

This Information Is Provided By
CBTricks.com

SBE 1CB Coronado Owner's Manual

Liability of damages to any equipment is the sole responsibility of the user! Downloading, viewing, or using any information provided on these pages automatically accepts the user to the terms of this agreement!

Modifications are provided for information purposes only!

Supporters of CBTricks.com paid for the hosting so you would have this file.

CBTricks.com is a non-commercial personal website was created to help promote the exchange of service, modification, technically oriented information, and historical information aimed at the Citizens Band, GMRS (CB "A" Band), MURS, Amateur Radios and RF Amps.

CBTricks.com is not sponsored by or connected to any Retailer, Radio, Antenna Manufacturer or Amp Manufacturer, or affiliated with any site links shown in the links database. The use of product or company names on my web site is not endorsement of that product or company.

The site is supported with donations from users, friends and selling of the Site Supporters DVD's to cover some of the costs of having this website on the Internet instead of relying on banner ads, pop-up ads, commercial links, etc. Thus I do not accept advertising banners or pop-up/pop-under advertising or other marketing/sales links or gimmicks on my website.

ALL the money from donations is used for CBTricks.com I didn't do all the work to make money (I have a day job). This work was not done for someone else to make money also, for example the ebay CD sellers.

All Trademarks, Logos, and Brand Names are the property of their respective owners.

This information is not provided by, or affiliated in any way with any radio or antenna Manufacturers.

Thank you for any support you can give.

For information on how to Support CBTricks.com

<http://www.cbtricks.com/support/>



Coronado



TWENTY THREE CHANNEL
CITIZENS BAND TRANSCEIVER

LINEAR SYSTEMS, INC.

220 AIRPORT BLVD.

WATSONVILLE CALIFORNIA USA

The Sideband Engineers' Coronado transceiver is designed and engineered for licensed Class D operation on any of the 23 channels designated as Citizens Band frequencies by the Federal Communications Commission. You are required to read and understand Part 95 of the FCC regulations prior to operation of this unit. Copies of Part 95, covering regulations for the Citizens Band Radio Service are available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

You must also obtain a license and call sign before operating your Coronado. If you do not have a Class D station license, request an application for a Class D station license for the Citizens Radio Service (FCC form 505) obtainable from any FCC field office.

WARNING: Transmitter section adjustments must be performed by a qualified technician holding a valid first or second class FCC Radiotelephone License.

The Sideband Engineers' Coronado transceiver is a compact solid-state two-way radio intended for use as a Class D station in the Citizens Radio Service. The Coronado features integrated circuits, built-in public address, transmitter output-receiver signal strength meter and illuminated channel selector. The equipment comes complete with microphone, mobile mounting bracket, power cable and crystals installed for all 23 channels.

1.0 SPECIFICATIONS

1.1 Transmitter

1. Frequency Range	26.965 - 27.255 MHz
2. Frequency Tolerance	.005% 0°F to 120°F
3. DC Power Input to Final	5 watts
4. RF Power Output	3 watts nominal
5. Emission	A3
6. Spurious Output	Greater than -50 dB
7. Output Impedance	50 ohms unbalanced
8. Modulation Capability	100%

1.2 Receiver

1. Frequency Range	26.965 - 27.255 MHz
2. Intermediate Frequency	455 KHz, 10 MHz
3. Sensitivity	0.5 uv for 6 dB signal to noise ratio @ 1 KHz
4. Selectivity	-40 dB @ 1 KHz
5. Image Rejection	-50 dB
6. Audio Output	Greater than 2 watts
7. AGC Sensitivity	1 uv
8. Squelch Threshold	1 uv
9. Antenna Impedance	50 ohms nominal
10. Speaker Impedance	8 ohms

1.3 Miscellaneous

Power consumption @ 13.8 v	
Receiver (squelched)	250 MA
Receiver (full audio)	1.1 A
Transmit (100% modulation)	1.2 A

2.0 INSTALLATION

2.1 Mobile

The Coronado is supplied with a universal mounting bracket and microphone holder. The transceiver may be mounted in any plane and on any rigid surface, such as, underneath an automobile dashboard, truck roof or vertically on a boat bulkhead.

DC power should be derived directly from the vehicle's battery in order to minimize voltage losses and ignition interference. The unit is designed for a 12 volt negative or positive ground system. Connect the red wire to the positive (+) battery terminal, black wire to negative (-). If the transceiver's power lead must be lengthened, use No. 14 (or larger) wire.

