

This Manual is provided by
CBTricks.com

Someone who wanted to help you repair your equipment put together this information.

RCA RZF 395 Service Manual (1969 No. 33-S1)

If you would like to help us put more manuals online support us.

If you would like to help with this project let us know.

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.

If your company would like to provide technical information to be featured on this site I will put up on the site as long as I can do it in a non-commercial way.

The site is supported with donation from users, friends and selling of the Galaxy Service Manual CD 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.



FILE
1969
No. 33-S1

Transceiver Service Data Supplement

Model RZF 395

This supplement contains information applicable to some versions of this model and should be filed with the basic Service Data.

RCA Sales Corporation

A Subsidiary of RCA Corporation

Product Performance

600 North Sherman Drive, Indianapolis, Indiana 46201

GENERAL DESCRIPTION

This instrument is a portable CB transceiver for use as a class "D" station and an AM broadcast receiver. The circuitry is fully transistorized and operates on "D" cells.

The CB receiver portion utilizes the double conversion principle wherein the first converter stage is crystal controlled by a 22.590 MHz crystal to produce a first IF of 4.375 MHz to 4.665 MHz. The second converter stage is tunable, to permit selective coverage of all 23 channels, and produces a second IF of 455 kHz. This principle permits the use of a single IF strip for both CB and AM broadcast.

The CB transmitter portion is crystal controlled to transmit on only one channel and is factory equipped for channel 7 (27.035 MHz). It may, however, be converted to operate on any channel between 3 and 11 by changing the frequency controlling crystal in the instrument to the one for the desired channel. Nominally, realignment is not required when the crystal is changed. The receiver crystal does not require changing.

No license is required to operate this station as it is within the 100 mw power limitation.

This instrument has been certified to comply with Part 15 of the FCC rules and regulations.

The alignment procedure, simplified schematics and parts list contained herein should be referred to in preference to those in the original data. However, the schematic, component location and wiring diagram that match the particular instrument should be used.

Battery Replacement

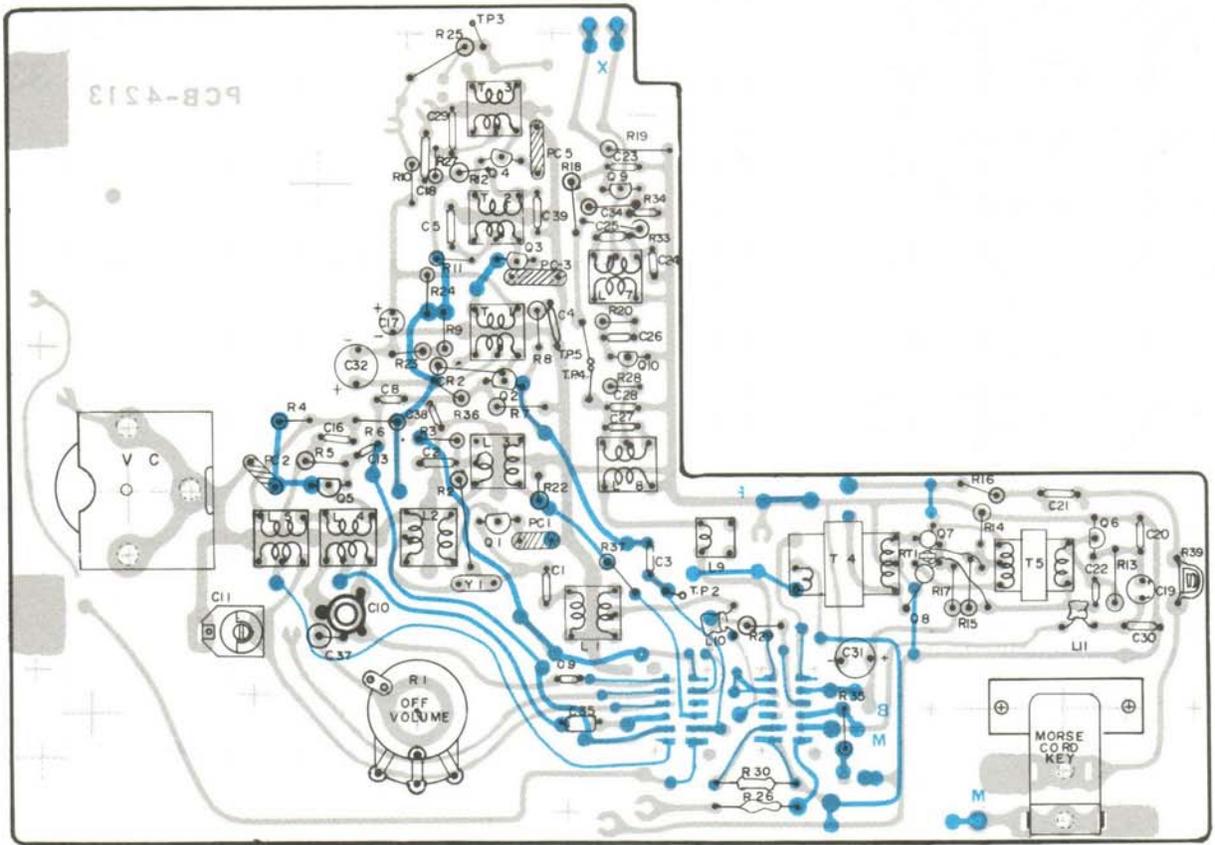
This instrument is powered by six "D" cells (9 volts) (RCA VS 336 or equivalent). They are contained in a compartment at the upper left corner of the panel and are covered by a removable section of the panel.

