

## C. OPERATION

## WARNING

DANGEROUS HIGH VOLTAGE IS PRESENT ON THE PLATE OF THE POWER AMPLIFIER WHENEVER THE POWER SUPPLY IS ENERGIZED. NEVER TURN POWER ON WHEN THE POWER AMPLIFIER COVER IS REMOVED. HIGH VOLTAGE IS ALSO PRESENT AT PIN EIGHT OF THE POWER PLUG.

The Swan Model 350 may be operated from 117 volts, ac, 50 to 60 cycle power with the Model 117B, Model 117C, power supply or the Model 117AC power supply. The Model 350 may be operated from a 12.6 volt dc source with the Swan Model 412 or 512 power supplies.

The following modification must be made to most Model 117 AC power supplies.

1. Disconnect the supply from the power line.
2. Remove the bottom cover from the supply.
3. Locate R6, the 1000 ohm 1/2 watt resistor on the component board. Short out this resistor with a piece of hookup wire.
4. Locate R5, the 12 ohm 1/2 watt resistor connected to the red and black diode, remove this resistor and replace with 4.7 ohm, 1/2 watt.
5. Replace the bottom cover before applying power.

Before connecting any cables to the Swan 350 perform the following steps:

1. Rotate the PA BIAS control on the rear chassis apron, fully counter clockwise.
2. Rotate the REC-TUNE-CW located on the lower left of the front panel counter clockwise to REC.
3. Rotate the AF GAIN Control counter clockwise to operate the power switch to OFF.

## POWER SUPPLY AND ANTENNA CONNECTIONS

1. Connect a 50 to 75 ohm antenna to the coaxial connector on the rear chassis panel.
2. Connect the power supply cable to the Jones connector on the rear chassis apron.
3. Connect the power supply to the proper voltage source.

## RECEIVE OPERATION

1. Rotate the AF GAIN Control clockwise to about the 3 o'clock position. The power switch will operate applying filament, relay, bias, medium, and 800 volt high voltage to the transceiver.
2. Wait approximately one minute to allow the tube filaments to reach operating temperature. During this period, perform the following steps:

- (a) Rotate the REC-TUNE-CW switch to REC.
- (b) Rotate the BANDSWITCH to desired band.
- (c) Rotate MIC. GAIN fully counter-clockwise.
- (d) Rotate CAR. BAL. control to the mid-scale position, with white dot on knob aligned with the long index mark on the panel.
- (e) Preset PA PLATE control to mid-position.
- (f) Preset PA GRID control to mid-position.
- (g) Preset PA LOAD FINE to mid-position.
- (h) Rotate PA LOAD COARSE to position 6.
- (i) Set tuning dial to desired operating frequency.
- (j) Set RF GAIN control to approximately 3 o'clock position.

3. Carefully adjust the PA GRID and the PA PLATE controls for maximum receiver noise. Note: The PA GRID control resonates the transmitter driver stages and the receiver RF amplifier plate circuit. The PA PLATE and PA LOAD controls adjust the input and output capacitors in the transmitter power amplifier final plate circuit, as well as the receiver RF amplifier grid circuit. Proper adjustment of these controls in the receive position will result in approximately resonant conditions in the transmitter stages.