

3.0T ADNI-Related GE 14.0 M4 Software, TwinSpeed Gradient and 8-channel Brain Coil

(Not for patient use--this protocol is for use with the ADNI phantom)

This protocol provides suggested imaging parameters for research studies that want to approximate the imaging methods used in the ADNI study using 14.0 M4 HDx software at 3T, but do not have access to an MP-RAGE pulse sequence. For more details see the document: "Use of ADNI MRI Methods for Non-ADNI Studies" .

Accept the "First Operating Mode" pop-up in Series 1. Consult the scanner's user's manual to understand this choice and its implications.

*The head portion of the 16-channel head-neck-spine (HNS) can be used instead of the 8-channel brain coil for the entire study, if desired.

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

SERIES coil etl scan time	2. Calibration Scan. 8hrbrain*	scan plane mode SAT	<i>IMAGING PARAMETERS</i>		<i>ACQUISITION TIMING</i>	
			axial (Whole Body gradient)	matrix/nex	default	
				fov (cm)	30	
	:13			slice/space	6/0 43 slices	
comments	Used for PURE B1-correction. Be sure to cover phantom completely. (Although 14.0 M4 does not support PURE for 3T, this acquisition of the PURE calibration scan is recommended for retrospective processing in case PURE becomes compatible in future releases.)			autoshim	off	

SERIES coil	3. Sag IR-FSPGR 8hrbrain*	scan plane mode	<i>IMAGING PARAMETERS</i>		<i>ACQUISITION TIMING</i>		
			Sag	matrix/nex	256 / 256 / 1		
			3D (ZOOM gradient)	phase fov	0.94		
			SPGR	locs/pause			
#echos	1	pulse seq	EDR, IrPrep, Fast	freq. direct.	S/I		
te	min full	image opts.	efgre3d_cs	fc direct			
Prep time	650	psd name		phase corr			
flip angle	8	User CVs	<i>ADDITIONAL PARAMETERS</i>		autoshim	On	
etl			Image acq. delay = 0				
bw1/bw2	31.25		Turbo mode = 1				
scan time	9:43		Slice resolution = 100%		fov	26	
comments	Cover phantom completely			slice/space	1.3mm 170 locs/slab		