

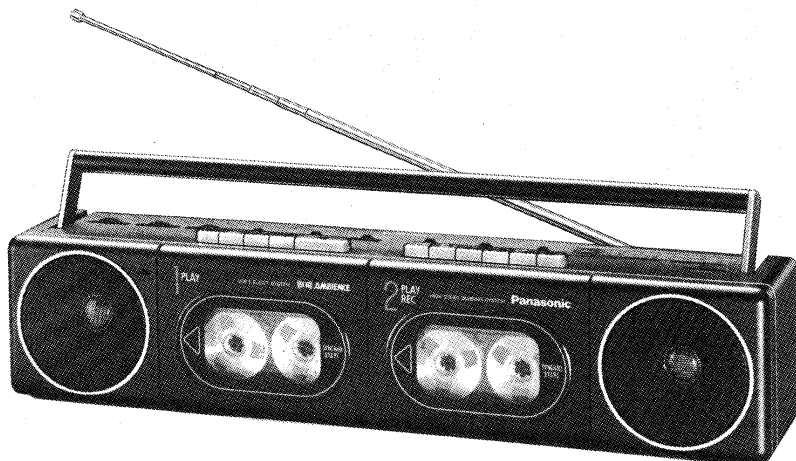
Service Manual

Radio Cassette

FM-AM-FM Stereo Dual Cassette Recorder

RX-F11

(Black, Red)



This is the Service Manual
for the following areas.

M ...For U.S.A.
C ...For Canada.

■ SPECIFICATIONS

General:

Power Requirement: AC; 120V, 60Hz with included AC adaptor
Battery; 9V (Six "C" Size Flashlight Batteries)
(Panasonic UM-2 or equivalent)
Car battery; with optional car adaptor RP-917H

Power Consumption: 10W (AC only), with included AC adaptor

Power Output: 7W (3.5W×2)...RMS (max.)

Speaker: 8.5cm (3³/₈") PM Dynamic Speaker (2.7Ω)

Input: MIXING MIC; sensitivity 3.2mV/applicable microphone impedance 200~600Ω, 3.5φ
LINE IN; sensitivity 200mV/26kΩ over DC IN; 9V

Output: HEADPHONES; 32Ω, 3.5φ

Dimensions: 448(W)×97(H)×100(D)mm (17⁵/₈×3¹³/₁₆×3¹⁵/₁₆)"

Weight: 1.9kg (4 lb. 3 oz.) without batteries

Radio Section:

Radio Frequency Range: FM; 88~108MHz
AM; 525~1610kHz

Intermediate Frequency: FM; 10.7MHz
AM; 455kHz

Sensitivity: FM; 1.8μV/50mW output (-3dB Limit Sens)
AM; 50.2μV/m/50mW output

Tape Deck Section:

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

Tape Speed: 4.8cm/s, (1⁷/₈ ips)

Program Time: 1 hour with C-60 cassette tape

Track System: 4-track 2 channel stereo playback

Tape Deck Section:

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

Recording System: AC bias, Magnet erase

Tape Speed: 4.8cm/s, (1⁷/₈ ips)

Program Time: 1 hour with C-60 cassette tape

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

Weights and dimensions shown are approximate.
(Les poids et dimensions mentionnes sont approximatifs.)
Design and specifications are subject to change without notice.

Panasonic®

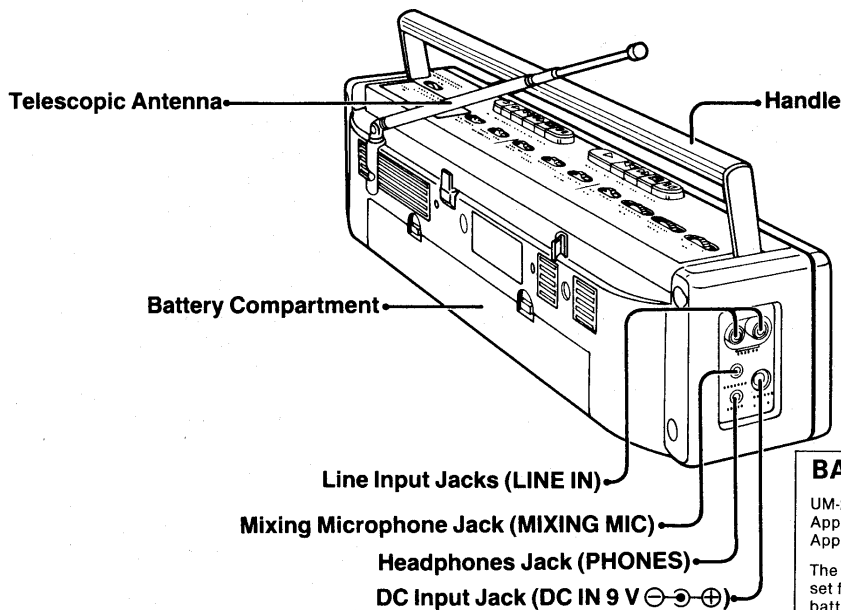
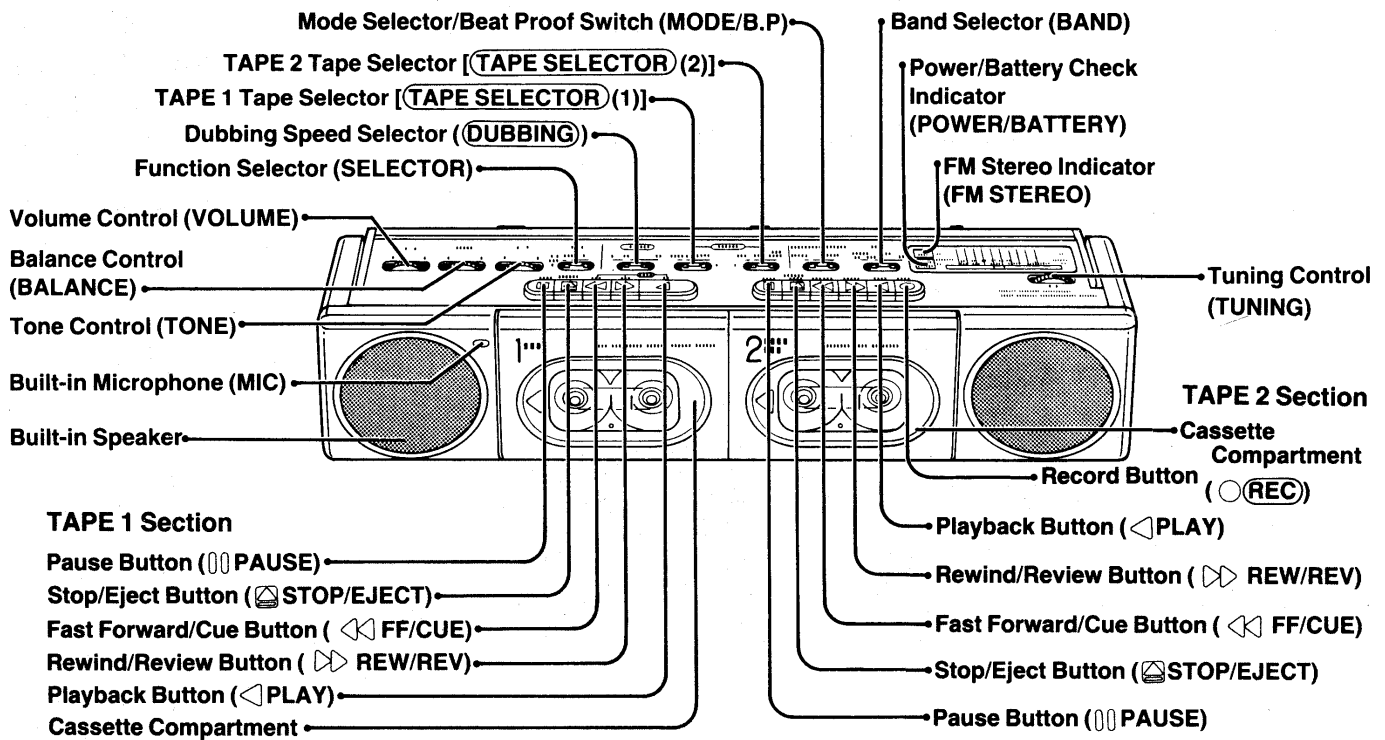
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LOCATION OF CONTROLS AND COMPONENTS



BATTERY SERVICE LIFE

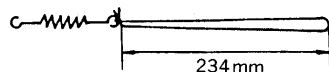
UM-2 (C-size) Batteries

Approx. 8.5 hours of recording (EIAJ)

Approx. 6 hours of playback (EIAJ) with volume set at "8" position

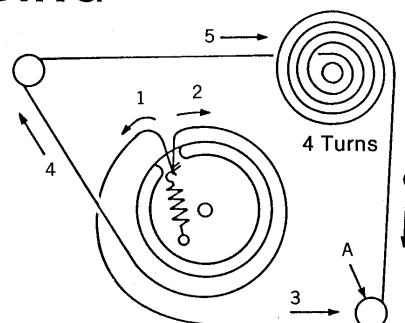
The above battery service life is measured according to the conditions set forth by EIAJ (Electronic Industries Association of Japan). As the battery service life varies with the method of operation and environmental conditions, use these values as reference.

