JVC

SERVICE MANUAL

MODEL

PC-3 JW/W/WH/C

PORTABLE COMPONENT SYSTEM

No. 1469
January 1982

Contents

OPTIONAL ACCESSORIES

Turntable L-E5U
Stereo microphone M-201 (600 Ω)
Headphones H-M11 (32 Ω)
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

1. 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.
2. Metal tape deck with soft-touch mechanism.
   - Incredible low wow & flutter of 0.05 % (WRMS).
3. Metal tape compatibility.
   - METAPERM record/play head for high quality performance.
4. Built-in ANRS/DOLBY* B NR, SUPER ANRS noise reduction systems greatly reduce tape hiss and expand dynamic range.
5. MUSIC SCAN mechanism.
   ''Under license of Staar S.A., Brussels Belgium''.
6. Mixing facility with microphone level control makes possible the desired mixing level.
7. Volume control exclusively for headphones.
8. Timer standby mechanism.
9. Record muting button lets you leave nonrecorded sections.
10. Total output of 40 W (20 W + 20 W) Max. (6 Ω, AC). Music power of 46 W (23 W + 23 W) (6 Ω, AC).
11. Separate receiver headphones jack.
12. PHONO, AUX jacks provided.
13. 10-cm full-range bass-reflex speaker systems.
14. 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 ×2 (Min. input level: 0.3 mV (−70 dBV), Matching impedance: 200 Ω −2 kΩ), LINE IN ×2 (Min. input level: 100 mV/−17 dBs, Input impedance: 47 kΩ) Ext. DC IN (12 V)
Output terminals : LINE OUT ×2 (Output level: 300 mV/−7 dBs, Output impedance: 5 kΩ), PHONES ×1 (Output level: 0—3 mW/8 Ω, Matching impedance: 8 Ω—1 kΩ), DC OUT ×1 (12 V)
Semiconductors : 6 ICs, 42 transistors
Power sources : DC 12 V (''R20'' ×8, optional BP-12K rechargeable battery pack), EXT DC (car battery via optional CN-332 car adapter)
Dimensions : 270(W)×110(H)×218(D) mm (10-3/4″ × 4-3/8″ × 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 μV/75 Ω
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 ×1
Ext. antenna terminal (300 Ω)

AM tuner section

Sensitivity AM : 250 μV/m (IEC)
SW1 : 250 μV/m (IEC)
SW2 : 30 μV/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 Ω, AC)
Music power 46 W (23 W + 23 W) (6 Ω, AC)
Frequency response : 30 Hz to 30,000 Hz (±3 dB)
Signal-to-noise ratio : 75 dB (new IHF)
Tone control : Bass ±8 dB (100 Hz),
Treble ±8 dB (10 kHz)
Input terminals : PHONO ×2 (3 mV/47 kΩ),
AUX ×2 (300 mV/68 kΩ),
TAPE PLAY ×2 (300 mV/68 kΩ)
Output terminals : TAPE REC ×2 (300 mV/10 kΩ), SPEAKER ×2 (matching impedance 6—8 Ω), PHONES ×1 (Output level: 0—3 mW/8 Ω, Matching impedance: 8—1 kΩ), AC OUTLET ×1 (Max. 100 watts, unswitched PC-R3W only). DC OUT ×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)×110(H)×229(D) mm (10-3/4″×4-3/8″×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 Ω
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)×218(H)×206(D) mm (5″×8-5/8″×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'' ×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)×294(H)×258(D) mm (20-3/4″×11-5/8″×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.

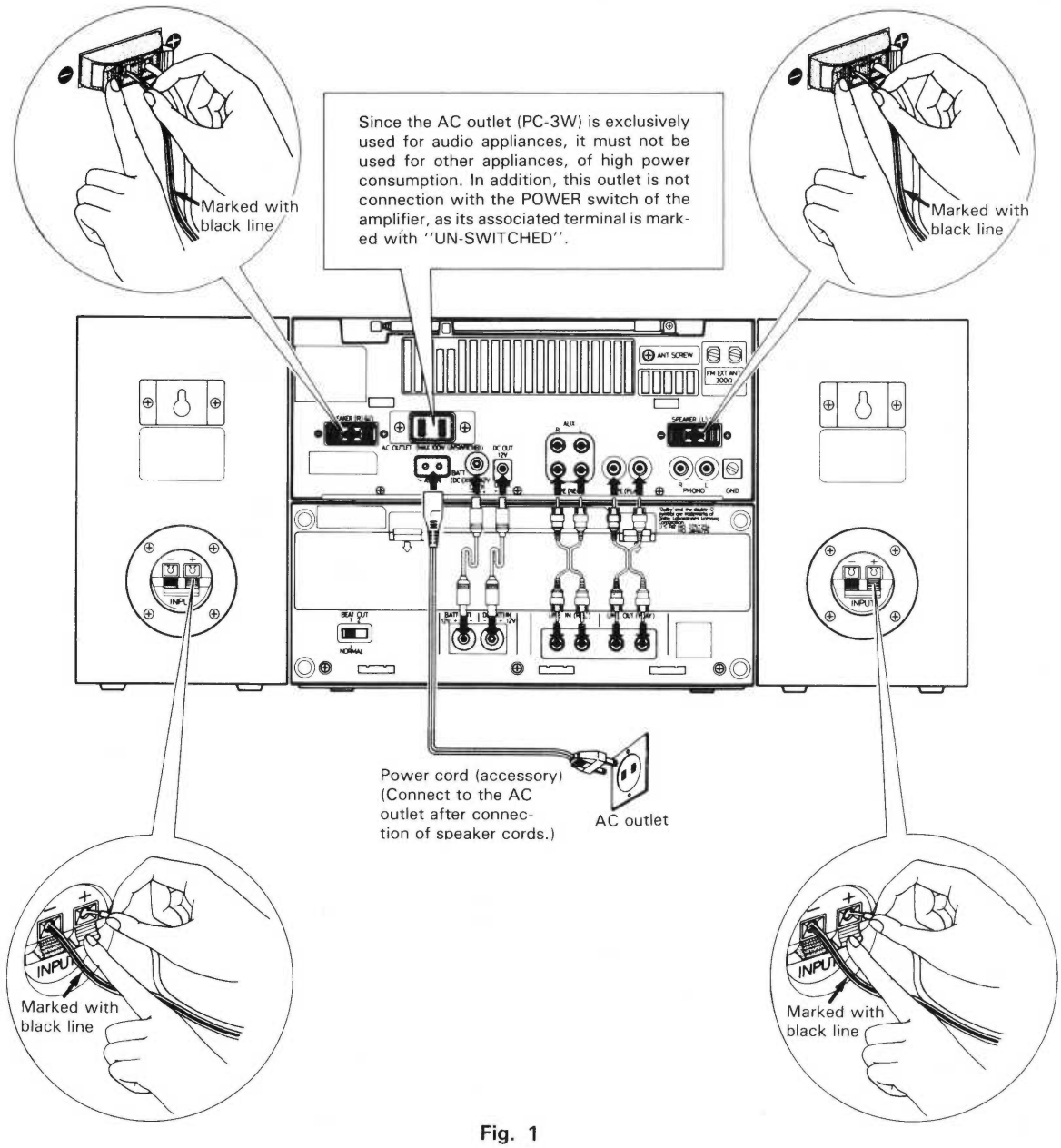


Fig. 1

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 listerning 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.

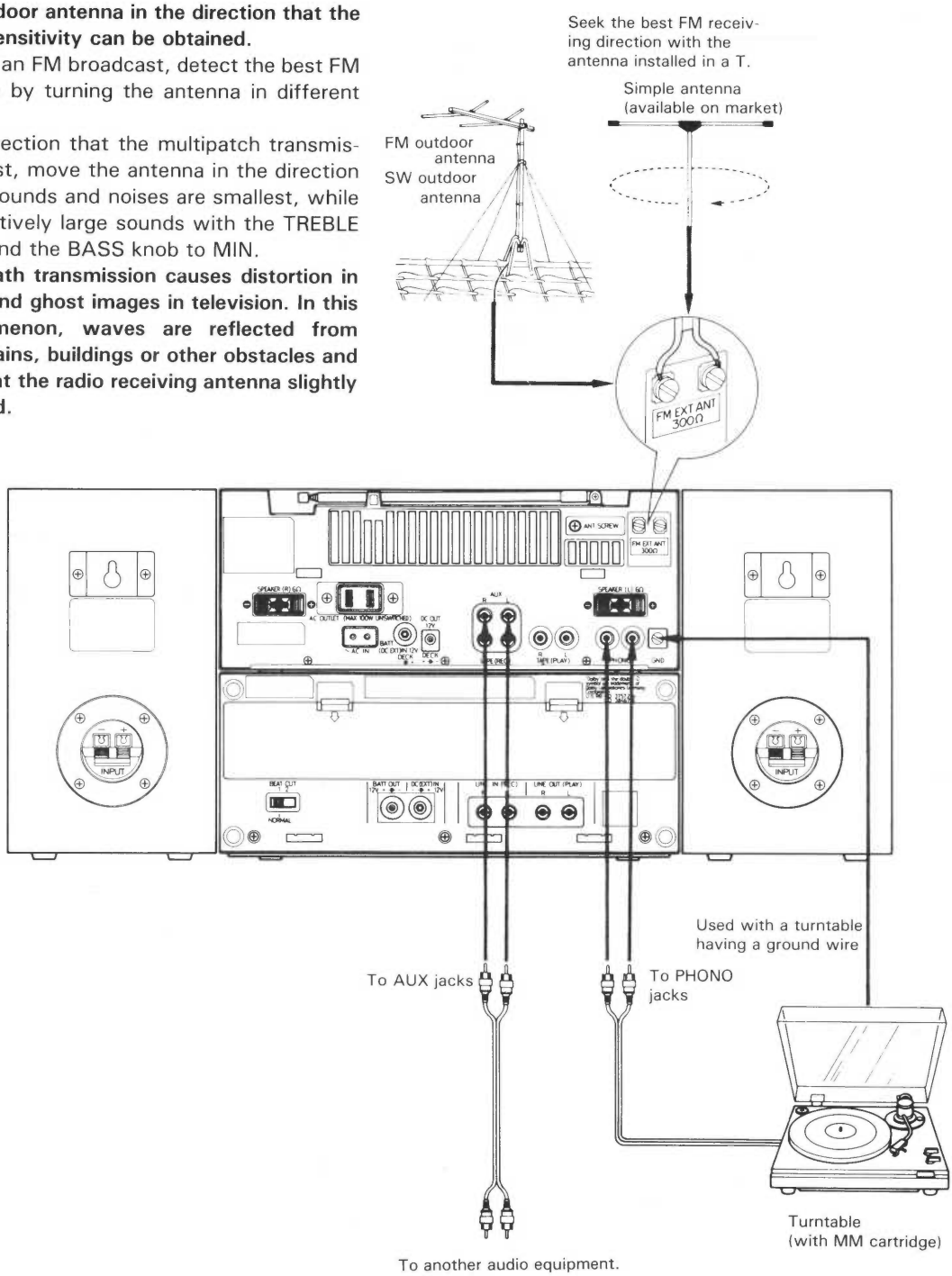


Fig. 2

- 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.

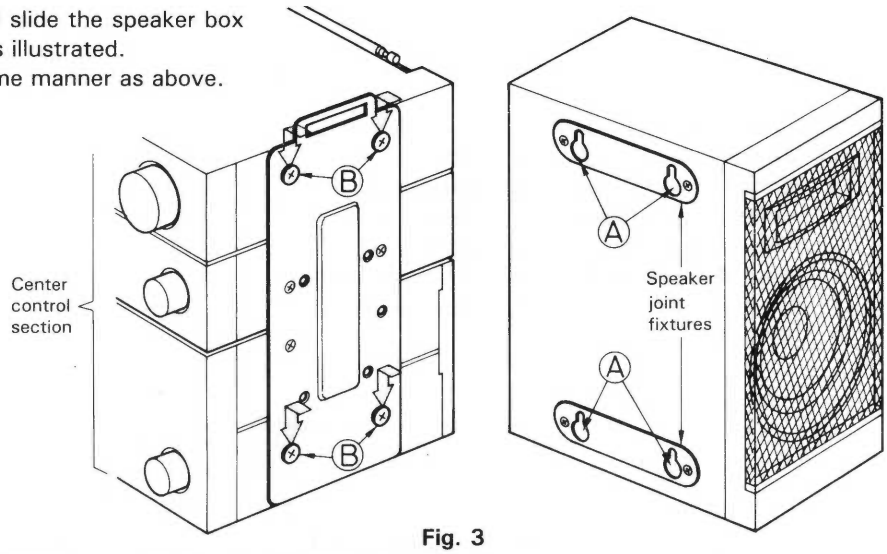


Fig. 3

Mounting the Handle

1. Push the handle grip lock up, in the direction of arrow (1).
2. Pressing mark △ 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.

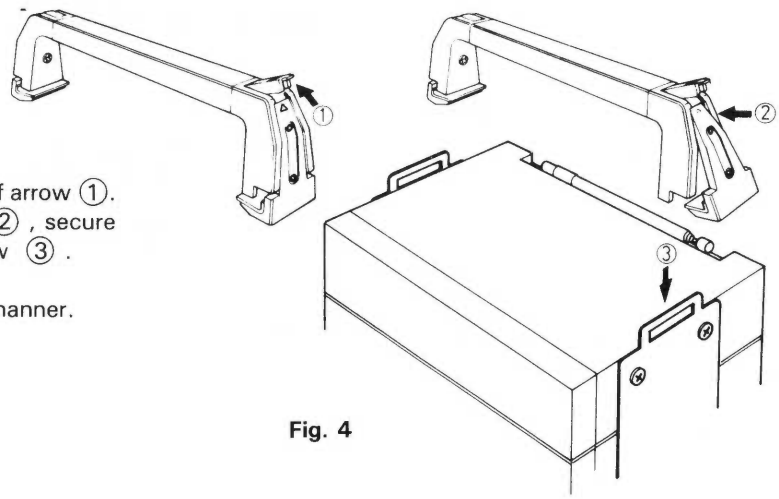


Fig. 4

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.

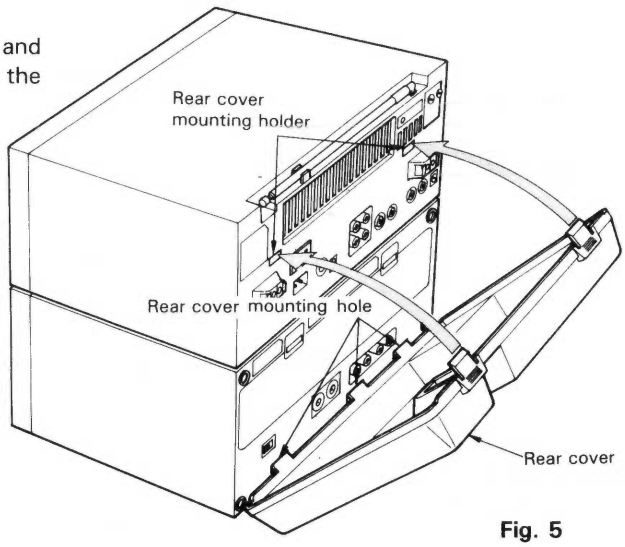


Fig. 5

Removal of Center Control Section Joint Fixture (Frame)

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

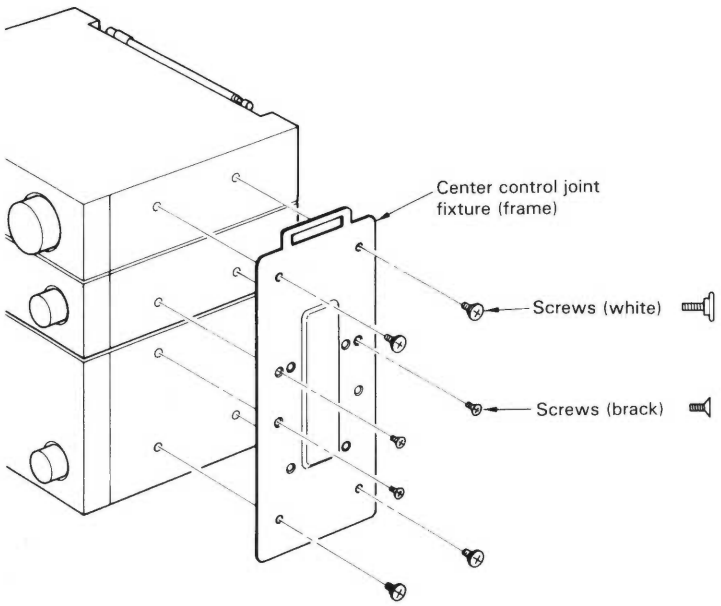


Fig. 6

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.

