

HITACHI

SERVICE MANUAL

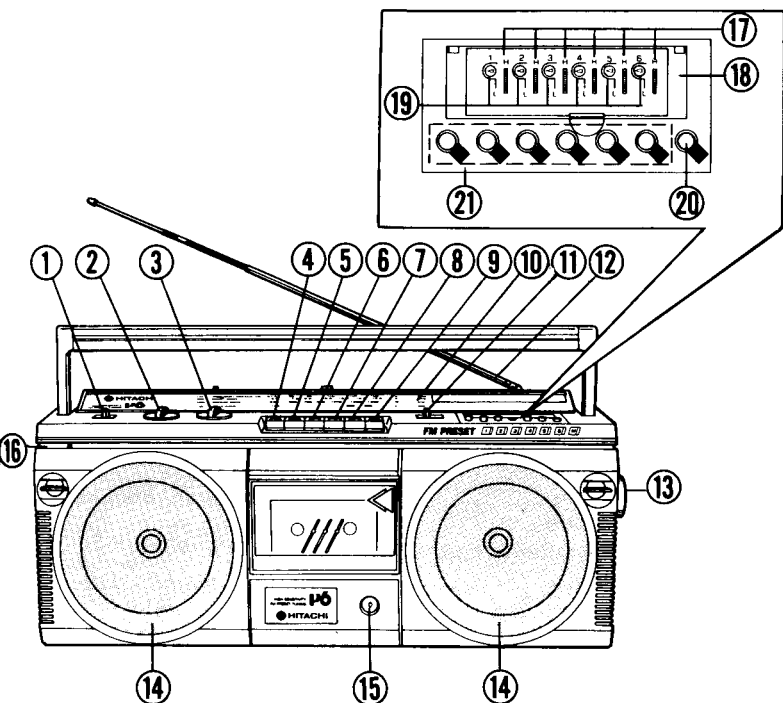
TY

No. 532 E

TRK-P6E

E, E (BS)

TN-21V-582



CONTENTS

KEY TO ILLUSTRATIONS	1
SPECIFICATIONS	2
DISASSEMBLY	3
ADJUSTMENT	4
ADJUSTMENT PARTS LOCATION.....	4
INSPECTION OF MECHANISM.....	7
LUBRICATION	8
DIAL CORD STRINGING.....	8
CIRCUIT DIAGRAM	9
PRINTED WIRING BOARD	11
BLOCK DIAGRAM	12
EXPLODED VIEW.....	13
REPLACEMENT PARTS LIST.....	15

KEY TO ILLUSTRATIONS

- | | |
|-----------------------|--------------------------------|
| ① FUNCTION SELECTOR | ⑫ TELESCOPIC ANTENNA (AERIAL) |
| ② TONE CONTROL | ⑬ TUNING KNOB |
| ③ VOLUME CONTROL | ⑭ SPEAKERS |
| ④ PAUSE BUTTON | ⑮ HEADPHONES SOCKET |
| ⑤ STOP/EJECT BUTTON | ⑯ INNER MICROPHONE (MONO) |
| ⑥ FAST FORWARD BUTTON | ⑰ FM PRESET TUNING KNOBS |
| ⑦ REWIND BUTTON | ⑱ FM PRESET TUNING KNOBS COVER |
| ⑧ PLAYBACK BUTTON | ⑲ FM PRESET TUNING INDICATORS |
| ⑨ RECORD BUTTON | ⑳ FM MANUAL BUTTON |
| ⑩ FM STEREO INDICATOR | ㉑ FM PRESET BUTTONS |
| ⑪ BAND SELECTOR | |

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.

RADIO CASSETTE TAPE RECORDER

August 1986

TOYOKAWA WORKS

SAFETY PRECAUTION

The following precautions should be observed when servicing.

1. Since many parts in the unit have special safety-related characteristics, always use genuine Hitachi's replacement parts.
Especially critical parts in the power circuit block should not be replaced with other makers. Critical parts are marked with Δ in the circuit diagram and printed wiring board.
2. Before returning a repaired unit to the customer, the service technician must thoroughly test the unit to ascertain that it is completely safe to operate without danger of electrical shock.

SPECIFICATIONS

GENERAL SECTION

Semiconductors:	ICs: 5 Transistors: 5 Diodes: 11 LEDs: 1 Varicap: 3
Power Supply:	AC: 240V 50 Hz (for E (BS)) AC: 220V, 50 Hz (for E) DC: 12V (IEC R20 x 8 or equivalent)
Power (Mains) Consumption:	18W
Power output:	3.5W/CH x 2 (10% T.H.D. DC)
Speakers:	12 cm, 4 ohms x 2 2 cm, 300 ohms x 2
Dimensions:	50.5(W)x20.9(H)x15.6(D) cm
Weight	4.0 kg (with batteries)

TUNER SECTION

Circuit System	FM/SW/MW/LW 4-band superheterodyne
Tuning Range:	FM 87.5 to 108 MHz SW: 6 to 18 MHz MW: 530 to 1,605 kHz LW: 150 to 285 kHz
Sensitivity:	FM: 13 dB (pra.), 5 dB max.) SW: 30 dB (pra.), 20 dB (max.) MW: 50 dB (pra.), 40 dB (max.) LW: 55 dB (pra.), 48 dB (max.)
Intermediate Frequency:	FM: 10.7 MHz SW/MW/LW: 465 kHz

Antennas (Aerials):	FM/SW: Telescopic antenna (aerial) MW/LW: Ferrite-core antenna (aerial)
----------------------------	--

TAPE RECORDER SECTION

Tape:	Cassette tape (C-30, 60, 90)
Tape Speed:	4.75 cm/s
Recording System:	AC bias, 58 kHz
Erasing System:	Magnet
Frequency Response:	Normal: 60 to 10,000 Hz
S/N (Signal to Noise Ratio):	40 dB
Wow & Flutter:	0.25% (WRMS)
Crosstalk:	Between tracks: 60 dB Between channels: 30 dB
Erase Ratio:	60 dB
Input sensitivity and Impedance:	CD/Line-in: 600 mV, 50 kohms
Output Level and load Impedance:	Headphones: 8 ohms-100 ohms
Distortion:	3%
Motor:	DC micromotor

DISASSEMBLY

1. Removing cassette lid (Fig. 1)

Open the cassette lid, and pull out it to the front while applying a force in the direction of the arrow.

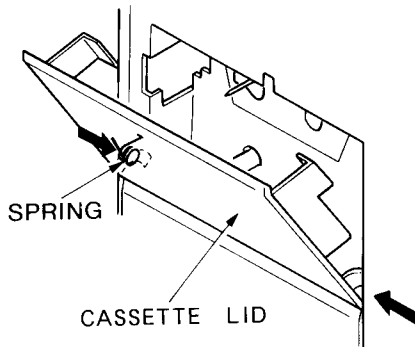


Fig. 1

2. Removing rear case (Fig. 2)

(1) Remove the battery lid.
(2) Remove 9 screws (A) and remove the rear case.

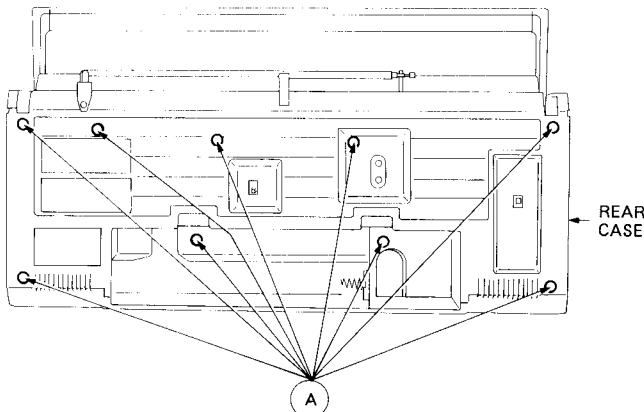


Fig. 2

3. Removing main P.W.B. (Fig. 3)

(1) Remove VOLUME and TONE control knobs.
(2) Remove the FUNCTION and BAND SELECTOR knobs, then remove the main PWB with preset switch.

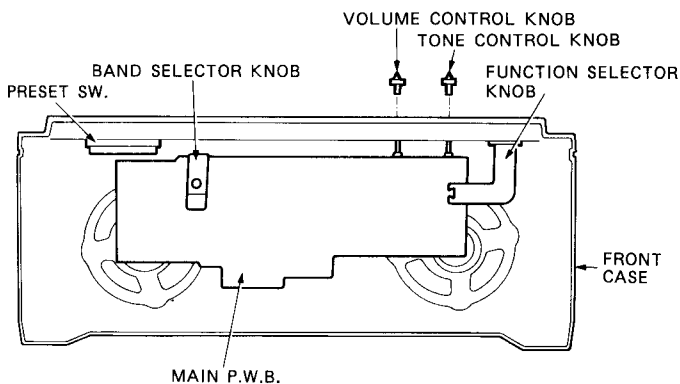


Fig. 3

4. Removing power supply P.W.B. (Fig. 4)

(1) Remove 2 screws (B).
(2) Remove power supply P.W.B. from the rear case.

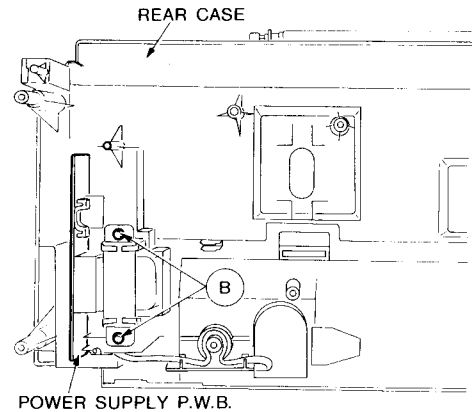


Fig. 4

5. Removing the cassette deck mechanism (Fig. 5)

Disengage 3 tabs (C) and remove the cassette deck mechanism.

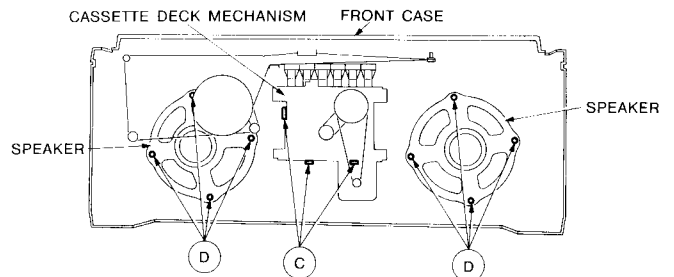


Fig. 5

6. Removing speakers (Fig. 5)

(1) Remove 8 screws (D).
(2) Remove the speakers.

