

## AEROTROL MARK IV DROPS R/C COST

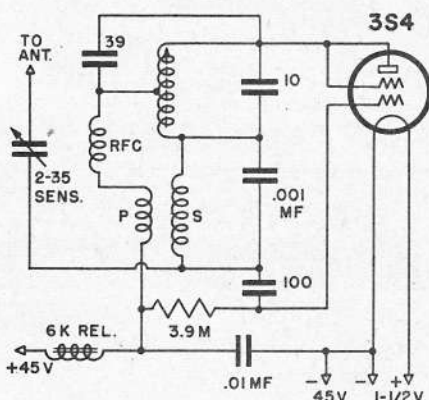
■ In a determined effort to reduce the cost of R/C equipment so that even those with a moderate amount of hobby money can enjoy this fascinating activity, Berkeley Models (West Hempstead N.Y.) has completely changed their previous Super-Aerotrol receiver and made some alterations to the transmitter. They now sell these units through hobby shops for about half the former prices. Transmitter and receiver, now sold only as a pair, can be had ready to use or in kit form.

The transmitter is practically identical with the former unit; cost savings have been made on the case and the antenna. Case comes unfinished (give it a coat of enamel, lacquer or dope to prevent rust). Decal name plate has markings showing on-off switch and keying button.

Berkeley previously furnished a collapsible two-section antenna with the transmitter; due to its length, this had to be packed and shipped separately at extra expense. Mark IV transmitter comes with a length of .040" music wire for an antenna; this can be coiled up in the bottom of the packing carton. It gives adequate results even if "floppy"; you might prefer heavier wire for this purpose; standard 3' hobby shop piece will do the job.

Mark IV receiver is completely different from the gas tube of the Super Aerotrol line. In place of the costly gas tube you now find a low-priced 7-pin hard tube; circuit's different to accommodate this. Another cost-saver is the relay which replaces the rather expensive Kurman. With the much greater current and current change afforded by the single-hard tube circuit, the lower cost unit is quite adequate.

A tiny piece of bakelite for the chassis holds the 7-pin tube socket, relay, coil and antenna condenser. Most of the resistors and condensers are mounted right on the coil, which includes both the RF tuning and the quench windings on the same form. The ready-to-use receiver comes with a 4-pin plug on the end of the power cable, and a 2' wire attached for the antenna. If the latter is cut off for installation in a model, the length should again be brought up to 24"; actually, final length will vary with different installations, but once you find the right length it will not need change again. A sensitivity control on the receiver acts to electrically vary the effective antenna length.



The instruction sheets packed with the transmitter and receiver include complete assembly information for those who have bought the kits, circuit diagram, a description of circuit symbols used therein, information on soldering and on the various batteries that can be used, testing and installation data. It should be noted that while the transmitter data sheet mentions .04% crystals, Berkeley has been supplying crystals to the new F.C.C. tolerances, since the revised Citizens Radio Service rules went into effect.

When you buy the kit you don't get just a handful of loose parts; all components are assembled on both transmitter and receiver chassis—all you have to do is wire them up and test them out.

**Berkeley Mark IV Aerotrol Receiver for 27.255 mc:** Single hard tube circuit utilizing a 3S4 tube. Set has variable condenser for sensitivity setting and iron core coil for tuning to proper frequency. Overall measurements 3 5/8" x 2 1/2" x 1 3/8". Sigma 11F relay of 6000 ohms. Total weight with power cord and plug, 2.8 oz.

**Battery Requirements:** "A" battery, 1 1/2 volts at 100 ma. "B" battery, 45 volts. Receiver idles at about 2.5 ma, this dropping to less than 1 ma with strong signal.

**Transmitter:** Hand-held unit in steel case, using single 3A5 tube with grids and plates in parallel. On-Off switch and spring loaded keying button on one side. Case size, 8 1/2 x 4 1/8 x 3" less antenna holder. Weight with batteries about 4-lb. Antenna should project about 28" above top of case. Crystal-controlled. Batteries: "A", 1 1/2 volts at 200 ma., single Eveready 742 or equiv. "B", 135 volts, two Eveready 467 or equiv. Current with key depressed about 20 ma.; no current drawn otherwise.

## Radio Control

(Continued from page 49)

operating frequency. You need matched pair of crystals, one for receiver, one for transmitter. To go along with this tone receiver, G-S will bring out a tone transmitter; experimental job now in use utilizes mostly 50 ma tubes (except in output stage), so total filament current is only 200 ma, and B current around 15 ma. Final transmitter to be marketed will be universal job with switch to cut modulation, so it will also be ideal for CW receivers. Since this tone transmitter will be added to line, C-S will doubtless market an all-transistor single-channel tone receiver; this one will not be super-

