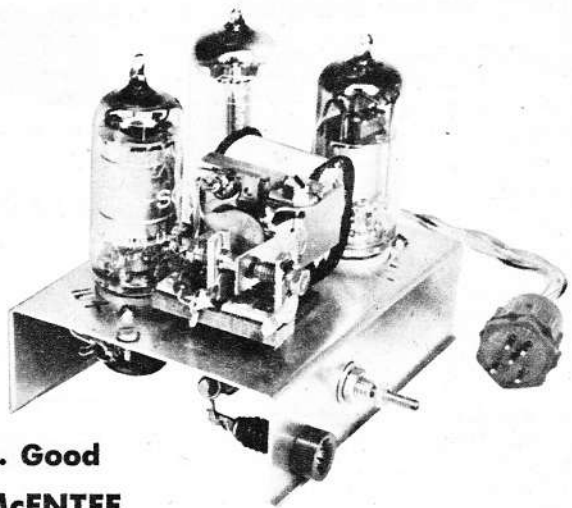


Non-Selective Audio Tone 3-Tube 27 mc. R/C Receiver



Designed by Dr. W. A. Good
Described by H. G. McENTEE

■ This set differs from those so widely in use today in that it will not respond to a plain RF carrier—the signal must be modulated at an audio frequency. Thus the receiver is not so apt to pick up the wrong transmitter, quite an advantage considering how crowded the 27¼ mc. spot is today. While a wide range of audio tones will work the set, it does work best at the frequency to which the transmitter to be described next month is set. Normally, the RF signal is left on at all times, and the modulation is keyed to give the control pulses.

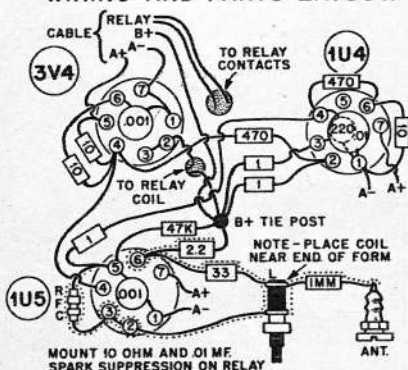
Receiver idles at about 3 ma., and this current may be seen to increase slightly when the R.F. signal is turned on; when the A.F. signal is received, the plate current of the third tube drops to zero. This wide range of current change allows very positive relay action. It is normally not necessary to suspend the receiver by

rubber bands—mounting on sponge rubber is usually quite satisfactory.

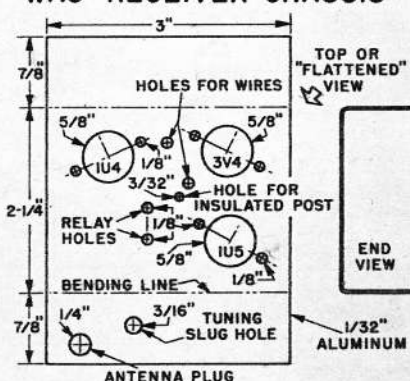
A.F. tone operation has another advantage, in that control is possible over great distances with very low power; it is unnecessary to go anywhere near the maximum 5 W. input F.C.C. allows.

While no great pains were taken to produce the smallest possible receiver, it has been made as compact as practical, while still employing the low cost and widely available miniature 7-pin tubes. This receiver has only one control—that for tuning. It requires no sensitivity adjustment and is much more tolerant of wide changes in battery voltages and antenna loading than such receivers as the single gas and hard tube types. Thus, although this one will take more power from both A and B batteries, it can be considered much more trouble-free and less fussy than the single tubers.

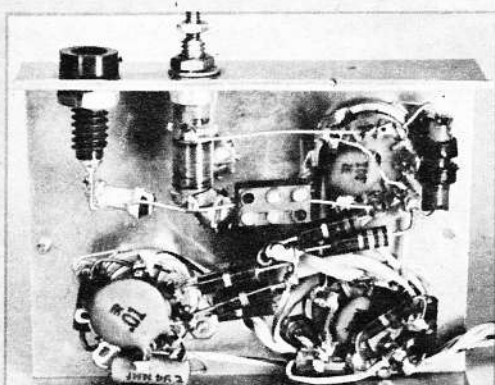
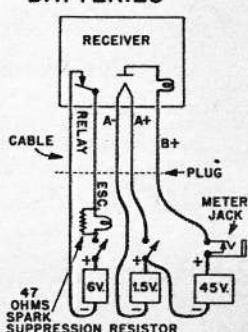
BOTTOM VIEW OF RECEIVER WIRING AND PARTS LAYOUT.



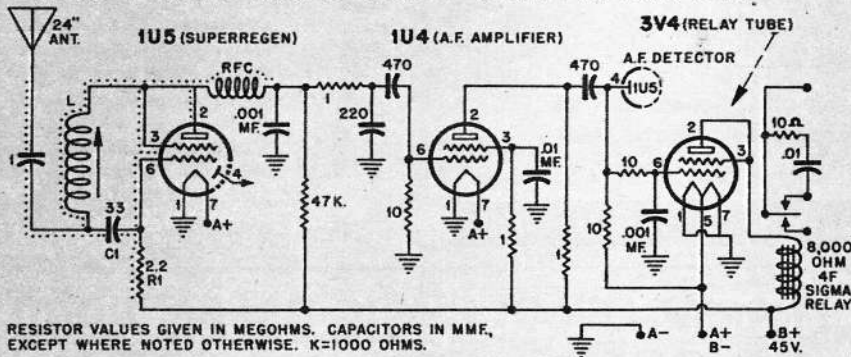
"WAG" RECEIVER CHASSIS



"WAG" WIRING FOR RECEIVER AND BATTERIES



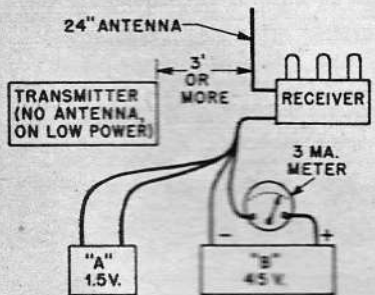
"WAG" 27.255 MC. 3 TUBE TONE RECEIVER



RESISTOR VALUES GIVEN IN MEGOHMS. CAPACITORS IN MMF, EXCEPT WHERE NOTED OTHERWISE. K=1000 OHMS.

L-36 TURNS OF NO. 32 ENAMEL WIRE CLOSE WOUND ON 1/4" DIA.

FORM - CTC TYPE LSM WITH RED DOT IRON SLUG. WIND COIL CLOSE TO OPEN END OF FORM.



TRANSMITTER AND RECEIVER SET-UP FOR METER TEST

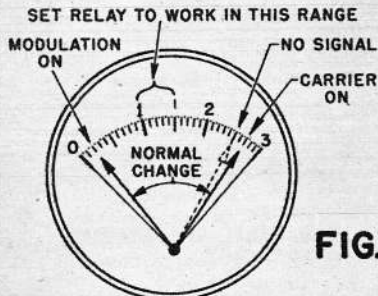


FIG. 1

RECEIVER METER OPERATION WITH A 3 MA. METER IN THE B+ LEAD AND WITH THE TRANSMITTER SIGNAL AS INDICATED.