ADJUSTMENT

1. Radio Section

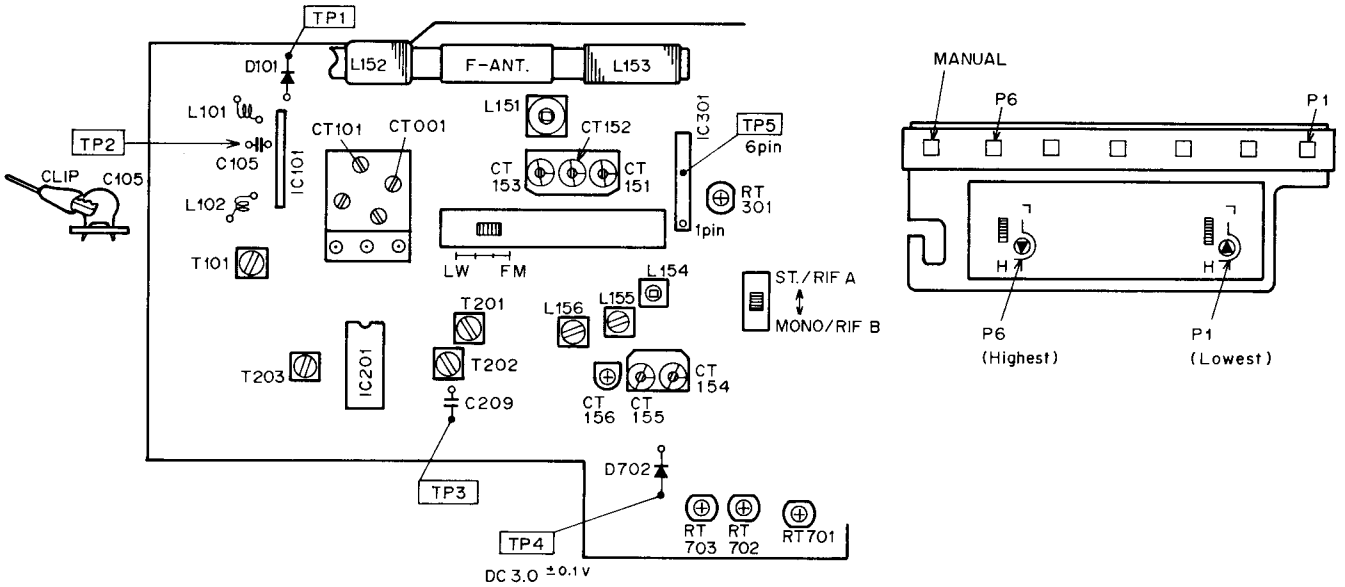


Fig. 6

Step	Adjustment Item	Measuring Instrument and Connection			Genescope or Signal Generator Frequency	Dial Pointer Position	Adjust	Reading
		Measuring Instrument	Input Terminal	Output Terminal				
1	(1) FM IF	Turn T202 fully counterclockwise.			10.7 MHz	Highest	T101	Note 1
	(2) S-Curve	● Genescope (10.7 MHz)	TP2	TP3			T202	Note 2
2	FM OSC (Covering)	● FM signal generator (400 Hz, 30% dev.) ● Oscilloscope ● VTVM	TP1 (thru FM dummy antenna) (Note 3)	TP3	See 1-2. FM Covering (Next page)			
3	(1) FM ANT. (Tracking)				90 MHz	90 MHz	L101	Max
	(2)	106 MHz	106 MHz	CT101				
		Repeat steps (1)						
4	(1) FM MPX. (Multiplex)	● Frequency counter	Connect a 10μF 25V electrolytic capacitor between the No. 1 pin of IC301 and the ground.	TP5	—	—	RT301	38 kHz ± 50 Hz (Note 4)
5	(1) AM IF	● Genescope (465 kHz)	Ferrite-core antenna (Note 5)	TP3	465 kHz	Highest	T201 T203	Note 6
	(2)	Repeat steps (1)						

Step	Adjustment Item	Measuring Instrument and Connection			Genescope or Signal Generator Frequency	Dial Pointer Position	Adjust	Reading			
		Measuring Instrument	Input Terminal	Output Terminal							
6	LW OSC. (Covering)	● AM signal generator (400 Hz, 30% mod.) ● VTVM ● Oscilloscope	Ferrite-core antenna (Note 5)	TP3	145 kHz	Lowest	L156	Max.			
					290 kHz	Highest	CT156				
					Repeat steps (1) and (2)						
7	LW ANT. (Tracking)				● AM signal generator (400 Hz, 30% mod.) ● VTVM ● Oscilloscope	Ferrite-core antenna (Note 5)	TP3	160 kHz	160 kHz	L153	Max.
								270 kHz	270 kHz	CT153 CT001	
								Repeat steps (1) and (2)			
8	MW OSC. (Covering)	● AM signal generator (400 Hz, 30% mod.) ● VTVM ● Oscilloscope	Ferrite-core antenna (Note 5)	TP3				515 kHz	Lowest	L155	Max.
								1650 kHz	Highest	CT155	
								Repeat steps (1) and (2)			
9	MW ANT. (Tracking)				● AM signal generator (400 Hz, 30% mod.) ● VTVM ● Oscilloscope	Ferrite-core antenna (Note 5)	TP3	600 kHz	600 kHz	L152	Max.
								1400 kHz	1400 kHz	CT152	
								Repeat steps (1) and (2)			
10	SW OSC. (Covering)	● AM signal generator (400 Hz, 30% mod.) ● VTVM ● Oscilloscope	TP1 (thru SW dummy antenna) (Note 7)	TP3				5.8 MHz	Lowest	L154	Max.
								18.5 MHz	Highest	CT154	
								Repeat steps (1) and (2)			
11	SW ANT. (Tracking)				● AM signal generator (400 Hz, 30% mod.) ● VTVM ● Oscilloscope	TP1 (thru SW dummy antenna) (Note 7)	TP3	6.5 MHz	6.5 MHz	L151	Max.
								16 MHz	16 MHz	CT151	
								Repeat steps (1) and (2)			

1-2. FM Covering

Step	Signal Generator Frequency	Preset CH. and Dial Pointer Position	Voltage of TP4	Adjust	Reading	Note
1	—	—	3.0 V ± 0.1	RT703	DC Volt meter	*1 Connect the DC volt meter to TP4
2	*2 See to ①②	P1 ON	—	Vol. - P1	TP3 MAX	Fix the Vol. - P1 after searching lowest frequency.
3	*2 See to ③④	P6 ON	—	Vol. P6		
4	87.5 MHz	P1 ON	—	L102		
5	(1) 108 MHz	P6 ON	—	RT701		
	(2) —		3.0 V ± 0.1	RT703		
	(3)		Repeat steps (1) and (2)			
6	(1) 87.5 MHz	Manual ON Dial Pointer Lowest	—	RT702	TP3 MAX	
	(2) —		3.0 V ± 0.1	RT703		
	(3)		Repeat steps (1) and (2)			

*1: Please use high internal impedance DC volt meter for measuring the voltage of TP4.

*2: How to adjust the Vol. - P1 (Lowest) and Vol. - P6 (Highest).

- ① Set the Vol. - P1 about lowest and receive the signal from Signal Generator.
- ② Adjust and search the lowest frequency so as to change the Vol. - P1 and the Signal Generator frequency.
- ③ Set the Vol. - P6 about highest and receive the signal from Signal Generator.
- ④ Adjust and search the highest frequency so as to change the Vol. - P6 and the Signal Generator frequency.

Note:

1. Feed in a weak signal to TP2 from the genescope. Adjust T101 for maximum gain and the waveform indicated in Figure 7. If the center of the waveform cannot be lined up on the marker, adjust the right/left balance.

Adjust the genescope output so that there is a little noise riding on the leading edge.



Fig. 7

2. Use the T202 core to form the S-curve shown in Figure 8. Adjust the symmetry of A and B about point C for linearity.

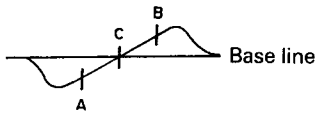
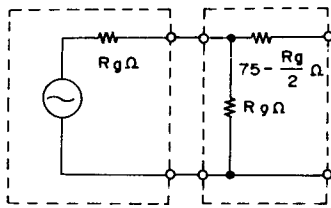


Fig. 8

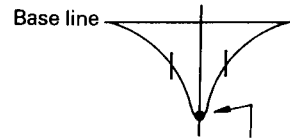
3. FM dummy antenna shows Figure 9.



Rg: SG's output impedance

Fig. 9

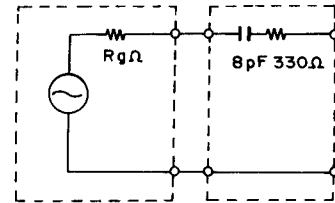
4. Connect the frequency counter to TP5 and connect a 330 kΩ resistor parallel with the frequency counter.
5. Connect AM signal generator to loop antenna, bring near to ferrite antenna.
6. Feed in a weak signal from the genescope. Adjust T201, T203 for maximum gain and the waveform of Figure 10.



Adjust the genescope output so that there is a little noise riding on the leading edge.

Fig. 10

7. SW dummy antenna shows Figure 11.



Rg: SG's output impedance

Fig. 11

2. Tape Recorder Section

Perform the following adjustments in the sequence stated after cleaning the head, pressure roller, and capstan with a head cleaning stick moistened in alcohol.

Step	Adjustment Item	Measuring Instrument & Connection			Check Tape	Mode	Adjust	Reading
		Measuring Instrument	Input Terminal	Output Terminal				
1	Tape speed	● Frequency counter	—	Speaker terminal (4Ω load)	Tape speed adjustment tape (3 kHz)	Playback	Semivariable resistor in the motor (Fig. 12)	3 kHz ± 20 Hz (Note 1)
2	Head azimuth	● VTVM	—	Speaker terminal (4Ω load)	Head azimuth adjustment tape (10 kHz)	Playback	Azimuth adjusting screw	Output max. (Note 2)

Note:

1. Adjust within 30 sec. after heat-running for more than 20 minutes.
2. When the maximum values of both channels are different, adjust to the maximum value of the L channel. In this case, the difference between the maximum values of both channels should be within 2 dB.

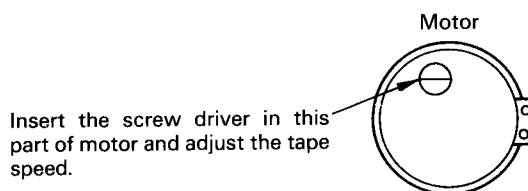


Fig. 12

INSPECTION OF MECHANISM

Item	Checking item		Reference value	Remarks
1	Pressure of pressure roller		300 – 500g	Note
2	Take-up torque		30 – 60 g·cm	
3	Fast forward/Rewind torque		50 g·cm or more	
4	Auto-Stop sensor operation force		40 – 75 g	
5	Brake torque		15 g·cm or more	Measured in stop mode
6	Back tension torque	Take-up	1 – 6 g·cm	
		Supply	2 – 6 g·cm	
7	Flywheel thrust gap		0.05 – 0.5 mm	
8	Button operation force	Play button	1.7 kg or less	
		FF button	1.0 kg or less	
		Rewind button	1.0 kg or less	
		Eject button	1.0 kg or less	
		Record button	1.0 kg or less	
		Pause button	1.5 kg or less	

Note:

Set this unit in the playback mode and press the pressure roller in the direction of the arrow using a fan type tension gauge, and measure the pressure when the pressure roller is released from the capstan.

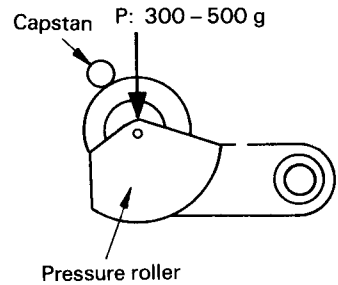


Fig. 13

LUBRICATION

Lubricate one or two drops of oil to rotating point or lubricate grease to sliding point.
Lubricate the respective parts listed once every 1000 hours or once a year under normal conditions of use.
Avoid oiling them excessively, or rotation may become irregular because of oil splashes.

Lubrication point		Oil or Grease
Rotary section	Metal and metal	Pan motor oil (10W-40)
	Mold and metal	Sonic slider oil (# 1600)
Sliding section	Metal and metal	Hitasol (MO-138)
	Mold and mold Mold and metal	White grease (FL-LUBE-A)
Spring resonance prevention		Floil (GB-TS-1)

DIAL CORD STRINGING

Stringing method

- String the dial cord to each rollers according to the order from ① to ⑧ after turned the pulley to the end of clockwise direction.

