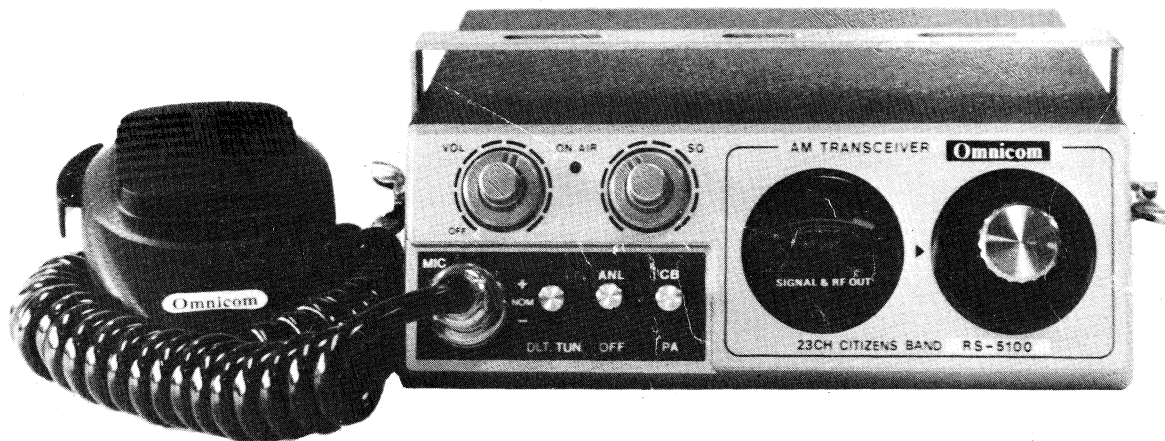


Omnicom

OWNER'S MANUAL

RS-5100

CB MOBILE RADIO
with DELTA TUNING 23 CHANNEL



For your convenience, record the Serial Number of this unit in the space provided. You will find the Serial Number on the rear of the unit.

SERIAL NO.

109031

IMPORTANT

Your Model RS-5100 is a 23-channel, AM Transceiver designed for licensed Class D operation on any of the 23 frequencies designated as Citizens Band channels by the FCC (Federal Communication Commission).

Since this unit is designed and built to fully meet all the requirements of the FCC Rules and Regulations, it is imperative that, before operating this unit, you read and thoroughly understand the contents of Part 95 of the FCC Rules and Regulations prescribing the lawful operation of transceivers of this type. Part 95 regulations are available from the Superintendent of Documents, Government Printing Office, Washington D.C. 20402.

It is also imperative for you to fill out FCC Form 505 as requested and submit it to the FCC to obtain a necessary qualification for operation of the unit. Remember that you are strictly prohibited by law from using the unit without having a valid station license.

Note that adjustments of the transmitter section are prohibited by the FCC with the exception that they are made by a qualified person having a first or second class radiotelephone license, rather than a citizens band or amateur license.

DESCRIPTION

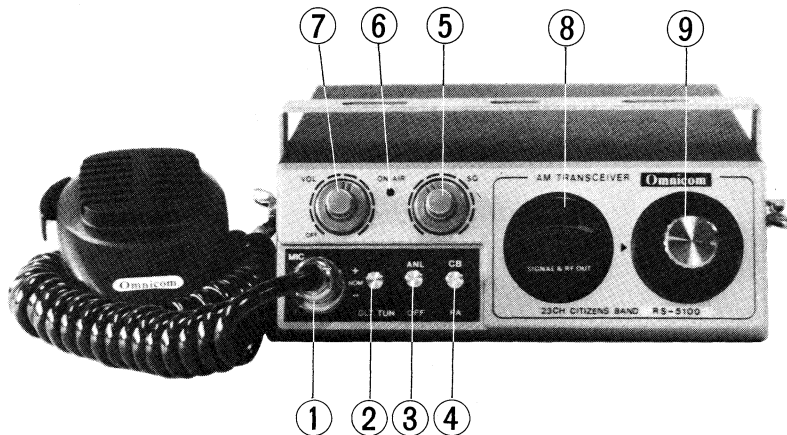
The Model RS-5100 is a fully transistorized transmitter-receiver capable of operating on any of 23 crystal-controlled channels in 27MHz citizens radio band, and is designed to be used for either mobile or fixed station service.

It is developed through many years of our successful experiences in technology to provide sufficient transmitting power and high receiving sensitivity; the advanced techniques employed in every part of the circuitry also assure marked reliability and trouble-free performance.

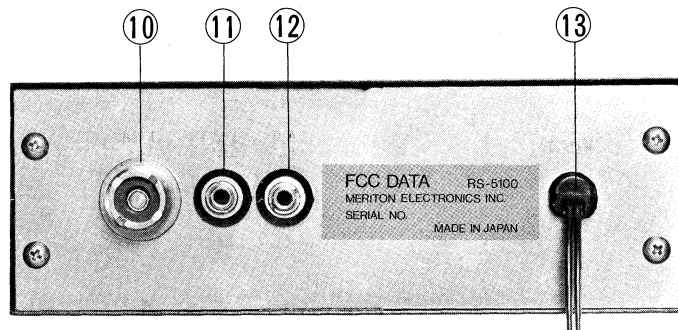
The model comes complete with a variety of auxiliary devices such as built-in PA (public-address) amplifier, delta tune switch, ANL (automatic noise limiter) switch, signal and RF power indicator, on-air lamp, jacks for external speaker and PA speaker, etc., for added convenience of operation.