2.1.1 Mobile Antenna

The antenna best suited for mobile applications is either a base loaded or full quarter wave vertical whip. This type of antenna is non-directional thus assuring minimum signal variation as the vehicle changes direction. A standard antenna connector (type SO-239) is located on the rear panel for convenient connection to a standard PL-259 cable plug. Type RG-8/U or RG-58/U cable is recommended for transmission line.

2.1.2 Antenna Matching Adjustment

For optimum performance, the Coronado should be matched to the antenna system. An in-line wattmeter or VSWR bridge may be used. Key the transmitter on Channel 11 and adjust L-10, located adjacent to the antenna connector, until maximum forward power or minimum VSWR is obtained. This adjustment may only be made by a technician holding a valid first or second class FCC Radio Telephone License.

2.2 Base Station

For base station operation, the Sideband Engineers' model AC-1 Base Station Power Supply is recommended. The supply provides a regulated 13.5 volts output with an input voltage of 110-120 volts AC, 50 - 60 Hz. The AC-1 also incorporates a sound reflector which directs the speaker output through the front grille of the power supply.

2.2.1 Base Station Antenna

The Coronado may be used with any type of 52 ohm base station antenna. A ground plane vertical antenna will provide the most uniform horizontal coverage. This type of antenna is best suited for communication with a mobile unit. For point-to-point operation where both stations are stationary, a directional beam will usually increase communication range since this type of antenna concentrates all the transmitted energy in one direction. The beam antenna also allows the receiver to "listen" in only one direction thus reducing interfering signals.

Antenna height is an important factor when maximum range is desired. Keep the antenna clear of surrounding structures or foliage. FCC regulations limit antenna height to 20 feet above an existing structure.

2.3 Public Address

An external 8 ohm, 3 watt speaker may be connected to the pin jack located on the rear panel when the Coronado is used as a public address system. The external speaker should be directed away from the microphone to prevent feedback.

2.4 Remote Speaker

The "PA speaker" jack may also be used for remote receiver monitoring. Connect an 8 ohm, 3 watt speaker

and select the desired channel. Place the PA-CB switch in the PA position.

3.0 OPERATION

3.1 CONTROLS

- 3.1.1 Off/On Volume - Turn clockwise to apply power to the unit and set to the desired listening level.
- 3.1.2 Squelch - Blanks out unwanted noise when no signals are present. Turn fully counterclockwise then slowly clockwise until the receiver noise disappears. Any signal to be received must now be slightly stronger than the received noise. Further clockwise rotation will increase the threshold level which a signal must overcome in order to be heard. Only very strong signals will be heard at maximum clockwise setting.
- 3.1.3 Channel - Selects the desired frequency for transmission and reception. Channels 9 thru 14 and 23 may be used for communication between stations operating under different licenses and between units sharing a single license whereas all other channels may be used only between units operating under the same license.
- 3.1.4 PA-CB Switch - Selects the mode of operation. The PA function should not be used unless an external speaker is connected as described in Installation Section of this manual. In the CB position, the PA function is disabled and the unit will transmit and receive on the selected frequency.
- 3.1.5 Press-to-Talk Microphone - The receiver and transmitter are controlled by the press-to-talk switch on the microphone. Press the switch and the transmitter is activated; release switch to receive. When transmitting, hold the microphone two to three inches from the mouth and speak clearly in a normal voice.
- 3.1.6 Dual Function Meter - on the front panel provides a constant visual monitor of incoming signal strength when receiving and

relative output power when transmitting. This meter is particularly useful for positioning a directive receiving antenna as well as measuring the relative performance of the transmitter with respect to its antenna.

3.2 OPERATING PROCEDURE

3.2.1 To Receive -

1. Turn the set on with the off/on volume control.
2. Set the channel selector to the desired operating channel.
3. Rotate the squelch control fully counterclockwise. Advance the volume control clockwise until background noise is heard at a comfortable listening level.
4. Advance the squelch control clockwise until the receiver "quiets".

3.2.2 To Transmit -

1. Set the PA-CB switch to the CB position.
2. Select the desired channel.
3. If the channel is clear, depress the push-to-talk switch on the microphone and speak in a normal voice. The front panel meter will indicate your relative output signal. Release the push-to-talk switch to receive.

3.2.3 PA Operation

1. Set the PA-CB switch to the PA position.
2. Depress the push-to-talk switch on the microphone and speak in a normal voice.