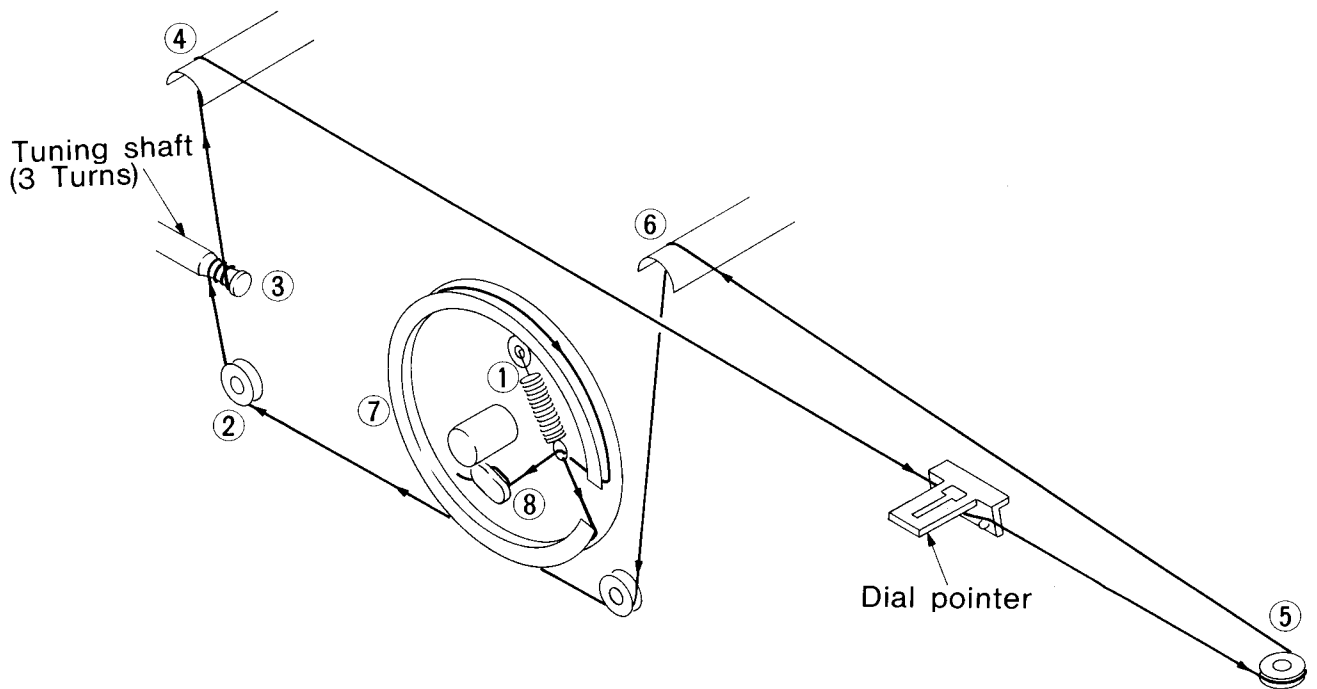


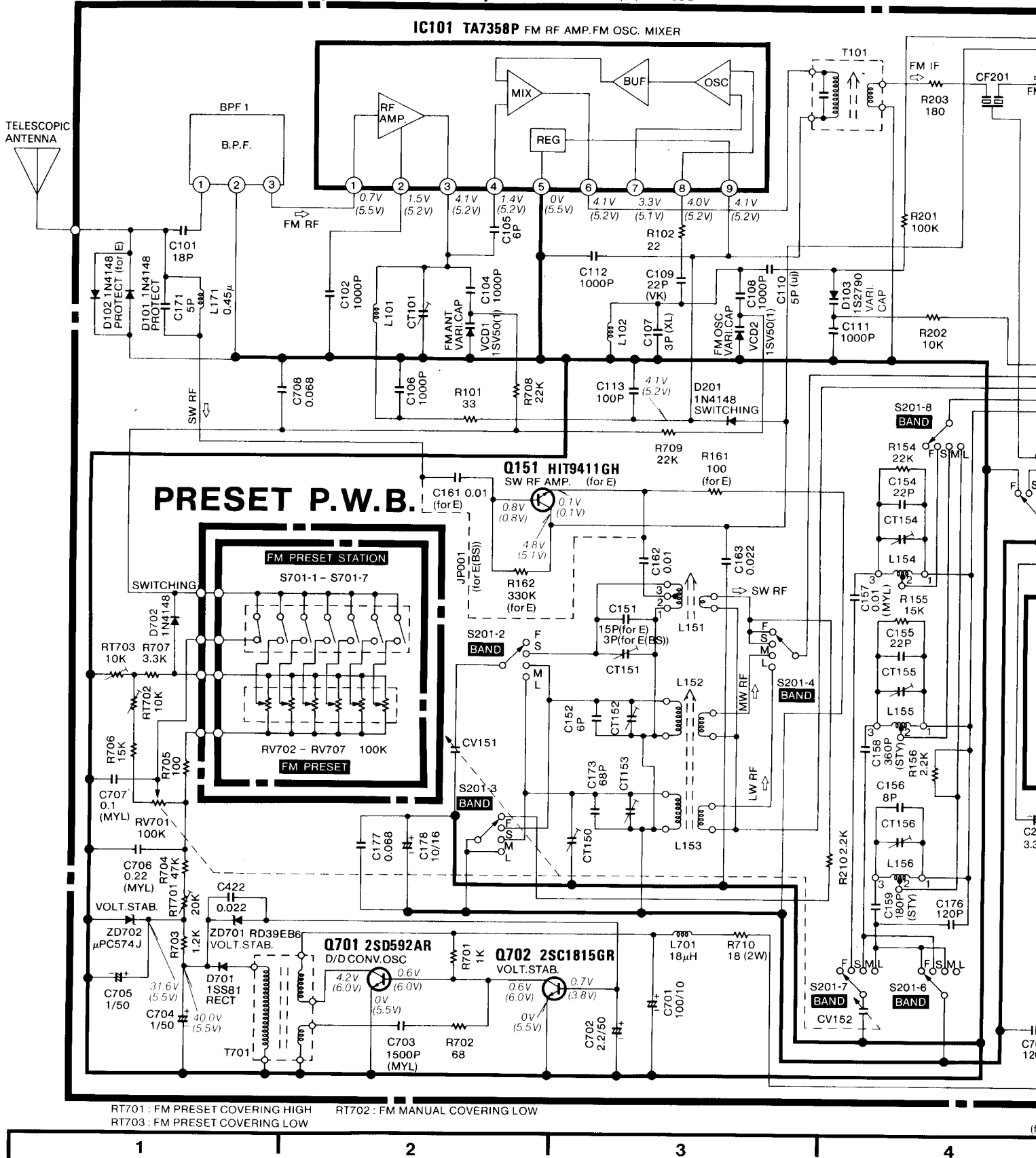
Fig. 14

CIRCUIT DIAGRAM

CAUTION
Use the e
when the

MAIN P.W.B. (Radio section)

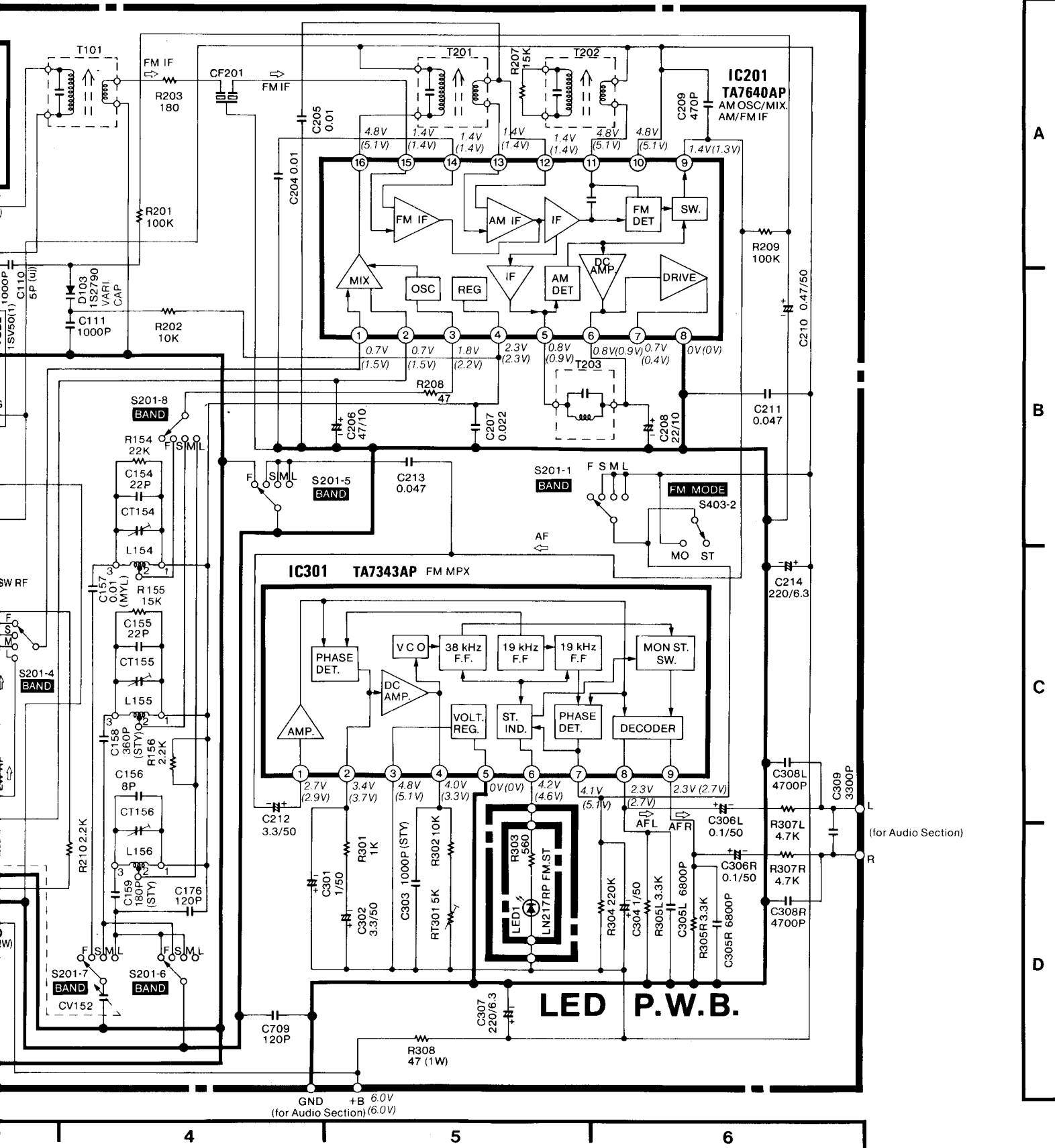
Voltage FM
() AM MODE



RT701 : FM PRESET COVERING HIGH
RT702 : FM MANUAL COVERING LOW
RT703 : FM PRESET COVERING LOW

CAUTION
 Use the electrolytic capacitors with explosion-proof valve
 when the diameter of them is more than 10 mmφ.

