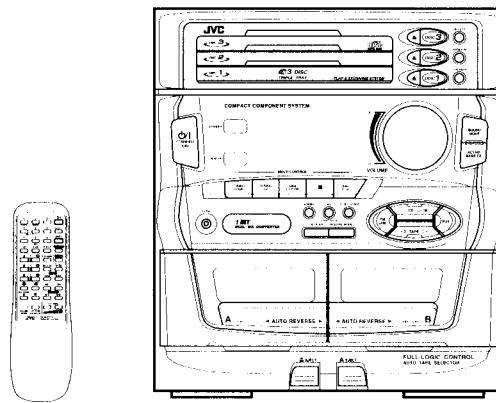


# JVC

## SERVICE MANUAL

### COMPACT COMPONENT SYSTEM

**MX-D451TR B/E/EN/G/VX**



**COMPACT  
disc  
DIGITAL AUDIO**

This Service manual have not "Instructions", " Location of main Parts ", " Out line of Main IC ". " Analytic Drawing for CD traverse mechanism and Cassette mechanism etc. ", " Block Diagram " and so on. These items should be used in conjunction with service manual for MX-D551TR all version (Issue No.10056).

#### Area Suffix

B .....	U.K.
E .....	Continental Europe
EN .....	North Europe
G .....	Germany
VX .....	Eastern Europe

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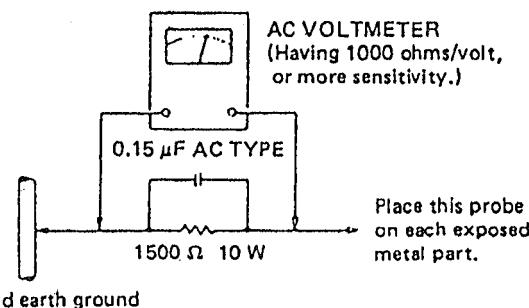
# 1. Safety Precautions

1. The design this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacture's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety - related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of service manual. Electrical components having such features are identified by (  ) on the schematic diagram and parts list in the service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of service manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps , tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.
5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. using a "Leakage current tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC(r.m.s.)
- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 ohms 10W resistor paralleled by a 0.15  $\mu$  F AC type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured



## Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

### CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.

## 2. Safety Precaution about MX-D451TR

### IMPORTANT FOR LASER PRODUCTS

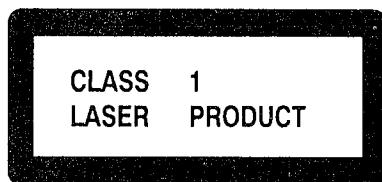
#### PRECAUTIONS

1. CLASS 1 LASER PRODUCT
2. **DANGER:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION:** Do not open the rear cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
4. **CAUTION:** The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent the emission of radiation when the CD holder is open. It is dangerous to defeat the safety switches.
5. **CAUTION:** Use of controls for adjustments and the performance of procedures other than those specified herein may result in exposure to hazardous radiation.
6. **CAUTION:** The laser is able to function, if safety switches out of function. The laser light is invisible, avoid exposure, do not disassemble the laser unit, but replace the complete unit.

### IMPORTANT FOR LASER PRODUCTS

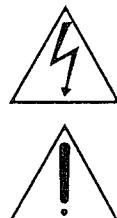
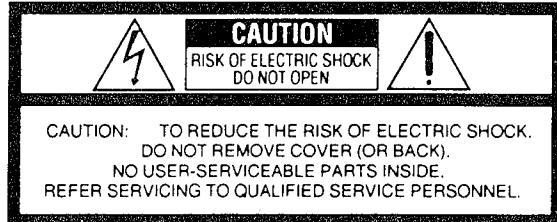
#### REPRODUCTION OF LABELS

① CLASSIFICATION LABEL, PLACED ON REAR ENCLOSURE



② WARNING LABEL, PLACED INSIDE THE UNIT

DANGER: Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)	WARNING: Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Beträkta ej strålen. (f)	ADVARSEL: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå utsættelse for stråling (g)	VARO: Avattaessa ja suojauslukitus ohjeltessa olet alttiina näkyimättömälle lasersäteilylle. Älä katso säleeseen. (h)
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The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### **3.Instructions**

Refer to Service manual for MX-D551TR B/E/EN/G (Issue No.10056).

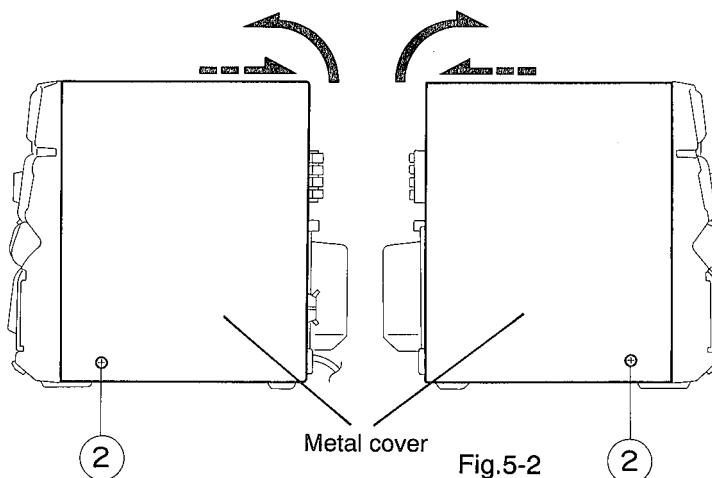
## 4.Location of Main Parts

Refer to Service manual for MX-D551TR B/E/EN/G (Issue No.10056).

## 5. Removal of Main Parts

### ■ Removal of the Metal Cover (See Figs. 5-1,5-2)

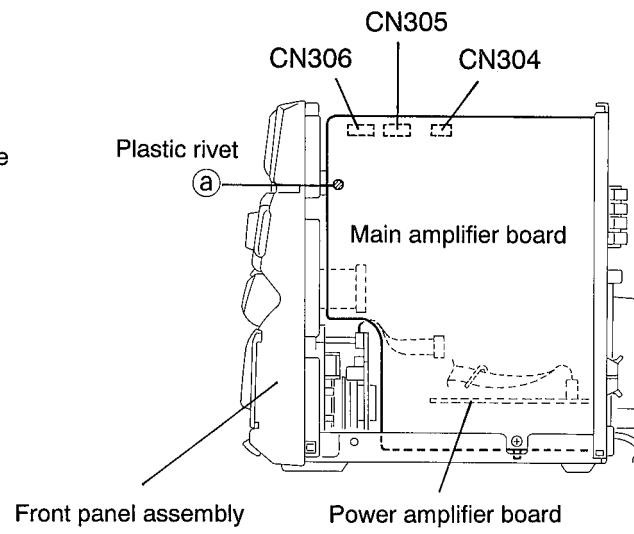
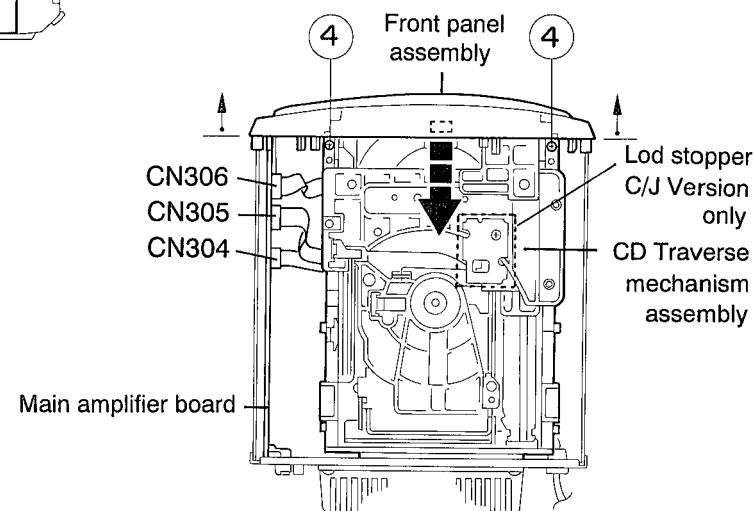
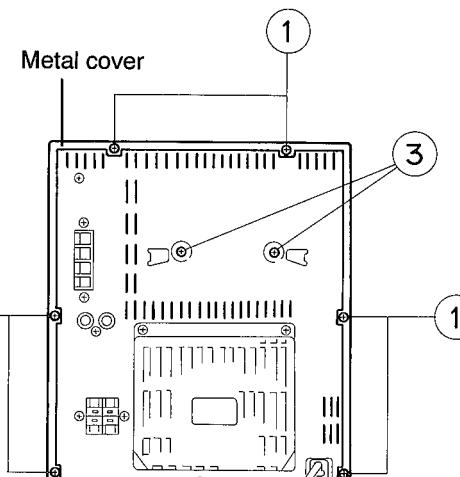
1. Remove the six screws ① fastening the metal cover to the rear panel of the main unit.(See Fig. 5-1)
2. Remove the two screws ② fastening the metal cover to the side panel of the main unit.(See Fig. 5-1)
3. Spread both sides of the metal cover outward and remove from the back panel by lifting upward.



### ■ Removal of the CD Traverse Mechanism Assembly

(See Figs. 5-1~5-4)

1. Remove the metal cover.
2. Remove the two screws ② fastening the CD traverse mechanism assembly to the rear panel of the main unit. (See Fig. 5-1)
3. Remove the two screws ④ fastening the CD traverse mechanism assembly to the top panel of the main unit. (See Fig. 5-3)
4. Disconnect the card wires connected to the CD traverse mechanism assembly from connectors CN304, CN305 and CN306 on the main amplifier board on the right side of the main unit.(See Fig. 5-3)
5. Remove the plastic rivet ⑤ fastening the main amplifier board and front panel assembly to the left side panel of the main unit.(See Fig. 5-4)
6. Tilt the front panel assembly slightly forward and remove the CD traverse mechanism assembly from the front panel assembly by shifting in the direction of the arrow and lifting upward.(See Fig. 5-3)



## ■ Removal of the Front Panel Assembly

(See Figs. 5-5~5-9)

1. Remove the metal cover.
2. Remove the CD traverse mechanism assembly.
3. Remove the four screws ⑤ fastening the front panel assembly to the side of the main unit.(See Fig. 5-5)
4. Use a screwdriver, etc., to disengage clips ⑥ and ⑦ from the side panels of the main unit.(See Figs. 5-6, 5-7)
5. Disconnect the card wires connected to the front panel assembly from connectors CN302 and CN303 on the main amplifier board.(See Fig. 5-8)
6. Remove the wire clamp holding the parallel wires protruding from the front panel assembly and the parallel wires protruding from the power supply board.(See Figs. 5-8, 5-9)
7. Disconnect connector CN904 on the power amplifier board and then disconnect the parallel wires protruding from the front panel assembly.(See Figs. 5-8, 5-9)
8. Remove the front panel assembly.

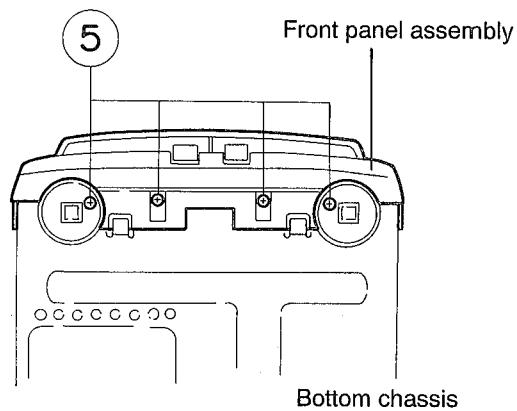


Fig.5-5

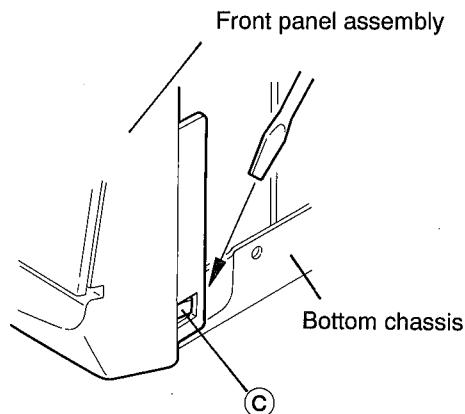


Fig.5-6

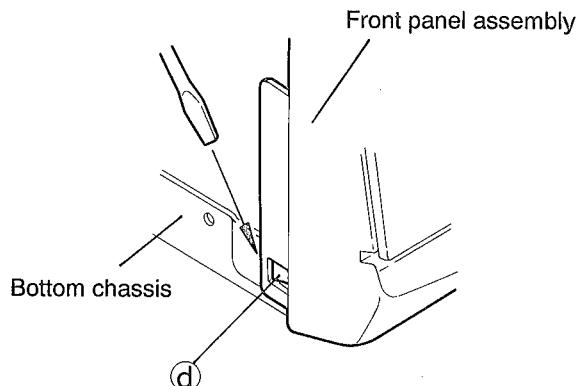


Fig.5-7

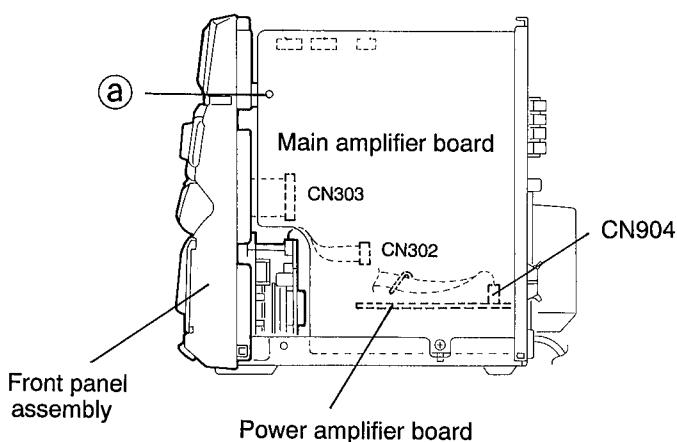


Fig.5-8

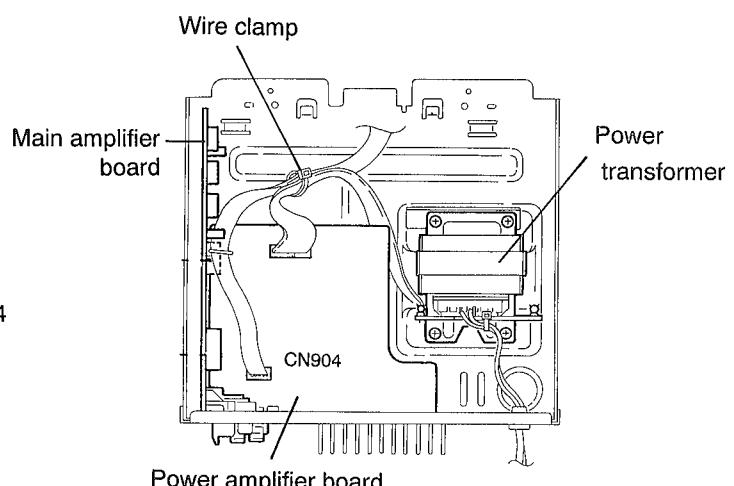


Fig.5-9

### ■ Removal of the Rear Panel Assembly

1. Remove the metal cover.
2. Remove the CD traverse mechanism assembly.
3. Remove the front panel assembly.
4. Remove the screw ⑥ fastening the main amplifier board and bottom chassis to the side panels of the main unit. (See Fig. 5-10)
5. Remove the screw ⑦ fastening the rear panel and bottom chassis to the rear panel of the main unit. (See Fig. 5-11)
6. Use a screwdriver, etc., to disengage the two engagements bottom chassis clips ⑧ and ⑨ from the bottom part of the side panels of the rear panel assembly. (See Figs. 5-12, 5-13)
7. Disconnect the parallel wires protruding from the power supply board from connector CN902 of the power amplifier board. (See Fig. 5-14)
8. Remove the rear panel assembly from the bottom chassis by disengaging the protrusion ⑩ of the main amplifier board from the cutout in the bottom chassis. (See Fig. 5-10)

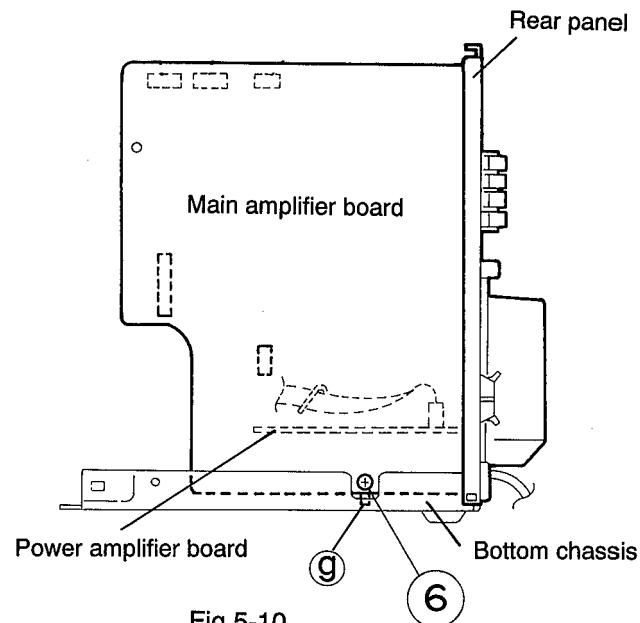


Fig.5-10

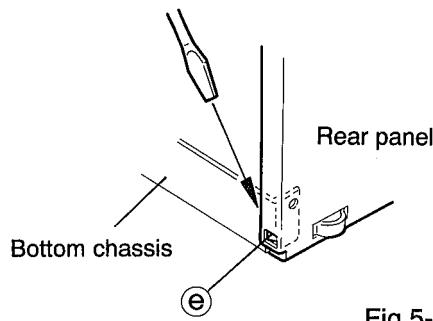


Fig.5-12

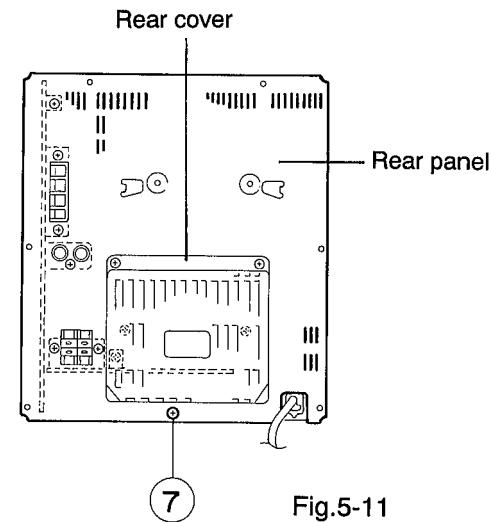


Fig.5-11

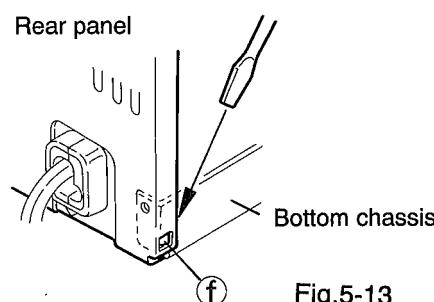


Fig.5-13

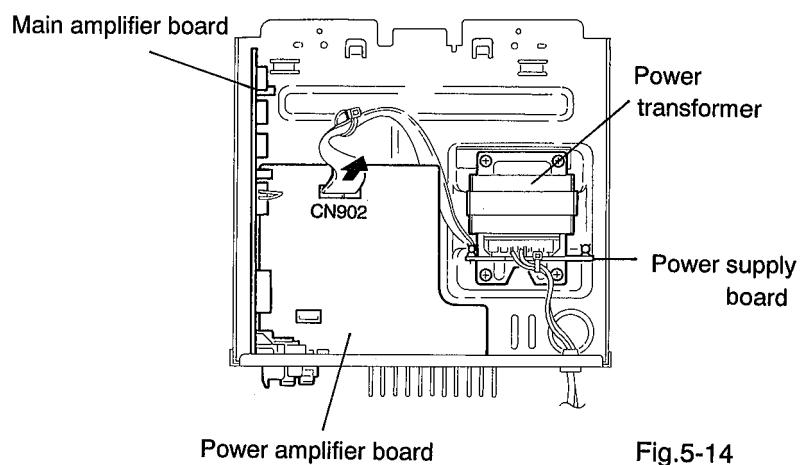


Fig.5-14

### ■ Removal of the Main Amplifier Board

1. Remove the metal cover.
2. Remove the CD traverse mechanism assembly.
3. Remove the front panel assembly.
4. Remove the rear panel assembly.
5. Remove the four screws ⑧ fastening the main amplifier board to the rear panel.(See Fig. 5-15)
6. Disconnect the main amplifier board connectors CN307 and CN308 from the power amplifier board.(See Fig. 5-16)

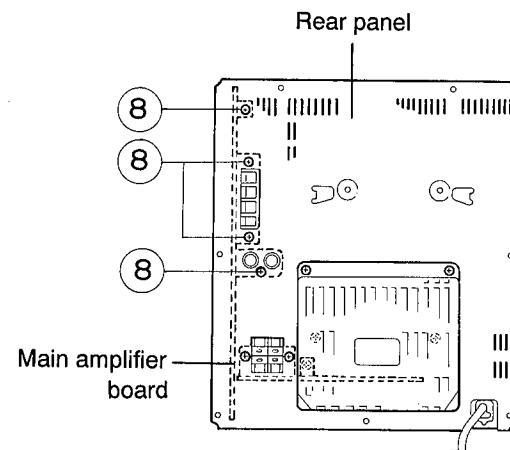


Fig.5-15

### ■ Removal of the Power Amplifier Board

1. Remove the metal cover.
2. Remove the CD traverse mechanism assembly.
3. Remove the front panel assembly.
4. Remove the rear panel assembly.
5. Remove the main amplifier board.
6. Remove the two screws ⑨ fastening the rear cover to the rear panel assembly and then remove the rear cover.  
(See Fig. 5-17)
7. Remove the five screws (⑩ x 3, ⑪ x 2) fastening the power amplifier board to the rear panel assembly.(See Fig. 5-17)
8. Remove the two screws ⑬ fastening the voltage select board to the rear panel assembly.  
(See Fig. 5-17a For U version only)

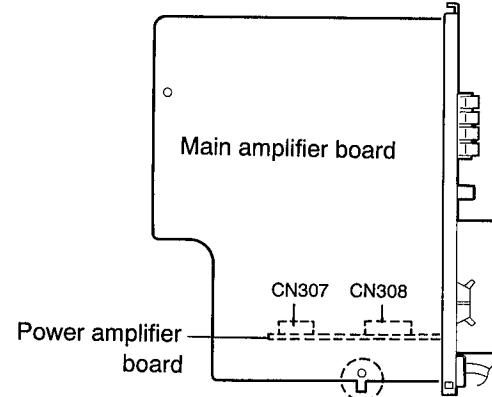


Fig.5-16

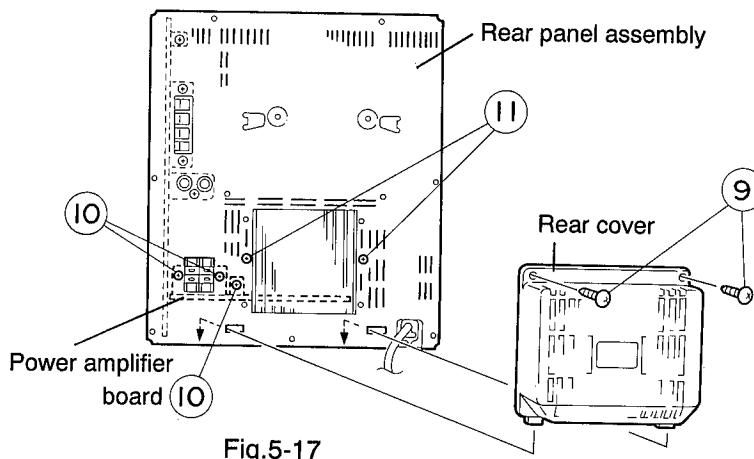


Fig.5-17

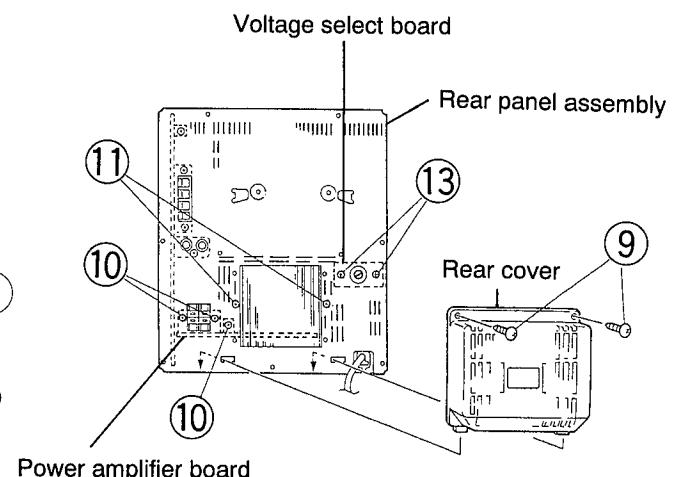


Fig. 5-17a (For U version only)

### ■ Removal of the Power Transformer

(See Figs. 5-18,5-19)

1. Remove the metal cover.
2. Remove the CD traverse mechanism assembly.
3. Remove the front panel assembly.
4. Remove the rear panel assembly.
5. Remove the main amplifier board.
6. Remove the power amplifier board.
7. Remove the four screws ⑫ fastening the power transformer.
8. Disconnect the power amplifier board connector CN902 and then disconnect the parallel wire.
9. Either unsolder the power cord from the power supply board terminals TB001 and TB002 or remove the cord clamp inserted into the bottom chassis and remove.

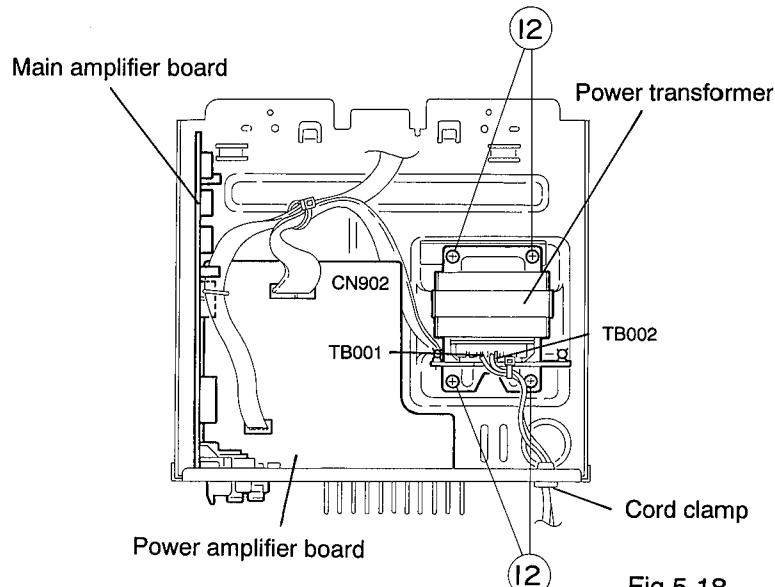


Fig.5-18

### ■ Removal of the Mic & Echo amplifier board

(See Fig. 5-A For A/U version only)

Remove the screw ⑯ fastening the Mic & Echo amplifier board inside the front panel assembly.

### ■ Removal of the Headphone & Mic jack board

(See Fig. 5-A )

Remove the two screws ⑮ fastening the headphone & Mic jack board assembly inside the front panel

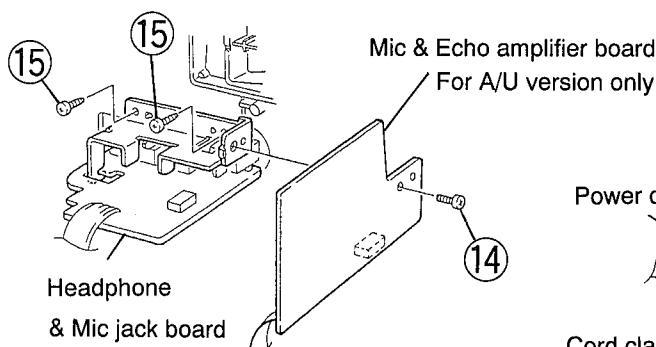


Fig.5-A

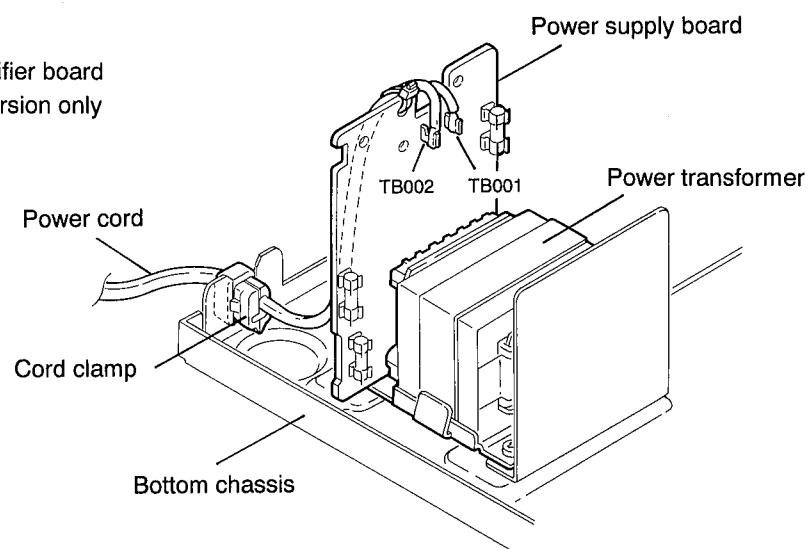


Fig.5-19

### 『Front Panel Assembly Sections』

#### ■ Removal of the Front Panel

(See Figs. 5-20~5-23)

1. Remove the metal cover.
2. Remove the CD traverse mechanism assembly.
3. Remove the front panel assembly.
4. Remove the volume knob from the front of the front panel assembly.(See Fig. 5-20)
5. Remove the nut fastening the volume control from the front panel assembly.(See Fig. 5-20)
6. Remove the eight screws ① fastening the stay bracket inside the front panel assembly.(See Fig. 5-21)
7. Remove the nine screws ② fastening the system CPU board.(See Fig. 5-22)
8. Disconnect the card wires protruding from connector CN305 on the head amplifier & mechanism control board from connector CN700 on the system CPU board.  
(See Figs. 5-22,5-23)

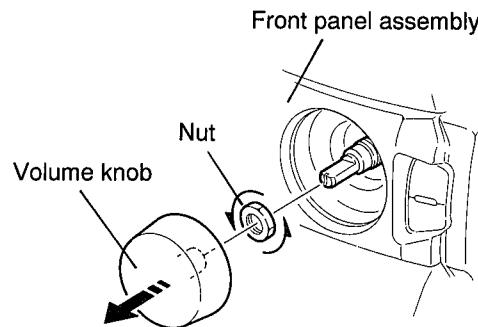


Fig.5-20

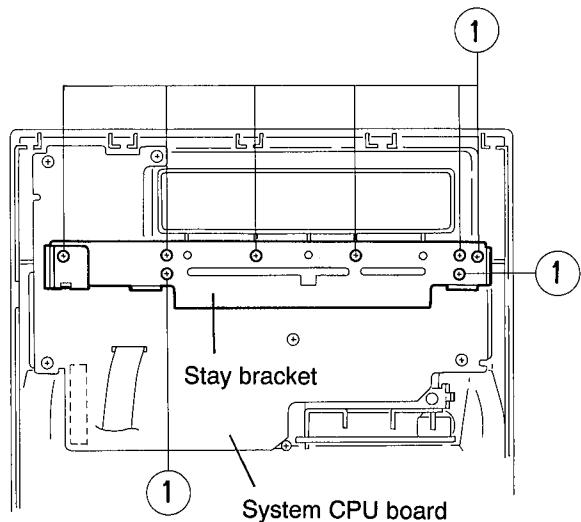


Fig.5-21

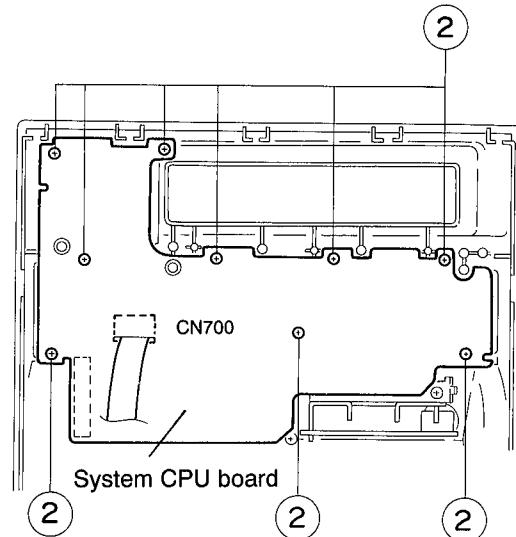


Fig.5-22

#### ■ Removal of the Cassette Mechanism Assembly

(See Fig. 5-23)

1. Remove the metal cover.
2. Remove the CD traverse mechanism assembly.
3. Remove the front panel assembly.
4. Remove the eight screws ③ fastening the cassette mechanism assembly to the inside of the front panel assembly.
5. Disconnect the card wires from connectors CN305 and CN306 on the head amplifier & mechanism control board.

