

R_p ELECTRONICS

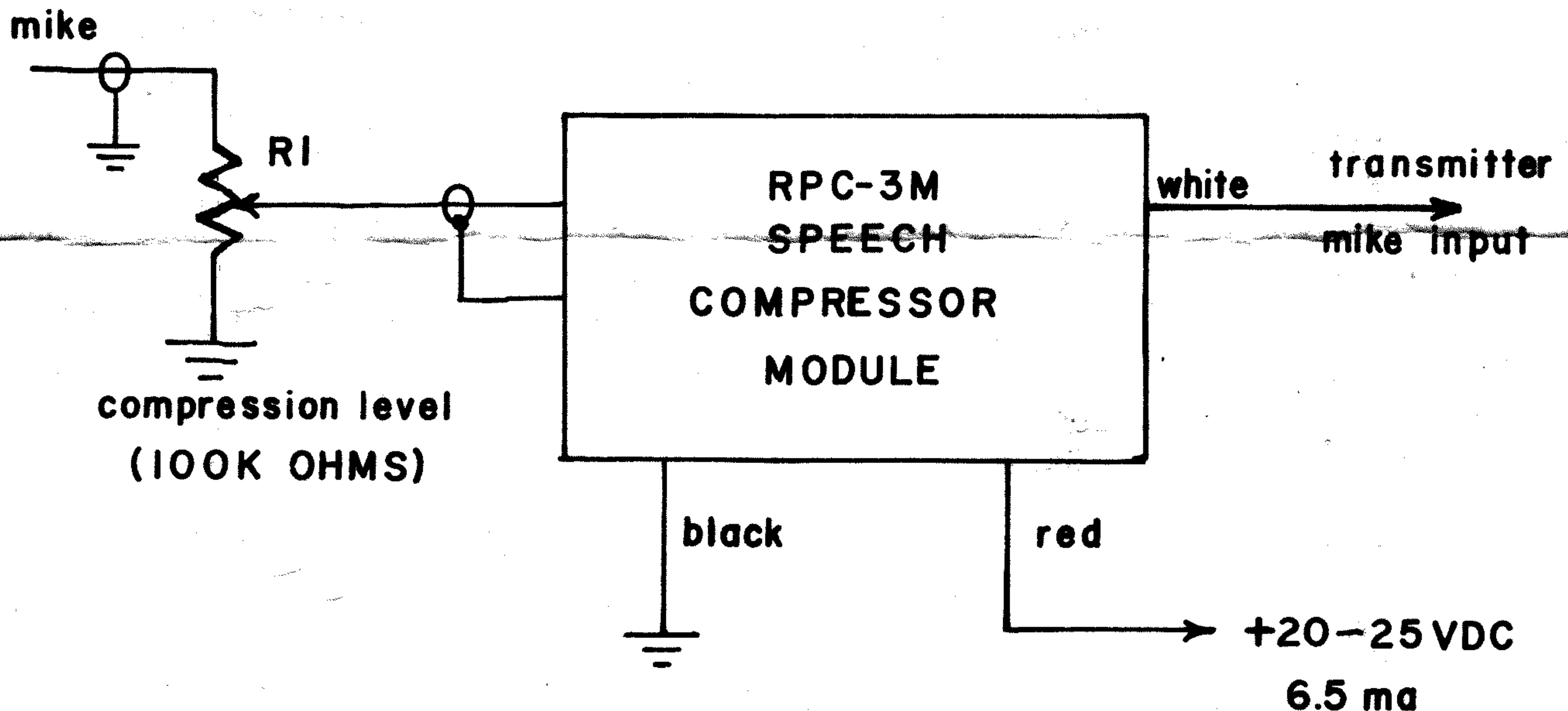
BOX 1201 CHAMPAIGN, ILL.
61820

INSTALLATION INSTRUCTIONS: RPC-3M SPEECH COMPRESSOR MODULE

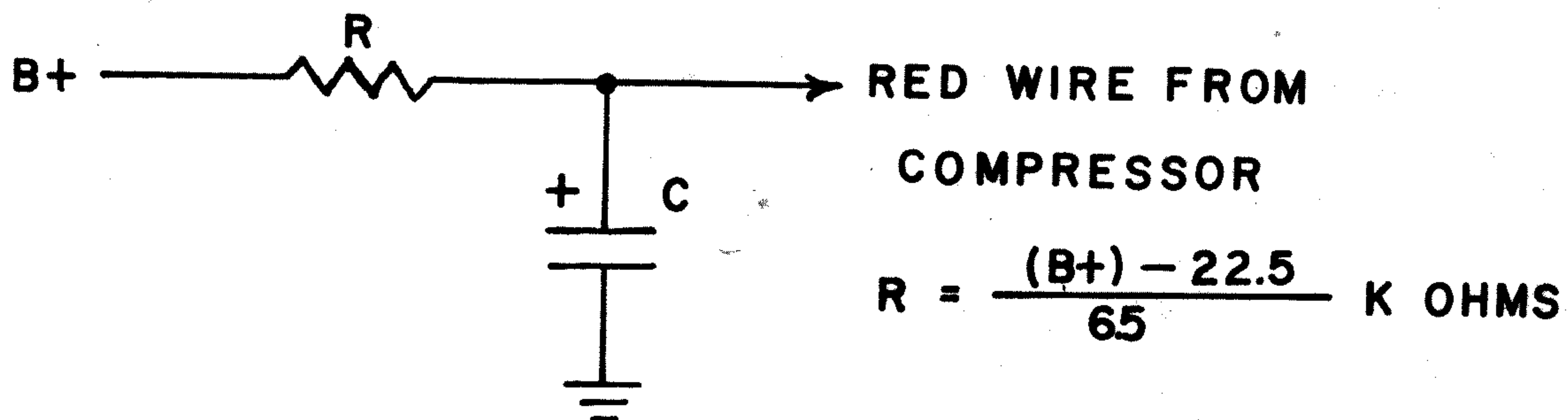
The RPC-3M has four 18 inch long leads attached and coded as follows:

1. Red wire--the positive supply lead, which requires +20 to 25 volts dc, at approximately 6.5 ma. The power supply ripple should not exceed a few millivolts peak to peak.
2. Black wire--the ground wire.
3. White wire--the output lead.
4. Shielded audio cable---the input lead.

