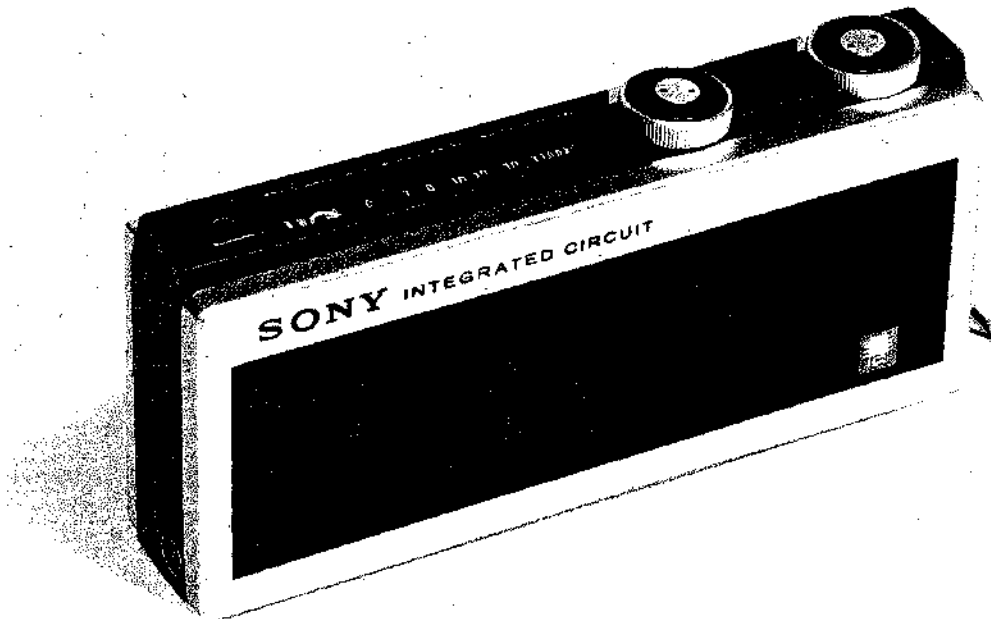


ICR-200 BC-200W,E

2355



Specifications

	(ICR-200)	
Circuit:	1 IC, 3 Transistor Superheterodyne	
Frequency Coverage:	530~1,605 Kc (566~187 m)	
Intermediate Frequency:	455 Kc	
Antenna System:	Built-in Ferrite Bar Antenna	
Maximum Sensitivity:	200 μ V/m	
(at 10 mW output)		
Selectivity:	25 dB at 10 Kc off resonance, at 1,400 Kc	
Power Output:	100 mW (undistorted) 150 mW (maximum)	
Current Drain:	8.5 mA at zero signal, 48 mA at 100 mW output	
Power Source:	Nickel Cadmium Battery 3.66V in total Rechargeable by using SONY Charger BC-200W or BC-200E for House Current	
Speaker:	1 $\frac{1}{4}$ x 2 $\frac{1}{4}$ " (3.2 x 5.6 cm) PM dynamic, 8 Ω	
Dimensions:	4 $\frac{3}{8}$ (W) x 1 $\frac{5}{8}$ (H) x $\frac{5}{8}$ (D)" (111.5 x 49 x 24 mm)	
Weight:	6 oz. (170 gs.) with batteries	
	(BC-200W)	(BC-200E)
Input:	AC 117V	AC 220V
Output:	DC 3.66V 40 mA	DC 3.66V 40 mA
Dimensions:	1 $\frac{1}{2}$ (W) x 1 $\frac{1}{4}$ (H) x 1 $\frac{3}{4}$ (D)" (38 x 32.5 x 44 mm)	1 $\frac{1}{2}$ (W) x 1 $\frac{1}{4}$ (H) x 1 $\frac{3}{4}$ (D)" (38 x 32.5 x 44 mm)
Weight:	2.8 oz.	2.8 oz.