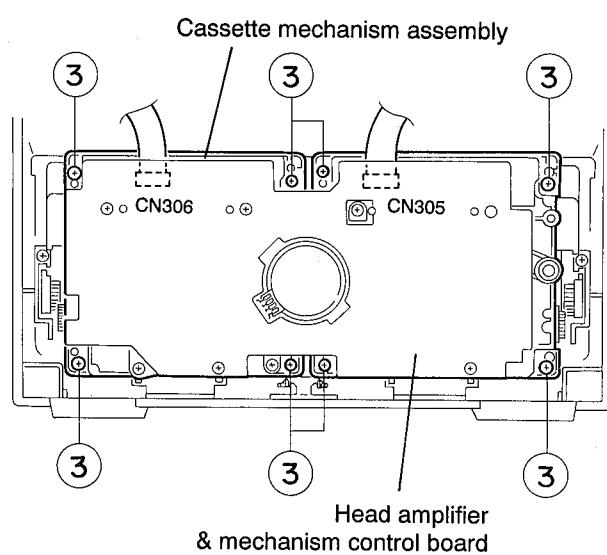


Fig.5-23

## 《Cassette Mechanism Section》

### ■ Removing the Playback, Recording and Eraser Heads

1. While shifting the trigger arms seen on the right side of the head mount in the arrow direction, turn the flywheel R in counterclockwise direction until the head mount has gone out with a click (See Fig. 5-24).
2. When the flywheel R is rotated in counterclockwise direction, the playback head will be turned in counterclockwise direction from the position in Fig. 5-25 to that in Fig. 5-26.
3. At this position, disconnect the flexible P.C. board (outgoing from the playback head) from the connector CN301 on the head amp. & mechanism control P.C. board.
4. After dismounting the FPC holder, remove the flexible P.C. board.
5. Remove the flexible P.C. board from the chassis base.
6. Remove the spring ④ from behind the playback head.
7. Loosen the reversing azimuth screw retaining the playback head.
8. Take out the playback head from the front of the head mount.
9. The recording and eraser heads should also be removed similarly according to Steps 1~8 above.

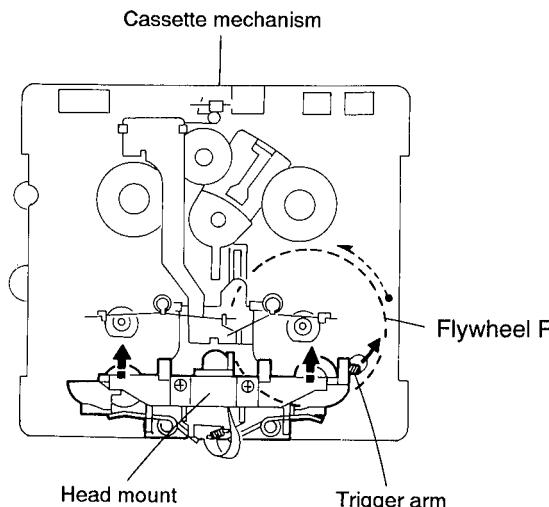


Fig.5-24 (Mechanism A side)

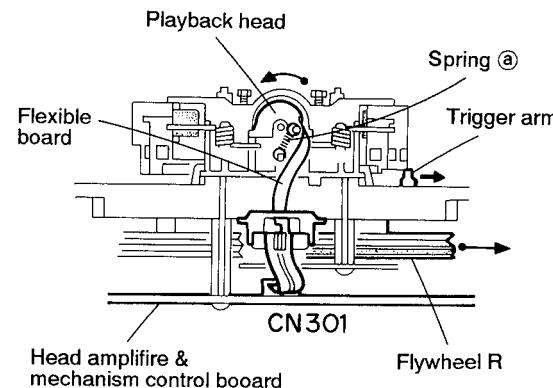


Fig.5-25 (Mechanism A side)

### ● Reassembling the Playback, Recording and Eraser Heads

1. Reassemble the playback head from the front of the head mount to the position as shown in Fig. 5-26.
2. Fix the reversing azimuth screw.
3. Set the spring ④ from behind the playback head.
4. Attach the flexible P.C. board to the chassis base, and fix it with the FPC holder as shown in Fig. 5-26.
5. The recording and eraser heads should also be reassembled similarly according to Steps 1~4 above.

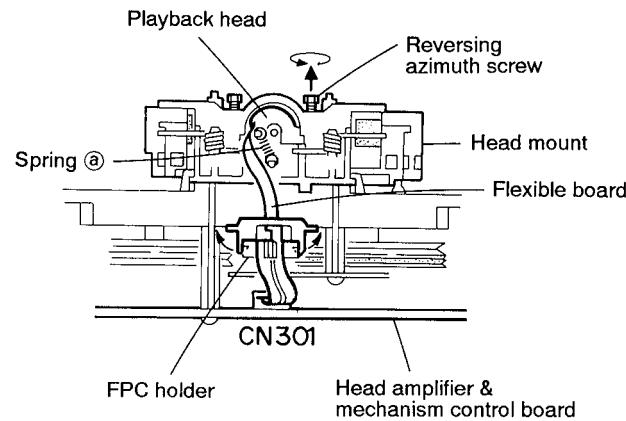


Fig.5-26 (Mechanism B side)

### ■ Removing the Head Amp. & Mechanism Control P.C. Board (See Fig. 5-27)

1. Remove the cassette mechanism assembly.
2. After turning over the cassette mechanism assembly, remove the five screws ① retaining the head amp. & mechanism control P.C. board.
3. Disconnect the connectors CN303 and CN304 on the P.C. board and the connectors CN1 on both the right and left side reel pulse P.C. boards.
4. When necessary, remove the 4pin parallel wire soldered to the main motor.

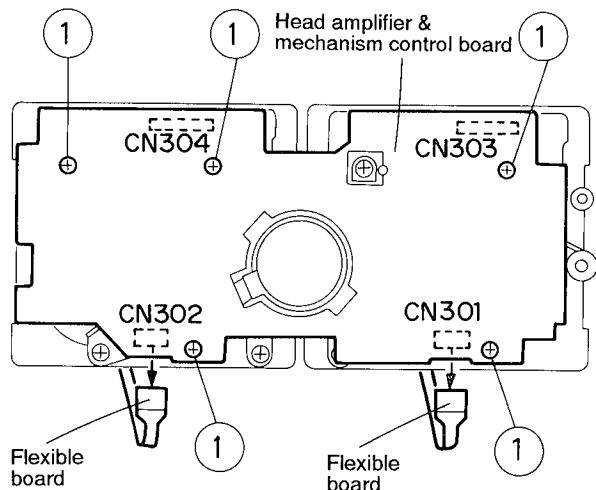


Fig.5-27

### ■ Removing the Capstan Motor Assembly

1. Remove the six screws ② retaining the capstan motor assembly (See Fig. 5-28).
2. While raising the capstan motor, remove the capstan belts A and B respectively from the motor pulley (See Figs. 5-28,5-29)

**Caution 1:** Be sure to handle the capstan belts so carefully that these belts will not be stained by grease and other foreign matter. Moreover, these belts should be handled while referring to the capstan belt hanging method in Fig. 5-29,5-30.

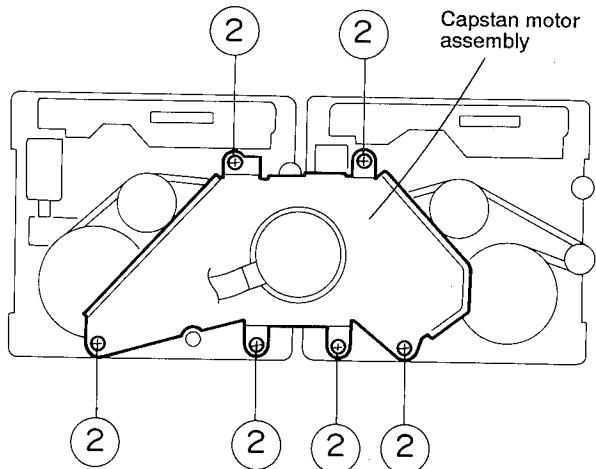


Fig.5-28

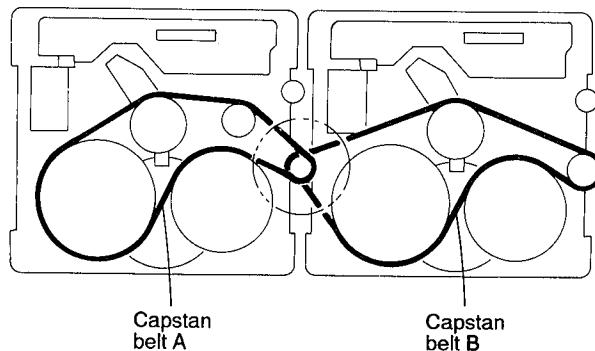


Fig.5-29

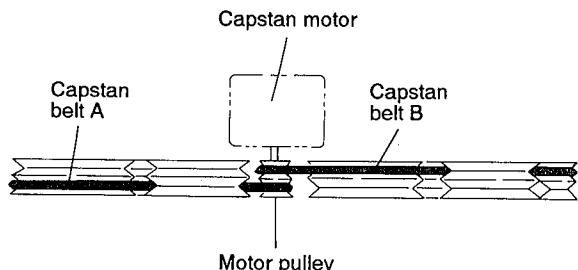
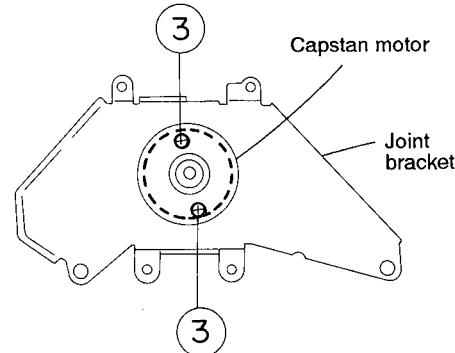


Fig.5-30

### ■ Removing the Capstan Motor (See Figs. 5-31)

From the joint bracket, remove the two screws ③ retaining the capstan motor.



### ■ Removing the Flywheel (See Figs. 5-32,5-33)

1. Remove the head amp. & mechanism control P.C. board.
2. Remove the capstan motor assembly.
3. After turning over the cassette mechanism, remove the slit washers ④ and ⑤ fixing the capstan shafts R and L, and pull out the flywheels R and L respectively from behind the cassette mechanism.

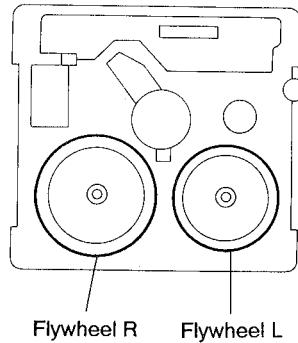


Fig.5-32

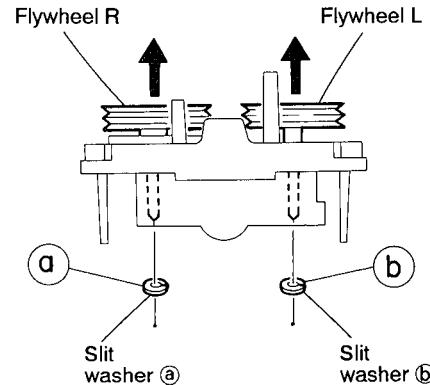


Fig.5-33

### ■ Removing the Reel Pulse P.C. Board and Solenoid (See Figs. 5-34)

1. Remove the five pawls (⑥, ⑦, ⑧, ⑨ and ⑩) retaining the reel pulse P.C. board.
2. From the surface of the reel pulse P.C. board parts, remove the two pawls ⑪ and ⑫ retaining the solenoid.

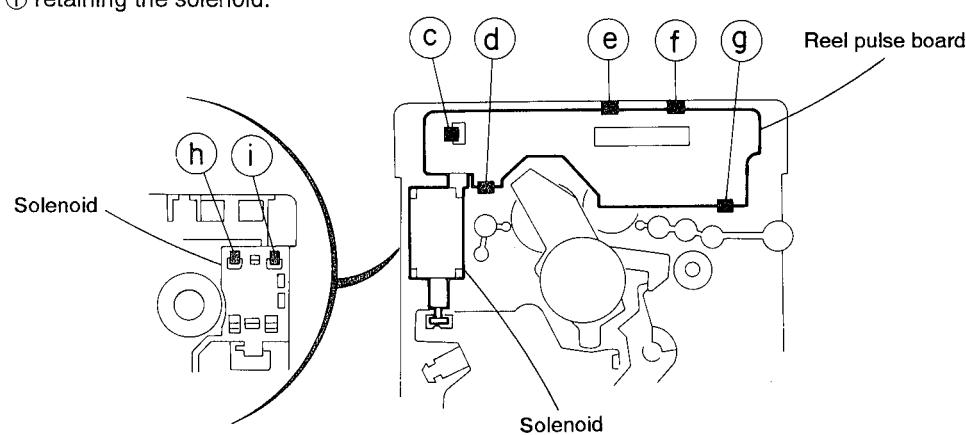


Fig.5-34

### 《CD Traverse Mechanism Sections》

#### ■ Removing the CD Servo control board (See Fig. 5-35).

1. Remove the Metal cover.
2. Remove the CD Traverse mechanism assembly.
3. From bottom side the CD Traverse mechanism assembly, remove the one screw ① retaining the CD Servo control board.
4. From the connectors CN601, CN603, CN604 on the CD Servo control board, disconnect the card wire, from the connector CN602, disconnect the 6pin connector wire.
5. Disengage the two engagements "A", remove the CD Servo control board.

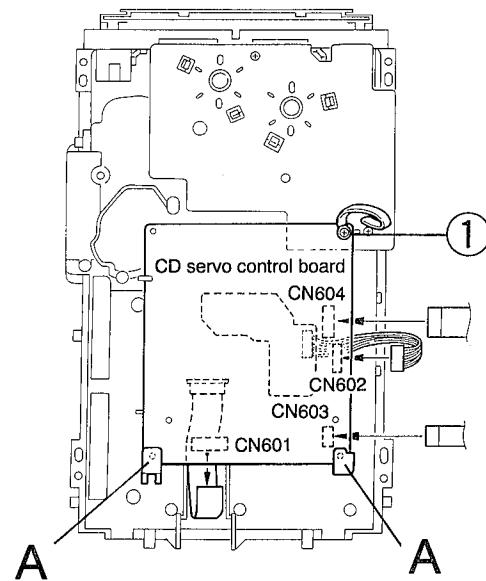


Fig.5-35

#### ■ Removing the CD tray assembly (See Figs. 5-36~5-38)

1. Remove the front panel assembly.
2. Remove the CD Traverse mechanism assembly.
3. Remove the CD Servo control board.
4. From the T. bracket section "B" and clamper base section "C", remove both of the edges fixing the rod (See Figs. 5-36 and 5-37).
5. Remove the screw ② retaining the Disc stopper (See Fig. 5-37).
6. Remove the three screws ③ retaining the T. bracket (See Fig. 5-37).
7. Remove the screw ④ retaining the clamper assembly (See Fig. 5-37).
8. From the left side face of the chassis assembly, remove the one screw ⑤ retaining both of the return spring and lock lever. (See Fig. 5-38)
9. By removing the pawl at the section "D" fixing the return spring, dismount the return spring (See Fig. 5-38).
10. Remove the three lock levers (See Fig. 5-38).

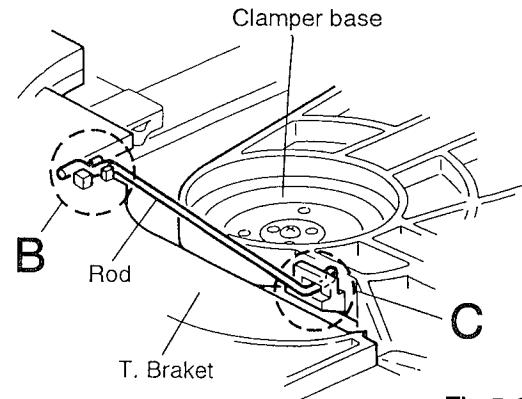


Fig.5-36

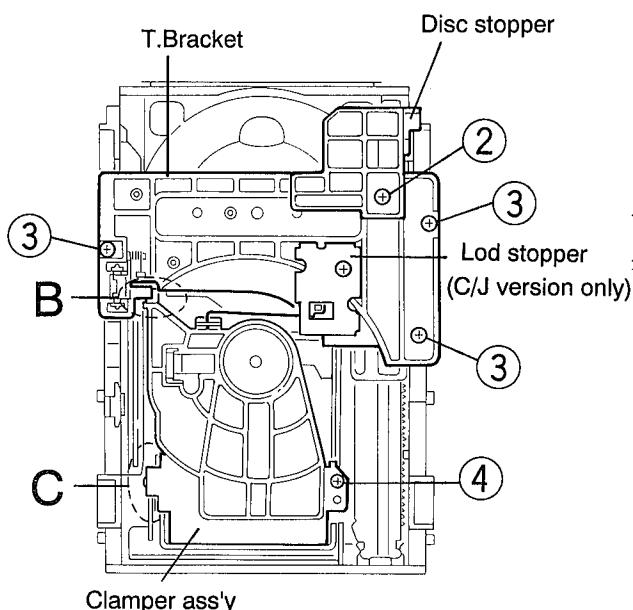


Fig.5-37

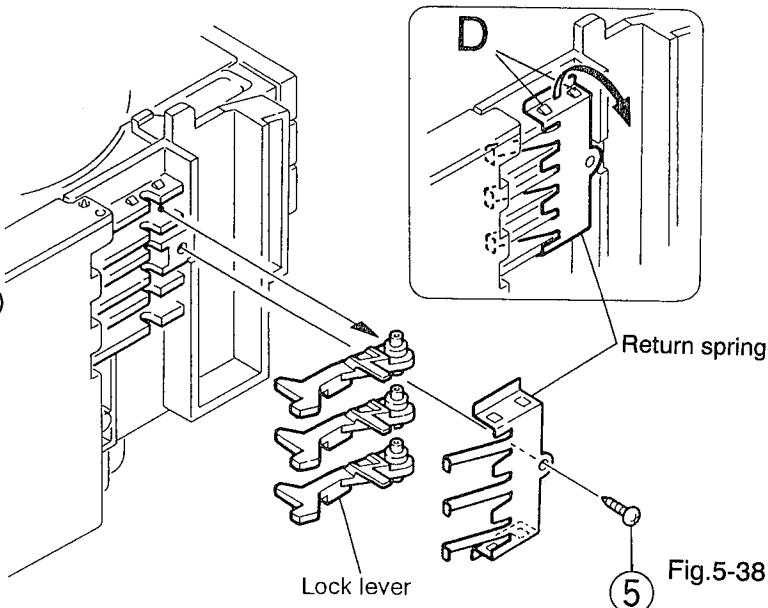


Fig.5-38

11. Check whether the lifter unit stopper has been caught into the hole at the section "E" of CD tray assembly as shown in Fig. 5-39.

12. Make sure that the driver unit elevator is positioned as shown in Fig. 5-40 from to the second or fifth hole on the left side face of the CD Traverse mechanism assembly.

**[Caution]** In case the driver unit elevator is not at the above position, set the elevator to the position as shown in Fig. 5-41 by manually turning the pulley gear as shown in Fig. 5-42.

13. Manually turn the motor pulley in the clockwise direction until the lifter unit stopper is lowered from the section "E" of CD tray assembly (See Fig. 5-42).

14. Pull out all of the three stages of CD tray assembly in the arrow direction "F" until these stages stop (See Fig. 5-40).

15. At the position where the CD tray assembly has stopped, pull out the CD tray assembly while pressing the two pawls "G and G'" on the back side of CD tray assembly (See Fig. 5-43). In this case, it is easy to pull out the assembly when it is pulled out first from the stage CD tray assembly.

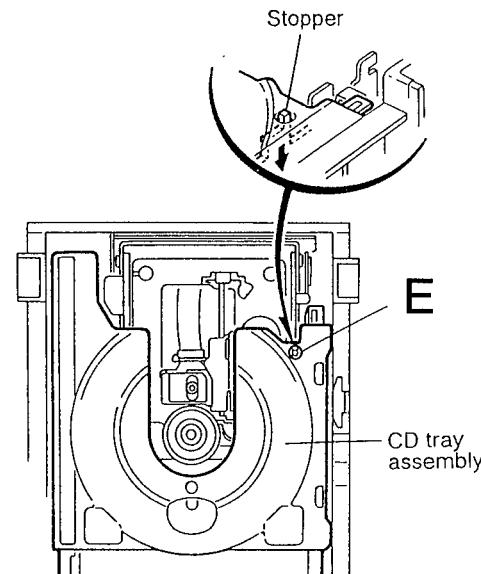
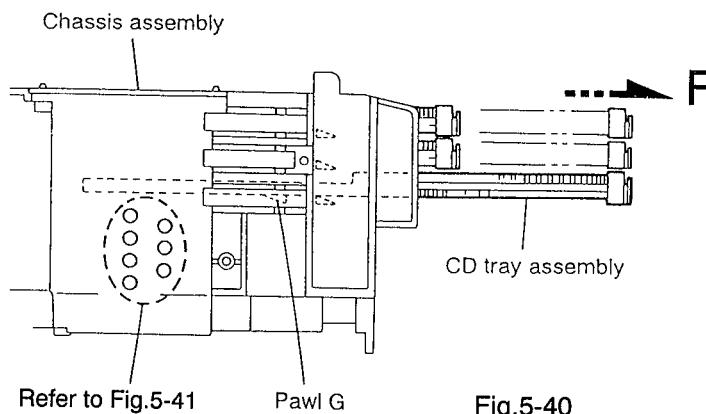


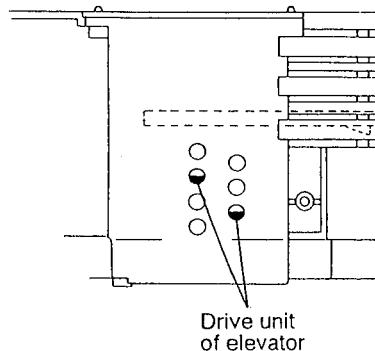
Fig.5-39



Refer to Fig.5-41

Pawl G

Fig.5-40



Drive unit of elevator

Fig.5-41

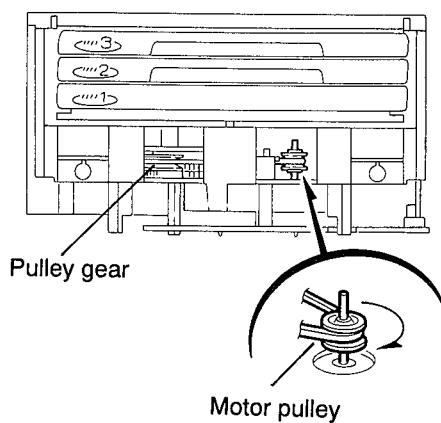


Fig.5-42

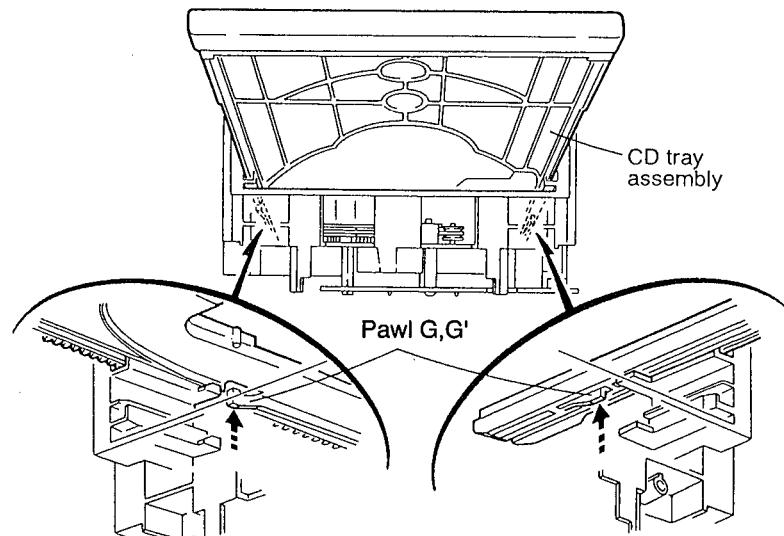


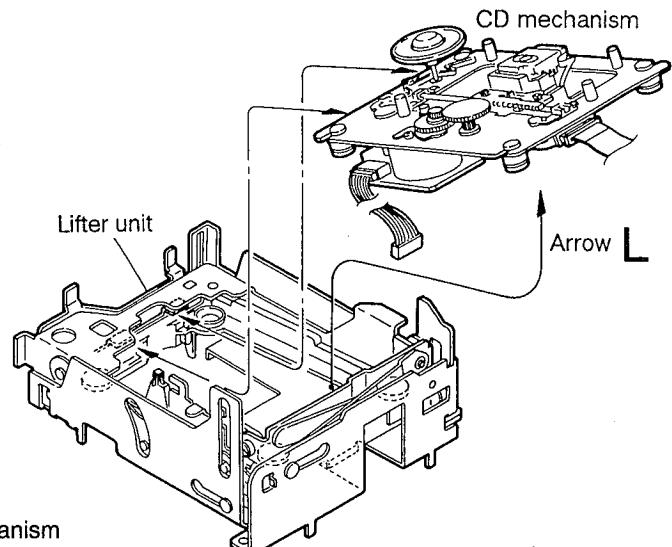
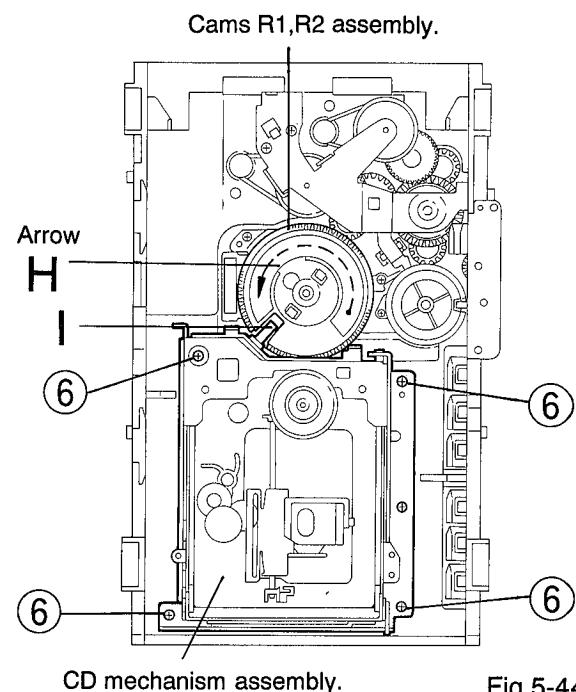
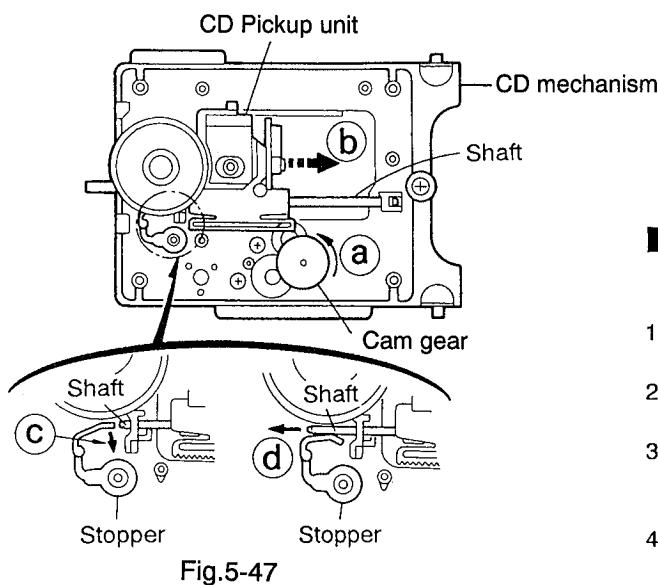
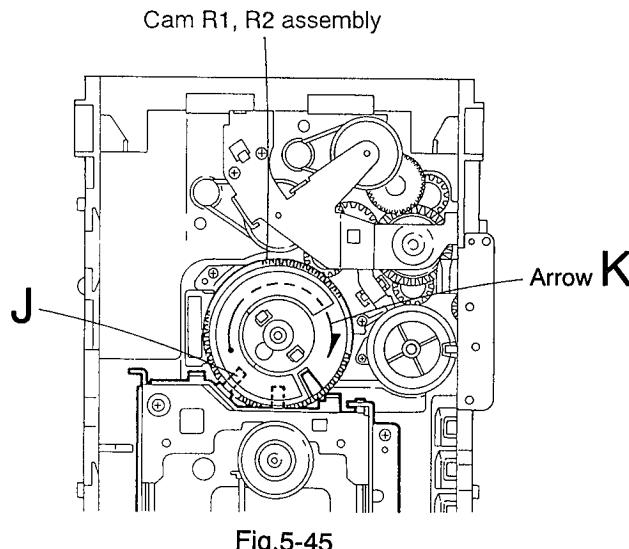
Fig.5-43

## ■ Removing the CD mechanism assembly (See Fig. 5-44)

1. While turning the cams R1 and R2 assembly in the arrow direction "H", align the shaft "I" of the CD mechanism assembly to the position shown in Fig. 5-44.
2. Remove the four screws ⑥ retaining the CD mechanism assembly (See Fig. 5-44).

