

Fig. 11—Pre-Amplifier

This simple resistance coupled pre-amplifier is designed for use with crystal microphones. It may be used with other types of microphones by incorporating the proper type of input transformer. The T-1 output transformer shown has secondary impedances of 200 or 500 ohms.

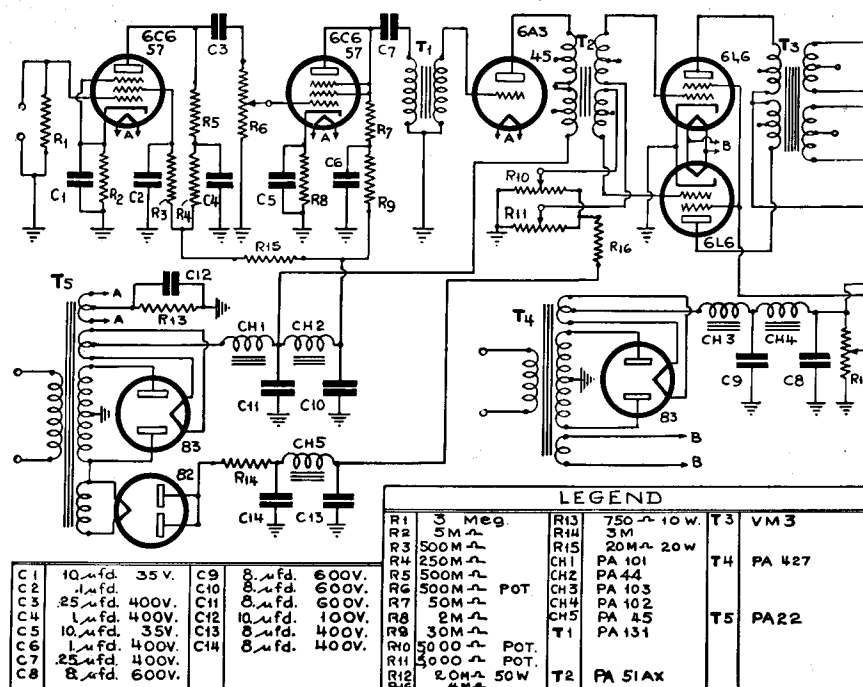


Fig. 12—40-60 Watt Modulator Unit

The simplicity and low cost of this modulator is made possible through the use of the 6L6 beam power tube which has a high power sensitivity and very high power output. The 6A3 or 2A3 driver tube is preferable, as a driving tube having low plate resistance is very important. This amplifier will operate directly from a crystal microphone and is capable of modulating 100% the 120 watts AC input to a class C RF stage. If less power than 60 watts is required, the 6L6's can be operated self bias which eliminates the bias rectifier and also permits the use of a 6C6 triode or similar tube as the driver. Under this operating condition, 40 watts of audio is available. The self bias operating condition is most usual because of the simplicity, reduced cost and stability of operation.

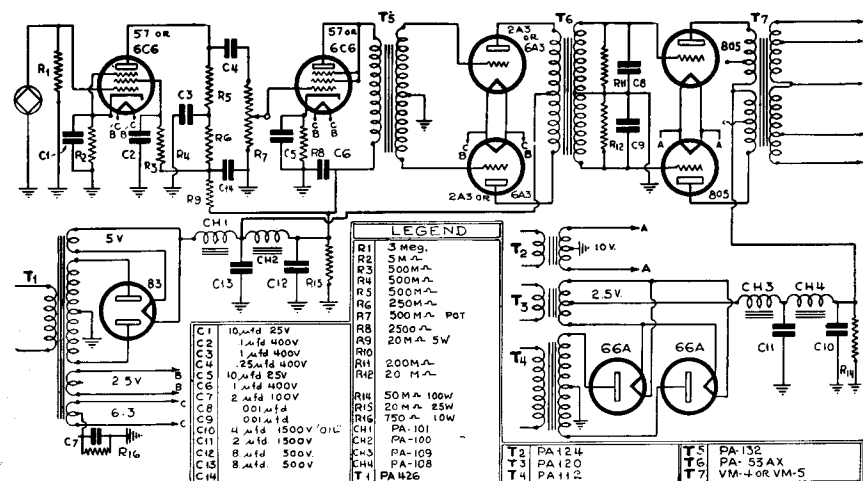


Fig. 13—300 Watt Modulator

This audio amplifier will modulate 100% the 600 watt DC input to a class C RF stage. The four stages of amplification provide sufficient gain for use with high level crystal microphones. The 2A3's are operated self bias as they have sufficient driving power in this method of operation to fully excite the zero bias 805 tubes. Due to elimination of fixed bias on both driver and output stage, this modulator becomes quite simple and inexpensive. The condensers and resistors shown in the grid circuit of the 805's are intended to nullify any tendency for grid oscillation.