

# TABLE SWING POSITION ADJUSTMENT (STYLE B)

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Rev 1

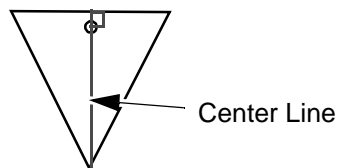
## 1. Preparation

### 1-1 Required Tools

- Ruler(100cm)
- Head Coil
- DQA Phantom
- Phantom Holder
- Head Rest
- 300ml tube construction adhesive or flooring adhesive equivalent (Liquid Nails, PL400)
- Denatured alcohol
- Non-magnetic Knife

### 1-2 Prerequisite

- Table is already placed on the rail.
- Table cover is removed.
- Table rear foot cover is removed.
- Table dollies are attached.
- System Power is ON.
- Draw a center line on the each triangle lock plate with pencil.



**CENTER LINE OF PLATE**  
ILLUSTRATION 1

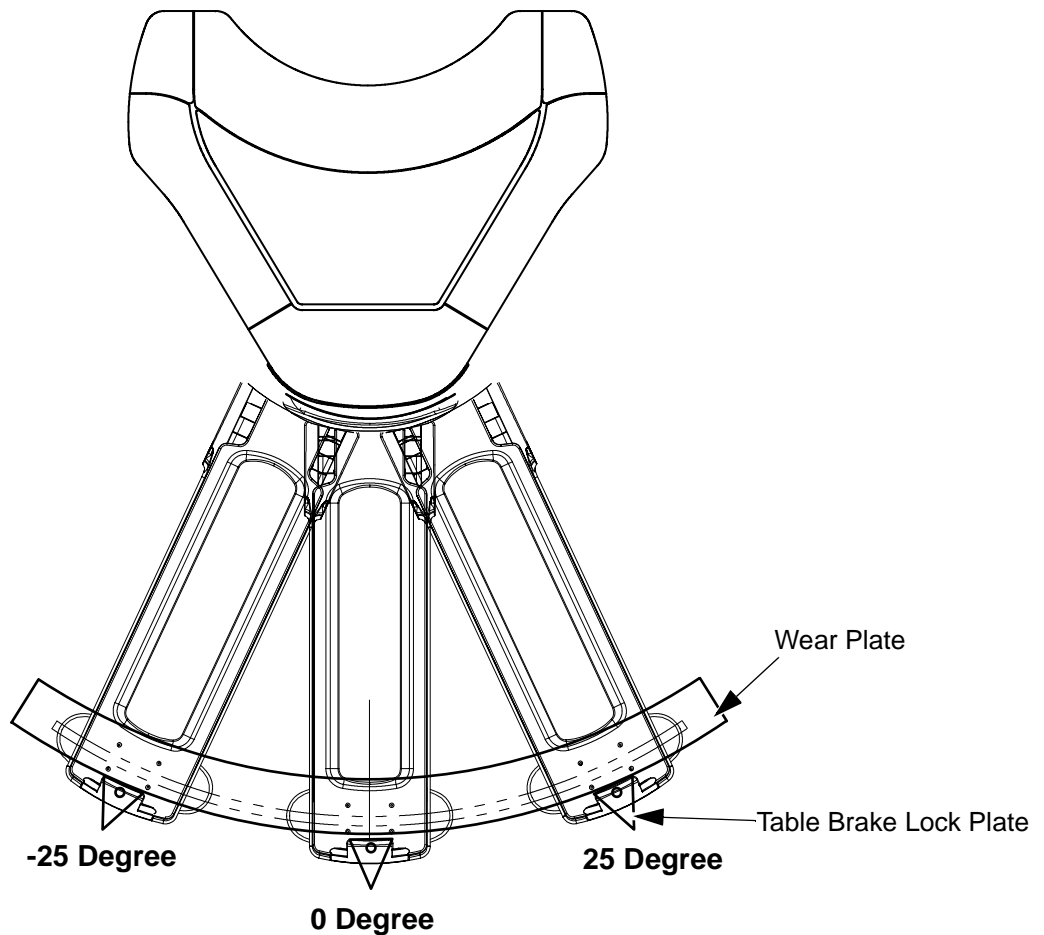
Rev 1

**1-3 Overview**

This manual describes how to adjust the 0degree, 25degree, and -25degree Table swing positions by aligning the table with laser light beam.

Once Table position is fixed, lock plate position is marked on the floor.

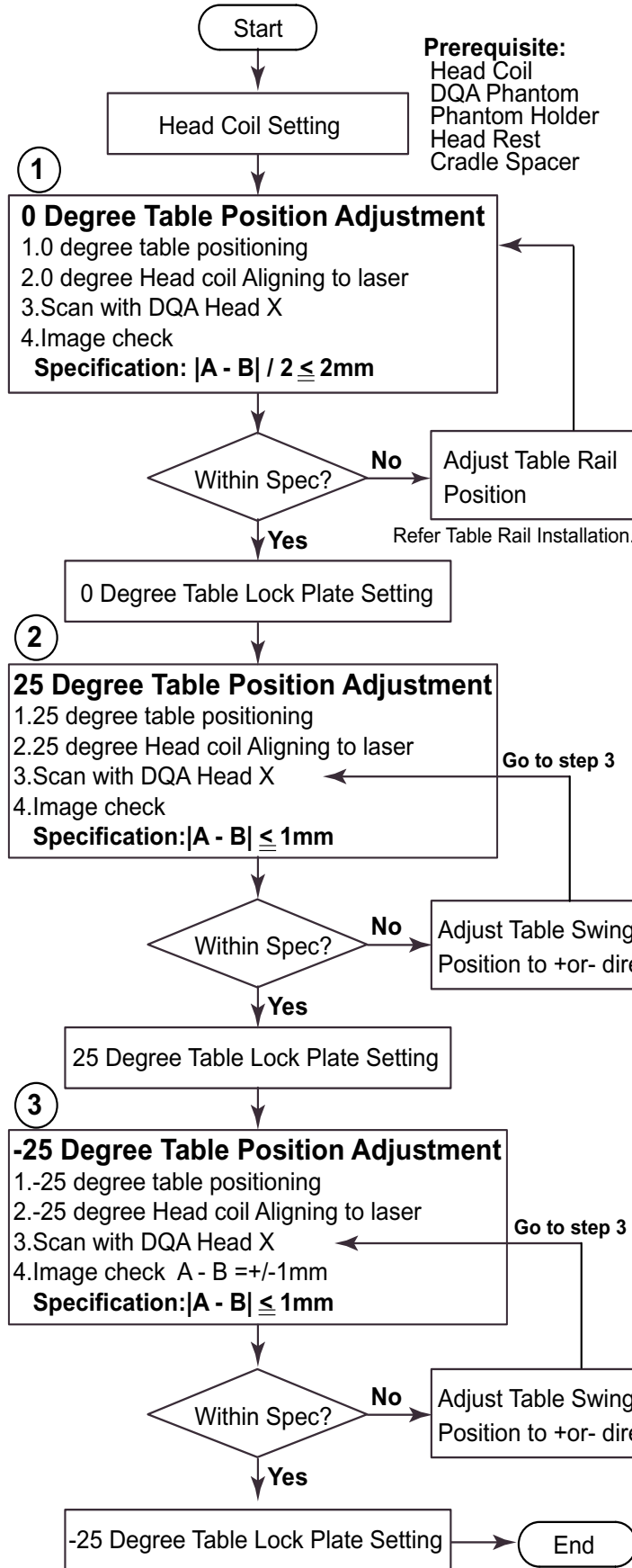
Floor will be cut off along the mark and plate will be glued in the position.



**TABLE ADJUSTMENT OVERVIEW**  
ILLUSTRATION 2

Rev 1

1-4 Adjustment Flow



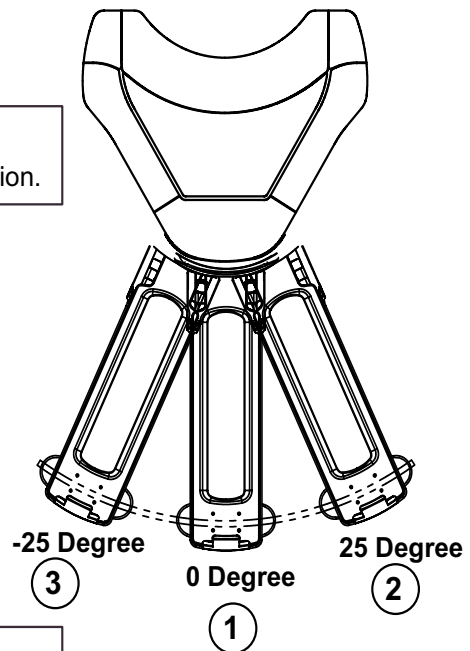
**Prerequisite:**  
 Head Coil  
 DQA Phantom  
 Phantom Holder  
 Head Rest  
 Cradle Spacer

**NOTE:**  
**ON Condition of Laser**  
 Swing Lock  
 Pivot Sensor ON

**UP/Down Condition of Table**  
 Cradle in Home Position  
 Swing Lock

**IN/OUT Condition of Cradle(0 Degree)**  
 Table in Upper Limit Position  
 Swing Lock  
 Pivot Sensor ON(0 Degree)  
 Indicated lateral LED display less than +/-90mm

