

HAM TIPS

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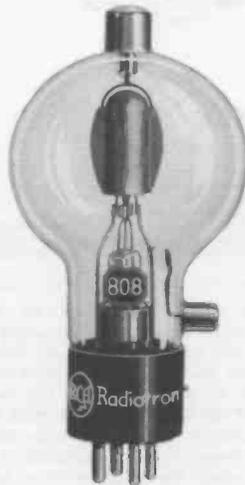
REINARTZ TAKES POSITION WITH U. S. NAVY DEPT.

Will Administer Field Activities of N. C. R.

Mr. J. L. Reinartz, who for the last few years has been associated with RCA as technical consultant on amateur tube applications, recently left RCA to take on new work with the U. S. Navy Department. As liaison officer for the Naval Communications Reserve, in the office of the Director of Naval Communications, he will administer the field activities of this organization from Washington.

Radio amateurs from coast to coast will remember the many interesting lectures and demonstrations given by Lieutenant Reinartz while on his numerous speaking tours sponsored by RCA. His many friends at RCA and in the amateur fraternity all wish John the best of luck and success in his new work.

HAS 30-WATT FILAMENT



The RCA-808 high-perveance triode is an excellent tube for cw or phone rigs of the medium power class. Amateur net price is only \$7.75 at all RCA Power Tube Distributors.

RCA-808 TANTALUM-PLATE TRIODE FB FOR MEDIUM-POWER RIGS

Push-pull 808's Take 400 Watts Input on CW —270 Watts on 'Phone

A large percentage of all amateur transmitters, both 'phone and cw, fall in the medium-power range where the input to the final stage runs somewhere between 100 and 300 watts. The RCA-808 is one of the best triodes available for transmitters in this power class. A single 808 can be operated at a d-c plate input up to 200 watts in cw service, and up to 135 watts in plate-modulated-telephony service.

WINNER!

W3BES, owned by Jerry Mathis of Philadelphia won the 9th A.R.R.L. Sweepstakes with a pair of RCA-809's in his final amplifier! During 40 hours of 1938 contest, W3BES worked 502 stations. His total score was 84,001.25 — a real record.

The 808 has a sturdy, heavy-duty, thoriated-tungsten filament designed to operate at 7.5 volts and 4 amperes, or 30 watts. The ruggedness and generous electron-emitting capability of this filament can be appreciated by comparing it to the 32.5-watt filament used in the old-familiar 203-A and 211 tubes, which have twice the rated plate dissipation of the 808. The tantalum anode of the 808 not only gives the tube a high instantaneous overload capability, but assists in maintaining a high vacuum.

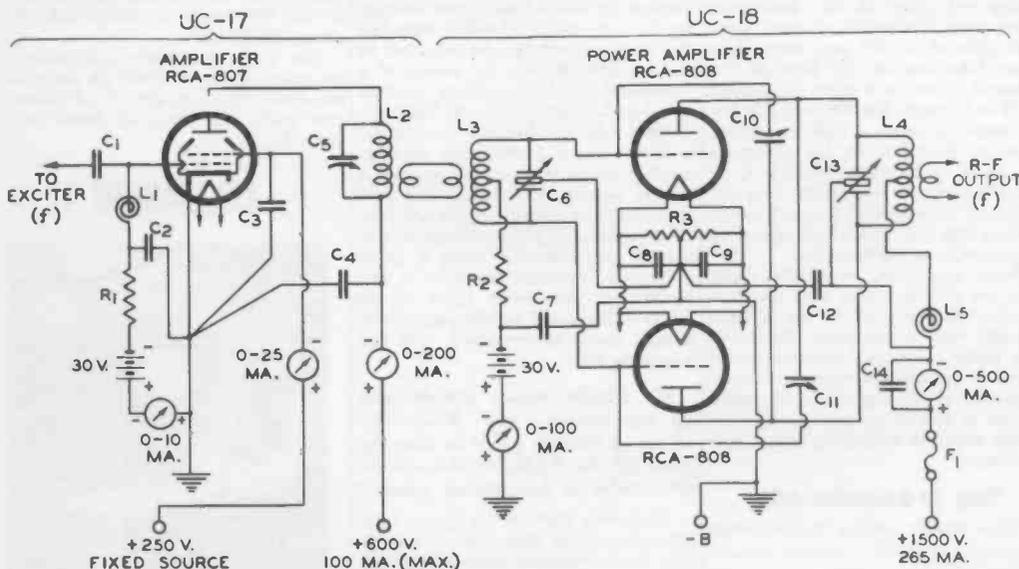
Grid and Plate Connections On Bulb

The manner in which the grid and plate leads of the 808 are brought out through the bulb to metal cap terminals helps to insure good insulation and low inter-electrode capacitances. This construction also simplifies the mechanical layout and wiring of a push-pull stage employing a tuned-grid circuit, with link coupling to the driver.

Due to its small, close-spaced electrodes, high perveance, and low grid-plate capacitance, the 808 is particularly suited for efficient operation on the higher frequency amateur bands—40, 20, 10, and 5 meters. It is rated for full input at frequencies up to 30 Mc., and for 75% of maximum input up to 60 Mc. At 10 meters, the 808 operates as stably and is practically as easy to drive as at 20 meters. Many amateurs use a single 807 in the output stage of their exciter units. It so happens that a single 807 operating at 60 watts input will furnish just the right amount of excitation for two 808's in push-pull, even when the latter are plate-modulated—at frequencies up to 30 Mc. Thus, the 807—push-pull 808 arrangement makes a very logical combination.

Push-pull 808's, CW Telegraphy Circuits UC-17 and UC-18 show such a transmitter, designed for break-in

(Continued on page 2, column 1)



CW TELEGRAPH TRANSMITTER

Power Output 300 Watts*

C₁ = 15 to 50 μ f mica
 C₂, C₃, C₄ = 0.005 μ f mica
 C₅ = 2 μ f/meter*
 C₆ = 2 μ f/meter/section*
 C₇, C₈, C₉, C₁₁ = 0.005 μ f mica
 C₁₀, C₁₂ = 2.8 μ f*
 C₁₃ = 0.002 μ f, 5000 v.

C₁₄ = 1.1 μ f/meter/section†
 R₁ = 7000 ohms, 1 watt
 R₂ = 2800 ohms, 25 watts
 R₃ = 50 ohms, c.t., wire-wound
 L₁, L₂, L₃ = R-f choke
 L₄, L₅ = Tune to frequency "†"
 L₆ = R-f choke, 300 ma.

F₁ = $\frac{1}{2}$ A. high-voltage fuse
 f = Operating frequency
 * Approximate.

† Capacitance in actual use.
 NOTE: Rotor shaft of C₁₂ is at the d-c plate potential; an insulated coupling shaft must be inserted between the rotor shaft and the control dial.