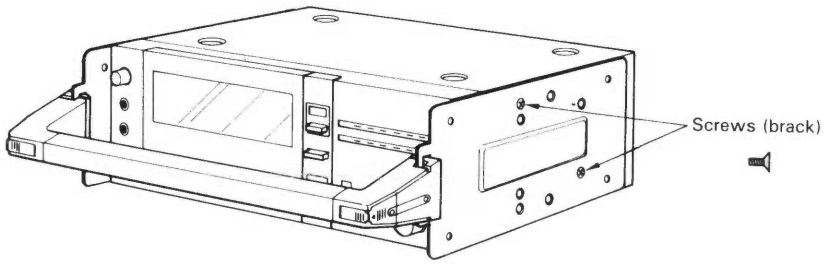


Fig. 7

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

Outdoor;	Drive batteries (''D'' × 8)
	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 and Speakers Unit

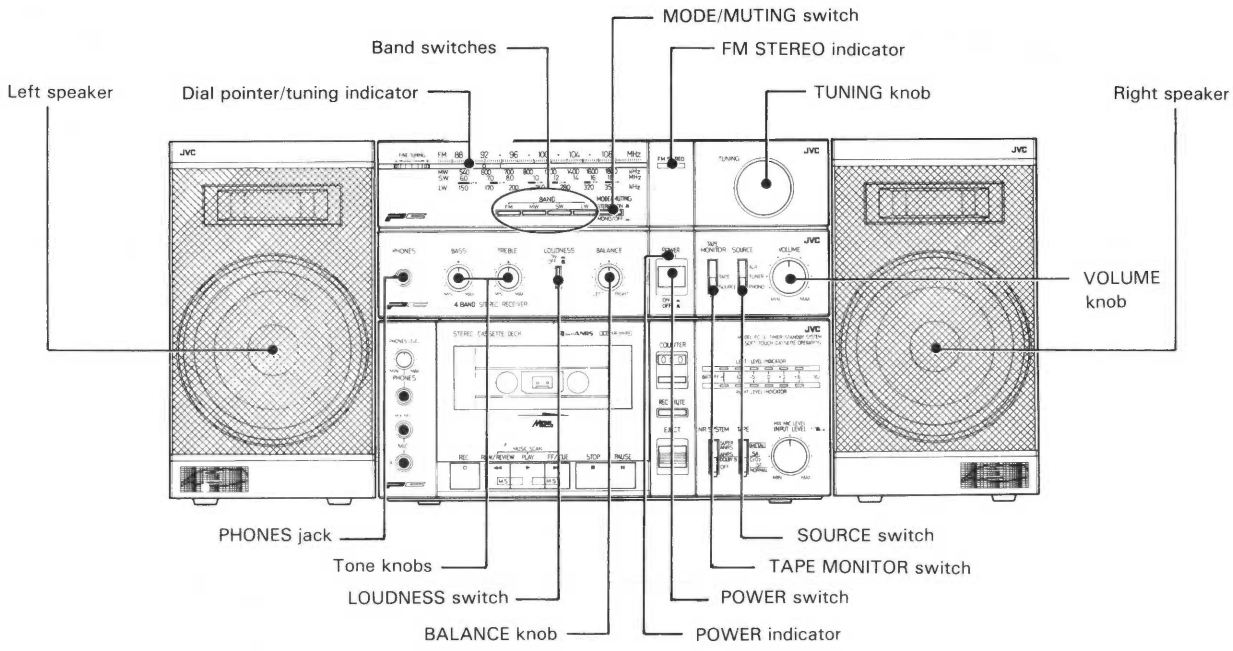


Fig. 8

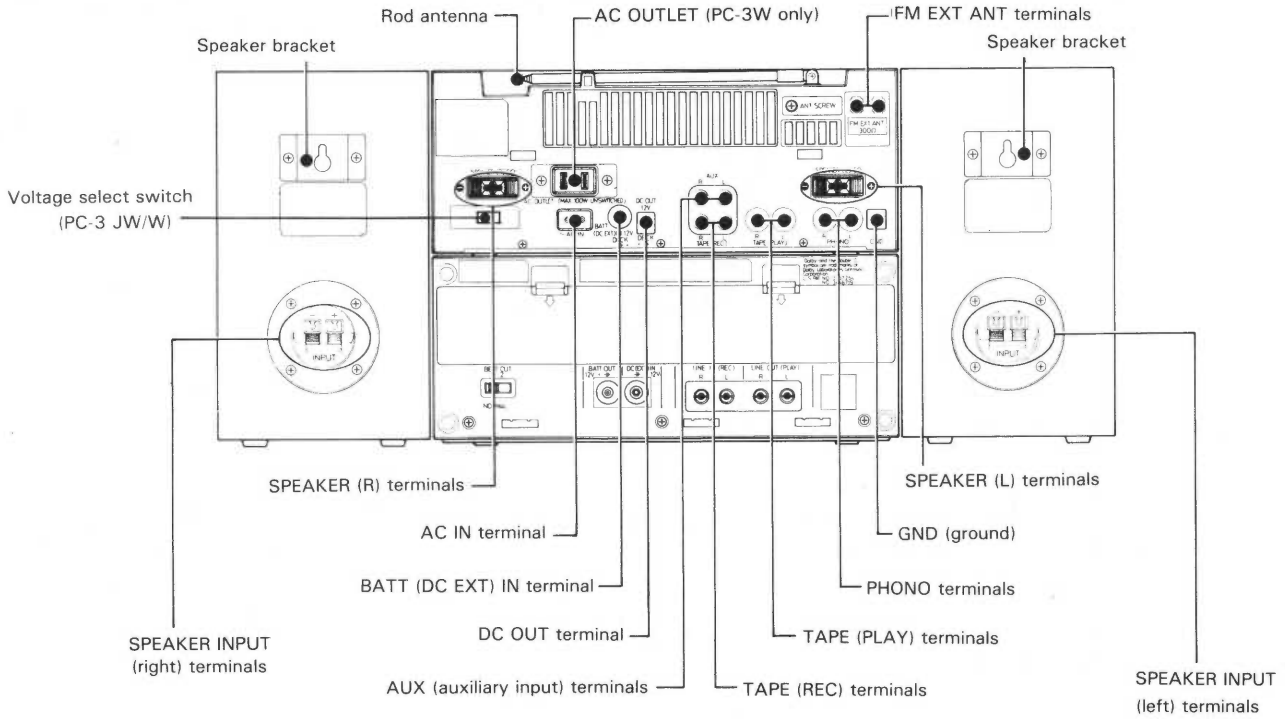


Fig. 9

Stereo Cassette Deck

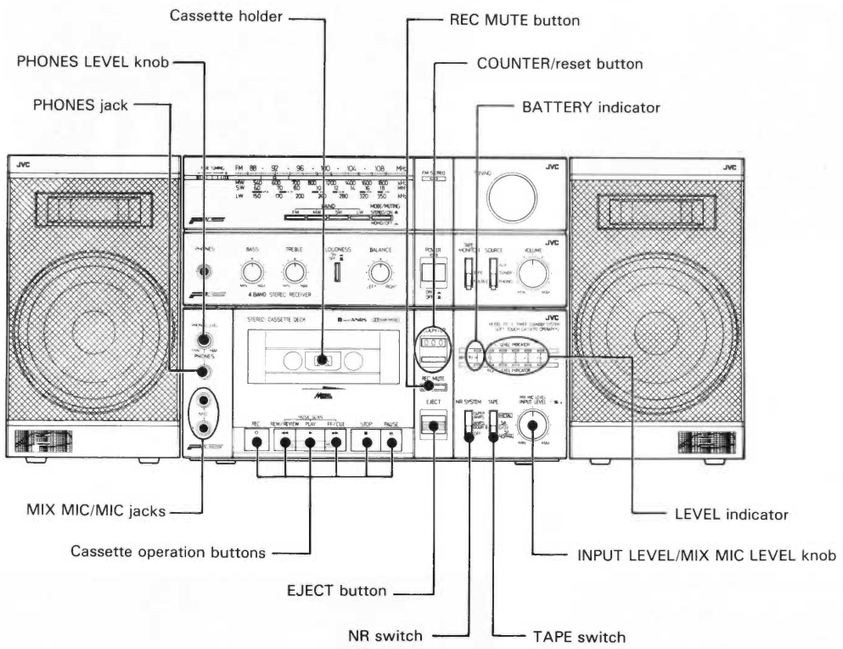


Fig. 10

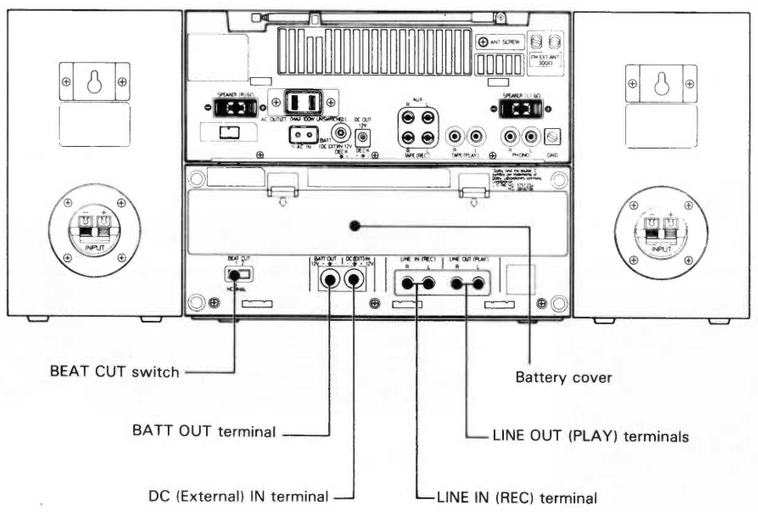
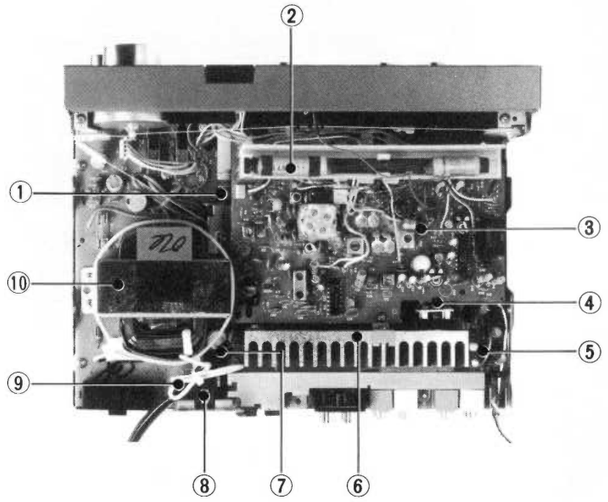


Fig. 11

Main Parts Location

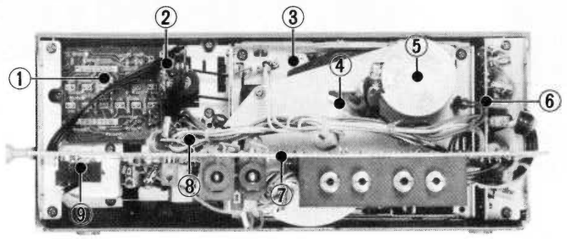
Stereo receiver



① Power switch
② Bar antenna
③ Tuner P.W.B. ass'y
④ Diode P.W.B. ass'y
⑤ Amp. P.W.B. ass'y
⑥ Heat sink
⑦ AC socket
⑧ AC outlet
⑨ Fuse
⑩ Power transformer

Fig. 12

Stereo cassette deck



① Level indicator P.W.B. ass'y
② Auto stop P.W.B. ass'y
③ Cassette Mecha. ass'y
④ Flywheel ass'y
⑤ Motor
⑥ Mic and headphone P.W.B. ass'y
⑦ Cassette amp. P.W.B. ass'y
⑧ Mecha. control P.W.B. ass'y
⑨ Beat cut switch

Fig. 13

How to Removing

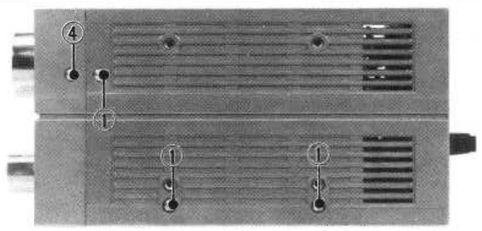


Fig. 14

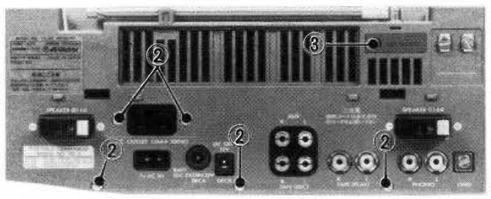


Fig. 15

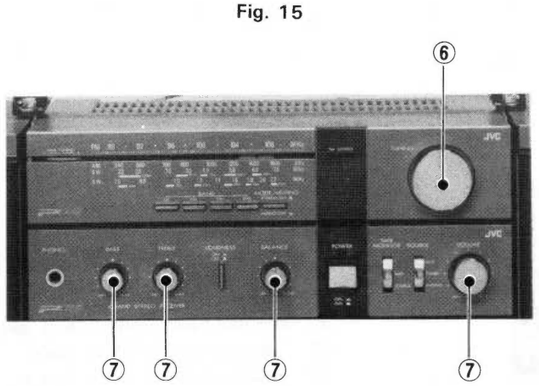


Fig. 16

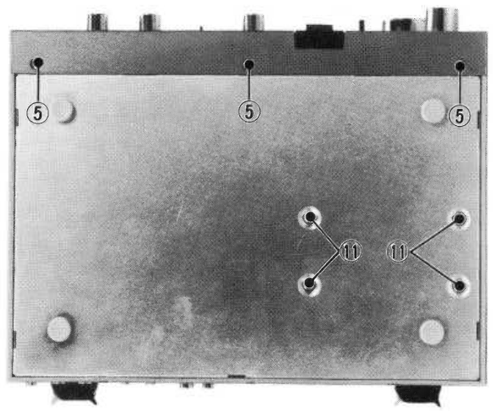


Fig. 17

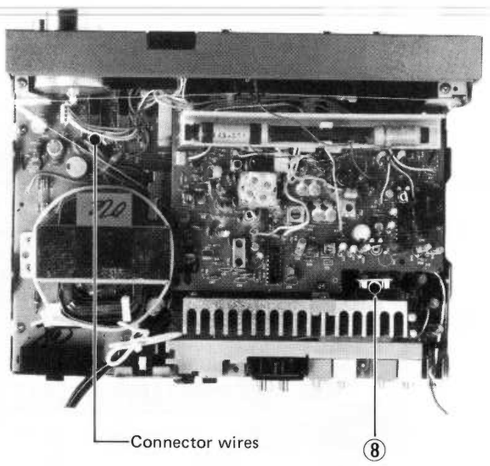


Fig. 18

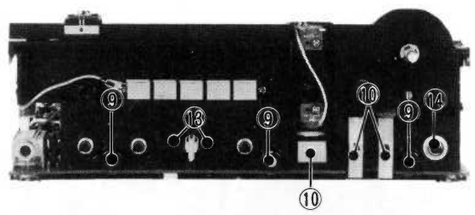


Fig. 19

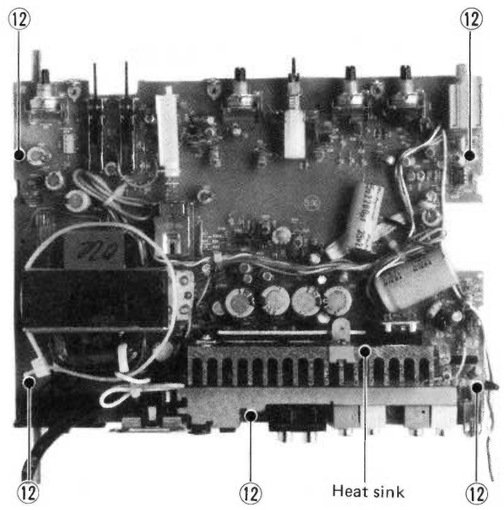


Fig. 20

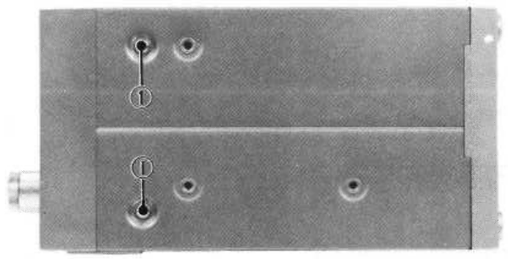


Fig. 21

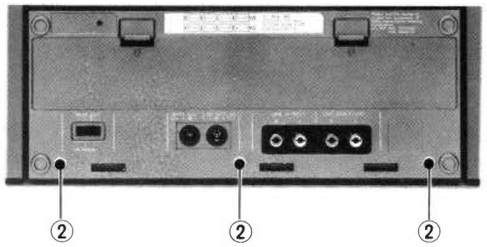


Fig. 22

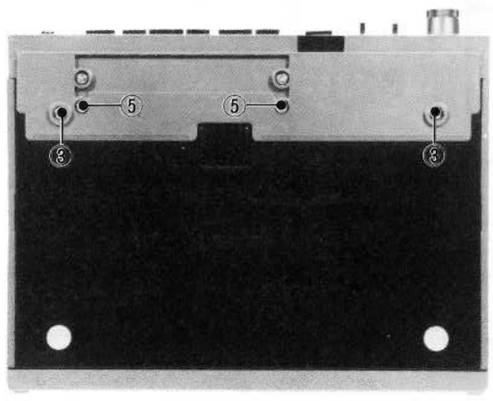


Fig. 23

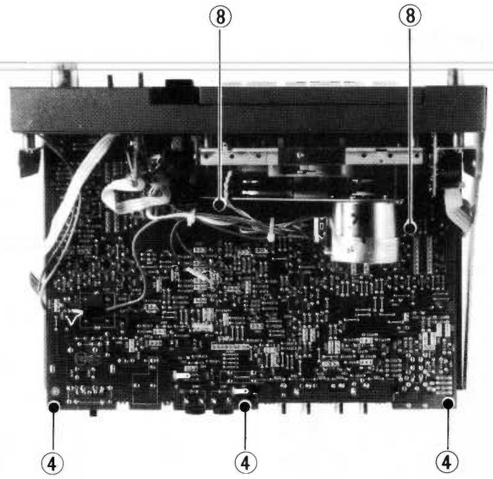


Fig. 24

Fig. 25

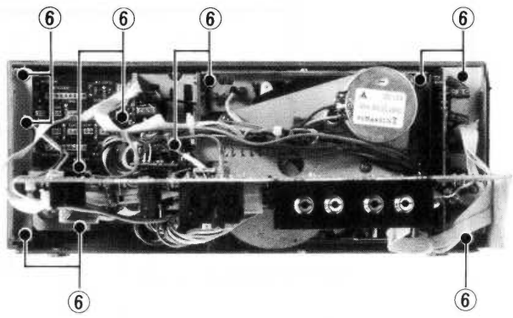


Fig. 26

Removement 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 sillicon 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 ... ⊕, brack ... ⊖).

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) .

