

# msk SI Joints-Sacroilitis DISCOVERY MR750w

## Technical Instructions

**3-Plane Loc**

**Obl Cor T1**

**Obl Cor STIR**

**Obl AX T1 FSE**

**Obl AX T2 FSE dk fat**

**Obl Cor T1 Lava Fat**

**+C Obl Cor T1 fat**

**+C Obl AX T1 fat**

**--optional--**

**AX T1 FAT FSE**

# 3-Plane Loc

## 3-Plane Loc

### PATIENT POSITION

Coil Configuration:	Body 30 Small
Plane:	3-PLANE

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### IMAGING PARAMETERS

Imaging Mode:	2D
Pulse Sequence:	Spin Echo
Imaging Options:	Seq, EDR, Fast, SS

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### Image Recon

Intensity Filter:	None
Intensity Correction:	NONE

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### FMRI

Brain Wave Real Time:	None
PSD Trigger:	Internal
View Order:	Bottom/Up
# of Repetitions REST:	0
# of Repetitions ACTIVE:	0

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### SAT

Tag Spacing:	None
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Tag Type:

None

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### **USER CVS**

User CV1:	1.00
User CV2:	240.00
User CV13:	1.00
User CV16:	None
User CV39:	1.00
User CV Mask2:	256

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### **DIFFUSION**

# Synthetic b-values:	1
Synthetic b-value:	1000.0;
Recon All Images:	On

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### **SCAN TIMING**

TE:	80.0
Number of Echoes:	1
TR:	Minimum
Receiver Bandwidth:	62.50

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### **GATING/TRIGGER**

Auto Trigger Type:	Off
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### **MULTI-PHASE**

Seperate Series:	0
Mask Phase:	0
Mask Pause:	0

Preserve: 0

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### SCAN RANGE

FOV: 40.0  
Slice Thickness: 5.0  
Slice Spacing: 5.0  
Table Delta: 0.00

---

### ACQ TIMING

Freq: 256  
Phase: 128  
Freq DIR: Unswap  
# of Acq. Before Pause: 0  
Phase FOV: 1.00  
Auto Shim: Auto  
Phase Correct: Off  
RF Drive Mode: Quadrature  
Excitation Mode: Selective

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### CONTRAST

Contrast Yes/No: No

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### TRICKS

Pause On/Off: On  
Auto Subtract: 0

---

### OTHERS

Anatomical Region: Sacroiliac joint

# Obl Cor T1

## Obl Cor T1

### PATIENT POSITION

Coil Configuration:	Body 30 Small
Plane:	OBLIQUE

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### IMAGING PARAMETERS

Imaging Mode:	2D
Pulse Sequence:	FSE-XL
Imaging Options:	FC, NPW, EDR, TRF, Fast, ARC
Phase:	1.50

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### Image Recon

Intensity Filter:	None
Intensity Correction:	SCIC

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### FMRI

Brain Wave Real Time:	None
PSD Trigger:	Internal
Slice Order:	Interleaved
View Order:	Bottom/Up
# of Repetitions REST:	0
# of Repetitions ACTIVE:	0

---

### SAT

Tag Spacing:	None
Tag Type:	None

---

### **USER CVS**

User CV6:	None
User CV7:	None
User CV8:	None
User CV15:	None
User CV16:	None
User CV18:	None
User CV21:	None
User CV22:	1.00
User CV30:	1.00
User CV39:	1.00
User CV Mask2:	256

---

### **DIFFUSION**

# Synthetic b-values:	1
Synthetic b-value:	1000.0;
Recon All Images:	On

---

### **SCAN TIMING**

Flip Angle:	111
TE:	20.0
Number of Echoes:	1
TR:	800.0
Echo Train Length:	4
Receiver Bandwidth:	41.67

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## GATING/TRIGGER

Auto Trigger Type: Off

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## MULTI-PHASE

Seperate Series: 0  
Mask Phase: 0  
Mask Pause: 0  
Preserve: 0

---

## SCAN RANGE

FOV: 22.0  
Slice Thickness: 3.0  
Slice Spacing: 0.3  
Number of Slices: 21  
Table Delta: 0.00

---

## ACQ TIMING

Freq: 320  
Phase: 224  
Freq DIR: S/I  
NEX: 2.00  
# of Acq. Before Pause: 0  
Auto Shim: Auto  
Phase Correct: On  
Flow Comp Direction: Slice  
RF Drive Mode: Preset  
Excitation Mode: Selective  
Fat Shift DIR: Normal (S)

