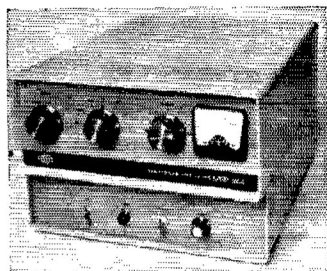


• Recent Equipment —

Gonset GSB-201 Linear Amplifier



THE GSB-201 is a linear amplifier that covers the 80- through 10-meter bands and is capable of inputs up to 1500 watts p.e.p. (approximately twice average d.c. input) on s.s.b., 1000 watts on c.w., and 400 watts on a.m. Drive requirements for the amplifier are 65 to 100 watts. Nominal input and output impedances are 50 ohms.

R.f. circuitry in the GSB-201 closely resembles that in the GSB-101 described previously in this column.¹ Four 811-A triodes are connected in a grounded-grid circuit, and a link-coupled neutralizing circuit insures stable operation. The output circuit consists of a pi network and, on the 75-80-meter bands, loading capacity is added to the circuit when the BANDSWITCH is advanced. A single knob controls band changing and doubles as a coarse loading control. A LOADING control is provided for fine loading adjustments. One other knob associated with the r.f. section is a TUNING control to resonate the amplifier tank circuit.

The GSB-201 has its own built-in power supply which includes a high-voltage plate supply, a bias supply, and a d.c. supply for antenna-relay

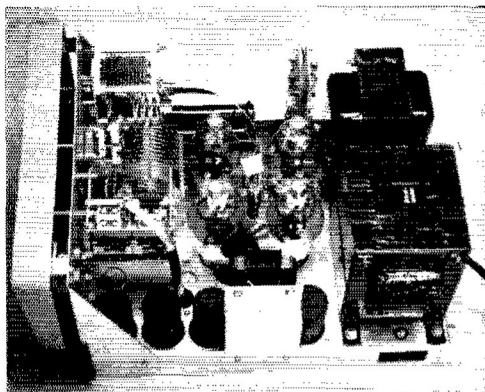
power. All of the circuits use silicon rectifiers and, in the case of the high-voltage supply, the circuit consists of sixteen 600-p.i.v., 500-ma. diodes connected in a full-wave bridge. A swinging choke and 20 μ f. of capacity make up the filter section.

Operating bias of about negative 4 volts is developed by rectifying voltage from the a.c. filament supply. The ground return for the bias circuit terminates at a terminal strip on the chassis rear. These terminals are normally jumpered but they can be used for applying additional bias to cut off the 811-As during stand-by.

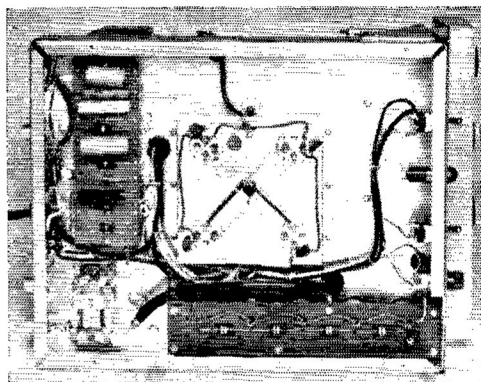
Another power supply using a silicon rectifier applies rectified line voltage to the antenna relay. D.c. operation insures "chatterless" relay operation. The relay has contacts for grounding the receiver during transmit, as well as transferring the antenna to either the amplifier or receiver. Controlled line voltage for the relay must be fed via terminals at the chassis rear.

Other rear-apron connections include the r.f. input and output connectors (SO-239 type), receiver antenna (SO-239), line cord and bias terminal strip.

The GSB-201 is housed in a perforated light gray cabinet with black trimmings. All of the amplifier tuning controls and an indicating meter are mounted on a panel which projects out of the



With the GSB-201 cabinet removed, most of the major power-supply and amplifier components are visible. The large plate transformer and power-supply filter choke dominate the rear of the chassis; the filter capacitors run along the bottom side of the photograph. Silicon rectifiers, used in the high-voltage, full-wave bridge circuit, are mounted on the board that projects up from the chassis just to the left of the filter choke. The cooling fan for the four 811-A tubes is attached to a bracket which projects up and over several of the filter capacitors at the bottom of the photograph.



