

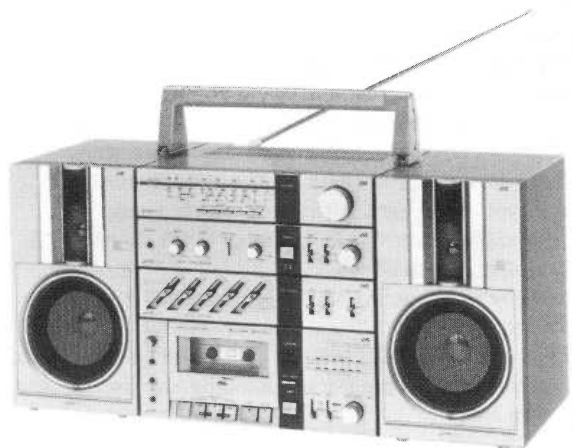
2245  
**JVC**

# **SERVICE MANUAL**

MODEL

**PC-6 W/WH**

PORTABLE COMPONENT SYSTEM



# Attention

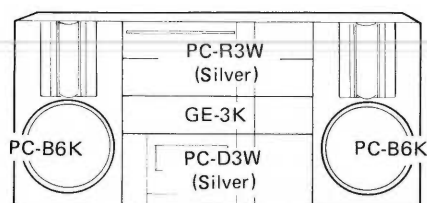


Fig. 1

Model PC-6W is composed with above units. PC-R3W (Receiver-silver) and PC-D3W (Cassette Deck-silver) are the same as the model PC-3W. Please refer to the service manual of model PC-3JW/W/WH/C (No. 1469).

(See page 19)

## OPTIONAL ACCESSORIES

Turntable L-E5U  
Stereo microphone M-201 (600  $\Omega$ )  
Headphones H-M11 (32  $\Omega$ )  
Rechargeable battery pack BP-12K  
Charger/AC adapter AA-12WN  
Exclusive car adapter CN-332  
Shoulder belt CB-85K  
Speakers RB-95K

# Contents

	Page		Page
Features .....	2	Standard Schematic Diagram of GE-3K .....	17
Specifications .....	3	Block Diagram of GE-3K .....	17
Connections (1) .....	4	Wiring Connection of GE-3K .....	18
Connections (2) .....	5	Assembly Parts of GE-3K .....	18
Various Usage .....	6	Assembly Parts List of GE-3K .....	19
Names of Parts .....	8	Speaker Parts (PC-B6K), Parts List .....	20
Removal of the Main Parts (GE-3K) .....	11	Packing of Speaker (PC-B6K) .....	21
Removal of the Speaker Parts (PC-B6K) .....	12	Portable Component System .....	22
Description on New Technology used in the GE-3K .....	13	Accessories .....	22
P.W. Board Parts of GE-3K .....	14	Packing .....	23
P.W. Board Parts List of GE-3K .....	15	Packing Material Parts List of PC-6W .....	23

# Features

## SEA graphic equalizer

- Complete stereo component system in a single box consisting of 4 units: a receiver, a stereo cassette deck and a pair of speakers.
  - Compactness and light weight permit use anywhere.
  - Easy portability permits on-the-spot-recording.
- Metal tape deck with soft-touch mechanism.
  - Incredible low wow & flutter of 0.05 % (WRMS).
- Metal tape compatibility.
  - METAPERM record/play head for high quality performance.
- Built-in ANRS/DOLBY\* B NR, SUPER ANRS noise reduction systems greatly reduce tape hiss and expand dynamic range.
- MUSIC SCAN mechanism.
 

"Under license of Staar S.A., Brussels Belgium".
- Mixing facility with microphone level control makes possible the desired mixing level.
- Volume control exclusively for headphones.
- Timer standby mechanism.
- Record muting button lets you leave nonrecorded sections.
- Total output of 40 W (20 W + 20 W) Max. (6  $\Omega$ , AC). Music power of 46 W (23 W + 23 W) (6  $\Omega$ , AC).
- Separate receiver headphones jack.
- PHONO, AUX jacks provided.
- 10-cm full-range bass-reflex speaker systems.
- 4-way power supply (AC, batteries, rechargeable battery pack and car battery).

\* "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

# Specifications

## Stereo Cassette Deck PC-D3

Track system	: 4-track 2-channel stereo
Motors	: Electronic governor DC motor for capstan & reel
Heads	: METAPERM head for recording/playback; 2-Gap Ferrite head for erasure
Frequency response	: 30—17,000 Hz (with metal tape) 30—16,000 Hz (with normal tape) 30—15,000 Hz (with normal tape)
Signal-to-noise ratio	: 54 dB (weighted, at 1 kHz, 3% THD with metal tape) Improved by 5 dB at 1 kHz and by 10 dB at 5 kHz or more with ANRS/DOLBY B NR ON
Effect of Super ANRS (normal tape)	
Improvement of S/N	: The same as with ANRS/DOLBY B
Improvement of frequency response	: 0 VU recording; 6 dB at 10 kHz + 5 VU recording; 12 dB at 10 kHz
Improvement of distortion	: 0 VU recording; 3% or less at 10 kHz + 5 VU recording; 3% or less at 10 kHz
Third harmonic distortion	: 0.5% (metal tape, at 1 kHz)
Wow and flutter	: 0.05% (WRMS)
Fast forward time	: Approx. 95 sec (C-60 cassette)
Rewind time	: Approx. 95 sec (C-60 cassette)
Input terminals	: MIC $\times$ 2 (Min. input level: 0.3 mV (—70 dBV), Matching impedance: 200 $\Omega$ —2 k $\Omega$ ), LINE IN $\times$ 2 (Min. input level: 100 mV/—17 dBs, Input impedance: 47 k $\Omega$ ) Ext. DC IN (12 V)
Output terminals	: LINE OUT $\times$ 2 (Output level: 300 mV/—8.2 dBs, Output impedance: 5 k $\Omega$ ), PHONES $\times$ 1 (Output level: 0—3 mW/8 $\Omega$ , Matching impedance: 8 $\Omega$ —1 k $\Omega$ , DC OUT $\times$ 1 (12 V)
Semiconductors	: 6 ICs, 42 transistors
Power sources	: DC 12 V ("R20" $\times$ 8, optional BT-12K rechargeable battery pack), EXT DC (car battery via optional CN-332 car adapter)
Dimensions	: 270(W) $\times$ 100(H) $\times$ 218(D) mm (10-3/4" $\times$ 4-3/8" $\times$ 8-5/8") including pads and knobs
Weight	: Approx. 3.4 kg (7.5 lbs) with batteries Approx. 2.6 kg (5.7 lbs) without batteries

## Receiver PC-R3

Frequency ranges	: FM 88 — 108 MHz AM 540 — 1600 kHz SW1 2.3 — 7 MHz SW2 7 — 22 MHz
------------------	---

## FM tuner section

Usable sensitivity	: 2.8 $\mu$ V/75 $\Omega$
Signal-to-noise ratio	: 60 dB (MONO)
Total harmonic distortion	: 0.3% (1 kHz)
Capture ratio	: 2.0 dB
Selectivity	: 40 dB
Stereo separation	: 40 dB (1 kHz)
Frequency response	: 25 — 15,000 Hz
Antennas	: Telescopic antenna $\times$ 1 Ext. antenna terminal (300 $\Omega$ )

## AM tuner section

Sensitivity AM	: 250 $\mu$ V/m (IEC)
SW1	: 250 $\mu$ V/m (IEC)
SW2	: 30 $\mu$ V (IEC)
Signal-to-noise ratio	: 45 dB
Selectivity	: 30 dB
Antenna	: Telescopic antenna (SW), Ferrite core antenna (AM, SW1)

## Amplifier section

Circuitry	: BTL-connected SEPP circuit
Power output	: Max. 40 W (20 W + 20 W) (6 $\Omega$ , AC) Music power 46 W (23 W + 23 W) (6 $\Omega$ , AC)
Frequency response	: 30 Hz to 30,000 Hz ( $\pm$ 3 dB)
Signal-to-noise ratio	: 75 dB (new IHF)
Tone control	: Bass $\pm$ 8 dB (100 kHz) Treble $\pm$ 8 dB (10 kHz)
Input terminals	: PHONE $\times$ 2 (3 mV/47 k $\Omega$ ), AUX $\times$ 2 (300 mV/68 k $\Omega$ ), TAPE PLAY $\times$ 2 (300 mV/68 k $\Omega$ )

Output terminals	: TAPE REC $\times$ 2 (300 mV/10 k $\Omega$ ), SPEAKER $\times$ 2 (matching impedance 6—8 $\Omega$ ), PHONES $\times$ 1 (Output level: 0—3 mW/8 $\Omega$ ), Matching impedance: 8—1 k $\Omega$ , AC OUTLET $\times$ 1 (MAX. 100 watts, (12 V, switched)
Semiconductors	: 5 ICs, 23 transistors
Power sources	: AC 240/220/110 V, 50/60 Hz (PC-R3W), AC 240 V, 50/60 Hz (PC-R3WH) DC 12 V (supplied from the deck; car battery via optional CN-332 car adapter)
Dimensions	: 270(W) $\times$ 110(H) $\times$ 229(D) mm (10-3/4" $\times$ 4-3/8" $\times$ 9-1/8") including pads and knobs
Weight	: Approx. 3.5 kg (7.7 lbs)

## SEA Graphic Equalizer GE-3

Frequency range	: 20—20 kHz (LINE IN, reference input —10 dBs) with SEA MONITOR switch ON and control knobs center positions
Input terminals	: LINE IN $\times$ 4 (300 mV, —8.2 dBs); input impedance 56 k $\Omega$
Output terminals	: LINE OUT $\times$ 4 (300 mV, —8.2 dBs); matching impedance 2.2 k $\Omega$
Control range	: About $\pm$ 12 dB
Center frequency	: 63 Hz, 250 Hz, 1 kHz, 4 kHz, 16 kHz
Dimensions	: 270(W) $\times$ 56(H) $\times$ 210(D) mm (10-3/4" $\times$ 2-1/4" $\times$ 8-3/8")
Weight	: 1 kg (2.2 lbs)

## Speaker PC-B6

Type	: 2-way bass reflex (phase inverted) system Book-shelf type speaker system
Speaker units	: 12 cm $\times$ 1, 5 cm $\times$ 1
Impedance	: 6 $\Omega$
Playback frequency response	: 75—20,000 Hz
Output sound pressure level	: 91 dB/W/m
Rated input	: 25 watts
Maximum input	: 35 watts
Dimensions	: 155(W) $\times$ 271(H) $\times$ 204(D) mm (6-1/8" $\times$ 10-3/4" $\times$ 8-1/8") including pads
Weight	: Approx. 2.1 kg (4.6 lbs)

## System PC-6

Power sources	: AC 240/220/110 V, 50/60 Hz (PC-6W) AC240 V, 50/60 Hz (PC-6WH) DC 12 V ("R20" $\times$ 8)
Dry batteries	
Rechargeable battery pack	: DC 12 V (optional BP-12K)
Car battery	: DC 12 V via optional CN-332 car adapter
Power consumption	: 93 watts
Dimensions	: 583(W) $\times$ 348(H) $\times$ 258(D) mm (23" $\times$ 13-3/4" $\times$ 10-1/4") including pads, knobs, handle with all components joined with provided fixtures
Weight	: Approx. 13.3 kg (29.3 lbs) (including fixtures and batteries)
Accessories	
Provided	: A set of joint fixtures for the center control section 4 pin-plug cords (30 cm / 11-7/8") 3 DC power supply cords 2 speaker cords (1 m / 3.24 ft) Carrying handle AC power cord Head cleaner Rear cover Demo cassette Siemens plug (PC-6W only)

Design and specifications are subject to change without notice.

# Connections (1)

- Do not switch the power on until all the connections are completed.
- The pin cords and the DC power cords were already connected between the stereo receiver and between the amplifier and the deck. If any are disconnected, refer to this diagram for proper connection.

## Connection of Speaker Cord

Regarding the speaker cords, be sure to connect the same channels, (L) to (L) and (R) to (R), or the same polarities, (+) to (+) and (–) to (–). Further, connect to the (–) terminal the wire marked with a black line. Because reversed connection of (+) and (–) causes degraded stereo feeling and sound quality.

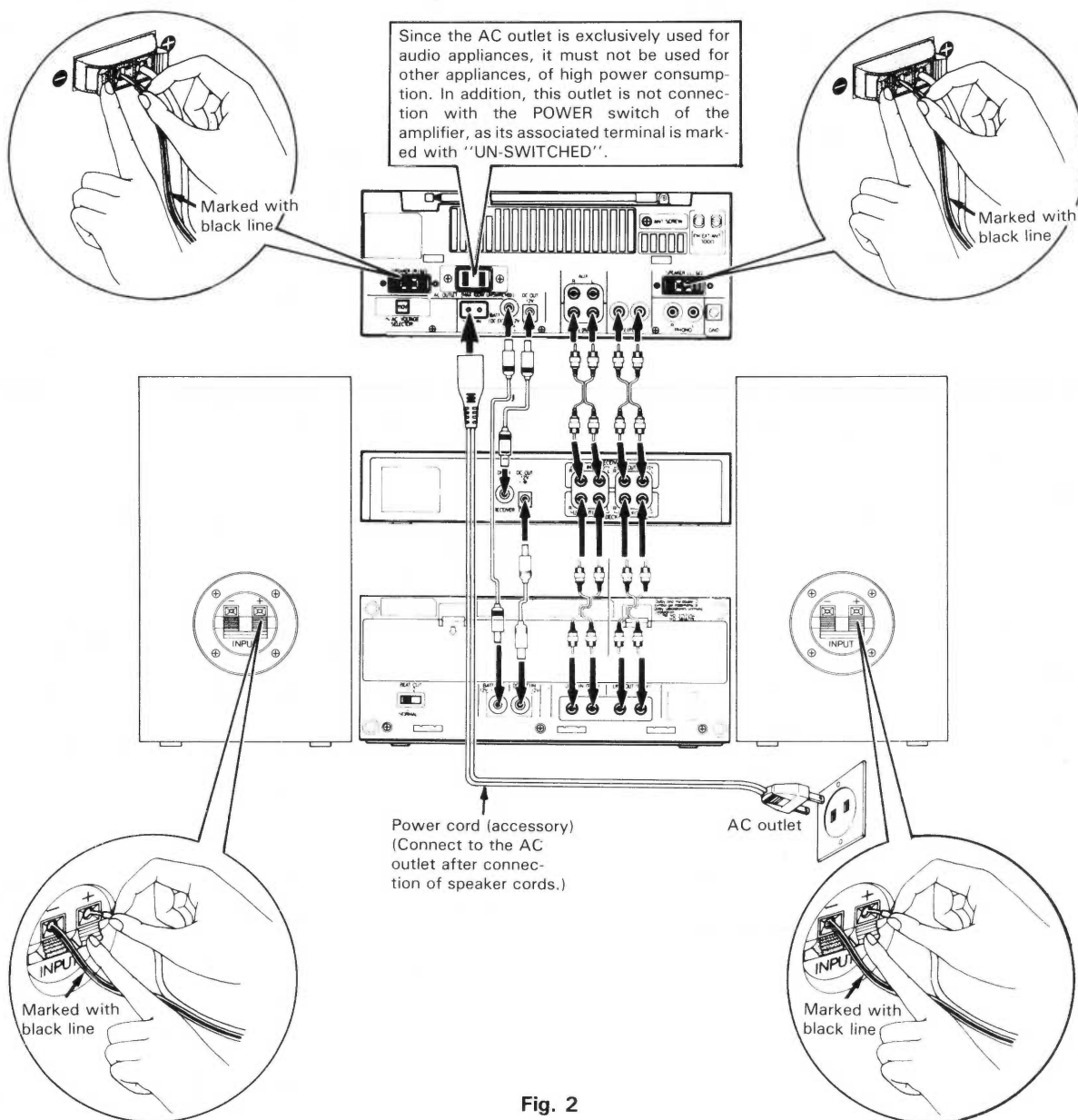


Fig. 2

- Notes:
1. When the AC power cord is plugged in, the batteries are automatically disconnected.
  2. When not using batteries for a long period, remove the batteries to prevent corrosion due to battery leakage.



# Connections (2)

- \* Fixing the FM outdoor antenna in the direction that the highest antenna sensitivity can be obtained.

While listening to an FM broadcast, detect the best FM receiving direction by turning the antenna in different directions.

- To seek the direction that the multipatch transmission\* is smallest, move the antenna in the direction that distorted sounds and noises are smallest, while listening to relatively large sounds with the TREBLE knob to MAX and the BASS knob to MIN.

**Note:** \* Multipath transmission causes distortion in radio and ghost images in television. In this phenomenon, waves are reflected from mountains, buildings or other obstacles and arrive at the radio receiving antenna slightly delayed.

Seek the best FM receiving direction with the antenna installed in a T.

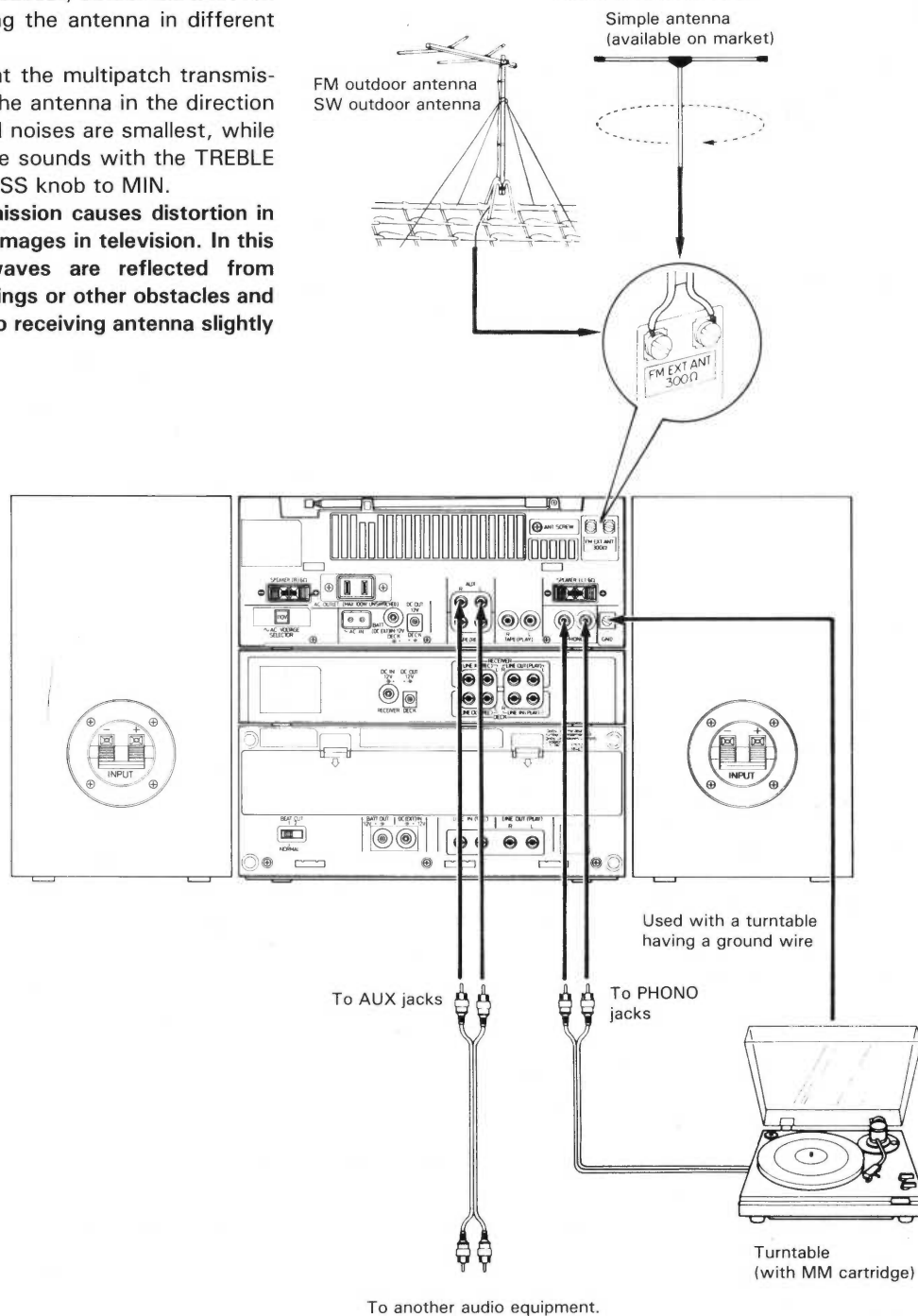


Fig. 3

- Concerning any connection cord, be sure to connect the same channels, (L) to (L) and (R) to (R), and positively insert each pin plug to the pertinent jack. Incomplete insertion may cause no sound to be emitted or noise to occur.

# Various Usage

## Installation of Speaker Sections

### Removing and Mounting of Speaker Joint Fixtures

1. Align (B) (screws for joint) and slide the speaker box down to secure it at part (A) as illustrated.
2. Join the other speaker in the same manner as above.

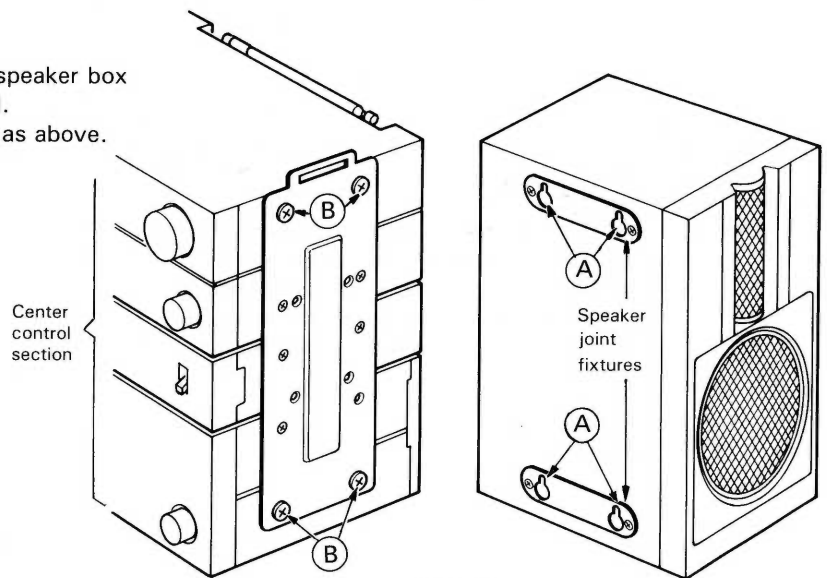


Fig. 4

### Mounting the Handle

1. Push the handle grip lock up, in the direction of arrow ①.
  2. Pressing mark  $\Delta$  in the direction of arrow ②, secure the handle grip to the slot indicated by arrow ③.
  3. Push the hand grip lock down to close it.
- Close the other hand grip lock in the same manner.

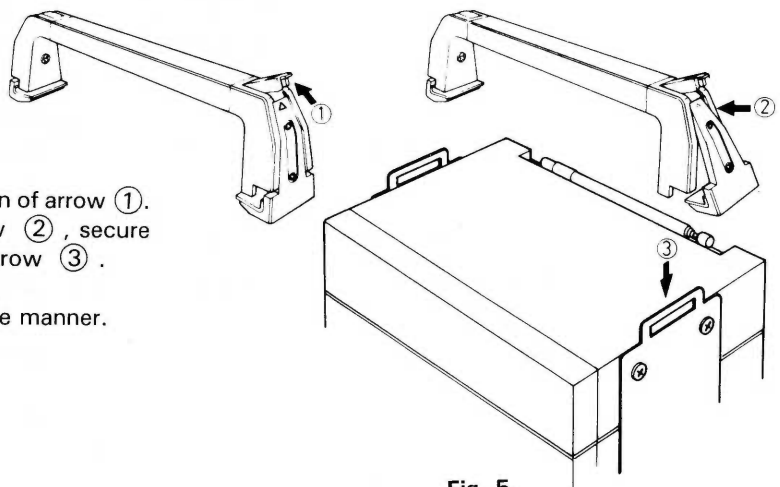


Fig. 5

### Mounting of Rear Cover

Insert the rear cover (lower) to 3 holes of the deck, and then pushing the direction of the arrow mark, insert the rear cover (upper) to 2 holes of the stereo receiver.

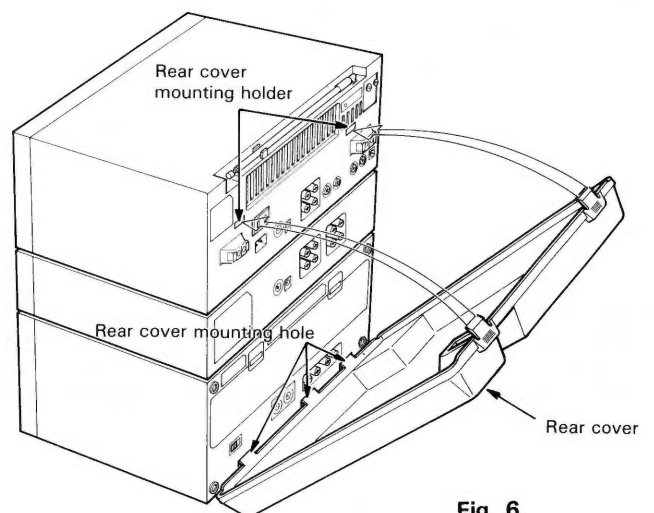


Fig. 6

## Removal of Center Control Section Joint Fixture (Frame)

Remove all the screws. (left & right, each 7p.c.s.)

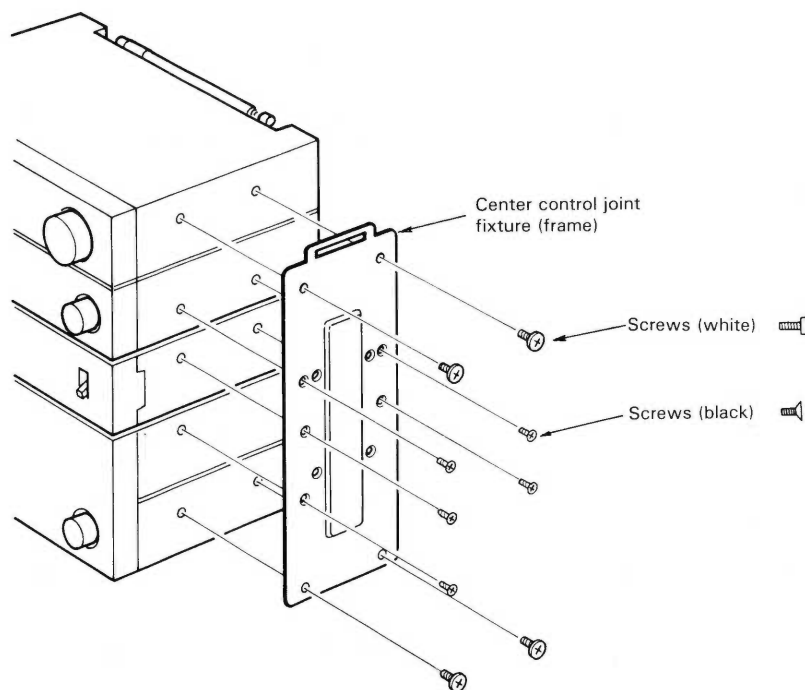


Fig. 7

## When Using as a Portable Deck

First remove the frames as mentioned above and fix the handle to both sides of the deck as shown.

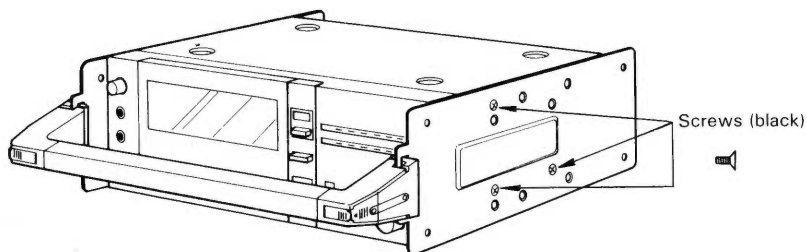


Fig. 8

When using as a portable deck, use the power source as follows:

- |           |  |
|-----------|--|
| Outdoor;  | Drive batteries (1"D" × 8)                 |
|           | Rechargeble battery pack BP-12K (optional) |
| In a car; | Exclusive car adapter CN-333K (optional)   |
| Indoor;   | Dry batteries                              |
|           | Rechargeble battery pack BP-12K (optional) |
|           | AC adapter AA-12W (optional)               |

Connect the exclusive car adapter or AC adapter to the DC (EXT) IN jack on the rear panel.

# Names of Parts

## Stereo Receiver (PC-R3) and Speakers Unit (PC-B6K)

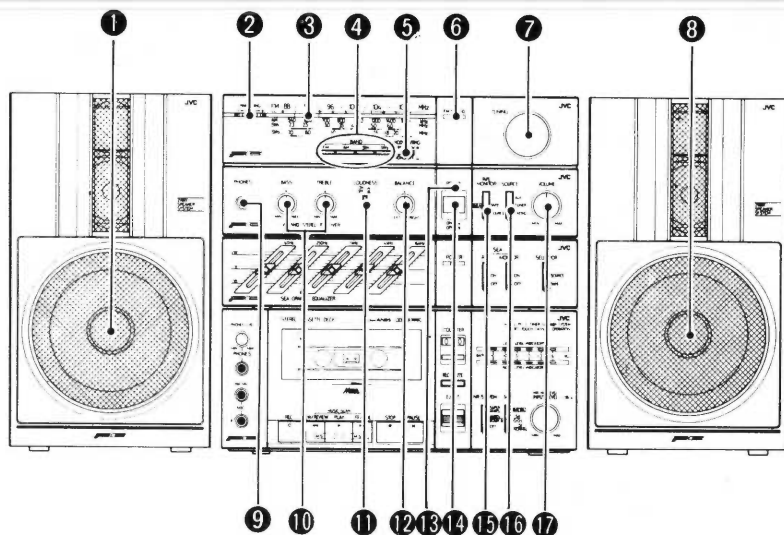


Fig. 9

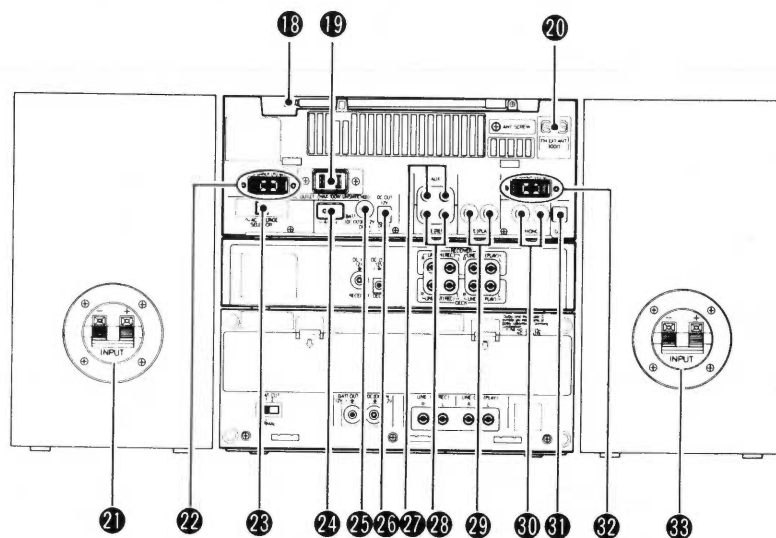


Fig. 10

- |                                     |   |
|-------------------------------------|---|
| ① Left speaker                      | ⑱ Telescopic antenna for FM & SW reception  |
| ② FINE TUNING knob for SW reception | ⑲ AC OUTLET terminal (MAX 100 W UNSWITCHED) |
| ③ Dial scale/tuning indicator       | ⑳ EXT ANT terminals                         |
| ④ Band switches (FM/AM/SW1/SW2)     | ㉑ Speaker INPUT terminals                   |
| ⑤ MODE/MUTING switch                | ㉒ SPEAKER (R) terminals                     |
| ⑥ FM STEREO indicator               | ㉓ VOLTAGE SELECTOR                          |
| ⑦ TUNING knob                       | ㉔ AC IN (AC input) terminal                 |
| ⑧ Right speaker                     | ㉕ BATT (DC EXT) IN 12 V jack: DECK          |
| ⑨ Headphones jack (PHONES)          | ㉖ DC OUT 12 V jack: DECK                    |
| ⑩ Tone controls                     | ㉗ AUX (auxiliary input) jacks               |
| ⑪ LOUDNESS switch                   | ㉘ TAPE (REC) jacks                          |
| ⑫ BALANCE control                   | ㉙ TAPE (PLAY) jacks                         |
| ⑬ POWER indicator                   | ㉚ PHONO jacks                               |
| ⑭ POWER switch                      | ㉛ GND (ground) terminal                     |
| ⑮ TAPE MONITOR switch               | ㉜ SPEAKER (L) terminals                     |
| ⑯ SOURCE switch                     | ㉝ Speaker INPUT terminals                   |
| ⑰ VOLUME control                    |   |

## Graphic Equalizer (GE-3K)

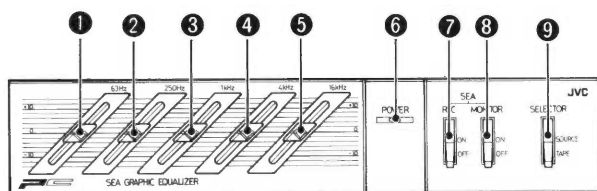


Fig. 11

- ① 63 Hz control knob
- ② 250 Hz control knob
- ③ 1 kHz control knob
- ④ 4 kHz control knob
- ⑤ 16 kHz control knob
- ⑥ SEA POWER indicator
- ⑦ SEA RECORD switch (ON-PASS)
- ⑧ SEA MONITOR switch (ON-PASS)

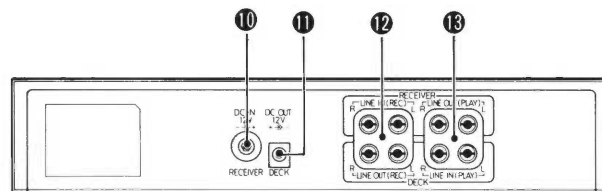


Fig. 12

- ⑨ SELECTOR (SOURCE-TAPE)
- ⑩ DC IN 12 V (RECEIVER)
- ⑪ DC OUT 12 V (DECK)
- ⑫ LINE IN (REC) RECIVER
- ⑬ LINE OUT (PLAY) RECEIVER
- ⑭ LINE IN (PLAY) DECK

## Stereo Cassette Deck (PC-D3)

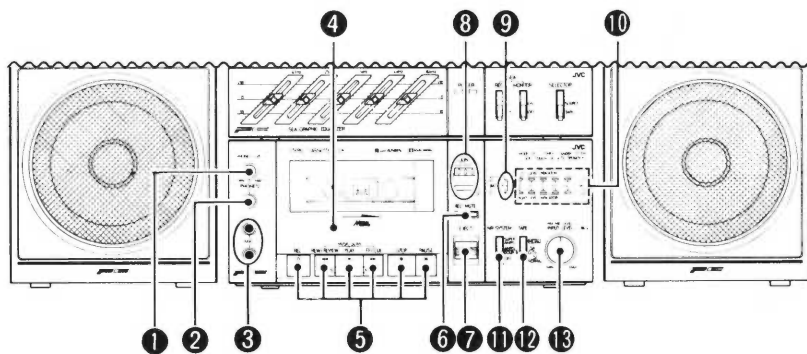


Fig. 13

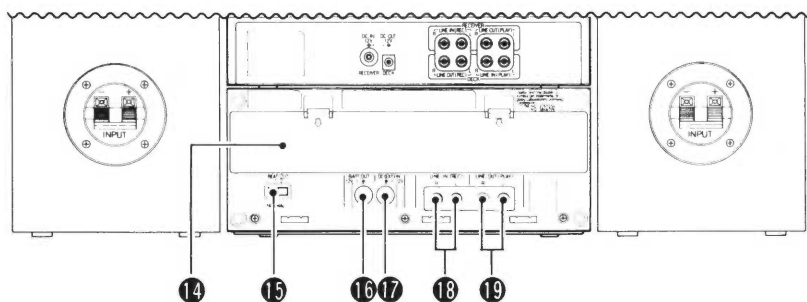


Fig. 14

- ① Headphones level control (PHONES LEVEL)
- ② Headphones jack (PHONES)
- ③ Mixing microphone/microphone jacks (MIX MIC/MIC)
- ④ Cassette holder
- ⑤ Cassette operation buttons
  - OREC (record) button
  - ◀ REW/REVIEW button
  - ▶ PLAY button
  - ▶▶ FF/CUE button
  - STOP button
  - PAUSE button
- ⑥ REC MUTE button
- ⑦ EJECT button
- ⑧ Tape COUNTER/reset button
- ⑨ BATTERY indicator
- ⑩ LEVEL indicator
- ⑪ NR SYSTEM switch
- ⑫ TAPE switch
- ⑬ INPUT LEVEL/MIX MIC LEVEL control
- ⑭ Battery cover
- ⑮ BEAT CUT switch
- ⑯ BATT OUT jack
- ⑰ DC (EXT) IN jack
- ⑱ LINE IN (REC) jacks
- ⑲ LINE OUT (PLAY) jacks