To Install or Replace Batteries

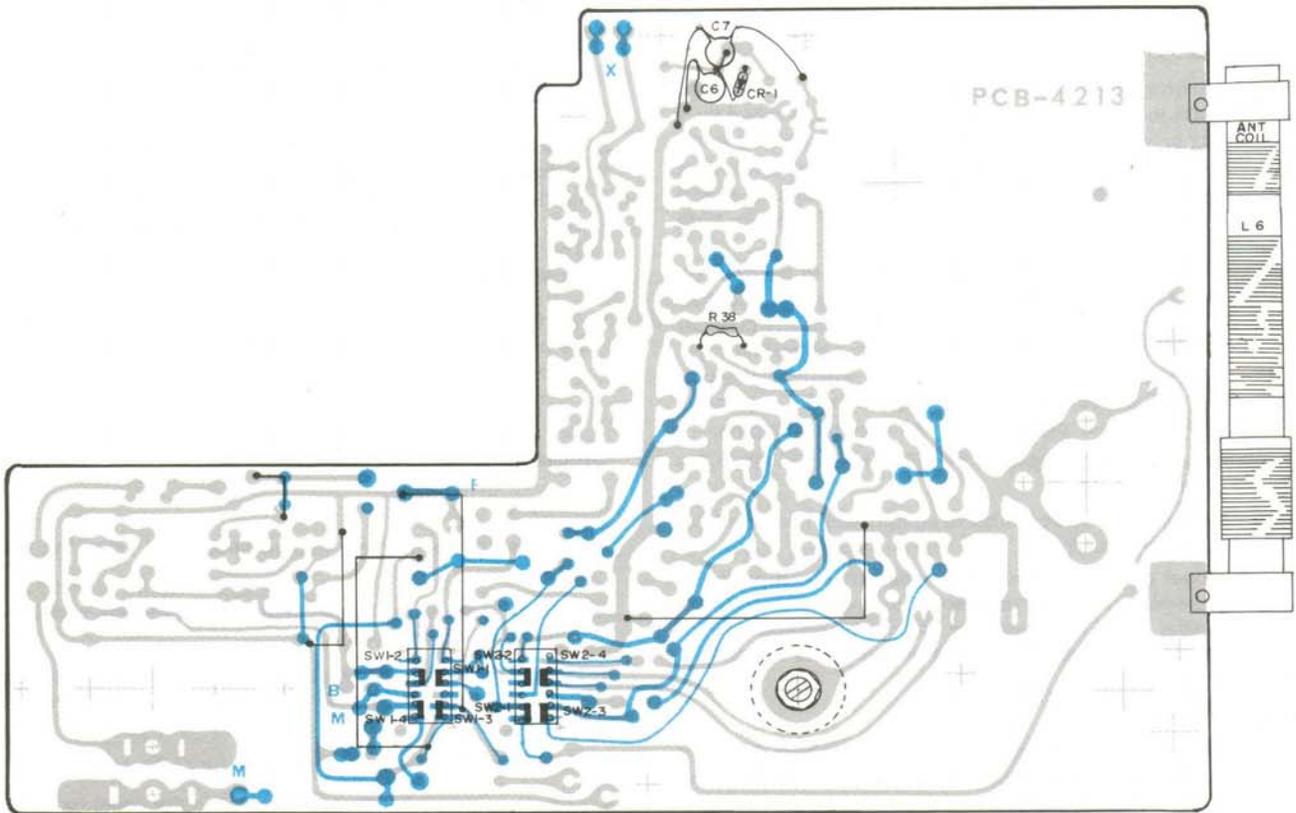
1. Remove the battery compartment lid at the upper left corner of the panel by sliding the lock knob to the left and pulling the lid upward.
2. Two of the batteries are located in the forward section of the compartment, under the panel, and must be installed prior to the four in the rear section of the compartment. Observe cell polarity as indicated on the label in the compartment. The cells should be installed on top of the tape to permit easy removal.
3. After cells are installed, replace the battery compartment lid and slide the lock knob to the right to secure the lid in place.

