

Design:

With each of the various types of receivers, it is desirable that the output meter have sufficient sensitivity to permit measurements of hum voltage. By incorporating the latest improvements in methods of meter construction, it has been possible to obtain a full-scale sensitivity of 2 volts even at a characteristic impedance of 20,000 ohms. This sensitivity has been obtained without loss of mechanical ruggedness.

In order to increase the utility of these output meters, seven multiplying steps have been provided. In this way the total range has been increased and at the same time the interval between steps has been decreased as compared with previous designs.

Characteristic Impedance:

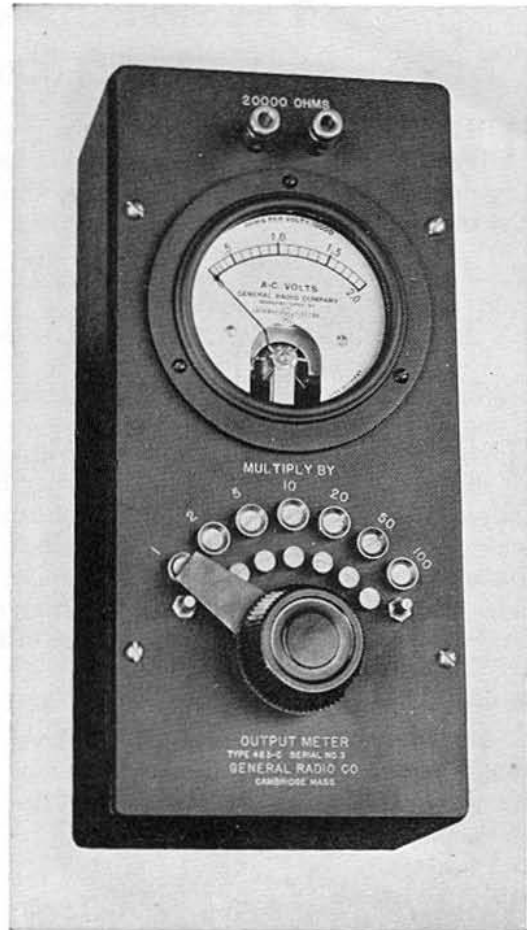
See price list for values. When the multiplier is set at one, the impedance is that due to the meter alone, and hence varies with voltage as in the case of the TYPE 488 Alternating-Current Voltmeters. With increase in multiplying setting the impedance approaches a pure resistance of the characteristic value and is accurate to $\pm 2\%$.

Sensitivity:

All have a full-scale sensitivity of 2 volts. See price list.

Accuracy of Calibration:

With the multiplier at one, the accuracy of calibration depends entirely on the properties of the copper-oxide-rectifier meter. These are such that the instrument is accurate to within 2% of its full-scale reading at frequencies up to 2000 cycles, within 5% to 5000 cycles and within 10% to 10,000 cycles. At a multiplier setting of two, there is an additional error in the indicated voltage due to the variation in meter impedance with voltage. For the 4000- and 8000-ohm meters, this error is 5% at one volt and 10% at 0.5 volt. For the 20,000-ohm meter this error is 3% at one volt and 6% at 0.5 volt. The network error at a multiplier setting of



TYPE 486-C Output Meter
(Patent applied for)

two is greater than at any other setting and decreases rapidly as the multiplier ratio is increased.

Scale Length:

2½ inches.

Mounting:

The copper-oxide-rectifier voltmeter and the multiplier switch are mounted on a bakelite panel which, in turn, is mounted in a polished walnut case.

Dimensions:

9 x 4¼ x 4¾ inches.

Weight:

3 pounds.

Type	Range	Characteristic Impedance	Maximum Power	Code Word	Price
483-A	0-2-4-10-20-40-100-200 volts	4000 ohms	10 watts	AVAST	\$42.00
483-B	0-2-4-10-20-40-100-200 volts	8000 ohms	5 watts	AVERT	50.00
483-C	0-2-4-10-20-40-100-200 volts	20,000 ohms	2 watts	AVOID	54.00