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d. Unsolder L2 connection to C35 and connect a DC current meter at this point. Set the function switch to DC current and the range selector to the range nearest 1 ampere full scale. Refer to Figure 6-2.

NOTE

All the measurements given in this section are for a normally operating transceiver with 13.8 VDC power supply.

Have an RF pick-up loop as illustrated in Figure 5-5 available for checking modulation.

5.4.2 RF Power Output and Modulation

a. Key the transmitter with no modulation applied. Check the power output on all available channels. The limits are 4.0 watts maximum and 2.8 watts minimum with a Q13 emitter current of 410 mA as measured with the DC current meter. The

RED DOT 4006

BLUE 4006

BLUE 4006

CATHODE ANODE DIODES

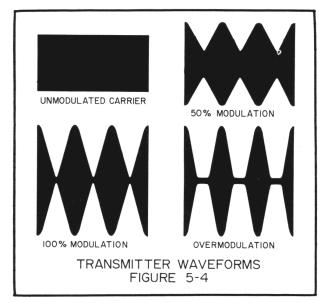
BAND INDICATES CATHODE END

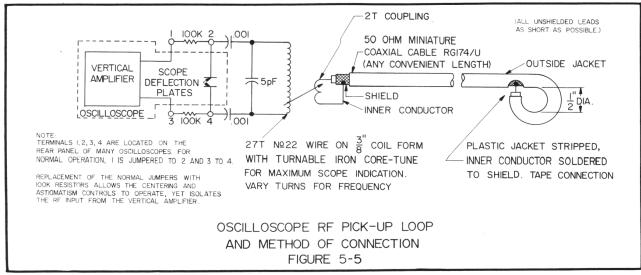
SEMICONDUCTOR CASE DIAGRAMS

FIGURE 5-3

power output difference between any two channels should not be more than 0.5 watts. Refer to section 6 for the transmitter alignment procedure.

- Connect an RF pick-up loop, constructed as illustrated in Figure 5-5, to L4.
- c. Set the audio generator output level to 4.0 mV. Key the transmitter. Approximately 50% modulation should be indicated on the oscilloscope. Refer to the transmitter waveforms illustrated in Figure 5-4.
- d. Increase the audio level to 18 mV. The modulation should increase to at least 70% minimum upward and 80% minimum downward.
- e. Increase the audio to 40mV. The waveform should be clean and free of RF distortion.





SECTION 6 ALIGNMENT

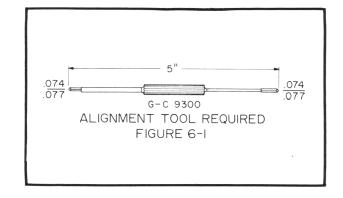
6.1 RECEIVER ALIGNMENT

Test Instrument Connections

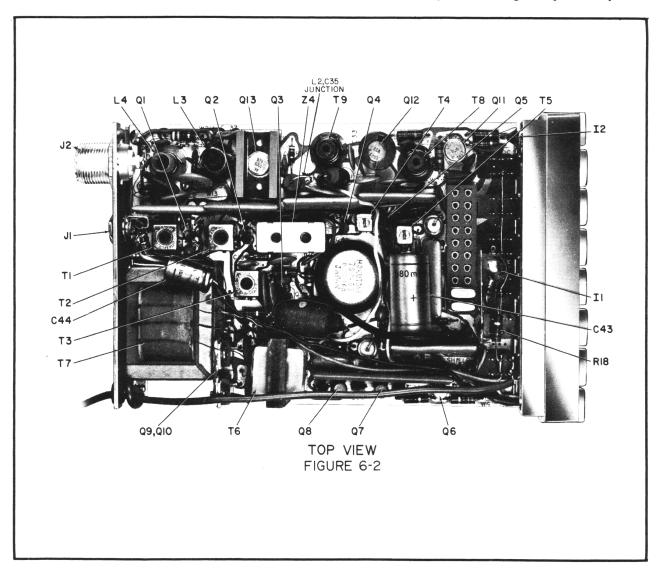
- a. Connect an RF signal generator to the antenna jack.
- b. A speaker load can be connected to the external speaker jack to replace the internal speaker during alignment.
- Refer to Figure 6-2 for identification of alignment points.

Oscillator (T3)

a. Connect an RF voltmeter to the emitter of Q2.



b. Refer to Figure 6-2 for alignment points. Adjust T3



by starting with the slug at the top of the coil and tune through the peak RF reading to 0.125 \pm 0.025 volts RF on the emitter of Q2. Check for starting and uniform injection voltage on the channels used.

IF Section

- a. Set the output level of the RF signal generator to 10,000 $\mu\mathrm{V}\text{,}$ modulated 30% at 1000 Hz.
- b. Connect an audio voltmeter across the speaker load.
- c. Peak T5 and T4 for maximum output as viewed on the audio voltmeter. Use as low an input signal as convenient (one that produces about 10 dB signal to noise ratio).

