ORDER NO. RD82072012C3

2679

Service Manual

Radio Cassette

RX-4970F

FM-MW-SW1-SW2 Stereo Radio Cassette Recorder

■ SPECIFICATIONS

General:

Power Requirement:	AC; 110~115/115~127/200~220/230~250 V, 50/60 Hz Battery; 9 V (Six "D" Size Flashlight Batteries) (National UM-1 or equivalent)
Power Consumption:	16 W (AC only)
Power Output:	7 W (3.5 W×2) . . . RMS (max.) 10 W (5 W×2) . . . PMPO
Speaker:	Woofer; 12 cm (5") PM Dynamic Speaker (3Ω) Tweeter; 3 cm (1 1/4") Ceramic Speaker (600Ω)
Input:	MIC; sensitivity 0.33 mV/applicable microphone impedance 200~600Ω
Output:	EXT SP; 3~8Ω HEADPHONES; 8Ω (0.56 mW)
Dimensions:	434 mm(W)×228 mm(H)×131 mm(D) (17 1/16×9×5 3/16)"
Weight:	2.8 kg (6 lb. 3 oz.) without batteries

Radio Section:

Radio Frequency Range:	FM; 88~108 MHz MW; 525~1605 kHz (571~187 m) SW1; 2.3~7 MHz (130~42.9 m) SW2; 7~22 MHz (42.9~13.6 m)
Intermediate Frequency:	FM; 10.7 MHz AM (MW/SW); 455 kHz
Sensitivity:	FM; 2.6μV/50 mW output MW; 70μV/m/50 mW output SW1; 50μV/m/50 mW output SW2; 4μV/50 mW output

Tape Deck Section:

Frequency Response:	100~10,000 Hz (with normal tape)
Recording system:	DC bias, Magnet erase
Tape Speed:	4.8 cm/s, (1 7/8 ips)
Program Time:	1 hour with C-60 cassette tape
Track System:	4-track 2 channel stereo recording and playback

Specifications are subject to change without notice.

National Panasonic

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

2679

LOCATION OF CONTROLS AND COMPONENTS

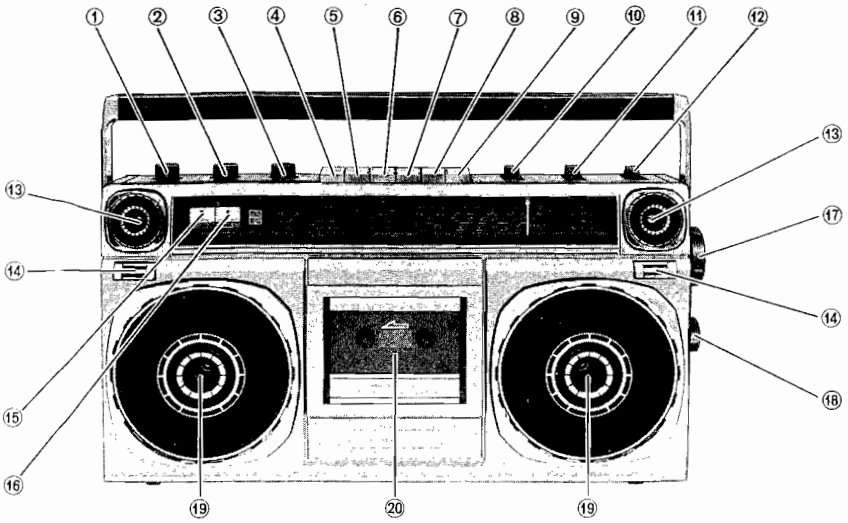


Fig. 1

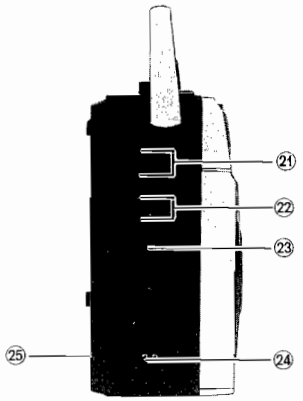


Fig. 2

① Tone Control (TONE)
② Balance Control (BALANCE)
③ Volume Control (VOLUME)
④ Pause Button (▮▮ PAUSE)
⑤ Playback Button (◀ PLAY)
⑥ Fast Forward Button (◀◀FF)
⑦ Rewind Button (▶▶ REWIND)
⑧ Record Button (○ RECORD)
⑨ Stop/Eject Button (■ STOP/⏏ EJECT)
⑩ Function Selector
(RADIO/POWER OFF, TAPE)
⑪ Band Selector (FM/MW/SW1/SW2)
⑫ FM Mode Selector (STEREO/MONO)

⑬ Tweeters (Treble Speakers), 600Ω, 3 cm (1 $\frac{1}{4}$ ")
⑭ Built-in Microphones (MIC)
⑮ LED Power Indicator (POWER)
⑯ FM Stereo Indicator (FM STEREO)
⑰ Tuning Control (TUNING)
⑱ Fine Tuning Control (FINE TUNING)
⑲ Woofers (Bass Speakers), 3Ω ,12 cm (5")
⑳ Cassette Compartment
㉑ Microphone Jacks (MIC), 0.33 mV, 200~600Ω
㉒ External Speaker Jacks (EXT SP IMP 3–8Ω)
㉓ Headphones Jack (PHONES), 8Ω (0.56 mW)
㉔ AC Socket (AC IN ~)
㉕ Voltage Selector (VOLTAGE SELECTOR)

