

# MRL CRYSTAL SET AMPLIFIER

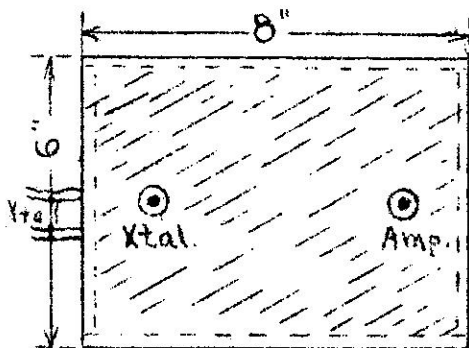
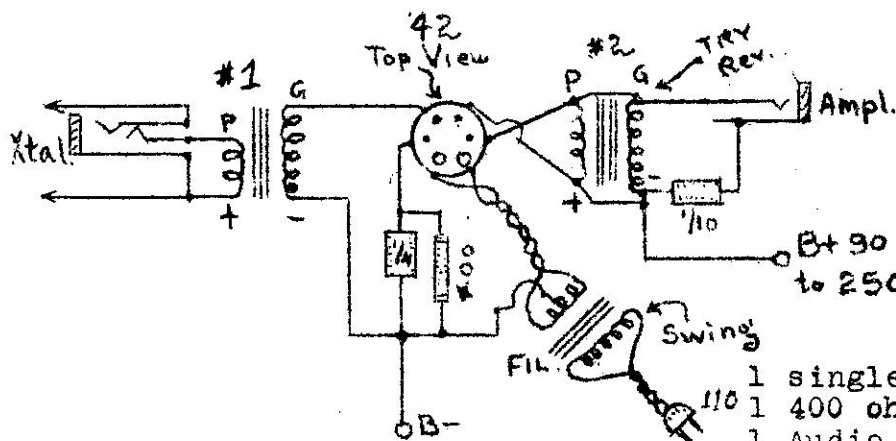
DP-37

**OUTPUT**  
3  
**WATTS**

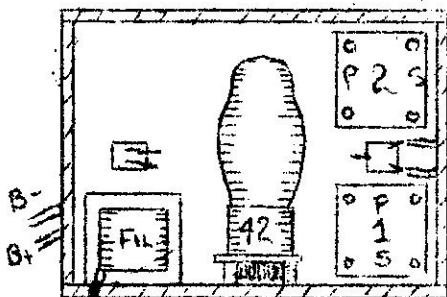
WITH GOOD  
tone

## LIST OF PARTS

- 1 Compq. panel 1/8" x 6" x 8" long.
- 1 Box 6" x 8" x 3" deep- 1/4" plywood stock.
- 1 1/4 mfd. -400 v. cond.
- 1 single jack
- 1 double jack
- 1 400 ohm - 1 watt resistor
- 1 Audio transformer (5-1) #1
- 1 Audio transformer any ratio #2
- 1 1/10 mfd. -600 volt condenser
- 1 6-prong socket
- 1 110 v. cord & plug
- 1 6.3 v. fil. transformer - 3 amps.
- 10 ft. government hook-up wire (MRL)
- 1 42 tube
- 1 phone plug
- Hardware, etc.



PANEL VIEW: 1/4"-1"



REAR VIEW

Panel & rear view layouts are shown pretty well. Mount the 2 trans. as shown - using the hi-ratio as #1. (3-1 may be used Ok). Mount the FIL. trans. last. Mount the socket as shown, so tube stands erect. If using Wafer socket, raise it by 3/4" bushings. Mount jacks as shown, with double one 1st. Now, hook fil. leads to trans. and set it in box. Turn ampl. on, and plug into last jack. Rotate fil. trans. till you get the least hum, and anchor it down. Shorten fil. leads and twist them before hooking to socket. You may run fil. leads also to 2 BP so you can use them later in experiments. You can use 4 dry cells in series instead of FIL. trans. if you wish. But trans. is most economical. Use 2 or more "B" batteries in series for the

power supply. Or you can use a "B"-eliminator. The more power the louder the signal. Cutting the "B" down to 45 volts or lower, makes the 42 act as a detector - which is not wanted. You may get a little hum on the phones, but not on a magnetic speaker. By substituting the #2 trans. with a standard Output trans. you may use a Dynamic speaker instead. Try reversing the sec. of last trans. (#2) and better results may be obtained. Sometimes, it's better to just use the primary (P-plus) of #2.

This amplifier produces lots of volume. A 201-A, which is most used for Xtal amplifiers has an amplification factor of 8 - against 220 for a 42 tube. A 2A5 may be used instead of the 42 by using 2 1/2 volts on fil. Same properties as 42 (3 watts). A 33 may be used with 2 volts on fil. with 5 prong socket instead of 6, but amplification is only 1/2 that of a 42. This amplifier may be built up as a permanent unit, for later experiments, etc. - will amplify any tube set, or crystal set. No changes must be made with crystal set - just hook leads from 1st jack to the PHONE Binding Posts of Xtal set. Stain or paint the box. A back may be used if holes provided for ventilation. --Plug into 1st jack, then into 2nd to get the difference in amplification. Due to using crystal det. the tone is fine. It has operated an 8 ft. horn speaker in the lab.

When writing for prices, etc. - send stamped envelope. Also sell