**NOTE:**  
**IN/OUT Condition of Cradle(25 or -25 Degree)**  
 Table in Upper Limit Position  
 Swing Lock  
 Pivot Sensor ON(25 or -25 Degree)  
 Indicated lateral LED display more than +/-120mm

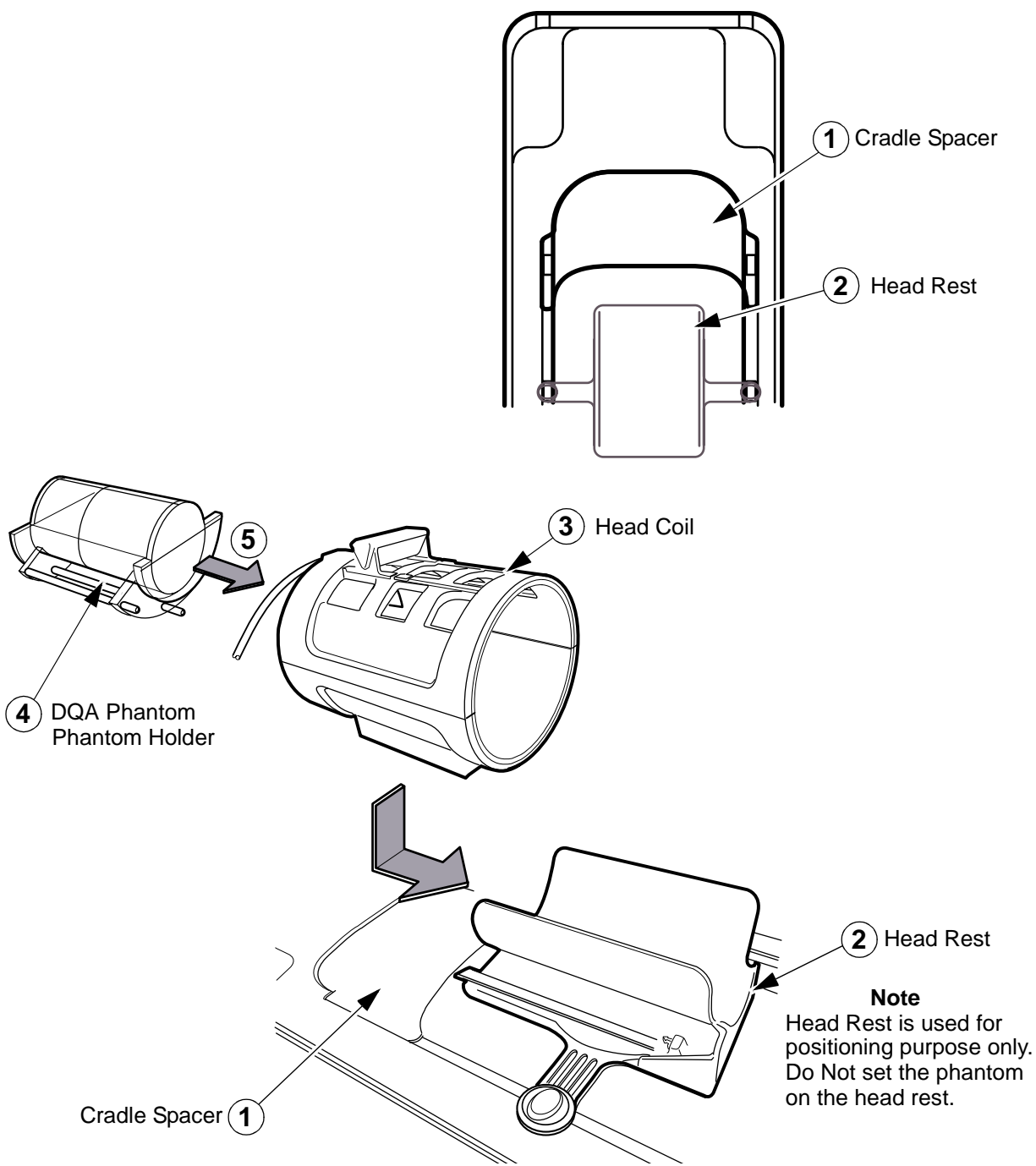


Remove the dollies from the table.

Rev 1

**2. Head Coil Setting**

1. Set cradle spacer to cradle as illustration 3.
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 coil.)
4. Set DQA phantom to phantom holder.
5. Insert DQA phantom and phantom holder into head coil.