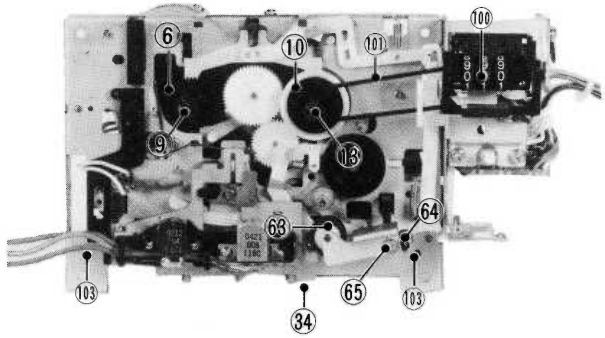


Fig. 27

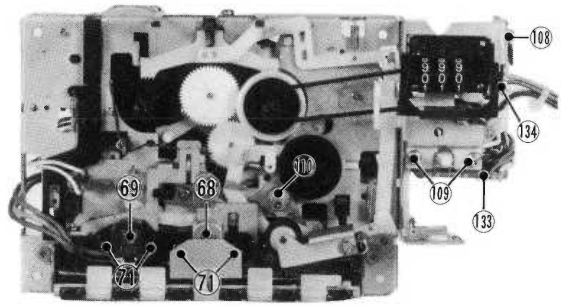


Fig. 28

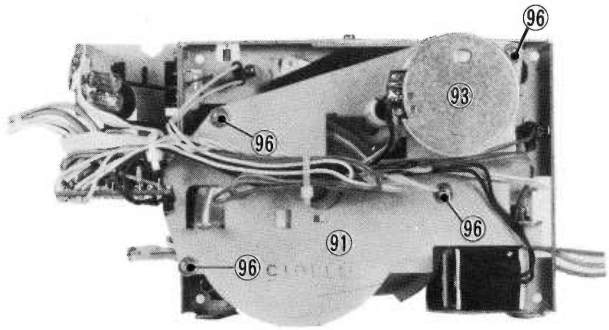


Fig. 29

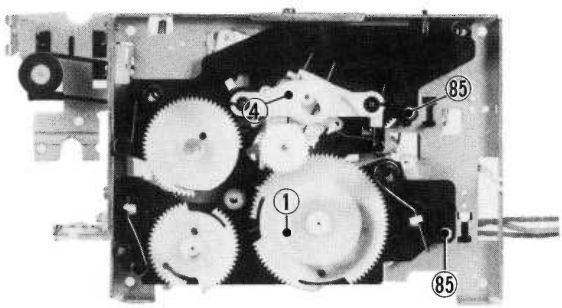


Fig. 31

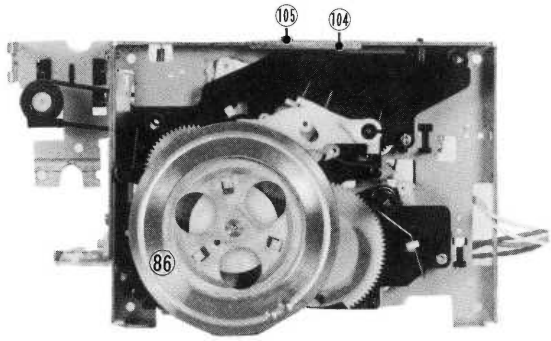
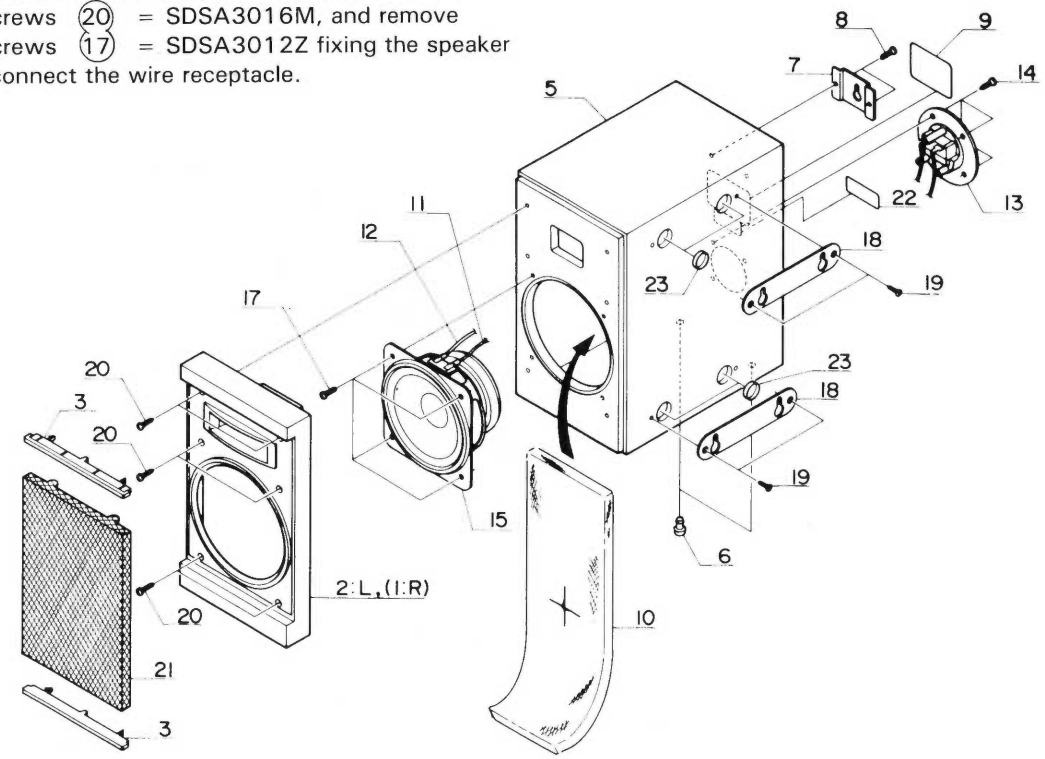
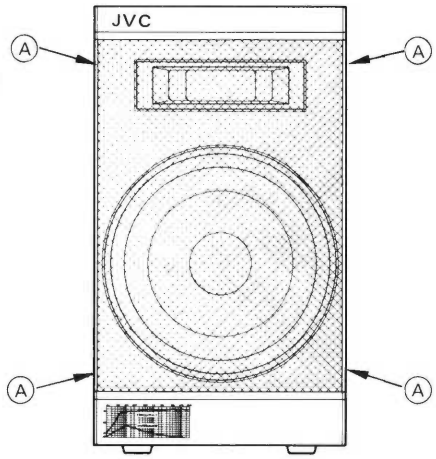


Fig. 30

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.





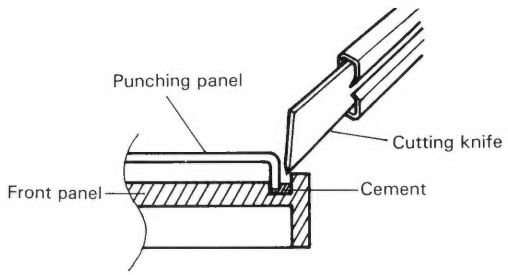


Fig. 32

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.

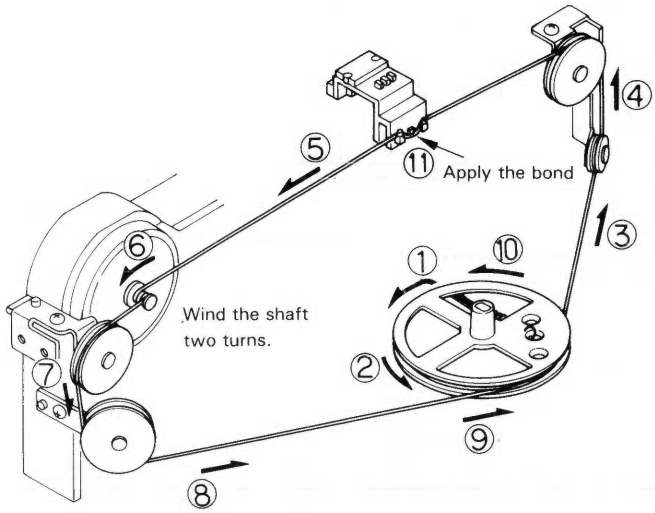
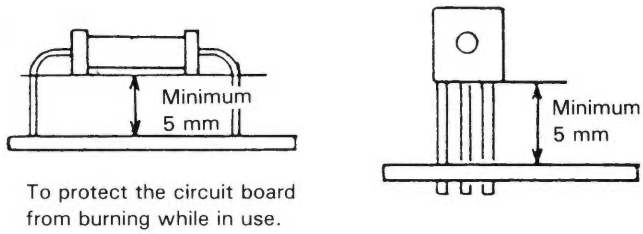


Fig. 33

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.



To protect the circuit board from burning while in use.

Fig. 34

Block Diagrams

Tuner Circuit

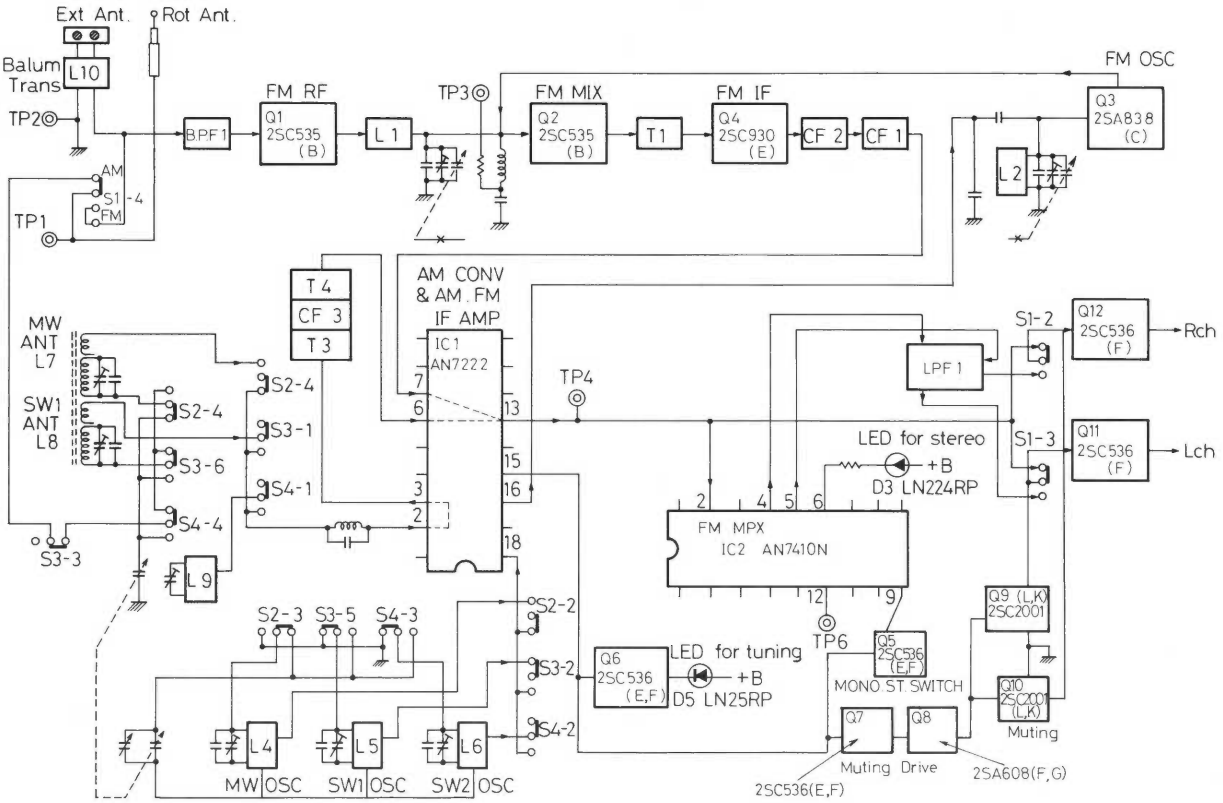


Fig. 35

Amplifier Circuit

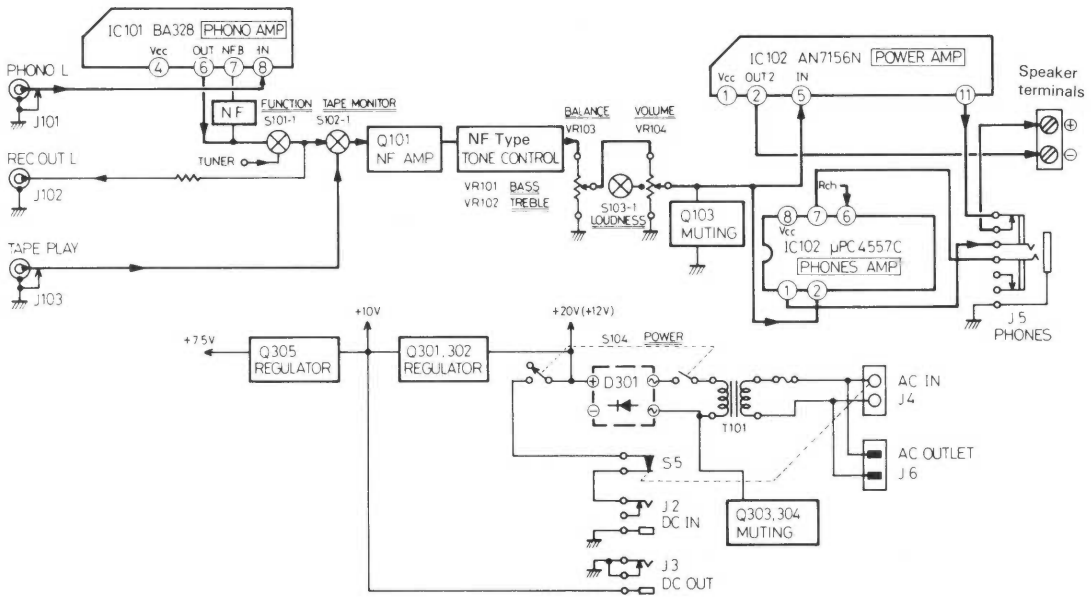


Fig. 36

Stereo Cassette Deck

Recording system

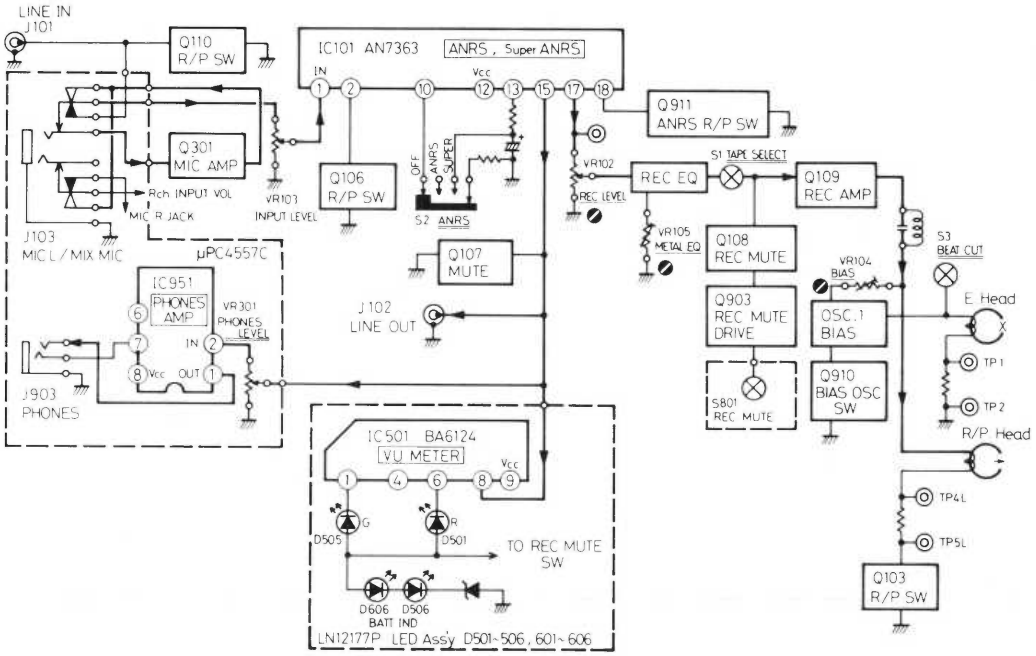


Fig. 37

Playback system

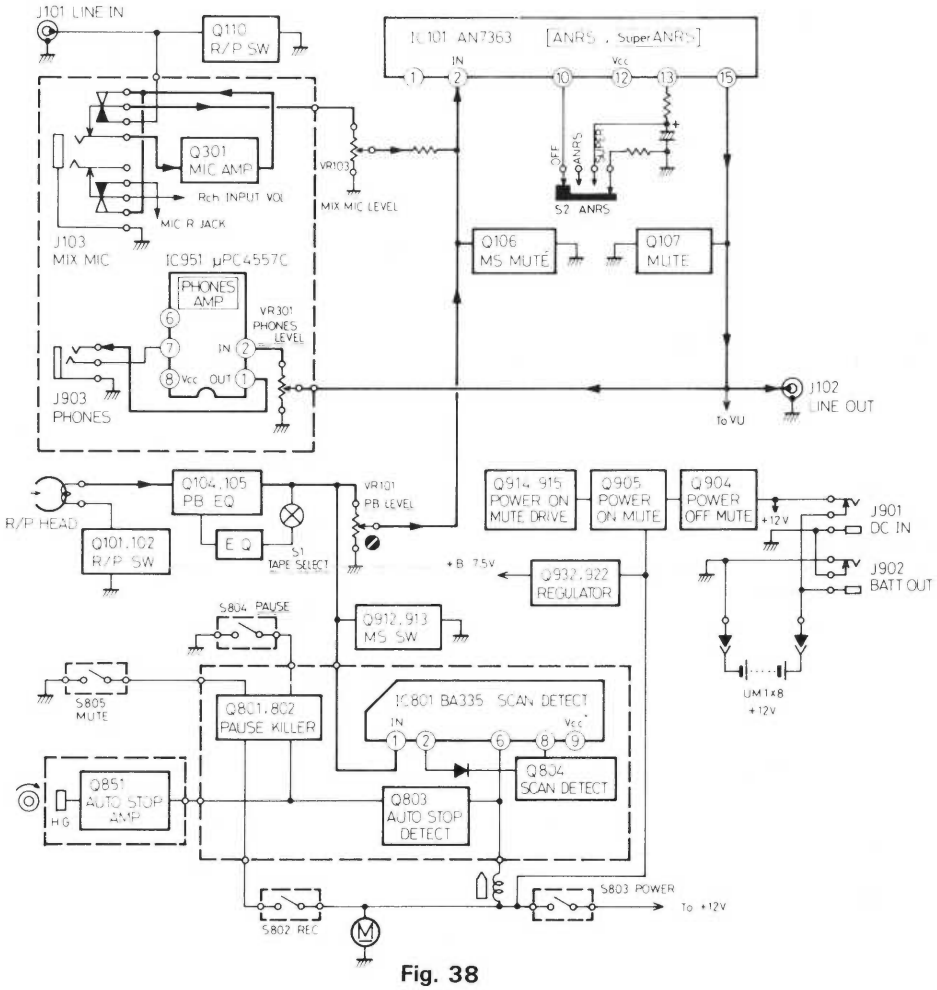
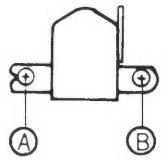
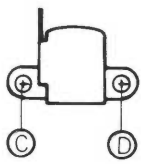
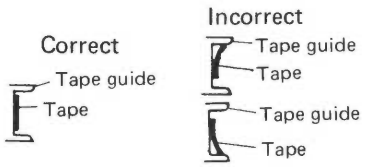


