

## UNIVERSAL RECTIFIER SOCKET

HAVE you ever blown a rectifier tube and then found that you didn't have an exact replacement? If the power supply has an octal socket for the rectifier, connect it as shown in Fig. 2. Now

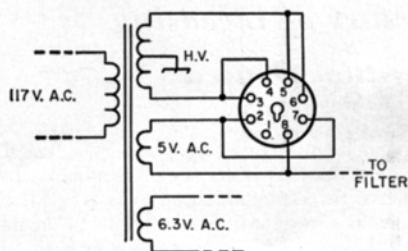


Fig. 2—Universal rectifier socket.

any of the following tubes can be used without any further changes: 5R4, 5T4, 5W4, 5Y3, 5Y4 and 5Z4. Of course, the voltage or current rating of the tube used should not be exceeded.

— F. A. Saxon, W4AAV

## FOUR-WAY POWER SUPPLY

BY a simple wiring change and the addition of a few components, the "Two-Way Power Supply," *QST*, December 1961, page 37, can be made to have four different voltage outputs. The diagram in Fig. 3 shows the circuit for obtaining two additional outputs from the supply. Output at point A will have a value equal to the peak voltage and at B, 0.9 of the r.m.s. value of the secondary voltage of the transformer. The rectifier,  $CR_1$ , and the two electrolytic capacitors,  $C_1$  and  $C_2$ , should have sufficient voltage ratings. The choke,  $L_1$ , has an inductance of 10 henrys or

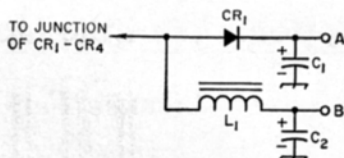


Fig. 3—Circuit for obtaining two additional outputs from the "Two-Way Power Supply." See the text for information on the component values.

so. One other change is necessary to get the fourth voltage output. Connect point 2 of the switch,  $S_1$  (in the original *QST* article) to ground and bring out point 1 of the switch for the fourth voltage. Of course, an extra filter system is required at this output.

— Wolfgang Kruger

## IMPROVING THE PERFORMANCE OF A 75S-3 RECEIVER

WHEN substituting a completely new set of tubes for the original ones in my 75S-3 failed to restore the receiver to full sensitivity, I replaced the S meter with a 0-50 microammeter I had in the junk box and found that the sensitivity was greatly improved. The S meter is now pinned almost all of the time, even by the noise. No other changes were required.

Finding that the receiver was a little too close to the table for convenient operation and viewing of the dial and S meter, I raised the front by placing two beer-bottle caps under the legs. The decreased slope of the front panel is much nicer than before and the height of the receiver now matches my DX-60 transmitter. One must be careful, of course, to place the caps with the smooth sides against the table surface, as was pointed out to me by the XYL. (Hi!)

— Larsen E. Rapp, W10U

## MOBILE POWER SUPPLY FOR THE KWM-2

THE Collins KWM-2 and PM-2 a.c. power supply can be combined with a Heathkit MP-10 power converter (converts 6- or 12-volt battery power to 117 volts a.c.) for operating the KWM-2 portable or mobile. The MP-10 is an inexpensive unit when compared to the d.c. supply normally used with the KWM-2 and I have operated the above combination for many hours at full ratings even in hot summer weather. The most attractive feature is that absolutely no changes need be made in the KWM-2. All that's necessary is to add a 5-prong socket on the back of the PM-2 power supply. A hole is already provided for the

socket. The 5-prong socket is wired to the PM-2 as shown in Fig. 4. The black wire, shown connected to Pin 4 of the socket,  $J_1$ , originally was connected to terminals 8 and 9 of the PM-2. Now wire up two 5-prong plugs,  $P_1$  and  $P_2$ , as shown in Fig. 4.

For operating at home on 117 volts a.c., insert plug No. 2 and plug in the PM-2 in the 117-volt wall socket. For mobile or battery operation, insert plug No. 1, plug the PM-2 into the MP-10, connect 12 volts d.c. to Pins 1 and 5 of plug No. 1. That's all there is to it!

—Glen H. Byars, W0BNF

Fig. 4—Changes necessary to the PM-2 supply for d.c. operation of the KWM-2.