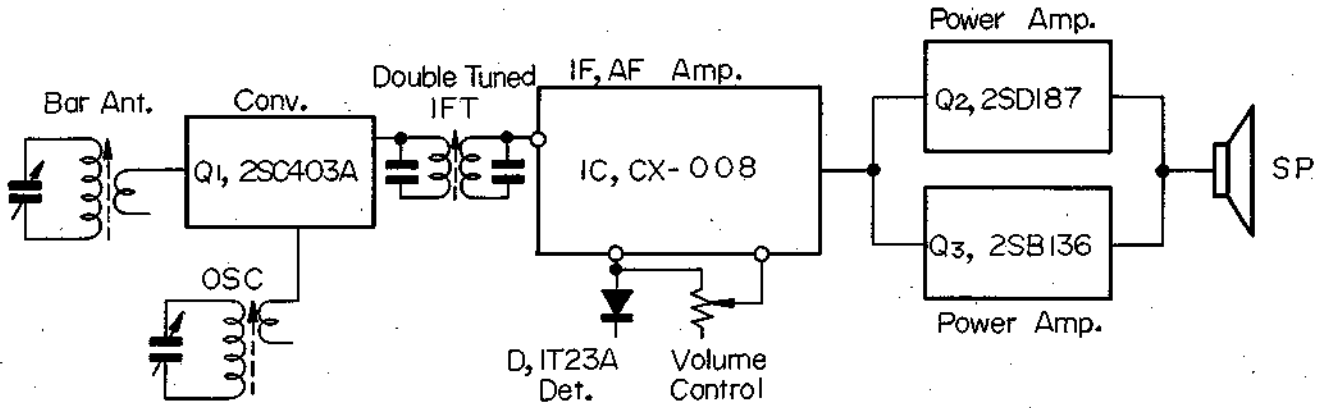
SONY®

SERVICE MANUAL

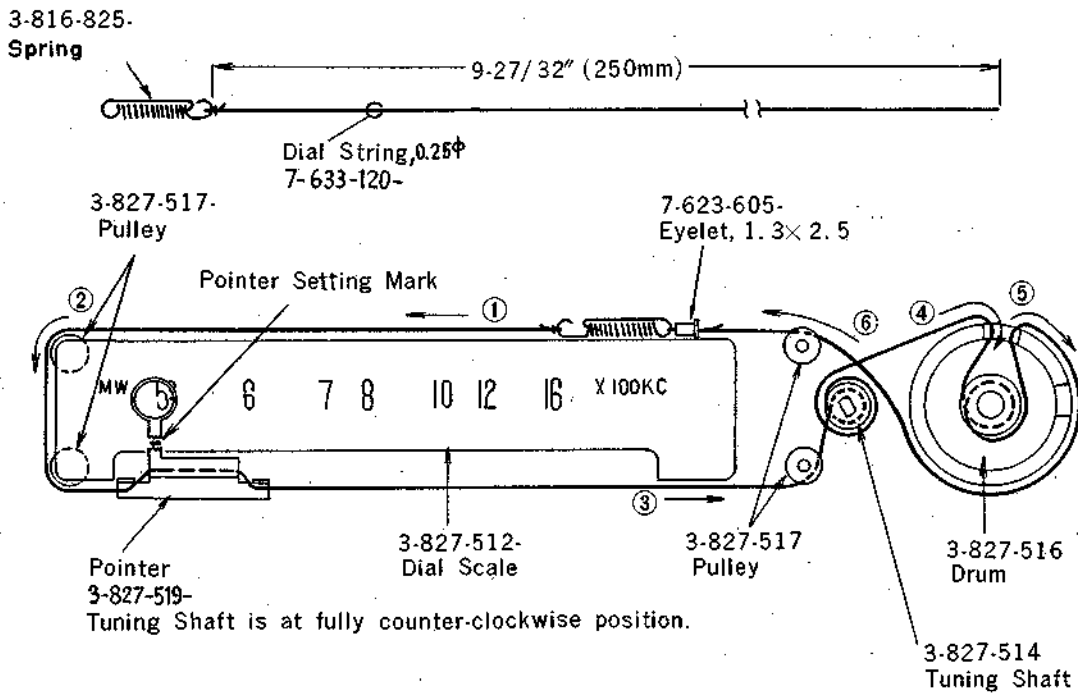
2355

ICR-200/BC-200W, E

Block Diagram



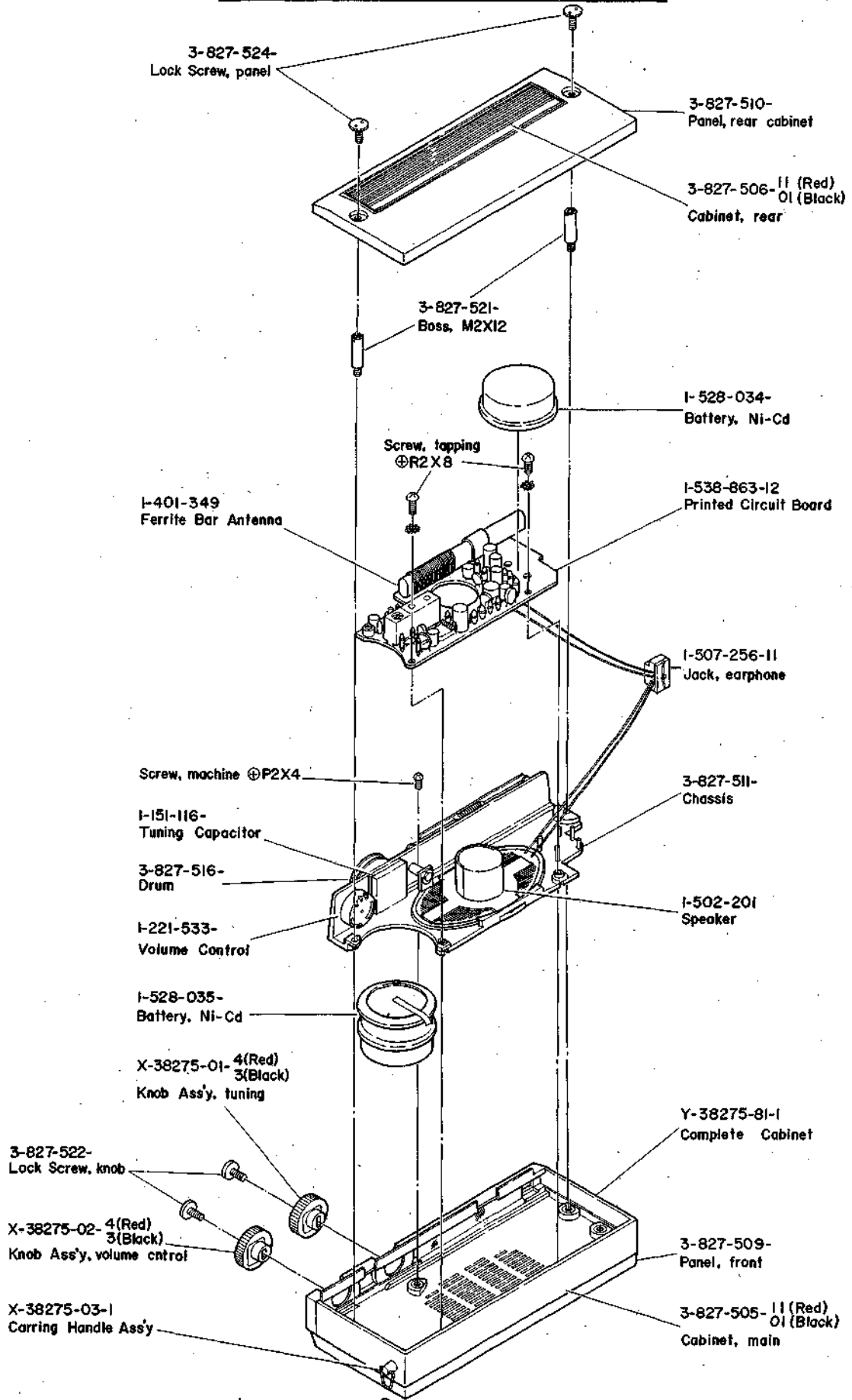