DIAL THREADING



Notes:

1. Stretch cords 1 through 3 in their numbered order and temporarily fix them on pulley A.
2. Next, stretch cords 4 through 6 in their numbered order and fix them on pulley A.



DISASSEMBLY INSTRUCTIONS

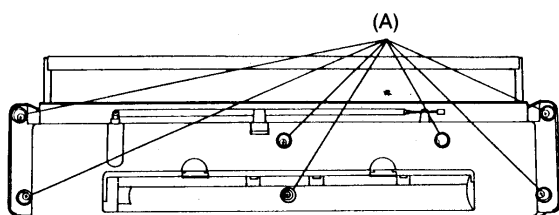


Fig. 1

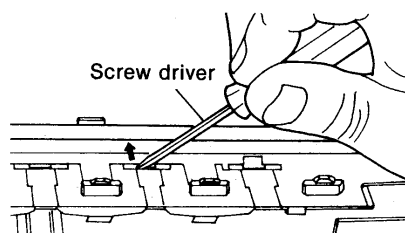


Fig. 5

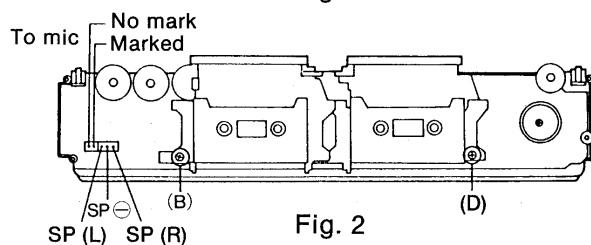


Fig. 2

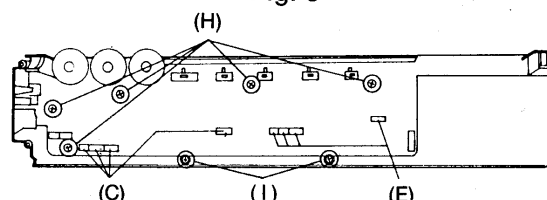


Fig. 6

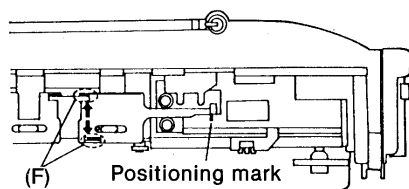


Fig. 3

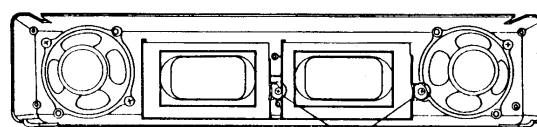


Fig. 7 (J)

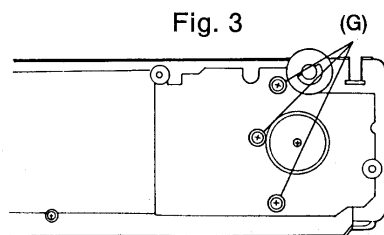


Fig. 4

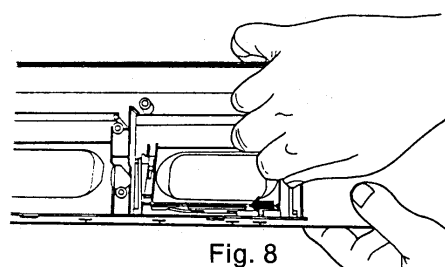


Fig. 8

Ref. No.	Shown in Fig. —	To remove —	Remove—
1	—	Front cabinet	Remove the battery cover.
2	1		Screw (3×50 mm)(A)×7
3	—		Push the socket and remove the mic and speaker leads.
4	2	Mechanism (tape 1)	Screw (3×10 mm)(B)×1
5	6		Pull out the socket.....(C)×4
6	2	Mechanism (tape 2)	Screw (3×10 mm)(D)×1
7	6		Pull out the socket.....(E)×4
8	3	Tuner circuit board *1	Push the tooth in the direction of arrow.....(F)×2
9	4		Screw (3×10 mm)(G)×3
10	5	Audio circuit board	Push the tooth of knob in the direction of arrow.
11	6		Screw (3×10 mm)(H)×5
12	6		Screw (3×10 mm)(I)×2
13	7	Cassette lid	Screw (3×10 mm)(J)×2
14	8		Remove in the direction of arrow.

*1 To install the AM/FM control knob, first set the band switch in the AM position. Then set the control knob so that the end aligns with the positioning mark shown in Fig. 3. Then insert the control knob into the cabinet.

ELECTRICAL PARTS LIST

Numbering System of Resistor

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

Numbering System of Capacitor

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

Resistor Type	Wattage	Tolerance
ERD: Carbon	10 : 1/8 W	J : ±5%
ERD: Metal Film	12 : 1/2 W	J : ±5%
ERX: Metal Film	25 : 1/4 W	K : ±10%
ERQ: Fuse Type Metal	1 : 1 W	Z : +80%, -20%
RRD: Carbon (Chip Type)	18 : 1/8 W	P : +100%, -0%

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

REPLACEMENT PARTS LIST

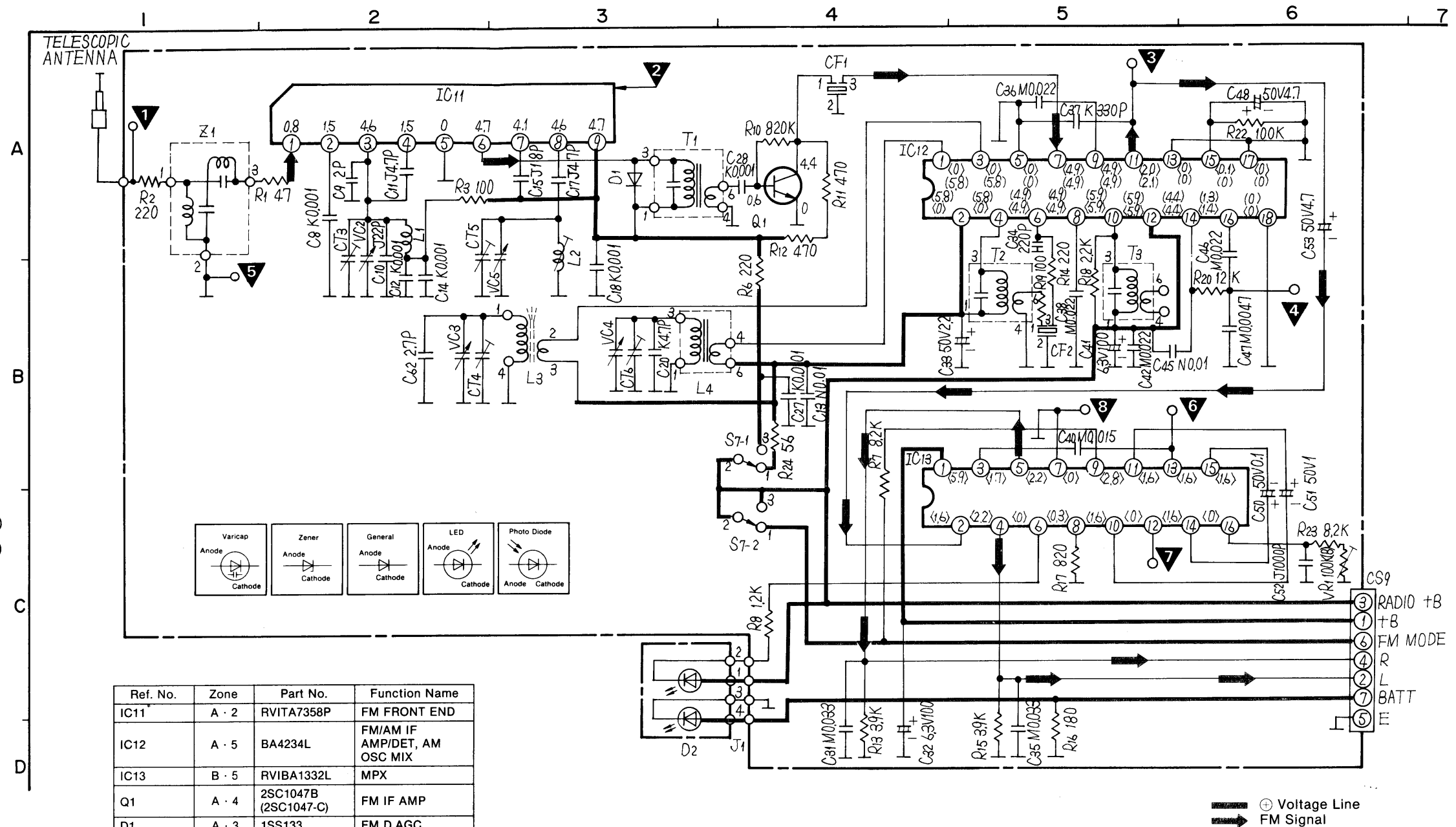
Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
INTEGRATED CIRCUITS			D 505	RVDMTZ6R8B	Diode	VR 502, 506	QVNB3A00B103	Variable Resistor
IC 11	RVITA7358P	Integrated Circuit	COILS			CERAMIC FILTERS		
IC 12	BA4234L	Integrated Circuit	L 2	RL04Y65	Oscillator Coil, FM	CF 1	RVF107WMZ	Ceramic Filter
IC 13	RVIBA1332L	Integrated Circuit	L 3	RLF2V53	Antenna Coil, AM	CF 2	RVFSFU455B	Ceramic Filter
IC 101, 201			L 4	RL02B105	Oscillator Coil, AM	FILTER		
	RVILA3160	Integrated Circuit	L 101, 201	RLQZB102K	Choke Coil	Z 1	RXABPMB6A	Component Combinations
IC 104	M51160AL	Integrated Circuit	L 501	RLQY30S1	Choke Coil	SWITCHES		
IC 105	RVILA4508R	Integrated Circuit	L 502	RL09B17	Bias Oscillator Coil	S 1	RSH2H03Y	Push Switch, Record/Play
IC 106	RVIBA6433	Integrated Circuit	TRANSFORMERS			S 2	RSS3D17Z	Slide Switch, Function
TRANSISTORS			T 1, 3	RLI4B153	I.F. Transformer, FM	S 3, 6	RSS3B28Y	Slide Switch, Dubbing
Q 1	2SC1047-C	Transistor	T 2	RLI2B458	I.F. Transformer, AM			Mode/Beat Proof
Q 103, 203, 501, 503, 505, 511, 518	2SC1684Q	Transistor	VARIABLE CAPACITOR			S 4, 7	RSS2B43Y	Slide Switch, Tape 1, Band
Q 105, 205, 506			VC 1	RCV4LC2V2K		S 5	RSS2D22Z	Slide Switch, Tape 2
	2SC2001L1	Transistor	VARIABLE RESISTORS			S 9, 10	RFA55Z	Switch, Playback
Q 502	2SC1684HR	Transistor	VR 1	QVNB3A00B103	Variable Resistor	S 11, 13	RFA54Z	Switch, Motor
Q 512	2SC2001L2	Transistor	VR 101, 201	EVJV1AF15D54	Variable Resistor	S 12	RFA57Z	Switch, Playback
Q 513	2SC1684	Transistor	VR 102, 202	EVJVAAF15A54	Variable Resistor	JACKS		
Q 515, 516	2SK381CD	Transistor	VR 301	EVJ5FAF15G15	Variable Resistor	J 1	RJF1096Z	Jack, Line In
Q 517	2SC2001K1	Transistor	VR 501, 530	QVNB3A00B682	Variable Resistor	J 2	RJJ1D25Z	Jack, Mix Mic
DIODES & RECTIFIERS						J 3	RJJ1D27Z	Jack, Headphones
D 1	1SS133	Diode				J 4	RJJ97Y	Jack, DC In
D 2	LN022243P	Diode						
D 503, 504, 509	1SS133	Diode						

Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.
CAPACITORS									
C 8, 12, 14, 18, 27, 28 C 10 C 11 C 13, 30, 45 C 15, 16 C 17 C 20 C 31, 35 C 32, 41 C 33	RCBS1H102KB RCBS1H220JL RCBS1H4R7KC RCBS1C103NY RCBS1H180JC RCBS1H470JL RCBS1H4R7KC ECFT1C333MD ECEA0JU101 ECEA1HU2R2	C 101, 201, 203, 303, 307, 403, 407	ECKD1H471KB	C 115, 127, 215, 227	ECEA0JU101	C 530 C 540 C 541 C 542 C 545 C 546, 547 C 553	ECEA1CSS222 RCBS1C103NY ECKD1H102MD ECKD1H331KB ECEA1HUR22 ECQV1H223JZ ECEA1HUR47	R 24 R 102, 202 R 105, 205, 305, 405 R 106, 206, 306, 406 R 113, 213 R 120, 220 R 125, 225	ERDS2TJ560 ERDS2TJ123 ERDS2TJ104 ERDS2TJ270 ERDS2TJ561 ERDS2TJ472 ERDS2TJ331
		C 102, 123, 151, 152, 202, 223, 251, 252, 302, 402, 508	ECEA1HU010	C 120, 220 C 122, 222, 551 C 126, 211, 226 C 128, 228, 552	ECEA1HU0R1 ECFT1E683MD ECFT1E153MDD ECKD1H102MD ECKD1H103MD				
		C 103 C 105, 205, 305, 405, 521, 554	RCBS1H471KB ECEA0JU470	C 130, 230 C 131, 231, 506, 510 C 132, 232	ECEA1AU470 ECEA0JU471 ECQV1H224JZ	R 1 R 2, 6, 14 R 3, 19 R 7, 23 R 8 R 10 R 11, 12 R 13, 15 R 16 R 17	ERDS2TJ470 ERDS2TJ221 ERDS2TJ101 ERDS2TJ822 ERDS2TJ122 ERDS2TJ824 ERDS2TJ471 ERDS2TJ392 ERDS2TJ181 ERDS2TJ821	R 127 R 131, 231 R 132, 232, 515 R 506 R 509 R 517 R 533, 536, 571 R 538, 540 R 541, 542 R 550 R 551 R 552, 553 R 572 R 580	ERDS2TJ122 ERDS2TJ1R0 ERDS2TJ101 ERDS2TJ474 ERDS2TJ332 ERDS2TJ6R8 ERDS2TJ105 ERDS2TJ102 ERDS2TJ822 ERD25TJ106 ERD25FJ471 ERD2FCJ1R0 ERDS2TJ221 ERX1ANJR47
		C 106, 206, 306, 406	ECFT1E333KD	C 507 C 509, 544 C 511 C 512 C 513 C 515, 526 C 516	RCBS1C472MX RCBS1H221KB ECOP2A181JZ ECKD1H103ZF ECOP2A272JZ ECEA1AU221 ECFT1E223MD				
		C 107, 117, 207, 217, 308, 408, 501, 514, 523, 533	ECEA1CU100	C 527, 535, 536 C 528 C 529	ECEA1CU221 ECKD1H331KB ECCD1H181K	R 18 R 20 R 22	ERDS2TJ222 ERDS2TJ123 ERDS2TJ104		
		C 108, 208 C 110, 112, 210, 212 C 111 C 114, 214	ECKD1H102KB ECFT1E473MD RCBS1H102KB ECEA1HKR22						

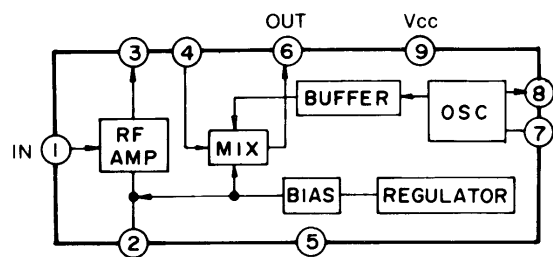
SCHEMATIC DIAGRAM (Tuner) MODEL RX-F11

Notes:

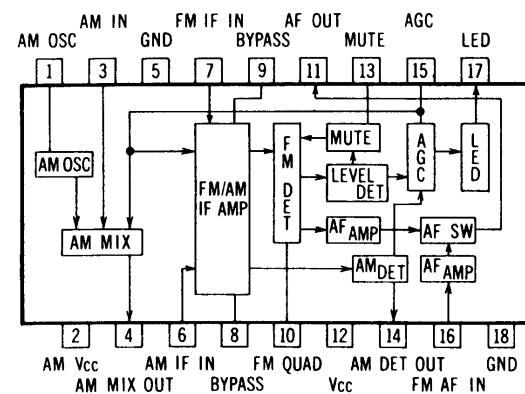
- S7-1, S7-2: Band switch in "AM" position.
(1...AM, 3...FM)
 - VR1: VCO adjustment
 - DC voltage measurement are taken with electronics voltmeter from negative terminal of battery.
- ()...FM, ()...AM