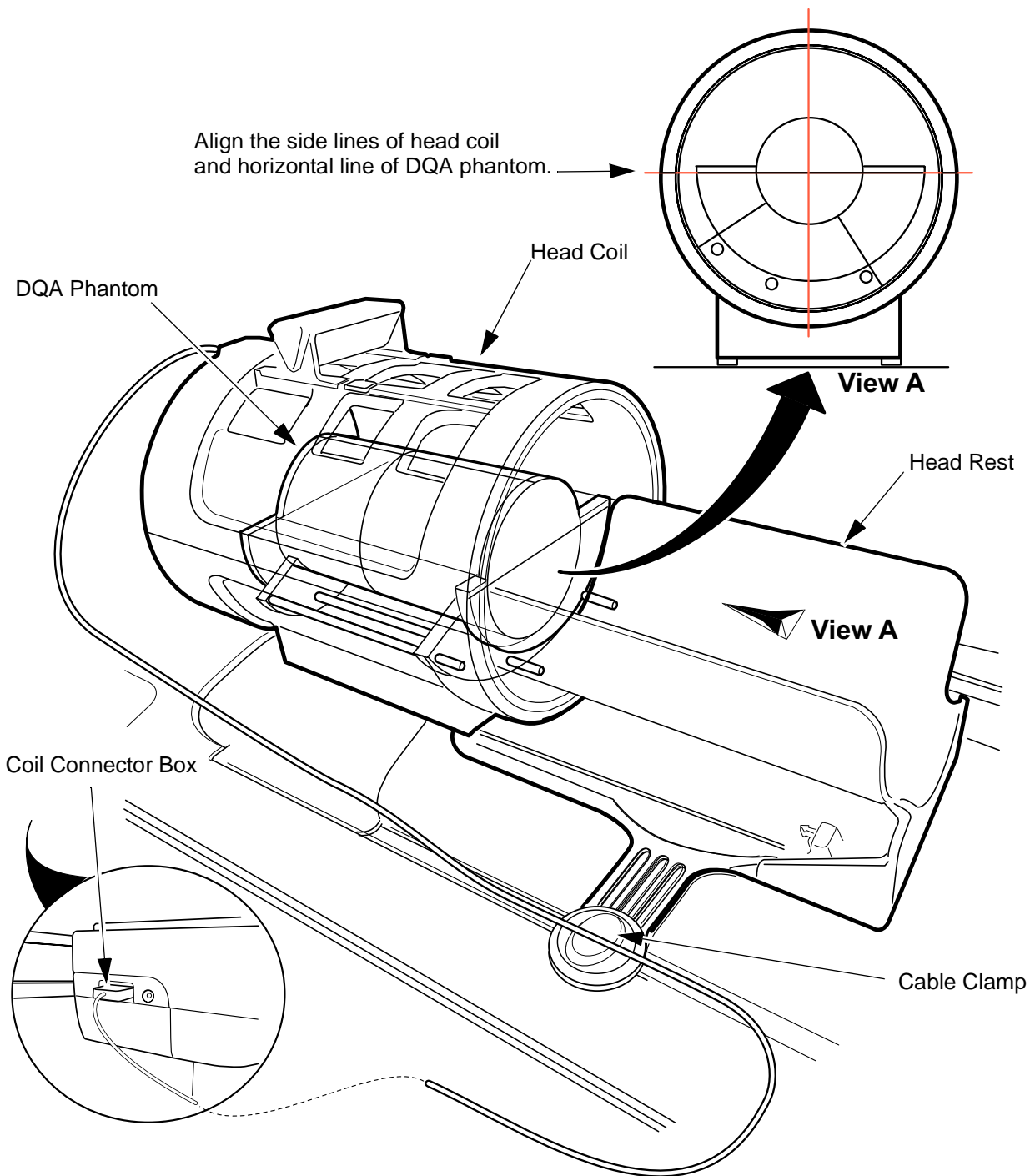


**HEAD COIL SETTING  
ILLUSTRATION 3**

Rev 1

**2. Head Coil 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.



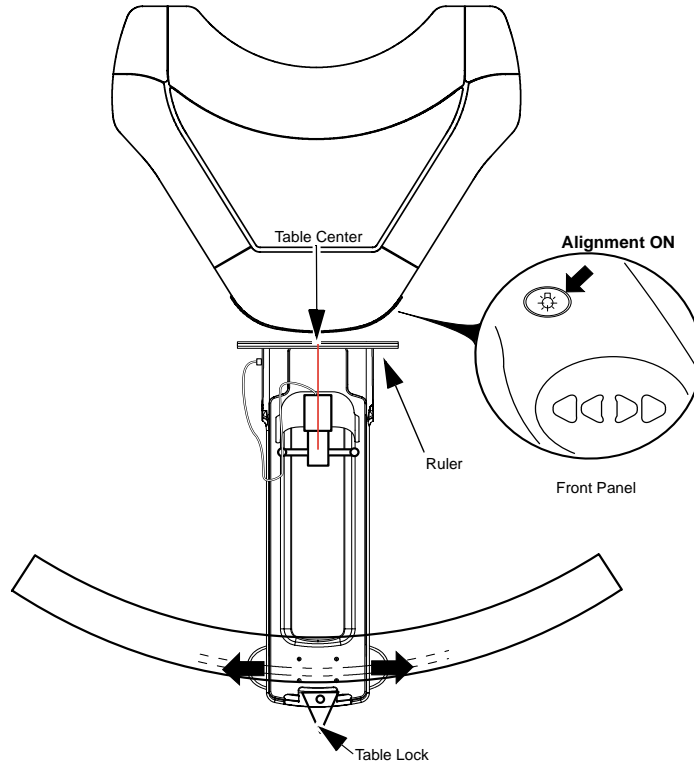
**HEAD COIL SETTING  
ILLUSTRATION 4**

Rev 1

### 3. 0 degree Table Position Adjustment

#### 3-1 0 degree Table Positioning

1. Move the Table to 0 position.
2. Place a Triangle brake Lock plate on the floor and slide it under the brake pin of Table.
3. Step on the brake pedal and extend the brake pin into the pre-drilled hole.
4. Set the 100cm ruler to the table front side, and check the table center.
5. Press the Alignment On push button on the magnet display.
6. Align the center of swing table to 0 degree laser beam with the brake pin extended, sliding the triangle plate with the table.

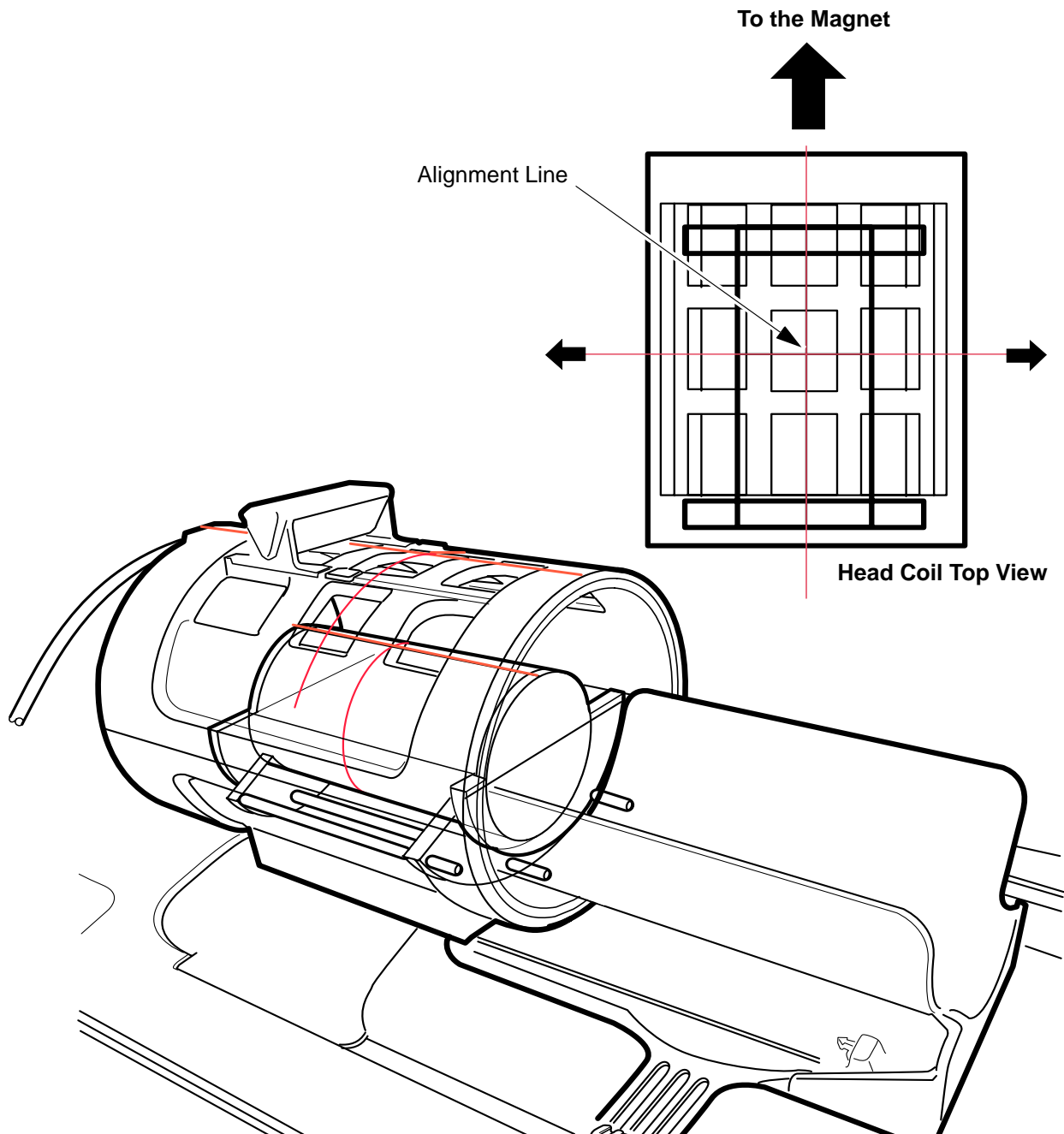


**0 DEGREE TABLE POSITIONING  
ILLUSTRATION 5**

Rev 1

**3-2 0 degree Head Coil Aligning to laser**

1. Advance the cradle to the position where the A-light beam hits the center of coil.
2. Align the head coil and DQA phantom center position to laser center.
3. Landmark in the sagittal and axial planes.
4. Move the cradle to the scan center.



**0 DEGREE HEAD COIL ALIGNING TO LASER  
ILLUSTRATION 6**

Rev 1

**3-3 0 degree Scan**

**3-3-1 Parameter Setting**

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

*PATIENT INFORMATION*

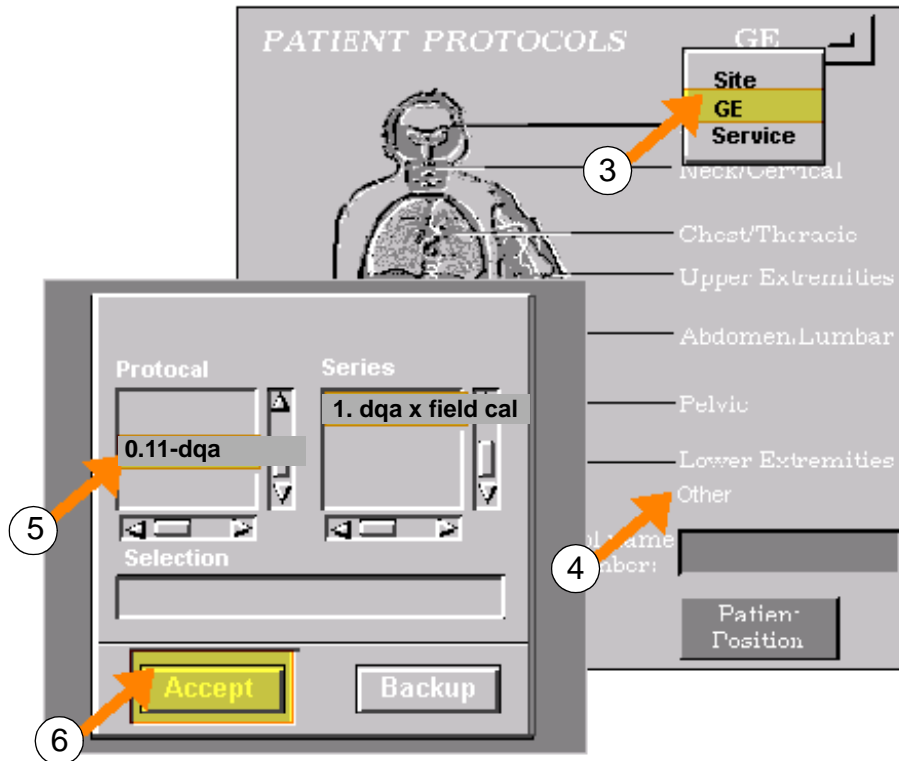
Accession Number	<input type="text"/>				
Patient ID	<input type="text" value="geservice"/>				
Patient Name	<input type="text"/>				
Birth Date	<input type="text"/>	Age	<input type="text"/>	Sex	<input type="text"/>
Weight	<input type="text"/>	(Lb)	<input type="text" value="50"/>	(Kg)	
Rad	<input type="text"/>	Refer	<input type="text"/>		
Req Number	<input type="text"/>	Stastus	<input type="text" value="In"/>		
Description	<input type="text"/>				
History	<input type="text"/>				
					<input type="button" value="Landmark"/>

**PATIENT INFORMATION**  
ILLUSTRATION 7

Rev 1

### 3-3-1.Parameter Setting (continued)

3. Choose GE.
4. Click **Other**. Protocol window comes Up.
5. Select [**0.11-dqa**] from protocol.  
Select [**1. dqa x field cal**] from series.
6. Select [**Accept**].



