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\\USER

NEURO DOT

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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA WO\AAhead_scout *

TA: 19 sec Coil Selection: Auto Voxel Size: 1.6×1.6×1.6 mm³ Acc:: 3 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	Off
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Resolution - Acceleration

Acceleration Factor 3D	1
Phase Partial Fourier	6/8
Slice Partial Fourier	6/8
Asymmetric Echo	Weak

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Noise Masking	Off
Image Filter	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	4.5 ms
TE	2.38 ms
Averages	1
Concatenations	1
AutoAlign	Head

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	4.5 ms
Multi-Slice Mode	Sequential
Series	Ascending
Concatenations	1

Contrast - Common

TR	4.5 ms
TE	2.38 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Contrasts	1
Reconstruction	Magnitude

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Time to Center	8.2 s

Resolution - Common

FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
Base Resolution	160
Phase Resolution	100 %
Slice Resolution	69 %
Trajectory	Cartesian

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Save Original Images	On
Contrasts	1
TE	2.38 ms
TR	4.5 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off
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Inline - MapIt

MapIt	None
Flip Angle	8 deg
Measurements	1
Contrasts	1
TE	2.38 ms
TR	4.5 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	fl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Bandwidth	540 Hz/Px
Asymmetric Echo	Weak

Sequence - Part 2

Introduction	On
RF Spoiling	On
Breast Application	Off

Sequence - Assistant

SAR Assistant	Off
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA WO\t2_tse_tra_dark-fluid ARIA *

TA: 3:02 min Coil Selection: Auto Voxel Size: 0.5×0.5×4.0 mm³ Acc:: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	38
Advanced Reconstruction	Off
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Routine

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	10000.0 ms
TE	114.00 ms
Averages	1
Concatenations	2
AutoAlign	---

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	10000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Contrast - Common

TR	10000.0 ms
TE	114.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	2600 ms
Freeze Suppr. Tissue	On
Flip Angle	150 deg
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator**Geometry - Saturation**

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	256
Phase Resolution	85 %
Trajectory	Cartesian
Interpolation	On

System - Miscellaneous

Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
R >> L	240 mm
A >> P	240 mm
F >> H	155 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	10000.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	Slice-sel. IR
TI	2600 ms
Dark Blood	Off
FoV Read	240 mm
FoV Phase	100.0 %
Phase Resolution	85 %
Trajectory	Cartesian
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Slice-sel. IR
Save Original Images	On
Contrasts	1
TE	114.00 ms
TR	10000.0 ms

Inline - MIP

MIP Sag	Off
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Inline - MIP

MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off
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Sequence - Part 1

Sequence Name	tir
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	130 Hz/Px
Echo Spacing	10.3 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	16
Echo Trains per Slice	8

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA WO\t2_fl2d_tra_hemo ARIA *

TA: 2:52 min Coil Selection: Auto Voxel Size: 0.5×0.5×4.0 mm³ Acc:: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Resolution - Acceleration

Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	608.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Routine

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	608.0 ms
TE	35.00 ms
Averages	1
Concatenations	2
AutoAlign	---

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Contrast - Common

TR	608.0 ms
TE	35.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	256
Phase Resolution	100 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	608.0 ms
Segments	1
Concatenations	2

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	240 mm
FoV Phase	100.0 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	35.00 ms
TR	608.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off

Inline - MIP

MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off
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Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	35.00 ms
TR	608.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	fl_r
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	On
Bandwidth	130 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA WO\ep2d_diff_3scan_trace_p2 ARIA *

TA: 35 sec Coil Selection: Auto Voxel Size: 1.9×1.9×4.0 mm³ Acc:: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	4800.0 ms
TE	79.00 ms
Concatenations	1
AutoAlign	---

Contrast - Common

TR	4800.0 ms
TE	79.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Delay in TR	0.00 ms

Resolution - Common

FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	128
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	32
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	On
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Resolution - Filter

Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan
Noise Masking	Off

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	4800.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Navigator**Geometry - Saturation**

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto

System - Adjustments

Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

Sequence - Part 2

Phase Correction	External
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System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	240 mm
R >> L	240 mm
F >> H	155 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4800.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	3-Scan Trace
Diff. Directions	3
Diffusion Scheme	Bipolar
Diff. Weightings	2
b-value 1	0 s/mm ²
b-value 2	1000 s/mm ²
Averages 1	1
Averages 2	1
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm ²
ADC Noise Threshold	40
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	1220 Hz/Px
Echo Spacing	0.90 ms
Free Echo Spacing	Off
Optimization	None
EPI Factor	128

Sequence - Part 2

Introduction	On
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA WO\TRA SWI *