NOTE

The mechanical filter, Z4, has been properly aligned at the factory and no field adjustments should be attempted.

RF Section

- a. Peak T1 and T2 for maximum indication on the audio voltmeter. Once a clean signal is observed on the oscilloscope no peak will be apparent when adjusting T1. Readjust the volume control as necessary.
- b. Reduce the signal generator to $1\,\mu\mathrm{V}$ modulated at 30%, 1000 Hz.
- c. Adjust T1 and T2 for uniform gain and signal to noise ratio. Gain should be within ±6 dB on all frequencies.

AGC Roll-off

- a. Reset RF signal generator level to $1000\,\mu\mathrm{V}$ 30% modulated at 1000 Hz and adjust the volume control for an indication of 0 dB on the audio voltmeter.
- b. Turn the RF signal generator level back to $1 \mu V$.
- c. A drop of 18±12dB should be indicated on the audio voltmeter.

Signal plus noise to noise ratio test

- a. Set signal generator to $1\,\mu\mathrm{V}$ modulated 30% with 1000 Hz.
- Increase the volume control to maximum. The audio voltmeter should read +5 dB minimum.
- Readjust the volume control for a 0 dB indication on the audio voltmeter.
- d. Turn the signal generator modulation off.
- A drop of 8 dB or more should be observed on the audio voltmeter.

Squelch test

- a. Set the signal generator to $5 \mu V$, 30%, 1000 Hz.
- Adjust the squelch control for maximum squelch. The signal should disappear. The receiver audio should be squelched off.
- c. Reset the signal generator to $100\,\mu\mathrm{V}$. The signal should become audible.

6.2 TRANSMITTER ALIGNMENT

Test Instrument Connections

- a. Connect the transceiver to a 13.8 VDC power source.
- Connect a 50 ohm wattmeter and load to the antenna jack.
- c. Connect the oscilloscope RF pickup loop to L4.

Power Amplifier (L3, T9)

- a. Key the transmitter.
- b. Tune L4 for maximum power output.
- c. Tune L3 for 3 to 4 watts power output.
- d. Adjust T9 for maximum power output.

Oscillator (T8)

- a. Key the transmitter.
- b. Adjust T8 for oscillator starting on all channels and absence of distortion during modulation.
- The power output should be 2.8 watts minimum (be sure the oscilloscope RF loop is not affecting this reading).
- Increase the audio generator output and observe the oscilloscope for distortion.
- e. 50% modulation should occur at 4 mV input. Increase the output of the audio generator an additional 20 dB. Check for normal waveform and modulation percentage (70% minimum upward for 80% downward).
- f. If distortion occurs readjust T8 and T9 to eliminate it.

Final Check

- a. Switch between channels.
- Check for normal oscillator starting, clean modulation and absence of oscillation.
- c. Check and adjust as necessary to eliminate distor-