The compressor module should be connected as shown below:

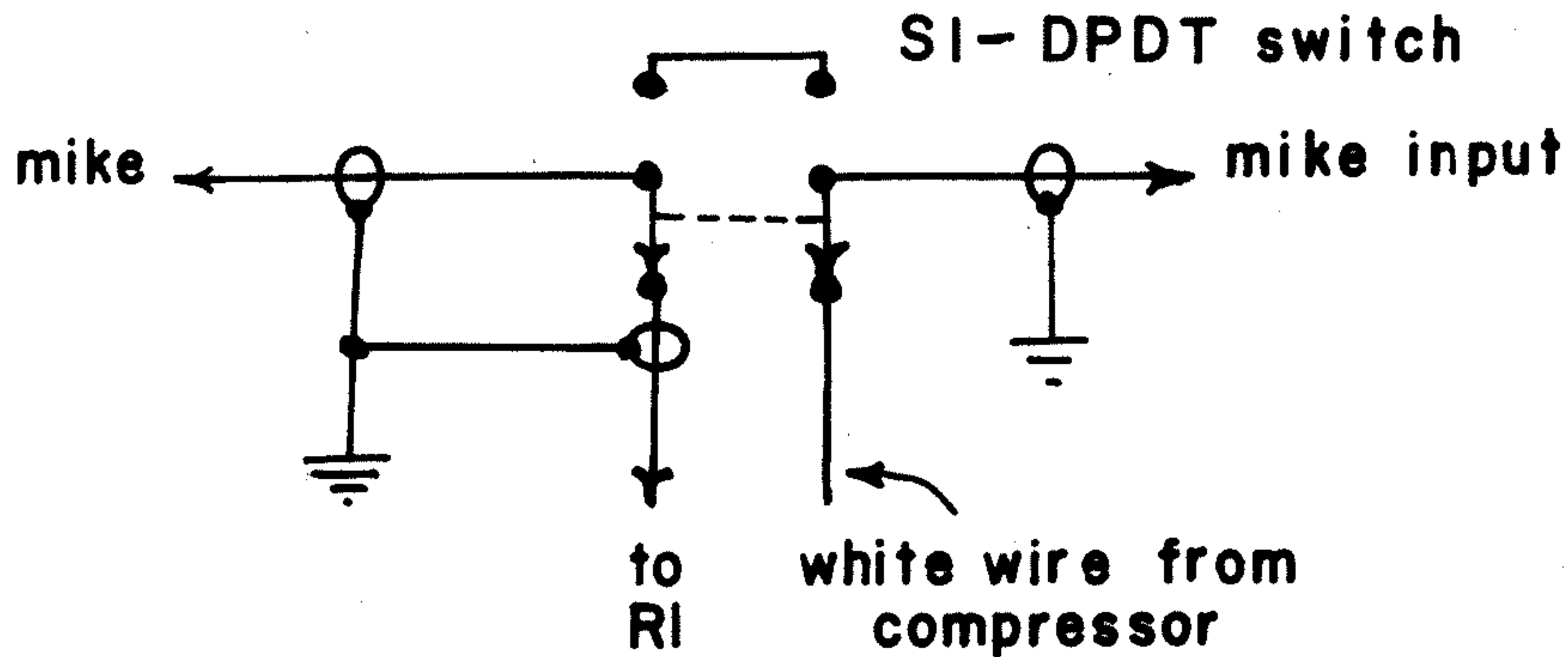


The +20 to 25 volts dc may be obtained by battery, or may conveniently be obtained from the transmitter through a resistor and capacitor (supplied) using the circuit below. The resistor supplied is useful for most transmitters and transceivers and can be used with power supply voltages in the range from +240 to +310 volts. For supply voltages outside this range, use the formula below to compute R. Be sure to use a resistor of adequate wattage rating. 5 watts is adequate up to 300 volts or so.



Be sure to check the actual value of the voltage on the RED wire during operation to be sure that it is in the range between 20 and 25 volts, and that this voltage does not vary with modulation.

A switch may be desired to switch the compressor in and out of the circuit. This switch should be wired as shown below:



R1 is the compression level control. A 50% setting of this control will suffice for most mikes, and will give approximately 20 db of compression. If your mike is unusually high or low in output, it may be necessary to increase or decrease the setting of this control.

Remember that compression (or any type of speech processing for that matter) tends to bring up the level of background noise, hum, etc., by increasing the "mike pickup". The more compression used, the more the pickup. Thus it is not desirable to use more than about 20 db of compression, except under special circumstances, and then only in very quiet locations.

The RPC-3M may be mounted inside the transmitter, in a spot where it does not get excessively hot, and not too close to any strong ac fields which might induce hum. The circuit contains a sensitive audio amplifier, so treat it like you would the first stage of any microphone amplifier.