※: Axial lead cylindrical ceramic capacitor

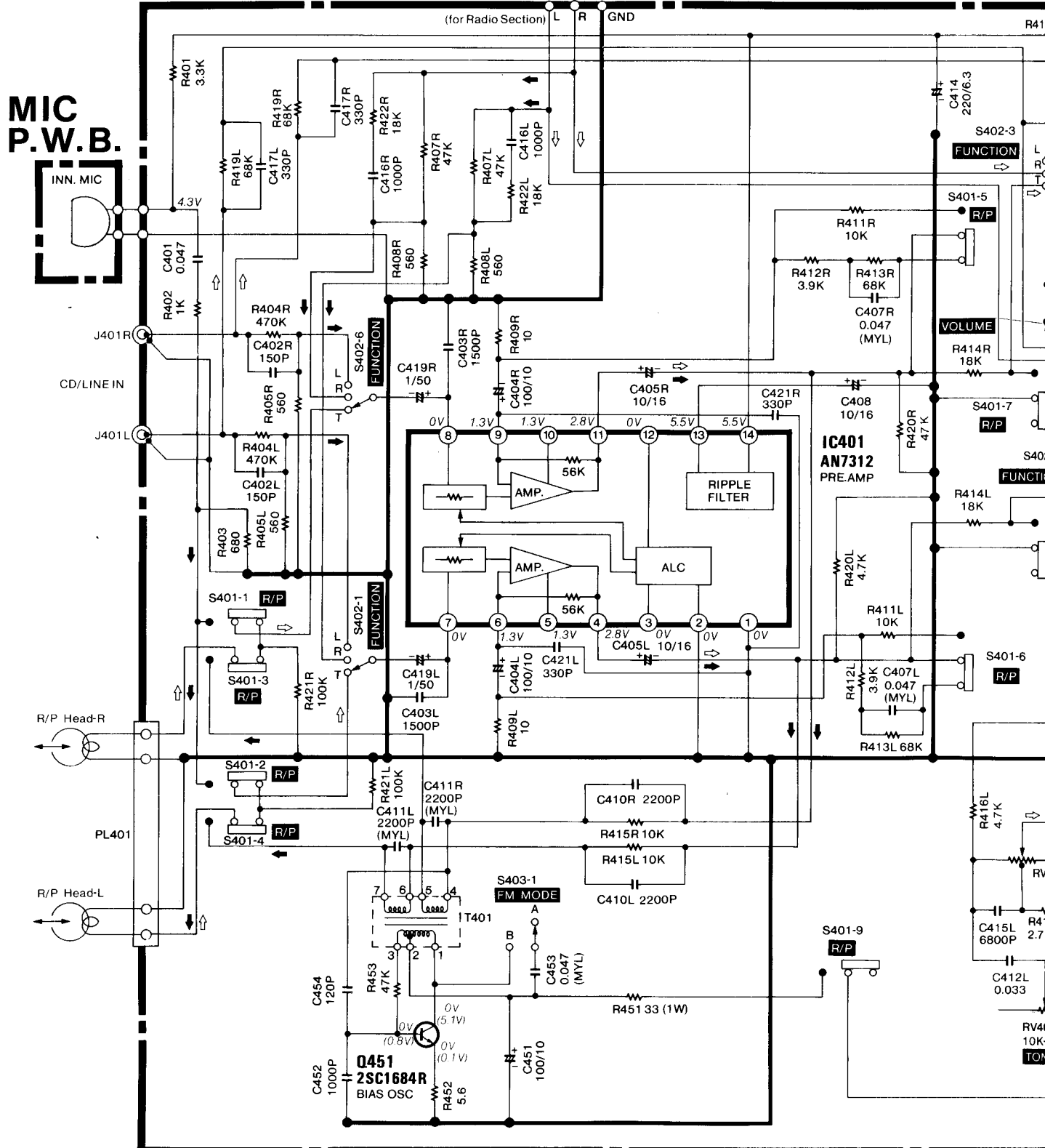


CIRCUIT DIAGRAM

Signal: \Rightarrow PLAY, MONITOR
 \rightarrow REC
 Voltage: \uparrow PLAY
 \downarrow (REC)

CAUTION
 Use the elec
 when the di

MAIN P.W.B. (Audio section)

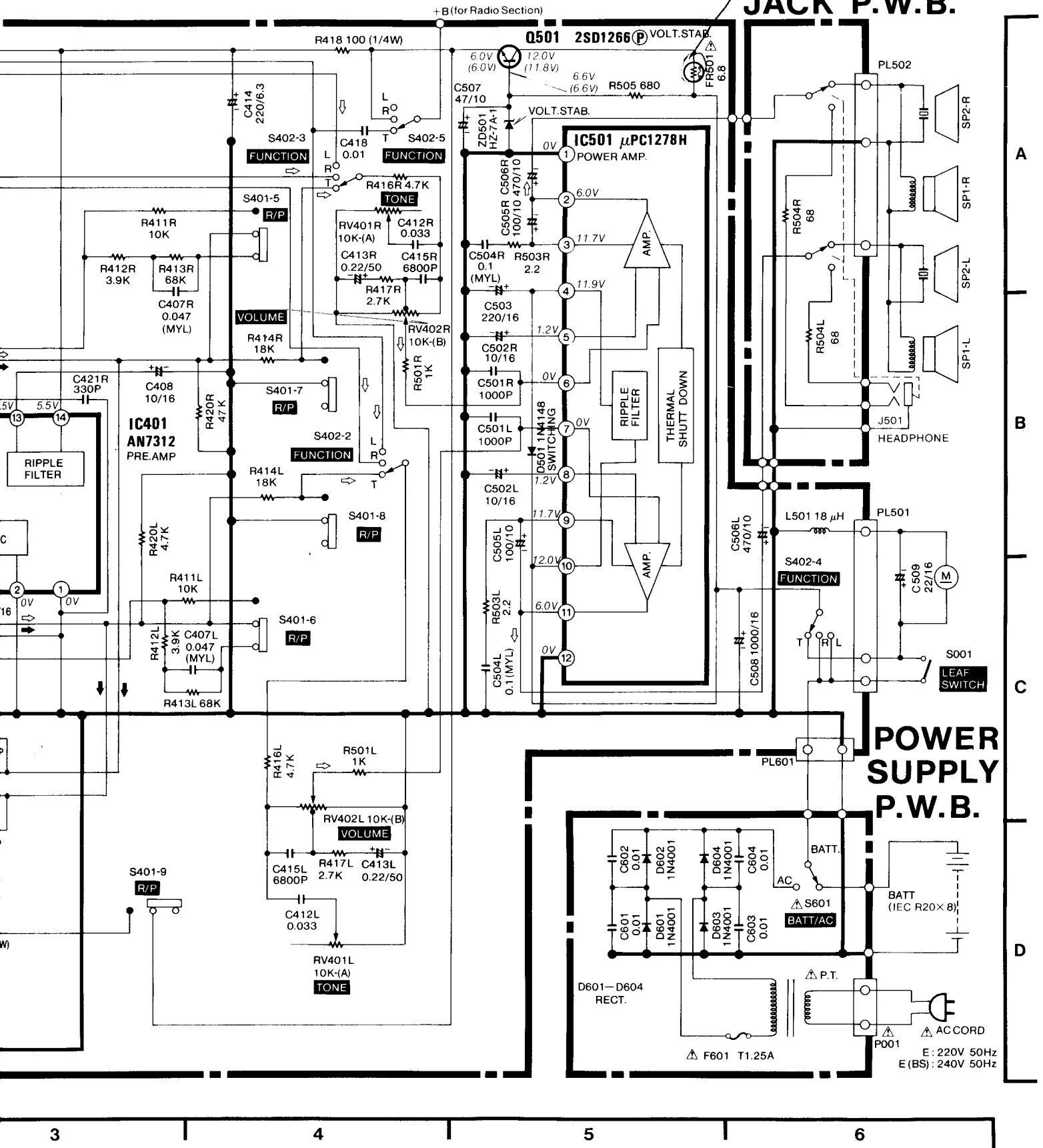


Signal: \Rightarrow PLAY, MONITOR
 \rightarrow REC
 Voltage: PLAY
 (REC)

CAUTION
 Use the electrolytic capacitors with explosion-proof valve when the diameter of them is more than 10 mm ϕ .

*: Axial lead cylindrical ceramic capacitor
L. RADIO W. E. RAD

JACK P.W.B.



POWER SUPPLY P.W.B.

PRINTED WIRING BOARD

※: Axial lead

IC101	
FM	AM
1 0.7V	5.5V
2 1.5V	5.2V
3 4.7V	5.2V
4 1.4V	5.2V
5 0V	5.5V
6 4.1V	5.2V
7 3.3V	5.1V
8 4.0V	5.2V
9 4.1V	5.2V

IC201			
FM	AM	FM	AM
11 0.7V	7.5V	9 7.4V	1.3V
2 0.7V	7.5V	10 4.8V	5.1V
3 1.6V	2.2V	11 4.8V	5.1V
4 2.3V	2.3V	12 1.4V	1.4V
5 0.8V	0.9V	13 1.4V	1.4V
6 0.8V	0.9V	14 1.4V	1.4V
7 0.7V	0.4V	15 1.4V	1.4V
8 0V	0V	16 4.8V	5.1V

IC301	
FM	AM
1 2.7V	2.9V
2 3.4V	3.7V
3 4.8V	5.1V
4 4.0V	3.3V
5 0V	0V
6 4.2V	4.6V
7 4.1V	5.1V
8 2.3V	2.7V
9 2.3V	2.7V

IC401	
FM	AM
1 0V	8 0V
2 0V	9 7.3V
3 0V	10 1.3V
4 2.6V	11 2.8V
5 1.3V	12 0V
6 1.3V	13 5.5V
7 0V	14 5.5V

Q151	
FM	AM
E 0.7V	0.7V
C 4.8V	5.1V
B 0.8V	0.8V

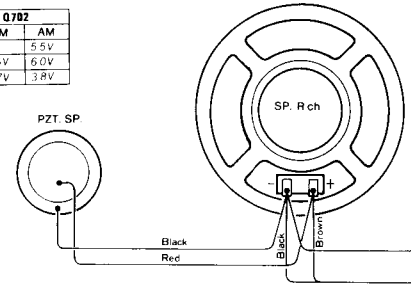
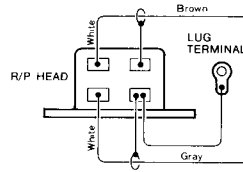
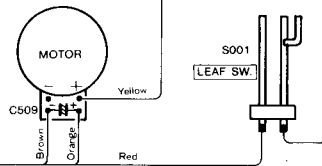
Q451	
PLAY	REC
E 0V	0.7V
C 0V	5.1V
B 0V	0.8V

Q501	
PLAY	REC
E 6.0V	6.0V
C 12.0V	11.8V
B 6.6V	6.5V

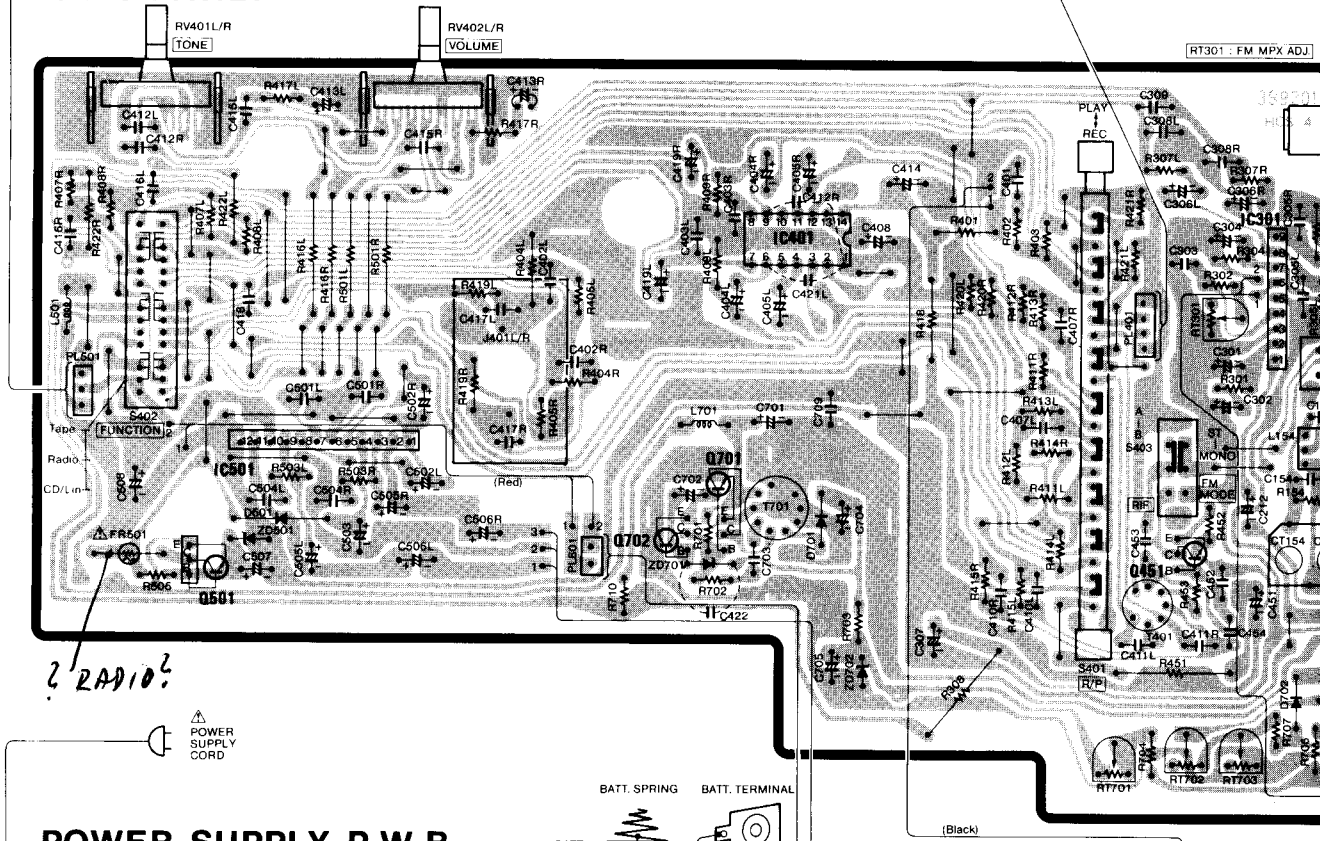
IC501	
FM	AM
1 0V	7 0V
2 6.0V	8 7.2V
3 11.7V	9 11.7V
4 11.9V	10 12.0V
5 1.2V	11 6.0V
6 0V	12 0V