**PATIENT INFORMATION**  
ILLUSTRATION 8

7. Select Save Series.

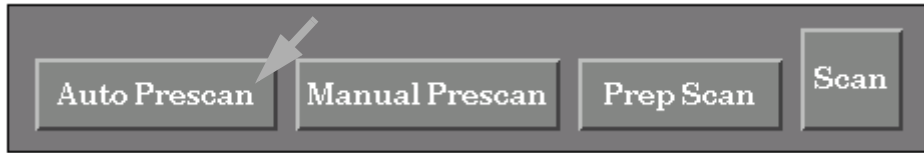


**SAVE SERIES**  
ILLUSTRATION 9

Rev 1

### 3-3-2. 0 Degree Scan

1. Select [**Auto Prescan**].



**AUTO PRESCAN**  
ILLUSTRATION 10

2. Select [**Manual Prescan**].



**MANUAL PRESCAN**  
ILLUSTRATION 11

3. Click on "**SCAN TR**" and see that the projection comes out.
4. Click on "**Done**" Select [**Scan**].



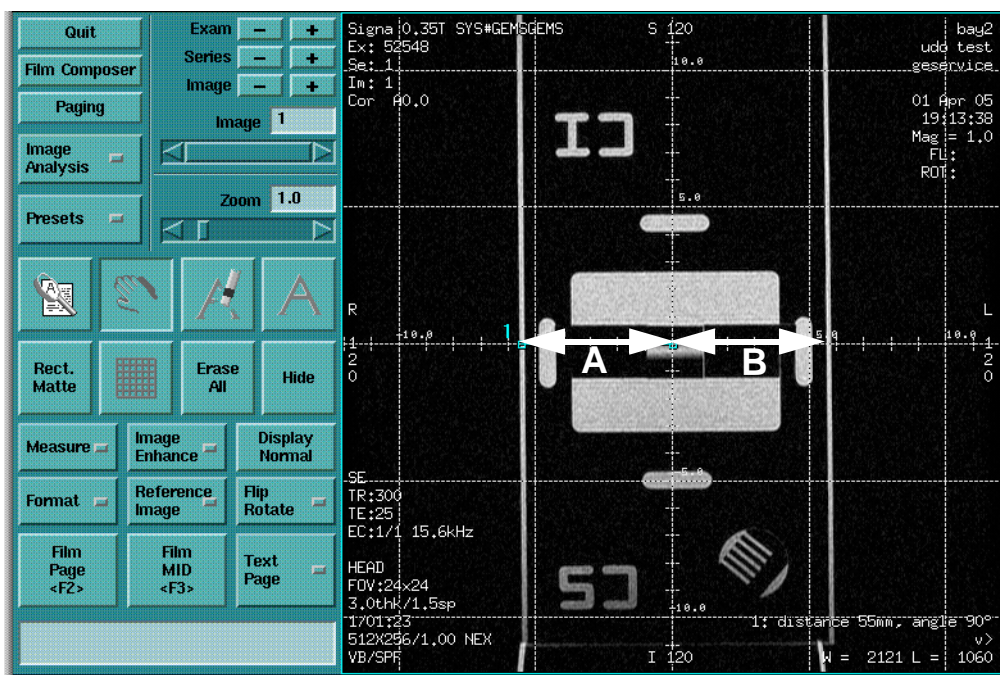
**SCAN**  
ILLUSTRATION 12

5. Verify that scanning has been started.

Rev 1

**3-4 0 degree Image Measurement**

1. Open the scan image from the viewer.
2. Show the grid on the image.
3. Measure the distance from center line to the left edge of the phantom at S/I 0 point.  
Record it as "A"  
See illustration below.
4. Measure the distance from center line to the right edge of the phantom at S/I 0 point.  
Record it as "B"  
See illustration below.



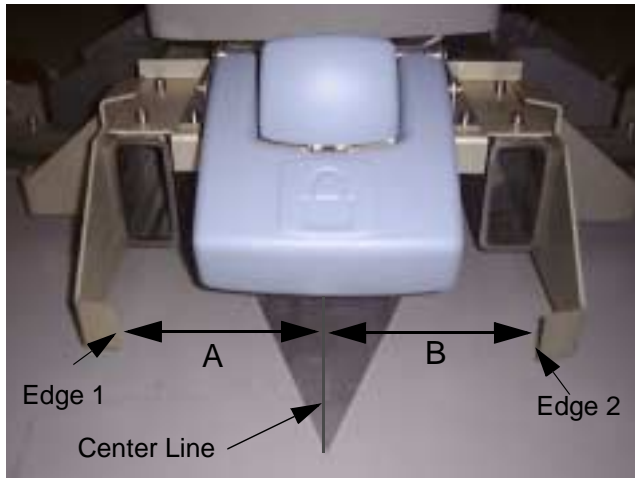
**MEASUREMENT**  
ILLUSTRATION 13

5. Calculate the following formula and verify that the result satisfies the specification.  
**0 Degree Specification:**  $|A - B| / 2 \leq 2\text{mm}$
6. If measurement is out of specification, adjust the table rail position. Refer to table rail installation. If measurement is within specification, go to 0 degree table lock plate setting. Refer to next page.

Rev 1

**3-5 0 Degree Table Lock Plate Setting**

1. Move the triangle lock plate position so that the distance A and distance B become equal. See illustration below. Do not unlock while moving the triangle lock plate position.



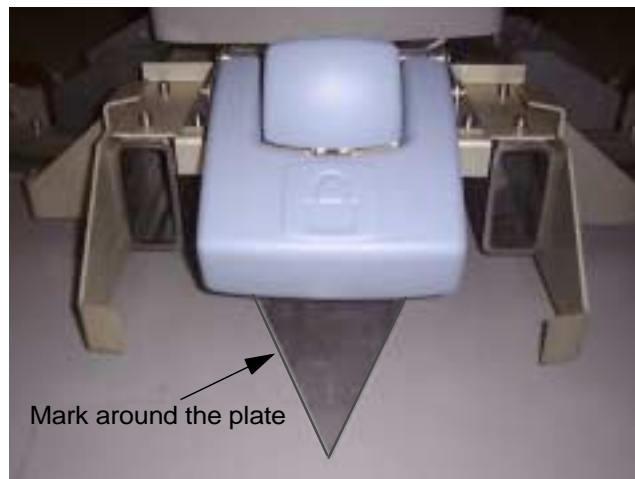
Distance A=|Edge1 - center line|

Distance B=|Edge2 - center line|

Distance A = Distance B

**LOCK PLATE POSITIONING**  
ILLUSTRATION 14

2. Mark around the Triangle Table lock plate.



**POSITION MARKING**  
ILLUSTRATION 15

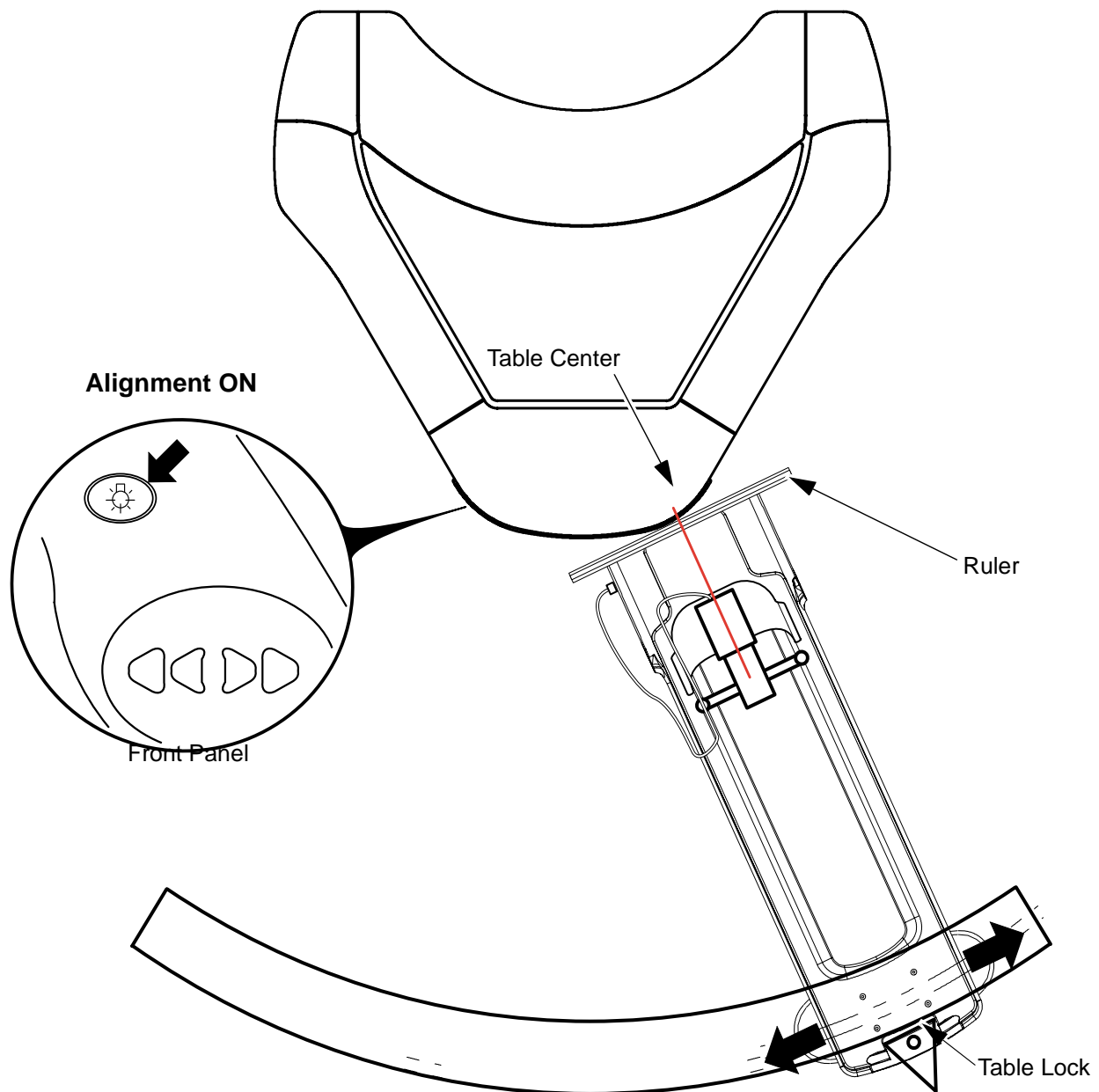
3. Release the Table Lock.