Chassis Removal

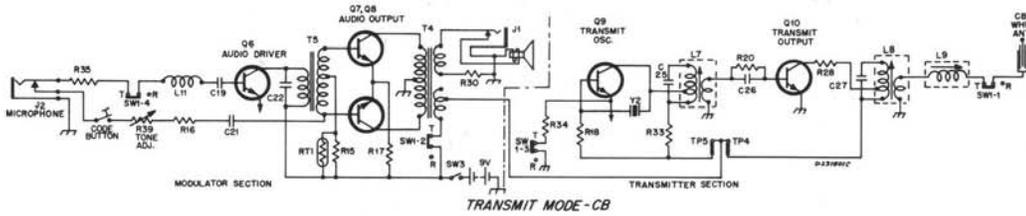
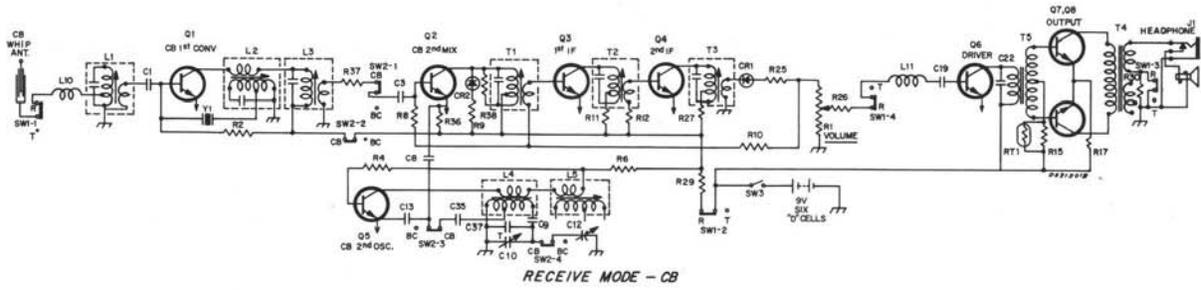
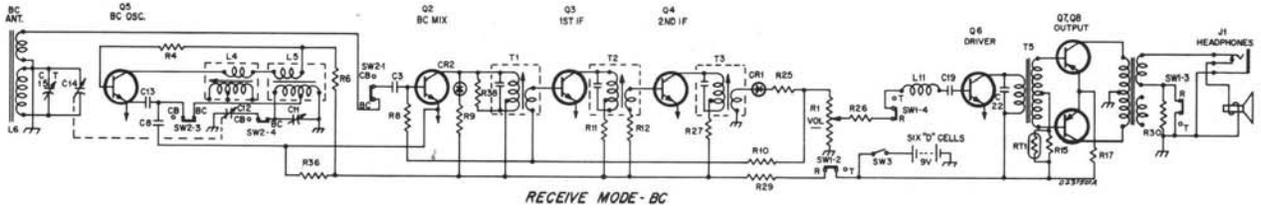
1. Remove the battery.
2. Remove the tuning and volume knobs and raise the whip antenna.
3. Remove three screws, one under the tuning knob and two under the whip antenna.
4. Lift the front edge of the panel as though it were hinged at the back. Disengage the springs at the rear of the panel from the case.
5. Lift the chassis and panel assembly out of the case.
6. The chassis may be disassembled from the panel by removing the seven screws securing the chassis to the panel.