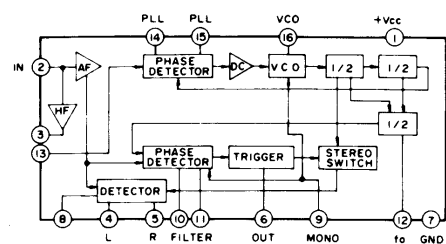
IC11 RVITA7358P



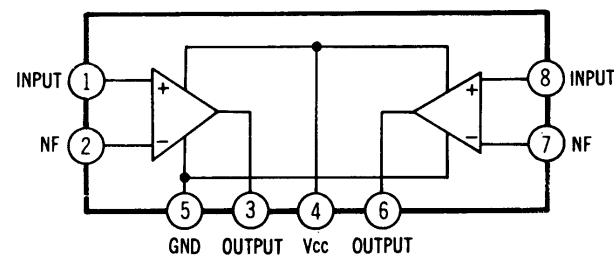
IC12 BA4234L



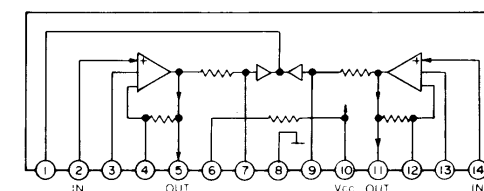
IC13 RVIBA1332L



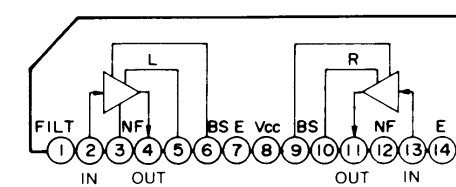
IC101, 201 RVILA3160



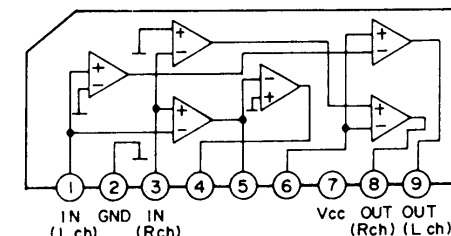
IC104 M51160AL



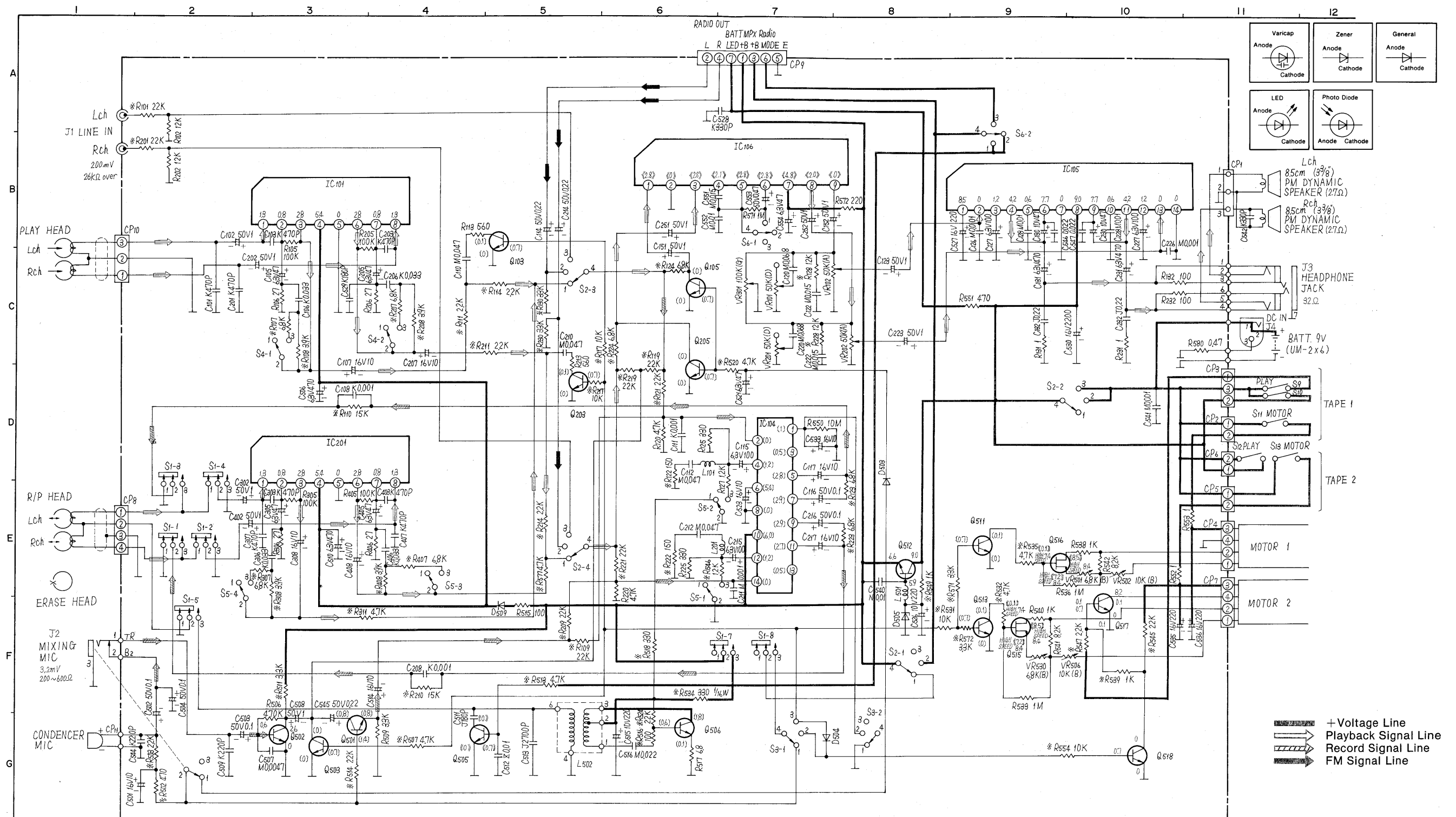
IC105 RVILA4508R



IC106 RVIBA6433



SCHEMATIC DIAGRAM (Amplifier) MODEL RX-F11



Notes:

- S1-1~S1-8: R/P switch in "play" position.
(1...play, 3...record)
- S2-1~S2-4: Function switch in "TAPE/OFF" position.
(1...TAPE/OFF, 2...RADIO, 3...LINE)
- S3-1, S3-2: Dubbing switch in "BUILT IN MIC/OFF" position.
(1...BUILT-IN MIC/OFF, 2...NORMAL, 3...HIGH)
- S4-1, S4-2: Tape switch (1) in "NORMAL" position.
(1...NORMAL, 3...METAL)
- S5-1~S5-4: Tape switch (2) in "NORMAL" position.
(1...NORMAL, 3...METAL)
- S6-1, S6-2: Mode/Beat proof switch in "STEREO/II" position
(1...AMBIENCE/II, 2...STEREO/II, 3...MONO/II)
- S9, 10: Motor switch.
- S11: Motor switch.
- S12: Playback switch.
- S13: Motor switch.
- VR101, 201: Tone control
VR102, 202: Volume control
VR301: Balance control
VR501, 530: Normal speed adjustment.

VR502, 506: High speed adjustment.

L301: Bias oscillation frequency adjustment.

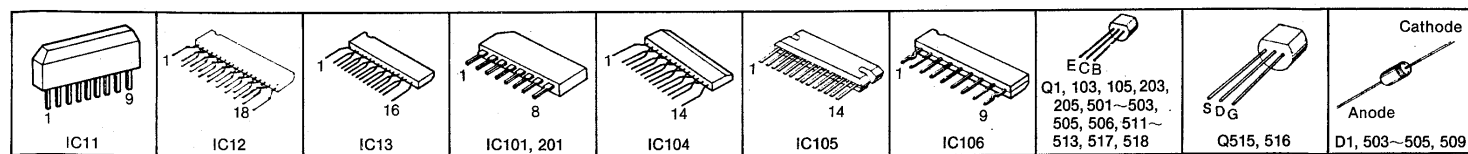
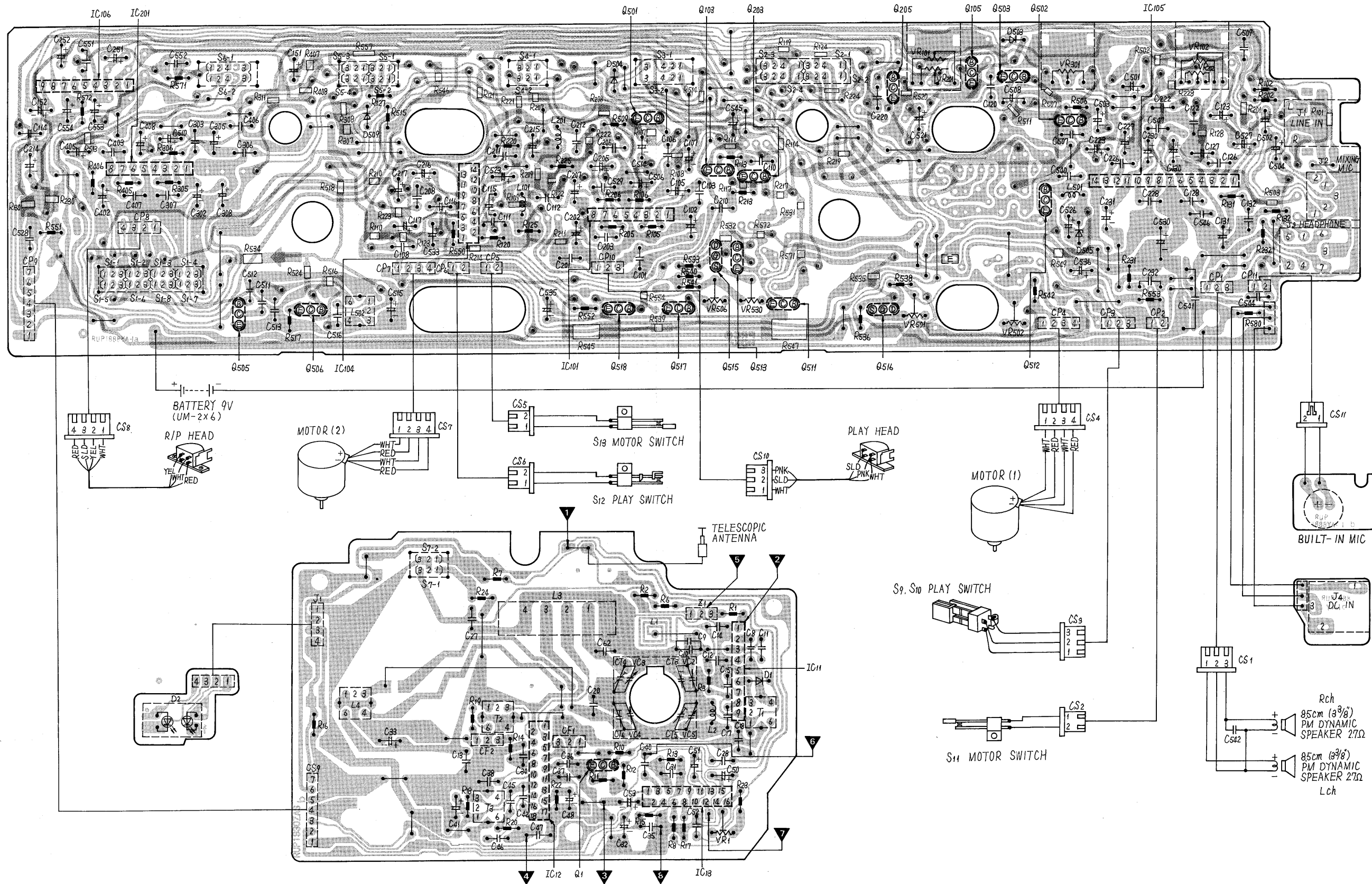
12. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.

13. Battery
current: No signal84 mA
Maximum output (radio)540 mA
(tape-play)880 mA
(tape-record)920 mA

14. *mark.....printed resistor.

Ref. No.	Zone	Part No.	Function Name	Ref. No.	Zone	Part No.	Function Name
IC101	B - 3	RVILA3160	EQ AMP	Q506	G - 6	2SC2001L1	BIAS OSC
IC104	E - 7	M51160AL	REC AMP	Q511	E - 9	2SC1684Q	SWITCHING
IC105	B - 10	RVILA4508R	POWER AMP	Q512	E - 8	2SC2001L2	REGULATOR
IC106	B - 7	RVIBA6433	AMBIENCE	Q513	F - 9	2SC1684S (2SC1684)	SWITCHING
IC201	D - 3	RVILA3160	EQ AMP	Q515	F - 9	2SK381CD	SWITCHING
Q103	C - 5	2SC1684Q	SWITCHING	Q516	E - 9	2SK381CD	SWITCHING
Q105	C - 6	2SC2001L1	SWITCHING	Q517	F - 10	2SC2001K1	SWITCHING
Q203	D - 5	2SC1684Q	SWITCHING	Q518	G - 10	2SC1684Q	SWITCHING
Q205	C - 6	2SC2001L1	SWITCHING	D503	D - 8	1SS133	SWITCHING
Q501	G - 3	2SC1684Q	SWITCHING	D504	G - 7	1SS133	SWITCHING
Q502	G - 3	2SC1684HR	MIC AMP	D505	F - 8	RVDMT26R8B	REGULATOR
Q503	G - 3	2SC1684Q	SWITCHING	D509	F - 5	1SS133	SWITCHING
Q505	G - 4	2SC1684R (2SC1684Q)	SWITCHING				

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM MODEL RX-F11



Notes:

1. The symbols () shown in the circuit board indicate printed resistor.
2. The circuit shown in () on the conductor indicates printed circuit on the back side of the printed circuit board.
3. The circuit shown in () on the conductor indicates printed circuit on the front side of the printed circuit board.
4. The symbols () shown in the circuit board indicate connection points between conductors on the front side and back side of the circuit board.

MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

1. Set volume control to maximum.
2. Set tone control to maximum.
3. Set band switch to AM or FM.
4. Set balance control to center.
5. Set power source voltage to 9V DC.
6. 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		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.	455kHz 30% Mod. at 400Hz	Point of non-interference. (on/ about 600kHz)	Output meter across voice coil.	T2 (AM IFT) Adjust for maximum output.
AM-RF ALIGNMENT						
(2)	AM	"	550kHz (refer to fig. 2)	Output meter across voice coil.	L4 (AM OSC Coil) (*2) L3 (AM ANT Coil)	Adjust for maximum output. Adjust L3 by moving coil bobbin along ferrite core.
(3)	AM	"	1,500kHz (refer to fig. 2)	"	CT6 (AM OSC Trimmer) CT3 (AM ANT Trimmer)	Adjust for maximum output. Repeat steps (4) and (5).
(*2) Cement antenna bobbin with wax after completing alignment.						

■ 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	Connect to test point 2 through 0.001μF. Negative side to test point 5.	10.7MHz (SWP.)	Point of non-interference. (on/ about 90MHz)	Connect vert. amp. of scope to test point 3. Negative side to test point 8.	T1 (FM 1st IFT) Adjust for maximum amplitude. (Refer to fig. 3.)
(2)	FM	"	"	"	"	T3 (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 5.	90MHz	90MHz (refer to fig. 2)	Output meter across voice coil.	L2 (FM OSC Coil) (*3) Adjust for maximum output.
(4)	FM	"	106MHz	106MHz (refer to fig. 2)	"	CT5 (FM OSC Trimmer) CT4 (FM ANT Trimmer) (*3) Adjust for maximum output. Repeat steps (3)~(4).
(*3) 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.	98MHz, 60dB	▼ ... (+) ▼ ... (-)	VR1	19kHz	Adjust VR1, for 19kHz (±100Hz) reading on electronics counter.

■ AUDIO ADJUSTMENT

ITEM	INPUT	MEASUREMENT POINT	SPECIFICATION	ADJUSTMENT POINT	REMARKS
Azimuth	QZZCFM (8kHz, -20dB)	EXT SP	Maximum output.	Azimuth screw	Playback mode

TAPESPEED ADJUSTMENT

ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	REMARKS
Tape speed adjustment for high speed. Tape 1 & 2	QZZCWAT (3kHz) (Use QZZCS023 (1.5kHz) tape when using a wow/flutter meter.)	SP jack Refer to Fig. 8	VR312 (Tape 1) VR314 (Tape 2)	1. Short the printed circuit board as shown in Fig. 5, and turn the dubbing speed switch to high-speed. 2. Tape 1.....6020Hz±60Hz Tape 2.....-60±30Hz of tape speed of tape 1. (Refer to Fig. 6 & 7 when using a wow/ flutter meter)
Tape speed adjustment for normal speed. Tape 1 & 2	QZZCWAT (3kHz)	SP jack Refer to Fig. 8	VR313 (Tape 1) VR315 (Tape 2)	Tape 1.....3010Hz±30Hz Tape 2.....-30±15Hz of the speed of tape 1. (Refer to Fig. 6 & 7 when using a wow/ flutter meter)

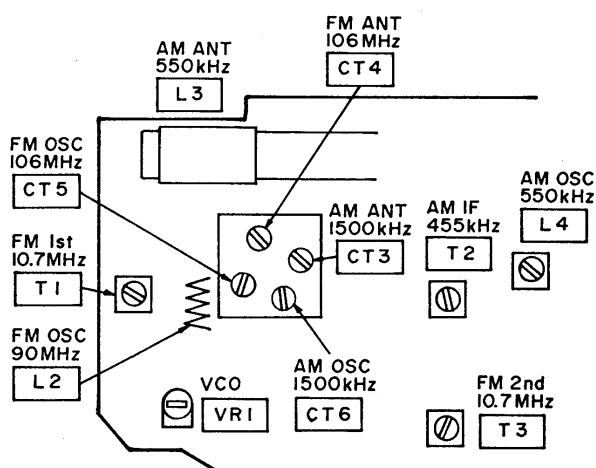


Fig. 1

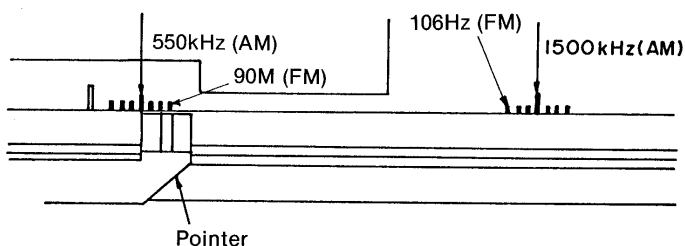


Fig. 2

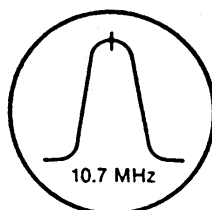


Fig. 3

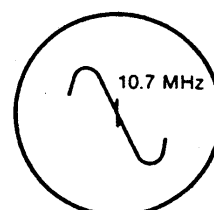


Fig. 4

Note:

Apply a bias voltage (1~2V) to the base of Q511 to run the tape at high speed, as shown in fig. 5.

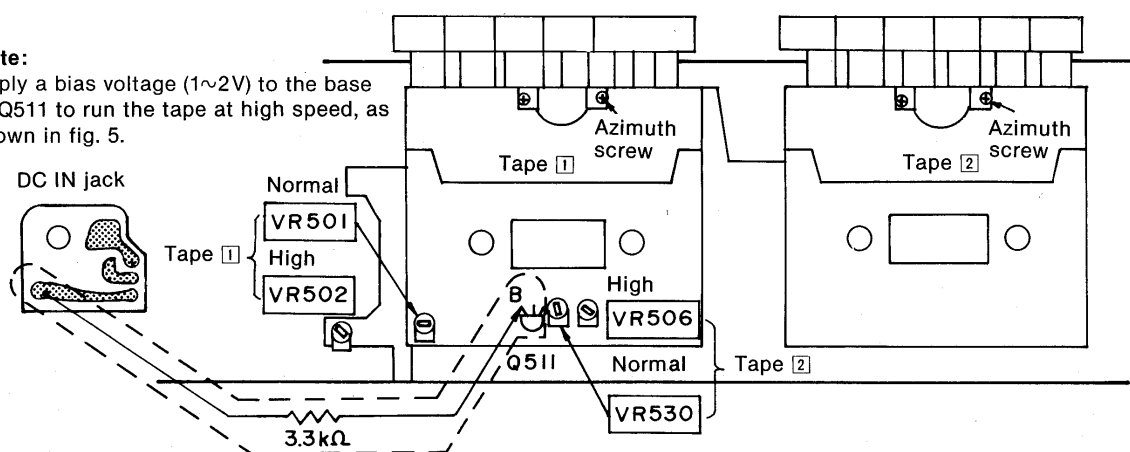


Fig. 5

• NEEDLE POSITION OF THE WOW/FLUTTER METER

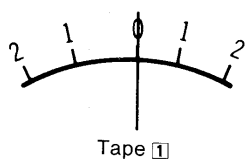


Fig. 6

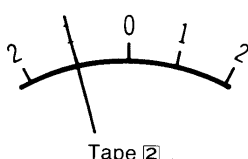


Fig. 7

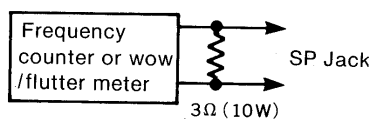
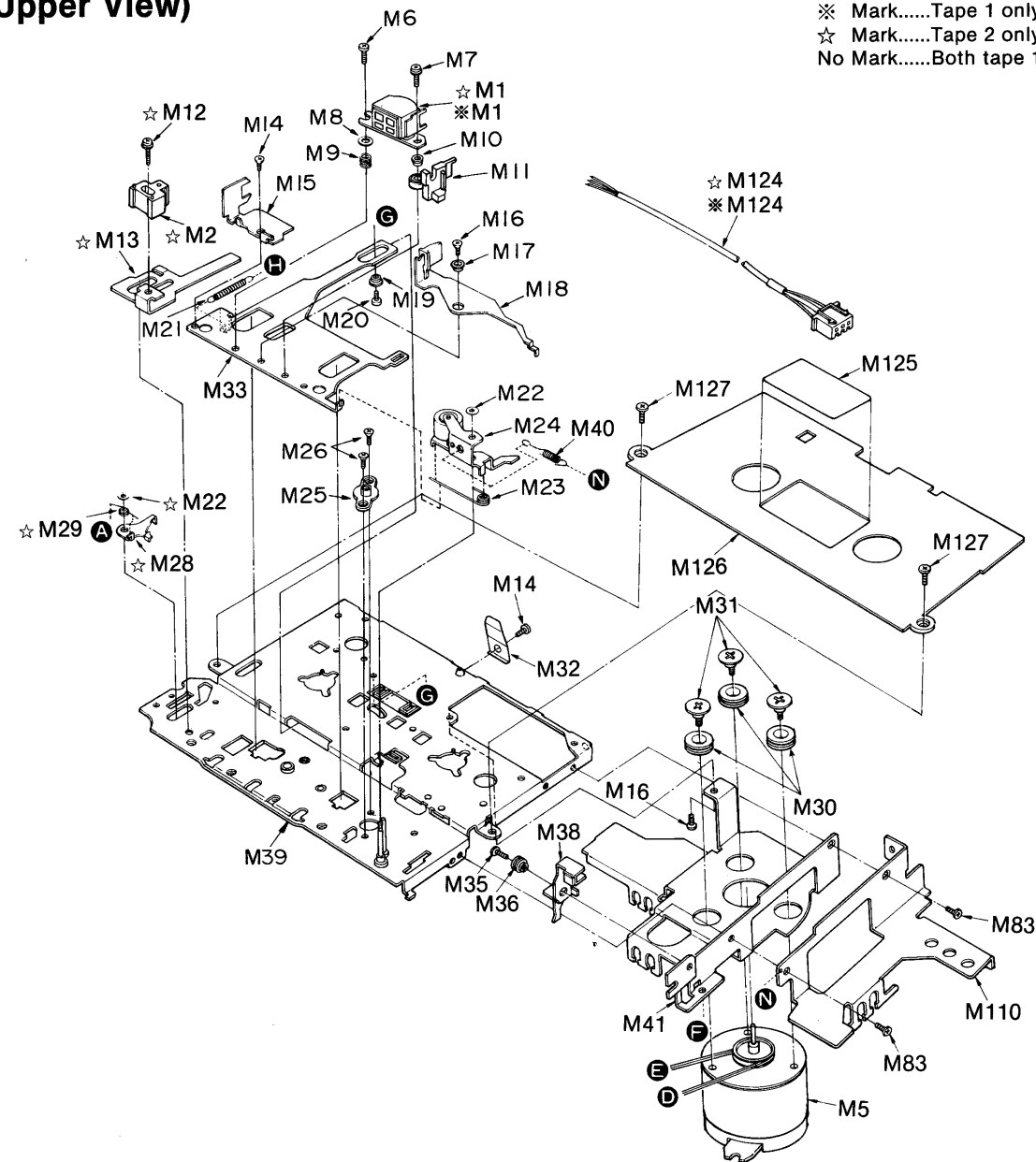