A microphone with press-to-talk button and a mounting bracket are also included. The model is powered by a 12V negative or positive ground system car-battery or by an appropriate AC-DC converter for fixed station operation.

FRONT VIEW



BACK VIEW



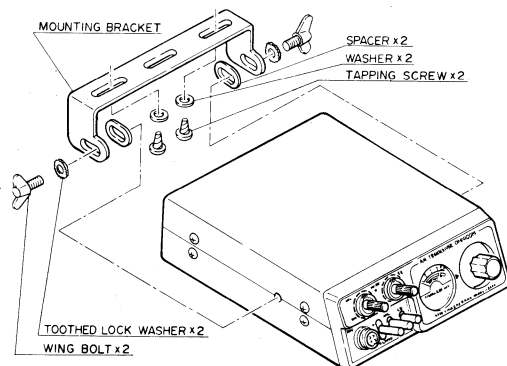
OPERATING PARTS

1. MIC Connector For connection of the supplied press-to-talk microphone.
2. Delta Tune Switch Retunes the receiver in the input frequency when it causes drifting during reception.
3. ANL Switch Automatically reduces external electrical noise, such as pulse or ignition noise introduced in receiving signals.
4. CB/PA Switch PA position is used only for public-address operation. For normal operation this switch should be set to CB position.
5. Squelch Control Functions only in the receive mode. It silences the speaker while the signals are absent and allows a quiet standby operation.
This control does not affect the receiver volume when signals are present.
6. On-air Lamp This lamp keeps lighting while the transmitter is in operation.
7. OFF/Volume Control This control has two functions; power ON/OFF and receiver volume adjustments.
8. Signal/Power Meter A dual purpose meter which indicates relative output power during transmission and input signal strength during reception.
9. Channel Selector Tunes the transmitter and receiver simultaneously in any of 23 channel frequencies.
10. ANT Socket For connection of antenna cable.
11. EXT SP Jack For connection of an external speaker.
This connection automatically shuts off the built-in speaker.
12. PA SP Jack For connection of a public-address speaker.
13. Power Cable This cable should be connected to a 12V car-battery or an AC-DC converter.

INSTALLATION

A suitable place for installing the unit is under the dash of your car. Installation is not complicated; it can be done by simply using the supplied pre-drilled mounting bracket and complete set of screws and nuts (see illustration for details). When choosing a mounting position, be sure to observe the following precautions:

- (1) Avoid places in the vicinity of air conditioning or heating system openings.
- (2) Installing place should be free from moisture and dust.
- (3) To ensure interference-free driving of car and for convenience of operation, allow a proper spacing between the unit and the driver's seat.
- (4) The unit should be installed where there is no direct transmittal of vibrations. It should be either secured in position or held with proper suspension springs.



ANTENNA CONNECTION

Antenna to be used should be of a type conforming to the FCC Regulations. Connect the antenna cable into the standard "M" type ANT Socket provided on the rear of the unit. Proper antenna installation should be referred to the instruction manual included with your antenna.

POWER CONNECTION

The power cable is color-coded to indicate polarity. Connect the red lead to the positive (+) post of a 12V car-battery and the black lead to the negative (-) post. The unit permits connection to either negative or positive ground system battery without requiring modifications.

Note: *Before making connection, ascertain that the OFF/Volume Control is in the extreme counterclockwise position (power OFF).

* Be very careful not to connect the cable in wrong polarity. Wiring in wrong polarity will blow out the fuse (2A) in the cable.

OPERATION

1. PRELIMINARY PROCEDURE

Ascertain that the power and antenna cables are properly connected. Set the CB/PA Switch to the "CB" position and the Squelch Control to the full counterclockwise position. Then proceed as follows:

- (1) Insert the microphone plug into the MIC Socket.
- (2) Rotate the OFF/Volume Control clockwise until a click is heard.
This turns the power on and illuminates the Signal/Power Meter.
- (3) Rotate the OFF/Volume Control further clockwise for suitable volume so that the rushing noise from the speaker can be heard clearly.
- (4) Slowly rotate the Squelch Control clockwise until the noise from the speaker suddenly disappears and then set the control there. This is the position at which optimum squelch effects can be obtained.

2. TRANSMISSION & RECEPTION

CAUTION: DO NOT PUSH THE PRESS-TO-TALK BUTTON ON THE MICROPHONE WITHOUT CONNECTING AN ANTENNA.

- (1) Set the switches and controls as follows:
Delta Tune Switch Center position (NOM)
ANL Switch ANL (ON) position
CB/PA switch CB position
Squelch Control As described under the item "Preliminary Procedure"
- (2) Connect the microphone and set the Channel Selector to the desired channel as indicated directly on the selector knob.
- (3) Turn the power on and adjust the loudness of speaker.
- (4) To transmit push and hold the press-to-talk button on the microphone.
Hold the microphone about 5cm from your mouth and speak in a normal tone of voice.