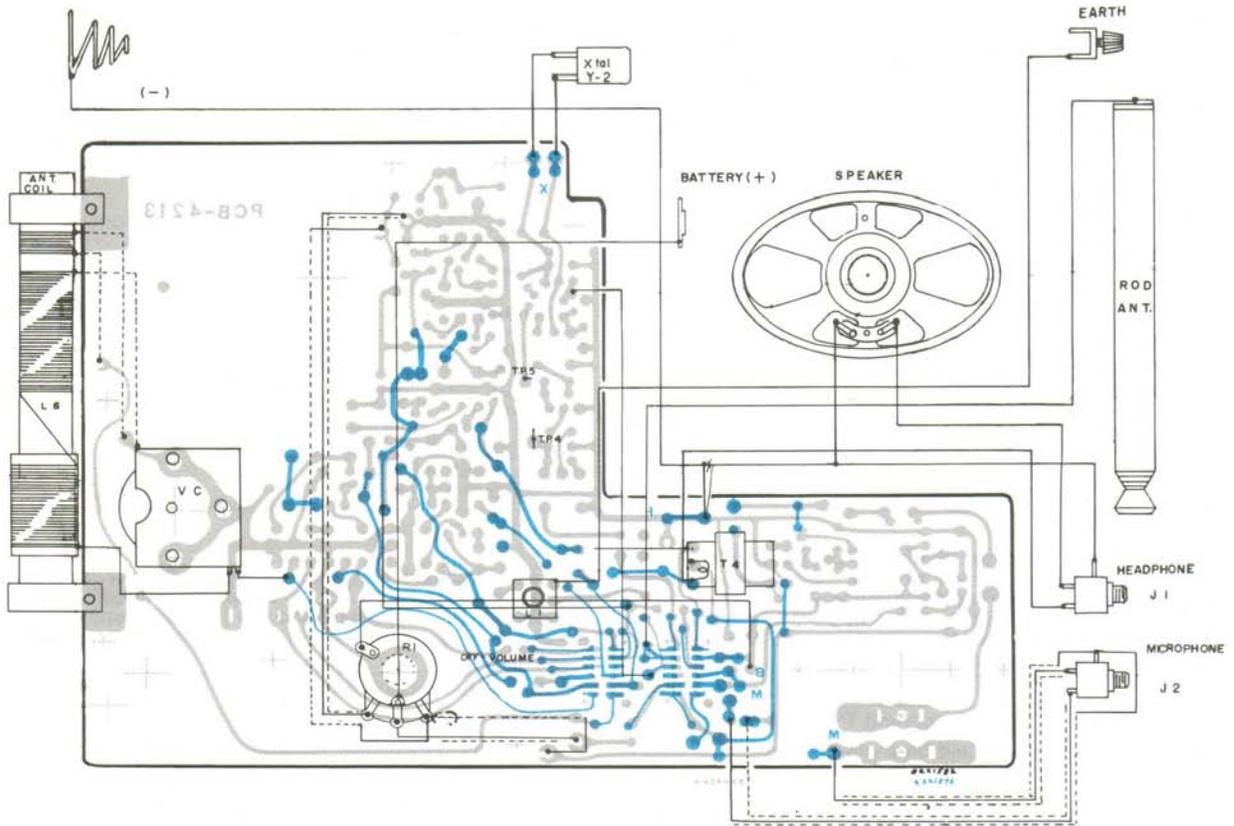
Component Locations (Top View)