Rev 1

## 4. 25 degree Table Position Adjustment

### 4-1 25 degree Table Positioning

1. Move the table to 25 degree position.
2. Place a Triangle brake Lock plate on the floor and slide it under the brake pin of the table.
3. Step on the brake pedal and extend the brake pin into the pre-drilled hole.
4. Set the 100cm ruler to the table front side, and check the table center.
5. Press the Alignment On push button on the magnet display.
6. Align the center of swing table to 25 degree laser beam with the brake pin extended, sliding the triangle plate with the table.



**25 DEGREE TABLE POSITIONING**  
ILLUSTRATION 16

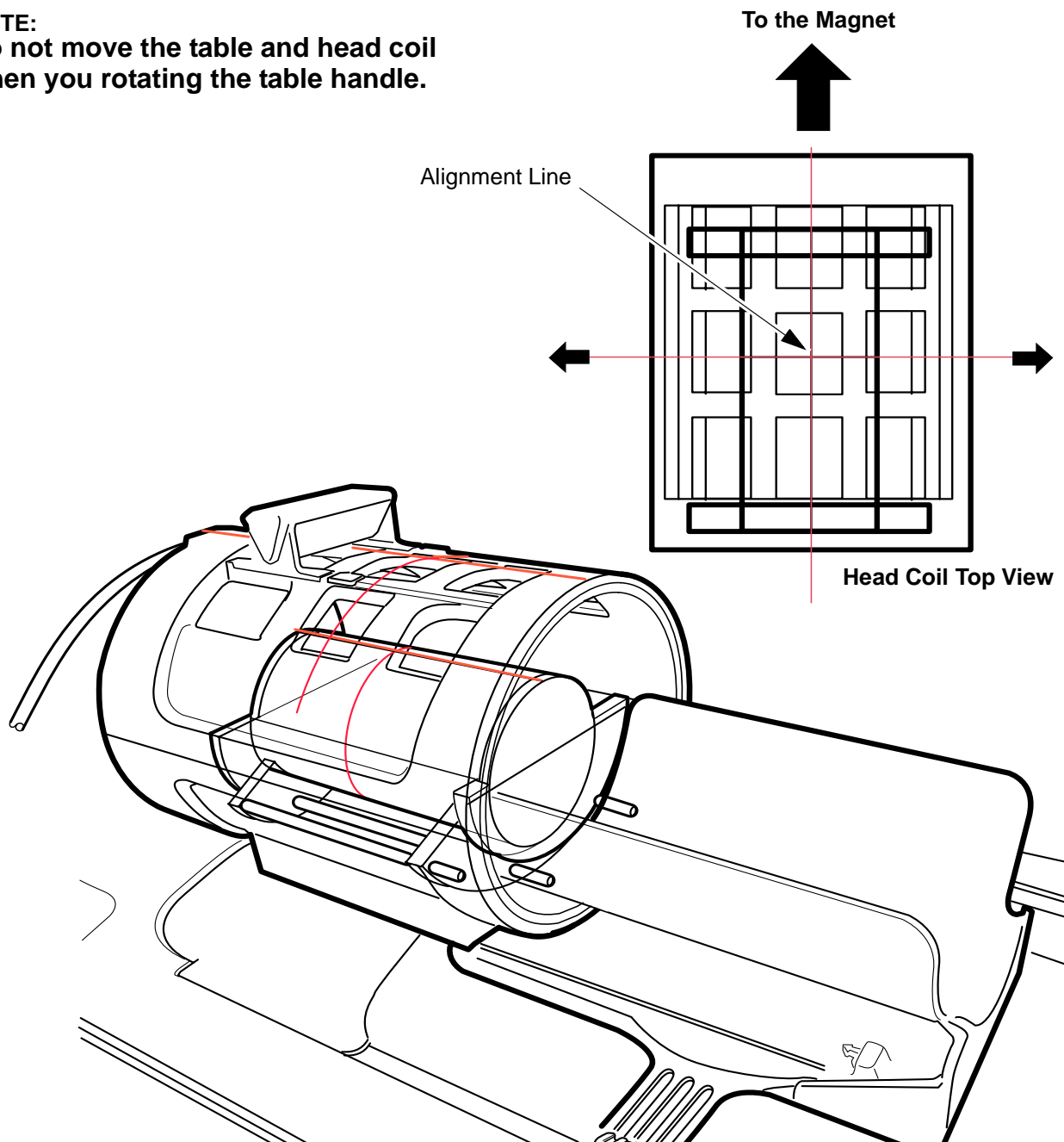
Rev 1

**4-2 25 degree Head Coil Aligning to laser**

1. Move the cradle to 120mm lateral direction with the handle to sending the cradle into the magnet. Do not move the table and head coil when you rotating the table handle.
2. Advance the cradle so that the alignment Axial light hit the DQA phantom axial center.
3. Return the cradle to -120mm lateral direction to aligning head coil with laser beams.
4. Align the head coil and DQA phantom axial center position to laser center.
5. Move the cradle to 120mm lateral direction with the handle.
6. Landmark and Move the cradle to the scan center.

**NOTE:**

**Do not move the table and head coil when you rotating the table handle.**



**25 DEGREE HEAD COIL ALIGNING TO LASER**  
ILLUSTRATION 17

Rev 1

**4-3 25 degree Scan**

**4-3-1.Parameter Setting**

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

**PATIENT INFORMATION**  
ILLUSTRATION 18

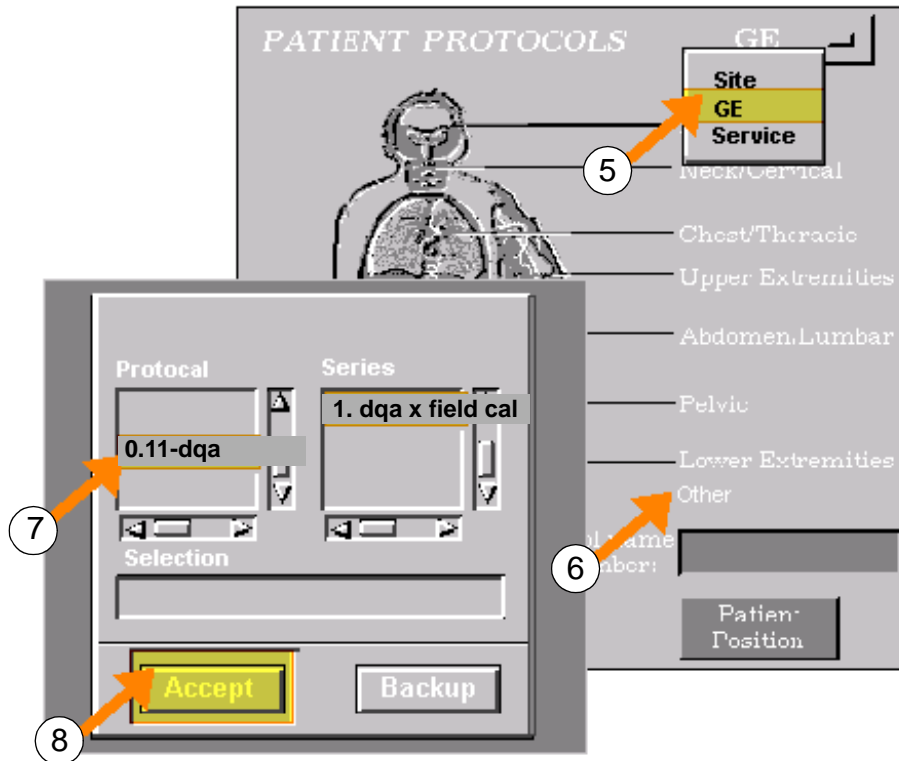
3. Click Landmark.
4. Select **"Right"** from Table Entry

**TABLE ENTRY**  
ILLUSTRATION 19

Rev 1

4-3-1.Parameter Setting (continued)

- 5. Choose GE.
- 6. Click **Other**. Protocol window comes Up.
- 7. Select [**0.11-dqa**] from protocol.
- Select [**1. dqa x field cal**] from series.
- 8. Select [**Accept**].