- (5) When your transmission is completed, release the button on the microphone and you will hear your party's voice. When receiving a weak station, rotate the Squelch Control slightly back for the strongest signal.
- (6) If the receiving frequency causes a drift when you are listening, retune the receiver by setting the Delta Tune Switch to either "+" or "-" position, whichever tunes the receiver in the incoming frequency.

Note: * ANL OFF position is for operation in low noise area.

* If a larger audio output power is desired, connect an external speaker (8 Ω) to the EXT SP Jack.

PUBLIC—ADDRESS OPERATION

Your transceiver is provided with a built-in public-address amplifier so that it can be used as a public-address system. Connect your existing PA speaker (8 Ω) to the PA SP Jack and set the CB/PA Switch to the PA position.

TECHNICAL PERFORMANCE

GENERAL

Frequency Range:	26.965 ~ 27.255MHz, 23 channels
Type of Emission:	A3
Microphone:	600 ohms
Power Supply:	12V negative or positive ground (Polarity Protector contained in unit)
Power Consumption:	Receive approx. 200mA (squelch ON)
	Transmit approx. 1500mA (maximum mod.)
Operating Condition:	a. Ambient temperature: -10°C ~ +50°C
	b. Relative humidity: +40°C 95% or less
	c. Power Variation: 11V ~ 15V
Dimensions and Weight:	a. Dimensions: 165(W) × 55(H) × 200(D)mm
	b. Weight: approx. 1.5kg

TRANSMITTER

Frequency Stability: 0.005% or better ($-30^{\circ}\text{C} \sim +50^{\circ}\text{C}$)
RF Output: 4 watts max.
Modulation: 95%
Harmonics and Spurious Emission: 50dB or more below carrier level
Antenna Terminal Impedance: 50 ohms

RECEIVER

Sensitivity: $0.5\mu\text{V}$ for 10dB S/N (30% mod.)
Selectivity: 6dB at bandwidth 5.5kHz min., adjacent channel rejection 50dB min.
Spurious Rejection: 50dB min.
AGC Characteristics: Within 10dB AF variation for $2\mu\text{V} \sim 1.0\text{V}$ RF input
Squelch: Minimum sensitivity 0.5V
AF Output: Built-in speaker 1 watt
External speaker 3 watts
Type of Speaker: Dynamic type, 8 ohm

CHANNEL FREQUENCIES (assigned by FCC)

Ch 1	26.965MHz	* Ch 9	27.065MHz	Ch 17	27.165MHz
Ch 2	26.975	Ch 10	27.075	Ch 18	27.175
Ch 3	26.985	Ch 11	27.085	Ch 19	27.185
Ch 4	27.005	Ch 12	27.105	Ch 20	27.205
Ch 5	27.015	Ch 13	27.115	Ch 21	27.215
Ch 6	27.025	Ch 14	27.125	Ch 22	27.225
Ch 7	27.035	Ch 15	27.135	Ch 23	27.255
Ch 8	27.055	Ch 16	27.155		

* emergency channel

ADJUSTMENTS

ADJUSTMENT PROCEDURE

For adjustments of transceiver, connect a 50-ohm dummy load across the antenna terminals. It is recommended that adjustment be made repeatedly according to the instructions given in the Adjustment Procedure Table.

1. Pull out the chassis toward the front panel (remove screws on casing).
2. Maximum modulation degree is 90%. Level setting for over-modulation protection should be performed by VR5.
3. Standard modulated input (50% mod.) for the microphone is 2mV/600 ohms at 1kHz.
4. Squelch adjustment: Turn the squelch knob fully clockwise. Connect SSG to the antenna terminals and feed 40dB input. Adjust VR3 until squelch opens. Then remove the input signal and turn the squelch knob fully counterclockwise whereby noise will be heard from the speaker. Turn the knob slowly in clockwise direction and squelch will be on at approximately 1/3 position of the turning range. Set the knob there. Feed 0dB input signal from SSG and check that squelch is working properly.
5. Meter setting:
 - a) RF output
Adjust VR6 so that meter reading shows the 2/3 position on the meter scale while transmitting through 50-ohm dummy load.
 - b) Input signal
With 90dB signal fed from SSG, adjust VR1 until the meter reading shows the full right position "10" of the meter scale in the receive mode.

Note: Power consumption under normal operation:

Receive (squelch on)	200mA (approx)
Transmit (no mod.)	800mA (approx)
Transmit (full mod.)	1300mA (approx)

ADJUSTMENT PROCEDURE TABLE (transmitter)

	Item	Adjusting Point	Test Point	Procedure	Test Instrument
1	Oscillator (37MHz)	L109	TP-3	Set channel to Ch.23. Align L109 until Freq. Counter shows 37.850MHz when VTVM is in full scale. Fix L109. Standard voltage at TP-3 is 0.8 ~ 0.9V.	Freq. counter RF VTVM
2	Mixer	L110 L111	TP-5	Set channel to Ch.9. Align L110, L111 until VTVM on TP-5 shows full scale reading. Standard voltage at TP-5 is 0.35V.	RF VTVM
3	Exciter (Buffer driver)	L112 L113	TP-7	Set channel to Ch.9. Align L112 and L113 for maximum current on DC ammeter connected to TP-7. Standard current at TP-7 is 0.4mA.	DC ammeter
4	Power amp.	L116 L117	Ant. terminal	Align L116 and L117 for maximum power, with dummy load connected to antenna terminals. Then align L112 and L113 for maximum power. Standard output is 3 ~ 3.2W.	50-ohm dummy load

