

# Doppler String Phantom

Model 043

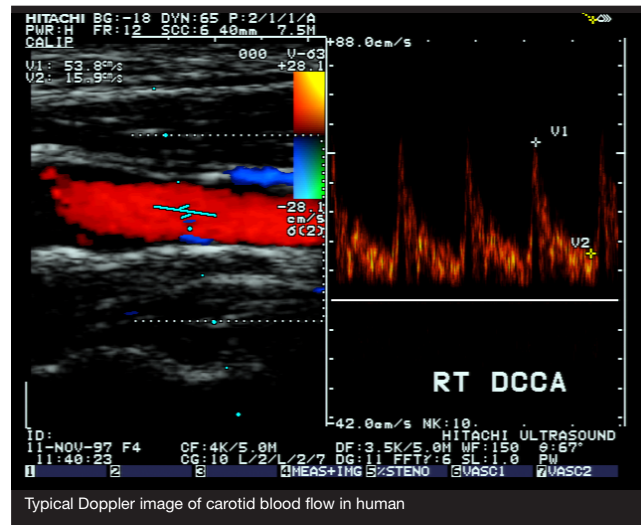


## ACCURATELY SIMULATES 16 PHYSIOLOGICAL AND TEST WAVEFORMS

The CIRS Model 043 Doppler String Phantom is an essential tool for people who work with Doppler Ultrasound. The crystal controlled motor accurately generates sixteen pre-programmed waveforms using advanced string target technology. Since the speed is adjusted 1000 times every second, you know it's precise and repeatable.

Our Model 043 can be set for use with water or velocity-corrected fluid. If you're using water, it adjusts the string speed accordingly so the different speed of sound in water won't affect your tests. And unlike fluid-flow phantoms, the target never changes; you know what your test results should be every time.

The Model 043 includes a user's manual and a rugged carrying case. Additional options include custom programming of special waveforms.



Typical Doppler image of carotid blood flow in human

900 Asbury Ave • Norfolk, Virginia 23513 • USA  
Tel: 800.617.1177 • 757.855.2765 • Fax: 757.857.0523

[WWW.CIRSINC.COM](http://WWW.CIRSINC.COM)

**CIRS**

Tissue Simulation & Phantom Technology

<b>DIMENSIONS:</b>	Tank - 35.6 x 25.4 x 22.9 cm (14" x 10" x 9") Box - 22.9 cm x 20.3 cm x 10.2 cm (9" x 8" x 4")
<b>PHANTOM WEIGHT:</b>	7.7 kg (17 lb)

**DIGITAL DISPLAY:** Waveform readout, string speed, help statements and instructions, and computer host information.

**FLOW SIMULATION SPEEDS:** 10 to 200 centimeters per second, bidirectional.

**SPEED DRIFT:** Crystal-locked to 20 parts per million (0.002%).

**ACCURACY:** ± 1% of stated speed.

**PULSATILE WAVEFORMS:** 16 pre-programmed and optional customer specified.

**WAVEFORMS INCLUDED:** Adult common carotid, stenotic carotid, femoral, aortic. Fetal middle cerebral artery, renal artery, umbilical artery. Pediatric descending thoracic artery, patent ductus arteriosus. Test wave forms: Sine waves with peak speeds of 100, 150, and 200 cm/second. Triangle waves with peak speeds of 100, 150, and 200 cm/second. Stepped ramp wave with stops at 0, 20, 40, 60, 80, and 100 cm/sec.

**WAVEFORM RESOLUTION:** Each waveform simulation contains 1000 points of resolution, or speed adjustments, enabling extremely complex simulation.

**COMPUTER INTERFACE:** Industry standard RS-232 interface built-in for future enhancements and remote control. Very useful for automated quality control in a manufacturing environment.

**FLUIDS USED IN TANK:** Plain tap water (velocity 1480 m/second at 20° C) or velocity corrected water/glycol solution giving 1540 m/second at 20 degrees C. Phantom adjusts itself for either fluid.

**PHYSICAL SPECIFICATIONS:** 120 V AC, 50 W  
Total weight in travel case: 10 kg (22 lb).  
Travel case dimensions:  
25 cm x 19.5 cm x 14 cm (17" x 17" 10").

**MODEL 043 INCLUDES**

QTY	COMPONENT DESCRIPTION
1	Doppler String Phantom
-	Carry Case
-	User Guide
-	12 Month Warranty

**OPTIONAL ACCESSORIES**

MODEL NUMBER	COMPONENT DESCRIPTION
901-C	Step Down Transformer (220V)
043SL	Replacement Preformed String Loop for Doppler String Phantom (Pack of 20)

