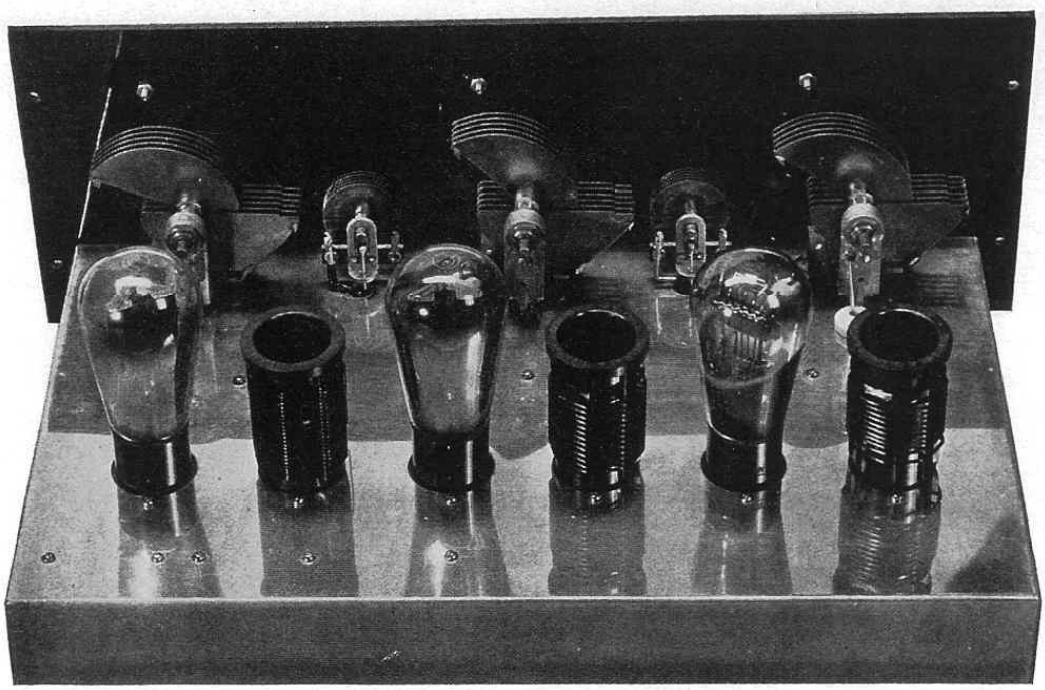

10A CRYSTAL CONTROL UNIT

The 10A Crystal Control Unit is designed to deliver 20 to 30 watts of crystal controlled high frequency power on the four most popular amateur bands,. 1.7., 3.5,. 7 and 14 mc. It can be employed to drive the antenna direct as a medium powered transmitter, or can be used as an exciter for a large amplifier. Flexibility and smoothness of operation are attained in shifting from one band to another by using carefully designed plug-in coils. It is a neat, compact and trouble-free solution to the problem of obtaining a clear-cut signal of constant frequency.

Tubes Employed — The 10A Unit employs a 247 crystal oscillator, a 247 buffer amplifier and a 210 or 841 as an output amplifier.

Circuit — A special circuit is employed which allows maximum output on all bands and at the same time permits quick change of frequency with a minimum of adjustments. Neutralization is accomplished in a surprisingly simple manner. Series plate feed is employed with automatic C bias on all stages. Proper impedance match between stages is automatically provided for on the plug-in coils. R.F. filters are employed to prevent unwanted feed-back or presence of R.F. currents in the power supply. Tapped inductance or inductive coupling to the output circuit can be provided by means of special output tank coils.

Power Requirements — Filament voltage; 7.5 volts at 1.25 amperes, 2.5 volts at 3 amperes. Plate voltage; 250 to 300 volts to crystal oscillator plate, 125 to 175 volts to pentode screen grids and 450 to 600 volts to buffer and output amplifier plates. Power cable is connected by means of dual plugs beneath the chassis (the 500AX Power Unit is especially designed to fit the power requirements of the 10A Unit and also to supply 500 volts D.C. for grid-block keying.

Crystal Mounting — A standard plug-in crystal mounting is provided on the front of the panel.

Insulation — Formica panel is used. Formica, General Electric Textolite, and Isolantite are used for all high frequency insulation.

Chassis — 7″ x 19″ panel with burnished aluminum, 10″ x $17\frac{7}{16}$″ chassis suitable for relay rack mounting.

Safety Factor — Only the highest grade resistors, condensers and inductances are used, regardless of cost. All parts are worked far below their ratings. Wiring and mechanical construction are especially rigid.

Price — 10A Unit complete with one set of plug-in coils (less tubes ----------**$38.45**

Same as above but with bakelite dials ----------**$33.95**