DISASSEMBLY INSTRUCTIONS

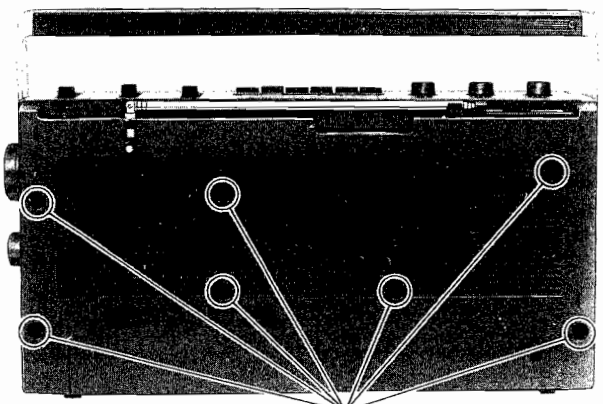


Fig. 3

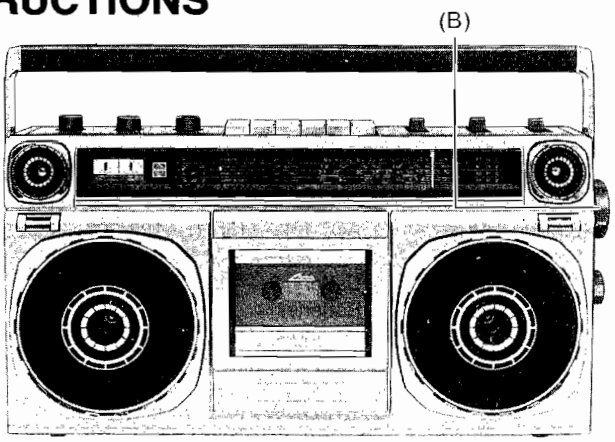


Fig. 4

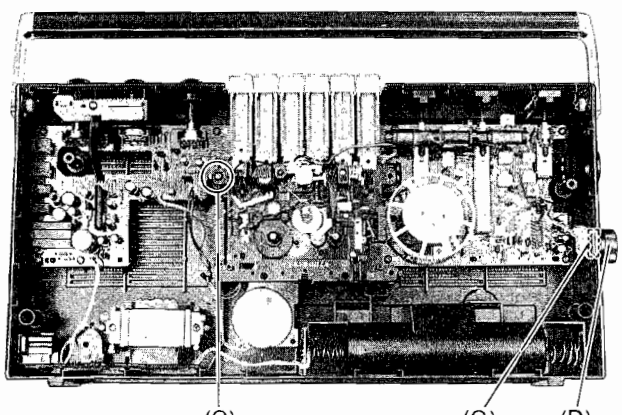


Fig. 5

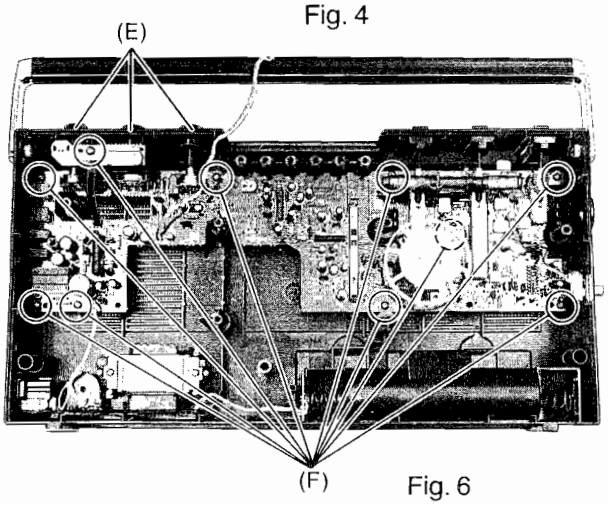


Fig. 6

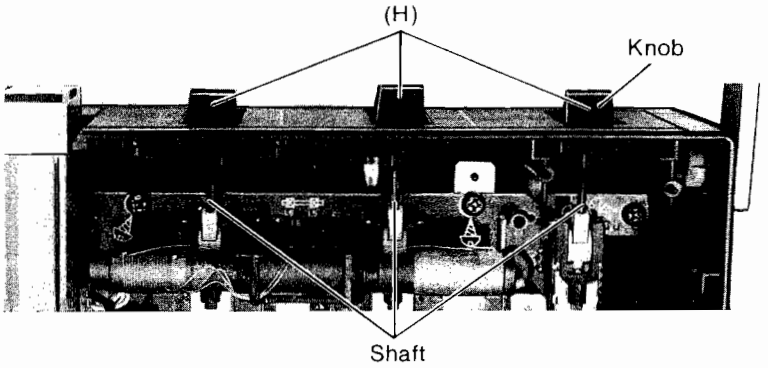


Fig. 7

Procedure	To remove—.	Remove—.	Shown in Fig.—.
1	Front Cabinet *1, 2	Screw (3×40) ..... (A)×7	3
2		Knob ..... (B)×1	4
3		Push the eject button	——
4	Mechanism	Screw (3×12) ..... (C)×1	5
5	Circuit Board	Knob ..... (D)×1	5
6		Knob ..... (E)×3	6
7		Screw (3×12) ..... (F)×10	6
8		Nut (8∅) ..... (G)×1	5
9		Pull out the knob and shaft together ..... (H)×3	7

Notes:
*1. Turn the dial drum to fully counter-clockwise.
*2. Turn the tuning shaft to fully counter-clockwise.

MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT POINTS

*Please refer to Circuit Board which is located test point.

