



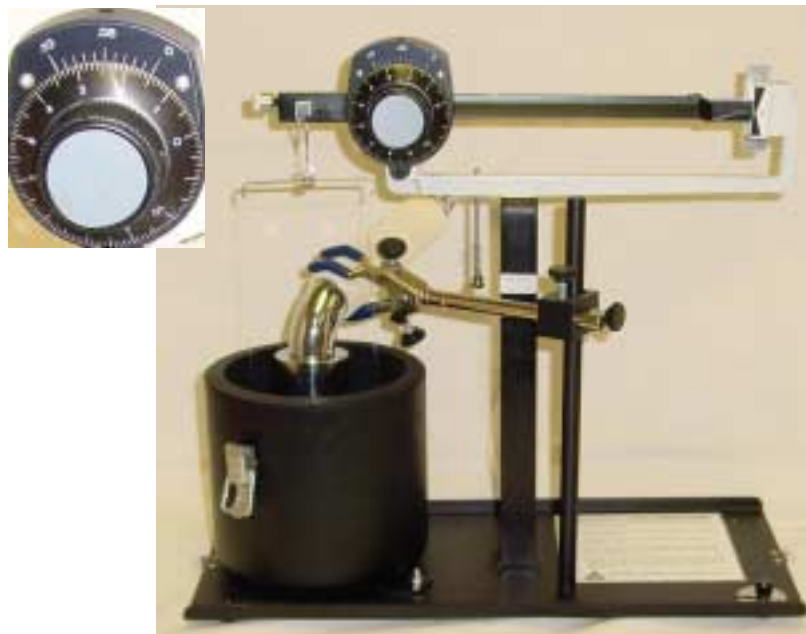
ohmic instruments co.

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INDUSTRIAL & ENVIRONMENTAL SENSORS, INSTRUMENTS & CONTROLS SINCE 1969

**ULTRASOUND POWER METER - MODEL UPM-30
USES RADIATION FORCE METHOD TESTED BY F.D.A.**



PRIMARY ULTRASOUND POWER MEASUREMENT AT ECONOMICAL COST

Ohmic's Ultrasound Power Meter, Model UPM-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 UPM-30 consists of a precision mechanical balance which measures from 0.01 to 10.00 grams, a conical target suspended on a 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 face down in the water medium.

Model UPM-30 determines the average ultrasonic power by measuring the radiant force exerted by the transducer on the conical target. This target is coupled to the precision mechanical balance which

is used to measure the gram-mechanical force due to the ultrasonic radiation. The gram force is directly proportional to the ultrasound power in watts when multiplied by a constant of 14.65; therefore, a 2.05 gram force would be equal to 30 watts of ultrasound radiation.

The heart of the UPM-30 unit is its air-filled conical target. The weight of this target is nulled to a minimum by using its own buoyancy. Ultrasound energy is mechanically transferred from the target to the precision balance where it is measured. Reflected ultrasound energy is absorbed by closed-cell butyl rubber walls inside the water test tank. This system provides a sturdy instrument with good measurement accuracy and economical cost.

WARRANTY: All products manufactured by OHMIC Co. are warranted to be free of defects in material and workmanship for one year after delivery. Any equipment found to be defective within this period will be repaired or replaced free of charge.

SPECIFICATIONS: MODEL UPM-30

Power Range	0-30 Watts
Resolution	±150mW (± 0.01g)
Frequency Range	.5 to 10 MHz
Accuracy	± 5%
Display	Vernier Dial
Zeroing Method	Manually Adjusted
Test Tank Lining	0.5" (12.7mm) neoprene rubber
Test Medium	Degassed water
Test Tank Liquid Capacity	1,200 ml.
Test Tank Dimensions: Outside	5.75" (146mm) dia. x 5.55" (140mm)
Inside	4.5" (114mm) dia. x 5.25" (133mm) deep
Cone Target	3.25" (89mm) dia. x 1.625" (51mm) height
Carrying Case	19"H (483mm) x 17"L (432mm) x 7"W (178mm)
Shipping Weight	18 lbs



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Digital Ultrasound Power Meters.

Please inquire about OHMIC's UPM-DT-Series Digital Ultrasound Power Meters. These instruments feature direct digital readout, auto-zeroing, auto-averaging, auto-stabilization and RS-232 computer/printer interface. Model UPM-DT-100AV measures 0-30 Watts with a 200 mW resolution, Model UPM-DT-10AV measures 0-30 Watts with 20 mW resolution and Model UPM-DT-1AV measures 0-30 Watts with 2 mW resolution. The precision of these units has been verified by NIST. UPM-DTs are the world wide standard for determination of the ultrasound power output of medical ultrasound transducers. Please request a data sheet on the UPM-DT-Series for further information.

ENGINEERING SUPPORT: OHMIC Instruments Co. designs and manufactures a full line of sensors, environmental and bio-medical instruments and controls. Many of our products are custom designed to meet specific requirements. Our engineers will be pleased to discuss your application.



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