

## Babcock's 3 CHANNEL R/C

■ Following the lines of their successful BCR-3 single-channel receiver, Babcock Radio Engineering offers a reliable system to have three control operations instantaneously and at will. The new BCT-4 receiver has but one adjustment—that for tuning to resonance with the transmitter. There is no sensitivity control, no plate circuit variable resistor, and there are no adjustments on the relays. While a 3-channel outfit is not usually recommended for the beginner

to R/C, this one will certainly confront him with a minimum of problems.

All of the tubes are the same; in the unlikely event of a tube failure, a single spare takes care of any position in the receiver. On all tubes, only one-half of the filament is in use, a measure intended to reduce "A" sumption.

Tuning is very broad, and antenna length is not at all critical; a couple of feet of wire will suffice. There is no need to do any audio tuning, since the filters, which are contained in a sealed metal box, are set at the factory and should never require change.

Though there are a lot of tubes in the receiver, and current drain is naturally heavier than in receivers with only one or two, this particular unit is very tolerant of voltage drop in the power supply; for example, a 67½ V. battery can be used till its voltage has dropped to 52 V., while a 60 V. battery can be used all the way down to 49 V., before replacement is necessary.

All receiver components are attached to an insulating base housed in an aluminum case; three sealed Babcock relays plug into the same kind of sockets as the

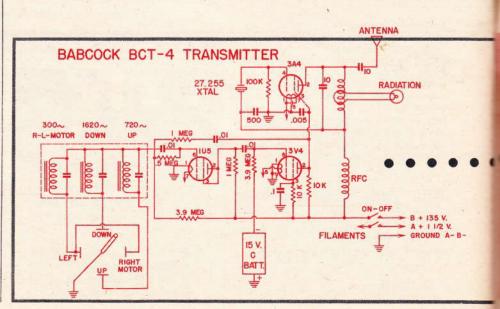
tubes. The set is a bit too heavy to mount by means of rubber bands; sponge rubber shock absorbers are suggested. All connections to the receiver, except the antenna lead, are by a miniature 9-pin plug. As with the BCR-3, the makers offer a low-cost

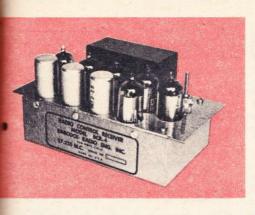
installation kit, containing flexible wire in several colors, battery and receiver plugs, switches, phone plug, etc.

For use in model planes, Babcock recommends a Bonner compound escapement for rudder, and Bonner motor control escapement for two-speed engine. A non-self-centering motor-driven servo is utilized for the elevator. For boats, this servo is used on the rudder, with the third channel for motor speed control.



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The BCT-4 transmitter externally looks much like the single-channel Babcock BCT-2; it is the same size and is housed in a similar gray hammertone-finished case. All parts are attach in a similar gray hammertone-mission case. All parts are attached to the front panel, which is removable for access to the batteries. Tuning (which should be seldom) is through a front panel hole; a lamp bulb indicates proper operation and aids tuning. Major external difference is that the new unit has a little control stick projecting from panel; marked Up, Down, Left, Right, and Motor.

Transmitter is crystal controlled for use on 271/4 mc. Three audio tones, 300, 720, and 1620 cycles, are non-adjustable, since the audio oscillator circuit is also controlled by tuned filters set at the factory; filters are sealed in a metal case.

The transmitter is supplied with crystal, tubes and whip antenna, less batts.

Transmitter: Type BCT-4. Case size, less panel projections—434" x 31½" x 8" high. On-off toggle switch for batteries. "Control stick" for sending any of three audio tones at will. Radiation indicator bulb allows continuous check of operation. Single-section 3/32" plug-in type. All batterles held under single mounting clamp, except C batt., which fits in its own clips.

Battery Requirements: One 15 V. battery (Eveready 50 V. battery (Eveready 50 V. battery (Eveready 50 V. batteries (Eveready 54407 or equiv.), 135 V. at 161½ m. (carrier only), and 20 m.a. with control stick depressed. "A" supply is two large flashlight cells; 1.5 V. at 350 m.a.

Receiver: Type BCR-4. Overall size including mounting flanges—6" long x 2'5" wide x 3" high. Weight 17½ oz., with all tubes and relays. Relays are SpDT. scaled, plug-im. Single adjustment only—for tuning, Non-sensitivity to attenual size including control of the sensitivity of the sensitivity of the control of th

Battery Complement: Lightest recommended battery supply, 10½ oz. (including cells for servo and escapements, and battery boxes). "A" battery drain is 1.5 V. at 350 ma. "B" battery drain is 1.5 Tma. on signal, with 60 V. "C" battery for 60 V. use is 15. V., with no current drain. Lightest set of batteries consists of 8 pencells, two 30 V. batteries in series (Burrgess U20E or equiv.) and one "C" battery (Eveready 504E or equiv.).