# Main Parts Location

Main parts location and removal of the main parts of PC-R3W and PC-D3W are the same as model PC-3W, please refer to service manual of model PC-3JW/W/WH/C (No. 1469)

## Main parts location of GE-3K

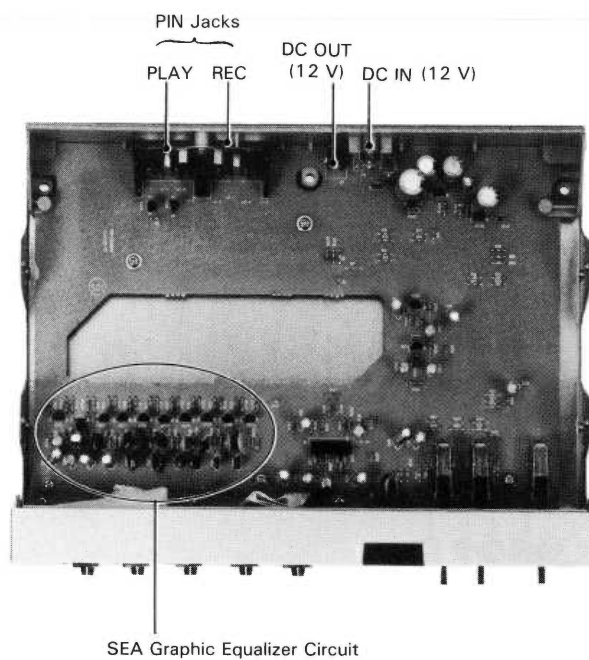
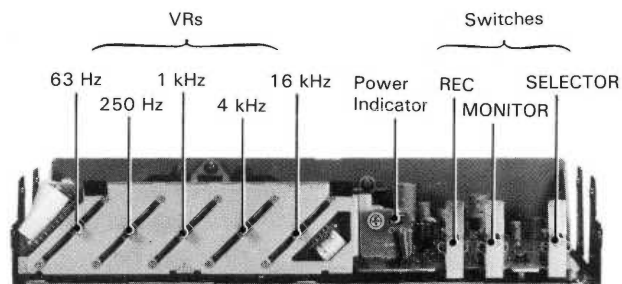


Fig. 15



# Removal of the Main Parts (GE-3K)

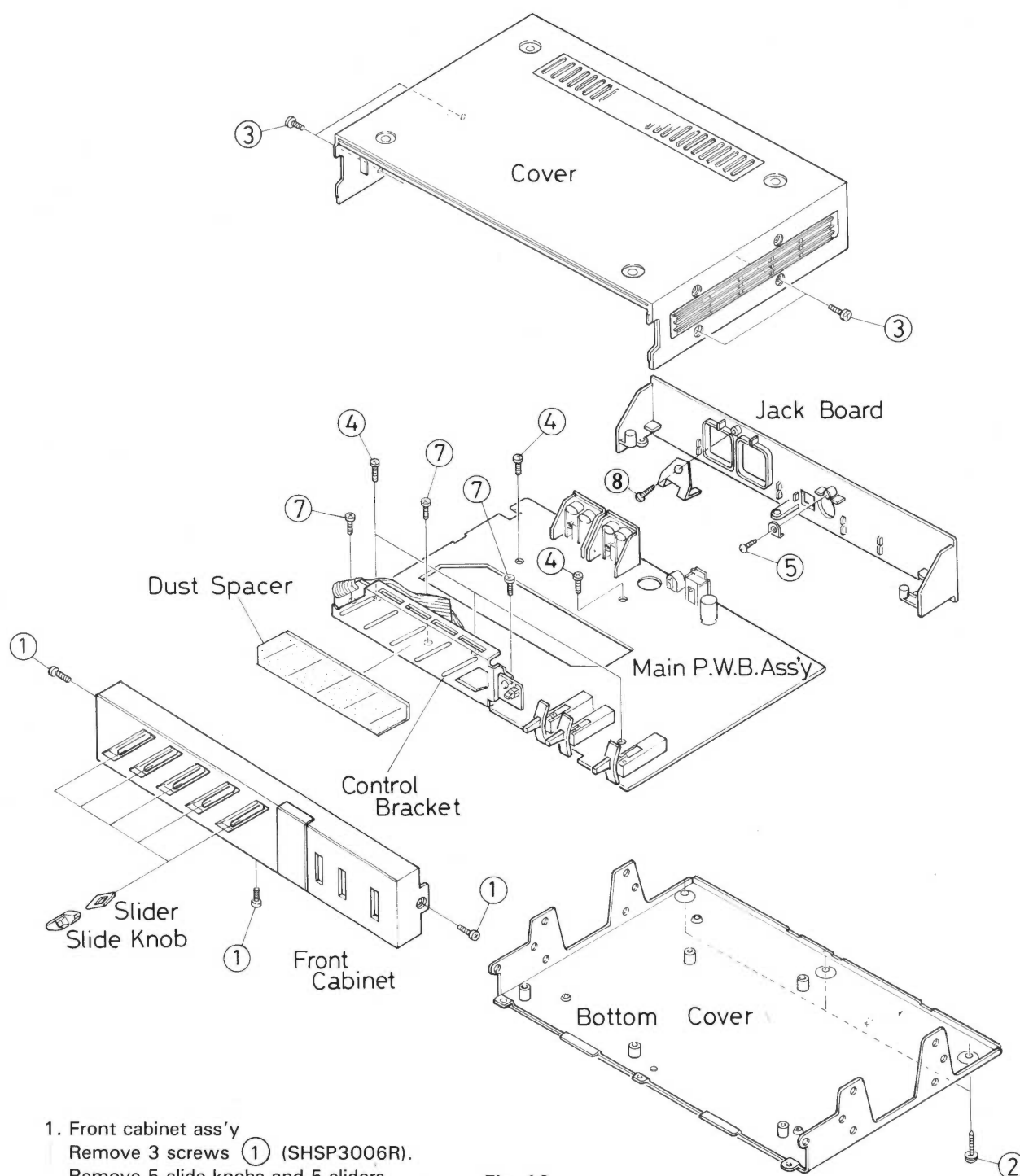


Fig. 16

1. Front cabinet ass'y  
Remove 3 screws (1) (SHSP3006R).  
Remove 5 slide knobs and 5 sliders.
2. Cover  
Remove 3 screws (2) (DPSP3006C).  
Remove 4 screws (3) (SHSP3006R).
3. Bottom cover ass'y/Main P.W.B. ass'y  
Remove 5 screws (4)
4. Jack Board  
Remove a screw (5) (SBSF3008Z).  
Remove a screw (8)
5. Control Bracket  
Remove 3 screws (7) (DPSP3006Z).

# Removal of the Speaker Parts (PC-B6K)

1. To remove the speaker terminal (22), remove 4 screws (23).
2. To remove the front cover (1), remove 2 screws (18).
3. Remove following screws  
 Woofer speaker (8) ..... 4 screws (9)  
 Tweeter speaker (10) ..... 2 screws (11)

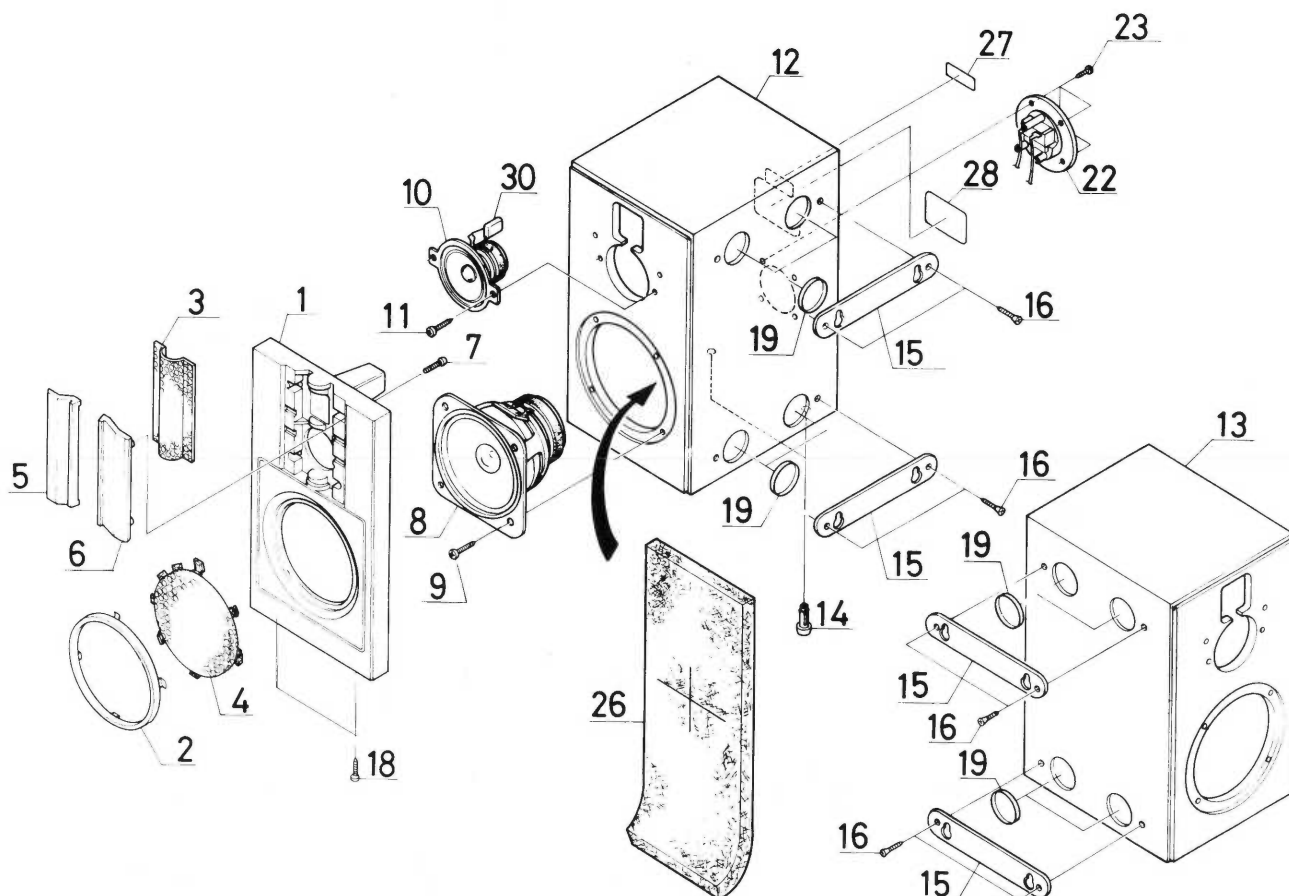


Fig. 17

## Wiring of Speaker (PC-B6K)

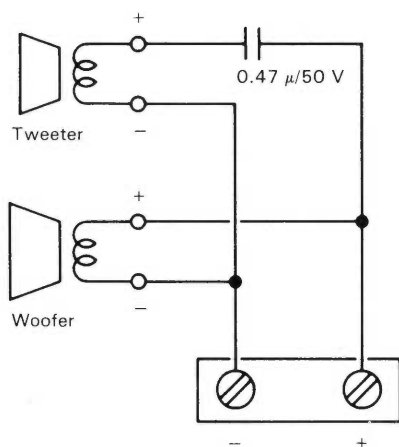


Fig. 18

## Frequency Response

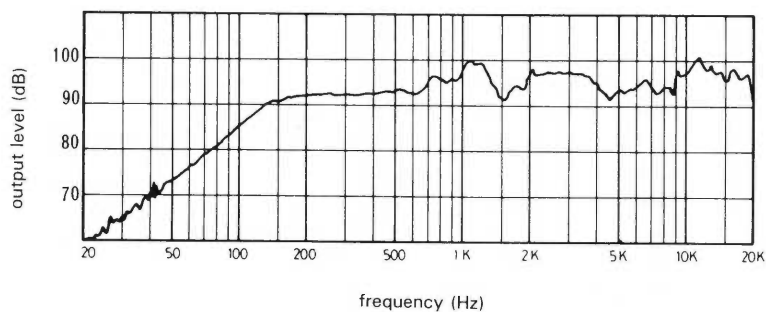


Fig. 19

# Description on New Technology used in GE-3K

## Graphic equalizer

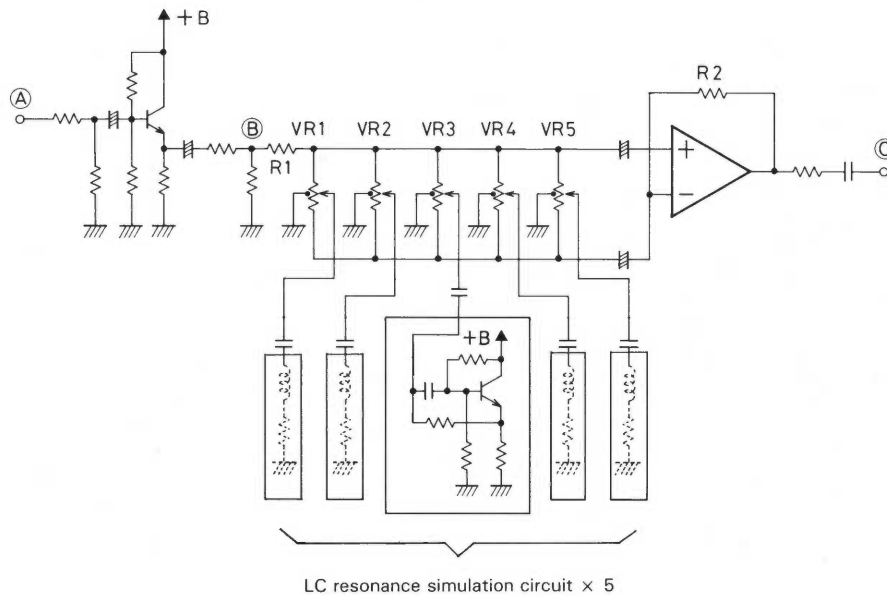


Fig. 20 SEA Graphic Equalizer Circuit

The resonance circuit for a single frequency is shown by the LC resonance simulation circuit shown in Fig. 21.

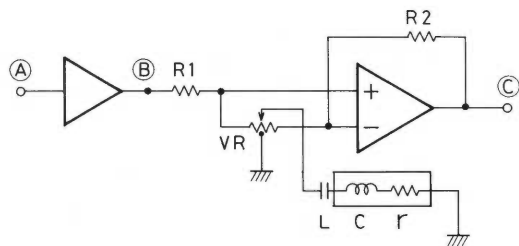


Fig. 21 Simplified Diagram of SEA Graphic Equalizer Circuit

The circuit of Fig. 21 is taken to be as shown in Fig. 21, when divided in two with the center at the VR's ground point. In Fig. 22, the LC resonance circuit is assumed to be resonanting. (In Fig. 22,  $r$  denotes the resultant impedance of the LC resonance circuit.)

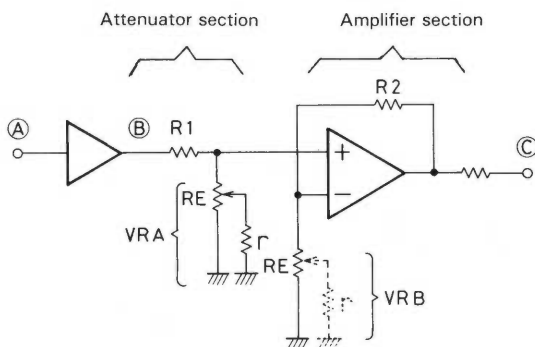


Fig. 22 SEA Variable Gain Circuit

In Fig. 22, the following relationship is given:

$$R_E = VR/2$$

$$VR_A = r//R_E \sim R_E$$

$$VR_B = r//R_E \sim R_E$$

When the VR in Fig. 21 is fully turned to the (+) input to lower the gain, the following relationship is given in Fig. 22.

$$VR_A = r//R_E$$

$$VR_B = R_E$$

At this time, total gain A1 between (B) and (C) is

$$A1 = \frac{r//R_E}{r//R_E + R1} \times \left(1 + \frac{R2}{R_E}\right)$$

When the VR is fully turned to the (-) input to increase the gain, the following relationship is given:

$$VR_A = R_E$$

$$VR_B = r//R_E$$

At this time, total gain A2 between (B) and (C) is

$$A2 = \frac{R_E}{R_E + R1} \times \left(1 + \frac{R2}{r//R_E}\right)$$

Thus, the total gain between (B) and (C) can be varied in the range of A1 to A2 by controlling the VR.

The SEA graphic equalizer is formed by connecting several VRs and LC resonance simulation circuits whose resonance frequencies have been set appropriately in parallel to the differential amplifier.



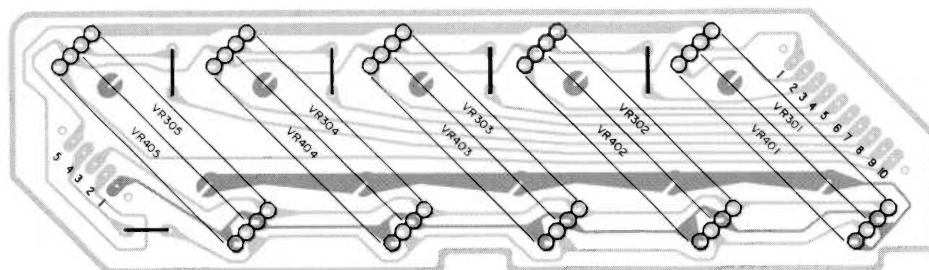


Fig. 24

## P.W. Board Parts List of GE-3K

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
(LED)					
D601		VMW1052-001C LN224RP VYH4967-001	P.W. Board LED LED Holder		— 1 1
(Volume)					
VR301,401		VMW1052-001B	P.W. Board		—
VR302,402		QVZ5203-001	Volume		1
VR302,402		"	"		1
VR303,403		"	"		1
VR305,405		"	"		1
(Main)					
S1-1 ~ 1-4		VMW1052-001A	P.W. Board		—
S2-1 ~ 2-4		QSL4209-022V	Lever Switch	Selector	1
S3-1 ~ 3-2		"	"	SEA REC	1
J1-1 ~ 1-4		VMJ3005-001	Pin Jack Ass'y	SEA MONI	1
J2-1 ~ 2-4		"	"		1
J3		QMA0921-006H	DC Jack		1
J4		QMA1221-004	"		1
IC1		M5218L	IC		1
Q101 ~ 107		2SC945L(P.Q)	Transistor	or 2SC945L(P.Q) *	15
201 ~ 207,501					
Q502		2SA733A(P.K)	Transistor	2SA733A(P.K) *	1
D501		10E1-B	Si. Diode		1
D502		HZ6B	Zener Diode		1
R101,201,130		QRD161J-222	C. Resistor	2.2 kΩ 1/6 W	4
230					
R103,203		" -184	"	180 kΩ "	2
R104,204		" -104	"	100 kΩ "	2
R105,205		" -152	"	1.5 kΩ "	2
R106,206		" -122	"	1.2 kΩ "	2
R107,207,109		" -563	"	56 kΩ "	12
209,113,213					
119,219,123					
223,111,211					
R108,208,112		" -821	"	820 Ω "	10
212,116,216					
120,220,124					
224					
R110,210,114,		" -682	"	6.8 kΩ "	10
214,118,218					
122,222,126					
226					

Ref. No.	△	Part No.	Parts Name	Remarks	Q'ty
R115,215,506		QRD161J-473	C. Resistor	47 kΩ 1/6 W	3
R117,217,121		" -683	"	68 kΩ	8
221,125,225					
133,233					
R127,227		" -562	"	5.6 kΩ "	2
R128,228,505		" -224	"	220 kΩ "	3
R129,229		" -274	"	270 kΩ "	2
R131,231		" -562	"	5.6 kΩ "	2
R132,232		" -103	"	10 kΩ "	2
R501		QRD149J-100S	C. Resistor	10 Ω 1/4 W	1
R502		QRD143J-471S	"	470 Ω	1
R503		QRD149J-100S	"	10Ω	1
R134,234		QRD161J-102S	"	1 kΩ 1/6 W	2
C101 ~ 102		QET41HR-475	E. Capacitor	4.7 μF 50 V	4
201 ~ 202					
C104,204		QEB41HM-224	"	0.22 μF "	2
C105,205		" -334	"	0.33 μF "	2
C106,206		QFN21HJ-563	M. Capacitor	0.056 μF "	2
C107,207		QFN21HJ-823	M. Capacitor	0.082 μF 50 V	2
C108,208		" -153	"	0.015 μF "	2
C109,209		" -183	"	0.018 μF "	2
C110,210		" -332	"	0.0033 μF "	2
C111,211		" -472	"	0.0047 μF "	2
C112,212		QCS21HJ-821	"	820 pF "	2
C113,114,116		QET41HR-226	E. Capacitor	22 μF "	6
213,214,216					
C115,215		QET41HR-475	E. Capacitor	4.7 μF "	2
C117,217		QCS31HJ-151	C. Capacitor	150 pF "	2
C118,218		QET41HR-475	E. Capacitor	4.7 μF "	2
C501		QET51CR-108	"	1000 μF 16 V	1
C502		QCF21HP-223	C. Capacitor	0.022 μF 50 V	1
C503,505		QET51HR-477	E. Capacitor	470 μF "	2
C504		QET51CR-227	"	220 μF 16 V	1
C506		QET41HR-475	"	4.7 μF 50 V	1



Standard Schematic Diagram of GE-3K

Block Diagram of GE-3K

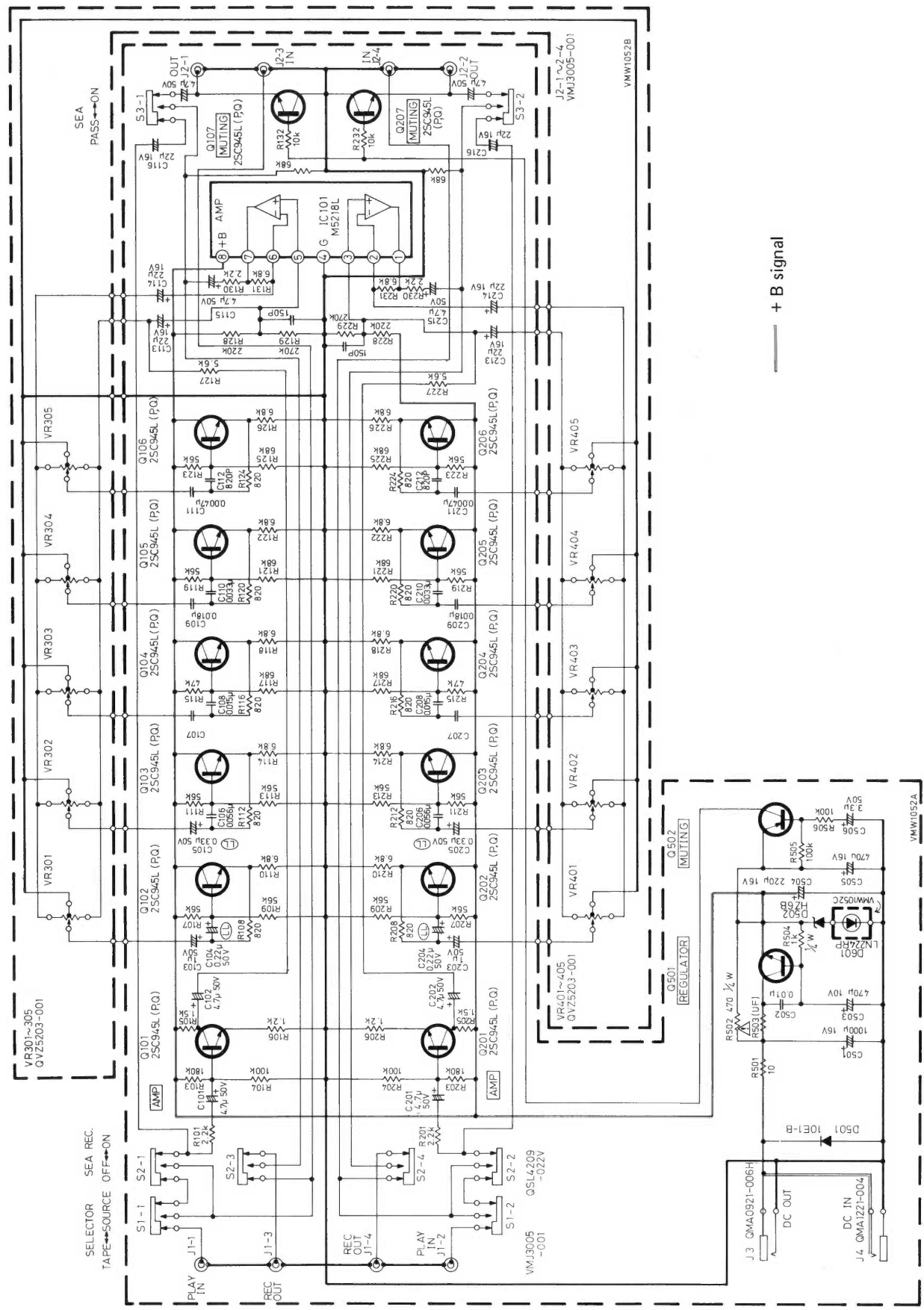


Fig. 25

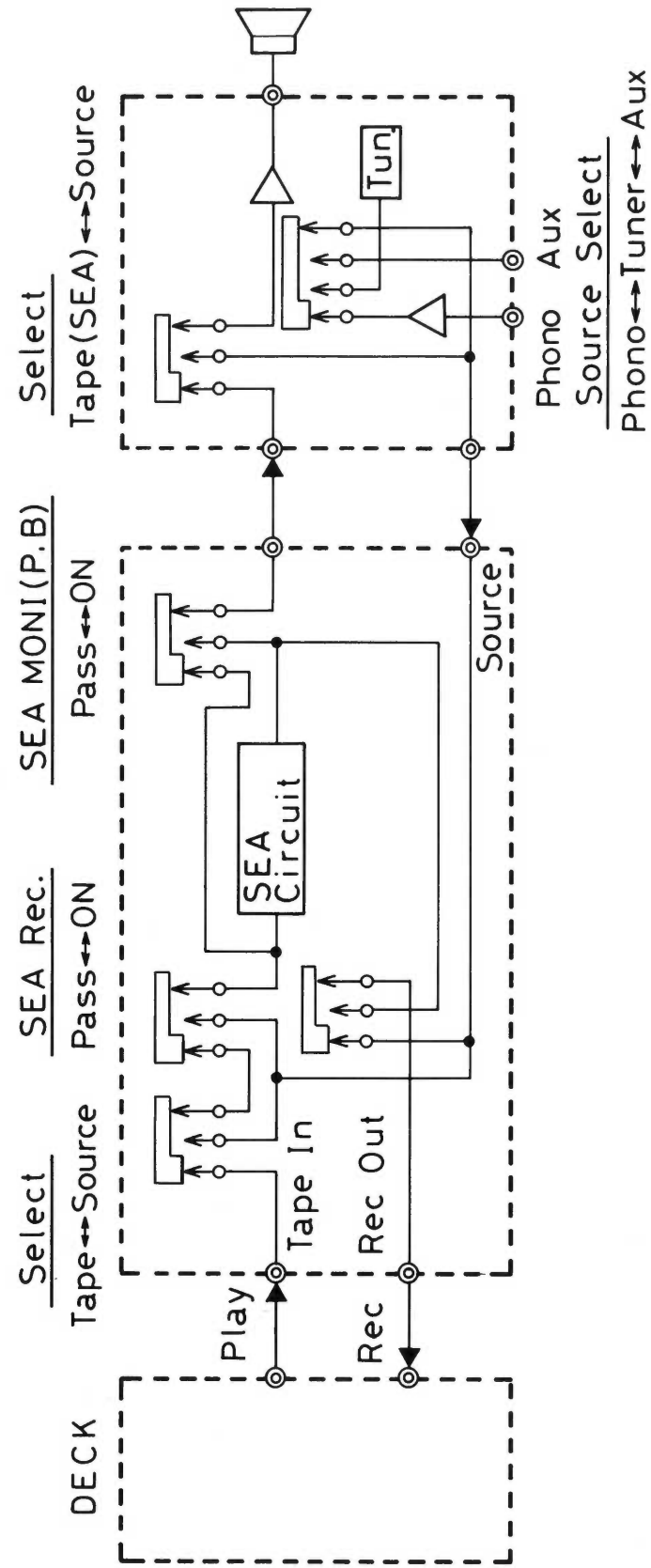
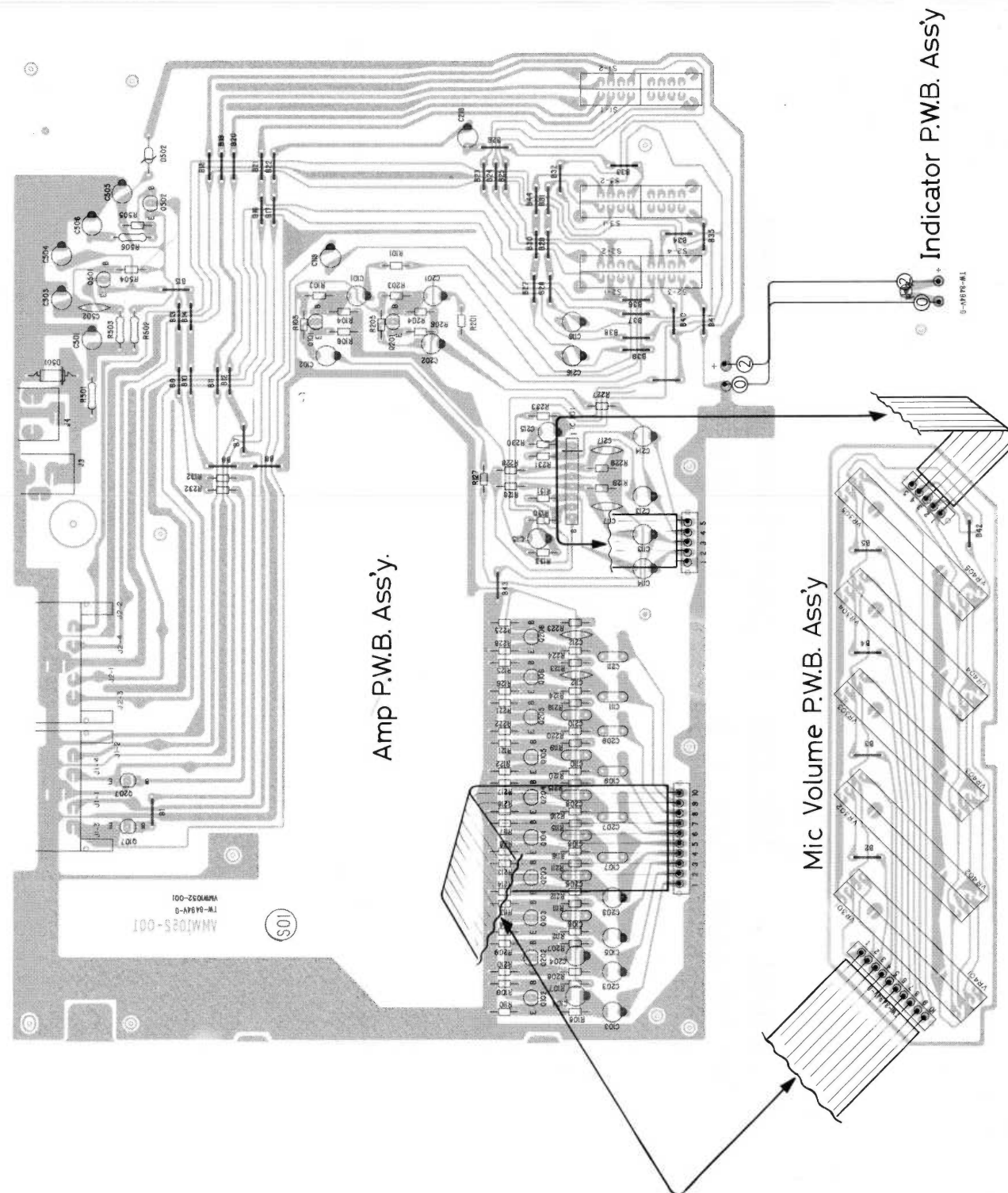


Fig. 26

# Wiring Connection of GE-3K

(Pattern side view)



Color code are shown below

- 0 ..... Black
- 2 ..... Red

Fig. 27

# Assembly Parts of GE-3K

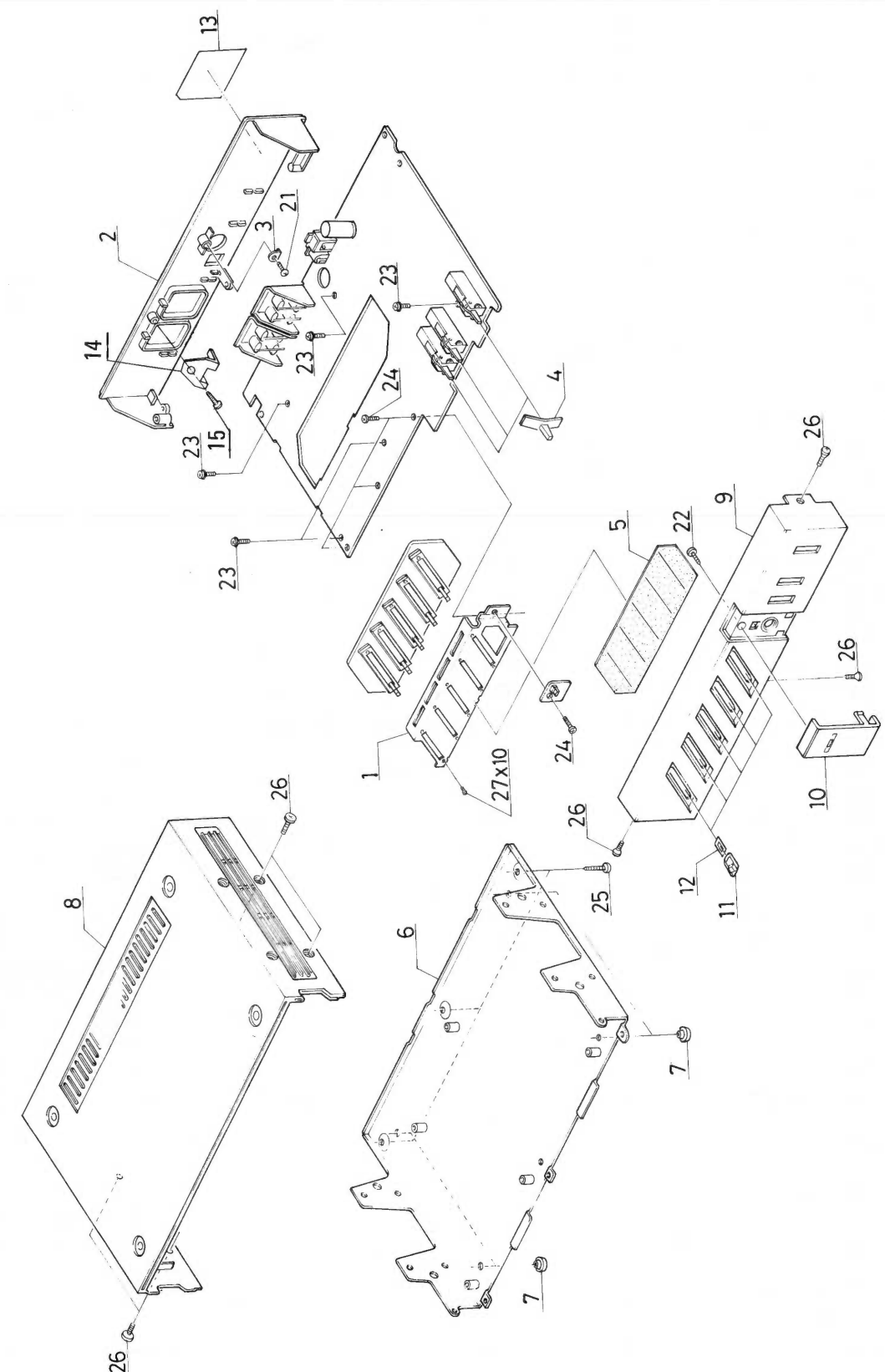


Fig. 28

## Assembly Parts List of GE-3K

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	VYH3221-001	Control Bracket		1
2	VJD2194-002	Jack Board		1
3	VYH5074-001	Stopper		1
4	VXQ4050-001	Lever Cap		3
5	VYTA476-002	Dust Spacer		1
6	VJC2093-00B	Bottom Cover Ass'y		1
7	VJF4007-002	Foot		4
8	VJC1144-001	Cover		1
9	VJC2089-002	Front Cabinet		1
10	VJD3365-002	Panel		1
11	VXS4051-001	Slide Knob		5
12	VYH4819-001	Slider		5
13	VYN7009-101	Name Plate		1
14	VYH4352-002	Clamp		1
15	SBSF3008Z	Screw		1
21	SBSF3008Z	Tap. Screw	Stopper	1
22	SBSF3010Z	"	Front Cabinet	1
23	DPSP3006C	Ass'y Screw		5
24	DPSP3006Z	"	Control Bracket × 3, LEP × 1	4
25	SDSB4020R	Tap. Screw	Bottom	3
26	SHSP3006R	Screw	Cover × 4 Front Cabinet × 3	7
27	SPSP2003Z	Screw	Control Bracket	10

The following is a comparison between the models of RC-3W and PC-6W.

