ORDER NO. GAD85042244C2

Service Manual

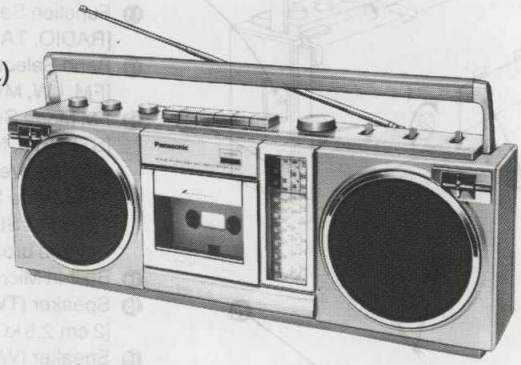
Radio Cassette

FM-LW-MW-SW
Stereo Radio Cassette
Recorder

RX-4933L/RX-4922L

(Black)
(Silver)

(Model RX-4933L)



(Model RX-4922L)

This is the Service Manual for the following areas.

[Z]...For all European areas except United Kingdom and Germany.

[E]...For United Kingdom.

[F]...For France.

[I]...For Italy.

Color Variation

Area	Color
[Z] [E] [F] [I]	Black
[Z]	Silver

The only differences between the RX-4933L and the RX-4922L are in the front cabinet, tweeter and built-in microphone (stereo/monaural). For details, refer to the parts list.

■ SPECIFICATIONS

General:

Power Requirement:	AC; [Z], [F], [I]... 220 V, 50 Hz [E]... 240 V, 50 Hz (only for U.K.) Battery; 9 V (Six "D" Size Flashlight Batteries)
Power Consumption:	14 W (AC only)... RX-4922L only 13 W (AC only)... RX-4933L only
Power Output:	7 W (3.5 W×2)... RMS (max.) 6.5 W (3.25 W×2)... MPO (music)
Speaker:	12 cm PM Dynamic Speaker (3Ω) 2 cm Ceramic Speaker (2.5 kΩ)... RX-4933L only
Output:	HEADPHONES; 32Ω
Dimensions:	475 mm (W)×183 mm (H)×132 mm (D)
Weight:	2.7 kg without batteries

Radio Section:

Radio Frequency Range:	FM; 87.5~108 MHz LW; 150~285 kHz (2000~1060 m) MW; 520~1610 MHz (577~186 m) SW; 5.9~18 MHz (50.8~16.7 m)
Intermediate Frequency:	FM; 10.7 MHz [Z], [F], [I]... AM (LW/MW/SW); 455 kHz [E]... AM (LW/MW/SW); 470 kHz
Sensitivity:	FM; 3.5 µV (−3 dB Limit sense) LW; 141 µV/m/50 mW output MW; 112 µV/m/50 mW output SW; 8.9 µV/50 mW output

Tape Deck Section:

Frequency Response:	80~8,000 Hz (with normal tape)
Recording system:	DC bias, MAGNET erase
Tape Speed:	4.8 cm/s, (1⅞ ips)
Track System:	4-track 2 channel stereo recording and playback

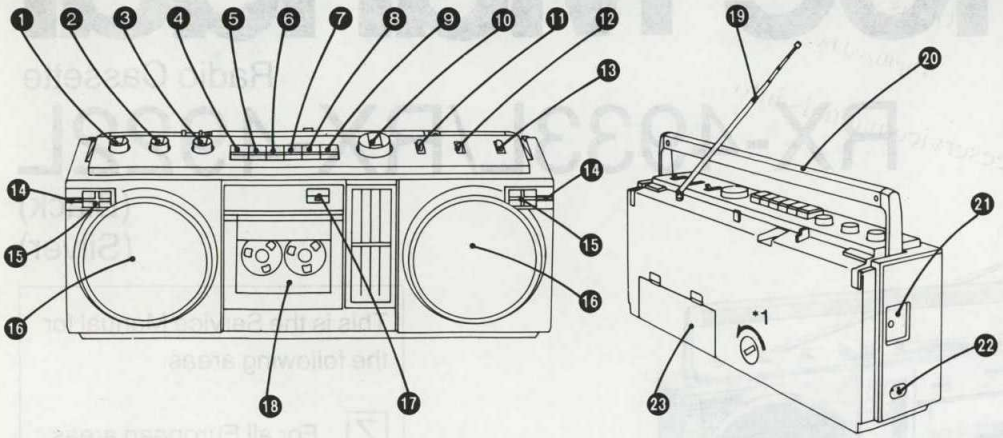
Design and specifications are subject to change without notice.

Panasonic

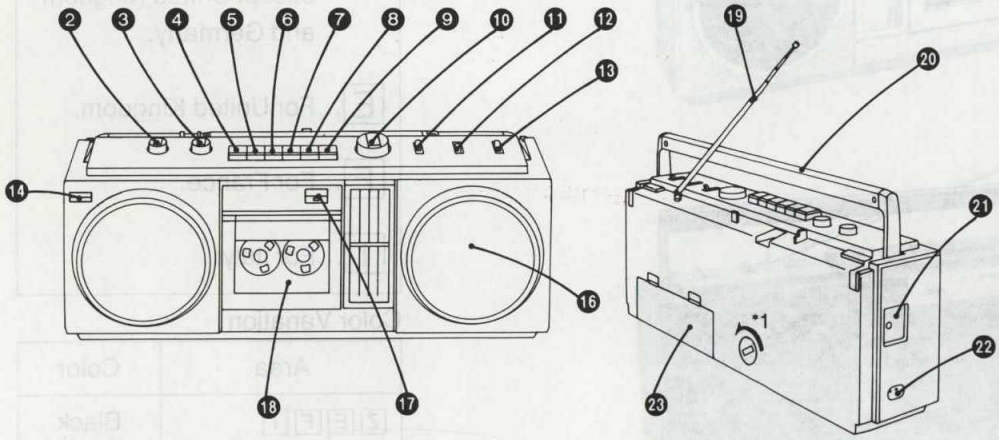
Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

LOCATION OF CONTROLS AND COMPONENTS

(RX-4933L)



(RX-4922L)



1. Tone Control (TONE)... RX-4933L
2. Balance Control (BALANCE)
3. Volume Control (VOLUME)
4. Pause Button (PAUSE)
5. Fast Forward Button (FF)
6. Rewind Button (REWIND)
7. Playback Button (PLAY)
8. Record Button (RECORD)
9. Stop/Eject Button (STOP/EJECT)
10. Tuning Control (TUNING)
11. Function Selector (SELECTOR) [RADIO, TAPE/POWER OFF]
12. Band Selector (BAND) [FM, LW, MW, SW]
13. FM Mode Selector (FM MODE) [STEREO, MONORAL]
    - To receive FM stereo broadcasts, set the FM Mode Selector to "STEREO". The FM Stereo Indicator will light during stereo broadcasts.
14. Built-in Microphones (MIC)
15. Speaker (TWEETER) [2 cm 2.5 kΩ]... RX-4933L
16. Speaker (WOOFER) [12 cm 3Ω]
17. FM Stereo Indicator (FM STEREO)
18. Cassette Compartment
19. Telescopic Antenna
20. Handle
21. Headphone Jack (PHONES) [Ø3.5, 32Ω]
22. AC Socket (AC IN ~)

*1 When the tape is caught in the pinchi roller, etc. Release the tape by turning the pulley on the motor with the screwdriver in the direction of the arrow.