	Item	Adjusting Point	Test Point	Procedure	Test Instrument
5	Modulation	R46	Ant. terminal	Feed 2.5kHz AF oscillator output to microphone. Adjust AF input level until 50% modulation wave is seen on oscilloscope. Increase AF input level 16db (6 times) at 50% modulation. Adjust VR5 and fix it where modulation degree does not exceed 90%. Standard AF input level at 50% modulation is approx. 2mV/600 ohms.	AF oscillator Oscilloscope AF VTVM

Note:

1. All adjustments should be made under channel 9, except 37MHz oscillator adjustment.
2. All test points are "plus" polarity except TP-7.
3. Polarity of TP-7 is "minus" at choke coil L114 and "plus" at power source.
4. TP-8 is "minus"

ADJUSTMENT PROCEDURE TABLE (receiver)

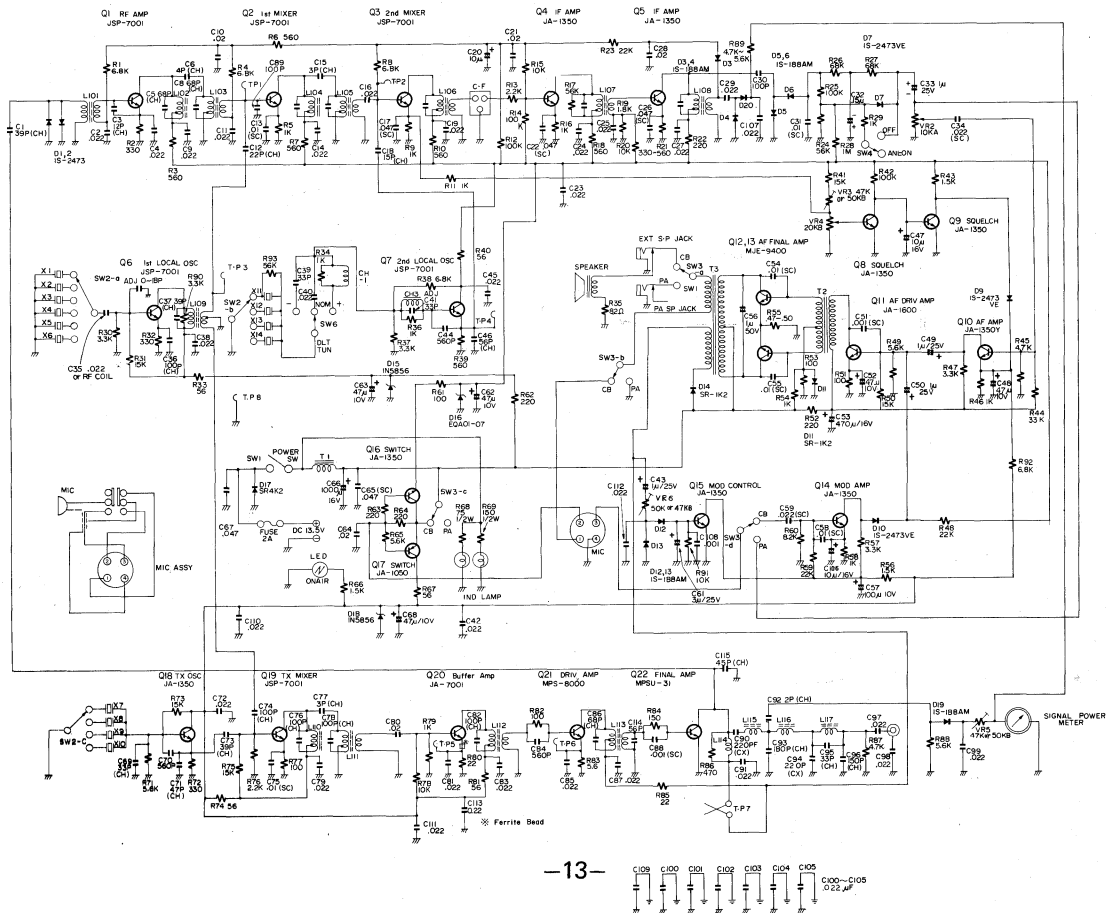
	Item	Adjusting Point	Test Point	Procedure	Test Instrument
1	AF Amplifier	None	Speaker terminal (EXT SP JACK)	With 10mV signal applied to both inputs of VR2, check wave and output voltage at speaker terminals. The output voltage is approx. 3V. No remarkable distorted wave should be observed. Speaker impedance is 8 ohms.	AF oscillator VTVM Oscilloscope
2	2nd IF	L106 L107 L108	EXT SP JACK	Accurately align SSG freq. to 455kHz and feed 20db output power (30% mod) from TP-2. Align L106 thru L108 for maximum AF output. The circuits after 2nd IF are normal, if AF output at EXT SP JACK reads 3V/8-ohm when the input is lowered to 15db.	SSG VTVM Oscilloscope
3	2nd local oscillator (10MHz)	None	TP-4	Set channel to Ch.9. Connect Freq. Counter and VTVM to TP-4. Accurate 10.180MHz on Freq. Counter. Standard voltage at TP-3 is 0.4 ~ 0.6V.	Freq. counter VTVM