The other parts not listed here are the same as those of the model RC-3W. Therefore, please refer to the parts list of RC-3JW/W/WH/C service manual (No. 1469).

Page	Ref. No.	PC-R3W	PC-R6W	Parts Name	Q'ty
29	1 ~ 5	ZCPCR3W-CBF	ZCPR6W-CBF	Front Cover Ass'y	1
	1	VJC1203-003	VJC1203-005	Front Cover	1
	30	VTP66N2-15D	VTP66N2-15F	Power Transformer	1
	49	VJC1204-003	VJC1204-007	Top Cover	1
	52	VJD4562-001	VJD4562-002	Plate	1
	56	VJD4508-001	VJD4508-002	Ant. Cover	1

Page	Ref. No.	PC-D3W	PC-D6W	Parts Name	Q'ty
33	1	VJC1205-002	VJC1205-004	Front Cover	1
	2	VJD4539-001	VJD4539-002	Panel	1
	4	VJT2066-001	VJT2066-002	Cassette Door	1
	28	VJC2061-002	VJC2061-003	Bottom Cover	1
	29,33,34,42	ZCPCD3W-CBR	ZCPCD6W-CBR	Rear Cover Ass'y	1
	29	VJC1206-001	VJC1206-002	Rear Cover	1
	35	VJC1207-001	VJC1207-002	Top Cover	1
	39	VJT4052-00A	VJT4052-00C	Cassette Door Ass'y	1
	40,41	ZCPCD3W-BCA	ZCPCD6W-BCA	Battery Cover Ass'y	1
	41	VJC2032-002	VJC2032-001	Battery Cover	1

# Speaker Parts List of PC-B6K

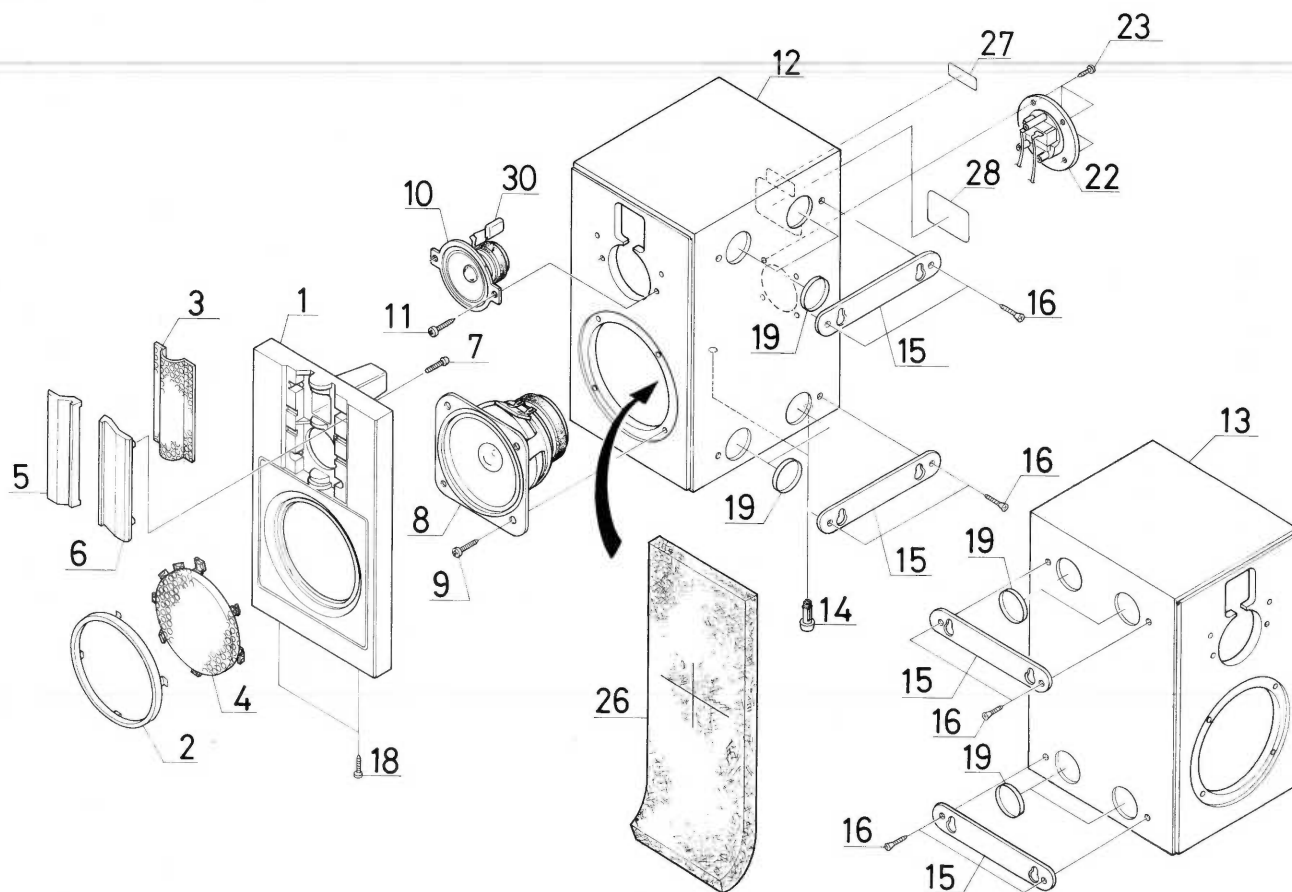


Fig. 29

## Speaker Parts List of PC-B6K

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	VJC1198-102	Front Cover		1
2	VJD3315-001	Ring		1
3	VJD3304-002	Punching Panel		1
4	VJD3305-002	Tweeter Net		1
5	VJD3306-001	Fitting (L)		1
6	VJD3306-002	" (R)		1
7	SSSF3010Z	Tap. Screw		4
8	HSA1228-01D	Speaker		1
9	SDSA3012Z	Tap. Screw		4
10	HSA0599-01Y	Speaker		1
11	SDSA3012Z	Tap. Screw		2
12	VJC1248-001	Speaker Case (L)		1
13	" -002	" (R)		1
14	VJF4009-001	Foot		2
15	VYH4891-004	Plate		2
16	SSSA3012R	Screw		4
18	SDSA3014R	"		2
19	VYH4934-001	Spacer		4
22	VMZ0017-001	Speaker Terminal		1
23	SDSA3012R	Screw		4
26	VKZ4171-002	Sound Absorber		1
27	VNC5003-206	Serial Label		1
28	VYN7009-301	Name Plate		1
30	QFM41HK-684	M Capacitor	0.68 $\mu$ F 50 V	1
	VYH3210-001	Pipe		1
	DYTH414-001	Spacer		1

# Packing of Speaker (PC-B6K)

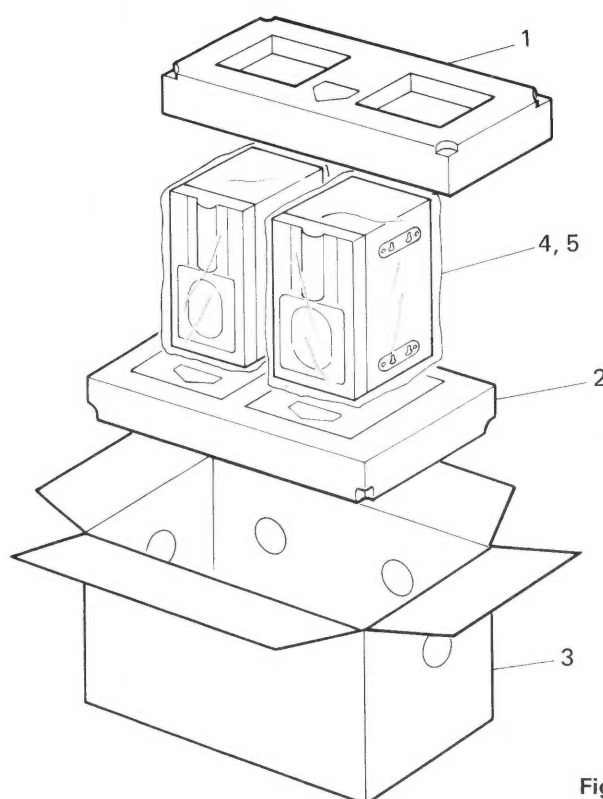


Fig. 30

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1,2	VPH1255-001	Cushion		2
3	VPD7009-J01	Carton		1
4	VPK4002-003	Sheet		2
5	QPGA040-05005	Poly Bag		1

The following items of PC-R3W and PC-D3W are the same as PC-3W, please refer to service manual of model PC-3JW/W/WH/C (No. 1469, page 29 ~ 45).

	Page
PC-R3 Enclosure Assembly and Electrical Parts List .....	29
PC-R3 Enclosure Assembly and Electrical Parts .....	31
PC-D3 Enclosure Assembly and Electrical Parts .....	32
PC-D3 Enclosure Assembly and Electrical Parts List .....	33
PC-R3 Tuner P.W. Board Parts .....	34
Tuner P.W. Board Parts List .....	35
PC-R3 Amplifier P.W. Board Parts List .....	37
PC-R3W Amplifier P.W. Board Parts .....	40
PC-D3 Cassette Amplifier and Mecha. Control P.W. Board Parts .....	41
PC-D3 Cassette Amplifier P.W. Board Parts List .....	42
PC-D3 Mecha. Control P.W. Board Parts List .....	43
Auto Stop P.W. Board Ass'y .....	43
Level Indicator P.W. Board Parts List .....	43
Mic/Phones P.W. Board Parts List .....	43
Mechanical Component Parts .....	44
Mechanical Component Parts List .....	45

# Portable Component System (PC-6W)

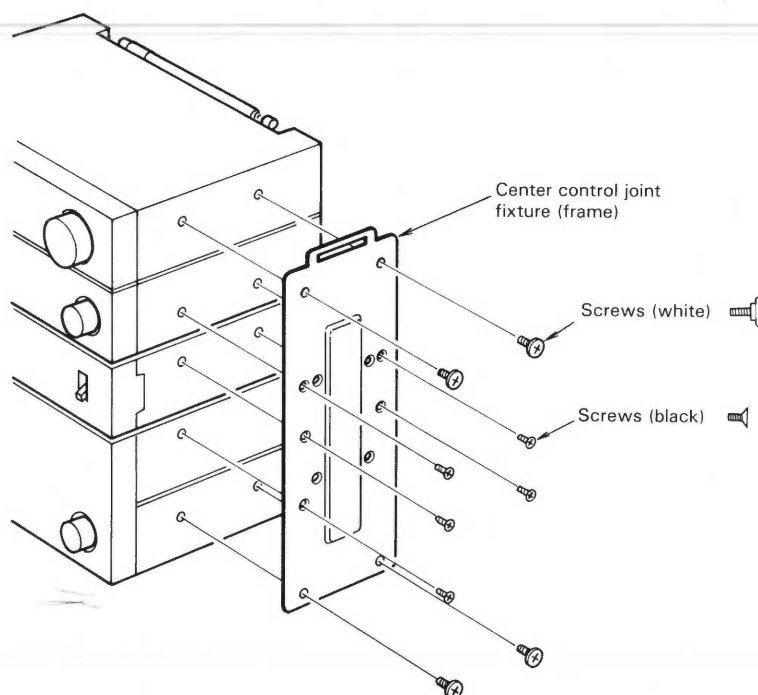


Fig. 30

## Accessories

⚠ parts are safety assurance parts.  
When replacing those parts, make sure to use the specified one.

⚠	Parts No.	Parts Name	Remarks	Q'ty
	VKL3407-002	Frame		2
	SSSP4008R	Screw		10
	VKZ4172-001	Special Screw		8
	VJC1246-002	Rear Cover		1
	VMP0008-003	Pin Coard		4
	VMP0009-201	DC Coard		3
	VND4006-012	Caution Label		1
	VGT12M2-J02	Cassette Tape		1
	VMP0013-001	SPK Cord		1
	VYA4001-00A	Head Cleaning Stick		1
⚠	QMP7640-183	Power Cord		1
	VJH3019-00C	Handle Ass'y		1
	VNF0879-001	Features Tag		1
	VND3003-001	Connection Sheet	Receiver	1
	VND2007-001	"	Equalizer	1
	VND3004-002	"	Deck	1
	VNM0879-901	Instruction Book		1
⚠	QPGBO24-03404	Poly Bag		1
	V04062-001	SIEMEMS Plug		1
	VNC6305-001	Troubleshooting		1
	OPGA012-01505	Poly Bag	For Cord	1
	VNC5311-202	Caution Card	for PX	1
	VNC5311-201	"	for EES	1
	BT20047	Warranty Card	for PX. EES	1
	E66416-003	Envelope	for PX. EES	1
	BT20046A	Special Replay Card	for PX. EES	1



# Packing

## Positions of controls and switch knobs at renew packing.

BAND	: AM	MAIN VOLUME	: Center
AFC/SENS	: ON	BALANCE	: Center
MODE	: STEREO	TREBLE	: Center
MUTING	: ON	BASS	: Center
TUNING	: 600 kHz	HEAD PHONE VOLUME	: Center
POWER	: OFF	INPUT LEVEL	: Center
TAPE MONITOR	: SOURCE	BALANCE	: Center
SOURCE	: TUNER	COUNTER	: 0
LOUDNESS	: OFF	TIMER STANDBY	: OFF
POWER	: OFF	TAPE	: SF/NORM
MIC	: Center	ANRS	: OFF
ECHO	: Center	POWER	: OFF
MIC MONO	: ON		

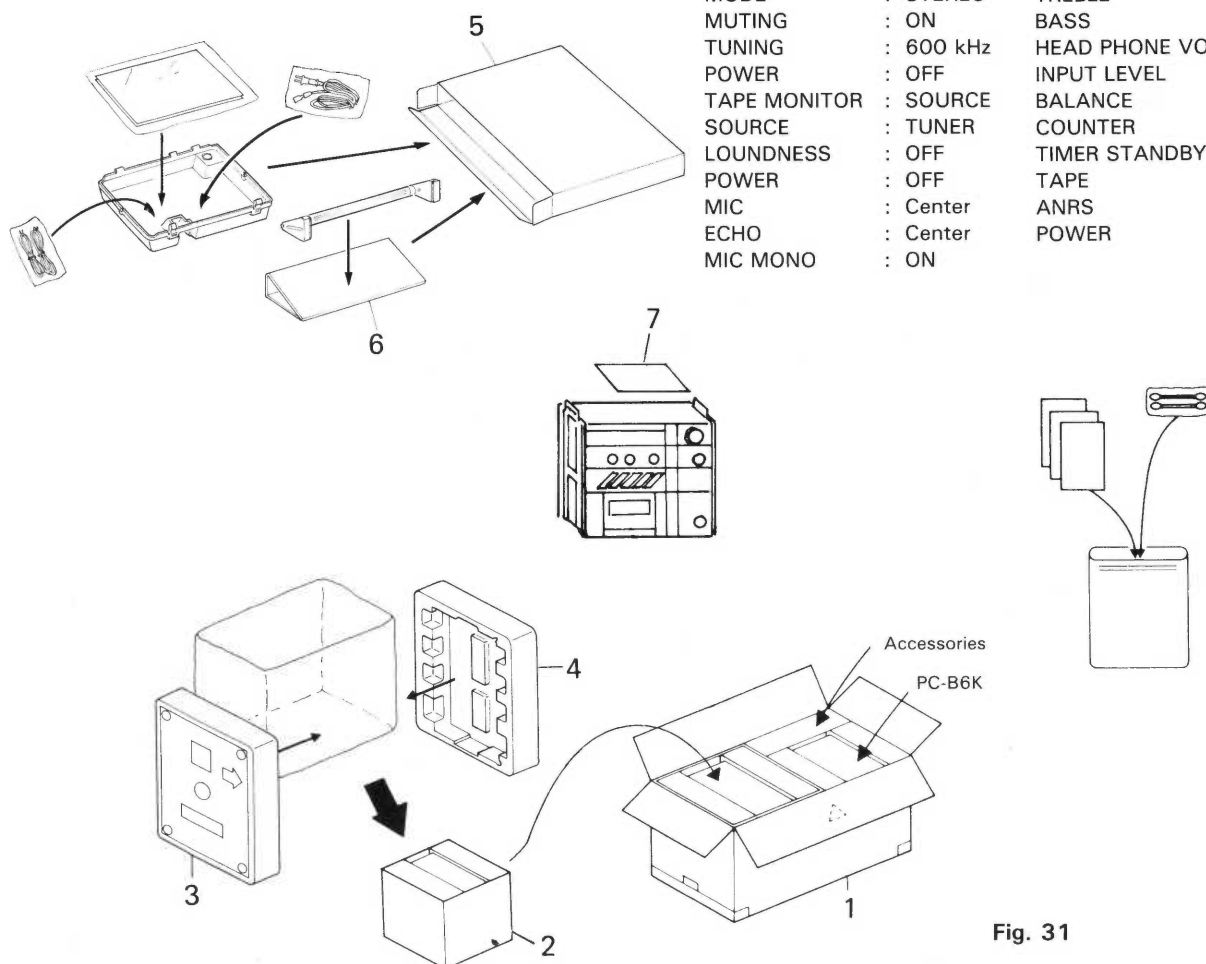


Fig. 31

## Packing Material Parts List of PC-6W

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	VDP7009-J04	Carton	for C. Unit	1
2	" -J02	"	for Master	1
3	VPH1256-001	Side Cushion	Left	1
4	VPH1257-001	"	Right	1
5	VPD7009-J03	Accessories Box		1
6	VPK4115-006	Spacer		1
7	VPK4002-002	Sheet		1

# JVC

VICTOR COMPANY OF JAPAN, LIMITED

RADIO & RECORDING MACHINE DIVISION 10-1, 1-chome, Ohwatari-cho, Maebashi-city, Japan



Printed in J  
—5707—

8  
JVC

# SERVICE MANUAL

MODEL

**PC-3 JW/W/WH/C**

PORTABLE COMPONENT SYSTEM



# Contents

	Page		Page
Features .....	2	Wiring Connection (1) (Receiver circuit) .....	26
Specifications .....	3	Wiring Connection (2) (Stereo Cassette deck circuit) .....	27
Connections (1) .....	4	Speaker Component Parts .....	28
Connections (2) .....	5	PC-B3 Speaker Component Parts List .....	28
Various Usage .....	6	Speakers Packing and its Material Parts List .....	28
Names of Parts .....	8	PC-R3 Enclosure Assembly and Electrical Parts List .....	29
Main Parts Location .....	9	PC-R3 Enclosure Assembly and Electrical Parts .....	31
How to Removing .....	10	PC-D3 Enclosure Assembly and Electrical Parts .....	32
Removal of Mechanical Parts .....	12	PC-D3 Enclosure Assembly and Electrical Parts List .....	33
Removal of the speaker Parts .....	13	PC-R3 Tuner P.W. Board Parts .....	34
How to Engage Dial Cord .....	14	Tuner P.W. Board Parts List .....	35
Safety Precautions .....	14	PC-R3 Amplifier P.W. Board Parts List .....	37
Block Diagrams .....	15	PC-R3JW Amplifier P.W. Board Parts .....	39
Adjustments .....		PC-R3W Amplifier P.W. Board Parts .....	40
Adjustment Procedure of Cassette Mechanism .....	17	PC-D3 Cassette Amplifier and Mecha. Control	
Specifications of Cassette Mechanism .....	18	P.W. Board Parts .....	41
Adjustment Location of Cassette Amplifier .....	18	PC-D3 Cassette Amplifier P.W. Board Parts List .....	42
Adjustment Procedure of Cassette Amplifier .....	19	PC-D3 Mecha. Control P.W. Board Parts List .....	43
Tuner Alignment .....	20	Auto Stop P.W. Board Ass'y .....	43
Integrant Circuits .....	22	Level Indicator P.W. Board Parts List .....	43
Standard Schematic Diagram of PC-3		Mic/Phones P.W. Board Parts List .....	43
(Tuner circuit) .....	23	Mechanical Component Parts .....	44
Standard Schematic Diagram of PC-3		Mechanical Component Parts List .....	45
(Amplifier circuit) .....	24	Packing .....	48
Standard Schematic Diagram of PC-3		Packing Material Parts List .....	49
(Cassette deck circuit) .....	25	Accessories .....	49

## OPTIONAL ACCESSORIES

Turntable L-E5U  
Stereo microphone M-201 (600  $\Omega$ )  
Headphones H-M11 (32  $\Omega$ )  
Rechargeable battery pack BP-12K  
Charger/AC adapter AA-12WN  
Exclusive car adapter CN-332  
Shoulder belt CB-85K  
Speakers RB-95K  
Carrying case CL-5K

# Features

- Complete stereo component system in a single box consisting of 4 units: a receiver, a stereo cassette deck and a pair of speakers.
  - Compactness and light weight permit use anywhere.
  - Easy portability permits on-the-spot-recording.
- Metal tape deck with soft-touch mechanism.
  - Incredible low wow & flutter of 0.05 % (WRMS).
- Metal tape compatibility.
  - METAPERM record/play head for high quality performance.
- Built-in ANRS/DOLBY\* B NR, SUPER ANRS noise reduction systems greatly reduce tape hiss and expand dynamic range.
- MUSIC SCAN mechanism.

\* "Under license of Staar S.A., Brussels Belgium".
- Mixing facility with microphone level control makes possible the desired mixing level.
- Volume control exclusively for headphones.
- Timer standby mechanism.
- Record muting button lets you leave nonrecorded sections.
- Total output of 40 W (20 W + 20 W) Max. (6  $\Omega$ , AC). Music power of 46 W (23 W + 23 W) (6  $\Omega$ , AC).
- Separate receiver headphones jack.
- PHONO, AUX jacks provided.
- 10-cm full-range bass-reflex speaker systems.
- 4-way power supply (AC, batteries, rechargeable battery pack and car battery).

\* "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

# Specifications

## Cassette Deck PC-D3

Track system	: 4-track 2-channel stereo
Motors	: Electronic governor DC motor for capstan & reel
Heads	: METAPERM head for recording/playback; 2-Gap Ferrite head for erasure
Frequency response	: 30–17,000 Hz (with metal tape) 30–16,000 Hz (with chrome tape) 30–15,000 Hz (with normal tape)
Signal-to-noise ratio	: 54 dB (weighted, at 1 kHz, 3% THD with metal tape) Improved by 5 dB at 1 kHz and by 10 dB at 5 kHz or more with ANRS/DOLBY B NR ON
Effect of Super ANRS (normal tape)	
Improvement of S/N	: The same as with ANRS/DOLBY B
Improvement of frequency response	: 0 VU recording; 6 dB at 10 kHz + 5 VU recording; 12 dB at 10 kHz
Improvement of distortion	: 0 VU recording; 3% or less at 10 kHz + 5 VU recording; 3% or less at 10 kHz
Third harmonic distortion	: 0.5% (metal tape, at 1 kHz)
Wow and flutter	: 0.05% (WRMS)
Fast forward time	: Approx. 95 sec (C-60 cassette)
Rewing time	: Approx. 95 sec (C-60 cassette)
Input terminals	: MIC $\times$ 2 (Min. input level: 0.3 mV (–70 dBV), Matching impedance: 200 $\Omega$ – 2 k $\Omega$ ), LINE IN $\times$ 2 (Min. input level: 100 mV/–17 dBs, Input impedance: 47 k $\Omega$ ) Ext. DC IN (12 V)
Output terminals	: LINE OUT $\times$ 2 (Output level: 300 mV/–7 dBs, Output impedance: 5 k $\Omega$ ), PHONES $\times$ 1 (Output level: 0–3 mW/8 $\Omega$ , Matching impedance: 8 $\Omega$ –1 k $\Omega$ ), DC OUT $\times$ 1 (12 V)
Semiconductors	: 6 ICs, 42 transistors
Power sources	: DC 12 V ("R20" $\times$ 8, optional BP-12K rechargeable battery pack), EXT DC (car battery via optional CN-332 car adapter)
Dimensions	: 270(W) $\times$ 110(H) $\times$ 218(D) mm (10-3/4" $\times$ 4-3/8" $\times$ 8-5/8") including pads and knobs
Weight	: Approx. 3.4 kg (7.5 lbs) with batteries Approx. 2.6 kg (5.7 lbs) without batteries

## Receiver PC-R3

Frequency ranges	: FM 88–108 MHz AM 540–1600 kHz SW1 2.3–7 MHz SW2 7–22 MHz
------------------	---

## FM tuner section

Usable sensitivity	: 2.8 $\mu$ V/75 $\Omega$
Signal-to-noise ratio	: 60 dB (MONO)
Total harmonic distortion	: 0.3% (1 kHz)
Capture ratio	: 2.0 dB
Selectivity	: 40 dB
Stereo separation	: 40 dB (1 kHz)
Frequency response	: 25–15,000 Hz
Antennas	: Telescopic antenna $\times$ 1 Ext. antenna terminal (300 $\Omega$ )

## AM tuner section

Sensitivity	AM : 250 $\mu$ V/m (IEC) SW1 : 250 $\mu$ V/m (IEC) SW2 : 30 $\mu$ V/m (IEC)
Signal-to-noise ratio	: 45 dB
Selectivity	: 30 dB
Antennas	: Telescopic antenna (SW), Ferrite core antenna (AM, SW1)

## Amplifier section

Circuit	: BTL-connected SEPP circuit
Power output	: Max. 40 W (20 W + 20 W) (6 $\Omega$ , AC) Music power 46 W (23 W + 23 W) (6 $\Omega$ , AC)
Frequency response	: 30 Hz to 30,000 Hz ( $\pm$ 3 dB)
Signal-to-noise ratio	: 75 dB (new IHF)
Tone control	: Bass $\pm$ 8 dB (100 Hz), Treble $\pm$ 8 dB (10 kHz)
Input terminals	: PHONO $\times$ 2 (3 mV/47 k $\Omega$ ), AUX $\times$ 2 (300 mV/68 k $\Omega$ ), TAPE PLAY $\times$ 2 (300 mV/68 k $\Omega$ )
Output terminals	: TAPE REC $\times$ 2 (300 mV/10 k $\Omega$ ), SPEAKER $\times$ 2 (matching impedance 6–8 $\Omega$ ), PHONES $\times$ 1 (Output level: 0–3 mW/8 $\Omega$ , Matching impedance: 8–1 k $\Omega$ ), AC OUTLET $\times$ 1 (Max. 100 watts, unswitched PC-R3W only). DC OUT $\times$ 1 (12 V, switched)
Semiconductors	: 5 ICs, 23 transistors
Power sources	: AC 240/220/110 V, 50/60 Hz (PC-R3W), AC 240/220/120 V, 50/60 Hz (PC-R3JW) AC 120 V, 60 Hz (PC-R3C) AC 240 V, 50/60 Hz (PC-R3WH) DC 12 V (supplied from the deck; car battery via optional CN-332 car adapter)
Power consumption	: 85 watts (PC-R3W) 75 watts (PC-R3JW) 92 watts (PC-R3WH)
Dimensions	: 270(W) $\times$ 110(H) $\times$ 229(D) mm (10-3/4" $\times$ 4-3/8" $\times$ 9-1/8") including pads and knobs
Weight	: Approx. 3.5 kg (7.7 lbs)

## Speaker PC-B3

Type	: Full-range bass reflex system (book-shelf type)
Speaker units	: 10 cm (4") cone
Impedance	: 6 $\Omega$
Playback frequency response	: 75–17,000 Hz
Output sound pressure level	: 90 dB/W/m
Rated input	: 15 watts
Maximum input	: 25 watts
Dimensions	: 124(W) $\times$ 218(H) $\times$ 206(D) mm (5" $\times$ 8-5/8" $\times$ 8-1/8") including pad
Weight	: Approx. 2.0 kg (4.4 lbs)

## System PC-3

Power sources	: AC 240/220/110 V, 50/60 Hz (PC-3W) AC 240/220/120 V, 50/60 Hz (PC-3JW) AC 120 V, 60 Hz (PC-3C) AC 240 V, 50/60 Hz (PC-3WH)
Dry batteries	: DC 12 V ("R20" $\times$ 8)
Rechargeable battery pack	: DC 12 V (optional BP-12K)
Car battery	: DC 12 V via optional CN-332 car adapter
Power consumption	: 85 watts (PC-3W/JW) 92 watts (PC-3WH)
Dimensions	: 524(W) $\times$ 294(H) $\times$ 258(D) mm (20-3/4" $\times$ 11-5/8" $\times$ 10-1/4") including pads, knobs, handle with all components joined with provided fixtures
Weight	: Approx. 11.4 kg (25.1 lbs) (including fixtures and batteries)

Design and specifications are subject to change without notice.

# Connections (1)

- Do not switch the power on until all the connections are completed.
- The pin cords and the DC power cords were already connected between the stereo receiver and between the amplifier and the deck. If any are disconnected, refer to this diagram for proper connection.

## Connection of Speaker Cord

Regarding the speaker cords, be sure to connect the same channels, (L) to (L) and (R) to (R), or the same polarities, (+) to (+) and (–) to (–). Further, connect to the (–) terminal the wire marked with a black line. Because reversed connection of (+) and (–) causes degraded stereo feeling and sound quality.

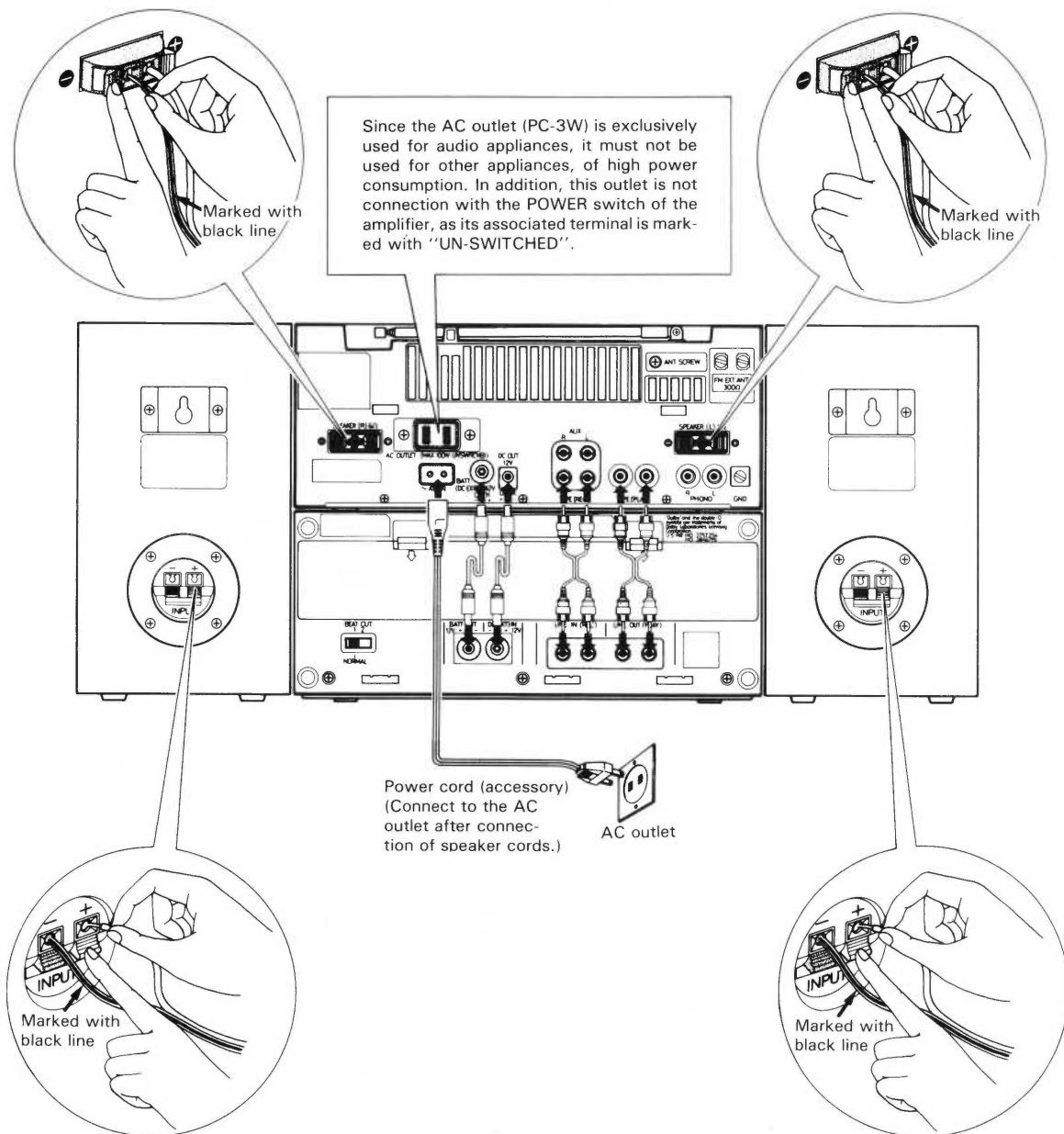


Fig. 1

- Notes: 1. When the AC power cord is plugged in, the batteries are automatically disconnected.
2. When not using batteries for a long period, remove the batteries to prevent corrosion due to battery leakage.



# Connections (2)

- \* Fixing the FM outdoor antenna in the direction that the highest antenna sensitivity can be obtained.

While listening to an FM broadcast, detect the best FM receiving direction by turning the antenna in different directions.

- To seek the direction that the multipatch transmission\* is smallest, move the antenna in the direction that distorted sounds and noises are smallest, while listening to relatively large sounds with the TREBLE knob to MAX and the BASS knob to MIN.

**Note:** \* Multipath transmission causes distortion in radio and ghost images in television. In this phenomenon, waves are reflected from mountains, buildings or other obstacles and arrive at the radio receiving antenna slightly delayed.

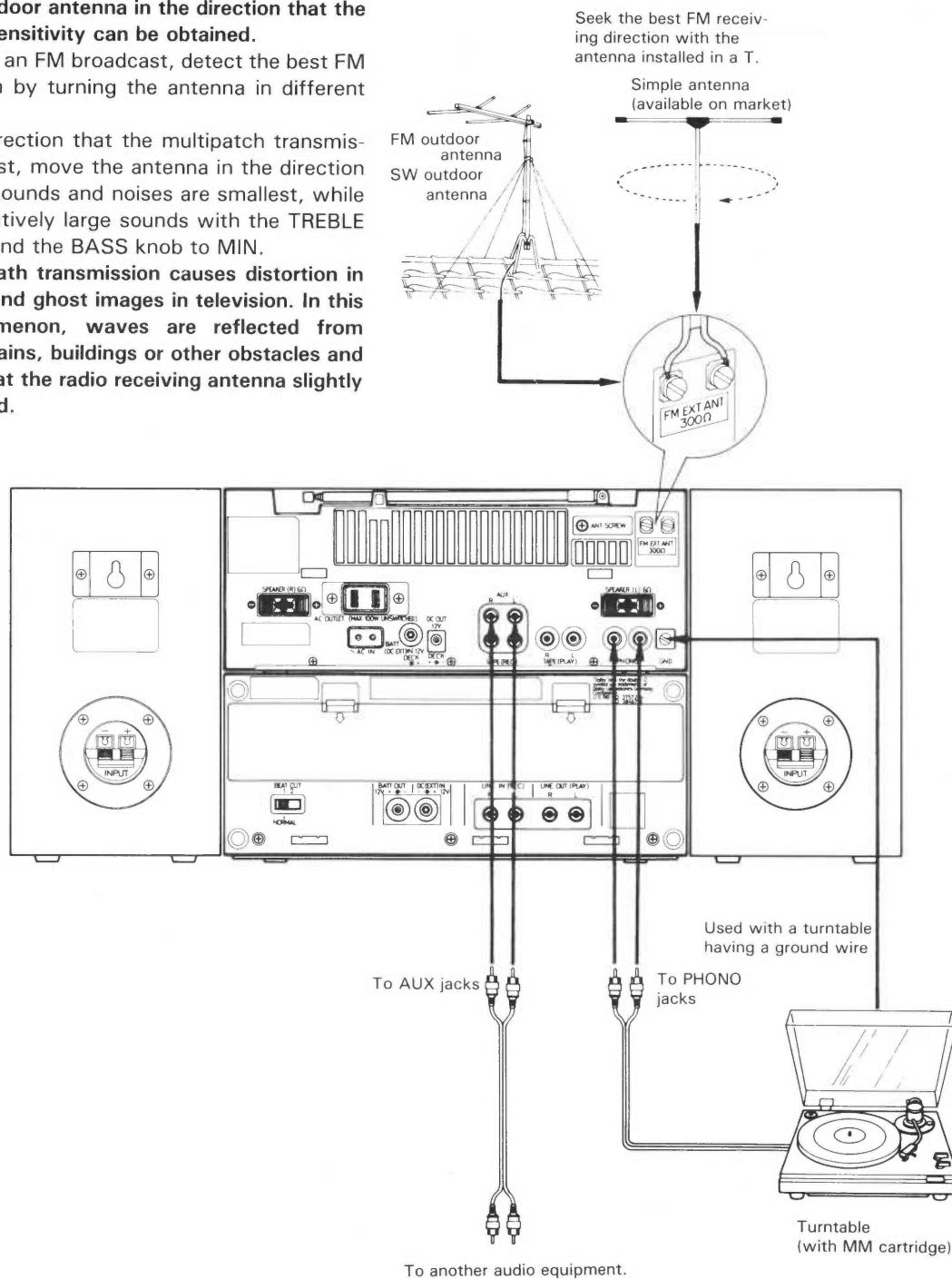


Fig. 2

- Concerning any connection cord, be sure to connect the same channels, (L) to (L) and (R) to (R), and positively insert each pin plug to the pertinent jack. Incomplete insertion may cause no sound to be emitted or noise to occur.