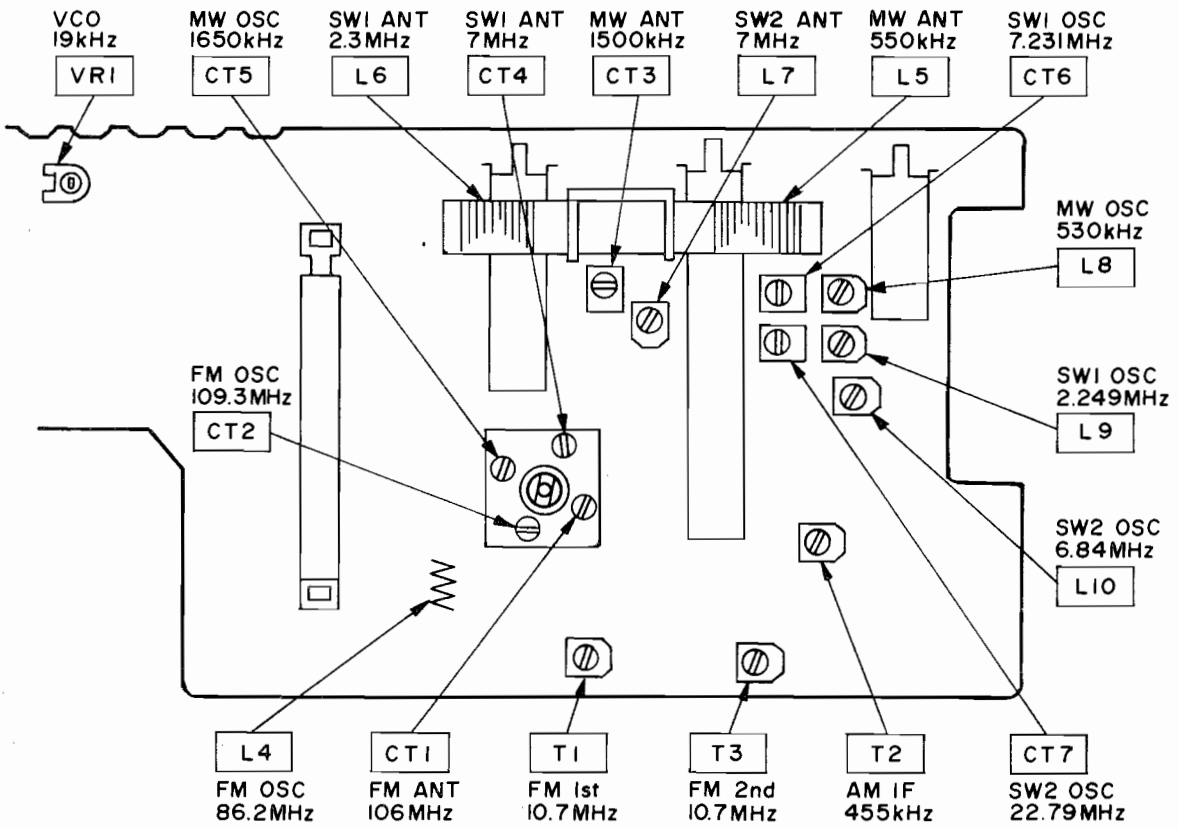


Fig. 8

■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1. Set volume control to maximum. 2. Set tone control to treble. 3. Set band switch to MW, SW1, SW2 or FM. 4. Set function selector to radio.	5. Set balance control to center. 6. Supply DC 9 V through the battery terminals. 7. Output of signal generator should be no higher than necessary to obtain an output reading.

■ MW, SW1, and SW2 ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
		AM-IF ALIGNMENT					
(1)	MW	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz 30% Mod. at 400 Hz	Point of non-interference. (on/ about 600 kHz)	Output meter across voice coil.	T2 (AM IFT)	Adjust for maximum output.
		MW-RF ALIGNMENT					
(2)	MW	,,	530 kHz	Tuning capacitor fully closed.	,,	L8 (MW OSC Coil)	,,
(3)	MW	,,	1650 kHz	Tuning capacitor fully open.	,,	CT5 (MW OSC Trimmer)	,,
(4)	MW	,,	550 kHz	Tune to signal.	,,	(*1) L5 (MW ANT Coil)	Adjust for maximum output. Adjust L5 by moving coil bobbin along ferrite core.
(5)	MW	,,	1,500 kHz	,,	,,	CT3 (MW ANT Trimmer)	Adjust for maximum output. Repeat steps (2)~(5).
	(*1) Cement antenna bobbin with wax after completing alignment.						
		SW1-RF ALIGNMENT					
(6)	SW1	,,	2,249 MHz	Tuning capacitor fully closed.	,,	L9 (SW1 OSC Coil)	Adjust for maximum output.
(7)	SW1	,,	7,231 MHz	Tuning capacitor fully open.	,,	CT6 (SW1 OSC Trimmer)	,,
(8)	SW1	,,	2.3 MHz	Tune to signal.	,,	(*2) L6 (SW1 ANT Coil)	Adjust for maximum output. Adjust L6 by moving coil bobbin along ferrite core.
(9)	SW1	,,	7.0 MHz	,,	,,	CT4 (SW1 ANT Trimmer)	Adjust for maximum output. Repeat steps (6)~(9).
	(*2) Cement antenna bobbin with wax after completing alignment.						
		SW2-RF ALIGNMENT					
(10)	SW2	Connect to test point ⑨ through 10pF Capacitor. Negative side to test point ⑩.	6.84 MHz	Tuning capacitor fully closed.	,,	L10 (SW2 OSC Coil)	Adjust for maximum output.
(11)	SW2		22.79 MHz	Tuning capacitor fully open.	,,	CT7 (SW2 OSC Trimmer)	,,
(12)	SW2		7.0 MHz	Tune to signal.	,,	L7 (SW2 ANT Coil)	Adjust for maximum output. Repeat steps (10)~(12).

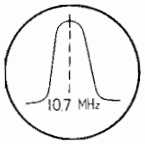


Fig. 9

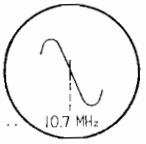
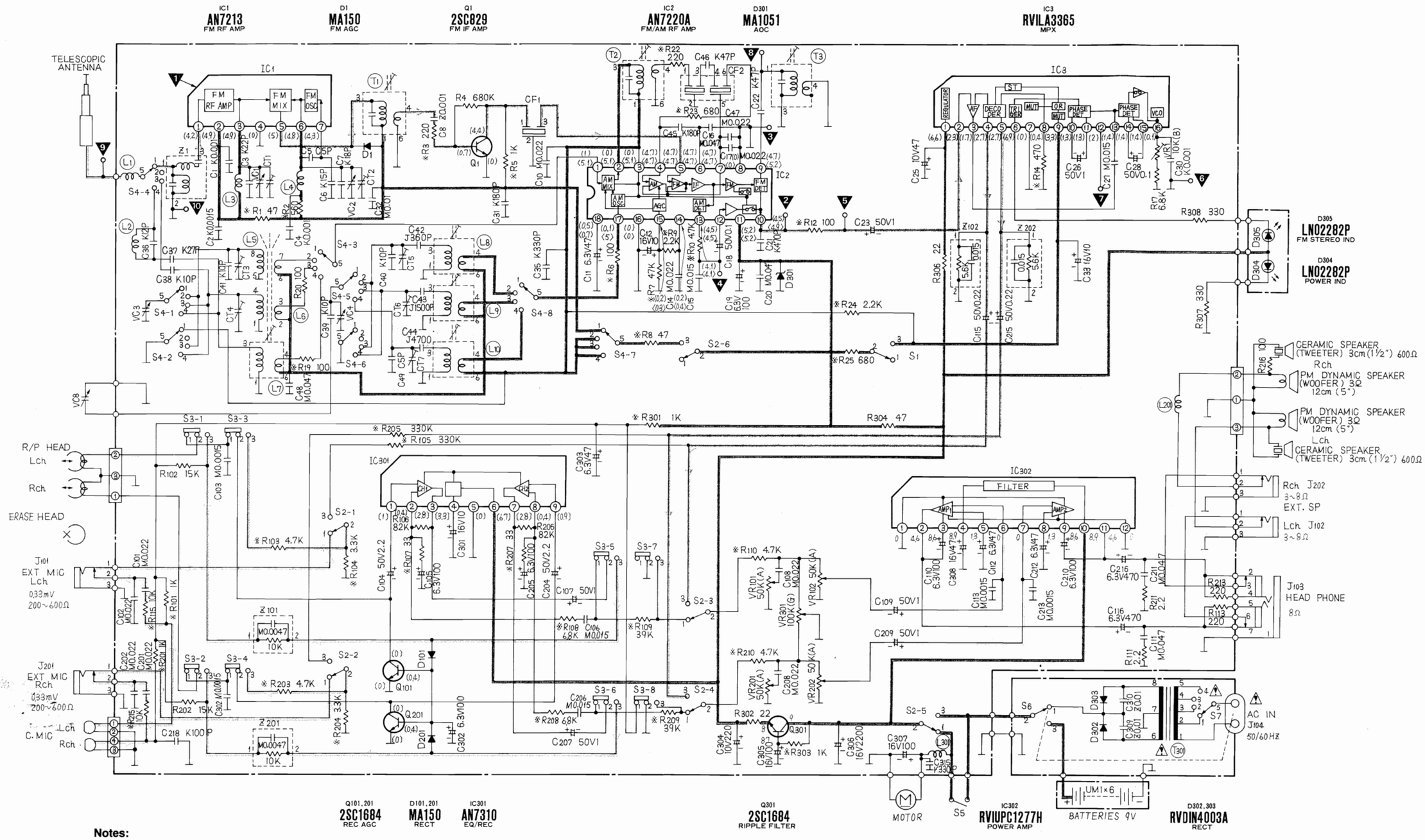


