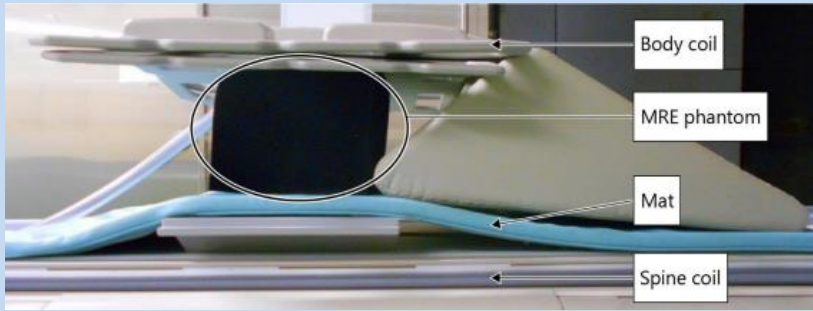
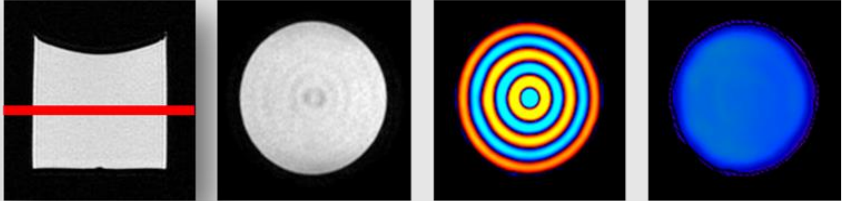


MR Elastography Phantom

Scanning Parameter Recommendations

- To set-up the phantom for scanning, refer to the illustrations in the MRE PHANTOM USER GUIDE included with each MRE Phantom.
- Use the following recommended MRE Phantom imaging parameters that are specific to your Canon MR scanner.

Canon - 2D MRE Phantom Parameter Recommendations			
Scanners and Sequences (Note 1)	Scanner	1.5T: Vantage Fortian, Vantage Orian, Vantage Elan 3.0T: Vantage Galan 3T	
	Compatible Software versions	V8.0	V8.0
	Pulse sequence	FE2D	SEEP12D
Setup	Phantom Setup	See MRE PHANTOM USER GUIDE included with phantom kit.	
	Coil (Note 1)	Body coil + spine coil OR head coil	
			
Slice Positioning	Place one coronal slice at the center of the height of the phantom.		
			
Information Input (Pretend Patient)	Position	head-first, supine	head-first, supine
	Weight	150 Lbs (68 kg)	150 Lbs (68 kg)
	Height	5 ft (1.5 m)	5 ft (1.5 m)
	TR (ms)	45.8	1000
	TE (ms)	18.2 (1.5T)	50 (1.5T)
	Band width / Sampling ratio	244.1 / 82.8	-

Imaging Parameters	Orientation	Coronal	Coronal	
	Phase encoding direction	Superior to Inferior	Superior to Inferior	
	FOV (mm) (Note 2)	420 x 420	420 x 420	
	Acquisition matrix	64 x 256	128 x 128	
	Slice thickness (mm)	10	8	
	Gap (mm)	0	2	
	Number of slices	1	1	
	Max / Cover	1	4	
	Interleave	Interleave	Interleave	
	SPEEDER factor	2	2	
	Imaging Parameters	NAQ	1	1
		Fine Recon	Off	On
		Flip / Flop	25	90/180
		Fatsat Pulse	Off	SPAIR
	Spatial Presat	SL (90)	SL (90)	
	Scan Time per slice (s)	13	11	
Driver Parameters	Driver Power (%)	10	10	
	Driver frequency (Hz)	60 (default)	60 (default)	

NOTES:


- (1) Use of the Body/Spine coils are preferred. Alternatively, a multi-channel RX head coil can be used.
- (2) 20cm FOV is a minimum value for phantom studies, smaller FOVs may reduce SNR or confidence and should be avoided. Larger FOV may be used and may be beneficial for correlation to in vivo scans. FOV should be consistent for all phantom scans.