PATIENT INFORMATION  
ILLUSTRATION 20

- 9. Select Save Series.

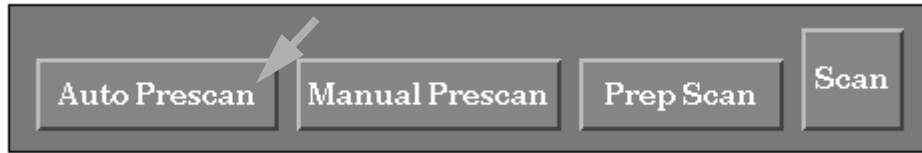


SAVE SERIES  
ILLUSTRATION 21

Rev 1

**4-3-2. 25 Degree Scan**

1. Select [**Auto Prescan**].



**AUTO PRESCAN**  
ILLUSTRATION 22

2. Select [**Manual Prescan**].



**MANUAL PRESCAN**  
ILLUSTRATION 23

3. Click on "**SCAN TR**" and see that the projection comes out.
4. Click on "**Done**" Select [**Scan**].



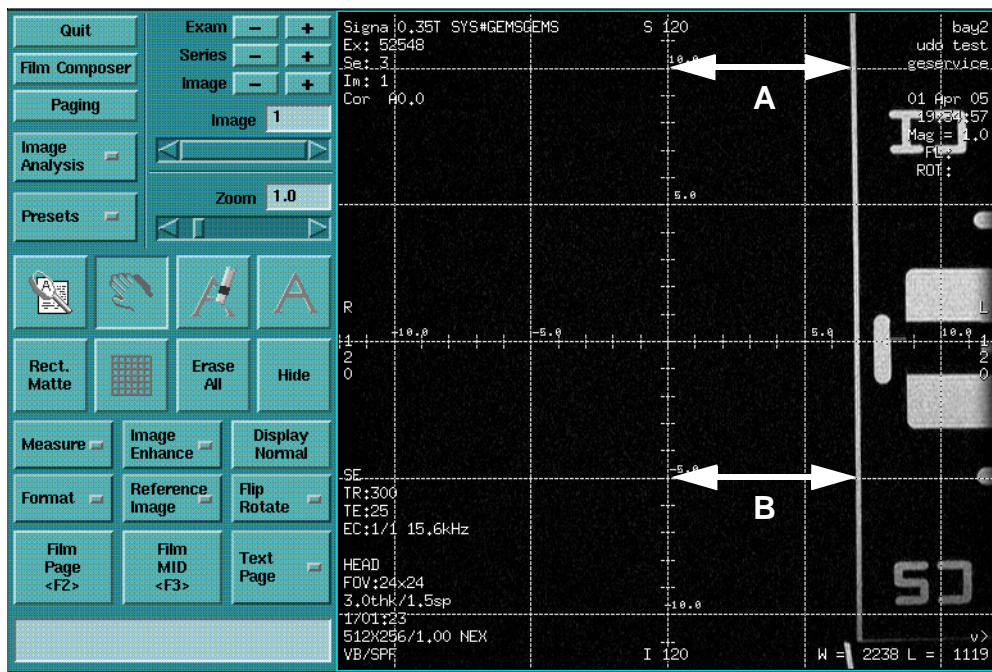
**SCAN**  
ILLUSTRATION 24

5. Verify that scanning has been started.

Rev 1

### 4-4 25 degree Image Measurement

1. Open the scan image from the viewer.
2. Show the grid on the image.
3. Measure the distance from center grid line to the edge of the phantom at S/I 10.0cm point. Record it as "A". See illustration below.
4. Measure the distance from center grid line to the edge of the phantom at S/I -5.0cm point. Record it as "B". See illustration below.



**MEASUREMENT  
ILLUSTRATION 25**

5. Calculate the following formula and verify that the result satisfies the specification.

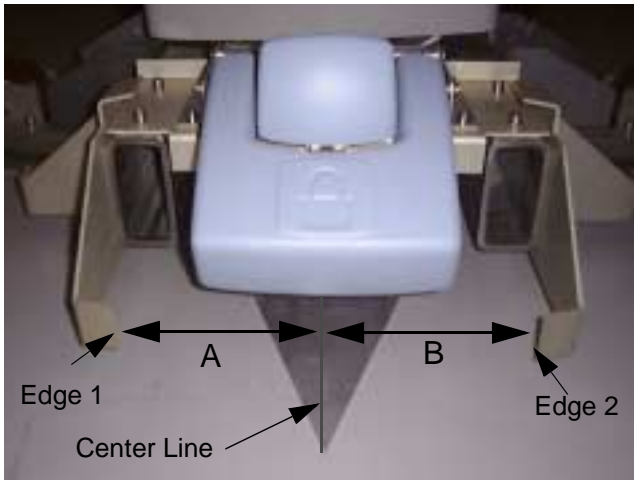
**25 Degree Specification:**  $|A - B| \leq 1\text{mm}$

6. If measurement is out of specification, adjust the table swing position. If measurement is within specification, go to 25 degree table lock plate setting. Refer to next page.

Rev 1

**4-5 25 Degree Table Lock Plate Setting**

1. Move the triangle lock plate position so that the distance A and distance B become equal. See illustration below. Do not unlock while moving the triangle lock plate position.



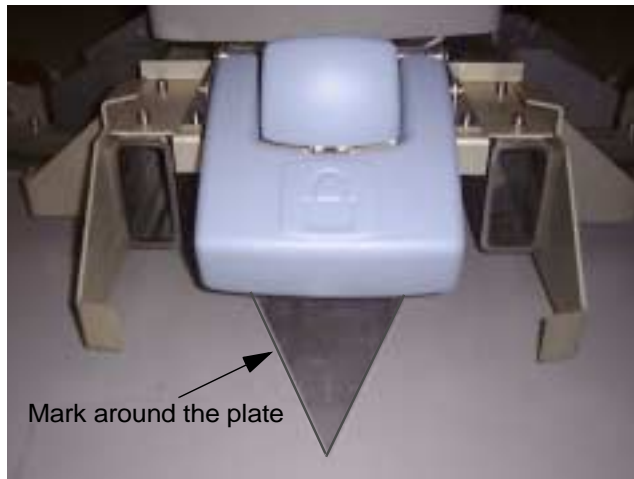
Distance A=|Edge1 - center line|

Distance B=|Edge2 - center line|

Distance A = Distance B

**LOCK PLATE POSITIONING**  
ILLUSTRATION 26

2. Mark around the Triangle Table lock plate.



**POSITION MARKING**  
ILLUSTRATION 27

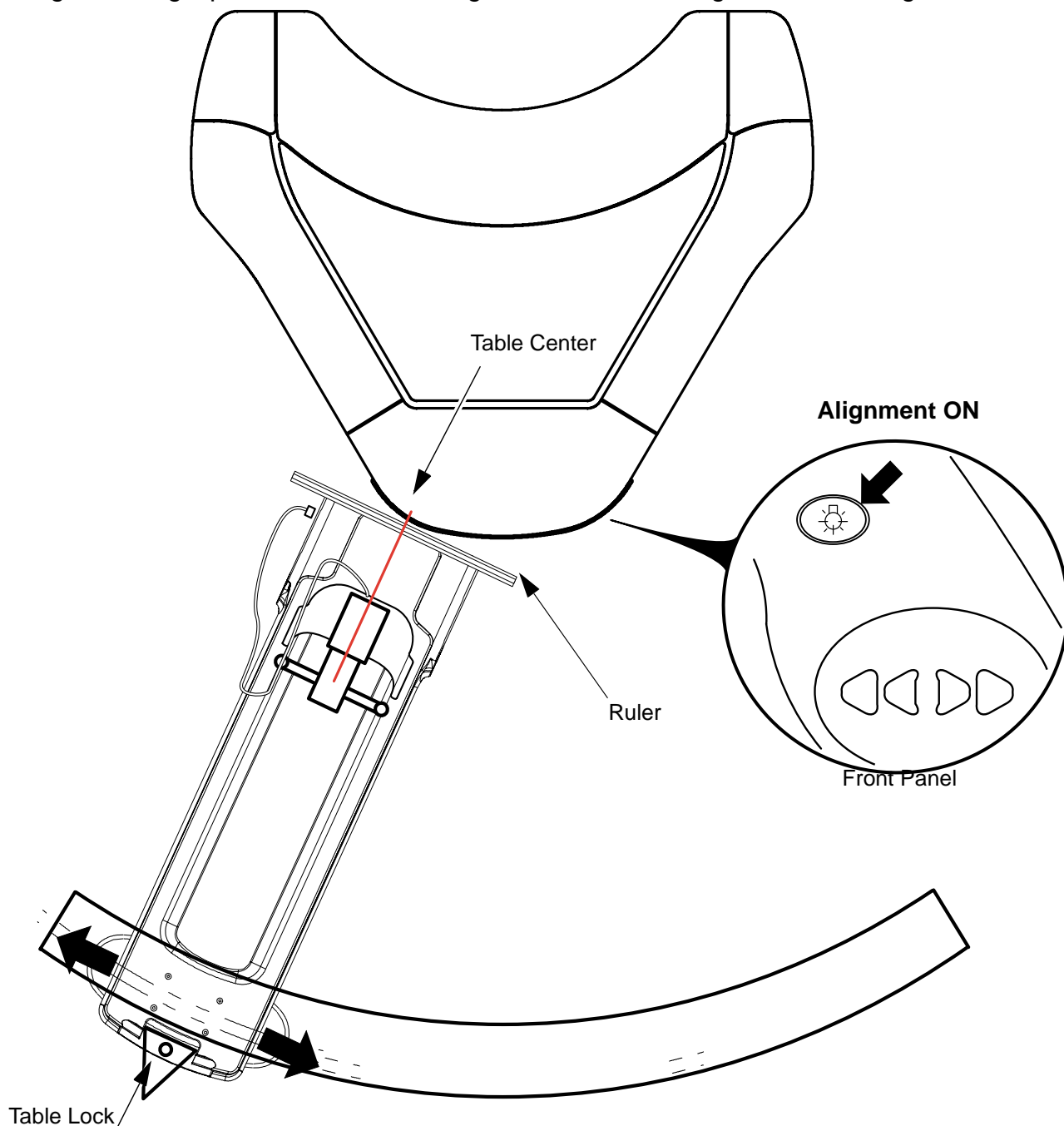
3. Release the Table Lock.