SECTION 7 PARTS LIST

SYMBOL NO.	DESCRIPTION	PART NO.	SYMBOL NO.	DESCRIPTION	PART NO.
	BRACKETS		C44	220 μF +100/-10%, 16 V,	510-4006-004
	BILAGILLIS		C 45	1 pF, ±5%, 500V, comp.	510-9002-109
DVT	Proplet control mounting	017-1570-002	C46	Same as C45	010 7002 107
BKT	Bracket, control mounting				E10 2002 102
BKT	Bracket, channel indicator light	016-1830-001	C47	0.001 μF, ±20% 50V, Y5U 0.01 μF +80/-20%, 50V, Y5U	510-3002-102
	Bracket, dash mounting	017-1569-001	C48		510-3004-103
			C49	1 μF ±20%, 35V	510-2005-109
	CAPACITORS		C50	Same as C49	
C1	6.8 μ F ±20%, 35 V, tantalum	510-2045-689		CHASSIS PARTS	
C2	$0.0047 \mu\text{F} + 80/-20\%$, 500 V,	510-3004-472			
	Y5U, ceramic disc			Cabinet assembly	023-2778-001
C3	27 pF ±5%, N750, ceramic disc	510-3020-270		Front panel	032-0233-001
C4	0.01 μF +80/-20%, 50 V, Y5U,	510-3003-103		Back panel	017-1574-001
C4	ceramic disc	310-3003-103			
OF.		E10 0001 1E1		KNOBS	
C5	150 pF ±5%, 100 V, dipped mica	510-0001-151		KITODS	
C6	6.8 μ F ±20%, 35 V, tantalum	510-2045-689		Channel selector	032-0237-001
C7	$0.01 \mu\text{F} + 80/-20\%$, 50 V, Y5U,	510-3003-103		Volume, squelch control	032-0236-001
	ceramic disc			-	
C8	Same as C7			OVERLAYS	
C9	$0.047\mu\mathrm{F}$ 16V, Y5S, ceramic	510-3010-473		OTENERIS	
	disc			Linnon dummer	550-2050 002
C10	$1.0 \mu\text{F} \pm 20\%$, 35 V, tanualum	510-2045-109		Upper, dummy	559-2050-002
C11	Same as C10			Lower	559-2049-002
C12	$6.8 \mu\text{F} \pm 20\%$, 35 V, tantalum	510-2045-689		Upper, with numbers	023-2799-001
		510-3002-102			
C13	0.001 μF ±20%, 50 V, Y5U			DIODES	
C15	27 pF ±5%, N150, ceramic disc	510-3016-270			
C16	510 pF ±5%, N750 ceramic disc	510-3020-511	CR1	1N67A	523-1000-067
C17	$0.0047 \mu\text{F} +80/-20\%,500 \text{V}, \text{Y5U},$	510-3004-472	CR2	Same as CR1	
	ceramic disc		CR3	1N881	523-1000-881
C18	0.22 μF +80/-20%, 3 V	510-3009-224	CR4	10 V, zener	523-2003-100
C19	$47 \mu\text{F} + 100/-10\%$, 25 V, alumi-	510-4006-012	1	1N881	
	num electrolytic		CR5		523-1000-881
C20	22 μF ±20%, 15 V, tantalum	510-2003-220	CR6	500 mA, 200 V, PIV	523-0001-002
		510-2005-220	CR7	1N881	523-1000-881
C21	$47 \mu\text{F} + 100/-10\%$, 25 V, alumi-	310-4000-012	CR8	Same as CR7	
700	num electrolytic	E . O . O . I . 1 . O .	CR9	Same as CR7	
C22	$1.0 \mu\text{F} \pm 20\%$, 35 V, tantalum	510-2045-109			
C23	6.8 μ F ±20%, 35 V, tantalum	510-2045-689		HEAT SINKS	
C24	$56 \mu F \pm 20\%$, 6 V, tantalum	510-2001-560			
C25	$0.22 \mu\mathrm{F}\pm20\%$, 250 V, flat foil	510-1004-224		Driver	013-1074-001
C26	$0.022 \mu\mathrm{F}\pm\!20\%$, 50 V, Y5U,	510-3002-223		Final	014-0671-001
	ceramic disc				
C27	Same as C26			LAMPS	
C28	$0.0047 \mu\text{F} + 80/-20\%$, 500 V,	510-3004-472		27 5	
	Y5U, ceramic disc		I1	Light bulb, clear	549-3001-005
C29	22 pF ±5%, N750, ceramic disc	510-3020-220	12	Light bulb, clear	549-3001-003
C30	Same as C29			girt build, crear	047-0001-003
C31	150 pF ±5%, N750, ceramic disc	510-3020-151			
C32	$0.001 \mu\text{F} \pm 20\%$, 50 V, Y5U	510-3020-131		JACK	
				JACK	
C33	43 pF ±5%, N150, ceramic disc	510-3016-430			
C34	$0.0047 \mu\text{F} + 80/-20\%$, 500 V,	510-3004-472	J1	Jack, external speaker	515-2001-001
	Y5U, ceramic disc		'	•	
C35	$0.047 \mu\text{F} + 80/-20\%$, 50 V, Y5U,	510-3002-473			
	ceramic disc			COILS & CHOKES	
C36	0.001 μF ±20%, 50 V, Y5U	510-3061-102		COLO & CHOKES	
C37	27 pF ±5%, NPO, ceramic disc	510-3013-270	L1	Choke, R.F. (13 μ H)	542-3003-001
C38	0.001 μF ±20%, 50 V, Y5U	510-3002-102	L1 L2	Same as L1	042 3000-001
C39	100 pF ±5%, N150, ceramic disc	510-3016-101	L3	Coil, output series	542-1005-010
C40	300 pF ±5%, 100 V, dipped mica	510-3010-101			542-1005-010
			L4	Coil, output pi	542-1005-004
C41	330 pF ±5%, 100 V, dipped mica	510-0001-331	L5	Choke, R.F. (20 mH)	542-8001-011
C42	$0.0047 \mu\text{F} \pm 20\%$, 125 VAC	510-3001-472			
	ceramic disc			SPEAKER	
C43	1000 μF +100/-10%, 16 V,	510-4006-005		SLEWVEV	
	aluminum electrolytic		LS	Speaker (8Ω)	589-1003-00
	,		ı	- , ,	

PARTS LIST (cont'd)

