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Rev 2

1. Preparation

1-1 Overview

The initial value of Center Frequency and Gradient Shim can be adjusted by Center Frequency Check.

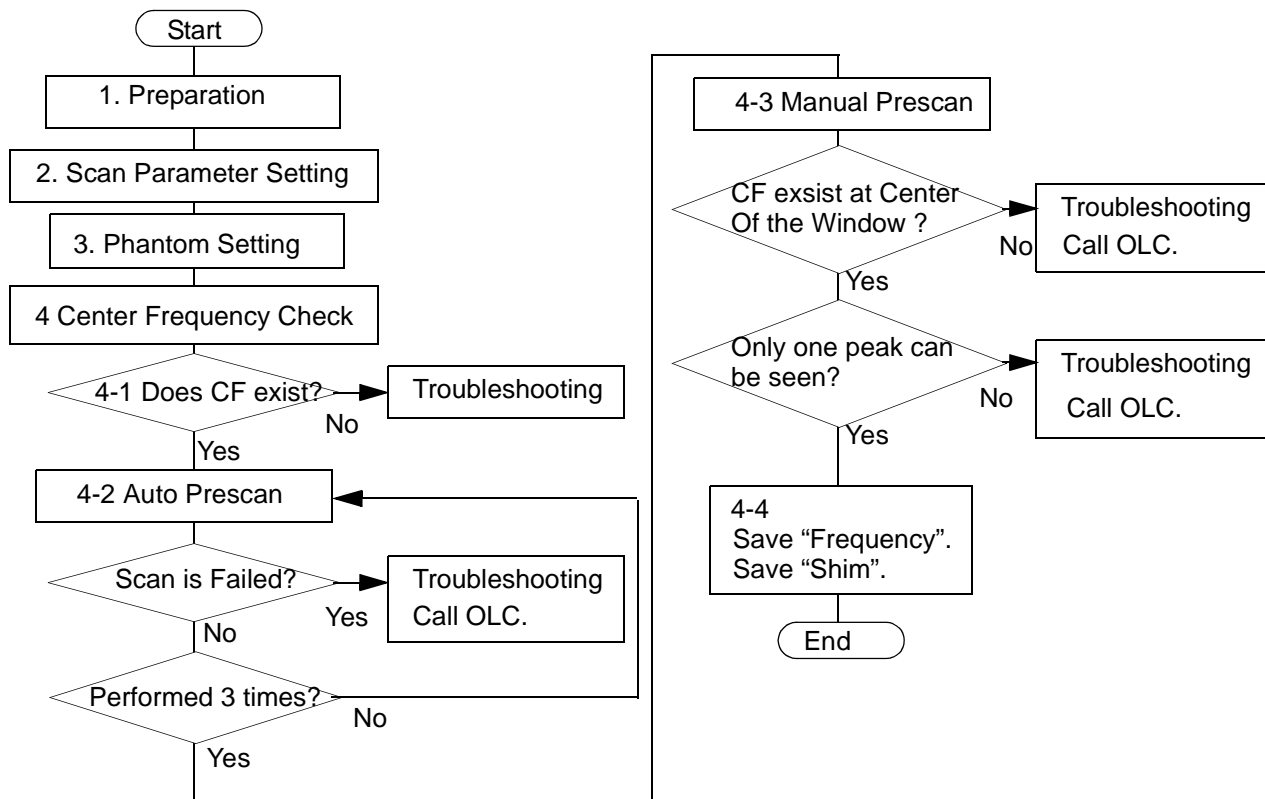
Center Frequency Check performs the auto prescan and find the proper values of Center Frequency and Gradient Shim automatically. It is necessary to perform this scan three times After the center frequency check, it is necessary to save CF value and Gradient Shim value as a initial value.

1-2 Required Tool

TABLE 1-1
REQUIRED TOOL

Item	Part Name
1	Head Coil
2	DQA Phantom

1-3 Flowchart



FLOWCHART
ILLUSTRATION 1-1

Rev 2

2. Scan Parameter Setting

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

PATIENT INFORMATION

Accession Number

Patient ID

Patient Name

Birth Date Age Sex

Weight (Lb) (Kg)