Fig. 10

SCHEMATIC DIAGRAM MODEL RX-4970F

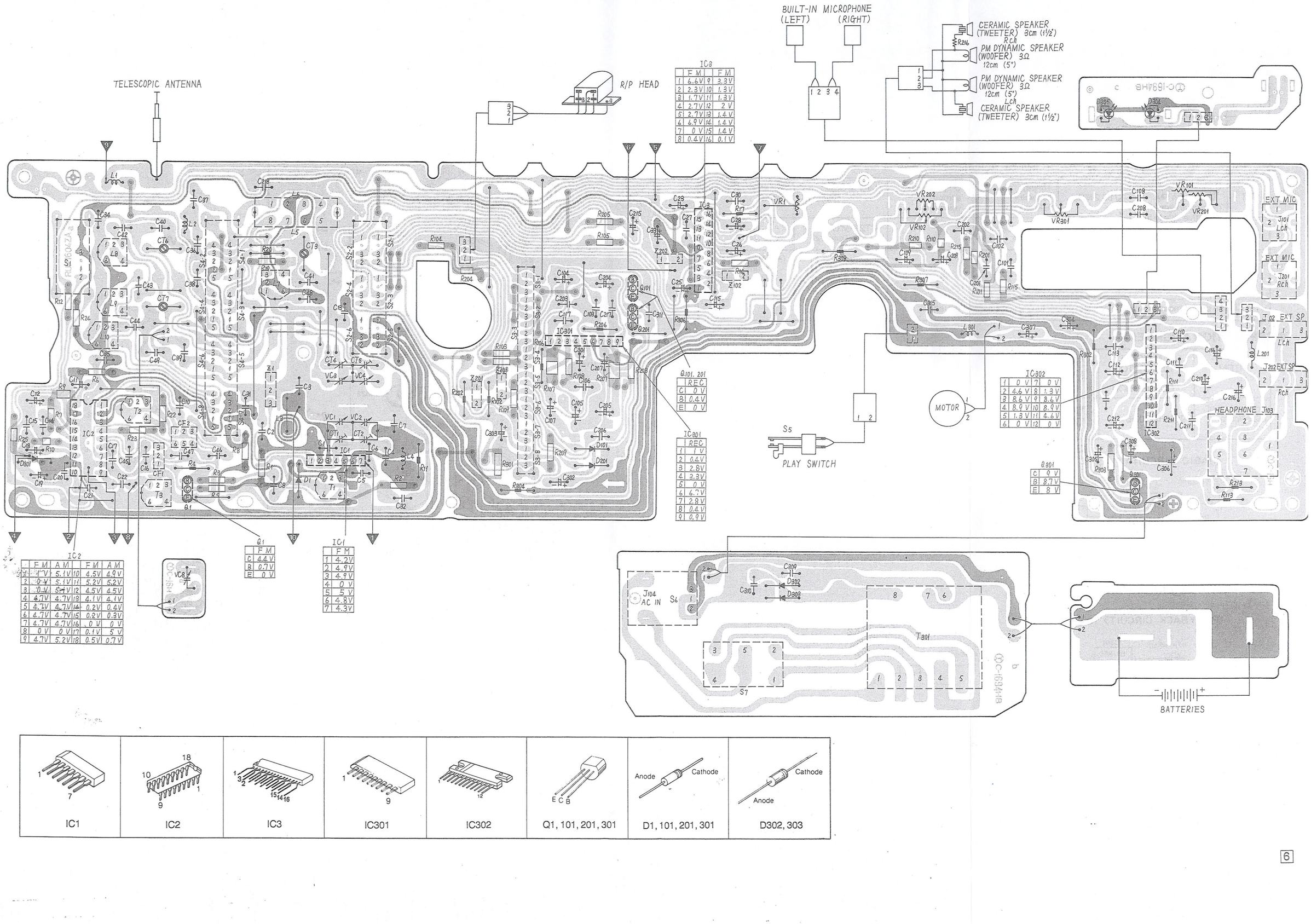


Notes:

1. S1: FM mode switch in "STEREO" position.
   (1 . . . STEREO, 3 . . . MONO)
2. S2-1~S2-6: Function switch in "TAPE" position.
   (1 . . . POWER OFF/TAPE, 3 . . . RADIO)
3. S3-1~S3-8: Record/Playback switch in "Playback" position.
   (1 . . . Playback, 3 . . . Record)
4. S4-1~S4-8: Band switch in "FM" position.
   (1 . . . FM, 2 . . . MW, 3 . . . SW1, 4 . . . SW2)
5. S5: Motor switch.
6. S6: AC/DC select switch in "AC" position.
7. S7: Voltage selector.
8. The marks (※) shows printed-type resistors.
9. DC voltage measurement are taken with electronics voltmeter from negative terminal of battery.
   < > . . . AM, ( ) . . . FM [ ] . . . Record
10. Battery current: No singal . . . . . 100 mA
    Maximum output (radio) . . . . . 930 mA
    Maximum output (tape) . . . . . 1.1 A
11. VR1: VCO adjustment VR.
    VR101, 201: Tone control VR.
    VR102, 202: Volume control VR.
    VR301: Balance control VR.
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.

