

rise to at least 9 while whistling. To operate, after transmitter is fully tuned, use the RECEIVE-TRANSMIT switch as required. Each time the operating frequency is changed, re-adjust the PLATE TUNE and LOAD controls as detailed above.

TRANSMITTER -- CRYSTAL CONTROL

Crystals used must have a fundamental frequency of 1/6 the desired output frequency. For AM operation, the crystal frequency must fall between 8.333 mc. and 9.000 mc. to multiply into the 50.000 mc. to 54.000 mc. range. For crystal controlled transmitter operation, insert the crystal into the XTAL socket. Switch the XTAL-VFO switch to XTAL position. Rotate the TRANSMITTER tuning control to the approximate multiple of the frequency in the 6 meter band. To spot the output frequency on the receiver dial, turn SPOT switch to ON. Rotate the RECEIVER tuning dial for pronounced "kick" on front panel meter, indicating presence of crystal 6 meter harmonic on receiver frequency. Turn SPOT switch to OFF to remove spot signal

for normal reception.

Switch RECEIVE-TRANSMIT switch to TRANSMIT and adjust PLATE TUNE and LOAD controls in same manner as in TRANSMITTER VFO CONTROL above. When loading is correct with RECEIVE-TRANSMIT switch still in TRANSMIT position, turn GRID-PLATE-MOD METER switch to GRID position and rotate TRANSMITTER tuning dial for maximum meter reading. This resonates the tracked tuned circuits following the oscillator stage. To operate, after transmitter is full tuned, use RECEIVE-TRANSMIT switch as required. Each time a new crystal of different frequency is installed, repeat tune-up procedure before commencing normal operation.

CAUTION

Do not place any object on top or along the sides of the Communicator cabinet that will block air flow through the perforated venting. The unit could become overheated if this venting is obstructed, causing damage to components. The transmitter should not be operated for more than 5 minutes in any ten minute period. Extended transmitter "ON" time may cause damage to components.

TUBE COMPLEMENT

TYPE	SYMBOL	FUNCTION
6AU6	V1	Transmitter variable-frequency oscillator-tripler
6AQ5	V2	Transmitter frequency doubler
6146	V3	Transmitter Power Amplifier
12AX7	V4	Transmitter Microphone Amplifier (one triode section) Transmitter and receiver audio amplifier (one triode section)
(2) 6L6GB	V5, V6	Transmitter Modulators Receiver Audio Power Amplifiers
6BZ6	V7	Receiver RF Amplifier
6U8	V8	Receiver 1st mixer (pentode section) Receiver high-frequency oscillator (triode section)
(More)		