Rad Refer

Req Number Stastus

Description

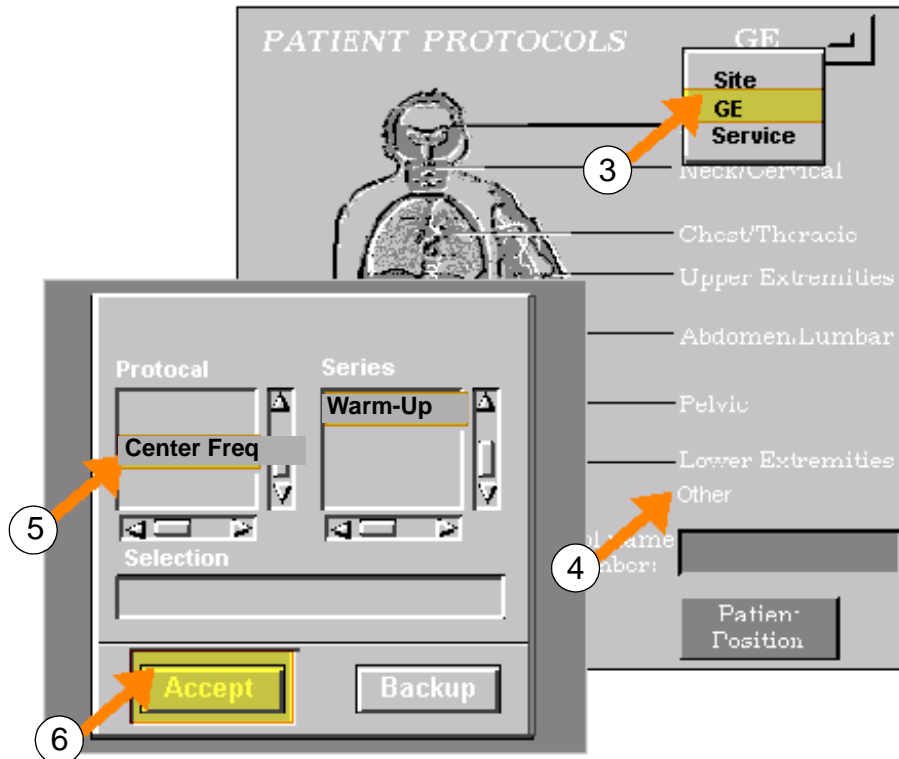
History

PATIENT INFORMATION
ILLUSTRATION 1

Rev 2

2. Scan Parameter Setting (continued)

- 3. Choose GE.
- 4. Click **Other**. Protocol window comes Up.
- 5. Select [**Center Frequency Check**] from protocol.
 Select [**Warm-Up Scan**] from series.
- 6. Select [**Accept**].



PATIENT INFORMATION
ILLUSTRATION 2

- 7. Select Save Series.