TA: 4:18 min Coil Selection: Auto Voxel Size: 0.9×0.9×2.4 mm³ Acc:: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	72
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	220 mm
FoV Phase	100.0 %
Slice Thickness	2.4 mm
TR	48.0 ms
TE	40.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

TR	48.0 ms
TE	40.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	15 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	On
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	220 mm
FoV Phase	100.0 %
Slice Thickness	2.4 mm
Base Resolution	256
Phase Resolution	75 %
Slice Resolution	69 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	72
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	220 mm
FoV Phase	100.0 %
Slice Thickness	2.4 mm
TR	48.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.0 A3.1 F9.3
R	0.0 mm
A	3.1 mm
F	9.3 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	9 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
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System - Miscellaneous

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	220 mm
A >> P	220 mm
F >> H	173 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	48.0 ms
Segments	1
Concatenations	1

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	220 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	40.00 ms
TR	48.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off
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Inline - Maplt

Maplt	None
Flip Angle	15 deg
Measurements	1
Contrasts	1
TE	40.00 ms
TR	48.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	swi_r
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	On
Bandwidth	100 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA WO\1_mprage_sag_p2_iso *

TA: 4:18 min Coil Selection: Auto Voxel Size: 1.3×1.3×1.3 mm³ Acc.: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	16.7 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	1.3 mm
TR	2400.0 ms
TE	2.24 ms
Averages	1
Concatenations	1
AutoAlign	---

Contrast - Common

TR	2400.0 ms
TE	2.24 ms
Magn. Preparation	Non-sel. IR
T1	1000 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off
Reordering	Linear

Resolution - Common

FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	1.3 mm
Base Resolution	192
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
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Resolution - Acceleration

Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Allowed
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	3D
Normalize	Prescan
Image Filter	On

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	16.7 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	1.3 mm
TR	2400.0 ms
Multi-Slice Mode	Single Shot
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

System - Miscellaneous

Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2400.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI	1000 ms
Dark Blood	Off
FoV Read	240 mm
FoV Phase	100.0 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	2.24 ms
TR	2400.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off

Inline - MIP

MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off
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Inline - MapIt

MapIt	None
Flip Angle	8 deg
Measurements	1
TE	2.24 ms
TR	2400.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Reordering	Linear
Bandwidth	190 Hz/Px
Echo Spacing	6.62 ms
Asymmetric Echo	Allowed
Turbo Factor	224

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	Off

Sequence - Assistant

SAR Assistant	Off
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\AAhead_scout *

TA: 19 sec Coil Selection: Auto Voxel Size: 1.6×1.6×1.6 mm³ Acc:: 3 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	Off
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Resolution - Acceleration

Acceleration Factor 3D	1
Phase Partial Fourier	6/8
Slice Partial Fourier	6/8
Asymmetric Echo	Weak

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Noise Masking	Off
Image Filter	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	4.5 ms
TE	2.38 ms
Averages	1
Concatenations	1
AutoAlign	Head

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	4.5 ms
Multi-Slice Mode	Sequential
Series	Ascending
Concatenations	1

Contrast - Common

TR	4.5 ms
TE	2.38 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Contrasts	1
Reconstruction	Magnitude

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Time to Center	8.2 s

Resolution - Common

FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
Base Resolution	160
Phase Resolution	100 %
Slice Resolution	69 %
Trajectory	Cartesian

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Save Original Images	On
Contrasts	1
TE	2.38 ms
TR	4.5 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off
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Inline - MapIt

MapIt	None
Flip Angle	8 deg
Measurements	1
Contrasts	1
TE	2.38 ms
TR	4.5 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	fl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Bandwidth	540 Hz/Px
Asymmetric Echo	Weak

Sequence - Part 2

Introduction	On
RF Spoiling	On
Breast Application	Off

Sequence - Assistant

SAR Assistant	Off
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\SAG T1 TSE *

TA: 1:11 min Coil Selection: Auto Voxel Size: 0.9×0.9×5.0 mm³ Acc:: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	Off
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Resolution - Acceleration

Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Advanced Reconstruction	Off
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Routine

Slice Group	1
Slices	27
Distance Factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Phase Oversampling	10 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	5.0 mm
TR	560.0 ms
TE	12.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Basis

Geometry - Common

Slice Group	1
Slices	27
Distance Factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Phase Oversampling	10 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	5.0 mm
TR	560.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Contrast - Common

TR	560.0 ms
TE	12.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	110 deg
Flip Angle	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	L0.0 P0.0 H10.0
L	0.0 mm
P	0.0 mm
H	10.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Geometry - Navigator**Geometry - Saturation**

