RV-6 REMOTE VFO INSTRUCTIONS

NOTE: If the old RV-3 is used with the TR-6, it must be modified as follows: Install a 22K, 2 watt resistor from Pin 1 of OA2 to the terminal of the FUNCTION switch to which the orange wire is attached. The RV-4 can be used with the TR-6 without modifications. Use the 20 m dial for logging.

The RV-6 is designed for use with the TR-6 (or TR-4) transceiver to permit reception, transmission, or both transmission and reception on a frequency removed from the VFO setting of the transceiver, but in the same range to which the transceiver is tuned. The RV-6 consists of a highly stable permeability tuned VFO, employing an FET in its solid state design, a cathode follower, and associated control circuitry.

The unit is housed in an attractive cabinet which matches the transceiver and contains a 5-inch 4 ohm speaker. Our model AC-4 (or AC-3) power supply can also be housed in this cabinet. (See AC-4 instructions.) The dimensions are as follows: 5-3/8 inches high, 10-3/4 inches wide and 11-1/8 inches deep. Weight: 6-1/2 pounds.

INSTALLATION:

To install the RV-6 with the TR-6, plug the RV-6 into the RV-6 jack J-2 on the bottom of the TR-6 chassis.

NOTE: It is necessary to bond RV-6 chassis to the transceiver chassis and to a good ground with a short piece of braid.

OPERATION:

The RV-6 has two controls: The main tuning and the RV-6 FUNCTION switch. The main tuning control determines the frequency of the VFO and is calibrated in exactly the same way as the transceiver VFO. The RV-6 FUNCTION control has four positions: OFF, RCV, RCV/XMIT, and XMIT.

In the OFF position, the unit draws B+ and filament current but does not provide any output. The transceiver will transceive normally.

In the RCV position, the RV-6 determines the receiving frequency and the transceiver VFO determines the transmitting frequency.

In the RCV/XMIT position, both transmit and receive frequencies are determined by the RV-6.

In the XMIT position, the RV-6 determines the transmitting frequency and transceiver VFO determines the receiving frequency.

The PTO indicator lamp is located directly above the main tuning knob. This lamp lights whenever the RV-6 is being used to control the frequency.

SERVICE DATA

> We will check and factory align your RV-6 for a nominal fee of $5.00, plus transportation charges if the set has not been tampered with. If repairs are necessary, we will advise you of the cost before proceeding with the work. Units that have been tampered with or misaligned will be repaired on a time and material basis.

A. REMOVAL FROM CABINET:

1. If the AC-4 (or AC-3) power supply is installed in the RV-6 cabinet, it will first be necessary to remove it by removing the four screws, holding it to the bottom of the RV-6 cabinet and sliding it out the rear.

2. Then loosen the six screws holding the RV-6 in the cabinet and slide it out the rear.

B. TUBE REPLACEMENT:

In general, most trouble encountered in radio equipment of good design is due to tube failure. The RV-6 has been designed so that tube replacement can be done without need for realignment. The best method of finding defective tubes in direct substitution. It is best not to rely too heavily on tube checkers.

C. TROUBLESHOOTING:

Careful consideration has been given in the design of the RV-6 to keep maintenance problems to a minimum. However, it is quite possible that some problem will arise which cannot be cured by tube substitution. If this occurs, we suggest that you either return your unit to your dealer or write direct to our service department describing your problem in detail. Include full information concerning external connections, control settings, tubes substituted, etc. Do not return equipment to the factory without prior authorization.

The voltage and resistance charts and the schematic diagram should be valuable in isolating minor problems. However, no attempt should be made to service the RV-6 un[illegible] thoroughly familiar with electronic circuitry and servicing techniqu[illegible]

D. ALIGNMENT:

The RV-6 is very carefully aligned at our factory and should require no further adjustment. If a tracking error in the VFO is noted, the unit should be returned to our factory.

However, if the unit has the same calibration error from one end of the dial to the other, and if the error cannot be corrected by the movable index line, the dial scale can be slipped slightly on its shaft until the discrepancy is eliminated.

The only adjustment in the RV-6 which should require any readjustment is coil L-2. This coil is mounted inside the small aluminum can on the RV-6 chassis. To adjust proceed as follows:

1. Switch the RV-6 function switch to RCV and tune its VFO to the 50.0 MHz crystal calibrator signal (Transceiver function switch should be on CAL and range switch on 50.0.)

2. Tune L-2 for maximum S meter reading. This completes the adjustment. Note that coil L-3 has a value determined by the length of the cable connecting the RV-6 to the transceiver. Do not change the cable length or misalignment will result.

