IV POWER SUPPLIES

GENERAL

Recommended power supplies for the Swan 400 are the Model 117B ac supply, and the Model 512 dc power supply. Model 117AC power supplies may be used, providing the modifications shown in Part I, on Page 8, are made. Model 117B power supplies are provided with a power cable with Jones plug attached for plugging into the transceiver. Model 512 power supplies are manufactured with a pre-wired cable to which must be connected a Jones plug after installa- of the cable through the firewall of the automobile.

MODEL 117B POWER SUPPLY

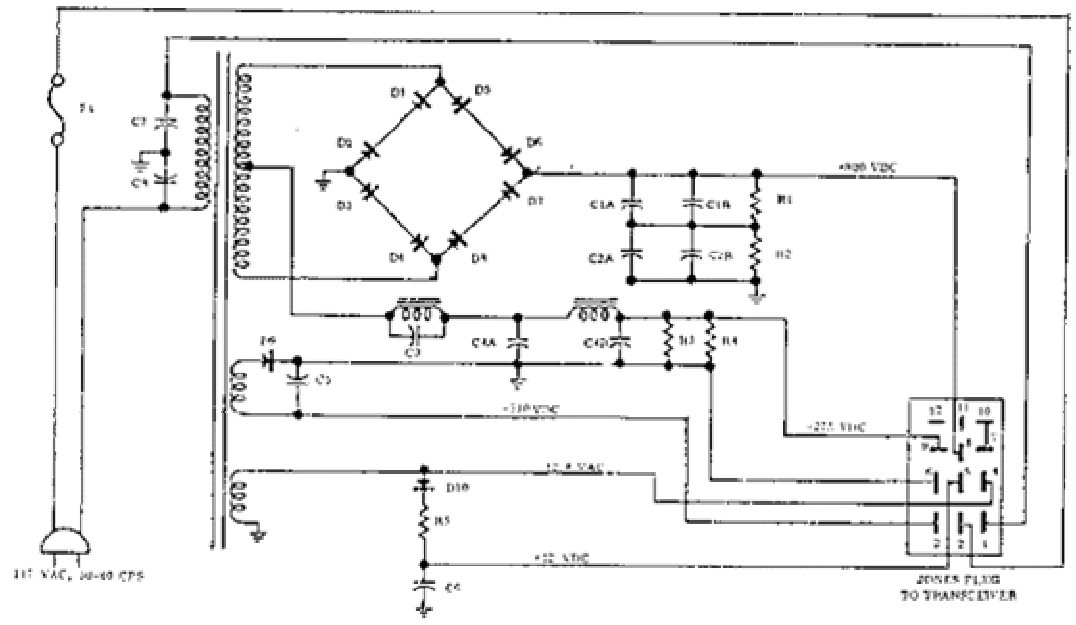
Model 117B power supply is an all solid state bridge-type power supply, with the medium voltage supply provided through the center tap of the high-voltage transformer. All components of the unit are capable of handling maximum power requirements of the transceiver under all normal operating conditions. All switching for the power supply is performed in the transceiver. See Figure 8, Schematic Diagram

MODEL 512 DC POWER SUPPLY

The Model 512 power supply is a transistorized dc-to-dc converter designed for use in systems with negative grounds only. It supplies all power requirements for mobile operation of the transceiver. The Model 512 employs an entirely new design concept to provide the highest efficiency possible in mobile use. See Figure 9 for a schematic diagram of the unit.

INSTALLATION

The Model 512 may be mounted in any convenient location within the automobile. The engine compartment, near the battery, is an excellent location, since lead length will be minimized. Make all of the connections shown in Figures 10 and 11. Hardware is provided for complete installation of the supply. The power supply should be mounted with star washers on all mounting bolts to break through the anodized finish to provide a good ground. The charging rate of the generator or alternator should not exceed 13.5 to 14.0 volts.



PARTS LIST

R1, R2	15K 2WATT	C3	.5 MFD 600 WV	F1	3AG 10 A., 125 VAC
R3, R4	82Ω 2WATT	C4	80-40 MFD 450 WV	D1-8	.75 A. 600 PIV SILICON
R3	8.7, 1/2 WATT	C5	100 MFD 150 WV	D9	.5A A. 400 PIV SILICON
C1, C2	20-20 MFD 600WV	C6	100 MFD 25 WV	D10	.75 A. 200 PIV SILICON
		C7-8	.001 MFD 350 VAC		

FIGURE 8 SCHEMATIC DIAGRAM, MODEL 117B AC POWER SUPPLY