# Various Usage

## Installation of Speaker Sections

### Removing and Mounting of Speaker Joint

#### Fixtures

1. Align (B) (screws for joint) and slide the speaker box down to secure it at part (A) as illustrated.
2. Join the other speaker in the same manner as above.

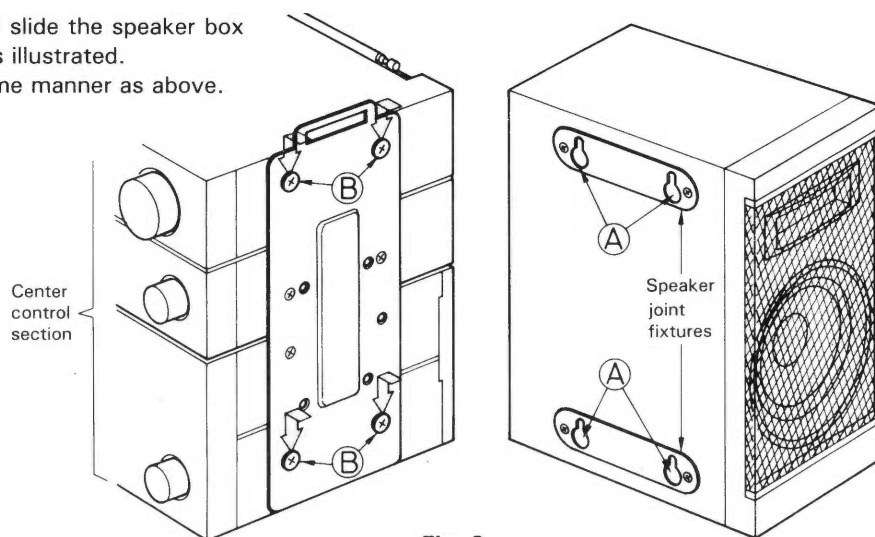


Fig. 3

## Mounting the Handle

1. Push the handle grip lock up, in the direction of arrow ①.
2. Pressing mark  $\Delta$  in the direction of arrow ②, secure the handle grip to the slot indicated by arrow ③.
3. Push the hand grip lock down to close it.

Close the other hand grip lock in the same manner.

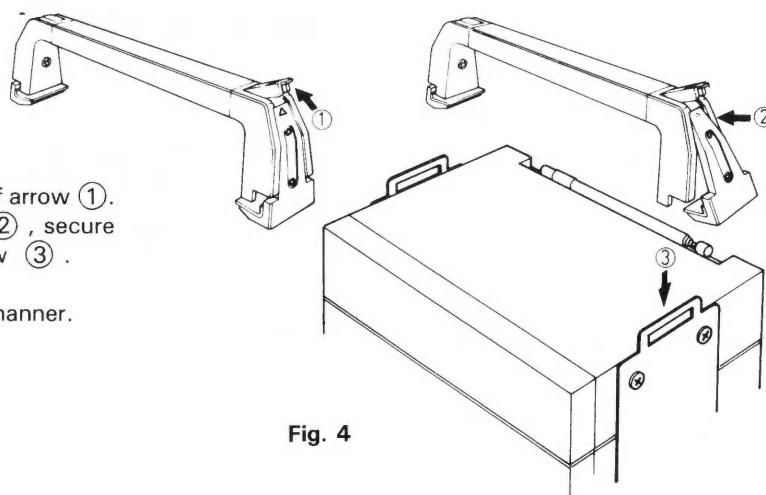


Fig. 4

## Mounting of Rear Cover

Insert the rear cover (lower) to 3 holes of the deck, and then pushing the direction of the arrow mark, insert the rear cover (upper) to 2 holes of the stereo receiver.

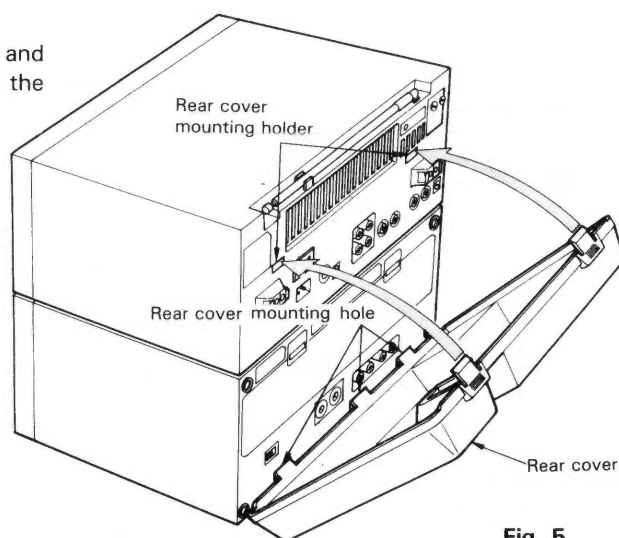


Fig. 5

## Removal of Center Control Section Joint Fixture (Frame)

Remove all the screws. (left & right, each 7p.c.s.)

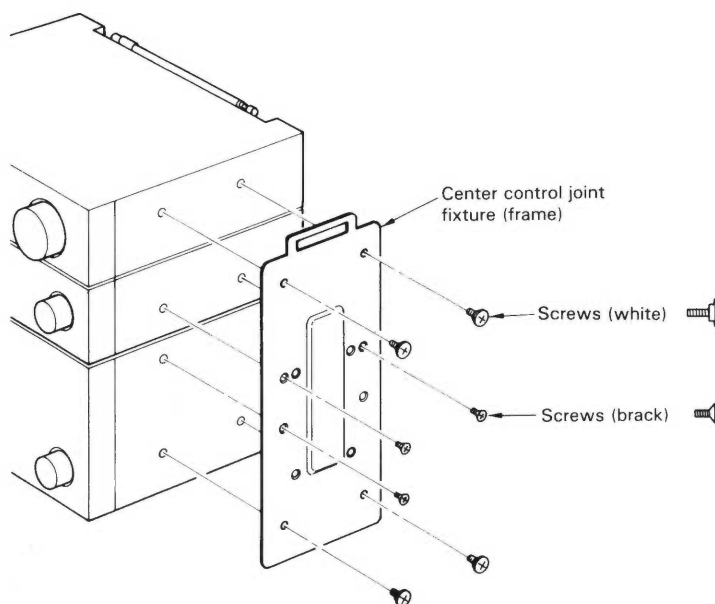


Fig. 6

## When Using as a Portable Deck

First remove the frames as mentioned above and fix the handle to both sides of the deck as shown.

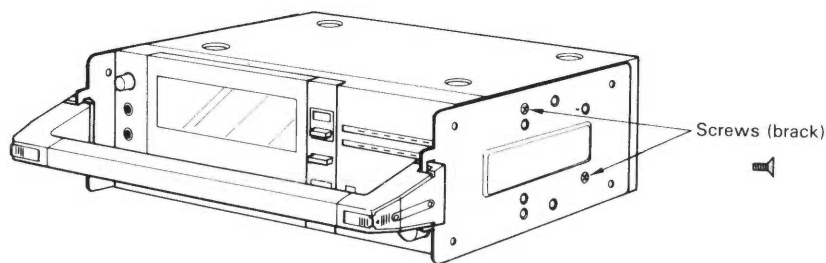


Fig. 7

When using as a portable deck, use the power source as follows:

- |           |   |
|-----------|---|
| Outdoor;  | Drive batteries ("D" × 8)                   |
|           | Rechargeable battery pack BP-12K (optional) |
| In a car; | Exclusive car adapter CN-333K (optional)    |
| Indoor;   | Dry batteries                               |
|           | Rechargeable battery pack BP-12K (optional) |
|           | AC adapter AA-12W (optional)                |

Connect the exclusive car adapter or AC adapter to the DC (EXT) IN jack on the rear panel.

# Names of Parts

## Stereo Receiver and Speakers Unit

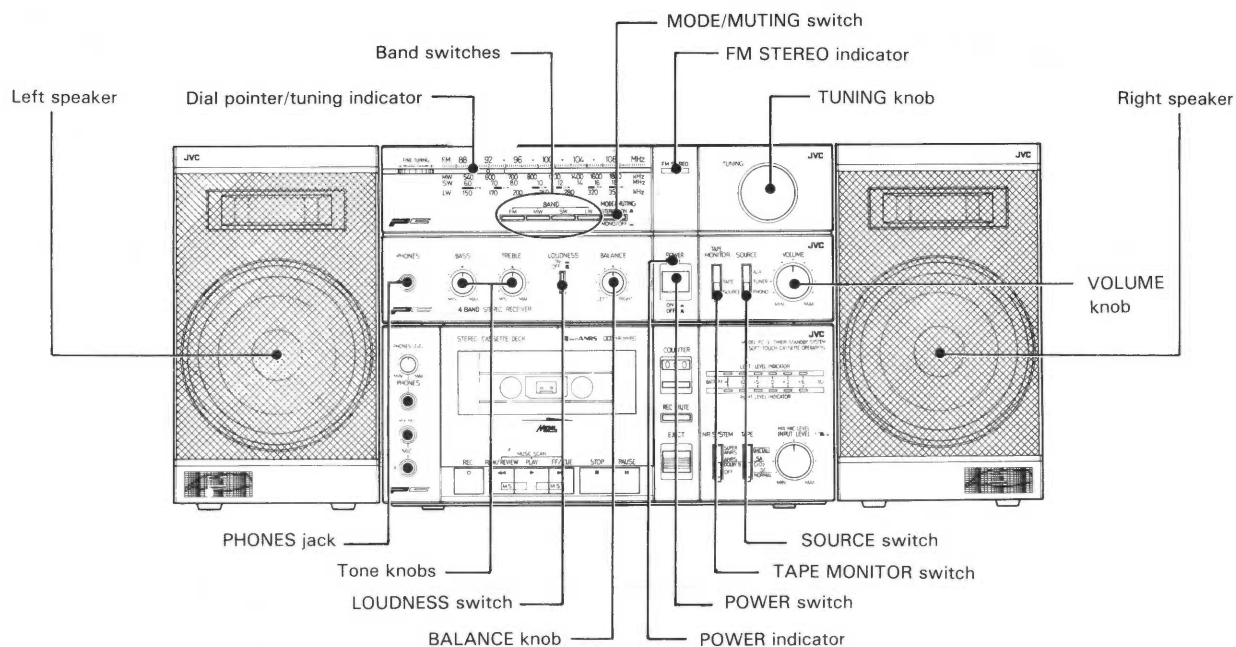


Fig. 8

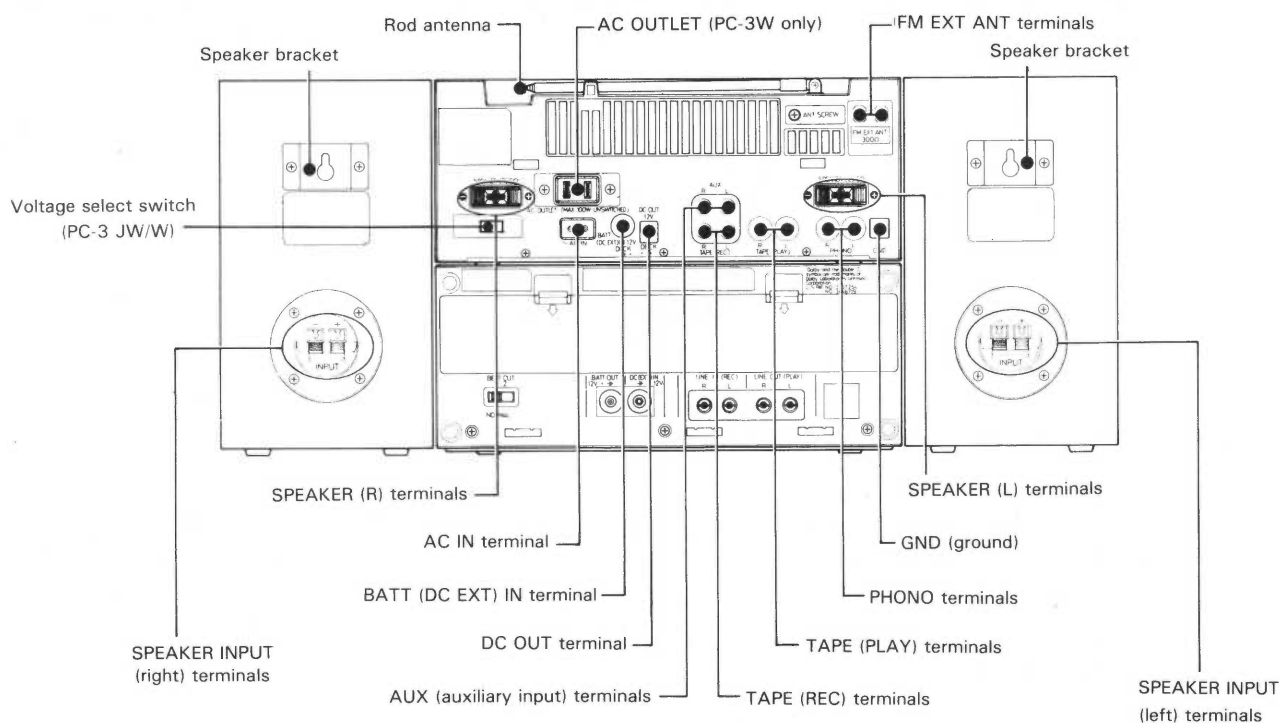


Fig. 9

# Main Parts Location

## Stereo Cassette Deck

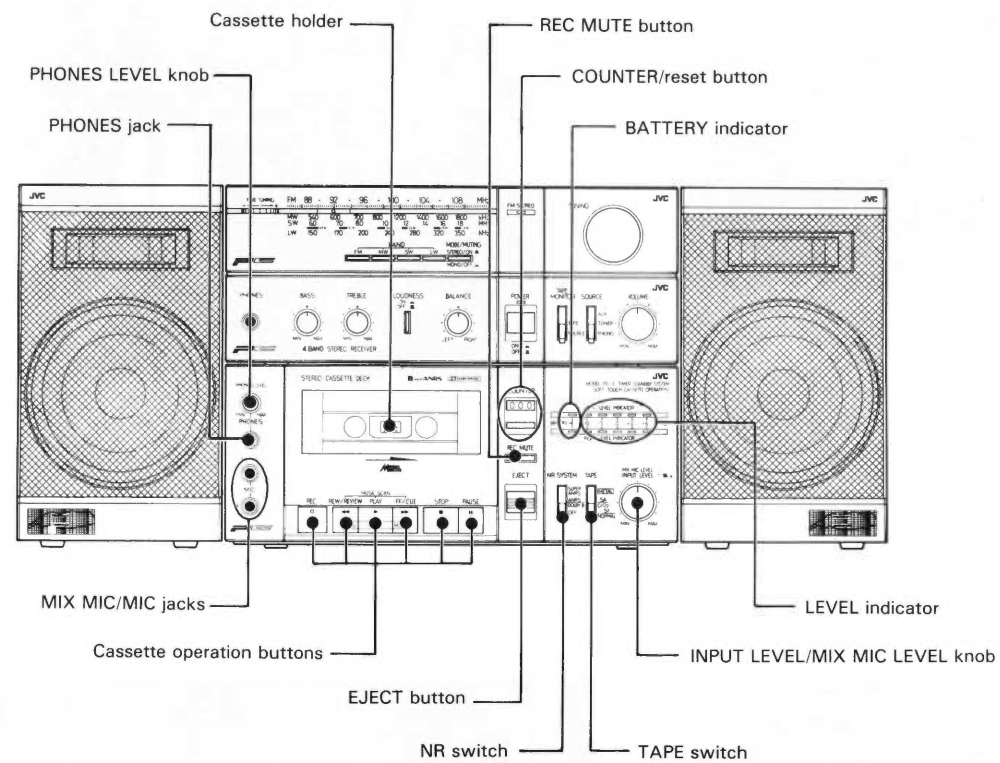


Fig. 10

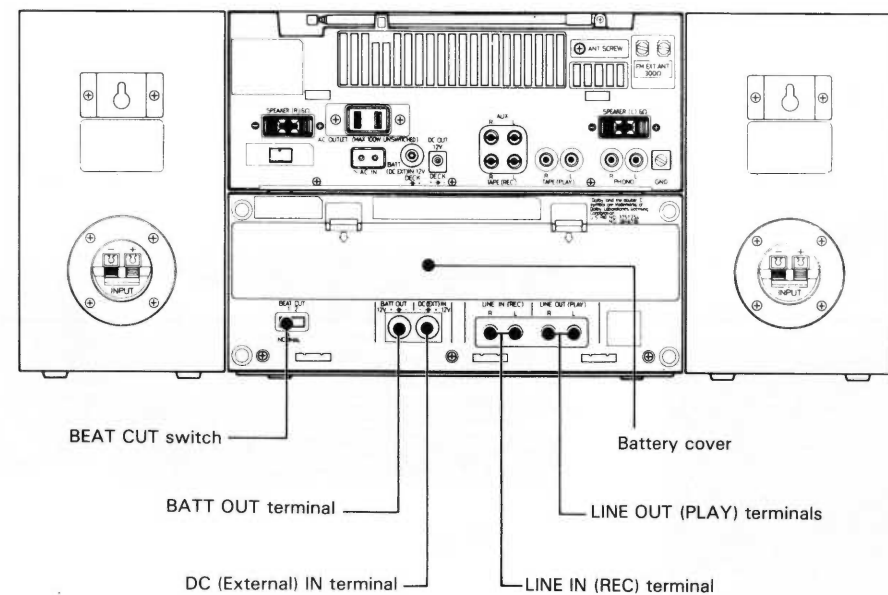


Fig. 11

## Stereo receiver

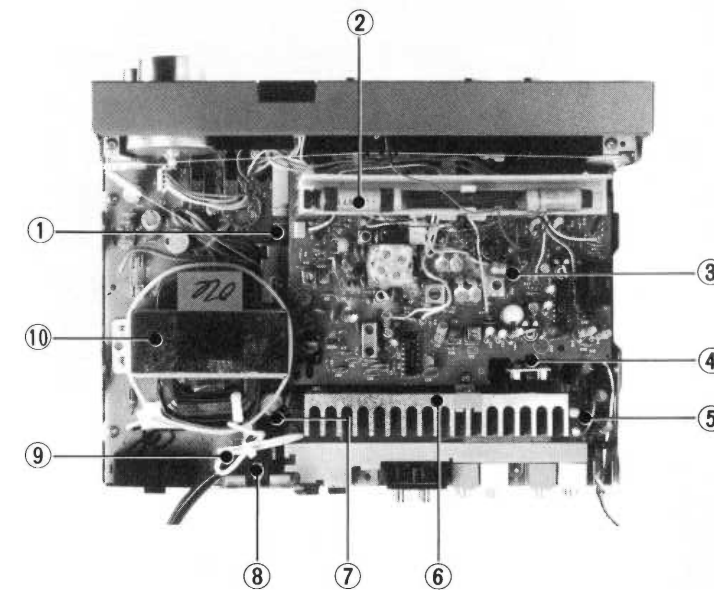


Fig. 12

## Stereo cassette deck

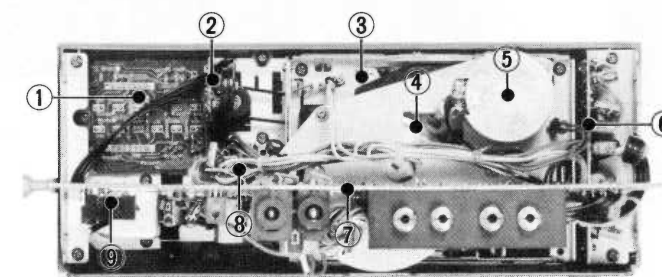


Fig. 13

# How to Removing

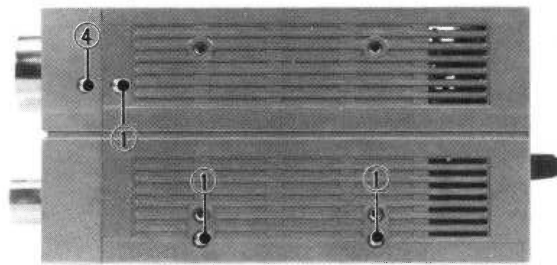


Fig. 14

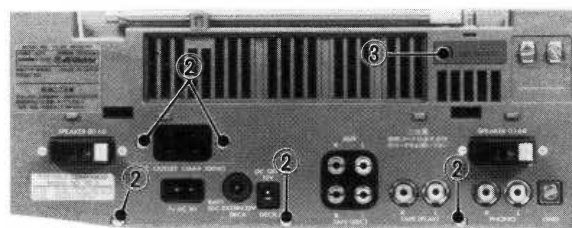


Fig. 15

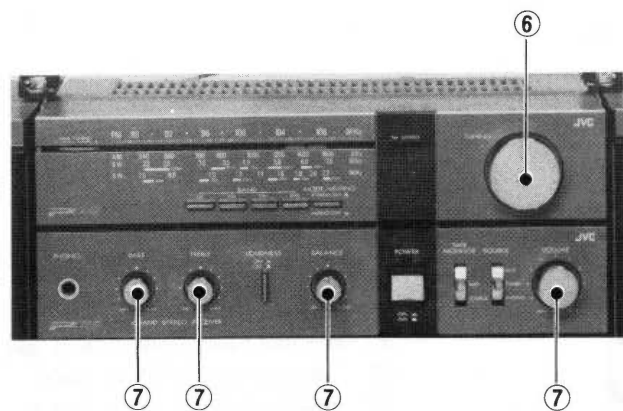


Fig. 16

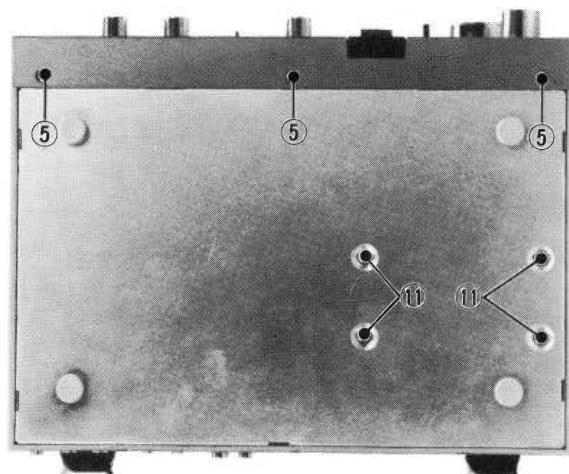


Fig. 17

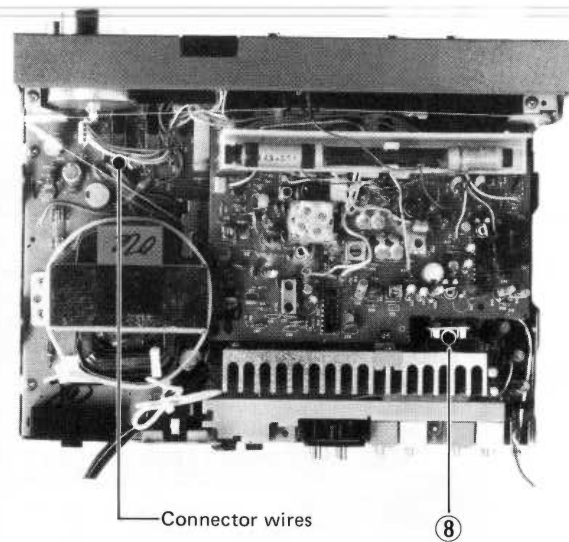


Fig. 18

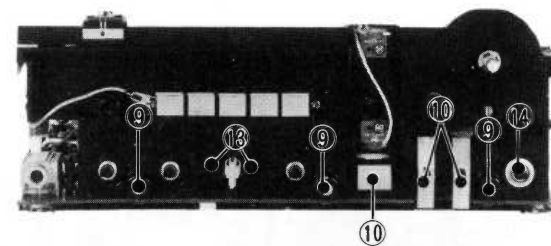


Fig. 19

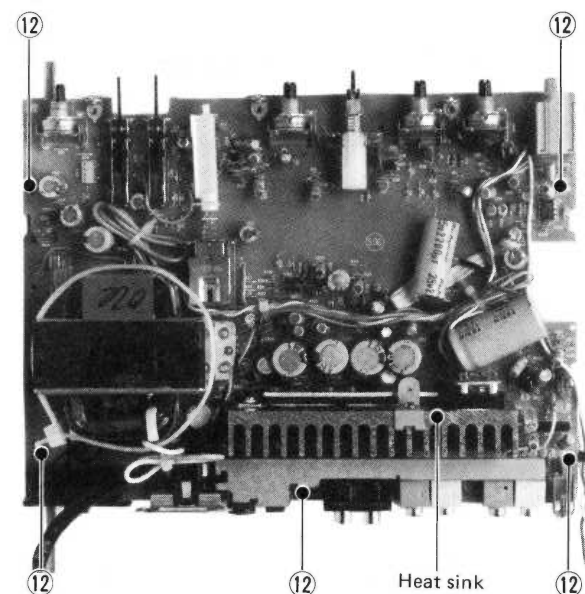


Fig. 20

No. 1469

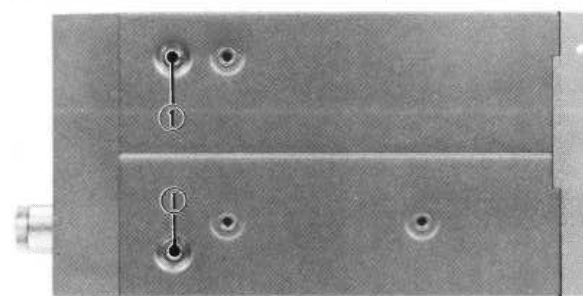


Fig. 21

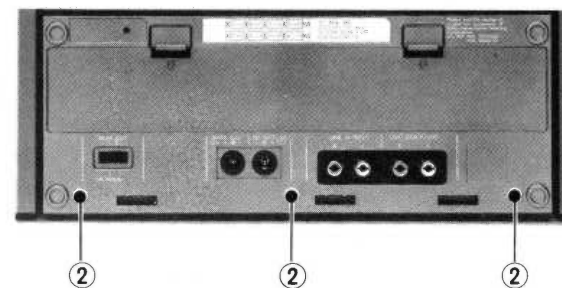


Fig. 22

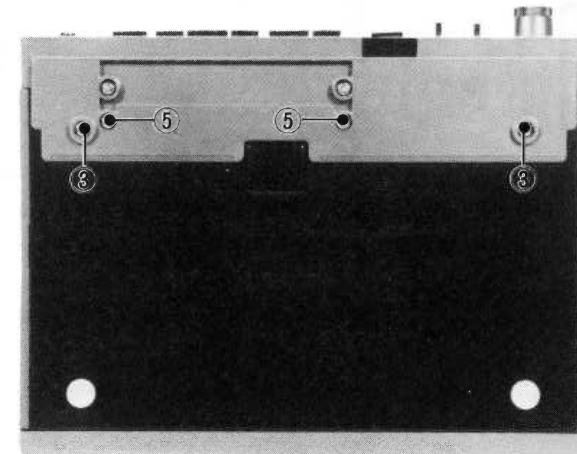


Fig. 23

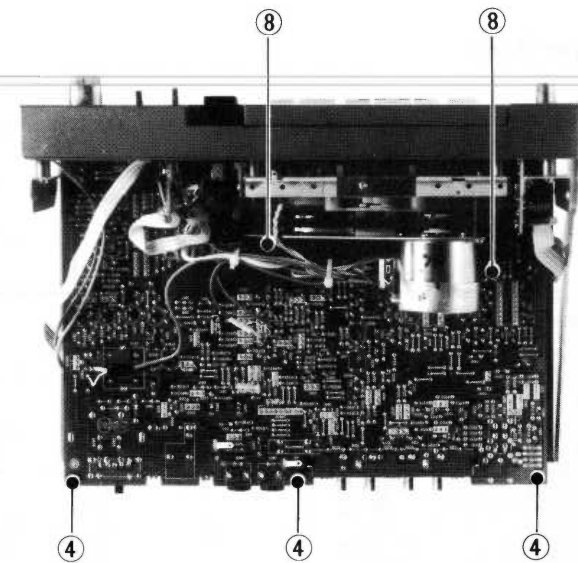


Fig. 24



Fig. 25

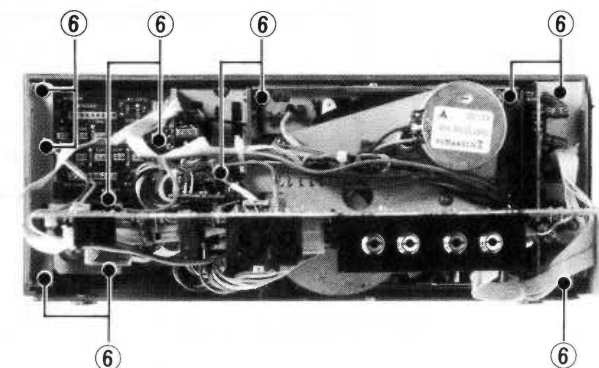


Fig. 26



Removal should be performed in the order of steps 1, 2, 3 .....

### Stereo receiver parts

1. Rod antenna (Fig. 15)  
To remove the rod antenna only, remove a screw (3) = SDSB3008R fixing the antenna holder.  
(Need not removing the top cover.)
2. Top cover (Fig. 14, 15)
  - (1) Remove 11 screws = SHSP3006R fixing the top cover. (both sides (1) and rear (2))
  - (2) Remove the receptacles of antenna wires from tuner P.W. board. (orange ... TP1, white ... TP2)
  - (3) Remove the speaker wires.
3. Front cover (Fig. 14, 17)
  - (1) Remove 7 screws = SHSP3006R fixing the front cover. (left and right sides, — each 2 p.c.s. (4) on bottom, — 5 p.c.s. (5))
  - (2) Remove the tuning knob (6) and 4 VR knobs (7).
4. Tuner P.W.B. ass'y (Fig. 18, 19)
  - (1) Remove a screw (8) = SBSB3006Z fixing the tuner P.W. board.
  - (2) Remove 3 screws (9) = SSSP3006Z, 2 screws (13) = LPSP3006Z and VR nut (14) on the front of chassis.
  - (3) Remove 2 bar cap (10) of the power switch and disconnect the wires connector.
5. Amplifier P.W.B. ass'y (Fig. 17, 20)
  - (1) Remove 4 screws (11) = SPSP4004Z on the bottom.
  - (2) Remove 5 screws (12) = SBSB3008C on the P.W. board.
6. Power ICs
  - (1) Unsolder the power ICs and Q301 transistor on the P.W. board.
  - (2) Remove 3 screws fixing the heat sink and remove it with ICs.
  - (3) Remove 4 screws fixing the power ICs.  
(When reassembling the power ICs, apply the silicon grease (G746) to the heat sink.)

### Stereo cassette deck parts

1. Top cover (Fig. 21, 22)
  - (1) Remove 4 screws (1) = SDSP3006R fixing on the left and right sides of top cover.
  - (2) Remove 3 screws (2) = SDSP3006R fixing on the rear of top cover.
  - (3) After opening the top cover, remove the receptacles of battery 2 wires (red ... ⊕, black ... ⊖).
2. Bottom cover (Fig. 23, 24)
  - (1) Remove 2 screws (3) = SDSP3006R fixing the bottom cover.
  - (2) Remove 3 screws (4) = LPSP3006C fixing the cassette amp. P.W. Board (on the pattern side).
3. Front cover (Fig. 23, 25, 26)
  - (1) Remove 2 screws (5) = SDSP3006R fixing the front cover on the bottom side.
  - (2) Remove 11 screws (6) = SBSF3010C fixing the front cover on the rear side.
  - (3) Remove 2 knobs (7).
  - (4) To open the cassette door, push the EJECT button, and then remove the front cover.
4. Mechanical assembly (Fig. 24)
  - (1) Remove 2 screws (8) = SPSP3006V.
  - (2) Disconnect the wire connector.

# Removal of Mechanical Parts

Refer to mechanical component parts on page 44.

## Remove in the following sequence

1. Pinch roller ass'y (63) (Fig. 27)  
Remove an E ring (65) with a pinch roller spring (64).
2. Supply reel disk and take up reel disk (Fig. 26)  
(1) Remove 2 reel stopper (9) (13).  
(2) When removing the take up reel, remove the counter belt (101).  
(When reassembly the reel disk, the stopper use a new parts — it cannot use again —)
3. Tape counter (Fig. 27)  
Remove the counter belt and remove the tape counter pressure position by minus driver etc.
4. Buttons case unit (34) (Fig. 27)  
Remove 2 screws (103).
5. REC/PB head (Fig. 28)  
Remove the buttons case and 2 screws (71), and then unsolder REC/PB head P.W. board.
6. Erase head (Fig. 28)  
Remove 2 screws and unsolder E head P.W. board.
7. Motor (Fig. 29)  
To remove the FM bracket (91), remove 4 screws (96). Remove the capstan belt, remove 3 screws (94) fixing the motor.
8. Mecha. control P.W.B. and Auto Stop P.W.B. (Fig. 28)  
Remove 2 screws (109) — Mecha. Control P.W.B.  
Remove 2 screws (108) — Auto Stop P.W.B.
9. Flywheel ass'y (Fig. 29, 30)  
Remove the FL bracket and the capstan belt. Remove 3 washers (87) (88) (110).  
(Be careful not to stain the belt)
10. Main base ass'y (1) and disk base unit (4) (Fig. 30, 31)  
Remove a screw (105) fixing the pack spring (104).  
Remove 2 screws (85).

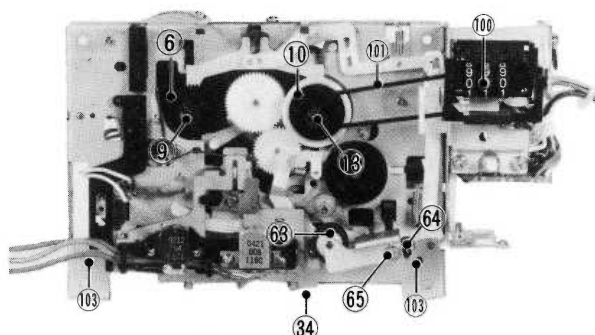


Fig. 27

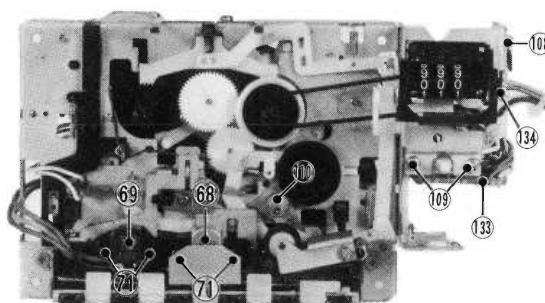


Fig. 28

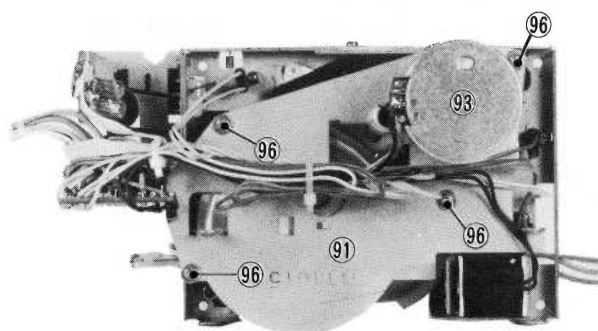


Fig. 29

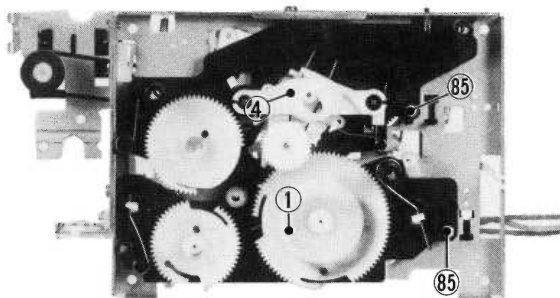


Fig. 31

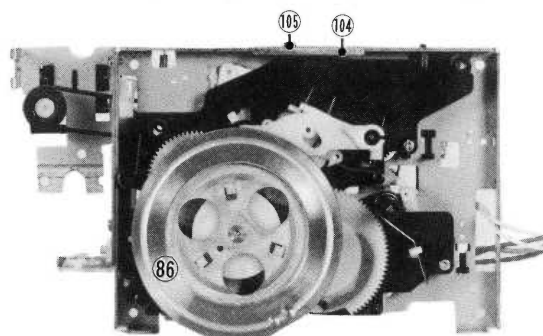


Fig. 30



## Removal of the Speaker parts

### 1. Removing the punching panel (21)

(1) To remove the cement, insert the cutting knife to clearance of the punching panel from the front panel rib.