Q701	
FM	AM
E 0V	5.5V
C 4.2V	6.0V
B 0.6V	6.0V

Q702	
FM	AM
E 0V	5.5V
C 0.5V	6.0V
B 0.7V	3.8V

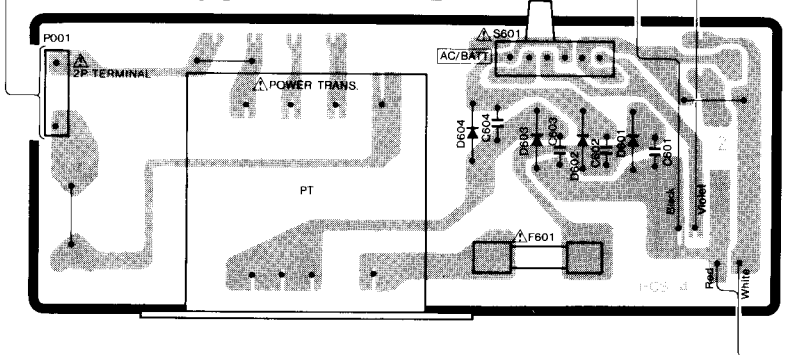


MAIN P.W.B.

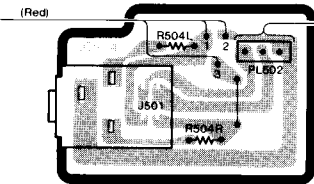


? RADIO ?

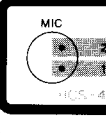
POWER SUPPLY P.W.B.



JACK P.W.B.



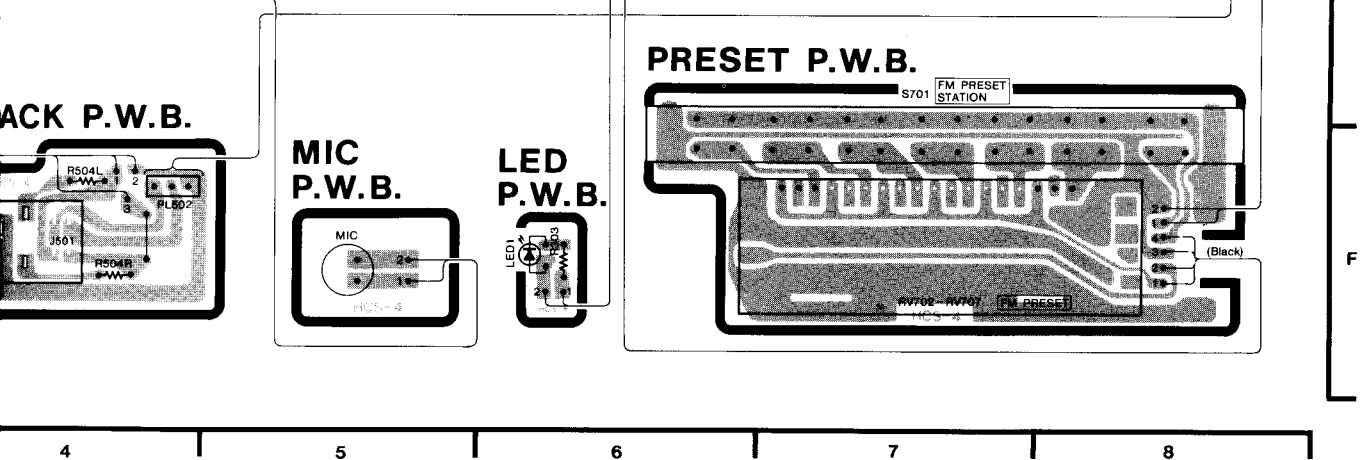
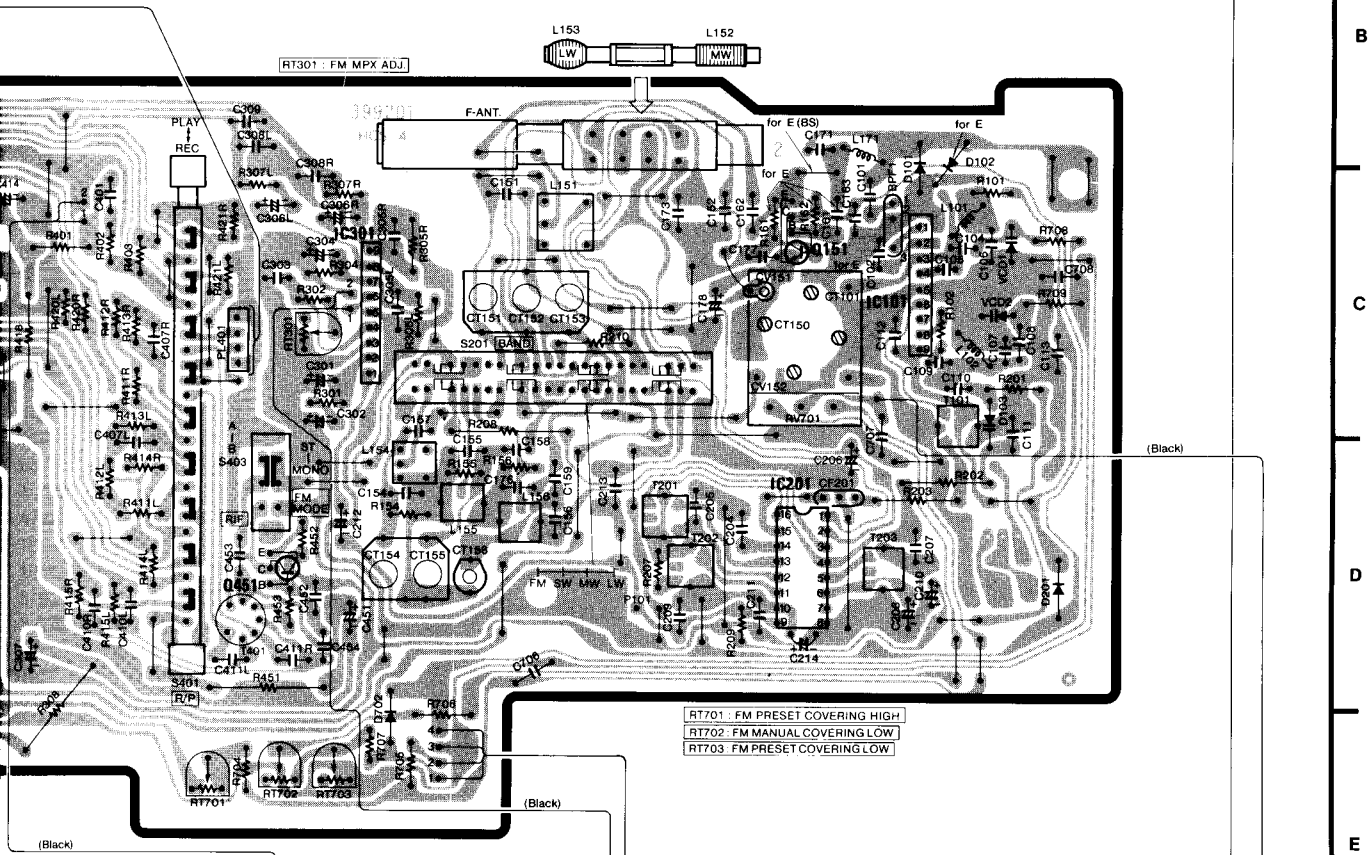
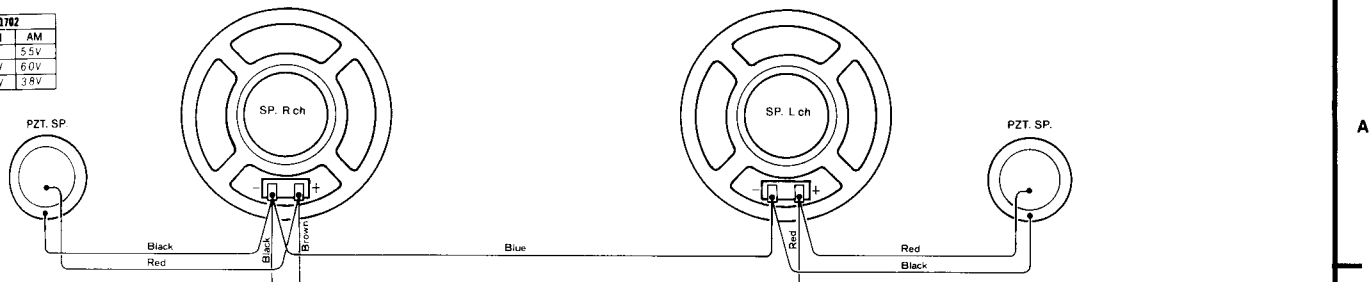
MIC P.W.B.



