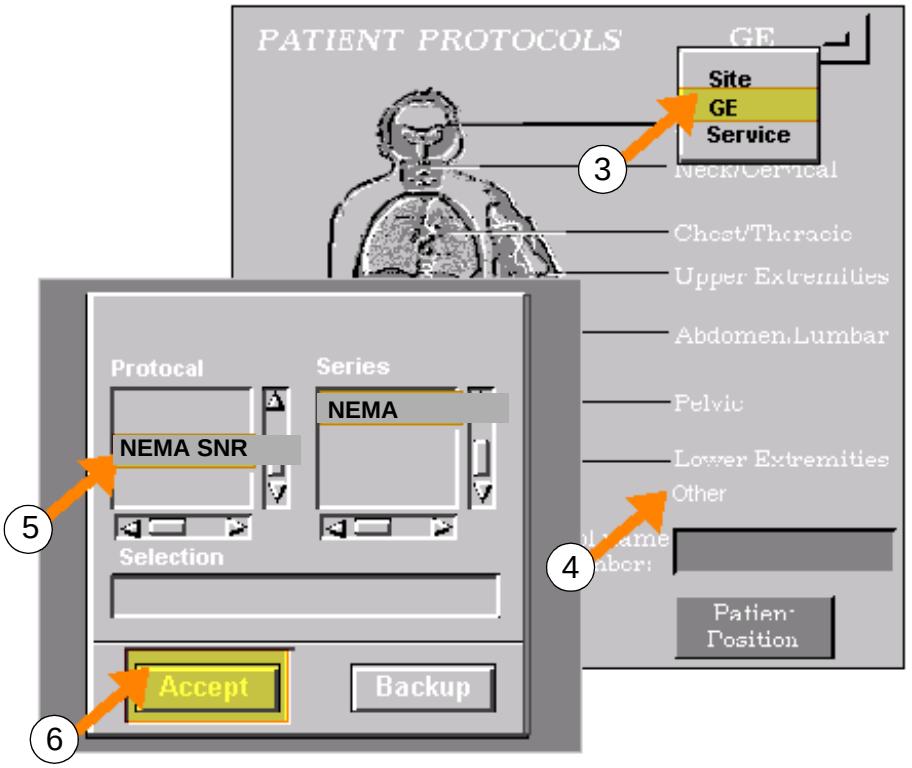
1. Click **[New Pt]**.
2. Input the following data in "patient information".
   - •Patient Data: geservice
   - •Weight: 50(Kg)



PATIENT INFORMATION
ILLUSTRATION 3

1. Scan Parameter Setting(continued)

3. Choose **GE**.
4. Click **Other**. Protocol window comes Up.
5. Select **[NEMA SNR]** from protocol.
   Select **[NEMA]** from series.
6. Verify that coil name shows **Head**. If not, select from menu.
7. Select **[Accept]**.