	Item	Adjusting Point	Test Point	Procedure	Test Instrument
4	1st IF	L104 L105	EXT SP JACK	Set channel to Ch.11. Adjust SSG freq. sharply for 10.615MHz. With about 20db output (30% mod) applied to TP-1, adjust L104 and L105 until maximum output is obtained at EXT SP JACK. The measured AF output should be about 3V/8-ohm, with 10db input applied to TP-1.	SSG VTVM Oscilloscope
5	1st local oscillator (37MHz)	L109	TP-3	This stage is used in common with the oscillator on transmitter section. For alignment, refer to the instructions given in transmitter section.	Freq. counter VTVM
6	RF amplifier	L101 L102 L103	EXT SP JACK	Set channel to Ch.9 and SSG freq. to the Ch.9 frequency. With 10db output (30% mod) applied to antenna terminal, adjust L101-L103 for maximum output at EXT SP JACK, which should be about 3V/8-ohm at 2-3db of RF input.	SSG VTVM Oscilloscope

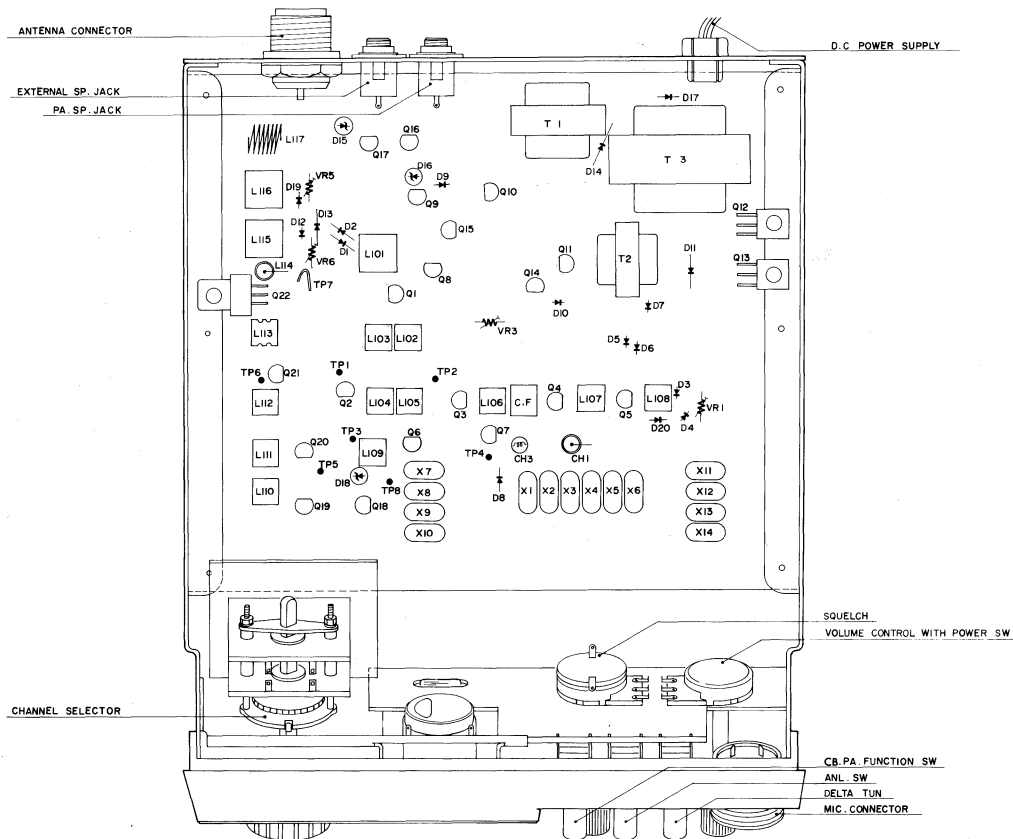
- Note: 1. When checking AF output, EXT SP JACK should be terminated with an 8-ohm speaker or a noninductive resistor.
2. SSG connection to TP-1 or TP-2 must be made thru 0.04~0.1 μ F capacitor.

