

b. Complete the tune-up procedure (on the 40 meter band) as outlined in paragraph 2-38, steps a. through s. inclusive.

c. Place TRANSMIT switch to the OFF position.

d. Insert key plug into the KEY jack.

e. Place EXCITER switch to VFO TUNE position.

f. Close key contacts.

g. Tune in your signal on a nearby receiver.

h. Open the key contacts and advance receiver gain control so the VFO signal may be heard.

i. Rotate the KEY ADJUST potentiometer very slowly in a clockwise direction until the VFO signal is just cut-off. Then rotate the control an additional 1/8 turn in a clockwise direction to assure complete VFO cut-off.

2-42. The tune-up procedure and keyer control adjustment is now completed. The transmitter may now be placed in CW operation by plugging in a key, in AM phone operation by procedure as described in SECTION III, or SSB operation by referring to SECTION IV.

CAUTION

DO NOT operate Telegraphy (CW) with plate switch of the modulator in ON position, or FUNCTION switch in phone position. Modulator plate switch should be OFF, and the FUNCTION switch should be in the CW position.

2-43. VFO ALIGNMENT.

2-44. In the event it should be necessary, for any reason, to re-align the VFO; the following procedure should be followed to assure correct alignment.

2-45. PRELIMINARY.

a. Disconnect all cables from the rear apron of the power supply section and remove this section of the transmitter from the cabinet.

b. Place all power and control switches in the OFF position.

c. Insert the AC line cord plug into a 110-115 volt, 60 cycle, single phase current source.

d. Place the power supply section EXCITER switch to the VFO OPERATE position.

e. Place the power supply FILAMENT switch to the ON position and allow a ten minute warm up period.

f. Elevate the power supply section chassis to provide convenient access to the VFO

slugs and trimmers located on the bottom side of the chassis. It is very important that the power supply section and the VFO remain in their normal operating position or else the compensating capacitors will not function properly and calibration may be off as much as 5 to 10 KC.

2-46. See Figure 1 for identification and location of the alignment slugs and trimmers.

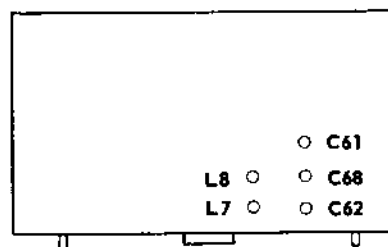


FIG. 1. BOTTOM VIEW OF POWER SUPPLY SECTION

2-47. ALIGNMENT PROCEDURE.

a. Place the EXCITER switch to the VFO TUNE position.

b. Place the VFO BAND SW. to the 160/80 M. position.

c. Tune your receiver (using a 100 KC crystal calibrator) to 1800 KC.

d. Tune the VFO dial to 1800 KC.

e. Adjust the slug in coil L8 for zero beat with the receiver.

f. Tune the VFO and receiver to 2.0 Mc.

g. Adjust trimmer condenser C68 for zero beat with the receiver.

h. Repeat steps c, d, e, f and g as many times as necessary until the 1800 KC and 2.0 Mc points on the VFO dial correspond with these same points on the receiver.

i. Place the VFO BAND SW. to the 40/10 M. position.

j. Tune the VFO and the receiver to 7.0 Mc.

k. Adjust the slug in coil L7 for zero beat with the receiver.

l. Tune the VFO and receiver to 7.4 Mc.

m. Adjust trimmer condenser C62 for zero beat with the receiver.

n. Repeat steps j, k, l and m as many times as necessary to make the VFO track with the receiver.

o. Place the VFO BAND SW. to the 20/15/11 M. position.

p. Tune the receiver to 7.1 Mc and the VFO to 14.2 Mc.

q. Adjust trimmer condenser C61 for zero beat with the receiver.

2-48. The VFO alignment is now completed. The VFO output coils should now be peaked for maximum drive to the crystal stage of the transmitter. Proceed as follows: