

## Features - USP-30

- ◆ Analog Reading
- ◆ 0.15 to 30.0 Watt Range
- ◆ Continuous or Pulsed Power
- ◆ 1 to 10 MHz Frequency Response
- ◆ Integrated Carrying Case
- ◆ Built-in Transducer Holder

## Features - USP-100A

- ◆ Digital Reading
- ◆ Continuous or Pulsed Power
- ◆ Integrated Carrying Case
- ◆ RS232 Output
- ◆ 0.1 to 30.0 Watt Range,  $\pm 5\%$  Accuracy
- ◆ 1 to 10 MHz Frequency Response
- ◆ 3" Max Transducer Diameter
- ◆ Built-in Transducer Holder
- ◆ Degassed Water is the Testing Medium
- ◆ Eight AA Batteries or 120 VAC power
- ◆ Compact Size of 8" H x 8" W x 8.75" D
- ◆ Unit Weight is 11 lbs

# ULTRASOUND POWER METERS

BC Biomedical USP-30 & USP-100



USP-100A

The USP-30 is designed to measure the ultrasonic power output of diagnostic or therapeutic transducers up to 30 Watts using the radiation force balance method. The USP-30 consists of a precision mechanical balance, which measures from 0.01 to 10.00 grams, a conical target suspended on a triangular hanger, a water tank, a transducer support rod w/clamp and a carrying case. The transducer to be tested is center mounted over the conical target with the transducer's radiating area immersed face down in the water medium. This system provides a sturdy instrument with good measurement accuracy and economical cost.

The USP-100A Ultrasound Power Meter was developed to test therapeutic transducers according to AIUM, JCAHO, FDA and NIST guidelines. The compact and light weight USP-100A meets all the requirements of a portable test instrument with the reliability and proven performance of the Series.

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# BC BIOMEDICAL USP-30 & USP-100

## USP-30 SPECIFICATIONS

Power Range	150mW to 30 Watts
Resolution	± 150mW
Minimum Detectable Power Level	± 150mW
Minimum Accuracy	± 5%
Expected Accuracy	± 4%
Display	Vernier Dial
Display Sensitivity	± 0.01g or ± 150mW
Zeroing Method	Manually Adjusted
Test Tank Lining	0.5" neoprene rubber
Test	Medium Degassed, distilled water at normal room temp
Test Tank Liquid Capacity	1,350 mL
Test Tank Dimensions	Outside 5.75" Dia. x 5.55"
Inside	4.5" Dia. x 5.25" D
Cone Target	3.5" Dia. x 2" H
Dimensions (w/Case)	19" H x 17" L x 7" W
Power	Not required
Weight (w/Case)	18 lbs Net

## USP-100A SPECIFICATIONS

Measurement Range	0.1 to 30 Watts, 410 gram Capacity
Resolution	± 100 mW, ± 0.1 gram
Accuracy	± 3%
Transducer Frequency	1 to 10 mHz
Maximum Transducer Diameter	3"
Ultrasound Test	Medium Degassed, distilled water at normal room temp.
Integration Time	2.5 Sec
Display	3-Digit LCD, 1.3" High
Operating Temperature	20 to 40°C
Data Output	Bi-Directional RS232
Line Power	120 Vac, 50-60Hz. Plug-in AC Adapter
Battery	8-AA: battery life ± 50 hrs.; "Lo-Bat" Indication
Dimensions	8" H x 12" W x 8.75" D
Weight	11 lbs Net

USP-30



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