※ : Axial lead cylindrical ceramic capacitor

Q461	Q501	
REC	PLAY	REC
0.1V	E	6.0V
5.7V	C	12.0V
0.8V	B	6.6V

Q1702
AM
5.5V
6.0V
3.8V

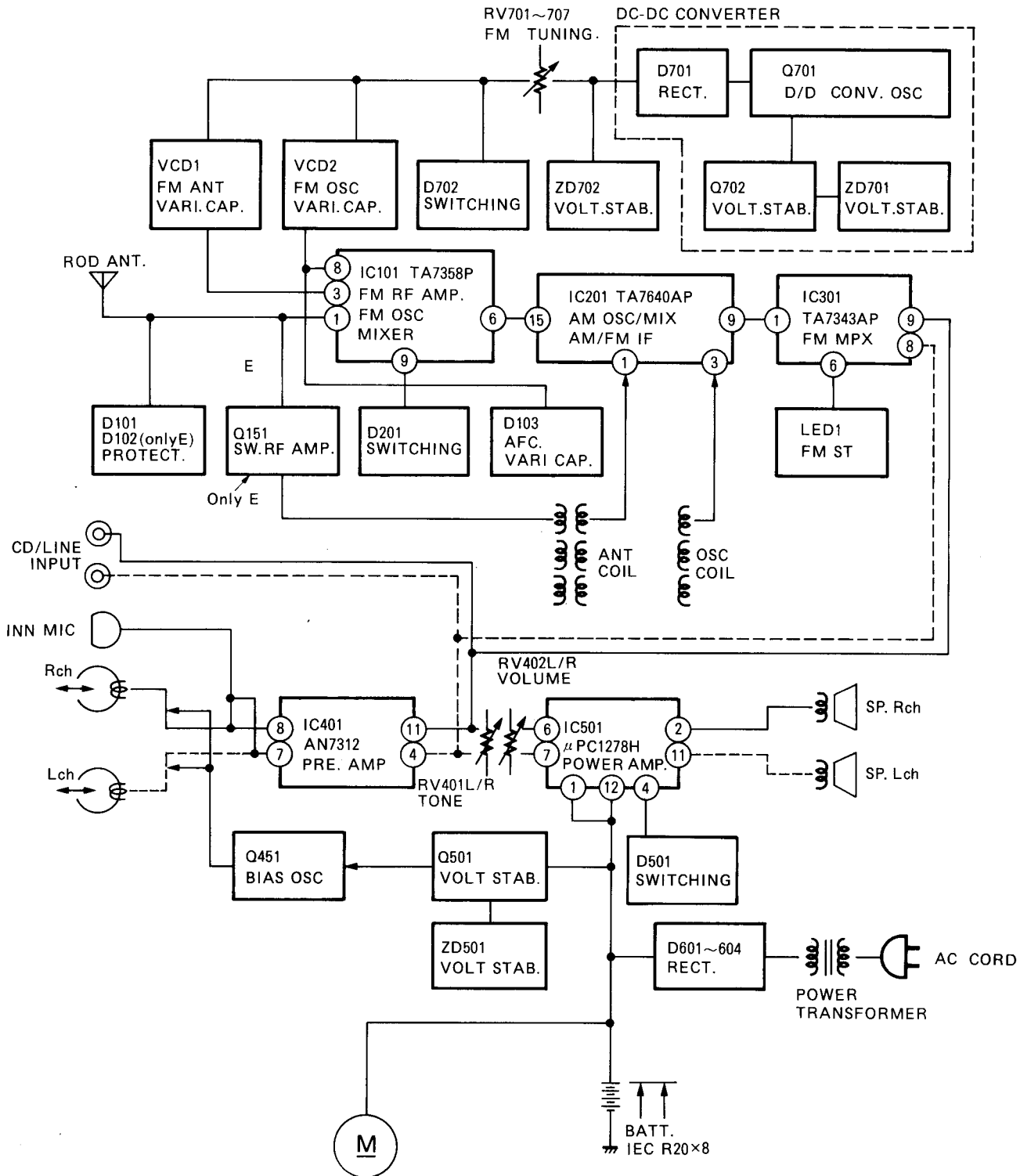


4 5 6 7 8

BLOCK DIAGRAM

EXPLO

● **CABIN**

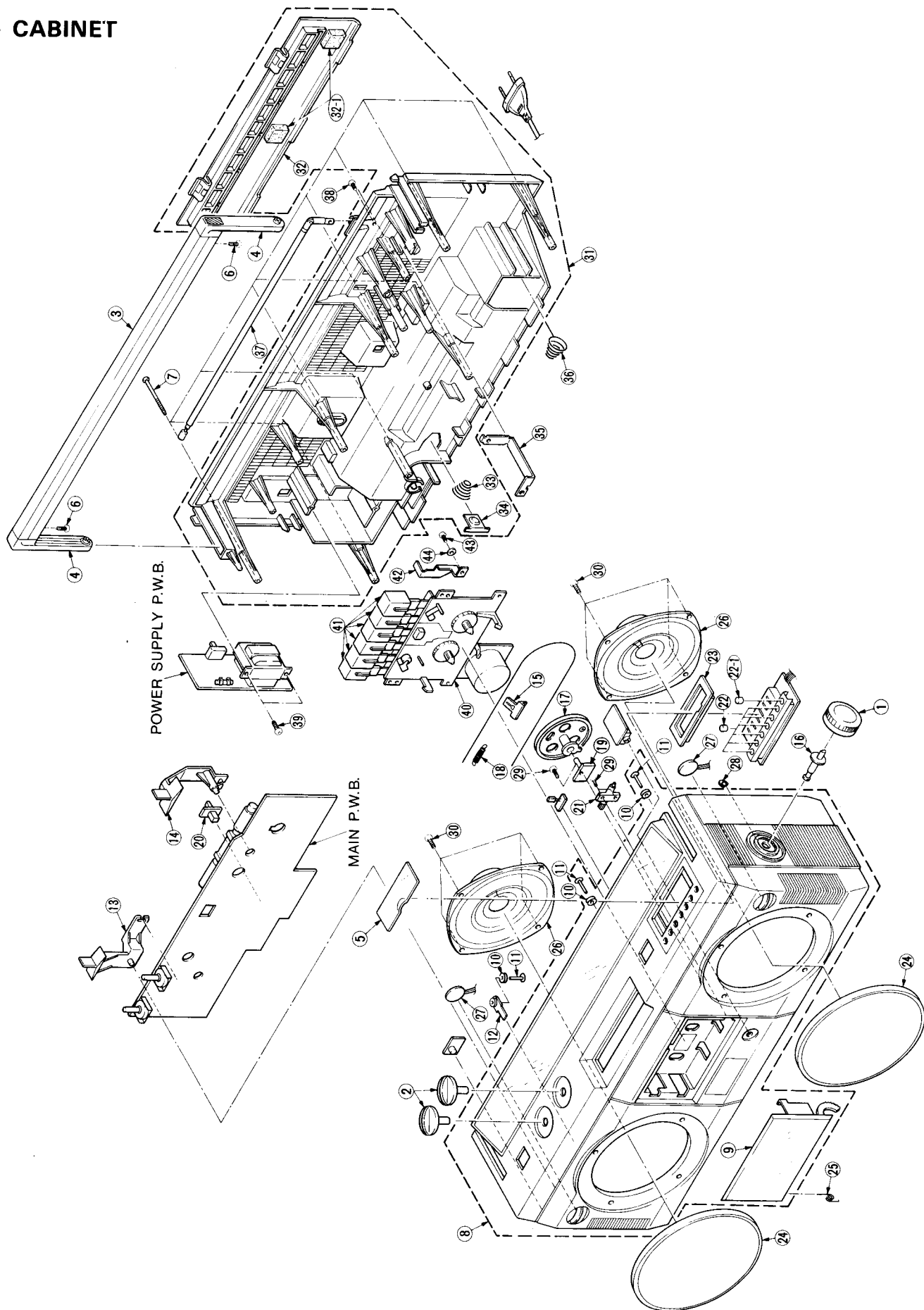


EXPLODED VIEW

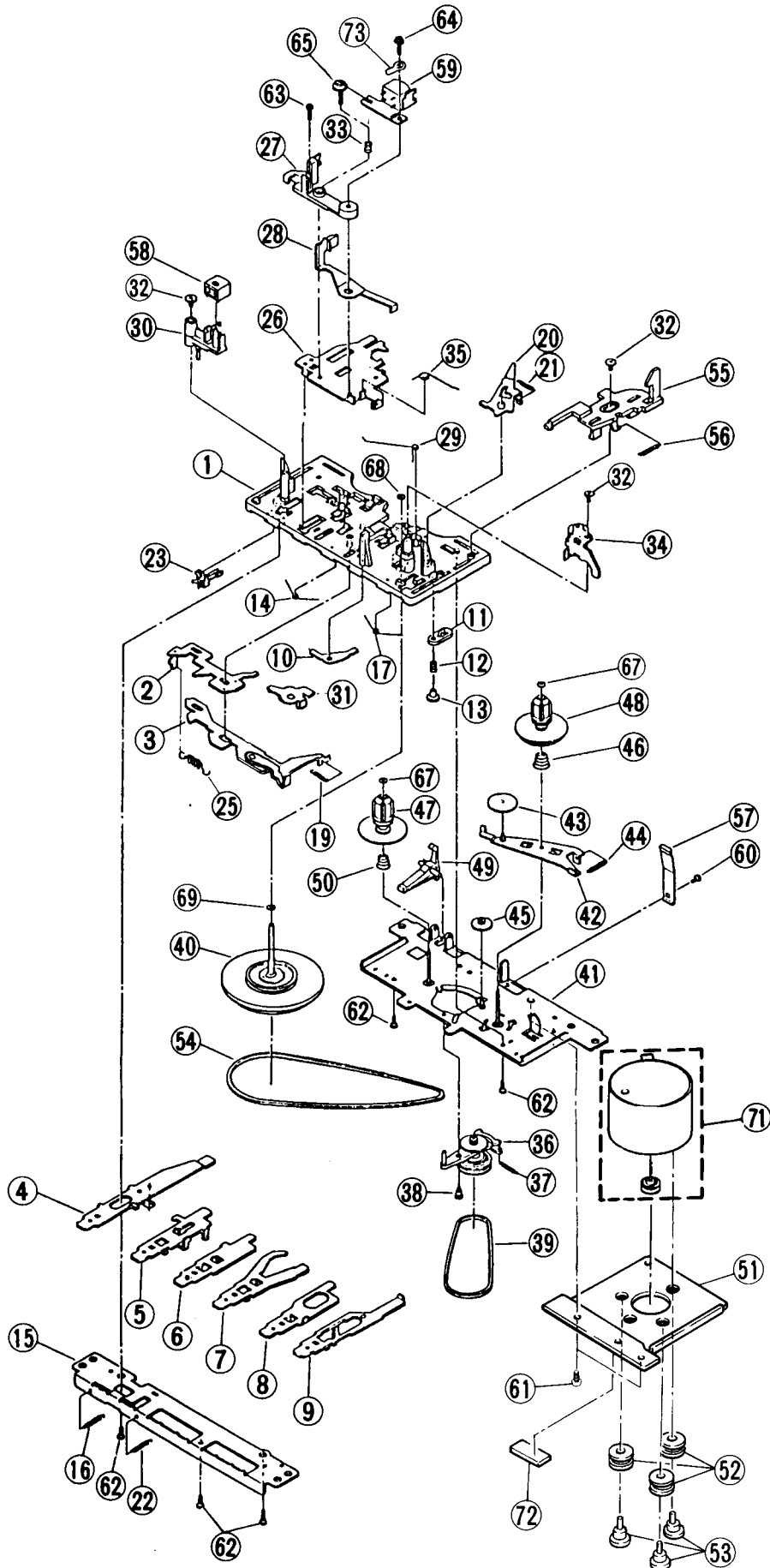
● CABINET

C
AB.

AC CORD



● Cassette Chassis



REPLAC

● Cabinet

ITEM NO.	PART NO.
for FI	
1	33031
	33031
2	38014
	38014
3	38017
	38017
	38017
4	38014
	38014
	38014
5	38015
6	45778
7	45778
for FRON	
8	40403
	40403
	40403
9	38015
10	39342

REPLACEMENT PARTS LIST

● Cabinet

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
for FINAL ASSEMBLY			11	4577661	Roller pin	for REAR CASE ASSEMBLY		
1	3303181	Knob 38 (for Black and Red)	12	3801571	Roller holder	31	4040321	Rear case assembly (for E) (Black)
	3303184	Knob 38 (for White)	13	3801531	Function lever (for Black and Red)		4040322	Rear case assembly (for E) (White)
2	3801491	Knob 28 (for Black, Red)		3801532	Function lever (for White)		4040323	Rear case assembly (for E) (Red)
	3801492	Knob 28 (for White)	14	3801541	Band lever (for Black and Red)		4040325	Rear case assembly (for E(BS)) (Black)
3	3801771	Handle (for Black)		3801542	Band lever (for White)		4040326	Rear case assembly (for E(BS)) (White)
	3801772	Handle (SRM-144) (for White)	15	3801551	Pointer		4040327	Rear case assembly (for E(BS)) (Red)
	3801773	Handle (for Red)	16	4594823	Tuning shaft	32	3973501	Battery lid (for E) (Black) (for E(BS)) (Black)
4	3801461	Handle arm (for Black)	17	3801761	Pulley 100		3973504	Battery lid (for White)
	3801462	Handle arm (for White)	18	3340321	Spring M		3973505	Battery lid (for Red)
	3801463	Handle arm (for Red)	19	3801561	Pulley holder	32-1	3610078	Cushion
5	3801511	Preset lid	20	3801501	Select knob	33	3369849	Spring A
6	4577832	Screw, 3x10 BT flat head	21	3970221	Gear damper	34	4436665	Terminal
7	4577818	Screw, bind tapping 3x50	22	3801521	PR knob (for Black and Red)	35	4468601	ANT bracket
for FRONT CASE ASSEMBLY				3801523	PR knob (for white)	36	3369781	Battery spring
8	4040301	Front case assembly (Black)	22-1	3801522	PR knob	37	2758231	Telescopic antenna
	4040302	Front case assembly (White)	23	3801471	Preset holder	38	8744412	Screw, bind head 3x12
	4040303	Front case assembly (Red)	24	3801591	Speaker grille (for Black and white)	39	4578976	Screw, 3x20 BT bind
9	3801581	Cassette lid		3801592	Speaker grille (for White)	for CHASSIS ASSEMBLY		
10	3934271	8 roller	25	3368265	Lid spring	40	2588831	Mecha. assembly TN-21-582
			26	2403841	Speaker 12	41	3801481	Cassette button (for Black and Red)
			27	2403353	Speaker, piezo tweeter		3801482	Cassette button (for White)
			28	4418013	4 E ring	42	4468661	REC plate
			29	8691410	Screw, 3x10 BT bind head	43	4578281	2.6x4 screw
			30	4578972	3x10 BT flange screw	44	8815113	2.6 lock washer