## **CONTRAST**

Contrast Yes/No: No

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## **TRICKS**

Pause On/Off: On

Auto Subtract: 0

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## **OTHERS**

Anatomical Region: Sacroiliac joint



# Obl Cor STIR

## Obl Cor STIR

### PATIENT POSITION

Coil Configuration:	Body 30 Small
Plane:	OBLIQUE

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### IMAGING PARAMETERS

Imaging Mode:	2D
Pulse Sequence:	FSE-XL
Imaging Options:	FC, NPW, Seq, TRF, Fast, IrP

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### Image Recon

Intensity Filter:	None
Intensity Correction:	NONE

---

### FMRI

Brain Wave Real Time:	None
PSD Trigger:	Internal
Slice Order:	Interleaved
View Order:	Bottom/Up
# of Repetitions REST:	0
# of Repetitions ACTIVE:	0

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### SAT

SAT Location S:	9990
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SAT Location I:	9990
Tag Spacing:	None
Tag Type:	None

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### **USER CVS**

User CV7:	None
User CV15:	None
User CV18:	None
User CV21:	1.00
User CV22:	1.00
User CV30:	1.00
User CV Mask2:	0

---

### **DIFFUSION**

# Synthetic b-values:	1
Synthetic b-value:	1000.0;
Recon All Images:	On

---

### **SCAN TIMING**

Flip Angle:	111
TE:	42.0
Number of Echoes:	1
TR:	5234.0
TI:	180
Echo Train Length:	8
Receiver Bandwidth:	41.67

---

### **GATING/TRIGGER**

Auto Trigger Type: Off

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### **MULTI-PHASE**

Seperate Series: 0

Mask Phase: 0

Mask Pause: 0

Preserve: 0

---

### **SCAN RANGE**

FOV: 22.0

Slice Thickness: 3.0

Slice Spacing: 0.3

Table Delta: 0.00

---

### **ACQ TIMING**

Freq: 320

Phase: 192

Freq DIR: Unswap

NEX: 2.00

Auto Shim: Auto

Phase Correct: Off

Flow Comp Direction: Freq

RF Drive Mode: Preset

Excitation Mode: Selective

Fat Shift DIR: Normal

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### **CONTRAST**

Contrast Yes/No: No

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## TRICKS

Pause On/Off: On

Auto Subtract: 0

---

## OTHERS

Anatomical Region: Sacroiliac joint

# ObI AX T1 FSE

## ObI AX T1 FSE

### PATIENT POSITION

Coil Configuration:	Body 30 Small
Plane:	OBLIQUE

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### IMAGING PARAMETERS

Imaging Mode:	2D
Pulse Sequence:	FSE-XL
Imaging Options:	FC, NPW, EDR, TRF, Fast, ARC
Phase:	1.50

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### Image Recon

Intensity Filter:	None
Intensity Correction:	SCIC

---

### FMRI

Brain Wave Real Time:	None
PSD Trigger:	Internal
Slice Order:	Interleaved
View Order:	Bottom/Up
# of Repetitions REST:	0
# of Repetitions ACTIVE:	0

---

### SAT

Tag Spacing: None

Tag Type: None

---

### **USER CVS**

User CV6: None

User CV7: None

User CV8: None

User CV15: None

User CV21: None

User CV22: 1.00

User CV39: 1.00

User CV Mask2: 256

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### **DIFFUSION**

Recon All Images: On

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### **SCAN TIMING**

Flip Angle: 111

TE: 20.0

Number of Echoes: 1

TR: 800.0

Echo Train Length: 4

Receiver Bandwidth: 41.67

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### **GATING/TRIGGER**

Auto Trigger Type: Off

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### **MULTI-PHASE**

Seperate Series:	0
Mask Phase:	0
Mask Pause:	0

---

### **SCAN RANGE**

FOV:	22.0
Slice Thickness:	4.0
Slice Spacing:	1.5
Number of Slices:	13
Table Delta:	0.00

---

### **ACQ TIMING**

Freq:	320
Phase:	224
Freq DIR:	S/I
NEX:	3.00
Auto Shim:	Auto
Phase Correct:	On
Flow Comp Direction:	Slice
RF Drive Mode:	Preset
Excitation Mode:	Selective

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### **CONTRAST**

Contrast Yes/No:	No
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### **TRICKS**