23. Battery Compartment

DISASSEMBLY INSTRUCTIONS

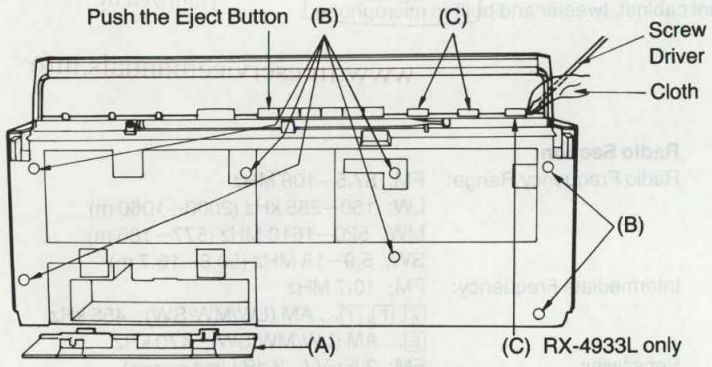


Fig. 1

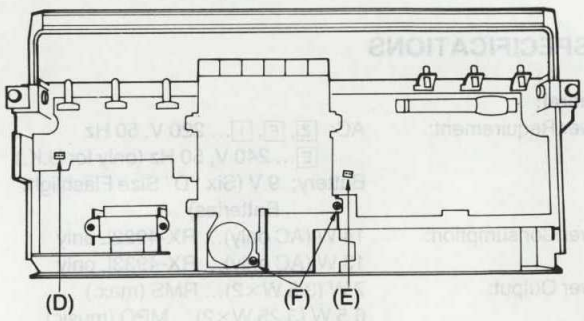


Fig. 2

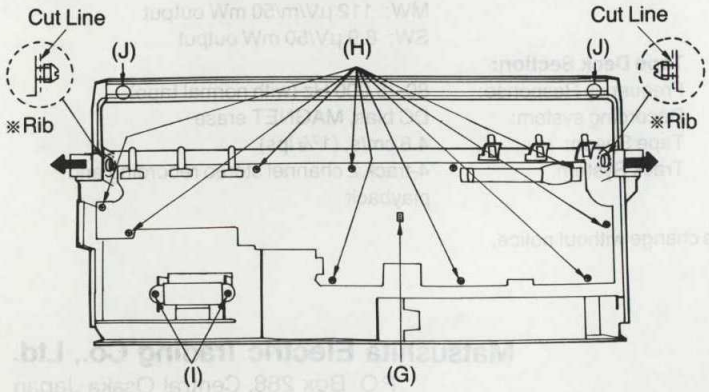


Fig. 3

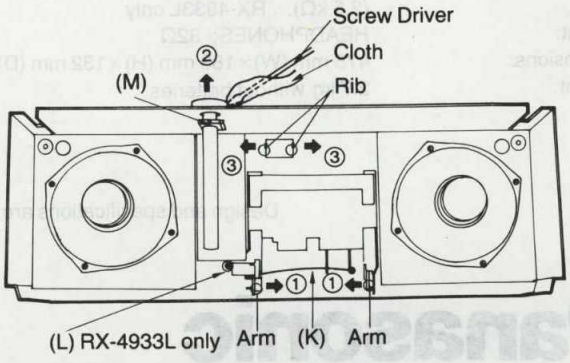
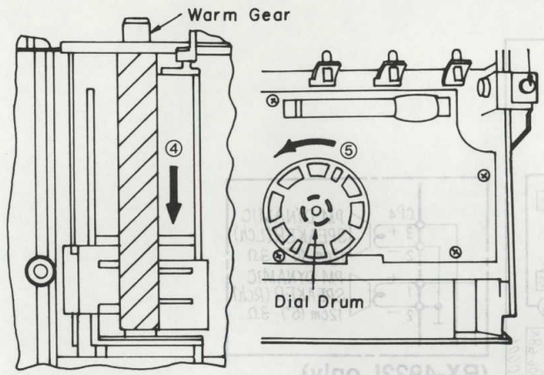


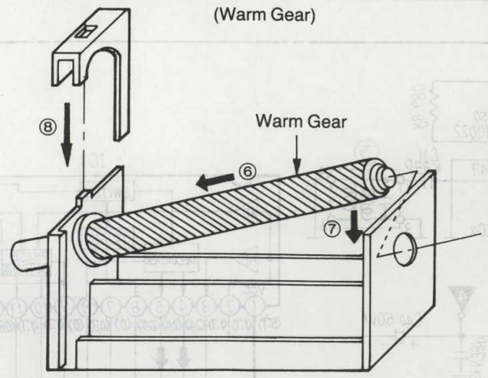
Fig. 4

■ HOW TO REPLACE



- To lower the pointer to the lowest position, turn the worm gear in the direction of arrow ④.
- Turn the dial drum in the direction of arrow ⑤.

Fig. 5



- Insert the Warm Gear in the direction of arrow ⑥ and push Warm Gear in the direction of arrow ⑦.
- Insert the Warm Gear Bracket in the direction of arrow ⑧.

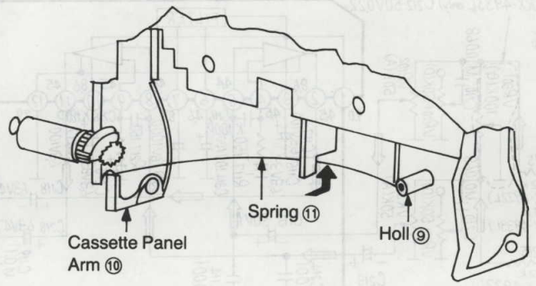
Fig. 6

(Gear and Gear Holder)
[RX-4933L only]

- During installation simultaneously fit in A and A', B and B'.
- Fix the Gear Holder by the screw.

Fig. 7

(Cassette Spring)



- Insert the spring into the holl ⑨ and hook to the Cassette Panel Arm ⑩.
- Push the Spring in the direction of arrow ⑪ and hook to the rib.

Fig. 8

Ref. No.	Shown in Fig.—.	To remove—.	Remove—.
1	1	Front Cabinet Ass'y (※1, 2)	Battery Cover ..... (A)×1
2	1		Screw (3×35) mm ..... (B)×7
3	1		Knob [RX-4933L only] ..... (C)×3
3	1		Knob [RX-4922L only] ..... (C)×2
4	1		Push the Eject Button
5	2		Socket (3 pin) ..... (D)×1
6	2		Socket (2 pin) ..... (E)×1
7	2	Mechanism	Screw (3×12) mm ..... (F)×2
8	3		Socket (3 pin) ..... (G)×1
9	3	Main Circuit Board	Screw (3×12) mm ..... (H)×12
10	3	Power Circuit Board	Screw (3×12) mm ..... (I)×12
11	3	Handle	Screw (3×8) mm ..... (J)×2
12	4	Cassette Panel	Spring ..... (K)×1
13	4		Screw (3×12) mm [RX-4933L only] ..... (L)×1
14	4		To remove Cassette Panel, push the arm in the direction of arrow ①.
15	4	Warm Gear	Bracket ..... (M)×1
16	4		Remove the Knob in the direction of arrow ②.
17	4	LED Circuit Board	Remove the LED Circuit Board in the direction of arrow ③.

※1. Turn the dial drum to fully counter-clockwise. ※2. Turn the tuning shaft to fully counter-clockwise.
※3. To remove the handle, first remove two screw (J) and open the handle arm as shown in direction of the arrow in Fig. 3.
※4. To remove the handle arm, cut the rib of handle arm.

MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

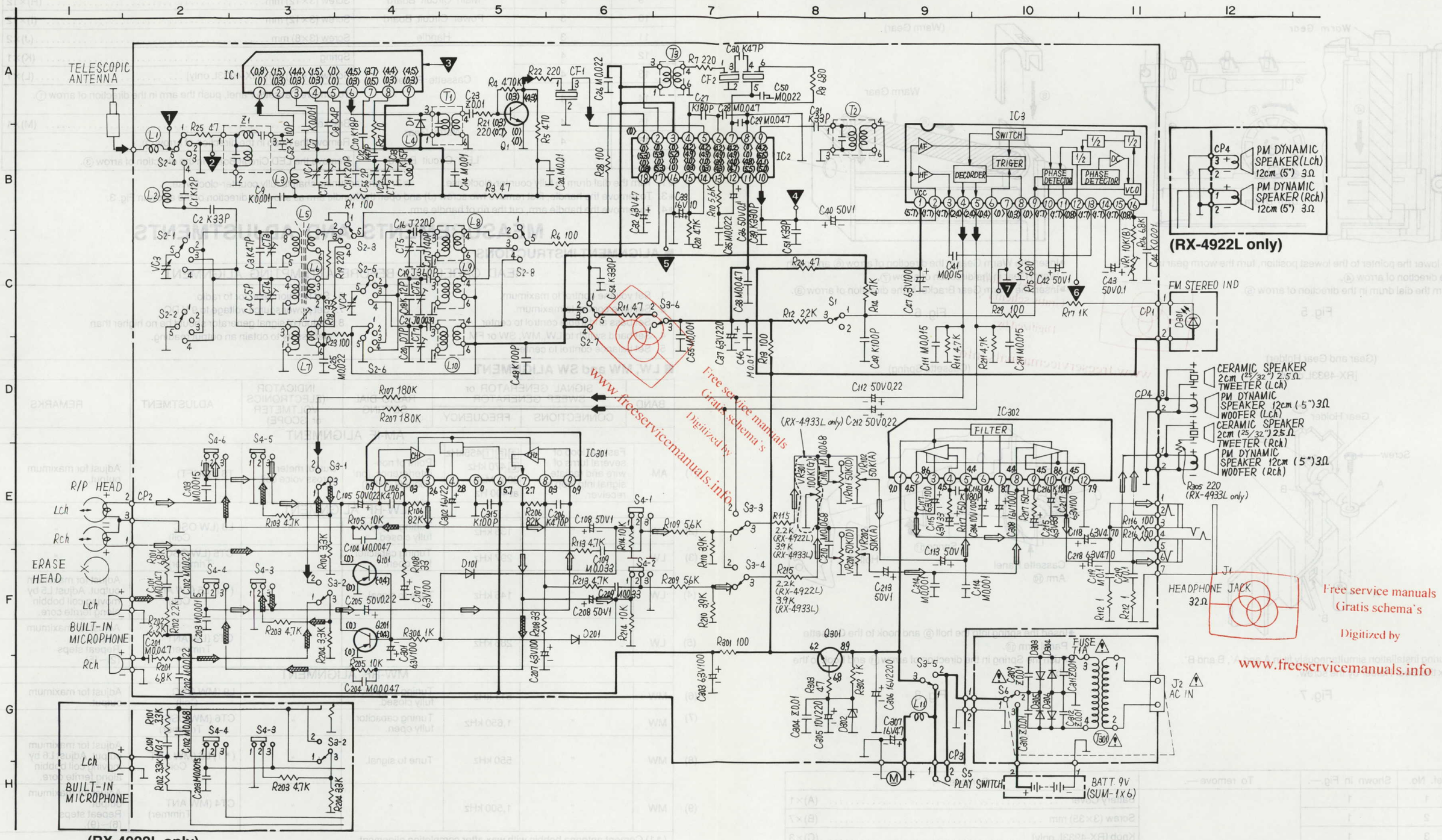
1. Set volume control to maximum.
2. Set tone control to maximum.
3. Set bass and treble control to center.
4. Set band switch to LW, MW, SW or FM.
5. Set balance control to center.
6. Set function selector to radio.
7. Set power source voltage to 9 V DC.
8. Output of signal generator should be no higher than necessary to obtain an output reading.

■ LW, MW and SW ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
			AM-IF ALIGNMENT				
(1)	AM	Fashion loop of several turns of wire and radiate signal into loop of receiver.	Z F I 455kHz E 470 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.	〃	L8 (LW OSC Coil)	〃
(3)	LW	〃	297 kHz	Tuning capacitor fully open.	〃	CT5 (LW OSC Trimmer)	〃
(4)	LW	〃	145 kHz	Tune to signal.	〃	(*1) L5 (LW ANT Coil)	Adjust for maximum output. Adjust L5 by moving coil bobbin along ferrite core.
(5)	LW	〃	285 kHz	〃	〃	CT3 (LW ANT Trimmer)	Adjust for maximum output. Repeat steps (2)~(5).
			MW-RF ALIGNMENT				
(6)	MW	〃	511 kHz	Tuning capacitor fully closed.	〃	L9 (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.	〃	(*1) L6 (MW ANT Coil)	Adjust for maximum output. Adjust L6 by moving coil bobbin along ferrite core.
(9)	MW	〃	1,500 kHz	〃	〃	CT4 (MW ANT Trimmer)	Adjust for maximum output. Repeat steps (6)~(9).
	(*1) Cement antenna bobbin with wax after completing alignment.						
			SW-RF ALIGNMENT				
(10)	SW	Connect to test point ▼1 through ceramic capacitor (10 pF) Negative side to test point ▼2.	5.75 MHz	Tuning capacitor fully closed.	〃	L10 (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).

▼ Be sure to fold at the (▼) mark so that mark is on the outside.

SCHEMATIC DIAGRAM MODEL RX-4933L/RX-4922L



- DC voltage measurement are taken with electronics voltmeter from negative terminal of battery.
  < >...FM position, ( )...AM position,
  [ ]...Recording position, No mark...Playback position.
- Battery current: No signal ..... 67 mA
  Maximum output (radio) ..... 1000 mA
  Maximum output (tape) ..... 1018 mA

+ Ⓑ Voltage Line
Tape (PLAYBACK) Signal Line
Tape (RECORD) Signal Line
Radio (FM) Signal Line

Notes:

1. S1: FM Mode switch in "MONO" position.
2. S2-1~S2-8: Band switch in "FM" position. (1...SW, 2...MW, 3...LW, 4...FM)
3. S3-1~S3-6: Function switch in "TAPE/OFF" position. (1...TAPE/OFF, 2...RADIO)
4. S4-1~S4-6: Record/playback switch in "playback" position. (1...Playback, 3...Record)
5. S5: Motor ON/OFF switch in "OFF" position.
6. S6: AC/DC IN select switch in "DC IN" position.
7. VR1: VCO oscillator frequency adjust VR.
8. VR101, 201: Tone control.
9. VR102, 202: Volume control.
10. VR301: Balance control.
11. The mark (▼) shows test point e.g.▼=test point 1.
12. 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.	Function Name	Zone
IC1	RVITA7358P	FM FRONT END	A.3
IC2	AN7220A	FM/AM IF AMP. DET. AM OSC. MIX	B.7
IC3	RVIBA1332L	FM MPX	B.10
IC301	AN7310	EQ/PRE AMP	E.5
IC302	RVIBA5406	POWER AMP	D.10
Q1	2SC1675K1	FM IF AMP	A.5
Q101	2SA733-P1	REC AGC	F.4
Q201	2SA733-P1	REC AGC	F.4
Q301	2SC2001K1	REGULATOR	G.8
D1	RVD1N4148	AGC	A.4
D101	RVD1N4148	AGC RECT	F.5
D201	RVD1N4148	AGC RECT	F.6
D301	RVDTLR205 (RX-4922L only)	FM STEREO IND	C.12
D301	LN012176P (RX-4933L only)	FM STEREO IND	C.12
D302	RVDTZ6R8C	REGULATOR	G.8
D303	RVD1SR35	RECT	G.10
D304	RVD1SR35	RECT	G.10
D305	RVD1SR35	RECT	G.10
D306	RVD1SR35	RECT	G.10

REPLACEMENT PARTS LIST

Important safety notice
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Note:

[Z]...For all European areas except United Kingdom
[E]...For United Kingdom
[F]...For France
[I]...For Italy

Part numbers may differ according to shipping destination. Be sure to refer to the below destination codes before ordering replacement parts.

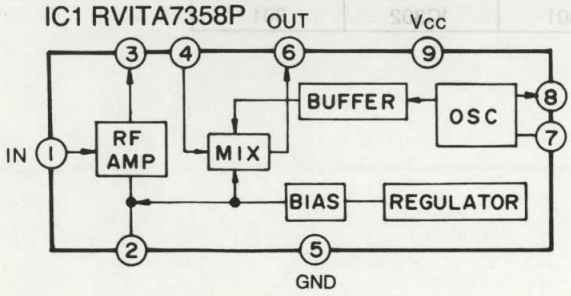
●mark stands for that the parts are supplied in MESA.

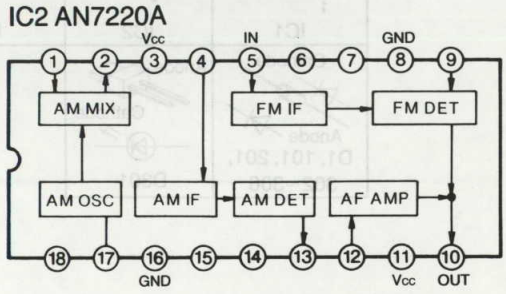
Ref. No.	Part. No.	Part Name & Description
		INTEGRATED CIRCUITS
IC1	**RVITA7358P**	IC
IC2	**AN7220A**	IC
IC3	**RVIBA1332L**	IC
IC301	**AN7310**	IC
●IC302	**RVIBA5406**	IC
		TRANSISTORS
Q1	**2SC1675K1**	Transistor (Si)
Q101,201	**2SA733-P1**	Transistor (Ge)
Q301	**2SC2001K1**	Transistor (Si)
		DIODES & RECTIFIERS
●D1,101,201	**RVD1N4148**	Diode (Si)
D301	**RVDTLR205**	Diode (Si) (RX-4922L only)
D301	**LN012176P**	Diode (Si) (RX-4933L only)
D302	**RVDTZ6R8C**	Diode (Si)
D303,304,305,306	**RVD1SR35**	Diode (Si)
		COILS
L1	**RLQY30S1**	Choke
L2	**RLQY30S4**	Choke
L3	**RLD4Y44**	Antenna Coil, FM
L4	**RLD4Y43**	Oscillator Coil, FM
●L5,6	**RLF6W7**	Antenna Coil, LW/MW
L7	**RLA3B41**	Antenna Coil, SW
L8	**RL01B12**	Oscillator Coil, LW
L9	**RL02B108**	Oscillator Coil, MW
L10	**RL03B87**	Oscillator Coil, SW
●L11	**RLQZG470K**	Choke

Ref. No.	Part. No.	Part Name & Description
		TRANSFORMERS
T1,2	**RLI4B153**	IFT, FM 1st, 2nd
T3	**RLI2B153**	IFT, AM
●T301 [Z][F][I]	**RLT5K3G3A**	Power Transformer !
●T301 [E]	**RLT5K3E2A**	Power Transformer ⚠
		VARIABLE CAPACITORS
VC1,2,3,4	**RCV4RC2RA**	Variable Capacitor/with Trimer Capacitor (CT1, 2, 4, 6)
		TRIMMER CONDENSERS
CT3	**RCVPL30A**	Trimmer Capacitor
CT5	**RCVPL20A**	Trimmer Capacitor
CT7	**RCVPL10A**	Trimmer Capacitor
		VARIABLE RESISTORS
VR1	**EVNK4AA00B14**	Variable Resistor, 10 kΩ (B)
●VR101,201	**EWCVHAF20D54**	Variable Resistor, 50 kΩ (D)
●VR102,202	**EWCUHAF20A54**	Variable Resistor, 50 kΩ (A)
VR301	**EWH7MAF20G15**	Variable Resistor, 100 kΩ (G) (RX-4933L only)

Ref. No.	Part. No.	Part Name & Description
		CERAMIC FILTERS
CF1	**RVFSFE107MAZ**	Ceramic Filter
CF2 [Z][F][I]	**RVFSFZ455B**	Ceramic Filter
CF2 [E]	**QCRZZ470A7W**	Ceramic Filter
		COMPONENT COMBINATION
Z1	**RXABPWB5W**	Component Combination
		SWITCHES
●S1	**RST2A09Z**	Switch, FM Mode
●S2	**RST4H10Z**	Switch, Band
S3	**RST2F11Z**	Switch, Function
S4	**RSH2F08Z**	Switch, Record/Playback
S5	**RFA43Z**	Switch, Play
		JACKS
J1	**RJJ1D27Z**	Jack, Headphone
J2 (S6)	**RJJ1A4Z**	Jack, AC IN ⚠

■ IC BLOCK DIAGRAM





ELECTRICAL PARTS LIST

Numbering System of Resistor

Example

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 ERG: Metal Film ERX: Metal Film ERQ: Fuse Type Metal RRD: Carbon (Chip Type)	10 : ⅛ W J : ±5% 12 : ½ W 25 : ¼ W 1 : 1 W 18 : ⅛ W

Numbering System of Capacitor

Example

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

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
ECEA: Electrolytic ECCD: Ceramic ECKD: Ceramic ECQM: Polyyester ECQP: Polyproylene ECET: Electrolytic ECEA□□□N: Non Polar Electrolytic QCU □: Ceramic (Chip Type) ECUX: Ceramic (Chip Type)	0J : 6.3 V 1A : 10 V 1C : 16 V 1E : 25 V 1H : 50 V 1V : 35 V 50 : 50 V 25 : 25 V 16 : 16 V	2H : 500 V DC 1 : 100 V DKC : 400 V AC	C : ±0.25 pF J : ±5% K : ±10% Z : +80%, −20% P : +100%, −0%

REPLACEMENT PARTS LIST

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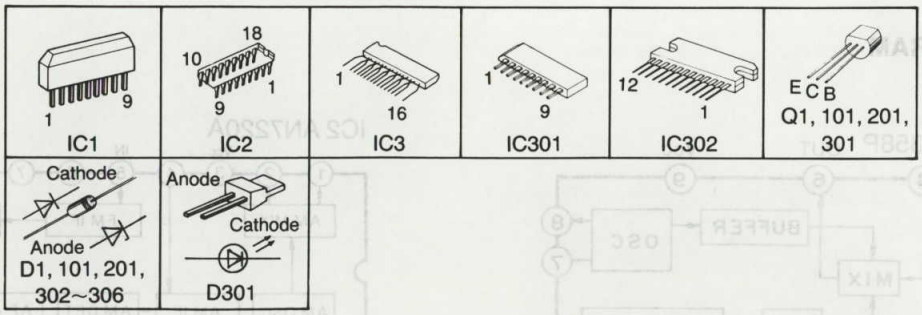
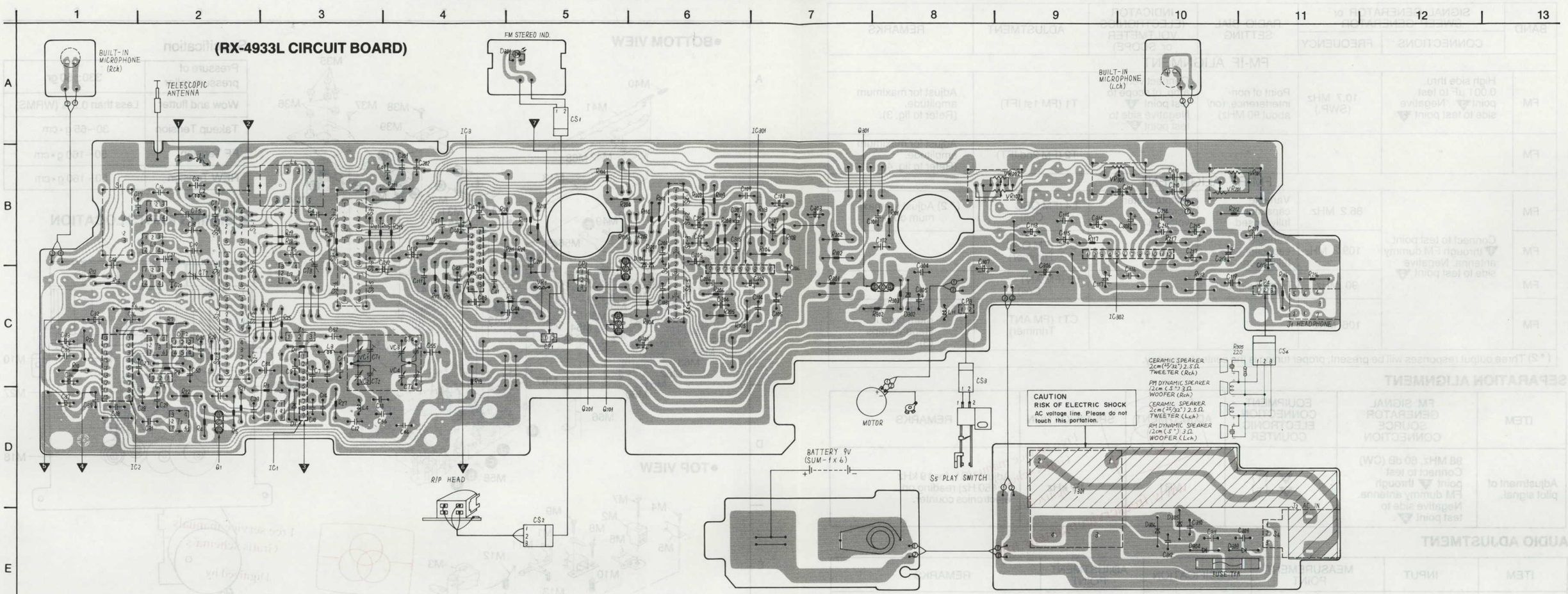
Ref. No.	Part No.
CAPACITORS	
C1	**ECCD1H120K**
C2,31,51	**ECCD1H330K**
C3,12	**ECCD1H470KC**
C4	**ECCD1H050C**
C7,9	**ECKD1H102KB**
C8	**ECCD1H040C**
C10	**ECCD1H180KC**
C11	**ECCD1H200KC**
C13	**ECCD1H150KC**
C14,24,46	**ECKD1H103MD**
C16	**ECQP2A221JZ**
C17	**ECMS05141J**
C18	**ECCD1H120KC**
C19	**ECQP2A361JZ**
C20	**ECCD1H070DC**
C21	**ECQP2A392JZ**
C23,304,309, 310,311,312	**ECKD1H103ZF**
C25,26,35,50	**ECFT1E223MD** (RX-4922L only)
C25,26,35,50, 102,202	**ECFT1E223MD** (RX-4933L only)
C27,116,216	**ECCD1H181K**
C28,29,38	**ECFT1E473MD** (RX-4922L only)
C28,29,38,101, 201	**ECFT1E473MD** (RX-4933L only)
C30	**ECCD1H470K**
C32	**ECEA0JU470**
C33	**ECEA1CU100**
C36,43	**ECEA1HU0R1**
C37	**ECEA0JU221**
C39,54	**ECCD1H331K**
C40,42,108,113, 208,213	**ECEA1HU010**
C41,111,211	**ECFT1E153MD**
C44	**ECQG1H102KZ**
C47,107,117, 207,217,301, 303	**ECEA0JU101**
C48,49,315	**ECCD1H101K**
C52	**ECCD1H100K**
C55	**ECKD1H102MD**
C56	**ECCD1H020C**
C101,119,219	**ECFT1C104MD** (RX-4922L only)
C102,110,210	**ECFT1E683MD** (RX-4922L only)
C103,203	**ECKD1H152MD**
C104,204	**ECKD1H472MD**
C105,112,205, 212	**ECEA1HUR22**
C106,206	**ECKD1H471KB**
C109,209	**ECFT1E333MD**
C110,210	**ECFT1E683MD** (RX-4933L only)
C114,214	**ECKD1H102ZF**
C115,215	**ECEA0JU330**
C118,218	**ECEA0JU471**
C119,219	**ECFT1C104MD** (RX-4933L only)
C302	**ECEA1CU220**
C305	**ECEA1AU221**
C306	**ECEA1CU222**
C307	**ECEA1CF470**
C308	**ECEA1CU102**
C314	**ECEA1AU101**
RESISTORS	
R1,6,13,23,28, 29,116,216,301	**ERD25FJ101**
R3,11,24,25, 303	**ERD25FJ470**
R4	**ERD25TJ474**
R5	**ERD25FJ471**
R7,19,21,22	**ERD25FJ221**
R8,15	**ERD25FJ681**
R10,109,209	**ERD25FJ562**
R12,102,202	**ERD25FJ222** (RX-4933L only)
R12,115,215	**ERD25FJ222** (RX-4922L only)
R14,103,111, 113,203,211, 213	**ERD25FJ472**
R16	**ERD25FJ682** (RX-4922L only)
R16,101,201	**ERD25TJ682** (RX-4933L only)
R17,302,304	**ERD25FJ102**
R18,108,208	**ERD25FJ330**
R20	**ERD25TJ473**
R27	**ERD25FJ100**
R101,102,104, 204	**ERD25FJ332** (RX-4922L only)
R104,204	**ERD25FJ332** (RX-4933L only)
R105,114,205, 214	**ERD25FJ103**
R106,206	**ERD25TJ823**
R107,207	**ERD25TJ184**
R110,115,210, 215	**ERD25FJ392** (RX-4933L only)
R110,210	**ERD25FJ392** (RX-4922L only)
R112,212	**ERD25FJ1R0**
R117,217	**ERD25FJ151**
R305	**ERD25FJ221** (RX-4933L only)