Rev 1

## 5. -25 degree Table Position Adjustment

### 5-1 -25 degree Table Positioning

1. Move the table to -25 degree position.
2. Place a Triangle brake Lock plate on the floor and slide it under the brake pin of the table .
3. Step on the brake pedal and extend the brake pin into the pre-drilled hole.
4. Set the 100cm ruler to the table front side, and check the table center.
5. Press the Alignment On push button on the magnet display.
6. Align the center of swing table to -25 degree laser beam with the brake pin extended, sliding the triangle plate with the table.Align the center of swing table to -25 degree laser beam.



**-25 DEGREE TABLE POSITIONING**  
ILLUSTRATION 28

Rev 1

**5-2 -25 degree Head Coil Aligning to laser**

1. Move the cradle to -120mm lateral direction with the handle to sending the cradle into the magnet. Do not move the table and head coil when you rotating the table handle.
2. Advance the cradle so that the alignment Axial light hit the DQA phantom axial center.
3. Return the cradle to +120mm lateral direction to aligning head coil with laser beams.
4. Align the head coil and DQA phantom axial center position to laser center.
5. Move the cradle to -120mm lateral direction with the handle.
6. Landmark and Move the cradle to the scan center.

**NOTE:**

**Do not move the table and head coil when you rotating the table handle.**

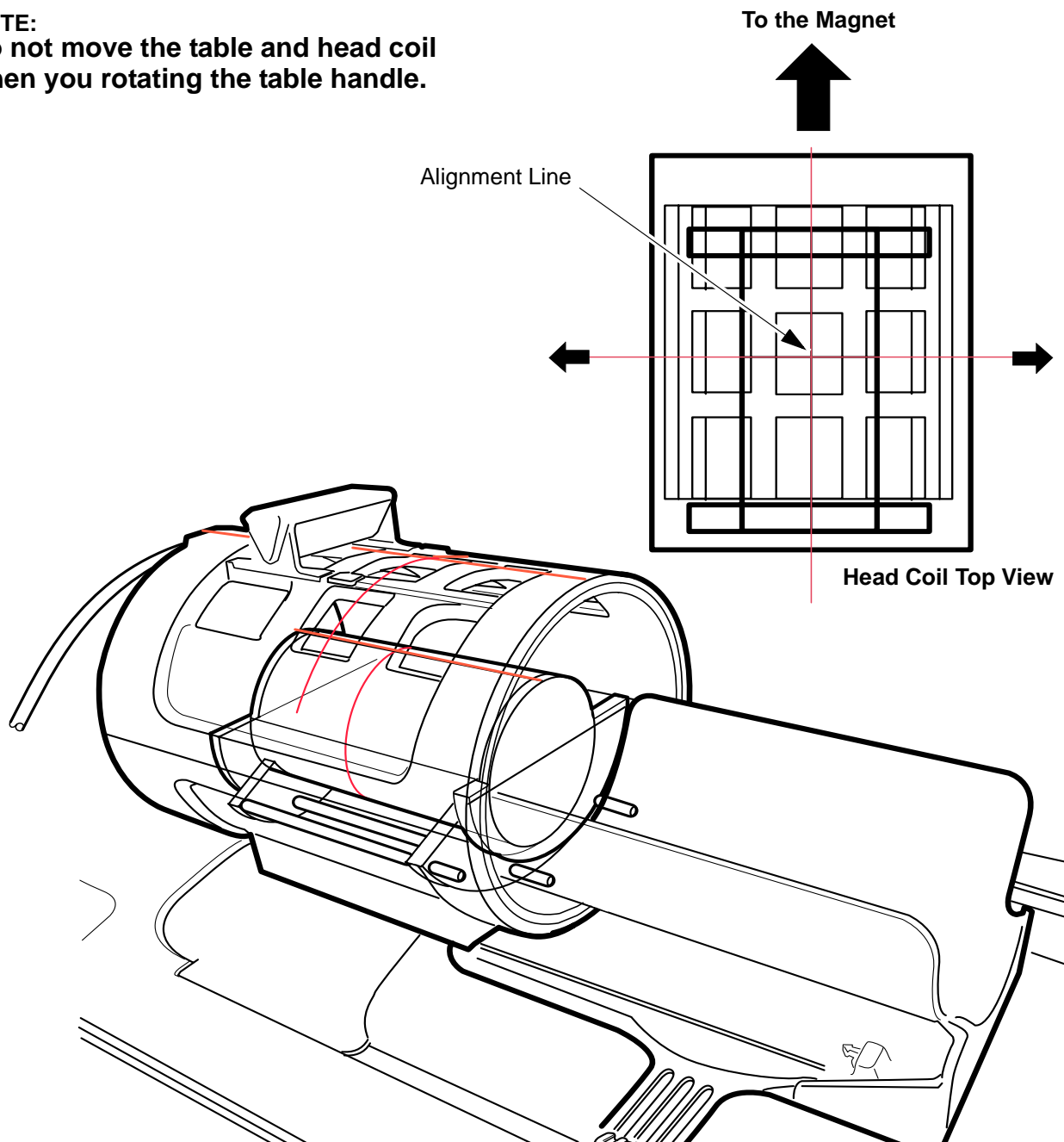
**-25 DEGREE HEAD COIL ALIGNING TO LASER**

ILLUSTRATION 29

Rev 1

**5-3 -25 degree Scan**

**5-3-1.Parameter Setting**

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

**PATIENT INFORMATION**  
ILLUSTRATION 30

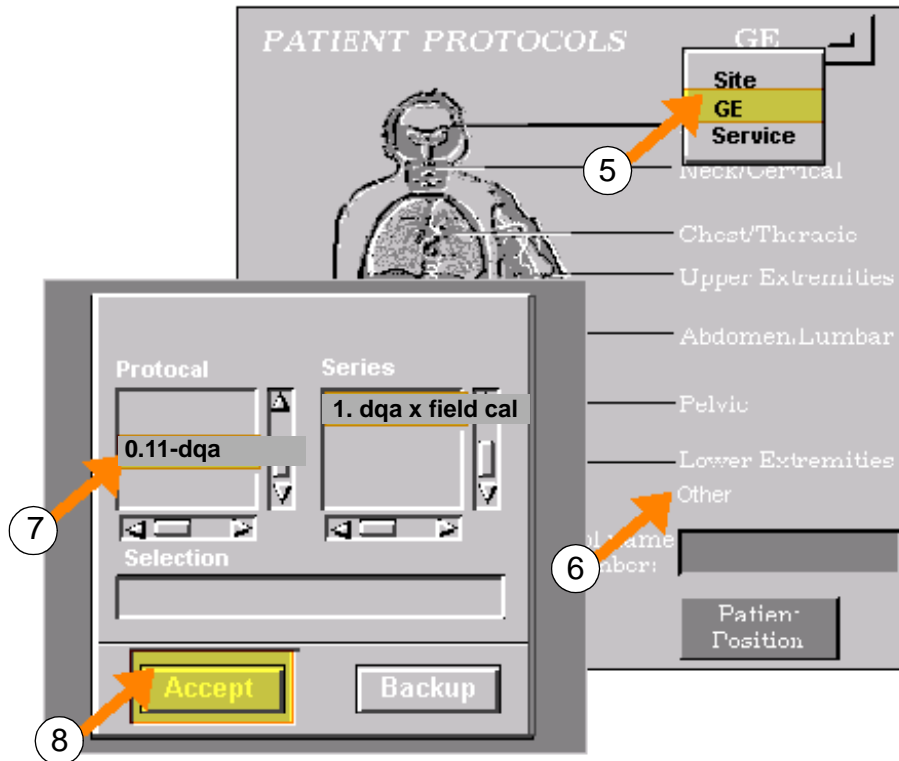
3. Click Landmark.
4. Select **"Left"** from Table Entry

**TABLE ENTRY**  
ILLUSTRATION 31

Rev 1

**5-3-1.Parameter Setting (continued)**

- 5. Choose GE.
- 6. Click **Other**. Protocol window comes Up.
- 7. Select [**0.11-dqa**] from protocol.  
    Select [**1. dqa x field cal**] from series.
- 8. Select [**Accept**].