Pause On/Off:	On
Auto Subtract:	0

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**OTHERS**

Anatomical Region:

Sacroiliac joint



# Obl AX T2 FSE dk fat

## Obl AX T2 FSE dk fat

### PATIENT POSITION

Coil Configuration:	Body 30 Small
Plane:	AXIAL

---

### IMAGING PARAMETERS

Imaging Mode:	2D
Pulse Sequence:	FSE-XL
Imaging Options:	FC, NPW, TRF, Fast, FR

---

### Image Recon

Intensity Filter:	None
Intensity Correction:	SCIC

---

### FMRI

Brain Wave Real Time:	None
PSD Trigger:	Internal
Slice Order:	Interleaved
View Order:	Bottom/Up
# of Repetitions REST:	0
# of Repetitions ACTIVE:	0

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### SAT

Tag Spacing:	None
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Tag Type:	None
Fat/Water Saturation:	Fat

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### **USER CVS**

User CV7:	None
User CV8:	None
User CV15:	None
User CV19:	1.00
User CV21:	None
User CV22:	1.00
User CV Mask2:	0

---

### **DIFFUSION**

Multi b-values:	1000.0;
Multi NEX Values:	1;
Recon All Images:	On

---

### **SCAN TIMING**

Flip Angle:	111
TE:	85.0
Number of Echoes:	1
TR:	3500.0
Echo Train Length:	21
Receiver Bandwidth:	41.67

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### **GATING/TRIGGER**

Auto Trigger Type:	Off
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**MULTI-PHASE**

Seperate Series:	0
Mask Phase:	0
Mask Pause:	0

---

**SCAN RANGE**

FOV:	22.0
Slice Thickness:	4.0
Slice Spacing:	1.5
Table Delta:	0.00

---

**ACQ TIMING**

Freq:	320
Phase:	224
Freq DIR:	R/L
NEX:	3.00
Auto Shim:	Auto
Phase Correct:	On
Flow Comp Direction:	Slice
RF Drive Mode:	Preset
Excitation Mode:	Selective

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**CONTRAST**

Contrast Yes/No:	No
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**TRICKS**

Pause On/Off:	On
Auto Subtract:	0

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**OTHERS**

Anatomical Region:

Sacroiliac joint

# Obl Cor T1 Lava Fat

## Obl Cor T1 Lava Fat

### PATIENT POSITION

Coil Configuration:	Body 30 Small
Plane:	OBLIQUE

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### IMAGING PARAMETERS

Imaging Mode:	3D
Pulse Sequence:	LAVA
Imaging Options:	NPW, EDR, Fast, ZIP512, ZIP2

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### Image Recon

Intensity Filter:	None
Intensity Correction:	PURE

---

### FMRI

Brain Wave Real Time:	None
PSD Trigger:	Internal
View Order:	Bottom/Up
# of Repetitions REST:	0
# of Repetitions ACTIVE:	0

---

### SAT

Tag Spacing:	None
Tag Type:	None

Fat/Water Saturation:

Fat Special

---

### USER CVS

User CV4:	None
User CV6:	1.00
User CV13:	None
User CV40:	None
User CV Mask2:	512

---

### DIFFUSION

Multi b-values:	1000.0;
Multi NEX Values:	1;
# Synthetic b-values:	1
Synthetic b-value:	1000.0;
Recon All Images:	On

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### SCAN TIMING

Flip Angle:	15
Number of Echoes:	1
TI:	6
Receiver Bandwidth:	125.00

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### GATING/TRIGGER

Auto Trigger Type:	Off
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### MULTI-PHASE

Seperate Series:	0
Trigger Delay without AV:	0
Mask Phase:	0

Mask Pause: 0  
Preserve: 0

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### SCAN RANGE

FOV: 22.0  
Slice Thickness: 2.6  
Location per Slab: 82  
Overlap Locations: 0  
Table Delta: 0.00

---

### ACQ TIMING

Freq: 320  
Phase: 192  
Freq DIR: Unswap  
NEX: 1.00  
Auto Shim: Auto  
Phase Correct: Off  
RF Drive Mode: Preset  
Excitation Mode: Selective

---

### CONTRAST

Contrast Yes/No: No

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### TRICKS

Pause On/Off: On  
Auto Subtract: 0

---

### OTHERS

3D Geometry Correction:

On

Anatomical Region:

