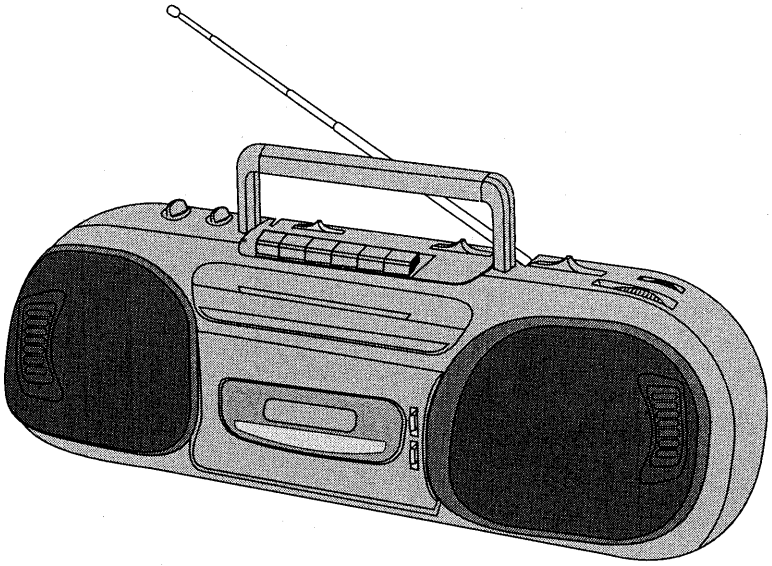
ORDER NO. MD9609064C3

Service Manual

Stereo Radio Cassette Recorder

Radio Cassette

RX-FS435



Colour

(K) . . . . . Black Type

Area

Suffix for Model No.	Area	Colour
(GC)	Middle Near East	(K)
(GU)	Latin America/Asia	

TAPE DECK : LRD27-22 MECHANISM SERIES

■ Specifications

■ General

Power Requirement	AC; 110~127/200~220/230~250V, 50/60Hz Battery; 9V, six (UM-1) R20/LR20 batteries
Power Consumption	15W
Power Output	30W ..... PMPO
Speaker	2 X Woofers; 10cm (2.7Ω) 2 X Tweeters; 1.5cm
Jacks	
Output	HEADPHONES; (32Ω, Ø3.5)
Dimensions	460 (W) x 149 (H) x149 (D) mm
Weight	2.4 kg without batteries.

■ Radio Section

Radio Frequency Range	FM; 88 ~ 108MHz MW; 530 ~ 1605kHz SW1; 2.3 ~ 7.0MHz SW2; 7.0 ~ 22.0MHz
Intermediate Frequency	FM; 10.7MHz AM; 455kHz
Sensitivity	FM: 10.5dB/50mW MW: 51dB/m/50mW SW1: 51dB/m/50mW SW2: 25dB/50mW

■ Tape Deck Section

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

Notes :

1. Weights and dimensions shown are approximate.
2. Design and specifications are subject to change without notice.

⚠ WARNING

This service information is designed for experiense repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

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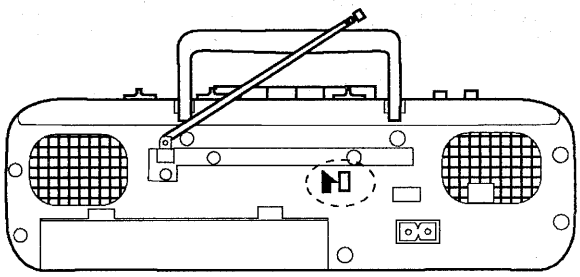
Contents

■ Contents

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 a screwdriver in the direction of arrow.

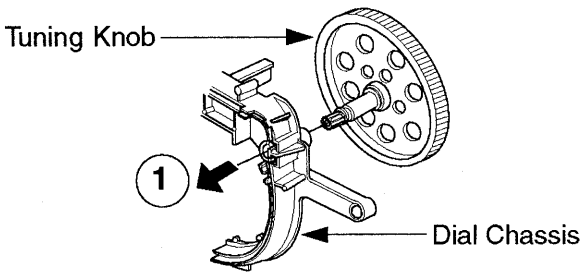
■ BEFORE USE

Be sure to disconnect the mains cord before adjusting the voltage selector. Use a minus(–) screwdriver to set the voltage selector (on the rear panel) to the voltage setting for the area in which the unit will be used.
(If the power supply in your area is 117V or 120V, set to the "127V" position.)

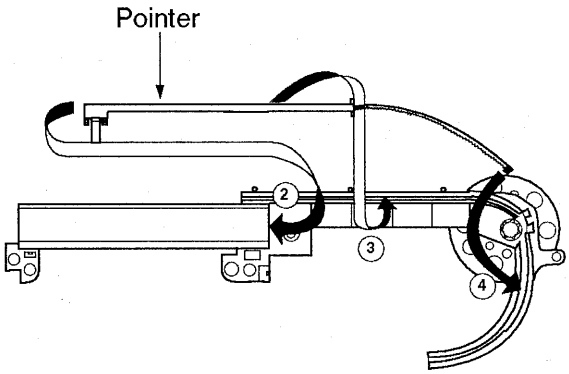
Note that this unit will be seriously damaged if this setting is not made correctly. (There is no voltage selector for some countries; the correct voltage is already set.)

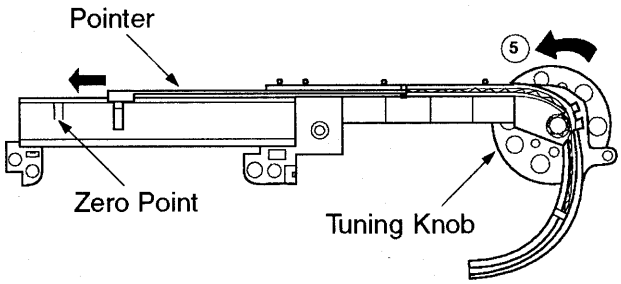
■ Dial Chassis Assembly

1. Install the tuning knob in the dial chassis in the direction of arrow ①.

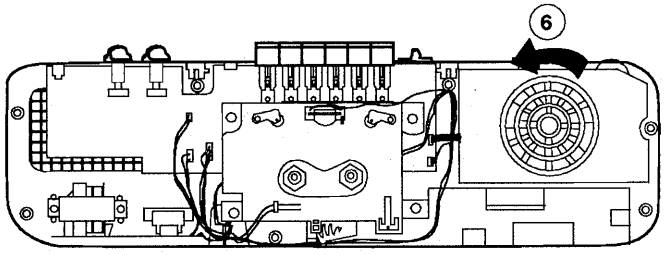


2. Install the pointer in the direction arrow ②, follow by ③, then ④.

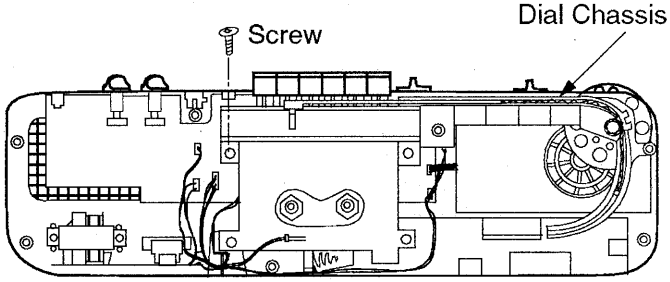




3. Turn the tuning knob in the direction of arrow ⑤ to the zero point.



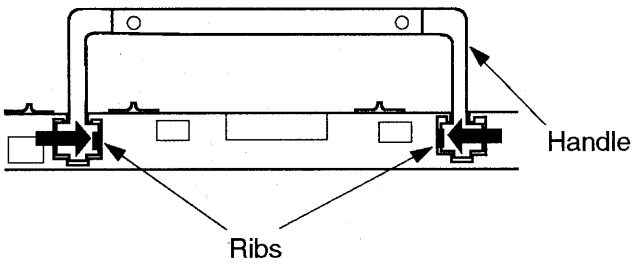
4. Turn the tuning gear fully in the direction of arrow ⑥.



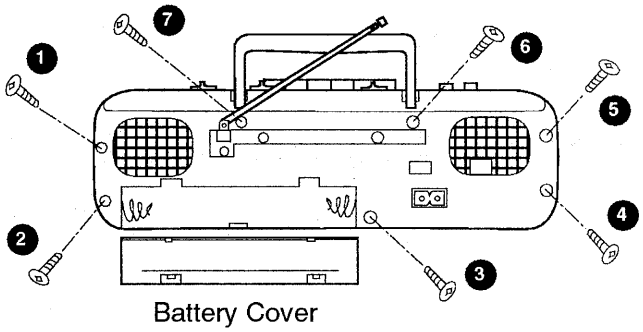
5. Install the dial chassis in the cabinet and then replace the screw.

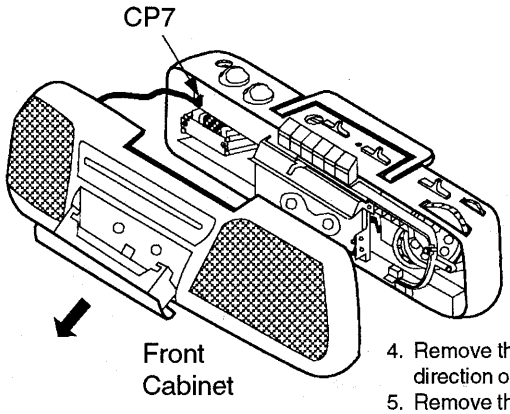
■ Disassembly Instructions

Ref. No. 1	Removal of the Handle
Procedure 1	1. Release the 2 ribs. 2. Slide out the handle.

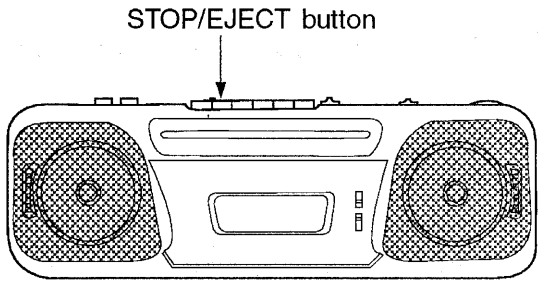


Ref. No. 2	Removal of the Front Cabinet
Procedure 2	1. Remove the battery cover. 2. Remove 7 screws (❶ ~ ❼).