This bottom view of the GSB-201 shows the symmetrical layout of the four 811-A sockets. The component board at the upper left supports some of the bias and relay power-supply components. High-voltage power-supply bleeder resistors are mounted on the board at the bottom right of the photograph. The antenna change-over relay is visible at the lower left.

cabinet box. Below this, on another panel, are power, control, and meter switches. A red panel lamp lights when the power is turned on. The OPERATE/TUNE toggle switch connects a 100-watt resistor in series with the high-voltage supply when in the TUNE position.

The rotary meter switch selects either amplifier plate current (1000 ma. full scale) or relative r.f.-output meter indications. A semi-conductor diode samples r.f. from the amplifier through a small capacitor connected to the tank circuit. A potentiometer, which is part of the meter switch, controls the sensitivity of the meter when it is operating as an output indicator. — E. L. C.

Conset GSB-201 Linear Amplifier

Height: 8½ inches.

Width: 12½ inches.

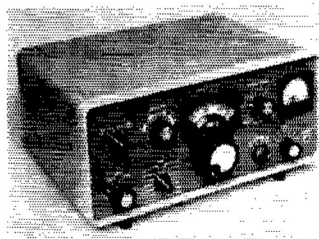
Depth: 17½ inches.

Weight: About 75 pounds.

Power requirements: 117 volts, 60 cycles, 2000 watts peak.

Price class: \$100.

Manufacturer: Conset Division, Young Spring & Wire Corp., Burbank, California.



Collins 75S-3 Receiver

You don't have to be an old-timer to remember when communication receivers were heavy, cumbersome devils that brought on a lot of "teeth-clenching" when they were moved from one place to another. That's why it's such a pleasant surprise to note that the new 75S-3 receiver weighs only 20 pounds!

The unit is the latest of a series of S-line receivers from the Collins Company and, since none of the line has been covered before in this column, a complete run down on the specifications will be given.

A few of the obvious differences from previous S-line models are the separate tunable b.f.o., the addition of a *Q* multiplier, and a superselective crystal filter. The receiver is capable of tuning any frequency in the range of 3.4 to 30.0 Mc., in

200-kc. increments. Although this range can't be covered without changing some crystals, the receiver can tune the 80-, 40-, 20-, and 15-meter bands, the 28.5- to 28.7-Mc. portion of the 10-meter band, and the 15-Mc. WWV frequency on a single set of crystals which is furnished.

The block diagram of the 75S-3 is shown in Fig. 1. A 6DC6 r.f. amplifier is followed by the triode section of a 6U8A, operating as a first mixer. Injection is supplied by the pentode section of the 6U8A in a crystal-controlled oscillator circuit. The r.f. amplifier grid, the first-mixer grid and the crystal-oscillator plate are all tuned by variable slug inductances which are mechanically ganged and linked to a panel PRESELECTOR tuning knob. The required tuning range for each circuit is obtained by switching in the proper

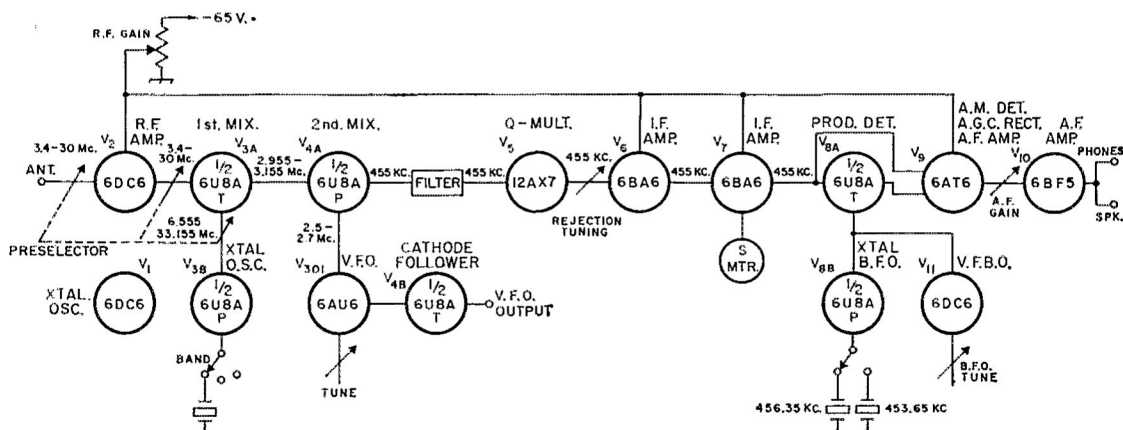


Fig. 1—Block diagram of the 75S-3.