Q1 RF, Q2 Mix Q3 Osc Q4 1st Q5 2nd Q6 Squ Q7 Aud Q8 Aud Q9 Aud Q10 Sam Q11 Tra Q12 Tra Q13 Tra R1 22,1 R2 270 R3 1.2 R4 18K R5 10 k R6 2.2 R7 Pote Squ R9 100 R10 6800 R11 1200 R12 680 R11 1200 R12 680 R11 1200 R15 62 C R16 Pote Volu R18 22 C R16 Pote Volu R18 22 C R19 3300 R20 10,0 R21 470 R22 27 C R23 510 R24 1 of R26 5100 R27 510	MICROPHONE rophone (5 conductors and nield) TRANSISTORS 3018 er, 3011 illator, 3011 IF, 3011 IF, 3011 IF, 3011 elch, 1008 iio, preamp, 1017 iio diriver, 1017 iio output, 2001 ne as Q9 nsmitter driver, 4004 nsmitter driver, 4005 RESISTORS 2000 ohms ±10%, 1/4 W ohms ±10%, 1/4 W ohms ±10%, 1/2 W ohms ±10%, 1/2 W entiometer, 5,000 ohms, elch ohms ±10%, 1/2 W ohms ±5%, 1/2 W	576-0003-018 576-0003-011 576-0003-011 576-0003-011 576-0003-011 576-0001-017 576-0001-017 576-0001-017 576-0004-006 576-0004-006 576-0004-005 569-1002-223 569-1002-271 569-1004-122 569-1004-122 569-1004-122 569-1004-681 569-1004-682 569-1004-681 569-1004-102 569-1004-102 569-1004-102 569-1004-102 569-1004-102 569-1004-222 569-1004-681 569-1004-102 569-1004-102 569-1004-102	number. channel ter crys XY	CRYSTAL BLOCK (10 position)	023-2780-001 519-0011-301 -323* 519-0011-001 -023* indicate the channel receiver crystal for
Q1 RF, Q2 Mix Q3 Osc Q4 1st Q5 2nd Q6 Squ Q7 Aud Q8 Aud Q9 Aud Q10 Sam Q11 Tra Q12 Tra Q13 Tra R1 22,(R2 270 R3 1.2] R4 18K R5 10 k R6 2.2; R7 Pote Squ R9 100 R10 6800 R11 1200 R12 680 R13 2.2 27 680 R14 1000 R26 5100 R27 510	TRANSISTORS 3018 er, 3011 illator, 3011 IF, 3011 IF, 3011 elch, 1008 io, preamp, 1017 io, driver, 1017 io output, 2001 ne as Q9 nsmitter oscillator, 4006 nsmitter driver, 4004 nsmitter final, 4005 RESISTORS 000 ohms ±10%, 1/4 W ohms ±10%, 1/4 W ohms ±10%, 1/2 W ohms ±10%, 1/2 W cohms ±10%, 1/2 W ohms ±5%, 1/2 W ohms ±10%, 1/2 W ohms ±5%, 1/2 W	576-0003-018 576-0003-011 576-0003-011 576-0003-011 576-0001-008 576-0001-017 576-0001-017 576-0002-001 576-0004-006 576-0004-005 569-1002-223 569-1004-122 569-1004-122 569-1004-103 569-1004-104 569-1004-104 569-1004-104 569-1004-102 569-1004-102 569-1004-103 569-1004-104 569-1004-104 569-1004-104 569-1004-102	* The lanumber. channel ter crys	27 MHz, output 27 MHz, oscillator 455 kHz, IF Same as T4 Audio driver Audio output, modulation Oscillator Driver POWER CABLE ASSEM Power cable assembly CRYSTALS Crystals, receive Crystals, transmit ast 3 digits of the crystal part no. i Thus a part no. 519-0011-301 is at 1; part no. 519-0011-001 is the correstal. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	592-5015-002 592-5015-004 592-5020-004 592-1007-004 592-1013-005 592-5014-001 592-5014-002 MBLY 023-2780-001 519-0011-301 -323* 519-0011-001 -023* Indicate the channel receiver crystal for responding transmit- 126-0110-103 FIRCUITS 544-0003-011
Q2 Mix Q3 Osc Q4 1st Q5 2nd Q6 Squ Q7 Aud Q8 Aud Q9 Aud Q9 Aud Q10 Sam Q11 Tra Q12 Tra Q13 Tra Q13 Tra R1 22,0 R2 270 R3 1.21 R4 18K R5 10 k R6 2.22 R7 Pote squ R9 100 R10 6800 R11 1200 R12 680 R11 1200 R12 680 R11 1200 R15 62 C R16 Pote volu R18 22 C R16 Pote Volu R17 S R20 I0, (R21 470 R22 C R23 510 R24 I of R26 5100 R27 510	3018 er, 3011 illator, 3011 IF, 3011 IF, 3011 elch, 1008 io, preamp, 1017 io, driver, 1017 io output, 2001 he as Q9 nsmitter oscillator, 4006 nsmitter driver, 4004 nsmitter final, 4005 RESISTORS 3000 ohms ±10%, 1/4 W ohms ±10%, 1/4 W ohms ±10%, 1/2 W ohms ±5%, 1/2 W	576-0003-011 576-0003-011 