## ■ Removing the CD mechanism (See Figs. 5-45 and 5-46)

1. For dismounting only the CD mechanism without removing the CD mechanism assembly, align the shaft "J" of the CD mechanism assembly to the position shown in Fig. 5-45 while turning the cam R1 and R2 assembly in the arrow direction "K".
2. By raising the CD mechanism assembly in the arrow direction "L", remove the assembly from the lifter unit (Fig. 5-46).



## ■ Removing the CD pickup unit (See Fig.5-47)

1. Move the cam gear in the arrow direction ④. Then, the CD pickup unit will be moved in the arrow direction ⑤.
2. According to the above step, shift the CD pickup unit to the center position (See Fig.5-47).
3. While pressing the stopper retaining the shaft in the arrow direction ③, pull out the shaft in the arrow direction ② (See Fig.5-47).
4. After dismounting the shaft from the CD pickup unit, remove the CD pickup unit.

## ■ Removing the actuator motor board

(See Figs. 5-48 and 5-49)

1. Absorb the four soldered positions "M" of the right and left motors with a soldering absorber (See Fig. 5-48).
2. Remove the two screws ⑦ retaining the actuator motor board (See Fig. 5-48).
3. Remove the two screws ⑧ retaining the tray select switch board (See Fig. 5-49).

## ■ Removing the cam unit

(See Figs. 5-50~5-52)

1. Remove the CD mechanism assembly.
2. While turning the cam gear L, align the pawl "N" position of the drive unit to the notch position (Fig. 5-50) on the cam gear L.
3. Pull out the drive unit and cylinder gear (See Fig. 5-51).
4. While turning the cam gear L, align the pawl "O" position of the select lever to the notch position (Fig. 5-52) on the cam gear L.
5. Remove the four screws ⑨ retaining the cam unit (cam gear L and cams R1/R2 assembly) (See Fig. 5-52).

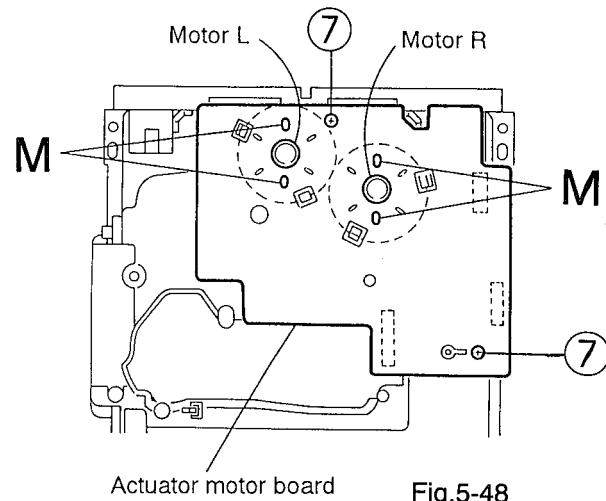


Fig.5-48

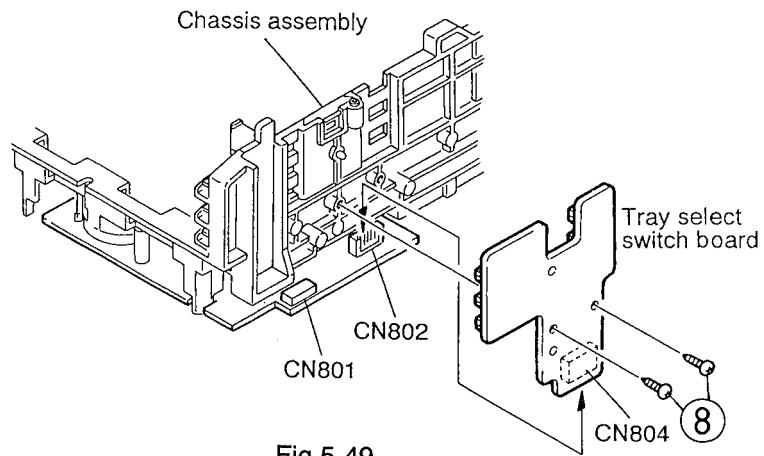


Fig.5-49

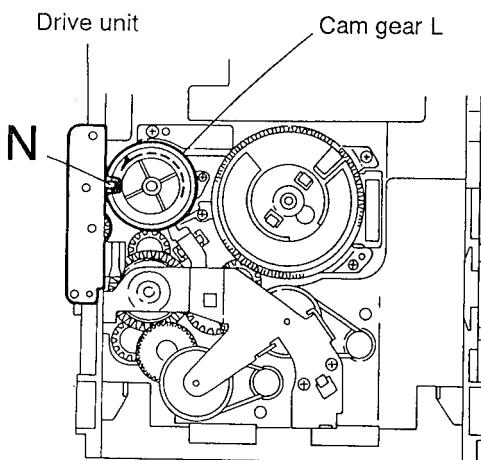


Fig.5-50

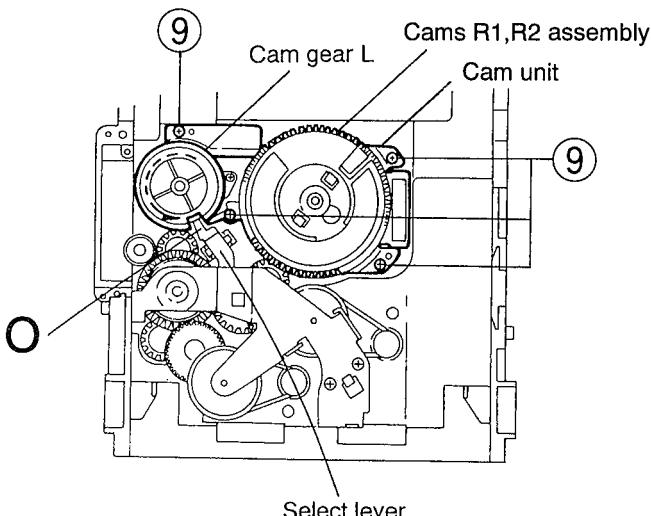


Fig.5-52

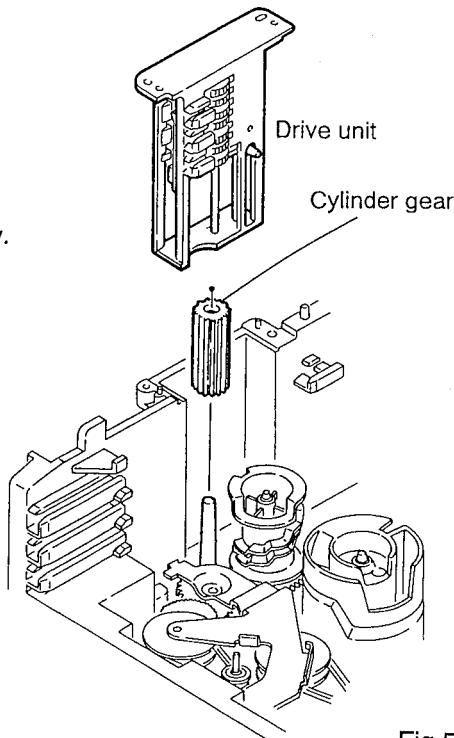


Fig.5-51

## ■ Removing the actuator motor and belt

(See Figs. 5-53~5-56)

1. Remove the two screws ⑩ retaining the gear bracket (See Fig. 5-53).
2. While pressing the pawl "P" fixing the gear bracket in the arrow direction, remove the gear bracket (See Fig. 5-53).
3. From the notch "Q section" on the chassis assembly fixing the edge of gear bracket, remove and take out the gear bracket (See Fig. 5-54).
4. Remove the belts respectively from the right and left actuator motor pulleys and pulley gears (See Fig. 5-53).
5. After turning over the chassis assembly, remove the actuator motor while spreading the four pawls "R" fixing the right and left actuator motors in the arrow direction (See Fig. 5-55).

**[Note]** When the chassis assembly is turned over under the conditions wherein the gear bracket and belt have been removed, then the pulley gear as well as the gear, etc. constituting the gear unit can possibly be separated to pieces. In such a case, assemble these parts by referring to the assembly and configuration diagram in Fig. 5-56.

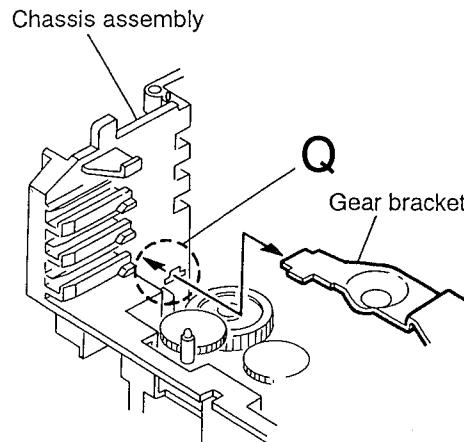


Fig.5-54

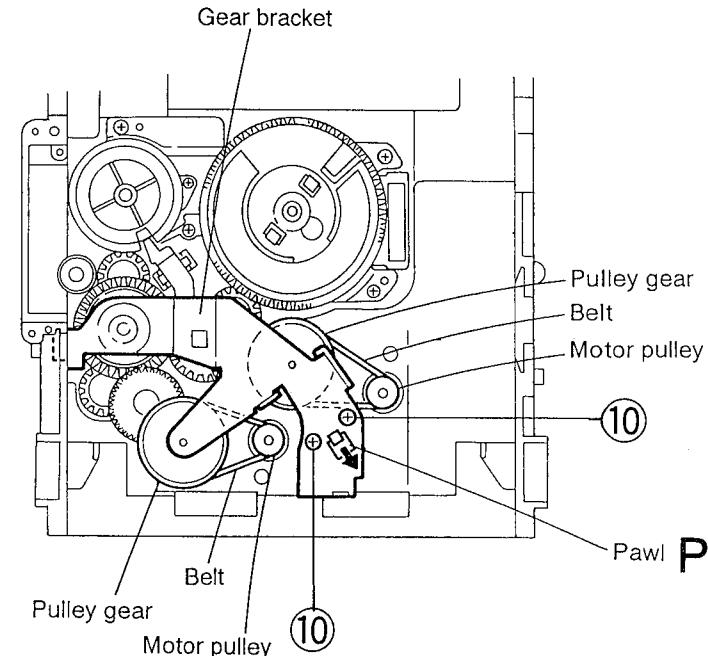


Fig.5-53

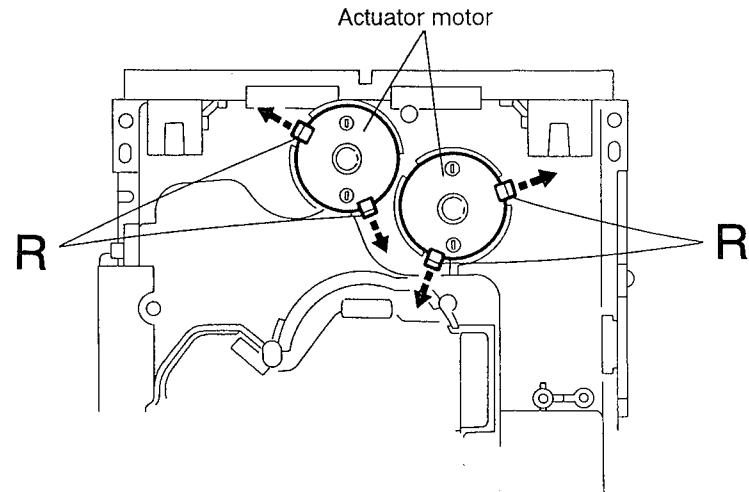


Fig.5-55

### Assembly and Configuration Diagram

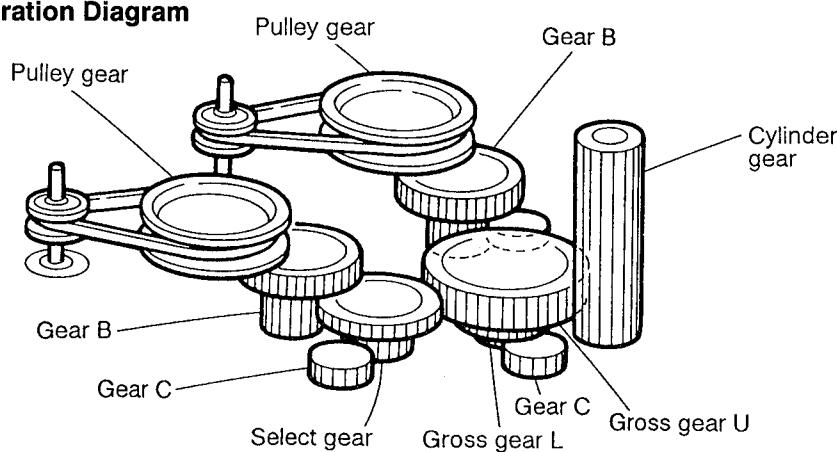


Fig.5-56

## ■ Removing the cams R1/R2 assembly and cam gear L (See Fig. 5-57)

1. Remove the slit washer fixing the cams R1 and R2 assembly.
2. By removing the two pawls "S" fixing the cam R1, separate R2 from R1.
3. Remove the slit washer fixing the cam gear L.
4. Pull out the cam gear L from the C.G. base assembly.

## ■ Removing the C.G. base assembly

(See Figs. 5-57 and 5-58)

Remove the three screws ⑪ retaining the C.G. base assembly.

**[Caution]** To reassemble the cylinder gear, etc. with the cam unit (cam gear and cams R1/R2 assembly), gear unit and drive unit, align the position of the pawl "N" on the drive unit to that of the notch on the cam gear L. Then, make sure that the gear unit is engaged by turning the cam gear L. (See Fig.5-58)

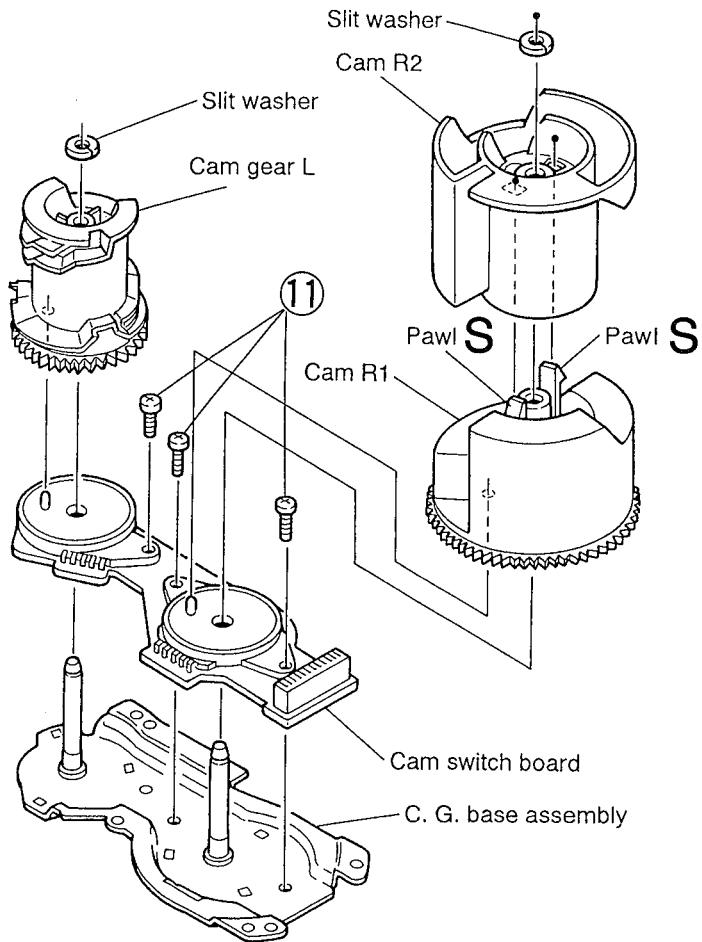


Fig.5-57

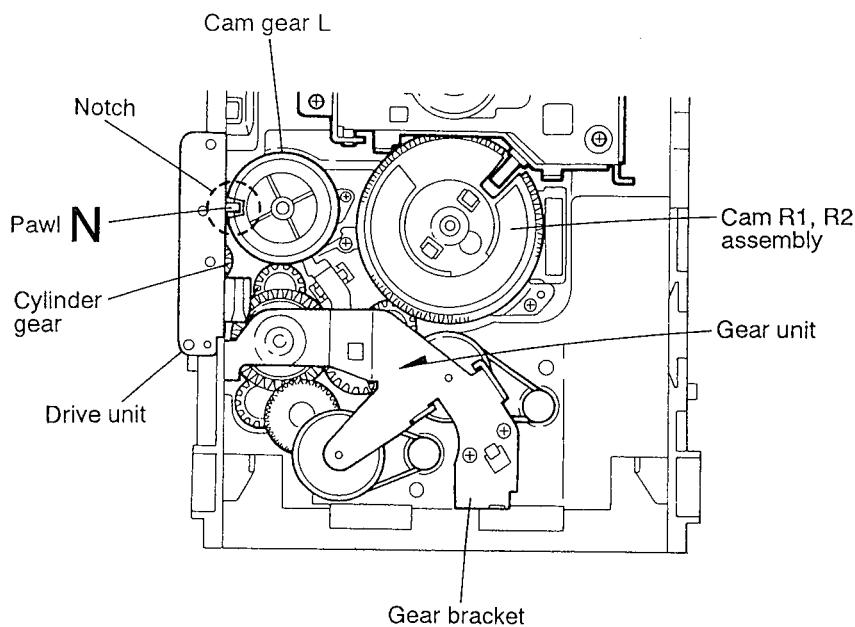


Fig.5-58

# 6.Main Adjustment

## ■ Measurement Instruments Required for Adjustment

1. Low frequency oscillator  
This oscillator should have a capacity to output 0dBs to 600 Ω at an oscillation frequency of 50Hz~20kHz.
2. Attenuator impedance: 600 Ω
3. Electronic voltmeter
4. Distortion meter
5. Frequency counter
6. Wow flutter
7. Test tape  
VTT 712: Tape speed and running unevenness (3kHz)  
VTT 724: Reference level (1kHz)  
TMT 7036: Head angle (10kHz), playback frequency characteristics (1kHz) and dubbing frequency characteristics (63, 1 and 10kHz)  
Because of frequency - mixed tape with 63, 1, 10 and 14kHz (250nWb/m - 24dB), use this tape together with a filter.
8. Blank tape  
TAPE I : AC-225  
TAPE II : AC-514
9. Torque gauge: For play and back tension  
FWD (TW2111A), REV (TW2121A) and FF/REW (TW2231A)

## ■ Measurement Conditions

Power supply voltage.....AC230V(50Hz)  
 Reference output.....Speaker: 0.775V/3 Ω  
   Headphone: 0.245V/32 Ω  
 Reference frequency and input level · 1kHz, AUX: -8dBs  
 Input for confirming recording and playback  
   characteristics .....AUX: -28dBs  
 Measurement output terminal .....Speaker CN192  
 ※ Load resistance .....3 Ω

### ● Radio Input signal

AM modulation frequency .....400Hz  
 Modulation factor .....30%  
 FM modulation frequency .....400Hz  
 Frequency displacement .....22.5kHz

### ● Standard measurement positions of volume

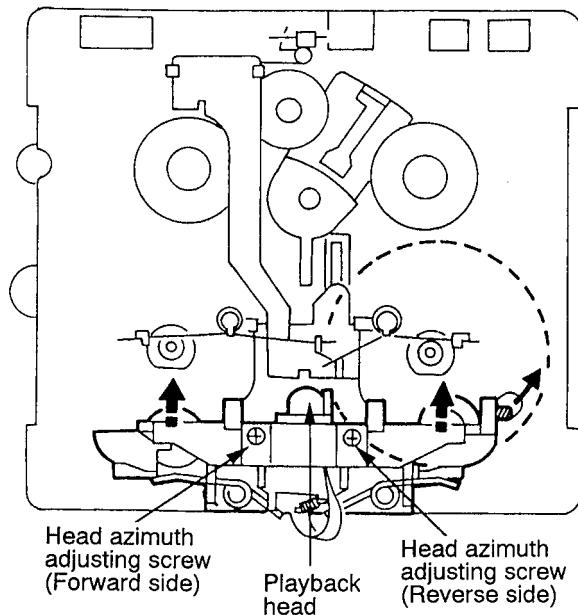
Sound mode	.....	Flat position
Super-bas	.....	Off
Up and down adjustment of volume	.....	VOL. 23

### Precautions for Measurement

1. Apply 30pF and 33kΩ to the IF sweeper output side and 0.082μF and 100kΩ in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
4. Since a ceramic oscillator is used, there is no need to perform any MPX adjustment.
5. Since a fixed coil is used, there is no need to adjust the FM tracking.
6. The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly carefully.
7. In the case of BTL connection amp., the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an OTL system.
8. For connecting a dummy resistor when measuring the output, use the wire with a greater core size.
9. Whenever any mixed tape is used, use the band pass filter (DV-12).

## 『Arrangement of Adjusting Positions』

### ● Cassette mechanism section (Mechanism A section)



### ● Cassette mechanism section (Back side)

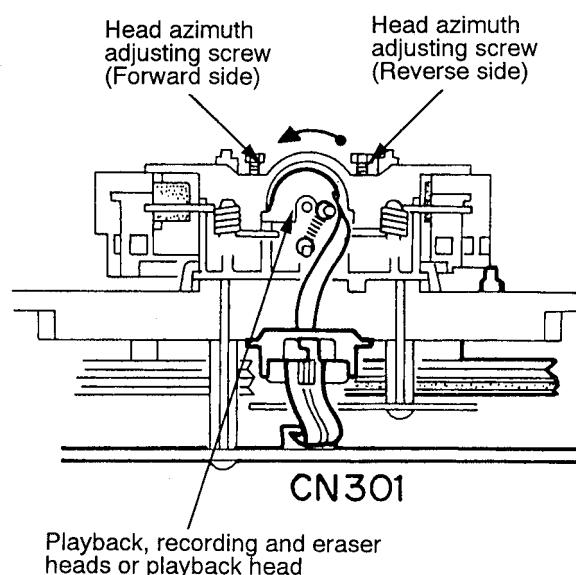


Fig.6-1

### ■ Cassette Mechanism Unit Section

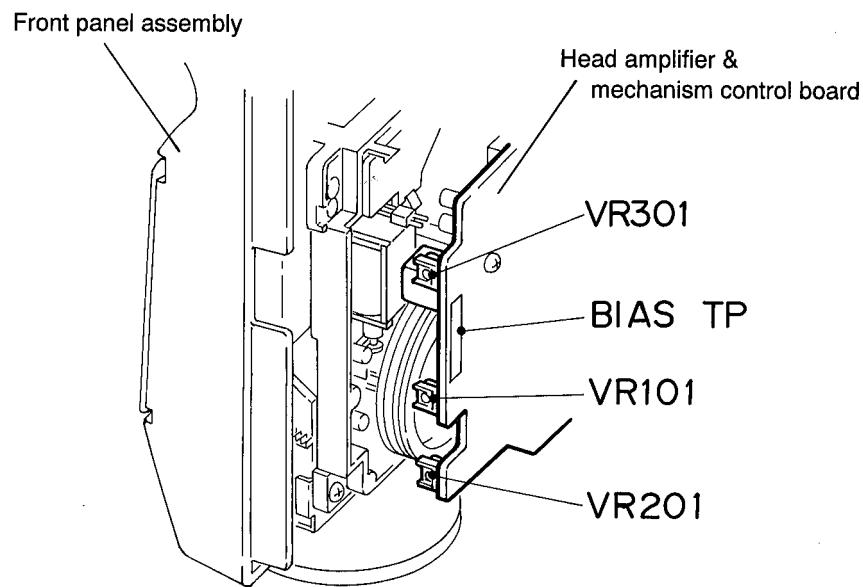


Fig.6-2

## ■ Tape Recorder Section

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Confirmation of head angle	Test tape : TMT7036 (10kHz) Measurement output terminal : Speaker terminal Speaker R (Load resistance: 3 Ω ) : Headphone terminal	① Play back the test tape TMT7036 (10kHz). ② With the playback mechanism or recording & playback mechanism, adjust the head azimuth screw so that the forward and reverse output levels become maximum. After adjustment, lock the head azimuth at least by half a turn. ③ In either case, this adjustment should be performed in both the forward and reverse directions with the head azimuth screw.	Maximum output	Adjust the head azimuth screw only when the head has been changed.
Confirmation of tape speed	Test tape : VTT712 (3kHz) or TMT7036 (3kHz) Measurement output terminal : Headphone terminal	«Constant speed» Adjust VR301 so that the frequency counter reading becomes $3,010\text{Hz} \pm 15\text{Hz}$ when playing back the test tape VTT712 (3kHz) with the playback mechanism or playback and recording mechanism after ending forward winding of the tape.	Tape speed of decks (A and B) : $3,010\text{Hz} \pm 15\text{Hz}$	VR301

## ■ Reference Values for Confirmation Items

Items	Measurement conditions	Measurement method	Standard values	Remarks
Double tape speed	Test tape : TMT7036 (10kHz) Measurement output terminal : Speaker terminal Speaker R (Load resistance: 3 Ω ) measurement output terminal : Headphone terminal	① After setting to the double speed motor, confirm that the frequency counter reading becomes $4,800 +400/-300\text{Hz}$ when the test tape VTT712 (3kHz) has been played back with the playback mechanism.	$4,800 +400/-300\text{Hz}$	Playback mechanism side
Difference between the forward and reverse speed	Test tape : TMT7036 (10kHz) Measurement output terminal : Speaker terminal Speaker R (Load resistance: 3 Ω ) measurement output terminal : Headphone terminal	When the test tape VTT712 (3kHz) has been played back with the playback mechanism or recording and playback mechanism at the beginning of forward winding, the frequency counter reading of the difference between both of the mechanisms should be 6.0Hz or less.	6.0Hz or less	Both the playback and recording & playback mechanisms
Difference between the playback mechanism and recording and playback mechanism speed	Test tape : TMT7036 (10kHz) Measurement output terminal : Speaker terminal Speaker R (Load resistance: 3 Ω ) measurement output terminal : Headphone terminal	When the test tape VTT712 (3kHz) has been played back with the playback mechanism or recording and playback mechanism at the beginning of forward winding, the frequency counter reading of the difference between both of the mechanisms should be 6.0Hz or less.	6.0Hz or less	Both the playback and recording & playback mechanisms
Wow & flutter	Test tape : TMT7036 (10kHz) Measurement output terminal : Headphone terminal	When the test tape VTT712 (3kHz) has been played back with the playback mechanism or recording and playback mechanism at the beginning of forward winding, the frequency counter reading of wow & flutter should be 0.25% or less (WRMS).	0.25% or less (WRMS)	Both the playback and recording & playback mechanisms

## ■ Electrical Performance

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Adjustment of recording bias current (Reference value)	<ul style="list-style-type: none"> <li>Mode: Forward or reverse mode</li> <li>Recording mode</li> <li>Test tape : AC-514 and AC-225</li> <li>Measurement output terminal : Both recording and headphone terminals</li> </ul>	<p>① With the recording and playback mechanism, load the test tapes (AC-514 to TYP II and AC-225 to TYP I), and set the mechanism to the recording and pausing conditions in advance.</p> <p>② After connecting <math>100\Omega</math> in series to the recorder head, measure the bias current with a valve voltmeter at both of the terminals.</p> <p>③ After resetting the [PAUSE] mode, start recording. At this time, adjust VR101 for LcH and VR201 for RcH so that the recording bias current values become <math>4.0\mu A</math> (TYP I) and <math>4.20\mu A</math> (TYP II).</p>	AC-225 : $4.20\mu A$ AC-514 : $4.0\mu A$	LcH :VR101 RcH :VR201
Adjustment of recording and playback frequency characteristics	<p>Reference frequency : 1kHz and 10kHz (REF.: -20dB)</p> <p>Test tape : TYP II: AC-514</p> <p>Measurement input terminal : OSC IN</p>	<p>① With the recording and playback mechanism, load the test tape (AC-514 to TYP II), and set the mechanism to the recording and pausing conditions in advance.</p> <p>② While repetitively inputting the reference frequency signal of 1kHz and 10kHz from OSC IN, record and play back the test tape.</p> <p>③ While recording and playing back the test tape in TYP II, adjust VR101 for LcH and VR 201 for RcH so that the output deviation between 1kHz and 10kHz becomes <math>-1dB \pm 2dB</math>.</p>	Output deviation between 1kHz and 10kHz : $-1dB \pm 2dB$	LcH :VR101 RcH :VR201

## ■ Reference Values for Electrical Function Confirmation Items

Items	Measurement conditions	Measurement method	Standard values	Remarks
Recording bias frequency	<ul style="list-style-type: none"> <li>Recording and playback side forward or reverse</li> <li>Test tape : TYP II: AC-514</li> <li>Measurement terminal: BIAS TP on P.C. board</li> </ul>	<p>① While changing over to and from BIAS 1 and 2, confirm that the frequency is changed.</p> <p>② With the recording and playback mechanism, load the test tape (AC-514 to TYP II), and set the mechanism to the recording and pausing conditions in advance.</p> <p>③ Confirm that the BIAS TP frequency on the P.C. board is <math>100kHz \pm 6kHz</math>.</p>	$100kHz \pm 6kHz$	
Eraser current (Reference value)	<ul style="list-style-type: none"> <li>Recording and playback side forward or reverse</li> <li>Recording mode</li> <li>Test tape : AC-514 and AC-225</li> <li>Measurement terminal: Both of the eraser head</li> </ul>	<p>① With the recording and playback mechanism, load the test tapes (AC-514 to TYP II and AC-225 to TYP I), and set the mechanism to the recording and pausing conditions in advance.</p> <p>② After setting to the recording conditions, connect <math>1W</math> in series to the eraser head on the recording and playback mechanism side, and measure the eraser current from both of the eraser terminals.</p>	TYP II : $120mA$ TYP I : $75mA$	



