

## CONTROL FUNCTIONS

### On-Off Switch (On RF Gain Knob)

Turns power supply on and off.

### Cal-Rec-Tune/CW

#### Calibrate

All voltages are applied to receiver. Grounds cathode of V12.

#### Receive

All voltages are applied to receiver.

#### Tune/CW

Transmitting circuits are energized. C1501 is disconnected from ground shifting carrier frequency into filter passband. Carrier is fully inserted. P. A. cathode resistor is switched in, reducing input power.

### Mic. Gain

Controls potentiometer R1404 in the grid of V14A and controls amount of audio to the balanced modulator.

### Car. Balance

Controls potentiometer R1308 in the balanced modulator deflection plate circuit, and permits nulling out the carrier.

### RF Gain

Controls variable resistor R505, common in the grids of Receiver Mixer V6, RF Amplifier, V7 and V8 IF Amplifiers.

### AF Gain

Controls potentiometer R1101 in grid circuit of V11 AF Output, and controls audio volume.

### Main Tuning

Controls C1612 in frequency determining tank circuit of VFO.

### Driver

Controls C2A and C2B in plate tanks of transmitter mixer and driver.

### PA Tune

Controls C408 in pi-network to tune final power amplifier plate to resonance.

### PA Load

Controls C411 in pi-network to match impedance of output load. Tunes input to Receiver RF Amplifier.

### Main Bandswitch

Switches tank coils and associated capacitors in VFO, VFO Amplifier, Driver and Transmit Mixer.

### Sideband Selector

Selects upper or lower sideband.

### Meter Switch

Selects S-meter or P.A. cathode reading.

## OPERATION

### PRE-OPERATION ADJUSTMENTS

Before connecting any cables to the Swan 270B perform the following steps:

1. Rotate the PA BIAS control on the rear chassis apron fully counter clockwise.
2. Rotate the CAL-REC-TUNE-CW to REC.
3. Rotate the RF Gain Control counter clockwise to operate the power switch to OFF.

### CONNECTIONS

1. Connect wire from earth ground to ground stud provided on rear of chassis. This is not essential, but is recommended.
2. Connect a 50 to 75 ohm antenna feed-line to the coaxial connector on rear panel.
3. Connect the power supply cable to the Jones connector on the rear panel.
4. Connect the power supply cable to the proper voltage source.

### WARNING

*Dangerous high voltage is present on the plate of the power amplifier whenever the power supply is energized.*

### RECEIVE OPERATION

1. Rotate the RF GAIN Control clockwise to about the 3 o'clock position. The power switch will operate applying 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 BANDSWITCH to desired band.
  - b. Rotate MIC. GAIN fully counter-clockwise.
  - c. Rotate CAR. BAL. control to the midscale position.
  - d. Set PA TUNE control to mid-position.
  - e. Set DRIVER control to mid-position.
  - f. Set PA LOAD to mid-position.
  - g. Set tuning dial to desired operating frequency.
  - h. Set AF GAIN control to approximately 10 o'clock position.
3. Carefully adjust the DRIVER and the PA TUNE controls for maximum receiver noise.

### NOTE

The DRIVER control resonates the transmitter driver stages and the receiver RF amplifier plate circuit. The PA TUNE and PA LOAD controls adjust the input and output capacitors in the trans-