576-0003-011 576-0003-011 576-0001-008 576-0001-017 576-0001-017 576-0002-001 576-0004-006 576-0004-005 569-1002-223 569-1002-271 569-1004-122 569-1004-183 569-1004-122 562-0025-004 569-1004-101 569-1004-101 569-1004-682 569-1004-682 569-1004-681 569-1004-681 569-1004-222 569-1004-681	* The lanumber channel ter crys	455 kHz, IF Same as T4 Audio driver Audio output, modulation Oscillator Driver POWER CABLE ASSEM Power cable assembly CRYSTALS Crystals, receive Crystals, transmit ast 3 digits of the crystal part no. i Thus a part no. 519-0011-301 is at a 1; part no. 519-0011-001 is the correstal. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	592-5020-004 592-1007-004 592-1013-005 592-5014-001 592-5014-002 MBLY 023-2780-001 519-0011-301 -323* 519-0011-001 -023* indicate the channel receiver crystal for esponding transmit- 126-0110-103 SIRCUITS 544-0003-011
Q2 Mix Q3 Osc Q4 1st Q5 2nd Q6 Squ Q7 Aud Q8 Aud Q9 Aud Q9 Aud Q10 Sam Q11 Tra Q12 Tra Q13 Tra Q13 Tra R1 22,0 R2 270 R3 1.21 R4 18K R5 10 k R6 2.22 R7 Pote squ R9 100 R10 6800 R11 1200 R12 680 R11 1200 R12 680 R11 1200 R15 62 C R16 Pote volu R18 22 C R16 Pote Volu R17 S R20 I0, (R21 470 R22 C R23 510 R24 I of R26 5100 R27 510	er, 3011 illator, 3011 IF, 400 I	576-0003-011 576-0003-011 576-0003-011 576-0003-011 576-0001-008 576-0001-017 576-0001-017 576-0002-001 576-0004-006 576-0004-005 569-1002-223 569-1002-271 569-1004-122 569-1004-183 569-1004-122 562-0025-004 569-1004-101 569-1004-101 569-1004-682 569-1004-682 569-1004-681 569-1004-681 569-1004-222 569-1004-681	* The lanumber. channel ter crys	Audio driver Audio output, modulation Oscillator Driver POWER CABLE ASSEM Power cable assembly CRYSTALS Crystals, receive Crystals, transmit ast 3 digits of the crystal part no. i Thus a part no. 519-0011-301 is at 1; part no. 519-0011-001 is the correstal. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	592-1013-005 592-5014-001 592-5014-002 MBLY 023-2780-001 519-0011-301 -323* 519-0011-001 -023* Indicate the channel receiver crystal for esponding transmit- 126-0110-103 FIRCUITS 544-0003-011
Q2 Mix Q3 Osc Q4 1st Q5 2nd Q6 Squ Q7 Aud Q8 Aud Q9 Aud Q9 Aud Q10 Sam Q11 Tra Q12 Tra Q13 Tra Q13 Tra R1 22,0 R2 270 R3 1.21 R4 18K R5 10 k R6 2.22 R7 Pote squ R9 100 R10 6800 R11 1200 R12 680 R11 1200 R12 680 R11 1200 R15 62 C R16 Pote volu R18 22 c R16 Pote Volu R18 22 c R19 3300 R20 10,0 R21 470 R22 27 c R23 510 R24 1 of R26 5100 R27 510	er, 3011 illator, 3011 IF, 400 I	576-0003-011 576-0003-011 576-0003-011 576-0003-011 576-0001-008 576-0001-017 576-0001-017 576-0002-001 576-0004-006 576-0004-005 569-1002-223 569-1002-271 569-1004-122 569-1004-183 569-1004-122 562-0025-004 569-1004-101 569-1004-101 569-1004-682 569-1004-682 569-1004-681 569-1004-681 569-1004-222 569-1004-681	* The lanumber.channel ter crys	Audio output, modulation Oscillator Driver POWER CABLE ASSEM Power cable assembly CRYSTALS Crystals, receive Crystals, transmit ast 3 digits of the crystal part no. i . Thus a part no. 519-0011-301 is at 1; part no. 519-0011-001 is the correstal. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	592-1013-005 592-5014-001 592-5014-002 MBLY 023-2780-001 519-0011-301 -323* 519-0011-001 -023* Indicate the channel receiver crystal for esponding transmit- 126-0110-103 FIRCUITS 544-0003-011