## 7. Out Line of Main IC

■ IC701 : μPD78044FGF-055 ( System CPU ) Port Map Table

Pin No.	Port Name	I/O	Function
1	7G	0	FL Grid 7
2	6G	0	FL Grid 6
3	5G	0	FL Grid 5
4	4G	0	FL Grid 4
5	3G	0	FL Grid 3
6	2G	0	FL Grid 2
7	1G	0	FL Grid 1
8	VDD	-	+ 5V
9	SCK	0	Serial Clock (PLL, SLC, Vol, C3)
10	SDATA	I/O	Serial data (PLL, SLC, Vol, C3)
11	F. AUX	0	AUX Mute
12	LED TAPE	0	LED TAPE
13	STTA	0	Strobe Tape Control
14	SQCK	0	Sub Code Clock
15	NC		Non connection
16	SUBQ/RDA	I	Sub Code Data/RDS Data
17	REST	I	System Reset
18	A REEL	I	Tape A mechanism running detection
19	B REEL	I	Tape B mechanism running detection
20	AVss	-	AD Ground
21	REST/REQ	I	Reset Switch/Changer Request
22	SAFETY	I	Trouble Detection
23	TAPE3	I	
24	TAPE2	I	
25	TAPE3	I	
26	KEY3	I	
27	KEY2	I	
28	KEY1	I	
29	AVdd	-	AD + 5V
30	AVREF	-	AD REF + 5V
31	XT1	I	Sub Clock 32.768kHz
32	XT2	0	
33	Vss	-	Ground
34	X1	I	Main Clock 4.19MHz
35	X2	0	
36	BEAT	0	Main Clock Shift
37	MS	I	Music Scan
38	MPX	I	Stereo Detect
39	+ BCTL	0	5V Switch
40	MLCK	0	

Pin No.	Port Name	I/O	Function
41	XRST	0	
42	MLD	0	
43	MDATA	0	
44	STCH	0	Strobe Changer Control
45	STATUS	I	CD STATUS (PO) /RDS CLK (INT)
46	POUT	0	Power on/off
47	REM	I	Remote Control
48	Vss	-	Ground
49	SMUTE	0	System Mute
50	F.CD	0	Function CD
51	F.TU	0	Function CD
52	Vdd	-	+ 5V
53	VOL -	I	Volume Encoder Input (-)
54	VOL +	I	Volume Encoder Input (+)
55	SPK	0	Speaker Relay on/off
56	PROTECT	I	Protector Input
57	BUP	I	Buck up Detect
58	LATCH	0	Volume IC Strobe
59	PERIOD	0	Tuner PLL Strobe
60	S1	0	FL Segment 1
61	S2	0	FL Segment 2
62	S3	0	FL Segment 3
63	S4	0	FL Segment 4
64	S5	0	FL Segment 5
65	S6	0	FL Segment 6
66	S7	0	FL Segment 7
67	S8	0	FL Segment 8
68	S9	0	FL Segment 9
69	S10	0	FL Segment 10
70	S11	0	FL Segment 11
71	VLOAD	-	
72	S12	0	FL Segment 12
73	S13	0	FL Segment 13
74	S14	0	FL Segment 14
75	S15	0	FL Segment 15
76	S16	0	FL Segment 16
77	11G	0	FL Grid 11
78	10G	0	FL Grid 10
79	9G	0	FL Grid 9
80	8G	0	FL Grid 8

## 8.Wiring Connections

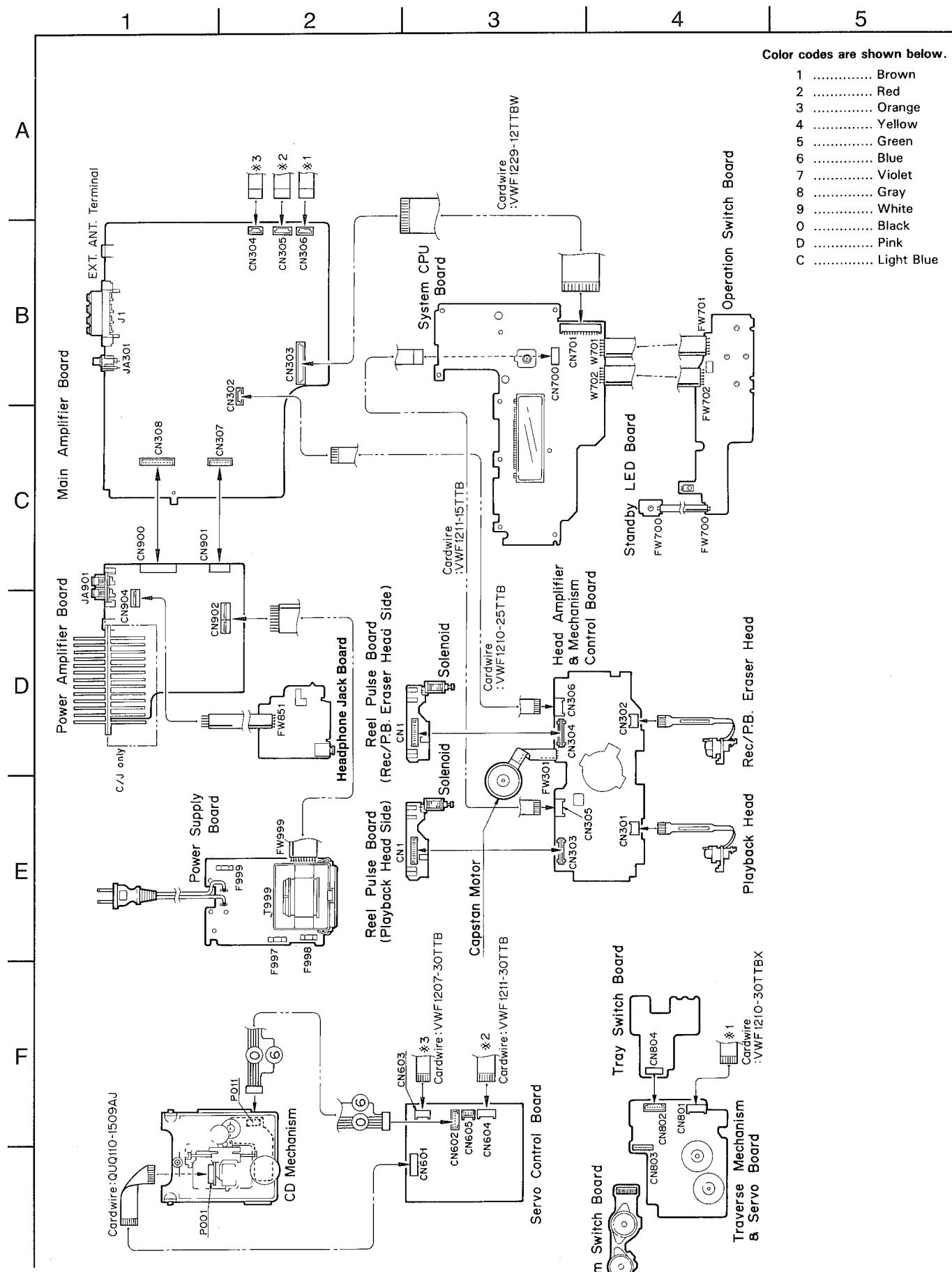
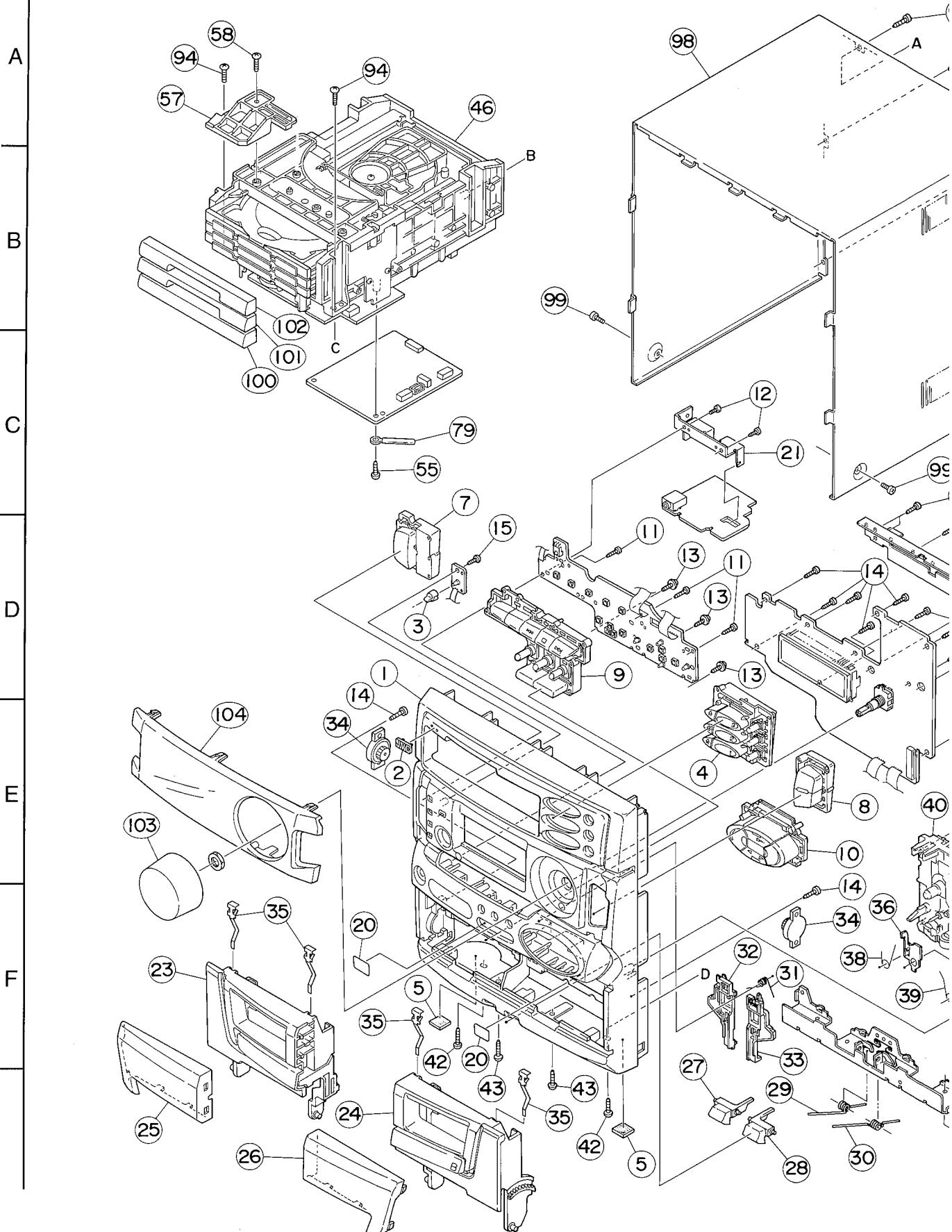


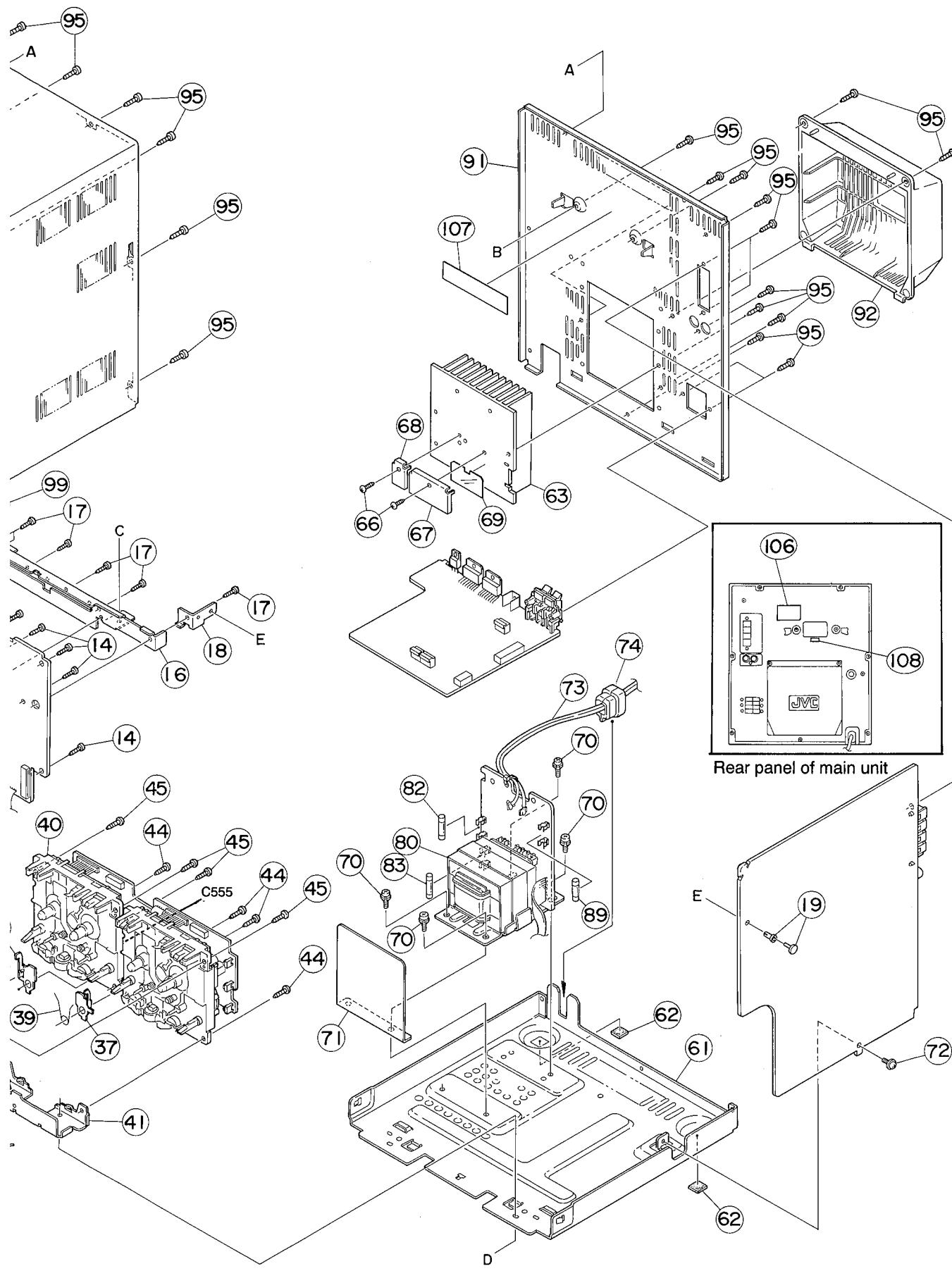
Fig.8-1

## 9.Analytic Drawing and Parts List

1 2 3 4 5

■ Enclosure Assembly Part : Block No. M1





**■ Enclosure Assembly Parts List**

BLOCK NO. M1MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	FMJC1015-002	FRONT PANEL		1		
	2	E406971-001SM	JVC MARK		1		
	3	FMJK4013-001	STANDBY INDICA		1		
	4	FMXP2009-001	CD BOTTON		1		
	5	E75896-001	SPACER		2		
	7	FMXP2004-006	POWER BUTTON		1		
	8	FMXP3017-002	SOUND BUTTON		1		
	9	FMXP2003-001	CONTROL BUTTON		1		
	10	FMXP2010-00A	FUN.BUTT.ASSY		1		
	11	SDSF2608Z	SCREW		3		
	12	SDSF2610Z	TAPPING SCREW		2		
	13	GBSF2608Z	SCREW		3		
	14	SDSF2608Z	SCREW		11		
	15	SDSF2608Z	SCREW		1		
	16	E309495-002SM	STAY BKT		1		
	17	SDSF2608Z	SCREW		6		
	18	FMKL4011-001	BRACKET		1		
	19	FMYH4004-001	PLASTIC RIVET		1		
	20	E69777-003	REF PLATE		2		
	21	FMKL4014-001	PHONE BRACKET		1		
	23	FMJT2004-001	CASS HOLDER(L)		1		
	24	FMJT2004-002	CASS HOLDER(R)		1		
	25	FMJK2003-001	CASS LENS(L)		1		
	26	FMJK2003-002	CASS LENS(R)		1		
	27	FMXP3018-001	EJECT BUTTON(A)		1		
	28	FMXP3019-001	EJECT BUTTON(B)		1		
	29	FMKW4009-001	HOLDER SPRING A		1		
	30	FMKW4010-001	HOLDER SPRING B		1		
	31	FMKW4011-001	SPRING		1		
	32	FMKS3002-001	EJECT LEVER (A)		1		
	33	FMKS3003-001	EJECT LEVER (B)		1		
	34	VYH7779-00B	DUMPER ASS'Y		2		
	35	VKY4180-001	CASSETTE SPRING		4		
	36	FMKL4012-003	EJECT SAFETY(A)		1		
	37	FMKL4013-001	EJECT SAFETY(B)		1		
	38	FMKW4007-001	SPRING (A)		1		
	39	FMKW4008-001	SPRING (B)		1		
	40	-----	C. MECHA ASS'Y		1		
	41	FMKL2002-001	HOLDER BRACKET		1		
	42	SBSG3010Z	T.SCREW		2		
	43	SBSG3010Z	T.SCREW		2		
	44	SBSG3010Z	T.SCREW		4		
	45	SBSF3010Z	SCREW		4		
	46	-----	CHANGER MECHA A		1		
	55	SBSF3008Z	SCREW		1		
	57	E309662-001	DISC STOPPER		1		
	58	SBSF3008Z	SCREW		1		
	61	FMKL1004-002	CHASSIS BASE		1		
	62	E75896-006	FELT SPACER		2		
	63	FMMH3005-001	HEAT SINK		1		
	66	SBSG3014CC	SCREW		2		
	67	FMKL4007-001	BRACKET		1		
	68	FMKL4015-001	BRACKET		1		
	69	FMPK4003-001	MICA SHEET		1		

BLOCK NO. M1MM

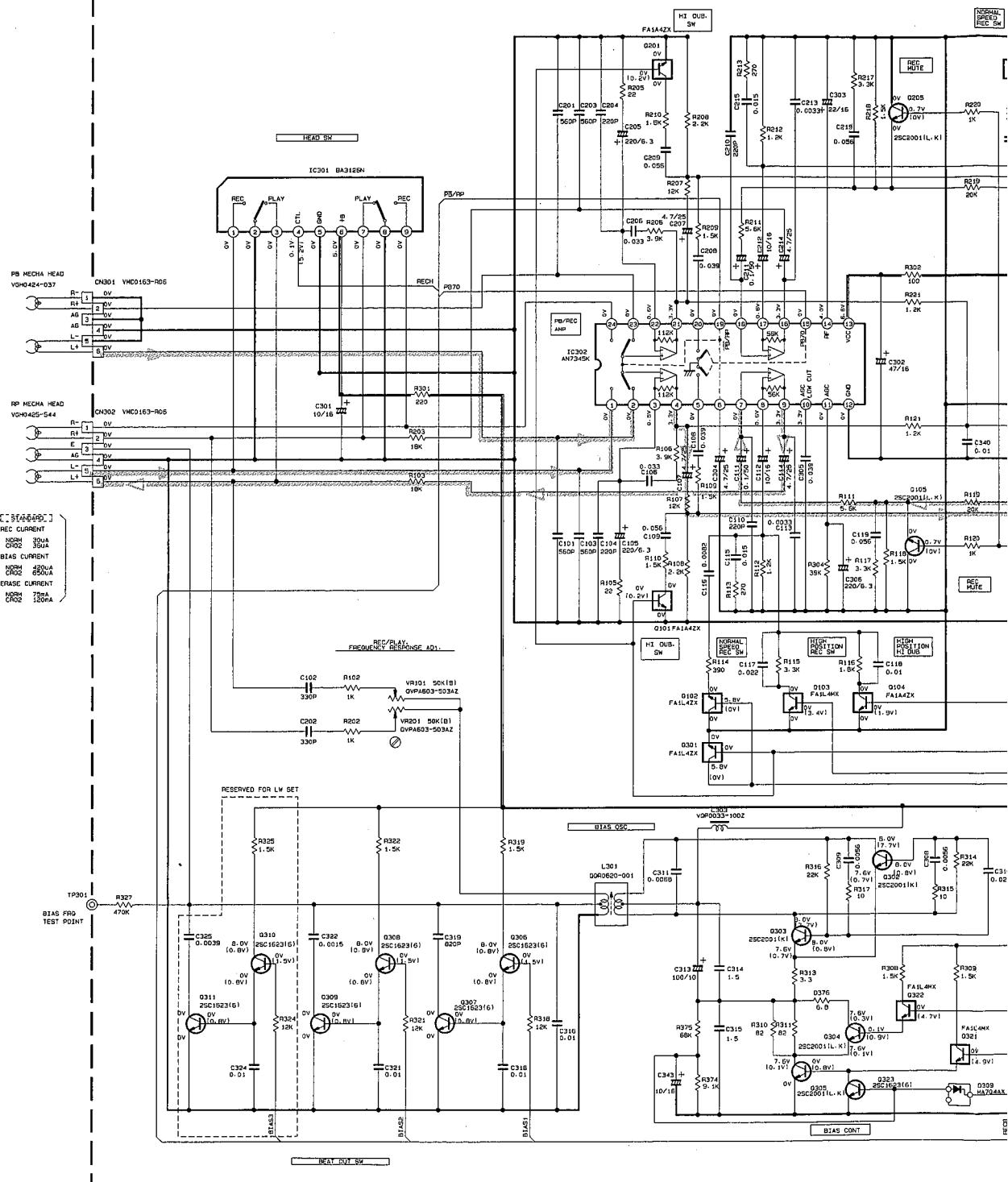
REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
70	E65389-002	SPECIAL SCREW		4		
71	FMMA4003-001	TRANS.SHIELD		1		
72	GBST3006Z	SCREW		1		
73	QMP5530-0085BS	POWER CORD		1	B	
	QMP39E0-200	POWER CORD		1	E,EN,G	
74	QHS3771-108BS	CORD STOPPER		1	B	
	QHS3771-108	CORD STOPPER		1	E,EN,G	
79	VKZ4001-110	WIRE HOLDER		1		
80	FMTP66M8-65A	POWER TRANS	T999	1		
82	QMF51E2-1R25	FUSE	F997	1		
83	QMF51E2-1R25	FUSE	F998	1		
89	QMF51E2-R80SBS		F999	1		
91	FMJC1016-011	REAR PANEL		1		
92	E207356-001SM	REAR COVER		1		
94	SBSG3008Z	T.SCREW		2		
95	E73273-003	SPECIAL SCREW		20		
98	FMJC1013-005	METAL COVER		1		
99	SDSG3006M	T.SCREW		2		
100	FMJD2003-001	CD FITTING		1		
101	FMJD2003-002	CD FITTING		1		
102	FMJD2003-003	CD FITTING		1		
103	FMXL3001-001	M.VOL KNOB		1		
104	FMJK2004-001	WINDOW SCREEN		1		
106	E70891-001	CLASS 1 LABEL		1		
107	E406709-001	LASER CAUTION		1		
108	E408919-001	BEAB LABEL		1	B	
C 555	FMND4008-001	SEMKO LABEL		1	E,EN,G	
	QCS11HJ-331	C.CAPACITOR	PF +50:-10%	1		

# 10. Standard Schematic Diagrams

1 | 2 | 3 | 4 | 5

## ■ Head Amplifier & Mechanism Control Circuit : Drawing No.VDH1033-001PV

A

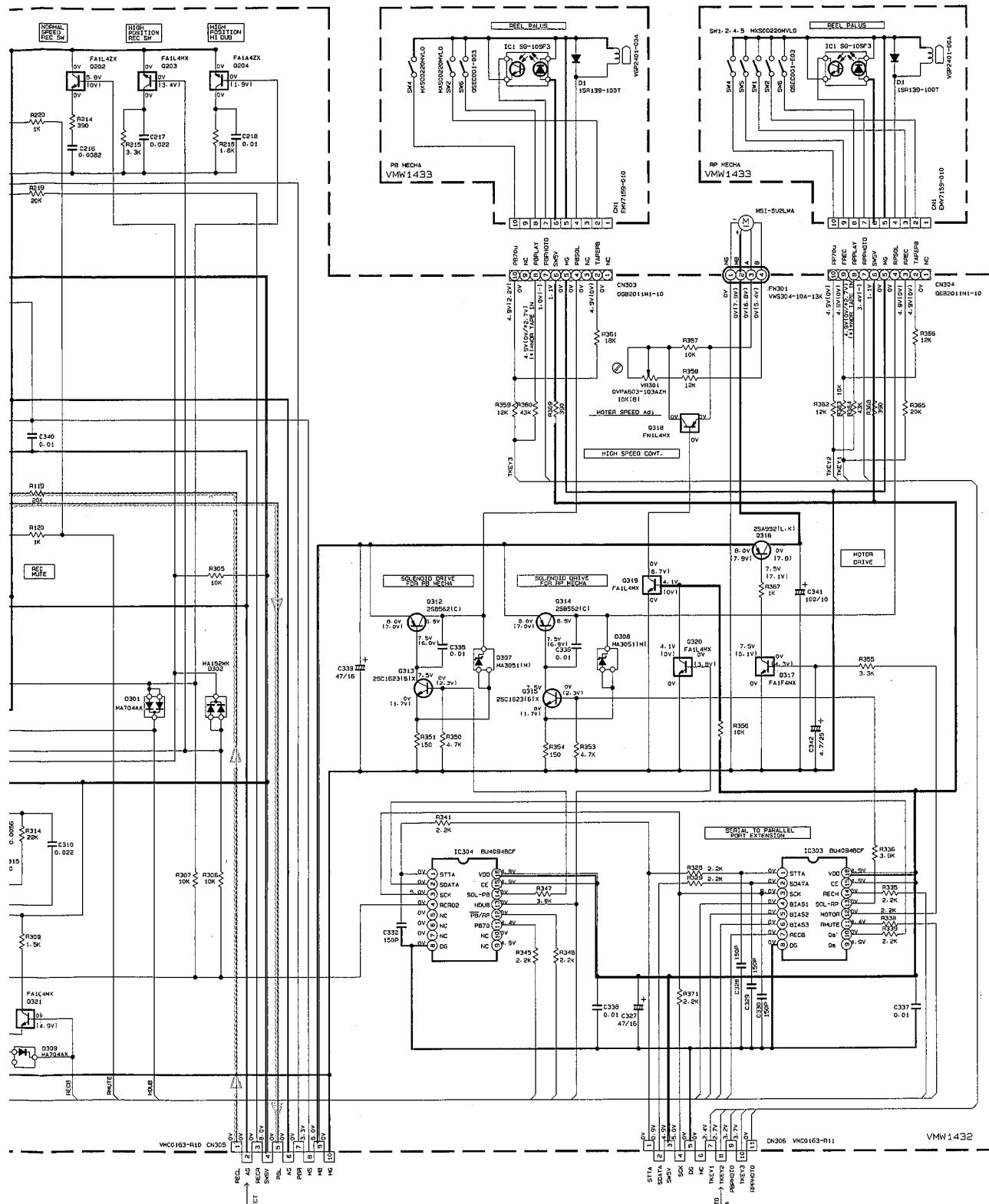

**NOTES:**

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSTELOSCOPE WITHOUT INPUT SIGNAL. I is INVERT MODE
2. UNLESS OTHERWISE SPECIFIED
- ALL RESISTANCE VALUES ARE IN OHM(Ω).
- ALL CAPACITORS ARE CERAMIC CAPACITOR.
- ALL CAPACITANCE VALUES ARE IN  $\mu$ F(μF).
- ALL INDUCTANCE VALUES ARE IN  $\mu$ H(μH).
- ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE ( $\mu$ F)/RATED VOLTAGE (V).
- <sup>PP</sup> POLYPROPYLENE CAPACITOR

Note : VDH103301pv(/s/G)

TABLE 1. DIGITAL TR LIST

PART NO.	CONSTRUCTION	REF. NO.
FA1L4H		Q31B
FA1A4Z		Q101/2001 Q104/2004
FA1L4Z		Q102/2002 Q301



	Q317
	Q103/Q203
	Q318
	Q320/Q321/Q322

BARD DIO  
NOT CONNECTED  
TO SET

Tape/PB Signal  
REC Signal

+B Line

1 2 3 4 5

## ■ CD Servo Control Circuit : Drawing No.FMDH9002-001CW

A

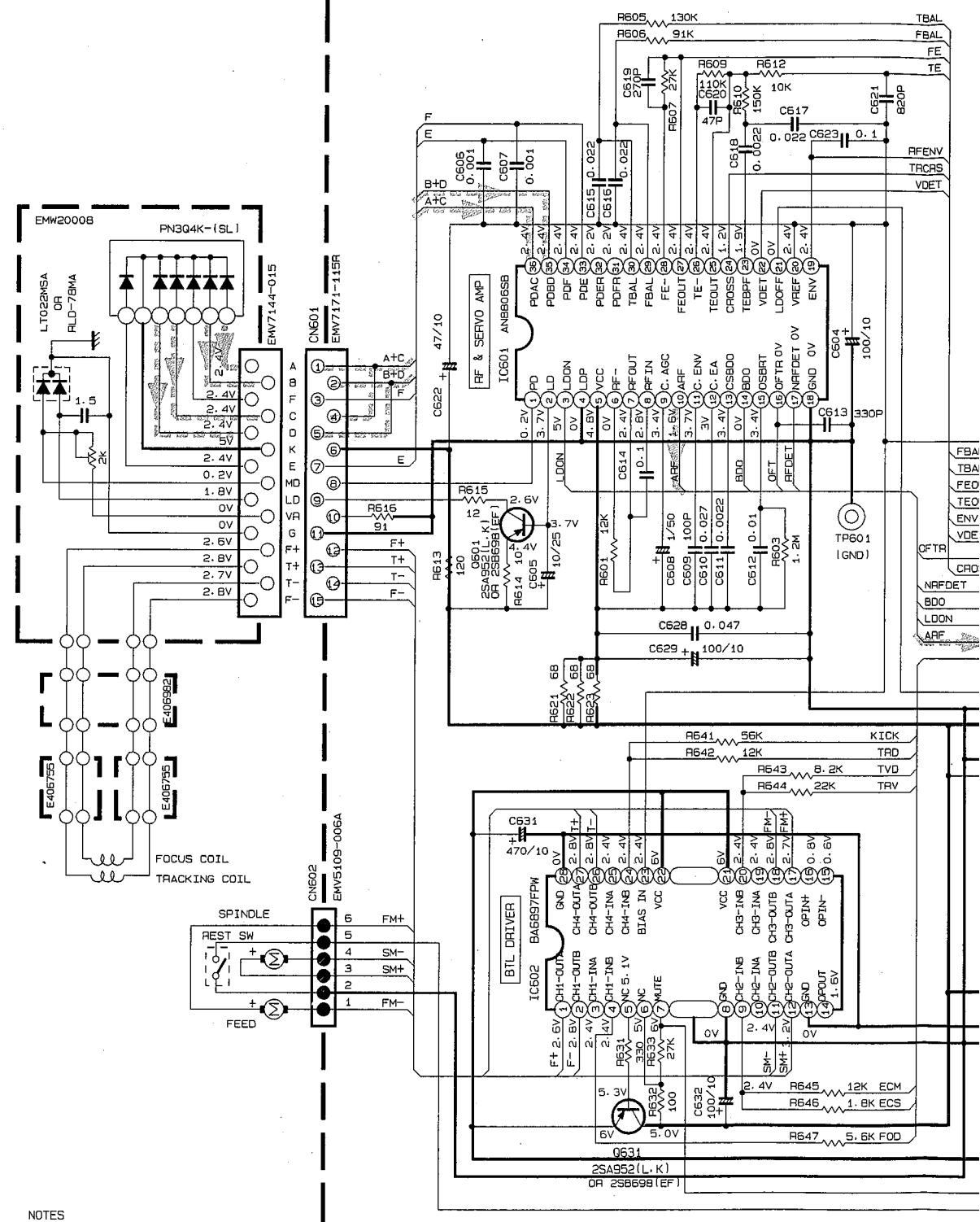
B

C

D

E

F



### NOTES

1. VOLTMAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/8W ±5% CARBON RESISTOR.  
ALL RESISTANCE VALUES ARE IN OHM (Ω).
- ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
- ALL CAPACITANCE VALUES ARE IN F (P=PF).
- ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE ('F)/RATED VOLTAGE (V).

