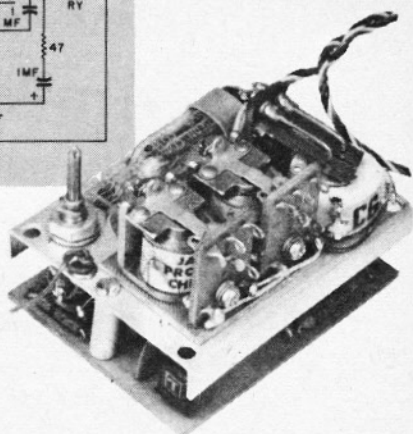
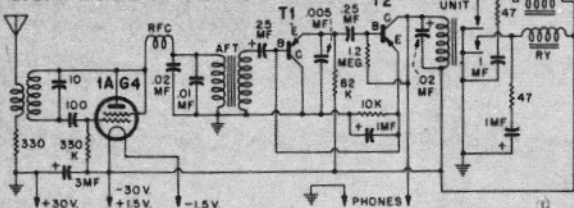


C.G. MODEL RT-2 RCVR.



CG's RT-2 & T-15

■ This CG model RT-2 receiver and T-15 transmitter equipment has a number of unusual features, the receiver being especially interesting in that it is transistorized to the extent that just a single tube is required. It is so compact and light in weight and current drain is so modest that it makes dual-control Half-A installations possible. Receiver can be had in finished form or as parts set. Since most of the receiver parts mount on a printed circuit plate, assembly is rapid, chance of going wrong is remote. A "double-layer" construction is used, with PC plate held on studs from aluminum top plate; on the latter are attached reed unit, sensitive relays and detector tube. The PC plate, incidentally, appears to be fiberglass and is practically unbreakable.

Receiver circuit detector tube is transformer-coupled to a double-stage transistor amplifier, the output going to reed unit. Use of transistors means double pole switch must be used for receiver power, since transistors still draw current even with tube filament circuit broken. Transistors also allow use of lower plate voltage, but make it imperative that user check battery polarity most carefully; reversed B polarity won't harm tube—but will probably ruin transistors.

Purchasers of receiver parts sets get extra instruction sheets that include circuit diagram, enlarged layout of PC board with all parts indicated, data sheet on reed unit. Same circuit is used for RT-3 and RT-5 receivers, only additions being added sensitive relays and associated circuit components, and different reed units. Both receivers can be had as components sets, as well as ready-to-use.

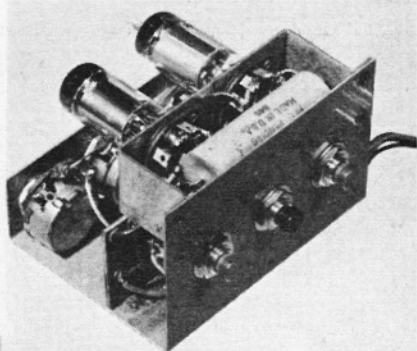
Basic transmitter used with RT-2 and RT-3 receivers is Model T-15, but as it comes with transmitter is intended only for CW receivers with a single on-off button on front panel to control output. To use it with RT-2 and RT-3, a separate M-3 modulator unit must be added. This is a simple job, since all connections are made by pulling out 5-prong plug attached to T-15 control button and in-

serting plug from modulator unit. Latter is mounted on small plate that fits behind panel of T-15, and replaces the plate with the pushbutton. For those who might have use for a CW transmitter, on-off button could be mounted elsewhere on panel, with switch to cut out modulator.

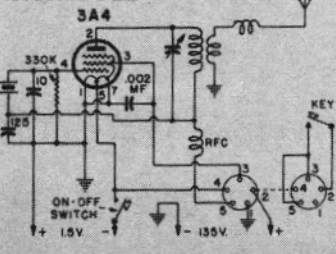
Transmitter RF circuits are such that outfit can be used with antenna collapsed, with no adverse affect on crystal. This is handy for tune-up in the shop, or for checking receiver at flying site.

Screen grid modulation is employed, and power output of transmitter increases greatly when one of the tone buttons is pressed. However, power output is much greater when unit is employed as CW transmitter; of course, B battery drain is also much higher. This probably averages out, for there is B drain only when CW button is depressed, while in tone use, B drain, though much lower, is continuous. When used with reed receivers, makers advise batteries be aged before use, so changing voltage will not cause tone shift. CG does not make a 2-tone transmitter, incidentally, same one being used for both RT-2 and RT-3 receivers. For RT-5, an entirely different transmitter—T-5—is required.

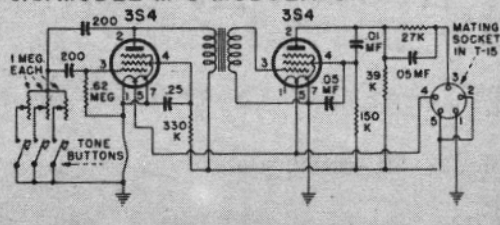
(Continued on page 57)



C.G. MODEL T-15 XMTR.



C.G. MODEL M-3 MODULATOR



CG's Radio Control RT-2 & T-15

(Continued from page 36)

None of the transmitters is sold in other than finished form.

Specifications: CG Model RT-2 receiver for 27.255 mc. Requires one 1AG4 tube, and two selected transistors. 2 channel using tones between 250-400 cycles, selected by tuned reeds. One adjustable control—for tuning. Uses CG Model R-2 reed unit and two Model V-11 relays. Antenna length may run from 12 to 36", is not critical. Provision is made for checking operation by means of headphones. Overall size— $2\frac{1}{4}$ x $1\frac{13}{16}$ x $1\frac{5}{8}$ " high. Weight—3.1 oz.

Power Requirements: A— $1\frac{1}{2}$ V. at 400 ma. B—300 V. recommended; no-signal drain, 1.5 ma., signal-on, 6.5 ma. CG Model T-15 Transmitter with M-3 Tone Modulator. Single 3A4 oscillator using 27.255 crystal; modulator uses two 3S4 tubes. Front panel has slide switch for on-off, three pushbuttons for controlling audio tones. Single RF tuning condenser reached through hole in panel. Three audio tone adjustments reached through holes in back of case. Case measures 3 x 6 x 8" high—all parts fastened to front portion. Three-section antenna is 21" long collapsed, and extends 54" when open. Weight with all batteries and antenna—6 lb. 4 oz.

Transmitter Power Requirements: A— $1\frac{1}{2}$ V. at 350 ma. (without M-3 Modulator, 200 ma.); one Eveready #735 battery or equiv. B—135 V.; two Eveready #467 or equiv. With M-3 modulator, B drain is 9 ma., rising to $10\frac{1}{2}$ ma. when any tone button is depressed. RF input to 3A4 is about .5 W., modulation percentage is 700% minimum. Without M-3, B drain is 22 ma. when button is pressed, power input about 3 W, and RF output about .5 W.