Q4	IF, 3011 elch, 1008 io, preamp, 1017 io, driver, 1017 io output, 2001 ne as Q9 nsmitter oscillator, 4006 nsmitter driver, 4004 nsmitter final, 4005 RESISTORS 2000 ohms ±10%, 1/4 W ohms ±10%, 1/2 W ohms ±5%, 1/2 W	576-0003-011 576-0001-008 576-0001-017 576-0001-017 576-0002-001 576-0004-006 576-0004-005 569-1002-223 569-1002-221 569-1004-122 569-1004-103 569-1004-103 569-1004-101 569-1004-682 569-1004-681 569-1004-222 569-1004-222 569-1004-222 569-1004-222	* The lanumber. channel ter crys	POWER CABLE ASSEM Power cable assembly CRYSTALS Crystals, receive Crystals, transmit ast 3 digits of the crystal part no. i . Thus a part no. 519-0011-301 is a n 1; part no. 519-0011-001 is the correstal. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	592-5014-002 MBLY 023-2780-001 519-0011-301 -323* 519-0011-001 -023* Indicate the channel receiver crystal for esponding transmit- 126-0110-103 FIRCUITS 544-0003-011
Q6 Squ Q7 Aud Q8 Aud Q9 Aud Q9 Aud Q9 Q10 Sam Q11 Tra Q12 Tra Q13 Tra Q13 Tra Q12 270 R3 1. 21 R4 18K R5 10 k R6 2. 22 R7 Pote Squ R9 100 R10 6800 R11 1200 R11 1200 R15 62 C R16 Pote Volu R18 22 C R16 Pote Volu R18 22 C R19 3300 R20 10,0 R21 470 R22 27 C R23 510 R24 1 of R26 510 R27 510	elch, 1008 io, preamp, 1017 io, driver, 1017 io output, 2001 ne as Q9 nsmitter oscillator, 4006 nsmitter driver, 4004 nsmitter final, 4005 RESISTORS 2000 ohms ±10%, 1/4 W ohms ±10%, 1/2 W ohms ±10%, 1/2 W ohms ±10%, 1/2 W entiometer, 5,000 ohms, elch ohms ±10%, 1/2 W ohms ±5%, 1/2 W	576-0001-008 576-0001-017 576-0001-017 576-0002-001 576-0004-006 576-0004-004 576-0004-005 569-1002-223 569-1002-271 569-1004-122 569-1004-103 569-1004-101 569-1004-682 569-1004-681 569-1004-222 569-1004-222 569-1004-222 569-1004-102	number. channel ter crys XY	Power cable assembly CRYSTALS Crystals, receive Crystals, transmit ast 3 digits of the crystal part no. i . Thus a part no. 519-0011-301 is a n 1; part no. 519-0011-001 is the correstal. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	023-2780-001 519-0011-301 -323* 519-0011-001 -023* Indicate the channel receiver crystal for esponding transmit- 126-0110-103 FIRCUITS 544-0003-011
Q8 Aud Q9 Aud Q10 Sam Q11 Tra Q12 Tra Q13 Tra Q13 Tra R1 22,0 R2 270 R3 1.21 R4 18K R5 10 k R6 2.22 R7 Pote squ R9 100 R10 6800 R11 1200 R12 680 R11 1200 R12 680 R11 1200 R15 62 6 R16 Pote vol R18 22 c R16 Pote Vol R21 470 R22 27 c R23 510 R24 1 o R26 5100 R27 510	io, driver, 1017 io output, 2001 ne as Q9 nsmitter oscillator, 4006 nsmitter driver, 4004 nsmitter final, 4005 RESISTORS 000 ohms ±10%, 1/4 W ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W ohms ±5%, 1/2 W	576-0002-001 576-0004-006 576-0004-005 569-1002-223 569-1002-271 569-1004-122 569-1004-103 569-1004-222 562-0025-004 569-1004-682 569-1004-682 569-1004-681 569-1004-681 569-1004-681 569-1004-681 569-1004-222 569-1004-102	number. channel ter crys XY	CRYSTALS Crystals, receive Crystals, transmit ast 3 digits of the crystal part no. i Thus a part no. 519-0011-301 is at 1; part no. 519-0011-001 is the correstal. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	519-0011-301 -323* 519-0011-001 -023* Indicate the channel receiver crystal for esponding transmit- 126-0110-103