Sacroiliac joint



# +C Obl Cor T1 fat

## +C Obl Cor T1 fat

### PATIENT POSITION

Coil Configuration:	Body 30 Small
Plane:	OBLIQUE

---

### IMAGING PARAMETERS

Imaging Mode:	2D
Pulse Sequence:	FSE-XL
Imaging Options:	FC, NPW, EDR, TRF, Fast, ARC
Phase:	1.50

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### Image Recon

Intensity Filter:	None
Intensity Correction:	SCIC

---

### FMRI

Brain Wave Real Time:	None
PSD Trigger:	Internal
Slice Order:	Interleaved
View Order:	Bottom/Up
# of Repetitions REST:	0
# of Repetitions ACTIVE:	0

---

### SAT

Tag Spacing:	None
Tag Type:	None
Fat/Water Saturation:	Fat

---

### **USER CVS**

User CV6:	None
User CV7:	None
User CV8:	None
User CV15:	None
User CV16:	None
User CV18:	None
User CV19:	1.00
User CV21:	None
User CV22:	1.00
User CV30:	1.00
User CV39:	1.00
User CV Mask2:	256

---

### **DIFFUSION**

# Synthetic b-values:	1
Synthetic b-value:	1000.0;
Recon All Images:	On

---

### **SCAN TIMING**

Flip Angle:	111
TE:	20.0
Number of Echoes:	1
TR:	800.0
Echo Train Length:	4

Receiver Bandwidth: 41.67

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### **GATING/TRIGGER**

Auto Trigger Type: Off

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### **MULTI-PHASE**

Seperate Series: 0

Mask Phase: 0

Mask Pause: 0

Preserve: 0

---

### **SCAN RANGE**

FOV: 22.0

Slice Thickness: 3.0

Slice Spacing: 0.3

Number of Slices: 21

Table Delta: 0.00

---

### **ACQ TIMING**

Freq: 320

Phase: 224

Freq DIR: S/I

NEX: 2.00

# of Acq. Before Pause: 0

Auto Shim: Auto

Phase Correct: On

Flow Comp Direction: Freq

RF Drive Mode: Preset

Excitation Mode: Selective

Fat Shift DIR: Normal (S)

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**CONTRAST**

Contrast Yes/No: Yes

---

**TRICKS**

Pause On/Off: On

Auto Subtract: 0

---

**OTHERS**

Anatomical Region: Sacroiliac joint

# +C Obl AX T1 fat

## +C Obl AX T1 fat

### PATIENT POSITION

Coil Configuration:	Body 30 Small
Plane:	OBLIQUE

---

### IMAGING PARAMETERS

Imaging Mode:	2D
Pulse Sequence:	FSE-XL
Imaging Options:	FC, NPW, EDR, TRF, Fast, ARC
Phase:	1.50

---

### Image Recon

Intensity Filter:	None
Intensity Correction:	SCIC

---

### FMRI

Brain Wave Real Time:	None
PSD Trigger:	Internal
Slice Order:	Interleaved
View Order:	Bottom/Up
# of Repetitions REST:	0
# of Repetitions ACTIVE:	0

---

### SAT

Tag Spacing:	None
Tag Type:	None
Fat/Water Saturation:	Fat

---

### **USER CVS**

User CV6:	None
User CV7:	None
User CV8:	None
User CV15:	None
User CV19:	1.00
User CV21:	None
User CV22:	1.00
User CV39:	1.00
User CV Mask2:	256

---

### **DIFFUSION**

Recon All Images:	On
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---

### **SCAN TIMING**

Flip Angle:	111
TE:	20.0
Number of Echoes:	1
TR:	800.0
Echo Train Length:	4
Receiver Bandwidth:	41.67

---

### **GATING/TRIGGER**

Auto Trigger Type:	Off
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## MULTI-PHASE

Seperate Series:	0
Mask Phase:	0
Mask Pause:	0

---

## SCAN RANGE

FOV:	22.0
Slice Thickness:	4.0
Slice Spacing:	1.5
Number of Slices:	13
Table Delta:	0.00

---

## ACQ TIMING

Freq:	320
Phase:	224
Freq DIR:	S/I
NEX:	3.00
# of Acq. Before Pause:	0
Auto Shim:	Auto
Phase Correct:	On
Flow Comp Direction:	Slice
RF Drive Mode:	Preset
Excitation Mode:	Selective