4.0 SERVICE MAINTENANCE

Should your Coronado fail to perform as stated in this manual, it is recommended that Sideband Engineers be contacted in writing. SBE will either authorize return of the unit to the factory or refer you to an authorized SBE repair agency in your area. Do not ship equipment without prior written authorization from SBE. Your letter to SBE must include the following particulars.

1. Model number and serial number of equipment.
2. Date of purchase of equipment.
3. Nature of trouble.
4. Cause of trouble if known.
5. Name of distributor from whom the equipment was purchased.
6. Your return address.
7. Method of shipment by which the equipment should be returned.

In addition, include any information that you feel will be helpful in locating or correcting the problem.

5.0 PARTS ORDERING INFORMATION

When ordering replacement parts, you should direct your order to an SBE distributor or Sideband Engineers, Replacement Parts Department, 220 Airport Boulevard, Watsonville, California, 95076. Please furnish the following information.

1. Quantity required.
2. SBE part number and description.

3. Item or symbol number obtained from parts list, schematic, or component location drawing.
4. SBE model number and serial number.

Unless specified, SBE will determine the best method of shipment for the parts involved. All parts will be sent C. O. D. unless ordered through an SBE distributor.

WARRANTY

Linear Systems, Inc., warrants equipment manufactured by it to be free from defects in material or workmanship and agrees to repair such equipment which under normal use and service, develops defects arising from the fault of the manufacturer. Equipment must be returned transportation prepaid within 90 days from the date of original purchase, and unless the warranty card has been filled in and returned within 10 days of original purchase, the warranty shall be void.

This warranty does not apply to equipment which (1) has been repaired or altered by anyone in any way so as, in our judgment, to injure its stability or reliability, (2) has been subject to misuse, negligence, or accident, (3) has had the serial number altered, defaced or removed, or (4) has been connected, installed, adjusted otherwise than in accordance with our written instructions.

The foregoing is in lieu of any other warranty or liability expressed, implied, or statutory and in no event shall Linear Systems, Inc., be liable for special or consequential damages. Linear Systems, Inc., neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with this equipment.