OMNICON RS-5100

SCHEMATIC DIAGRAM



PARTS LOCATION



PARTS LIST

Symbol No.	Code No.	Description	Symbol No.	Code No.	Description
Q 1	16304197001	JSP-7001 RF Amp	D 1	16411992473	IS-2473 Diode
2	16304197001	JSP-7001 1st Mix	2	16411992473	IS-2473 Diode
3	16304197001	JSP-7001 2nd Mix	3	16411190188	IS-188AM Diode
4	16304191350	JA-1350 IF Amp	4	16411190188	IS-188AM Diode
5	16304191350	JA-1350 IF Amp	5	16411190188	IS-188AM Diode
6	16304197001	JSP-7001 1st Local OSC	6	16411190188	IS-188AM Diode
7	16304197001	JSP-7001 2nd Local OSC	7	16461992473	IS-2473VE Diode
8	16304191350	JA-1350 Squelch			
9	16304191350	JA-1350 Squelch	9	16461992473	IS-2473VE Diode
10	16304191350	JA-1350 AF Amp	10	16461992473	IS-2473VE Diode
11	16304191600	JA-1600 AF Drive Amp	11	16515991002	SRIK2 Diode
12	16304199400	MJE-9400 AF Final Amp	12	16411190188	IS-188AM Diode
13	16304199400	MJE-9400 AF Final Amp	13	16411190188	IS-188AM Diode
14	16304191350	JA-1350 MOD Amp	14	16515991002	SR1K2 Diode
15	16304191350	JA-1350 MOD Cont.	15	16602995856	1N-5856 Zener
16	16304191350	JA-1350 Switch	16	16602990107	EQA01-07 Zener
17	16004191050	JA-1050 Switch	17	16515991002	SR1K2 Diode
18	16304191350	JA-1350 TX OSC	18	16602995856	1N-5856 Zener
19	16304197001	JSP-7001 TX Mix	19	16411190188	IS-188AM Diode
20	16304197001	JSP-7001 Suffer Amp	20	16411190188	IS-188AM Diode
21	16304198000	MPS-8000 Drive Amp			
22	16304190031	MPSU-31 Final Amp	LED	16669990103	SEL-103R TX IND

Symbol No.	Code No.	Description	Symbol No.	Code No.	Description
X 1	06300077870	37.600MHz Crystal	L 110	00009077889	27MHz TX RF Coil
2	06300077871	37.650 " Crystal	111	00009077889	27MHz TX RF Coil
3	06300077872	37.700 " Crystal	112	00009077889	27MHz TX RF Coil
4	06300077873	37.750 " Crystal	113	00009077890	27MHz TX RF Coil
5	06300077874	37.800 " Crystal	114	00019077891	27MHz RF Choke
6	06300077875	37.850 " Crystal	115	00079077892	27MHz TX RF Coil
7	06300077876	10.635 " Crystal	116	00079077893	27MHz TX RF Coil
8	06300077877	10.625 " Crystal	117	00056077894	27MHz TX RF Coil
9	06300077878	10.615 " Crystal			
10	06300077879	10.595 " Crystal	CH 1	00022077896	RF Choke Coil
11	06300077880	10.180 " Crystal	3	00027086343	Choke Coil
12	06300077881	10.170 " Crystal			
13	06300077882	10.160 " Crystal			
14	16300077883	10.140 " Crystal			
			CF	06312077897	CFU-455H Ceramic Filter 455kHz
L101	00009077884	27MHz RX RF Coil			
102	00009077885	27MHz RX RF Coil			
103	00009077885	27MHz RX RF Coil	T 1	10429877900	Choke Trans
104	00100077886	10.615MHz 1st IFT	2	10203877898	Input Trans
105	00100077886	10.615MHz 1st IFT	3	10376877899	Output Trans
106	00700077887	455kHz 2nd IFT			
107	00701078170	455kHz 2nd IFT	VR 1	01736487800	Semi-fixed VR
108	00702078171	455kHz 2nd IFT	2	01196061055	Volume Cont.
109	00009077888	38MHz OSC Coil	3	01736487800	Semi-fixed VR

Symbol No.	Code No.	Description	Symbol No.	Code No.	Description
VR 4	01196061056	Volume Cont.			(All resistance values are in Ω , $\pm 10\%$, $\frac{1}{4}W$, and solid type unless otherwise indicated.)
5	01736487800	Semi-fixed VR			
SWa-C	04192561060	CH Rotary Switch	R 1	11054696801	6.8k
	04892061218	PA/CB Lever Switch	2	11054693300	330
	04892061219	ANL Lever Switch	3	11054695600	560
	04894061220	DLT TUN Lever Switch	4	11054696801	6.8k
			5	11054691001	1k
			6	11054695600	560
SP, PA	05010082809	External SP Jack	7	11054695600	560
			8	11054696801	6.8k
PA, SP	05010082809	PASP out Jack	9	11054691001	1k
			10	11054695600	560
MIC	13219061057	600 ohms Microphone	11	11054691001	1k
	05610076997	M type Antenna connector	12	11144691003	100k Carbon
			13	11054692201	2.2k
SP	03170061058	8 ohms Speaker	14	11054691003	100k
	15124088858	2A Fuse	15	11054691002	10k
	05620078115	Fuse Holder	16	11054691001	1k
	07091061059	400 μ A Meter	17	11054695602	56k
	14002071738	6V/30mA Lamp	18	11054695600	560
	14099078116	6V/80mA Lamp	19	11054691801	1.8k
	15000078180	PC Board	20	11054691002	10k
			21	11054693300	330
			22	11054692200	220

