



## MORE NEW CAPACITORS

In a recent<sup>1</sup> issue of the *EXPERIMENTER*, new designs for laboratory standard mica capacitors were announced. These design improvements are now extended to the less-precise, lower-priced TYPE 505 Capacitors and to the decade capacitors in which TYPE 505 Units are used. In the decade capacitors a new switch, and in the decade assemblies a redesigned cabinet, offer additional advantages.

### TYPE 505 CAPACITORS

The silvered-mica electrodes and other improvements embodied in the new TYPE 1409 Standard Capacitors<sup>1</sup> are now available in the TYPE 505 Capacitors, and these units are now manufactured to new and considerably improved specifications of tolerance and dissipation factor. The capacitors are

<sup>1</sup>Easton and McElroy, "New, Silvered Mica, Standard Capacitors, TYPE 1409," *General Radio Experimenter*, 32, 2, July, 1957.

Figure 2. Panel view of the Type 1419-K Decade Capacitor.

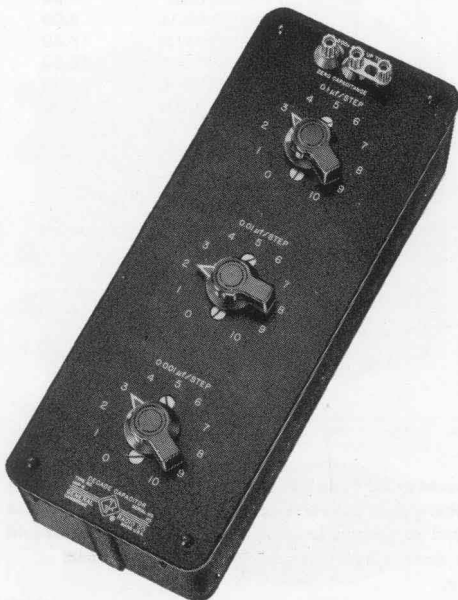


Figure 1. View of Type 505 Capacitors showing the two case sizes and the arrangement of terminals.

housed in low-loss molded-phenolic cases and are equipped with both screw- and plug-type terminals and with flanges for mounting. They are used both as laboratory "secondary standards" and as circuit elements in measuring equipment as, for example, in a number of General Radio bridges in the 1-percent-accuracy class.

Dissipation factor of these units, in the 1000- $\mu\text{f}$  and higher sizes, does not exceed .0003. The losses in the phenolic case increase the dissipation factor slightly for units of 500  $\mu\text{f}$  and smaller. Leakage resistance is 5000 megohm-microfarads or 100,000 megohms, whichever is the lower. The first figure represents the performance of the mica, while the second represents the phenolic case and is controlling below 0.05  $\mu\text{f}$ .

The same high-quality silvered-mica sheets are used in the construction of the TYPE 505 Capacitors as are used in the TYPE 1409 Standard Capacitors. Accuracy of adjustment is  $\pm 0.5\%$ , in contrast to the 0.1% adjustment of the TYPE 1409. The lower accuracy and the less-expensive packaging result in a unit that sells at a price substantially lower than that of the 1409<sup>1</sup>, but whose characteristics and stability are entirely adequate for many laboratory, production-line, and instrument applications.