VOLTAGE CHART

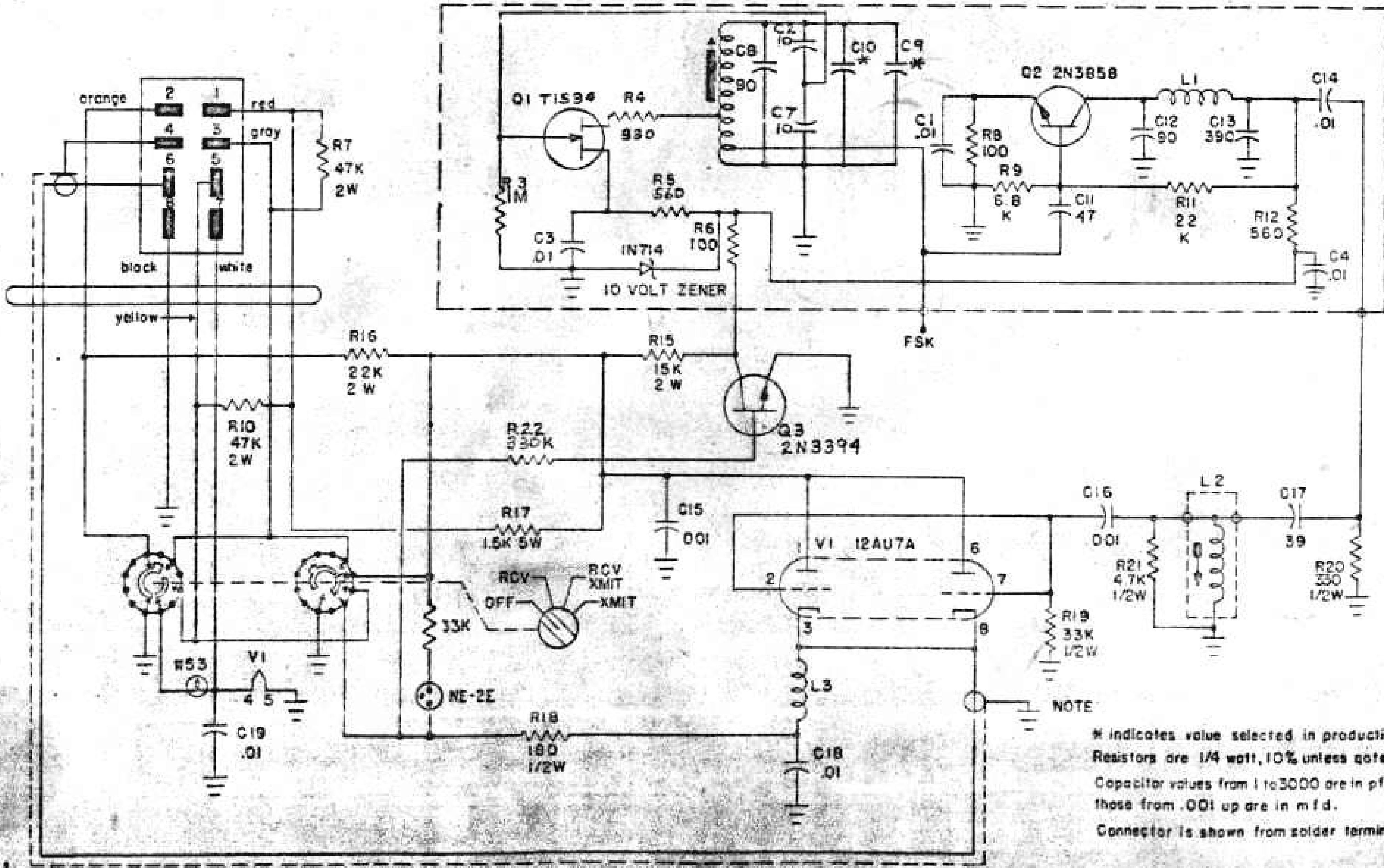
Pin	1	2	3	4	5	6	7	8	9
V-1	170	0	42	12.6*	0	170	0	4.2	6.3*

NOTE: These measurements were made from ground with an 11 megohm VTVM. The RV-6 was connected to the transceiver which was in the receive condition. The RV-6 FUNCTION switch was on the RCV/XMIT position. An * indicates AC voltage.

RESISTANCE CHART

Pin	1	2	3	4	5	6	7	8	9
V-1	8K	33K	180	0	0	8K	33K	180	0

NOTE: These measurements were made from ground with the RV-4 connected to the transceiver but with the transceiver disconnected from the power supply. The RV-4 function switch was in the RCV/XMIT position.



* indicates value selected in production.

Resistors are 1/4 watt, 10% unless noted.

Capacitor values from 1 to 3000 are in pf and those from .001 up are in m f d.

Connector is shown from solder terminal end.

SCHEMATIC DIAGRAM MODEL RV-6 REMOTE VFO