

**3T ADNI GE G3 M4 Software, TwinSpeed Gradient and 8-channel Brain Coil**

Set up the patient according to the ADNI instruction manual. Use the 8-channel brain coil.

Use the electronic ADNI protocol that has been loaded on your scanner.

**NOTE:** The "adni" pulse sequence used for series 2 and 3 is a works in progress pulse sequence that ADNI sites obtain from GE Healthcare.

To avoid prolonging the scan time for Series 6, you will need to accept the "First Operating Mode" pop-up in series 1.

Consult the scanner's user's manual to understand this choice, and its implications.

<b>SERIES</b>	1. 3 plane loc.	scan plane mode SAT	<i>IMAGING PARAMETERS</i>		<i>ACQUISITION TIMING</i>	
	coil 8hrbrain		3-plane (Whole Body gradient)	matrix/nex fov (cm)	256 / 128 / 1	26
	etl			slice/space	5 / 5	
	scan time :16			autoshim	On	
comments	Use 8-channel brain coil.					

<b>SERIES</b>	2. Sag MPRAGE	scan plane mode pulse seq image opts. psd name  User CVs	<i>IMAGING PARAMETERS</i>		<i>ACQUISITION TIMING</i>	
	coil 8hrbrain		Sag 3D ( ZOOM gradient)	matrix/nex phase fov	256 / 256 / 1	0.94
	#echos te Prep time flip angle etl		SPGR EDR, IrPrep, Fast	locs/pause freq. direct. fc direct		S/I
	SCAN TIMING		adni	phase corr autoshim		On
			<i>ADDITIONAL PARAMETERS</i>		<i>SCANNING RANGE</i>	
bw1/bw2 scan time	31.25 9:14		Filter Choices = none turbo mode = 1 swap fat chem shift = 1 mprage mode = 1 TD or mprageTR=2300	fov slice/space	26 1.2mm 170 locs/slab	
comments	Cover skin to skin. Remind the patient to hold still for this scan.					

<b>SERIES</b>	3.MPRAGE-repeat	scan plane mode pulse seq image opts. psd name  User CVs	<i>IMAGING PARAMETERS</i>		<i>ACQUISITION TIMING</i>	
	coil 8hrbrain		Sag 3D (ZOOM gradient)	matrix/nex phase fov	256 / 256 / 1	0.94
	#echos te Prep time flip angle etl		SPGR EDR, IrPrep, Fast	locs/pause freq. direct. fc direct		S/I
	SCAN TIMING		adni	phase corr autoshim		Off
			<i>ADDITIONAL PARAMETERS</i>		<i>SCANNING RANGE</i>	
bw1/bw2 scan time	31.25 9:14		Filter Choices = none turbo mode = 1 swap fat chem shift = 1 mprage mode = 1 TD or mprageTR=2300	fov slice/space	26 1.2mm 170 locs/slab	
comments	Prescribe same image locations as series 2, unless adjustment is needed (e.g. to correct for wrap). Remind the patient to hold still for this scan.					

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### 3T ADNI GE G3 M4 Software, TwinSpeed Gradient and 8-channel Brain Coil

<b>SERIES</b> coil	4. Sag B1 Cal PA	scan plane	Sag	matrix/nex	128 / 128 / 1	
	8hrbrain		mode		3D (ZOOM gradient)	phase fov
#echos	1	pulse seq	GRE	locs/pause		
	min full		image opts.		EDR, Fast	freq. direct.
tr		psd name		fc direct		
flip angle	2		<i>ADDITIONAL PARAMETERS</i>		Auto Shim	On
etl		User CVs	Filter Choices=none	fov	<i>SCANNING RANGE</i>	
bw1/bw2	62.5		Turbo Mode =1		slice/space	30
scan time	:39					

comments Cover skin to skin.

<b>SERIES</b> coil	5. Sag B1 Cal PA	scan plane	Sag	matrix/nex	128 / 128 / 1	
	<b>BODY</b>		mode		3D (ZOOM gradient)	phase fov
#echos	1	pulse seq	GRE	locs/pause		
	min full		image opts.		EDR, Fast	freq. direct.
tr		psd name		fc direct		
flip angle	2		<i>ADDITIONAL PARAMETERS</i>		Auto Shim	Off
etl		User CVs	Turbo Mode =1	fov	<i>SCANNING RANGE</i>	
bw1/bw2	62.5		slice/space		30	2.5mm
scan time	:39					

comments Turn Body Coil on for this scan. Leave 8hrbrain coil plugged in, but accept change to Body Coil  
Same image locations as series 4.

<b>SERIES</b> coil	6. Ax PD/T2 FSE	scan plane	Ax	matrix/nex	<i>ACQUISITION TIMING</i>	
	8hrbrain		mode		2D (ZOOM gradient)	256 / 256 / 1
#echoes	2	pulse seq	FSE-XL	acqs/pause	0	
	min full / TE2=97.2		image opts.		EDR, Fast	freq. direct.
te		psd name		fc direct		
TR	3000		<i>ADDITIONAL PARAMETERS</i>		Autoshim	Off
flip angle		User CVs	Filter Choices=none	phase corr	<i>SCANNING RANGE</i>	
etl	16		blurring cancellation=0		fov	24
bw1/bw2	20.83			slice/space		
scan time	4:49					

comments Accept change back to 8-channel Brain Coil  
Prescribe 48 slices to cover head.

**Series 6 is the final patient series.**

**Follow the ADNI instructions to complete the phantom scans.**