

the RF amplifier grid circuit provide a voltage drop of approximately 50 volts when the transmitter is keyed. Rectified grid current flowing through the resistors causes the voltage drop. This voltage is the operating bias required for class C operation of the amplifier. No protective bias is required as keying is accomplished simultaneously in the cathode circuits of both tubes. When the key is open, no current flows in either tube.

.01 mfd capacitor bypasses RF in the amplifier cathode circuit to ground. C-7 and C-16, the .005 mfd capacitors, protect the meter from the RF in amplifier plate and grid circuits. C-13, the .0015 capacitor couples the RF generated in the amplifier to the pi-network output circuit, C-12, L-6, C-14 and C-15. C-12, the 250 mfd variable capacitor, tunes whatever portion of L-6 that is being used to resonance. C-14, the 700 mmfd variable capacitor and C-15, the 700 mmfd fixed capacitor, make up the output or loading capacitance.

The auxiliary socket, J-4, provides filament and B-plus voltages for external equipment such as a VFO. Pin 5 on J-4 is connected to the keying circuit to permit simultaneous keying of the transmitter and VFO. Plate modulation for phone operation can be employed by connecting an external modulator to pins 6 and 7 of P-1, the auxiliary plug. Of course, the jumper on the plug must then be removed.

The power supply is a conventional full wave rectifier with dual filtering and a smoothing choke. The primary section of T-1, the power transformer, contains the power switch, S-1, the line fuse, F-1, and the RF filter network L-8, L-9, C-17 and C-18 which prevent feedback of RF into the power line.

The Knight-Kit 50-watt CW transmitter is listed in the kit section of the Allied Radio Catalog.