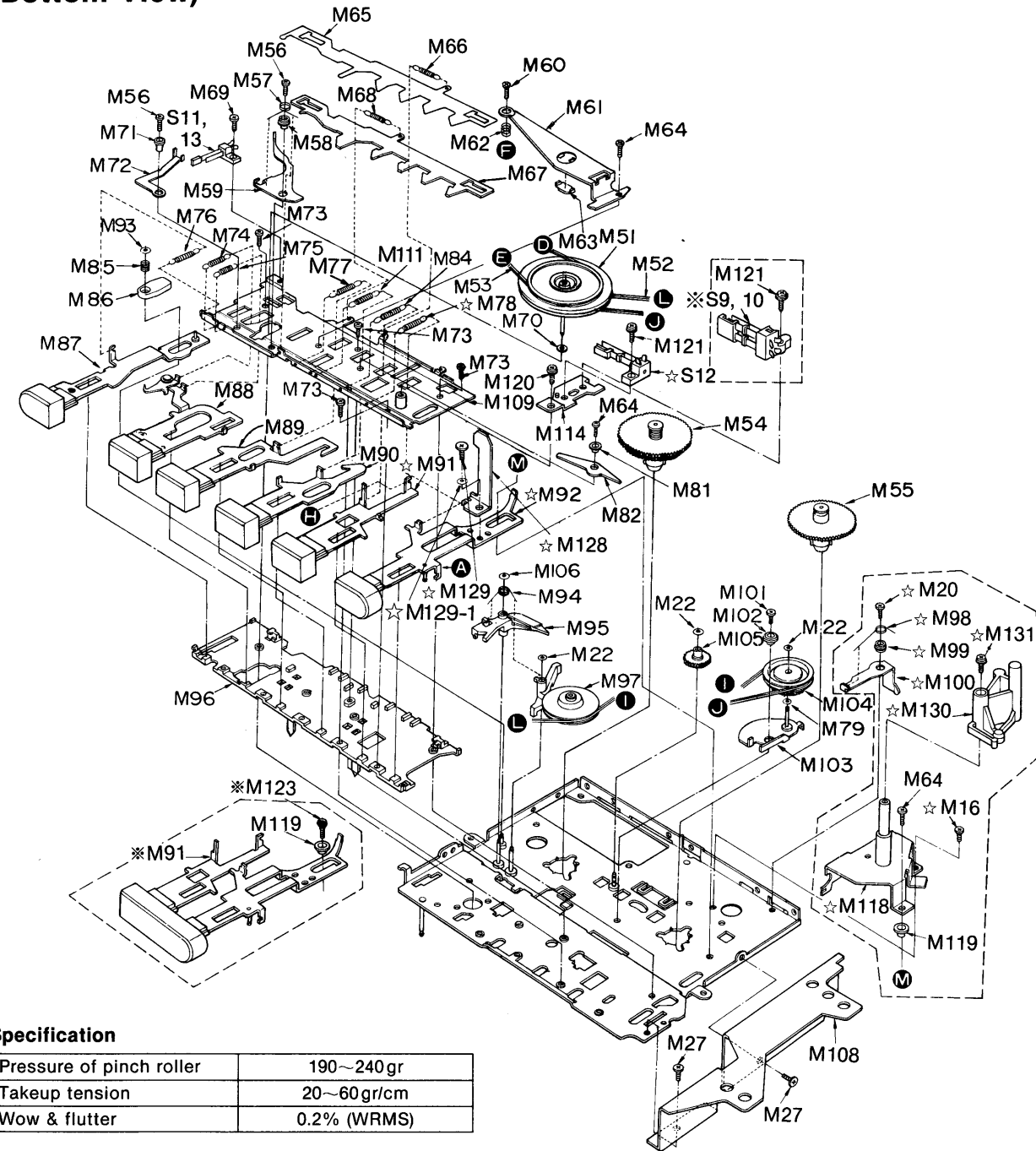
Fig. 8

MECHANISM PARTS LOCATION

(Upper View)



(Bottom View)



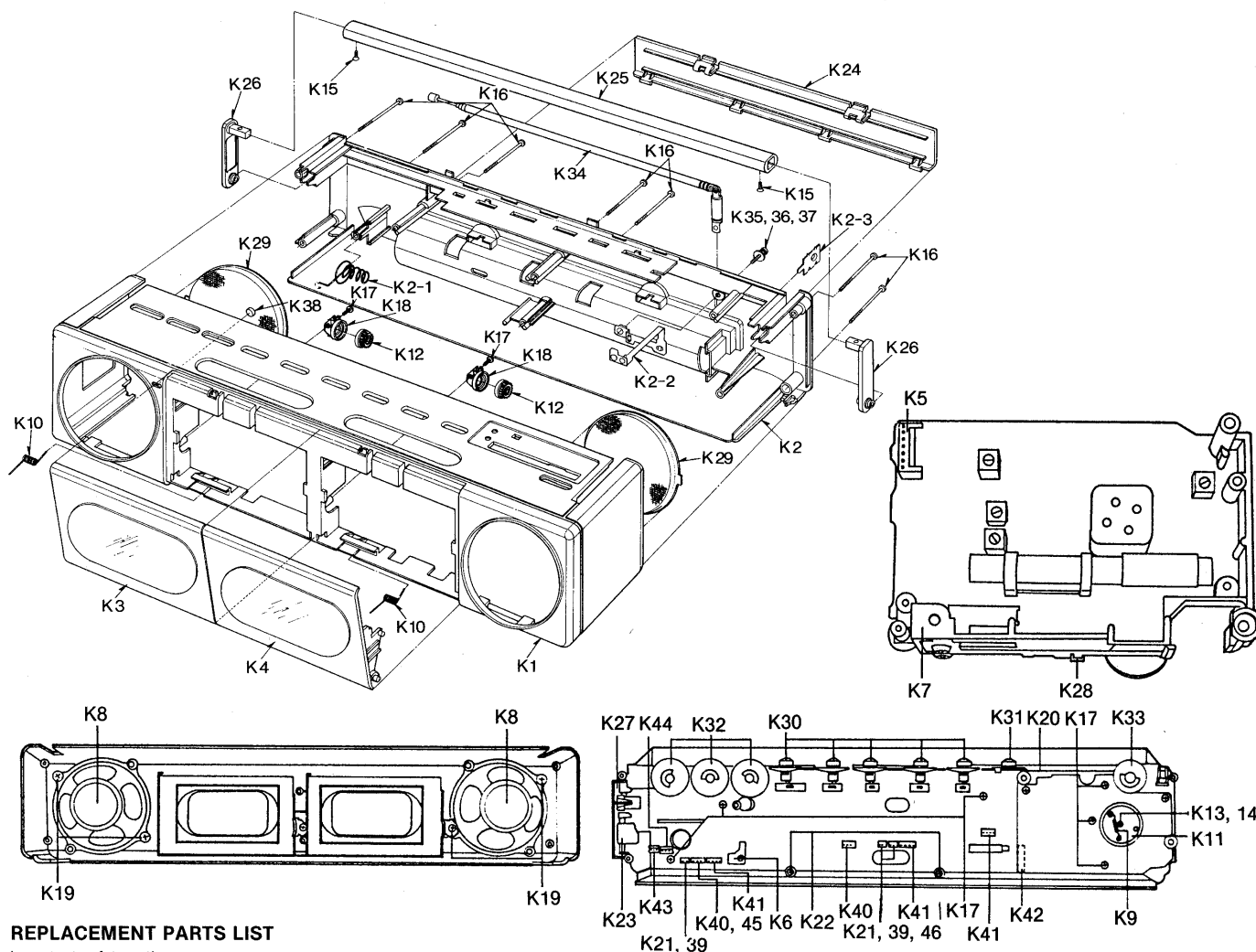
Specification

Pressure of pinch roller	190~240gr
Takeup tension	20~60gr/cm
Wow & flutter	0.2% (WRMS)