Fig. 38

Adjustments

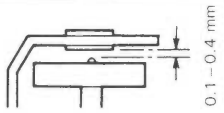
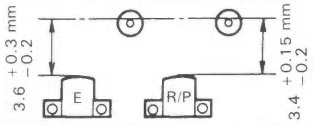
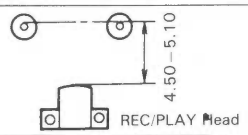
1. Adjustment Procedure of Cassette Mechanism

(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/playback 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 Ⓐ until the reading of the electronic voltmeter becomes maximum for both channels. 4. After adjusting, set the screw with screw bond.	Screw Ⓐ	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 Ⓒ until the tape runs in the center of the erase head tape guide. 	Screw Ⓒ		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 playback 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)

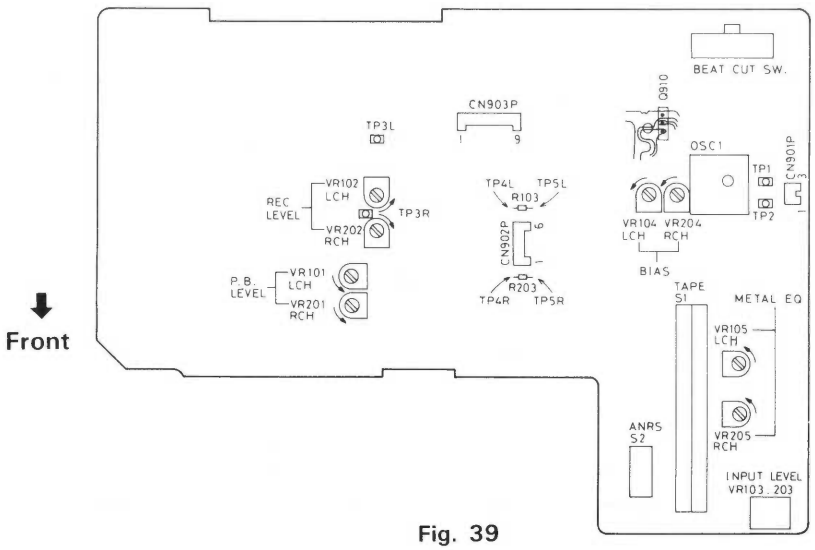


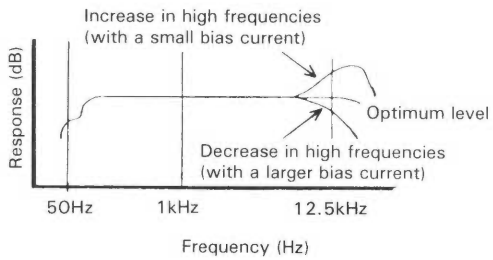
Fig. 39

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.

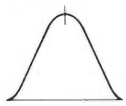
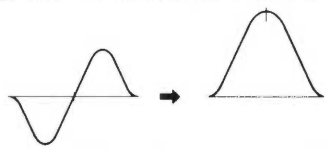
Adjustment should be performed in the order of steps 1, 2, 3, ... Perform this adjustment with the ANRS switch set to OFF.

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_2 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 Ω
MODULATION OF SSG	400 Hz. 30%

Item	Description
1. AW IF ALIGNMENT	
1-1 Conditions of the receiver.	
(1) Power source:	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.)
(2) Function switch position:	RADIO
(3) Band select switch:	MW
(4) Volume control:	Minimum gain position
(5) Tone control:	Center (Bass, Treble) position
(6) Variable capacitor:	Near the minimum capacity position where no signal come in.
1-2 Connection of Sweeper and the receiver	
(1) Tuner input:	Positive side to TP8
(2) Tuner output:	Positive side to TP4 Negative side to TP5]
1-3 Aligning position:	CFT T3, T4
1-4 Alignment (Waveform): 	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.
2. FM IF ALIGNMENT	
2-1 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:	Minimum gain position
(5) Tone control:	Center (Bass, Treble) position
(6) Variable capacitor:	Near the minimum capacity position where no signal come in.
2-2 Connection of Sweeper and the receiver	
(1) Tuner input:	Positive side to TP3
(2) Tuner output:	Positive side to TP7 Negative side to TP5
NOTE a) Attach a capacitor (0.1 μF) to the positive side cable which shall be led from Sweeper input. b) Attach a capacitor (30 pF) and a resistor (10 kΩ) in series to the positive side cable which shall be led from Sweeper output.	
2-3 Aligning position:	a) IF Waveform: T1 b) Discriminate Waveform: T2 ("S" curve waveform)
2-4 Alignment (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.
b) Discriminate Waveform:	Adjust the discriminate T2 again so that above symmetrical IF waveform may be changed to balanced "S" curve waveform.

Item	Description
3. AM RF ALIGNMENT 3-1 Conditions of the receiver. (1) Power source: (2) Function switch position: (3) Volume control: (4) Tone control: (5) Variable capacitor: 3-2 Conditions of SSG. (1) Modulation: (2) Frequency: (3) Output level of the attenuator in SSG: 3-3 Power output measuring position: 3-4 Alignment:	 Same as mentioned in item 1-1. RADIO 50 mW Center (Bass, Treble) position Refer the following list shown in item 3-4. Refer the basic condition Refer the following list shown in item 3-4. Approx. 50 mW Speaker terminals

	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			Ajust 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
4. FM RF ALIGNMENT 4-1 Conditions of the receiver. (1) Power source: (2) Function switch position: (3) Band select switch: (4) Volume control: (5) Tone control: (6) Variable capacitor: 4-2 Condition of FM SSG. (1) Modulation: (2) Frequency: (3) Output level of the attenuator in FM SSG: 4-3 Alignment:	 Same as mentioned in item 1-1. RADIO FM 50 mW Center (Bass, Treble) position Refer the following list shown in item 4-3. Refer the basic condition Refer the following list shown in item 4-3. The level shall be decided by the load resistance of the receiver mentioned in the basic conditions.

	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			Ajust 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 ± 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

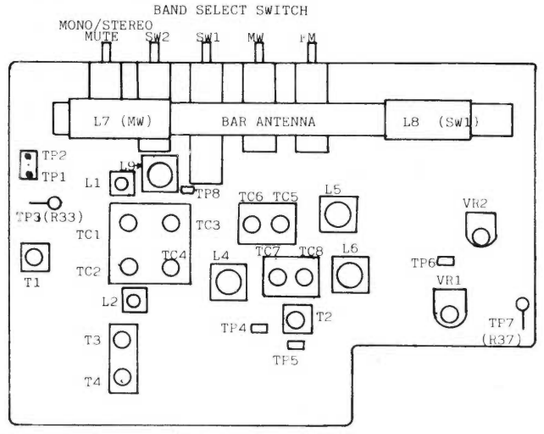
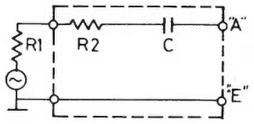


Fig. 40

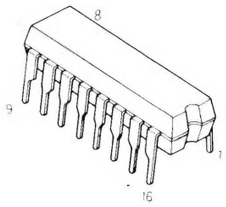
Dummy Antenna

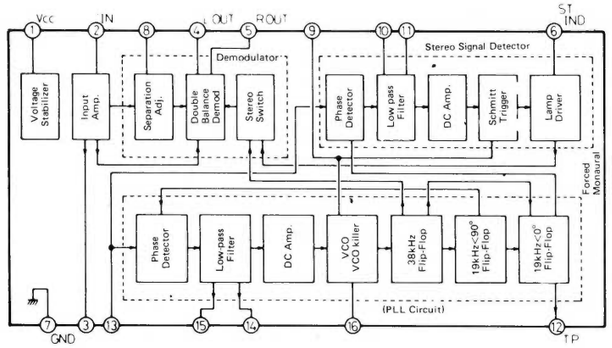


R1 + R2 = 80 Ω
C = 10 pF
R1: Output impedance of S.S.G.

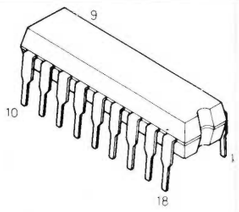
Integrant Circuits

AN7410

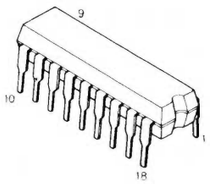


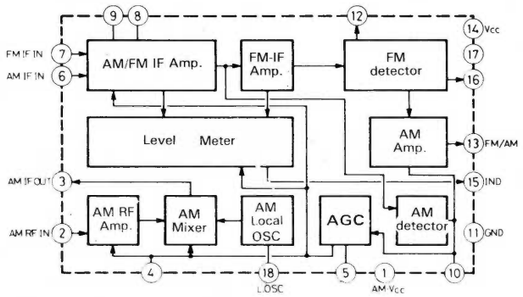


AN7363

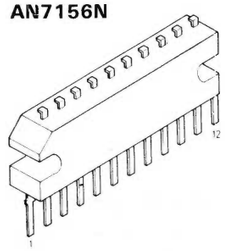


AN7222

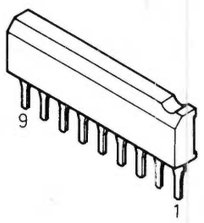




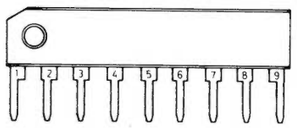
AN7156N

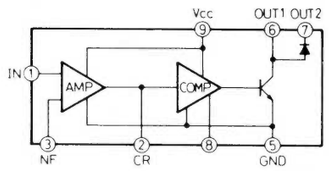


BA335
BA6124

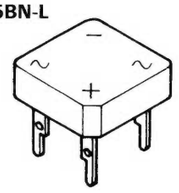


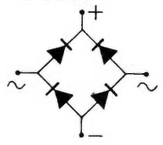
LA2000





DS5BN-L





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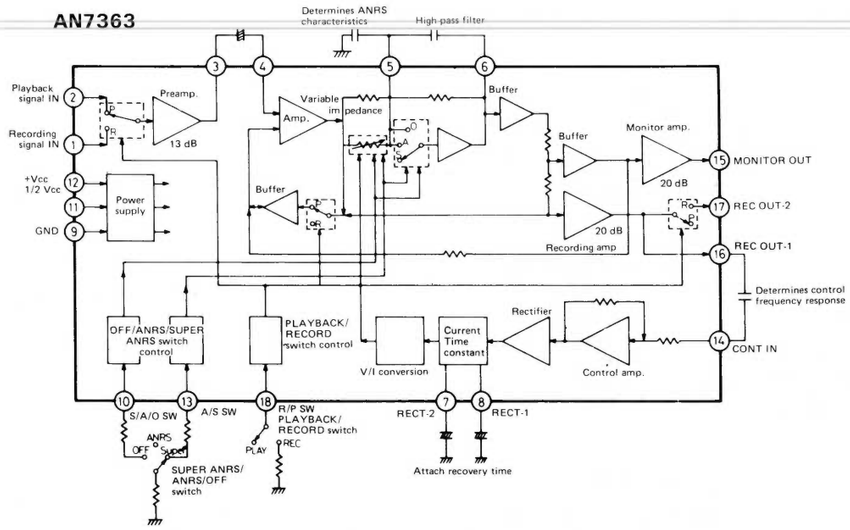

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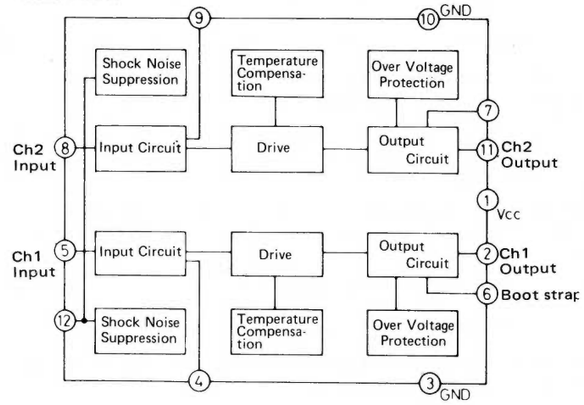

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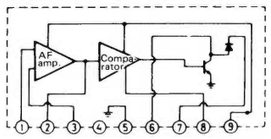
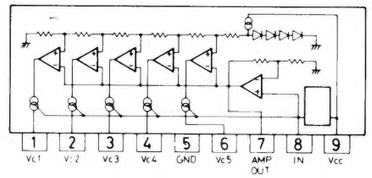
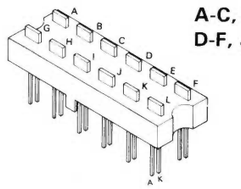


BA6124

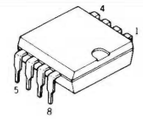


LN12177P

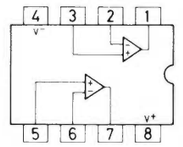


A-C, G-I LN324GP
D-F, J-L LN224RP

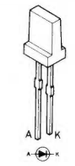
μpc4557



μpc4557



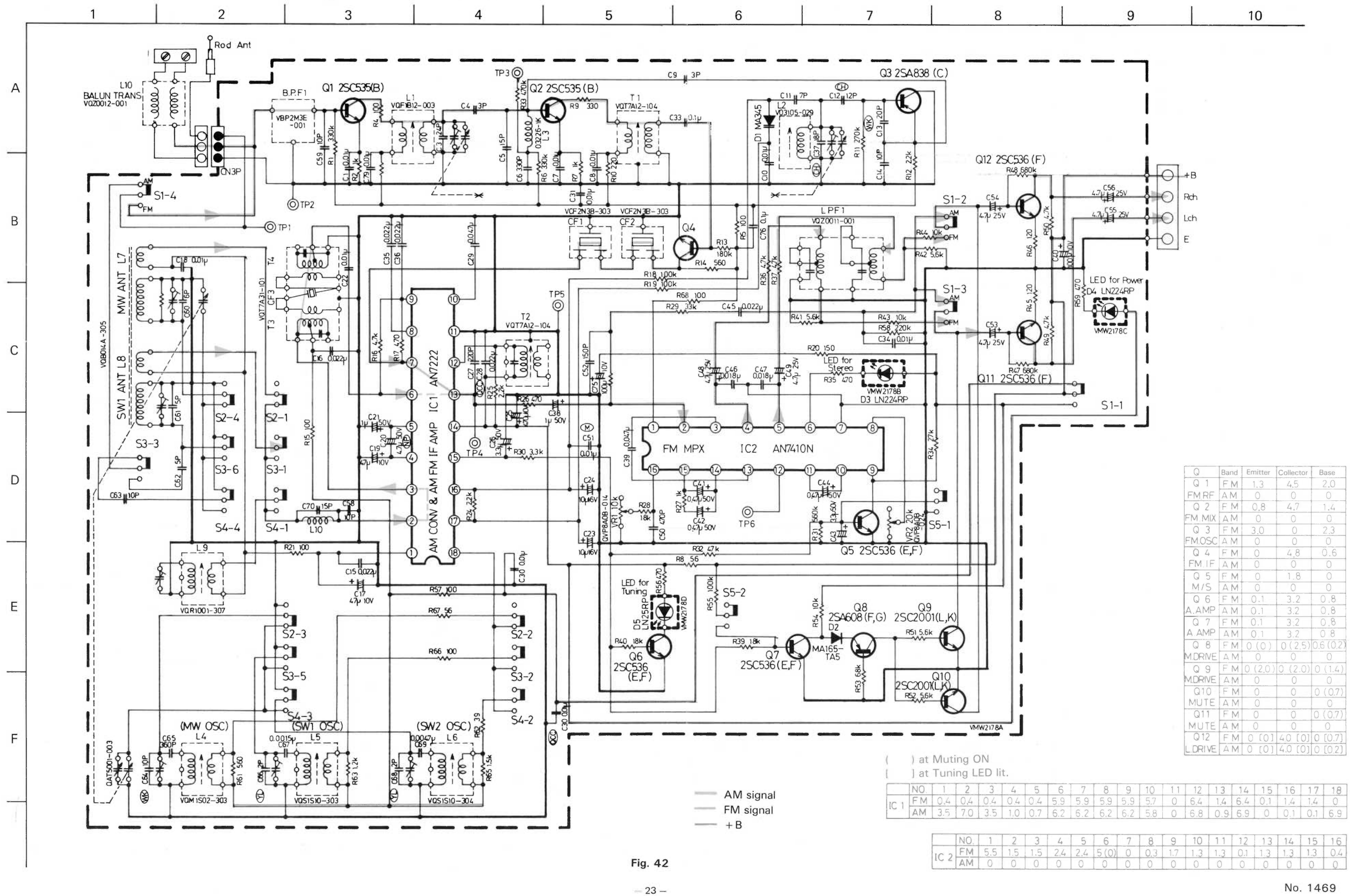
LN217RP



VHE-610G

Fig. 41

Standard Schematic Diagram of PC-3 (Tuner circuit)



Q	Band	Emitter	Collector	Base
Q 1	FM	1.3	4.5	2.0
FM RF	AM	0	0	0
Q 2	FM	0.8	4.7	1.4
FM MIX	AM	0	0	0
Q 3	FM	3.0	0	2.3
FM OSC	AM	0	0	0
Q 4	FM	0	4.8	0.6
FM IF	AM	0	0	0
Q 5	FM	0	1.8	0
M/S	AM	0	0	0
Q 6	FM	0.1	3.2	0.8
A.AMP	AM	0.1	3.2	0.8
Q 7	FM	0.1	3.2	0.8
A.AMP	AM	0.1	3.2	0.8
Q 8	FM	0 (0)	0 (2.5)	0.6 (0.2)
M.DRIVE	AM	0	0	0
Q 9	FM	0 (2.0)	0 (2.0)	0 (1.4)
M.DRIVE	AM	0	0	0
Q10	FM	0	0	0 (0.7)
MUTE	AM	0	0	0
Q11	FM	0	0	0 (0.7)
MUTE	AM	0	0	0
Q12	FM	0 [0]	4.0 [0]	0 [0.7]
L.DRIVE	AM	0 [0]	4.0 [0]	0 [0.2]

( ) at Muting ON
[ ] at Tuning LED lit.

	NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IC 1	FM	0.4	0.4	0.4	0.4	0.4	5.9	5.9	5.9	5.9	5.7	0	6.4	1.4	6.4	0.1	1.4	1.4	0
	AM	3.5	7.0	3.5	1.0	0.7	6.2	6.2	6.2	6.2	5.8	0	6.8	0.9	6.9	0	0.1	0.1	6.9

	NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC 2	FM	5.5	1.5	1.5	2.4	2.4	5 (0)	0	0.3	1.7	1.3	1.3	0.1	1.3	1.3	1.3	0.4
	AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Fig. 42

Standard Schematic Diagram of PC-3 (Amplifier circuit)

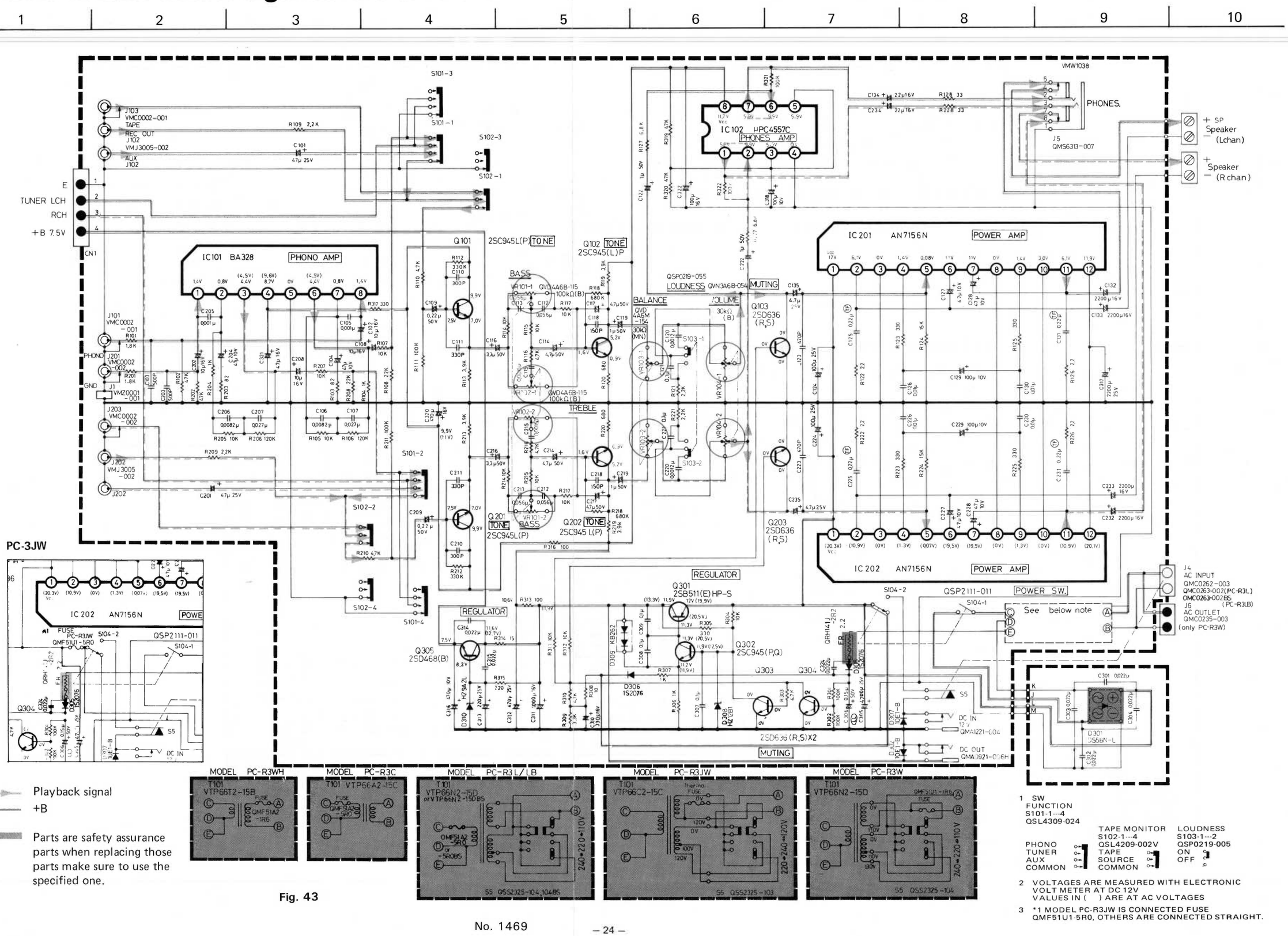
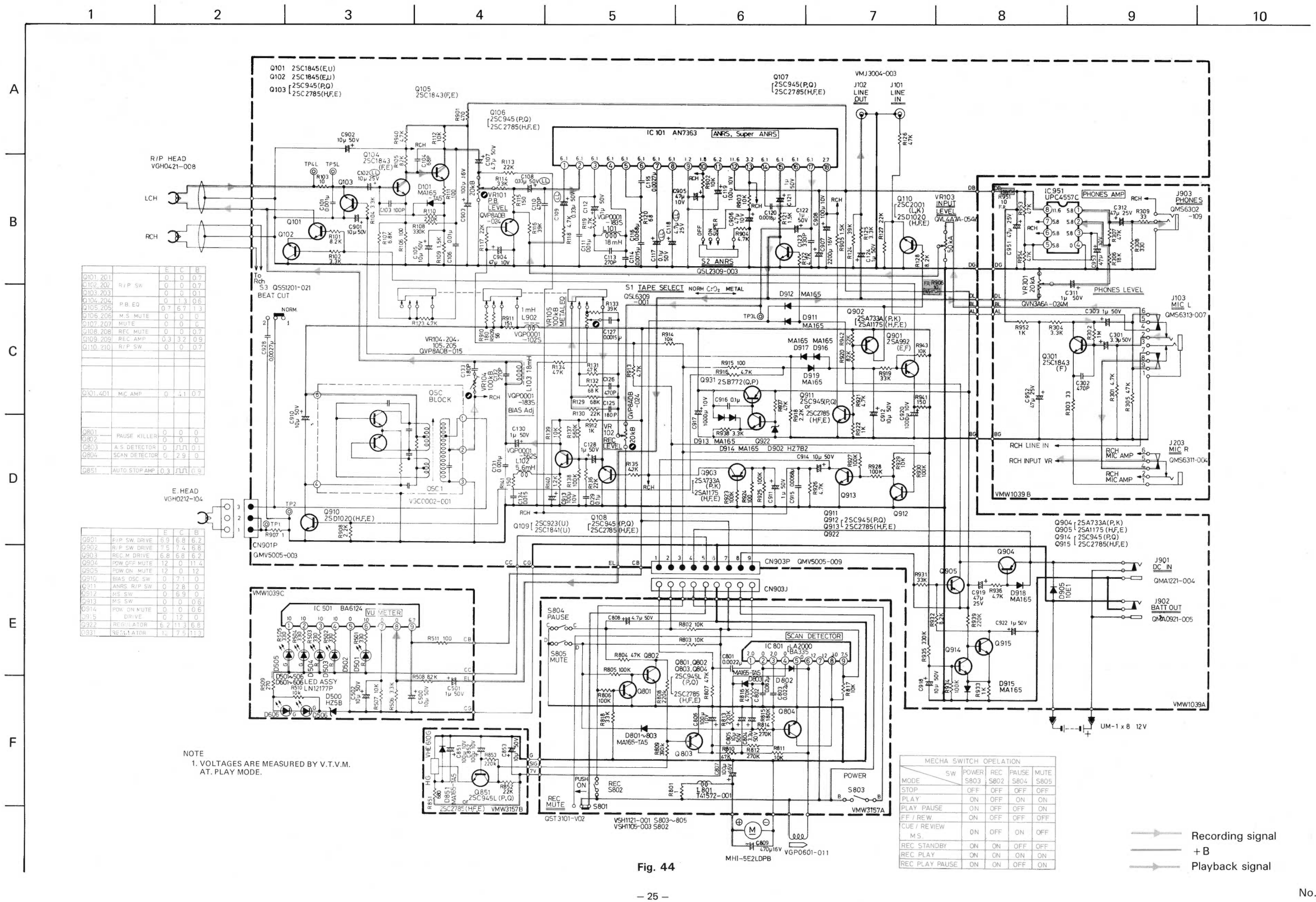


Fig. 43

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



		E	C	B
Q101, 201		0	0	0.7
Q102, 202	R/P SW.	0	0	0.7
Q103, 203		0	0	0.1
Q104, 204	P.B. EQ	0	1.3	0.6
Q105, 205		0.7	6.7	1.3
Q106, 206	M.S. MUTE	0	0	0
Q107, 207	MUTE	0	0	0
Q108, 208	REC. MUTE	0	0	0.7
Q109, 209	REC. AMP.	0.3	3.2	0.9
Q110, 210	R/P SW.	0	0	0.7
Q901, 401	MIC AMP	0	4.1	0.7
Q801	PAUSE KILLER	0	0	0
Q802		0	0	0
Q803	A.S. DETECTOR	0		0.1
Q804	SCAN DETECTOR	0	2.9	0
Q851	AUTO STOP AMP	0.3		0.9

		E	C	B
Q901	R/P SW. DRIVE	6.9	6.8	6.2
Q902	R/P SW DRIVE	7.5	7.4	6.8
Q903	REC.M DRIVE	6.8	6.8	6.2
Q904	POW OFF MUTE	12	0	11.4
Q905	POW ON MUTE	12	0	12
Q910	BIAS OSC SW	0	7.1	0
Q911	ANRS R/P SW	0	2.8	0
Q912	MS SW	0	6.9	0
Q913	MS SW	0	0	0.6
Q914	POW ON MUTE	0	0	0.6
Q915	DRIVE	0	12	0
Q922	REGULATOR	6.2	11.3	6.8
Q931	REGULATOR	12	7.5	11.2

NOTE
1. VOLTAGES ARE MEASURED BY V.T.V.M. AT. PLAY MODE.

MECHA SWITCH OPELATION

MODE \ SW	POWER S803	REC S802	PAUSE S804	MUTE S805
STOP	OFF	OFF	OFF	OFF
PLAY	ON	OFF	ON	ON
PLAY PAUSE	ON	OFF	OFF	ON
FF / REW.	ON	OFF	OFF	OFF
CUE / REVIEW M.S.	ON	OFF	ON	OFF
REC STANDBY	ON	ON	OFF	OFF
REC PLAY	ON	ON	ON	ON
REC PLAY PAUSE	ON	ON	OFF	ON

Recording signal
+B
Playback signal

Fig. 44

Wiring Connection (1) (Receiver circuit)

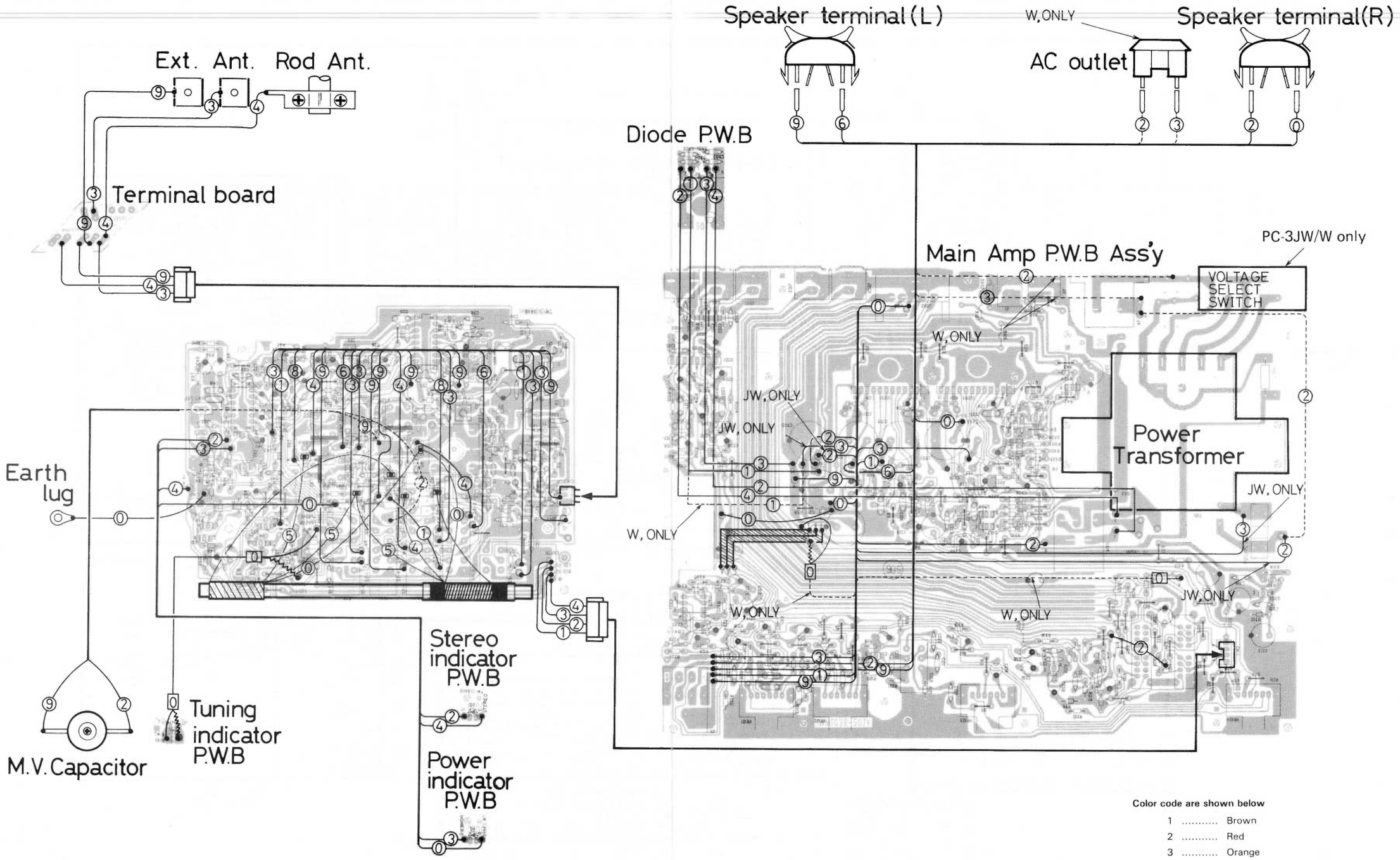
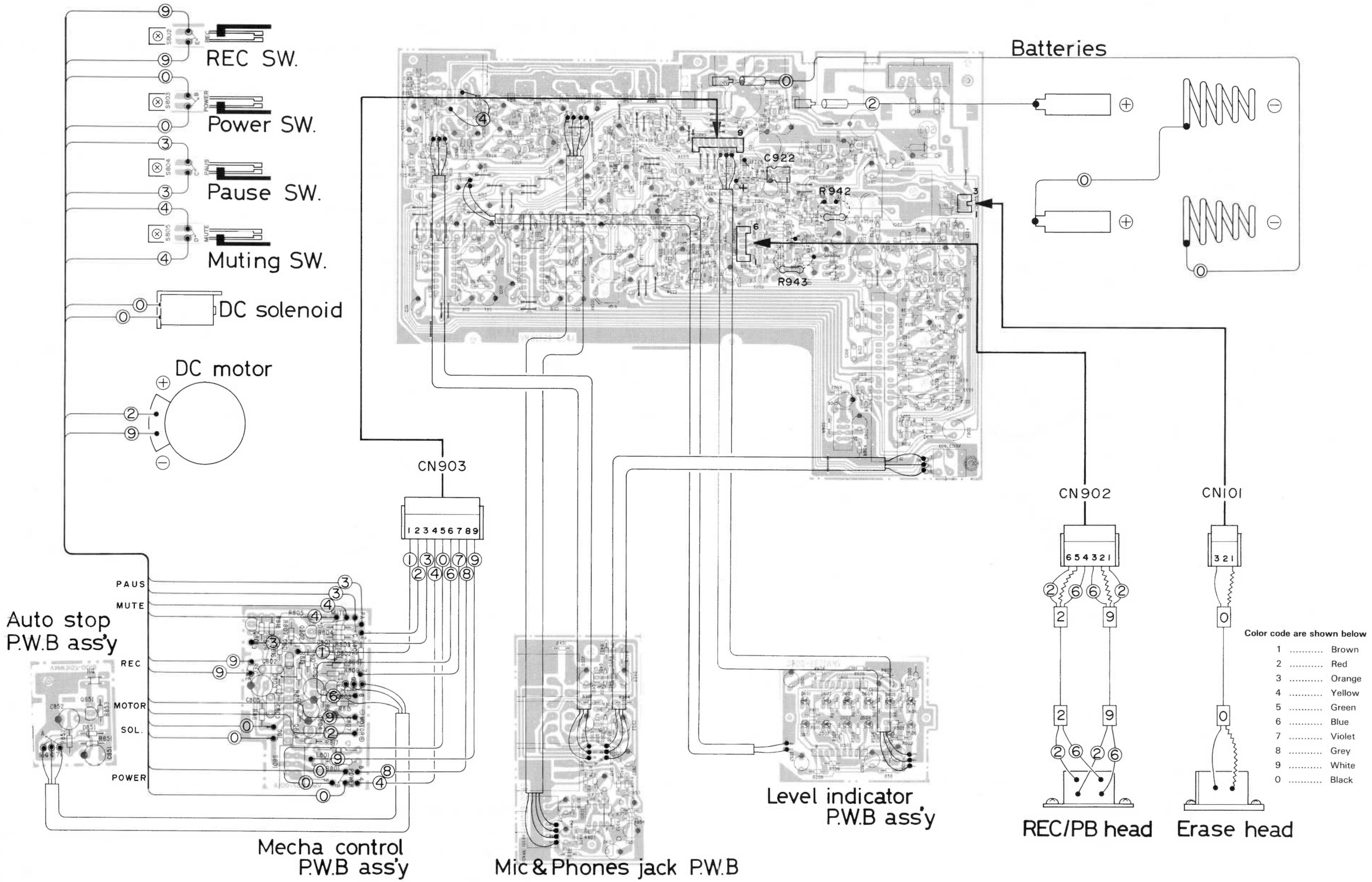