Q11 Tra Q12 Tra Q13 Tra Q13 Tra R1 22,0 R3 1. 21 R4 18K R5 10 k R6 2. 22 R7 Pote squ R9 100 R10 6800 R11 1200 R10 6800 R11 1200 R11 1200 R12 680 R13 2, 2 R14 1000 R15 62 6 R16 Pote volu R18 22 6 R19 3300 R20 10,0 R21 470 R22 27 6 R23 510 R24 1 of R26 5100 R27 510	nsmitter oscillator, 4006 nsmitter driver, 4004 nsmitter driver, 4004 nsmitter final, 4005 RESISTORS 000 ohms ±10%, 1/4 W ohms ±10%, 1/4 W ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W ohms ±5%, 1/2 W	576-0004-004 576-0004-005 569-1002-223 569-1002-271 569-1004-122 569-1004-183 569-1004-103 569-1004-222 562-0025-004 569-1004-682 569-1004-681 569-1004-681 569-1004-102 569-1004-102	number. channel ter crys XY	Crystals, receive Crystals, transmit ast 3 digits of the crystal part no. i Thus a part no. 519-0011-301 is a n ; part no. 519-0011-001 is the correstal. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	-323* 519-0011-001 -023* Indicate the channel receiver crystal for esponding transmit- 126-0110-103 FIRCUITS 544-0003-011
R1 22,6 R2 270 R3 1. 21 R4 18K R5 10 k R6 2. 2; R7 Pote Squ R9 100 R10 6800 R11 1200 R12 680 R13 2. 2 R14 1000 R15 62 6 R16 Pote Volta R18 22 6 R19 3300 R20 10,6 R21 470 R22 27 6 R23 510 R24 1 of R26 5106 R27 510	RESISTORS 000 ohms ±10%, 1/4 W ohms ±10%, 1/2 W ohms ±10%, 1/2 W ohms ±10%, 1/2 W ohms ±10%, 1/2 W cohms ±10%, 1/2 W K ohms ±10%, 1/2 W W total	576-0004-005 569-1002-223 569-1002-271 569-1004-122 569-1004-103 569-1004-222 562-0025-004 569-1004-101 569-1004-682 569-1004-682 569-1004-681 569-1004-681 569-1004-222 569-1004-102	number. channel ter crys XY	Crystals, transmit ast 3 digits of the crystal part no. i Thus a part no. 519-0011-301 is a n ; part no. 519-0011-001 is the correstal. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	-323* 519-0011-001 -023* Indicate the channel receiver crystal for esponding transmit- 126-0110-103 FIRCUITS 544-0003-011
R2 270 R3 1. 21 R4 18K R5 10 k R6 2. 2: R7 Pote squ R9 100 R10 6800 R11 1200 R12 680 R13 2. 2: R14 1000 R15 62 c R16 Pote volu R18 22 c R19 3300 R20 10,0 R21 470 R22 27 c R23 510 R24 1 of R26 5100 R27 510	000 ohms ±10%, 1/4 W ohms ±10%, 1/4 W K ohms ±10%, 1/2 W ohms ±10%, 1/2 W tohms ±10%, 1/2 W M tohms ±5%, 1/2 W M to	569-1002-271 569-1004-122 569-1004-183 569-1004-222 562-0025-004 569-1004-101 569-1004-682 569-1004-681 569-1004-681 569-1004-222 569-1004-102	number. channel ter crys XY	ast 3 digits of the crystal part no. i Thus a part no. 519-0011-301 is a r 1; part no. 519-0011-001 is the correstal. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	-023* Indicate the channel receiver crystal for esponding transmit- 126-0110-103 FIRCUITS 544-0003-011
R2 270 R3 1. 21 R4 18K R5 10 k R6 2. 2: R7 Pote Squ R9 100 R10 6800 R11 1200 R12 680 R13 2. 2: R14 1000 R15 62 c R16 Pote Volu R18 22 c R19 3300 R20 10,0 R21 470 R22 27 c R23 510 R24 1 of R26 5100 R27 510	ohms ±10%, 1/4 W K ohms ±10%, 1/2 W ohms ±10%, 1/2 W t ohms ±10%, 1/2 W K ohms ±10%, 1/2 W mathematical to the second of the sec	569-1002-271 569-1004-122 569-1004-183 569-1004-222 562-0025-004 569-1004-101 569-1004-682 569-1004-681 569-1004-681 569-1004-222 569-1004-102	number. channel ter crys XY	Thus a part no. 519-0011-301 is a national state. CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	receiver crystal for esponding transmit- 126-0110-103 PIRCUITS 544-0003-011
R5	cohms ±10%, 1/2 W K ohms ±10%, 1/2 W entiometer, 5,000 ohms, elch ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W cohms ±10%, 1/2 W cohms ±10%, 1/2 W whims ±10%, 1/2 W cohms ±10%, 1/2 W cohms ±10%, 1/2 W cohms ±5%, 1/2 W	569-1004-222 562-0025-004 569-1004-101 569-1004-682 569-1004-681 569-1004-222 569-1004-102	XY Z1	CRYSTAL BLOCK (10 position) PACKAGED ELECTRONIC C	FIRCUITS 544-0003-011