Symbol No.	Code No.	Description	Symbol No.	Code No.	Description
R 23	11144692202	22k Carbon	R 47	11044693301	3.3k
24	11054695602	56k	48	11044692202	22k
25	11054691003	100k	49	11054695601	5.6k
26	11054696802	68k	50	11044691502	15k
27	11054696802	68k	51	11054691000	100
28	11144691004	1M Carbon	52	11044692200	220
29	11054691001	1k	53	11044691000	100
30	11054693301	3.3k	54	11044691001	1k
31	11054691502	15k	55	11816690005	0.5 1W Metal Film
32	11054693300	330	56	11054691501	1.5k
33	11044690560	56	57	11054693301	3.3k
34	11054691001	1k	58	11054691001	1k
35	11816690080	8 1W Metal Film	59	11144692202	22k Carbon
36	11054691001	1k	60	11144698201	8.2k Carbon
37	11054693301	3.3k	61	11054691000	100
38	11054696801	6.8k	62	11054692200	220
39	11054695600	560	63	11054692200	220
40	11044690560	56	64	11054692200	220
41	11054691502	15k	65	11054695601	5.6k
42	11054691003	100k	66	11054691501	1.5k
43	11054691501	1.5k	67	11054690560	56
44	11144693302	33k Carbon	68	11045690750	75 ½W
45	11144694701	4.7k Carbon	69	11045691500	150 ½W
46	11054691001	1k	70	11045691500	150 ½W

Symbol No.	Code No.	Description	Symbol No.	Code No.	Description
R 71	11054695601	5.6k			(All capacitance values are in μF , $\pm_{20}^{80}\%$, 50V and ceramic type unless otherwise indicated.)
72	11054693300	330			
73	11054691502	15k	C 1	12530490390	39P (CH) $\pm 10\%$
74	11044690560	56	2	12501692002	0.022
75	11054691502	15k	3	12530490120	12P (CH) $\pm 10\%$
76	11054692201	2.2k	4	12501692002	0.022
77	11054691000	100	5	12530490680	68P (CH) $\pm 10\%$
78	11054691002	10k	6	12530090040	4P (CH) $\pm 0.5\text{P}$
79	11054691001	1k	8	12530490680	68P (CH) $\pm 10\%$
80	11054690220	22	9	12501692002	0.022
81	11054690560	56	10	12501692002	0.022
82	11054691000	100	11	12501692002	0.022
83	11054690056	5.6	12	12530490220	22P (CH) $\pm 10\%$
84	11054691500	150	13	12520191002	0.01 25V
85	11054690220	22	14	12501692002	0.022
86	11054694700	470	15	12530090030	3P (CH) $\pm 0.5\text{P}$
87	11054694701	4.7k	16	12501692002	0.022
88	11054695601	5.6k	17	12520194702	0.047 25V
89	11054695601	5.6k	18	12530490150	15P (CH) $\pm 10\%$
90	11054693301	3.3k	19	12501692002	0.022
91	11054691002	10k	20	12313091005	10 $\pm_{10}^{100}\%$ 16V Elec.
92	11044696801	6.8k	21	12501692002	0.022
93	11054695602	56k	22	12520194702	0.047 25V
			23	12501692002	0.022

Symbol No.	Code No.	Description	Symbol No.	Code No.	Description
C 24	12501692002	0.022	C 48	12312094705	47 $\pm 100\%$ 10V Elec.
25	12501692002	0.022	49	12314191004	1 $\pm 150\%$ 25V Elec.
26	12520194702	0.047 25V	50	12314191004	1 $\pm 150\%$ 25V Elec.
27	12501692002	0.022	51	12520191001	0.001 $\pm 5\%$ 25V
28	12501692002	0.022	52	12312094705	47 $\pm 100\%$ 10V Elec.
29	12501692002	0.022	53	12313094706	470 $\pm 100\%$ 16V Elec.
30	12501591000	100P $\pm 20\%$	54	12520191002	0.01 25V
31	12520191002	0.01 25V	55	12520191002	0.01 25V
32	12436091503	0.15 $\pm 10\%$ 35V Tantalum	56	12396391004	1 $\pm 20\%$ Non-polar
33	12314191004	1 $\pm 150\%$ 25V Elec.	57	12312091006	100 $\pm 100\%$ 10V Elec.
34	12520192202	0.022 25V	58	12520191002	0.01 25V
35	12501692002	0.022	59	12520192202	0.022 25V
36	12530491000	100P (CH) $\pm 10\%$	61	12314193304	3.3 $\pm 150\%$ 25V Elec.
37	12530490390	39P (CH) $\pm 10\%$	62	12312094705	47 $\pm 100\%$ 10V Elec.
38	12501692002	0.022	63	12312094705	47 $\pm 100\%$ 10V Elec.
39	12530490330	33P(CH) $\pm 10\%$	64	12501692002	0.022
40	12501692002	0.022	65	12520194702	0.047 25V
41	12530490330	33P (CH) $\pm 10\%$	66	12313091007	1000 $\pm 100\%$ 16V Elec.
42	12501692002	0.022	67	12520194702	0.047 25V
43	12314191004	1 $\pm 150\%$ 25V Elec.	68	12312094705	47 $\pm 100\%$ 10V Elec.
44	12520195600	560P $\pm 10\%$	69	12530490330	33P (CH) $\pm 10\%$
45	12501692002	0.022			
46	12530490560	56P (CH) $\pm 10\%$			
47	12313091005	10 $\pm 100\%$ 16V Elec.			