Fig. 45

Color code are shown below

1	.....	Brown
2	.....	Red
3	.....	Orange
4	.....	Yellow
5	.....	Green
6	.....	Blue
7	.....	Violet
8	.....	Grey
9	.....	White
0	.....	Black

Wiring Connection (2) (Stereo Cassette deck circuit)



Speaker Component Parts (PC-B3)

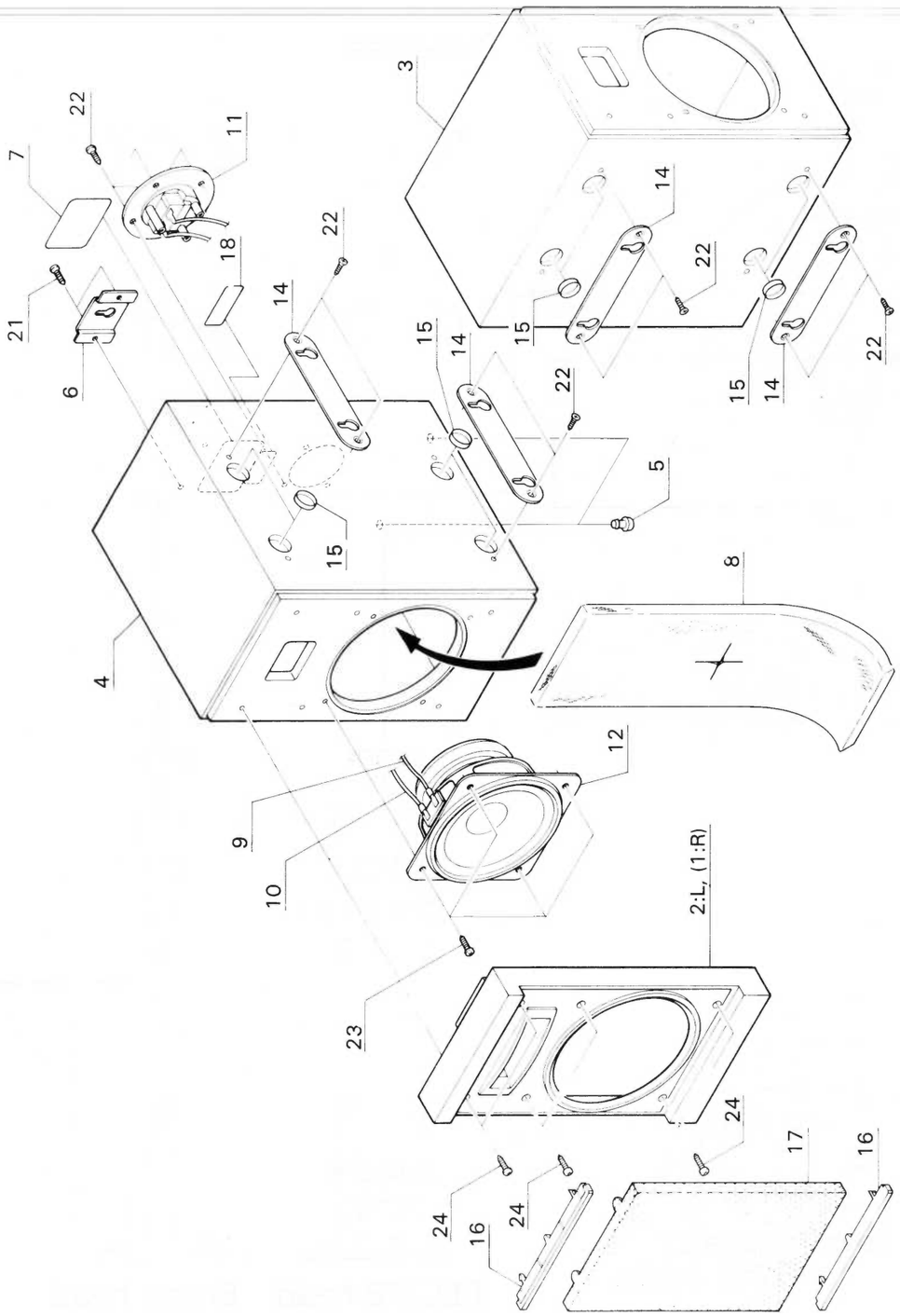


Fig. 47

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	
5		VJF4009-001	Foot		2
6		VKL4878-003	Bracket		1
7		VYNA304-002	Name Plate		1
8		VKZ4145-001	Sound Absober		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 Absober		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 Absober	4
24		SDSA3016M	〃	Plate	6

Speaker Packing

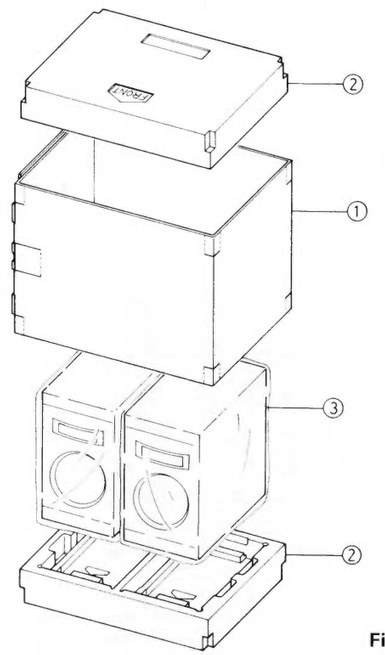


Fig. 48

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 Bracket (A) x 2 Bottom Cover Ass'y x 2	6
87		LPSP4008Z	〃	Trans. Bracket	4
88		SBSB3006Z	Tap. Screw	Bracket (C) x 1 Bottom Cover Ass'y x 1 Ant. Cover x 1	3
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 Bar Ant. Holder x 2 LED x 2 P.W.B. ~ Chassis x 2 Bracket (A) x 1 Heat Sink x 3	14
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 Bottom ~ T. Cover x 9	14
97		SPSP3006Z	〃	Heat Sink	1
98		SPSP4004Z	〃	Bottom Cover ~ Trans. Bracket	4
99		SSSP2004Z	〃	Knob	1
100		SSSP3006Z	〃	Bracket x 3 Bottom Cover Ass'y x 3	6
101		SSSP2608Z	〃	Drum	1

PC-R3 Enclosure Assembly and Electrical Parts

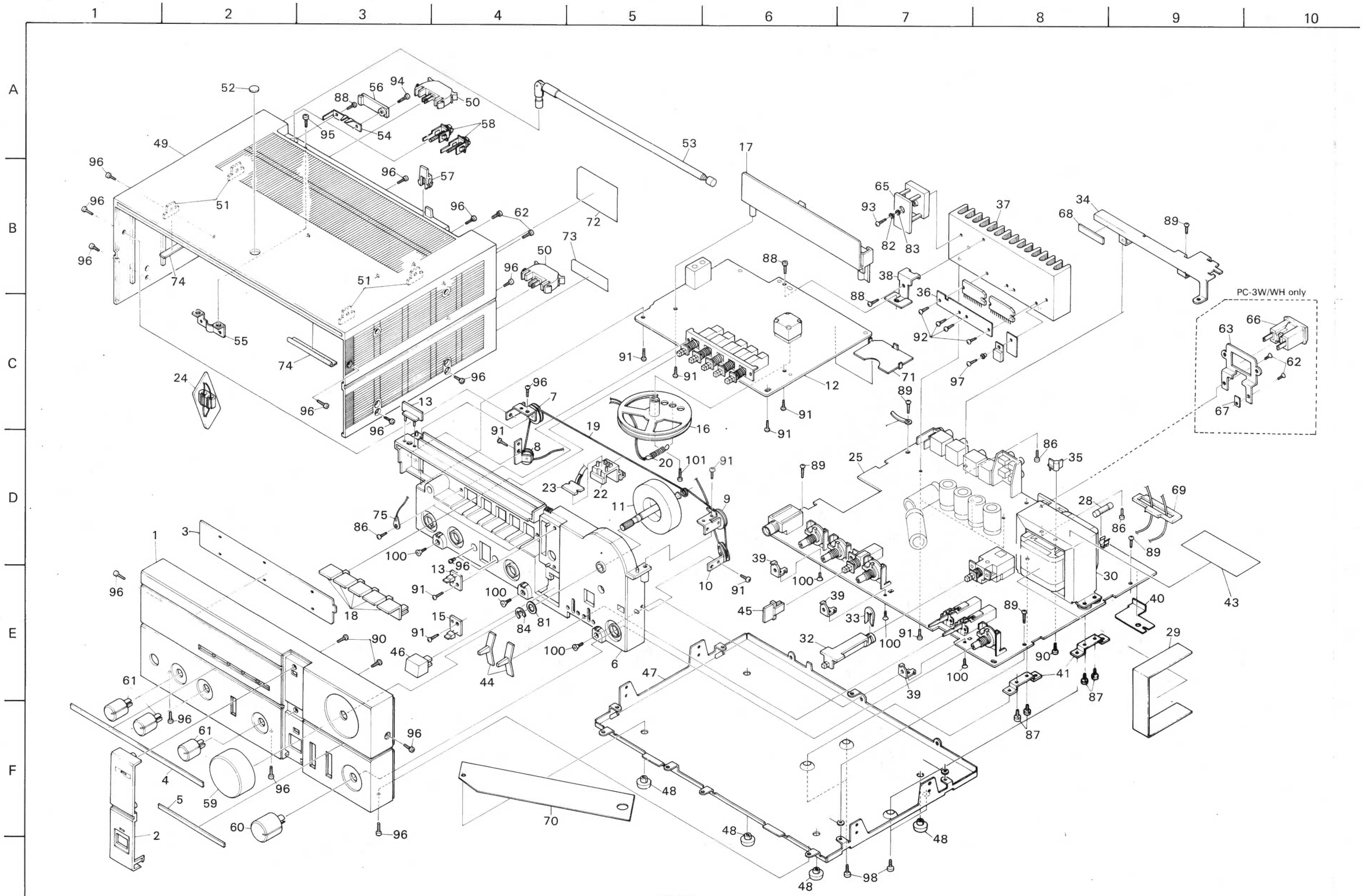


Fig. 49

PC-D3 Enclosure Assembly and Electrical Parts

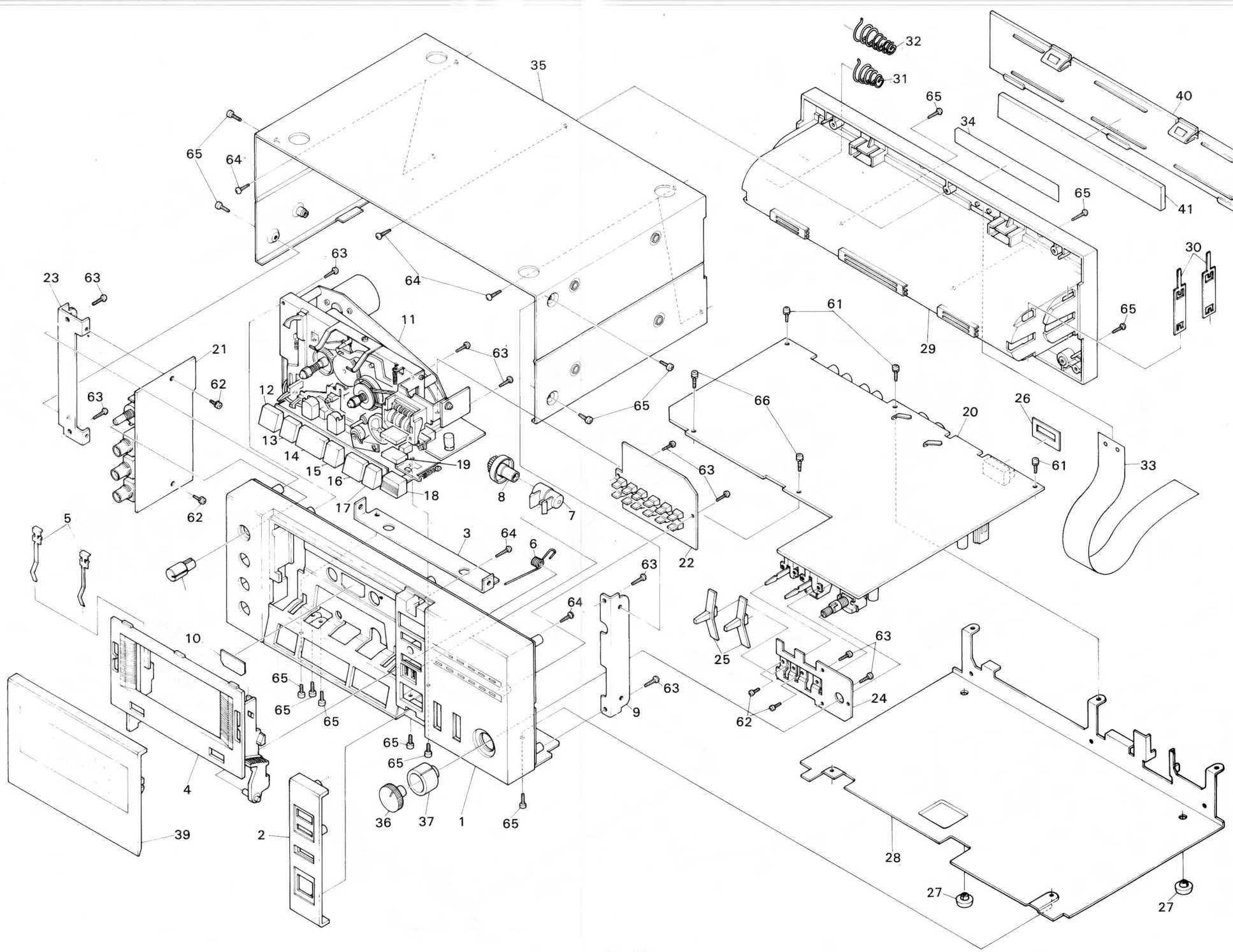
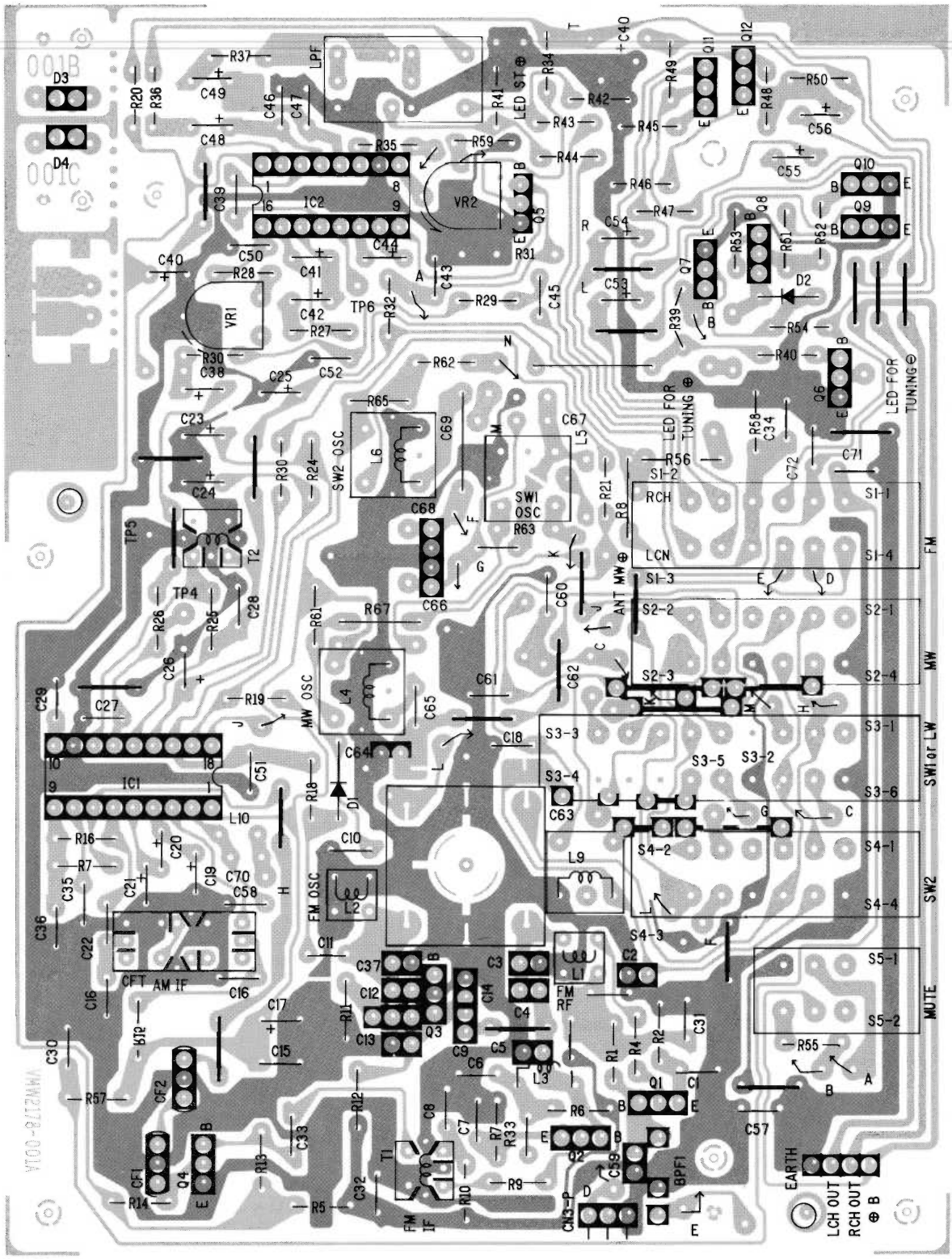


Fig. 50

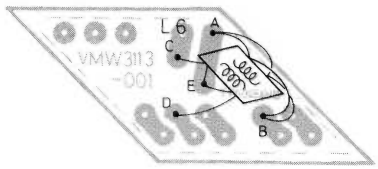
PC-D3
Enclosure Assembly and Electrical Parts List

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 Control Bracket x 2	4
63		SBSF3010C	Tap. Screw	Side Bracket x 2 Phones Bracket x 2 LED x 2 Mecha.~Amp.~F. Cover x 5	11
64		SBSF3010Z	〃	Front Cover x 2 Top Cover x 5	7
65		SDSP3006R	Screw	Door Bracket x 2 Mecha.~Amp.~F. Cover x 2 Bottom Cover x 2 Top Cover x 7	13
66		SPSP3006V	〃	Mecha. ~ Main Board	2