+Ⓑ Voltage Line
Record Signal Line
Radio (FM) Signal Line
Playback Signal Line

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM MODEL RX-4970F



■ 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 ⑦ through 0.01 μF. Negative side to test point ⑩.	10.7 MHz (SWP.)	Point of non-interference. (on/ about 90 MHz)	Connect vert. amp. of scope to test point ②. Negative side to test point ③.	T1 (FM 1st IFT)	Adjust for maximum amplitude. (Refer to Fig. 9.)
(2)	FM	,,	,,	,,	,,	T3 (FM 2nd IFT)	Adjust for maximum amplitude. (Refer to Fig. 10.)
		FM-RF ALIGNMENT					
(3)	FM	Connect to test point ⑨ through FM dummy antenna. Negative side to test point ⑩.	86.2 MHz	Tuning capacitor fully closed.	Output meter across voice coil.	L4 (FM OSC Coil)	Adjust for maximum output.
(4)	FM		109.3 MHz	Tuning capacitor fully open.	,,	CT2 (FM OSC Trimmer)	,,
(5)	FM	,,	106 MHz	,,	,,	CT1 (FM ANT Trimmer)	(*1) Adjust for maximum output. Repeat steps (3)~(5).

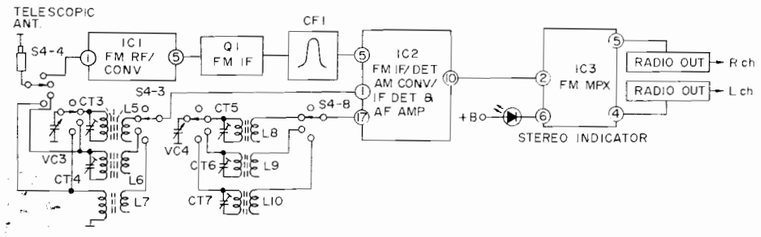
(*1) Three output responses will be present; proper tuning is the center frequency.

■ SEPARATION ALIGNMENT

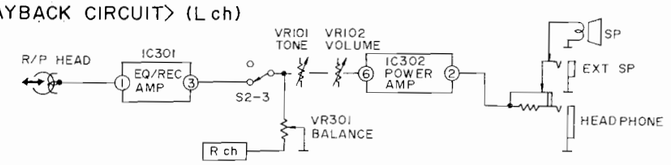
ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
Adjustment of pilot signal.	98 MHz, 60 dB	⑦ ... (+) side ⑧ ... (−) side	VR1	19 kHz	Adjust VR1, for 19 kHz (±200 Hz) reading on electronics counter.

BLOCK DIAGRAM

〈RADIO CIRCUIT〉



〈PLAYBACK CIRCUIT〉 (L ch)



〈RECORDING CIRCUIT〉 (L ch)

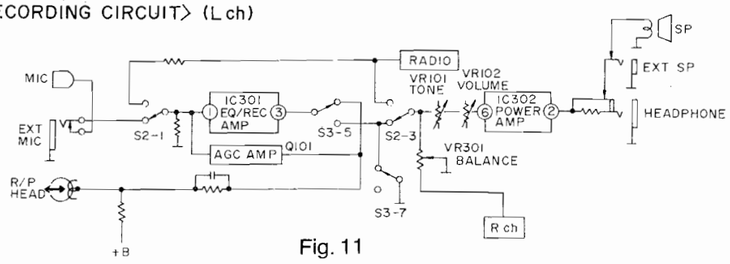
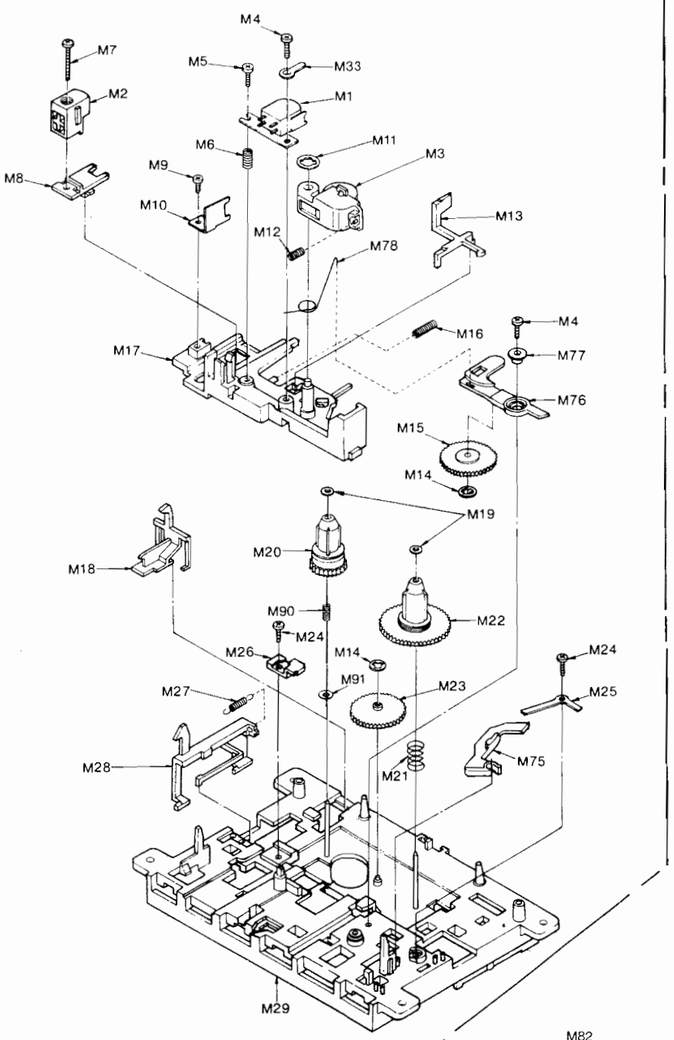