---

## CONTRAST

Contrast Yes/No:	Yes
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---

## TRICKS

Pause On/Off: On  
Auto Subtract: 0

---

**OTHERS**

Anatomical Region: Sacroiliac joint



# --optional--

## --optional--

### **PATIENT POSITION**

Coil Configuration:	Body 30 Small
Plane:	3-PLANE

---

### **IMAGING PARAMETERS**

Imaging Mode:	2D
Pulse Sequence:	Spin Echo
Imaging Options:	Seq, EDR, Fast, SS

---

### **Image Recon**

Intensity Filter:	None
Intensity Correction:	NONE

---

### **FMRI**

Brain Wave Real Time:	None
PSD Trigger:	Internal
Slice Order:	Interleaved
View Order:	Bottom/Up
# of Repetitions REST:	0
# of Repetitions ACTIVE:	0

---

### **SAT**

Tag Spacing:	None
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Tag Type: None

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### **USER CVS**

User CV1: 1.00  
User CV2: 240.00  
User CV13: 1.00  
User CV16: None  
User CV39: 1.00  
User CV Mask2: 256

---

### **DIFFUSION**

# Synthetic b-values: 1  
Synthetic b-value: 1000.0;  
Recon All Images: On

---

### **SCAN TIMING**

TE: 80.0  
Number of Echoes: 1  
TR: Minimum  
Receiver Bandwidth: 62.50

---

### **GATING/TRIGGER**

Auto Trigger Type: Off

---

### **MULTI-PHASE**

Seperate Series: 0  
Mask Phase: 0  
Mask Pause: 0

Preserve: 0

---

### SCAN RANGE

FOV: 40.0  
Slice Thickness: 5.0  
Slice Spacing: 5.0  
Table Delta: 0.00

---

### ACQ TIMING

Freq: 256  
Phase: 128  
Freq DIR: Unswap  
# of Acq. Before Pause: 0  
Phase FOV: 1.00  
Auto Shim: Auto  
Phase Correct: Off  
RF Drive Mode: Quadrature  
Excitation Mode: Selective

---

### CONTRAST

Contrast Yes/No: No

---

### TRICKS

Pause On/Off: On  
Auto Subtract: 0

---

### OTHERS

Anatomical Region: Sacroiliac joint

# AX T1 FAT FSE

## AX T1 FAT FSE

### PATIENT POSITION

Coil Configuration:	Body 30 Small
Plane:	OBLIQUE

---

### IMAGING PARAMETERS

Imaging Mode:	2D
Pulse Sequence:	FSE-XL
Imaging Options:	FC, NPW, EDR, TRF, Fast, ARC
Phase:	1.50

---

### Image Recon

Intensity Filter:	None
Intensity Correction:	SCIC

---

### FMRI

Brain Wave Real Time:	None
PSD Trigger:	Internal
Slice Order:	Interleaved
View Order:	Bottom/Up
# of Repetitions REST:	0
# of Repetitions ACTIVE:	0

---

### SAT

Tag Spacing:	None
Tag Type:	None
Fat/Water Saturation:	Fat

---

### **USER CVS**

User CV6:	None
User CV7:	None
User CV8:	None
User CV15:	None
User CV19:	1.00
User CV21:	None
User CV22:	1.00
User CV39:	1.00
User CV Mask2:	256

---

### **DIFFUSION**

Recon All Images:	On
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### **SCAN TIMING**

Flip Angle:	111
TE:	20.0
Number of Echoes:	1
TR:	800.0
Echo Train Length:	4
Receiver Bandwidth:	41.67

---

### **GATING/TRIGGER**

Auto Trigger Type:	Off
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## MULTI-PHASE

Seperate Series:	0
Mask Phase:	0
Mask Pause:	0

---

## SCAN RANGE

FOV:	22.0
Slice Thickness:	4.0
Slice Spacing:	1.5
Number of Slices:	13
Table Delta:	0.00

---

## ACQ TIMING

Freq:	320
Phase:	224
Freq DIR:	S/I
NEX:	3.00
# of Acq. Before Pause:	0
Auto Shim:	Auto
Phase Correct:	On
Flow Comp Direction:	Slice
RF Drive Mode:	Preset
Excitation Mode:	Selective

---

## CONTRAST

Contrast Yes/No:	No
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---

## TRICKS

Pause On/Off: On  
Auto Subtract: 0

---

**OTHERS**

Anatomical Region: Sacroiliac joint