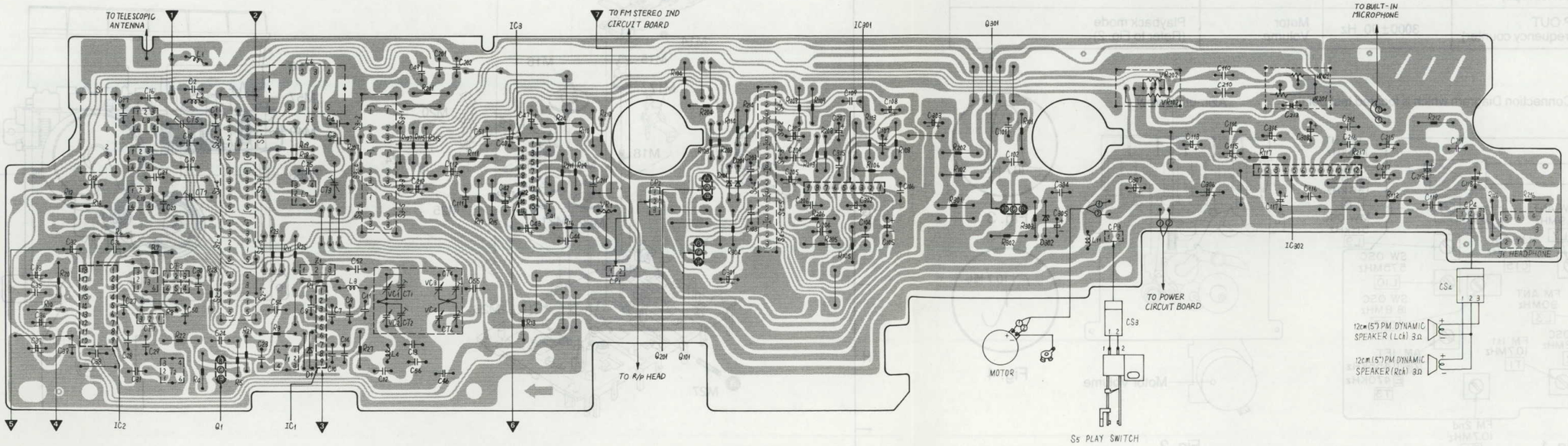


CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM MODEL RX-4933L/RX-4922L

(RX-4933L CIRCUIT BOARD)



(RX-4922L CIRCUIT BOARD)



■ FM ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
			FM-IF ALIGNMENT				
(1)	FM	High side thru. 0.001 µF to test point ③. Negative side to test point ②.	10.7 MHz (SWP.)	Point of non-interference. (on/ about 90 MHz)	Connect vert. amp. of scope to test point ④. Negative side to test point ⑤.	T1 (FM 1st IFT)	Adjust for maximum amplitude. (Refer to fig. 3).
(2)	FM	〃	〃	〃	〃	T2 (FM 2nd IFT)	Adjust for maximum amplitude. (Refer to fig. 4).
			FM-RF ALIGNMENT				
(3)	FM	Connect to test point ① through FM dummy antenna. Negative side to test point ②.	86.2 MHz	Variable capacitor fully closed.	Output meter across voice coil.	L4 (FM OSC Coil)	(*2) Adjust for maximum output.
(4)	FM		109.2 MHz	Variable capacitor fully open.	〃	CT2 (FM OSC Trimmer)	〃
(5)	FM		90 MHz	Tune to signal.	〃	L3 (FM ANT Coil)	〃
(6)	FM		106 MHz	〃	〃	CT1 (FM ANT Trimmer)	(*2) Adjust for maximum output. Repeat steps (3)~(6).

(*2) Three output responses will be present; proper tuning is the center frequency.

■ SEPARATION ALIGNMENT

ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
Adjustment of pilot signal.	98 MHz, 60 dB (CW) Connect to test point ① through FM dummy antenna. Negative side to test point ②.	⑥...(+) ⑦...(−)	VR1	19 kHz	Adjust VR1, for 19 kHz (±150 Hz) reading on electronics counter.

■ AUDIO ADJUSTMENT

ITEM	INPUT	MEASUREMENT POINT	SPECIFICATION	ADJUSTMENT POINT	REMARKS
Azimuth	QZZCFM (8 kHz, −20 dB)	SP OUT (AC voltmeter & Oscilloscope)	Maximum output.	Azimuth screw	Playback mode (Refer to Fig. 2)
Tape speed	QZZCWAT (3 kHz)	SP OUT (Frequency counter)	3000±90 Hz	Motor Volume	Playback mode (Refer to Fig. 2)

■ ALIGNMENT POINT

• Please refer to Circuit Board and Wiring Connection Diagram which is located test point.

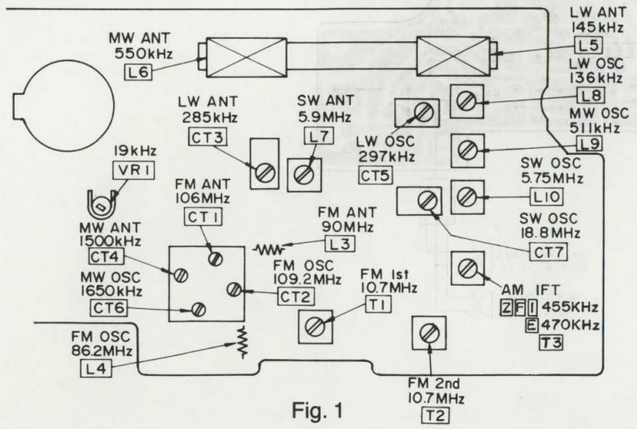


Fig. 1

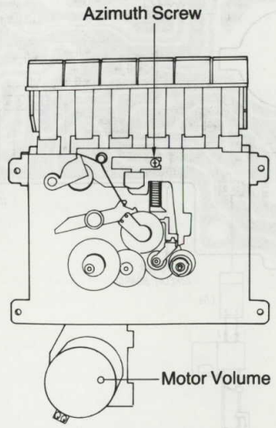
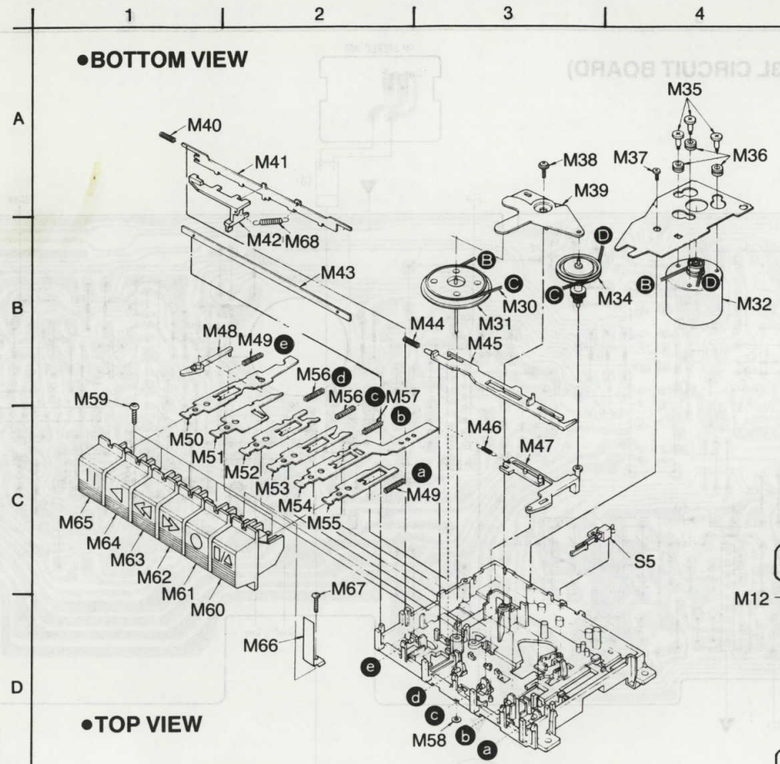