Symbol No.	Code No.	Description	Symbol No.	Code No.	Descripton
C 70	12520195600	560P ±10%	C 94	12532392200	220P ±5%
71	12530490470	47P (CH) ±10%	95	12530490330	33P (CH) ±10%
72	12501692002	0.022	96	12530491500	150P (CH) ±10%
73	12530490390	39P (CH) ±10%	97	12501692002	0.022
74	12530491000	100P (CH) ±10%	98	12501692002	0.022
75	12520191002	0.01 25V	99	12501692002	0.022
76	12530491000	100P (CH) ±10%	100	12501692002	0.022
77	12530090030	3P (CH) ±0.5P	101	12501692002	0.022
78	12530491000	100P (CH) ±10%	102	12501692002	0.022
79	12501692002	0.022	103	12501692002	0.022
80	12501692002	0.022	104	12501692002	0.022
81	12501692002	0.022	105	12501692002	0.022
82	12530491000	100P (CH) ±10%	106	12313091005	10 ± ₁₀ ¹⁰⁰ % 16V Elec.
83	12501692002	0.022	107	12501692002	0.022
84	12501595600	560P ±20%	108	12501591001	0.001
85	12501692002	0.022	109	12501692002	0.022
86	12530490680	68P (CH) ±10%	110	12501692002	0.022
87	12501692002	0.022	111	12501692002	0.022
88	12520191001	0.001 ±5% 25V	112	12501692002	0.022
89	12501591000	100P ±20%	113	12501692002	0.022
90	12532392200	220P ±5%	114	12501590560	56P ±20%
91	12501692002	0.022	115	12530490470	47P (CH) ±10%
92	12530090020	2P ±0.5P	adj.	12530490180	18P (CH) ±10%
93	12530491800	180P (CH) ±10%			

FREQUENCY SYNTHESIZING SYSTEM

TABLE A TRANSMITTER

CHANNEL NO.	CHANNEL FREQUENCY (MHz)	CRYSTAL COMBINATION	SYNTHESIZED FREQUENCY (MHz)
1	26.965	X1 - X7	26.965
2	26.975	X1 - X8	26.975
3	26.985	X1 - X9	26.985
4	27.005	X1 - X10	27.005
5	27.015	X2 - X7	27.015
6	27.025	X2 - X8	27.025
7	27.035	X2 - X9	27.035
8	27.055	X2 - X10	27.055
9	27.065	X3 - X7	27.065
10	27.075	X3 - X8	27.075
11	27.085	X3 - X9	27.085
12	27.105	X3 - X10	27.105
13	27.115	X4 - X7	27.115
14	27.125	X4 - X8	27.125
15	27.135	X4 - X9	27.135
16	27.155	X4 - X10	27.155
17	27.165	X5 - X7	27.165
18	27.175	X5 - X8	27.175
19	27.185	X5 - X9	27.185
20.	27.205	X5 - X10	27.205
21	27.215	X6 - X7	27.215
22	27.225	X6 - X8	27.225
23	27.255	X7 - X10	27.255

TABLE B RECEIVER

CHANNEL NO.	CHANNEL FREQUENCY (MHz)	1st LOCAL OSC XTAL	2nd LOCAL OSC XTAL	2nd LOCAL OSC XTAL FREQ. (MHz)	IF-2 FREQ. (kHz)
1	26.965	X1	X11	10.180	455
2	26.975	X1	X12	10.170	455
3	26.985	X1	X13	10.160	455
4	27.005	X1	X14	10.140	455
5	27.015	X2	X11	10.180	455
6	27.025	X2	X12	10.170	455
7	27.035	X2	X13	10.160	455
8	27.055	X2	X14	10.140	455
9	27.065	X3	X11	10.180	455
10	27.075	X3	X12	10.170	455
11	27.085	X3	X13	10.160	455
12	27.105	X3	X14	10.140	455
13	27.115	X4	X11	10.180	455
14	27.125	X4	X12	10.170	455
15	27.135	X4	X13	10.160	455
16	27.155	X4	X14	10.140	455
17	27.165	X5	X11	10.180	455
18	27.175	X5	X12	10.170	455
19	27.185	X5	X13	10.160	455
20	27.205	X5	X14	10.140	455
21	27.215	X6	X11	10.180	455
22	27.225	X6	X12	10.170	455
23	27.255	X6	X13	10.140	455

TABLE C

CRYSTAL NO.	OSC. FREQUENCY (MHZ)	CHANNELS IN WHICH USED					
X-1	37.600	1	2	3	4		
X-2	37.650	5	6	7	8		
X-3	37.700	9	10	11	12		
X-4	37.750	13	14	15	16		
X-5	37.800	17	18	19	20		
X-6	37.850	21	22	23			
X-7	10.635	1	5	9	13	17	21
X-8	10.625	2	6	10	14	18	22
X-9	10.615	3	7	11	15	19	
X-10	10.595	4	8	12	16	20	23
X-11	10.180	1	5	9	13	17	21
X-12	10.170	2	6	10	14	18	22
X-13	10.160	3	7	11	15	19	
X-14	10.140	4	8	12	16	20	23

meriton[®] ELECTRONICS INC.
35 Oxford Drive, Moonachie, N.J. 07074

394-123-90001
Printed in Japan