

## Features - USP-100SP

- ◆ Digital Reading
- ◆ Continuous or Pulsed Power
- ◆ Integrated Carrying Case
- ◆ 0.2 to 30.0 Watts Range
- ◆ Accuracy =  $\pm 3\%$ +One Count Reading
- ◆ 0.5 to 10 MHz Frequency Response
- ◆ 3" Max Transducer Diameter
- ◆ Built-in Transducer Holder
- ◆ Degassed Water is the Testing Medium
- ◆ Line Power or Battery Operation

## Features - USP-50SP

- ◆ Digital Reading
- ◆ 0 to 30 Watts Range
- ◆  $\pm 3\%$  + One Count Accuracy
- ◆ 2.5 Second Integration
- ◆ 0.05 Watt Display Sensitivity

## Features - USP-30

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



**USP-100SP**

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

The USP-50SP is designed to measure the ultrasound power output of diagnostic or therapeutic transducers up to 30 watts. The water tank requires only one pint of de-gassed distilled water. If de-gassed water is not available, use distilled water. The principle of measurement is the radiant force method.

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 with clamp and a carrying case. The transducer to be tested is center mounted over the conical target with the transducer's radiating area immersed facedown in the water medium. This system provides a sturdy instrument with good measurement accuracy and economical cost.

## USP-100SP SPECIFICATIONS

Measure Range	0.2 to 30 Watts
Resolution	± 200 mW
Accuracy	± 3% +One Count Reading
Transducer Frequency	0.5 to 10 MHz
Maximum Transducer Diameter 3"	
Test Medium	Degassed, distilled water at normal room temp
Stabilization Time	2.5 sec
Display	3-Digit LCD, 1.3" High
Line Power	120 or 240 VAC Plug-in AC Adapter
Battery	4-AA, 20 hrs. continuous battery life
Dimensions	8.5" H x 12" L x 8.75" W
Weight	11 Lbs



## USP-50SP SPECIFICATIONS

Power Range	0 to 30 Watts
Resolution	+ 50 mW, ± .01 gram
Minimum Detectable Power	0.05 Watts
Display Sensitivity	0.05 Watts
Accuracy	± 3% @10 Watts
Stabilization	2.5 Second Integration
Maximum Transducer Diameter	4 1/2" Inches
Transducer Operating Frequency	0.5 to 10 MHz
Test Medium	Degassed Water
Display	7 segment 6 Digit 0.6" (15mm) high LCD
Battery	4-AA: battery life over 40 hrs.; "Lo-Bat" Indicator
Power Supply	120 VAC to 12 VAC 500 mA adapter with 6 Ft. cord
Dimensions	7.0" H x 10.5" L x 8.5" W
Weight	10 Lbs



## USP-30 SPECIFICATIONS

Power Range	150 mW to 30 Watts
Resolution	± 150 mW
Minimum Detectable Power Level	± 150 mW
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

