

Service Manual

Portable Stereo Component System

RADIO CASSETTE
RX-C41L
(Black)



This is the Service Manual for the following areas.

Z...For all European areas except United Kingdom & Germany.

E...For United Kingdom.

RX-C41L MECHANISM SERIES

SPECIFICATIONS

General:

Power Requirement: AC; 220 V 50 Hz (For **Z** only)
240 V 50 Hz (For **E** only)

Battery: 12 V (Eight "D" Size Flashlight Batteries)
(Panasonic UM-1 or equivalent)

Car battery: with optional car adaptor RP-952

Power Consumption: 30 W (AC only)

Power Output: 15 W (7.5 W×2)...(max.)

Speaker: Woofer; 10 cm (4") PM Dynamic Speaker (3Ω)
Tweeter; 4 cm Ceramic Speaker (200Ω)

Input: MIC; sensitivity 0.25 mV/applicable: M3, Ø3.5 microphone impedance 200~600Ω

Output: LINE IN; sensitivity 200 mV/47 kΩ over
LINE OUT; sensitivity 400 mV/4.7 kΩ under
EXT SP; 3~8Ω
HEADPHONES; 32Ω, M3 (Ø3.5)

Dimensions: 552 mm (W)×176 mm (H)×174 mm (D)
Main Unit
315 mm (W)×176 mm (H)×174 mm (D)
Speaker Box
118 mm (W)×176 mm (H)×148 mm (D)

Weight: 4.9 kg without batteries

Radio Section:

Radio Frequency Range: FM; 87.5~108 MHz
LW; 150~285 kHz (2000~1053 m)
MW; 520~1610 kHz (577~186 m)
SW; 5.9~18 MHz (50.8~16.7 m)

Intermediate Frequency: FM; 10.7 MHz
AM; 455 kHz (470 kHz [E])

Sensitivity: FM; 1.4 μV/m/50 mW output
(-3 dB Limit sens)
LW; 200 μV/m/50 mW output
MW; 89 μV/m/50 mW output
SW; 10 μV/50 mW output

Tape Deck Section:

Frequency Response: 60~12,000 Hz (with normal tape)
60~14,000 Hz (with Metal tape)

Recording System: AC bias, AC erase

Tape Speed: 4.8 cm/s. (1 7/8 ips)

Program Timer: 1 hour with C-60 cassette tape

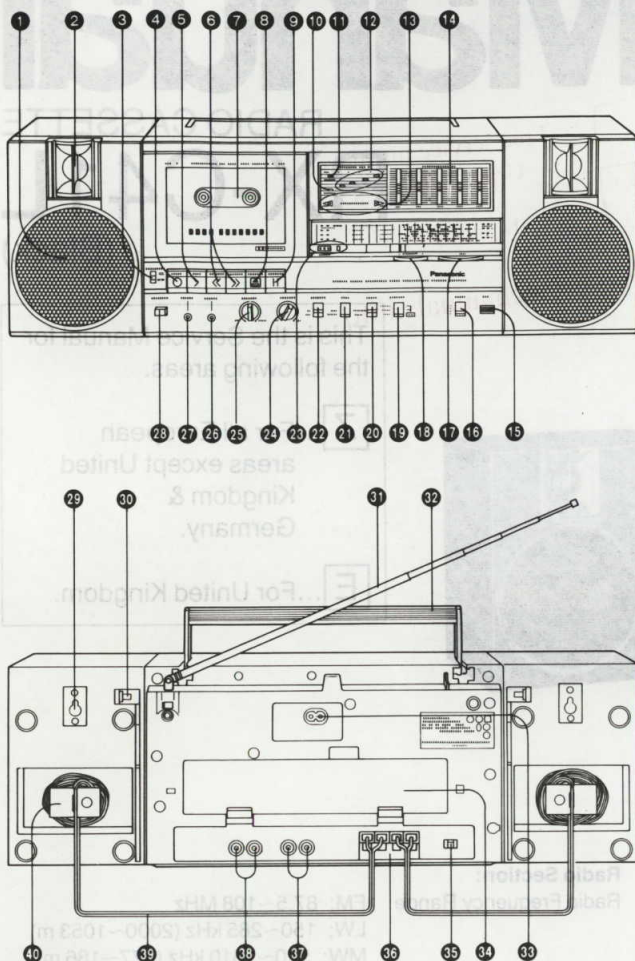
Track System: 4-track 2-channel stereo recording and playback

Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

LOCATION OF CONTROLS AND COMPONENTS



- 1 Speakers (Woofer)
- 2 Speakers (Tweeter)
- 3 Reverse Mode Selector (REVERSE MODE)
- 4 Record Button (○ RECORD)
- 5 Playback Button (▶ PLAY)
- 6 Fast/Cue Buttons (⏮ ⏭ FAST/CUE)
- 7 Cassette Compartment
- 8 Stop/Eject Button (⏏ STOP/EJECT)
- 9 Pause Button (⏏ PAUSE)
- 10 Operation/Battery Check Indicator (OPR/BATT)
- 11 FM Stereo Indicator (FM STEREO)

- 12 Level Meter
The Level Meter lights to indicate the source level in each mode: radio, tape playback and recording, and even when using the unit as an amplifier with external sound sources.
- 13 Forward and Reverse Indicators (TAPE DIRECTION)
- 14 Graphic Equalizer Controls (GRAPHIC EQUALIZER)
- 15 Built-in Microphone (MIC)
- 16 Band Selector (BAND)
- 17 Tuning Control (TUNING)
- 18 Fine Tuning Control (FINE TUNING)
- 19 Function Selector (SELECTOR)
- 20 Mode Selector (MODE)
- 21 Tape Selector (TAPE)
- 22* Dolby Noise Reduction Switch (DOLBY NR)
- 23 Tape Counter and Reset Button (COUNTER)
The digits return to "000" when the Reset Button is pressed. The digits advance with the tape to provide a reference to quickly find a desired portion of the tape.
- 24 Volume Control (VOLUME)
- 25 Balance Control (BALANCE)
- 26 External Microphone Jack (EXT MIC): M3, Ø3.5
0.25 mV/applicable (200~600Ω)
- 27 Headphones Jack (PHONES): M3, Ø3.5

When using the headphones, avoid listening to sound for a long period of time at excessive volume levels, which may injure your ears.

- 28 Direction Button (◀▶ DIRECTION)
- 29 Speaker Wall Mounts
- 30 Speaker Release Levers (RELEASE)
- 31 Telescopic Antenna
- 32 Handle
- 33 AC Socket (AC IN~)
- 34 Battery Compartment
- 35 Beat Proof Switch (BEAT PROOF)
- 36 Speaker Terminals (SPEAKER IMP 3-8Ω)
- 37 Line Output Jacks (LINE OUT) 400 mV/4.7 kΩ under
- 38 Line Input Jacks (LINE IN) 200 mV/47 kΩ over
- 39 Speaker Cables
- 40 Speaker Cable Compartments

*"Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

IMPORTANT (FOR U.K.)

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
- The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Notes:

- Disconnect the mains plug from the supply socket when not in use.
- Do not remove cover. Live parts inside.