Dial Cord Stringing



Pointer Setting

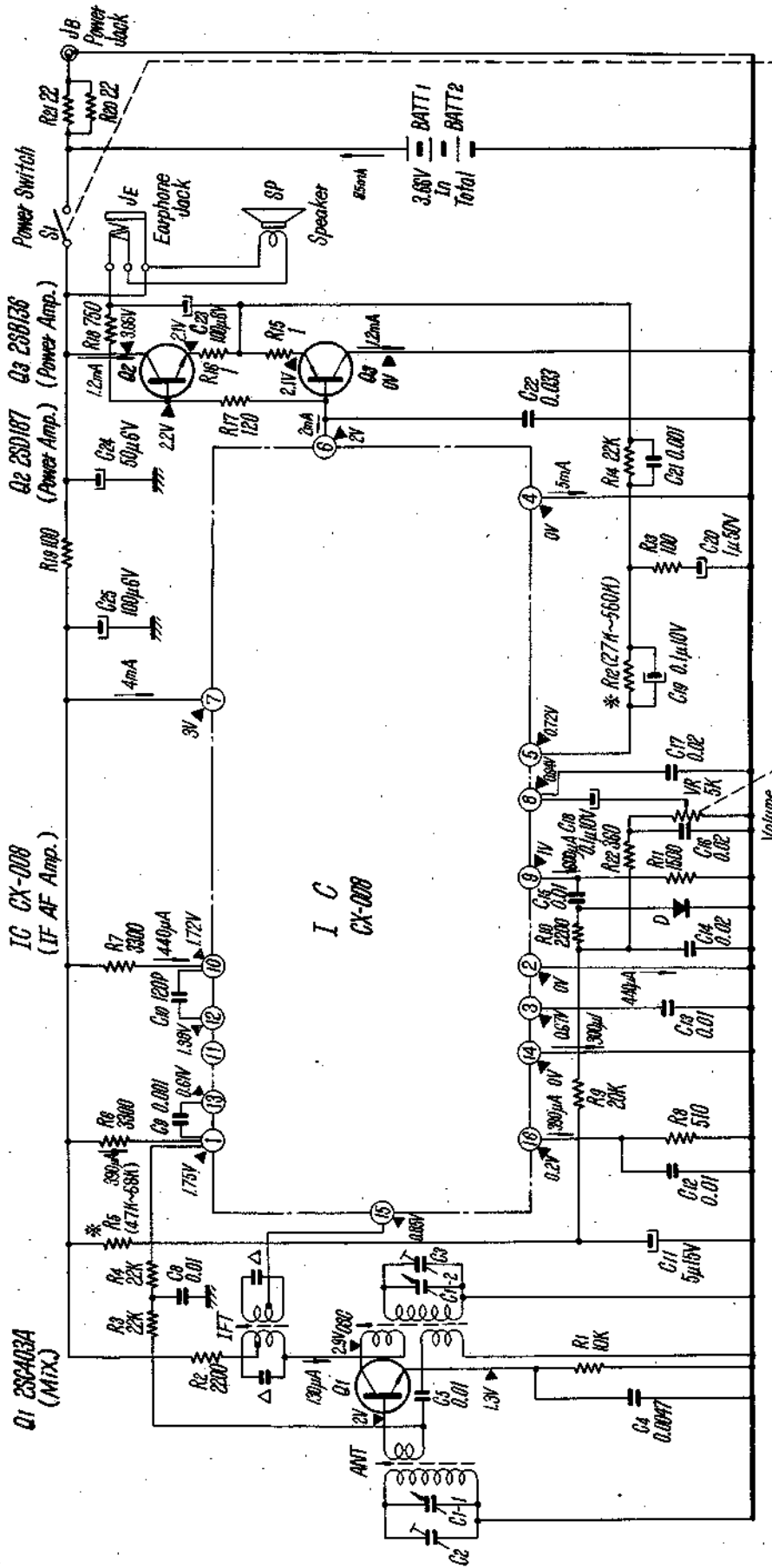
Turn the Tuning Shaft counter-clockwise to the full.
And set the Pointer to Pointer Setting Mark on dial scale.

