



### USP-50SP Features:

- Resolution: 50mw (150 mw in Grams Mode)
- Measurement range: 0 to 30 watts
- Frequency range: .5 To 10mhz
- Measures pulsed or continuous power
- Selectable readout in watts or grams
- Battery or line-powered
- Digital liquid crystal display
- Optional rs-232 or usb interface
- Automatic zeroing and stabilization
- Five Point Certification (NIST Traceable)

## Ultrasound Power Meters

*BC Biomedical USP-50SP*

Since 1977, ultrasound power meters have been used worldwide. They have always been a widely accepted standard for documenting the power output of medical transducers. The USP-50SP Ultrasound Power Meter was developed to test therapeutic and diagnostic transducers according to AIUM, JCAHO, FDA and NIST guidelines. The compact and light weight USP-50SP meets all the requirements of a portable test instrument with reliability and proven performance.

The USP-50SP uses a 5" diameter, 3 1/2" high test tank. To measure ultrasound power, the USP-50SP uses the reliable radiation force method. Testing a transducer is simple. Start by centering the transducer above the 45° airbacked cone target in degassed water. The coupling is made to a precision balance capable of resolving  $\pm 0.15$  watts. When acoustic energy is applied to the cone, the resultant force is directly proportional to the total radiated power. The test tank is lined with sonic absorbent rubber to prevent acoustic reflection. The balance is programmed to convert milligram magnitude forces direct to a readout in watts with good resolution. Measurement accuracy of the power meter can be verified by placing a calibrated weight on the cone's support arm. (The supplied 1 gram calibration weight equals 14.7 watts.)



#### Contact Us

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# Specifications

## USP-50SP

|                                  |   |
|----------------------------------|---|
| Measurement Range.....           | 0 to 30 Watts, 0.05 watts minimum detectable power      |
| Resolution.....                  | ± 50 mW, ± .01 gram (150 mW)                            |
| Accuracy.....                    | ± 3% @ 10 Watts, 25°C                                   |
| Transducer Frequency.....        | .5 to 10 MHz  |
| Maximum Transducer Diameter..... | 4 1/2" Inches   |
| Ultrasound Test Media.....       | Degassed Water  |
| Integration Time.....            | 2.5 seconds   |
| Display.....                     | 7 segment 6 Digit 0.6" (15mm) high LCD                  |
| Data Output.....                 | "OPTIONAL" Bi-Directional RS-232 or USB                 |
| Line Power.....                  | 120 VAC to 12 VAC 500 mA adapter with 6 Ft. cord        |
| Battery Operation.....           | 4-AA: battery life over 40 hrs; Battery Level Indicator |
| Dimensions.....                  | 7"H x 10.5"L x 8.5"W or 6"H x 16 3/4"L x 12.0"W         |
| Weight.....                      | 8.5 lbs. (Aluminum) or 9.75 lbs (Polyethylene)          |



### Optional Accessories:

- Positioning Clamp Assembly
- Cone Assembly
- 120 VAC Power Adapter
- USB Cable
- RS-232 Cable

### About BC Group International

BC Group is a leader in manufacturing, servicing and selling biomedical testing equipment. With dealers across the world, BC Group has achieved international success and continues to grow. Our equipment is designed to thoroughly test medical equipment and maximize your investments. We have a promise to provide quality at all levels of operation and help ensure equipment is safe for patients and medical staff.

*BC Group is committed to exceeding customer expectations and enhancing customer satisfaction through the continual improvement of our products, services and Quality Management System.*

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