(2) Remove (A) points of the punching metal by the pin cette etc.  
Note: Be careful not to broke its panel form.

### 2. Removing the speaker (15)

(1) Remove the punching panel, and then remove 6 screws (20) = SDSA3016M, and remove 4 screws (17) = SDSA3012Z fixing the speaker

(2) Disconnect the wire receptacle.

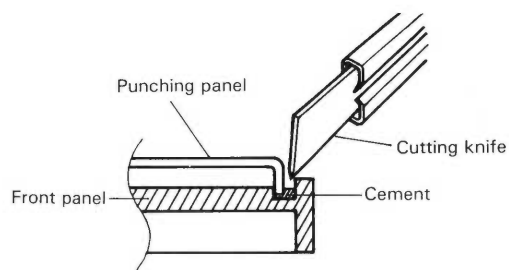
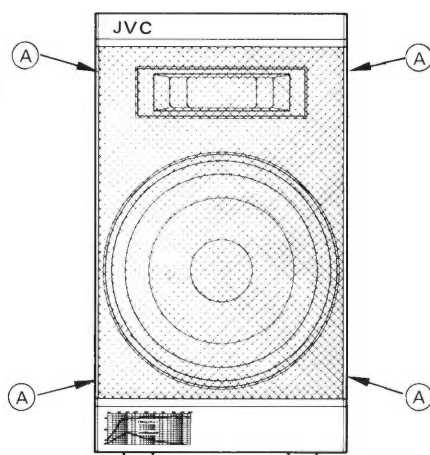
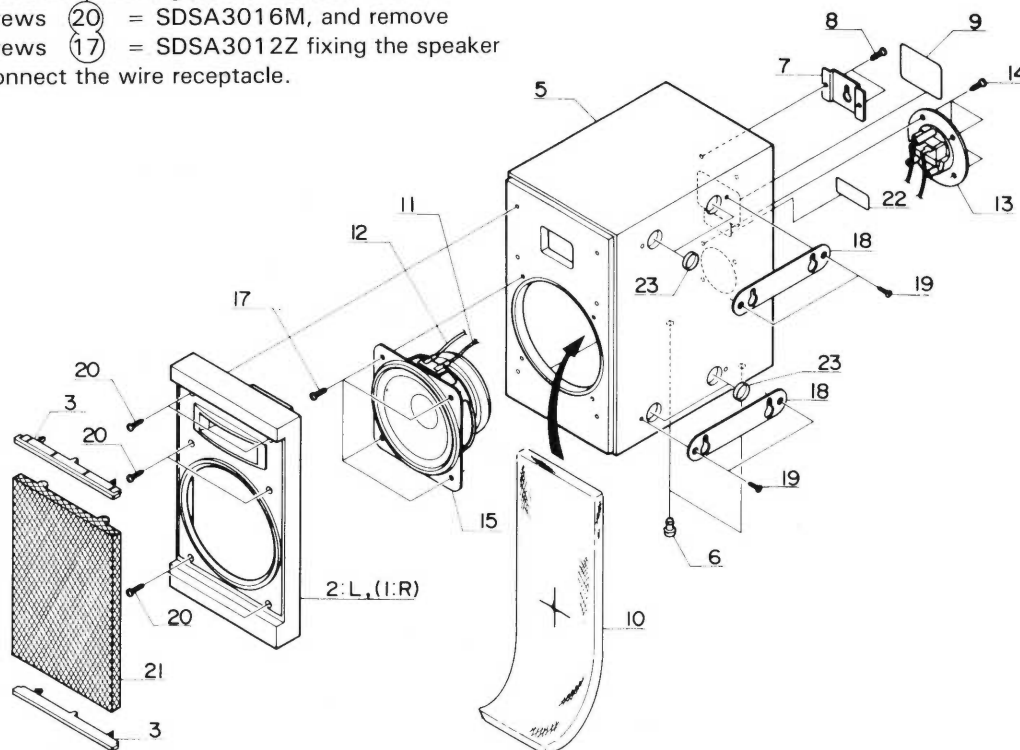


Fig. 32

## How to Engage Dial Cord

1. Turn the dial drum fully counterclockwise (to the lowest frequency).
2. Use Kevlar cord (1120 mm long and 0.5 mm in diameter).
3. Install the string in the sequence of the numbers.

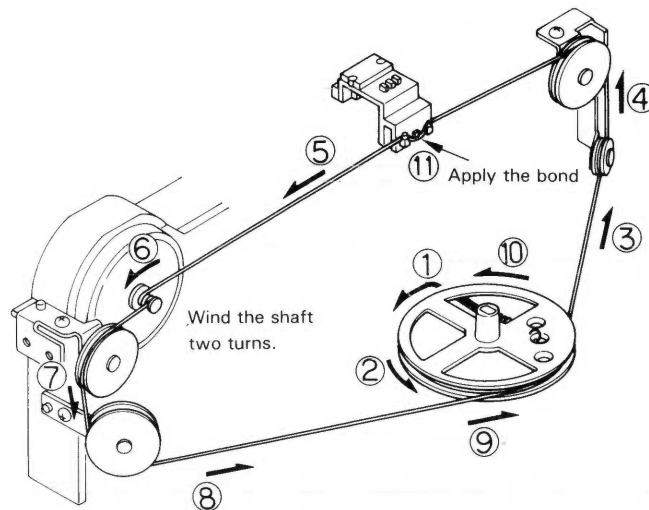


Fig. 33

## Safety Precautions

### ⚠ Safety mark

Safety is very important with this unit. When replacing the parts marked ⚠, be sure to use only those designated parts. The designated resistors, diodes, transistors become hot in use. When replacing, be sure to secure them with a distance of more than 5 mm from the circuit board. In addition, they are banded together to avoid touching other wiring, recheck this point as well after repair. The wiring of the primary side should be wound more than one and half times, then soldered.

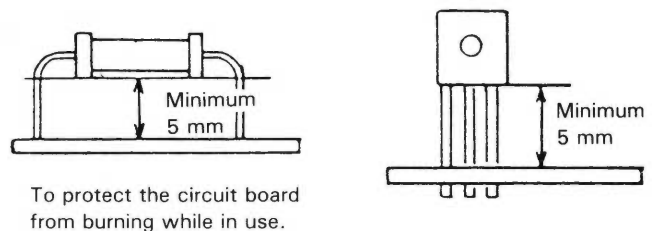


Fig. 34

# Block Diagrams

## Tuner Circuit

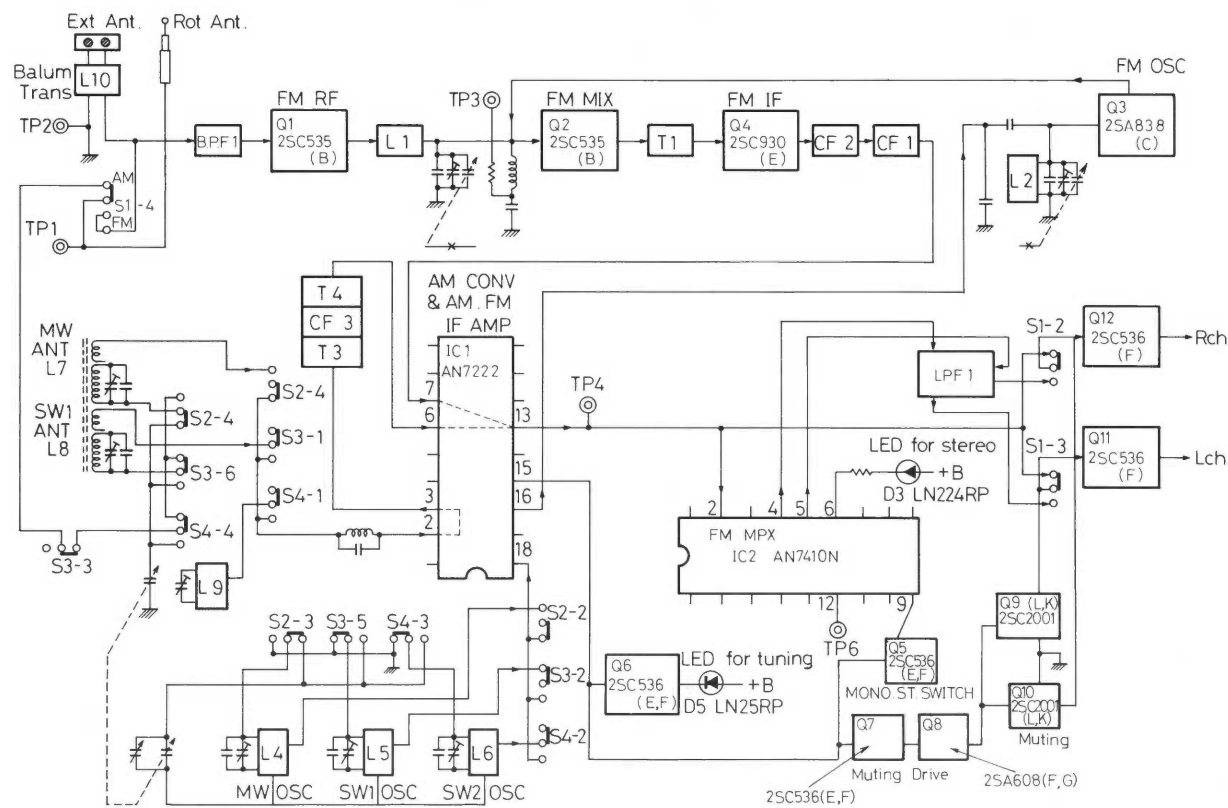


Fig. 35

## Amplifier Circuit

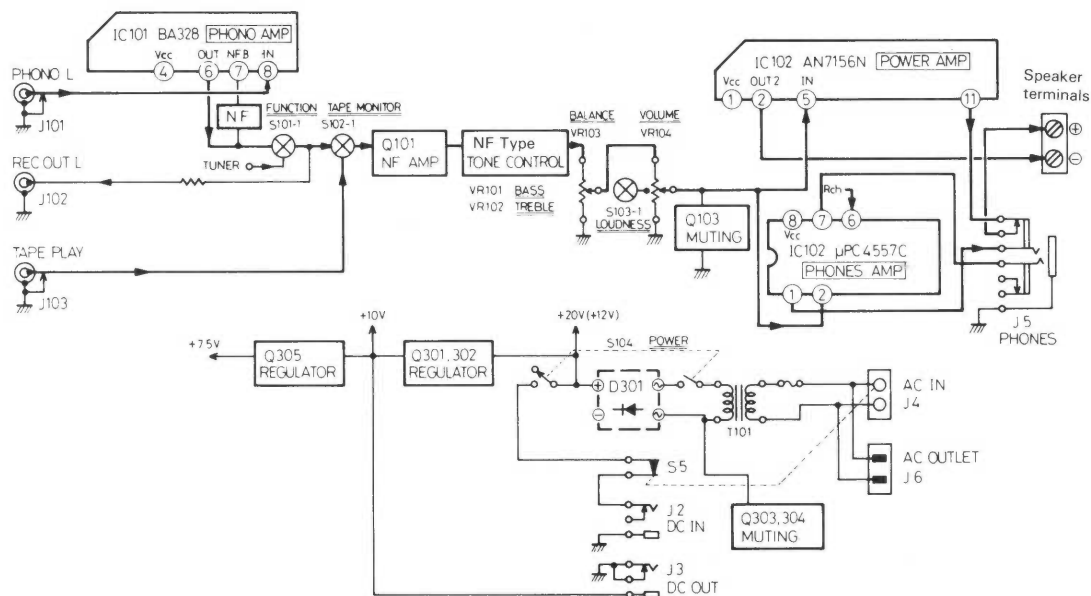


Fig. 36

## Stereo Cassette Deck

## Recording system

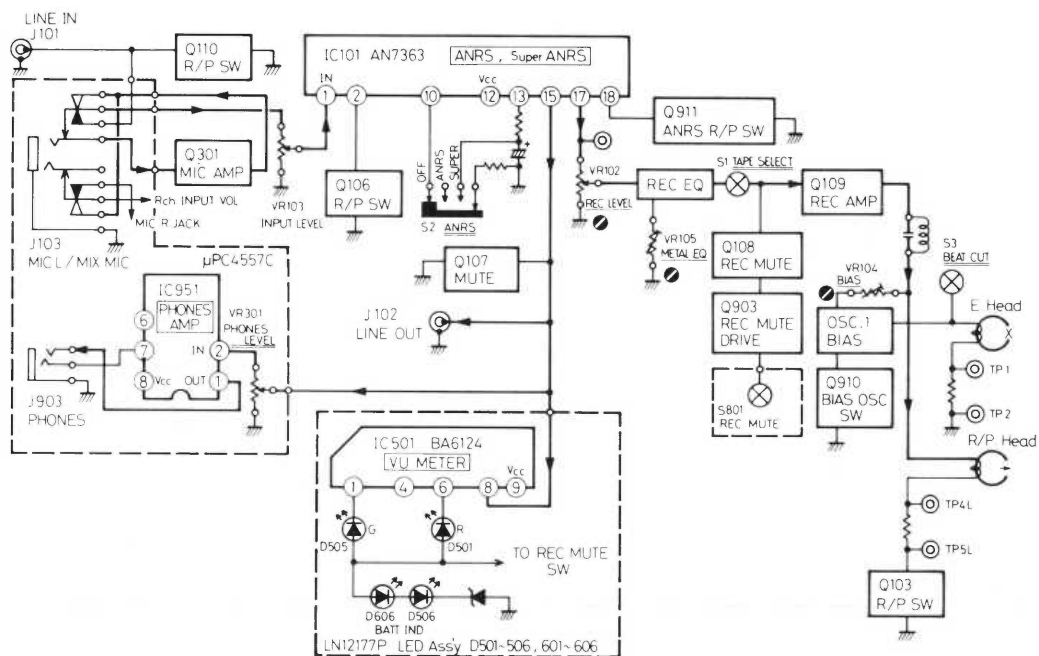


Fig. 37

## Playback system

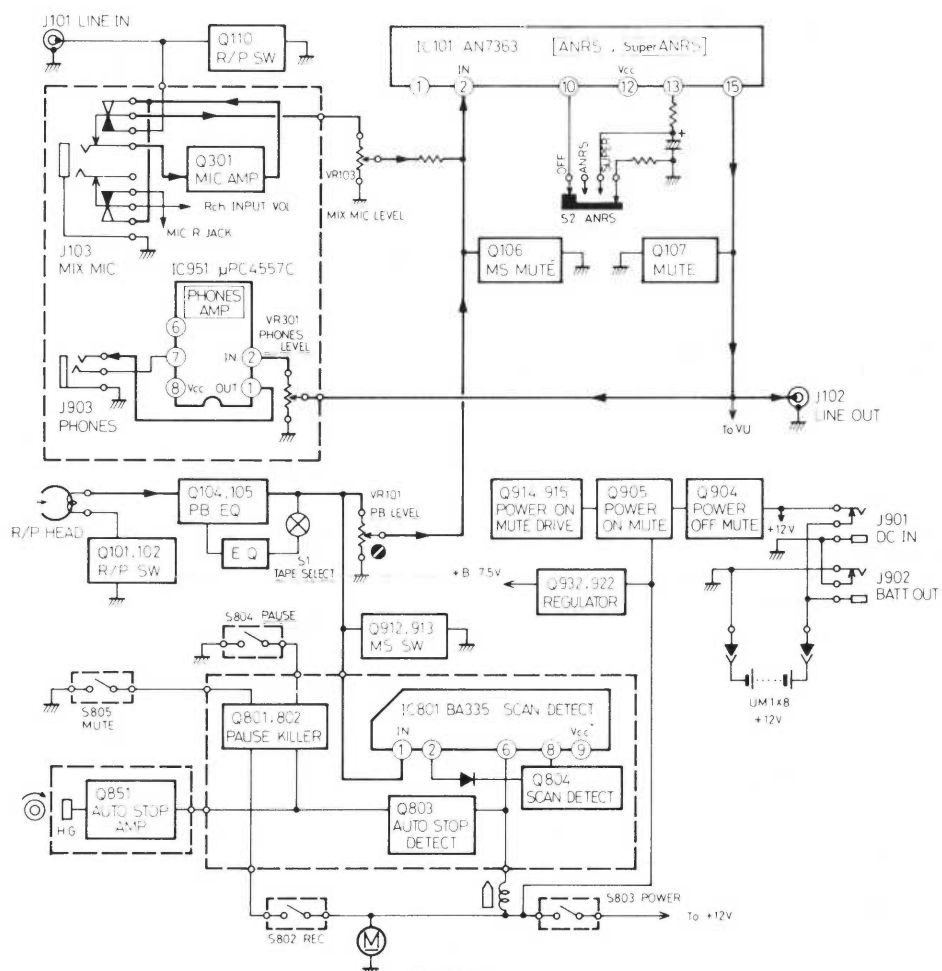
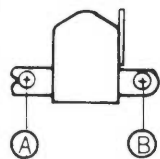
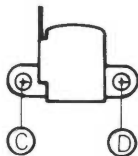
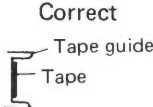
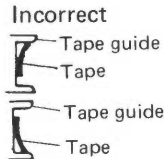


Fig. 38

# Adjustments


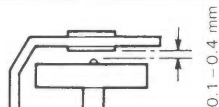
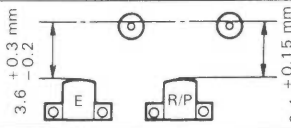
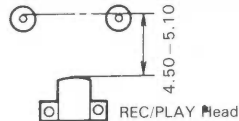
## 1. Adjustment Procedure of Cassette Mechanism

(Adjust the mechanism or confirm that it is in normal operating condition prior to the adjustment of the electrical circuit.)

Item	Adjustment	Adjusting point	Standard value	Remarks
Adjusting record/play-back head position 	1. Connect an electronic voltmeter to the LINE OUT terminals. 2. Play back the VTT-658 test tape. 3. Adjust the head angle with the screw (A) until the reading of the electronic voltmeter becomes maximum for both channels. 4. After adjusting, set the screw with screw bond.	Screw (A)	Maximum	If the head is worn, disconnected or exceedingly magnetized so as not to provide the necessary characteristics, replace it with a new one. After replacement, the head position adjustment as well as the playback level adjustment, the bias current adjustment and the recording level adjustment are all necessary. If the output difference between the left and right channels exceeds 3—4 dB, the head is defective. Replace it with a new one.
Adjusting erase head height 	Employ a special cassette (C-120) from which parts of the casing, where the erase head, record/playback head and capstan engage, has been cut away. Perform tape transport with the cassette tape. Adjust the screw (C) until the tape runs in the center of the erase head tape guide. <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Correct</p>  </div> <div style="text-align: center;"> <p>Incorrect</p>  </div> </div>	Screw (C)		Be sure to perform this adjustment after replacing the erase head.
Adjusting motor speed	Connect a speed meter (an electronic counter) to the LINE OUT terminals. Play back the VTT-656 test tape. Adjust the semi-fixed resistor in the motor until the reading of the speed meter is 3000 Hz.	Semi-fixed resistor in the motor	3000 Hz	If the speed meter functions as a wow and flutter meter, also, connect the deck to the INPUT terminals of the meter.
Checking play-back torque	Employ a torque testing cassette tape for the checking.		40—70 gr-cm	If the standard torque is not obtained, replace the take-up disc assembly.
Checking fast forward torque	Measure the torque in the fast forward mode in the same manner as in the above.		More than 80 gr-cm	If the standard torque is not obtained, perform the following. 1. Clean the capstan belt, the idler circumference, the motor pulley, the take-up reel disc circumference, the flywheel circumference, etc. 2. Replace the belt and idler.
Checking rewind torque	Measure the torque in the rewind mode in the same manner as in the above.		More than 80 gr-cm	If the standard torque is not obtained, clean the capstan belt, idler, motor pulley, flywheel circumference, rewinding idler circumference, left reel disc circumference, etc.
Checking wow and flutter	Connect a wow and flutter meter to LINE OUT terminals. Play back the VTT-656 test tape. Check to see if the reading of the meter is within 0.16% (RMS).			If the reading becomes moving value even if conforming to the standard, a re-claim may be raised. Repairs are necessary.

## 2. Specifications of Cassette Mechanism

Check the following items after cassette mechanism parts are replaced.

Item	Requirements	Test equipment	Test tape
1. Source voltage	Rated voltage: 12 V DC Motor operating voltage range: 7 – 12 V DC	Regulated power supply	—
2. Tape speed	4.8 cm/sec + 2% (3,000 Hz) – 2% Deviation 2%	Frequency counter (digital counter)	VTT-656
3. Wow & flutter	Less than 0.16% (RMS)	Wow meter	VTT-656
4. Take-up torque	PLAY 40–70 g.cm FF 80 gr-cm or more REW 80 gr-cm or more	During PLAY, the idlers, reels and flywheel should not slip against each other when the reels are locked.	—
5. Current consumption (of motor alone)	PLAY 170 mA or less FF 250 mA or less REW 250 mA or less	DC ammeter	C-60 (Take-up torque should be normal when tape is used.)
6. Pinch roller pressure	300 ~ 450 g.	Tension gauge Pull the pinch roller perpendicularly and read the gauge when the pinch roller just stops.	
7. Axial clearance of flywheel		Clearance gauge	—
8. Head position during PLAY and RECORD		During PLAY (RECORD) the dimensional requirements given here must be met, and the heads must not contact the cassette case.	Any cassette tape
9. Head position during cueing			—
10. Auto-stop operation	The facility should operate with a reduced voltage of 8 V at the end of tape during PLAY/REC, FF, and REW.		Any cassette tape
11. FF or REW time	Less than 9.5 sec with C-60 cassette		

## 3. Adjustment Location of Cassette Amplifier

Cassette amplifier p.w. board (parts ass'y view)

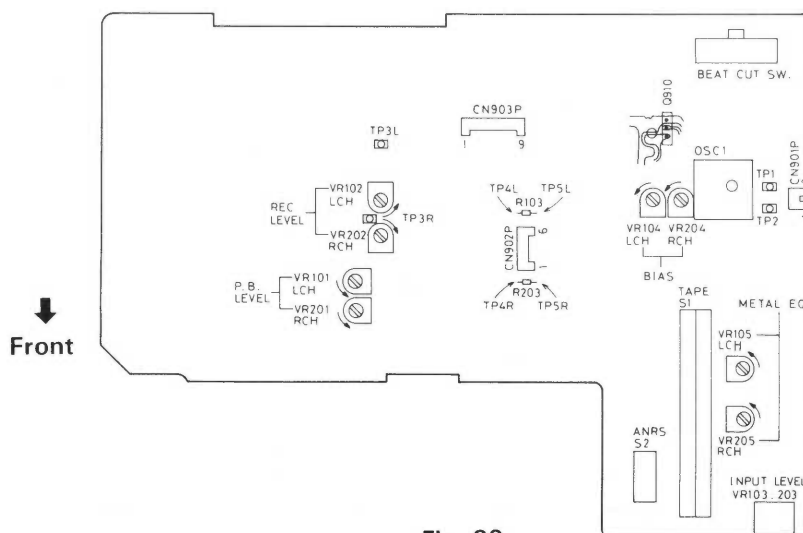


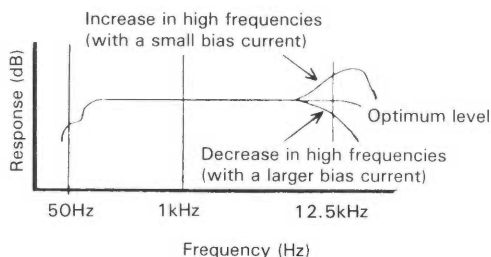
Fig. 39

#### 4. Adjustment Procedure of Cassette Amplifier

In the steps marked by an asterisk (\*), adjustment should be performed, however, only checking is sufficient with steps other than those.

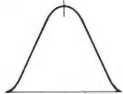
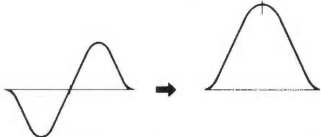
Adjustment should be performed in the order of steps 1, 2, 3, ..... Perform this adjustment with the ANRS switch set to OFF.

Step	Item	Adjustment	Adjusting point	Standard value	Remarks
1 *	Adjusting playback level	1. Play back the VTT-664 Reference tape (1 kHz) with the tape select switch set to the SF/NORM position. 2. Adjust VR101 and VR201 until the LINE OUT becomes about - 8 dBs.	VR101 201	- 8 dBs (0.3 V)	This adjustment becomes necessary when a change in playback level results (for example, due to head replacement).
2 *	Level indicator sensitivity	1. Set the cassette deck to its recording mode. 2. Apply a 1 kHz, approx. - 10 dBs signal to the LINE IN terminals. 3. Adjust the recording level controls until the signal is available at - 8 dBs at the LINE OUT terminals. 4. Check to see if the indicator conforms 0 VU.		0 VU	Perform the adjustment when the parts are replaced.
3	Adjusting recording level	1. Apply a 1 kHz, approx. - 10 dB signal to the LINE IN terminals. Adjust the recording level controls until the signal is available at - 8 dBs at the LINE OUT terminals. 2. After checking to see if the indicator become 0, record the signal applied to both left and right channels using normal tape. 3. Play back the recording part. Perform the recording signal adjustment with VR102 and VR202 so that the indicator become 0.	VR102 202	- 8 dBs	The level difference between left and right channels for SF/NORMAL tape, chrome tape and metal tape should be less than 1 dB (1 VU). Perform the adjustment using a normal tape, level difference between recording and playback for SA/CrO <sub>2</sub> and metal tapes, should be less than 1.5 dB, and that between left and right channels should also be less than 2 dB.
4	Checking record/playback frequency response	Record 1 kHz, 50 Hz and 12.5 kHz signals at an input level of 0 VU to - 20 dB. Play back the tape. Check to see that the 50 Hz and 12.5 kHz signal output deviations fall within the standard range, using the 1 kHz signal output as a reference.	For SF/ NORM tape; VR104 204 For Metal tape; VR105 205	Reference frequency; 1 kHz  0 ± 3 dB at 50 Hz 0 ± 3 dB at 12.5 kHz	This checking should be performed for normal, chrome and metal tapes and for both right and left channels. 1. Bias current adjustment for a cassette deck should generally be performed referring to the record/playback frequency response. This is because the frequency response of a cassette deck depends more greatly upon the bias current than does that of an open reel deck. 2. If the bias current is not properly adjusted, the record and playback characteristics become as shown left.



## 5. Tuner Alignment

### BASIC CONDITIONS

POWER SOURCE OF THE RECEIVER	DC 12 V, AC240/220/110 V, 50/60 Hz.
LOAD RESISTANCE OF THE RECEIVER	50 mW (0.55 V)/6 $\Omega$
MODULATION OF SSG	400 Hz. 30%
Item	Description
<b>1. AW IF ALIGNMENT</b> 1-1 Conditions of the receiver. (1) Power source:  (2) Function switch position: (3) Band select switch: (4) Volume control: (5) Tone control: (6) Variable capacitor: 1-2 Connection of Sweeper and the receiver (1) Tuner input: (2) Tuner output:  1-3 Aligning position: 1-4 Alignment (Waveform): 	DC 12 V (When the power is supplied directly to the tuner in the receiver, the voltage should be adjusted to the proper level which shall be required by the tuner.) RADIO MW Minimum gain position Center (Bass, Treble) position Near the minimum capacity position where no signal come in.  Positive side to TP8 Positive side to TP4 Negative side to TP5 CFT T3, T4 Adjust AM I.F.T. (above mentioned aligning position) so that maximum and symmetrical wave form can be obtained. In this case, the wavehead should be appeared at the center marker (455 kHz) on the scope of Sweeper.
<b>2. FM IF ALIGNMENT</b> 2-1 Conditions of the receiver (1) Power source: (2) Function switch position: (3) Band select switch: (4) Volume control: (5) Tone control: (6) Variable capacitor: 2-2 Connection of Sweeper and the receiver (1) Tuner input: (2) Tuner output:  <b>NOTE</b> a) Attach a capacitor (0.1 $\mu$ F) to the positive side cable which shall be led from Sweeper input. b) Attach a capacitor (30 pF) and a resistor (10 k $\Omega$ ) in series to the positive side cable which shall be led from Sweeper output. 2-3 Aligning position:  2-4 Alignment (Waveform):	Same as mentioned in item 1-1 RADIO FM Minimum gain position Center (Bass, Treble) position Near the minimum capacity position where no signal come in.  Positive side to TP3 Positive side to TP7 Negative side to TP5  a) IF Waveform: T1 b) Discriminate Waveform: T2 ("S" curve waveform) Adjust the discriminate coil (T2) so that "S" curve waveform may be changed to IF waveform as shown in following figure.   After above, adjust T1 so that max. sensitivity and symmetrical IF waveform can be obtained on the scope of Sweeper. Adjust the discriminate T2 again so that above symmetrical IF waveform may be changed to balanced "S" curve waveform.
b) Discriminate Waveform:	



Item		Description			
<b>3. AM RF ALIGNMENT</b>					
3-1	Conditions of the receiver.				
(1)	Power source:	Same as mentioned in item 1-1.			
(2)	Function switch position:	RADIO			
(3)	Volume control:	50 mW			
(4)	Tone control:	Center (Bass, Treble) position			
(5)	Variable capacitor:	Refer the following list shown in item 3-4.			
3-2	Conditions of SSG.				
(1)	Modulation:	Refer the basic condition			
(2)	Frequency:	Refer the following list shown in item 3-4.			
(3)	Output level of the attenuator in SSG:	Approx. 50 mW			
3-3	Power output measuring position:	Speaker terminals			
3-4	Alignment:				
	Band Select Switch Position	Sort of Antenna to be attached to SSG	Frequency of SSG	Variable Capacitor Position	Aligning Position
1	AM	Loop Antenna	520 kHz	Max. capacity	L4
2			1,650 kHz	Min. capacity	TC-4
3			Adjust the above aligning position (L4 & TC-4) repeatedly so that the tuner can be received above frequency range (band width).		
4			620 kHz	to be received 620 kHz	L7
5			1,400 kHz	to be received 1,400 kHz	TC-5
6			Adjust the above aligning position (L7 & TC-5) repeatedly so that the tuner can be obtained the best sensitivity.		
7	SW1	Loop Antenna	2.2 MHz	Max. capacity	L5
8			7.3 MHz	Min. capacity	TC-7
9			Adjust the above aligning position (L5 & TC-7) repeatedly so that the tuner can be received above frequency range (band width)		
10			2.3 MHz	to be received 2.3 MHz	L8
11			7.0 MHz	to be received 7.0 MHz	TC-6
12			Adjust the above aligning position (L8 & TC-6) repeatedly so that the tuner can be obtained the best sensitivity.		
13	SW2	Dummy Antenna	6.8 MHz	Max. capacity	L6
14			22.7 MHz	Min. capacity	TC-8
15			Adjust the above aligning position (L6 & TC-8) repeatedly so that the tuner can be received above frequency range (band width).		
16			7.0 MHz	to be received 7.0 MHz	L9
17			22.0 MHz	to be received 22.0 MHz	TC-3
18			Adjust the above aligning position (L9 & TC-3) repeatedly so that the tuner can be obtained the best sensitivity.		

Item		Description			
<b>4. FM RF ALIGNMENT</b>					
4-1	Conditions of the receiver.				
(1)	Power source:	Same as mentioned in item 1-1.			
(2)	Function switch position:	RADIO			
(3)	Band select switch:	FM			
(4)	Volume control:	50 mW			
(5)	Tone control:	Center (Bass, Treble) position			
(6)	Variable capacitor:	Refer the following list shown in item 4-3.			
4-2	Condition of FM SSG.				
(1)	Modulation:	Refer the basic condition			
(2)	Frequency:	Refer the following list shown in item 4-3.			
(3)	Output level of the attenuator in FM SSG:	The level shall be decided by the load resistance of the receiver mentioned in the basic conditions.			
4-3	Alignment:				
	Band Select Switch Position	Sort of Antenna to be attached to SSG	Frequency of SSG	Variable Capacitor Position	Aligning Position
1	FM	Dummy Antenna	87.5 MHz	Max. capacity	L2
2			109.0 MHz	Min. capacity	TC-2
3			Adjust the above aligning position (L2 & TC-2) repeatedly so that the tuner can be received above frequency range (band width).		
4			90 MHz	to be received 90 MHz	L1
5			108 MHz	to be received 108 MHz	TC-1
6			Adjust the above aligning position (L1 & TC-1) repeatedly so that the tuner can be obtained the best sensitivity.		

### FM MPX Alignment

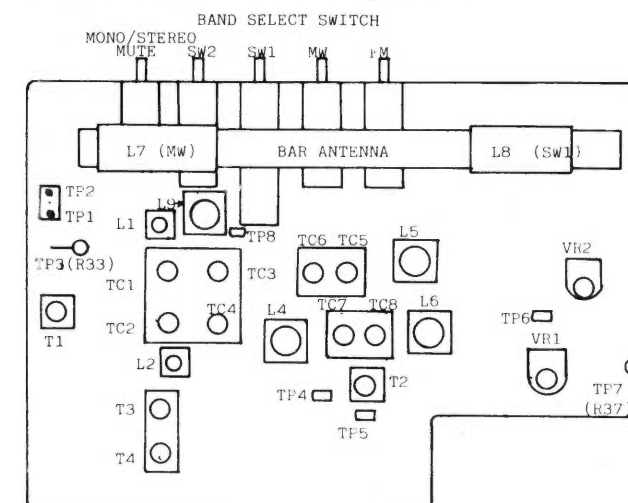
#### A. 19 kHz Alignment (Regular Method)

1. Connect a frequency counter to the test point TP6 (earth = TP5).
2. Supply the monaural signal (98 MHz, 60 dB) across the test points TP1 and TP2.
3. Adjust the variable resistor VR1 so that the frequency becomes 19 kHz  $\pm$  100 Hz.

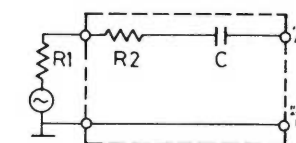
#### B. 19 kHz Alignment (Simplified Method)

1. Tune to an FM stereo broadcast.
2. Set the variable resistor VR2 to the minimum position of the range in where the Lch and Rch selecting.