CD Digital signal

CD Analogue signal

+B Line

Note : FMDH9002001CW(/s/g/)

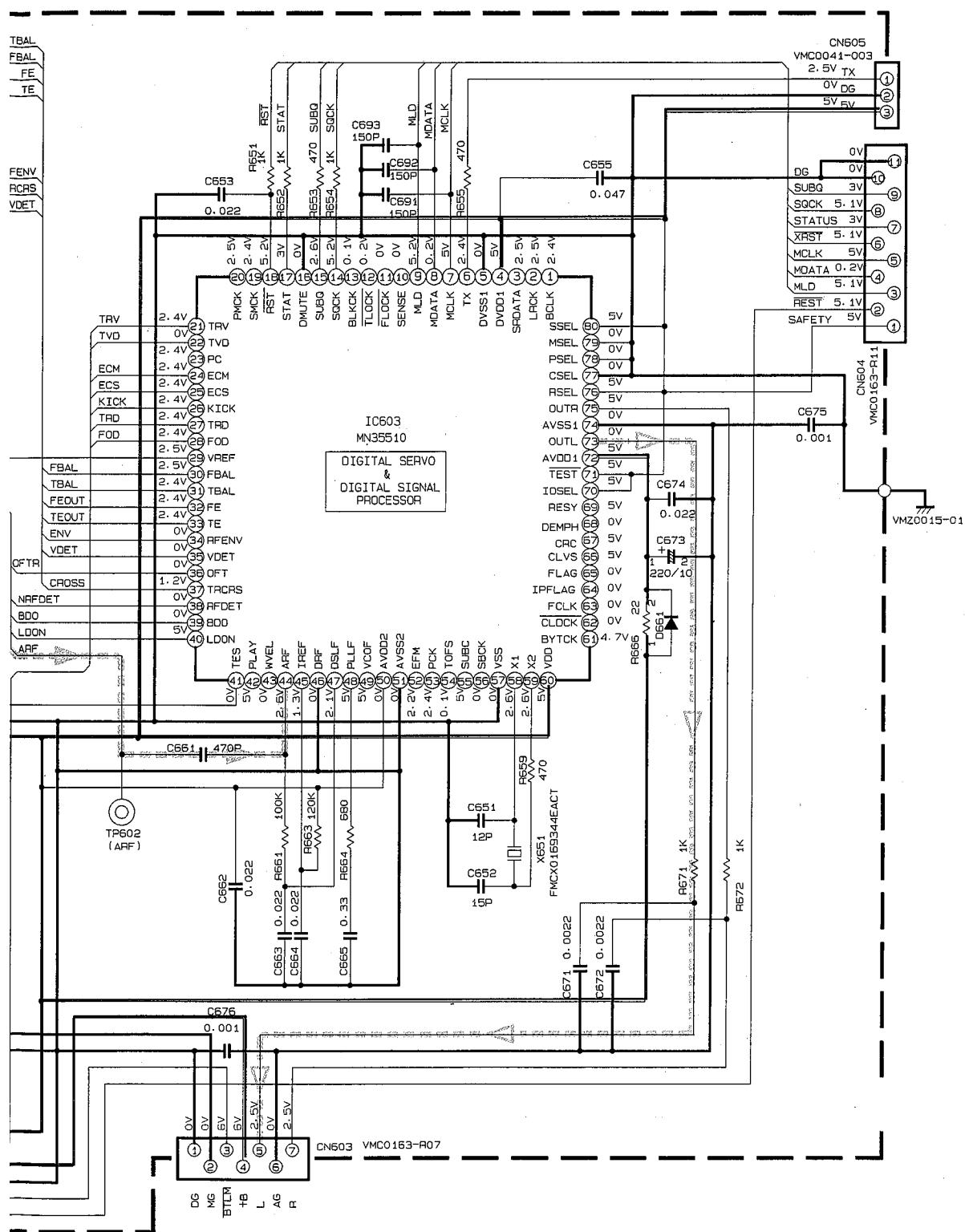
6

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1 2 3 4 5

## ■ Tuner Circuit : Drawing No.FMDH9002-005TW (B/E/EN/G Version)

A

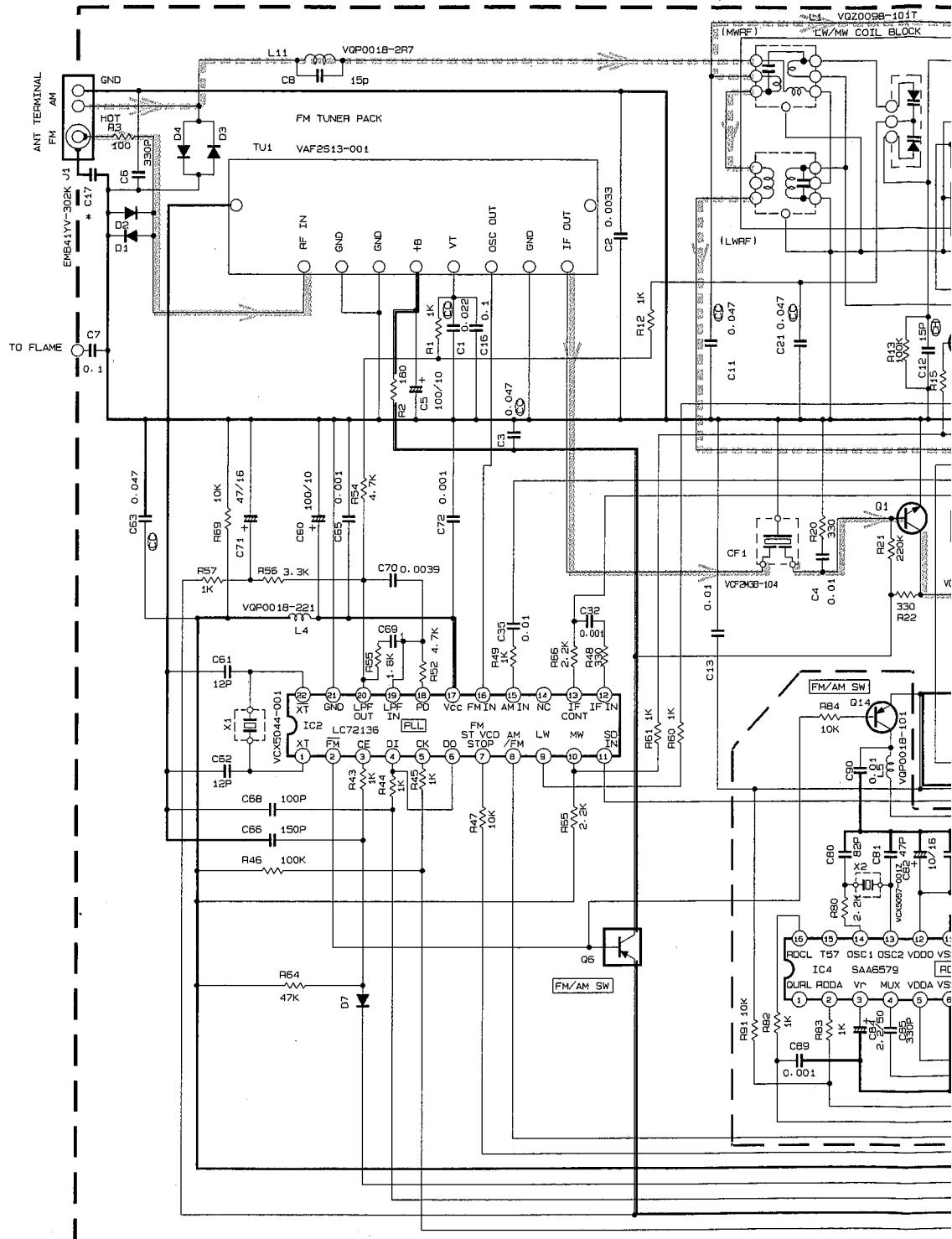
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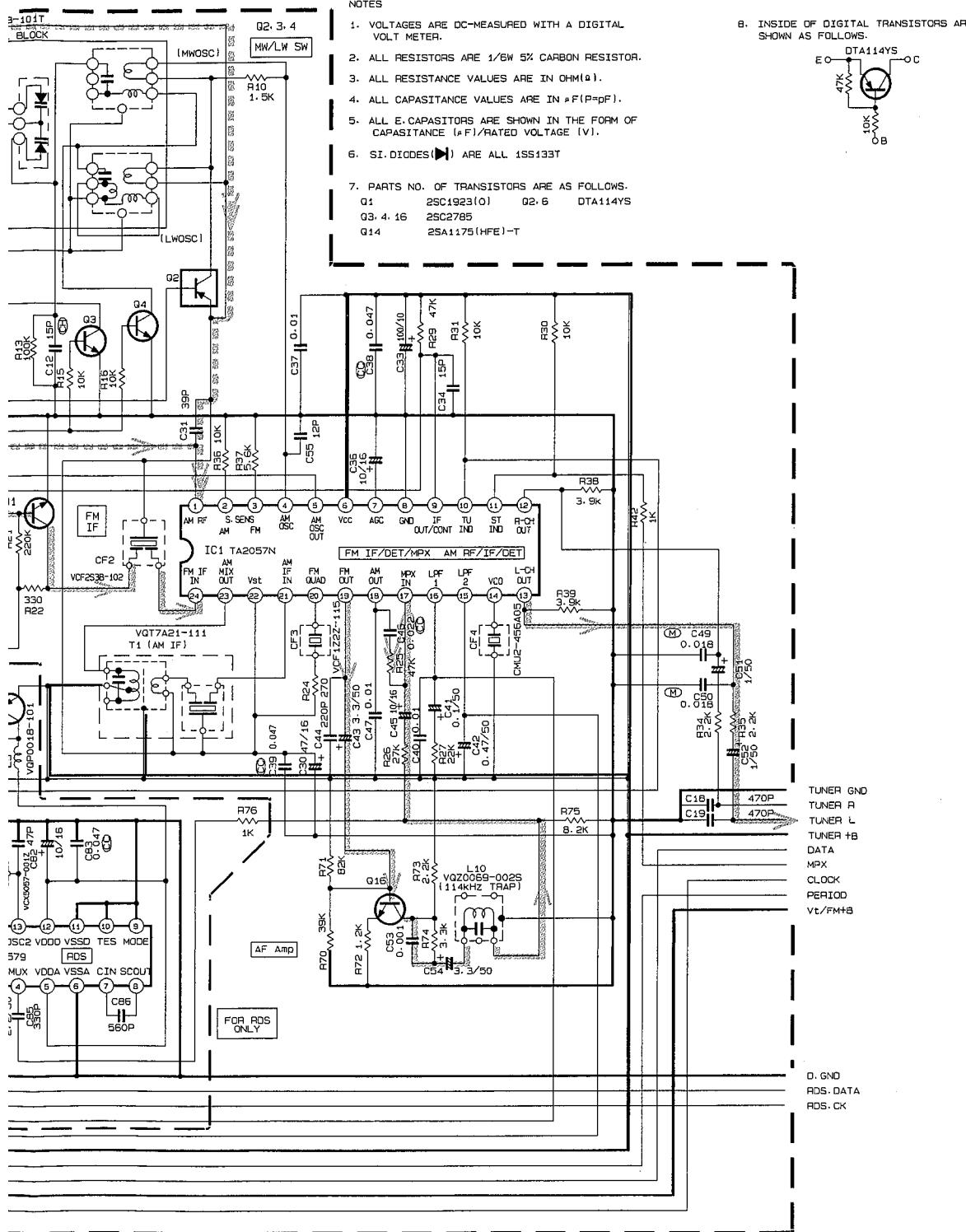
\* MARK

LOC.	MODEL	CA-D301T	CA-D401T	CA-D501T
C17		0.01	0.001	0.001

	CONDITION	PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC1	FM NO SIGNAL	2.0	0.5	0	2.0	5.2	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.6	3.8	3.8	1.4	0	1.3	1.1	2.0	2.0	5.2	2.0	
	FM 60dB STEREO	2.0	0.5	0	2.0	5.2	5.2	1.1	0	0.2	0	0	1.0	1.0	4.5	4.1	3.9	1.4	0	1.2	1.1	2.0	2.0	5.2	2.0	
	AM NO SIGNAL	2.0	0.5	0	2.0	5.0	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.8	2.2	0	1.4	1.4	1.5	1.6	2.0	2.0	5.2	2.0	
IC2	FM NO SIGNAL	2.7	0	0	4.9	4.9	3.8	3.6	2.0	4.1	5.2	0	0	0	0	2.6	5.2	1.0	1.0	3.7	0	2.7				

Tr NO	
PIN NO	
FM 87.5MHz N	
AM 522kHz N	
Tr NO	
PIN NO	
AM 522kHz N	
AM 144kHz N	

Note : FMDH9002005TW(s/g)



Tr NO.	Q1			G5			Q16		
PIN NO.	E	C	B	E	C	B	E	C	B
FM 87.5MHz NO SIGNAL	0	8.3	0.8	9.8	9.7	0	1.0	3.5	1.6
AM 522kHz NO SIGNAL	0	0	0	9.8	0	9.7	1.0	3.5	1.6
Tr NO.	Q2			Q3			Q4		
PIN NO.	E	C	B	E	C	B	E	C	B
AM 522kHz NO SIGNAL	2.0	2.0	0.1	0	0	0.7	0	0	0.7
AM 144kHz NO SIGNAL	2.0	2.0	2.0	0	0	0.1	0	0	0.1

FM Radio signal  
MW Radio signal  
LW Radio signal

+B Line

1

2

3

4

5

## ■ Tuner Circuit : Drawing No.FMDH9002-012TW (VX Version)

A

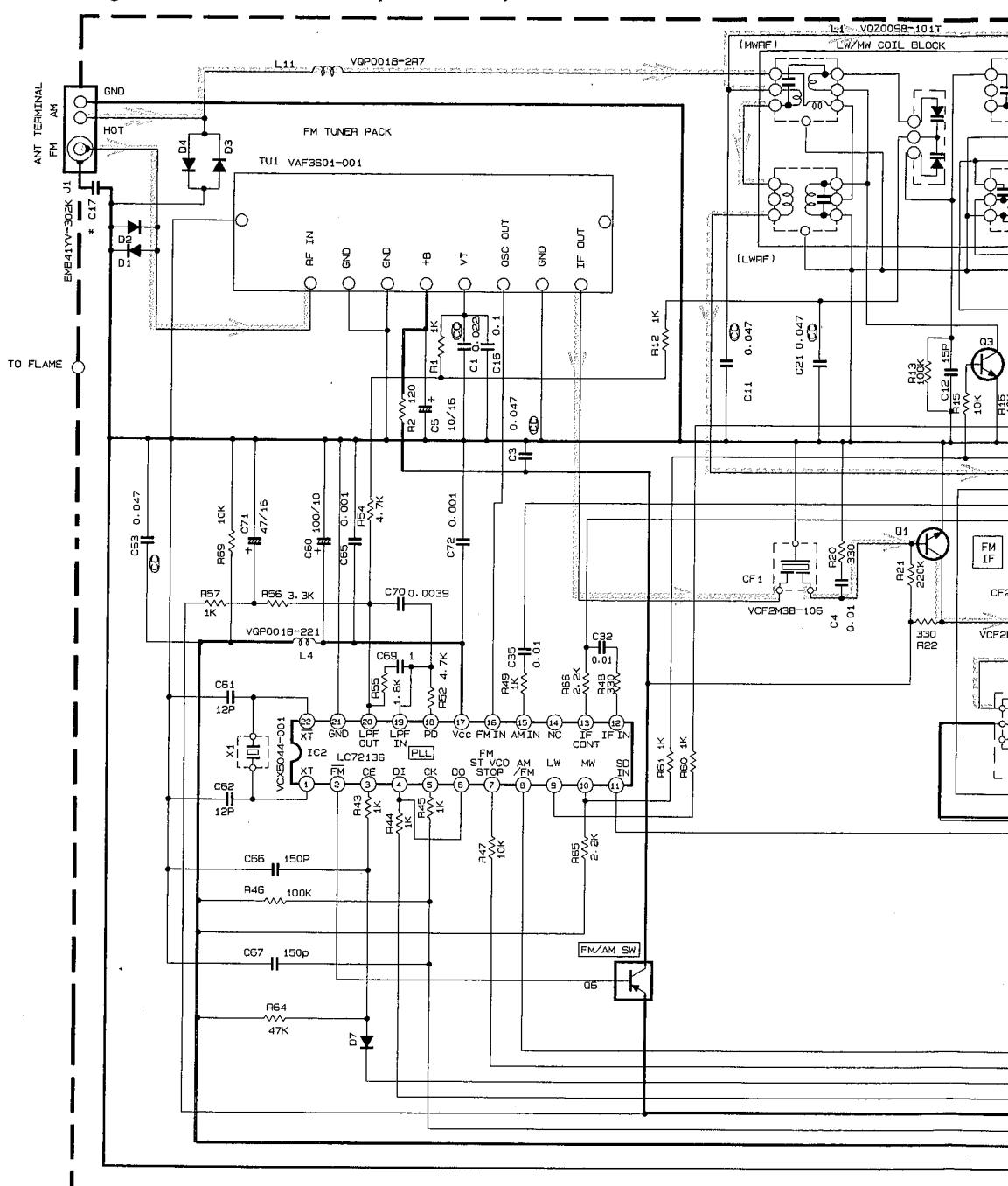
B

C

D

E

F

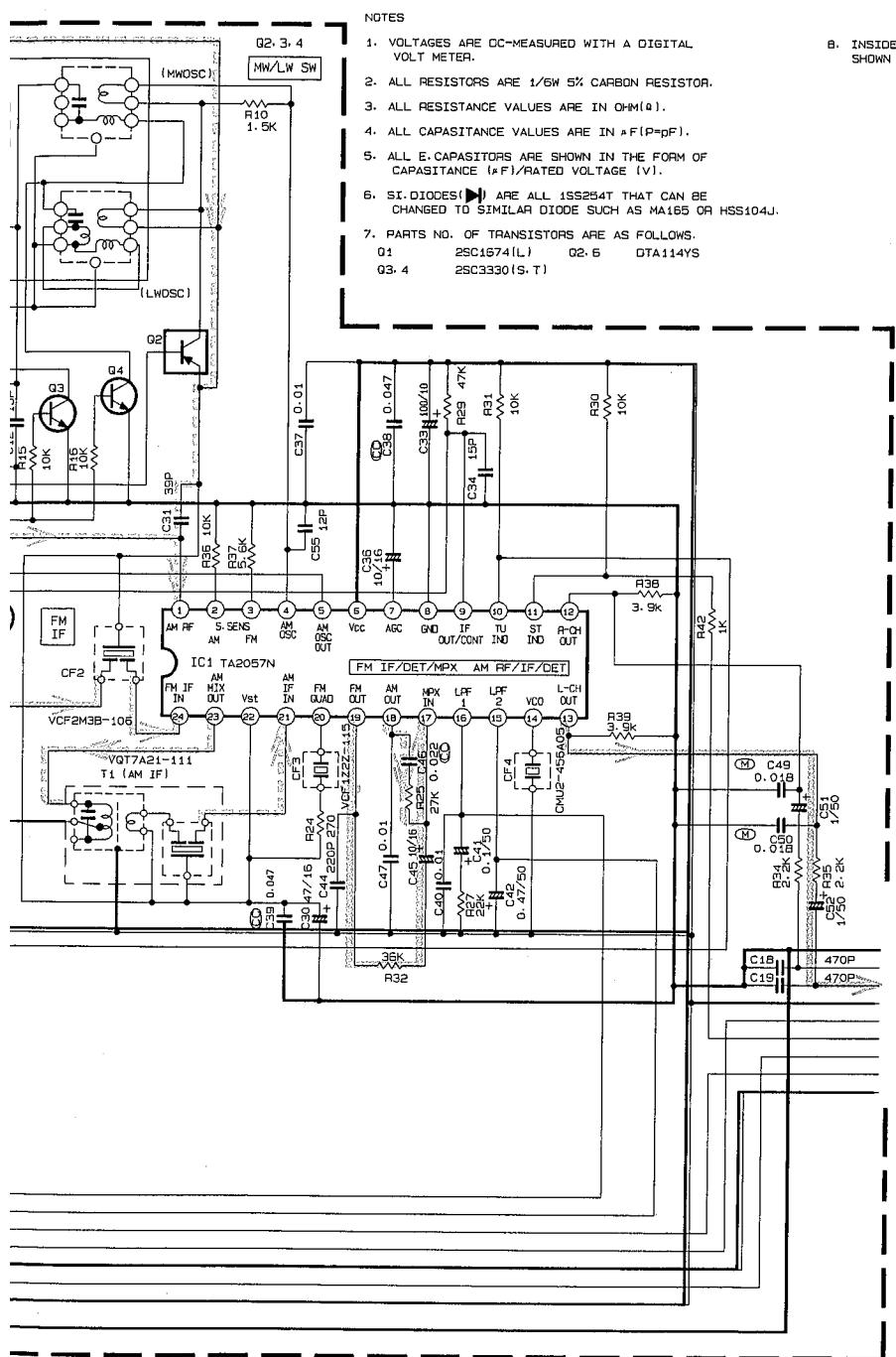


CONDITION PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
FM NO SIGNAL	2.0	0.5	0	2.0	5.2	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.6	3.8	3.8	1.4	0	1.3	1.1	2.0	2.0	5.2	2.0
IC1 FM 50dB STEREO	2.0	0.5	0	2.0	5.2	5.2	1.1	0	0.2	0	0	1.0	1.0	4.5	4.1	3.9	1.4	0	1.2	1.1	2.0	2.0	5.2	2.0
AM NO SIGNAL	2.0	0.5	0	2.0	5.0	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.8	2.2	0	1.4	1.4	1.5	1.6	2.0	2.0	5.2	2.0
IC2 FM NO SIGNAL	2.7	0	0	4.9	4.9	4.9	3.8	3.8	2.0	4.1	5.2	0	0	0	2.6	5.2	1.0	1.0	3.7	0	2.7	/	/	/

Tr NO.	
PIN NO.	
FM 87.5MHz NO SIGNAL	
AM 52kHz NO SIGNAL	
Tr NO.	
PIN NO.	
AM 52kHz NO SIGNAL	
AM 144kHz NO SIGNAL	

LOC.	MODEL	CA-D301T	CA-D401T
C17		0.01	0.001

Note : FMDH9002012TW(/s/g)



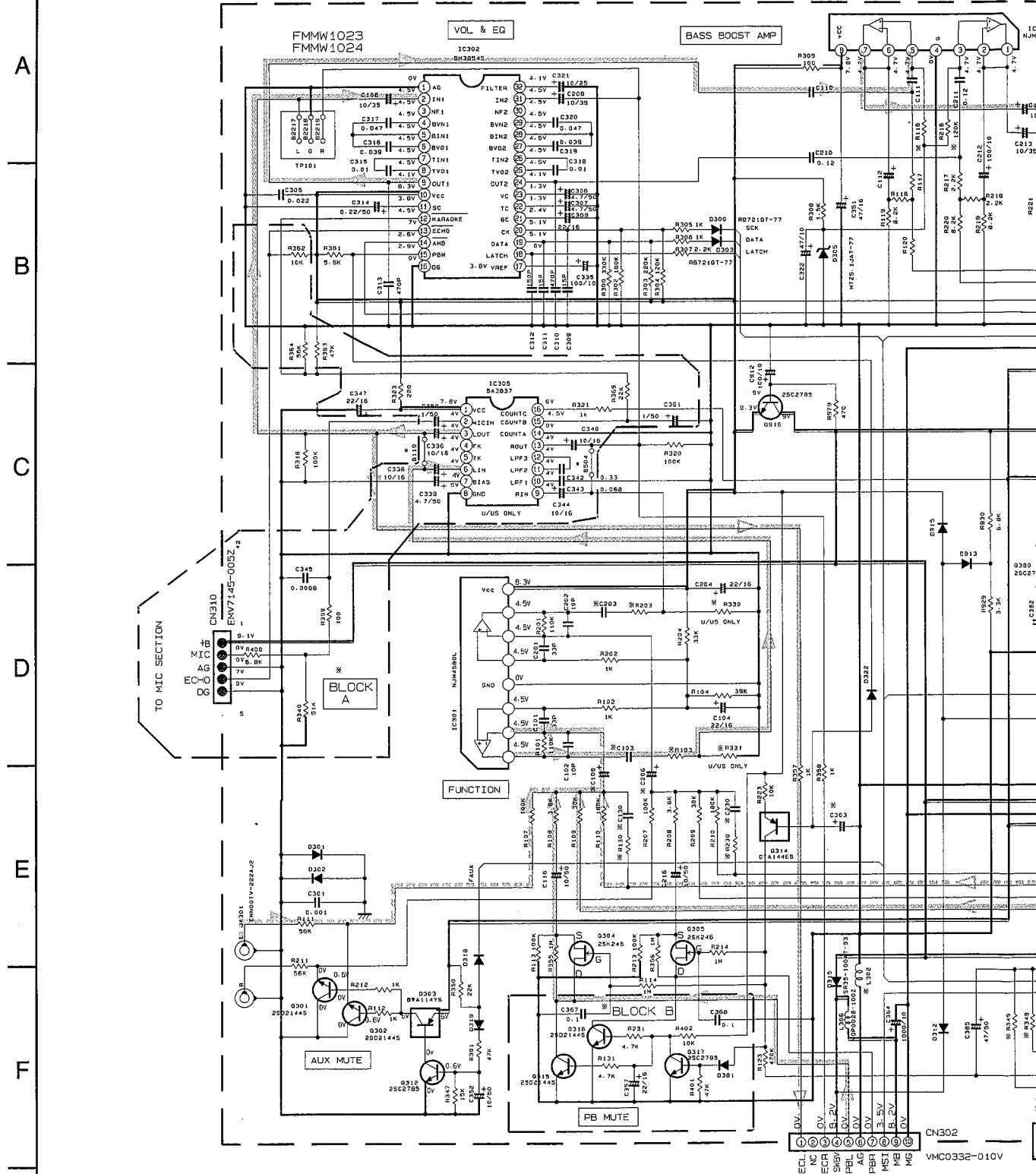
TUNER GND  
TUNER R  
TUNER L  
TUNER +B  
DATA  
MPX  
CLOCK  
PERIOD  
Vt/FM+B

NO.	Q1			Q5			Q6		
NO.	E	C	B	E	C	B	E	C	B
1. NO SIGNAL	0	0.3	0.8	9.8	9.7	0			
2. NO SIGNAL	0	0	0	9.8	0	9.7			
NO.	Q2			Q3			Q4		
NO.	E	C	B	E	C	B	E	C	B
1. NO SIGNAL	2.0	2.0	0.1	0	0	0.7	0	0	0.7
2. NO SIGNAL	2.0	2.0	2.0	0	0	0.1	0	0	0.1