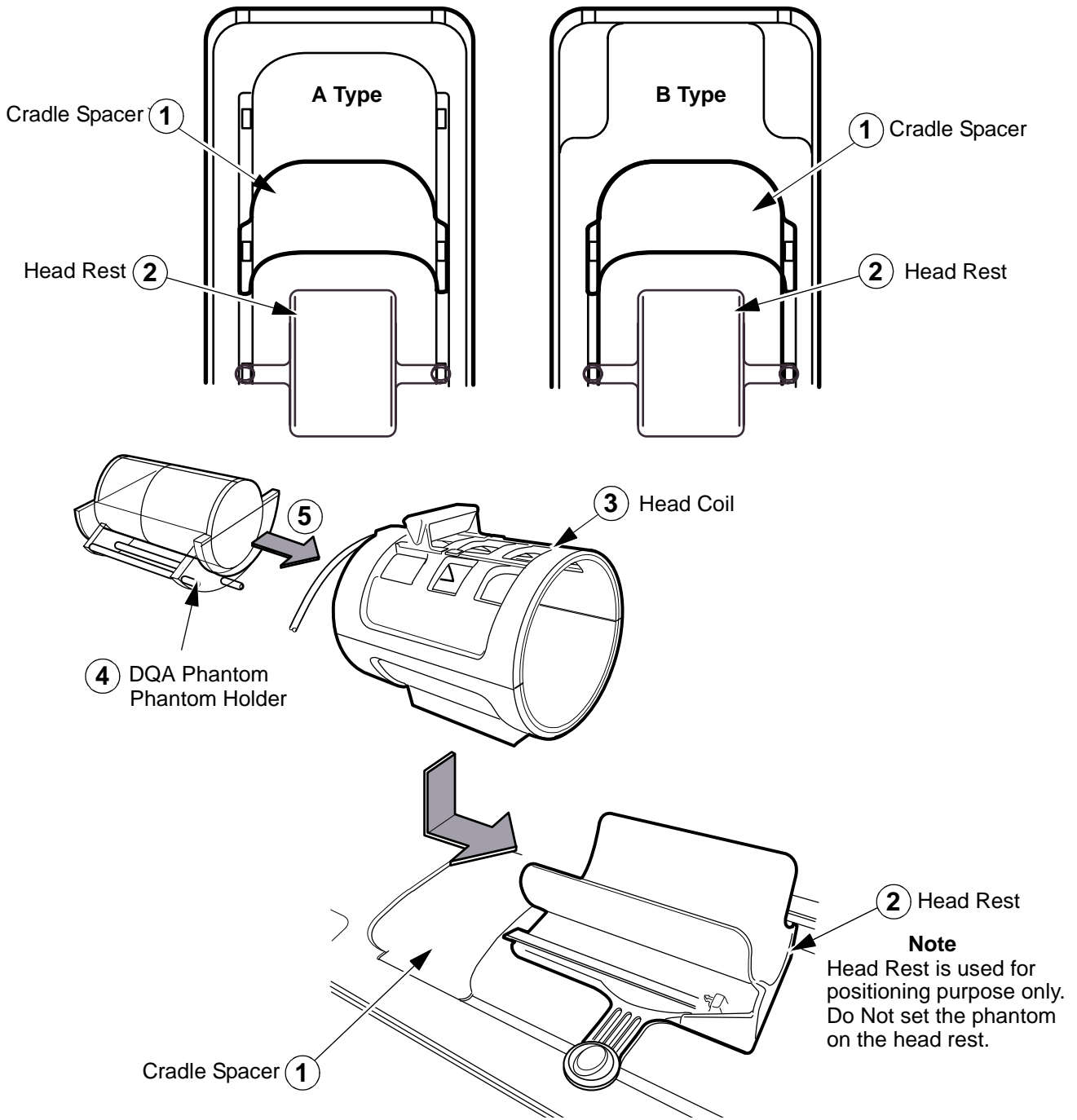
SAVE SERIES
ILLUSTRATION 3

Rev 2

3. Phantom Setting

1. Set cradle spacer to cradle.
2. Set head rest onto cradle.
3. Set head coil to head rest.
(Head Rest is used for positioning purpose only. Do Not set the phantom on the head rest.)
4. Set DQA phantom to phantom holder.
5. Insert DQA phantom and phantom holder into head coil.

NOTE:There are two type of table as following illustration.