### Parts Arrangement for Alignment



### Dummy Antenna



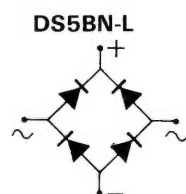
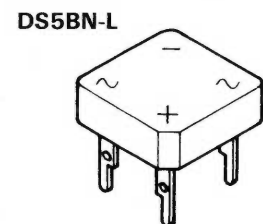
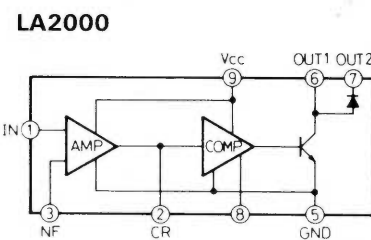
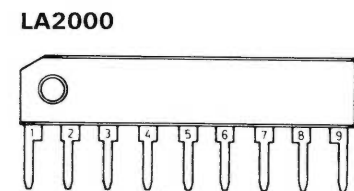
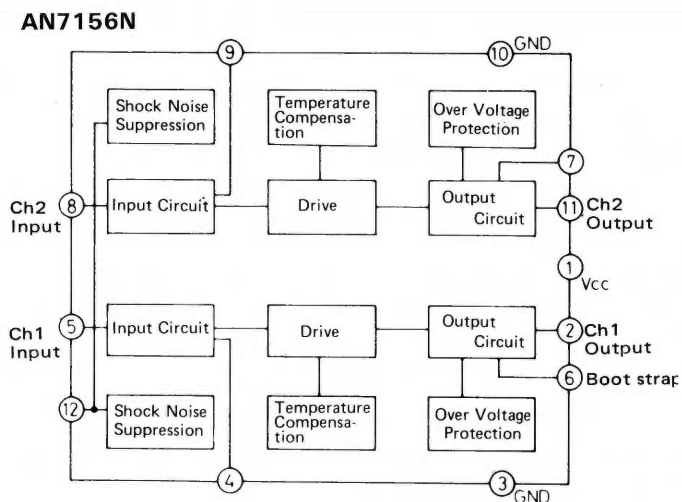
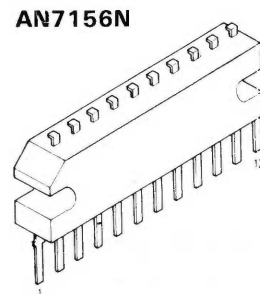
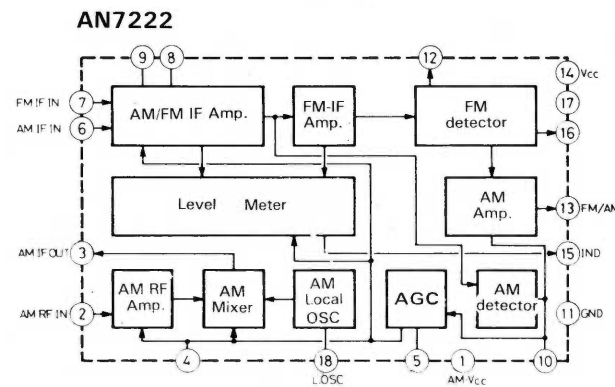
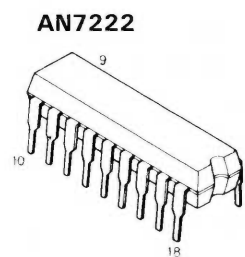
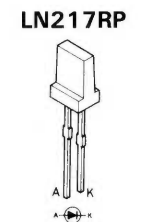
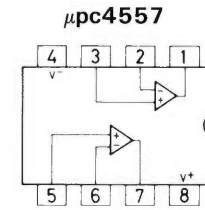
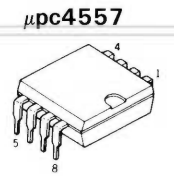
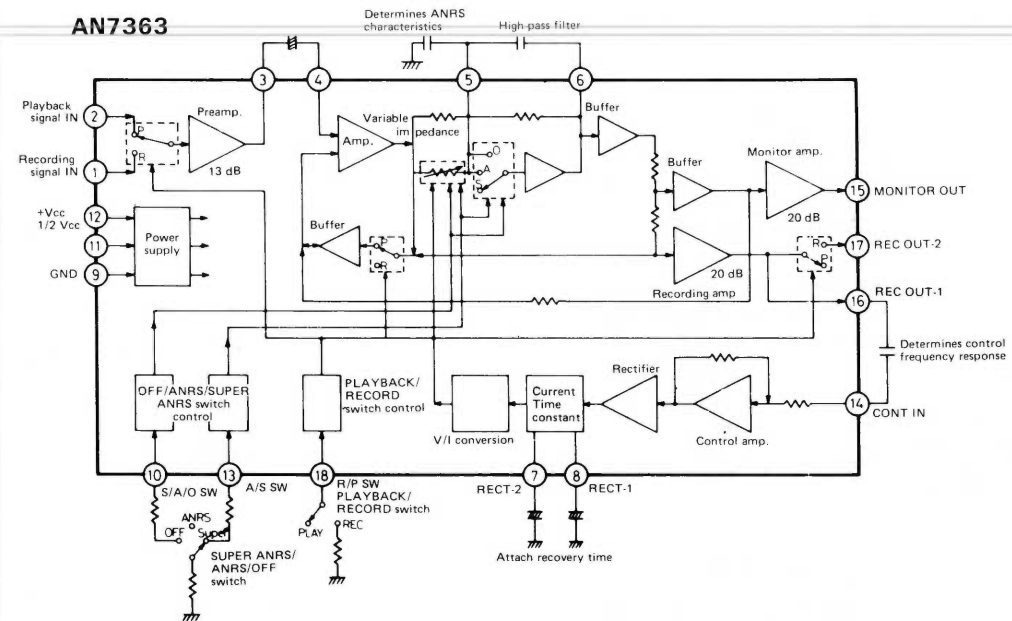
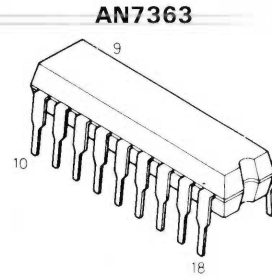
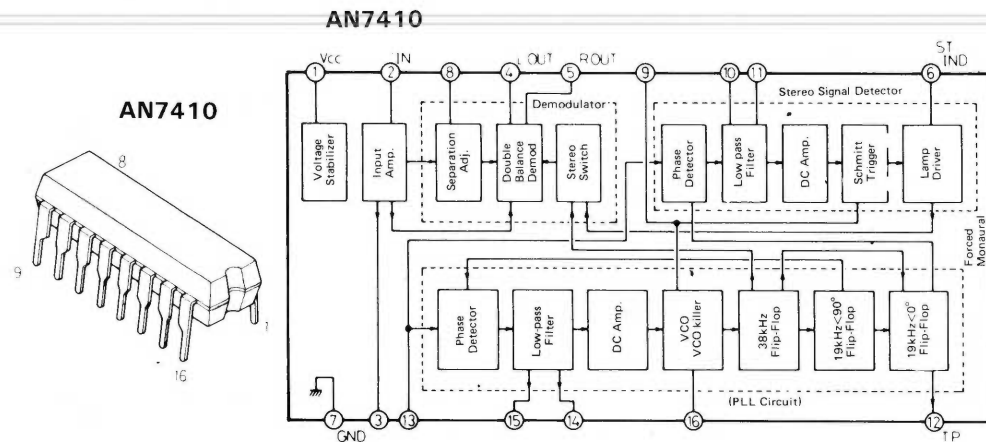
$$R1 + R2 = 80 \Omega$$

$$C = 10 \text{ pF}$$

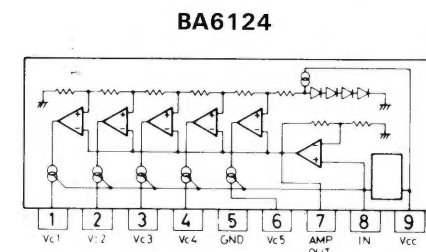
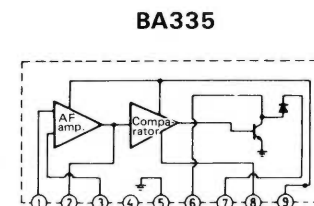
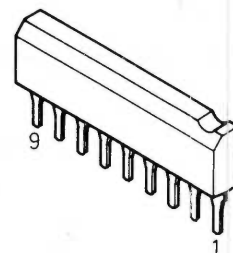
R1: Output impedance of S.S.G.

Fig. 40

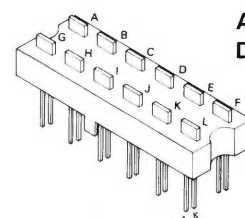
# Integragt Circuits



**BA335  
BA6124**



**LN12177P**



**A-C, G-I LN324GP  
D-F, J-L LN224RP**

Fig. 41

Standard Schematic Diagram of PC-3 (Tuner circuit)

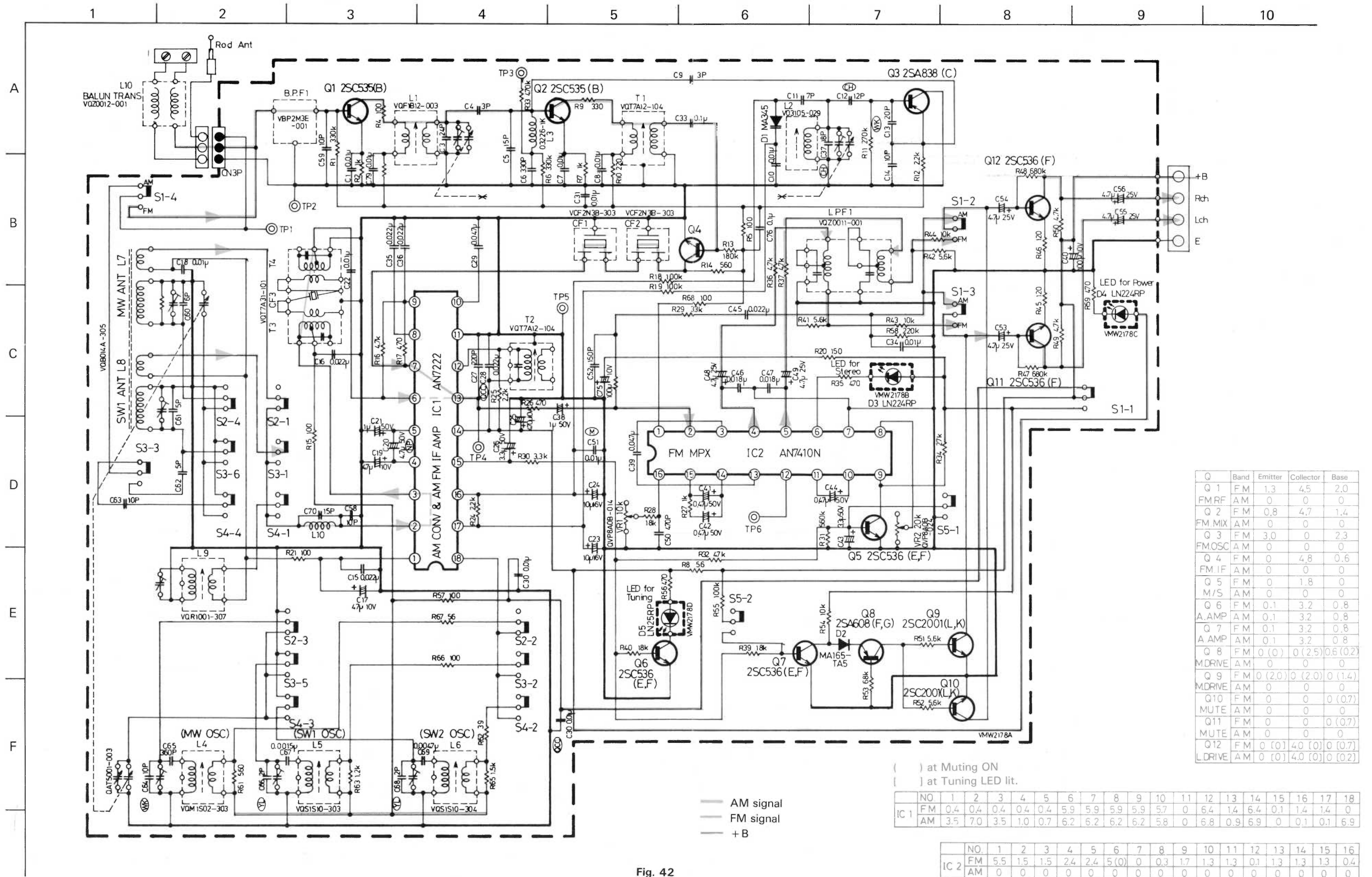
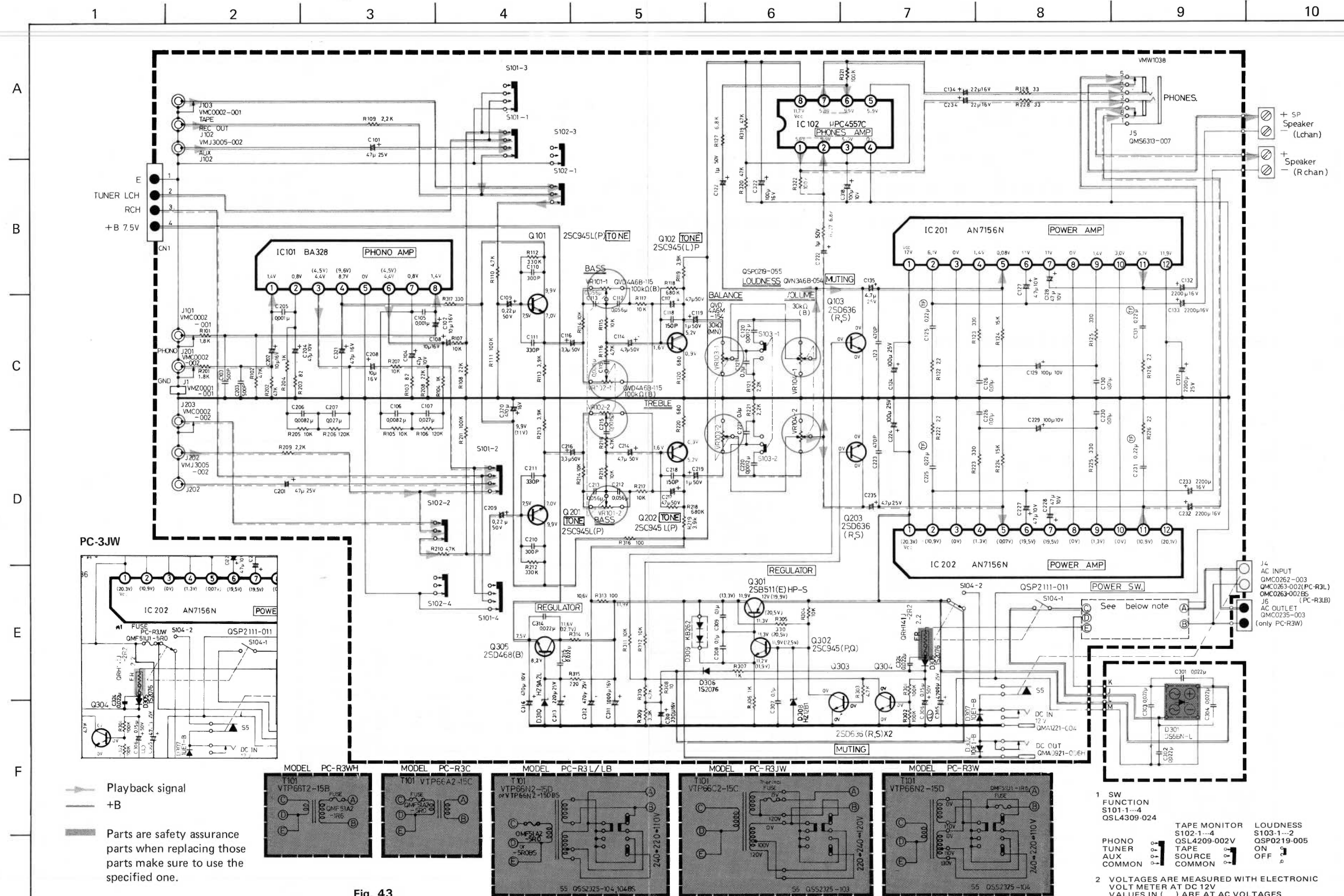


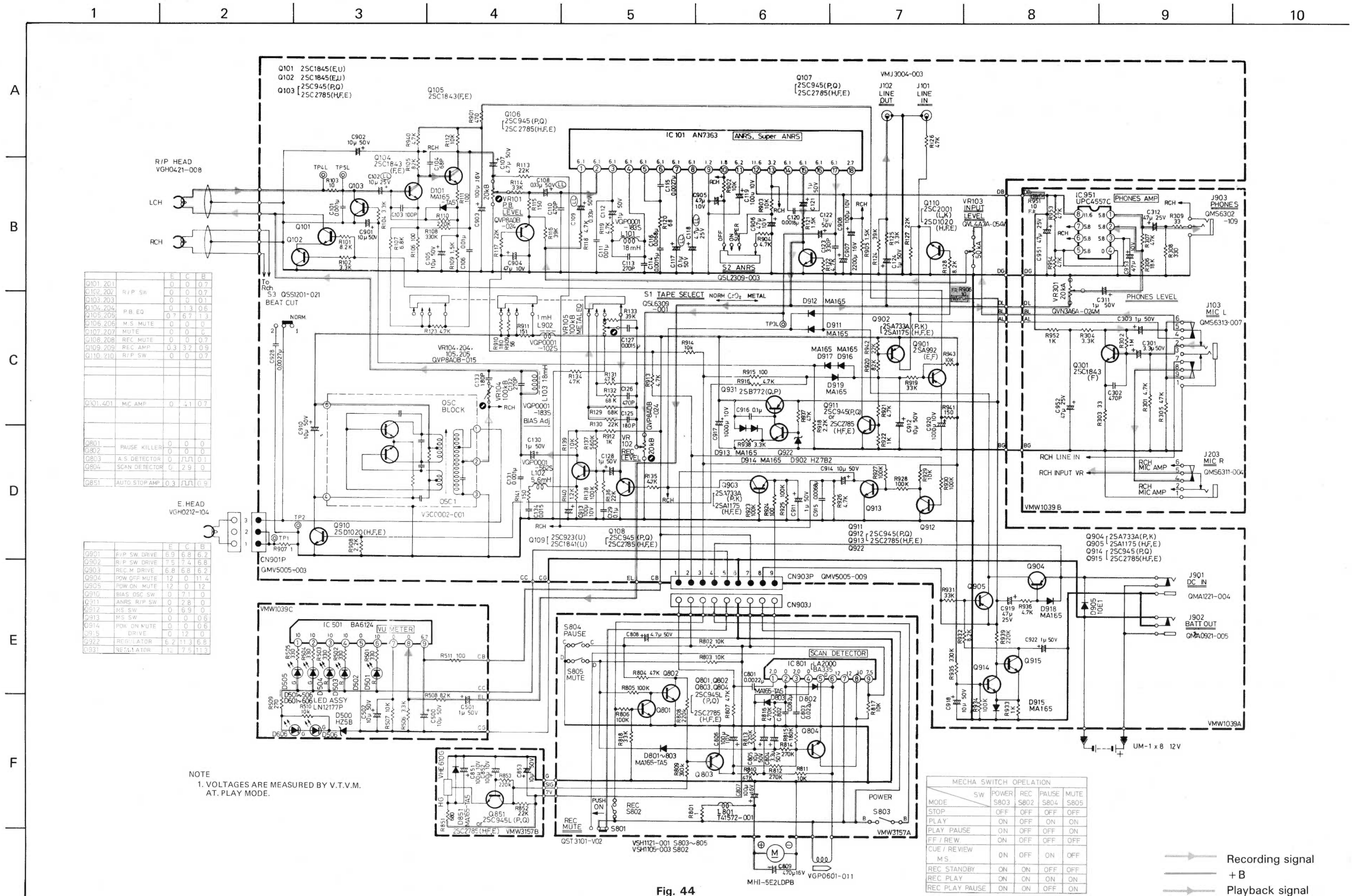
Fig. 42



# Standard Schematic Diagram of PC-3 (Amplifier circuit)



# Standard Schematic Diagram of PC-3 (Cassette deck circuit)



# Wiring Connection (1) (Receiver circuit)

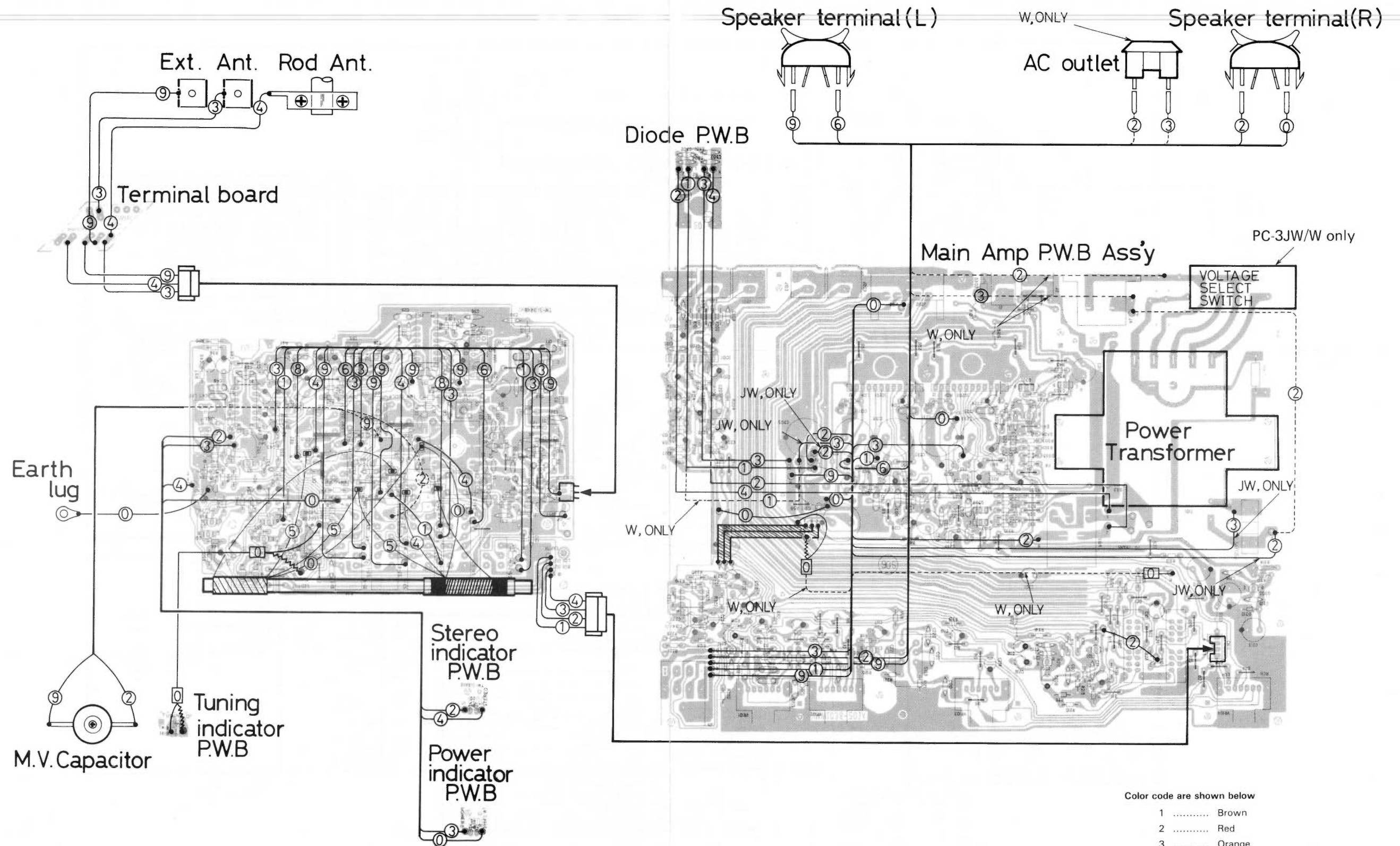
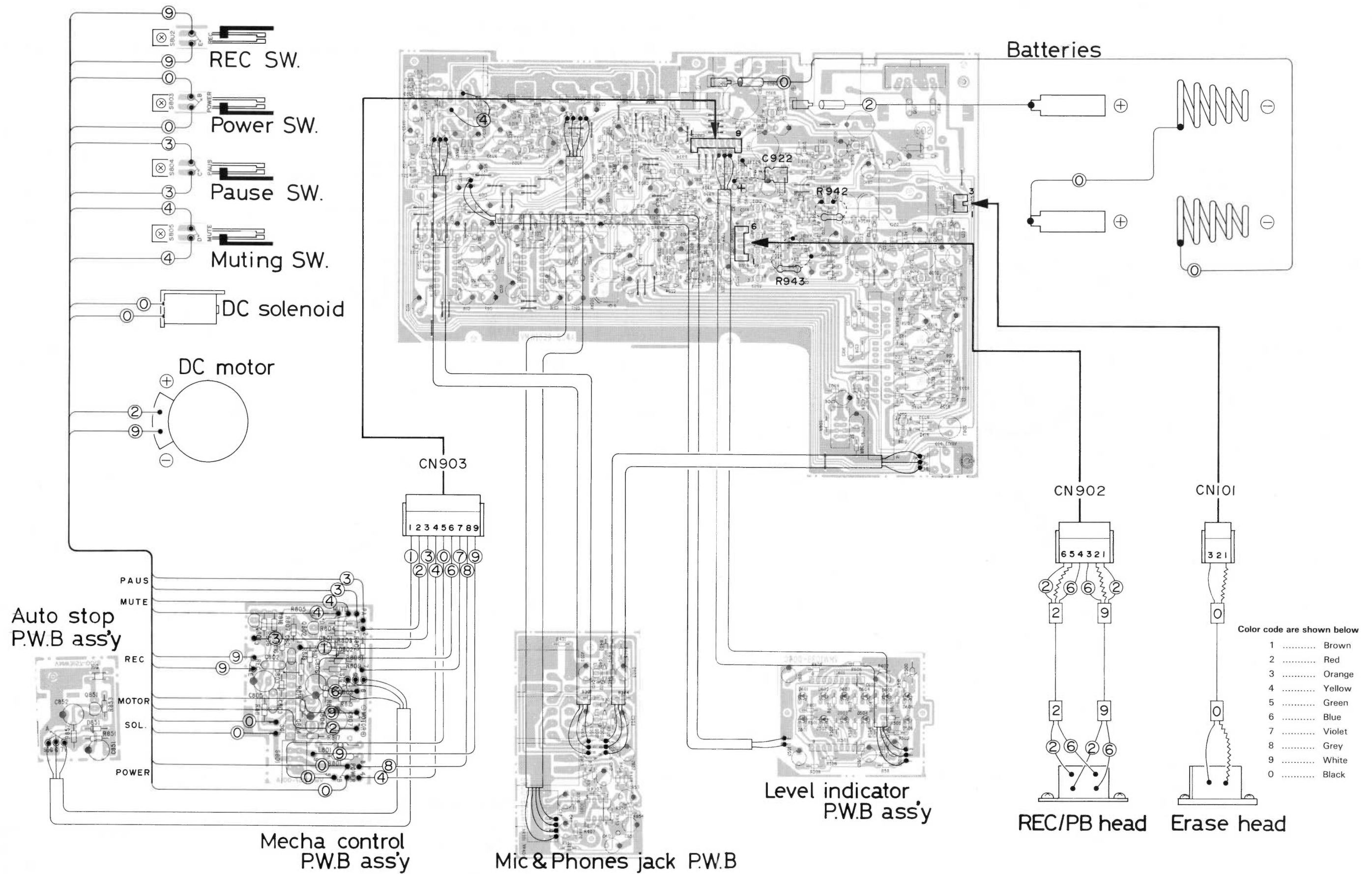


Fig. 45



# Wiring Connection (2) (Stereo Cassette deck circuit)



# Speaker Component Parts (PC-B3)

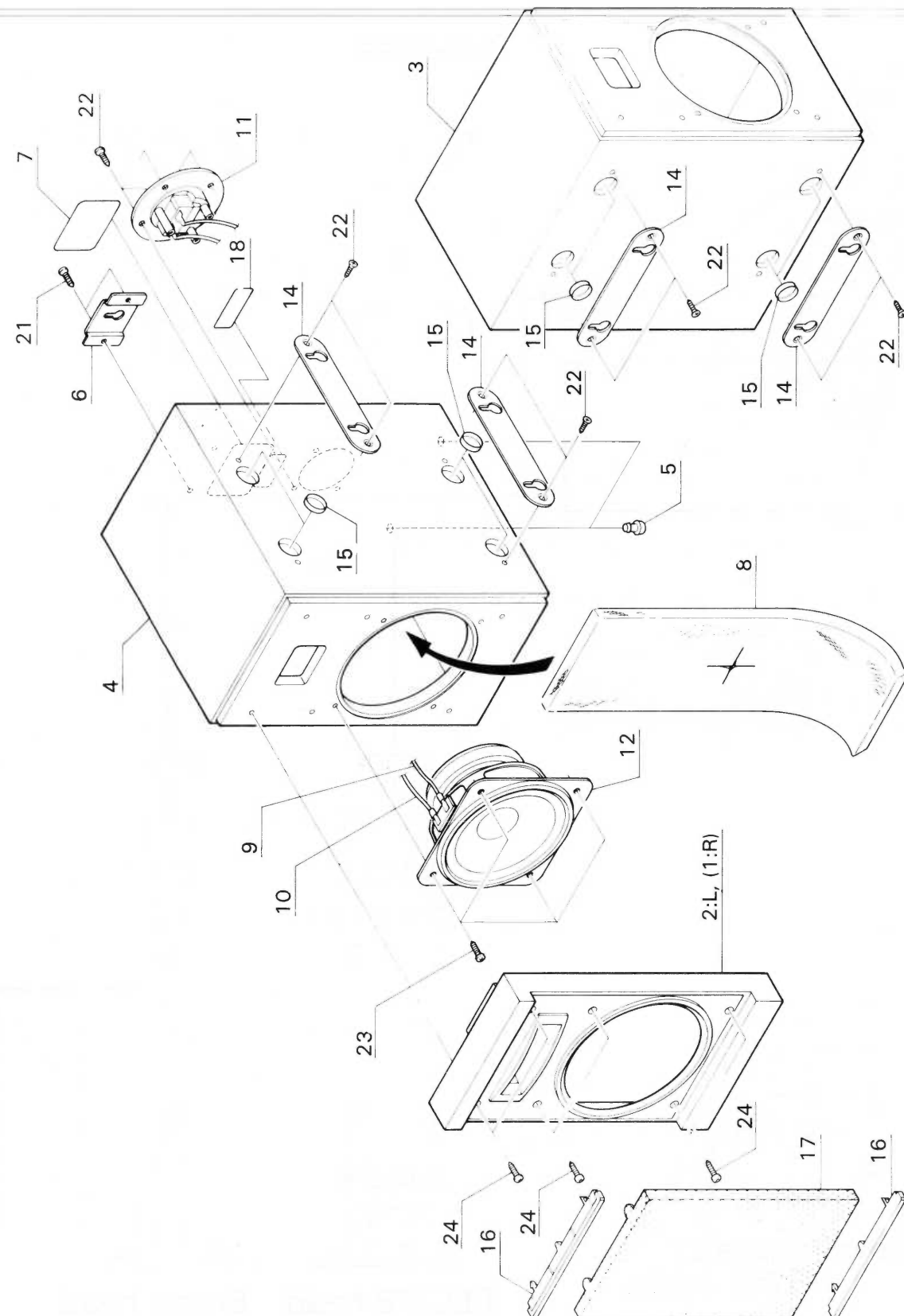


Fig. 47

## PC-B3 Speaker Component Parts List

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
1		VJC2063-003	Front Panel	Right	1
2		" -004	"	Left	1
3		VJC2064-003	Speaker Case	Right	1
4		" -004	"	Left	1
5		VJF4009-001	Foot		2
6		VKL4878-003	Bracket		1
7		VYNA304-002	Name Plate		1
8		VKZ4145-001	Sound Absorber		1
9		VWE222-28A4ZR	Wire with Receptacle		1
10		VWE220-28A4ZR	"		1
11		VMZ0017-001	Speaker Terminal		1
12		EAS10P195SA	Speaker		1
13		VKZ4178-001	Sound Absorber		1
14		VYH4891-004	Plate		2
15		VYH4934-001	Spacer		4
16		VJD4549-001	Fitting		2
17		VJD3322-002	Punching Panel		1
18		VNC5003-206	Serial Label		1
21		SDSA3012M	Screw	Bracket	2
22		SDSA3012R	"	SPK Terminal x 4 Plate x 4	8
23		SDSA3012Z	"	Sound Absorber	4
24		SDSA3016M	"	Plate	6

## Speaker Packing

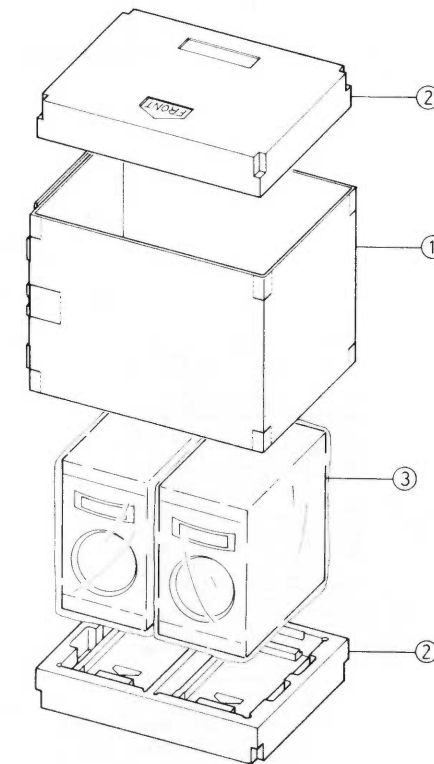


Fig. 48

## Speakers Packing Material Parts List

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
1 ~ 3		VDP7006-002BA	Carton Ass'y		1 set
1		VPA2006-005	Sleeve		1
2		VPH1221-001	Cushion		2
3		QPGA040-05005	Poly Bag		2



## PC-R3

## Enclosure Assembly and Electrical Parts List

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
1		VJC1203-002UL	Front Cover	PC-R3JW	1
		" -003	"	PC-R3W/WH	1
2		VJD4535-002	Panel		1
3		VJK4156-002	Lens		1
4		VJD4574-001	Spacer		1
5		VJD4574-002	Spacer		1
6		VYH1126-002	Chassis		1
7		VYH4837-00A	Roller Bracket Ass'y (A)		1
8		VYH4838-00A	Roller Bracket Ass'y (B)		1
9		VYH4839-00A	Roller Bracket Ass'y (C)		1
10		VYH4840-00A	Roller Bracket Ass'y (D)		1
11		VYH4777-00B	Tuning Flywheel Ass'y		1
12		—	Tuner P.W. Board		1
13		—	LED P.W. Board	Stereo Indicator	1
14		VYH4967-001	LED Holder		2
15		—	LED P.W. Board	Power Indicator	1
16		VYH3202-001	Drum		1
17		VYH4853-001	Bar Ant. Holder		1
18		VXP4178-001	Push Knob		5
19		VHR2TK9-05AT	Dial Rope	Kevlar	1 set
20		50153-3	Spring		1
21		VXL4144-001	Knob		1
22		VJN4067-00A	Needle Ass'y		1
23		—	P.W. Board Ass'y	Tuning Indicator	1
24		—	P.W. Board Ass'y		1
25		—	Amp. P.W. Board		1
26		VWS603-10B4B4	Heikou Wire		1
27		QHX2075-001	Wire Clamp		3
28	△	QMF51U1-5R0	Fuse		1
29		VYH4942-002	Shield Plate		1
30	△	VTP66C2-15C	Power Transformer	T101 PC-R3JW	1
	△	VTP66N2-15D	"	T101 PC-R3W	1
32		VYH4854-001	Remote Bar		1
33		VYTS404-001	Lock Plate		1
34		VYH3206-001	Bracket (A)		1
35		VYH4975-001	Holder		1
36		VYH4930-001	Shield Plate		1
37		VYH4857-003	Heat Sink		1
38		VYH4858-001	Bracket (C)		1
39		VYH4638-001	Bracket		3
40		VYH4924-001	Spacer		1
41		VYH4860-001	Trans Bracket		2
42		VYH4974-001	Belt		1
43		VYSA1R2-011	Spacer		1
44		VXQ4050-001	Lever Cap		2
45		VXP4179-001	Push Knob		1
46		VXP4198-001	Power Knob		1
47		VKL2145-001	Bottom Cover		1
48		VJF4007-002	Foot		4
49		VJC1204-002UL	Top Cover	PC-R3JW	1
		" -003	"	PC-R3W	1
50		VMZ0018-001	SPK Terminal		2
51		VYH4923-001	Plate		4
52		VJD4562-001	Plate		1
53		VJA3003-00A	Rod Ant. Ass'y		1
54		VYH4861-001	Ant. Holder		1
55		VYH4862-002	Bracket		1
56		VJD4508-002	Ant. Cover		1
57		VJD4546-002	Ant. Catcher		1
58		V44814-00B	Ext. Ant. Terminal		2