LINEAR SYSTEMS, INC.
220 Airport Boulevard
Watsonville, California 95076

SYM.	PART #	DESCRIPTION
C1	1503-00721	Capacitor, Fixed, 30 pfd, 50 v, 10%, Mica
C2	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C3	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C4	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C5	1501-00024	Capacitor, Fixed, 30 pfd, 50 v, Ceramic
C6	1503-00716	Capacitor, Fixed, 20 pfd, 50 v, 10%, Mica
C7	1503-00607	Capacitor, Fixed, 35 pfd, 50 v, 10%, Mica
C8	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C9	1501-00023	Capacitor, Fixed, 1.5 pfd, 50 v, 10%, Ceramic
C10	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C11	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C12	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C13	1511-00001	Capacitor, Fixed, 1500 pfd, 25 v, 10%, Styrol
C14	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C15	1501-00022	Capacitor, Fixed, .05 mfd, +80% -20%, Ceramic
C16	1501-00022	Capacitor, Fixed, .05 mfd, +80% -20%, Ceramic
C17	1503-00606	Capacitor, Fixed, 2 pfd, 50 v, 10%, Mica
C18	1501-00021	Capacitor, Fixed, .047 mfd, 50 v, +80% -20%, Ceramic
C19	1503-00605	Capacitor, Fixed, .10 pfd, 50 v, 10%, Mica
C20	1501-00021	Capacitor, Fixed, .047 mfd, 50 v, +80% -20%, Ceramic
C21	1501-00020	Capacitor, Fixed, .001 mfd, 50 v, 20%, Ceramic
C22	1501-00020	Capacitor, Fixed, .001 mfd, 50 v, 20%, Ceramic
C23	1501-00022	Capacitor, Fixed, .05 mfd, +80% -20%, Ceramic
C24	1503-00604	Capacitor, Fixed, 15 pfd, 50 v, 10%, Mica
C25	1501-00020	Capacitor, Fixed, .001 mfd, 50 v, 20%, Ceramic
C26	1501-00009	Capacitor, Fixed, .1 mfd, 50 v, 20%, Mylar
C27	1501-00009	Capacitor, Fixed, .1 mfd, 50 v, 20%, Mylar
C28	1504-01513	Capacitor, Fixed, 10 mfd, 16 v, +100% -20%, Elect.
C29	1503-00603	Capacitor, Fixed, 100 pfd, 50 v, 10%, Mica
C30	1501-00019	Capacitor, Fixed, 20 pfd, 50 v, Ceramic
C31	1503-00603	Capacitor, Fixed, 100 pfd, 50 v, 10% Mica
C32	1503-00606	Capacitor, Fixed, 2 pfd, 50 v, 10%, Mica
C33	1504-01513	Capacitor, Fixed, 10 mfd, 16 v, +100% -20%, Elect.
C34	1504-01513	Capacitor, Fixed, 10 mfd, 16 v, +100% -20%, Elect.
C35	1501-00022	Capacitor, Fixed, .05 mfd, +80% -20%, Ceramic
C36	1501-00022	Capacitor, Fixed, .05 mfd, +80% -20%, Ceramic
C37	1501-00022	Capacitor, Fixed, .05 mfd, +80% -20%, Ceramic
C38	1504-01505	Capacitor, Fixed, 1 mfd, 16 v, +150% -10%, Elect.
C39	1504-01503	Capacitor, Fixed, 47 mfd, 16 v, +100% -10%, Elect.
C40	1510-00008	Capacitor, Fixed, .04 mfd, 50 v, 20%, Mylar
C41	1501-01508	Capacitor, Fixed, 220 mfd, 16 v, +100% -10%, Elect.
C42	1501-00018	Capacitor, Fixed, .001 mfd, 50 v, 20%, Ceramic
C43	1501-01508	Capacitor, Fixed, 220 mfd, 16 v, +100% -10%, Elect.
C44	1504-01505	Capacitor, Fixed, 1 mfd, 16 v, +150% -10%, Elect.
C45	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C46	1501-00021	Capacitor, Fixed, .047 mfd, 50 v, +80% -20%, Ceramic
C47	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C48	1504-01505	Capacitor, 1 mfd, 16 v, +150% -10%, Elect.
C49	1501-01508	Capacitor, Fixed, 220 mfd, 16 v, +100% -10%, Elect.
C50	1510-00007	Capacitor, Fixed, .05 mfd, 50 v, 20%, Mylar
C51	1510-00009	Capacitor, Fixed, .1 mfd, 50 v, 20%, Mylar
C52	1504-01513	Capacitor, Fixed, 10 mfd, 16 v, +100% -20%, Elect.
C53	1501-01508	Capacitor, Fixed, 220 mfd, 16 v, +100% -10%, Elect.
C54	1501-01508	Capacitor, Fixed, 220 mfd, 16 v, +100% -10%, Elect.
C55	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C56	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C57	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C58	1503-00529	Capacitor, Fixed, 130 pfd, 50 v, 10%, Mica
C59	1503-00721	Capacitor, Fixed, 30 pfd, 50 v, 10%, Mica
C60	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C61	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic

SYM.	PART #	DESCRIPTION
C62	1503-00528	Capacitor, Fixed, 78 pfd, 50 v, 10%, Mica
C63	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C64	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C65	1501-00021	Capacitor, Fixed, .047 mfd, 50 v, +80% -20%, Ceramic
C66	1503-00527	Capacitor, Fixed, 65 pfd, 50 v, 10%, Mica
C67	1501-00021	Capacitor, Fixed, .047 mfd, 50 v, +80% -20%, Ceramic
C68	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C69	1501-00020	Capacitor, Fixed, .001 mfd, 50 v, 20%, Ceramic
C70	1501-00021	Capacitor, Fixed, .047 mfd, 50 v, +80% -20%, Ceramic
C71	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C72	1501-00020	Capacitor, Fixed, .001 mfd, 50 v, 20%, Ceramic
C73	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C74	1503-00525	Capacitor, Fixed, 170 pfd, 50 v, 10%, Mica
C75	1503-00526	Capacitor, Fixed, 220 pfd, 50 v, 10%, Mica
C76	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C77	1504-01507	Capacitor, Fixed, 1000 mfd, 16 v, +100% -10%, Elect.
C78	1503-00527	Capacitor, Fixed, 65 pfd, 50 v, 10%, Mica
C79	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C80	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C81	1501-00613	Capacitor, Fixed, 1000 pfd, 500 v, +100% -10%, F. T.
C82	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C83	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C84	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C85	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C86	Not Used	
C87	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C88	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C89	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C90	1501-00029	Capacitor, Fixed, 270 pfd, 50 v, 10%, Ceramic
VC1	Not Used	
VC2	1506-00104	Capacitor, Variable, 2-10 pfd, 54 MHz, Trap Trim
D1	4801-00034	Diode, 1N34A
D2	Not Used	
D3	4801-00034	Diode, 1N34A
D4	4801-00034	Diode, 1N34A
D5	4801-00034	Diode, 1N34A
D6	4801-00034	Diode, 1N34A
D7	4801-00009	Diode, 1S84
D8	4801-03183	Diode, 1S757A
D9	4801-03183	Diode, 1S757A
D10	4801-00003	Diode, MV3
D11	4801-00034	Diode, 1N34A
D12	4801-00034	Diode, 1N34A
D13	4801-00008	Diode, 10DI
D14	4801-00034	Diode, 1N34A
D15	4801-00034	Diode, 1N34A
F1	5104-00020	Fuse, 3 AG, 2 Amp
IC1	4804-00003	Integrated Circuit - A703E
J1	2104-00239	Coax Connector, SO-239
J2	2103-03902	Connector, P. A. Output
L1	Not Used	
L2	1811-00004	Coil, Variable, R. F.
L3	1811-00005	Coil, Variable, R.F.
L4	5603-00009	Coil, Audio Low-Pass Filter
L5	1802-00012	Coil, Variable, R. F.
L6	1812-00001	Coil, Fixed, 33 uh
L7	1812-00002	Coil, Fixed, 2.2 uh
L8	1811-00006	Coil, Variable, PA Tune
L9	1811-00007	Coil, Variable, Antenna Coupler
L10	1811-00008	Coil, Variable, Antenna Tuner
L11	1812-00003	Coil, Fixed, 54 MHz, Trap