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	10 mm
Table Position	H
Inline Composing	Off

Resolution - Common

FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	80 %
Trajectory	Cartesian
Interpolation	Off

System - Miscellaneous

Coil Selection	ACS All but spine
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine

Resolution - Acceleration

Acceleration mode	GRAPPA
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System - Miscellaneous

Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	560.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	240 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Trajectory	Cartesian
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	12.00 ms
TR	560.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off

Inline - MIP

MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off
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Sequence - Part 1

Sequence Name	se_rs
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	Slice
Bandwidth	150 Hz/Px
Echo Spacing	0.00 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	1
Echo Trains per Slice	125

Sequence - Part 2

Introduction	Off
Phase Correction	Automatic
Compensate T2 Decay	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\TRA T1 TSE *

TA: 1:41 min Coil Selection: Auto Voxel Size: 0.9×0.9×5.0 mm³ Acc:: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	Off
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Advanced Reconstruction	Off
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Routine

Slice Group	1
Slices	28
Distance Factor	20 %
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	10 %
FoV Read	230 mm
FoV Phase	100.0 %
Slice Thickness	5.0 mm
TR	400.0 ms
TE	12.00 ms
Averages	1
Concatenations	2
AutoAlign	Head > Brain

Geometry - Common

Slice Group	1
Slices	28
Distance Factor	20 %
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	10 %
FoV Read	230 mm
FoV Phase	100.0 %
Slice Thickness	5.0 mm
TR	400.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Contrast - Common

TR	400.0 ms
TE	12.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	110 deg
Flip Angle	90 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Geometry - AutoAlign

Slice Group	1
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.0 A3.1 F9.3
R	0.0 mm
A	3.1 mm
F	9.3 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Geometry - Saturation

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	9 mm
Table Position	F
Inline Composing	Off

Resolution - Common

FoV Read	230 mm
FoV Phase	100.0 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	80 %
Trajectory	Cartesian
Interpolation	Off

System - Miscellaneous

Coil Selection	ACS All but spine
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H

System - Miscellaneous

Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	400.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	230 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Trajectory	Cartesian
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	12.00 ms
TR	400.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off

Inline - MIP

MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off
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Sequence - Part 1

Sequence Name	se_rs
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	Slice
Bandwidth	150 Hz/Px
Echo Spacing	0.00 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	1
Echo Trains per Slice	125

Sequence - Part 2

Introduction	Off
Phase Correction	Automatic
Compensate T2 Decay	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\TRA T2 TSE *

TA: 56 sec Coil Selection: Auto Voxel Size: 0.9×0.9×5.0 mm³ Acc:: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Resolution - Acceleration

Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	39
Advanced Reconstruction	Off
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Routine

Slice Group	1
Slices	28
Distance Factor	20 %
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	87.5 %
Slice Thickness	5.0 mm
TR	4700.0 ms
TE	111.00 ms
Averages	1
Concatenations	2
AutoAlign	Head > Brain

Geometry - Common

Slice Group	1
Slices	28
Distance Factor	20 %
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	87.5 %
Slice Thickness	5.0 mm
TR	4700.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Contrast - Common

TR	4700.0 ms
TE	111.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Geometry - AutoAlign

Slice Group	1
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.0 A3.1 F9.3
R	0.0 mm
A	3.1 mm
F	9.3 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Geometry - Navigator**Geometry - Saturation**

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	9 mm
Table Position	F
Inline Composing	Off

Resolution - Common

FoV Read	230 mm
FoV Phase	87.5 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	98 %
Trajectory	Cartesian
Interpolation	Off

System - Miscellaneous

Coil Selection	ACS All but spine
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine

Resolution - Acceleration

Acceleration mode	GRAPPA
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System - Miscellaneous

Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	202 mm
A >> P	230 mm
F >> H	167 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4700.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	230 mm
FoV Phase	87.5 %
Phase Resolution	98 %
Trajectory	Cartesian
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	111.00 ms
TR	4700.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off

Inline - MIP

MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off
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Sequence - Part 1

Sequence Name	tse
Dimension	2D
RF Pulse Type	Low SAR
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	190 Hz/Px
Echo Spacing	11.1 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	26
Echo Trains per Slice	5

Sequence - Part 2

Introduction	Off
Phase Correction	Automatic
Compensate T2 Decay	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\TRA 30 DIFFUSION *

TA: 3:08 min Coil Selection: Auto Voxel Size: 1.0×1.0×2.0 mm³ Acc:: 4 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	80
Distance Factor	0 %
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	4800.0 ms
TE	78.00 ms
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

