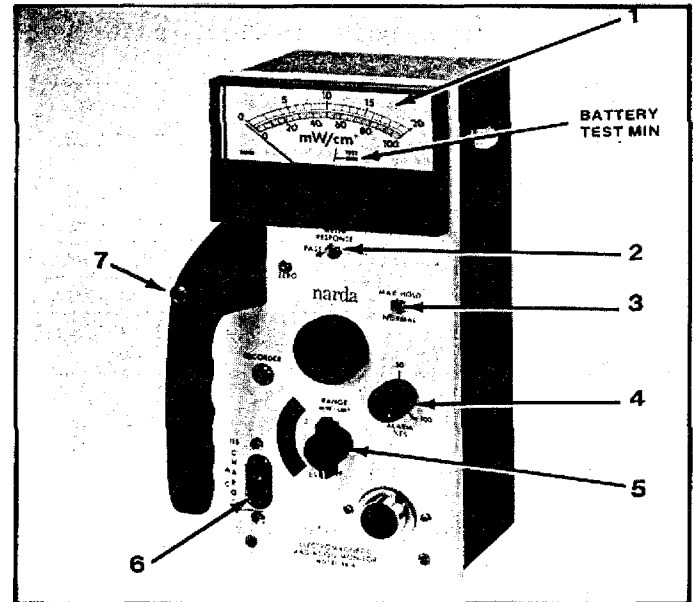




Radiation Monitors

MODEL 8616 METERING INSTRUMENT



DESCRIPTION

1. Meter

The direct reading meter of the Model 8616 has a 3 1/2 inch linear scale which covers a 13 dB dynamic range. The scale may be read in equivalent power density units (mW/cm^2) or percent of standard depending on the probe used. This meter permits measurements with excellent resolution over the 30 dB dynamic range of the available probes.

2. Response Time

Two response times are available by front panel selection. A slow response time of 3 seconds is provided, for longer integration periods, in addition to a fast response. The one second fast response time is used during normal operation.

3. Max Hold

A mode switch is provided to permit selection of either the normal or MAX-HOLD mode of operation. When in the MAX-HOLD operating mode, the meter will display the highest level reading measured during the survey allowing the operator to concentrate on the area being surveyed without memorizing the highest leakage levels measured.

4. Audible Alarm

A panel control allows an audible alarm to be set at any percentage of full scale value. When the power density exceeds the preset level, an alarm is sounded to alert the operator.

5. Range Selection/Battery Test

The 1000:1 (30 dB) dynamic range of the Model 8616 is utilized through a range switch, which permits the selection of any one of the three ranges available. The BAT TEST position permits fast preoperation testing of the 25 Volt rechargeable nickel-cadmium battery, to insure proper operating voltage.

6. AC Cable Plug Connection

The front panel AC cable plug provides for connection to 115V or 230 V, 50 Hz to 400 Hz AC, selecting the voltage range by the means of an internal switch and plugging directly into a power outlet. Normal use of the unit can be continued during the battery recharging cycle.

7. Automatic Zero

The zero pushbutton mounted in the handle provides a means for fast and accurate automatic zeroing of the meter.

8. Probe Mounting Bracket

Each meter is provided with a removeable mounting bracket which permits the probe to be secured to the meter at an adjustable angle for one-hand operation.

Compatible Probes

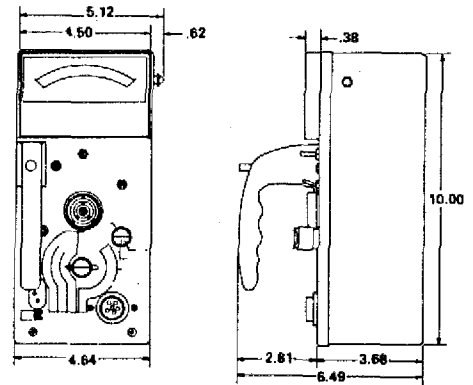
When using the 8616 meter all 8600 series probes are interchangeable.

Radiation Monitors

SPECIFICATIONS

The 8616 Meter can be used with all 8600 series probes:

Probe Model	Frequency Range	Full Scale Ranges	Range of Measurement
8652	300 kHz-10 MHz	2, 20 and 200 mW/cm ²	0.1 to 200 mW/cm ²
8662B	300 kHz-1 GHz		
8661	300 kHz-1 GHz	0.2, 2 and 20 mW/cm ²	0.01 to 20 mW/cm ²
8631	10 MHz-300 MHz	.2, 2 and 20 mW/cm ²	0.01 to 20 mW/cm ²
8633		1, 10 and 100 mW/cm ²	0.05 to 100 mW/cm ²
8682	300 kHz-1.5 GHz	2, 20 and 200% ANSI RFPG	0.02 to 200% ANSI RFPG
8621D	300 MHz-40 GHz	0.2, 2 and 20 mW/cm ²	.01 to 20 mW/cm ²
8623D		1, 10 and 100 mW/cm ²	0.05 to 100 mW/cm ²



Model 8616

8616 METER SPECIFICATIONS

Dynamic Range	30 dB
Power or Field Strength Reading Ranges	See chart above
Meter Scales	Linear, Marked 0-2 and 0-10
Instrument Accuracy	±3%
Sensitivity Ranges	Three, selected by front panel switch
Zero Control	Front panel pushbutton
Response Time including Meter (The time it takes for the meter indicator to reach 90% of its final steady state reading when subjected to a stepped input signal.)	1 second (nominal) fast position 3 second (nominal) slow position
Additional Features	Maximum Hold Method of Operation
Recorder Output	+3V nominal at full scale into minimum load of 1000Ω
Power Density Alarm	An adjustable audible alarm preset by panel control for a percentage of full scale
Battery Type	25 Volt Rechargeable nickel-cadmium
Battery Use Time (Approx.)	40 hours; 3:1 use to charge time
Operating Temp.	0-50°C
Size	10" x 4 1/4" x 4" not including handle 25.4 cm x 10.8 cm x 10.2 cm not including handle
Weight	5.5 lb 2.5 Kg
Line Operation	115/230 VAC 50-400 Hz

The Model 8616 Meter comes complete with AC line cord, Model 8630 Probe Mount, Operation and Maintenance Manual covering the meter and all compatible probes, and a shielded carrying case which provides form-fitted cutouts to accommodate the meter, three radiation monitor probes and accessories.

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