PC-R3 Tuner P.W. Board Parts



Terminal



+B

Earth

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

Ref. No.	⚠	Parts No.	Parts Name	Remarks		Q'ty
C39		QCC11EM-473	C. Capacitor	0.047 μF	50 V	1
C40,75		QET41AR-107	E. Capacitor	100 μF	10 V	2
C43		QET41HR-335	〃	3.3 μF	16 V	1
C46,47		QFM41HJ-183	M. Capacitor	0.018 μF	50 V	2
C48,49,53~56		QET41HR-475	E. Capacitor	4.7 μF	25 V	6
C50		QFS41HJ-471	P. Capacitor	470 pF	50 V	1
C51		QFM41HJ-103	C. Capacitor	0.01 μF	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 μF	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 μF	〃	1
C69		QFS41JH-472	〃	0.0047 μF	〃	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 kΩ	1/6 W	3
R2,7,27,69		〃 -102	〃	1 kΩ	〃	4
R4,5,15,21,22 57,66,68,75		〃 -101	〃	100 Ω	〃	9
R8		QRD141J-560S	〃	56 Ω	1/4 W	1
R9		QRD161J-331	〃	330 Ω	1/6 W	1
R10		〃 -221	〃	220 Ω	〃	1
R11		〃 -274	〃	270 kΩ	〃	1
R13		〃 -184	〃	180 kΩ	1/6 W	1
R14,61		〃 -561	〃	560 Ω	〃	2
R16,36,49,72		〃 -472	〃	4.7 kΩ	〃	4
R18,23,55,19		〃 -104	〃	100 kΩ	〃	4
R24,12,25		〃 -222	〃	2.2 kΩ	〃	3
R30		〃 -332	〃	3.3 kΩ	〃	1
R26,35,56,59,17		〃 -471	〃	470 Ω	〃	5
R28,39,40		〃 -183	〃	18 kΩ	〃	3
R29		〃 -333	〃	33 kΩ	〃	1
R31		〃 -564	〃	560 kΩ	〃	1
R32,50		〃 -473	〃	47 kΩ	〃	2
R34		〃 -273	〃	27 kΩ	〃	1
R38,43,44,54		〃 -103	〃	10 kΩ	〃	4
R41,42,51,52		〃 -562	〃	5.6 kΩ	〃	4
R45,46		〃 -121	〃	120 Ω	〃	2
R47,48		〃 -684	〃	680 kΩ	〃	2
R53		〃 -683	〃	68 kΩ	〃	1
R33		〃 -474	〃	470 kΩ	〃	1
R62		〃 -390	〃	39 Ω	1/6 W	1
R67		〃 -560	〃	56 Ω	〃	1
R63		〃 -122	〃	1.2 kΩ	〃	1
R64		〃 -820	〃	82 Ω	〃	1
R65		〃 -182	〃	1.8 kΩ	〃	1
R71		〃 -681	〃	680 Ω	〃	2
R73,20		〃 -151	〃	150 Ω	〃	2
R74		〃 -181	〃	180 Ω	〃	1
Stereo Indicator P.W.B.						
		VMW2178-001B	P.W. Board			1
D3		LN224RP	LED			1
Power Indicator P.W. Board Ass'y						
		VMW2178-001C	P.W. Board			1
D4		LN224RP	L.E.D.			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
		VMW1038-XXX	P.W. Board	No supply as parts ass'y.	1
S101-1~4		QSL4309-024	Lever Switch		1
S102-1~4		QSL4209-022V	〃		1
S103-1~2		QSP0219-055	Push Switch		1
S104-1~2		QSP2111-015	〃		1
VR101-1~2 102-1~2		QVD4A6B-115	V. Resistor	1.1 MΩ	1
VR103-1~2		QVD4A6M-154	〃	150 kΩ Balance	1
VR104-1~2		QVN3A6B-054	〃	50 kΩ VOLUME	1
J1		QMA0921-006H	DC Jack		1
J2		QMA1221-004	〃		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
Q101,201,102 202		2SC945L(P)	Transistor		4
Q103,203,303 304		2SD636 (R, S)	〃		4
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
C101,201,133 233		QET41HR-476	E. Capacitor	47μF 50 V	4
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
C112,212,113 213		QFM41HJ-563	M. Capacitor	0.056 μF 〃	4
C114,214,117 217,135,235		QET41HR-475	E. Capacitor	4.7 μF 〃	6
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
C119,219,122 222		QET41HR-105	E. Capacitor	1μF 〃	2
C120,220		QCY41HK-122	C. Capacitor	0.0012 μF 〃	2
C121,221,307 308		QCC11EM-104	C. Capacitor	0.1 μF 25 V	4

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 μF	25 V	2
C125,225,131 231		ECQE1224JNW	T.F. Capacitor	or QFV81HJ-224		4
C126,226,130 230		QFM41HJ-103	M. Capacitor	0.01μF	50 V	2
C127,227,128 228		QET41AR-476	E. Capacitor	47 μF	10 V	2
C129,229		〃 -107	〃	100 μF	〃	2
C132,232		QET41CR-228	E. Capacitor	2200 μF	16 V	4
C134,234		QET41ER-226	E. Capacitor	22μF	25 V	2
C305		〃 -478	E. Capacitor	4700 μF	〃	1
C306		QEB41HM-154	E. Capacitor	0.15 μF	50 V	1
C310		QET41CR-337	〃	330 μF	16 V	1
C311		〃 -108	〃	1000 μF	〃	1
C312		QET41ER-477	〃	470 μF	25 V	1
C313		〃 -227	〃	220 μF	〃	1
C314,315		QCC11EM-223	C. Capacitor	0.022 μF	〃	2
C316		QET41AR-477	E. Capacitor	470 μF	10 V	1
C317,323		QET41ER-228	〃	2200μF	25 V	1
C318		QET41AR-107	〃	100 μF	10 V	1
C320		QET41CR-477	〃	470 μF	16 V	1
C324		QCF11HP-223	C. Capacitor	0.022 μF	50 V (PC-R3WH)	1
R101,201		QRD161J-182	C. Resistor	1.8 kΩ	1/6W	2
R102,202,319 320,323		〃 -473	〃	47 kΩ	〃	5
R103,203		〃 -820	〃	82 Ω	〃	2
R104,204,306 307		〃 -102	〃	1 kΩ	〃	4
R105,205,107 207,114,214 115,215,117 217,304,311 312		〃 -103	〃	10 kΩ	〃	13
R106,206		〃 -124	〃	120 kΩ	〃	2
R108,208		〃 -223	〃	22 kΩ	〃	2
R109,209,121 221		〃 -222	〃	2.2 KΩ	〃	4
R110,210,116 216,310,703		〃 -472	〃	4.7 kΩ	〃	2
R111,211,301 302,321,322		〃 -104	〃	100 kΩ	〃	4
R112,212		〃 -334	〃	330 kΩ	〃	2
R113,213,119 219		〃 -392	〃	3.9 kΩ	〃	4
R118,218		QRD161J-684	〃	680 kΩ	〃	2
R120,220		〃 -681	〃	680 Ω	〃	2
R122,222,126 226		〃 -2R2	〃	2.2 Ω	〃	4
R124,224		〃 -331	〃	330 Ω	〃	2
R127,227		〃 -682	〃	6.8 kΩ	〃	2
R128,228		〃 -330	〃	33 Ω	〃	2
R305,307,123 223,125,225		〃 -331	〃	330 Ω	〃	2
R308		〃 -100	〃	10 Ω	〃	1
R309		〃 -332	〃	3.3 kΩ	〃	1
R313		QRD141J-101S	〃	100 Ω	1/4 W	1
R314		-150S	〃	15 Ω	〃	1
R315		QRD161J-221	〃	220 Ω	1/6 W	2
R316		〃 -101		100 Ω	〃	1
R320		QRC121K-225	〃	2.2 MΩ PC-R3JW	1/2 W	1
<Det. P.W. Board>						
		VMW1038-XXX	P.W. Board			1
C301～304	⚠	QCF11HP-223	C. Capacitor	0.022 μF	50 V	4
D301～304	⚠	DS5BN-L	Si. Diode			4

PC-R3JW Amplifier P.W. Board Parts

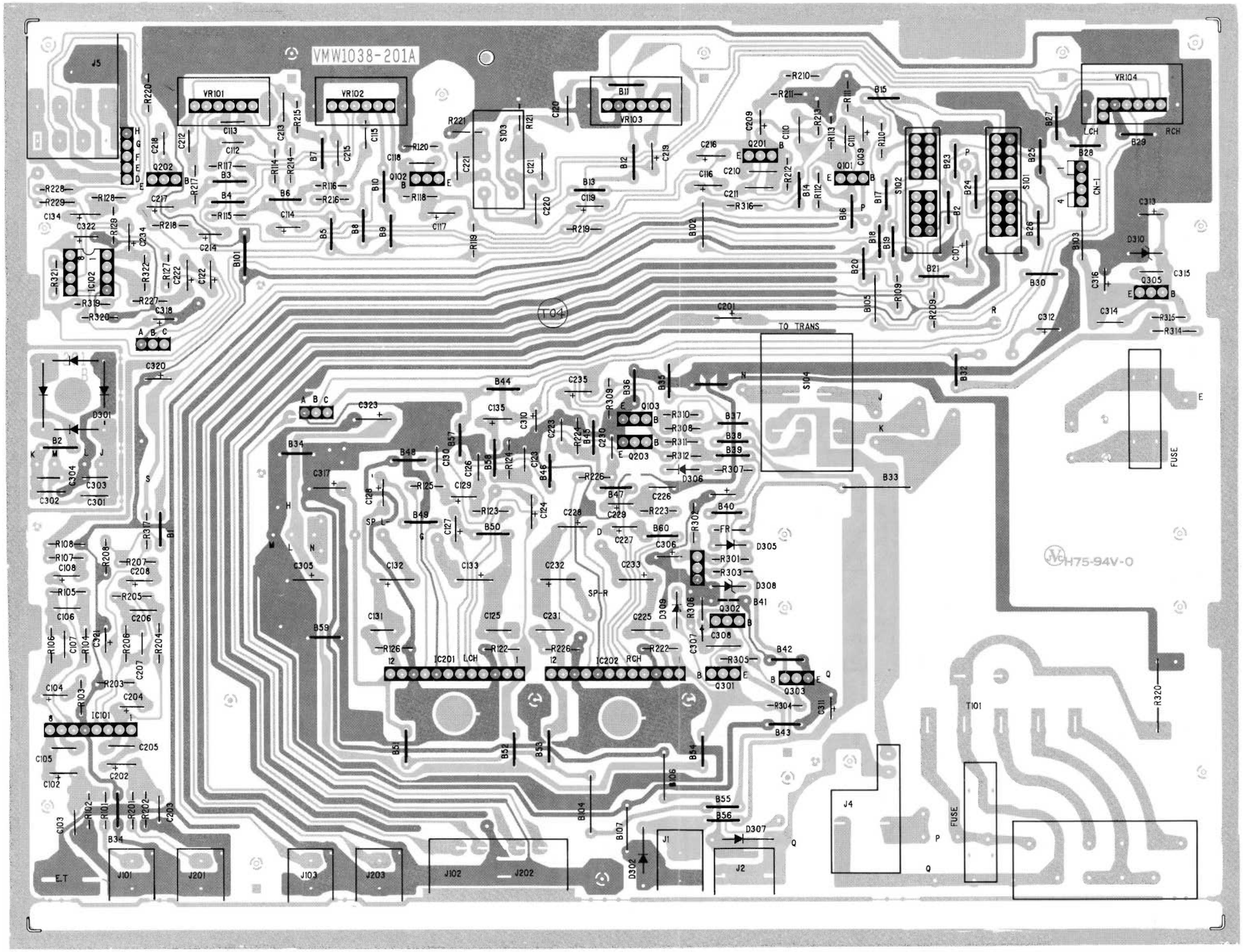


Fig. 52

No. 1469

PC-R3W Amplifier P.W. Board Parts

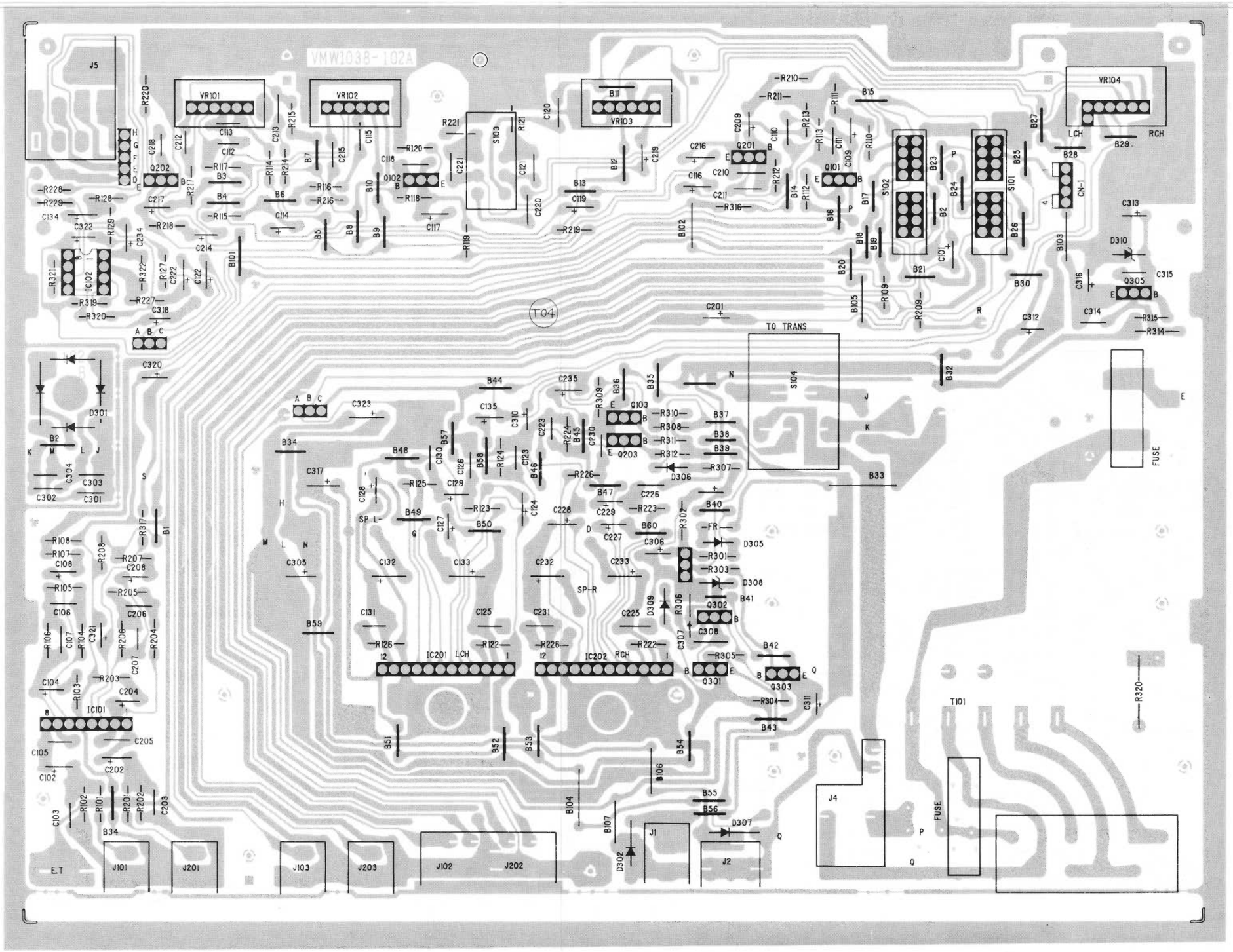
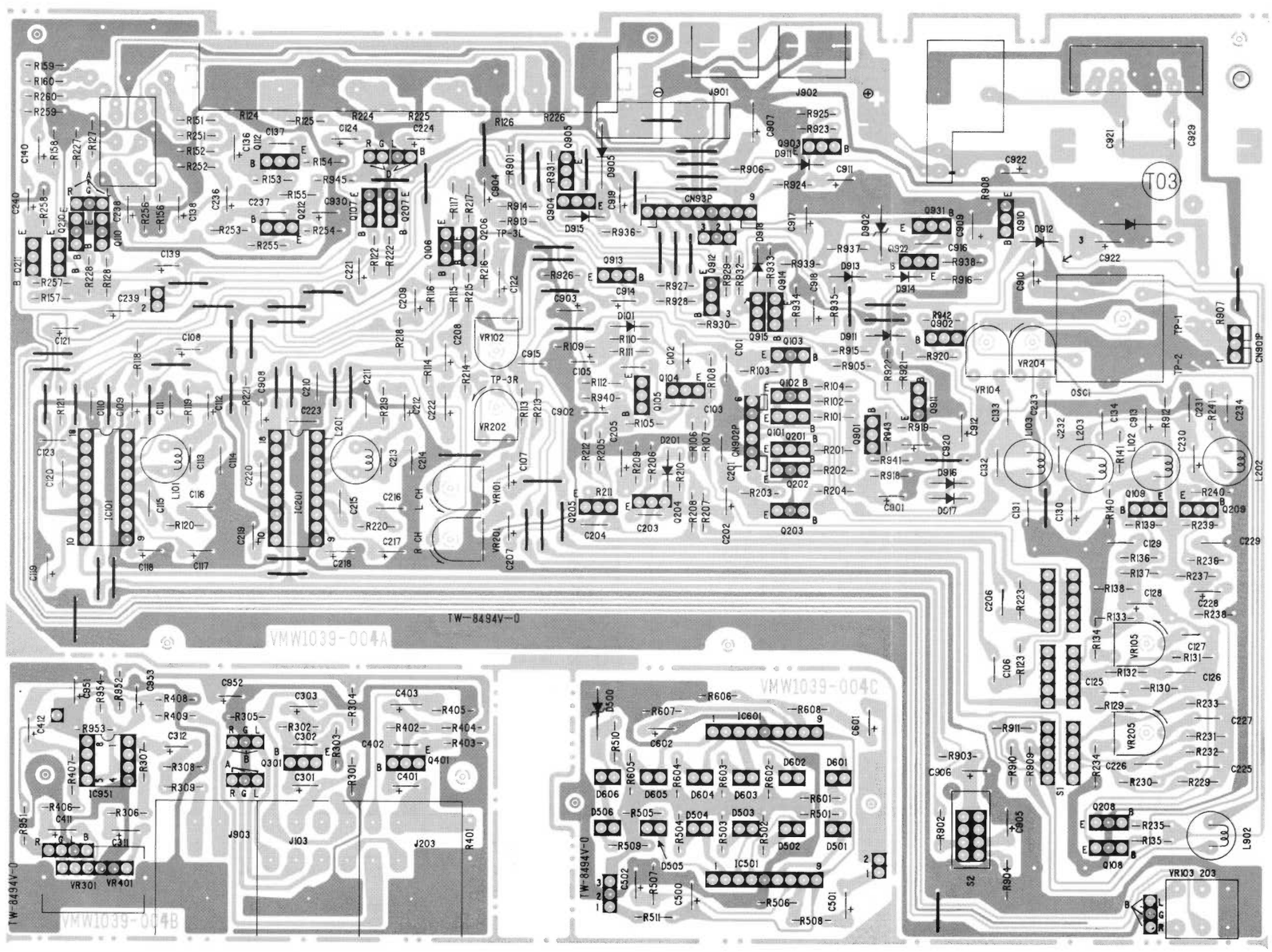