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
59		VXL4164-001	Tuning Knob		1
60		VXL4165-001	Volume Knob		1
61		VXL4166-001	Knob		3
62		SSSP2606Z	Screw	PC-R3W	2
63		VYH4856-001	Bracket (B)	"	1
64		VYH4917-001	Stopper	"	1
65		—	Diode P.W.B. Ass'y		1
66	△	QMC0235-003	AC Outlet	PC-R3W	1
67		VYH4947-001	Spacer	PC-R3W	1
68		VYSP104-003	Spacer		1
69		VYH4926-002	Insulator		1
70		VYH4925-001	Shield Plate	Bottom cover	1
71		VYH4946-00A	Shield Ass'y	Tuner P.W.B.	1
72		VYNA303-003	Name Plate	PC-R3WH	1
		" -004	"	PC-R3JW	1
		" -005	"	PC-R3W	1
73		VYNA305-006	"	PC-D3WH	1
		" -002	"	PC-D3JW	1
		" -003	"	PC-D3W	1
74		VYSA1R4-050	Spacer	Top cover	2
75		51739-2	Tab		1
81		Q03093-837	Washer	Tuning Flywheel Ass'y	1
82		WLS3000Z	Lock Washer	Heat Sink	1
83		WNB3000N	Washer	"	1
84		REE5000	E. Ring	Tuning Flywheel Ass'y	1
86		LPSP3006Z	Screw	Chassis x 2	6
				Bracket (A) x 2	
				Bottom Cover Ass'y x 2	
87		LPSP4008Z	"	Trans. Bracket	4
88		SBSB3006Z	Tap. Screw	Bracket (C) x 1	3
				Bottom Cover Ass'y x 1	
				Ant. Cover x 1	
89		SBSB3008C	"	Bottom Cover Ass'y	5
90		SBSF3008Z	"	Front Cover x 2, Holder x 1	3
91		SBSF3010Z	"	Roller BKT Ass'y x 4	14
				Bar Ant. Holder x 2	
				LED x 2	
				P.W.B. ~ Chassis x 2	
				Bracket (A) x 1	
				Heat Sink x 3	
92		SBSF3012Z	"	IC	4
93		SBSF3014Z	Screw	Heat Sink	1
94		SDSB3008R	Tap. Screw	Ant. Cover	1
95		SDSP3006R	Screw	Bracket	1
96		SHSP3006R	"	Bottom ~ F. Cover x 5	14
				Bottom ~ T. Cover x 9	
97		SPSP3006Z	"	Heat Sink	1
98		SPSP4004Z	"	Bottom Cover ~	4
				Trans. Bracket	
99		SSSP2004Z	"	Knob	1
100		SSSP3006Z	"	Bracket x 3	6
				Bottom Cover Ass'y x 3	
101		SSSP2608Z	"	Drum	1

# PC-R3 Enclosure Assembly and Electrical Parts

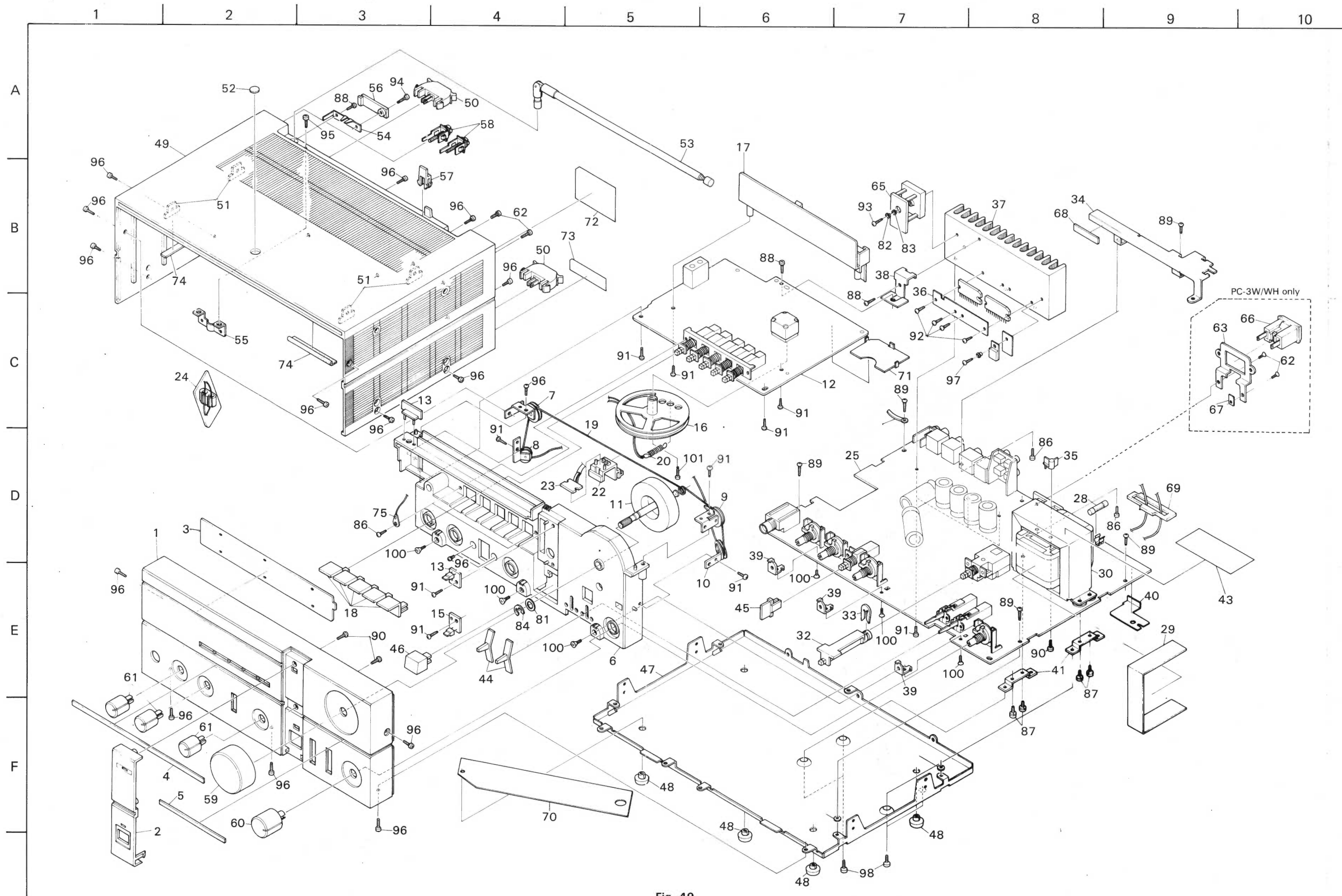


Fig. 49

# PC-D3 Enclosure Assembly and Electrical Parts

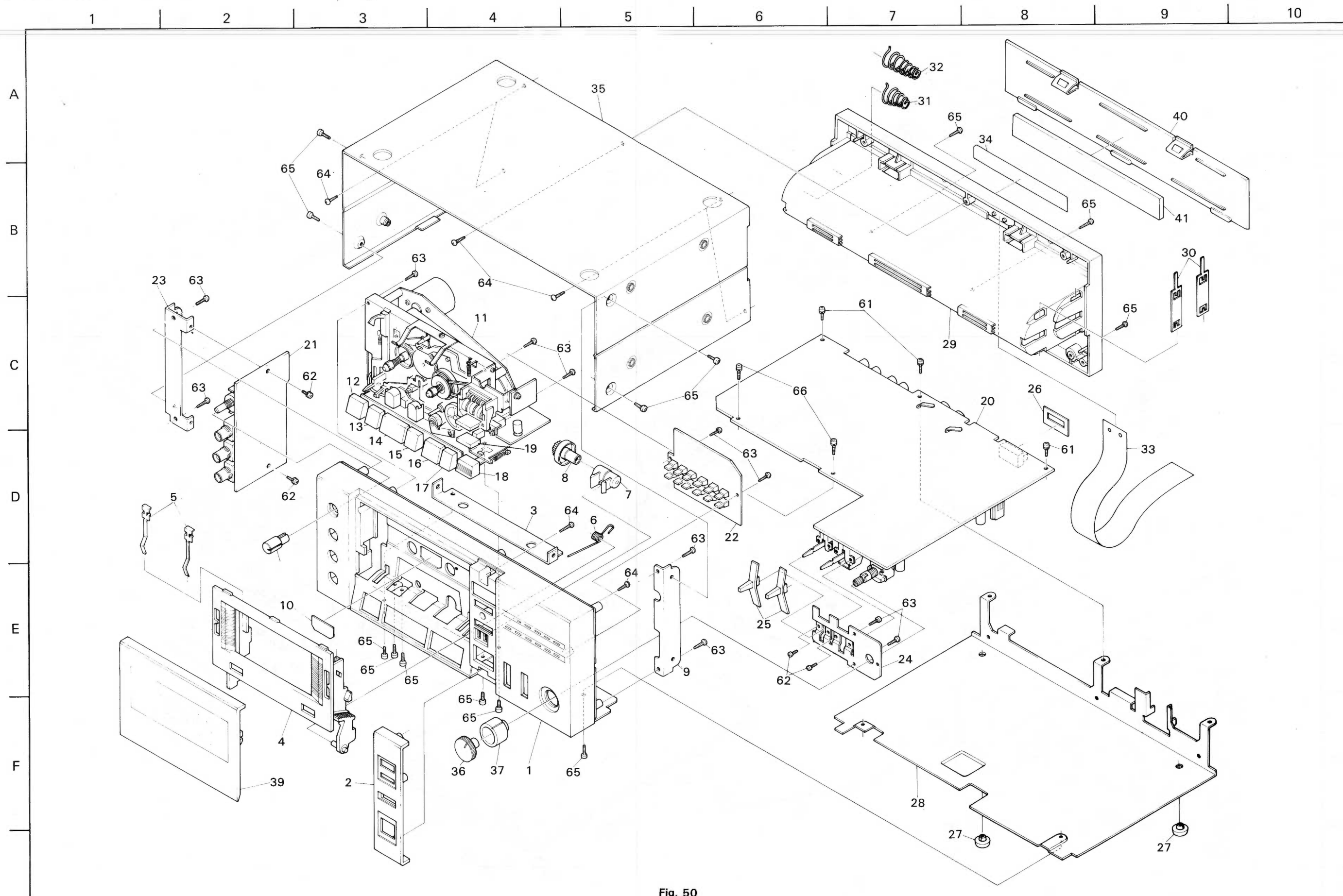


Fig. 50

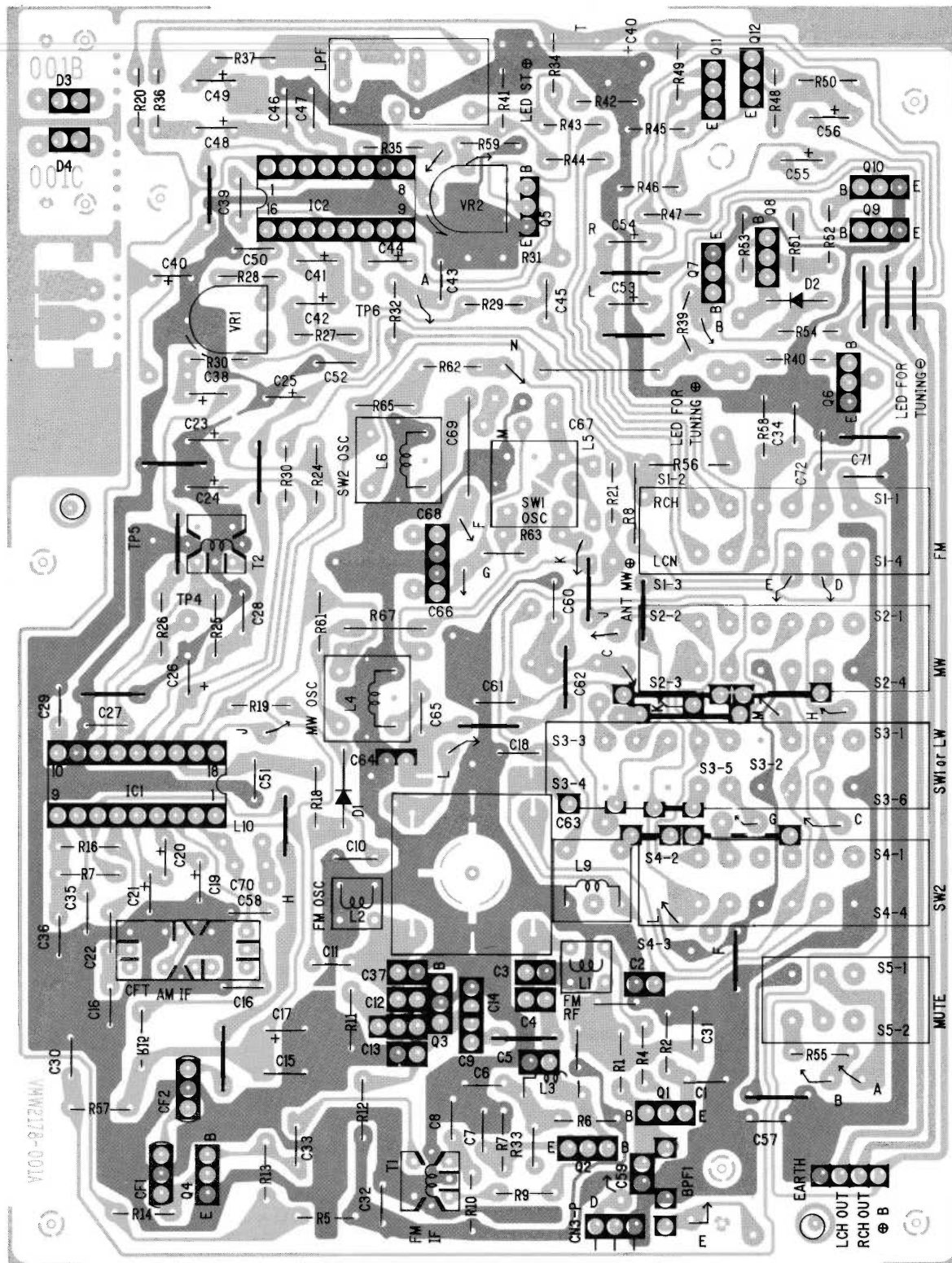
## PC-D3

## Enclosure Assembly and Electrical Parts List

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
1		VJC1205-003UL	Front Cover	PC-3JW	1
		" -002	"	PC-3W/WH	1
2		VJD4539-002	Panel		1
3		VYH4865-001	Door Bracket		1
4		VJT2066-002	Cassette Door		1
5		VKY4180-001	Cassette Spring		1
6		VKW4319-002	Door Spring		1
7		VYH4866-001	Damper Holder		1
8		VYH4769-001	Gear		1
9		VYH4867-001	Side Bracket		1
10		VJD4005-002	Reflection Plate		1
11		—	Cassette Mecha. Ass'y		1
12		VXP4185-001	Push Button	Rec.	1
13		VXP4186-001	"	Rew	1
14		VXP4187-001	"	Play	1
15		VXP4188-001	"	F.F.	1
16		VXP4189-001	"	Stop	1
17		VXP4190-001	"	Pause	1
18		VXP4191-001	"	Eject	1
19		VXP4192-001	"	Rec. Mute	1
20		—	Main P.W. Board Ass'y		1
21		—	Phones P.W. Board Ass'y		1
22		—	Level Indicator P.W. Board Ass'y		1
23		VYH4868-001	Phones Bracket		1
24		VYH4869-001	Control Bracket		1
25		VXQ4050-001	Lever Cap		2
26		VYTA474-001	Blind		1
27		VJF4007-002	Foot		2
28		VJC2061-003	Bottom Cover		1
29		VJC1206-004UL	Rear Cover	PC-D3JW	1
		" -003	"	PC-D3W/WH	1
30		VYH4010-004	Battery Contact		2
31		53738-009	Spring		1
32		V44686-002	"		1
33		V41583-007	Tape		1
34		VJD4490-002	Caution Plate		1
35		VJC1207-002	Top Cover		1
36		VXL4167-001	Knob	Volume	1
37		VXL4168-001	"	"	1
38		VXL4181-001	"	Headphone Volume	1
39		VJT4052-00C	Cassette Door Cover Ass'y		1
40		VJC2032-001	Battery Cover		1
41		VYSH106-020	Spacer		1
61		LPSP3006C	Screw	Bottom Cover	3
62		LPSP3006Z	"	Phones Bracket x 2	4
				Control Bracket x 2	
63		SBSF3010C	Tap. Screw	Side Bracket x 2	11
				Phones Bracket x 2	
				LED x 2	
				Mecha. ~ Amp. ~ F. Cover x 5	
64		SBSF3010Z	"	Front Cover x 2	7
				Top Cover x 5	
65		SDSP3006R	Screw	Door Bracket x 2	13
				Mecha. ~ Amp. ~ F. Cover x 2	
				Bottom Cover x 2	
				Top Cover x 7	
66		SPSP3006V	"	Mecha. ~ Main Board	2



# PC-R3 Tuner P.W. Board Parts



Terminal

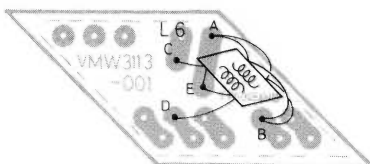


Fig. 51

## Tuner P.W. Board Parts List

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
VC1,2,3,4 TC1,2,3,4 TC5,6,7,8 VC5 VR1 VR2		VMW2178-001A QAP1224-520  QAT2002-001 QAT5001-003 QVZ3512-103 QVP8A0B-024	P.W. Board V. Capacitor  T. Capacitor M.V. Capacitor V. Resistor "	No supply as parts ass'y   10 kΩ 20 kΩ	1 1  2 1 1 1
S1-1 ~ S5 L1 L2 L3 L4		QST2541-V02 VQF1B12-003 V03105-029 03226-1K VQM1S02-303	Push Switch FM. RF. Coil FM. OSC Coil Inductor OSC Coil	    AM	1 1 1 1 1
L5 L6 L7,8 L9 L10		VQS1S10-303 " -304 VQB014A-305 VQR1001-307 V03047-17	OSC Coil " Bar Antenna RF. Coil Coil	SW1 SW2  SW2	1 1 1 1 1
T1,2 T3,4 CF3 LPF1 BPF1 CF1,2		VQT7F12-104 VQT7A31-101 VQZ0011-001 VBP2M3E-001 VCF2N3B-303	IFT " L.P. Filter B.P. Filter C. Filter	FM AM	2 1 1 1 2
IC1 IC2 Q1,2 Q3 Q4		AN7222 AN7410N 2SC535 (B) 2SA838 (C) 2SC930 (E)	IC " Transistor " "		1 1 2 1 1
Q5 Q6,7,11,12 Q8 Q9,10 D1		2SC536 (E,F) 2SC536 (F) 2SA608 (G) 2SC2001 (L,K) MA345	" " " " Varicap		1 4 1 2 1
D2  C1,7,8,10,30 33,73,71,79 C3 C4,9,65 C5		MA165 QMV5004-003 QCF11HP-103  QCS11HJ-240 " -3R0 " -150	Si. Diode Connector C. Capacitor  " " "	  0.01 μF 50 V  24 pF 50 V 3 pF " 15 pF "	1 1 9 1 3 1
C6 C11 C12 C13 C14		" -331 QCS11HJ-7R0 QCT05CH-120 QCT05WK-200 QCT05CH-100	" " " " "	330 F " 7 pF " 12 pF " 20 pF " 10 pF "	1 1 1 1 1
C15,16,32,35 36 C17,19 C18,22,31 C20 C21,38,74		QCF11HP-223  QET41AR-476 QCC11EM-103 QEN41CA-475N QET41HR-105	"  E. Capacitor C. Capacitor E. Capacitor "	0.022 μF "  47 μF 10 V 0.01 μF 25 V 4.7 μF 16 V 1 μF "	5  2 3 1 3
C23,24 C25 C26 C27 C45,80		QET41AR-106 " -477 QET41ER-335 QCS11HJ-221 QCC11EM-223	" " " C. Capacitor "	10 μF 10 V 470 μF " 3.3 μF 25 V 220 pF 50 V 0.047 μF 25 V	2 1 1 1 2
C29 C31 C34 C37 C41,42,44 C57,72		QCC11HM-473 QCF11HP-473 QCC11EM-103 QCT05CH-180 QET41HR-474 QCS11HJ-151	M. Capacitor C. Capacitor " " E. Capacitor C. Capacitor	0.022 μF 50 V 0.047 μF " 0.01 μF " 18 pF " 0.47 μF 50 V 150 pF 50 V	1 1 1 1 3 2

Ref. No.	△	Parts No.	Parts Name	Remarks		Q'ty
C39		QCC11EM-473	C. Capacitor	0.047 $\mu$ F	50 V	1
C40,75		QET41AR-107	E. Capacitor	100 $\mu$ F	10 V	2
C43		QET41HR-335	"	3.3 $\mu$ F	16 V	1
C46,47		QFM41HJ-183	M. Capacitor	0.018 $\mu$ F	50 V	2
C48,49,53 ~ 56		QET41HR-475	E. Capacitor	4.7 $\mu$ F	25 V	6
C50		QFS41HJ-471	P. Capacitor	470 pF	50 V	1
C51		QFM41HJ-103	C. Capacitor	0.01 $\mu$ F	50 V	1
C52		QCS11HK-151	"	150 pF	"	1
C60		QCS11HJ-5R0	"	5 pF	"	1
C61		" -6R0	"	6 pF	"	1
C63		QCC11EM-473	"	0.047 $\mu$ F	25 V	1
C64,78		QCS11HJ-2R0	"	2 pF	50 V	2
C65		QFS41HJ-361	"	360 pF	50 V	1
C66,68		QCT05YL-2R0	"	2 pF	"	2
C67		QFS41HJ-152	P. Capacitor	0.0015 $\mu$ F	"	1
C69		QFS41JH-472	"	0.0047 $\mu$ F	"	1
C70		QCS11HJ-150	"	15 pF	"	1
C77		QCS11HJ-5R0	C. capacitor	5 pF	50 V	1
R1,6,60		QRD161J-334	C. Resistor	330 k $\Omega$	1/6 W	3
R2,7,27,69		" -102	"	1 k $\Omega$	"	4
R4,5,15,21,22 57,66,68,75		" -101	"	100 $\Omega$	"	9
R8		QRD141J-560S	"	56 $\Omega$	1/4 W	1
R9		QRD161J-331	"	330 $\Omega$	1/6 W	1
R10		" -221	"	220 $\Omega$	"	1
R11		" -274	"	270 k $\Omega$	"	1
R13		" -184	"	180 k $\Omega$	1/6 W	1
R14,61		" -561	"	560 $\Omega$	"	2
R16,36,49,72		" -472	"	4.7 k $\Omega$	"	4
R18,23,55,19		" -104	"	100 k $\Omega$	"	4
R24,12,25		" -222	"	2.2 k $\Omega$	"	3
R30		" -332	"	3.3 k $\Omega$	"	1
R26,35,56,59,17		" -471	"	470 $\Omega$	"	5
R28,39,40		" -183	"	18 k $\Omega$	"	3
R29		" -333	"	33 k $\Omega$	"	1
R31		" -564	"	560 k $\Omega$	"	1
R32,50		" -473	"	47 k $\Omega$	"	2
R34		" -273	"	27 k $\Omega$	"	1
R38,43,44,54		" -103	"	10 k $\Omega$	"	4
R41,42,51,52		" -562	"	5.6 k $\Omega$	"	4
R45,46		" -121	"	120 $\Omega$	"	2
R47,48		" -684	"	680 k $\Omega$	"	2
R53		" -683	"	68 k $\Omega$	"	1
R33		" -474	"	470 k $\Omega$	"	1
R62		" -390	"	39 $\Omega$	1/6 W	1
R67		" -560	"	56 $\Omega$	"	1
R63		" -122	"	1.2 k $\Omega$	"	1
R64		" -820	"	82 $\Omega$	"	1
R65		" -182	"	1.8 k $\Omega$	"	1
R71		" -681	"	680 $\Omega$	"	2
R73,20		" -151	"	150 $\Omega$	"	2
R74		" -181	"	180 $\Omega$	"	1
<b>Stereo Indicator P.W.B.</b>						
D3		VMW2178-001B LN224RP	P.W. Board LED			1 1
<b>Power Indicator P.W. Board Ass'y</b>						
D4		VMW2178-001C LN224RP	P.W. Board L.E.D.			1 1



## PC-R3 Amplifier P.W. Board Parts List

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
S101-1~4		VMW1038-XXX	P.W. Board	No supply as parts ass'y	1
S102-1~4		QSL4309-024	Lever Switch		1
S103-1~2		QSL4209-022V	"		1
S104-1~2		QSP0219-055	Push Switch		1
VR101-1~2		QSP2111-015	"		1
102-1~2		QVD4A6B-115	V. Resistor	1.1 MΩ	1
VR103-1~2		QVD4A6M-154	"	150 kΩ	1
VR104-1~2		QVN3A6B-054	"	Balance	1
J1		QMA0921-006H	DC Jack	50 kΩ	1
J2		QMA1221-004	"	VOLUME	1
J4, S5	△	QMC0262-003	AC Socket		1
J5		QMS6313-007	Headphone Jack		1
J101, 103		VMC0002-002	Pin Jack		2
J201, 203		" -001	"		2
J102, 202		VMJ3005-001	Pin Jack Ass'y		1
ET		VMZ0001-001	Earth Terminal		1
S5	△	QSS2325-103	Slide Switch	PC-R3JW	1
		" -104	"	PC-R3W	1
Q101, 201, 102		2SC945L(P)	Transistor		4
202					
Q103, 203, 303		2SD636 (R, S)	"		4
304					
Q301		2SB511(E)HP-S	"		1
Q302		2SC945(P,Q)	"		1
Q305		2SD468(B)	"		1
D302, 307		10E1-B	Si. Diode		2
D305, 306		1S2076	"		2
D308		HZ12B1	Zener Diode		1
D309		KB262	Varistor		1
D310		HZ9A2L, 9A1L	Zener Diode		1
IC101		BA328	IC		1
IC102		μPC4557C	"		1
IC201, 202		AN7156N	"		2
FR	△	QRH141J-2R2	Fusible Resistor	2.2 Ω 1/4 W	1
	△	A44594-001	Fuse Clip		2
C101, 201, 133		QET41HR-476	E. Capacitor	47μF 50 V	4
233					
C102, 202		QET41CR-106	"	10μF 16 V	2
C103, 203		QCS11HJ-501	C. Capacitor	500 pF 50 V	2
C104, 204, 321		QET41ER-476	E. Capacitor	47 μF 25 V	3
C105, 205		QCF11HP-102	C. Capacitor	0.001μF 50 V	2
C106, 206		QFM41HJ-822	M. Capacitor	0.0082μF "	2
C107, 207		" -273	"	0.027μF "	2
C108, 208, 322		QET41ER-106	E. Capacitor	10 μF 25 V	2
C109, 209		QEB41HM-224M	"	0.22 μF 50 V	2
C110, 210		QCS11HJ-301	C. Capacitor	300 pF "	2
C111, 211		" -331	"	330 pF "	2
C112, 212, 113		QFM41HJ-563	M. Capacitor	0.056 μF "	4
213					
C114, 214, 117		QET41HR-475	E. Capacitor	4.7 μF "	6
217, 135, 235					
C115, 215		QFM41HJ-152	M. Capacitor	0.0015 μF "	2
C116, 216		QET41HR-335	E. Capacitor	3.3 μF "	2
C118, 218		QCS11HJ-151	C. Capacitor	150 pF "	2
C119, 219, 122		QET41HR-105	E. Capacitor	1μF "	2
222					
C120, 220		QCY41HK-122	C. Capacitor	0.0012 μF "	2
C121, 221, 307		QCC11EM-104	C. Capacitor	0.1 μF 25 V	4
308					

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
C123,223		QCS11HJ-471	C. Capacitor	470 pF 50 V	2
C124,224		QEH41ER-107	E. Capacitor	100 $\mu$ F 25 V	2
C125,225,131		ECQE1224JNW	T.F. Capacitor	or QFV81HJ-224	4
231					
C126,226,130		QFM41HJ-103	M. Capacitor	0.01 $\mu$ F 50 V	2
230					
C127,227,128		QET41AR-476	E. Capacitor	47 $\mu$ F 10 V	2
228					
C129,229		" -107	"	100 $\mu$ F "	2
C132,232		QET41CR-228	E. Capacitor	2200 $\mu$ F 16 V	4
C134,234		QET41ER-226	E. Capacitor	22 $\mu$ F 25 V	2
C305		" -478	E. Capacitor	4700 $\mu$ F "	1
C306		QEB41HM-154	E. Capacitor	0.15 $\mu$ F 50 V	1
C310		QET41CR-337	"	330 $\mu$ F 16 V	1
C311		" -108	"	1000 $\mu$ F "	1
C312		QET41ER-477	"	470 $\mu$ F 25 V	1
C313		" -227	"	220 $\mu$ F "	1
C314,315		QCC11EM-223	C. Capacitor	0.022 $\mu$ F "	2
C316		QET41AR-477	E. Capacitor	470 $\mu$ F 10 V	1
C317,323		QET41ER-228	"	2200 $\mu$ F 25 V	1
C318		QET41AR-107	"	100 $\mu$ F 10 V	1
C320		QET41CR-477	"	470 $\mu$ F 16 V	1
C324		QCF11HP-223	C. Capacitor	0.022 $\mu$ F 50 V (PC-R3WH)	1
R101,201		QRD161J-182	C. Resistor	1.8 k $\Omega$ 1/6W	2
R102,202,319		" -473	"	47 k $\Omega$ "	5
320,323					
R103,203		" -820	"	82 $\Omega$ "	2
R104,204,306		" -102	"	1 k $\Omega$ "	4
307					
R105,205,107		" -103	"	10 k $\Omega$ "	13
207,114,214					
115,215,117					
217,304,311					
312					
R106,206		" -124	"	120 k $\Omega$ "	2
R108,208		" -223	"	22 k $\Omega$ "	2
R109,209,121		" -222	"	2.2 K $\Omega$ "	4
221					
R110,210,116		" -472	"	4.7 k $\Omega$ "	2
216,310,703					
R111,211,301		" -104	"	100 k $\Omega$ "	4
302,321,322					
R112,212		" -334	"	330 k $\Omega$ "	2
R113,213,119		" -392	"	3.9 k $\Omega$ "	4
219					
R118,218		QRD161J-684	"	680 k $\Omega$ "	2
R120,220		" -681	"	680 $\Omega$ "	2
R122,222,126		" -2R2	"	2.2 $\Omega$ "	4
226					
R124,224		" -331	"	330 $\Omega$ "	2
R127,227		" -682	"	6.8 k $\Omega$ "	2
R128,228		" -330	"	33 $\Omega$ "	2
R305,307,123		" -331	"	330 $\Omega$ "	2
223,125,225					
R308		" -100	"	10 $\Omega$ "	1
R309		" -332	"	3.3 k $\Omega$ "	1
R313		QRD141J-101S	"	100 $\Omega$ 1/4 W	1
R314		" -150S	"	15 $\Omega$ "	1
R315		QRD161J-221	"	220 $\Omega$ 1/6 W	2
R316		" -101	"	100 $\Omega$ "	1
R320		QRC121K-225	"	2.2 M $\Omega$ 1/2 W PC-R3JW	1
<Det. P.W. Board>					
C301 ~ 304	△	VMW1038-XXX	P.W. Board		1
D301 ~ 304	△	QCF11HP-223	C. Capacitor	0.022 $\mu$ F 50 V	4
		DS5BN-L	Si. Diode		4