Fig. 11

MECHANISM PARTS LOCATION

●Top View



●Bottom View

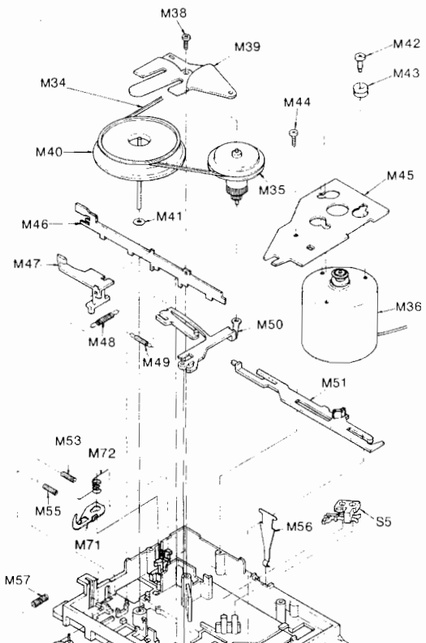


Fig. 12

Fig. 13

CABINET PARTS LOCATION

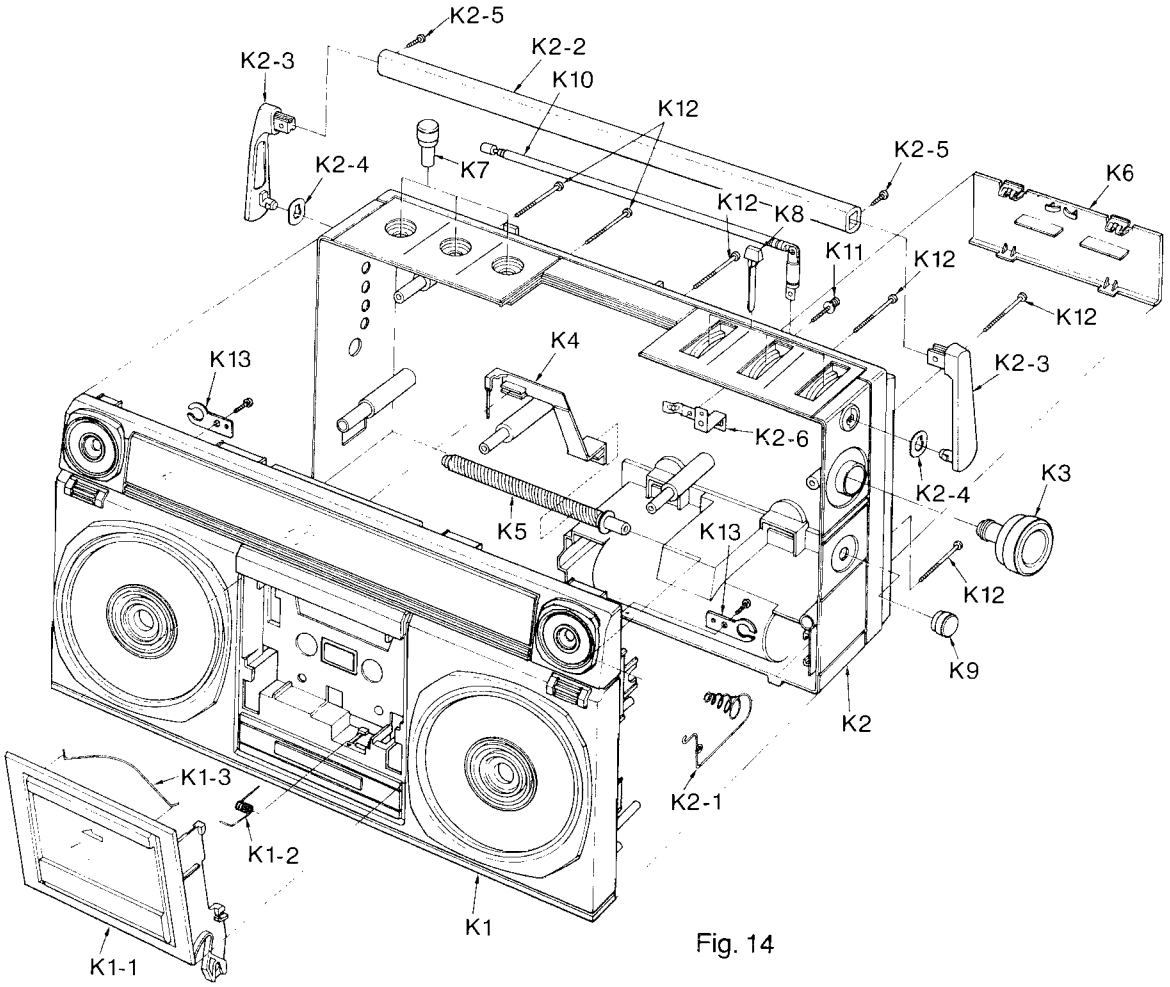


Fig. 14

ELECTRICAL PARTS LOCATION

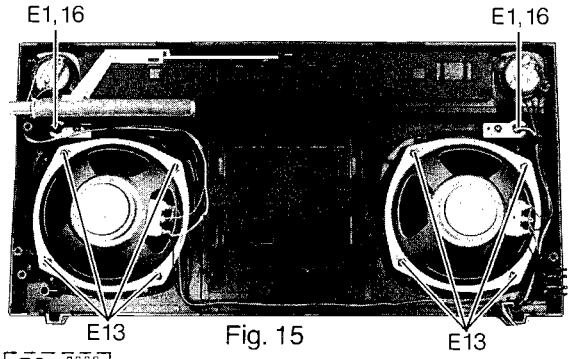


Fig. 15

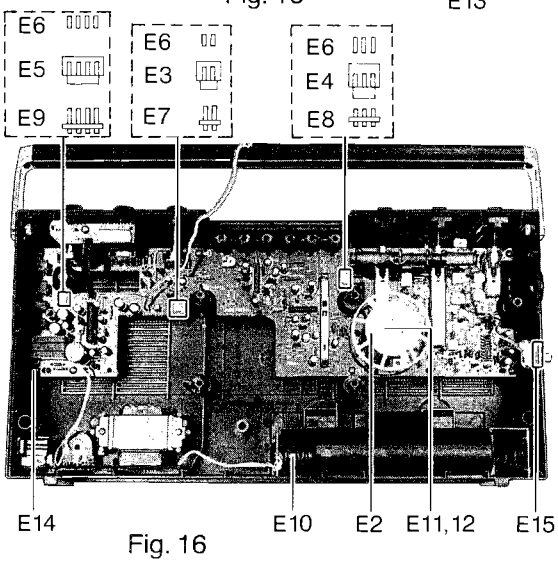


Fig. 16

■REPLACEMENT PARTS LIST·····Model RX-4970F

(RD82062012C3)

NOTES: 1. 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.
2. The S mark indicates service standard parts and may differ from production parts.