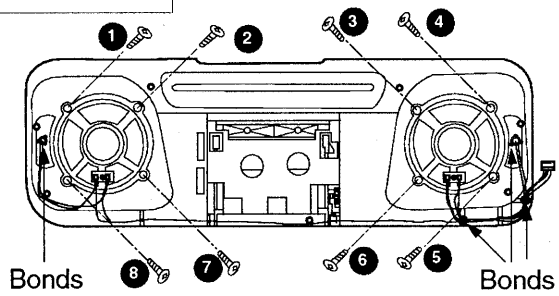


4. Remove the front cabinet in the direction of the arrow.
5. Remove the connector CP7.

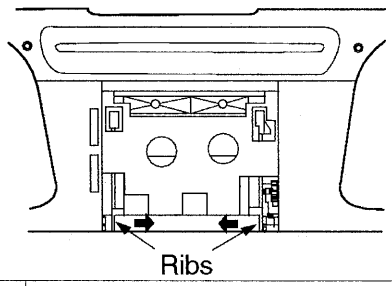


3. Press the STOP/EJECT button to open the cassette holder.

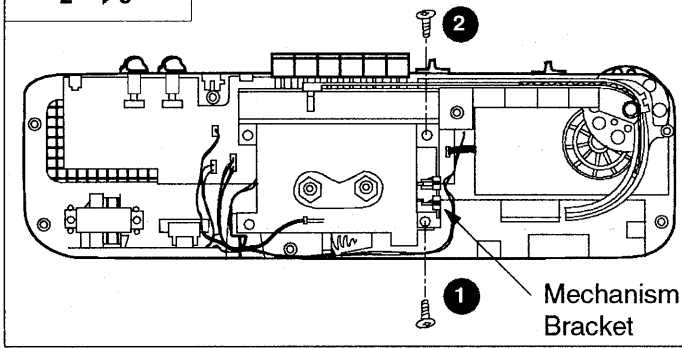
Ref. No. 3	Removal of the Speaker
Procedure 2 ➡ 3	1. Remove 8 screws (❶ ~ ❽). 2. Remove the black bonds.



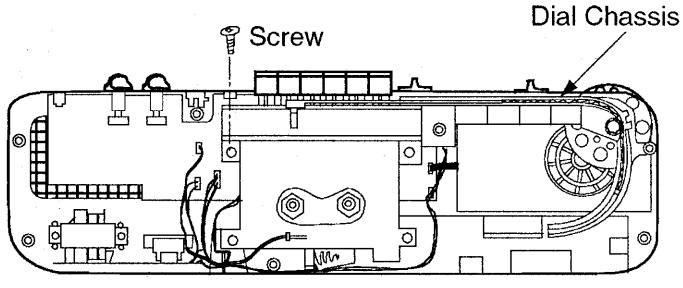
Ref. No. 4	Removal of the Cassette Compartment
Procedure 2 ➡ 4	• Push 2 ribs in the direction of the arrows.



Ref. No. 5	Removal of the Mechanism Bracket
Procedure 2 ➡ 5	• Remove 2 screws (❶ ~ ❷).



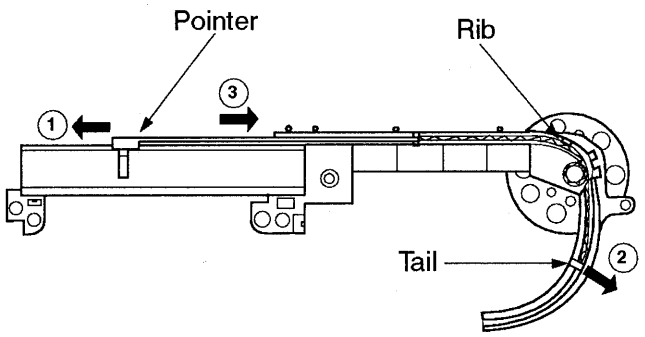
Ref. No. 6	Removal of the Dial Chassis
Procedure 2 ➡ 5 ➡ 6	• Remove the screw.



Ref. No. 7 — **Removal of the Pointer**

Procedure 2 ➡ 5 ➡ 6 ➡ 7

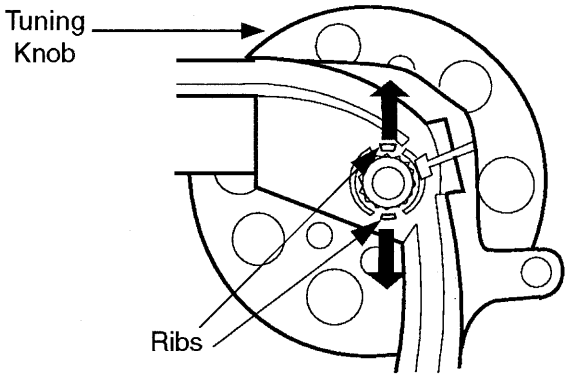
1. Push the pointer to the extreme left in the direction of arrow ①.
2. Release the rib and pull out the tail of the pointer in the direction of arrow ②.
3. Pull the pointer out in the direction of arrow ③.



Ref. No. 8 — **Removal of the Tuning Knob**

Procedure 2 ➡ 5 ➡ 6 ➡ 7 ➡ 8

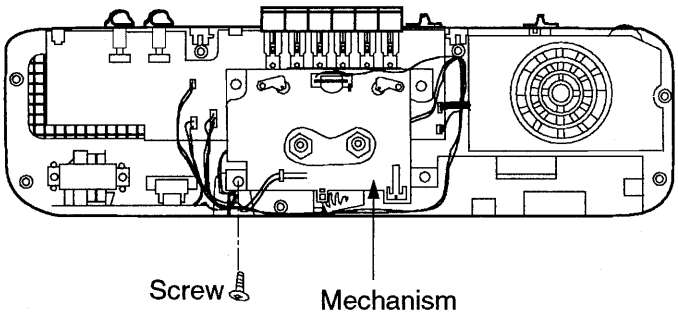
1. Release the 2 ribs.
2. Pull out the tuning knob.

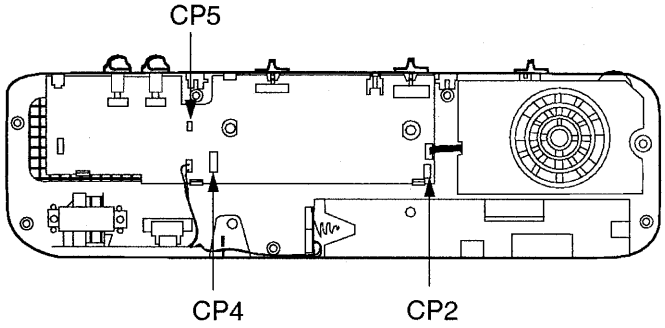


Ref. No. 9 — **Removal of the Mechanism**

Procedure 2 ➡ 5 ➡ 6 ➡ 9

1. Remove the screw.



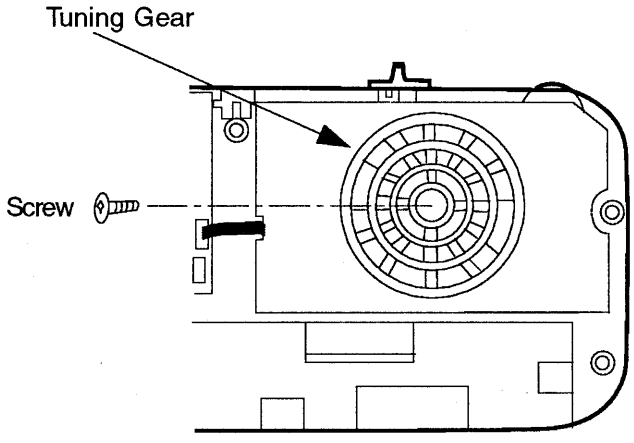


2. Remove 3 connectors (CP2, CP4 and CP5).

Ref. No. 10 — **Removal of the Tuning Gear**

Procedure 2 ➡ 5 ➡ 6 ➡ 10

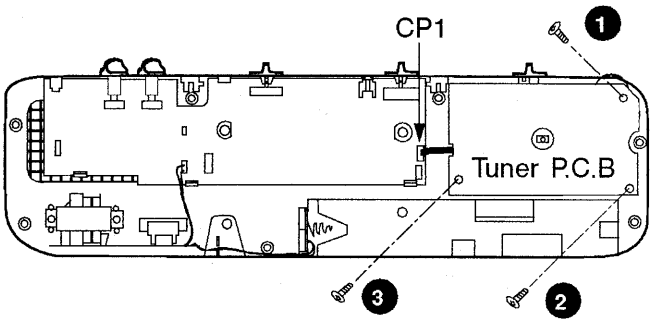
• Remove the screw and pull out the tuning gear.



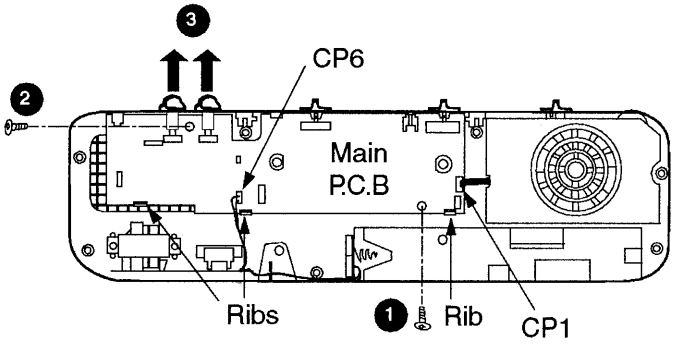
Ref. No. 11 — **Removal of the Tuner P.C.B**

Procedure 2 ➡ 5 ➡ 6 ➡ 9 ➡ 10 ➡ 11

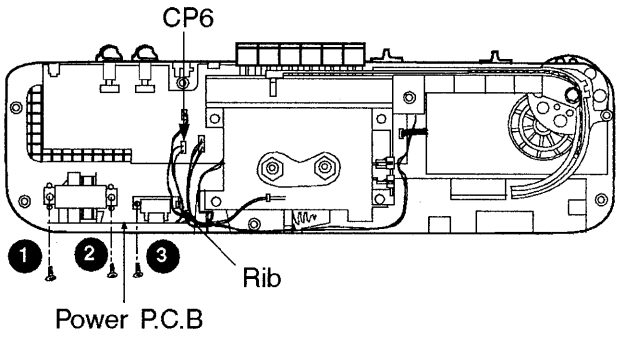
1. Remove the connector CP1.
2. Remove 3 screws (❶ ~ ❸) and remove the tuner P.C.B.



Ref. No. 12	Removal of the Main P.C.B.
Procedure 2 ➡ 5 ➡ 6 ➡ 9 ➡ 12	1. Remove 2 screws (❶ ~ ❷). 2. Pull out 2 knobs in the direction of arrow ❸. 3. Remove 2 connectors (CP1 and CP6). 4. Release the ribs and remove the main P.C.B.

