



## MODEL 750

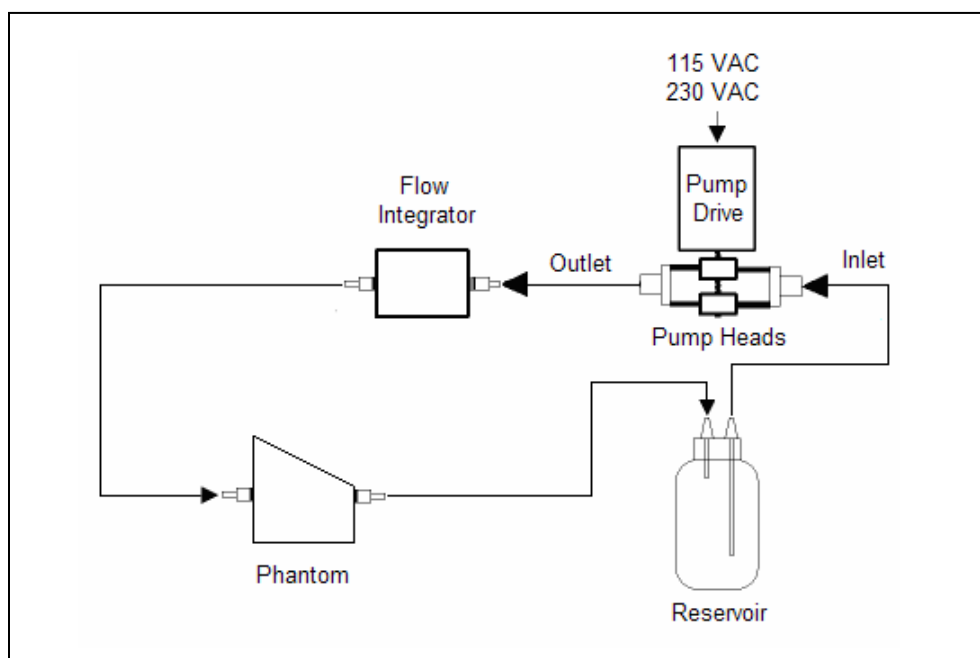
### Portable Doppler Flow Testing System



### Product Description

The Model 750 Portable Doppler Testing System provides an easy means of evaluating an ultrasound Doppler imaging system's ability to accurately detect and measure fluid flow. The System consists of a fixed speed positive displacement pump, flow integrator, phantom, and a test fluid reservoir, along with all the necessary connecting tubing and fittings. It is designed to operate with ATS Model 707 Doppler Test Fluid that is also included as part of the System package. The Model 750 System pump driver and pump heads combine to yield a fixed flow rate. Coupled with the single channel Doppler flow phantom, a stable, repeatable flow velocity is provided for evaluation by the ultrasound system. The large capacity test fluid reservoir insures the fluid pumped through the phantom will be free of air bubbles even after hours of continuous use. Warranty: Three months.

### Set-up Diagram



## Specifications

### Pump and Controller

|                             |  |
|-----------------------------|--|
| Pump speed                  | Fixed, 50 rpm (230V), 60 rpm (115V)                    |
| Pump Heads                  | 2  |
| Control/Power Switch        | On/Off   |
| Fluid Contact               | Tubing Only  |
| Self-Priming                | Up to 2.0 m (6.5-Ft.)                                  |
| Run Dry                     | Yes, continuously                                      |
| Non-siphoning               | Yes  |
| Nominal flow rate           | 80 ml/min (50 rpm), 96 ml/min (60 rpm)                 |
| Time averaged flow velocity | 10.6 ± 0.8 cm/sec (50 rpm), 12.7 ± 1.0 cm/sec (60 rpm) |
| Domestic Voltage            | 115 VAC, 60 Hz   |
| International Voltage       | 230 VAC, 50 Hz   |
| Pump Head Tubing            | Silicon, 3.1 mm (1/8") I.D.                            |
| System Tubing               | PVC 6.4 mm (1/4") I.D.<br>PVC 9.5 mm (3/8") I.D.       |

### Phantom

|                                  |                                  |
|----------------------------------|----------------------------------|
| Size                             | 14 x 12 x 13.5 cm                |
| Weight                           | 1.93 kg                          |
| Tissue mimicking material        | Urethane rubber                  |
| Doppler angle                    | Fixed, 60°                       |
| Freezing point                   | <-40°C                           |
| Melting point                    | >100°C                           |
| Attenuation coefficient          | 0.5 dB/cm/MHz ± 5% at 23°C       |
| Speed of sound                   | 1450 m/sec ± 1% at 23°C          |
| Flow channel diameter            | 4 mm                             |
| Depth                            | 2.5 to 8.0 cm                    |
| Connectors                       | Barbed                           |
| Maximum allowable fluid pressure | 1.05 kg/cm <sup>2</sup> (15 psi) |

### Fluid Reservoir

|          |                        |
|----------|------------------------|
| Type     | Heavy-duty bottle      |
| Cap      | Inlet/outlet with vent |
| Capacity | 2 Liter (.5 gallon)    |

### System Weight/Dimensions\*

|        |                                   |
|--------|-----------------------------------|
| Size   | 48 x 36 x 17 cm (19 x 14 x 7 in.) |
| Weight | 6 Kg (13.2 lb.)                   |

\*Includes carrying case without Doppler test fluid

### Model 707 Doppler Test Fluid

|                           |  |
|---------------------------|--|
| Type                      | Blood-Mimicking                            |
| Density                   | 1.04 ± 0.01g/cc                            |
| Viscosity                 | 1.66 ± 0.1 centistokes                     |
| Particulate size          | 30 micron ± 3 micron mean diameter         |
| Particulate concentration | 1.7 ± 0.1x10 <sup>4</sup> particles per cc |

WARNING: THIS PRODUCT IS NOT DESIGNED NOR INTENDED FOR MEDICAL USE IN TREATMENT OF PATIENTS AND, ACCORDINGLY, HAS NOT RECEIVED FDA APPROVAL AS A DEVICE FOR MEDICAL USES.

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