REPLACEMENT PARTS LIST

CD.....Ceramic discal EL..... Electrolytic ST..... Styrol ME..... Metal CO..... Composition
 CC..... Cylindrical ceramic MF..... Mylar, film CF..... Carbon film MO..... Metal, oxide FR..... Fuse resistor

SYMBOL NO.	PART NO.	DESCRIPTION
CAPACITORS		
C101	0208666	CD 18pF ±0.5% 50V
C102	0244101	CD 1000pF ±10% 50V
C104	0244101	CD 1000pF ±10% 50V
C105	0248646	CD 6pF ±0.5pF 50V
C106	0244101	CD 1000pF ±10% 50V
C107	1249526	CD 3pF ±0.5pF 50V
C108	0244101	CD 1000pF ±10% 50V
C109	1241884	CD 22pF ±5% 50V
C110	0248465	CD 5pF ±5pF 50V
C111	0209731	CD 1000pF ±10% 50V
C112	0244101	CD 1000pF ±10% 50V
C113	0208684	CD 100pF ±5% 50V
C151	0208633	CD 3pF ±5pF 50V (for E (BS))
C151	0208664	CD 15pF ±5% 50V (for E)
C152	0208646	CD 6pF ±5% 50V
C154	0208668	CD 22pF ±5% 50V
C155	0208668	CD 22pF ±5% 50V
C156	0208648	CD 8pF ±0.5% 50V
C157	0275011	MF 0.01μF ±10% 50V
C158	1221393	ST 360pF ±5% 50V
C159	1221391	ST 180pF ±5% 50V
C161	0244171	CD 0.01μF $\pm\frac{+80}{-20}\%$ 50V (for E)
C162	0244171	CD 0.01μF $\pm\frac{+80}{-20}\%$ 50V
C163	0244173	CD 0.022μF $\pm\frac{+80}{-20}\%$ 50V
C171	0248635	CD 5pF ±0.25% 50V
C173	0208680	CD 68pF ±5% 50V
C176	0208686	CD 120pF ±5% 50V
C177	0249766	CD 0.068μF ±20% 25V
C178	0252521	EL 10μF 16V
C204	0244171	CD 0.01μF $\pm\frac{+80}{-20}\%$ 50V
C205	0244171	CD 0.01μF $\pm\frac{+80}{-20}\%$ 50V
C206	0252325	EL 47μF 10V
C207	0244173	CD 0.022μF $\pm\frac{+80}{-20}\%$ 50V
C208	0252322	EL 22μF 10V
C209	0209723	CD 470pF ±10% 50V
C210	0252805	EL 0.47μF 50V
C211	0209175	CD 0.047μF $\pm\frac{+80}{-20}\%$ 50V
C212	0252813	EL 3.3μF 50V
C213	0209175	CD 0.047μF $\pm\frac{+80}{-20}\%$ 50V
C214	0252232	EL 220μF 6.3V
C301	0252811	EL 1.0μF 50V
C302	0252813	EL 3.3μF 50V
C303	1221395	ST 1000pF ±5% 50V
C304	0252811	EL 1.0μF 50V
C305L,R	0209736	CD 6800pF ±10% 50V
C306L,R	0252801	EL 0.1μF 50V
C307	0252232	EL 220μF 6.3V
C308L	0209735	CD 4700pF ±10% 50V
C308R	0244109	CD 4700pF ±10% 50V
C309	0244107	CD 3300pF ±10% 50V
C401	0244175	CD 0.047μF $\pm\frac{+80}{-20}\%$ 50V
C402L,R	0208688	CD 150pF ±5% 50V
C403L,R	0209732	CD 1500pF ±10% 50V
C404L,R	0252331	EL 100μF 10V
C405L,R	0252521	EL 10μF 16V
C407L,R	0275015	MF 0.047μF ±10% 50V
C408	0252521	EL 10μF 16V
C410L,R	0209733	CD 2200pF ±10% 50V

SYMBOL NO.	PART NO.	DESCRIPTION
C411L,R	0274013	MF 2200pF ±10% 50V
C412L,R	0249764	CD 0.033μF ±20% 50V
C413L,R	0252802	EL 0.22μF 50V
C414	0252232	EL 220μF 6.3V
C415R	0209736	CD 6800pF ±10% 50V
C415L	0244111	CD 6800pF ±10% 50V
C416L,R	0244101	CD 1000pF ±10% 50V
C417L,R	0248696	CD 330pF ±5% 50V
C418	0244171	CD 0.01pF $\pm\frac{+80}{-20}\%$ 50V
C419L,R	0252811	EL 1.0μF 50V
C421L,R	0248696	CD 330pF ±10% 50V
C422	0244173	CD 0.022μF $\pm\frac{+80}{-20}\%$ 50V
C451	0252331	EL 100μF 10V
C452	0209731	CD 1000pF ±10% 50V
C453	0275015	MF 0.047μF ±10% 50V
C454	0248686	CD 120pF ±5% 50V
C501L,R	0209731	CD 1000pF ±10% 50V
C502L,R	0252521	EL 10μF 16V
C503	0252532	EL 220μF 16V
C504L,R	0276011	MF 0.1μF ±10% 50V
C505L,R	0252331	EL 100μF 10V
C506L,R	0252335	EL 470μF 10V
C507	0252325	EL 47μF 10V
C508	0252541	EL 1000μF 16V
C509	0252522	EL 22μF 16V
C601	0244171	CD 0.01μF $\pm\frac{+80}{-20}\%$ 50V
C602	0244171	CD 0.01μF $\pm\frac{+80}{-20}\%$ 50V
C603	0244171	CD 0.01μF $\pm\frac{+80}{-20}\%$ 50V
C604	0244171	CD 0.01μF $\pm\frac{+80}{-20}\%$ 50V
C701	0252331	EL 100μF 10V
C702	0252812	EL 2.2μF 50V
C703	0274012	MF 1500pF ±10% 50V
C704	0252811	EL 1.0μF 50V
C705	0252811	EL 1.0μF 50V
C706	0276013	MF 0.22μF ±10% 50V
C707	0276011	MF 0.1pF ±10% 50V
C708	0249766	CD 0.068μF ±20% 50V
C709	0208686	CD 120pF ±5% 50V

RESISTORS		
R101	0170334	CF 33Ω ±5% SRD1/6P
R102	0113575	CF 22Ω ±5% SRD1/6P
R154	0113647	CF 22kΩ ±5% SRD1/6P
R155	0113643	CF 15kΩ ±5% SRD1/6P
R156	0113623	CF 2.2kΩ ±5% SRD1/6P
R161	0113591	CF 100Ω ±5% SRD1/6P (for E)
R162	0113675	CF 300kΩ±5% SRD1/6P (for E)
R201	0113663	CF 100kΩ±5% SRD1/6P (for E)
R202	0113639	CF 10kΩ ±5% SRD1/6P
R203	0113597	CF 180Ω ±5% SRD1/6P
R207	0113643	CF 15kΩ ±5% SRD1/6P
R208	0113583	CF 47Ω ±5% SRD1/6P
R209	0113663	CF 100kΩ±5% SRD1/6P
R210	0113623	CF 2.2kΩ ±5% SRD1/6P
R301	0113615	CF 1kΩ ±5% SRD1/6P
R302	0113639	CF 10kΩ ±5% SRD1/6P
R303	0170349	CF 560Ω ±5% SRD1/8P
R304	0113671	CF 220kΩ±5% SRD1/6P
R305L,R	0113627	CF 3.3kΩ ±5% SRD1/6P

SYMBOL NO.	PART NO.	DESCRIPTION
R307L,R	0113631	CF 4.7kΩ ±5% SRD1/6P
R308	0112912	MO47Ω ±10%RS1B
R401	0113627	CF 3.3kΩ ±5% SRD1/6P
R402	0113615	CF 1kΩ ±5% SRD1/6P
R403	0113611	CF 680Ω ±5% SRD1/6P
R404L,R	0113679	CF 470kΩ ±5% SRD1/6P
R405L,R	0113609	CF 560Ω ±5% SRD1/6P
R407L	0113675	CF 47kΩ ±5% SRD1/6P
R407R	0170342	CF 47kΩ ±5% SRD1/8P
R408L,R	0113609	CF 560Ω ±5% SRD1/6P
R409L,R	0113567	CF 10Ω ±5% SRD1/6P
R411L,R	0113639	CF 10kΩ ±5% SRD1/6P
R412L,R	0113629	CF 3.9kΩ ±5% SRD1/6P
R413L,R	0113659	CF 68kΩ ±5% SRD1/6P
R414L,R	0113645	CF 18kΩ ±5% SRD1/6P
R415L,R	0113639	CF 10kΩ ±5% SRD1/6P
R416L,R	0113631	CF 4.7kΩ ±5% SRD1/6P
R417L,R	0113625	CF 2.7kΩ ±5% SRD1/6P
R418	0129561	CF 100Ω ±5% SRD1/4P
R419L,R	0113659	CF 68kΩ ±5% SRD1/6P
R420L,R	0113631	CF 4.7kΩ ±5% SRD1/6P
R421L,R	0113663	CF 100kΩ ±5% SRD1/6P
R422L,R	0113645	CF 18kΩ ±5% SRD1/6P
R451	0112915	MO33Ω ±10%RS1B
R452	0113561	CF 5.6Ω ±5% SRD1/6P
R453	0113655	CF 47kΩ ±5% SRD1/6P
R501L,R	0113615	CF 1kΩ ±5% SRD1/6P
R503L,R	0113551	CF 2.2Ω ±5% SRD1/6P
R504L,R	0170338	CF 68Ω ±5% SRD1/8P
R505	0113611	CF 680Ω ±5% SRD1/6P
R701	0113615	CF 1kΩ ±5% SRD1/6P
R702	0113587	CF 68Ω ±5% SRD1/6P
R703	0113617	CF 1.2kΩ ±5% SRD1/6P
R704	0113655	CF 47kΩ ±5% SRD1/6P
R705	0113591	CF 100Ω ±5% SRD1/6P
R706	0113643	CF 15kΩ ±5% SRD1/6P
R707	0113627	CF 3.3kΩ ±5% SRD1/6P
R708	0113647	CF 22kΩ ±5% SRD1/6P
R709	0113647	CF 22kΩ ±5% SRD1/6P
R710	0119504	MO18Ω ±10%RS2B
△FR501	1118447	FR 6.8Ω ±5% RN1/4B

ICS & TRANSISTORS		
IC101	2398201	TA7358P
IC201	2389511	TA7640AP
IC301	2301041	TA7343AP
IC401	2300881	AN7312
IC501	2389521	μPC1278H
Q151	2319083	HIT9011GH (for E)
Q451	2319101	2SC1684R
Q501	2317803	2SD1266 ⊕
Q701	2318201	2SD592AR
Q702	2318191	2SC1815GR