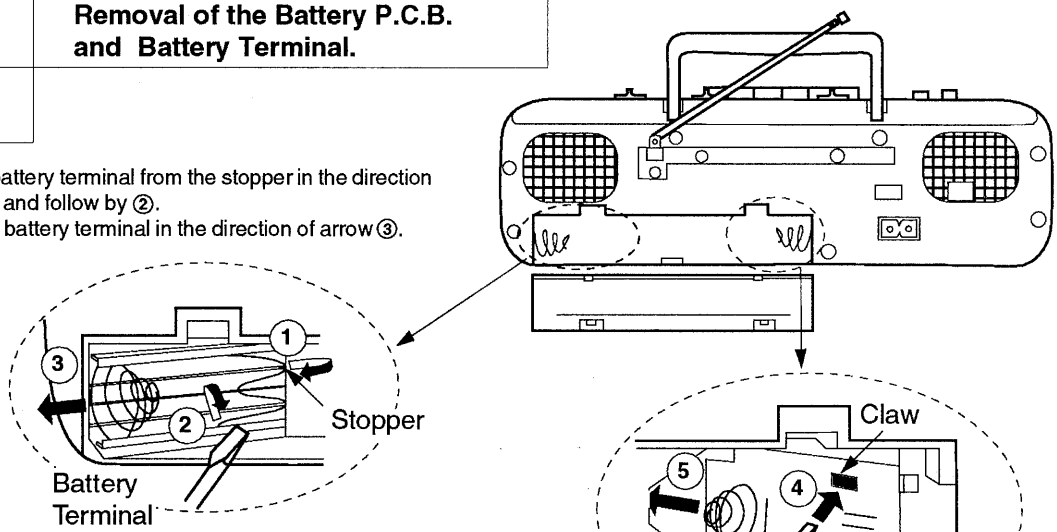


Ref. No. 13	Removal of the Power P.C.B.
Procedure 2 ➡ 13	1. Pull out the connector CP6. 2. Remove 3 screws (❶ ~ ❸). 3. Release the rib and remove the power P.C.B.



Ref. No. 14	Removal of the Battery P.C.B. and Battery Terminal.
Procedure 2 ➡ 14	

1. Lift up the battery terminal from the stopper in the direction of arrow ① and follow by ②.
2. Pull out the battery terminal in the direction of arrow ③.



3. Push in the claw in the direction of arrow ④.
4. Pull out the battery terminal from the front side of the cabinet in the direction of arrow ⑤.

■ Measurements and Adjustments

■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

1. Set volume control to maximum.
2. Set tone control to center.
3. Set band switch to FM,MW,SW1or SW2.
4. Set function selector to RADIO or TAPE/OFF.
5. Set power source voltage to 9V DC.
6. Set FM MODE switch to STEREO.
7. Output of signal generator should be no higher than necessary to obtain an output reading.

■ TAPE SPEED ALIGNMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCWAT (3 kHz)	Headphone Jack (32Ω) (Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.)	Motor VR (As shown in Fig 5)	3000 ± 90 Hz	Playback mode

■ HEAD AZIMUTH ALIGNMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCAB (8 kHz, -20dB)	Headphone Jack (32Ω) (Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.)	Azimuth screw (As shown in Fig 6)	Maximum output	Playback mode

■ MW, SW1 and SW2 ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT (Shown in Fig.1)	REMARKS
		CONNECTIONS	FREQUENCY				
	AM-IF ALIGNMENT						
(1)	MW	Fashion a loop of several turns of wire and radiate signal into loop of receiver.	455kHz 30% Mod. at 400Hz	Point of non-interference.(on/ about 600kHz)	Headphone Jack (32Ω) (Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.)	T2 (AM IFT)	Adjust for maximum output.
	MW-RF ALIGNMENT						
(2)	MW	"	511kHz	Tuning capacitor fully closed.	"	L8 (MW OSC Coil)	"
(3)	MW	"	(GU).....1650kHz (GC).....1644kHz	Tuning capacitor fully open.	"	CT3 (MW OSC Trimmer)	"
(4)	MW	"	600kHz	Tune to signal	"	[*1] L3-1 (MW ANT Coil)	Adjust for maximum output. Adjust L3-1 by moving coil along the ferrite core.
(5)	MW	"	1500kHz	"	"	CT2 (MW ANT Trimmer)	Adjust for maximum output. Repeat steps (2)~(5).
	[*1] Fix antenna coil with wax after completing alignment.						
	SW1-RF ALIGNMENT						
(6)	SW1	"	2.25MHz	Tuning capacitor fully closed.	"	L9 (SW1 OSC Coil)	Adjust for maximum output.
(7)	SW1	"	7.23MHz	Tuning capacitor fully open.	"	CT1-3 (SW1 OSC Trimmer)	"
(8)	SW1	"	2.3MHz	Tune to signal	"	[*2] L3-2 (SW1 ANT Coil)	Adjust for maximum output. Adjust L3-2 by moving coil along the ferrite core.
(9)	SW1	"	7.0MHz	"	"	CT1-4 (SW1 ANT Trimmer)	Adjust for maximum output. Repeat steps (6)~(9).
	[*2] Fix antenna coil with wax after completing alignment.						
	SW2-RF ALIGNMENT						
(10)	SW2	Connect to test point TP8 through ceramic capacitor (10pF). Negative side to test point TP7.	6.84MHz	Tuning capacitor fully closed.	"	L10 (SW2 OSC Coil)	Adjust for maximum output.
(11)	SW2		22.79MHz	Tuning capacitor fully open.	"	CT4 (SW2 OSC Trimmer)	"
(12)	SW2		7.0MHz	Tune to signal	"	L7 (SW2 ANT Coil)	Adjust for maximum output. Repeat steps (10)~(12).

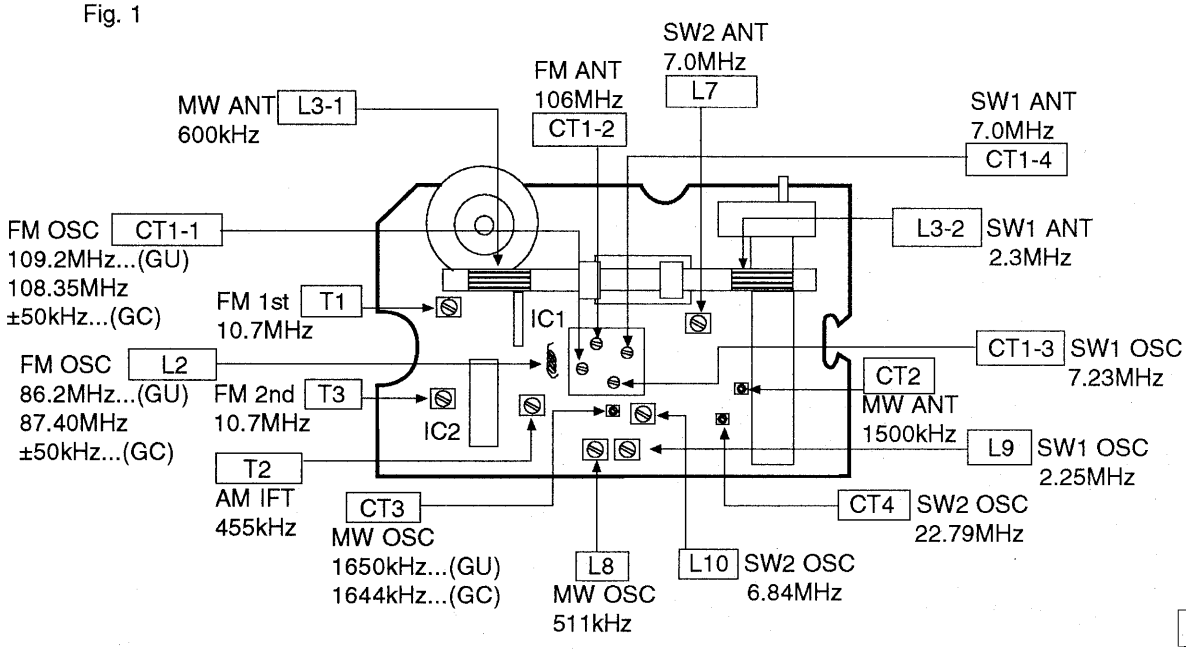
■ FM ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT (Shown in Fig.1)	REMARKS
		CONNECTIONS	FREQUENCY				
		FM-IF ALIGNMENT					
(13)	FM	High side thru. 0.001μF to test point TP1. Negative side to test point TP2.	10.7MHz (SWP)	Point of non-interference.(on/ about 90MHz)	Connect vert. amp. of scope to test point TP3. Negative side to test point TP4.	T1 (FM 1st IFT)	Wave form is shown in Fig. 3.
(14)	FM	"	"	"	"	T3 (FM 2nd IFT)	Wave form is shown in Fig. 4.
		FM-RF ALIGNMENT					
(15)	FM	Connect to test point TP1 through FM dummy antenna. Negative side to test point TP2.	(GU).....86.2MHz (GC)...87.40MHz ±50kHz	Variable capacitor fully closed.	Headphone Jack (32Ω) (Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.)	L2 (FM OSC Coil)	[*3] Adjust for maximum output.
(16)	FM		(GU).....109.2MHz (GC)...108.35MHz ±50kHz	Variable capacitor fully open.	"	CT1-1(FM OSC Trimmer)	"
(17)	FM		106MHz	Tune to signal	"	CT1-2 (FM ANT Trimmer)	Adjust for maximum output. Repeat steps (15)~(17).
	[*3] three output responses will be present; proper tuning is the center frequency.						

