



Quick Reference Guide

Transonic® HT107 / HT207 Medical Flowmeter

TRANSONIC SYSTEMS HOTLINE # 1-800-353-3569

Technical Support • Customer Service

Intraoperative Measurements — Perivascular Probes

(Flowprobes should be tested before each use, please see "Testing Probe Functions")

- 1. Apply flowprobe to vessel** by gently slipping the probe around the vessel.
- 2. Establish Good Ultrasonic Transmission**
Displace the air between the vessel and the probe by filling this space with ultrasound gel or sterile saline. Transmission is established when the "√ TEST" light goes out. Sterile Gel is the easiest and quickest acoustical couplant to use.
- 3. Push Measure (MEA) button**
- 4. Reading Flow Values** Allow 10-15 seconds for the flow value to stabilize. The digital display will show volume flow in ml/min or L/min. The Analog meter will register the flow profile characteristics in a sweeping pattern. Once values stabilize, read flow and proceed to next vessel.
- 5. Checking for Good Ultrasound Contact**
If the digital display reads "Ac Er", air remains between the vessel and the probe body. If using Gel couplant - add additional Gel to probe and reapply probe to vessel. If using Saline - use a probe size that best matches vessel size and make sure that the probe and vessel are fully submerged in a pool of saline.

MEASURE Mode

Digital Display reads average volume flow in mL or L/min.

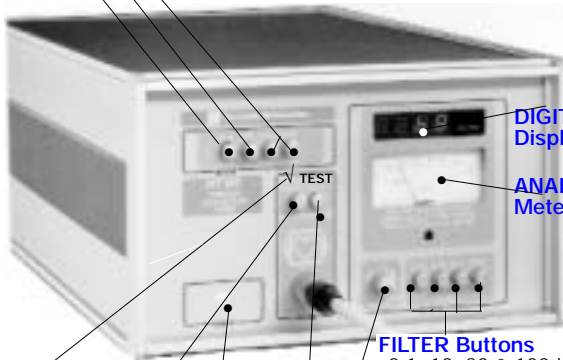
Analog Meter gives instantaneous readout of volume flow

TEST Mode

Digital display shows probe size and quality of signal strength (no, Lo or Gd);

Analog meter reads signal strength in Volts;

CALIBRATE Modes Only used to calibrate external monitor or computer display



DIGITAL Display

ANALOG Meter

FILTER Buttons

0.1, 10, 30 & 100 Hz to filter analog BNC output

ZERO FLOW adjust to zero a sterile tubing sensor; do not use with perivascular probes

LO FLO Button Defines operating flow range of the flowmeter; leave in "out" position for maximum range.

CHECK (√) TEST light indicates insufficient acoustic transmission between probe and vessel.

AC POWER Light

INVERT Mode Changes a negative flow reading to positive.

Key to Display Messages & What to Do

"MEA" Measure Mode

No.Pr. = (No Probe: probe is not connected to meter)
make sure that probe is connected to meter.
If probe is connected, change to different probe.
Return faulty probe to factory for inspection.

Ac.Er. = (Acoustical Error - Air is between vessel and probe)

If using Gel, apply more Gel. If using saline, make sure probe body is submerged in pool of saline.

"TEST" Mode

"Probe size".no = No ultrasonic transmission

"Probe size".Lo = Low ultrasonic transmission

"Probe size".Gd = Good ultrasonic transmission

"Example. 8' - Gd = 8 mm probe with good signal

Testing Probe Function

To check if a flowprobe is functioning properly before use.

1. Connect probe to the meter and push the "TEST" button.
2. Immerse the probe in a saline bucket and swish back and forth to insure that small air bubbles are washed off the probe body and reflector.
3. Read the received signal strength off the Analog meter. A new probe is will ≥ 1 Volt. If signal strength is ≤ 0.5 volts, do not use. Return probe to factory for inspection.

Testing can be done quickly on the sterile field before the probe is applied to the vessel.

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Excellence in Quantitative Hemodynamics

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Sterilization, Care, Maintenance

Transonic® Perivascular Flowprobes

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Sterilization —

**Sterilize by ethylene oxide gas at 60° Celsius or by STERRAD.
Do not autoclave or soak in liquid disinfectants.**

Expected life span is 100-150 gas sterilization cycles.

Cleaning

Wash probe in warm water with soap using a soft bristled brush.
(Disassemble a non-handle probe for cleaning as shown in Fig. 2)

- Avoid getting the probe connector wet
- The probe and connector can be wiped with 90% ethanol

Other Periodic Maintenance

- 1) Visually inspect each probe for
 - bent reflector (the reflector should be at a right angle to the blue probe body)
 - cracks or chips in the blue probe body
 - nicks in the probe cable
 - break in the seal at the junction between the probe cable and the stainless steel handle.*

If any of the above is observed, do not use the probe.

- 2) Record signal strength for each probe
(Analog meter in TEST mode when probe is immersed in saline or water).
Flow readings may not be reliable if signal strength falls below 0.5V.
We recommend that probes with signal strengths $\leq 0.5V$ be returned to the factory for a quality assurance check. See manual for instructions on returning flowprobes for repair.

* Tip to Extend Probe Life: *Avoid excessive pulls on the probe cable. A force of 12 lbs or greater may cause the cable to be pulled out of the handle. This condition is non-repairable.*

Safety Precautions

Refer to prefix of flowmeter manual.