SYM.	PART #	DESCRIPTION
L12	5603-00010	Coil, Line Filter
L13	1812-00005	Coil, Fixed, 1 uh
M	2901-00019	Meter, FS-200 μ A
PL1	3901-00011	Lamp, Pilot
PL2	3901-00011	Lamp, Pilot
PL3	3901-00011	Lamp, Transmit Indicator
Q1	4802-00009	Transistor, 2SC710
Q2	4802-00010	Transistor, 2SK19
Q3	4802-00009	Transistor, 2SC710
Q4	4802-00012	Transistor, 2SC709
Q5	4802-00014	Transistor, 2SC458
Q6	4802-00014	Transistor, 2SC458
Q7	4802-00014	Transistor, 2SC458
Q8	4802-00014	Transistor, 2SC458
Q9	4802-00014	Transistor, 2SC458
Q10	4802-00014	Transistor, 2SC458
Q11	4802-00015	Transistor, 2SC620
Q12	4802-00016	Transistor, 2SC1014
Q13	4802-00016	Transistor, 2SC1014
Q14	4802-00017	Transistor, 2SC774
Q15	4802-00019	Transistor, 2SC777
Q16	4802-00008	Transistor, 2SC778
R-	.	Resistor, 1/4 or 1/2 watt, 10%, Composition. For resistance values, see schematic 9308-00035.
VR1	4715-00011	Resistor, Variable, 20K ohm
VR2	4715-00013	Resistor, Variable, 5K ohm
VR3	4715-00014	Resistor, Variable, 10K ohm
VR4	4715-00014	Resistor, Variable, 10K ohm
VR5	Not Used	
VR6	4715-00021	Resistor, Variable, 100K ohm
VR7	4715-00011	Resistor, Variable, 20K ohm
VR8	4715-00021	Resistor, Variable, 100K ohm
VR9	4715-00023	Resistor, Variable, 5K ohm
VR53	4710-00219	Resistor, Variable, 1 ohm, 1 w, 10%
VR54	4710-00220	Resistor, Variable, 4 ohm, 1 w, 10%
S1	Part of VR9	
S2	5108-00003	Switch, Slide, 2PDT
SP1	1301-00012	Speaker
T1	1802-00006	Transformer, HF
T2	1811-00001	Transformer, HF
T3	1802-00007	Transformer, IF, 10 MHz
T4	1802-00008	Transformer, 455 KHz
T5	1802-00009	Transformer, 455 KHz
T6	1802-00010	Transformer, 455 KHz
T7	1802-00011	Transformer, 455 KHz
T8	5603-00007	Transformer, Audio Driver
T9	5603-00008	Transformer, Audio Output
T10	1811-00002	Transformer, RF
XC1	1411-00125	Cabinet
XCRI	6120-00102	Cable Power Retainer
XFH1	5105-00204	Fuse Holder
XFP1	9209-00033	Front Panel Assembly
XHS-1	1411-00130	Heat Sink, Q16
XHS-2	1411-00129	Heat Sink, Q15
XK1	2401-00003	Knob, Plain Aluminum
XK2	2401-00003	Knob, Plain Aluminum
XK3	2401-00004	Knob, Channel Selector
XM	1302-00011	Microphone