■ ALIGNMENT POINT

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

Fig. 1



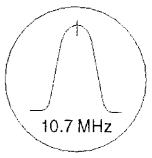


Fig. 3

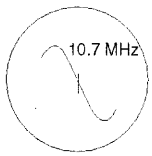


Fig. 4

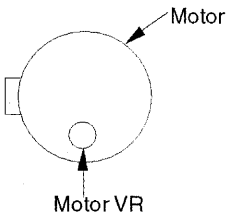


Fig. 5

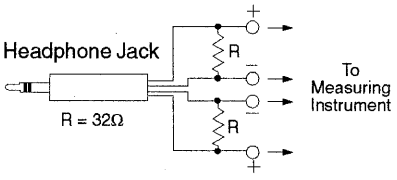


Fig. 2

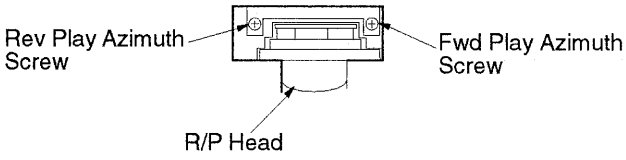
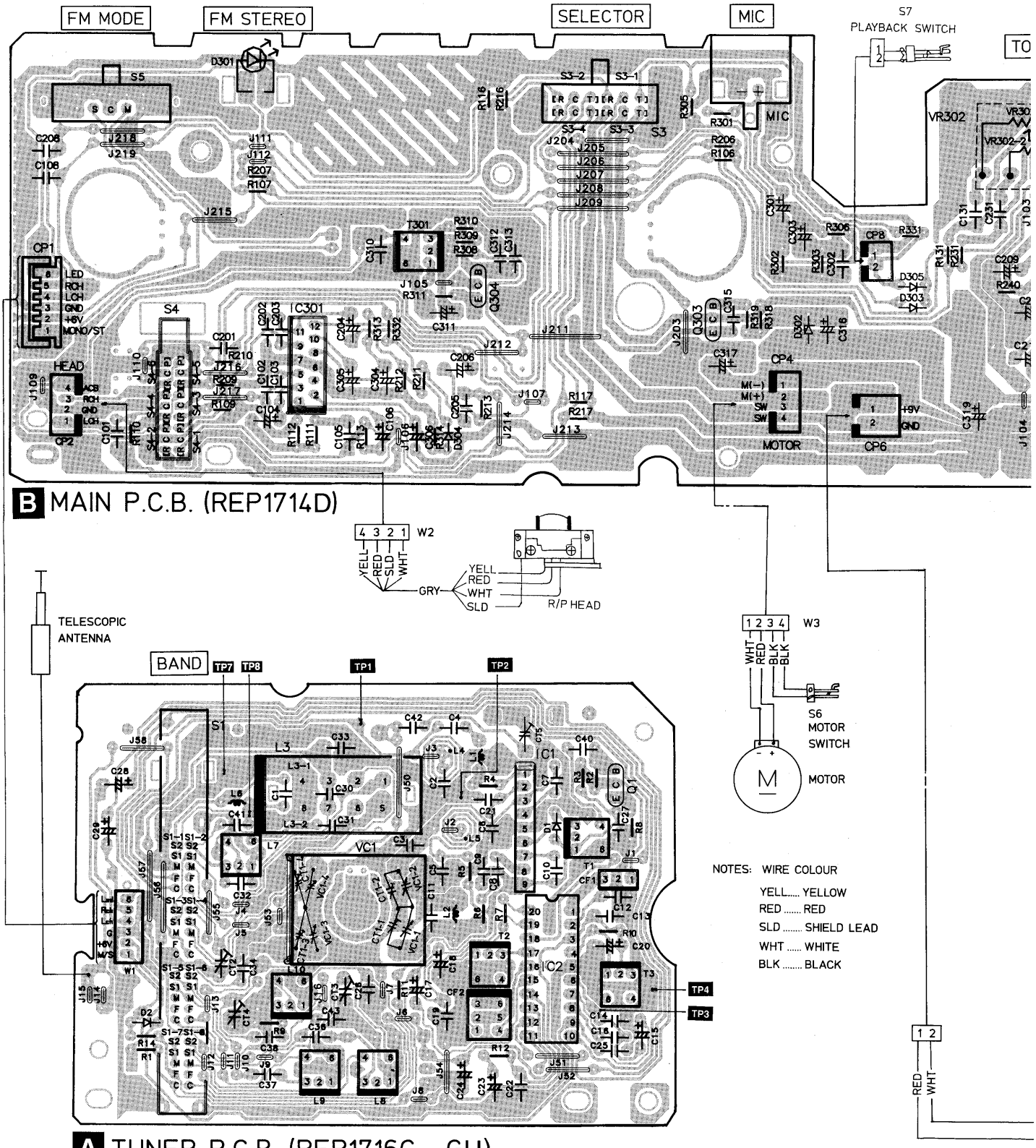
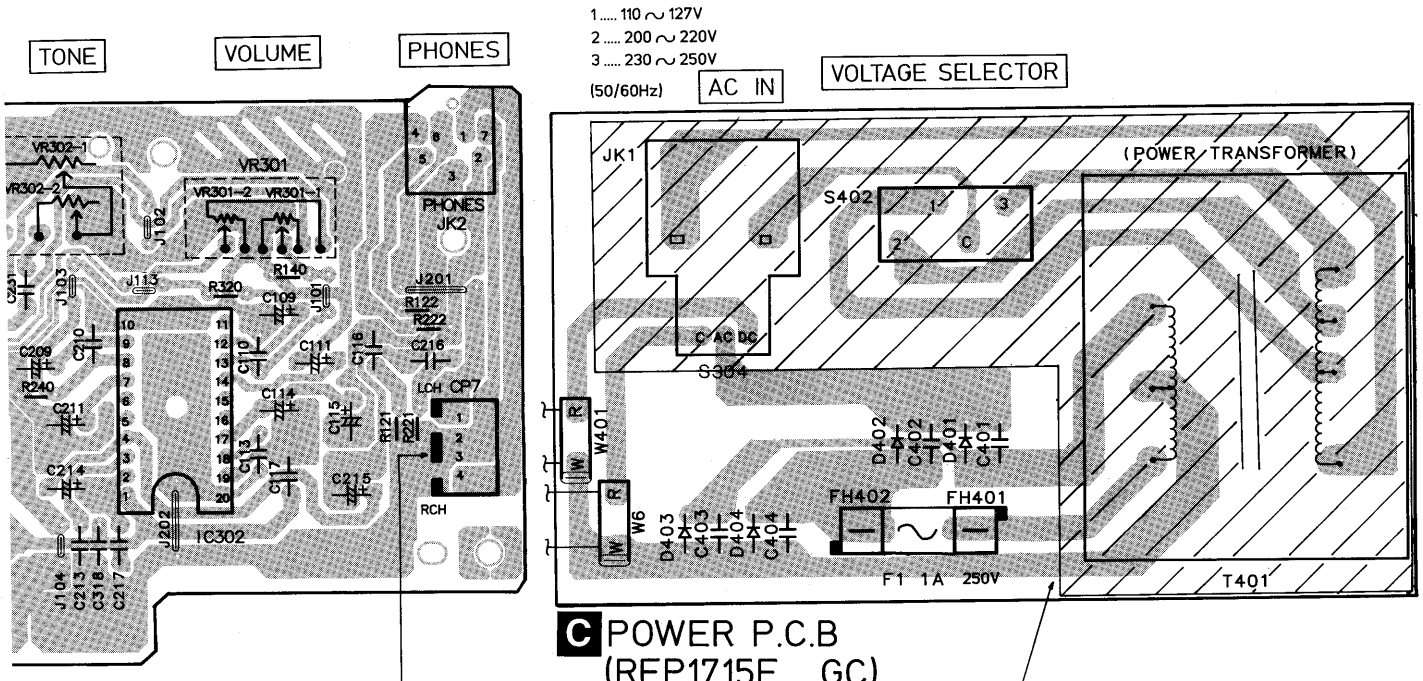


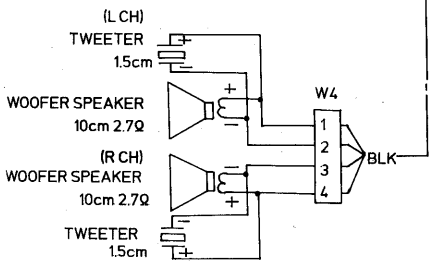
Fig. 6

■ Circuit Board and Wiring Connection Diagram

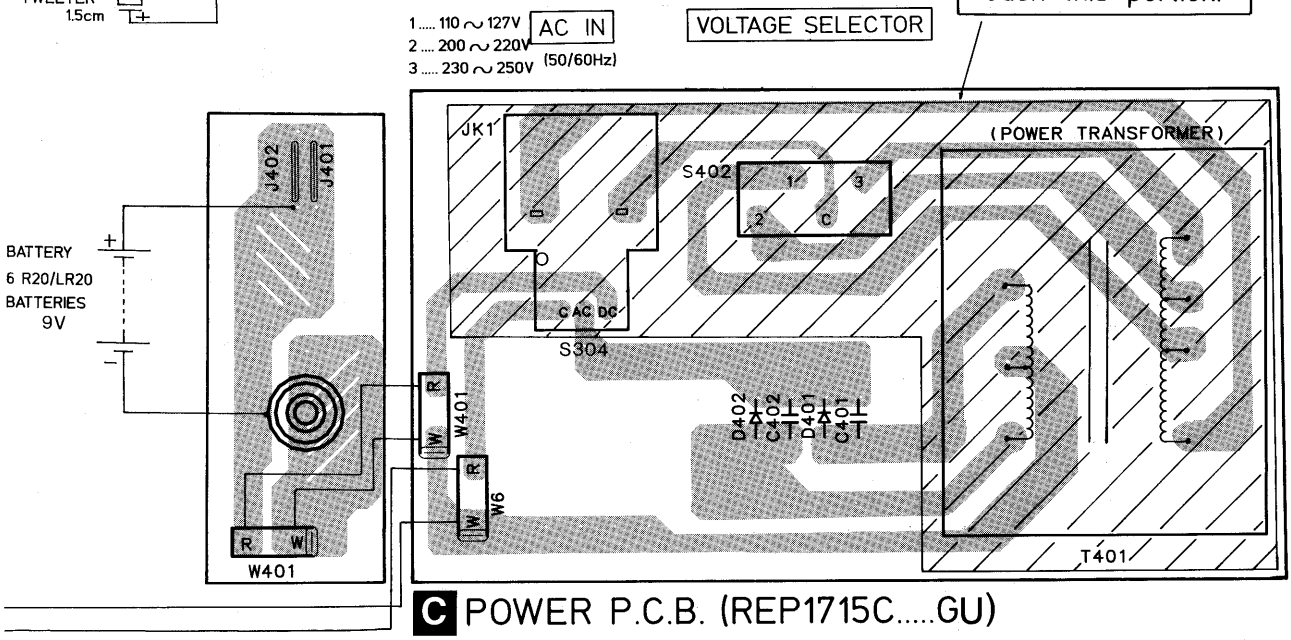




C POWER P.C.B
(REP1715E.....GC)