FM Radio signal  
AM Radio signal  
LW Radio signal

+B Line

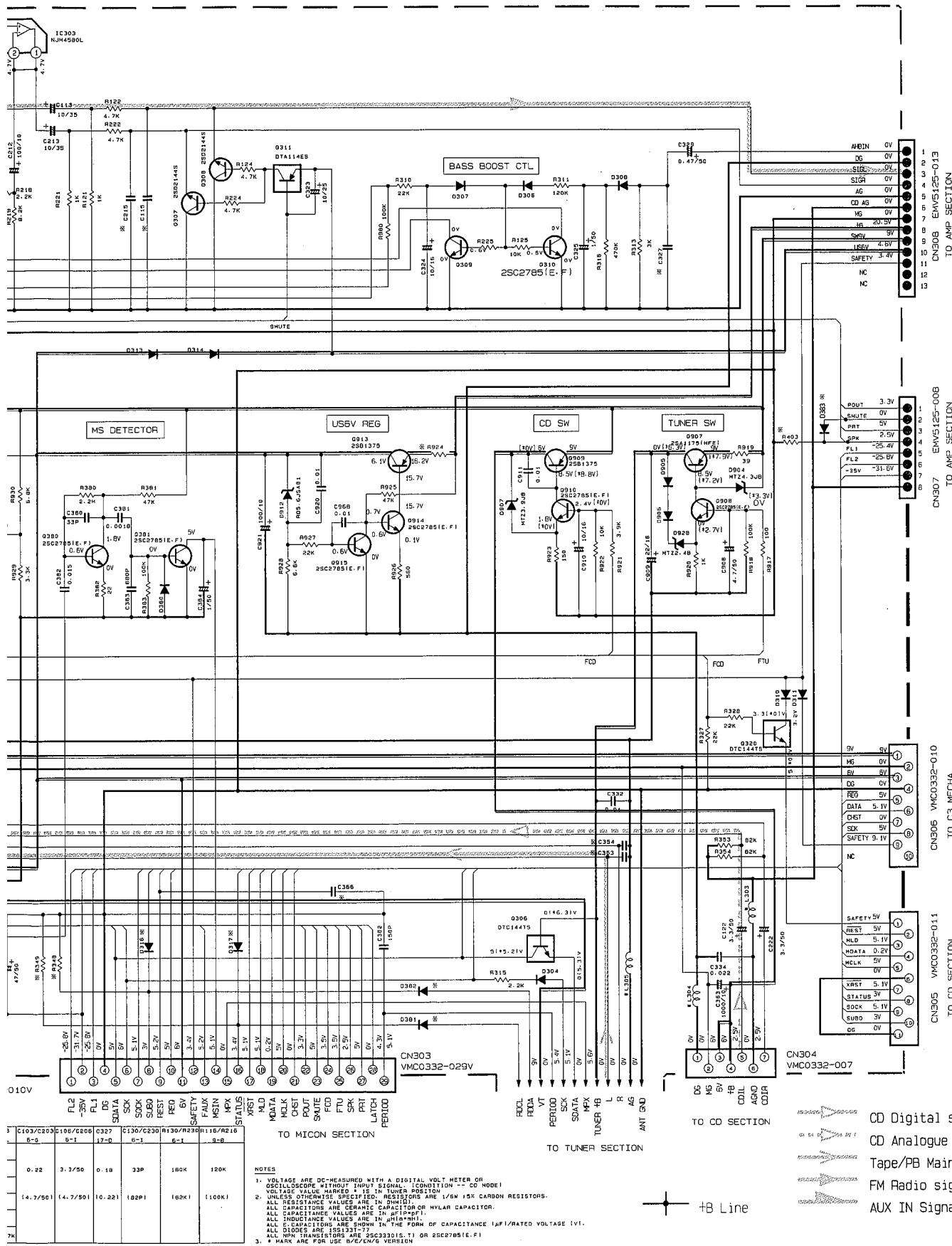
■ Fuction & Bass Boost Amplifier / Regulator Circuit : Drawing No.FMDH9003-006AV (1/3)



(\*) INDICATE THE VALUE FOR MODEL CA-DS011/ICA-DS110  
\* MARK

MODEL	LOC	L302 9-H	L303/L304 18'-K/17'-L	L305 17'-L	BLOCK A/BLCK B 3-G	B119/B304 5-E	D316/0317 12-K	0303 14-L	D381/0382 K-12	C368 8-1	C303 11-C	C353/C354 17-J	R349 10-L	R403 10-E	R324 14-F	R330/R331 7-0	R324 6-H	R348 10-L	C103/C203/C104 6-5		
J-C	B103	B106/B105	B107	--	USE	B103/B104	--	--	150P	2.2/50	--	470P	--	--	B103	--	100	--			
U-UB-UP UR-US-UT	B103	B106/B105	B107	USE	--	B103/B104	150P	--	150P	2.2/50	--	470P	--	560	2P F. RES (1/4W)	5.6K (19.4K)	22K (16K)	--			
CA-DS011	B-E-ENI-G	V0Z0048-009	V0Z0048-009	V0Z0048-009	--	USE	B103/B104	--	--	2.2/50	--	--	--	--	22 F. RES (1/4W)	--	100	--	0.22	3.	
ICA-DS011	A	B103	B106/B105	B107	--	USE	B103/B104	--	--	150P	2.2/50	--	470P	--	--	22 F. RES (1/4W)	--	100	--	(4.7/50)	14
VX	B103	B106/B105	V0Z0048-009	V0Z0048-009	--	USE	B103/B104	--	--	2.2/50	--	--	--	--	22 F. RES (1/4W)	--	100	--			
MX-D451TR (CA-DS011)	B-E-ENI-G	V0Z0048-009	V0Z0048-009	V0Z0048-009	--	USE	R87210T-77	--	R87210T-77	--	2.2/50	330P	--	10K	--	22 F. RES (1/4W)	--	100	4.7K		

Note : FMDH9003006AV (s/g) .003



■ Power Amplifier & Regulator Circuit : Drawing No.FMDH9003-006AV (2/3)

A

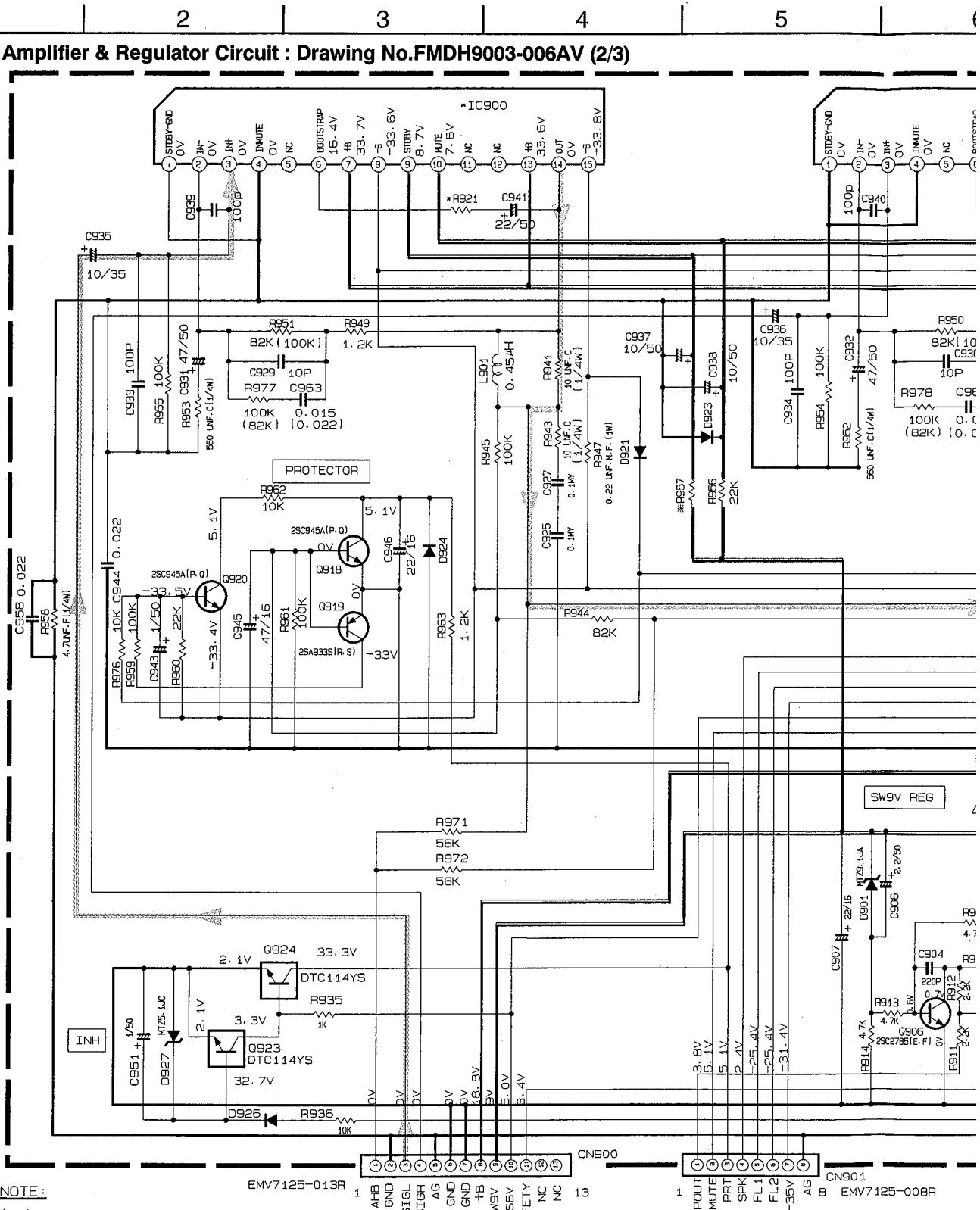
B

C

D

E

F



NOTE:

( ) INDICATE THE VALUE FOR  
MODEL CA-D501T AND CA-D551TR

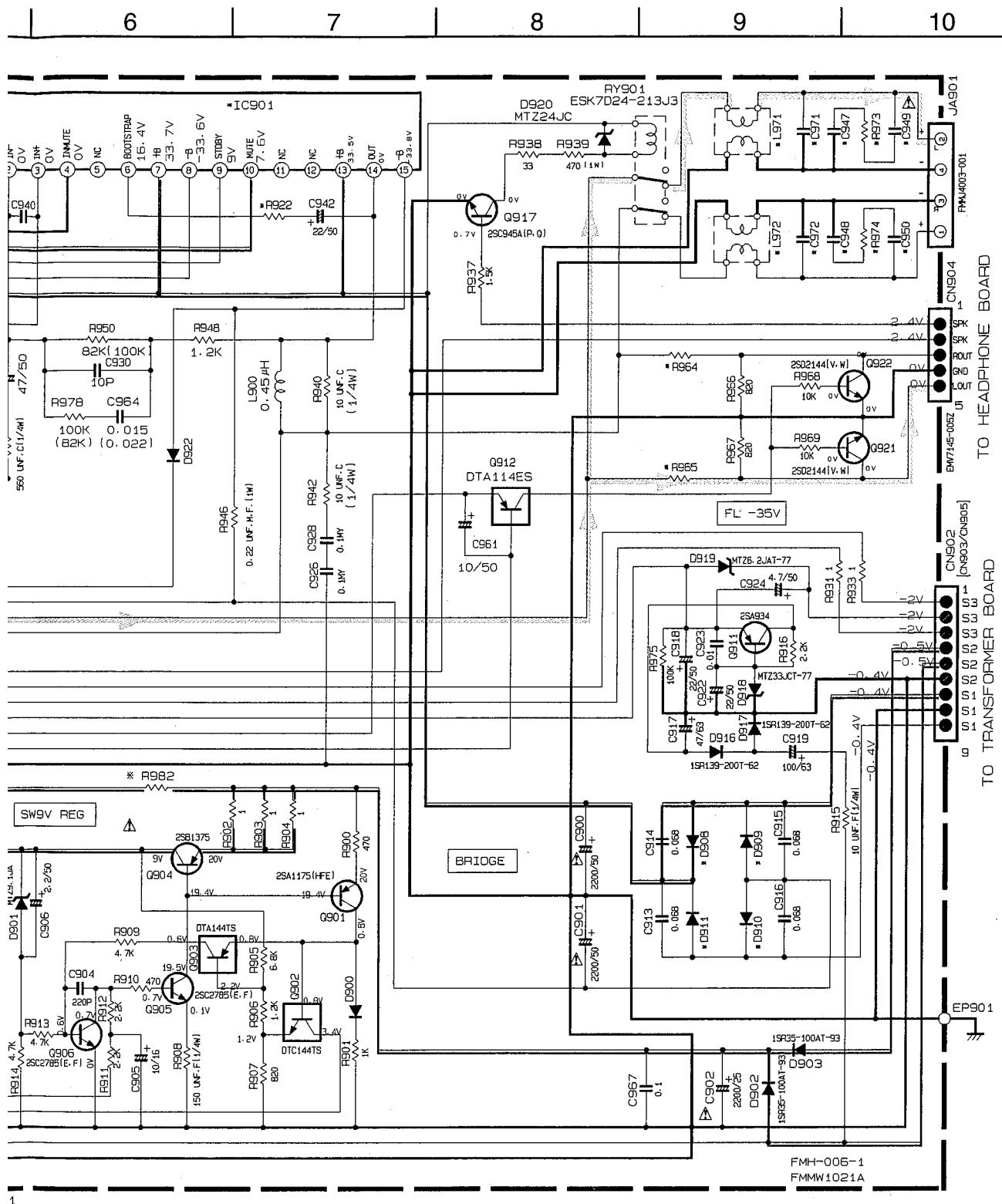
EMV7125-013R

TO MAIN BOARD

TO MAIN BOARD

\*MARK

VERSION \	C947/948/949/950 18-B	C971/C972 18-B	D908/909/910/911 18-H	IC900/901 6-B/13-B	L971/972 17-B	R921/922 6-C/13-C	R957 9-E	R964/965 17-D	R982 12-H	R973/R974 19-B
B-E-EN-G	0.022	0.0027	1N5401TM	TDA7295	VQZ0104-003	B125/126	1K	680	B120	4.7
U-UB, UP, UR US, UT, A, VX	--	--	1N5401TM	TDA7295	--	B125/126	1K	680	B120	--
J-C	--	--	10E2-F0	TDA7294	--	2.2K	10K	680 F. RES(1/4W)	22 F. RES (1/4W)	--



1  
V7125-008R

NOTES

1. VOLTAGES ARE DC-MEASURED USING AN OSCILLOSCOPE WITHOUT INPUT SIGNAL CONDITION.
2. UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS ARE  $1/8W \pm 5\%$  CARBON RESISTOR.  
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V NYLAR CAPACITOR.  
ALL RESISTANCE VALUES ARE IN  $\Omega$  (MΩ).
3. THOSE PART WITH BRACKET IS NOT USED.  
FOR RESISTOR IT WOULD BE A SHORT.  
FOR CAPACITOR IT WOULD BE AN OPEN.

Main PB Signal

+B Line

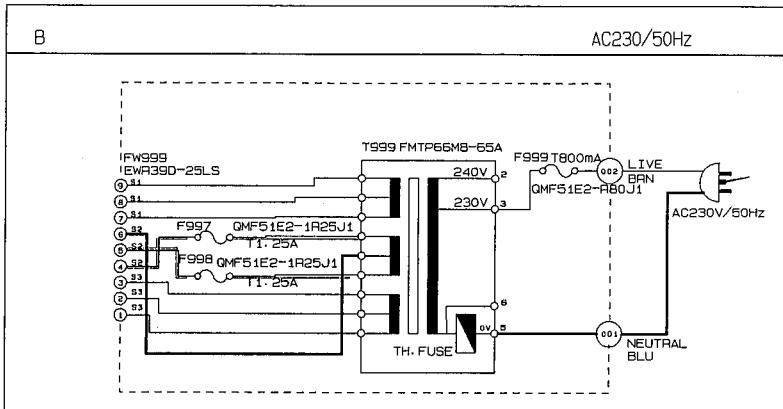
'3/R974
19-B
4.7

1 2 3 4 5

## ■ Power Transformer Circuit : Drawing No.FMDH9003-006AV (3/3)

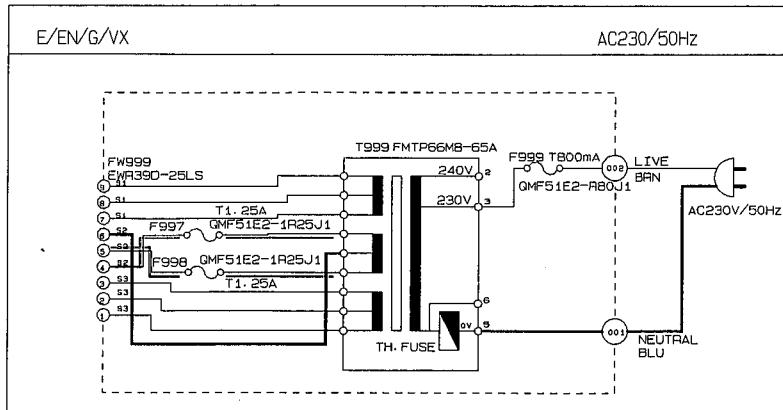
A

POWER SUPPLY BLOCK



B

POWER SUPPLY BLOCK



E

F

Note : FMDH9003006AV(/s/g)

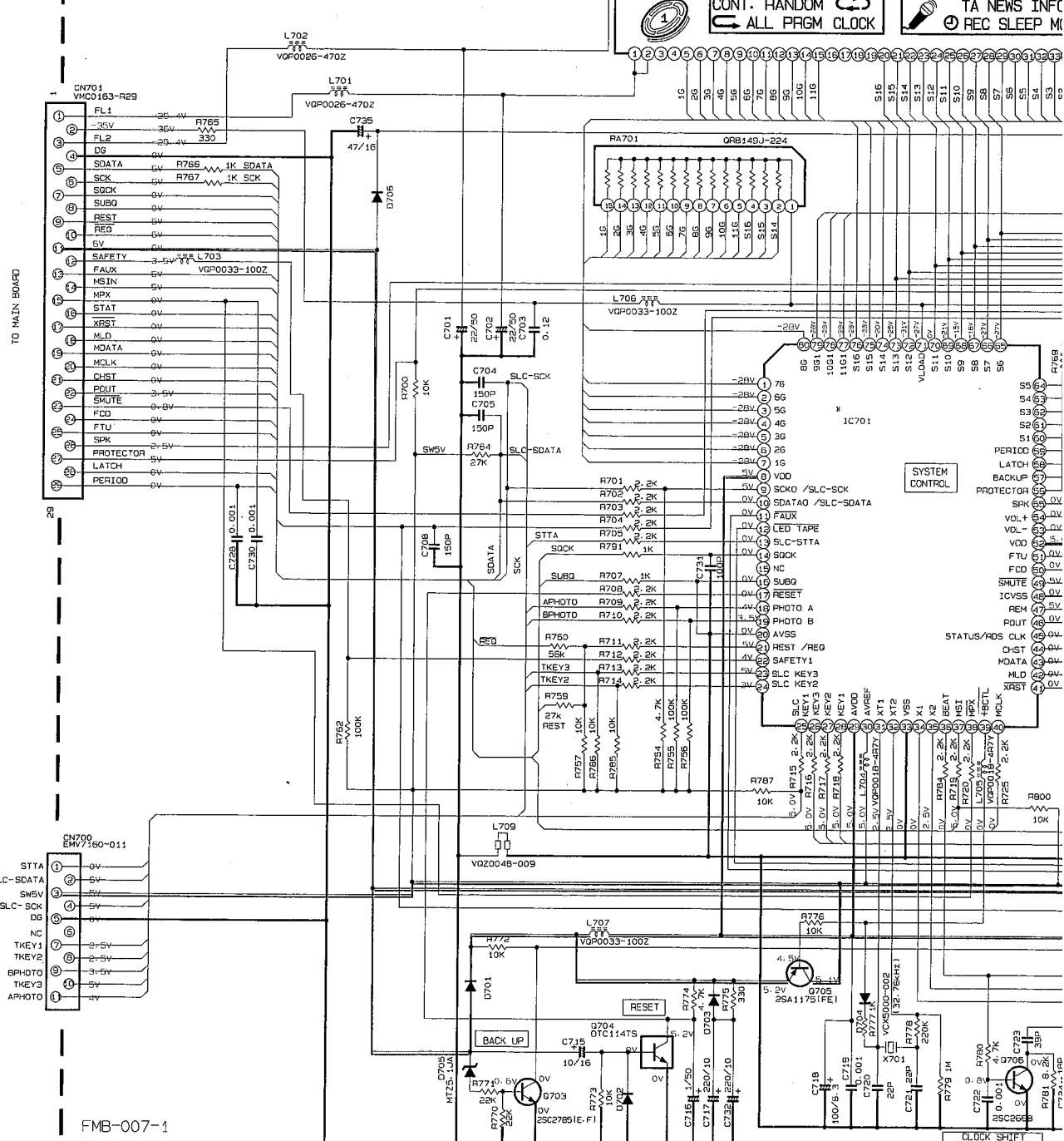


1 2 3 4 5

■ System CPU & Operation Switch Circuit : Drawing No.FMDH9002-006SV

FL701 GLF0021-001

A



\*MARK

MODEL	VERSIONS	R479 15-M	R69B 15-L	R69B 15-M	S710/711/712/713 16-K	R491 16-F	H801 16-H	D411 16-C	Q711 16-G	R768 11-F
CA-D301T	J-C	47K	--	--	--	--	--	B134	SLR-342VCA47	DTC-114ES 2-2K
CA-D401T	U-U, UP-U, UT-U	--	--	--	--	300	47K	SLA-380LT-TB	2SD2144S	56
CA-D501T	UR	--	--	75K	--	300	47K	SLA-380LT-TB	2SD2144S	56
CA-D501T	B-E, EN-G	47K	75K	B129	--	300	47K	SLA-380LT-TB	2SD2144S	2-2K
CA-D501T	A	--	B133	10K	--	300	47K	SLA-380LT-TB	2SD2144S	2-2K
CA-D501T	VX	--	18K	10K	--	300	47K	SLA-380LT-TB	2SD2144S	2-2K
MX-D451TR	B-E, EN-G	47K	18K	10K	USE	300	47K	SLA-380LT-TB	2SD2144S	2-2K

MODEL	IC701 10-F
MX-D301T	UPD76044FGF-067
U-U, UP-U, UT-U	UPD76044FGF-067
OTHERS	UPD76044FGF-065

Note : FMDH9002006SV (/s/g)

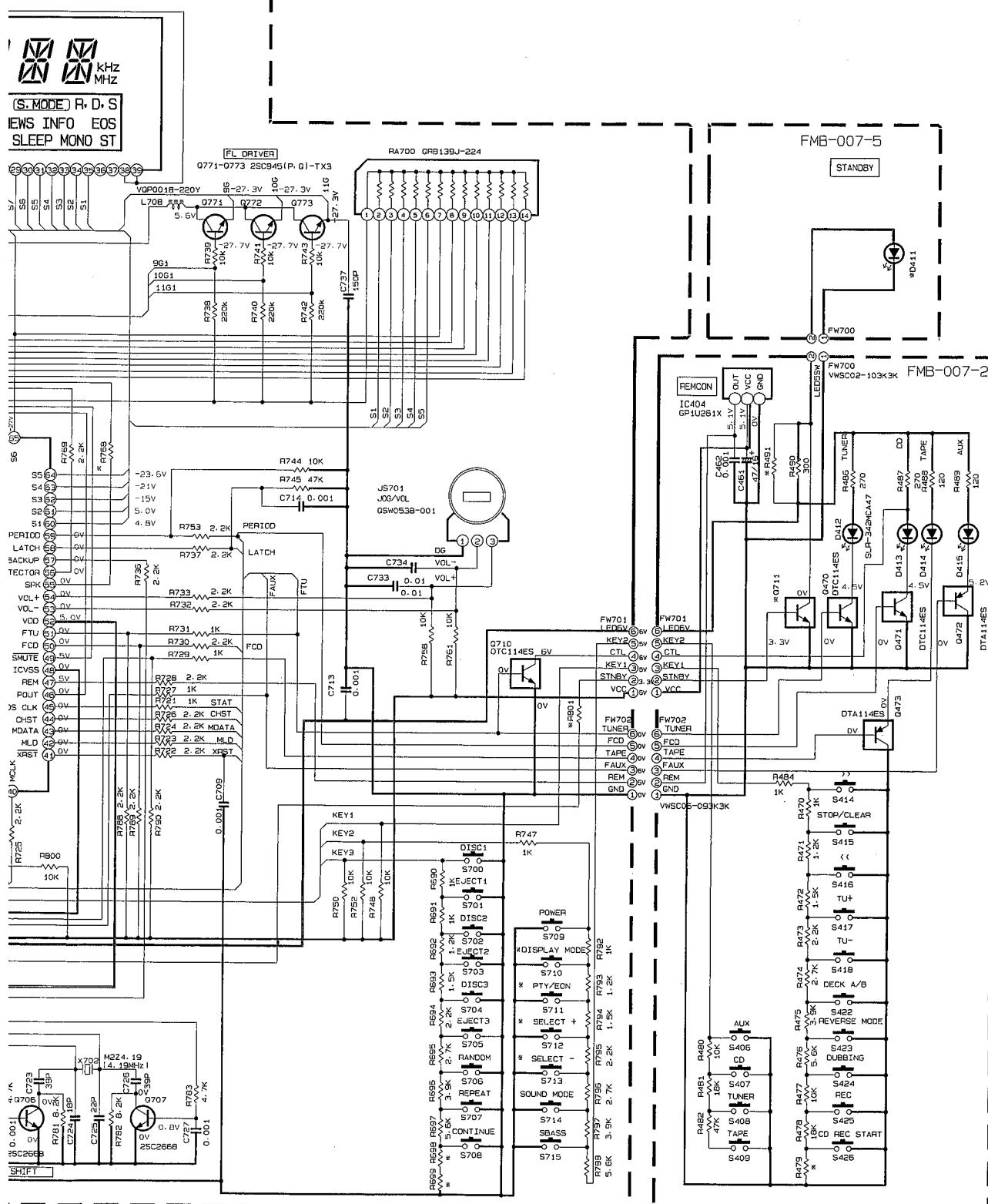
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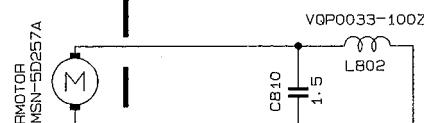


+B Line

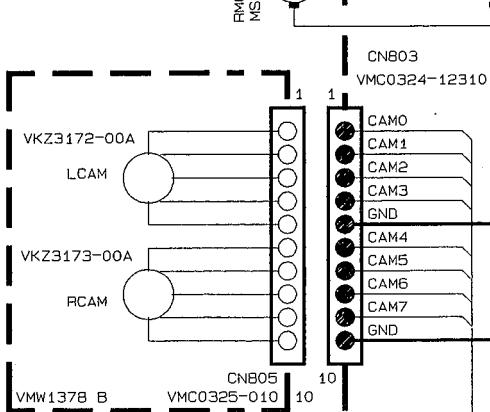
1 2 3 4 5

## ■ CD Traverse Mechanism Control Circuit : Drawing No.FMDH9002-006MW

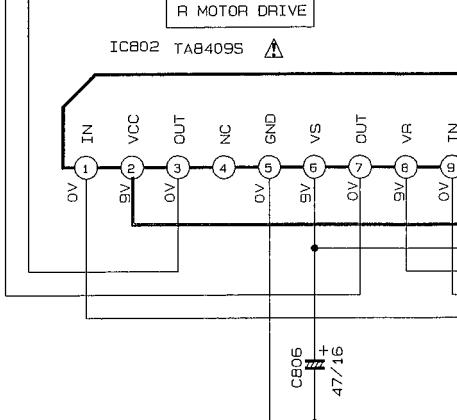
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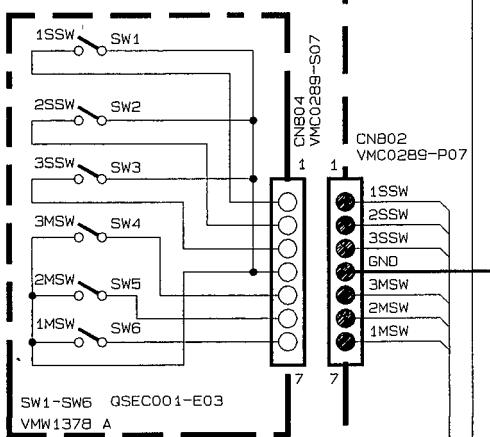
B



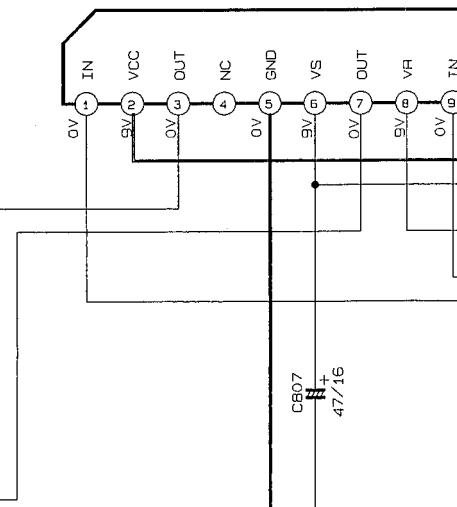
R MOTOR DRIVE  
IC802 TAB409S



C



L MOTOR DRIVE  
IC803 TAB409S



D

E

F

TABLE 1 CAM PATTERN LIST

CAM NO.	LCAM	RCAM	POSITION
POSITION	0 1 2 3	4 5 6 7	POSITION
MAIN TRAY1	0 1 1 1 0 1 1 1 0	1 1 1 0 0 0 0 0 0	EMERGENCY
SUB TRAY1	0 0 1 1 1 0 1 0 0	1 0 0 1 0 0 0 0 0	TRAY1 STAND-BY
CAMR 1	0 1 0 1 0 1 0 1 0	1 0 1 0 0 1 0 1 0	TRAY1 CHECKING
MAIN TRAY2	1 0 0 1 0 1 0 0 1	0 0 1 1 0 0 0 0 1	TRAY2 STAND-BY
SUB TRAY2	1 1 1 0 0 0 1 1 1	0 1 1 1 0 0 0 0 1	TRAY2 CHECKING
CAMR 2	1 0 1 0 0 0 1 0 1	0 0 1 0 1 0 1 0 1	TRAY3 STAND-BY
MAIN TRAY3	1 1 0 0 0 0 1 1 1	0 1 1 1 0 0 0 1 1	TRAY3 CHECKING
SUB TRAY3	1 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	
OFF	1 1 1 1 0 1 1 1 1	1 1 1 1 0 1 1 1 1	OFF

0=0V

1=5V

## NOTES

- 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION --- DISC 1 CD STOP MODE
- 2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE ALL RESISTANCE VALUES ARE IN OHM(Ω). ALL CAPACITORS ARE CERAMIC CAPACITOR OR ALL CAPACITANCE VALUES ARE IN  $\mu$ F( $P=\mu$ F). ALL INDUCTANCE VALUES ARE IN  $\mu$ H( $m=mH$ ). ALL E. CAPACITORS ARE SHOWN IN THE FORM

Note : FMDH9002006MW (/s/g)