SYM.	PART #	DESCRIPTION
C101	NPN	Capacitor, Fixed, Factory Select
C102	1503-00716	Capacitor, Fixed, 20 pfd, 50 v, 10%, Mica
C103	1503-00716	Capacitor, Fixed, 20 pfd, 50 v, 10%, Mica
C104	1503-00716	Capacitor, Fixed, 20 pfd, 50 v, 10%, Mica
C105	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C106	1503-00732	Capacitor, Fixed, 56 pfd, 50 v, 10%, Mica
C107	1503-00732	Capacitor, Fixed, 56 pfd, 50 v, 10%, Mica
C108	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C109	1503-00731	Capacitor, Fixed, 5 pfd, 50 v, 10%, Mica
C110	1503-00731	Capacitor, Fixed, 5 pfd, 50 v, 10%, Mica
C111	NPN	Capacitor, Fixed, Factory Select
C112	NPN	Capacitor, Fixed, Factory Select
C113	1503-00722	Capacitor, Fixed, 47 pfd, 50 v, 10%, Mica
C114	1503-00722	Capacitor, Fixed, 47 pfd, 50 v, 10%, Mica
C115	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C116	1503-00731	Capacitor, Fixed, 5 pfd, 50 v, 10%, Mica
C117	1503-00731	Capacitor, Fixed, 5 pfd, 50 v, 10%, Mica
C118	1511-00002	Capacitor, Fixed, .024 pfd, 500 v, 10%
C119	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C120	1503-00716	Capacitor, Fixed, 20 pfd, 50 v, 10%, Mica
C121	1501-00026	Capacitor, Fixed, 25 pfd, 50 v, 10%, Ceramic
C122	1501-00016	Capacitor, Fixed, .047 mfd, 50 v, +100 -20%, Ceramic
C123	1501-00612	Capacitor, Fixed, .015 pfd, 500 v, 100%, Ceramic
C124	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C125	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C126	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
C127	1501-00026	Capacitor, Fixed, 25 pfd, 50 v, 10%, Ceramic
C128	1501-00025	Capacitor, Fixed, .01 mfd, 50 v, 20%, Ceramic
VC101	1506-00103	Capacitor, Variable, 2-20 pfd, Trimmer
VC102	1506-00103	Capacitor, Variable, 2-20 pfd, Trimmer
VC103	1506-00103	Capacitor, Variable, 2-20 pfd, Trimmer
D101	4801-05299	Diode, 1S180
L101	1812-00001	Coil, Fixed, 33 uh
L102	1812-00001	Coil, Fixed, 33 uh
L103	1812-00004	Coil, Fixed, 23 uh
L104	1812-00004	Coil, Fixed, 23 uh
Q101	4802-00009	Transistor 2SC710
Q102	4802-00009	Transistor 2SC710
Q103	4802-00009	Transistor 2SC710
Q104	4802-00009	Transistor 2SC710
S101	5107-00203	Switch, 23 positions, Rotary
X1	2301-00109-001	Crystal, 9.545 MHz
X2	2301-00109-002	Crystal, 9.555 MHz
X3	2301-00109-003	Crystal, 9.565 MHz
X4	2301-00109-004	Crystal, 9.585 MHz
X5	2301-00109-005	Crystal, 16.965 MHz
X6	2301-00109-006	Crystal, 17.015 MHz
X7	2301-00109-007	Crystal, 17.065 MHz
X8	2301-00109-008	Crystal, 17.115 MHz
X9	2301-00109-009	Crystal, 17.165 MHz
X10	2301-00109-010	Crystal, 17.215 MHz
X11	2301-00109-011	Crystal, 10.000 MHz
X12	2301-00109-012	Crystal, 10.010 MHz
X13	2301-00109-013	Crystal, 10.020 MHz
X14	2301-00109-014	Crystal, 10.040 MHz
Y	1802-00013	Transformer, 27 MHz
2Y	1802-00014	Transformer, 27 MHz
3Y	1802-00015	Transformer, 27 MHz
Z	1802-00016	Transformer, 27 MHz