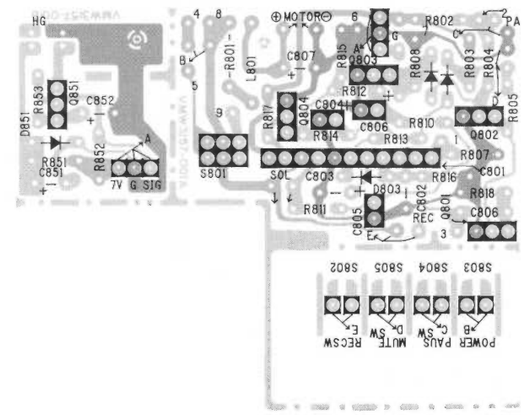
Fig. 53

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

Mecha. Control



Auto stop



Mic & Headphone

Level Indicator

+B

Earth

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
		VMW1039-003A	P.W. Board	No supply as parts ass'y	1
S1-1~6		QSL6309-001	Lever Switch		1
S2		QSL2309-003	〃		1
S3		QSS1201-021	Slide Switch		1
J101,201,102		VMJ3004-003	Pin Jack		1
202					
J901		QMA1221-004	DC Jack		1
J902		QMA0921-005	〃		1
OSC1		VGC0002-001	OSC Block		1
L101,201,103		VQP0001-183S	Inductor		4
203					
L102,202		VQP0001-562S	〃		2
L902		〃 -102S	〃		1
IC101, 201		AN7363	IC		2
Q101,201,102		2SC1845(E,U)	Transistor		4
202					
Q103,203,106		2SC945(P,Q)	〃	or 2SC2785(H,F,E)	14
206,107,207					
108,208					
911~915,922					
Q104,204,105		2SC1843(F,E)	〃	〃	4
205					
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					
Q910,110,210		2SD1020(H,F,E)	〃		3
Q931		2SB772(Q,P)	〃		1
D902		HZ7B2	Zener Diode		1
D905		10E1	Si. Diode		1
D101,201		MA165	〃		11
911~919					
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					
R102,202,104		〃 -332	〃	3.3 kΩ 〃	7
204,125,225					
938					
R103,203		〃 -100	〃	10 Ω 〃	2
R105,205,920		〃 -823	〃	82 kΩ 〃	2
R106,206,111		〃 -101	〃	100 Ω 〃	6
211,915,924					
R107,207		〃 -682	〃	6.8 kΩ 〃	2
R108,208,935		〃 -334	〃	330 kΩ 〃	3
R109,209,121		〃 -152	〃	1.5 kΩ 〃	5
221,905					
R110,210		〃 -224	〃	220 kΩ 〃	2
R112,212,139		〃 -103	〃	10 kΩ 〃	9
239,902,903					
914,929,943					
R113,213,117		〃 -223	〃	22 kΩ 〃	11
217,127,227					
130,230,136					
236,942					
R114,214,919		〃 -333	〃	33 kΩ 〃	4
931					
R115,215,141		〃 —151	〃	150 Ω 〃	5
241,941					

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					
R118,218,119		〃 -472	〃	4.7 kΩ 〃	17
219,122,222					
123,223,135					
235,904,913					
916,921,926					
936,940					
R120,220		〃 -680	〃	68 Ω 〃	2
R126,226,131		〃 -473	〃	47 kΩ 〃	8
231,134,234					
937,939					
R129,229,132		〃 -683	〃	68 kΩ 〃	4
232					
R137,237		〃 -564	〃	560 kΩ 〃	2
R138,238,923		〃 -104	〃	100 kΩ 〃	8
925,927,928					
930,934					
R140,240		〃 -122	〃	1.2 kΩ 〃	2
R901		〃 -471	〃	470 Ω 〃	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					
914,918					
C106,206,111		QFM41HJ-103	M. Capacitor	0.01 μF 〃	4
211					
C107,207		QET41HR-475	E. Capacitor	4.7 μF 〃	2
C108,208,109		QEB41HM-334	E. Capacitor (Low Leak)	0.33 μF 〃	4
209					
C110,210		QCS11HJ-681	C. Capacitor	680 pF 〃	2
C112,212,121		QET41HR-105	E. Capacitor	1 μF 〃	14
221,122,222					
124,224,128					
228,130,230					
911,922					
C113,213,132		QCS11HJ-271	C. Capacitor	270 pF 〃	4
232					
C114,214		QFM41HJ-152	M. Capacitor	0.0015 μF 〃	2
C115,215		〃 -272	〃	0.0027 μF 〃	2
C116,216		〃 -683	〃	0.068 μF 〃	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					
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 μF 50 V	2
C903		QET41CR-107	E. Capacitor	100 μF 16 V	1
C904,905,906		QET41AR-476	〃	47 μF 10 V	3
C907		QET41CR-228	〃	2200 μF 16 V	1
C908		QET41AR-227	〃	220 μF 10 V	1
C915		QFM41HJ-682	M. Capacitor	0.0068 μF 50 V	1
C916		QCC11EM-104	C. Capacitor	0.1 μF 25 V	1
C917,920		QET41AR-108	E. Capacitor	1000 μF 10 V	2
C919		QET41ER-476	〃	47 μF 25 V	1
		VMZ0015-001	Post Pin		4
CN901P		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.
When replacing those parts, make sure to use the specified one.

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

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

Auto Stop P.W. Board Ass'y

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

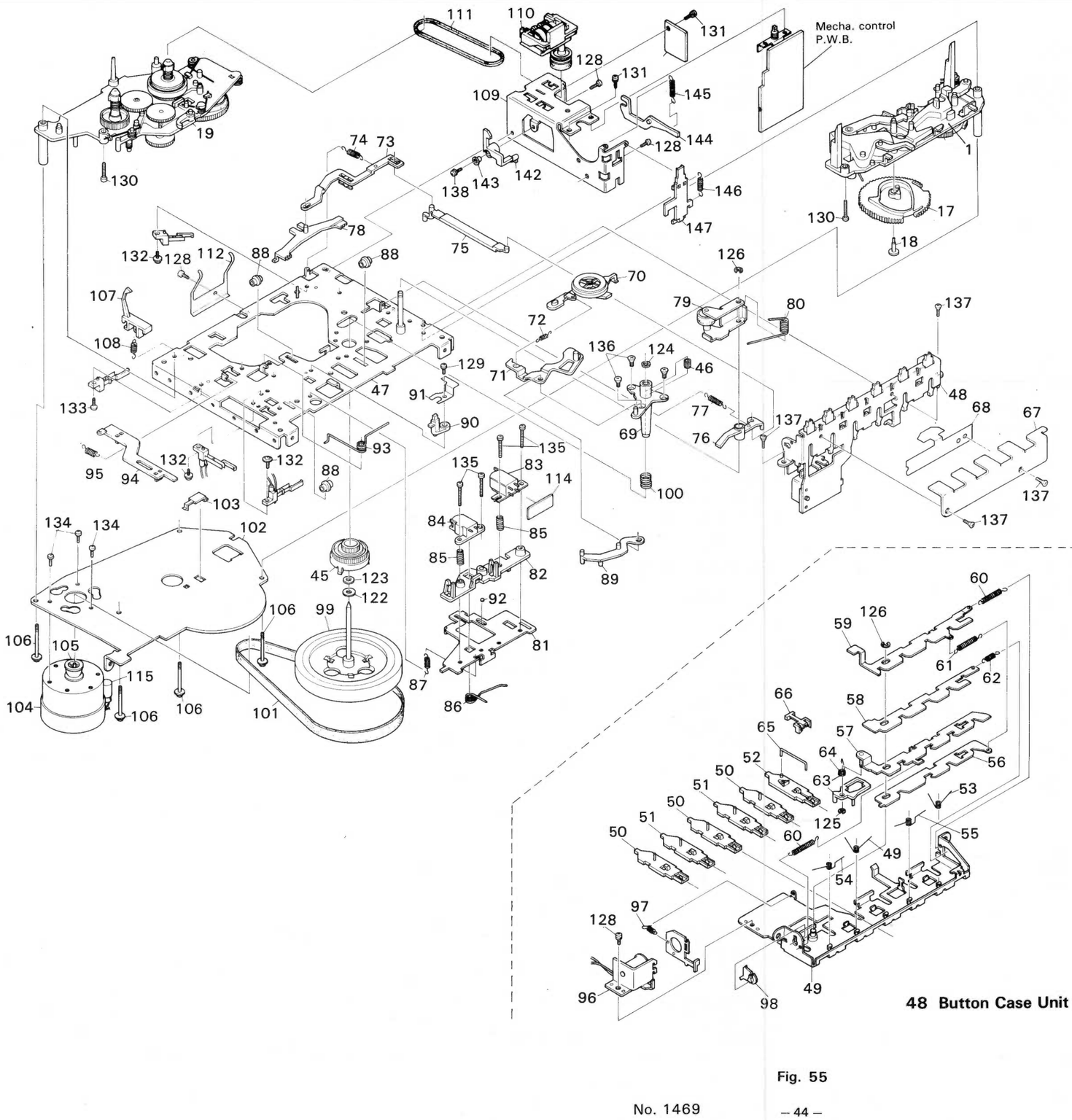
Level Indicator P.W. Board Parts List

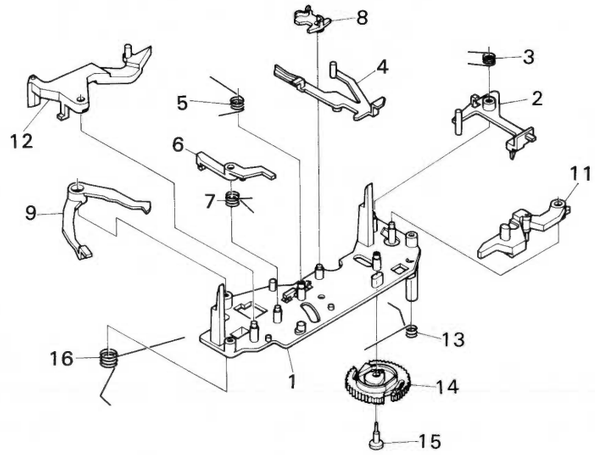
Ref. No.	⚠	Parts No.	Parts Name	Remarks	Q'ty
		VMW1039-003C	P.W.Board	No supply as parts ass'y	1
IC501,601		BA6124	IC		2
D501-506		LN12177P	LED Ass'y		1
601-606					
D500		HZ5B	Zener Diode		1
R501-505		QRD161J-331	C. Resistor	330 Ω 1/6 W	10
601-605					
R506,606		〃 -332	〃	3.3 kΩ 〃	2
R507,607,510		〃 -103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

Mic/Phones P.W. Board Parts List

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

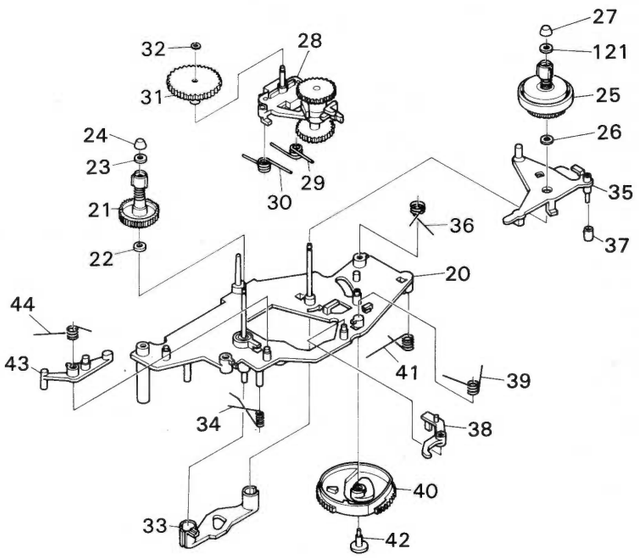
Mechanical Component Parts





1 Main Base Ass'y

48 Button Case Unit



19 Disk base Unit

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 Main Cam	2
61	〃 -100	〃	Switch Cam ~ Rec. Cam	1
62	〃 -095	〃	Sub Cam	1
63	VKS4422-001	Select Arm		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 μF 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
			Pinch Roller Ass'y x 1	
128	HPST2604Z	Screw	Solenoid Ass'y x 1	4
			Tape Counter x 2	
			Pack Spring x 1	
129	HPST2606Z	〃	Stell Ball	1
130	HPST2612Z	〃	Main Base x 1 Disk Base x 1	2
131	LPSP3004Z	〃	Auto Stop x 1	3
			Rec Mute x 2	
132	SBSB2006Z	〃	Switch Ass'y	3
133	SBSB2605Z	〃	〃	1
134	SPSP2603Z	〃	D.C. Motor	3
135	SPSX2010N	〃	R/P Head x 2 E. Head x 2	4
136	SPST2604Z	〃	Capstan Metal Ass'y	3
137	SSST2605Z	〃	Button Case x 2	4
			Button Bracket x 2	
138	LPSP2608Z	〃	Counter Bracket Ass'y	1
139	SPSK1425M	〃	Bracket	1
141	VKL3362-001	Counter Bracket		1
142	VKS4439-001	Lock Arm		1
143	VKH3001-039	Flange Collar		1
144	VKS4440-001	Eject Lever		1
145	VKW3002-063	Tension Spring	E. Button	1
146	〃 -034	〃	E. Lever	1
147	VKS4441-001	Eject Button		1

Packing

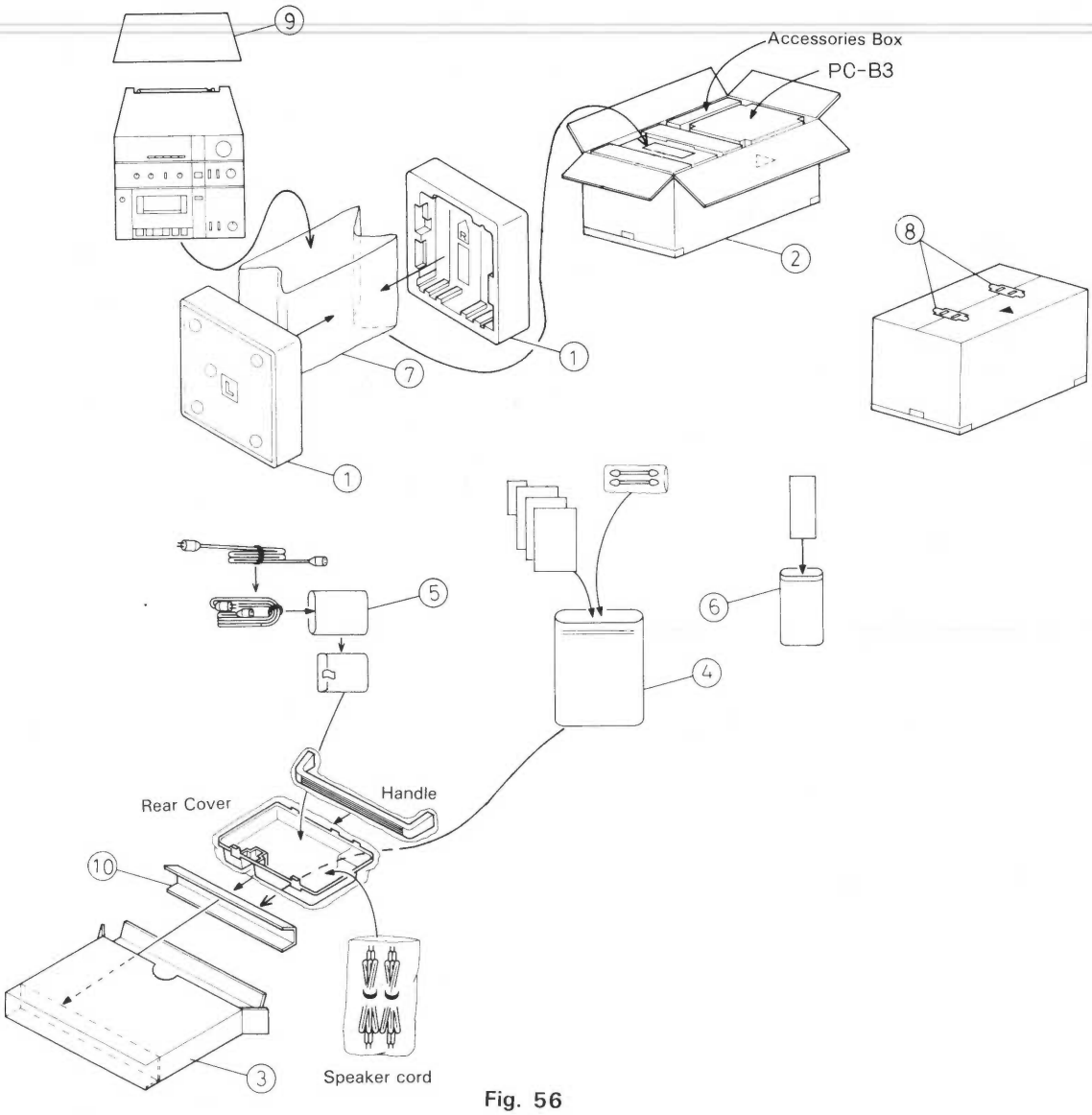


Fig. 56

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
VGT12M2-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

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