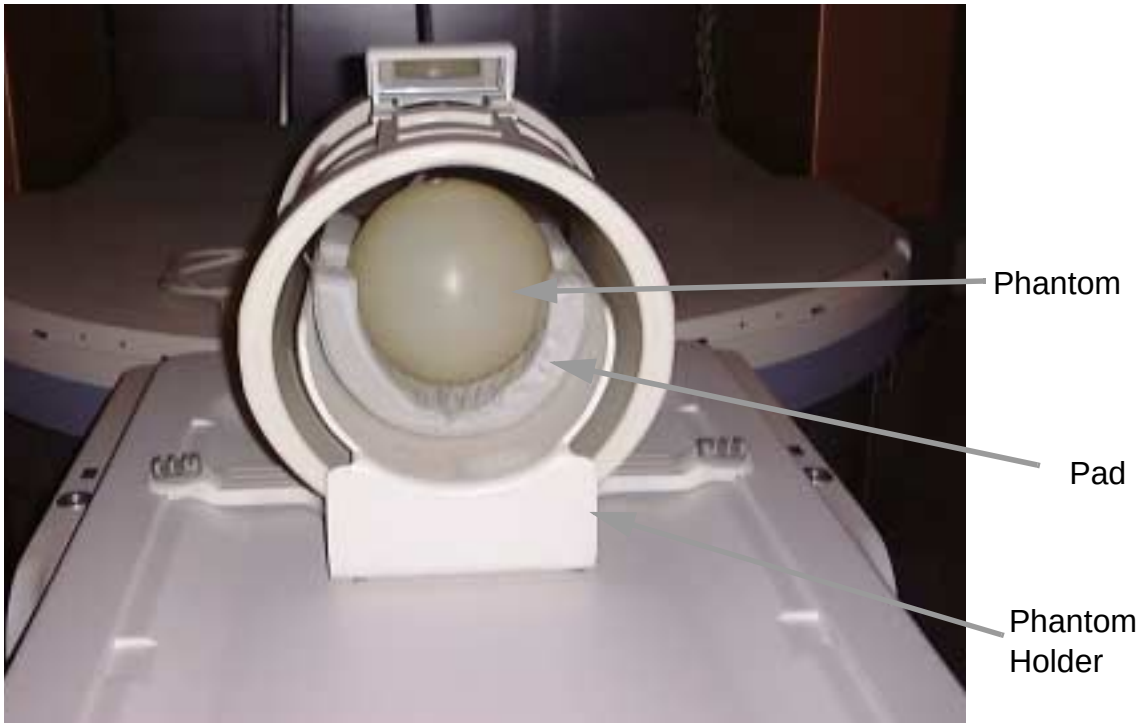
PATIENT INFORMATION
ILLUSTRATION 1

8. Select **[Save Series]**.

SAVE SERIES
ILLUSTRATION 4

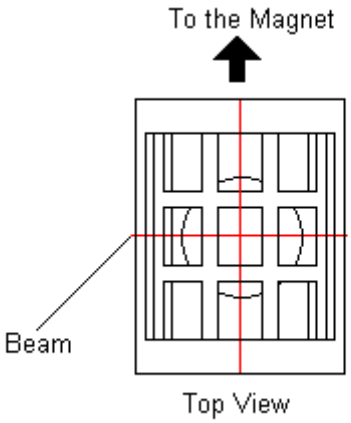
2. Phantom Setting

1. Set the Sphere Phantom, Phantom holder, and Head Coil as illustration 5.



PHANTOM SETTING
ILLUSTRATION 5

2. Turn alignment light ON.
3. Advance the cradle to the position where the Alignment light beam hits at center of ball phantom.