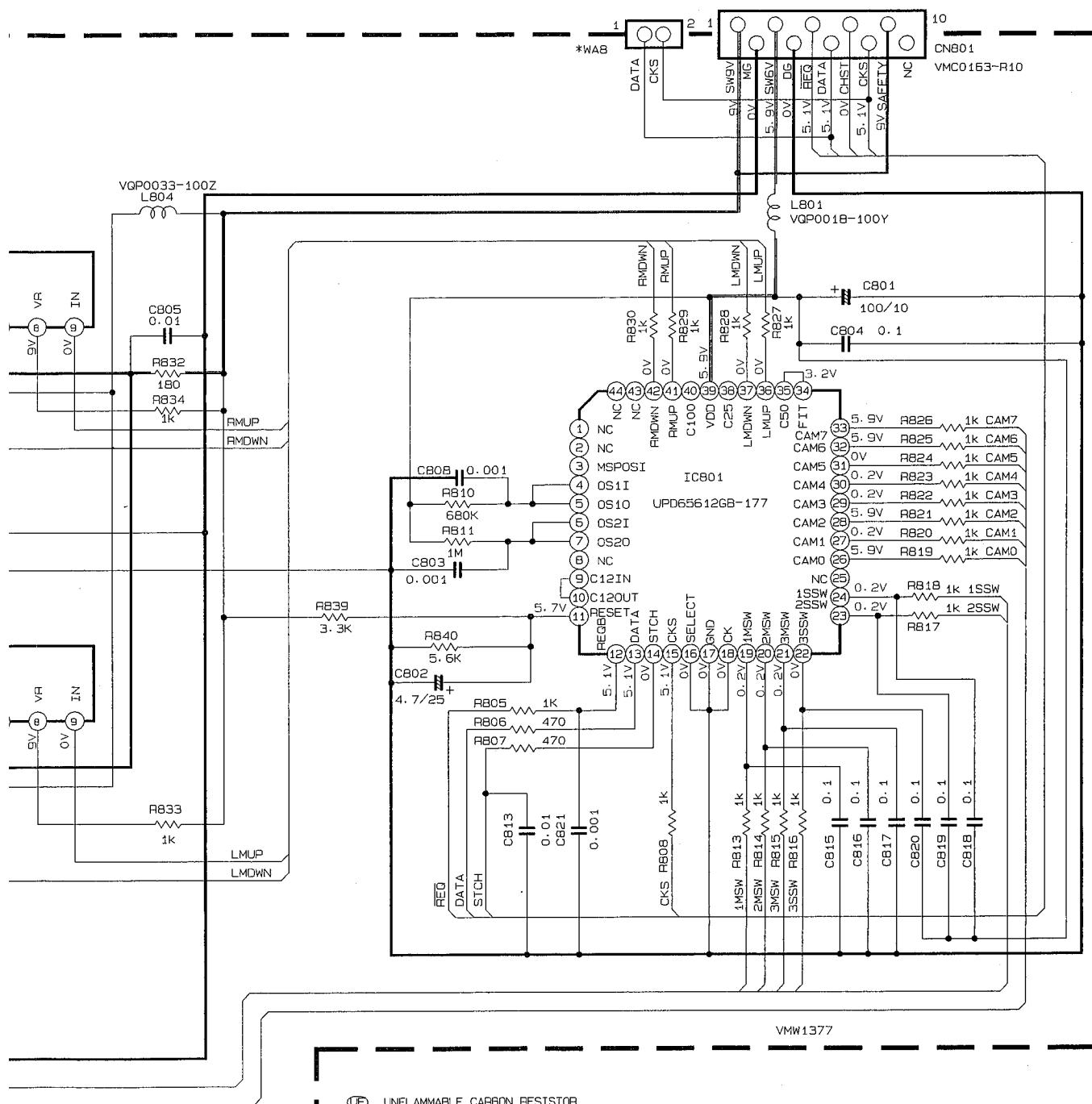
6

7

8

9

10



UNFLAMMABLE CARBON RESISTOR  
 METAL FILM RESISTOR  
 OXIDE METAL FILM RESISTOR  
 ±20% LOW LEAK CURRENT ELECTROLYTIC CAPACITOR  
 NON-POLARISED ELECTROLYTIC CAPACITOR  
 POLYPROPYLENE CAPACITOR  
 POLYSTYROL CAPACITOR

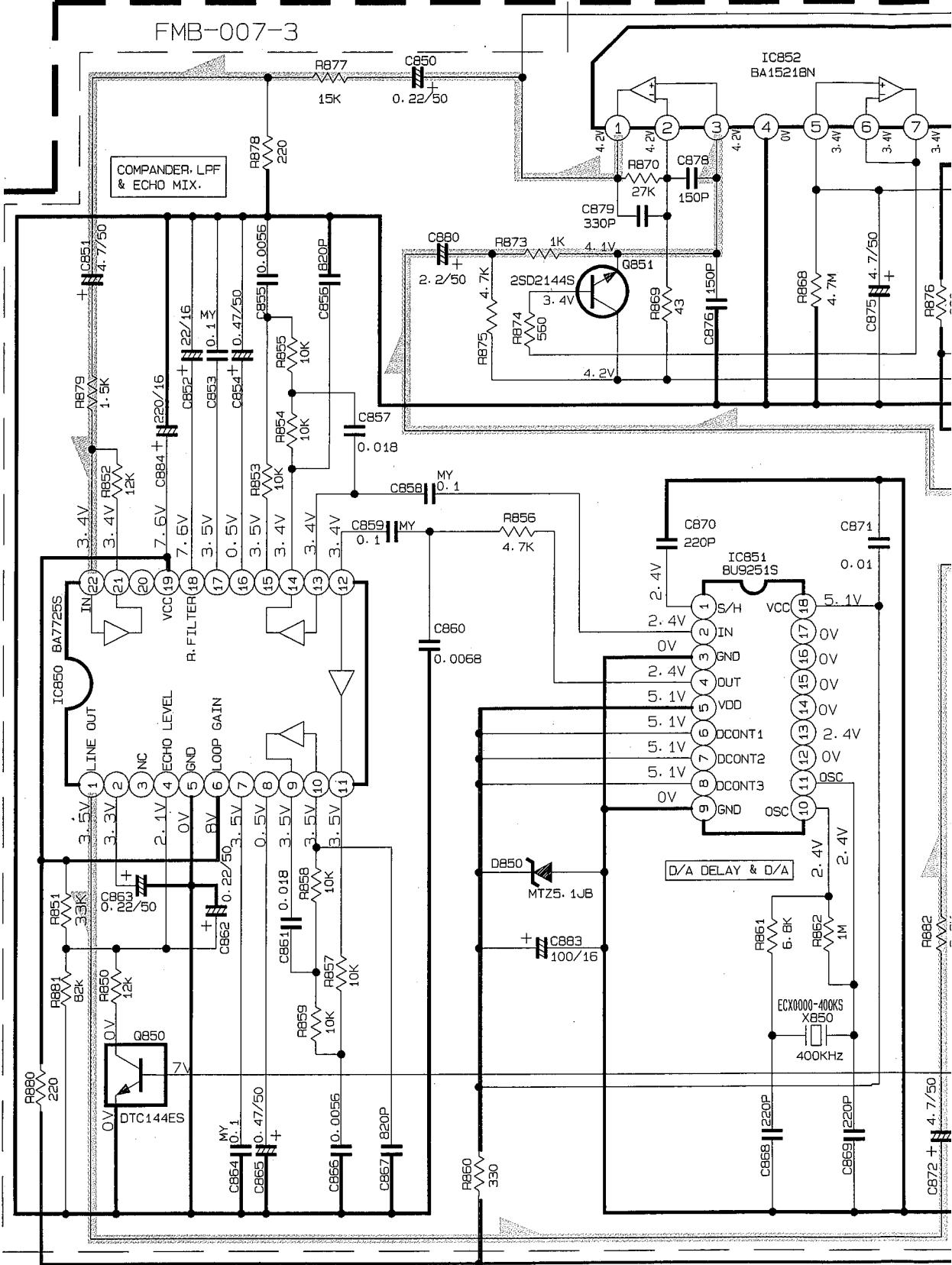
A DIGITAL VOLT METER  
SIGNAL.  
MODE  
RESISTORS ARE  $1/8W \pm 5\%$  CARBON RESISTOR.  
 $\Omega M(\Omega)$ .  
CAPACITOR OR MYLAR CAPACITOR.  
 $\mu F (P=pF)$ .  
 $\mu H (m=mH)$ .

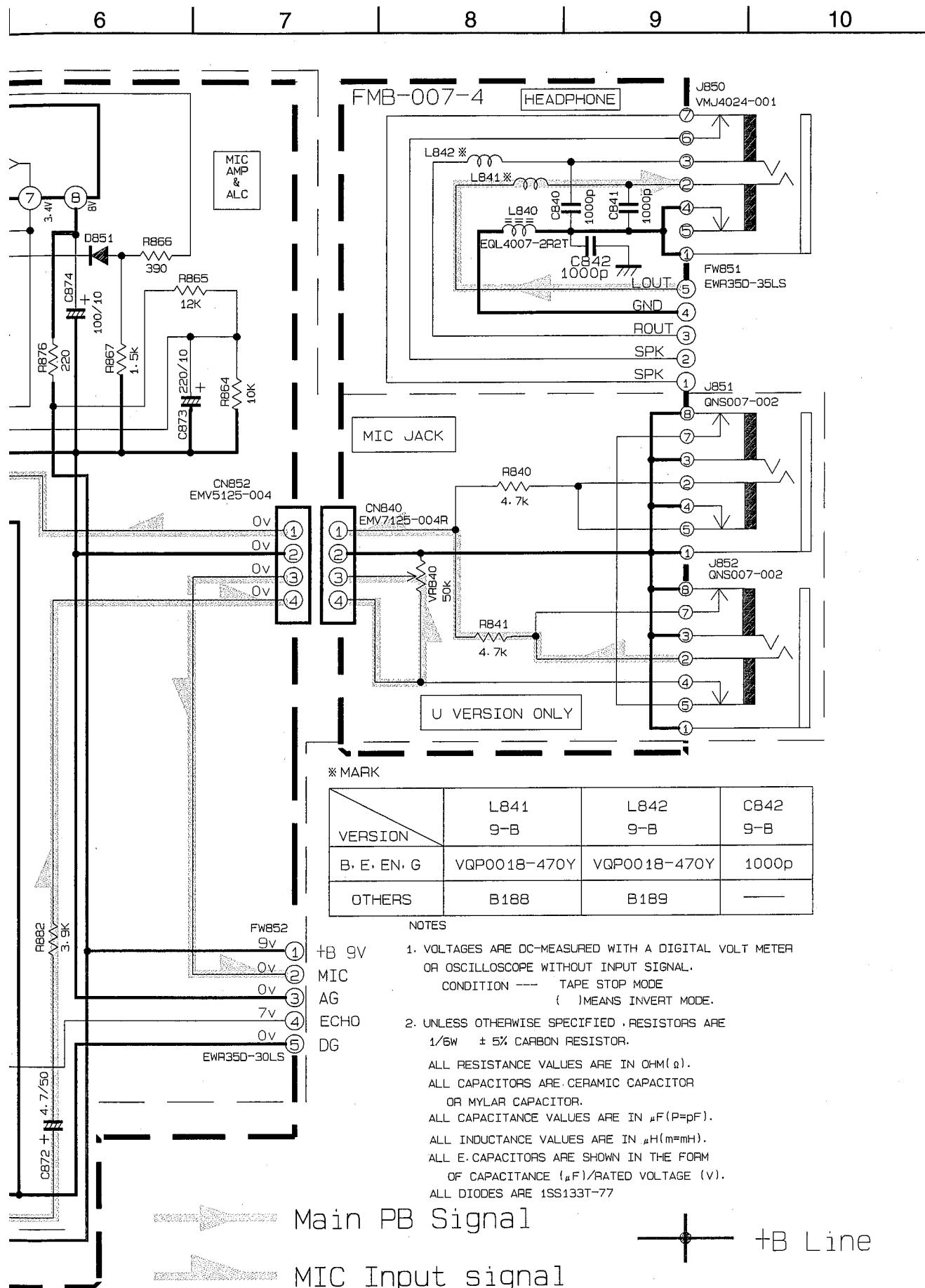
THE FORM OF CAPACITANCE ( $\mu F$ )/RATED VOLTAGE (V).

+B Line

■ Mic Input Amplifier & Headphone Output Circuit : Drawing No.FMDH9003-006AX

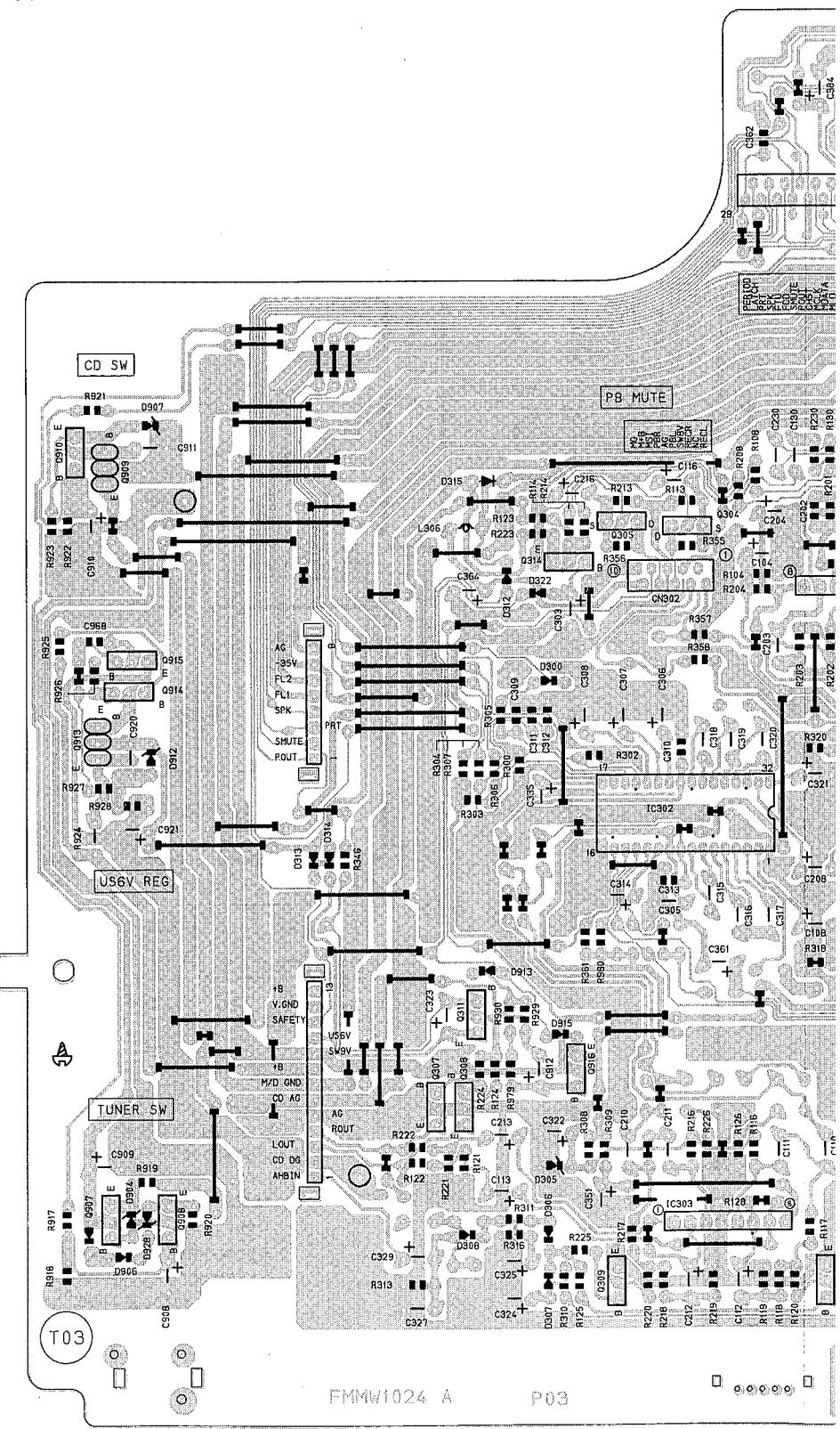
A





## 11.Location of P.C. Board Parts

1 | 2 | 3 | 4 | 5

**■ Main Amplifier Board : Block No. 01**A  
B  
C  
D  
E  
F  
T

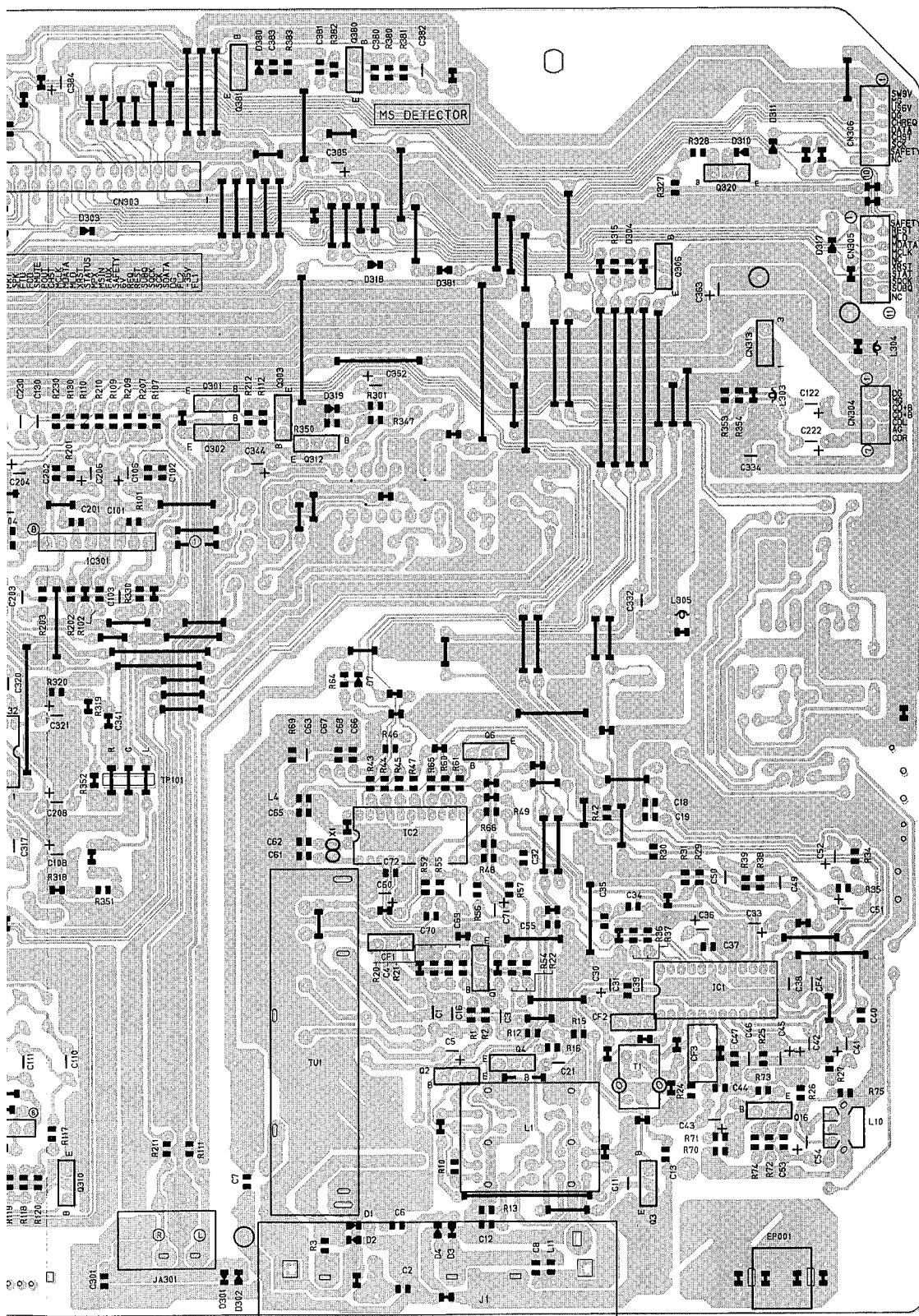


Fig.11-1

1 2 3 4 5

■ Power Supply & Power Amplifier Board : Block No. 02

A

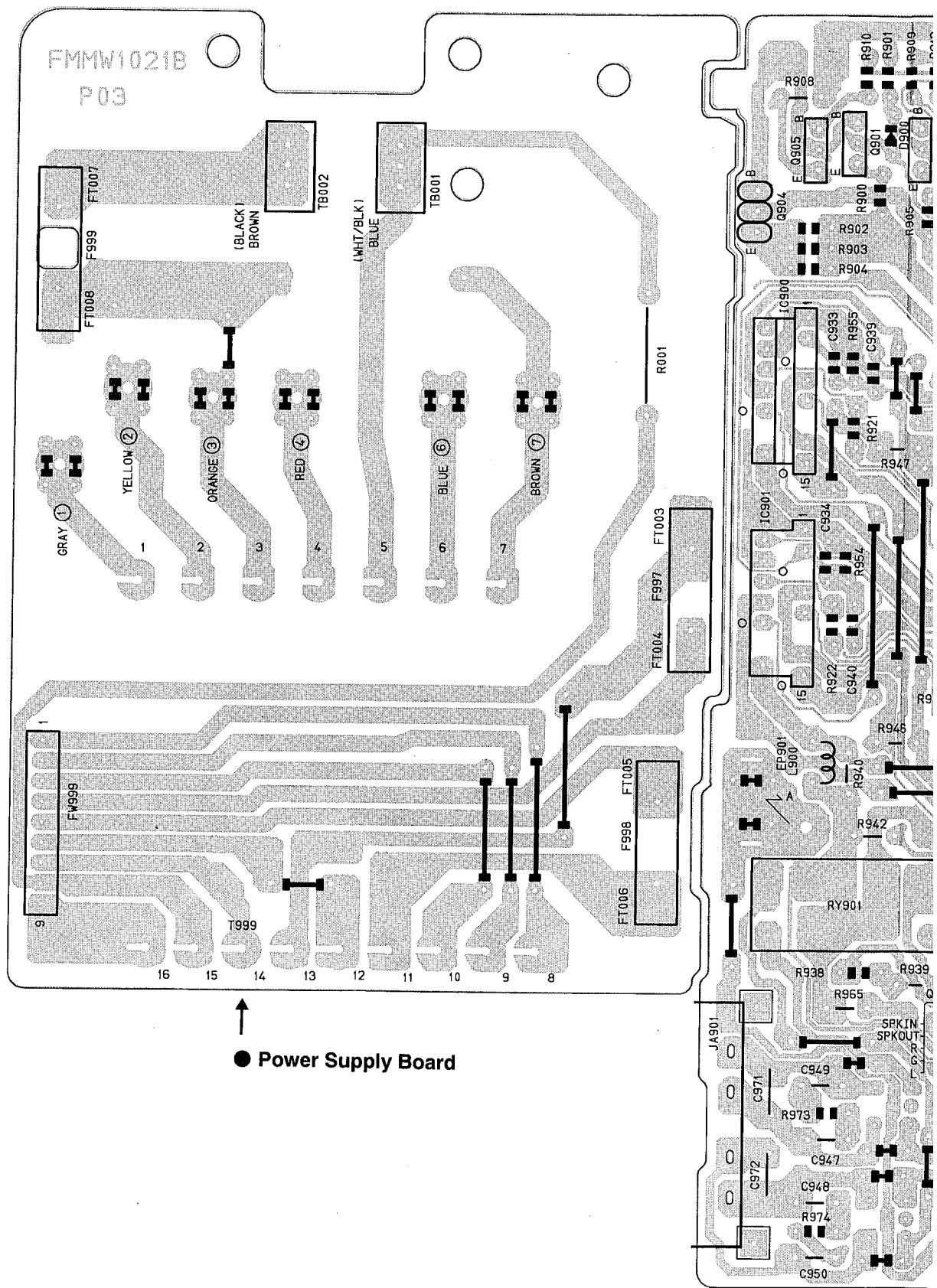
B

C

D

E

F



Fig

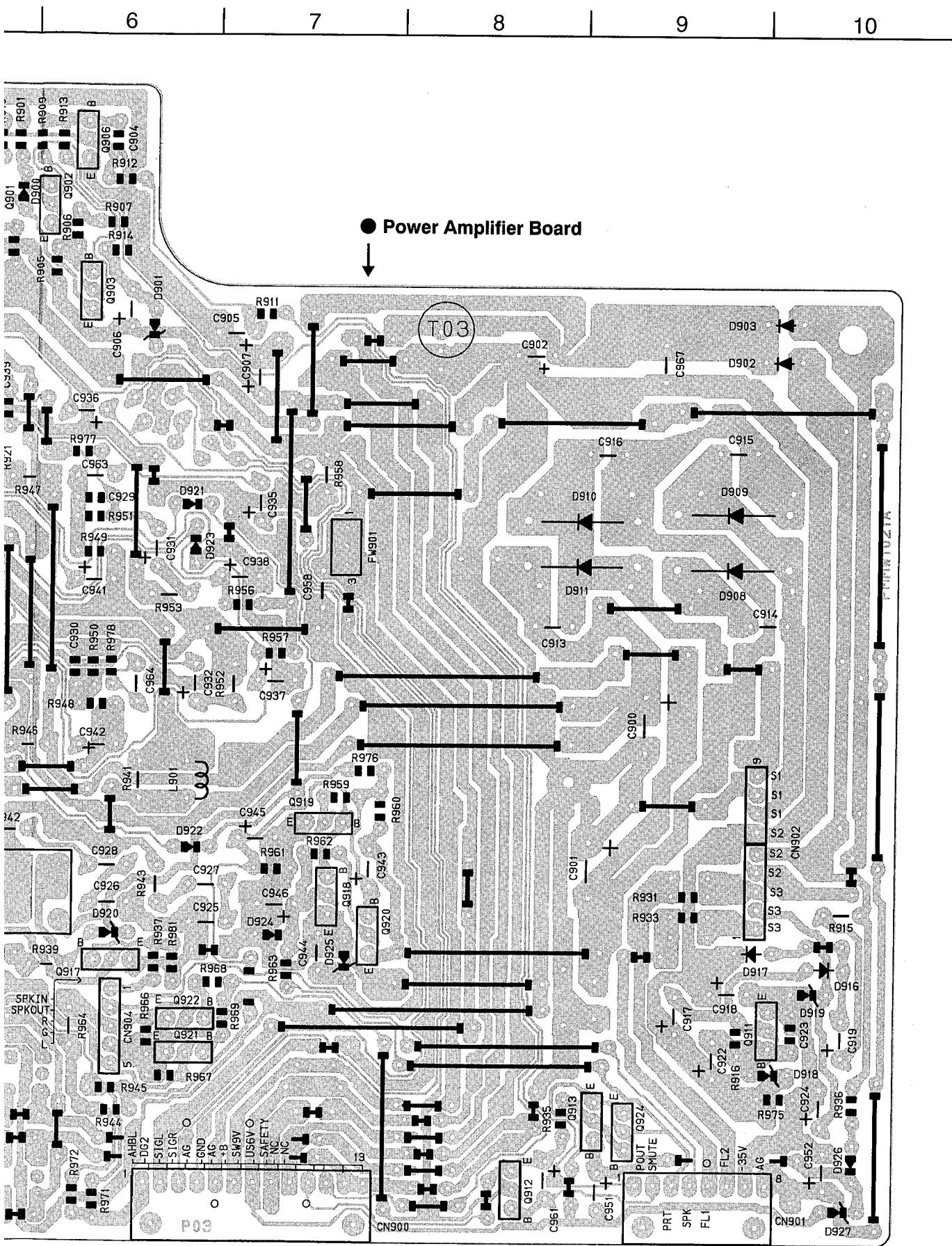


Fig.11-2



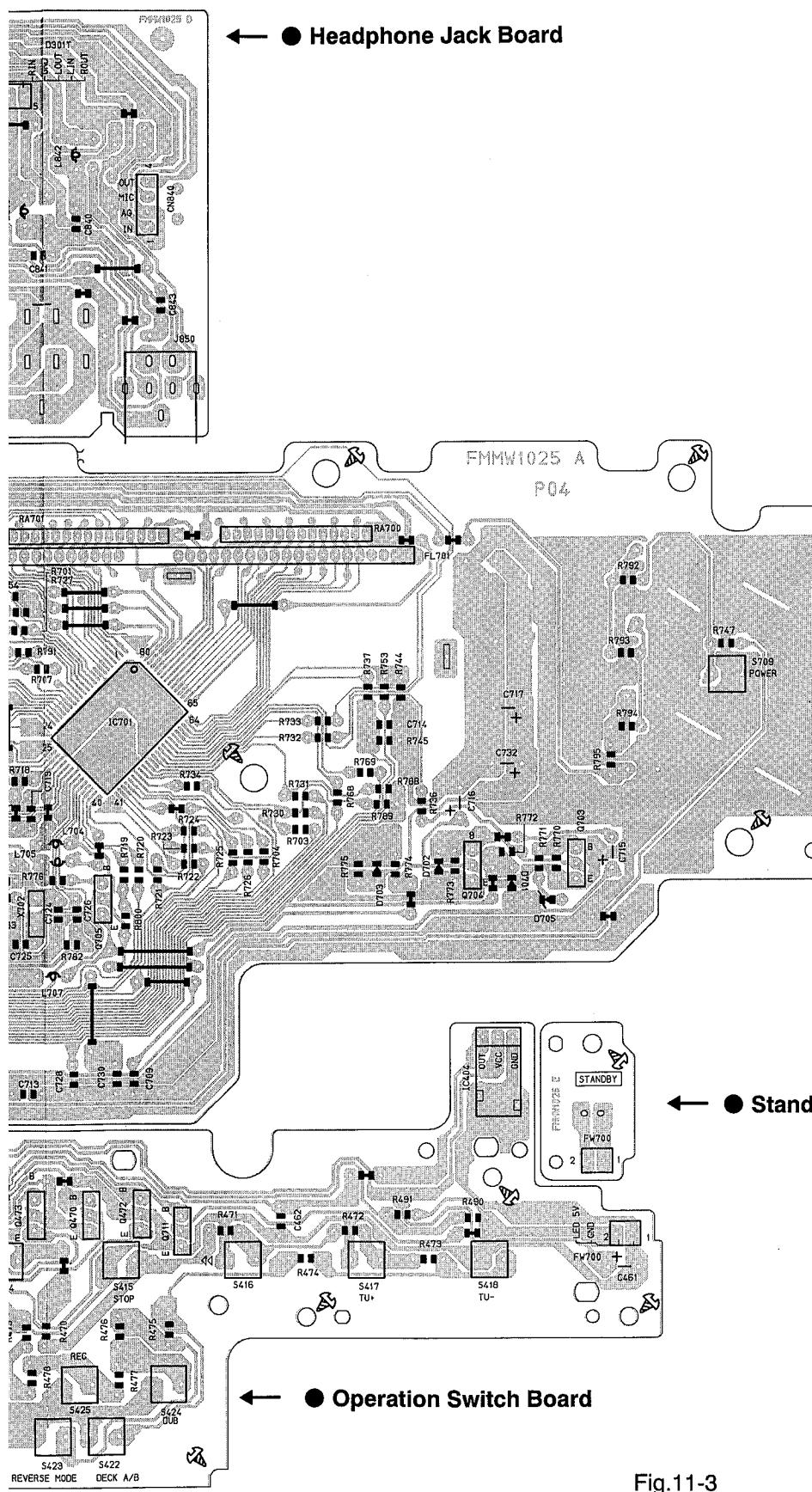


Fig.11-3



## 12.Electrical Parts List

### Main Amplifier Board

BLOCK NO. 01111111

A. REF.	PART'S NO.	PART'S NAME	REMARKS	SUFFIX	BLOCK NO. 01111111
C 1	QCC11EM-223V	C.CAPACITOR	.022MF 20% 25V		
C 2	QCXB1CM-332Y	C.CAPACITOR	.330PF 20% 16V		
C 3	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V		
C 4	QCUB1CN-103Y	C.CAPACITOR	.010MF 30% 16V		
C 5	QE741AM-107	E.CAPACITOR	.100MF 20% 10V		
C 6	QCBB1HK-331Y	C.CAPACITOR	.330PF 10% 50V		
C 7	QCFB1HZ-104Y	C.CAPACITOR	.10MF +80/-20%		
C 8	QCS11HJ-150	C.CAPACITOR	.15PF 5% 50V		
C 11	CCC11EM-473V	C.CAPACITOR	.047MF 20% 25V		
C 12	QCS11HJ-150	C.CAPACITOR	.15PF 5% 50V		
C 13	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V		
C 16	QFV41HJ-104M	FILM CAPACITOR	.10MF 5% 50V		
C 17	QCBB1HK-102Y	C.CAPACITOR	.010MF 20% 16V		
C 18	QCBB1HK-471Y	C.CAPACITOR	C.CAPACITOR		
C 19	QCBB1HK-471Y	C.CAPACITOR	C.CAPACITOR		
C 21	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V		
C 30	QEKA1CM-4776	E.CAPACITOR	.47MF 20% 16V		
C 31	QCSS1H-3390Z	C.CAPACITOR	.39PF 5% 50V		
C 32	QCBB1HK-102Y	C.CAPACITOR	.1000PF 10% 50V		
C 33	QEKA1AM-1072	E.CAPACITOR	.1000MF 20% 10V		
C 34	QCS11HJ-150	C.CAPACITOR	.15PF 5% 50V		
C 35	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V		
C 36	QEKA1CM-106	E.CAPACITOR	.10MF 20% 16V		
C 37	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V		
C 38	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V		
C 39	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V		
C 40	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V		
C 41	QEKA1HM-104	E.CAPACITOR	.10MF 20% 50V		
C 42	QEKA1HM-474	E.CAPACITOR	.47MF 20% 50V		
C 43	QCBB1HK-335N	C.CAPACITOR	.3.3MF 20% 50V		
C 44	QCBB1HK-221Y	C.CAPACITOR	.220PF 10% 50V		
C 45	QEKA1CM-106	E.CAPACITOR	.10MF 20% 16V		
C 46	QCBB1CM-223Y	C.CAPACITOR	.022MF 20% 25V		
C 47	QCBB1CM-103Y	M.CAPACITOR	.010MF 20% 16V		
C 49	QFL11HJ-183.3M	C.CAPACITOR	.018MF 5% 50V		
C 50	QFLC1HJ-183.3M	M.CAPACITOR	.1.0MF 20% 50V		
C 51	QEKA1HM-105	E.CAPACITOR	.1.0MF 20% 50V		
C 52	QEKA1HM-105	E.CAPACITOR	.1.0MF 20% 50V		
C 53	QCBB1HK-102Y	C.CAPACITOR	.1000PF 10% 50V		
C 54	QCBB1HM-3351N	E.CAPACITOR	.3.3MF 20% 50V		
C 55	QCS11HJ-120	E.CAPACITOR	.12PF 5% 50V		
C 60	QEKA1AM-1072	E.CAPACITOR	.1000PF 20% 10V		
C 61	QCS11HJ-120	C.CAPACITOR	.12PF 5% 50V		
C 62	QCS11HJ-120	C.CAPACITOR	.12PF 5% 50V		
C 63	QCC11EM-472V	C.CAPACITOR	.047MF 20% 25V		
C 65	QCBB1HK-102Y	C.CAPACITOR	.1000PF 10% 50V		
C 66	QCBB1HK-151Y	C.CAPACITOR	.150PF 10% 50V		
C 68	QCBB1HK-101Y	C.CAPACITOR	.100PF 10% 50V		
C 69	QFV41HJ-105	TF.CAPACITOR	.1.0MF 5% 50V		
C 70	QCAB1CM-332Y	C.CAPACITOR	.3900PF 20% 16V		
C 71	QE741CM-476	E.CAPACITOR	.4.7MF 20% 16V		
C 72	QCBB1HK-102Y	C.CAPACITOR	.1000PF 10% 50V		
C 80	QCBB1HK-820Y	C.CAPACITOR	.82PF 10% 50V		
C 81	QCBB1HJ-470	C.CAPACITOR	.47PF 5% 50V		
C 82	EEFC1CM-106ZJC	E.CAPACITOR			