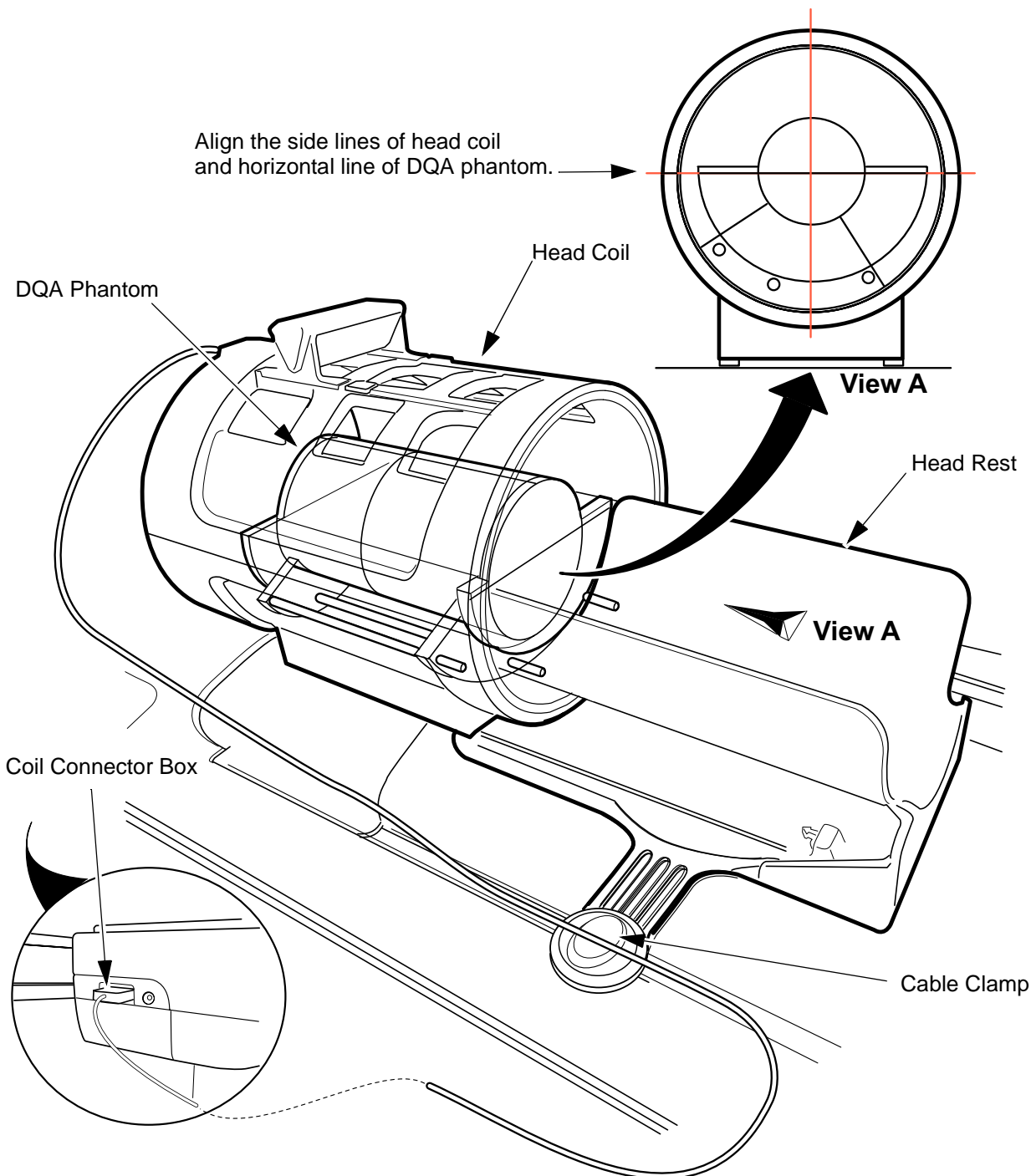


**PHANTOM SETTING 1
ILLUSTRATION 4**

Rev 2

3. Phantom Setting(Continued)

- 6. Align the side lines of head coil and horizontal line of DQA phantom.
- 7. Connect the coil connector box to table connector port.
- 8. Attach the coil cable to cable clamp of head rest.

