

SECTION 4 - FUNCTION OF OPERATING CONTROLS

4-1 - XTAL-VFO SWITCH: Changes 6CL6 tube from oscillator/multiplier when in XTAL position to buffer/multiplier when in VFO position. Also, connects Pin 5 of power socket (VFO input pin) to the control grid of the 6CL6 in the VFO position.

4-2 - MIC.: Gain control to adjust for full modulation with various voices and microphones. Also operates filament OFF-ON switch in counter-clockwise position.

4-3 - FUNCTION: Switch to select various functions. In CW, connects all circuits for CW operation. In T, connects circuits for tune-up. In AM, connects circuits for AM voice operation. In SB, connects circuits for double sideband suppressed carrier voice operation.

4-4 - BAND: Switch to select frequency band - 80, 40, 20, 15 or 10 meters.

4-5 - METER SWITCH: Switches meter circuits so that meter indicates final amplifier grid current in "G" position of switch and final amplifier cathode current in "P" position of switch.

4-6 - GRID: Dual-section tuning condenser tunes the grid coils of the final amplifier to the desired operating frequency. * (See "special note" below.)

4-7 - LOAD: Triple-section variable condenser, output section of the final amplifier pi-network tank circuit. Controls coupling ("loading") to the antenna.

4-8 - TUNE: Dual-section condenser with extra-wide plate spacing. Input condenser of the final amplifier pi-network tank circuit. Controls tuning ("resonance") of the final amplifier.

4-9 - METER: Indicates grid current of the final amplifier when meter switch is in "G" position. Satisfactory operation indicated when the meter pointer, when tuned for maximum, is anywhere in the shaded area of the GRID scale. Meter indicates cathode current of the final amplifier when the meter switch is in the "P" position. Satisfactory operation indicated on CW when the reading, after resonating the TUNE control, is in the CW shaded area; for AM when in the AM shaded area; for SB when peak swing on speech modulation is in the SB shaded area. See Sections 5-6, 5-7, 5-8 and 5-9.

* SPECIAL NOTE. IMPORTANT. When operating crystal controlled in the 80 and 40 meter bands, in any mode (CW, AM or SB), the GRID control must be adjusted slightly clockwise (higher frequency) than the point of maximum grid current on the meter for reliable crystal starting. This applies only to 80 and 40 meters and only when using crystal control, not VFO.