Removal of Cabinet & Printed Circuit Board



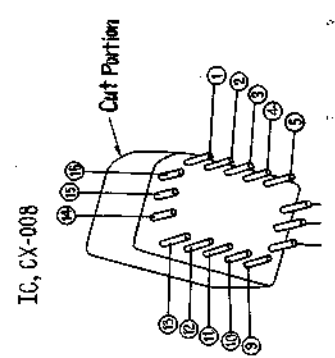
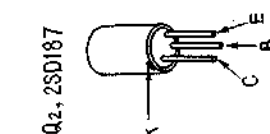
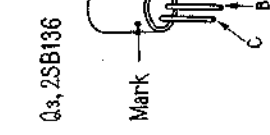
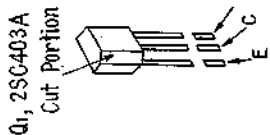
ICR-200/BC-200W, E

Schematic Diagram



Volume Control
 * Resistance Value to be selected
 Δ: Built in IFT.

Transistor



Complete Spare Parts List for BC-200E

June, 1968

Part No. Description

A. Mechanical Parts

X-20524-03-1	Charger Case Ass'y -----
2-052-403	Charger Cover -----
-404	Cushion -----
-405	Indicator, DC plug -----
2-051-504	Bushing -----

B. Electrical Parts

1-538-882-11	Printed Circuit Board -----
1-441-445	Transformer, power -----
1-534-505	Cord with DC Plug -----
	Diode, silicone SD-1Z -----

Capacitor, paper

1-115-090	0.022uF	600WV -----
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Complete Spare Parts List for BC-200 (W)

June, 1968

Part No. Description

A. Mechanical Parts

X-20524-02-1. Charger Case Ass'y -----
2-052-403 Charger, cover -----
 -404 Cushion -----
 -405 Indicator, DC plug -----
2-051-504 Bushing -----

B. Electrical Parts

1-538-882-11 Printed Circuit Board -----
1-441-408 Transformer, power -----
1-534-505 Cord with DC Plug -----
 Diode, silicone SD-1Z -----

Capacitor, paper

1-115-090 0.022uF 600W -----

Complete Spare Parts List for ICR-200

Feb., 1968

Part No. Description

A. Cabinet and Appearance Items

Y-38275-81-1	Complete Cabinet, including -----
3-827-505-01)	Cabinet, main -01; Black) -----
-11	-11; Red -----
-506-01)	Cabinet, rear -01; Black) -----
-11	-11; Red -----
-507-01)	Cover, upper -01; Black) -----
-11	-11; Red -----
-508	Cover, dial -----
-509	Panel, front -----
-510	Panel, rear cabinet -----
-526	Net, speaker -----
-528	Adhesive Sheet (A), front panel -----
-529	" " (B), " " -----
-530	" " (A), rear panel -----
-531	" " (B), " " -----
-538-01)	Badge "IC" -01; Blue) -----
-11	-11; Black -----
	* * * * *
X-38275-01	Knob Ass'y, dial tuning -----
-02	Knob Ass'y, volume control -----
-03	Carrying Handle Ass'y -----
3-827-512	Dial Scale -----
-519	Pointer -----

B. Mechanical Parts

3-827-511	Chassis -----
-513	Bracket, DC jack -----
-514	Tuning Shaft -----
-515	Spring, plate -----
-516	Drum, dial -----
-517	D4 Pulley -----
-518	Shaft, pulley (A) -----
-520	Washer, plain D8 -----
-521	Boss, M 2 x 12 -----
-522	Lock Screw, knob -----