ALIGNMENT LIGHT
ILLUSTRATION 6

4. Press **[Landmark]** button.
5. Press **[Adv to Scan]** button to send the phantom into the Magnet center.

3. Scan

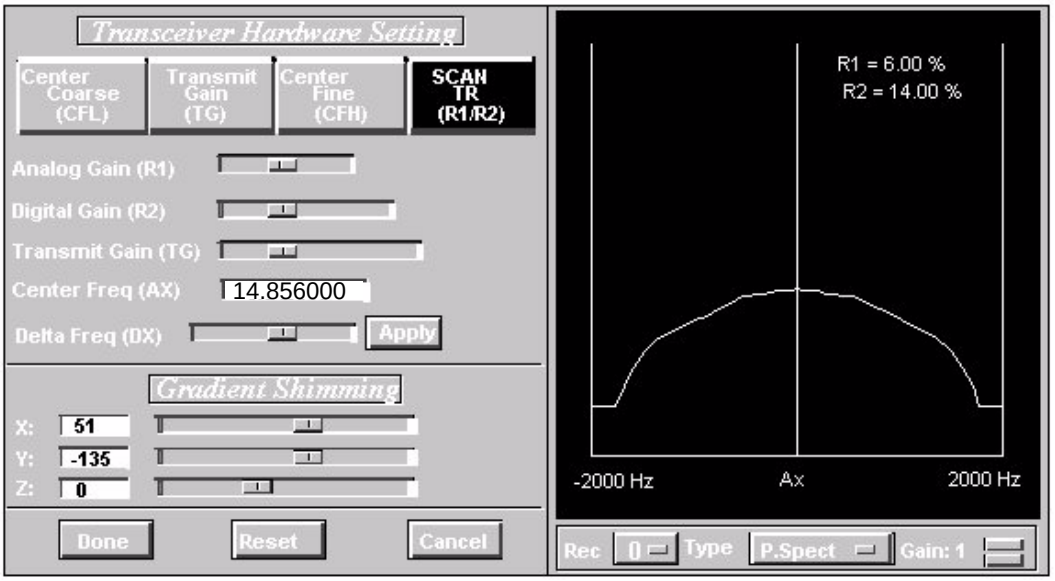
1. Select **Auto Prescan** button

AUTO PRESCAN
ILLUSTRATION 7

2. Select **Manual Prescan** button.

MANUAL PRESCAN
ILLUSTRATION 8

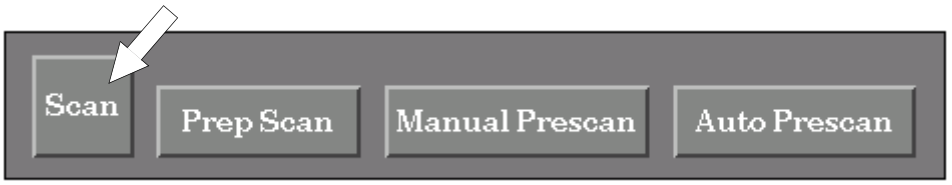
3. Click on "SCAN TR" and check that the projection is displayed.



PROJECTION
ILLUSTRATION 9

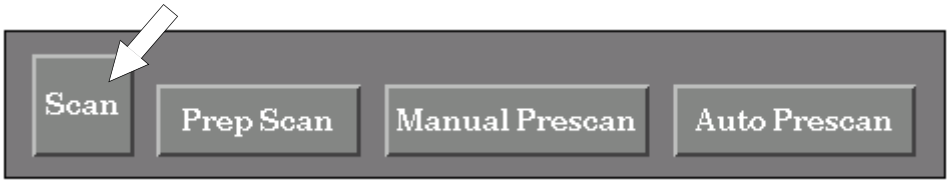
3. Scan(continued)

4. Select **Scan** button



SCAN
ILLUSTRATION 10

5. Verify that scanning has been started.
6. Select **Scan** button again.



SCAN
ILLUSTRATION 11

7. Verify that scanning has been started.

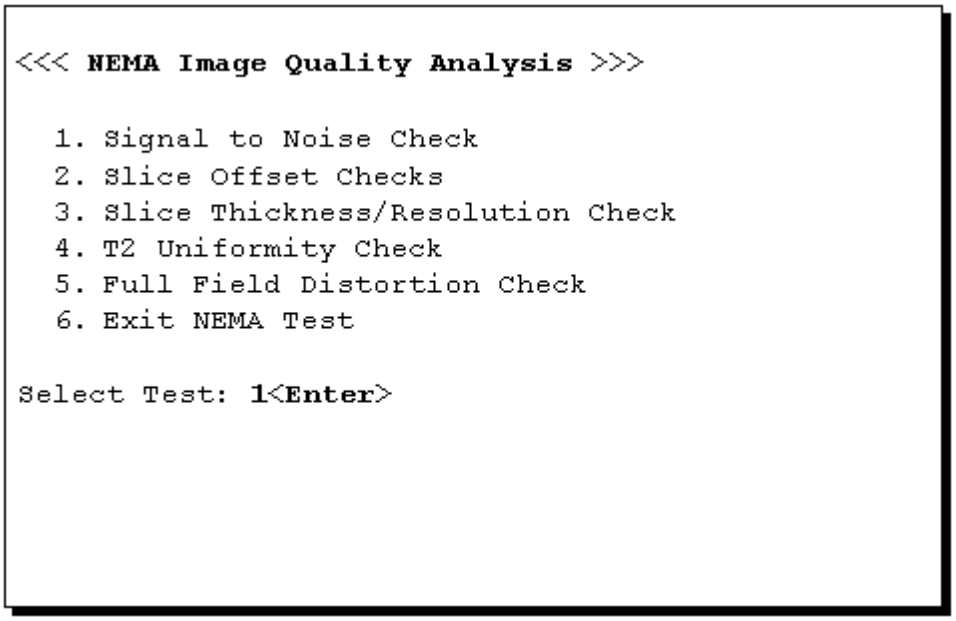
4. Data Analysis

4-1 Introduction

The SNR tool retrieves two operator selected images. Signal value is computed as the mean pixel value in a ROI covering 80% of the image. The image is analyzed to determine the center of the image for positioning the ROI. Subtracting the second image from the first creates a difference image and the same ROI is used to calculate noise from the subtracted image. The signal value, noise value, and signal to noise ratio are reported. There is an option to save the difference image with the results annotated.