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		MECHANICAL PARTS		
M1	RJH2E4Y	Record/Playback Head	1	
M2	QWY2127Z	Erase Head	1	
M3	RFR6Y	Pinch Roller Ass'y	1	
M4	XTN2+8B	Screw, Record/Playback Head M'tg	1	S
M5	XSN2+8	Screw, Record/Playback Head M'tg	1	S
M6	RFS107Z	Spring, Record/Playback Head	1	
M7	XTN26+14B	Screw, Erase Head M'tg	1	
M8	RFE32Z	Erase Head Plate	1	
M9	XTN2+6B	Screw, Tape Guide M'tg	1	S
M10	RFD107Z	Tape Guide	1	
M11	RFX40Y	Speed Nut, Pinch Roller Ass'y M'tg	1	
M12	RFS152Y	Spring, Pinch Roller Ass'y	1	
M13	RFY91Z	Auto Stop Lever	1	
M14	RFX39Y	Speed Nut, Play & FF Gear	2	
M15	RFG20Z	Playback Gear	1	
M16	RFS153Z	Spring, Head Base	1	
M17	RFU8Y	Head Base	1	
M18	RFY93Z	Lever, Erase Safety	1	
M19	RFN43Y	Washer, Reel Table Ass'y	2	
M20	RFJ13Y	Supply Reel Table Ass'y	1	
M21	RFS154Z	Spring, Reel Table Ass'y	1	
M22	RFJ15Z	Takeup Reel Table Ass'y	1	
M23	RFG19Z	Fast Forward Gear	1	
M24	XTN26+6B	Screw, Earth Terminal M'tg	1	S
M25	RFE31Y	Terminal, Earth	1	
M26	RFE30Y	Holder, Head Base	1	
M27	RFS155Z	Spring, Cassette Lid Lock & Rec Lever	2	
M28	RFY92Z	Lever, Cassette Lid Lock	1	
M29	RFU7Y	Chassis Ass'y	1	
M33	RFE24Z	Lug Terminal	1	
M34	RFB11Z	Motor Belt	1	
M35	RFK4Z	Idler Ass'y	1	
M36	RFM9001Z	Motor Ass'y with Pulley	1	
M38	XTN3+10B	Screw, Flywheel Bracket M'tg	1	S
M39	RFD106Z	Bracket, Flywheel	1	
M40	RFF12Z	Flywheel Ass'y	1	
M41	RFN44Z	Washer, Flywheel	1	
M42	QHQ1223	Screw, Motor M'tg	3	
M43	QBG1539	Rubber, Motor	3	
M44	XTV3+8G	Screw, Motor Bracket & R/P Spring M'tg	3	
M45	RME263Z	Bracket, Motor	1	
M46	RFY89Y	Lever, Lock	1	
M47	RFY90Z	Lever, Lock	1	
M48	RFS148Z	Spring, Lock	1	
M49	RFS156Z	Spring, Takeup Lever	1	
M50	RFY86Y	Lever, Takeup	1	
M51	RFY88Y	Holder, Lever	1	
M53	RFS149Z	Spring, Lever Holder	1	
M55	EFS150Z	Spring, Lock Lever	1	
M56	RFS151Z	Spring, Cassette Holder	1	
M57	RFS147Z	Spring, Pause, FF, Rewind & Stop Eject Lever	4	
M58	RFY80X	Lever, Pause	1	
M59	RFY81Y	Lever, Playback	1	
M60	RFY82X	Lever, Fast Forward	1	
M61	RFY83Y	Lever, Rewind	1	
M62	RFY84Z	Lever, Record	1	
M63	RFY85Y	Lever, Stop & Eject	1	
M64	RBC338Z	Button, Stop/Eject	1	
M65	RBC339Z	Button, Record	1	
M66	RBC340Z	Button, Rewind	1	
M67	RBC341Z	Button, Fast Forward	1	
M68	RBC342Z	Button, Playback	1	
M69	RBC343Z	Button, Pause	1	
M70	RUS466Z	Spring, Record/Playback	1	
M71	RFY101Z	Pause Lock	1	
M72	RFS163Z	Spring, Pause Lock	1	
M73	RFN47Z	Washer	1	
M74	RFE35Z	Lever, Lock Holder	1	
M75	RFY102Z	Pause Cam	1	
M76	RFY103Z	Pause Arm	1	
M77	RFX44Z	Spacer, Pause Arm	1	
M78	RFS164Z	Spring, Pinch Roller	1	
M79	XSN3+8S	Screw, Button M'tg	5	S
M80	XWG3	Washer	5	S
M81	XTV3+8BFN	Screw, Button M'tg	1	S
M82	RBC433Z	Lever, Button	5	
M83	RBC434Z	Lever, Record Button	1	
M90	RFS247Z	Spring, Supply Reel Table	1	
M91	RFN70Z	Washer, Supply Reel Table	1	
		INTEGRATED CIRCUITS, TRANSISTORS AND DIODES		
IC1	AN7213	IC	1	
IC2	AN7220A	IC	1	
IC3	RVILA3365	IC	1	
IC301	AN7310	IC	1	
IC302	RVIUPC1277H	IC	1	
Q1	2SC829-C	Transistor (Si)	1	S
Q101,201	2SC1684S	Transistor (Si)	2	
Q301	2SC1685-Q	Transistor (Si)	1	S
D1,101,201	MA161	Diode (Si)	3	S
D301	MA1051	Diode (Si)	1	S
D302,303	RVD1N4003A	Diode (Si)	2	
D304,305	LN02282P	LED	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		COILS AND TRANSISTORS		
L4	RLD4Y43	Coil, FM Oscillator	1	
L5	RLF5W153	Coil, MW Antenna	1	
L7	RLA3M62	Coil, SW2 Antenna	1	
L8	RLO2M14	Coil, MW Oscillator	1	
L9	RLO3M18	Coil, SW1 Oscillator	1	
L10	RLO3M75	Coil, SW2 Oscillator	1	
L301	RLQZB220K	Coil, Choke	1	
T1,3	RLI4M101	IFT, FM	2	
T2	QLI2M102M	IFT, AM	1	S
T301	RLT5K3C3A	Power Transformer	1	⚠
		VARIABLE RESISTORS		
VR1	EVNM4AA00B14	Variable Resistor, Preset, 10kΩ (B)	1	S
VR101,201	EWCVAAF15A54	Variable Resistor, 50kΩ (A)	2	
VR102,202	EWCS1AF15A54	Variable Resistor, 50kΩ (A)	2	
VR301	EWHP3AF15G15	Variable Resistor, 100kΩ (G)	1	
		VARIABLE CAPACITORS		
VC1∿4	RCV4RC2RA	Tuning Capacitor, w/Trimmer Capacitor (CT1∿4)	1	
CT3,7	RCV1GT10A	Trimmer Capacitor	2	
CT6	RCV1GT20A	Trimmer Capacitor	1	
CT8	RCVMH8NC15	Trimmer Capacitor	1	
		CERAMIC FILTERS		
CF1	RVFSFE107MAZ	Ceramic Filter	1	
CF2	RVFSFZ455B	Ceramic Filter	1	
		COMPONENTS COMBINATIONS		
Z1	RXABPMB6AW	Component Combination	1	
Z101,201	EXRP472M103T	Component Combination	2	
Z102,202	EXRP153M562T	Component Combination	2	
		SPEAKERS		
	EAS12P218SA	Speaker, 12cm (5"), 3Ω, Woofer	2	
	EAS3FP03A	Speaker, 3cm (1-1/4"), 600Ω, Tweeter	2	
		SWITCHES		
S1	RST2A08Z	Switch, Mode	1	
S2	RST2F09Z	Switch, Function	1	
S3	RSH2H01Z	Switch, Record/Playback	1	
S4	RST4H06Z	Switch, Band	1	
S5	RFA20Z	Switch, Playback	1	
S7	RSR4A07Y	Switch, Voltage Selector	1	⚠
		JACKS		
J101,201	QJA0172	Jack, Microphone	2	
J102,202	RJJ19Y	Jack, EXT. SP	2	
J103	RJJ1E8Z	Jack, Headphone	1	
J104	RJJ1A3Z	Jack, AC IN	1	⚠
		RESISTORS (Value is in OHMS)		
R20,216	ERD25FJ101	100 1/4W Carbon	2	S