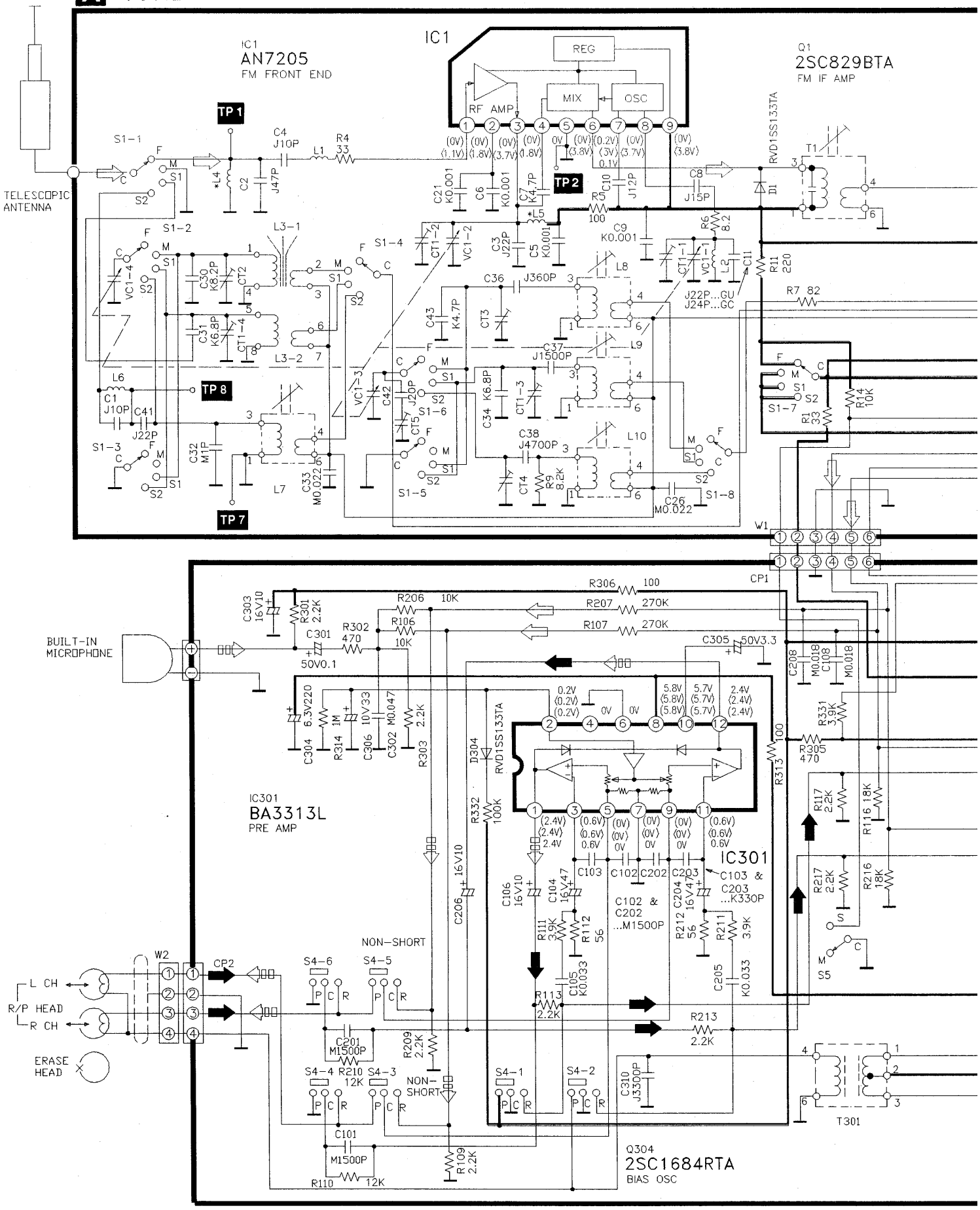
CAUTION
RISK OF ELECTRIC SHOCK AC voltage line. Please do not touch this portion.

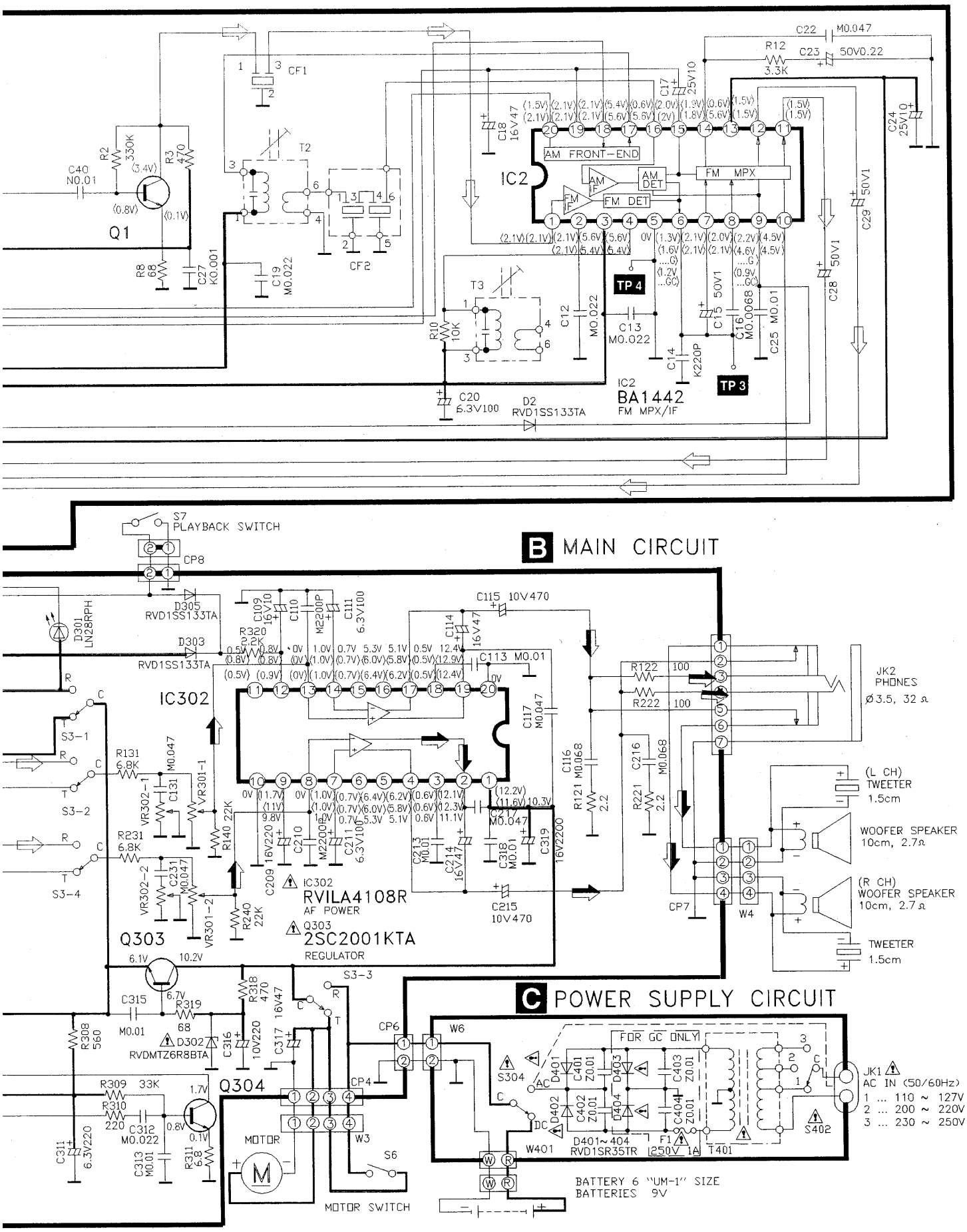


C POWER P.C.B. (REP1715C.....GU)

■ Schematic Diagram

A TUNER CIRCUIT




B MAIN CIRCUIT
C POWER SUPPLY CIRCUIT
IC2
BA1442
FM MPX/IF
AM FRONT-END
AM IF
AM DET
FM MPX
FM IF
FM DET
TP 4
TP 3
Q1
CF1
CF2
T2
T3
D2
RVD1SS133TA
S7
PLAYBACK SWITCH
CP8
D305
RVD1SS133TA
D303
RVD1SS133TA
D301
LN28RPH
IC302
IC302
RVILA4108R
AF POWER
Q303
2SC2001KTA
REGULATOR
Q303
Q304
D302
RVDMTZ6R8BTA
S3-1
S3-2
S3-3
S3-4
JK2
PHONES
Ø3.5, 32 Ω
(L CH)
TWEETER
1.5cm
WOOFER SPEAKER
10cm, 2.7Ω
(R CH)
WOOFER SPEAKER
10cm, 2.7Ω
TWEETER
1.5cm
CP7
W4
CP6
W6
CP4
W3
MOTOR
MOTOR SWITCH
S6
S304
W401
D401~404
RVD1SR35TR
F1
250V 1A
T401
S402
JK1
AC IN (50/60Hz)
1 ... 110 ~ 127V
2 ... 200 ~ 220V
3 ... 230 ~ 250V
FOR GC ONLY
BATTERY 6 "UM-1" SIZE
BATTERIES 9V

NOTES:

- S1-1 ~ S1-8 : Band select switch in "FM" position.
  (F...FM, M...MW, S1...SW1, S2...SW2)
- S3-1 ~ S3-4 : Function select switch in "TAPE/OFF" position.
  (T...TAPE/OFF, R...RADIO)
- S4-1 ~ S4-6 : Record/Playback switch in "PLAYBACK" position.
  (R...RECORD, P...PLAYBACK)
- S5 : FM MODE select switch in "MONO" position.
  (S...STEREO, M...MONO)
- S6 : Motor switch in "OFF" position.
- S7 : Playback switch in "OFF" position.
- S304 : AC/DC select switch in "DC" position.
- S402 : Voltage selector in "110 ~ 127V" position.
- VR301-1 ~ VR301-2 : Volume control VR.
- VR302-1 ~ VR302-2 : Tone control VR.

- Battery Current :
  Radio ..... 70mA (FM, min volume)
  470mA (FM, max volume)
  60mA (AM, min volume)
  330mA (AM, max volume)
  Tape ..... 150mA (volume min)
  645mA (volume max)
  Recording ..... 590mA (FM, max volume)
  420mA (AM, max volume)

(Measurement condition:
Radio: FM 60dB, 30%mod
AM 74 dB, 30%mod
Tape: 315 Hz, 0dB
Tone: centre)

- DC voltage measurements are taken with electronic voltmeter from negative terminal of battery.
- *L4 and *L5 are printed coils formed on the P.C.B and thus not found in the Replacement Parts List.
- No mark ... Playback < > ... FM ( ) ... AM (MW,SW1,SW2)
- Important Safety Notice:
  Component identified by ⚠ have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

This schematic diagram may be modified at anytime with the development of new technology.

... FM SIGNAL LINE

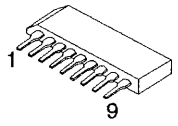
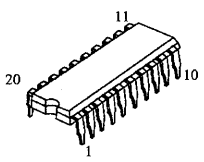
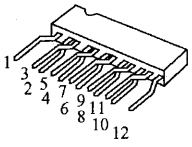
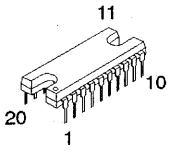
... PLAYBACK SIGNAL

... RECORD SIGNAL LINE

... +B LINE

... PLAYBACK/FM SIGNAL LINE

■ Terminal Guide of ICs, Transistors & Diodes

AN7205	BA1442	BA3313L	RVILA4108R
			
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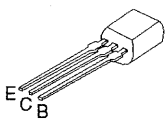
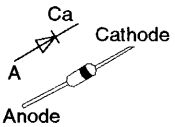
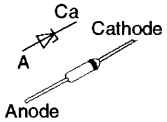
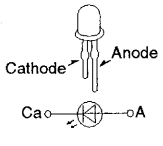
			

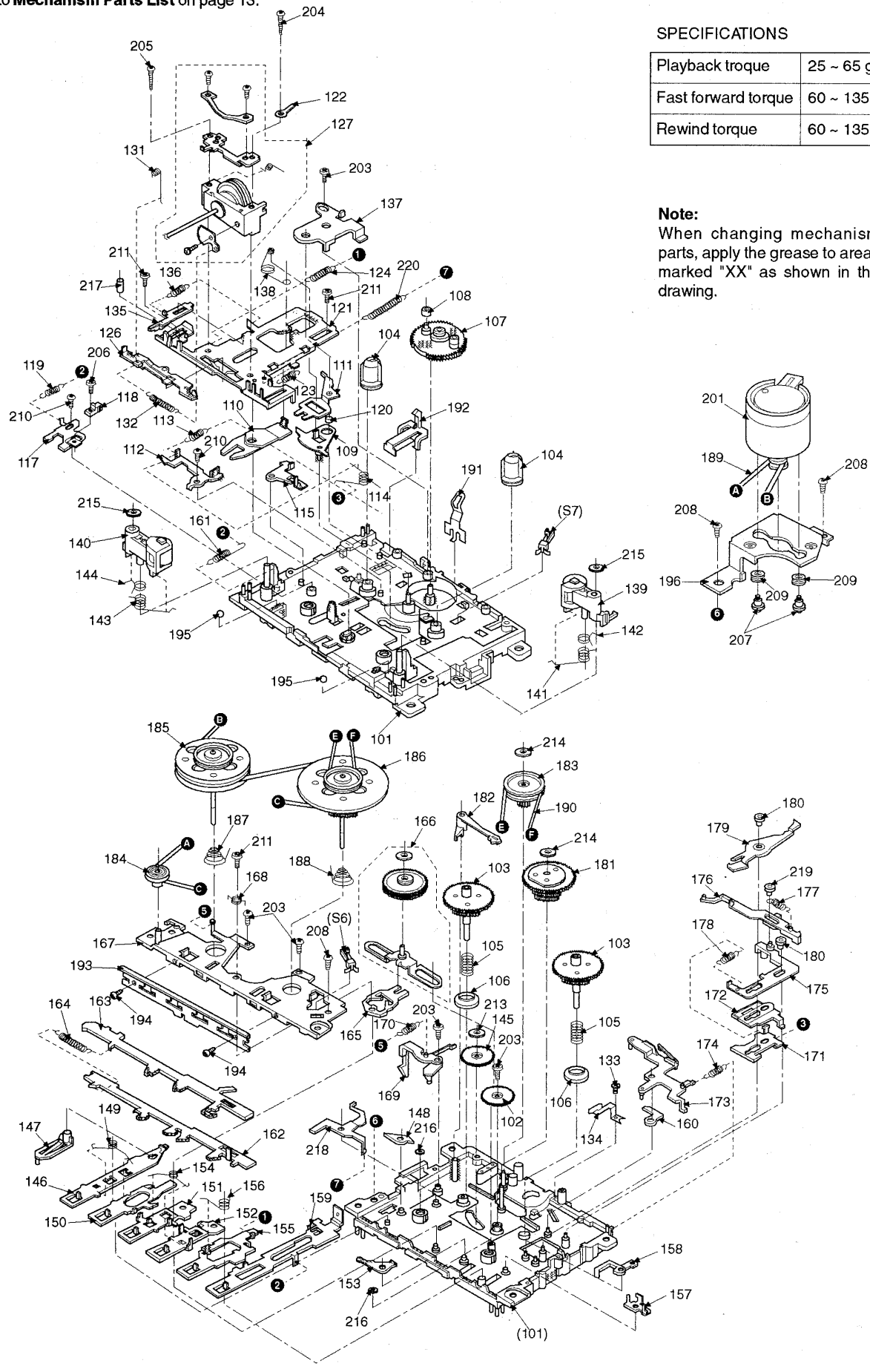
■ Mechanism Parts List

Note : **[M]** mark in Remarks column indicates parts that are supplied by **MESA**.

Ref No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RFU197ZA	MECHA CHASSIS ASS'Y	[M]
102	RFG144ZA	FWD GEAR	[M]
103	RFG154ZA	REEL GEAR	[M]
104	RFJ94ZA	REEL CAP	[M]
105	RFS864ZA	SPRING	[M]
106	RFX176ZA	BUSH-D REEL	[M]
107	RFG146ZA	REVERSE GEAR-C ASS'Y	[M]
108	RFX141ZA	COLLER B	[M]
109	RFD410ZA	IDLER PLATE ASS'Y	[M]
110	RFD411ZA	REVERSE-C PLATE	[M]
111	RFD412ZA	REVERSE-D PLATE	[M]
112	RFD413ZA	MO JOINT PLATE	[M]
113	RFS865ZA	SPRING	[M]
114	RFS866ZA	SPRING	[M]
115	RFD414ZA	PROTECTION REC PLATE	[M]
117	RFY931ZA	ERASE LEVER	[M]
118	RJH2C14XZAG	E HEAD	
119	RFS956ZA	SPRING	[M]
120	RFX180ZA	COLLER	[M]
121	RFU180ZA	HEAD CHASSIS ASS'Y	[M]
122	RFE564ZA	LUG PLATE	[M]
123	RFS869ZA	SPRING	[M]
124	RFS870ZA	SPRING	[M]
126	RFY1036ZA	SLIDE PLATE-C ASS'Y	[M]
127	RFKQXFS470PK	HEAD BLOCK ASS'Y	[M]
131	RFS872ZA	SPRING	[M]
132	RFS873ZA	SPRING	[M]
133	RFE540ZA	SCREW	[M]
134	RFD419ZA	SPRING DR PLATE	[M]
135	RFY980ZA	GEAR STOP LEVER	[M]
136	RFS917ZA	SPRING	[M]
137	RFG157ZA	GEAR HOLDER	[M]
138	RFS874ZA	SPRING	[M]
139	RFR69ZA	PINCH ROLLER(R)ASS'Y	[M]
140	RFR70ZA	PINCH ROLLER(L)ASS'Y	[M]
141	RFS875ZA	SPRING	[M]
142	RFS876ZA	SPRING	[M]
143	RFS877ZA	SPRING	[M]
144	RFS878ZA	SPRING	[M]
145	RFG149ZA	IDLER GEAR	[M]
146	RFY934ZA	PAUSE LEVER	[M]
147	RFY935ZA	PAUSE STOP ARM	[M]
148	RFY936ZA	PAUSE ARM	[M]
149	RFS882ZA	SPRING	[M]
150	RFY937ZA	STOP LEVER	[M]
151	RFY983ZA	FF LEVER	[M]
152	RFY984ZA	REW LEVER	[M]
153	RFY940ZA	CUE STOP ARM	[M]
154	RFS879ZA	SPRING	[M]
155	RFY941ZA	PLAY LEVER	[M]
156	RFS880ZA	SPRING	[M]
157	RFD421ZA	SWITCH-A PLATE	[M]
158	RFD422ZA	SWITCH-C PLATE	[M]
159	RFY942ZA	REC LEVER	[M]
160	RFY943ZA	REC ARM	[M]
161	RFS881ZA	SPRING	[M]
162	RFY986ZA	FUNCTION-A PLATE	[M]
163	RFY999ZA	FUNCTION-D PLATE	[M]
164	RFS883ZA	SPRING	[M]
165	RFD423ZA	FF IDLER LEVER	[M]
166	RFK29ZA	IDLER ASS'Y	[M]
167	RFY1000ZA	LEVER HOLDER ASS'Y	[M]
168	RFS884ZA	SPRING	[M]
169	RFY1002ZA	EJECT LEVER	[M]
170	RFS885ZA	SPRING	[M]
171	RFD424ZA	MO PLATE	[M]
172	RFY946ZA	MO LEVER	[M]
173	RFY947ZA	OR LEVER	[M]
174	RFS915ZA	SPRING	[M]
175	RFY948ZA	SENSOR LEVER	[M]
176	RFY949ZA	SENSOR-B LEVER	[M]
177	RFS887ZA	SPRING	[M]
178	RFS888ZA	SPRING	[M]
179	RFY950ZA	CANCEL LEVER	[M]
180	RFE260ZA	BUSH	
181	RFJ95ZA	TENSION ASS'Y	[M]
182	RFY951ZA	SENSOR STOP ARM	[M]
183	RFQ66ZA	DRIVE PULLEY	[M]
184	RFQ70ZA	PULLEY	[M]
185	RFF85ZA	FLYWHEEL ASS'Y	[M]
186	RFF83ZA	FLYWHEEL ASS'Y	[M]
187	RFS889ZA	SPRING	[M]
188	RFS891ZA	SPRING	[M]
189	RFB111ZA	BELT	[M]
190	RFB112ZA	BELT	[M]
191	RFS890ZA	SPRING PLATE	[M]
192	RFKRXFS470PK	PLATE ASS'Y	[M]
193	RFD425ZA	HOLDER	[M]
194	RFE414ZA	SCREW	
195	RFW3ZA	STEEL BALL	[M]
196	RFD449ZA	MOTOR HOLDER	[M]
201	RFM181ZA	MOTOR ASS'Y	[M]
203	RFE602ZA	BUSH SCREW	[M]
204	RFE528ZA	SCREW	[M]
205	RFE363ZA	SCREW	
206	RFE530ZA	SCREW	[M]
207	RFE305ZA	SCREW	
208	RFE579ZA	SCREW	[M]
209	RFI24ZA	RUBBER CUSHION	
210	RFE531ZA	SCREW	[M]
211	RFE532ZA	SCREW	[M]
213	RFN162ZA	WASHER	
214	RFN233ZA	WASHER	[M]
215	RFN236ZA	WASHER	[M]
216	RFN234ZA	WASHER	[M]
217	RFE570ZA	TUBE	[M]
218	RFY981ZA	SENSOR STOP PLATE	[M]
219	RFE539ZA	BUSH	[M]
220	RFS918ZA	SPRING	[M]

■ Mechanism Parts Location (RAA1606)

Note : Refer to **Mechanism Parts List** on page 13.

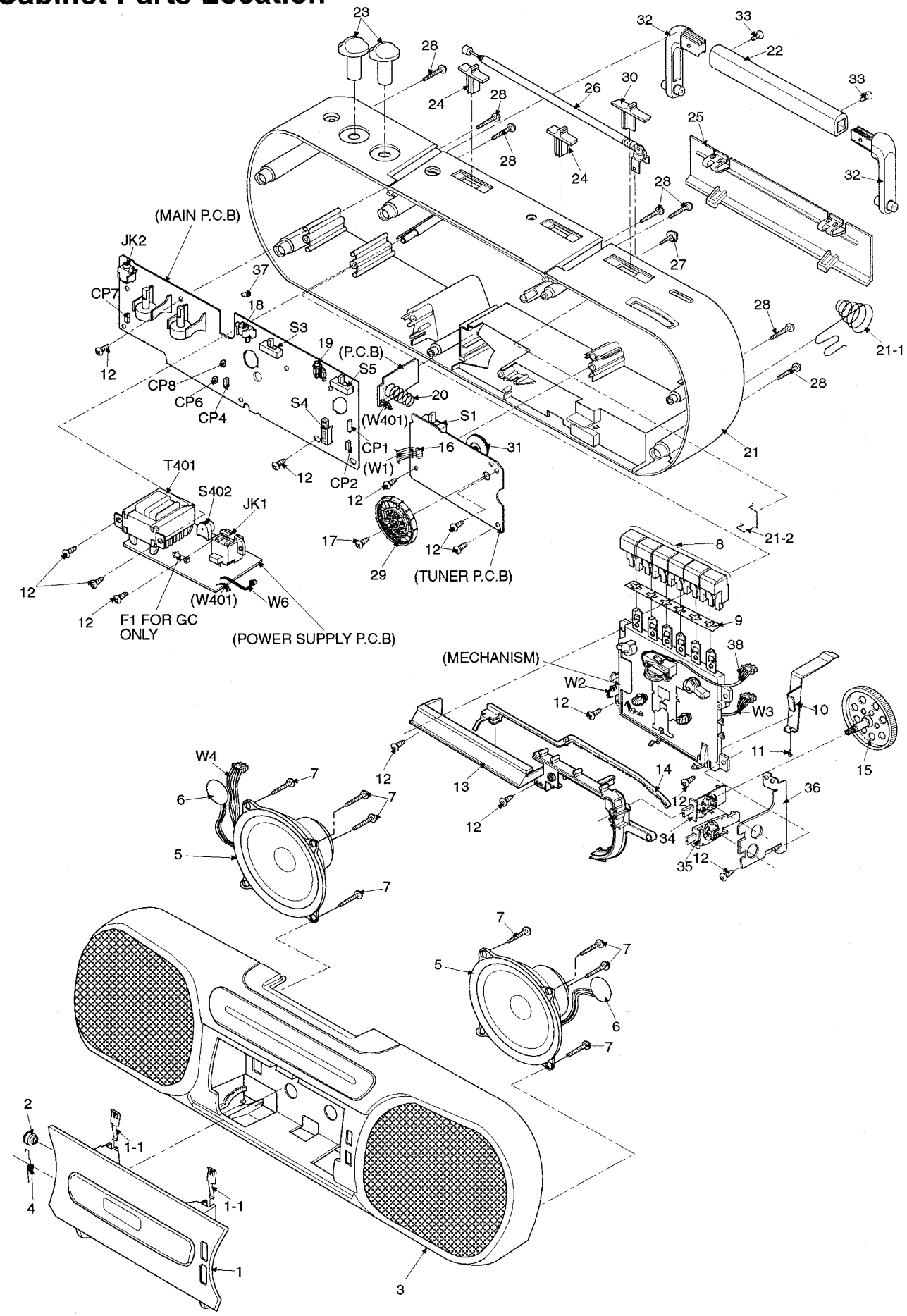


SPECIFICATIONS

Playback troque	25 ~ 65 g.cm
Fast forward torque	60 ~ 135 g.cm
Rewind torque	60 ~ 135 g.cm

Note:
When changing mechanism parts, apply the grease to areas marked "XX" as shown in the drawing.

■ Cabinet Parts Location



■ Replacement Parts List

Notes: * Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.
When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
* The parenthesized indications in the Remarks column specify the areas. (Refer to the cover page for area)
Parts without these indications can be used for all areas.
* [M] in the Remarks column indicates parts supplied by **MESA.**
* The "(SF)" mark denotes the standard part.

Ref No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RFKLFS435GCK	CASSETTE LID ASS'Y	[M]
1-1	RUS757ZAA	HALF SPRING	[M]
2	RDG0288	DAMPER GEAR	[M]
3	RFKGFS470GCK	FRONT CAB. ASS'Y	[M](GC)
3	RFKGFS470GK	FRONT CAB. ASS'Y	[M](GU)
4	RMB0347	OPEN SPRING	[M]
5	EAS10P241JA3	SPEAKER	[M]
6	EFBS10D48A1	TWEETER	[M]
7	XTV3+10G	SCREW (SPEAKER)	
8	RGZ0017-S	MECHA BUTTON BLOCK	[M]
9	RMX0045B	SPACER	[M]
10	RMC0221	REC. SPRING PLATE	[M]
11	XTN2+3F	SCREW (PLATE)	
12	XTV3+12G	SCREW (PCB & MECH)	
13	RMK0219	DIAL CHASSIS	[M]
14	RGJ0013-W	POINTER	[M]
15	RGX0016-K	TUNING KNOB	[M]
16	RMR0315	CABLE HOLDER (6P)	[M]
17	XYN26+C6	SCREW (TUNING KNOB)	
18	RJM0005	MICROPHONE	[M]
19	RMN0238	LED HOLDER	[M]
20	RMBX0002	SPRING TERMINAL	[M]
21	RFKHFS435GCK	BACK CAB. ASS'Y	[M](GC)
21	RFKHFS435GUK	BACK CAB. ASS'Y	[M](GU)
21-1	RJC91003	+– BATTERY TERMINAL	[M]
21-2	RJR0112	ANT. TERMINAL	[M]
22	RKX402YB-0	HANDLE ARM	[M]
23	RGW0186-K	VOLUME TONE KNOB	[M]
24	RBD563ZA-0	FUNCTION BAND KNOB	[M]
25	RKK318ZC-0	BATTERY COVER	[M]
26	XEARR175ED-Y	WHIP ANTENNA	
27	XYN3+F8FY	ROD ANTENNA SCREW	
28	XTV3+20G	CABINET SCREW	
29	RDG0253	TUNING GEAR	[M]
30	RGV0127-K	4 BAND KNOB	[M]
31	RBT330ZB-0	FINE TUNING KNOB	[M]
32	RKX5SZA-0	HANDLE PIPE	[M]
33	XTC3+10CFN	HANDLE SCREW	
34	RGU0954-K	MODE BUTTON	[M]
35	RGU0955-K	DIRECTION BUTTON	[M]
36	RMK0220	MECHANISM BRACKET	[M]
37	RHS902SZB	MIC CUSHION	[M]
38	RFE606ZA	WIRE ASS'Y, HEAD	[M]
		INTEGRATED CIRCUITS	
IC1	AN7205	IC, RF	
IC2	BA1442	IC, MPX/IF	[M]
IC301	BA3313L	IC, PRE AMP	[M]
IC302	RVILA4108R	IC, AF POWER	⚠
		TRANSISTORS	
Q1	2SC829BTA	TRANSISTOR	
Q303	2SC2001KTA	TRANSISTOR	⚠
Q304	2SC1684RTA	TRANSISTOR	
		DIODES	
D1	RVD1SS133TA	DIODE	
D2	RVD1SS133TA	DIODE	
D301	LN28RPH	STEREO LED	[M]
D302	RVDMTZ6R8BTA	DIODE	⚠
D303	RVD1SS133TA	DIODE	
D304	RVD1SS133TA	DIODE	
D305	RVD1SS133TA	DIODE	
D401	RVD1SR35TR	DIODE	⚠
D402	RVD1SR35TR	DIODE	⚠
D403	RVD1SR35TR	DIODE	(GC)⚠
D404	RVD1SR35TR	DIODE	(GC)⚠
		VARIABLE RESISTORS	
VR301	EWCUVAF15A54	VR, VOLUME	
VR302	EWCVVAF15D54	VR, TONE	

Ref No.	Part No.	Part Name & Description	Remarks
		VARIABLE CAPACITOR	
VC1	RCV4RC2V2K-M	TRIMMER	
		TRIMMERS	
CT2	ECRLA010A53R	TRIMMER	
CT3	ECRLA010A53R	TRIMMER	
CT4	ECRLA010A53R	TRIMMER	
CT5	RCVMFTPC17	FINE TUNING	
		SWITCHES	
S1	RSS4H04XA-H	SW, BAND	[M]
S3	RSS2D32ZA-H	SW, FUNCTION	[M]
S4	RSP2F001-A	SW, REC	[M]
S5	RSS2A66ZA-H	SW, FM MODE	[M]
S6	RFA107ZA	SW, MOTOR	[M]
S7	RFA106ZA	SW, PLAYBACK	[M]
S304	RJJ1SE01-H	SW, JACK W/SW (JK1)	⚠
S402	RSR3A01ZA-H	SW, VOLTAGE SELECTOR	⚠
		CONNECTORS	
CP1	RJS1A5206	CONNECTOR (6P)	[M]
CP2	RJP4G18ZA	CONNECTOR (4P)	
CP4	RJP4G18ZA	CONNECTOR (4P)	
CP6	RJP2G4YA	CONNECTOR (2P)	
CP7	RJP4G4YA	CONNECTOR (4P)	
CP8	RJP2G18ZA	CONNECTOR (2P)	
		COILS & TRANSFORMERS	
L1	RLQY30S1W	FM COIL	[M]
L2	RL04P002-E	FM OSC COIL	[M](GC)
L2	RLD4Y53W	FM OSC COIL	[M](GU)
L3	RLV5C005-0	AM FERRITE ANT	[M]
L6	RLQY30S4W	COIL	[M]
L7	RLA3B44-M	SW2 ANT. COIL	
L8	RL02B108-M	AM OSC COIL	
L9	RL03B91-M	SW1 OSC COIL	
L10	RL03B95-M	SW2 OSC COIL	
T1	RLI4B153-M	FM IFT	
T2	RLI2B153-M	AM IFT	
T3	RLI4B153-M	FM IFT	
T301	RL09B17-T	REC BIAS OSC COIL	
T401	RTP1K1E004-X	POWER TRANSFORMER	[M](GC)⚠
T401	RTP1K1G002-X	POWER TRANSFORMER	[M](GU)⚠

Ref No.	Part No.	Part Name & Description	Remarks
		CERAMIC FILTERS	
CF1	RVF107WDZT	FM CF	
CF2	RVFSFZ455JL	AM CF	
		FUSE	
F1	XBA2C10TB0	FUSE	(GC)⚠
		FUSE HOLDERS	
FH401	EYF52BC	FUSE HOLDER	(GC)
FH402	EYF52BC	FUSE HOLDER	(GC)
		JACKS	
JK1	RJJ1SE01-H	JK, AC	⚠
JK2	RJJ37TK01-C	JK, PHONES	
		WIRES	
W2	REX0554	WIRE, HEAD TO MAIN	[M]
W3	REX0541	WIRE, MOTOR TO MAIN	[M]
W4	REX0582	WIRE, SPEAKER TO MAIN	[M]
W6	REX0574	WIRE, POWER TO MAIN	[M]
		PACKING MATERIALS	
P1	RPGX0263	GIFT BOX	[M](GU)
P1	RPGX0264	GIFT BOX	[M](GC)
P2	RPH654ZA	MIRAMAT SHEET	[M]
P3	RPN0729	POLYFOAM	[M]
		ACCESSORIES	
A1	RQCB0169	SERVICE CENTRE LIST	
A2	RQT3542-G	INSTRUCTION MANUAL	[M]
A3	RJA0004	AC CORD	(SF)(GU)⚠
A3	RJA0019-2K	AC CORD	(SF)(GC)⚠
A4	RJP1SG02-H	PLUG ADAPTOR	[M](GU)
A4	SJP5213-2	PLUG ADAPTOR	(GC)

■ Resistors & Capacitors

Notes: * Capacitor values are in microfarads (μF) unless specified otherwise, P=Pico-farads (pF) F=Farads
* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).
* Bracketed indications in Remarks columns specify the area (Refer to the first page for area). Parts without these indications can be used for all areas.
* [M] Indicates in the values & remarks column indicates parts supplied by **MESA**

Ref. No.	Part No.	Values & Remarks	
	RESISTORS		
R1	ERDS2TJ330T	33	1/4W
R2	ERDS2TJ334T	330K	1/4W
R3	ERDS2TJ471T	470	1/4W
R4	ERDS2TJ330T	33	1/4W
R5	ERDS2TJ101T	100	1/4W
R6	ERDS2TJ8R2T	8.2	1/4W
R7	ERDS2TJ820T	82	1/4W
R8	ERDS2TJ680T	68	1/4W
R9	ERDS2TJ822T	8.2K	1/4W
R10	ERDS2TJ103T	10K	1/4W
R11	ERDS2TJ221T	220	1/4W
R12	ERDS2TJ332T	3.3K	1/4W
R14	ERDS2TJ103T	10K	1/4W
R106	ERDS2TJ103T	10K	1/4W
R107	ERDS2TJ274T	270K	1/4W
R109	ERDS2TJ222T	2.2K	1/4W
R110	ERDS2TJ123T	12K	1/4W
R111	ERDS2TJ392T	3.9K	1/4W
R112	ERDS2TJ560T	56	1/4W
R113	ERDS2TJ222T	2.2K	1/4W
R116	ERDS2TJ183T	18K	1/4W
R117	ERDS2TJ222T	2.2K	1/4W
R121	ERDS2TJ2R2T	2.2	1/4W
R122	ERDS2TJ101T	100	1/4W
R131	ERDS2TJ682T	6.8K	1/4W
R140	ERDS2TJ223T	22K	1/4W
R206	ERDS2TJ103T	10K	1/4W
R207	ERDS2TJ274T	270K	1/4W
R209	ERDS2TJ222T	2.2K	1/4W
R210	ERDS2TJ123T	12K	1/4W
R211	ERDS2TJ392T	3.9K	1/4W
R212	ERDS2TJ560T	56	1/4W
R213	ERDS2TJ222T	2.2K	1/4W
R216	ERDS2TJ183T	18K	1/4W
R217	ERDS2TJ222T	2.2K	1/4W
R221	ERDS2TJ2R2T	2.2	1/4W
R222	ERDS2TJ101T	100	1/4W
R231	ERDS2TJ682T	6.8K	1/4W
R240	ERDS2TJ223T	22K	1/4W
R301	ERDS2TJ222T	2.2K	1/4W
R302	ERDS2TJ471T	470	1/4W
R303	ERDS2TJ222T	2.2K	1/4W
R305	ERDS2TJ471T	470	1/4W
R306	ERDS2TJ101T	100	1/4W
R308	ERDS2TJ561T	560	1/4W
R309	ERDS2TJ333T	33K	1/4W
R310	ERDS2TJ221T	220	1/4W
R311	ERDS2TJ6R8T	6.8	1/4W
R313	ERDS2TJ101T	100	1/4W
R314	ERDS2TJ105T	1M	1/4W
R318	ERDS2TJ471T	470	1/4W
R319	ERDS2TJ680T	68	1/4W
R320	ERDS2TJ222T	2.2K	1/4W
R331	ERDS2TJ392T	3.9K	1/4W
R332	ERDS2TJ104T	100K	1/4W
	CAPACITORS		
C1	ECBT1H100JC5	10P	50V
C2	ECBT1H470J5	47P	50V
C3	ECBT1H220JC5	22P	50V
C4	ECBT1H100JC5	10P	50V
C5	ECBT1H102KB5	1000P	50V
C6	ECBT1H102KB5	1000P	50V
C7	ECBT1H4R7KC5	4.7P	50V
C8	ECBT1H150JC5	15P	50V
C9	ECBT1H102KB5	1000P	50V
C10	ECBT1H120JC5	12P	50V
C11	ECBT1H220JC5	22P	50V(GU)
C11	ECCR1H240KC5	24P	50V[M](GC)
C12	ECFR1C223MR	0.022	16V
C13	ECFR1C223MR	0.022	16V
C14	ECBT1H221KB5	220P	50V
C15	ECEA1HU010B	1	50V
C16	ECBT1C682MR5	6800P	16V
C17	ECEA1EU100B	10	25V
C18	ECEA1CU470B	47	16V
C19	ECFR1C223MR	0.022	16V
C20	ECEA0JU101B	100	6.3V
C21	ECBT1H102KB5	1000P	50V
C22	ECFR1C473MR	0.047	16V
C23	ECEA1HUR22B	0.22	50V
C24	ECEA1EU100B	10	25V
C25	ECBT1C103MS5	0.01	16V
C26	ECFR1C223MR	0.022	16V
C27	ECBT1H102KB5	1000P	50V
C28	ECEA1HU010B	1	50V
C29	ECEA1HU010B	1	50V
C30	ECBT1H8R2KC5	8.2P	50V
C31	ECBT1H6R8KC5	6.8P	50V
C32	ECBT1H010MC5	1P	50V
C33	ECFR1C223MR	0.022	16V
C34	ECBT1H6R8KC5	6.8P	50V
C36	ECQP2A361JZT	360P	100V
C37	ECQP2A152JZT	1500P	100V
C38	ECQP2A472JZT	4700P	100V
C40	ECBT1C103NS5	0.01	16V
C41	ECBT1H220JC5	22P	50V
C42	ECBT1H200JC5	20P	50V
C43	ECBT1H4R7KC5	4.7P	50V
C101	ECBT1C152MR5	1500P	16V
C102	ECBT1C152MR5	1500P	16V
C103	ECBT1H331KB5	330P	50V
C104	ECEA1CU470B	47	16V
C105	ECFR1C333KR	0.033	16V
C106	ECEA1CU100B	10	16V
C108	ECFR1C183MR	0.018	16V
C109	ECEA1CU100B	10	16V
C110	ECBT1C222MR5	2200P	16V
C111	ECEA0JU101B	100	6.3V
C113	ECBT1C103MS5	0.01	16V
C114	ECEA1CU470B	47	16V
C115	ECEA1AU471B	470	10V
C116	ECFR1C683MR	0.068	16V
C117	ECFR1C473MR	0.047	16V
C131	ECFR1C473MR	0.047	16V
C201	ECBT1C152MR5	1500P	16V
C202	ECBT1C152MR5	1500P	16V
C203	ECBT1H331KB5	330P	50V
C204	ECEA1CU470B	47	16V
C205	ECFR1C333KR	0.033	16V
C206	ECEA1CU100B	10	16V
C208	ECFR1C183MR	0.018	16V
C209	ECEA1CU221B	220	16V
C210	ECBT1C222MR5	2200P	16V
C211	ECEA0JU101B	100	6.3V
C213	ECBT1C103MS5	0.01	16V
C214	ECEA1CU470B	47	16V
C215	ECEA1AU471B	470	10V
C216	ECFR1C683MR	0.068	16V
C217	ECFR1C473MR	0.047	16V
C231	ECFR1C473MR	0.047	16V
C301	ECEA1HU0R1B	0.1	50V
C302	ECFR1C473MR	0.047	16V
C303	ECEA1CU100B	10	16V
C304	ECEA0JU221B	220	6.3V
C305	ECEA1HU3R3B	3.3	50V
C306	ECEA1AU330B	33	10V
C310	ECQP2A332JZT	3300P	100V

Ref. No.	Part No.	Values & Remarks
C311	ECEA0JU221B	220 6.3V
C312	ECFR1C223MR	0.022 16V
C313	ECBT1C103MS5	0.01 16V
C315	ECBT1C103MS5	0.01 16V
C316	ECEA1AU221B	220 10V
C317	ECEA1CU470B	47 16V
C318	ECBT1C103MS5	0.01 16V
C319	ECA1CM222EV	2200 16V[M]
C401	ECKR1H103ZF5	0.01 50V
C402	ECKR1H103ZF5	0.01 50V
C403	ECKR1H103ZF5	0.01 50V(GC)
C404	ECKR1H103ZF5	0.01 50V(GC)

Ref. No.	Part No.	Values & Remarks

Ref. No.	Part No.	Values & Remarks

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