<u>Part No.</u>	<u>Description</u>
3-827-523	Cushion, battery -----
-524	Lock Screw, panel -----
-525	Washer, nylon -----
-532	Adhesive Sheet (A), speaker -----
-533	" " (B), " -----
-535	Insulating Paper -----
-536	Shield Plate, SP -----
3-803-026	Spring, dial spring ST1,8 -----
3-820-015	Holder, antenna -----

C. Electrical Parts

1-538-863	Printed Circuit Board -----
1-502-201	Speaker (SP) -----
1-507-256-11	Jack, earphone (JE) -----
-257-11	Jack, power (JB) -----
1-528-034	Battery, -Ni-Cd (BATT2) -----
-035	" (BATT1) -----

Coil and Transformer

1-401-349	Bar Antenna Coil (ANT) -----
1-405-320	Oscillator Coil (OSC) -----
1-403-136	IF Transformer (IFT) -----

Variable Capacitor

1-141-022	Trimmer Capacitor, ceramic (C2,3) -----
1-151-116	Tuning Capacitor, ceramic (VC C1) -----

Potentiometer

1-221-533	Volume Control (VR R22) -----
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Semiconductor

Transistor 2SC403A (4)	Q1 -----
" 2SD187	Q2 -----
" 2SB136	Q3 -----

Part No.

Description

Diode 1T23A D -----
IC CX-008 IC -----

Carbon Resistor (RD₁SR, +5%)

1-244-601	R15,16	1 ohms	-----
-633	R20,21	22 "	-----
-649	R13,19	100 "	-----
-651	R17	120 "	-----
-662	R22	360 "	-----
-670	R18	750 "	-----
-681	R2	2.2K "	-----
-685	R6	3.3K "	-----
-697	R1	10K "	-----
-704	R9	20K "	-----
-705	R3,4,14	22K "	-----
-713		47K "	-----
-714		51K "	-----
-715	R5 (Adjust)	56K "	-----
-716		62K "	-----
-717		68K "	-----
-707		27K "	-----
-709		33K "	-----
-711		39K "	-----
-713		47K "	-----
-715		56K "	-----
-717		68K "	-----
-719		82K "	-----
-721		100K "	-----
-722		110K "	-----
-723		120K "	-----
-724		130K "	-----
-725		150K "	-----
-726		160K "	-----
-727		180K "	-----
-728		200K "	-----
-729		220K "	-----
-730		240K "	-----
-731		270K "	-----
-732		300K "	-----
-733		330K "	-----

<u>Part No.</u>	<u>Description</u>		
1-244-734	R12 (Adjust)	360K ohms	-----
-735		390K "	-----
-737		470K "	-----
-739		560K "	-----

Resistor, ceramic (RT1/10RL, +5%)

1-208-026	R8	510 ohms	-----
-037	R11	1.5K "	-----
-041	R10	2.2K "	-----
-045	R7	3.3K "	-----

Capacitor, styrol

1-103-603	C10	120PF	+5%	50WV	-----
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Capacitor, mylar (+20%, 50WV)

1-105-821-12	C9	0.001uF	-----
-827-12	C21	0.0033uF	-----
-829-12	C4	0.0047uF	-----
-411-12	C13,15	0.01uF	-----
-414-12	C22	0.033uF	-----

Capacitor, electrolytic (+200%, -10%)

1-121-442	C20	1uF	50WV	-----
-463	C11	5uF	15WV	-----
-487	C24	50uF	6WV	-----
-491	C23,25	100uF	"	-----

Capacitor, aluminum electrolytic

1-127-019	C18,19	0.1uF	10WV	-----
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Part No. Description

D. Screw, Washer and Nut (Min. Q'ty for Ordering: 100 pcs.)

Screw

7-621-253-22 (+) P 1.7 x 3 (for Volume Control) -----
 -32 (+) P 1.7 x 4 (for Drum) -----
 -255-12 (+) P 2 x 3 (for Bracket) -----
 -22 (+) P 2 x 4 (for Chassis) -----
 -720-41 Tapping (+) R 2 x 8 (for Printed Circuit Board) ---

Washer

7-623-310-05 Lock, ext. tooth 2 ϕ (for Printed Circuit Board) ---

Eyelet

7-623-605-01 1.3 x 2.5 -----

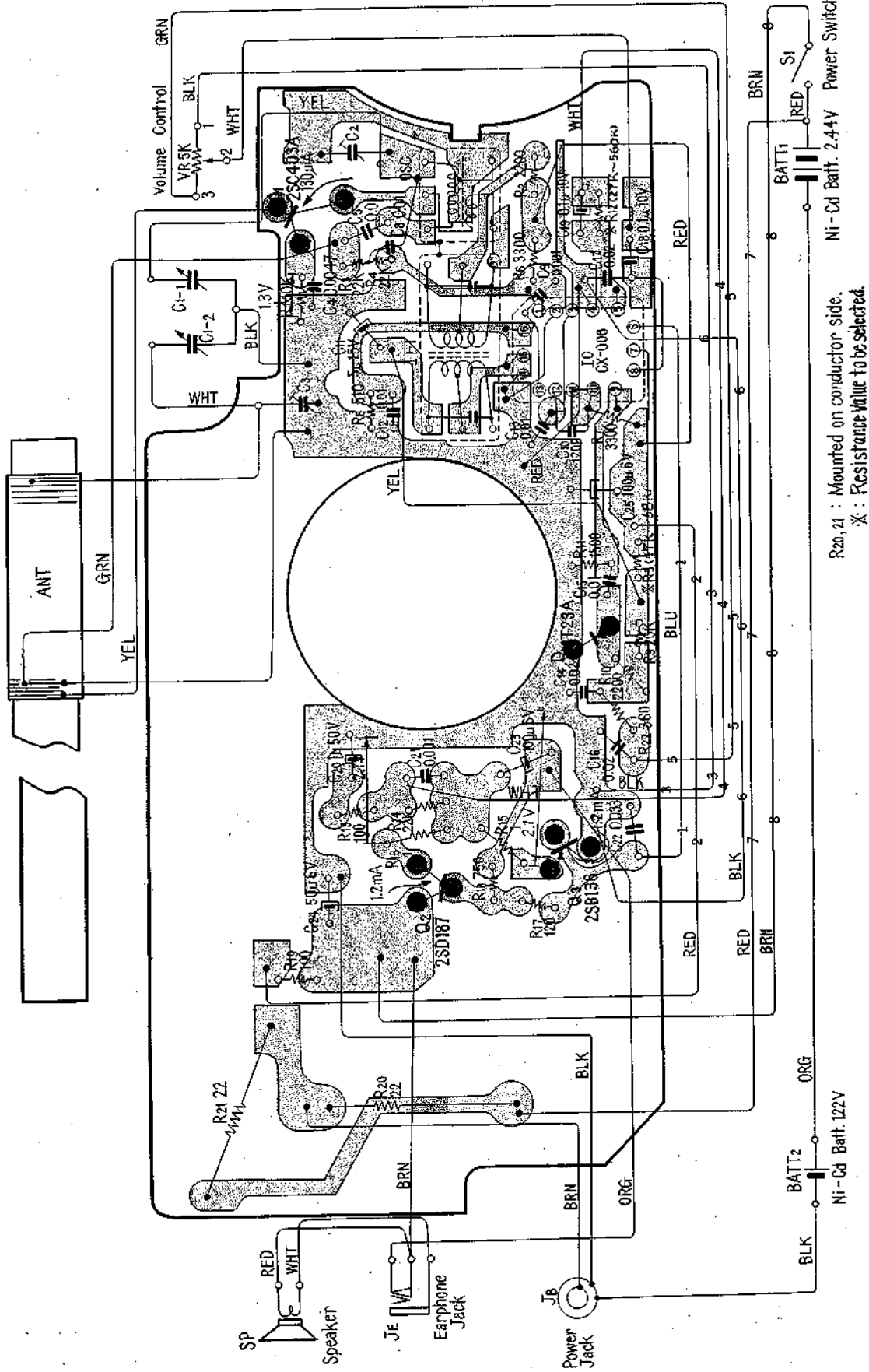
Retaining Ring

7-624-104-01 D2 Type (for Shaft, Handle) -----

E. Attached Items

3-827-534 Carrhing Case -----
3-995-440-01 Instruction Manual -----
1-504-036 Earphone ME-25 -----
3-827-539 Packing Case -----
 -540 Packing Carton -----
 -542 Master Carton, 12 sets -----
 -543 Polyethylene Bag -----

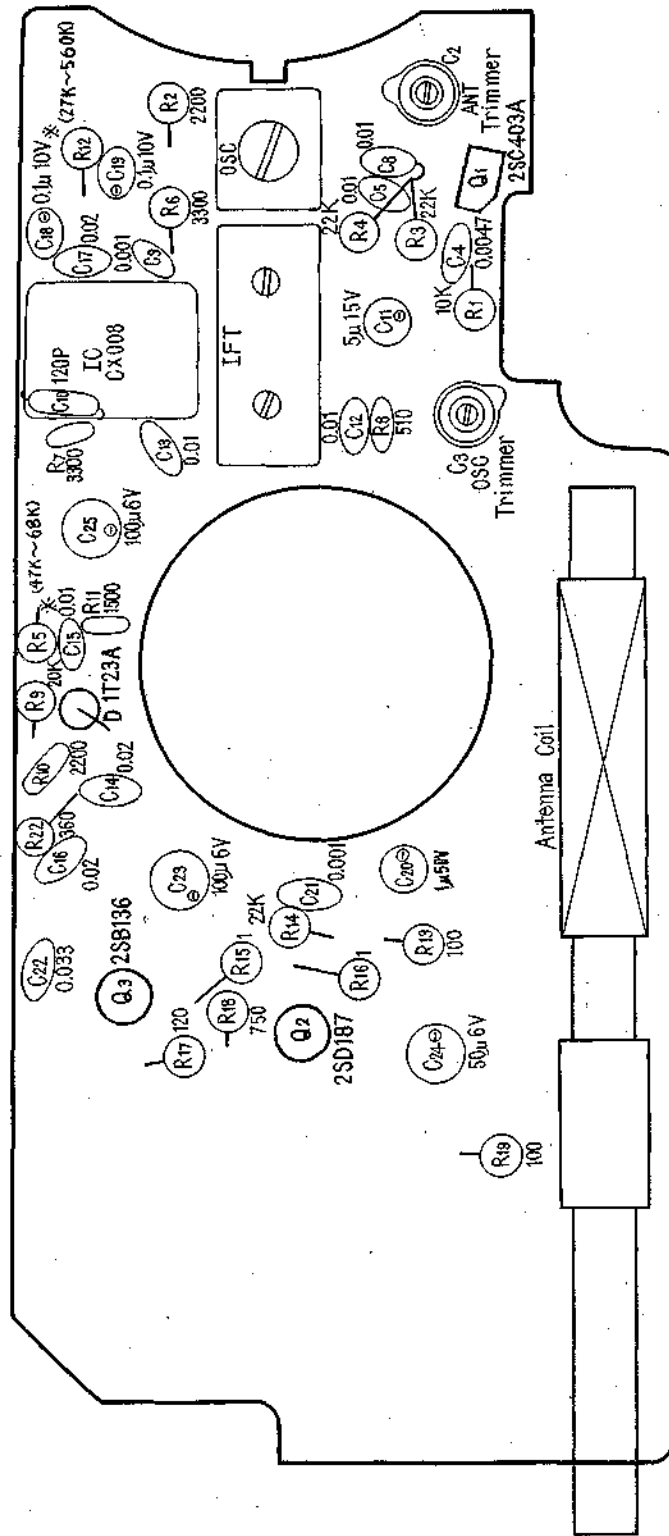
Mounting Diagram
—Conductor Side—



R20, 21 : Mounted on conductor side.
* : Resistance value to be selected.

Mounting Diagram

—Component Side—



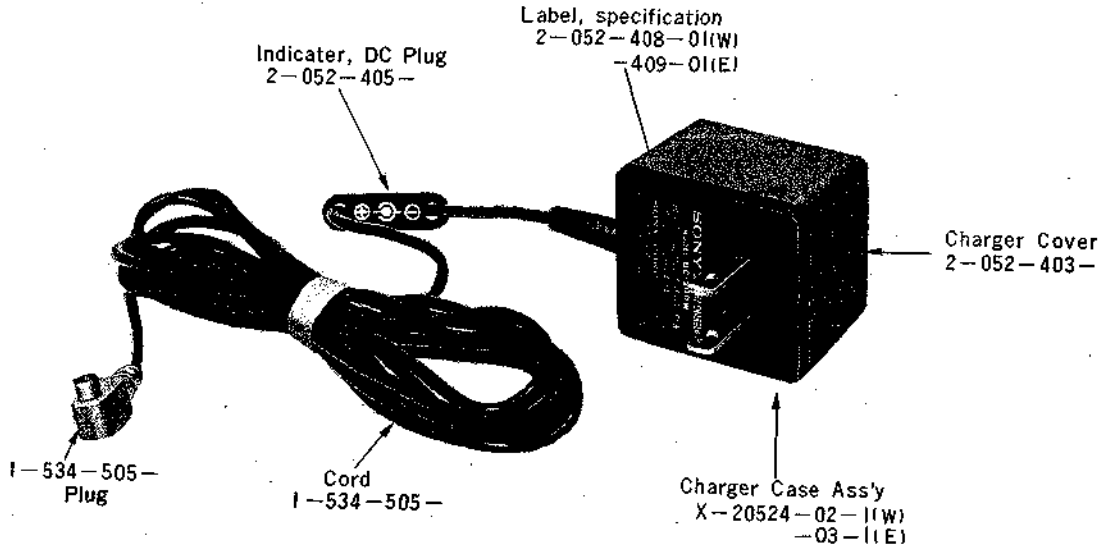
* Resistance Value To be selected.

ICR-200/BC-200W, E

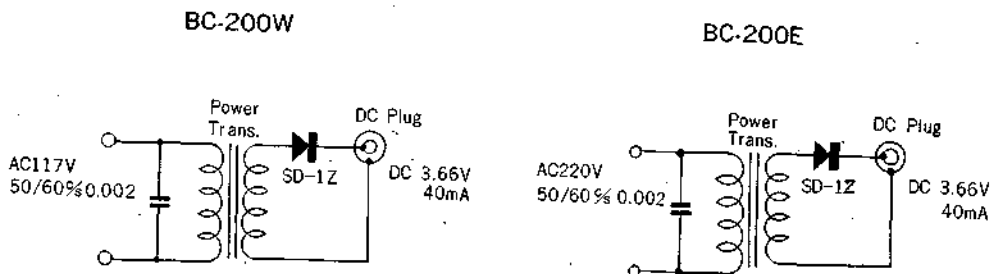
Frequency Coverage and Tracking Adjustment

Adj. Item	SSG (Standard Signal Generator) Coupling	SSG Freq.	Receiver Dial Setting	Connect VTVM	Adjust	Remarks
Frequency Coverage	Loop Antenna	520 Kc (1,000 c/s 30% AM)	Fully Left	To Earphone Jack with 8Ω load resistor in parallel	OSC Coil (OSC)	Adjust for maximum meter reading. Volume: Max. Power Source: DC 3.66V
		1,680 Kc (")	Fully Right		OSC Trimmer (C ₂)	
Tracking	—ditto—	620 Kc (")	Tune to 620 Kc signal	—ditto—	ANT Coil (ANT)	—ditto—
		1,400 Kc (")	Tune to 1,400Kc signal		ANT Trimmer (C ₂)	

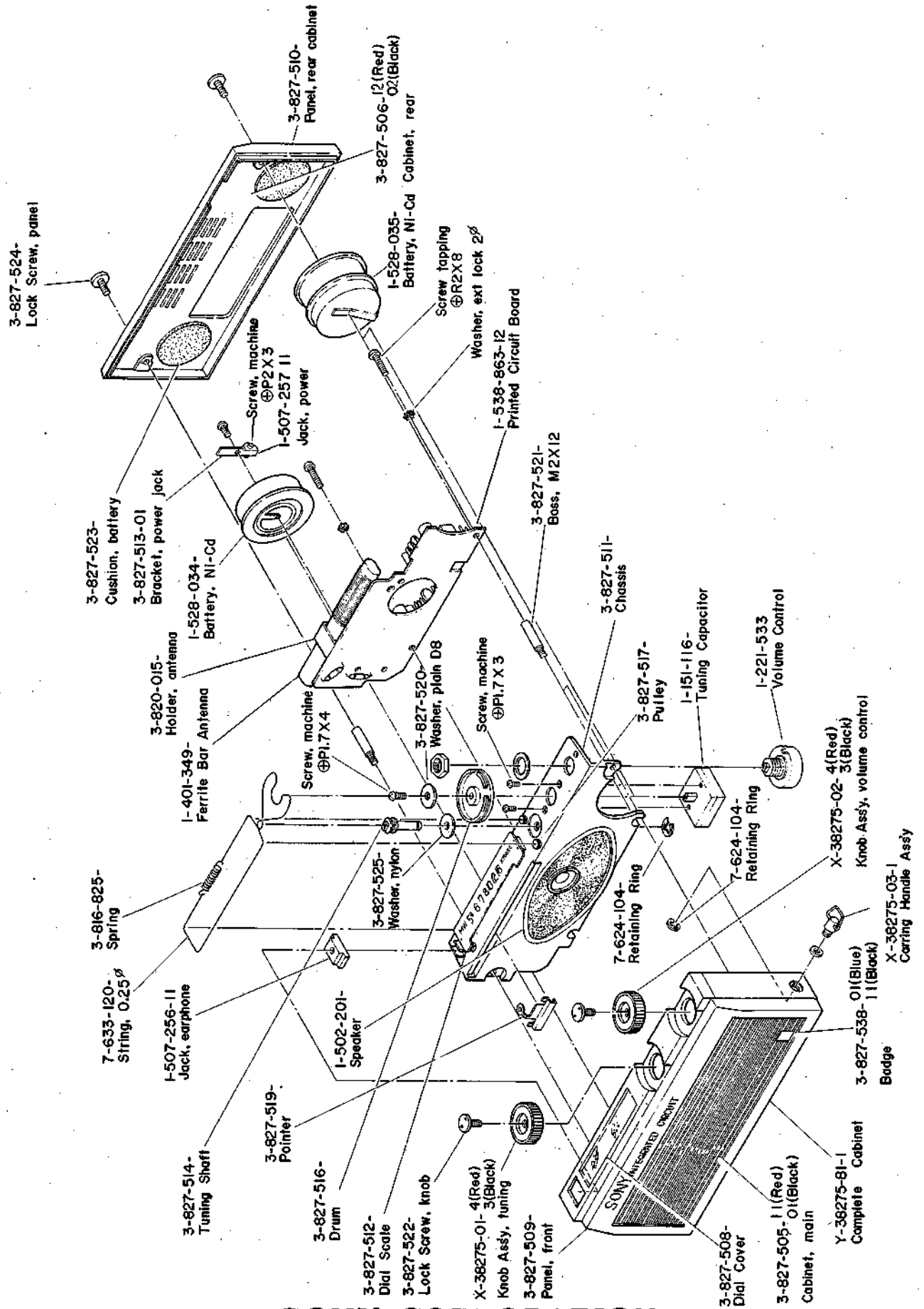
BC-200W, BC-200E



Schematic Diagram



Exploded Diagram



SONY CORPORATION