TR	4800.0 ms
TE	78.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Weak
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
Base Resolution	120
Phase Resolution	100 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	28
SMS Factor	2
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan
Noise Masking	Off

Geometry - Common

Slice Group	1
Slices	80
Distance Factor	0 %
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	4800.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 A3.1 F9.3
R	0.0 mm
A	3.1 mm
F	9.3 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Navigator**Geometry - Saturation**

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	9 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off

System - Adjustments

Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

Sequence - Part 2

Phase Correction	Internal
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System - Adjust Volume

Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	240 mm
R >> L	240 mm
F >> H	160 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4800.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	MDDW
Diff. Directions	30
Diffusion Scheme	Monopolar
Diff. Weightings	2
b-value 1	0 s/mm ²
b-value 2	1000 s/mm ²
Averages 1	2
Averages 2	1
Dynamic Field Correction	On
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	On
Tensor	On
FA Maps	On
ADC Maps	On
Exponential ADC Maps	Off
ADC Noise Threshold	40
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	1812 Hz/Px
Echo Spacing	0.65 ms
Free Echo Spacing	Off
Optimization	None
EPI Factor	120

Sequence - Part 2

Introduction	On
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\t2_tse_tra_dark-fluid ARIA *

TA: 3:02 min Coil Selection: Auto Voxel Size: 0.5×0.5×4.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	38
Advanced Reconstruction	Off
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Routine

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	10000.0 ms
TE	114.00 ms
Averages	1
Concatenations	2
AutoAlign	---

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	10000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Contrast - Common

TR	10000.0 ms
TE	114.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	2600 ms
Freeze Suppr. Tissue	On
Flip Angle	150 deg
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator**Geometry - Saturation**

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	256
Phase Resolution	85 %
Trajectory	Cartesian
Interpolation	On

System - Miscellaneous

Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
R >> L	240 mm
A >> P	240 mm
F >> H	155 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	10000.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	Slice-sel. IR
TI	2600 ms
Dark Blood	Off
FoV Read	240 mm
FoV Phase	100.0 %
Phase Resolution	85 %
Trajectory	Cartesian
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Slice-sel. IR
Save Original Images	On
Contrasts	1
TE	114.00 ms
TR	10000.0 ms

Inline - MIP

MIP Sag	Off
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Inline - MIP

MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off
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Sequence - Part 1

Sequence Name	tir
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	130 Hz/Px
Echo Spacing	10.3 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	16
Echo Trains per Slice	8

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\t2_fl2d_tra_hemo ARIA *

TA: 2:52 min Coil Selection: Auto Voxel Size: 0.5×0.5×4.0 mm³ Acc:: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Resolution - Acceleration

Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	608.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Routine

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	608.0 ms
TE	35.00 ms
Averages	1
Concatenations	2
AutoAlign	---

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Contrast - Common

TR	608.0 ms
TE	35.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	256
Phase Resolution	100 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	608.0 ms
Segments	1
Concatenations	2

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	240 mm
FoV Phase	100.0 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	35.00 ms
TR	608.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off

Inline - MIP

MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off
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Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	35.00 ms
TR	608.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	fl_r
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	On
Bandwidth	130 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\ep2d_diff_3scan_trace_p2 ARIA *

TA: 35 sec Coil Selection: Auto Voxel Size: 1.9×1.9×4.0 mm³ Acc:: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	4800.0 ms
TE	79.00 ms
Concatenations	1
AutoAlign	---

Contrast - Common

TR	4800.0 ms
TE	79.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Delay in TR	0.00 ms

Resolution - Common

FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	128
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	32
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	On
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Resolution - Filter

Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan
Noise Masking	Off

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	240 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	4800.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Navigator**Geometry - Saturation**

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto

System - Adjustments

Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

Sequence - Part 2

Phase Correction	External
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System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	240 mm
R >> L	240 mm
F >> H	155 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4800.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	3-Scan Trace
Diff. Directions	3
Diffusion Scheme	Bipolar
Diff. Weightings	2
b-value 1	0 s/mm ²
b-value 2	1000 s/mm ²
Averages 1	1
Averages 2	1
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	Off
Trace Weighted Images	On
Tensor	Off
FA Maps	Off
ADC Maps	On
Exponential ADC Maps	Off
b-value >=	0 s/mm ²
ADC Noise Threshold	40
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	1220 Hz/Px
Echo Spacing	0.90 ms
Free Echo Spacing	Off
Optimization	None
EPI Factor	128

Sequence - Part 2

Introduction	On
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\TRA SWI *

TA: 4:18 min Coil Selection: Auto Voxel Size: 0.9×0.9×2.4 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	72
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	220 mm
FoV Phase	100.0 %
Slice Thickness	2.4 mm
TR	48.0 ms
TE	40.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain

Contrast - Common

TR	48.0 ms
TE	40.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	15 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	On
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	220 mm
FoV Phase	100.0 %
Slice Thickness	2.4 mm
Base Resolution	256
Phase Resolution	75 %
Slice Resolution	69 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	72
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	220 mm
FoV Phase	100.0 %
Slice Thickness	2.4 mm
TR	48.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.0 A3.1 F9.3
R	0.0 mm
A	3.1 mm
F	9.3 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	9 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
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System - Miscellaneous

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L0.0 A3.1 F9.3 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	220 mm
A >> P	220 mm
F >> H	173 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	48.0 ms
Segments	1
Concatenations	1

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	220 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	40.00 ms
TR	48.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off
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Inline - MapIt

MapIt	None
Flip Angle	15 deg
Measurements	1
Contrasts	1
TE	40.00 ms
TR	48.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	swi_r
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	On
Bandwidth	100 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\SAG MPRAGE T1 *

TA: 4:18 min Coil Selection: Auto Voxel Size: 1.3×1.3×1.2 mm³ Acc.: 2 Rel. SNR: 1.00**Properties**

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	176
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	1.2 mm
TR	2400.0 ms
TE	3.51 ms
Averages	1
Concatenations	1
AutoAlign	Head > Basis

Contrast - Common

TR	2400.0 ms
TE	3.51 ms
Magn. Preparation	Non-sel. IR
T1	1000 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	1.2 mm
Base Resolution	192
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
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Resolution - Acceleration

Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	176
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	1.2 mm
TR	2400.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

System - Miscellaneous

Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	256 mm
F >> H	256 mm
R >> L	212 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2400.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI	1000 ms
Dark Blood	Off
FoV Read	256 mm
FoV Phase	100.0 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	3.51 ms
TR	2400.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off

Inline - MIP

MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off
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Inline - MapIt

MapIt	None
Flip Angle	8 deg
Measurements	1
TE	3.51 ms
TR	2400.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	None
Reordering	Linear
Bandwidth	180 Hz/Px
Echo Spacing	7.96 ms
Asymmetric Echo	Off
Turbo Factor	176

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	Off

Sequence - Assistant

SAR Assistant	Off
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\\USER\NEURO DOT\VOLUMETRIC\ARIA\A06A ARIA_WWO\COR T1 FS TSE *

TA: 1:25 min Coil Selection: Auto Voxel Size: 0.4×0.4×5.0 mm³ Acc.: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Advanced Reconstruction	Off
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Routine

Slice Group	1
Slices	32
Distance Factor	20 %
Position	L0.9 P0.0 F0.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	84.4 %
Slice Thickness	5.0 mm
TR	665.0 ms
TE	9.60 ms
Averages	1
Concatenations	3
AutoAlign	Head > Brain

Geometry - Common

Slice Group	1
Slices	32
Distance Factor	20 %
Position	L0.9 P0.0 F0.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	84.4 %
Slice Thickness	5.0 mm
TR	665.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	3

Contrast - Common

TR	665.0 ms
TE	9.60 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	160 deg
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Geometry - AutoAlign

Slice Group	1
Position	L0.9 P0.0 F0.1 mm
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.9 P0.0 F0.1
L	0.9 mm
P	0.0 mm
F	0.1 mm
Initial Orientation	Coronal
Initial Rotation	-3.44 deg

Geometry - Navigator**Contrast - Dynamic**

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Geometry - Saturation

Special Saturation	None
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Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

Resolution - Common

FoV Read	230 mm
FoV Phase	84.4 %
Slice Thickness	5.0 mm
Base Resolution	256
Phase Resolution	100 %
Trajectory	Cartesian
Interpolation	On

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H

System - Miscellaneous

Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L0.9 P0.0 F0.1 mm
Orientation	Coronal
Rotation	-3.44 deg
R >> L	195 mm
F >> H	230 mm
A >> P	191 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.671005 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	665.0 ms
Concatenations	3

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	None
Dark Blood	Off
FoV Read	230 mm
FoV Phase	84.4 %
Phase Resolution	100 %
Trajectory	Cartesian
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	3

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	9.60 ms
TR	665.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off

Inline - MIP

MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off
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Sequence - Part 1

Sequence Name	tse_rr
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	Read
Bandwidth	190 Hz/Px
Echo Spacing	9.58 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	3
Echo Trains per Slice	40

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

Sequence - Assistant

SAR Assistant	TR
Max. TR	650.0 ms
Allowed Delay	30 s