**PATIENT INFORMATION**  
ILLUSTRATION 32

- 9. Select Save Series.

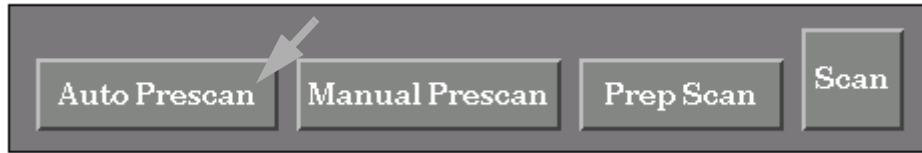


**SAVE SERIES**  
ILLUSTRATION 33

Rev 1

**5-3-2. -25 Degree Scan**

1. Select [**Auto Prescan**].



**AUTO PRESCAN**  
ILLUSTRATION 34

2. Select [**Manual Prescan**].



**MANUAL PRESCAN**  
ILLUSTRATION 35

3. Click on "**SCAN TR**" and see that the projection comes out.
4. Click on "**Done**" Select [**Scan**].



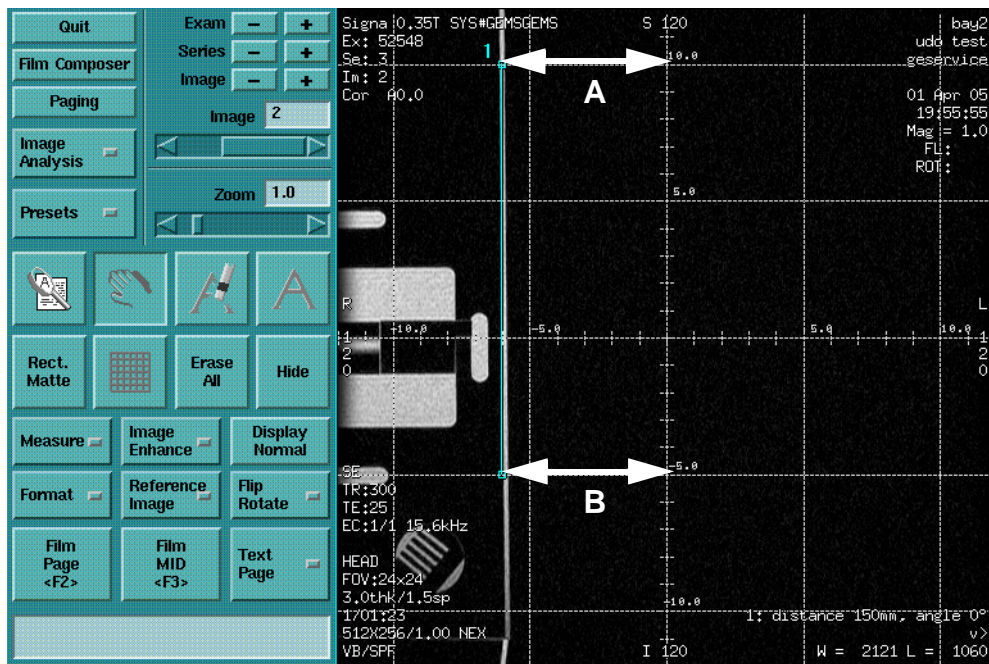
**SCAN**  
ILLUSTRATION 36

5. Verify that scanning has been started.

Rev 1

**5-4 -25 degree Image Measurement**

1. Open the scan image from the viewer.
2. Show the grid on the image.
3. Measure the distance from center grid line to the edge of the phantom at S/I 10.0cm point. Record it as "A". See illustration below.
4. Measure the distance from center grid line to the edge of the phantom at S/I -5.0cm point. Record it as "B". See illustration below.



**MEASUREMENT  
ILLUSTRATION 37**

5. Calculate the following formula and verify that the result satisfies the specification.

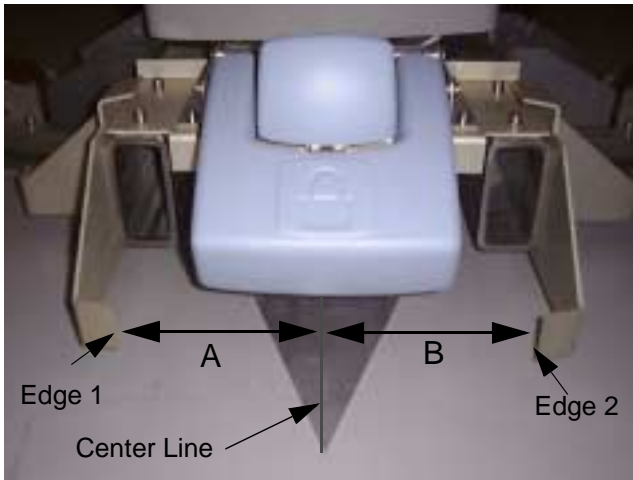
**-25 Degree Specification:**  $|A - B| \leq 1\text{mm}$

6. If measurement is out of specification, adjust the table swing position. If measurement is within specification, go to -25 degree table lock plate setting. Refer to next page.

Rev 1

**5-5 -25 Degree Table Lock Plate Setting**

1. Move the triangle lock plate position so that the distance A and distance B become equal. See illustration below. Do not unlock while moving the triangle lock plate position.



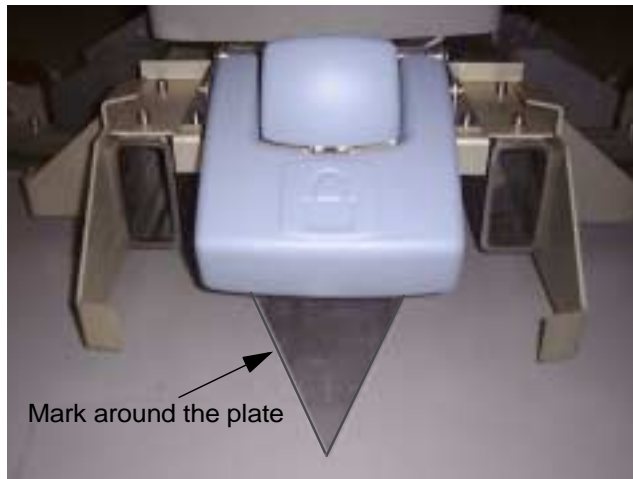
Distance A=|Edge1 - center line|

Distance B=|Edge2 - center line|

Distance A = Distance B

**LOCK PLATE POSITIONING**  
ILLUSTRATION 38

2. Mark around the Triangle Table lock plate.



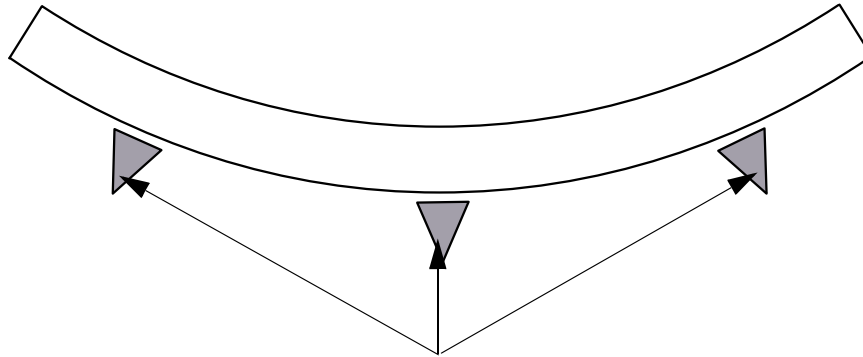
**POSITION MARKING**  
ILLUSTRATION 39

3. Release the Table Lock.

Rev 1

## 6. Lock Plate Installation

1. Cut the floor along the mark of triangle lock plate with non-magnetic knife.



Cut the floor along the mark of triangle lock plate

### LOCK PLATE MARK

ILLUSTRATION 40

2. Clean the three lock plates and floor with denatured alcohol.
3. Glue the lock plates and insert them into position.

## 7. Restoration

1. Restore the Table covers.

Rev 1

**Revision History**

<b>Rev</b>	<b>Date</b>	<b>Author</b>	<b>Primary Reasons For Change</b>
0	Sep 11, 2001	Y. Masumo	Initial Version
1	Oct 22, 2001	Y. Masumo	Page 5: Added the purpose of Head Rest.