# PC-R3JW Amplifier P.W. Board Parts

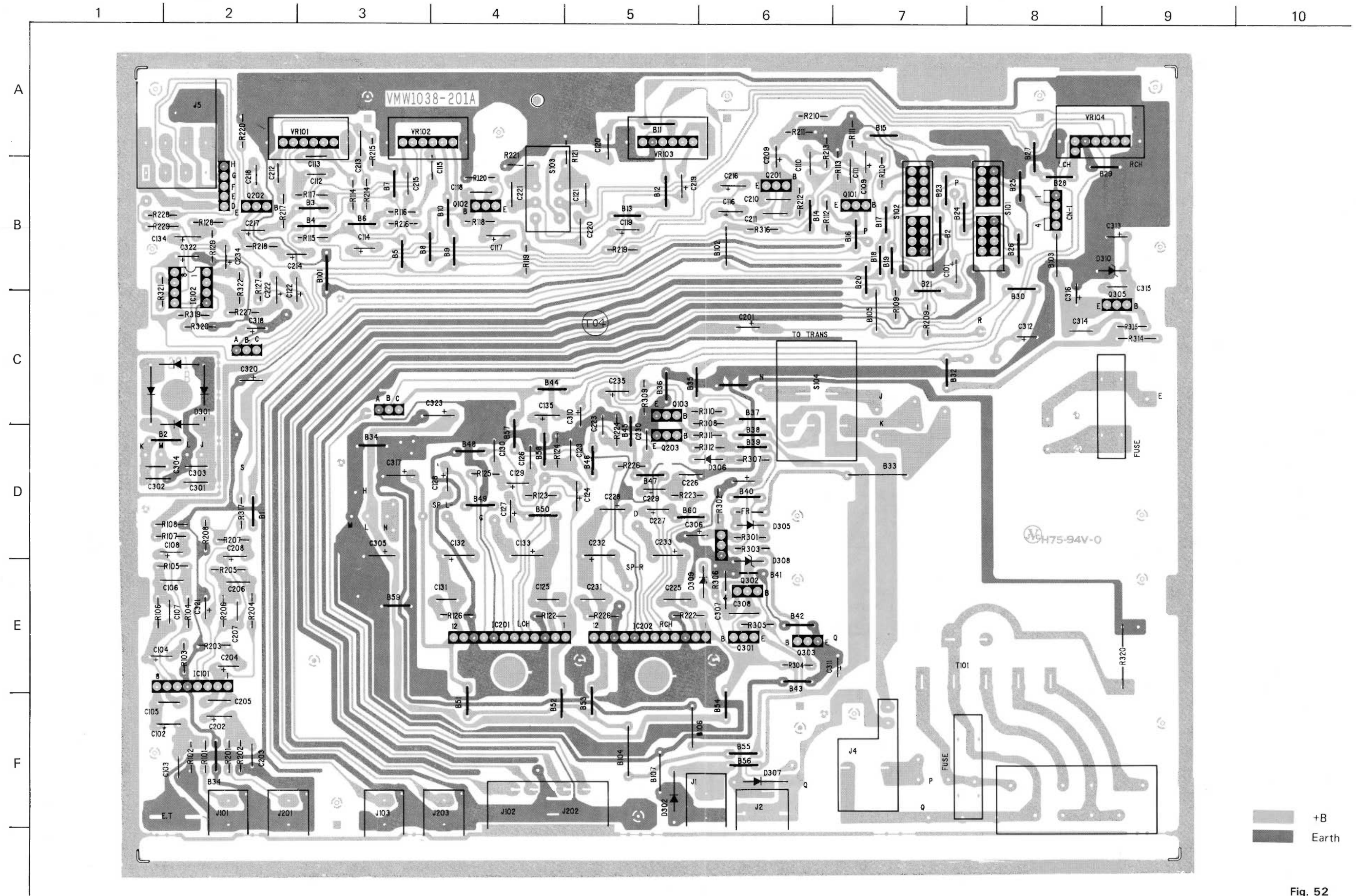


Fig. 52



## PC-R3W Amplifier P.W. Board Parts

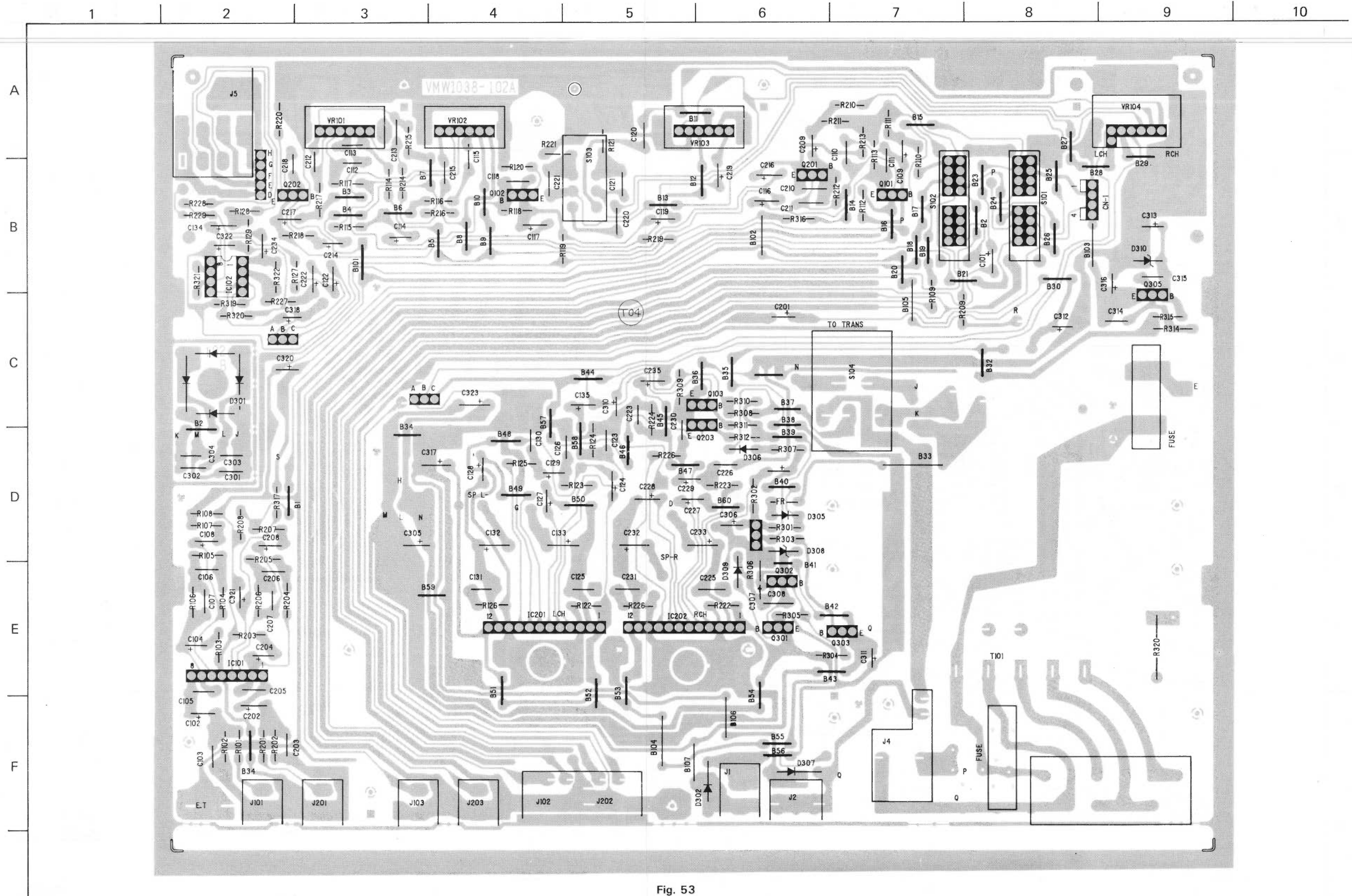


Fig. 53

# PC-D3 Cassette Amplifier and Mecha. Control P.W. Board Parts

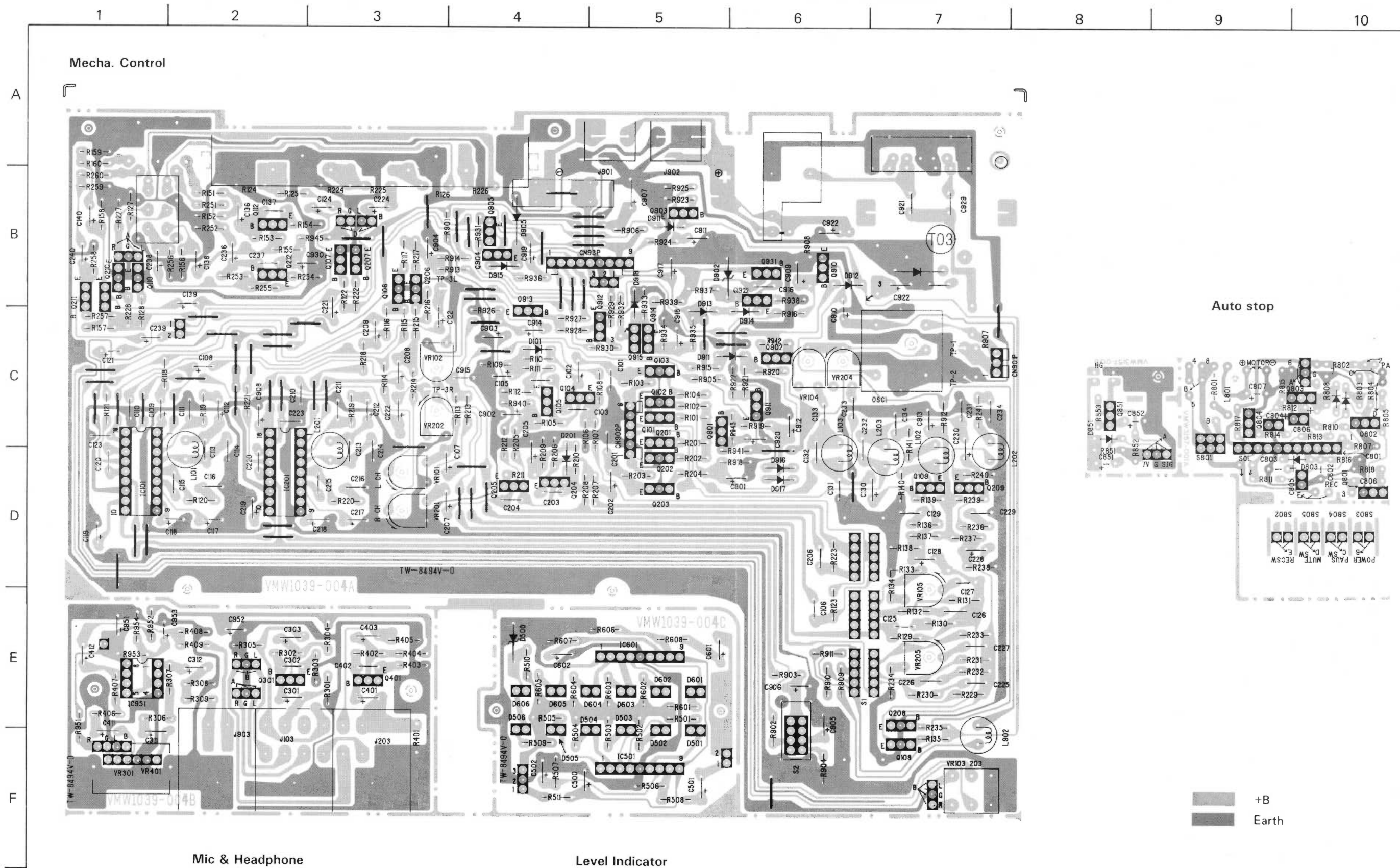


Fig. 54



**PC-D3**  
**Cassette Amplifier P.W. Board Parts List**

△ parts are safety assurance parts.  
 When replacing those parts, make sure to use the specified one.

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
S1-1 ~ 6		VMW1039-003A	P.W. Board	No supply as parts ass'y	1
S2		QSL6309-001	Lever Switch	"	1
S3		QSL2309-003	"	"	1
J101,201,102		QSS1201-021	Slide Switch	"	1
202		VMJ3004-003	Pin Jack	"	1
J901		QMA1221-004	DC Jack	"	1
J902		QMA0921-005	"	"	1
OSC1		VGC0002-001	OSC Block	"	1
L101,201,103		VQP0001-183S	Inductor	"	4
203		"	"	"	2
L102,202		VQP0001-562S	"	"	1
L902		" -102S	"	"	1
IC101, 201		AN7363	IC	"	2
Q101,201,102		2SC1845(E,U)	Transistor	"	4
202		"	"	"	14
Q103,203,106		2SC945(P,Q)	"	or 2SC2785(H,F,E)	14
206,107,207		"	"	"	4
108,208		"	"	"	4
911 ~ 915, 922		"	"	"	4
Q104,204,105		2SC1843(F,E)	"	"	4
205		"	"	"	2
Q109,209		2SC923(U)	"	or 2SC1841(U)	2
Q901		2SA992(E,F)	"	"	1
Q902,903,904		2SA733A(P,K)	"	or 2SA1175(H,F,E)	4
905		"	"	"	3
Q910,110,210		2SD1020(H,F,E)	"	"	1
Q931		2SB772(Q,P)	"	"	1
D902		HZ7B2	Zener Diode	"	1
D905		10E1	Si. Diode	"	1
D101,201		MA165	"	"	11
911 ~ 919		"	"	"	2
VR101,201		QVP8A0B-024	V. Resistor	20 kΩ, P.B. Level	2
VR102,202		" -024	"	20 kΩ, Rec. Level	2
VR103,203		QVL4A7A-054V	"	50 kΩ, Input	2
VR104,204		QVP8A0B-015	"	100 kΩ, Bias	2
VR105,205		" -015	"	100 kΩ, Rec. EQ	2
R101,201,932		QRD161J-822	C. Resistor	8.2 kΩ 1/6 W	5
128,228		"	"	"	7
R102,202,104		" -332	"	3.3 kΩ	7
204,125,225		"	"	"	2
938		" -100	"	10 Ω	2
R103,203		"	"	"	2
R105,205,920		" -823	"	82 kΩ	2
R106,206,111		" -101	"	100 Ω	6
211,915,924		"	"	"	2
R107,207		" -682	"	6.8 kΩ	2
R108,208,935		" -334	"	330 kΩ	3
R109,209,121		" -152	"	1.5 kΩ	5
221,905		"	"	"	2
R110,210		" -224	"	220 kΩ	2
R112,212,139		" -103	"	10 kΩ	9
239,902,903		"	"	"	11
914,929,943		" -223	"	22 kΩ	11
R113,213,117		"	"	"	4
217,127,227		"	"	"	4
130,230,136		"	"	"	4
236,942		" -333	"	33 kΩ	4
R114,214,919		"	"	"	5
931		" -151	"	150 Ω	5
R115,215,141		"	"	"	5
241,941		"	"	"	5

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
R116,216,124		QRD161J-393	C. Resistor	39 kΩ 1/6 W	6
224,133,233		"	"	"	17
R118,218,119		" -472	"	4.7 kΩ	17
219,122,222		"	"	"	2
123,223,135		"	"	"	8
235,904,913		"	"	"	4
916,921,926		"	"	"	2
936,940		" -680	"	68 Ω	2
R120,220		" -473	"	47 kΩ	8
R126,226,131		"	"	"	4
231,134,234		"	"	"	4
937,939		" -683	"	68 kΩ	4
R129,229,132		"	"	"	2
232		"	"	"	8
R137,237		" -564	"	560 kΩ	2
R138,238,923		" -104	"	100 kΩ	8
925,927,928		"	"	"	2
930,934		" -122	"	1.2 kΩ	2
R140,240		" -471	"	470 Ω	1
R901		"	"	"	1
R906	△	QRH141J-100	F.R. Resistor	10 Ω 1/4 W	1
R907		QRD161J-1R0	C. Resistor	1 Ω 1/6 W	1
R908,918		" -222	"	2.2 kΩ	2
R909		" -560	"	56 Ω	1
R910		" -181	"	180 Ω	1
R911		" -151	"	150 Ω	1
R912,922,933		" -102	"	1 kΩ	3
C101,201		QFM41HJ-102	M. Capacitor	0.001 μF 50 V	2
C102,202		QEB41EM-106	E. Capacitor (Low Leak)	10 μF 25 V	2
C103,203		QCS11HJ-101	C. Capacitor	100 pF 50 V	2
C104,204		" -680	"	68 pF	2
C105,205,901		QET41HR-106	E. Capacitor	10 μF	8
902,910,912		"	"	"	4
914,918		QFM41HJ-103	M. Capacitor	0.01 μF	4
C106,206,111		"	"	"	2
211		QET41HR-475	E. Capacitor	4.7 μF	2
C107,207		QEB41HM-334	E. Capacitor (Low Leak)	0.33 μF	4
C108,208,109		"	"	"	2
209		QCS11HJ-681	C. Capacitor	680 pF	2
C110,210		"	"	"	14
C112,212,121		QET41HR-105	E. Capacitor	1 μF	14
221,122,222		"	"	"	4
124,224,128		"	"	"	2
228,130,230		"	"	"	2
911,922		QCS11HJ-271	C. Capacitor	270 pF	4
C113,213,132		"	"	"	2
232		QFM41HJ-152	M. Capacitor	0.0015 μF	2
C114,214		" -272	"	0.0027 μF	2
C115,215		" -683	"	0.068 μF	2
C116,216		"	"	"	2
C117,217		QEB41HM-104M	E. Capacitor (Low Leak)	0.1 μF	2
C118,218		QEB41EM-475M	"	4.7 μF 25 V	2
C119,219,913		QET41AR-107	E. Capacitor	100 μF 10 V	3
C120,220		QFM41HJ-182	M. Capacitor	0.0018 μF 50 V	2
C123,223		QCS11HJ-331	C. Capacitor	330 pF	2
C125,225		" -181	"	180 pF	2
C126,226,131		" -102	"	0.001 μF	4
231		"	"	"	3
C127,227,928		QFM41HJ-222	M. Capacitor	0.0022 μF	3
C129,229		" -104	"	0.1 μF	2
C133,233		QCS11HJ-221	C. Capacitor	220 pF	2

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
C134,234		QFM41HJ-153	M. Capacitor	0.015 $\mu$ F 50 V	2
C903		QET41CR-107	E. Capacitor	100 $\mu$ F 16 V	1
C904,905,906		QET41AR-476	"	47 $\mu$ F 10 V	3
C907		QET41CR-228	"	2200 $\mu$ F 16 V	1
C908		QET41AR-227	"	220 $\mu$ F 10 V	1
C915		QFM41HJ-682	M. Capacitor	0.0068 $\mu$ F 50 V	1
C916		QCC11EM-104	C. Capacitor	0.1 $\mu$ F 25 V	1
C917,920		QET41AR-108	E. Capacitor	1000 $\mu$ F 10 V	2
C919		QET41ER-476	"	47 $\mu$ F 25 V	1
CN901P		VMZ0015-001	Post Pin		4
		QMV5005-003	Plug Ass'y		1
CN902P		" -006	"		1
CN903P		" -009	"		1
V43895-1		V43895-1	Tab	for Battery	2

△ parts are safety assurance parts.

#### PC-D3 Mecha. Control P.W. Board Parts List

When replacing those parts, make sure to use the specified one.

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
IC801		VMW3157-001A	P.W. Board	No supply as parts ass'y	1
Q801,802,803		LA2000	IC	or BA335	1
804		2SC2785(H,F,E)	Transistor	or 2SC945L(P,Q)	4
D801,802,803		MA165	Si. Diode		3
L801		QST3101-V02	Push Switch	for Rec Mute	1
R801	△	T41572-001	Inductor		1
		QRD149J-1R0S	C. Resistor	1 $\Omega$ 1/4 W	1
R802		QRD143J-103S	"	10 k $\Omega$ "	1
R803,811,817		QRD161J-103	"	10 k $\Omega$ 1/6 W	3
R804,807		" -473	"	47 k $\Omega$ "	2
R805,806		" -104	"	100 k $\Omega$ "	2
R808		QRD143J-224S	"	220 k $\Omega$ 1/4 W	1
R809,816		QRD161J-474	"	470 k $\Omega$ 1/6 W	2
R810		QRD143J-473S	"	47 k $\Omega$ 1/4 W	1
R812,814		QRD161J-274	"	270 k $\Omega$ 1/6 W	2
R813		" -224	"	220 k $\Omega$ "	1
R815		" -184	"	180 k $\Omega$ "	1
R818		QRD143J-333S	"	33 k $\Omega$ 1/4 W	1
C801		QFM41HJ-222	M. Capacitor	0.0022 $\mu$ F 50 V	1
C802		" -823	"	0.082 $\mu$ F "	1
C803		" -223	"	0.022 $\mu$ F "	1
C804		QET41HR-335	E. Capacitor	3.3 $\mu$ F "	1
C805		" -106	"	10 $\mu$ F "	1
C806		QET41AR-107	"	100 $\mu$ F 10 V	1
C807		QET41CR-107	"	100 $\mu$ F 16 V	1
C808		QET41HR-475	"	4.7 $\mu$ F 50 V	1

#### Auto Stop P.W. Board Ass'y

Ref. No.		Parts No.	Parts Name	Remarks	Q'ty
HG		VMW3157-001B	P.W. Board	No supply as parts ass'y	1
Q851		VHE610G	H. Element		1
D851		2SC2785(H,F,E)	Transistor	or 2SC945L(P,Q)	1
R851		MA165	Si. Diode		1
R852		QRD161J-681	C. Resistor	680 $\Omega$ 1/6 W	1
		" -223	"	22 k $\Omega$ "	1
R853		" -224	"	220 k $\Omega$ "	1
C851,852		QET41AR-107	E. Capacitor	100 $\mu$ F 10 V	2
C853		QET41HR-106	"	10 $\mu$ F 50 V	1
S803~805		VSH1121-001	Switch Ass'y		3
S802		VSH1105-003	"		1

#### Level Indicator P.W. Board Parts List

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
IC501,601		VMW1039-003C	P.W. Board	No supply as parts ass'y	1
D501-506		BA6124	IC		2
601-606		LN12177P	LED Ass'y		1
D500		HZ5B	Zener Diode		1
R501-505		QRD161J-331	C. Resistor	330 $\Omega$ 1/6 W	10
601-605					
R506,606		" -332	"	3.3 k $\Omega$ "	2
R507,607,510		" -103	"	10 k $\Omega$ "	3
R508,608		" -822	"	8.2 k $\Omega$ "	2
R509		" -271	"	270 $\Omega$ "	1
R511		" -101	"	100 $\Omega$ "	1
C501,601		QET41HR-105	E. Capacitor	1 $\mu$ F 50 V	2
C502,602,500		" -106	"	10 $\mu$ F "	3

#### Mic/Phones P.W. Board Parts List

Ref. No.	△	Parts No.	Parts Name	Remarks	Q'ty
J103		VMW1039-003B	P.W. Board	No supply as parts ass'y	1
J203		QMS6313-007	Mic Jack		1
J903		QMS6311-004	"		1
IC951		QMS6302-109	Headphone Jack		1
Q301,401		UPC4557C	IC		1
		2SC1843(F)	Transistor		2
VR301,401		QVN3A6A-024M	V. Resistor	20 k $\Omega$	1
R301,401		QRD161J-472	C. Resistor	4.7 k $\Omega$ 1/6 W	2
R302,402		" -105	"	1 M $\Omega$ "	2
R303,403,409		" -330	"	33 $\Omega$ "	4
409					
R304,404		" -332	"	3.3 k $\Omega$ "	2
R305,405,307		" -473	"	47 k $\Omega$ "	6
407,953,954					
R306,406		" -183	"	18 k $\Omega$ "	2
R308,408		" -331	"	330 $\Omega$ "	2
R951		QRH141J-100	F. Resistor	10 $\Omega$ 1/4 W	1
R952		QRD161J-102	C. Resistor	1 k $\Omega$ 1/6 W	1
C301,401		QET41HR-335	E. Capacitor	3.3 $\mu$ F 50 V	2
C302,402		QCS11HJ-471	C. Capacitor	470 pF "	2
C303,403,311		QET41HR-105	E. Capacitor	1 $\mu$ F "	4
411					
C312,412,951		" -476	"	47 $\mu$ F "	4
952					
C953		QET41AR-476	"	47 $\mu$ F 10 V	1

# Mechanical Component Parts

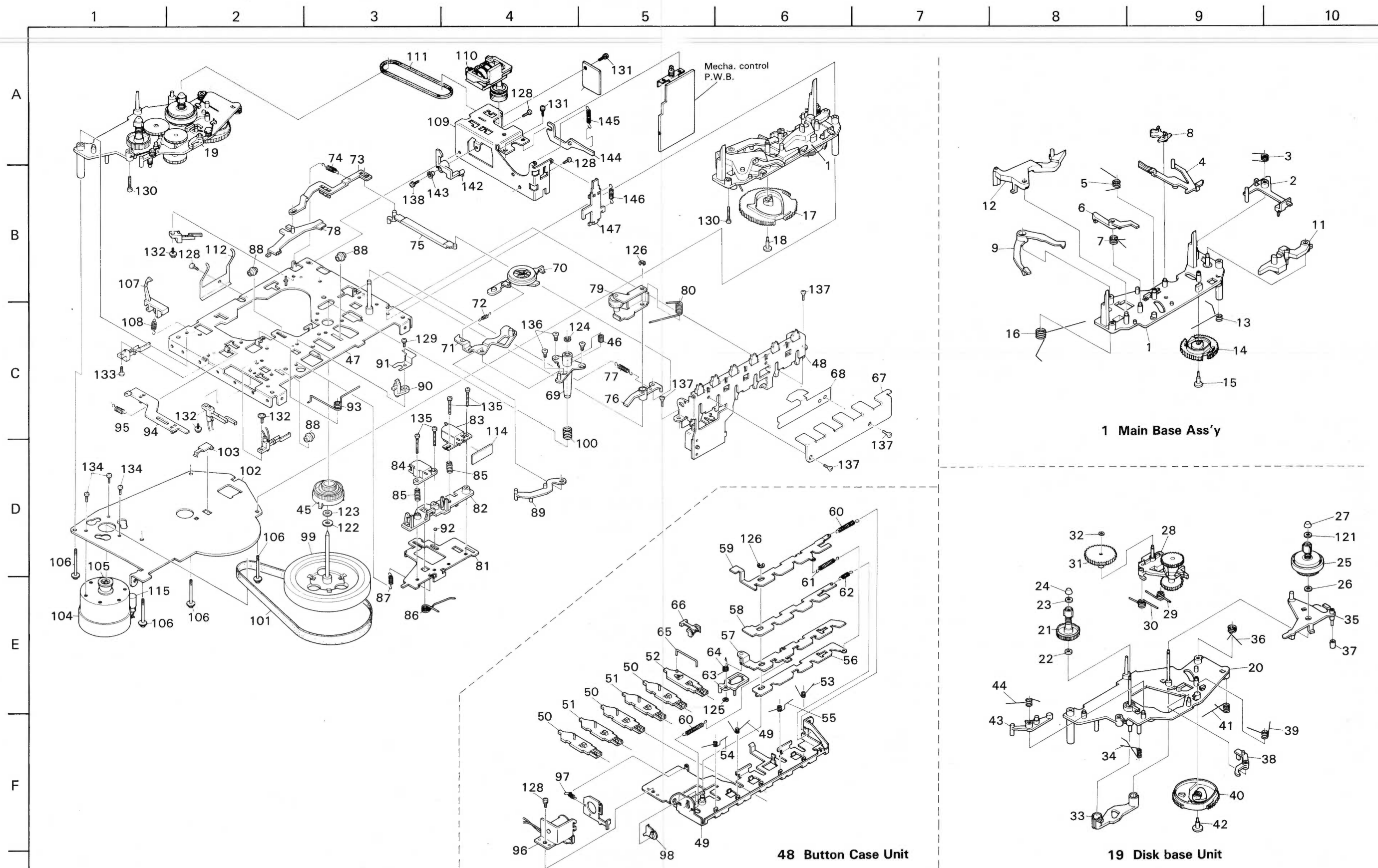


Fig. 55



## Mechanical Component Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1 ~ 16	VKS2114-00A	Main Base Ass'y		1
1	VKS2115-001	Main Base		1
2	VKS4400-001	Pause Trigger		1
3	VKW3006-026	Spring	Pause Trigger	1
4	VKS4401-001	FF Lever		1
5	VKW3006-027	Spring	FF Lever	1
6	VKS4402-001	Play Trigger		1
7	VKW3006-028	Spring	Play Trigger	1
8	VKS4403-001	FR Safety		1
9	VKS4404-001	Rew Lever		1
10	VKW3006-029	Spring	Rew Lever	1
11	VKS4405-00A	Pause Arm Ass'y		1
12	VKS3146-001	Play Arm		1
13	VKW4333-001	Spring	Pause Cam	1
14	VKS3147-001	Pause Cam		1
15	VKS4410-002	Lock Bush	Pause Cam	1
16	VKW4334-001	Spring	Play Cam	1
17	VKS4411-002	Play Cam		1
18	VKS4410-002	Lock Bush	Play Cam	1
19	VKS2116-00A	Disk Base Unit		1
20	VKS2117-00A	Disk Base Ass'y		1
21	VKR4265-00A	Supply Reel Ass'y		1
22	VKZ4003-003	Felt	Back Tension	1
23	VKR4170-001	Ring		1
24	VKS4131-001	Reel Stopper		1
25	VKR4267-00A	Take-up Reel Ass'y		1
26	VKR4170-001	Ring		1
27	VKS4131-001	Reel Stopper		1
28	VKS3148-00A	FR Base Ass'y		1
29	VKW3006-031	Spring	FF	1
30	VKW3006-032	Spring	Rew	1
31	VKR4271-001	Rew. Gear		1
32	VKZ4004-001	Special Washer	Rew Gear	1
33	VKS4413-001	FR Stopper		1
34	VKW3006-033	Spring	FR Base	1
35	VKS4414-00A	FR Arm Ass'y		1
36	VKW3006-034	Spring	FR Arm	1
37	VKH3005-045	Collar	"	1
38	VKS4416-001	FR Trigger		1
39	VKW3006-035	Spring	FR Trigger	1
40	VKS4417-001	FR Cam		1
41	VKW3006-036	Spring	FR Cam	1
42	VKS4410-002	Lock Bush	"	1
43	VKS4418-001	Return Lever		1
44	VKW3006-045	Spring	Return Spring	1
45	VKR4272-00A	FW. Gear Ass'y		1
46	VKR4276-001	Roller		1
47	VKL3352-00A	Chassis Base Ass'y		1
48	VKL3353-00B	Button Case Unit		1
49	VKL3354-00A	Button Case Ass'y		1
50	VKS4420-00A	Button Ass'y		3
51	VKS4420-00B	"		2
52	VKS3145-001	Pause Button		1
53	VKW4345-002	Spring		1
54	" -001	"		1
55	VKW4326-001	"		2
56	VKL3355-001	Rec Cam		1
57	VKL5125-00A	Main Cam Ass'y		1
58	VKL3357-001	Sub Cam		1
59	VKL3358-001	Switch Cam		1

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
60	VKW3002-094	Tension Spring	Switch Cam	2
61	" -100	"	Main Cam	1
62	" -095	"	Switch Cam ~ Rec. Cam	1
63	VKS4422-001	Select Arm	Sub Cam	1
64	VKW4340-001	Spring	Select Arm	1
65	VKW4327-001	Wire		1
66	VKS4423-001	Wire Stopper		1
67	VKL5179-002	Button Bracket		1
68	VYH4929-001	Shield Plate		1
69	VKF4115-00A	Capstan Metal Ass'y		1
70	VKS4424-00A	Take-up Idler Ass'y		1
71	VKS4427-001	Pause Arm		1
72	VKW3002-096	Tension Spring	Take-up	1
73	VKS4428-002	Brake Arm (1)		1
74	VKW3002-097	Tension Spring	Brake Arm (1)	1
75	VKS4429-001	Brake Lever		1
76	VKS4430-002	Brake Arm (2)		1
77	VKW3002-097	Tension Spring	Brake Arm (2)	1
78	VKS4431-002	Brake		1
79	VKP4121-00A	Pinch Roller Arm Ass'y		1
80	VKW4356-001	Pinch Roller Spring		1
81	VKL3359-001	Slide Base		1
82	VKS2119-001	Head Mount Base		1
83	VGH0421-008	R/P Head Ass'y		1
84	VGH0212-104	E Head Ass'y		1
85	VKW3001-020	Compression Spring	R/P, E. Head	2
86	VKW4342-001	Slide Base Spring		1
87	VKW3002-099	Tension Spring		1
88	VKS4432-002	Roller		3
89	VKS4433-001	Switch Arm		
90	VKS4434-001	Cassette Guide		1
91	VKY4238-001	Spring Plate		1
92	T41615-004	Stell Ball		1
93	VKW4341-001	Spring	Slide Base	1
94	VKS4435-001	Rec Lever		1
95	VKW3002-096	Tension Spring		1
96	VGP0601-012	Solenoid Ass'y		1
97	VKW3002-043	Tension Spring		1
98	VKS4436-001	Rec Arm		1
99	VKF3120-00A	Flywheel Ass'y		1
100	VKW3001-010	Spring	Thrust	1
101	VKB3001-011	Belt	Capstan	1
102	VKL3360-001	F.M. Bracket		1
103	VKS4437-001	Thrust Plate		1
104	MHI-5E2LDPB	D.C. Motor		1
105	VKS4139-002	Motor Pulley		1
106	VKZ4014-001	Special Screw		4
107	VKS4438-001	Rec. Safety Arm		1
108	VKW3002-039	Tension Spring	Rec S. Arm	1
109	VKL3361-00A	Counter Bracket Ass'y		1
110	VKC5153-001S	Tape Counter		1
111	VKB3000-028H	Belt		1
112	VKY4239-001	Pack Spring		1
114	VMW3163-001	Printed Wiring Board		1
115	QET41CR-477	E. Capacitor	470 $\mu$ F 16 V	1
116	VKL5256-001	Bracket		1
117	VKL5199-002	Plate		1
121	Q03093-838	Washer		1
122	" -627	"	Thrust	1
123	" -828	"	1	

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
124	" -522	"	Oil Cut	1
125	REE1500	E. Ring	Select Arm	1
126	REE2500	"	Switch Cam x 1	2
128	HPST2604Z	Screw	Pinch Roller Ass'y x 1	4
129	HPST2606Z	"	Solenoid Ass'y x 1	1
130	HPST2612Z	"	Tape Counter x 2	2
131	LPSP3004Z	"	Pack Spring x 1	3
132	SBSB2006Z	"	Stell Ball	3
133	SBSB2605Z	"	Main Base x 1 Disk Base x 1	1
134	SPSP2603Z	"	Auto Stop x 1	3
135	SPSX2010N	"	Rec Mute x 2	4
136	SPST2604Z	"	Switch Ass'y	3
137	SSST2605Z	"	"	1
138	LPSP2608Z	"	D.C. Motor	3
139	SPSK1425M	"	R/P Head x 2 E. Head x 2	1
141	VKL3362-001	Counter Bracket	Capstan Metal Ass'y	1
142	VKS4439-001	Lock Arm	Button Case x 2	1
143	VKH3001-039	Flange Collar	Button Bracket x 2	1
144	VKS4440-001	Eject Lever	Counter Bracket Ass'y	1
145	VKW3002-063	Tension Spring	Bracket	1
146	" -034	"	E. Button	1
147	VKS4441-001	Eject Button	E. Lever	1

# Packing

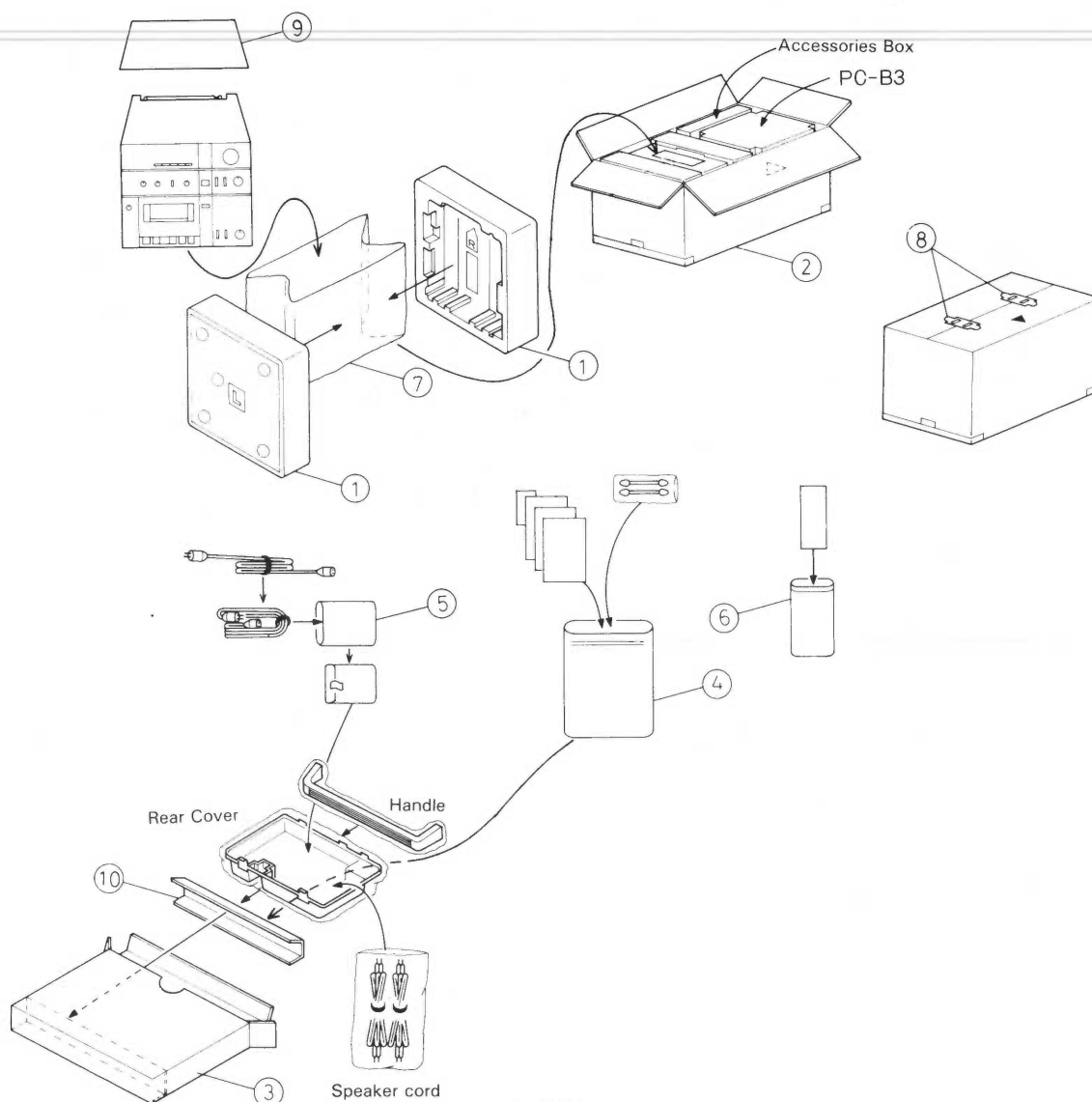


Fig. 56

## Positions of controls and switch knobs at renew packing

BAND	: AM	TAPE MONITOR	: SOURCE
AFC	: ON	SOURCE	: TUNER
MODE	: STEREO	VOLUME	: Center
MUTE	: ON	PHONES LEVEL	: Center
TUNING	: 600 kHz	Counter	: 000
BASS	: Center	NR SYSTEM	: OFF
TREBLE	: Center	TAPE	: NORMAL
LOUDNESS	: OFF	INPUT LEVEL	: Center
BALANCE	: Center	BEAT CUT	: "1" NORMAL
POWER	: OFF		

## Packing Material Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1 ~ 6	VDP7006-002A	Carton Ass'y	PC-3JW	1
	" -003A	"	PC-3W	1
	" -006A	"	PC-3WH	1
1	VPD7006-J02	Carton	for Master PC-3JW	1
	" -J04	"	" PC-3W	1
	" -J10	"	" PC-3WH	1
2	VPD7006-J03	"	for C. Unit PC-3JW	1
	" -J05	"	" PC-3W	1
	" -J11	"	" PC-3WH	1
3	VPH1241-001	Side Cushion	Left	1
4	VPH1242-001	"	Right	1
5	VPA2005-010	Accessories Box	PC-3JW	1
	" -011	"	PC-3W	1
	" -014	"	PC-3WH	1
6	VPK4115-004	Spacer		1
7	VPK4002-002	Sheet		1
8	QPGA060-05005	Poly Bag		1
9	QPGB024-03404	"	for Inst. Book	1
10	QPGA012-01505	"	for Cord PC-3JW/W	1
11	VND3002-001	Serial Label	PC-3JW/WH	1
	" -002	"	PC-3W	1

## Accessories

△ parts are safety assurance parts.  
When replacing those parts, make sure to use the specified one.

Parts No.	△	Parts Name	Remarks	Q'ty
VKL3345-003		Frame		2
VKZ4172-001		Special Screw		8
VJC1208-001		Rear Cover		1
VG12M2-J02		Cassette Tape		1
VMP0008-001		Pin Cord		2
VMP0009-001		DC Cord		2
VMP0013-001		SPK Cord		1
VYA4001-00A		Head Cleaning Stick		1
QMP1240-183	△	Power Cord	PC-3JW	1
QMP7640-183	△	"	PC-3W	1
QMP2540-200	△	"	PC-3WH	1
VJH3019-00C		Handle Ass'y		1
VND3003-001		Connection Sheet		1
VND3004-001		"		1
V04062-001	△	SIEMENS Plug	PC-3W	1
VNM0848-901		Instruction Book	PC-3JW	1
VNM0851-901		"	PC-3W	1
VNM0859-901		"	PC-3WH	1
BT-20047		Warranty Card	PC-3JW	1
BT20027		"	PC-3WH	1
BT-20046		Special Reply Card	PC-3JW	1
BT20044B		Safety Instruction	"	1
VNC6305-001		Trouble Shooting		1
VNF0859-001		Features Tag		1



VICTOR COMPANY OF JAPAN, LIMITED  
RADIO & RECORDING MACHINE DIVISION 10-1, 1-chome, Ohwatari-cho Maebashi-city 371, Japan



Printed in Japan  
— 5701 — O —