R9 100 R10 6800 R11 1200 R12 680 R13 2,2 R14 1000 R15 62 6 R16 Pote volu R18 22 6 R19 3300 R20 10,0 R21 470 R22 27 6 R23 510 R24 1 of R26 5100 R27 510	elch ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W K ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W 0 ohms ±5%, 1/2 W	569-1004-101 569-1004-682 569-1004-122 569-1004-681 569-1004-222 569-1004-102	Z1	PACKAGED ELECTRONIC C	FIRCUITS 544-0003-011
R10 6800 R11 1200 R12 6800 R13 2, 2 R14 1000 R15 62 c R16 Pote volu R18 22 c R19 3300 R20 10, 0 R21 470 R22 27 c R23 510 R24 1 ob R26 5100 R27 510	0 ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W ohms ±10%, 1/2 W K ohms ±10%, 1/2 W 0 ohms ±10%, 1/2 W ohms ±5%, 1/2 W entiometer, 10 k ohms,	569-1004-682 569-1004-122 569-1004-681 569-1004-222 569-1004-102	1		544-0003-011
R12 680 R13 2, 2 R14 1000 R15 62 c R16 Pote volu R18 22 c R19 3300 R20 10, 0 R21 470 R22 27 c R23 510 R24 1 ob R26 5100 R27 510	ohms ±10%, 1/2 W K ohms ±10%, 1/2 W O ohms ±10%, 1/2 W Ohms ±5%, 1/2 W entiometer, 10 k ohms,	569-1004-681 569-1004-222 569-1004-102	1	D.E.	
R14 1000 R15 62 c R16 Pote volu R18 22 c R19 3300 R20 10,0 R21 470 R22 27 c R23 510 R24 1 oh R26 5100 R27 510	0 ohms $\pm 10\%$, $1/2$ W ohms $\pm 5\%$, $1/2$ W entiometer, 10 k ohms,	569-1004-102	1		
R15 62 c R16 Pote volu R18 22 c R19 3300 R20 10,0 R21 470 R22 27 c R23 510 R24 1 oh R26 5100 R27 510	ohms ±5%, 1/2 W entiometer, 10 k ohms,		Z 2	Mixer	344-0002-011
R18 22 c R19 3300 R20 10,6 R21 470 R22 27 c R23 510 R24 1 ob R26 5100 R27 510			Z3	1st IF	544-0003-043
R18 22 c R19 3300 R20 10,0 R21 470 R22 27 c R23 510 R24 1 ob R26 5100 R27 510		562-0025-003	Z5	2nd IF	544-0002-014
R19 3300 R20 10,0 R21 470 R22 27 c R23 510 R24 1 ob R26 5100 R27 510			Z6 Z7	Noise limiter Audio diode switch	544-0002-015 544-0002-010
R20 10,0 R21 470 R22 27 c R23 510 R24 1 oh R26 5100 R27 510	ohms ±10%, 1/2 W	569-1004-220	Z8	Audio	544-0002-036
R21 470 R22 27 c R23 510 R24 1 of R26 5100 R27 510	0 ohms ±10%, 1/2 W	569-1004-332	1 20	nadio	011 0002 000
R23 510 R24 1 of R26 5100 R27 510	000 ohms, ±10%, 1/2 W ohms ±10%, 1/2 W	569-1004-103 569-1004-471		455 KHz FILTER	
R26 5100 R27 510	ohms ±10%, 1/2 W ohms ±5%, 1/2 W	569-1004-270 569-1003-511	Z4	Mechanical passband Includes:	023-3254-001
R27 510	nm ±10%, 1/2 W	569-2003-109 569-1003-512		Capacitor, 470 pF, 100V	510-0001-471
	0 ohms ±5%, 1/2 W ohms ±5%, 1/2 W	569-1003-511		Filter transformers	532-1004-001
	ohms ±5%, 1/2 W	569-1003-510		Printed circuit board	035-0196-001
	ohms ±10%, 1/2 W	569-1004-121		ACCESSORY PACKAGE	ITEMS
R30 47 c	ohms ±10%, 1/4 W	569-1002-470			21110
	ohms ±10%, 1/2 W	569-1004-471		Accessory Package	023-2787-001
	ohms ±10%, 1/2 W	569-1004-473		Includes:	
	ohms, ±10%, 1/2W	569-1004-122		Operating manual	002-0104-001
	ohms ±10%, 1/2 W K ohms ±10%, 1/4 W	569-1004-331 569-1002-154		Part 95 Rules - Citizens	022-1635-001
	ohms ±10%, 1/4 W	569-1002-134		Radio Service	000 - 101 - 1
	K ohms ±10%, 1/4 W	569-1002-104		FCC Form 505 -	022-1636-001
	ohms ±10%, 1/4 W	569-1002-123	1	FCC Identification Card	022-1598-004
	,			Warranty Registration Ca Microphone holder	ard 041-0419-014 537-9004-002
	A1111m.e.:			Upper overlay assembly	023-2799-001
	SWITCH			Mounting bracket, hardw	
SW1 Cha	nnel selector	583-4003-506	1	package	564-3001-125
				Reduced Schematic	023-2209-001