Component Locations (Bottom View)



Simplified Schematics



ALIGNMENT PROCEDURES

INSTRUMENTS REQUIRED

1. RF Signal Generator (RCA WR-50B or equivalent)
2. Means for Crystal Calibrating RF Generator (RCA WR-99A or equivalent)
3. Electronic Voltmeter (RCA WV-500A or equivalent)
4. Field Strength Meter
5. Non-metallic alignment tools.

General Conditions

1. All signals used for alignment should be crystal calibrated or controlled.
2. Signal Input must be kept as low as possible to avoid overload and AVC action. (Set output indicator to highest usable sensitivity)
3. Standard modulation is 400 Hz at 30% amplitude.
4. FCC Rules and Regulations Vol. VI, part 95 must be complied with for the CB transmitter portion of this instrument.

Step	Signal Source— Connected to—	Output Indicator— Connected to—	Set Signal Source to—	Set Radio Dial to—	Adjust	Adjust for—	Step
1	Set Function Switch to BC and Receive						1
2	RF Signal Gen.— to a loop or piece of wire near BC Antenna	E.V.M.— across voice coil	455 kHz	Gang Closed	T1 (1st IF Trans.)	Maximum	2
3					T2 (2nd IF Trans.)		3
4					T3 (3rd IF Trans.)		4
5	Repeat steps 2, 3 & 4 as necessary to obtain maximum sensitivity						5
6	RF Signal Gen.— to a loop or piece of wire near BC Antenna	E.V.M.— across voice coil	525 kHz	Gang Closed	L5 (BC Osc. Coil)	Maximum	6
7			1620 kHz	Gang Open	C11 (BC Osc. Trim)		7
8			1400 kHz	1400 kHz (rock gang)	C15 (BC Ant. Trim)		8
9			600 kHz	600 kHz (rock gang)	L6 (BC Ant. Coil)		9
10	Repeat steps 6 through 9 as necessary to obtain best tracking						10
11	Set Function Switches to CB and Receive						11
12	*RF Signal Gen— to CB Whip antenna thru a 10 μ f capacitor	E.V.M.— across voice coil	*27.035 mHz	27.035 mHz (center of channel 7)	L1 (CB Ant. Coil)	Maximum	12
13			*(22.590 mHz) for reference only		L2 (CB Conv. Coil)		13
14			*(4.445 mHz) for reference only		L3 (CB IF Coil)		14
15			*26.965 mHz	26.965 mHz (Center Ch. 1) (rock gang)	L4 (CB Osc. Coil)		15
16			*27.255 mHz	27.255 mHz (Center Ch. 23) (rock gang)	C10 (CB Osc. Trim)		16
*A station transmitting on channel 7 may be used for a signal in steps 12, 13 & 14. A station transmitting on channel 1 may be used for a signal in step 15. A station transmitting on channel 23 may be used for a signal in step 16.							
NOTICE							
In accordance with Part 95 of the FCC Rules and Regulations:— All transmitter adjustments or tests made while radiating energy or coincident with the servicing of this equipment for the purpose of restoring compliance with FCC regulations part 95, must be made by, or under the immediate supervision of, a person holding a first or second class commercial radio operator's license who will be held responsible for the proper functioning of the equipment at the conclusion of such adjustments or tests. A report, signed by the operator, shall be submitted to the FCC.							
17	Set Function Switches to CB and Transmit and extend CB Whip antenna						17
18	Disconnect TP4 from TP5 and wire to T4 and insert E.V.M. set for milliamps						18
19	Place a Field Strength Meter near CB whip antenna and tune to exact transmitting frequency.						19
20	Plug microphone into J2 (Mic. jack)						20
21	Adjust L7 (CB Transmit Osc. Coil) for maximum field intensity (core to be in 1 turn from max.)						21
22	Adjust L8 (CB Transmit tank Coil) for minimum reading on milliammeter						22
23	Adjust L9 (CB ant. Loading Coil) for maximum field intensity (core to be in 1½ turns from max.)						23
24	Adjust L8 for 9.5 to 11.5 ma on milliammeter						24

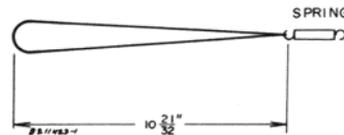
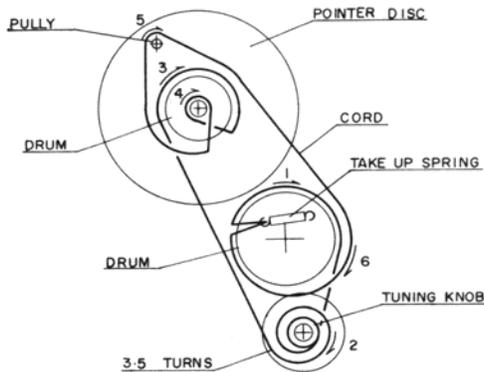
REPLACEMENT PARTS

NOTE: See Schematic for Value, Wattage and Tolerance of Standard Electrical Components not listed.

SYMBOL NO.	STOCK NO.	DESCRIPTION	SYMBOL NO.	STOCK NO.	DESCRIPTION
RZF 395A CHASSIS ASSEMBLY					
CAPACITORS					
C1	165187	0.002 μ f, GMV, 50v., cer.	Q6	166288	audio driver
C2	117706	0.02 μ f, +80-20%, 50v., cer.	Q7	165191	audio output
C3		0.01 μ f, +80-20%, 50v., cer.	Q8	165191	audio output
C4	117706	0.02 μ f, +80-20%, 50v., cer.	Q9	165190	transmitter oscillator
C5	117706	0.02 μ f, +80-20%, 50v., cer.	Q10	165192	transmitter output
C6	117799	0.04 μ f, +80-20%, 50v., cer.	R1	165193	Resistor—control, volume, includes S3
C7	117799	0.04 μ f, +80-20%, 50v., cer.	R39	166304	Resistor—variable
C8		0.01 μ f, \pm 20%, 50v., cer.	RT1	129501	Thermistor
C9	116220	60 μ f, \pm 5%, 50v., cer.	SW1	165194	Switch—receive/transmit
C10	166285	trimmer	SW2	165194	Switch—BC/CB
C11	165185	trimmer	SW3	165193	Switch—ON/OFF, Part of R1
C12	165184	trimmer	T1	129502	Transformer—I.F.
C13		0.01 μ f, \pm 20%, 50v., cer.	T2	129379	Transformer—I.F.
C14	165184	tuning	T3	165160	Transformer—I.F.
C15	165184	trimmer	T4	129134	Transformer—output
C16	117706	0.02 μ f, +80-20%, 50v., cer.	T5	166287	Transformer—driver
C17	126920	33 μ f, +100-10%, 6.3v., elec.	Y1	166289	Crystal—receiver, 22.590MHZ
C18	117799	0.04 μ f, +80-20%, 50v., cer.	Y2	165196	Crystal—transmitter, 27.035MHZ
C19	127478	4.7 μ f, +150-10%, 10v., elec.	MISCELLANEOUS		
C20		0.0047 μ f, \pm 20%, 50v., mylar	165158		Antenna—telescopic
C21		0.0047 to 0.022 μ f	165161		Belt—mic./earphone holder
C22		0.0047 μ f, \pm 20%, 50v., mylar	129456		Bracket—speaker mounting
C23	116218	40 μ f, \pm 5%, 50v., cer.	166278		Case—bottom section
C24		0.01 μ f, +80-20%, 50v., cer.	166279		Case—top section
C25	116218	40 μ f, \pm 5%, 50v., cer.	165180		Clip—battery cover
C26	165183	0.001 μ f, +80-20%, 50v., cer.	165162		Cover—battery
C27		30 μ f, \pm 5%, 50v., cer.	165164		Dial—channel indicator
C28		0.01 μ f, +80-20%, 50v., cer.	165163		Dial—crystal
C29	117706	0.02 μ f, +80-20%, 50v., cer.	165166		Drum—dial indicator