4-2 Procedure

1. Select **Image Quality**, under **[Cal/Checks]** on the Service Desktop, then click on **[Start].**
2. A *NEMA Image Quality* window will appear on the desktop. Type **1 <Enter>** for Signal to Noise Check. See Illustration 12.



NEMA IMAGE QUALITY MENU
ILLUSTRATION 12I

4-2 Procedure(continued)

3. Enter first image exam, series, and image numbers. Execute the selected test by typing **X <Enter>**. See Illustration 13.

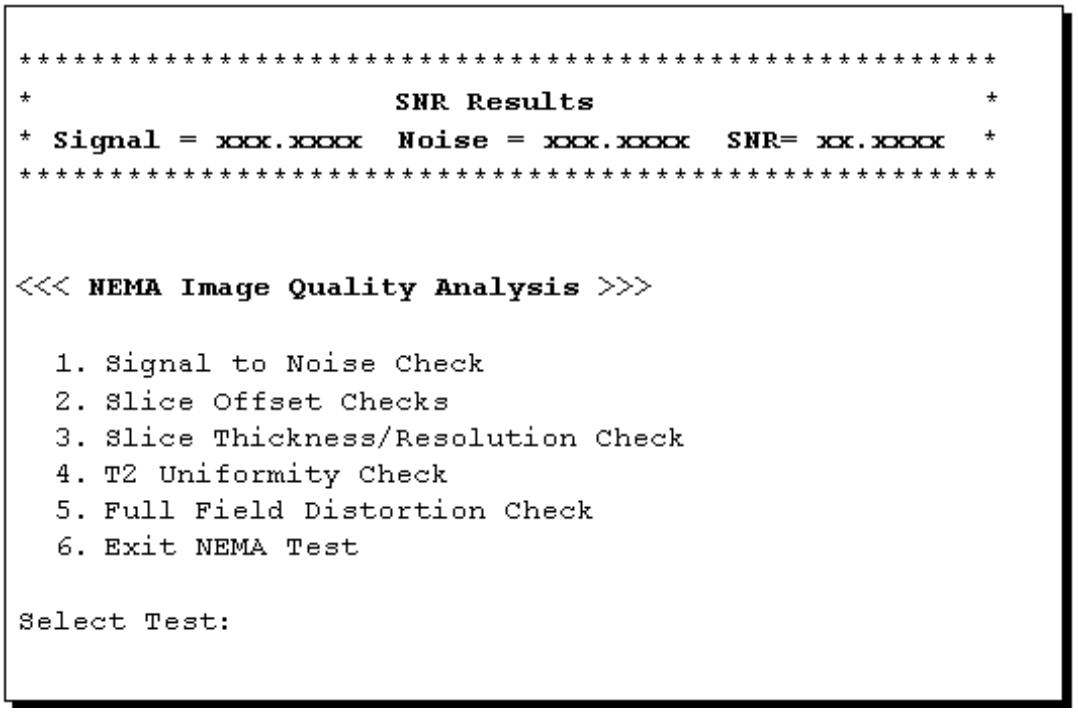
```
        = = = = = = = = = = = = = = = = = = = = = = = = =
                      Image Selection Menu
        = = = = = = = = = = = = = = = = = = = = = = = = =

Current Selection:

      Exam_No = xxxxx,   Series_No = x,   Image_No = x

A. Select Exam
B. Select Series
C. Select Image
D. List/Select Exam
E. List/Select Series
F. List/Select Image
X. Execute the selected test
YOUR CHOICE:
```

NEMA IMAGE SELECTION MENU
ILLUSTRATION 13

4. Enter second image series and image numbers. The second image exam number should be the same as first image. Again, execute the selected test by typing **X <Enter>**.

4-2 Procedure(continued)

5. Analysis then begins. The final values are displayed on the screen, see Illustration 14.



SNR RESULTS SCREEN
ILLUSTRATION 14

6. Record Signal, Noise, and SNR in datasheet.

TABLE 4-1
DATA SHEET

Signal	Noise	SNR	SPEC
			≥ 80

Revision History

Rev	Date	Author	Primary Reasons For Change
0	Apr 20, 2001	Y.Masumo	Initial Releases