DISASSEMBLY INSTRUCTIONS

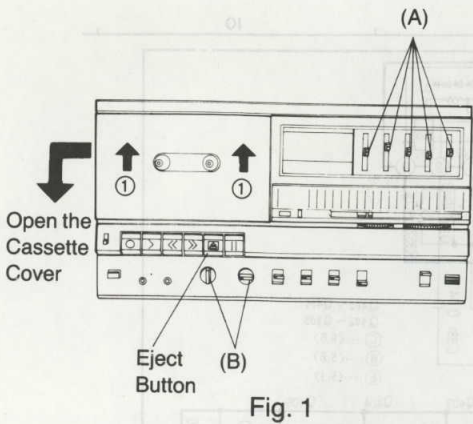


Fig. 1

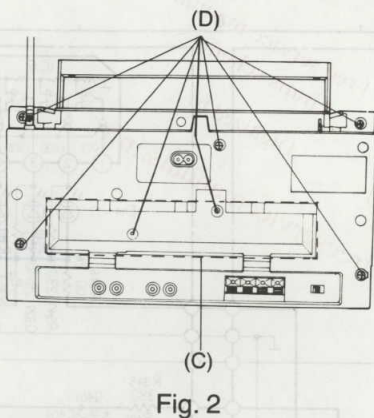


Fig. 2

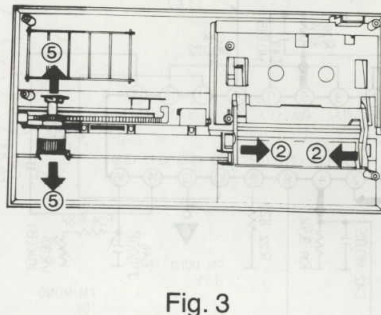


Fig. 3

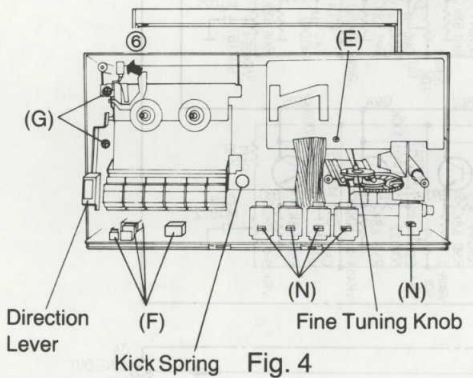


Fig. 4

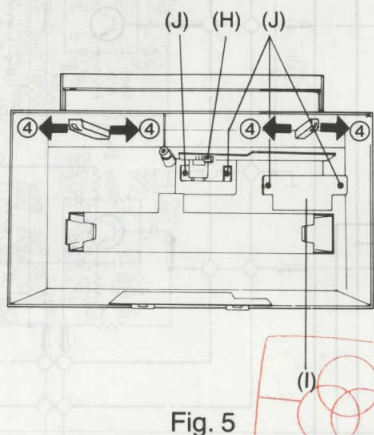


Fig. 5

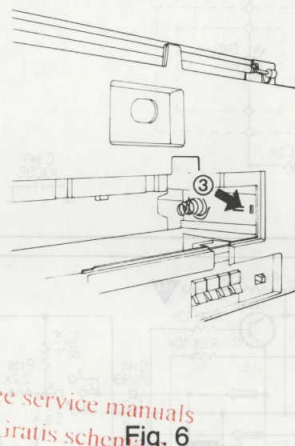


Fig. 6

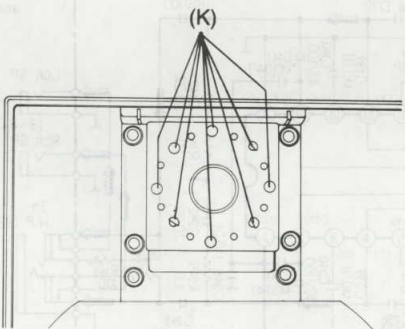


Fig. 7

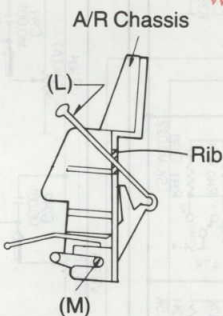


Fig. 8

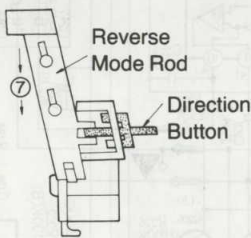


Fig. 9

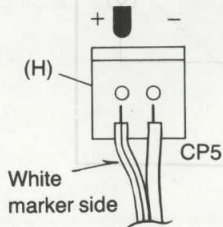


Fig. 10

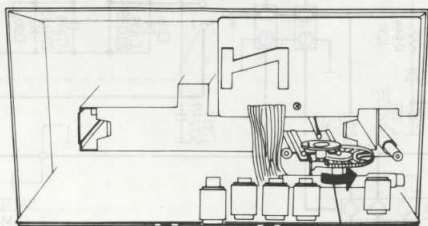


Fig. 11

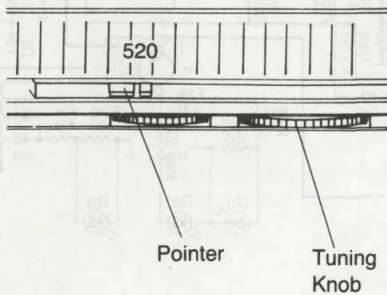


Fig. 12

Ref. No.	Shown in Fig.—	To remove —	Remove —
1	1	Front Cabinet Ass'y	Push the eject button.
2			G.E.Q. Knob (A)×5
3			Knob (B)×2
4			Battery Cover (C)
5			Screw (3×45) mm (D)×7
6	2	Cassette Holder	Push the Cassette cover in the direction of the arrow ①.
7			Push the Cassette holder in the direction of the arrows ②.
8	4	Equalizer P.C.B	Screw (3×12) mm (E)×1
9	4	Mechanism * 1, 2, 3	Connector (F)×4
10			Screw (3×12) mm (G)×2
11			Remove the direction lever, counter and counter belt.
12	5	Main P.C.B	Connector (H)×1 * 4
13	4		Pull out the fine tuning knob.
14	5	Power P.C.B	Pull out the circuit board.
15	6		Push the catch in the direction of the arrow ③.
16	5	Handle	Screw (3×12) mm (J)×4
17			Shield cover (I)
18	5	Tunig Knob * 4	Push the cabinet in the direction of the arrows ④.
19	3		Push the cabinet in the direction of the arrows ⑤.
20	7	Tweeter * 4	Cut the tip of boss. (K)×8 * 5

- * 1 Before installing the mechanism components, shift the R/P lever in the direction indicated by arrow ⑥.

* 2 Installing the Direction Lever

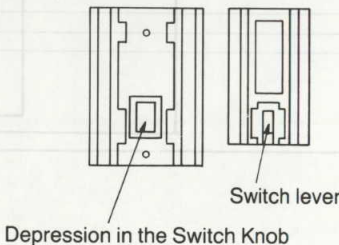
 1. First install parts (L) and (M) of the direction lever on the A/R (Auto/Reverse) chassis as shown in Fig. 8. Then fit part (L) between the ribs of the A/R chassis.
 2. Install the reverse mode rod on the A/R chassis as shown in Fig. 9.
 3. Slide the reverse mode rod in the direction indicated by the arrows ⑦.
 4. Install the direction button on the A/R chassis by inserting its tabs as shown in Fig. 9.
- * 3 Push the top of the connector down when connecting or disconnecting the jumper. After connecting the jumper, be sure to raise the connector top and make sure the jumper is firmly secured. Make sure polarity is properly aligned when installing the jumpers. (Refer to Fig. 10)

* 4 When assemble the front cabinet, turn the dial drum to fully clockwise and set the dial pointer at the position as shown in Fig. 11 and 12.

