INTRODUCTION

The Swan Model VHF-150 Amplifier is designed for use on the 2 meter amateur band in either CW/FM or SSB modes of operation. The frequency range of the amplifier is 143 to 149 MHz. The amplifier may be operated fixed or portable, and with the addition of the Swan model 14C DC converter, may be operated mobile. The amplifier is biased Class C for CW/FM operation, and Class AB2 for SSB operation. With a drive input of 6 to 10 watts, power input to the final exceeds 240 watts P.E.P. in SSB, and 150 watts DC in CW/FM. AC input to the power supply is 117 volts, 50-60 Hertz. A 230 VAC 50-60 Hertz model is available on special order. Provision has been made for Transmit-Receive relay control operation with a transceiver.

INSTALLATION

GENERAL

Although the VHF-150 was designed specifically for use with the Swan FM-2X transceiver, it can be used with any other 2 meter exciter or transceiver, as long as the input to the VHF-150 does not exceed 12 watts. For the following discussion of installation, the Swan FM-2X was used as the transceiver.

FIXED OR PORTABLE OPERATION

Refer to the pictorial in Figure 3 when making the installation. Connect a short length of coaxial cable (RG58U or RG8U) from the output of the FM-2X transceiver to the INPUT connector on the rear of the VHF-150. A PL-259 type connector is required at the amplifier end of the cable. This cable should be as short as practical and preferably not more than 5 feet in length. Connect the relay control cable from the auxiliary relay jack on the rear of the FM-2X transceiver to the relay control jack on the rear of the VHF-150. Connect the antenna coaxial cable or dummy load to the OUTPUT connector on the rear of the VHF-150. If a filter is to be installed, connect it between the OUTPUT connector and the antenna.

MOBILE OPERATION

Refer to Figure 4 when making the installation. Connect a short length of coaxial cable (RG58U or RG8U) from the output of the FM-2X transceiver to the INPUT connector on the rear of the VHF-150. A PL-259 type connector is required at the amplifier end of the cable. This cable should be as short as practical and preferably not more than 5 feet in length. Remove the 117 volt AC supply from the FM-2X transceiver. Modify the 12 volt DC power cord supplied with the FM-2X, by connecting a two conductor cable (24 AWG stranded parallel cable or equivalent) to the two top pins of the plug (the pins having no wires already soldered to them). (See Figure 4.) Connect a phono plug on the other end. Plug the FM-2X power cord into the rear of the FM-2X. Connect the relay control cable into the relay control jack on the rear of the VHF-150. Install the Swan Model 14C DC converter to the rear of the VHF-150 using the 8-32 screw provided. Connect the VHF-150 to a 12 volt DC power source as shown in Figure 4. Connect the antenna coaxial cable to the OUTPUT connector on the rear of the VHF-150.

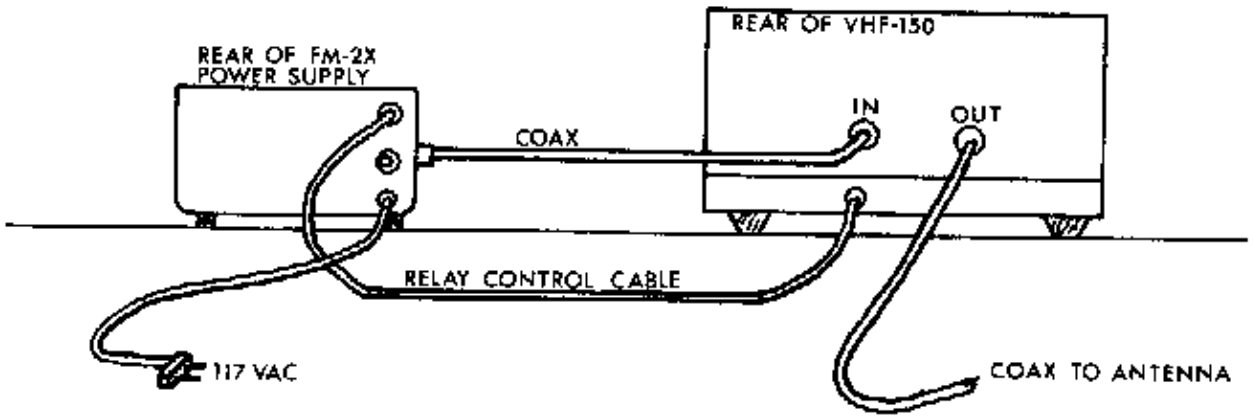

FIG. 3 – TYPICAL FIXED/PORTABLE INSTALLATION USING SWAN FM-2X