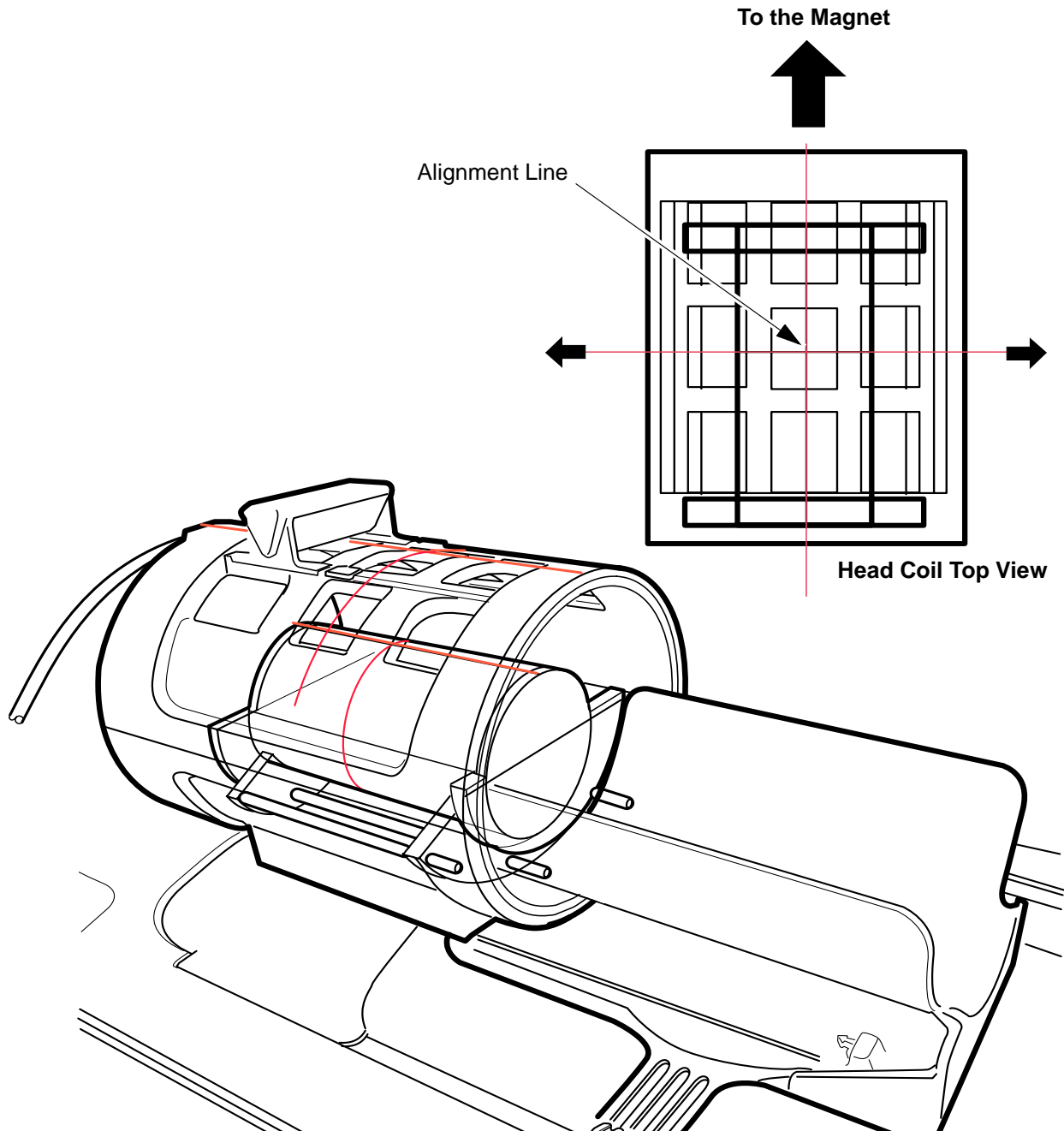


PHANTOM SETTING 2
ILLUSTRATION 5

Rev 2

3. Phantom Setting(Continued)

- 9. Advance the cradle to the position where the A-light beam hits the center of coil.
- 10. Align the head coil and DQA phantom center position to laser center.
- 11. Landmark in the sagittal and axial planes.
- 12. Move the cradle to the scan center.



ALIGNMENT
ILLUSTRATION 6

Rev 2

4. Center Frequency Adjustment

4-1 Does Center Frequency Exist?

1. Select [Manual Prescan].



MANUAL PRESCAN
ILLUSTRATION 7

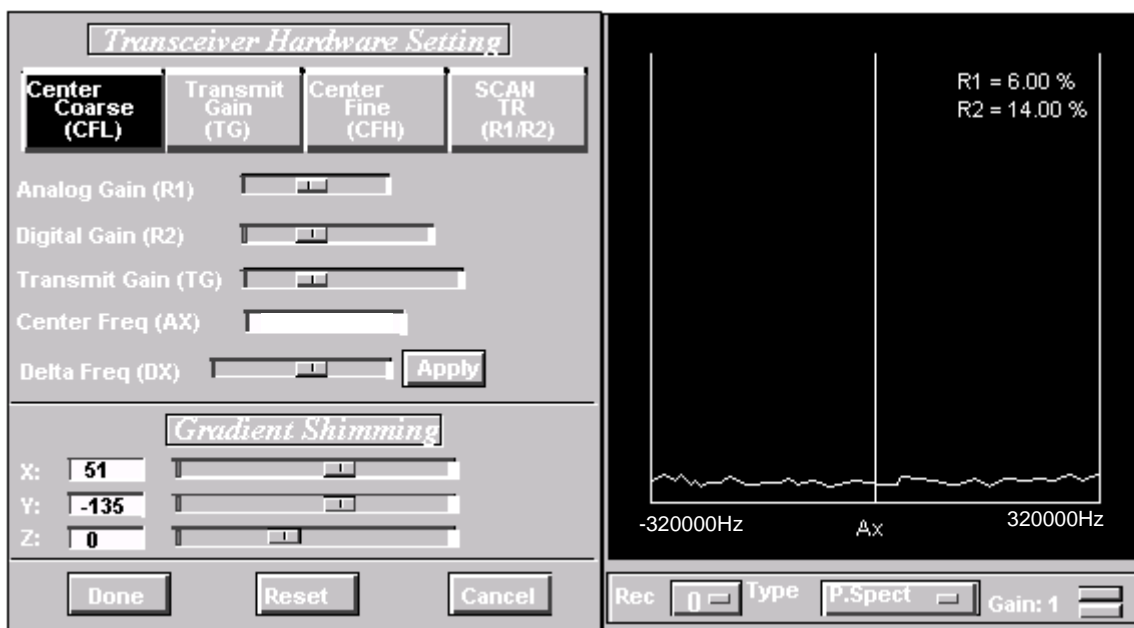
2. Verify that peak wave exist in the window.