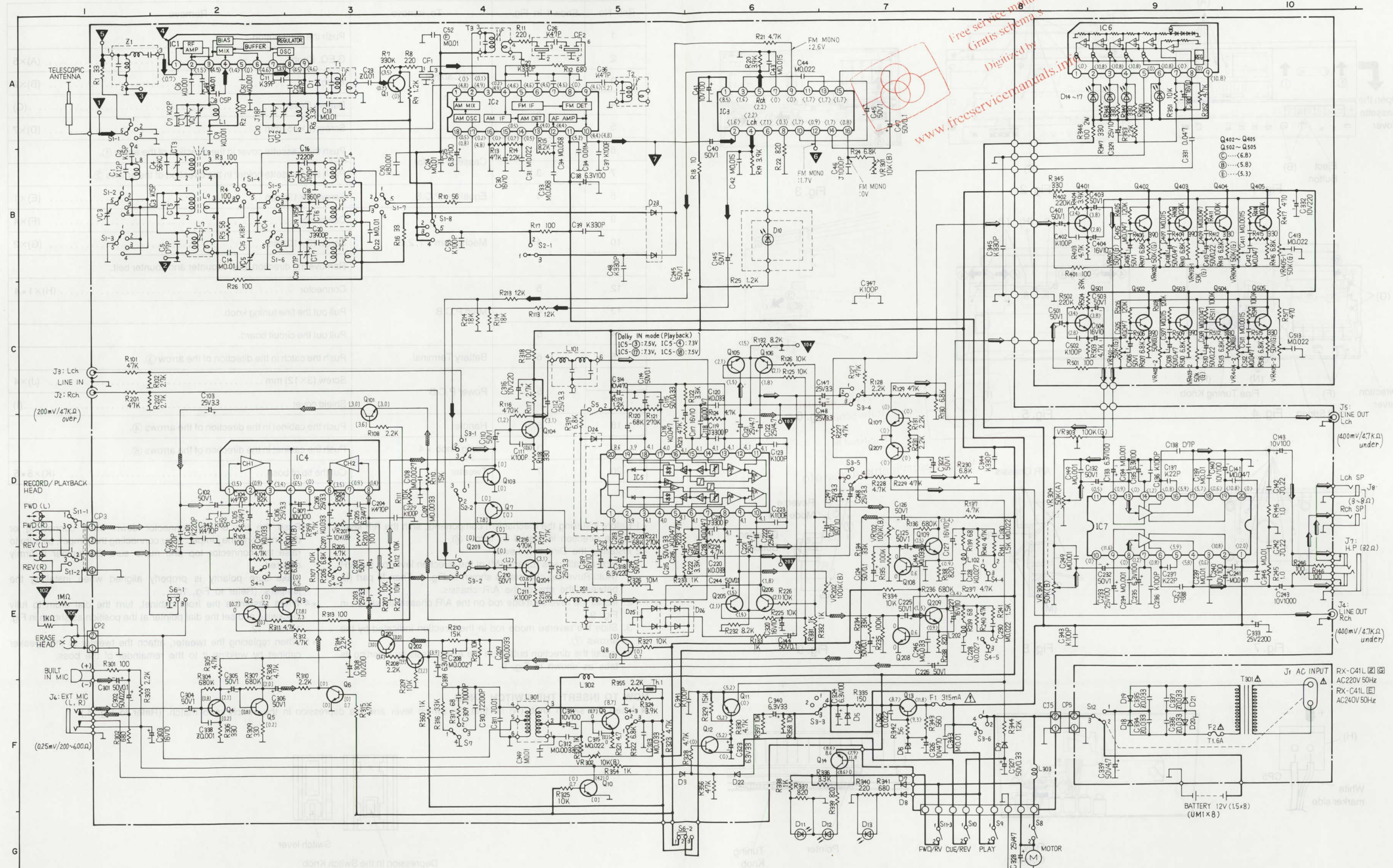
* 5 When replacing the tweeter, attach the tweeter to the speaker cabinet by welding it to the remainder of the boss.

HOW TO INSERT THE SWITCH KNOB

- Insert the switch knob (N) so that the switch lever and the depression in the switch knob match. (Refer to Fig. 4.)



SCHEMATIC DIAGRAM FOR MODEL RX-C41L



Notes:

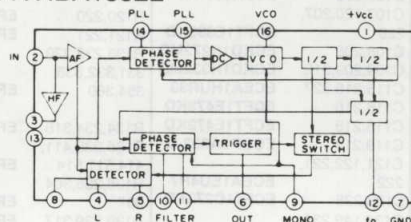
1. S1-1~S1-8: Band select switch in "FM" position.
(1...FM, 2...LW, 3...MW, 4...SW)
2. S2-1, S2-2: Mode select switch in "STEREO" position.
(1...STEREO, 2...MONO)
3. S3-1~S3-6: Function switch in "TAPE" position.
(1...LINE, 2...RADIO, 3...TAPE)
4. S4-1~S4-5: Tape select switch in "NORMAL" position.
(1...NORMAL, 2...CrO₂)
5. S5: Dolby NR switch in "OUT" position.
6. S6-1, S6-2: REC/PLAY switch in "PLAY" position.
(1...PLAY, 3...RECORD)
7. S7: Beat Proof switch in "I" position.
(1...I, 2...II, 3...III)
8. S8: Motor switch.
9. S9: Playback switch.
10. S10: CUE/REV switch.
11. S11-1~S11-3: FWD/REVERSE switch in "FWD" position.
12. S12: AC/DC switch in "DC" position.
(1...AC, 2...DC)
13. VR101, VR201: Playback level adjustment VR.
14. VR102, VR202: Overall gain adjustment VR.
15. VR301: FM MPX adjustment VR.
16. VR302: Rec bias current voltage adjustment VR.
17. VR303: Balance control VR.
18. VR304: Volume control VR.
19. VR 401~VR405, VR501~505: Graphic EQ. VR
20. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
< >...FM, ()...AM, []...Record
No mark... Playback
21. Battery Current: No signal (radio) 160 mA
Maximum output (radio) 1125 mA
(tape playback) 1545 mA
(tape recording) 260 mA

22. Important safety notice

Components identified by Δ mark have special characteristics important for safety.

When replacing any of these components, use only manufacturer's specified parts.

-  +B Voltage Line
-  Radio (FM) Signal Line
-  TAPE (PLAYBACK) Signal Line
-  TAPE (RECORD) Signal Line
-  Line, RADIO, PLAYBACK and RECORD Signal Line

IC3 RVIBA1332L

Ref No.	Zone	Part No.	Function Name
IC1	A-2	RV1A7358P	FM RM AMP/MIX/OSC
IC2	A-4	AN7220A	FM IF/DET, AM MIX/OSC/IF/AMP
IC3	A-6	RV1A1332L	FM MPX
IC4	D-3	RV1A328	EQ. AMP
IC5	D-5	RV1LM1131C	Dolby AMP
IC6	A-9	AN6884	LED Drive
IC7	D-9	LA4108R	Power AMP
Q1	A-3	2SC829BTA (2SC829-B)	IF AMP
Q2	E-2	2SC1740RTA (2SC1740R)	Switching (REC: ON)
Q3	E-3	2SC1740RTA (2SC1740R)	Switching (Play: ON)
Q4	F-2	2SC1740LNSTA (2SC1740LNS)	Mic Amp
Q5	F-2	2SC1740LNSTA (2SC1740LNS)	Mic Amp
Q6	F-3	2SC1740RTA (2SC1740R)	Muting (Play: ON)
Q7	D-4	2SC1740RTA (2SC1740R)	AGC
Q8	E-5	2SC1740RTA (2SC1740R)	Switching (Play: ON)
Q9	F-5	2SC2001K1TA (2SC2001X1)	Switching (Bias OSC)
Q10	F-5	2SC1740RTA (2SC1740R)	Switching (Play: ON)
Q11	F-6	2SA564RTA (2SA722-S)	Muting (Power ON, Switching)
Q12	F-6	2SC1740RTA (2SC1740R)	Muting (Switching, Recording mode)
Q13	F-7	2SD439F	Regulator
Q14	F-7	2SA564RTA (2SA722-S)	Switching (REV: ON)
Q101	C-3	2SC1740RTA (2SC1740R)	Switching (REC: ON)
Q103	D-4	2SC1740RTA (2SC1740R)	AGC
Q104	D-4	2SC1740STA (2SC1740S)	AMP
Q105	C-6	2SC1740RTA (2SC1740S)	Switching (Play: ON)
Q106	D-7	2SC1740RTA (2SC1740R)	Muting (CUE/REVIEW: ON)
Q107	C-6	2SC1740RTA (2SC1740R)	Switching (Rec: ON)
Q108	E-7	2SC1740RTA (2SC1740R)	Muting (Play: ON)
Q109	E-7	2SC1740STA (2SC1740R)	EQ. AMP
Q201	E-3	2SC1740RTA (2SC1740R)	Switching (REC: ON)
Q202	E-3	2SA564RTA (2SA722-S)	Switching (REC: ON)
Q203	D-4	2SC1740RTA (2SC1740R)	AGC
Q204	E-4	2SC1740STA (2SC1740S)	AMP
Q205	E-6	2SC1740RTA (2SC1740S)	Switching (Play: ON)
Q206	E-6	2SC1740RTA (2SC1740R)	Switching (Rec: ON)
Q207	D-7	2SC1740RTA (2SC1740R)	Muting (CUE/REVIEW: ON)
Q208	E-7	2SC1740RTA (2SC1740R)	Muting (Play: ON)
Q209	E-7	2SC1740STA (2SC1740S)	EQ. AMP
Q401	B-8	2SC1740LNSTA (2SC1740LNS)	AMP
Q402	B-9	2SC1740LNSTA (2SC1740LNS)	B.P.F.
Q403	B-9	2SC1740LNSTA (2SC1740LNS)	B.P.F.
Q404	B-9	2SC1740LNSTA (2SC1740LNS)	B.P.F.
Q405	B-10	2SC1740LNSTA (2SC1740LNS)	B.P.F.
Q501	C-8	2SC1740LNSTA (2SC1740LNS)	AMP
Q502	C-9	2SC1740LNSTA (2SC1740LNS)	B.P.F.
Q503	C-9	2SC1740LNSTA (2SC1740LNS)	B.P.F.
Q504	C-9	2SC1740LNSTA (2SC1740LNS)	B.P.F.
Q505	C-10	2SC1740LNSTA (2SC1740LNS)	B.P.F.
D1	A-3	RVD1SS133TA (RVD1SS133)	AGC
D3	F-6	RVD1SS133TA (RVD1SS133)	Switching
D5	F-7	MA1051FV (MA1051)	STABI.
D6	F-7	RVD1MTZ10BTA (RVD1MTZ10B)	STABI.
D7	F-7	RVD1SS133TA (RVD1SS133)	Switching
D8	F-7	RVD1SS133TA (RVD1SS133)	Switching
D9	F-8	RVD1SS133TA (RVD1SS133)	Switching
D10	B-6	LN082252PH	LED (FM ST. IND.)
D11	G-6	LN082252PH	LED (FWD IND.)
D12	G-7	LN082252PH	LED (REV IND.)
D13	G-7	LN082252PH	LED (OPR/BATT IND.)
D14	A-9	LN082252PH	LED (Level IND.)
D15	A-9	LN082252PH	LED (Level IND.)
D16	A-9	LN082252PH	LED (Level IND.)
D17	A-9	LN082252PH	LED (Level IND.)
D18	F-9	RVD1SR35TR (RVD1SR35)	Rectifier (AGC)
D19	F-9	RVD1SR35TR (RVD1SR35)	Rectifier (AGC)
D20	F-9	RVD1SR35TR (RVD1SR35)	Rectifier (AGC)
D21	F-9	RVD1SR35TR (RVD1SR35)	Rectifier (AGC)
D22	F-6	RVD1SS133TA (RVD1SS133)	Switching
D23	B-5	MA175WKTA (MA175WK)	AND GATE
D24	D-5	MA175WATA (MA175WA)	Switching
D25	E-5	MA175WATA (MA175WA)	Rectifier
D26	E-5	MA175WKTA (MA175WK)	Rectifier