Fig. 2

Fig. 3

Fig. 4

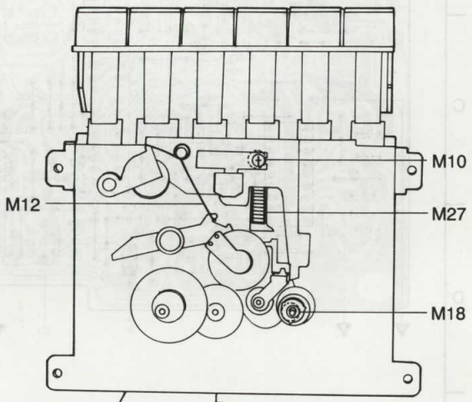
MECHANISM PARTS LOCATION

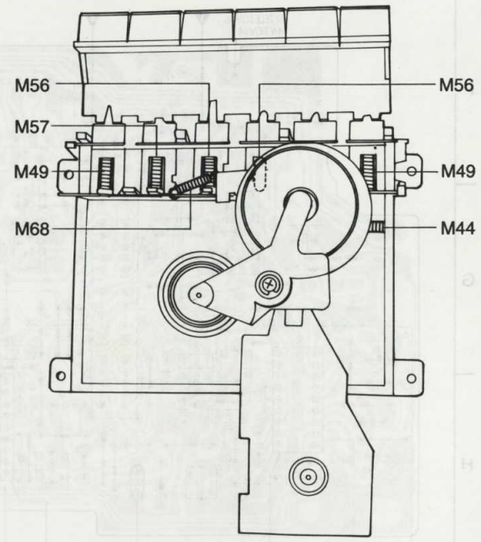


Specification

Pressure of pressure roller	330±50 gr
Wow and flutter	Less than 0.2% (WRMS)
Takeup Tension	30~65 g•cm
FF Tension	50~160 g•cm
REW Tension	50~160 g•cm

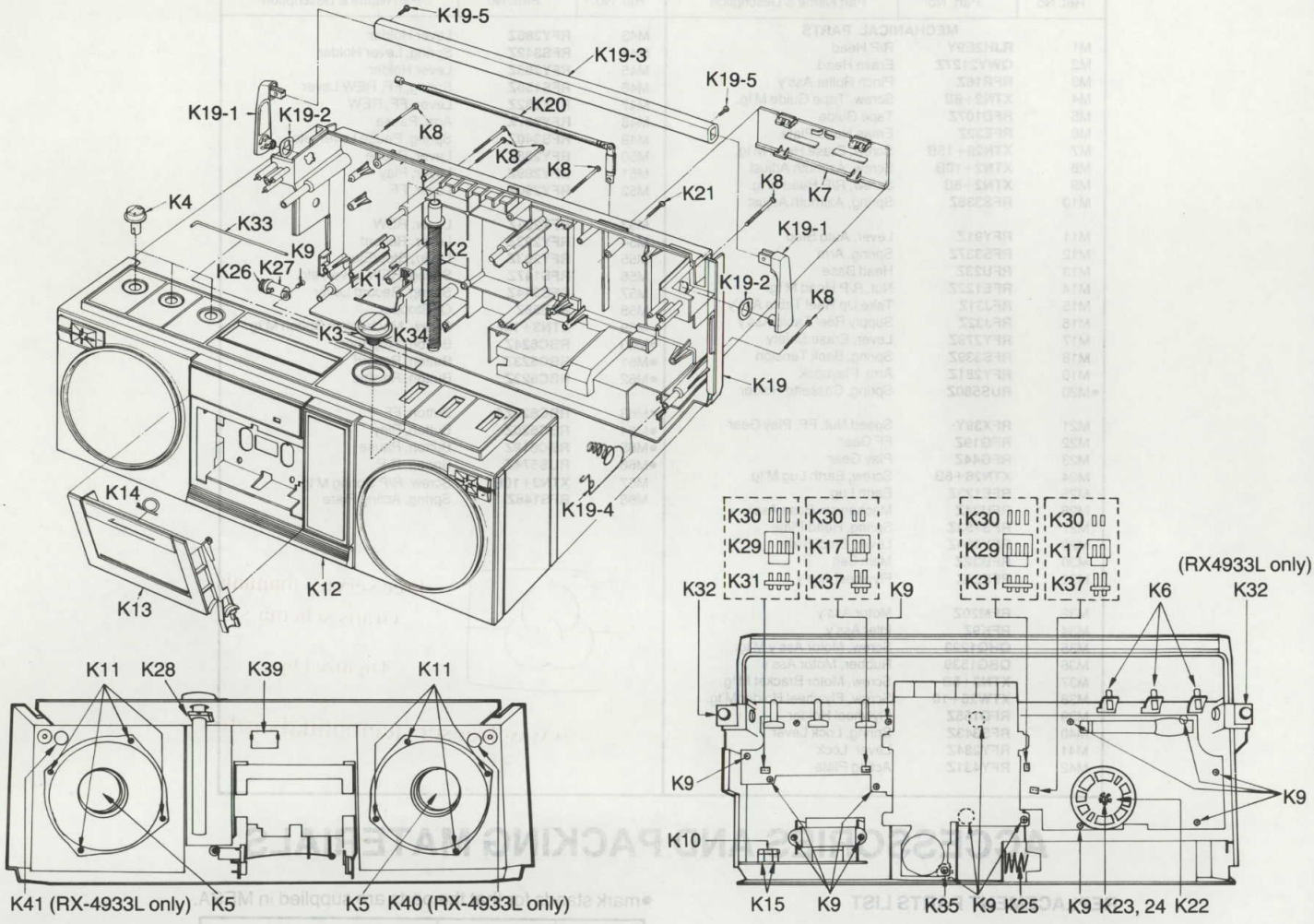
■ SPRING PARTS LOCATION





CABINET PARTS LOCATION

The only differences between the RX-4933L and the RX-4922L are in the front cabinet, tweeter and built-in microphone (stereo/monaural). For details, refer to the parts list.



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

Part numbers may differ according to shipping destination. Be sure to refer to the below destination codes before ordering replacement parts.

Note:
[ZK]...For all European areas except United Kingdom (Black)
[ZS]...For all European areas except United Kingdom (Silver)
[EK]...For United Kingdom (Black)
[FK]...For France (Black)
[IK]...For Italy (Black)
●mark stands for that the parts are supplied in MESA.

Ref. No.	Part. No.	Part Name & Description
Same Parts Both RX-4933L and RX-4922L		
●K1	**RDP262Z2**	Pointer, Dial
K2	**RDG5807Y**	Warm Gear
●K3 [ZK][EK][FK][IK]		
	RBN689Z	Knob, Tuning
●K3 [ZS]	**RBN689Z1**	Knob, Tuning
●K5	**RAS12P14Z**	Speaker, Woofer
●K6 [ZK][EK][FK][IK]		
	RBS226Z	Knob, Selector, Band, FM Mode
●K6 [ZS]	**RBS226Z1**	Knob, Selector, Band, FM Mode
●K7 [ZK][EK][FK][IK]		
	RKK224Y	Battery Cover
●K7 [ZS]	**RKK224Y7**	Battery Cover
K8	**XTN3+35G**	Screw, Cabinet M'tg.
K9	**XTV3+12G**	Screw, Circuit Board, etc. M'tg.
K10	**XBA2C10TR0**	Fuse, T1A ⚠
K11	**XTV3+10G**	Screw, Speaker M'tg.
●K14	**RUS577Z**	Spring, Cassette Tape
K15	**QTF1054**	Fuse Holder
K17	**RJS2L1Z**	Socket (2P)
●K19-1	**RKX248Y**	Arm, Handle
●K19-2	**RKX257Z**	Spacer, Handle
●K19-3 [ZK][EK][FK][IK]		
	RKX311Z	Handle
●K19-3 [ZS]	**RKX311Z1**	Handle

