

I MODEL 400 TRANSCEIVER  
B. Installation (Cont)

CONTROL FUNCTIONS

Functions of the various controls are as follows:

ON-OFF SWITCH	Controls main power to the transceiver.	CARRIER BALANCE	Controls potentiometer R1405 in the balanced modulator deflection plate circuit, and permits balancing of the carrier.
FUNCTION SWITCH	Controls the various modes of operation of the transceiver.	RF GAIN (In Frequency Control Unit)	Controls variable resistor R1801 which is common in the cathodes of V6, RF Amplifier, V8 1st IF Amplifier and V9, 2nd IF Amplifier, controlling gain of these stages.
Standby	DC Supply - Power to the transceiver is disabled.  AC Supply - All voltages except medium voltage are supplied.	AF GAIN	Controls potentiometer R1201 in grid circuit of V12 AF Output, and varies the gain of the final audio output amplifier.
Calibrate	AC Supply - Plate and screen voltage are applied to V13. DC Supply - 12 volts dc is provided to the relay circuit, high and medium voltages supplied to the plate circuits and bias voltage is provided to the relay controlled circuits.	MAIN TUNING	Controls C1804 in frequency determining tank circuit of Frequency Control Unit.
Receive	Same as for Calibrate but voltage to V13 removed.	PA GRID	Controls CIA and CIB in plate tanks of transmitter mixer and driver.
Transmit	12 volt dc circuit through relay K1 and K2 is completed, and all tubes used only in receive are biased to cutoff.	PA TUNE	Controls C417 in pi-network to tune final power amplifier plate to resonance.
Tune	All circuits for transmit are energized, as above, but one deflection plate of the balanced modulator is grounded, capacitor C1504 in the carrier oscillator is removed from ground, C1503 is grounded.	PA LOAD, Fine	Controls C420 in pi-network to match impedance of output load. Tunes input to Receiver RF Amplifier.
MICROPHONE GAIN	Controls potentiometer R1603 in the grid V16B and controls amount of audio to the balanced modulator.	PA LOAD, Coarse	Switches in progressively more capacitance in parallel with PA Load, Fine.
		MAIN BANDSWITCH	Switches, plate coils, and associated capacitors of VFO Amplifier, V1, Transmitter Mixer, V2, and Driver, V3. Also switches tank coil of pi-coupling system and associated capacitors in PA output tank.