...Supply is Parts Number

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ELECTRICAL PARTS LIST

Numbering System of Resistor

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value (100Ω)
ERX	2	AN	J	2R2
Type	Wattage	Shape	Tolerance	Value (2.2Ω)

Resistor Type	Wattage Tolerance
ERD: Carbon	10 : 1/8 W J : $\pm 5\%$
ERD: Metal Film	12 : 1/2 W
ERX: Metal Film	25 : 1/4 W
ERQ: Fuse Type Metal	1 : 1 W
RRD: Carbon (Chip Type)	18 : 1/8 W

REPLACEMENT PARTS LIST

Important safety notice
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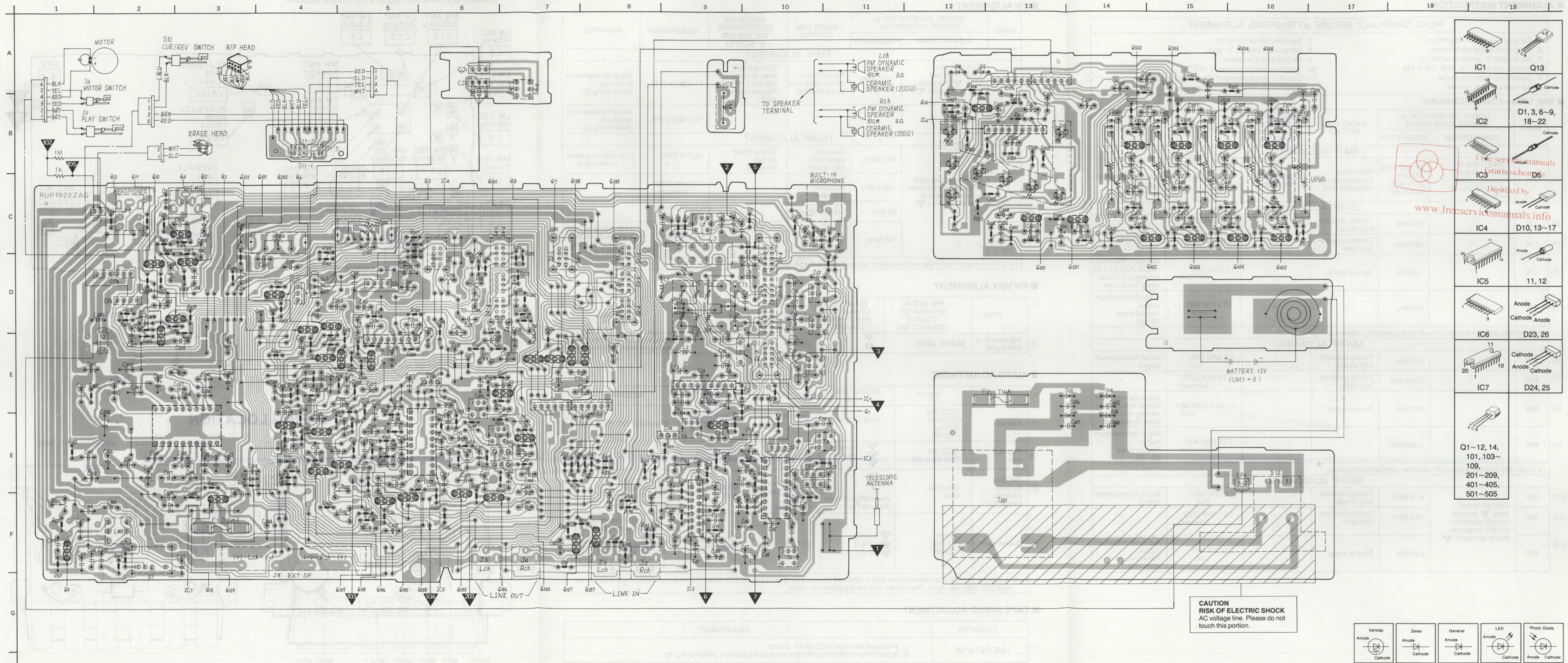
Numbering System of Capacitor

ECKD	1H	102	Z	F
Type	Voltage	Value (1000 pF)	Tolerance	Peculiarity
ECEA	50	M	R47	
Type	Voltage	Peculiarity	Value (0.47 μ F)	

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
ECEA: Electrolytic	OJ : 6.3 V	2H : 500 V DC	C : $\pm 0.25\%$ pF
ECCD: Ceramic	1A : 10 V	1 : 100 V	J : $\pm 5\%$
ECKD: Ceramic	1C : 16 V	DKC : 400 V AC	K : $\pm 10\%$
EQQM: Polyester	1E : 25 V		Z : $+80\%$, -20%
	1H : 50 V		
ECQP: Polypropylene	1V : 35 V		P : $+100\%$, -0%
	50 : 50 V		
ECET: Electrolytic			
ECEA□□□□: Non Polar Electrolytic	25 : 25 V		
	16 : 16 V		
QCU □: Ceramic (Chip Type)			
ECUX: Ceramic (Chip Type)			

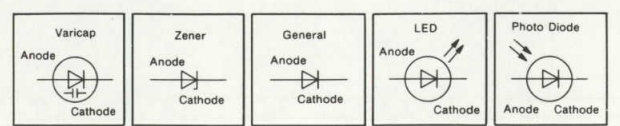
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CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM FOR MODEL RX-C41L



	IC1		Q13
	IC2		D1, 3, 6-9, 18-22
	IC3		D5
	IC4		D10, 13-17
	IC5		11, 12
	IC6		D23, 26
	IC7		D24, 25
	Q1~12, 14, 101, 103~109, 201~209, 401~405, 501~505		

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



MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT					
1. Set volume control to maximum.			7. Set dolby NR switch to off.		
2. Set graphic equalizer to center.			8. Set function selector to radio.		
3. Set Mode/B.P. switch to MONO/II.			9. Set fine tuning to center.		
4. Set band switch to LW, MW, SW or FM.			10. Set power source voltage to 12 V DC.		
5. Set balance control to center.			11. Output of signal generator should be no higher than necessary to obtain an output reading.		
6. Set tape switch to normal.					