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
MECHANICAL PARTS																	
Tape [1] Only			M 124	RWN2XF11J	Head Lead Wire Ass'y	M 19	RFX67Z	Spacer, Head Plate	M 52	RFB29Z	RF Belt	M 71	RFX70Z	Spacer, Switch Arm	M 95	RFY233Z	Auto Stop Kick Arm
M 1	RJH2S2Z	Playback Head	M 128	QUS601Z	Spring, R/P Lever	M 20	RFE92Z	Screw, Head Plate M'tg	M 53	RFB49Z	Main Belt	M 72	RFY224Z	Arm, Switch	M 96	RFU49Z	Button Base
M 91	RZL7XF11J	Play Button Lever Ass'y	M 129	XSN2 + 4	Screw, R/P Lever Spring M'tg	M 21	RFJ46Z	Spring, Head Plate	M 54	RFB46Z	Takeup Reel Table Ass'y	M 73	XSN17 + 32	Screw, Pressure Plate M'tg	M 97	RFY234Z	Takeup Pulley Arm Ass'y
M 123	XQN17 + A35FZ	Screw, Play Button M'tg	M 129-1	XWG2	Washer, R/P Lever Spring M'tg	M 22	RFN144Z	Washer, Pinch Roller	M 55	RFJ45Z	Supply Reel Table Ass'y	M 74	RFS284Z	Spring, Eject Arm	M 101	RFE104Z	Screw, RF Pulley Arm M'tg
M 124	RWN1XF11J	Head Lead Wire Ass'y	M 130	RUB321Z	R/P Lever	M 23	RFS276Z	Spring, Pinch Roller	M 56	RFE97Z	Screw, Auto Stop Lever M'tg	M 75	RFS285Z	Spring, Stop/Eject Button Lever	M 102	RFY73Z	Spacer, RF Pulley Arm
			M 131	XSHR17 + 2FZ	Screw, R/P Lever M'tg	M 24	RFR11Z	Pinch Roller Ass'y	M 57	RFS280Z	Spring, Auto Stop Lever	M 76	RFS286Z	Spring, Pause Button Lever	M 103	RFY236Z	RF Pulley Arm Ass'y
						M 25	RFD147Z	Bracket, Flywheel	M 58	RFX69Z	Spacer, Auto Stop Lever	M 77	RFS287Z	Spring, FF Button Lever	M 104	RFQ21Z	RF Pulley Ass'y
						M 26	RFE93Z	Screw, Flywheel Bracket M'tg	M 59	RFY221Z	Lever, Auto Stop	M 78	RFS287Z	Spring, FF Button Lever			
									M 60	RFE98Z	Screw, Flywheel Bracket M'tg	M 79	RFN146Z	Washer, FF/REW Pulley	M 105	RFG39Z	FF Gear
Tape [2] Only			Same Parts Both Tape [1] and Tape [2]			M 27	RFE94Z	Screw, Side Bracket (L) M'tg	M 61	RFD201Z	Bracket, Flywheel	M 81	RFX71Z	Spacer, Rewind Arm	M 106	RFN108Z	Washer, Auto Stop Kick Arm
M 1	RJH2S3Y	R/P Head	M 5	RFM49Z	DC Motor Ass'y	M 30	RFI31Z	Rubber, Motor	M 62	RFS281Z	Spring, Flywheel	M 82	RFY225Z	REW Arm	M 108	RFE202Z	Side Bracket (L)
M 2	RJH2C01XZ	Erase Head	M 6	RFE129Z	Screw, Azimuth Adjustment	M 31	RFX116Z	Screw, Motor M'tg	M 63	RFS281Z	Spring, Flywheel	M 83	XQN2 + A3FZ	Screw, Bracket M'tg	M 109	RFD199Z	Plate, Pressre
M 12	RFE89Z	Screw, Erase Head M'tg	M 7	XYN2 + 5F	Screw, R/P Head M'tg	M 32	RFS474Z	Spring, Caccette Pressure	M 64	RFE88Z	Bearing, Flywheel	M 84	RFS292Z	Spring, Playback Button Lever	M 110	RFE201Z	Side Bracket (R)
M 13	RFD146Z	Plate, Erase Head	M 8	RFN80Z	Washer, R/P Head	M 33	RFE203Z	Head Plate (B)	M 65	RFE99Z	Screw, Flywheel Bracket M'tg	M 85	RFS289Z	Spring, Pause Lever	M 111	RFS479Z	Spring, REW Button Lever
M 28	RFY219Z	Lever, Erase Head	M 9	RFS40Z	Spring, Azimuth Adjustment	M 35	RFE96Z	Screw, Eject Kick Arm M'tg	M 66	RFY222Z	Switch Operation Plate	M 86	RFY226Z	Pause Lever	M 114	RFD200Z	Switch Angle
M 29	RFS277Z	Spring, Erase Head	M 10	RFX65Z	Spacer, R/P Head	M 36	RFX68Z	Spacer, Eject Kick Arm	M 67	RFS282Z	Spring, Switch Operation Plate	M 87	RZL1XF11J	Pause Button Lever Ass'y	M 119	RFY108Z	Collar, Rec Button
M 78	RFS288Z	Spring, Rec Button Lever	M 11	RFE173Z	Tape Guide (B)	M 38	RFY452Z	Eject Kick Arm	M 68	RFY223Z	Lock Operation Plate	M 88	RZL2XF11J	Stop/Eject Button Lever Ass'y	M 120	XSN2 + 4	Screw, Switch Angle M'tg
M 91	RZL5XF11J	Play Button Lever Ass'y	M 14	RFE90Z	Screw, Tape Guide (A) etc. M'tg	M 39	RFU44Z	Shassis Ass'y	M 69	RFX475Z	Spring, Pinch Roller	M 89	RZL3XF11J	FF Button Lever Ass'y	M 121	XSN2 + 5	Screw, Switch M'tg
M 92	RZL6XF11J	Record Lever Ass'y	M 15	RFE200Z	Tape Guide (A)	M 40	RFX475Z	Spring, Pinch Roller	M 90	RZL4XF11J	REW Button Lever Ass'y	M 93	RZL4XF11J	REW Button Lever Ass'y	M 125	RHP110Y	Paer Sheet
M 98	RFS291Z	Spring, Rec Safty Lever	M 16	RFE91Z	Screw, Detector Arm etc. M'tg	M 41	RFD198Z	Bracket, Motor	M 94	RFE100Z	Screw, Switch M'tg	M 99	RFX72Z	Spacer, Rec Safty Lever	M 126	RDH213Z5	Ornaments Plate Black
M 99	RFX72Z	Spacer, Rec Safty Lever							M 99	RFX72Z	Spacer, Rec Safty Lever	M 100	RFY235Z	Rec Sefty Lever	M 127	RDH213Z	Ornaments Plate Red
M 100	RFY235Z	Rec Sefty Lever	M 17	RFX66Z	Spacer, Detector Arm				M 100	RFY235Z	Rec Sefty Lever	M 101	RFX72Z	Spacer, Rec Safty Lever			
M 118	RFD202Z	Record Angle	M 18	RFY218Z	Detector Arm Ass'y				M 118	RFD202Z	Record Angle	M 102	RFY73Z	Spacer, RF Pulley Arm			
						M 51	RFF34Z	Flywheel Ass'y				M 103	RFY236Z	RF Pulley Arm Ass'y			
												M 104	RFQ21Z	RF Pulley Ass'y			

CABINET PARTS LOCATION



REPLACEMENT PARTS LIST

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.

Notes:

ΔFor U.S.A. areas
 $\square$For Canada areas

Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
CABINET PARTS			K 17	XTV3 + 10G	Screw, Circuit Board etc. M'tg	K 38	RJM151Z	Condenser Microphone
K 1	RYMXF11M	Front Cabinet Ass'y (Black)	K 18	RME314Z	Bracket, Gear	K 39	RJP2G4Y	Plug (2P), CP2, 5, 6
K 1	RYMXF11M2	Front Cabinet Ass'y (Red)	K 19	XTV3 + 8G	Screw, Speaker M'tg	K 40	RJP3G4Y	Plug (3P), CP3, 10
K 2	RYFXF11M	Rear Cabinet Ass'y (Black)	K 20	RDZ03Y	Dial Cord	K 41	RJP4G4Y	Plug (4P), CP4, 7
K 2	RYFXF11M2	Rear Cabinet Ass'y (Red)	K 21	RJS2L3Z	Socket (2P), CS2, 5, 6	K 42	RJP7G1Z	Plug (7P), CP9
K 2-1	RJC60004Z	Spring, Battery	K 22	XTN3 + 10B	Screw, Circuit Board M'tg	K 43	RJS2T1Z	Socket 2P, CS11
K 2-2	RJT898Z	Terminal, Telescopic Ant	K 23	RUP1888Y	Printed Circuit Board	K 44	RJS3T1Z	Socket 3P, CS1
K 2-3	RJC215Z	Terminal, Battery	K 24	RKK28729Z	Battery Cover (Black)	K 45	RJS3L3Z	Socket (3P), CS3
K 3	RYQ1XF11M	Cassette Lid Ass'y, Tape 1 (Black)	K 24	RKK2872Z	Battery Cover (Red)	K 46	RJT707Z	Terminal, Socket
K 3	RYQ1XF11M1	Cassette Lid Ass'y, Tape 1 (Red)	K 25	RKH134Z9Z	Handle (Black)	ACCESSORIES		
K 4	RYQ2XF11M	Cassette Lid Ass'y, Tape 2 (Black)	K 25	RKH134Z2Z	Handle (Red)	A 1 [M]	RD9403M	AC Adaptor Δ
K 4	RYQ2XF11M1	Cassette Lid Ass'y, Tape 2 (Red)	K 26	RKX320Z	Arm, Handle	[For U.S.A.]		
K 5	RJS7M2Z	Socket (7P), CS9	K 27	RKE495Z5	Jack Board (Black)	A 1 [C]	RD9403MC	AC Adaptor Δ
K 6	RJT1011Z	Terminal, Mechanism	K 27	RKE495Z	Jack Board (Red)	[For Canada.]		
K 7	RZAXF11J	Dial Chassis Ass'y	K 28	RDP279Z	Pointer, Dial	A 2 [M]	RQX4589Z	Instruction Book
K 8	EAS85P27S	Speaker	K 29	RGM289Z	Metal Net	[For U.S.A.]		
K 9	RDS3060A	Spring, Dial	K 30	RBD301Z5	Knob (Black), Slide Switch	A 2 [C]	RQX4614Z	Instruction Book
K 10	RUS600Z	Spring, Cassette Lid	K 30	RBD301Z	Knob (Red), Slide Switch	[For Canada.]		
K 11	RDD329Z	Drum, Dial	K 31	RBD302Z5	Knob (Black), Band Switch	PACKINGS		
K 12	RDG5709Z	Gear, Cassette Lid	K 31	RBD302Z	Knob (Red), Band Switch	P 1	RPN4600Z	Pad, AC Adaptor
K 13	XSN26 + 6	Screw, Drum M'tg	K 32	RBT214Z9	Knob (Black), Volume	P 2	RPN4684Z	Pad, Bottom
K 14	XWA26B	Washer, Drum M'tg	K 32	RBT214Z1	Knob (Red), Volume	P 3	RPN9488Z	Pad, Complete
K 15	XTS3 + 8BFN	Screw, Handle M'tg	K 33	RBT223Z5	Knob (Black), Tuning	P 4 [M]	RPK2013Z	Gift Box
K 16	XTN3 + 50G	Screw, Cabinet M'tg	K 33	RBT223Z	Knob (Red), Tuning	[For U.S.A.]		
			K 34	XEARR225EAK	Telescopic Ant	P 4 [C]	RPK2025Z	Gift Box
			K 35	XSN3 + 10S	Screw, Telescopic Ant M'tg	[For Canada.]		
			K 36	XWA3B	Washer, Telescopic Ant M'tg	P 5	RPP670Z	Polyethylene Cover
			K 37	XWG3	Washer, Telescopic Ant M'tg	P 6	RPE566Z	Pad, Button

GAD



K.S.

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