DIODE		
D101	2398082	1N4148
D102	2398081	1N4148 (for E)
D103	2338031	1S2790
D201	2398082	1N4148

SYMBOL NO.	PART NO.	DESCRIPTION
D501	2398082	
D601	2398081	
D602	2398082	
D603	2398081	
D604	2398082	
D701	2337001	
D702	2398081	
ZD501	2337001	
ZD701	2338031	
ZD702	2338031	
LED1	2397001	
VCD1	2398081	
VCD2	2398082	
VARIABLES		
RV401L,R	0166001	
RV402L,R	0166001	
RV702	0189001	
RV707	0189001	
RT301	0189001	
RT701	0189001	
RT702	0189001	
RT703	0189001	
L101	2137001	
L102	2137001	
L151	2137001	
L151	2137001	
L152	2757001	
L153	2757001	
L154	2137001	
L155	2137001	
L156	2137001	
L171	2137001	
L501	2227001	
L701	2227001	
MISCELLANEOUS		
S001	2789001	
S201	2629001	
S401	2629001	
S402	2628001	
S403	2629001	
△S601	2629001	
S701	2639001	
J401L,R	2678001	
J501	2678001	
BPF1	2137001	
CF201	2135001	
T101	2135001	
T201	2154001	
T202	2154001	
T203	2154001	
T401	2136001	
T701	2267001	

on
or

DESCRIPTION
kΩ ± 5% SRD1/6P
Ω ± 10%RS1B
kΩ ± 5% SRD1/6P
Ω ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
0.0Ω ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
kΩ ± 5% SRD1/8P
0.0Ω ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
0.0Ω ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
Ω ± 10%RS1B
Ω ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
kΩ ± 5% SRD1/6P
Ω ± 10%RS2B
Ω ± 5% RN1/4B
ISTORS
8P
0AP
3AP
2
78H
11GH (for E)
84R
66 ©
2AR
15GR
8
8 (for E)
0
8

SYMBOL NO.	PART NO.	DESCRIPTION
D501	2398081	1N4148
D601	2398062	1N4001
D602	2398062	1N4001
D603	2398062	1N4001
D604	2398062	1N4001
D701	2337641	1SS81
D702	2398082	1N4148
ZD501	2337541	HZ-7A-1
ZD701	2338672	RD39EB6
ZD702	2338091	μPC574j
LED1	2397753	LN217RP
VCD1	2398371	1SV50 (1)
VCD2	2398371	1SV50 (1)
VARIABLE RESISTORS		
RV401L,R	0166932	10kΩ (A)
RV402L,R	0166944	10kΩ (B)
RV702	0189351	100kΩ (B)
RV707	0189351	100kΩ (B)
RT301	0189331	5kΩ×8
RT701	0189334	20kΩ×8
RT702	0189332	10kΩ×8
RT703	0189332	10kΩ×8
COILS		
L101	2137680	FM RF coil
L102	2137689	FM OSC coil
L151	2137662	SW antenna coil (for E)
L151	2137661	SW antenna coil (for E (BS))
L152	2757994	Ferrite antenna
L153	2757994	Ferrite antenna
L154	2137671	SW OSC coil
L155	2137631	MW OSC coil
L156	2137642	LW OSC coil
L171	2137684	Choke coil
L501	2227748	Choke coil
L701	2227748	Choke coil
MISCELLANEOUS		
S001	2789801	Switch, leaf
S201	2629282	Slide switch
S401	2629293	Slide switch
S402	2628581	Slide switch
S403	2629331	Slide switch
△ S601	2629261	Slide switch
S701	2639626	Push switch
J401L,R	2678781	2P pin jack
J501	2678234	Headphone jack
BPF1	2137191	FM band pass filter
CF201	2135321	Ceramic filter
T101	2135651	FM IF transformer
T201	2154952	AM IF transformer
T202	2154964	FM IF transformer
T203	2154951	AM IF transformer
T401	2136891	REC OSC transformer
T701	2267021	DC-DC conv. trans

SYMBOL NO.	PART NO.	DESCRIPTION
CT151	0283130	Semi variable capacitor
CT152	∫	∫
CT153	0283130	∫
CT154	0283557	∫
CT155	0283557	∫
CT156	0282148	Semi variable capacitor
CT101	0282381	Variable capacitor with variable resistor
CT150	∫	∫
CV151	∫	∫
CV152	∫	∫
RV701	0282381	Variable capacitor with variable resistor
△ F601	2728073	Fuse T1.25A
	2737441	MIC
△ P.T.	2249601	Power transformer 320G 7.8VA (for E)
△ P.T.	2249602	Power transformer (for E(BS))
△	2707709	Power supply cord (for E)
△	2717902	Power supply cord (for E(BS))
	2504841	M PWB assembly
	8691406	Screw, 3x6 BT bind head
	8691408	Screw, 3x8 BT bind head
△ P001	2689461	2P Terminal

● Cassette Chassis (TN-21-582 mecha. assembly)

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	4818991	Main base ass'y	25	4820218	Spring, switch actuator	48	4819034	Take-up reel ass'y
2	4818992	Switch plate	26	4820219	Head panel	49	4819035	Record safety lever
3	4832411	Push button actuator ass'y	27	4819014	Head base	50	4819032	Spring
4	4820212	Lever, REC button	28	4832412	Sensing plate ass'y	51	4820236	Bracket, motor
5	4820213	Lever, PLAY button	29	4820221	Spring, head panel	52	4819036	Motor rubber
6	4818996	Lever, RWD button	30	4819018	MG arm	53	4819533	Screw, motor collar
7	4818997	Lever, FF button	31	4819006	PR stopper	54	4820235	Main belt
8	4818998	Lever, STOP button	32	4819045	Screw	55	4819043	Lever, eject slide
9	4818999	PAUSE button lever ass'y	33	4819017	Spring	56	4819044	Spring, eject slide lever
10	4818990	Lever, RWD	34	4802222	Pressure roller arm ass'y	57	4820242	Pack spring
11	4819131	Lever, PAUSE	35	4820223	Spring, pressure roller arm	58	2557321	Erase head
12	4819132	Spring, PAUSE lever	36	4832413	RF pulley arm	59	2555671	Record playback head
13	4819133	Stopper, PAUSE	37	4820225	Spring, RF pulley arm	60	4819063	Screw, tapping 2x3
14	4820214	Spring, button lever	38	4832414	RF collar arm screw	61	4819068	Screw, tapping 2x4
15	4820215	Sub chassis	39	4820227	Belt	62	4819607	Screw, bind tapping 2x5
16	4819007	Spring, button lever	40	4820231	Flywheel ass'y	63	4819069	Screw, 2x6
17	4819100	Spring, button lever	41	4819575	Reel PWB ass'y	64	4819060	Screw, 2x7
19	4819008	Spring, actuator	42	4832415	Take up gear plate ass'y	65	4819600	Screw, azimuth
20	4819009	Lever, AUTO	43	4832416	Take up roller gear	67	4819077	Washer, 1.2
21	4819000	Spring, AUTO lever	44	4819020	Spring, TG plate	68	4819078	Washer, 1.55
22	4820217	Spring, PLAY button lever	45	4832417	FF gear	69	4832432	Washer cut 2.05x4x0.5
23	2789801	Switch, leaf	46	4819037	Spring	71	4820366	Motor assembly
			47	4819033	Supply reel ass'y	72	4820241	Mat
						73	4819062	Lug

**HITACHI SALES EUROPA GmbH**

Postfach 801060 Rungedamm 2, 2050 Hamburg 80,
West Germany
Tel. 040-734 11-0

HITACHI SALES (U.K.) Ltd.

Hitachi House, Station Road, Hayes, Middlesex UB3
4DR, England
Tel. 01-848-8787

HITACHI SALES SCANDINAVIA AB

Rissneleden 8, Box 7138, 172-07 Sundbyberg, Sweden
Tel. 08-98 52 80

HITACHI SALES NORWAY A/S

Oerebekk 1620, Gressvik, P.O. Box 46, N-1601,
Fredrikstad, Norway
Tel. 032-28255

SUOMEN HITACHI OY

Takojankatsu 5, 15800 Lahti 80, Finland
Tel. Lahti 44 241

HITACHI SALES A/S

Kuldysen 13, DK-2630, Taastrup, Denmark
Tel. 02-999200

HITACHI SALES A.G.

Bahnhofstrasse, 19, 5600 Lenzburg, Switzerland
Tel. 064-513621

HITACHI SALES WARENHANDELS GMBH

A-1180/Wien, Kreuzgasse 27, Austria
Tel. 0222-439367

HITACHI SALES ITALIANA, S.P.A.

Via Cristoforo Colombo 49, Trezzano sul naviglio
(Milano), Italy
Tel. 02-44 59 031

HITACHI SALES BELGIUM S.A.

56, Chaussee de Namur B-1400 Nivelles, Belgium
Tel. (003267) 227181

HITACHI SALES IBERICA, S.A.

Gran Via Carlos Tercero, 101, 1-1, Barcelona-28,
Spain
Tel. 330-8652

HITACHI MAROC (RADIO TV ELECTRO-MANAGER), S.A.

Rue du Havre, Casablanca, Morocco
Tel. 30-73-68, 30-73-57

HITACHI CANARIAS S.A.

Calle San-Francisco No. 19, Santa Cruz de Tenerife
Canary Islands
Tel. 24-64-98

HITACHI SALES (HELLAS) LTD.

110 Syngrou St., Athens, Greece
Tel. 9219082, 9233469

HITACHI SALES (MALAYSIA) SDN. BHD.

17, Jalan 20/16, Petaling Jaya, Selangor, Malaysia
Tel. 762523, 769918, 769836, 762594

HITACHI (SINGAPORE) PTE., LTD.

Room B, C & D, 15th Floor, Yen San Building
268 Orchard Road, Singapore 9, Singapore
Tel. 7378244, 7379826

HITACHI SALES (THAILAND) LTD.

2242-48, New Petchburi Road, Bangkapi, Hueykuang
Bangkok, Thailand
Tel. 314-2741

HITACHI ELECTRIC SERVICE CO., (HONG KONG) LTD.

4th Floor Leun Tai Industrial Bldg., 72-76 Kwai Cheong
Road Kwai Chung N.T., Hong Kong
Tel. 240126

HITACHI SALES AUSTRALIA PTY LTD.

153 Keys Road, Moorabbin, Victoria 3189 Australia
Tel. 555-8722

HITACHI SALES CORPORATION OF AMERICA

Eastern Regional Office
1290 Wall Street West, Lyndhurst, New Jersey 07071,
U.S.A.
Tel. 201-935-8980

Mid-Western Regional Office

1400 Morse Ave., Elk Grove Village, Ill. 60007, U.S.A.
Tel. 312-593-1550

Southern Regional Office

510 Plaza Drive, College Park, Georgia 30349, U.S.A.
Tel. 404-763-0360

Western Regional Office

401 West Artesia Boulevard, Compton, California 90220
U.S.A.
Tel. 213-537-8383

HITACHI SALES CORPORATION OF HAWAII, INC.

3219 Koapaka Street, Honolulu, Hawaii 96819, U.S.A.
Tel. 808-836-3621

HITACHI (HSC) CANADA INC.

3300 Trans-Canada Highway, Pointe Claire, Quebec,
H9R 1B1, Canada
Tel. 514-697-9150

Hitachi Sales Centroamericana, S.A.

San Rafael de Escazu, (Apartado 10272), San Jose,
Costa Rica
Tel. 28-20-11, 28-00-37

Hitachi Sales Corporation de Panama, S.A.

Nuevo Reparto E1 Carmen, Calle Ramon Arias y Calle B
Edificio Brasil 100, (Apartado 7657) Panama 5
Panama City, Rep. of Panama
Tel. 61-3100, 61-4305

Hitachi Sales de Chile Cia., Ltda.

Av. Mexico, 0183, Casilla 9793, Correo Central
Santiago, Chile
Tel. 774165

HITACHI-FRANCE S.A.

95-101 Rue Charles Michels,
93200 SAINT-DENIS,
France
Tel. 1-4821-6015

HITACHI LTD. TOKYO JAPAN

Head Office: THE HITACHI ATAGO BLDG.
No. 15-12, 2-Chome Nishi-Shinbashi
Minato-ku, Tokyo 105, Japan
Tel. Tokyo (03) 502-2111

TRK-P6E**TY No. 532E**