■ MW, LW and SW ALIGNMENT

BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
	CONNECTIONS	FREQUENCY				
AM-IF ALIGNMENT						
(1) AM	Fashion loop of several turns of wire and radiate signal into loop of receiver.	(470 kHz [E]) 455 kHz 30% Mod. at 400 Hz	Point of non-interference. (on/ about 600 kHz)	Output meter across voice coil.	T3 (AM IFT)	Adjust for maximum output.
LW-RF ALIGNMENT						
(2) LW	"	136 kHz	Tuning capacitor fully closed.	"	L4 (LW OSC Coil)	"
(3) LW	"	297 kHz	Tuning capacitor fully open.	"	CT4 (LW OSC Trimmer)	"
(4) LW	"	145 kHz	Tune to signal.	"	(* 1) L3 (LW ANT Coil)	Adjust for maximum output. Adjust L3 by moving coil bobbin along ferrite core.
(5) LW	"	285 kHz	"	"	CT3 (LW ANT Trimmer)	Adjust for maximum output. Repeat steps (2)~(5).
(* 1) Cement antenna bobbin with wax after completing alignment.						
MW-RF ALIGNMENT						
(6) MW	"	511 kHz	Tuning capacitor fully closed.	"	L5 (MW OSC Coil)	Adjust for maximum output.
(7) MW	"	1,650 kHz	Tuning capacitor fully open.	"	CT6 (MW OSC Trimmer)	"
(8) MW	"	550 kHz	Tune to signal.	"	(* 2) L9 (MW ANT Coil)	Adjust for maximum output. Adjust L9 by moving coil bobbin along ferrite core.
(9) MW	"	1,500 kHz	"	"	CT5 (MW ANT Trimmer)	Adjust for maximum output. Repeat steps (6)~(9).
(* 2) Cement antenna bobbin with wax after completing alignment.						
SW-RF ALIGNMENT						
(10) SW	Connect to test point ▼ through ceramic capacitor (10 pF). Negative side to test point ▼.	5.75 MHz	Tuning capacitor fully closed.	"	L6 (SW OSC Coil)	Adjust for maximum output.
(11) SW		18.8 MHz	Tuning capacitor fully open.	"	CT7 (SW OSC Trimmer)	"
(12) SW		5.9 MHz	Tune to signal.	"	L7 (SW ANT Coil)	Adjust for maximum output. Repeat steps (10)~(12).

■ FM ALIGNMENT

BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS	
	CONNECTIONS	FREQUENCY					
FM-IF ALIGNMENT							
(1)	FM	High side thru. 0.001 μ F to test point ▼, Negative side to test point ▼.	10.7 MHz SWP.)	Point of non-interference. (on/ about 90 MHz)	Connect vert. amp. of scope to test point ▼. Negative side to earth.	T1 (FM 1st IFT)	Adjust for maximum amplitude. (Refer to fig. 2).
(2)	FM	"	"	"	"	T2 (FM 2nd IFT)	Adjust for maximum amplitude. (Refer to fig. 3).
FM-RF ALIGNMENT							
(3)	FM	Connect to test point ▼ through FM dummy antenna. Negative side to test point ▼.	86.2 MHz	Variable capacitor fully closed.	Output meter across voice coil.	L2 (FM OSC Coil)	(* 3) Adjust for maximum output.
(4)	FM		109.2 MHz	Variable capacitor fully open.	"	CT2 (FM OSC Trimmer)	"
(5)	FM		90 MHz	Tune to signal.	"	L1 (FM ANT Coil)	"
(6)	FM		106 MHz	"	"	CT1 (FM ANT Trimmer)	(* 3) Adjust for maximum output. Repeat steps (3)~(6).
(* 3) Three output responses will be present; proper tuning is the center frequency.							

■ FM MPX ALIGNMENT

ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
(1) Adjustment of pilot signal.	98 MHz, 60 dB	▼ ... (+) ▼ ... (-)	VR301	19 kHz	Adjust VR1, for 19 kHz ($\pm$ 100 Hz) reading on electronics counter.

■ AUDIO ADJUSTMENT

ITEM	INPUT	MEASUREMENT POINT	SPECIFICATION	ADJUSTMENT POINT	REMARKS
(1) Azimuth	QZZCRD/ QZZCFM (8 kHz, -20 dB)	LINE OUT or SP	Maximum (* 4) output	Azimuth screw (Refer to Fig. 4.)	Playback (FWD, REV) mode
(2) Playback gain	QZZCFM (315 Hz, 0 dB)	▼102 ... (Lch) ▼103 ... (Rch) ▼104 ... (-)	420 $\pm$ 40 mV	VR101 (Lch) VR201 (Rch)	Playback (FWD, REV) mode
(3) Rec bias current (Voltage, frequency)	Use CrO ₂ tape.	▼105 ... (+) ▼106 ... (-)	CrO ₂ ... 21.0 $\pm$ 0.5 mV (64.0 $\pm$ 0.5 kHz) Normal... 16.5 $\pm$ 1 mV	VR302 (L301)	Record mode Tape selector... CrO ₂ —Normal Beat proof... 1
(4) Overall gain	Line In f=1 kHz, -24 dB	▼102 ... (Lch) ▼103 ... (Rch) ▼104 ... (-)	0 $\pm$ 1 dB	VR102 (Lch) VR202 (Rch)	1. Record the prescribed input signal and read the output level. 2. Using the output level in (1) as the 0 dB level, adjust it so that the output during playback is 0 $\pm$ 1 dB.
(* 4) Adjust the azimuth adjustment screw during repeated forward and reverse playback to obtain the maximum head azimuth alignment with both channels equal. Then screw-lock the adjustment in place.					

■ TAPE SPEED ADJUSTMENT

COUNTER	ADJUSTMENT
(1) LINE OUT or SP	1. Play back test tape (QZZCWAT, 3 kHz). 2. Adjust VR until 3000 Hz $\pm$ 90 Hz is read on the counter. (Refer to Fig. 5)

■ ALIGNMENT POINT

* Please refer to Schematic Diagram which is located test points.

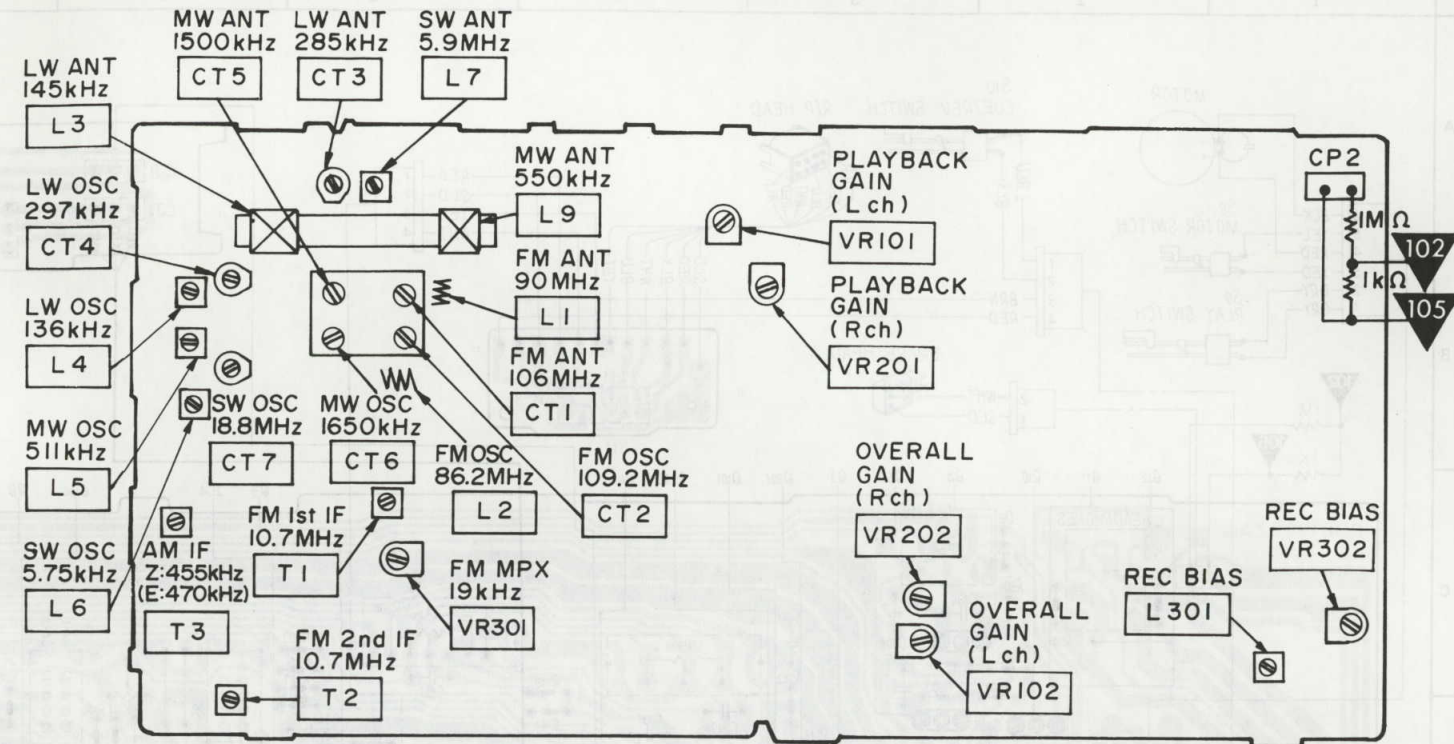


Fig. 1

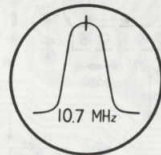


Fig. 2

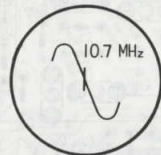


Fig. 3

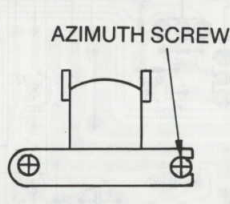


Fig. 4

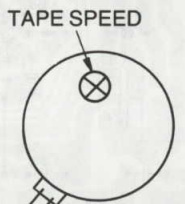
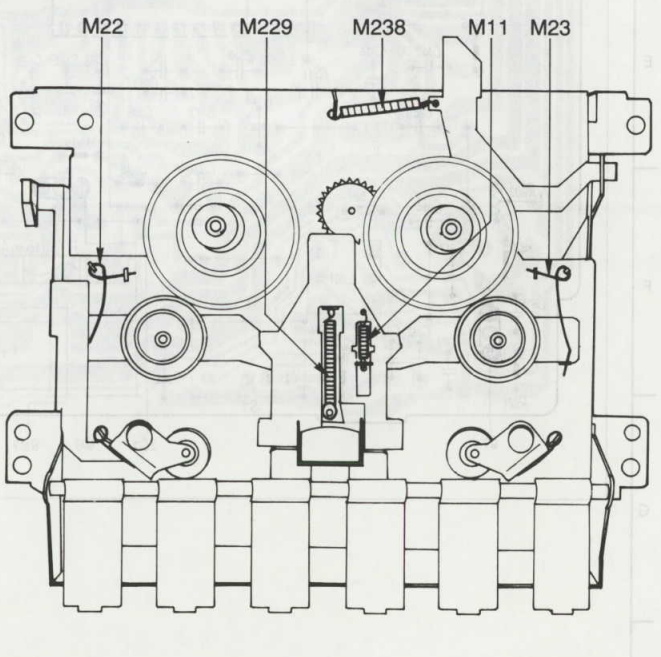
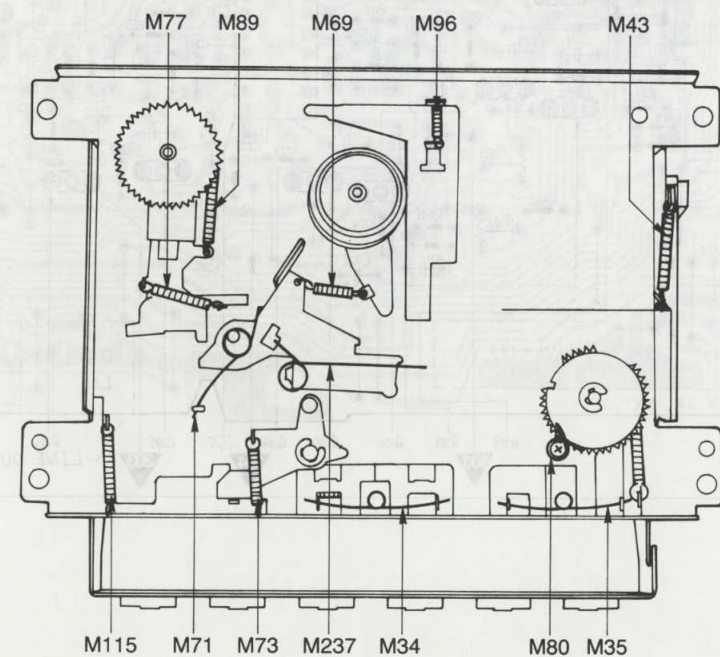
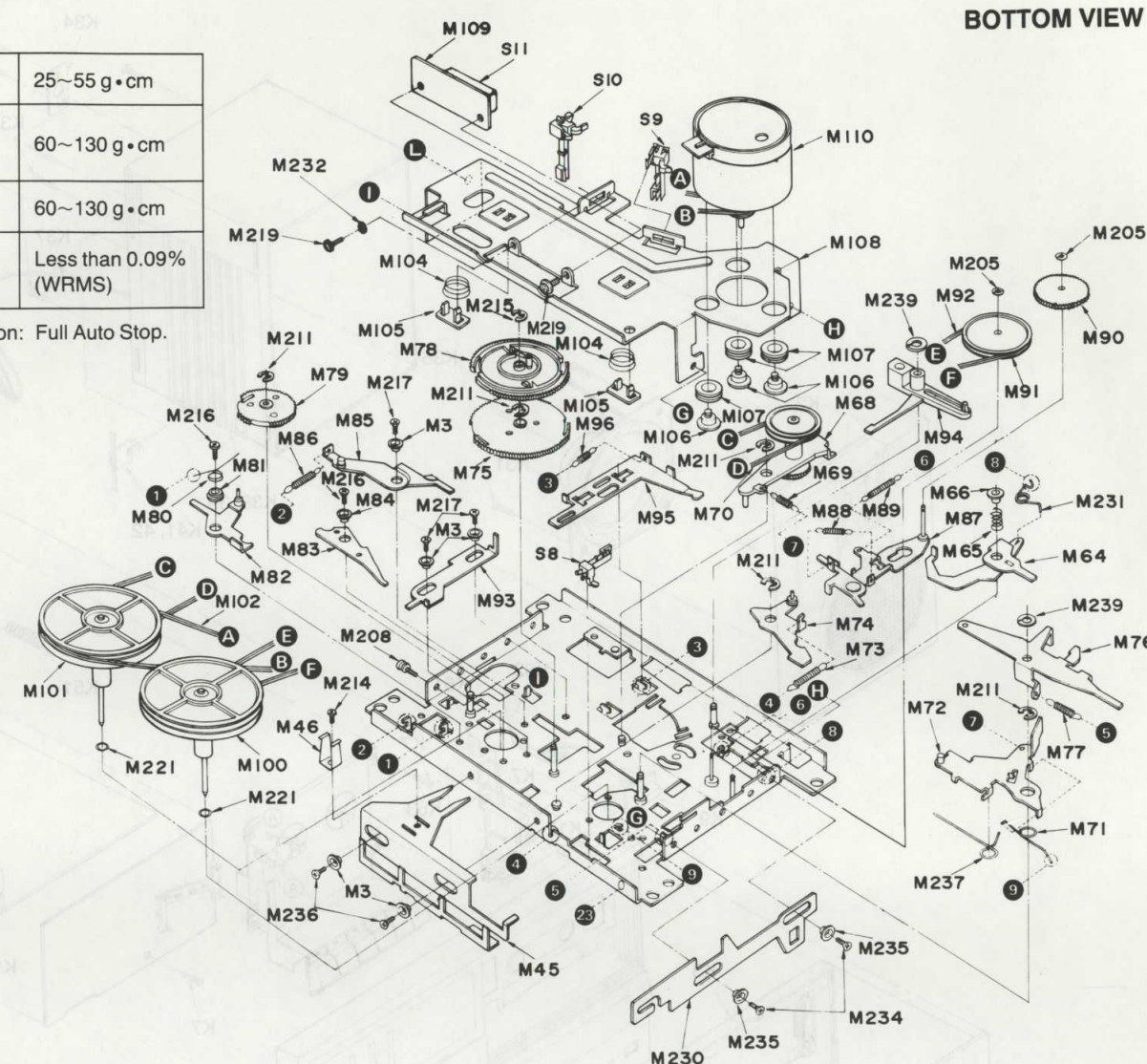


Fig. 5

SPRING LOCATION

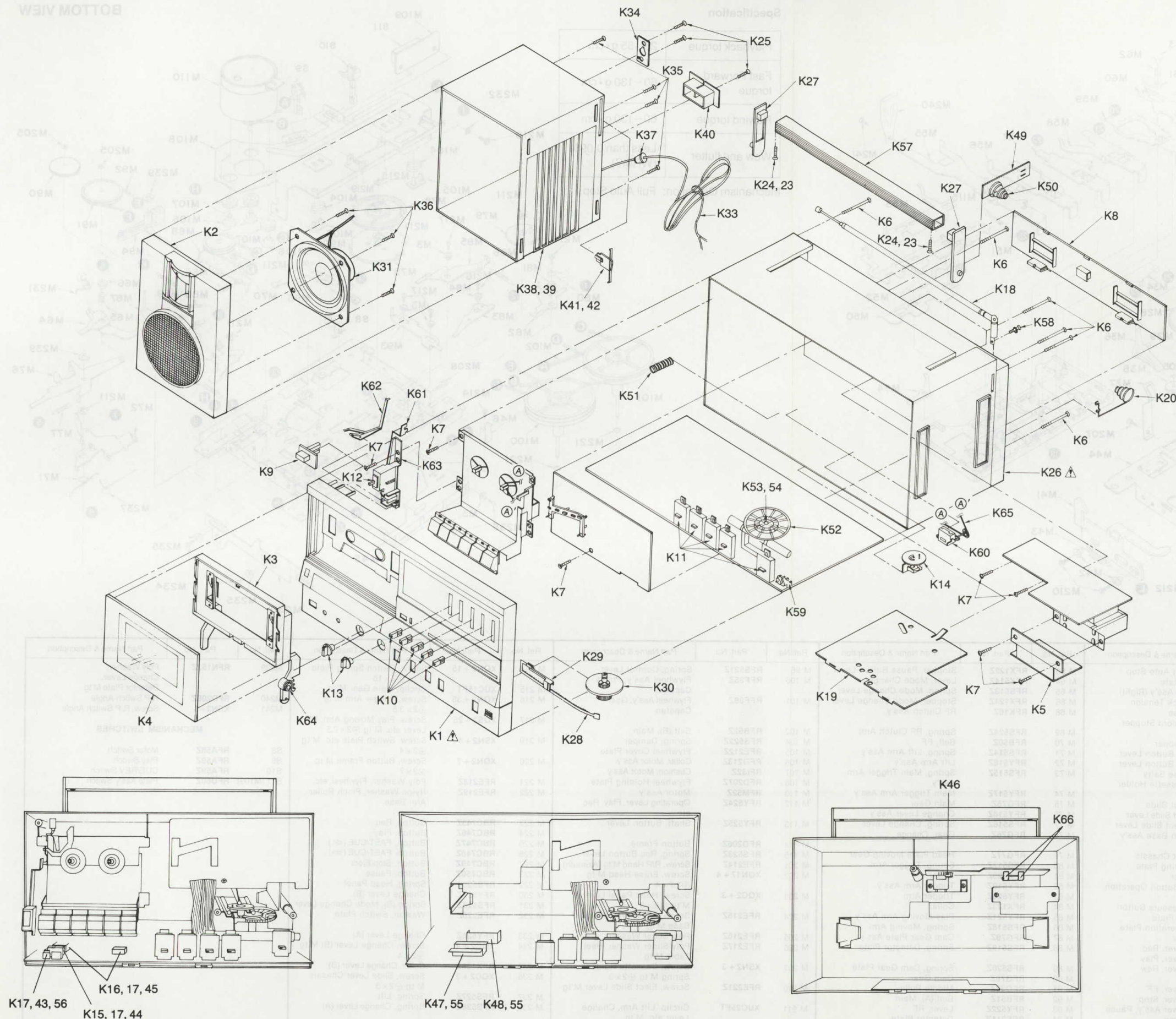


BOTTOM VIEW



— 16 —

CABINET PARTS LOCATION



REPLACEMENT PARTS LIST

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.

Ref. No.	Part. No.	Part Name & Description
CABINET PARTS		
K1	RYMXC41LZ	Front Cabinet Ass'y
K1	RYMXC41LZE	Front Cabinet Ass'y
K2	RYM1XC41LZ	Speaker Grille Ass'y
K3	RYQXC41LZ	Cassette Holder Ass'y
K4	RYPXC41LZ	Cassette Panel Ass'y
K5	RMC1007Z	Shield Plate
K6	XTV3+45G	Screw, Rear Cabinet M'tg
K7	XTV3+12G	Screw, Mechanism, Power Transformer, etc M'tg
K8	RKK244Y1	Battery Cover
K9	RBC742Z	Direction Button
K10	RBD248Y	Knob, Graphic Equalizer
K11	RBD313Z	Knob, Switch
K12	RBD326Z	Knob, Reverse Mode
K13	RBS193Z	Knob, Volume
K14	RBT234Z	Knob, Fine Tuning
K15	RJS4L3Z	Socket (4 pin)
K16	RJS6L3Z	Socket (6 pin)
K17	RJT707Z	Terminal
K18	XEARR225EAK	Telescopic Antenna
K19	RMC1006Z	Shield Panel
K20	RJC931Z	Battery Terminal
K23	XWG3	Washer
K24	XTS3+10B	Screw, Handle $\oplus$ 3x10
K25	XTV3+12GFY	Screw, Bracket, Holder
K26	RYFXC41LZ	Rear Cabinet
K26	RYFXC41LZE	Rear Cabinet Ass'y
K27	RKX255Y	Arm, Handle
K28	RDE143Z	Rack
K29	RDP288Z	Dial Pointer
K30	RBT235Z	Knob, Tuning
K31	EAS10P239S	Speaker, Woofer
K33	RJE147Z	Speaker Cord
K34	RUL661Z	Bracket
K35	XTN3+20B	Screw, Speaker Box
K36	XTV3+8G	Screw, Speaker
K37	RHG3011Z	Bushing, Speaker Cord
K38	RKF765Z1	Speaker Box (L)
K39	RKF765Y1	Speaker Box (R)
K40	RKE512Z	Holder, Speaker Cord
K41	RGE76Z	Stopper (R)
K42	RGE76Y	Stopper (L)
K43	RJP2G4Y	Plug (2 Pin)
K44	RJP4G4Y	Plug (4 Pin)
K45	RJP6G4Y	Plug (6 Pin)
K46	RJS2T2Z	Socket (2 Pin)
K47	RMV185Y	Heat Sink (for IC7)
K48	RMV189Z	Heat Sink (for Q13)
K49	RUP1922Z	Circuit Board
K50	RJC511Z	Battery Spring
K51	RUQ12Z	Spring, Earth
K52	RDG5739Z	Gear, Drum
K53	XSN26+6	Screw, Drum
K54	XWA26B	Washer, Drum
K55	XTV3+8BFN	Screw, Heat Sink M'tg
K56	RJS2L3Z	Socket (2 Pin)
K57	RKX296Z1	Handle
K58	XYN3+F12FY	Screw, Rod Ant. M'tg
K59	RJM157Z	Microphone
K60	RSE117Z	Counter
K61	RUA629Z	Direction Angle
K62	RUB382Z	Direction Lever
K63	RUB383Z	Reverse Mode Lod
K64	RDG5782Z	Dumper Gear
K65	RDV34Z	Belt, Counter
K66	RJF28Z	Fuse Holder
ACCESSORIES		
A1	RJAA6Z	Power Cord, AC
A1	RJAA7Z	Power Cord, AC
A2	RQX4604Z	Instruction Book
PACKINGS		
P1	RPK2024Z	Gift Box
P2	RPN9497Z	Pad
P3	RPP624Z	Poly Cover

...For All European areas except United Kingdom & Germany.
...For United Kingdom

Service Manual

Radio Cassette
RX-C41L
(Black)

Supplement - 1

Portable Stereo Component System

- Please use this manual together with the service manual for model No. RX-C41L [Z]/[E] order No. GAD85022232C2 and RX-C41L [G] order No. GAD85032239A2.
- This service manual indicates the main differences between; RX-C41L [Z]/[E]/[G] and supplement-1.

This is the Service Manual for the following areas.

- [Z] ...For all European areas except United Kingdom & Germany.
- [E] ...For United Kingdom.
- [G] ...For F.R. Germany.

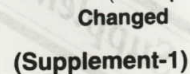
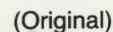
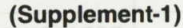
CHANGE OF PARTS

■ PARTS COMPARISON TABLE

Ref. No.	Parts Name and Description	Part Number		Remarks
		RX-C41L [Z] [E] [G] (Original)	RX-C41L [Z] [E] [G] (Supplement-1)	
C19	Capacitor (50 V 18 pF)	ECCD1H150KC	ECCD1H180JC	
C131, 231	Capacitor (50 V 0.1 μF)	—	ECEA1HU0R1	Added
C303	Capacitor (6.3 V47 μF)	ECEA1CU100	ECEA0JU470	
C327	Capacitor (50 V 2.2 μF)	ECEA1HUR33	ECEA1HU2R2	
C331	Capacitor (16 V 0.068 μF)	ECFT1E473MD	ECFT1C683MD	
C348	Capacitor (50 V 1 μF)	—	ECEA1HU010	Added
R15	Resistor (4.7 kΩ)	ERDS2TJ822	ERDS2TJ472	
R114, 214	Resistor (12 kΩ)	ERDS2TJ183	ERDS2TJ123	
R129, 229	Resistor (33 kΩ)	ERDS2TJ473	ERDS2TJ333	
R142, 143, 242, 243	Resistor (15 kΩ)	—	ERDS2TJ153	Added
R145, 245	Resistor (2.2Ω)	ERDS2TJ1R0	ERDS2TJ2R2	
R342	Resistor (56Ω)	ERDS2TJ560	—	Deleted ([E] only)
R346	Resistor (100Ω)	ERG2ANJP101S	ERG3SJ101	
R354	Resistor (2.2 kΩ)	ERDS2TJ102	ERDS2TJ222	
VC1~4	Variable Capacitor (CT1, 2, 5, 6)	RCV4RC2RA	RCV4RC2R1A	
K67	Shield Plate	—	RMC795Y	Added
K68	Shield Cover	—	RMC163	Added
P4	Spacer	—	RPN4736Z	Added
M5	Head Base	RFU57Z	RFU63Z	
M9	Plate, Erase Head	RFY501Z	—	Deleted
M11	Spring, Erase Head Plate	RFS499Z	—	Deleted
M202	Screw, Erase Head M'tg $\oplus$ 1.7×4	XQN17+4	XSN2+10	

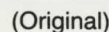
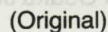
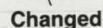
Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan



A shield cover (K68) has been added in three places (capping T2, T3, and CF2 and shorted by a jumper wire) and one shield plate (K67) (soldered to T3 and C29 grounds on the solder side of the circuit board) have been added to enhance RX-C41L performance.

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



Service Manual

Supplement

Portable Stereo Component System

Radio Cassette

RX-C41 RX-C41L

(Silver)
(Black)

Please use this manual along with the original service manuals for the below models.

Model No.	Order No.
RX-C41	[M/C] ...GAD85052250C1
RX-C41L	[Z/E] ...GAD85022232C2/ [G] ...GAD85034439A2

This is the Service Manual for the following areas.

- [M] ...For U. S. A.
[C] ...For Canada.
[Z] ...For all European area except United Kingdom
[E] ...For United Kingdom
[G] ...For F. S. Germany

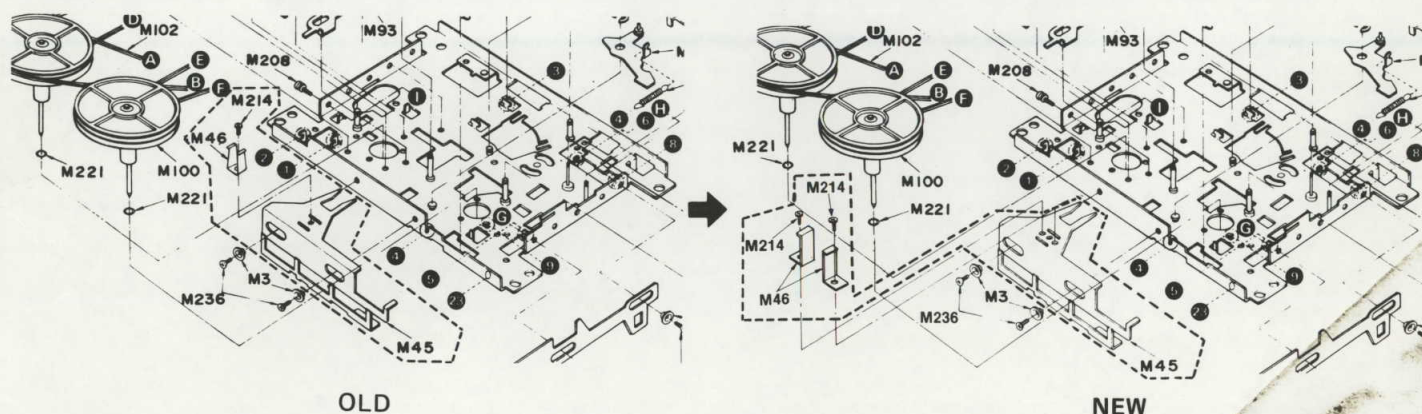
■ A part of mechanism [model RX-C41] is modified.

Please use following Kit for replacement, and it is not interchangeable between Old and New.

■ Kit No. RZZXC41

■ Kit Includes (Kit include 3 kind of NEW parts are as follows.)

Ref. No.	Description	Part Numbers		Remarks
		OLD	NEW	
M45	Slide leve chassis	RFY505Z	RFY505Z	
M46	Switch Spring Plate	RFD205Z	RFD224Z	
M214	Screw, Switch Spring Plate	XQN2+15	RFE324Z	



OLD

NEW

National / Panasonic

Matsushita Services Company
50 Meadowland Parkway,
Secaucus, New Jersey 07094

Panasonic Sales Company,
Division of Matsushita Electric
of Puerto Rico, Inc.
Ave. 65 De Infanteria, KM 9.7
Victoria Industrial Park

Panasonic Hawaii Inc.
91-238 Kauhū St. Ewa Beach
P.O. Box 774
Honolulu, Hawaii 96808-0774

Matsushita Electric
of Canada Limited
5770 Ambler Drive, Mississauga,
Ontario, L4W 2T3

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