If the peak is not found like illustration below, check the following.

- TCU power is ON?
- All heaters are working?

If you cannot find the problem, call OLC.

Example of No Peak Signal.

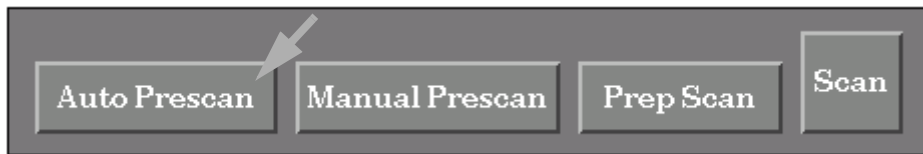


MANUAL PRESCAN
ILLUSTRATION 8

Rev 2

4-2 Auto Prescan)

1. Select [Auto Prescan].



AUTO PRESCAN
ILLUSTRATION 9

2. Continue Auto Prescan two more times.

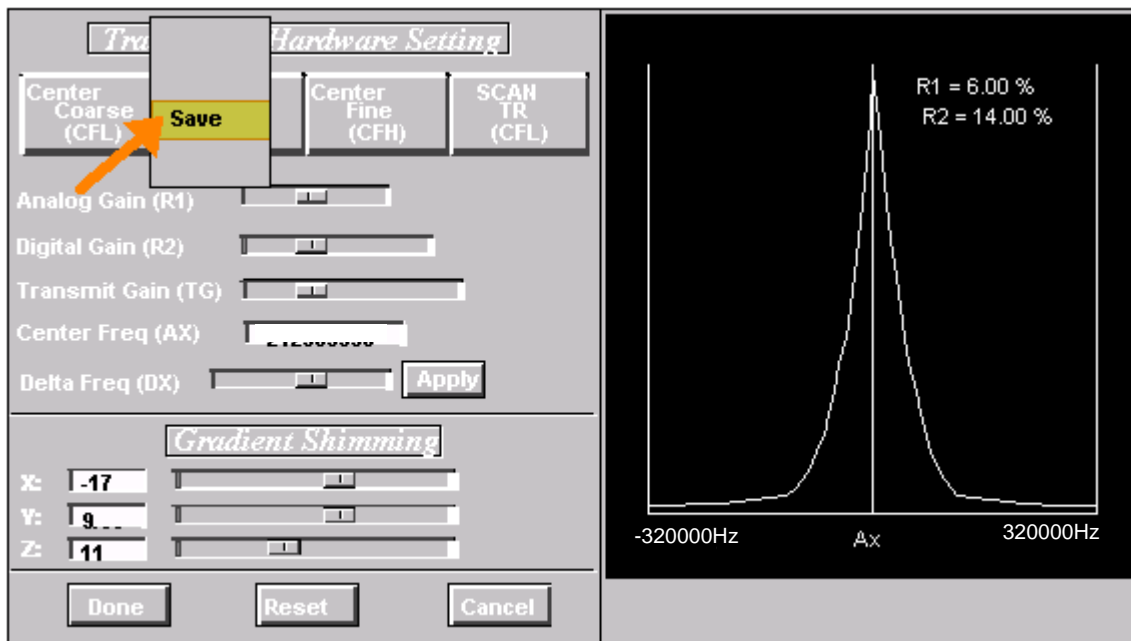
4-3 Manual Prescan)

1. Select [Manual Prescan].



MANUAL PRESCAN
ILLUSTRATION 10

2. Verify that the center frequency peak can be seen at the center of the screen.



MANUAL PRESCAN
ILLUSTRATION 11

4-4 Save Values

1. Perform "Save Frequency".
2. Perform "Shim Save".

Rev 2

Revision History

Rev	Date	Author	Primary Reasons For Change
0	Jan 26, 2001	Y. Masumo	Initial Release
1	May 15, 2001	Y. Masumo	Phantom Setting is updated.
2	Oct 18, 2001	Y. Masumo	Page 5: Added the purpose of Head Rest.