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R102,202	ERD25FJ153	15 k 1/4W Carbon	2	S
R111,211	ERD25FJ2R2	2.2 " "	2	S
R302,306	ERD25FJ220	22 " "	2	S
R113,213	ERD25FJ221	220 " "	2	S
R307,308	ERD25FJ331	330 " "	2	S
R304	ERD25FJ470	47 " "	1	S
R17	ERD25FJ682	6.8 k " "	1	S
R4	ERD25TJ684	680 k " "	1	S
R106,206	ERD25TJ823	82 k " "	2	S
		CAPACITORS (Value is in MICRO FARADS except P.P=PICO FARADS)		
C5,49	ECCD1H050CC	5 P 50V Ceramic	2	
C38,39,40,41	ECCD1H100KC	10 P " "	4	
C218	ECCD1H101K	100 P " "	1	
C36	ECCD1H120KC	12 P " "	1	
C6	ECCD1H150KC	15 P " "	1	
C7	ECCD1H180KC	18 P " "	1	
C31,45	ECCD1H181K	180 P " "	2	
C3	ECCD1H220KC	22 P " "	1	
C37	ECCD1H270KC	27 P " "	1	
C35,315	ECCD1H331K	330 P " "	2	
C22,46	ECCD1H470KC	47 P " "	2	
C1,4	ECKD1H102KB	0.001 " "	2	
C8	ECKD1H102ZF	0.001 " "	1	
C32	ECKD1H103MD	0.01 " "	1	
C309,310	ECKD1H103ZF	0.01 " "	2	
C2,103,113,203,213	ECKD1H152MD	0.0015 " "	5	
C21	ECKD1H471KB	470 P " "	1	
C30	ECQG1H102KZ	1000 P " Polyester	1	
C43	RCQP2A152JZ	1500 P 100V "	1	
C42	RCQP2A361JZ	360 P " "	1	
C44	RCQP2A472JZ	4700 P " "	1	
C15,27,106,206	ECFT1E153MD	0.015 25V Semi-Conductor	4	
C10,14,17,47, 101,102,108, 201,202,208	ECFT1E223MD	0.022 " "	10	
C16,20,48,111,211	ECFT1E473MD	0.047 " "	5	
C19,105,110,205, 210,302,305	ECEA1AS101	100 10V Electrolytic	7	S
C11,25,112,212,303	ECEA1AS470	47 " "	5	S
C116,216	ECEA0JS471	470 6.3V "	2	S
C304	ECEA1AS221	220 10V "	1	S
C12,33,301	ECEA1HS100	10 50V "	3	S
C307	ECEA1ES101	100 25V "	1	S
C306	ECEA1CS222	2200 16V "	1	S
C308	ECEA1ES470	47 25V "	1	S
C115,215	ECEA1HSR22	0.22 50V "	2	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C18,28 C23,26,107, 109,207,209	ECEA1HS0R1	0.1 50V Electrolytic	2	
	ECEA50Z1	1 " "	6	S
C104,204	ECEA50Z2R2	2.2 " "	2	S
		CABINET PARTS		
K1	RYMX4970FX91	Front Cabinet Ass'y	1	
K1-1	RYPX4950M	Cassette Panel Ass'y	1	
K1-2	RDS4082Z	Spring, Eject	1	
K1-3	RUS438Z	Spring, Cassette Tape	1	
K2	RYFX4970FX	Rear Cabinet Ass'y	1	
K2-1	RJC931Z	Terminal, Battery +, - Side	1	
K2-2	RKX247Z1	Handle	1	
K2-3	RKX248Z	Arm, Handle	2	
K2-4	RKX252Z	Spacer, Arm	2	
K2-5	XTB3+8CFZ	Screw, Handle M'tg	2	
K2-6	RJT773Z	Terminal, Telescopic Ant.	1	
K3	RYTX4970FX1	Knob Ass'y, Tuning	1	
K4	RDP239Z1	Pointer, Dial	1	
K5	RDG5807Y	Worm Gear	1	
K6	RKK224Z	Battery Cover Ass'y	1	
K7	RBN572Z2	Knob, Volume	3	
K8	RBS200Z1	Knob, Switch	3	
K9	RBN591Y1	Knob, Fine Tuning	1	
K10	XEAQCR228FAK	Telescopic Antenna	1	
K11	XYN3+C12FY	Screw, Telescopic Antenna M'tg	1	
K12	XTB3+40CFY	Screw, Cabinet M'tg	7	
K13	RMD4019Z	Bracket, Microphone	2	
		ELECTRICAL PARTS		
E1	WM034CZ102	Microphone	2	
E2	RDG5699Z	Drum, Dial	1	
E3	RJS2L1Z	Socket, 2 Pin	1	
E4	RJS3L1Z	Socket, 3 Pin	2	
E5	RJS4L1Z	Socket, 4 Pin	1	
E6	RJT462Z	Terminal, Socket	12	
E7	RJP2G1Z	Plug, 2 Pin	1	
E8	RJP3G1Z	Plug, 3 Pin	2	
E9	RJP4G1Z	Plug, 4 Pin	1	
E10	RJC511Z	Spring, Battery - Side	1	
E11	XSN26+8	Screw, Drum M'tg	1	S
E12	XWA26	Washer	1	S
E13	XTV3+10G	Screw, Speaker M'tg	8	
E14	XTV3+12G	Screw, Circuit Board M'tg	13	
E15	XNS8D	Nut, Fine Tuning M'tg	1	
E16	QBG1526B	Rubber, Microphone	2	
		ACCESSORIES		
	RJA21Z	Power Cord, AC	1	⚠
	RQE13Z	Caution Tag	1	
	RJP120ZS	Plug, Power Cord	1	⚠
	RJN18Z	Cassette Tape	1	
		PACKING MATERIALS		
	XZB60X50A01	Polyethylene Cover	1	S

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
	RPN9413Z	Pad Complete	1	
	RPK1403Z	Gift Box	1	
	RPN3755Z	Pad, Cassette Panel	1	
		PRINTED MATERIAL		
	RQX6932Z	Instruction Book	1	

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