



POWER TRANSFORMER --- PT178A-4
 OUTPUT & MOD. TRANS. --- T179-2
 RCVR ANTENNA COIL --- C180-3
 RCVR R.F. COIL --- C180-4
 CVR OSC. COIL --- C180-10
 1/2 WATT RESISTORS --- 3029
 1/2 WATT RESISTORS --- 3030
 5 WATT RESISTORS --- W32B

RCVR VARIABLE CONDENSER --- V235A-2
 RCVR TRANS. SWITCH --- BS847-2
 SILICON RECTIFIERS --- SR 846-2
 VIBRATOR TRANSFORMER --- VT181A-2
 LIGHTER PLUG CABLE --- PC525-1
 PAPER CONDENSERS --- 2000A
 CERAMIC DISC CONDENSERS --- 2063
 2 WATT RESISTORS --- 3017

TRAF. S. XTAL COIL --- C180-6
 TRAF. S. ANT. TANK COIL --- C195-1
 500UH R.F. COIL --- C185-12
 I.F. TRANSFORMERS --- I-110-2
 VOLUME CONTROL & SWITCH --- V329-3
 NOISE LIMITER CONTROL --- V330-3
 TRANSMITTING CRYSTALS --- C853-24
 MICROPHONE --- M852-1

ELECTROLYTIC COND. (CAN) --- E212-11
 ELECTROLYTIC COND. --- 201B-9
 P.M. SPEAKER --- S717-2
 LARGE TUNING KNOB --- R4004-2
 SMALL TUNING KNOB --- K4003-3
 KNOBS --- K4006-1
 BAR KNOB --- 4099

MAXIMUM POWER TRANSFER TO ANTENNA

After making adjustments, connect antenna to Transceiver and take readings of transmitter output with a SWR bridge or the Lafayette TM-14 Field strength meter. Re-adjust antenna tank capacitor screw (C1) and the antenna output capacitor screw (C4), if needed, for maximum readings on the SWR bridge or the Lafayette TM-14 Field strength meter. Replace all plug buttons when all necessary adjustments have been made.

TRANSMITTING

Be sure that the power supply for the transceiver has been connected as discussed previously, and that the unit has an adequate ground (if not mounted to a metal surface). One of the antenna systems discussed earlier should be connected. Plug the microphone into the jack provided on the extreme left of the front panel.

1. Turn the Transceiver on, and set the TUNING control to the channel on which you wish to operate. The Power indicator lamp will light if power has been applied to the unit.
2. Set the TRANSMIT-RECEIVE control to the lower transmit position. The RF indicator lamp will light, indicating the presence of RF in the transmitter section. Hold the microphone 4 to 8 inches away and speak in a normal tone of voice. Shouting will not increase the strength of your signal. Speak clearly and slower than you would normally.

As you speak into the microphone you will notice that the RF indicator will "flicker", giving an indication that the speech amplifier and modulator circuits are operating properly. Release

the transmit control at the completion of your message the fine tuning control (small outer knob) to tune in the an ing station if necessary.

TV INTERFERENCE

This transceiver contains a built-in series-resonant trap (C2) shunt with the antenna output receptacle. When tuned correctly it suppresses television interference in the transmitting position. If when transmitting, the transmitter causes excess TV interference this trap may be tuned to help remove this effect.

This transceiver also contains a built-in parallel-resonant (C3) in series with the receiver's antenna input. When tuned correctly, it suppresses television interference in the receiver.

NOTE: For location of trap trimmer screws see license label. If these traps are tuned to either the receiving or transmit frequency range the efficiency of either or both will be greatly affected.

The (C3) receiver interference trap, will adjust interference approximately within 1 Mc of the crystal operating frequency. For other frequencies the C3 trap screw may have to be adjusted.

ADDITIONAL CRYSTALS

The Model HE-35-A is normally supplied with a crystal for 5 Mc already installed in the front panel crystal holder. Additional crystals for other 6 meter frequencies may be inserted provided they are of the 3rd overtone type and above 50.1 Mc.

When replacing crystals it is suggested that the user use nearest operating frequencies in the range of 50.15 Mc to 50.5 Mc in order to prevent TV interference.

TYPICAL TUBE SOCKET VOLTAGES

SYMBOL TUBE TYPE & FUNCTION	TYPE OPER- ATION	PIN NUMBERS								
		1	2	3	4	5	6	7	8	9
V-1 6U8A/6EAB R.F. AMPLIFIER MIXER	R'CVE	105	0	50	H	H	145	1V	0	
	TRANS.				H	H			0	
V-2 6U8A/6EAB OSCILLATOR 1ST I.F. AMPLIFIER	R'CVE	100		80	H	H	80	1.2	0	-25
	TRANS.				H	H				
V-3 6AL5 DETECTOR NOISE LIMITER	R'CVE	.05		H	H	.05	0			
	TRANS.			H	H		0			
V-4 6CX8 CRYSTAL OSC. R.F. POWER OUTPUT	R'CVE	16	0	260	H	H	16	0	255	255
	TRANS.	0	-2	175	H	H	0	-2	175	235
V-5 12AX7 A.F. AMPLIFIER MICROPHONE AMP.	R'CVE	0	-.5	0	H	H	90	0	1V	H
	TRANS.	70	-.45	0	H	H	140	0	1.4	H
V-6 6V6GT MODULATOR AUDIO OUTPUT	R'CVE		H	255	260	0		H	16	
	TRANS.		H	225	250	0		H	14	

VOLTAGES MEASURED TO CHASSIS WITH VTVM (RCA VOLTOHMIST OR EQUIV.) AND ARE POSITIVE EXCEPT WHERE NOTED.
TRANSMITTER TUNED AND LOADED, WITH NO SIGNAL INPUT TO RECEIVER: