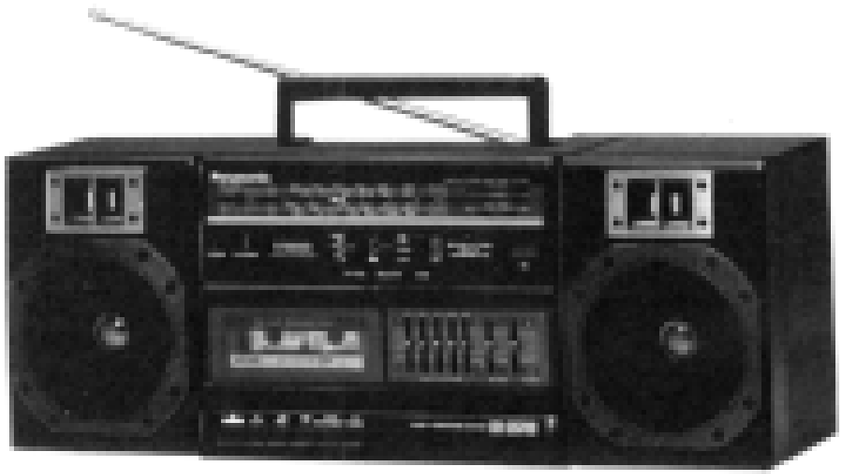
Service Manual

Radio Cassette

Portable Stereo Component System

RX-CS700



Color

(K) ..... Black Type

Area

Country Code	Area	Color
(E)	Continental Europe	
(EB)	Great Kingdom	(K)
(EG)	F.R. Germany/Italy	

RX-C32 MECHANISM SERIES

■ SPECIFICATIONS

General:

Power Requirement:	AC; 220 V, 50 Hz (For [EB], 240 V, 50 Hz) Battery; 9 V (Six UM-1 "D" Size Batteries)
Power Consumption:	15 W (AC only)
Power Output:	20 W (10 W × 2)...PMPO 7 W (3.5 W×2)...RMS (max.)
Speaker:	Woofer; 12 cm PM Dynamic Speaker (2.7Ω)×2 Tweeter; 2 cm Ceramic Speaker
Jacks:	
Input:	CD/LINE IN; 398 mV, 47 kΩ
Output:	EXT. SP; 2.7~8Ω HEADPHONES; 32Ω, ⌀3.5
Dimensions:	Total Size: 536(W)×199(H)×170(D) mm Main Unit: 260(W)×199(H)×170(D) mm Speaker Box: 144(W)×199(H)×152(D) mm
Weight:	3.4 kg without batteries

Radio Section:

Radio Frequency Range:	FM; 87.5 ~ 108 MHz LW; 148.5 ~ 285 KHz MW; 520 ~ 1610 KHz SW; 5.9 ~ 18 MHz
Intermediate Frequency:	FM; 10.7 MHz AM (LW/MW/SW); 459 KHz
Sensitivity:	FM; 4.5 μV/50 mW output (-3dB Limit Sens.) LW; 142 μV/50 mW output MW; 126 μV/50 mW output SW; 5 μV/50 mW output

Tape Deck Section:

Frequency Response:	70~11,000 Hz
Recording System:	AC bias, Magnet erase
Tape Speed:	4.8 cm/s
Track System:	4-track 2-channel stereo recording and playback

Design and specifications are subjected to changes without notice.

Panasonic®

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

SCHEMATIC DIAGRAM

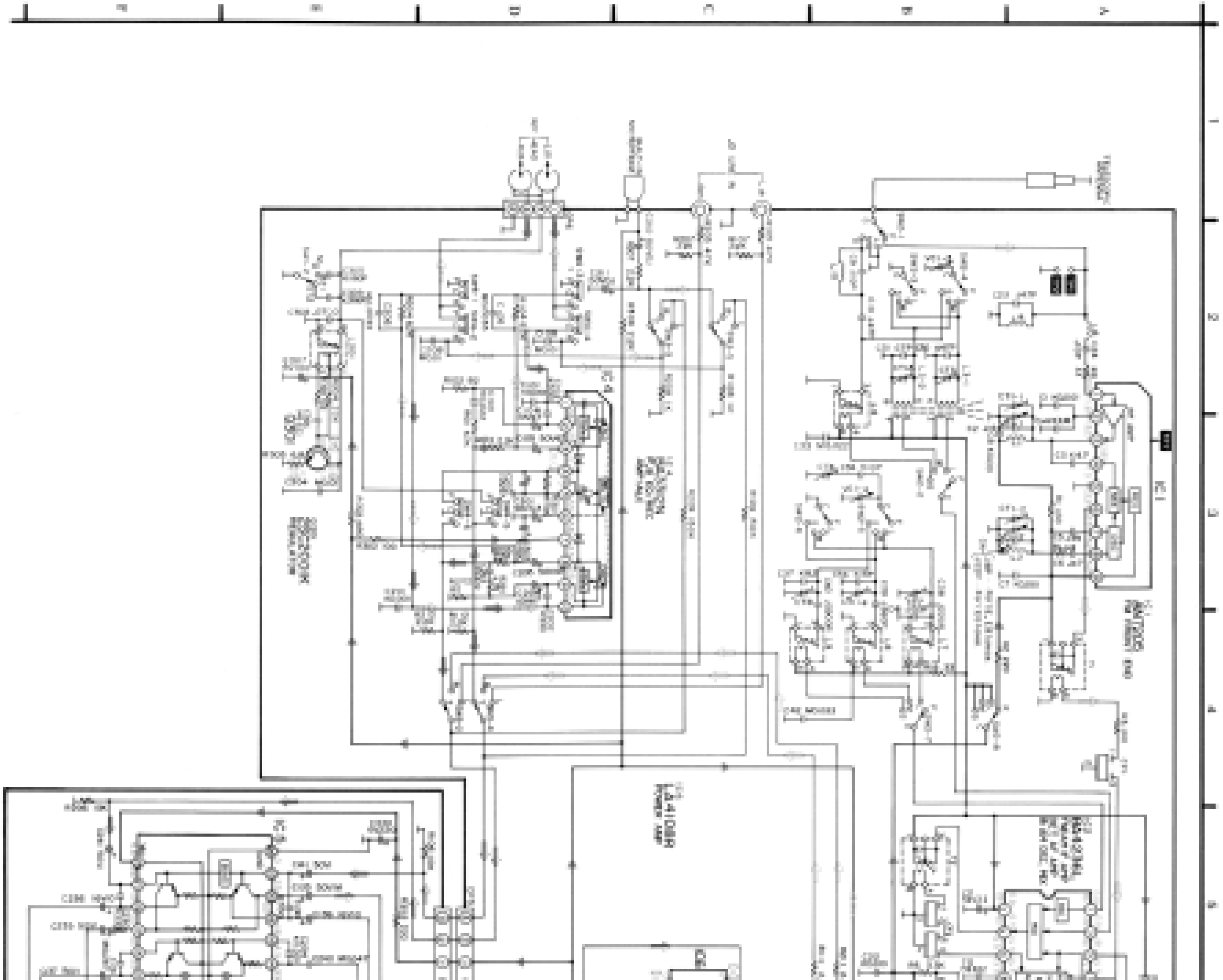
Notes:

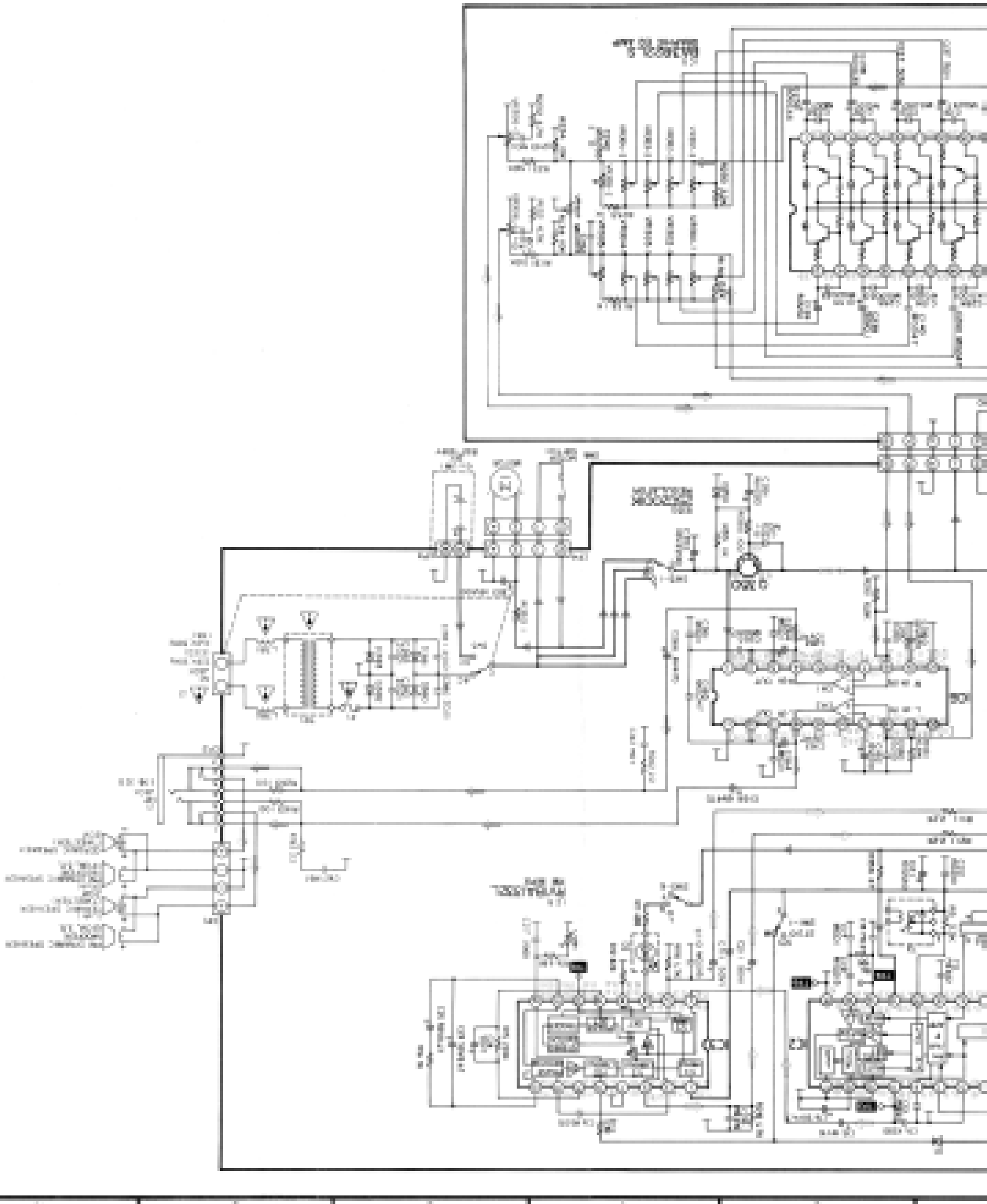
1. Sw1-1, Sw1-2: FM Mode Selector/Beat Proof switch in "FM MONO/Ⅰ" position. (M...FM/MONO/Ⅰ, STI... FM ST/Ⅲ, ST2... FMST/Ⅳ).
2. Sw2-1 ~ Sw2-6: Band Selector switch in "FM" position. (F...FM, L...Lw, M...Mw, S...Sw).
3. Sw3-1 ~ Sw3-6: Function selector switch in "TAPE/POWER [OFF]" position. (T...TAPE/POWER [OFF], R...RADIO, L...CD/LINE)
4. Sw4-1 ~ Sw4-4: Record/Playback selector switch in "PLAYBACK" position. (P...PLAYBACK, R...RECORD)
5. Sw5: AC/DC selector switch in "AC" position.
6. Sw6: Motor switch in "OFF" position.
7. VR1: FM MPX VCO Adjustment VR.
8. VR301-1, VR301-2: Graphic equalizer VR (100Hz).
9. VR302-1, VR302-2: Graphic equalizer VR (330Hz).
10. VR303-1, VR303-2: Graphic equalizer VR (1kHz).
11. VR304-1, VR304-2: Graphic equalizer VR (3.3kHz).
12. VR305-1, VR305-2: Graphic equalizer VR (10kHz).
13. VR306-1, VR306-2: Volume control VR
14. VR307 : Balance control VR
15. Battery current: Vol. min...60mA (Radio...FM)
    130mA (PLAYBACK)
    Vol. max....470mA (Radio...FM)
    700mA (PLAYBACK)
    Measurement instruction
    Radio: FM 60 dB, 30% Mod.
    Tape: 315 Hz, 0 dB
16. DC voltage measurement is taken with electronics voltmeter from negative terminal of battery.
    < >...FM ( )...AM
    No mark...PLAYBACK

Important safety notice.
Components identified by △ mark have special characteristics important safety.
When replacing any of these components, use only manufacturer's specified parts.

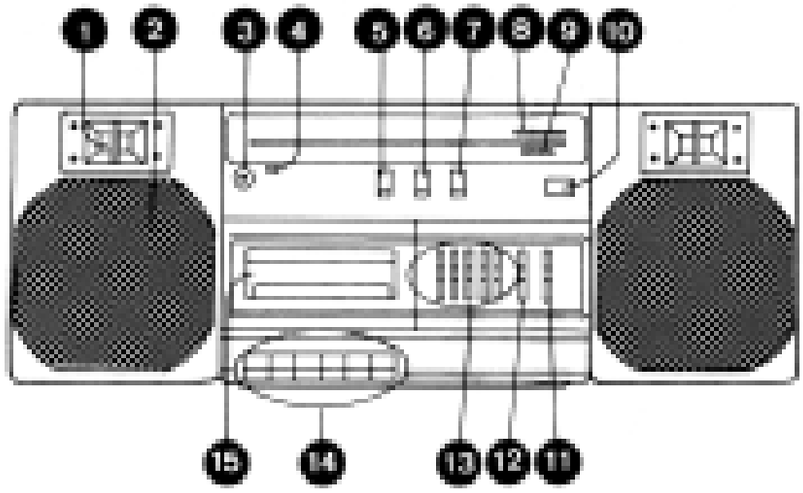
...FM SIGNAL LINE **...PLAYBACK SIGNAL LINE**
...RECORD SIGNAL LINE **...PLAYBACK/FM SIGNAL LINE**
...B LINE

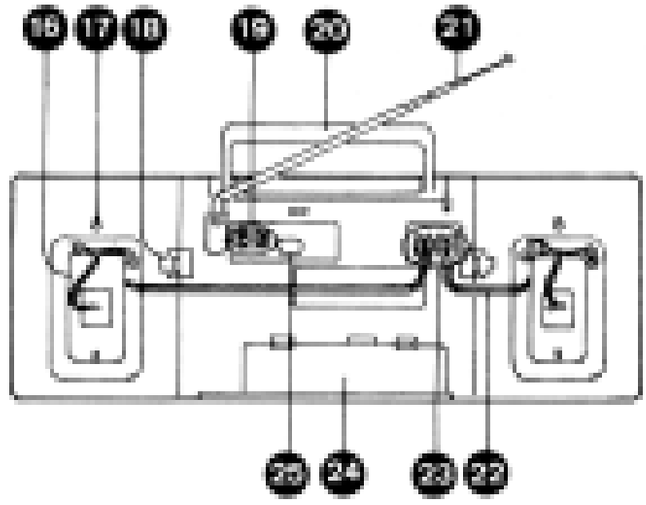
- **This schematic diagram may be modified at any time with the development of new technology.**





LOCATION OF CONTROLS AND COMPONENTS



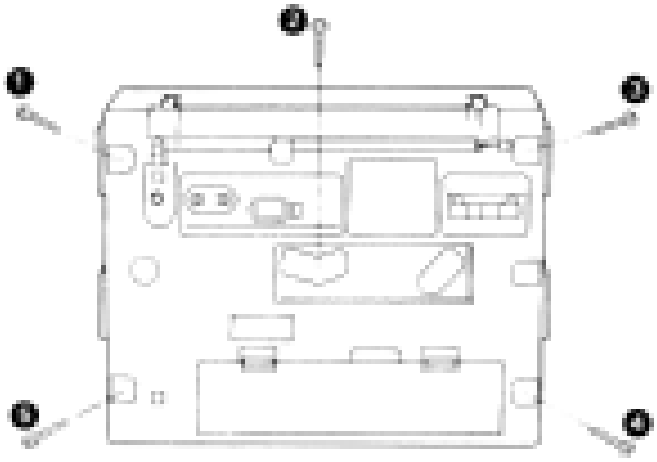


1. Speakers (Tweeter) (2 cm)
2. Speakers (Woofer) (12 cm, 3Ω)
3. Headphones Jack (PHONES) (Ø3.5, 32Ω)
4. FM Stereo Indicator (FM STEREO)
5. FM Mode Selector/Beat Proof Switch (FM MODE/B.P.)
6. Function Selector (SELECTOR)
7. Band Selector (BAND)
8. Tuning Control (TUNING)
9. Fine Tuning Control (FINE TUNING)
10. Built-in Microphone (MIC)
11. Volume Control (VOLUME)
12. Balance Control (BALANCE)
13. Graphic Equalizer Controls (GRAPHIC EQUALIZER)
14. Tape Operation Buttons
    - Records Button (● REC/MIC)
    - Playback Button (► PLAY)
    - Rewind Button (◄◄ REW)
    - Fast Forward Button (►► FF)
    - Stop/Eject Button (■/▲ STOP/EJECT)
    - Pause Button (❚❚ PAUSE)
15. Cassette Compartment
16. Speaker Cable Compartments
17. Speaker Wall Mounts
18. Speaker Release Levers (RELEASE)
19. CD/Line Input Jacks (CD/LINE IN) (250mV, 47kΩ)
20. Handle
21. Telescopic Antenna
22. Speaker Cables
23. Speaker Terminals (SPEAKER (IMP 2.7-8Ω))
24. Battery Compartment
25. AC Socket (AC IN~)

DISASSEMBLY INSTRUCTIONS

Ref. No. 1	Removal of the Front Cabinet
Procedure 1	1. Remove the 5 screws (❶–❺). 2. Press the stop/eject button. 3. Remove the front cabinet.

[Removal of Screws]
- Use a screwdriver similar to the one in the figure.

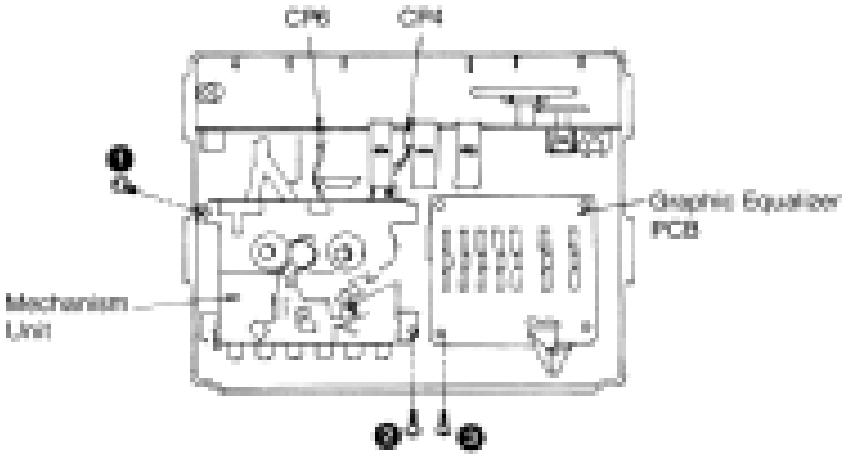


- If you attach a bushing (part number: RHR109A) to the tip of the screwdriver as shown in the figure, the screwdriver tip will easily fit in the screw heads and you will be able to remove the screws with ease.

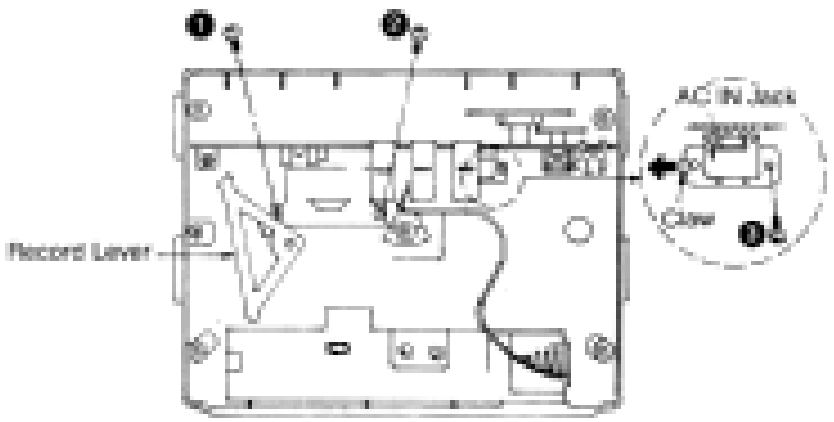
Ref. No. 2	Removal of the Mechanism Unit and Graphic Equalizer P.C.B.
Procedure 1–2	

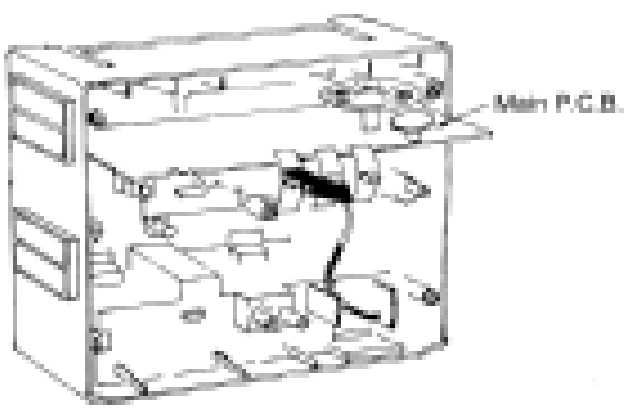
[Mechanism Unit]
1. Remove the 2 screws (❶, ❷).
2. Remove the 2 connectors (CP4, CP6).

[Graphic Equalizer P.C.B.]
- Remove the 1 screw (❸).

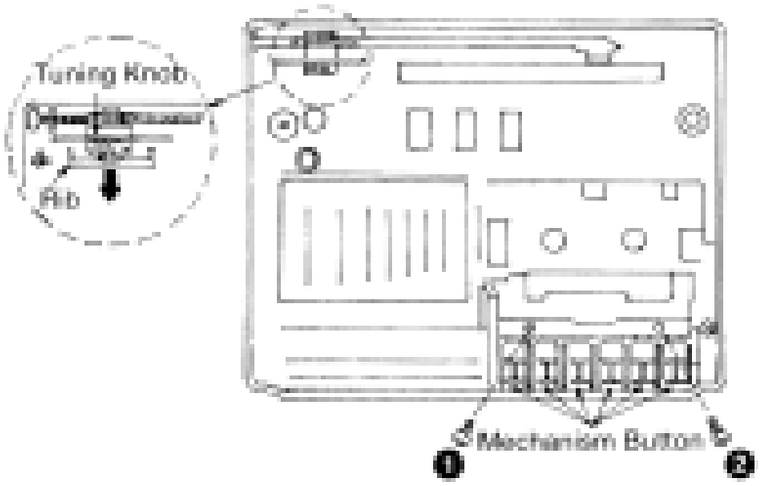


Ref. No. 3	Removal of the Main P.C.B.
Procedure 1–2–3	1. Remove the record lever. 2. Remove the 3 screws (❶–❸). 3. Remove the claw. 4. Pull out the main P.C.B.

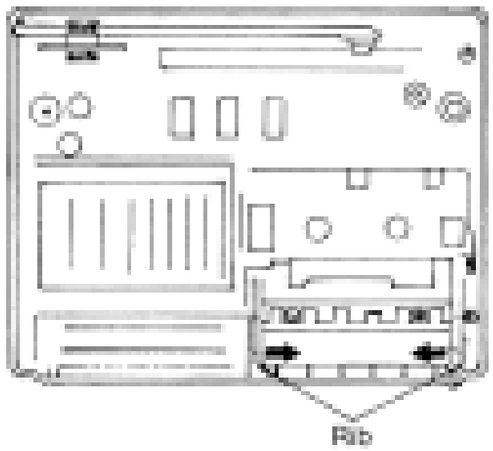




Ref. No. 4	Removal of the Tuning Knob and Mechanism Button
Procedure 1−4	[Tuning Knob] • Remove the rib in the direction of arrow. [Mechanism Button] • Remove the 2 screws (❶,❷).



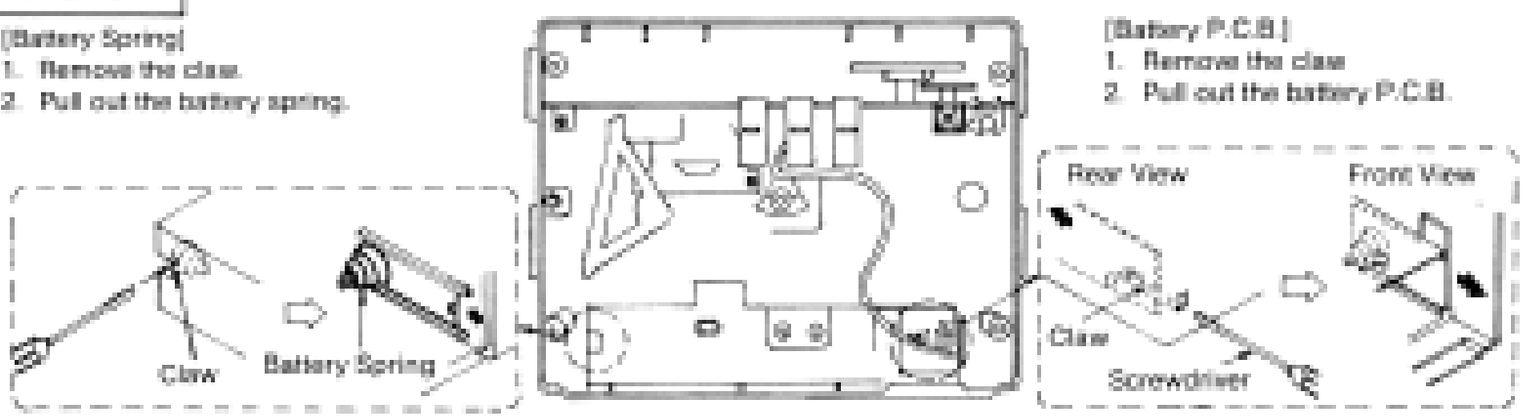
Ref. No. 5	Removal of the Cassette Compartment
Procedure 1−4−5	• Remove the rib in the direction of arrow.



Ref. No. 6	Removal of the Battery P.C.B. and Battery Spring
Procedure 1−2−6	

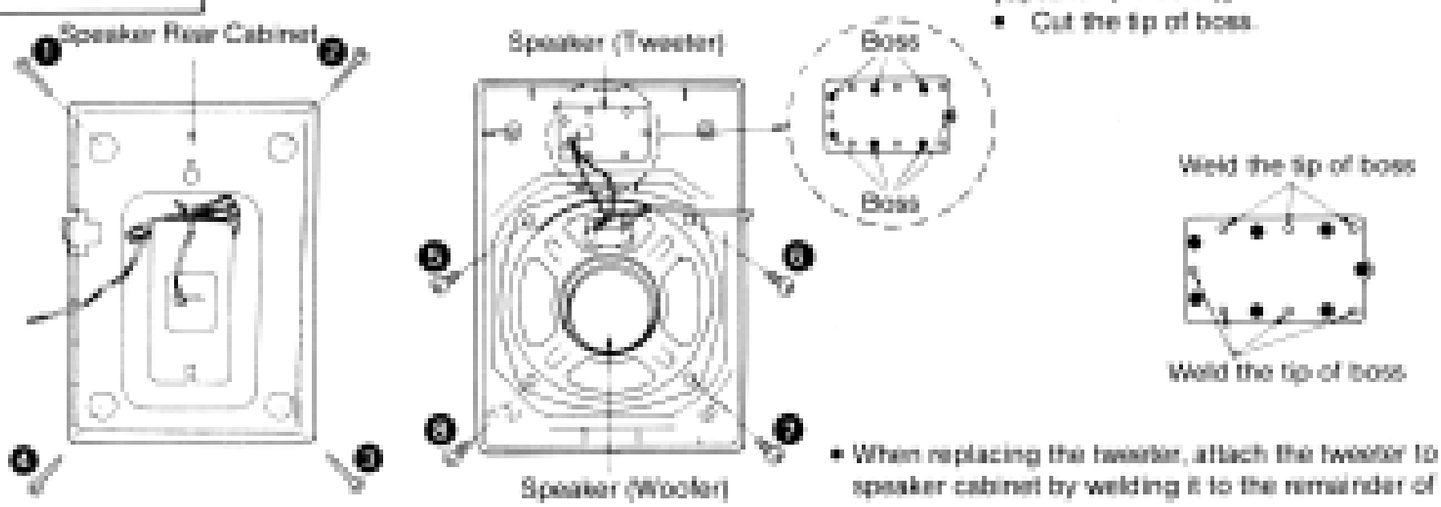
[Battery Spring]
1. Remove the case.
2. Pull out the battery spring.

[Battery P.C.B.]
1. Remove the case.
2. Pull out the battery P.C.B.



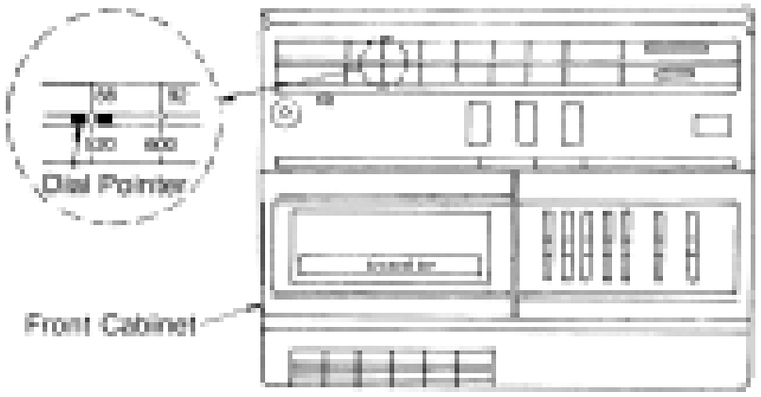
Ref. No. 7	Removal of the Speaker Rear Cabinet, Speaker (Woofer) and Speaker (Tweeter)
Procedure 7	

[Speaker Rear Cabinet]
• Remove the 4 screws (❶−❹).
[Speaker (Woofer)]
• Remove the 4 screws (❺−❽).
[Speaker (Tweeter)]
• Cut the tip of boss.

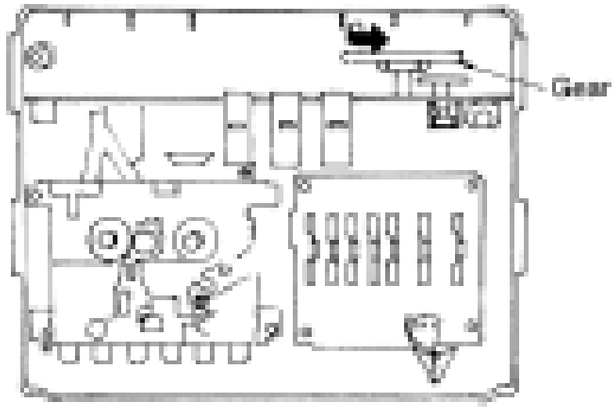


• When replacing the tweeter, attach the tweeter to the speaker cabinet by welding it to the remainder of the boss.

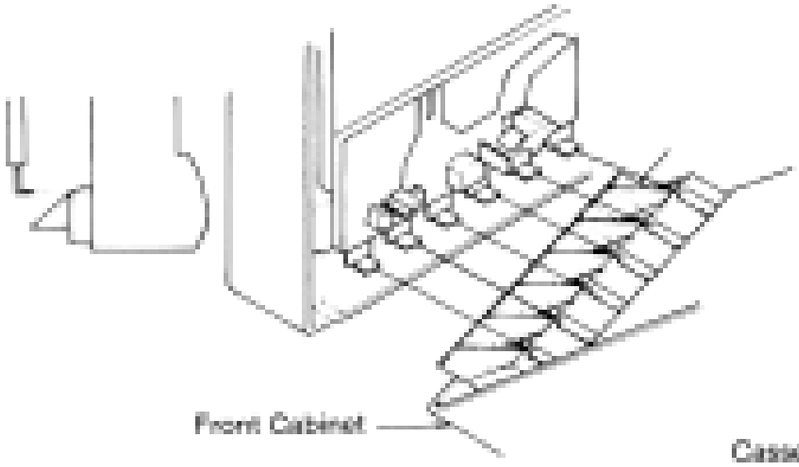
■ FRONT CABINET ASSEMBLY



1. Line up the dial pointer in the front cabinet assembly with the "0" point graduation as shown in figure.

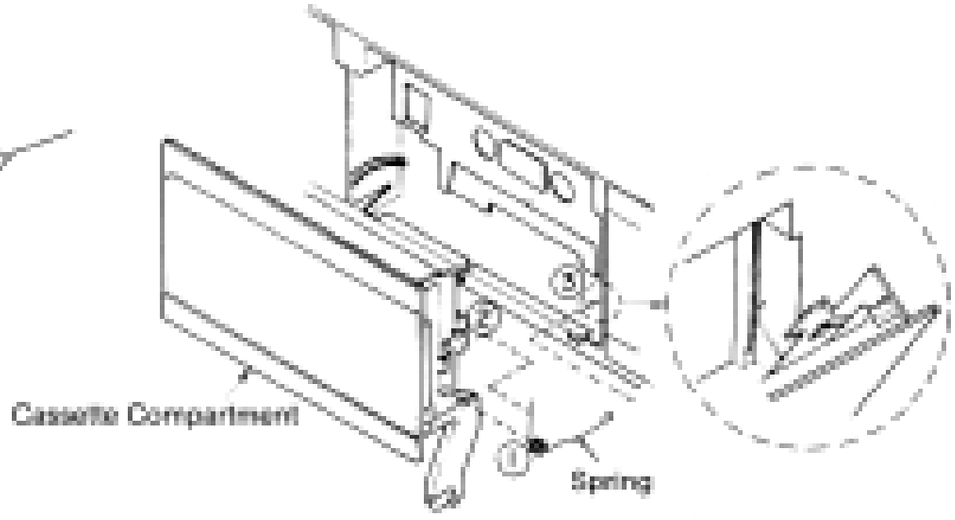


2. Turn the gear on the main P.C.B. all the way in the direction of arrow.

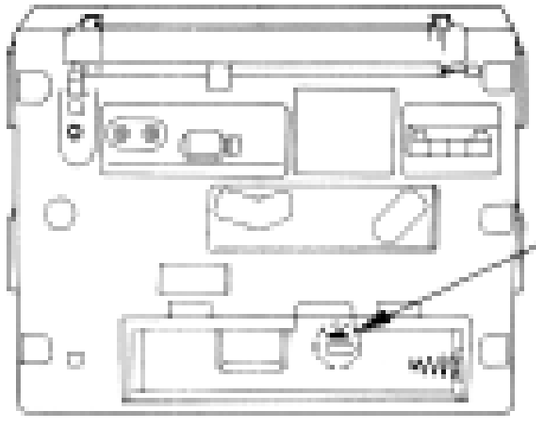


3. Assemble the front cabinet match mechanism button and mechanism lever.

■ CASSETTE COMPARTMENT ASSEMBLY

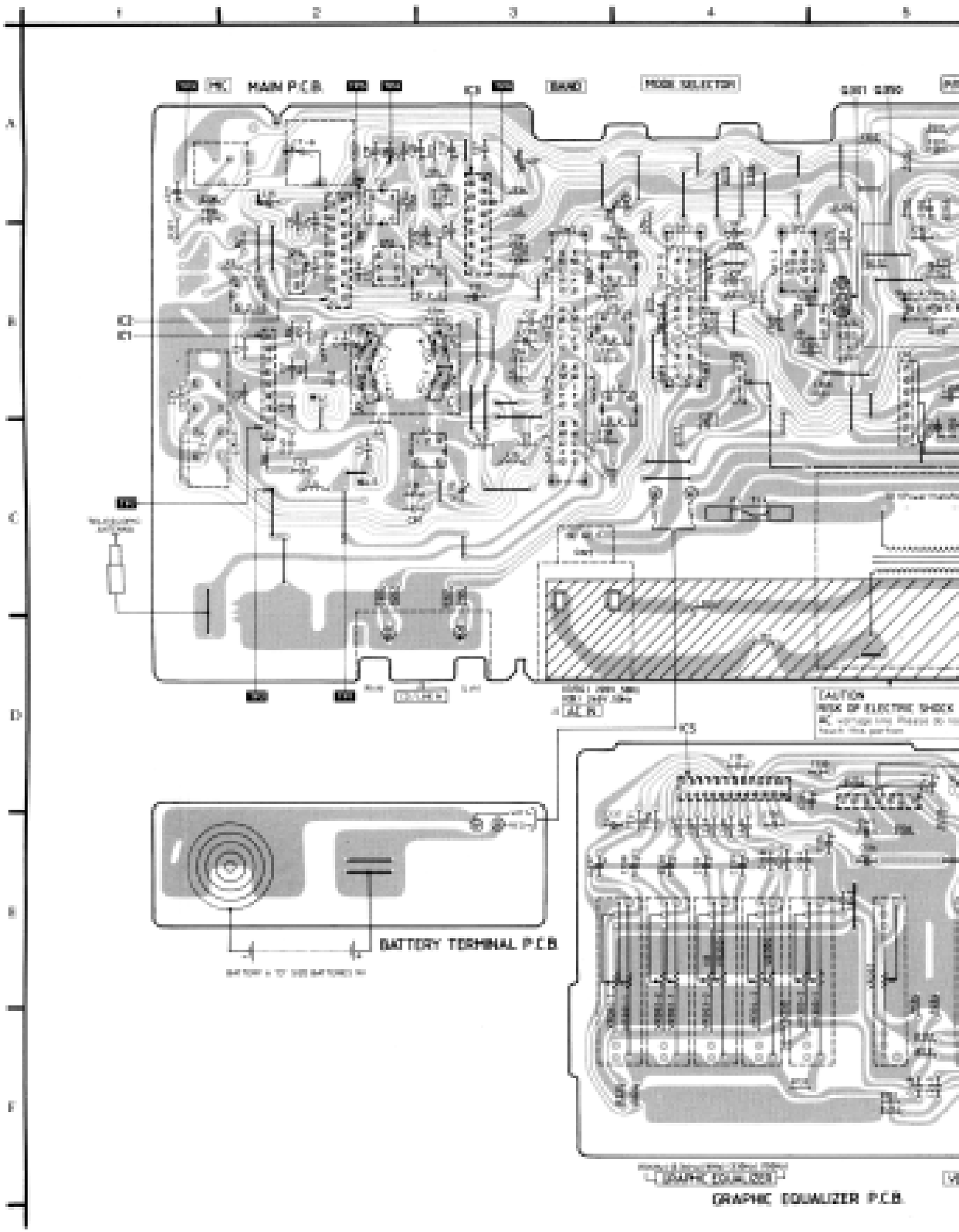


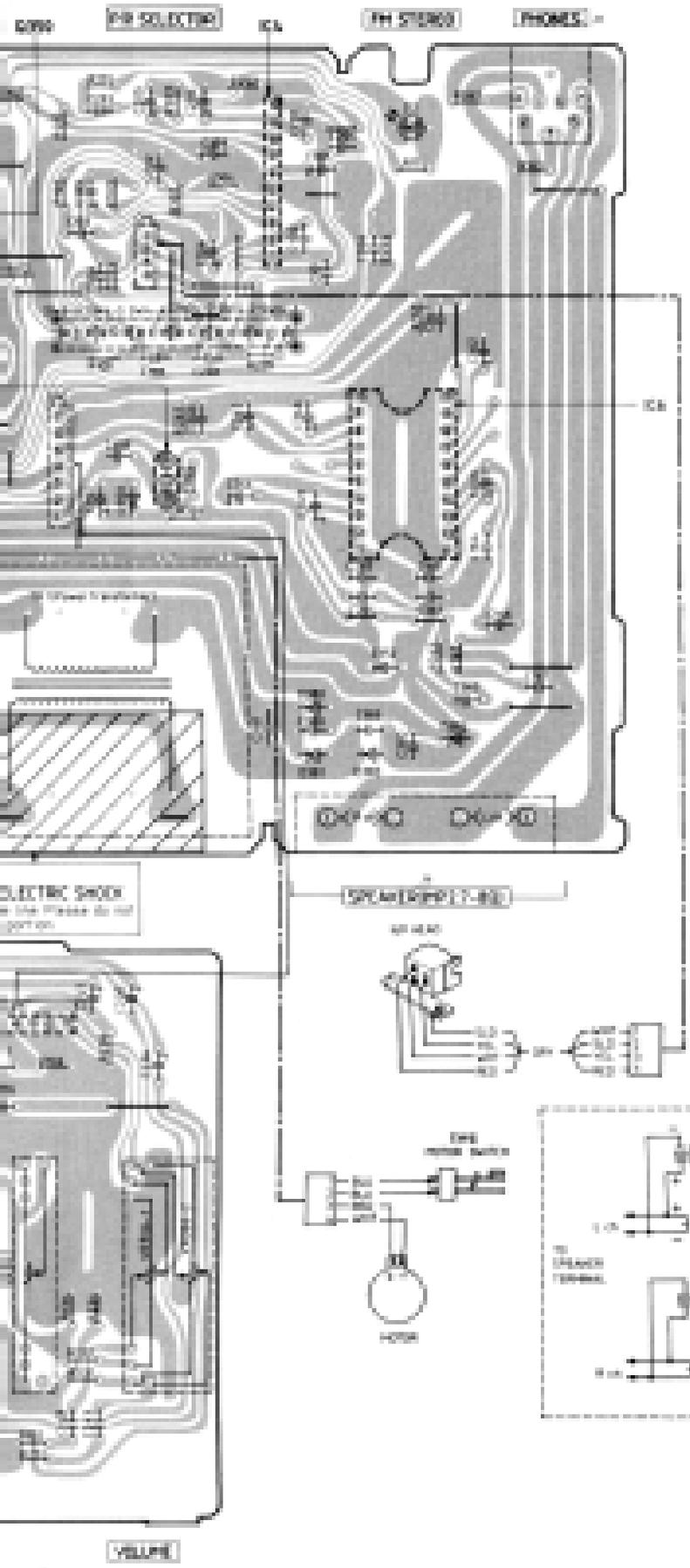
■ WHAT TO DO WHEN THE TAPE IS ENTANGLED



When the tape is caught in the pinch roller, etc. release the tape by turning the pulley on the motor with the screwdriver in the direction of the arrow.

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM





■ TERMINAL GUIDE OF IC's, TRANSISTORS AND DIODES

AN7205 8 Pin	BA3812N 10 Pin
BA4208L 18 Pin	LA4138R 20 Pin
RVDMT20R88TA	SL25VR05F155
RVBA1332L 16 Pin	BA3822LS 24 Pin
2SC2001K	RVD1SS139TA RVD1SR05TR

NOTES:

BLK . . . Black	ORG . . . Orange
BLU . . . Blue	PNK . . . Pink
BRN . . . Brown	RED . . . Red
GRY . . . Gray	SLD . . . Shield Wire
GRN . . . Green	VLT . . . Violet
LBLU . . . Light Blue	WHT . . . White
	YEL . . . Yellow

MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1. Set function selector to radio. 2. Set volume control to maximum. 3. Set FM mode selector to FM ST. 4. Set band switch to MW, LW, SW, or FM. 5. Set fine tuning to center.	6. Set graphic equalizer to center. 7. Set power source voltage to 9V DC. 8. Output of signal generator should be no higher than necessary to obtain an output reading.

■ AM-IF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLMETER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver	459 kHz 30% Mod. at 400 Hz	Point of non-interference. (on/about 600 kHz)	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 4, and then connect the lead wires of the plug to the measuring instrument.)	T2 (AM IFT)	Adjust for maximum output.

■ LW-RF ALIGNMENT

Fashion loop of several turns of wire and radiate signal into loop of receiver	136kHz (E/EB) 137kHz (EG)	Tuning capacitor fully closed.	Output meter across voice coil	L7 (LW OSC Coil)	Adjust for maximum output.
"	297kHz	Tuning capacitor fully open.	"	CT7(LW OSC Trimmer)	"
"	145kHz	Tune to signal	"	(*1) L3-1 (LW ANT Coil)	Adjust for maximum output. Adjust L3-1 by moving coil bobbin along ferrite core.
"	285kHz	"	"	CT5(LW ANT Trimmer)	Adjust for maximum output.
(*1) Cement antenna bobbin with wax after completing alignment.					

■ MW-RF ALIGNMENT

BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC AC VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
	CONNECTIONS	FREQUENCY				
MW-RF ALIGNMENT						
MW	"	511 kHz (E/EB) 514 kHz (EG)	Tuning capacitor fully closed.	"	L8 (MW OSC Coil)	Adjust for maximum output.
MW	"	1,629 kHz (EG) 1,650 kHz (E/EB)	Tuning capacitor fully open.	"	CT 1-4 (MW OSC Trimmer)	"
MW	"	558 KHz	Tune to signal.	"	(*1) L3-2 (MW ANT Coil)	Adjust for maximum output. Adjust L3-2 by moving coil along ferrite core.
MW	"	1,500 kHz	"	"	CT1-3 (MW ANT Trimmer)	Adjust for maximum output.
(*1) Fix antenna Coil with wax after completing alignment.						

■ SW-RF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLMETER or SCOPE	ADJUSTMENT	REMARKS
CONNECTIONS	FREQUENCY				
Connect to test point **TP1** through ceramic capacitor (10pF) Negative side to test point **TP2**	5.75MHz	Tuning capacitor fully closed.	Output meter across voice coil.	L9 (SW OSC Coil)	Adjust for maximum output.
"	18.8MHz	Tuning capacitor fully open	"	CT6 (SW OSC Trimmer)	"
"	5.9MHz	Tuning to signal.	"	L4 (SW ANT Coil)	Adjust for maximum output.

■ FM-IF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLMETER or OSCILLOSCOPE	ADJUSTMENT	REMARKS
CONNECTIONS	FREQUENCY				
Connect to test point **TP5** through ceramic capacitor (0.001 μF) Negative side to test point **TP2**.	10.7 MHz (SWEEP)	Point of interference (on/about 90 MHz)	Connect vert. amp. scope to test point **TP4**. Negative side to test point **TP2**.	T1 (FM 1st)	Adjust for maximum amplitude. (Refer to Fig. 2.)
"	"	"	"	T3 (FM 2nd)	Adjust for maximum amplitude. (Refer to Fig. 3.)

■ FM-RF ALIGNMENT

Connect to test point **TP1** through FM dummy antenna. Negative side to test point **TP2**.	86.2 MHz (E/EB) 87.5 MHz (EG)	Variable capacitor fully closed.	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 4, and then connect the lead wires of the plug to the measuring instrument.)	L2 (FM OSC coil)	(*2) Adjust for maximum output.
"	109.2 MHz (E/EB) 108.05 MHz (EG)	Variable capacitor fully open.	"	CT 1-2 (FM OSC Trimmer)	"
"	106 MHz	Tune to signal	"	CT 1-1 (FM ANT Trimmer)	"
(*2) Three output responses will be present; proper tuning is the center frequency.					

■ SEPARATION ALIGNMENT

FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
98 MHz, 60 dB (DIN) Connect to test point **TP1** through FM dummy antenna. Negative side to **TP2**.	**TP2** ... (+) **TP3** ... (-)	VR1	19 kHz	Adjust VR1, for 19 kHz±50 Hz reading on frequency counter.

■ HEAD AZIMUTH ALIGNMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCFM (8 kHz, -20 dB)	Headphones Jack (32Ω) (Fabricate the plug shown in Fig. 4 and then connect the lead wires of the plug to the measuring instrument.)	Azimuth screw (Shown in Fig. 5)	Maximum output	• Playback mode.

■ TAPE SPEED ADJUSTMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCWAT (3 kHz)	Headphones Jack (32Ω) Fabricate the plug shown in Fig. 4 and then connect the lead wires of the plug to the measuring instrument.	Motor VR (Shown in Fig. 6)	3000± 70 Hz	1. Playback mode. 2. Adjust motor VR, for 3000 ± 70 Hz reading on frequency counter.

■ ALIGNMENT POINT

- Please refer to Circuit Board and Wiring Connection Diagram for test point locations.

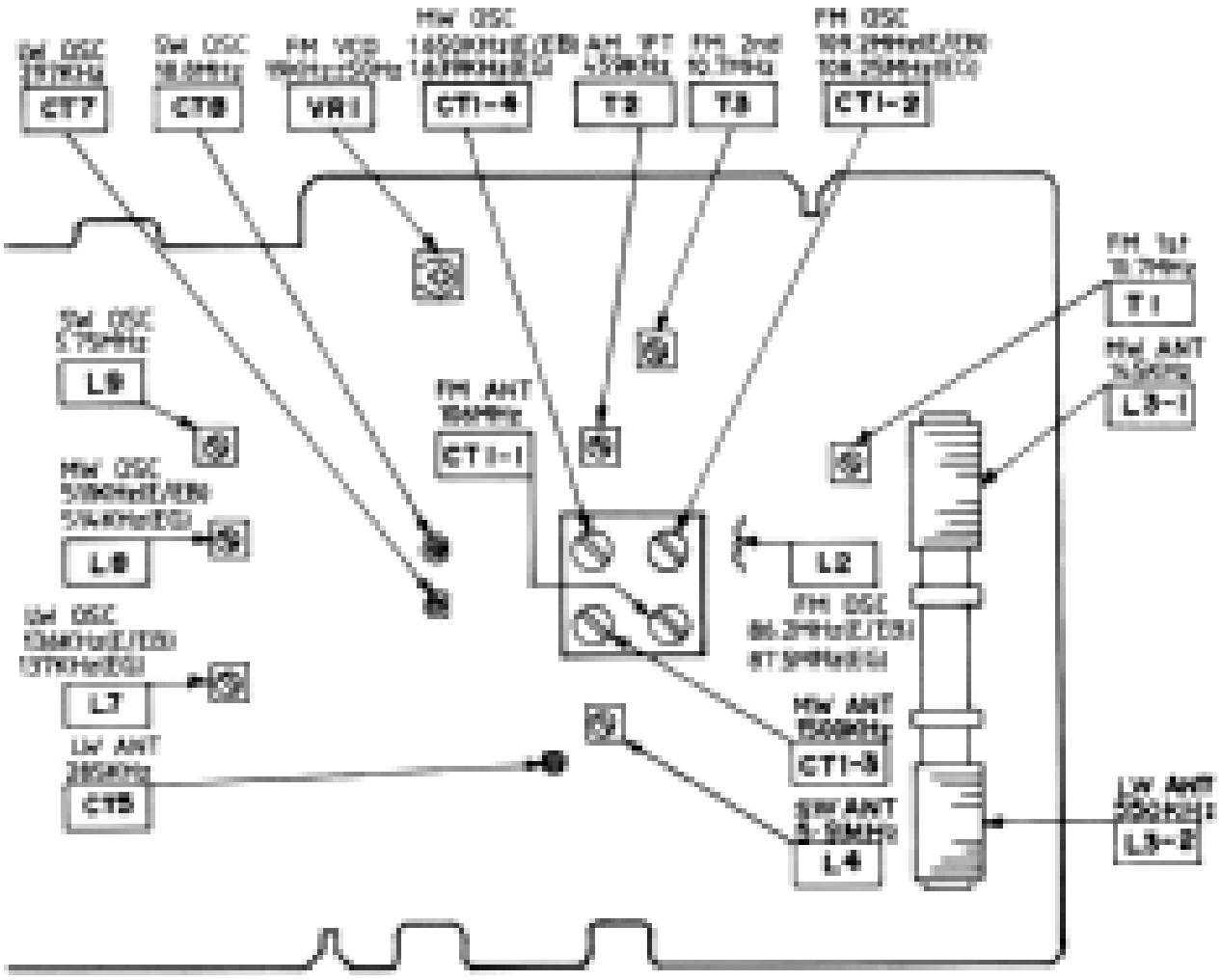


Fig. 1

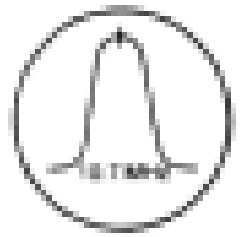


Fig. 2

Fig. 3

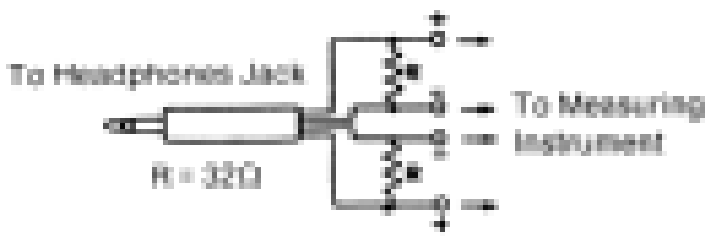


Fig. 4

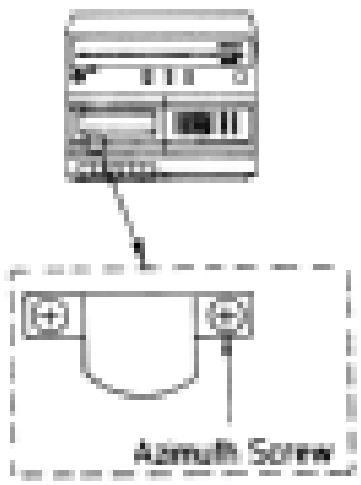


Fig. 5

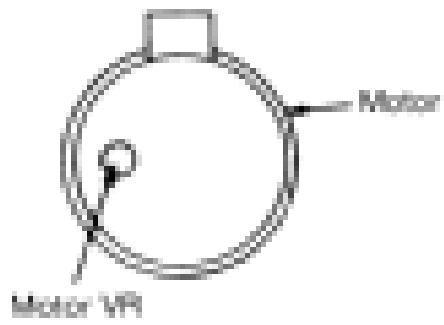
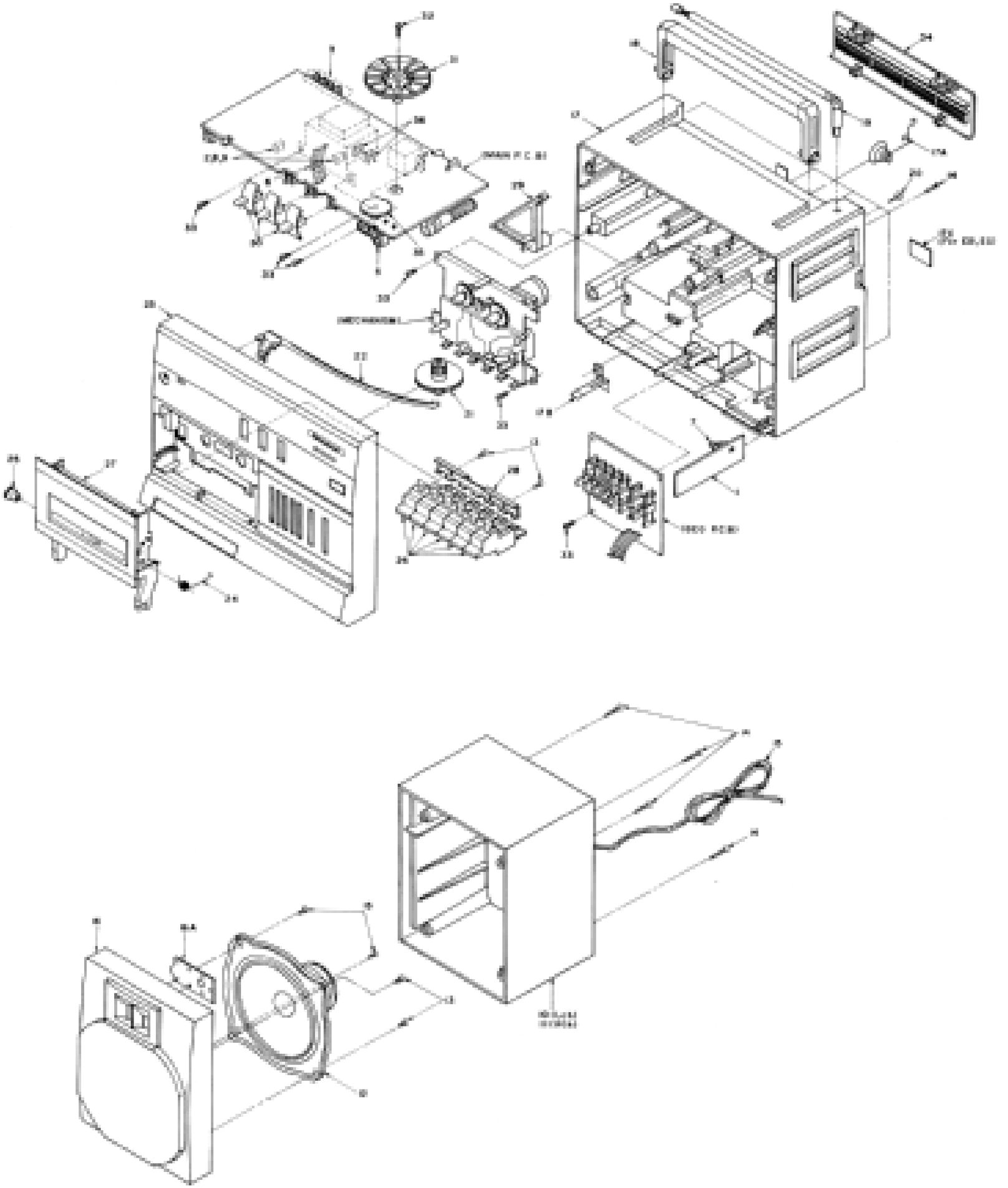


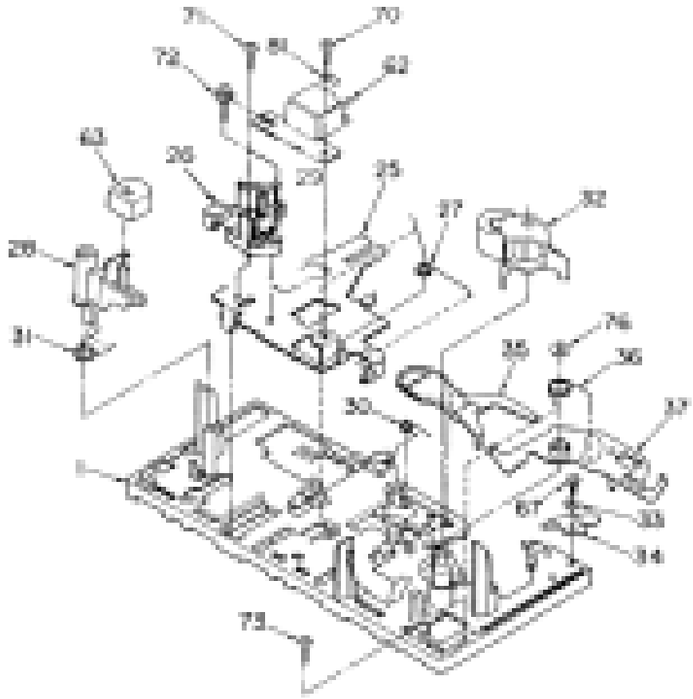
Fig. 6

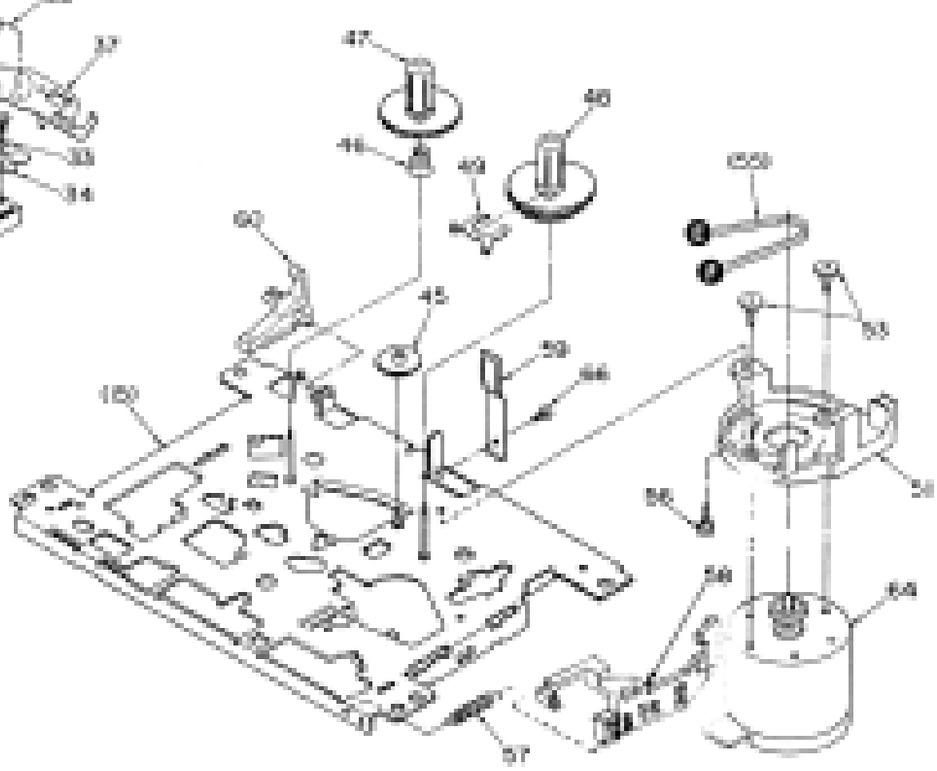
CABINET PARTS LOCATION



MECHANISM PARTS LOCATION

TOP VIEW



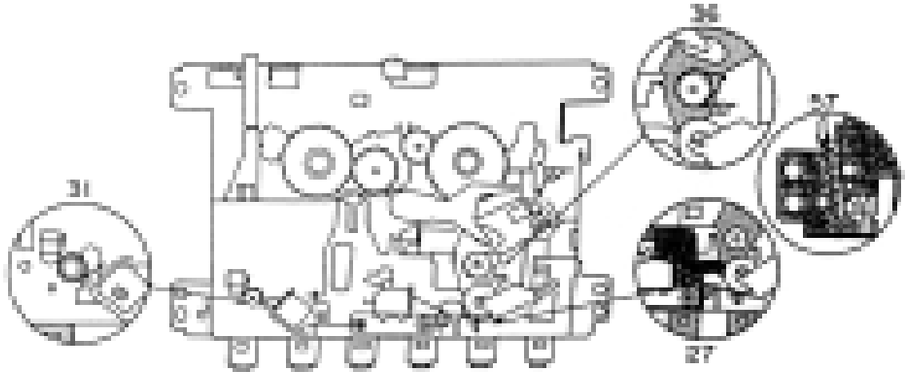


Specifications

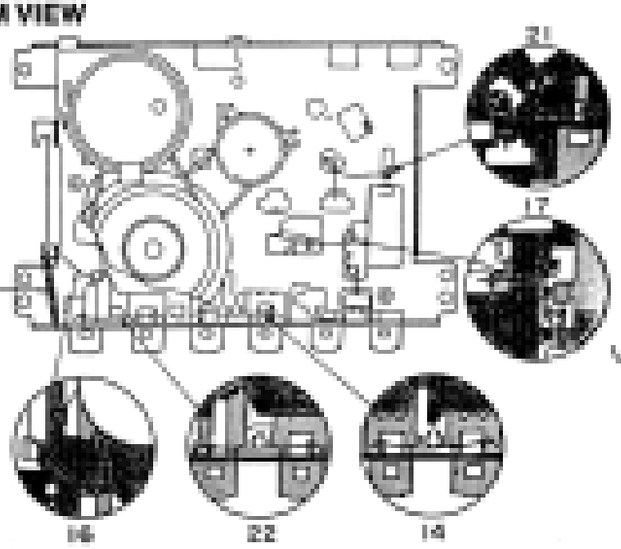
Playback torque	26 – 55 g-cm
Fast Forward torque	50 g-cm or More
Rewind torque	50 g-cm or More
Pressure of pressure roller	300 ± 50 g
Wow and flutter	Less than 0.25% (WRMS)

■ SPRING LOCATION

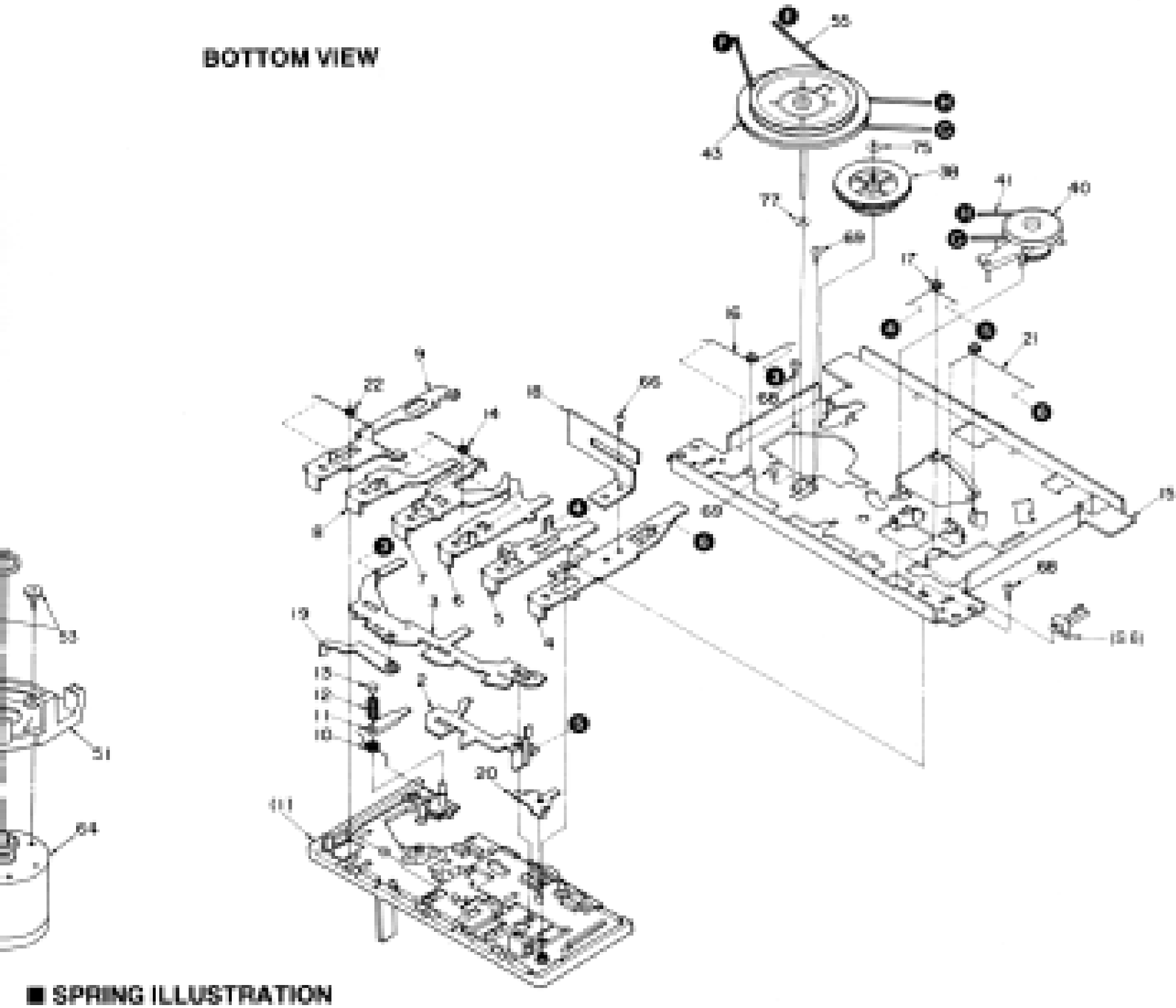
TOP VIEW



BOTTOM VIEW

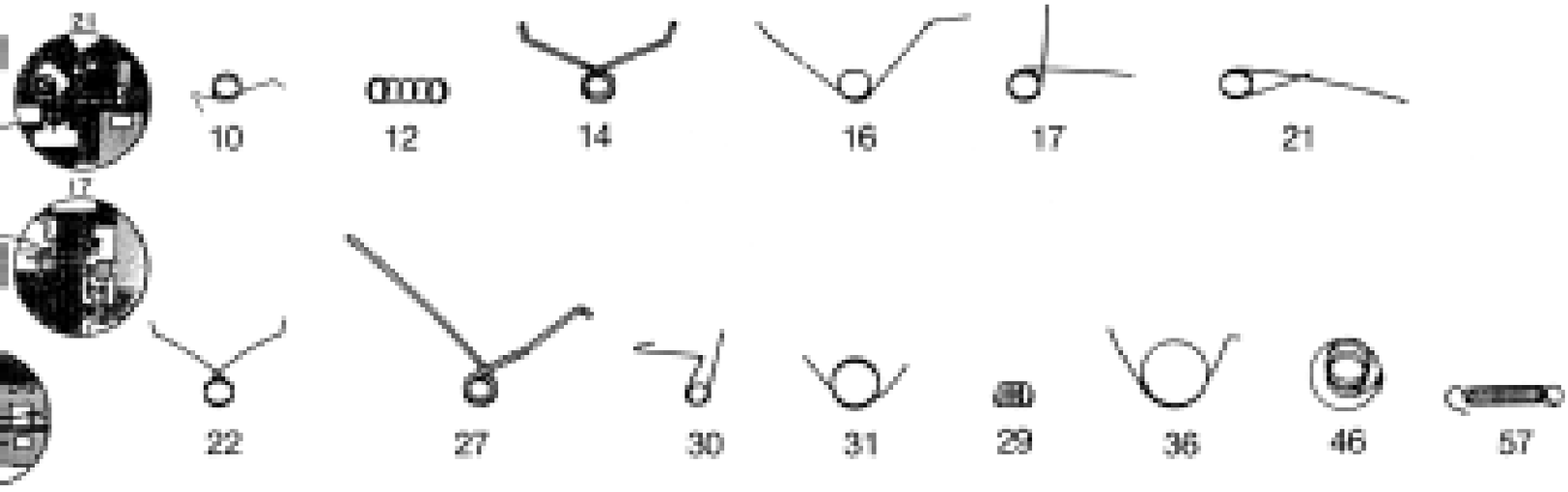


BOTTOM VIEW



■ SPRING ILLUSTRATION

The illustration shows the actual size of the springs so it can be used to check their shapes.
(The illustration shows the springs separated from the mechanism.)



■ REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	
CABINET AND CHASSIS			
1	REP1557AAU	P.C.B.	[M]
2	RJP4G18ZA	CONNECTOR (4P)	
3	RJF1096ZA-H	JACK SP (J4)	[M]
5	RJM164YA	MICROPHONE	[M]
6	WB5T050BK1K1	FLAT CABLE	[M]
7	RJC5112BS	BATTERY SPRING (−)	
8	RJS4L4Z	SOCKET (4P)	
9	RJT8072B-6	CONTACT	
10	RKF8852A-D	SP BOX (L)	[M]
11	RKF865YA-6	SP BOX (R)	[M]
12	RAS12P152A-F	SPEAKER	[M]
13	XTV3+8G	SCREW	
14	XTV3+28G	SCREW	
15	RJE2072A	TERMINAL	[M]
16	RKB2KCS700P	SP FRONT CAB	[M]
16A	RAT2504M03-T	TWEETER	[M]
17 [E]	RPFKCS700EKS	REAR CABINET ASS'Y	[M]
17 [EB]	RPFKCS700EBK	REAR CABINET ASS'Y	[M]
17 [EG]	RPFKCS700EGK	REAR CABINET ASS'Y	[M]
17A	RJC5012	BATTERY TERMINAL (+/−)	
17B	RJT3056ZA	ANT. PLATE	[M]
17C [EB]	RGT2156A-0	NAME PLATE	[M]

Ref. No.	Part No.	Description	
17C [EG]	RGT2159A-0	NAME PLATE	[M]
18	RKK352A-8	HANDLE	[M]
19	XEAM079FA-Y	TELESCOPIC ANTENNA	
20	XYN3+F10FY	SCREW	
21	RGT2802D-0	KNOB, TUNING	[M]
22	RGP028Z0-0	DIAL POINTER	[M]
23 [E]	RYM1KCS700EK	FRONT CABINET ASS'Y	[M]
23 [EB]	RYM1KCS700EB	FRONT CABINET ASS'Y	[M]
23 [EG]	RYM1KCS700EG	FRONT CABINET ASS'Y	[M]
24	RUS781ZA	SPRING	[M]
25	RDG5782YC	GEAR	[M]
26	RGC1386ZA-0	BUTTON, MECHANISM	[M]
27	RYQKCS700P	CASSETTE LID ASS'Y	[M]
28	RMB0272ZA	ANGLE	[M]
29	RUS852B	R/P LINKAGE	[M]
30	RGD5822A-0	KNOB, BAND	[M]
31	RDG5840ZA	GEAR	
32	XYN26+C6	SCREW	
33	XTB3+10G	SCREW	
34	RKK252A-8	BATTERY COVER	[M]
35	RGT3102B-0	FINE TUNING KNOB	[M]
36 △	GTF1064	FUSE HOLDER	

Ref. No.	Part No.	Description
MECHANISM		
CASSETTE DECK		
1	RFU1542A	CHASSIS ASS'Y
2	RFY8662A	PLATE
3	RFY8672A	PLATE
4	RFY8682A	BUTTON LEVER
5	RFY8692A	BUTTON LEVER
6	RFY8702A	BUTTON LEVER
7	RFY8712A	BUTTON LEVER
8	RFY8722A	BUTTON LEVER
9	RFY8732A	BUTTON LEVER
10	RFS8072A	SPRING
11	RFG1392A	PAUSE LEVER
12	RFS8132A	SPRING
13	RFX1742A	STOPPER
14	RFS8142A	SPRING
15	RFU1552A	CHASSIS ASS'Y
16	RFS8152A	SPRING
17	RFS8162A	SPRING
18	RFS8282A	REC. SPRING PLATE
19	RFY8842A	LEVER
20	RFX1752A	STOPPER
21	RFS8172A	SPRING
22	RFS8182A	SPRING
25	RFU1572A	HEAD PANEL
26	RFU1582A	HEAD BASE
27	RFS8192A	SPRING
28	RFY8132A	MG ARM
29	RFS4472	SPRING
30	RFS8282A	SPRING
31	RFS8212A	SPRING
32	RFR582A	PINCH ROLLER ASS'Y
33	RFY8772A	COLLAR
34	RFD3362A	ARM
35	RFY8842A	LEVER

Ref. No.	Part No.	Description	
36	RFS8222A	SPRING	
37	RFP8782A	PLATE ASS'Y	
38	RFG1382A	CAM GEAR	
40	RFQ822A	PULLEY	
41	RFB862A	RF BELT	
43	RFP672A	FLYWHEEL	
45	RFG1182A	GEAR	
46	RFS8082A	SPRING	
47	RFJ882A	REEL ASS'Y	
48	RFJ882A	REEL ASS'Y	
49	RFY8752A	SENSOR	
51	RFU1492A	MOTOR BRACKET	
53	RFE4962A	SCREW	
55	RFB1092A	BELT	
56	RFE5022A	SCREW	
57	RFS8292A	SPRING	
58	RFY8762A	EJECT SLIDE LEVER	
59	RFS8632A	SPRING	
60	RFY8892A	LEVER	
62	RGP4DG083-M	R/P HEAD	[M]
63	RGP2EY004-Z	E HEAD	[M]
64	RFM1472A	MOTOR	[M]
66	XTN2+3B	SCREW	
67	RFE4972A	SCREW	
68	XSB2+4	SCREW	
69	RFE4962A	SCREW	
70	RFE4962A	SCREW	
71	XSN2+6	SCREW	
72	RFE2002	SCREW	
73	RFE4542A	SCREW	
75	RFN802	WASHER	
76	RFN2142A	WASHER	
77	RFN1222	WASHER	
80 (S6)	RFA912A	LEAF SWITCH (MOTOR)	
81	RFE5042A	RUB. PLATE	

■ RESISTORS & CAPACITORS

Notes : * Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.

Numbering System For Resistors

Example:

ERD	25	F	J	102
Type	Wattage (1/4W)	Shape	Tolerance	Value (1KΩ)
ERX	2	AN	J	471
Type	Wattage (2W)	Shape	Tolerance	Value (470Ω)

Resistor Type	Wattage		Tolerance
ERD : Carbon	10 : 1/8W	12 : 1/2W	J : ±5%
ERG : Metal Oxide	14 : 1/4W	25 : 1/4W	F : ±1%
ERQ : Fuse Type Metal	1A : 1W	18 : 1/8W	G : ±2%
ERX : Metal Film	S2 : 1/4W	S1 : 1/2W	J : ±5%
ERD L : Carbon (chip)	2F : 1/4W	50 : 1/2W	K : ±10%
ERO K : Metal Film (chip)	2A : 2W	3A : 3W	M : ±20%
ERC : Solid	6G : 1/10W	8G : 1/8W	
ERF : Incombustible Box-Shaped			
ERW : Wire-Wound			
RRJ : Chip Resistor			
ERJ : Chip Resistor			

Numbering System For Capacitors

Example:

ECKD	1H	102	Z	F
Type	Voltage (50V)	Value (0.001μF)	Tolerance	Unique
ECEA	50	M		330
Type	Voltage (50V)	Characteristics		Value (33μF)

Resistor Type	Voltage		Tolerance
ECE : Electrolytic	0J : 6.3V	1A : 10V	K : ±10%
ECCD : Ceramic	1C : 16V	1E : 25V	M : ±20%
ECKD : Ceramic Capacitor	1H : 50V	1V : 35V	Z : +80% -20
ECQM : Polyester	50 : 50V	05 : 50V	J : ±5%
ECQP : Polypropylene	2H : 500V	2A : 100V	G : ±2%
ECQ : Ceramic	1 : 100V	1J : 63V	F : ±1%
ECEA N : Non Polar Electrolytic	KC : 400V AC		C : ±0.25pF
GCU : Ceramic (Chip Type)	KC : 125V AC (UL)		D : ±0.5pF
ECUV : Ceramic (Chip Type)			
ECF : Semiconductor			
EECW : Liquid electrolyte double layer capacitor			

• Capacity values are in microfarads (μF) unless specified otherwise. P=Pico-farads (pF) F=Farads (F).
• Resistance values are in ohms (Ω), unless specified otherwise. 1K=1,000Ω, 1M=1,000kΩ

Ref. No.	Part No.	Value	
RESISTORS (VALUE, WATTAGE)			
R1	ERDS2TJ101T	100	¼
R2	ERDS2TJ221T	220	¼
R3	ERDS2TJ101T	100	¼
R4	ERDS2TJ6R8T	6.8	¼
R5	ERDS2TJ332T	3.3K	¼
R6	ERDS2TJ103T	10K	¼
R8	ERDS2TJ330T	33	¼
R11	ERDS2TJ681T	680	¼
R12	ERDS2TJ821T	820	¼
R13	ERDS2TJ333T	33K	¼
R14	ERDS2TJ682T	6.8K	¼
R15	ERDS2TJ224T	220K	¼
R16	ERDS2TJ102T	1K	¼
R18	ERDS2TJ330T	33	¼
R101	ERDS2TJ472T	4.7K	¼
R102	ERDS2TJ820	82	¼
R103	ERDS2TJ222T	2.2K	¼
R104	ERDS2TJ822T	8.2K	¼
R105	ERDS2TJ473T	47K	¼
R106	ERDS2TJ103T	10K	¼
R107	ERDS2TJ223T	22K	¼
R108	ERDS2TJ102T	1K	¼
R109	ERDS2TJ154T	150K	¼
R110	ERDS2TJ472T	4.7K	¼
R111	ERDS2TJ222T	2.2K	¼
R112	ERDS2TJ222T	2.2K	¼
R130	ERDS2TJ222T	2.2K	¼
R131	ERDS2TJ562T	5.6K	¼
R132	ERDS2TJ472T	4.7K	¼
R133	ERDS2TJ102T	1K	¼
R134	ERDS2TJ103T	10K	¼
R161	ERDS2TJ682T	6.8K	¼
R162	ERDS2TJ2R2	2.2	¼
R163	ERDS2TJ101T	100	¼
R201	ERDS2TJ472T	4.7K	¼
R202	ERDS2TJ820T	82	¼
R203	ERDS2TJ222T	2.2K	¼
R204	ERDS2TJ822T	8.2K	¼
R205	ERDS2TJ473T	47K	¼
R206	ERDS2TJ103T	10K	¼
R207	ERDS2TJ223T	22K	¼
R208	ERDS2TJ102T	1K	¼
R209	ERDS2TJ154T	150K	¼
R210	ERDS2TJ472T	4.7K	¼
R211	ERDS2TJ222T	2.2K	¼
R212	ERDS2TJ222T	2.2K	¼
R230	ERDS2TJ222T	2.2K	¼
R231	ERDS2TJ562T	5.6K	¼
R232	ERDS2TJ472T	4.7K	¼
R233	ERDS2TJ102T	1K	¼
R234	ERDS2TJ103T	10K	¼
R261	ERDS2TJ682T	6.8K	¼
R262	ERDS2TJ2R2	2.2	¼
R263	ERDS2TJ101T	100	¼
R301	ERDS2TJ474T	470K	¼
R302	ERDS2TJ101T	100	¼
R303	ERDS2TJ681T	680	¼
R304	ERDS2TJ223T	22K	¼
R305	ERDS2TJ6R8T	6.8	¼
R306	ERDS2TJ332T	3.3K	¼
R307	ERDS2TJ222T	2.2K	¼
R308	ERDS2TJ101T	100	¼
R350	ERDS2TJ101T	100	¼
R351	ERDS2TJ102T	1K	¼
R352	ERDS2TJ221T	220	¼
R353	ERDS2TJ1R0T	1	¼
R354	ERDS2TJ470T	47	¼
CAPACITORS (VALUE, VOLTAGE)			
C1	RCSS1H102KBY	0.001	50
C2	RCSS1H180JCY	18P	50
C3	RCSS1H4R7KCY	4.7P	50
C4	RCSS1H180JCY	18P	50
C4	RCSS1H220JCY	22P	50
[EG]			
C5	RCSS1H330JLY	33P	50
C6	RCSS1H470JLY	47P	50
C7	RCSS1H102KBY	0.001	50
C8	RCSS1H102KBY	0.001	50
C9	RCSS1H100JCY	10P	50
C10	RCSS1H470JLY	47P	50
C11	ECEA1HU2R2B	2.2	50
C12	RCSS1E223ZFY	0.022	25
C13	RCSS1E223ZFY	0.022	25
C14	RCSS1H331KBY	330P	50
C15	ECEA1CU100B	10	16
C16	ECEA1HU4R7	4.7	50
C17	RCSS1C103MYY	0.01	16
C18	RCSS1C103MYY	0.01	16
C19	ECFT1C153MBY	0.015	16
C21	ECEA0JU221B	220	6.3
C22	RCSS1H102KBY	0.001	50
C23	RCSS1H470JLY	47P	50
C24	RCSS1H180JCY	18P	50
C25	ECEA1HUR47B	0.47	50
C26	ECFT1C153MBY	0.015	16
C27	ECQM1102JZ	0.001	100
C28	ECEA1HU010B	1	50
C29	ECEA1HUR47B	0.47	50
C30	ECCD1H470K	47P	50
C31	ECCT1H070DC	7P	50
C33	RCSSLJ223MYY	0.022	63
C34	ECCT1H100KC	10P	50
C36	ECCT1H150K	15P	50
C37	RCSS1H8R2KCY	8.2P	50
C38	ECQP2A221JZT	220P	100
C39	ECQP2A361JZT	360P	100
C40	ECQM1392JZ	0.0039	100
C41	ECQP2A151JZT	150P	100
C42	ECFT1C333MBY	0.033	16
C46	RCSS1H331KBY	330P	50
C101	RCSS1H102KBY	0.001	50
C102	RCSS1H331KBY	330P	50
C103	ECFT1C223MBY	0.022	16
C104	ECEA1AU470B	47	10
C105	ECEA1HU4R7B	4.7	50
C106	RCSS1C332MXY	0.0033	16
C108	RCSS1C103MYY	0.01	16
C110	RCSSLJ153MYY	0.015	6.3
C111	ECEA1HU010B	1	50
C120	RCSS1H331KBY	330P	50
C121	ECFT1C473MBY	0.047	16
C132	RCSS1C103MYY	0.01	16
C133	RCSS1C332MXY	0.0033	16
C134	RCSS1H102KBY	0.001	50
C135	ECEA1HU010B	1	50
C136	ECEA1CU100	10	16
C137	ECEA1HU010B	1	50
C138	ECEA1HUR33	0.33	50
C139	ECEA1HUR10B	0.1	50
C140	ECFT1C473MBY	0.047	16
C141	ECEA1HU010B	1	50
C142	ECFT1C333MBY	0.033	16
C143	ECFT1C104MBY	0.1	16
C160	RCSS1H102KBY	0.001	50
C162	ECEA0JU101B	100	6.3
C163	ECEA1AU470B	47	10
C164	ECKT1H103MD	0.01	50
C165	ECFT1C473MBY	0.047	16
C166	ECEA0JU471B	470	6.3
C167	ECFT1C104MBY	0.1	16
C201	RCSS1H102KBY	0.001	50

■ RESISTORS & CAPACITORS (CONTINUE)

Ref. No.	Part No.	Value		Ref. No.	Part No.	Value		Ref. No.	Part No.	Value	
C202	RCBC1H331KBF	330P	50	C239	ECEA1HU0R1B	0.1	50	C306	ECFT1C223MBY	0.022	16
C203	ECFT1C223MBY	0.022	16	C240	ECFT1C473MBY	0.047	16	C307	ECEA0JU101B	100	6.3
C204	ECEV1AU470B	47	10	C241	ECEA1HU010B	1	50	C308	ECQP1D682JZ	0.0068	100
C205	ECEA1HU4R7B	4.7	50	C242	ECFT1C333MBY	0.033	16	C309	ECKT1H391KB	390P	50
C206	RCB21C332MXY	0.0033	16	C243	ECFT1C104MBY	0.1	16	C310	ECEA1HU0R1B	0.1	50
C208	RCB51C103MYY	0.01	16	C250	RCB51H102KBY	0.001	50	C311	ECEA1HU0R1B	0.1	50
C210	RCB50J153MY	0.015	6.3	C252	ECEA0JU101B	100	6.3	C330	ECEA0JU221B	220	6.3
C211	ECEA1HU010B	1	50	C253	ECEA1AU470B	47	10	C350	ECKT1H103MD	0.01	50
C230	RCB51H331KBY	330P	50	C254	ECKT1H103MD	0.01	50	C351	ECEA1CU221B	220	16
C231	ECFT1C473MDY	0.047	16	C255	ECFT1C473MBY	0.047	16	C352	ECEA1CU222B	0.0033	16
C232	RCB51C103MYY	0.01	16	C256	ECEA0JU471B	470	6.3	C353	ECEA1CU101B	100	16
C233	RCB51C332MXY	0.0033	16	C257	ECFT1C104MBY	0.1	16	C360	ECEA1CU221B	220	16
C234	RCB51H102KBY	0.001	50	C301	ECEA1HU3R3D	3.3	50	C361	ECKT1H103MD	0.01	50
C235	ECEA1HU010B	1	50	C302	ECEA1AU470B	47	10	C380	ECKT1H103ZF	0.01	50
C236	ECEA1CU100B	10	16	C303	ECEA0JU221B	220	6.3	C381	ECKT1H103ZF	0.01	50
C237	ECEA1HU010B	1	50	C304	RCB51C103MYY	0.01	16	C382	ECKT1H103ZF	0.01	50
C238	ECEA1HUR33B	0.33	50	C305	ECKT1H181KB	180P	50	C383	ECKT1H103ZF	0.01	50

■ REPLACEMENT PARTS LIST

Notes : * Important safety notice:
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* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.
* [M] Indicates parts that are supplied by **MESA.**

Ref. No.	Part No.	Description	
INTEGRATED CIRCUITS			
IC1	AN7205	I.C. FM FRONT END	
IC2	BA4220L	I.C. IF AMP	
IC3	RVIBA1332L	I.C. FM MPX	
IC4	BA3317N	I.C. P.B./REC AMP	
IC5	BA3822LS	I.C. S. EQ. AMP	
IC6	LA4108R	I.C. POWER AMP	
TRANSISTORS			
Q301	2SC2001K	TRANSISTOR	
Q350	2SC2001K	TRANSISTOR	
DIODES			
D1	RVD1SS133	DIODE	
D2	SLZ5VR76P155	LED	[M]
D350	RVDMTZ5R6A	DIODE	[M]
D380	RVD1SR35	DIODE	
D381	RVD1SR35	DIODE	
D382	RVD1SR35	DIODE	
D383	RVD1SR35	DIODE	
VARIABLE RESISTORS			
VR1	RVMC4148ST-8	V.R. FM MPX ADJ.	[M]
VR301	RVW2462AA	V.R. S. EQ (100 Hz)	[M]
VR302	RVW2462AA	V.R. S. EQ (330 Hz)	[M]
VR303	RVW2462AA	V.R. S. EQ (1 KHz)	[M]
VR304	RVW2462AA	V.R. S. EQ (3.3 KHz)	[M]
VR305	RVW2462AA	V.R. S. EQ (10 KHz)	[M]
VR306	RVW2385AA	V.R. VOLUME	[M]
VR307	RVW1992AA	V.R. BAL. VOL.	[M]
VARIABLE CAPACITORS			
VC1	RCVARC 2020-8	VARIABLE CAPACITOR	[M]

Ref. No.	Part No.	Description	
COILS AND TRANSFORMERS			
L2	RLO4Y53	Coil	
L2 [EG]	RLO4N187-O	Coil	[M]
L3	RLR5W9-O	Coil	
L4	RLA3841-M	Coil	
L6	RLQ1Y0051	Coil	
L7	RLO1B13-M	Coil	
L8	RLO2B158-M	Coil	
L9	RLO5B87-M	Coil	
L10	RLQ1Y0051	Coil	
L301	RLO6517	Coil	
L380	RLQZB470K-O	Coil	
L381	RLQZB470K-O	Coil	
T1	RLI48153	I.F. TRANSFORMER	
T2	RLI29458	I.F. TRANSFORMER	
T3	RLI48153	I.F. TRANSFORMER	
T81 ⚠ [EB]	RLT6K2E24-M	POWER TRANSFORMER	[M]
T81 ⚠	RLT6K20M-M	POWER TRANSFORMER	[M]
FILTERS			
CF1	RKF107M6E2	CERAMIC FILTER	
CF2	RKFSFE455LL	CERAMIC FILTER	
SWITCHES			
S1	RST1B0552A-4	SW. MONO/ST	[M]
S2	RST4H1B2A-4	SW. BAND	[M]
S3	RST1B0582A-4	SW. FUNCTION	
S4	RSH2F1B2A-4	SW. R/P	
FUSE			
F1 ⚠	XBA2C10TR0	FUSE	
F1 ⚠ [EB]	XBA2C10TB0	FUSE	
OTHERS			
J1	RJJ3Y532	JACK HEADPHONE	
J2 ⚠	RJJ1A52C-8	JACK AC (EG)	
J3	RJT10BRS-C	JACK CD/LINE IN	

Ref. No.	Part No.	Description	
PACKING MATERIAL			
P1	RPH6502A	MIRAMAT	[M]
P2	RPF0052A	PAD	[M]
P3	RPK2918DA	GIFT BOX	[M]

Ref. No.	Part No.	Description	
ACCESSORIES			
A1 ⚠	RJA20Z	POWER CORD	
A1 ⚠ [EB]	RJA8624-K	POWER CORD	
A2	RQX523302A	INST. MANUAL	[M]
A2 [E]	RQX523404A	INST. MANUAL	[M]

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GC8906100000 RT/BH/C/P