Ref. No.	Part. No.	Part Name & Description
K19-4	**RJC931Z**	Terminal Battery (+/−)
K19-5	**XTB3+8CFN**	Screw, Handle M'tg.
K20	**XEARR225DAK**	Telescopic Antenna
K21	**XYN3+F15F**	Screw, Telescopic Antenna M'tg.
K22	**RDG5699Z**	Drum Gear
K23	**XSN26+8**	Screw, Drum Dial M'tg.
K24	**XWA26B**	Washer, Drum Dial M'tg.
K25	**RJC511Z**	Terminal Battery (−)
K29	**RJS3L1Z**	Socket (3P)
K30	**RJT462Z**	Terminal, Socket
K31	**RJP3G1Z**	Plug (3P)
K32	**RJM151Z**	Built-in Microphone
●K33	**RUS534Z**	Spring, Cassette Panel
K34	**RDS5032Z**	Spring, Tuning Knob
K35	**RJT514Z**	Terminal, Earth
K37	**RJP2G1Z**	Plug (2P)
RX-4933L only		
●K4 [ZK][EK][FK][IK]		
	RBN670X	Knob, Tone, Balance, Volume
●K4 [ZS]	**RBN670X1**	Knob, Tone, Balance, Volume
●K12 [ZK][FK][IK]		
	RYMX4933LZ91	Front Cabinet Ass'y
●K12 [EK]	**RYMX4933LE91**	Front Cabinet Ass'y ⚠
●K12 [ZS]	**RYMX4933LZK8**	Front Cabinet Ass'y
●K13	**RKG95W**	Cassette Panel

Ref. No.	Part. No.	Part Name & Description
●K19 [ZK]	**RYFX4933LZKS**	Rear Cabinet Ass'y
●K19 [FK][IK]	**RYFX4933LZFK**	Rear Cabinet Ass'y
●K19 [EK]	**RYFX4933LZEK**	Rear Cabinet Ass'y ⚠ (RX-4933L only)
●K19 [ZS]	**RYFX4933LZK7**	Rear Cabinet Ass'y
●K26	**RDG5729Z**	Soft Gear
●K27	**RME337Z**	Holder, Soft Gear
●K28	**RUL719Z**	Bracket, Warm Gear
●K39	**RUP1808Z**	Print Circuit Board
●K40	**RAF15DA9CB2**	Speaker, Tweeter (Lch)
●K41	**RAF15DA9CB3**	Speaker, Tweeter (Rch)
RX-4922L only		
●K4 [ZK][EK][FK][IK]		
	RBN670X	Knob, Balance, Volume
●K4 [ZS]	**RBN670X1**	Knob, Balance, Volume
●K12 [ZK][FK][IK]		
	RYMX4922LZ91	Front Cabinet Ass'y
●K12 [EK]	**RYMX4922LE91**	Front Cabinet Ass'y ⚠
●K12 [ZS]	**RYMX4922LZK8**	Front Cabinet Ass'y
●K13	**RKG95X**	Cassette Panel
●K19 [ZK]	**RYFX4922LZKS**	Rear Cabinet Ass'y
●K19 [FK][IK]	**RYFX4922LZFK**	Rear Cabinet Ass'y
●K19 [EK]	**RYFX4922LZEK**	Rear Cabinet Ass'y ⚠
●K19 [ZS]	**RYFX4922LZK7**	Rear Cabinet Ass'y
●K39	**RUP1958Z**	Print Circuit Board

MECHANISM PARTS LIST

●mark stands for that the parts are supplied in MESA.

Ref. No.	Part. No.	Part Name & Description
		MECHANICAL PARTS
M1	RJH2E9Y	R/P Head
M2	QWY2127Z	Erase Head
M3	RFR16Z	Pinch Roller Ass'y
M4	XTN2+6B	Screw, Tape Guide M'tg.
M5	RFD107Z	Tape Guide
M6	RFE32Z	Erase Head Plate
M7	XTN26+15B	Screw, Erase Head M'tg.
M8	XTN2+10B	Screw, Azimuth Adjust
M9	XTN2+8B	Screw, R/P Head M'tg.
M10	RFS338Z	Spring, Azimuth Adjust
M11	RFY91Z	Lever, Auto Stop
M12	RFS337Z	Spring, Arm
M13	RFU23Z	Head Base
M14	RFE122Z	Nut, R/P Head M'tg.
M15	RFJ31Z	Take Up Reel Table Ass'y
M16	RFJ32Z	Supply Reel Table Ass'y
M17	RFY279Z	Lever, Erase Safety
M18	RFS339Z	Spring, Back Tension
M19	RFY281Z	Arm, Playback
●M20	RUS580Z	Spring, Cassette Holder
M21	RFX39Y	Speed Nut, FF, Play Gear
M22	RFG19Z	FF Gear
M23	RFG44Z	Play Gear
M24	XTN26+6B	Screw, Earth Lug M'tg.
M25	RFE123Z	Earth Lug
M26	RFU24Z	Mechanism Base Ass'y
M27	RFS153Z	Spring, Head Plate
M28	RFY280Z	Lever, Eject Slide
M30	RFB32Z	Main Belt
M31	RFF21Z	Flywheel Ass'y
M32	RFM20Z	Motor Ass'y
M34	RFK9Z	Idler Ass'y
M35	QHQ1223	Screw, Motor Ass'y M'tg.
M36	QBG1539	Rubber, Motor Ass'y
M37	XTN3+8B	Screw, Motor Bracket M'tg.
M38	XTW26+10	Screw, Flywheel Holder M'tg.
M39	RFD155Z	Flywheel Holder
M40	RFS343Z	Spring, Lock Lever
M41	RFY284Z	Lever, Lock
M42	RFY431Z	Acting Plate
M43	RFY286Z	Lever Holder
M44	RFS342Z	Spring, Lever Holder
M45	RFY283Z	Lever Holder
M46	RFS156Z	Spring, FF, REW Lever
M47	RFY282Z	Lever, FF, REW
M48	RFY287Z	Arm, Pause
M49	RFS340Z	Spring, Pause Lever, etc.
M50	RFY288Z	Lever, Pause
M51	RFY289Z	Lever, Play
M52	RFY290Z	Lever, FF
M53	RFY291Z	Lever, REW
M54	RFY292Z	Lever, Record
M55	RFY293Z	Lever, Stop/Eject
M56	RFS147Z	Spring, REW Lever, etc.
M57	RFS344Z	Spring, Record Lever
M58	RFE58Z	Oil Stopper
M59	XTN3+10F	Screw, Mechanism Button M'tg.
●M60	RBC624Z	Button, Stop/Eject
●M61	RBC623Z	Button, Record
●M62	RBC622Z	Button, Rewind
●M63	RBC621ZA	Button, FF
●M64	RBC620Z	Button, Play
●M65	RBC619Z	Button, Pause
●M66	RUS574Z	Spring, R/P
M67	XTN3+10B	Screw, R/P Spring M'tg.
M68	RFS148Z	Spring, Acting Plate

ACCESSORIES AND PACKING MATERIALS

REPLACEMENT PARTS LIST

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Part numbers may differ according to shipping destination. Be sure to refer to the below destination codes before ordering replacement parts.

Note:

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[E]...For United Kingdom
[F]...For France
[I]...For Italy

●mark stands for that the parts are supplied in MESA.

Ref. No.	Part. No.	Part Name & Description
		ACCESSORIES
A1 [E]	RJA43Z	Power Cord, AC ⚠
A1 [Z][F][I]	RJA20Z	Power Cord, AC ⚠
●A2	RQX4625Z	Instruction Book (RX-4922L only)
●A2	RQX4624Z	Instruction Book (RX-4933L only)
		PACKINGS
●P1	RPN9505Z	Pad Complete
●P2	RPK2060Z	Gift Box (RX-4922L only)
●P2	RPK2073Z	Gift Box (RX-4933L only)
●P3	XZB60X40A01	Polyethylene Cover