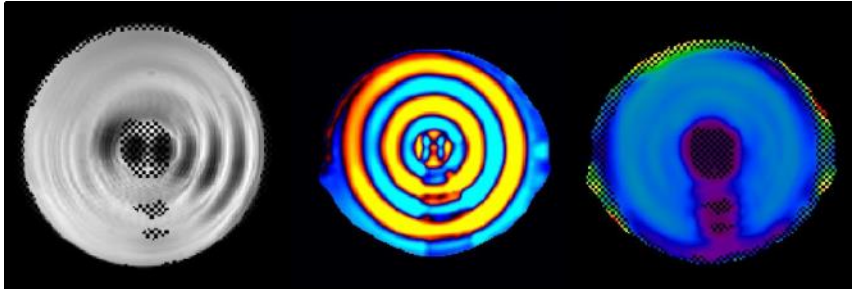
Questions - Questions regarding the Resoundant MRE Phantom Scanning Parameter Recommendations may be directed to:

Resoundant, Inc.
421 First Avenue SW STE 204W
Rochester, Minnesota 55902 USA
Phone: 507.322.0011
Email: mreinfo@resoundant.com

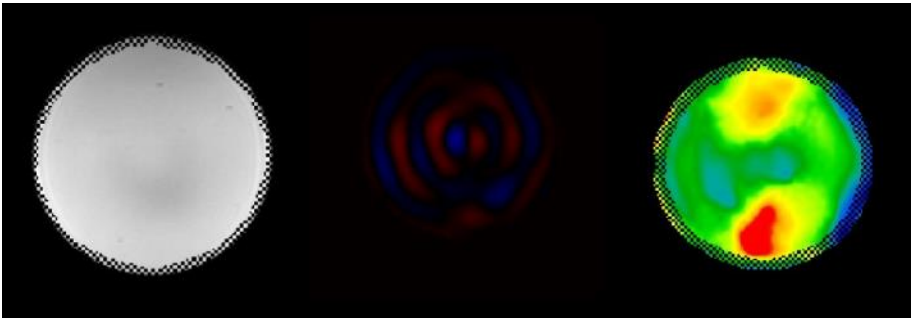
Phantom Scanning Results

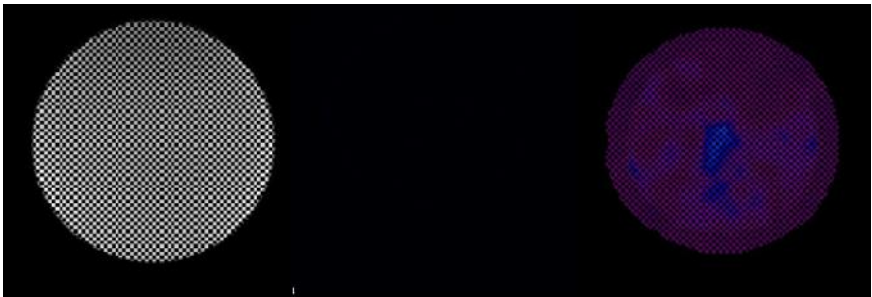
The following table outlines the expected phantom scanning results, including sample images, visual descriptions, and troubleshooting tips.

Normal Phantom Scan Results			
Magnitude, Wave, and Color Elastogram images			
Qualitative Description of Results	Magnitude Image	Wave Image	Elastogram
	<ul style="list-style-type: none"> No “ripples” or motion present. Circular, homogeneous appearance (may see slight distortion from EPI-based sequences) 	<ul style="list-style-type: none"> Red/blue waves Concentric circles 	<ul style="list-style-type: none"> Large region of high confidence May see confidence hatch out on edges or in the very center. This is acceptable

Amplitude Too High			
Magnitude, Wave, and Color Elastogram images			
Qualitative Description of Results	Magnitude Image	Wave Image	Elastogram
	<ul style="list-style-type: none"> “Ripples” or motion present (phase dispersion). 	<ul style="list-style-type: none"> Wave images oversaturated 	<ul style="list-style-type: none"> Stiffness irregular
Troubleshooting Tips	Decrease amplitude to 5-10%.		

Amplitude Too Low

Magnitude, Wave, and Color Elastogram images			
Qualitative Description of Results	Magnitude Image	Wave Image	Elastogram
		<ul style="list-style-type: none"> Wave images undersaturated/black 	<ul style="list-style-type: none"> Stiffness irregular
Troubleshooting Tips	<p>Confirm proper phantom set-up: passive driver secured tightly to phantom with belt, tube connected between active and passive driver.</p> <p>May be due to leak in tubing or passive driver, or active driver failing.</p>		

No Amplitude			
Magnitude, Wave, and Color Elastogram images			
Qualitative Description of Results	Magnitude Image	Wave Image	Elastogram
		<ul style="list-style-type: none"> No waves 	<ul style="list-style-type: none"> No regions of high confidence (completely hatched out)
Troubleshooting Tips	<p>Confirm the active driver is on and amplitude set to 5-10%. Confirm tube between active and passive driver is connected.</p> <p>May be due to active or passive driver failure.</p>		