C30		0.02 μ f, \pm 20%, 50v., mylar	165165		Drum—tuning capacitor
C31	117906	100 μ f, +100-10%, 10v., elec.	165167		Emblem—RCA
C32	117906	100 μ f, +100-10%, 10v., elec.	165168		Headphone
C34	117706	0.02 μ f, +80-20%, 50v., cer.	166282		Knob—battery cover
C35		820 μ f, \pm 5%, 50v., styrol	165171		Knob—code key
C37		100 μ f, \pm 5%, 50v., styrol	165170		Knob—tuning, ON/OFF, volume
C38	165189	150 μ f, \pm 5%, 50v., cer.	165172		Label—morse code
C39	117706	0.02 μ f, +80-20%, 50v., cer.	165173		Microphone
CR1	129474	Diode—detector	127622		Nut—2.6mm, spring & antenna holder
CR2	129474	Diode—AGC	120605		Nut—3mm, pulley
J1	129116	Connector—headphone jack	165174		Overlay—controls
J2	129116	Connector—mic. jack	166280		Panel—surrounding dial
L1	165144	COILS	166281		Pulley—tuning
L2	165145	CB antenna	120555		Screw—2.6mm \times 4mm, bracket
L3	165146	CB oscillator	129274		Screw—2.6mm \times 6mm, tuning drum & antenna holder
L4	165147	CB I.F.	129274		Screw—2.6mm \times 8mm, antenna holder
L5	165148	BC oscillator	123641		Screw—3mm \times 4mm, tuning capacitor
L6	166286	BC antenna, ferrite rod	129340		Screw—3mm \times 8mm, rod ant & dial panel
L7	165150	transmitter oscillator	165176		Shaft—code key
L8	165151	transmitter tank	166291		Shaft—tuning indicator drive
L9	165153	transmitter loading	166290		Shaft—tuning knob
L10	165152	receiver loading	165169		Socket—crystal
L11	165154	filter	165177		Speaker—10 ohms 0.5w
PC1	165155	Circuit—packaged component	166292		Spring—case, hinge tension
PC2	129110	Circuit—packaged component	165179		Spring—code key
PC3	129111	Circuit—packaged component	165178		Spring—code key shaft
PC5	129111	Circuit—packaged component	166283		Spring—dial cord
Q1	129512	TRANSISTOR	165181		Terminal—battery, neg.
Q2	165190	converter & oscillator	165182		Terminal—battery, pos.
Q3	129510	CB & BC mixer	123600		Washer—3mm, rod antenna
Q4	129510	I.F. amplifier	order from RCA Sales Corporation—		
Q5	165190	I.F. amplifier	1406231-2		Book—customer instruction
Q6	165190	CB and BC oscillator			

Specifications Subject to Change Without Notice

CONSULT YOUR RCA DISTRIBUTOR FOR REPLACEMENT PARTS AND ACCESSORIES



Dial Cord Arrangement