A. REF.	PART'S NO.	PART'S NAME	PART'S NO.	REMARKS	BLOCK NO. 01111111
C 83	QCC31EM-732V	C.CAPACITOR	C 84	C.CAPACITOR	.047MF 20% 25V
C 85	QETC1HM-2252M	C.CAPACITOR	C 86	C.CAPACITOR	.2.2MF 20% 50V
C 87	QCBB1HK-331Y	C.CAPACITOR	C 88	C.CAPACITOR	.330PF 10% 50V
C 89	QCBB1HK-1021Y	C.CAPACITOR	C 90	C.CAPACITOR	.560PF 10% 50V
C 91	QCVB1CN-103Y	C.CAPACITOR	C 92	C.CAPACITOR	.1000PF 10% 50V
C 101	QCS11HJ-330	C.CAPACITOR	C 102	C.CAPACITOR	.010MF 30% 16V
C 103	QFV71HJ-4742M	E.CAPACITOR	C 104	E.CAPACITOR	.47MF 5% 50V
C 106	QETN1HM-226E	E.CAPACITOR	C 107	E.CAPACITOR	.47MF 5% 50V
C 108	QETN1HM-1062	E.CAPACITOR	C 109	E.CAPACITOR	.330PF 20% 50V
C 110	QFV71HJ-1242M	FILM CAPACITOR	C 111	FILM CAPACITOR	.12MF 5% 50V
C 112	QFV71HJ-1242M	FILM CAPACITOR	C 113	FILM CAPACITOR	.12MF 5% 50V
C 116	QETC1HM-1062N	E.CAPACITOR	C 117	E.CAPACITOR	.10MF 20% 50V
C 122	QCS11H-335Z	C.CAPACITOR	C 130	C.CAPACITOR	.3.3MF 20% 50V
C 201	QCS11HJ-330	C.CAPACITOR	C 202	C.CAPACITOR	.330PF 5% 50V
C 203	QFV41HJ-100	E.CAPACITOR	C 204	E.CAPACITOR	.330PF 10% 50V
C 206	QETN1HM-226E	E.CAPACITOR	C 208	E.CAPACITOR	.3.3MF 20% 50V
C 208	QETV06-1062	E.CAPACITOR	C 210	E.CAPACITOR	.12MF 5% 50V
C 212	QFV71HJ-1242M	FILM CAPACITOR	C 211	FILM CAPACITOR	.12MF 5% 50V
C 212	QFV71HJ-1242M	FILM CAPACITOR	C 213	FILM CAPACITOR	.100MF 20% 10V
C 215	QCBB1HK-331Y	C.CAPACITOR	C 216	C.CAPACITOR	.330PF 10% 50V
C 222	QETC1HM-1062N	E.CAPACITOR	C 223	E.CAPACITOR	.10MF 20% 50V
C 230	QCS11H-335Z	C.CAPACITOR	C 231	C.CAPACITOR	.3.3MF 20% 50V
C 301	QCBB1HK-102Y	C.CAPACITOR	C 303	C.CAPACITOR	.330PF 5% 50V
C 305	GETC1HM-2252N	E.CAPACITOR	C 306	E.CAPACITOR	.1.2MF 20% 50V
C 307	EETB1HM-475E	E.CAPACITOR	C 308	E.CAPACITOR	.0.22MF 5% 50V
C 308	EETB1HM-226E	E.CAPACITOR	C 309	E.CAPACITOR	.470PF 10% 50V
C 310	QCBB1HK-471Y	C.CAPACITOR	C 311	C.CAPACITOR	.470PF 10% 50V
C 312	QCBB1HK-151Y	C.CAPACITOR	C 313	C.CAPACITOR	.470PF 10% 50V
C 314	QETC1HM-224Z	E.CAPACITOR	C 315	E.CAPACITOR	.010MF 5% 50V
C 316	QFLC1HJ-3932M	M.CAPACITOR	C 317	M.CAPACITOR	.039MF 5% 50V
C 318	QFLC1HJ-4732M	M.CAPACITOR	C 319	M.CAPACITOR	.0.47MF 5% 50V
C 320	QFLC1HJ-1032M	M.CAPACITOR	C 321	M.CAPACITOR	.010MF 5% 50V
C 322	EETB1EM-106E	E.CAPACITOR	C 323	E.CAPACITOR	.10MF 20% 25V

BLOCK NO. 01111111						
REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	PARTS NO.	REMARKS
Δ						SUFFIX
C 324	EETC1CM-1067JC	E..CAPACITOR			D 313 ISS133	SI DIODE
C 325	EETB1HM-105E	E..CAPACITOR			D 314 ISS133	SI DIODE
C 327	QFV71HM-184ZM	M..CAPACITOR	*18MF 5% 50V		D 315 ISR35-100	SI DIODE
C 329	QETB1HM-474N	M..CAPACITOR	.47MF 20% 50V		D 316 RB721Q	DIODE
C 332	QFLC1HJ-1032M	M..CAPACITOR	.010MF 5% 50V		D 317 RB721Q	DIODE
C 334	QFLCLHJ-2237N	M..CAPACITOR	.022MF 5% 50V		D 318 ISS133	SI DIODE
C 335	QET41AM-107	E..CAPACITOR	100MF 20% 10V		D 319 ISS133	SI DIODE
C 351	EETB1CM-476	E..CAPACITOR			D 322 ISS133	SI DIODE
C 352	QET41EM-106	M..CAPACITOR	10MF 20% 25V		D 380 ISS133	SI DIODE
C 362	QCBB1HK-151Y	C..CAPACITOR	150PF 10% 50V		D 381 RB721Q	DIODE
C 363	QET41AM-108	E..CAPACITOR	1000MF 20% 10V		D 382 RB721Q	DIODE
C 364	QET41AM-108	E..CAPACITOR	1000MF 20% 10V		D 904 MT74-3JB	ZENER DIODE
C 380	QCS11HJ-330	C..CAPACITOR	.33PF 5% 50V		D 905 1SS133	SI DIODE
C 381	QCXB1CM-182Y	C..CAPACITOR	1800PF 20% 16V		D 906 1SS133	SI DIODE
C 382	QFLC1HJ-1532M	M..CAPACITOR	.015MF 5% 50V		D 907 MT23-2JB	ZENER DIODE
C 383	QCBB1HK-681Y	C..CAPACITOR	680PF 10% 50V		D 912 RD5-6J3AB1	ZENER DIODE
C 384	EEFB1HM-105E	E..CAPACITOR			D 913 1SS133	SI DIODE
C 385	QETC1HM-476M	E..CAPACITOR			D 915 ISS133	SI DIODE
C 908	EETB1HM-475E	E..CAPACITOR	47MF 20% 50V		D 928 MT72-4JB	ZENER DIODE
C 909	EETB1CM-226E	E..CAPACITOR			EP001 E40918-2-001SM	GRAND TERMINAL
C 910	EETC1CM-1057JC	E..CAPACITOR			IC 1 TA2057N	IC
C 911	QFLCLHJ-1037M	M..CAPACITOR	.010MF 5% 50V		IC 2 LC72136N	IC
C 912	QET41AM-107	E..CAPACITOR	100MF 20% 10V		IC 4 SAA6579	IC
C 920	QFLC1HJ-1032M	M..CAPACITOR	.010MF 5% 50V		IC301 NJM4580L	IC
C 921	QET41AM-107	E..CAPACITOR	100MF 20% 10V		IC302 BH3854LS	IC
C 968	QCUB1CM-103Y	C..CAPACITOR	.010MF 20% 16V		IC303 NJM4580L	IC
CF 1	VCF2M3B-104	CERAMIC FILTER			J A301 EMB41Y-302K	ANT TERMINAL
CF 2	VCFES3B-101	CERAMIC FILTER			L 1 EMNOOTY-222A/J2	PIN JACK
CF 3	VCF1Z2-115Z	CERA LOCK			L 4 VQP0018-221	COIL BLOCK
CF 4	CM12-456A05				L 5 VQP0018-101	INDUCTOR
CN302	VMC0332-010V	CONNECTOR			L 10 VQZ006-002S	TRAP COIL
CN303	VMC0332-0129	CONNECTOR			L 11 VQP0018-2R7	INDUCTOR
CN304	VMC0332-007V	CONNECTOR			L 302 VQZ0048-009	INDUCTOR
CN305	VMC0332-011V	CONNECTOR			L 303 VQZ0048-009	INDUCTOR
CN306	VMC0332-010V	CONNECTOR			L 304 VQZ0048-009	INDUCTOR
CN307	EMW5125-008	CONNECTOR			L 305 VQZ0048-009	INDUCTOR
CN308	EMW5125-013	CONNECTOR			L 306 VQP0028-100Z	INDUCTOR
CN313	EMW7145-003Z	CONNECTOR			PP301 VMZ0015-005	POST PIN
D 1	1SS133	SI DIODE			PP302 VMZ0015-005	POST PIN
D 2	1SS133	SI DIODE			Q 1 2SC1923	TRANSISTOR
D 3	1SS133	SI DIODE			Q 2 DTA114YS	TRANSISTOR
D 4	1SS133	SI DIODE			Q 3 2SC2785	TRANSISTOR
D 7	1SS133	SI DIODE			Q 4 2SC2785	TRANSISTOR
D 300	RB721Q	DIODE			Q 6 DT114S	TRANSISTOR
D 301	1SS133	SI DIODE			Q 14 2SA1175	TRANSISTOR
D 302	1SS133	SI DIODE			Q 16 2SC2785	TRANSISTOR
D 303	RB721Q	DIODE			Q 301 2SD214S(VW)	TRANSISTOR
D 304	1SS133	SI DIODE			Q 302 2SD214S(VW)	TRANSISTOR
D 305	MT25-1JAT-77	ZENER DIODE			Q 303 DT114S	TRANSISTOR
D 306	1SS133	SI DIODE			Q 304 2SK246(GR,BL)	FET
D 307	1SS133	SI DIODE			Q 305 2SK246(GR,BL)	FET
D 308	1SS133	SI DIODE			Q 306 DTC144-STP	TRANSISTOR
D 310	1SS133	SI DIODE			Q 307 2SD214S(VW)	TRANSISTOR
D 311	1SS133	SI DIODE			Q 308 2SD214S(VW)	TRANSISTOR
D 312	1SS133	SI DIODE				

BLOCK NO. 01111111						
REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	PARTS NO.	REMARKS
Δ						SUFFIX
D 3	1SS133	SI DIODE			Q 1 2SC1923	TRANSISTOR
D 4	1SS133	SI DIODE			Q 2 DTA114YS	TRANSISTOR
D 7	1SS133	SI DIODE			Q 3 2SC2785	TRANSISTOR
D 300	RB721Q	DIODE			Q 4 2SC2785	TRANSISTOR
D 301	1SS133	SI DIODE			Q 6 DT114S	TRANSISTOR
D 302	1SS133	SI DIODE			Q 14 2SA1175	TRANSISTOR
D 303	RB721Q	DIODE			Q 16 2SC2785	TRANSISTOR
D 304	1SS133	SI DIODE			Q 301 2SD214S(VW)	TRANSISTOR
D 305	MT25-1JAT-77	ZENER DIODE			Q 302 2SD214S(VW)	TRANSISTOR
D 306	1SS133	SI DIODE			Q 303 DT114S	TRANSISTOR
D 307	1SS133	SI DIODE			Q 304 2SK246(GR,BL)	FET
D 308	1SS133	SI DIODE			Q 305 2SK246(GR,BL)	FET
D 310	1SS133	SI DIODE			Q 306 DTC144-STP	TRANSISTOR
D 311	1SS133	SI DIODE			Q 307 2SD214S(VW)	TRANSISTOR
D 312	1SS133	SI DIODE			Q 308 2SD214S(VW)	TRANSISTOR

BLOCK NO. 01111111			BLOCK NO. 01111111		
A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
Q	309	2SC2785	TRANSISTOR		
Q	310	2SC2785	TRANSISTOR		
Q	311	DTA114ES	TRANSISTOR		
Q	312	2SC2785	TRANSISTOR		
Q	314	DTA114ES	D-TRANSISTOR		
Q	320	DTCA44TSTP	TRANSISTOR		
Q	380	2SC2785	TRANSISTOR		
Q	381	2SC2785	TRANSISTOR		
Q	907	2SA1175	TRANSISTOR		
Q	908	2SC2785	TRANSISTOR		
Q	909	2SB1375	TRANSISTOR		
Q	910	2SC2785	TRANSISTOR		
Q	913	2SB1375	TRANSISTOR		
Q	914	2SC2785	TRANSISTOR		
Q	915	2SC2785	TRANSISTOR		
Q	916	2SC2785	TRANSISTOR		
R	1	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	2	QRD161J-181	CARBON RESISTOR	180 5% 1/6W	
R	3	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R	10	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
R	12	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	13	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R	15	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R	16	QRD161J-303	CARBON RESISTOR	100 5% 1/6W	
R	20	QRD161J-331	CARBON RESISTOR	330 5% 1/6W	
R	21	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R	22	QRD161J-331	CARBON RESISTOR	330 5% 1/6W	
R	24	QRD161J-271	CARBON RESISTOR	270 5% 1/6W	
R	25	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	26	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
R	27	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R	29	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	30	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R	31	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R	34	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R	35	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R	36	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R	37	QRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W	
R	38	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
R	39	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
R	42	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	43	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	44	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	45	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	46	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R	47	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R	48	QRD161J-331	CARBON RESISTOR	330 5% 1/6W	
R	49	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	52	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R	54	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R	55	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R	56	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
R	57	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	60	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	61	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	



**Power Supply & Power Amplifier Board**

BLOCK NO. 02111111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 900	QETN1HM-228	E CAPACITOR	2200MF 20% 50V		
C 901	QETN1HM-228	E CAPACITOR	2200MF 20% 50V		
C 902	QETN1EM-228	E CAPACITOR	2200MF 20% 25V		
C 904	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V		
C 905	QET41CM-105	E CAPACITOR	10MF 20% 16V		
C 906	QETN1HM-2257	E CAPACITOR	2.2MF 20% 50V		
C 907	QET41CM-226	E CAPACITOR	22MF 20% 16V		
C 913	QFLC1HJ-683ZM	M CAPACITOR	.068MF 5% 50V		
C 914	QFLC1HJ-683ZM	M CAPACITOR	.068MF 5% 50V		
C 915	QFLC1HJ-683ZM	M CAPACITOR	.068MF 5% 50V		
C 916	QFLC1HJ-683ZM	M CAPACITOR	.068MF 5% 50V		
C 917	QEIN1JM-476Z	E CAPACITOR	47MF 20% 63V		
C 918	QEIT41HM-226	E CAPACITOR	22MF 20% 50V		
C 919	QEIB1JM-107	E CAPACITOR	100MF 20% 63V		
C 922	QEIT41HM-226	E CAPACITOR	22MF 20% 50V		
C 923	QCUB1CN-103Y	C CAPACITOR	.010MF 30% 16V		
C 924	QEIT41HM-475	E CAPACITOR	4.7MF 20% 50V		
C 925	QFLC1HJ-104ZM	M CAPACITOR	.10MF 5% 50V		
C 926	QFLC1HJ-104ZM	M CAPACITOR	.10MF 5% 50V		
C 927	QFLC1HJ-104ZM	M CAPACITOR	.10MF 5% 50V		
C 928	QFLC1HJ-104ZM	M CAPACITOR	.10MF 5% 50V		
C 929	QCSC11HJ-100	C CAPACITOR	10PF 5% 50V		
C 930	QCSC11HJ-100	C CAPACITOR	10PF 5% 50V		
C 931	QEIT41HM-476	E CAPACITOR	4.7MF 20% 50V		
C 932	QEIT41HM-476	E CAPACITOR	4.7MF 20% 50V		
C 933	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V		
C 934	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V		
C 935	QEIV06-106Z	E CAPACITOR	100PF 10% 50V		
C 936	QET1V06-106Z	E CAPACITOR	10MF 20% 50V		
C 937	QEIN1HM-106Z	E CAPACITOR	10MF 20% 50V		
C 938	QEIN1HM-106Z	E CAPACITOR	100PF 10% 50V		
C 939	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V		
C 940	QCBB1HK-101Y	C CAPACITOR	22MF 20% 50V		
C 941	QEIT41HM-226	E CAPACITOR	22MF 20% 50V		
C 942	QEIT41HM-226	E CAPACITOR	1.0MF 20% 50V		
C 943	QEIT41HM-105	E CAPACITOR	.022MF 5% 50V		
C 944	QFLC1HJ-232ZM	M CAPACITOR	.022MF 5% 50V		
C 945	QEIT41CM-476	E CAPACITOR	4.7MF 20% 16V		
C 946	QEIT41CM-226	E CAPACITOR	22MF 20% 16V		
C 947	QFC1HJ-232ZM	M CAPACITOR	.022MF 5% 50V		
C 948	QFC1HJ-232ZM	M CAPACITOR	.022MF 5% 50V		
C 949	QFC1HJ-232ZM	M CAPACITOR	.022MF 5% 50V		
C 950	QFC1HJ-232ZM	M CAPACITOR	.022MF 5% 50V		
C 951	QEIT41HM-105	E CAPACITOR	1.0MF 20% 50V		
C 958	QCET11HP-223	C CAPACITOR	.022MF +100:-0%		
C 961	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V		
C 963	QFLC1HJ-153ZM	M CAPACITOR	.015MF 5% 50V		
C 964	QFLC1HJ-153ZM	M CAPACITOR	.022MF 5% 50V		
C 967	QFLC1HJ-104ZM	M CAPACITOR	.10MF 5% 50V		
C 971	QCY31HK-272Z	C CAPACITOR	2700PF 10% 50V		
C 972	QCY31HK-272Z	C CAPACITOR	2700PF 10% 50V		
CN900	EMV7125-013R	CONNECTOR			
CN901	EMV725-008R	CONNECTOR			
CN903	EMV7145-004Z	CONNECTOR			
CN904	EMV7145-005Z	CONNECTOR			

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. 02111111
C 900	EMV7125-005Z	CONNECTOR				
D 901	ISS133	DIODE				
D 901	MT29-1JA	ZENER DIODE				
D 902	ISR35-100	SI.DIODE				
D 903	ISR35-100	SI.DIODE				
D 908	IN5401M	SI.DIODE				
D 909	IN5401M	SI.DIODE				
D 910	IN5401M	SI.DIODE				
D 911	IN5401M	SI.DIODE				
D 916	ISR139-200	DIODE				
D 917	ISR139-200	DIODE				
D 918	MT233JC	ZENER DIODE				
D 919	MT26-20AT-77	ZENER DIODE				
D 920	MT224JC	ZENER DIODE				
D 921	ISS133	DIODE				
D 922	ISS133	DIODE				
D 923	ISS133	DIODE				
D 924	ISS133	DIODE				
D 926	ISS133	DIODE				
D 927	MT25-1JC	ZENER DIODE				
EP901	E40918-2-001SM	GRAND TERMINAL				
F1003	EMG7331-003Z	FUSE CLIP				
F1004	EMG7331-003Z	FUSE CLIP				
F1005	EMG7331-003Z	FUSE CLIP				
F1006	EMG7331-003Z	FUSE CLIP				
F1007	EMG7331-003Z	FUSE CLIP				
F1008	EMG7331-003Z	FUSE CLIP				
FW999	EWR39D-25LS	CORD				
IC900	TDA7295	IC				
IC901	TDA7295	IC				
JA901	FMMJ4003-001	TERMINAL				
L 900	EQL0011-R45J1	INDUCTOR				
L 901	EQL0011-R45J1	INDUCTOR				
L 902	VQ70104-003	INDUCTOR				
L 902	VQ70104-003	INDUCTOR				
L 903	VQZ104-003	INDUCTOR				
Q 901	2SA1175	TRANSISTOR				
Q 902	DTC1441STP	TRANSISTOR				
Q 903	DTA1441STP	TRANSISTOR				
Q 904	SB1375	TRANSISTOR				
Q 905	SC2785	TRANSISTOR				
Q 906	SC2785	TRANSISTOR				
Q 911	2SA934 (Q,R)	TRANSISTOR				
Q 912	DTA114ES	TRANSISTOR				
Q 917	2SC945A	TRANSISTOR				
Q 918	2SC946A	TRANSISTOR				
Q 919	2SA935 (RS)	TRANSISTOR				
Q 920	2SC945A	TRANSISTOR				
Q 921	2SD2144S (VW)	TRANSISTOR				
Q 922	2SD2144S (VW)	TRANSISTOR				
Q 923	DTC144YSTP	TRANSISTOR				
Q 924	DT114YSTP	TRANSISTOR				
R 900	QRD161J-471	CARBON RESISTOR	470 5% 1/6W			
R 901	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W			
R 902	QRD161J-1R0	CARBON RESISTOR	1.0 5% 1/6W			
R 903	QRD161J-1R0	CARBON RESISTOR	1.0 5% 1/6W			

## BLOCK NO. 02111111

A.	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	
R 904	GRD161J-1R0	CARBON RESISTOR	1.0 5% 1/6W			
R 905	GRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W			
R 906	GRD161J-1222	CARBON RESISTOR	1.2K 5% 1/6W			
R 907	GRD161J-821	CARBON RESISTOR	820 5% 1/6W			
R 908	GRDZ0077-151X	F-RESISTOR	150 1/0W			
R 909	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			
R 910	GRD161J-471	CARBON RESISTOR	470 5% 1/6W			
R 911	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 912	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 913	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			
R 914	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			
R 915	GRZ0077-100X	FUSE	10 1/0W			
R 916	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 931	GRD161J-1R0	CARBON RESISTOR	1.0 5% 1/6W			
R 933	GRD161J-1R0	CARBON RESISTOR	1.0 5% 1/6W			
R 935	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W			
R 936	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 937	GRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W			
R 938	GRD161J-330	CARBON RESISTOR	33K 5% 1/6W			
R 939	GRG01D1J-471X	OMF-RESISTOR	470 5% 1/1W			
R 940	GRD14CJ-100SX	CARBON RESISTOR	10 5% 1/4W			
R 941	GRD14CJ-100SX	CARBON RESISTOR	10 5% 1/4W			
R 942	GRD14CJ-100SX	CARBON RESISTOR	10 5% 1/4W			
R 943	GRD14CJ-100SX	CARBON RESISTOR	10 5% 1/4W			
R 944	GRD161J-823	CARBON RESISTOR	82K 5% 1/6W			
R 945	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			
R 946	GRX014J-R22	UNF-MF-RESISTOR	5% 1/1W			
R 947	GRX014J-R22	UNF-MF-RESISTOR	5% 1/1W			
R 948	GRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W			
R 949	GRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W			
R 950	GRD161J-833	CARBON RESISTOR	100K 5% 1/6W			
R 952	GRD141J-561	UNF-C-RESISTOR	560 5% 1/4W			
R 953	GRD141J-561	UNF-C-RESISTOR	560 5% 1/4W			
R 954	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			
R 955	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W			
R 957	GRD161J-102	CARBON RESISTOR	10K 5% 1/6W			
R 958	GRZ0077-4R7X	FUSE	4.7 1/0W			
R 959	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			
R 960	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W			
R 961	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			
R 962	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 963	GRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W			
R 964	GRD161J-681	CARBON RESISTOR	680 5% 1/6W			
R 965	GRD161J-681	CARBON RESISTOR	680 5% 1/6W			
R 966	GRD161J-821	CARBON RESISTOR	820 5% 1/6W			
R 967	GRD161J-821	CARBON RESISTOR	820 5% 1/6W			
R 968	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 969	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 971	GRD161J-563	CARBON RESISTOR	56K 5% 1/6W			
R 972	GRD167J-563	CARBON RESISTOR	56K 5% 1/6W			
R 973	GRD167J-4R7	CARBON RESISTOR	4.7 5% 1/6W			
R 974	GRD167J-4R7	CARBON RESISTOR	4.7 5% 1/6W			
R 975	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			

## BLOCK NO. 02111111

A.	REF.	PARTS NO.	PARTS NAME	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 976	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W				
R 977	QRD161J-104	CARBON RESISTOR	82K 5% 1/6W				
R 978	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W				
RY901	ESK7024-213R						
TB001	EMZ4001-002Z	TAB					
TB002	EMZ4001-002Z	TAB					

## ■ System CPU & Operation Switch Board

BLOCK NO. ③③③③③③

A.	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. ③③③③③③
C 4.61	QEK41CM-476	E-CAPACITOR	47MF 20% 16V			J5701 QSN0738-001
C 462	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			L 701 VQP0026-4702
C 701	QEKS1HM-226	E-CAPACITOR	22MF 20% 50V			L 702 VQP0026-4702
C 702	QEKS1HM-226	E-CAPACITOR	22MF 20% 50V			L 703 VQP0033-1002
C 703	QFV71HJ-124ZM	FILM CAPACITOR	.12MF 5% 50V			L 704 VQP0018-4R7
C 704	QCBB1HK-151Y	C-CAPACITOR	150PF 10% 50V			L 705 VQP018-4R7
C 705	QCBB1HK-151Y	C-CAPACITOR	150PF 10% 50V			L 706 VQP0033-1002
C 708	QCBB1HK-151Y	C-CAPACITOR	150PF 10% 50V			L 707 VQP0033-1002
C 709	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			L 708 VQP018-220
C 713	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			L 709 VQP0048-009
C 714	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			L 840 EQL407-2R2T
C 715	QE41CM-106	E-CAPACITOR	10MF 20% 16V			L 841 VQP0018-470
C 716	QE41HM-105VM	E-CAPACITOR	1.0MF 20% 50V			L 842 VQP0018-470
C 717	QEK61AM-227ZM	E-CAPACITOR	220MF 20% 10V			Q 470 DTC14ESTP
C 718	QEKG601M-107ZM	E-CAPACITOR	100MF 20% 6.3V			Q 471 DTC14ESTP
C 719	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			Q 472 DT114ES
C 720	QCS11HJ-220	C-CAPACITOR	22PF 5% 50V			Q 473 DT114ES
C 721	QCS11HJ-220	C-CAPACITOR	22PF 5% 50V			Q 703 2SC2785
C 722	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			Q 704 DTC14ESTP
C 723	QCS31HJ-390Z	C-CAPACITOR	39PF 5% 50V			Q 705 2SA1175
C 724	QCS11HJ-180	C-CAPACITOR	18PF 5% 50V			Q 706 2SC2668(0)
C 725	QCS11HJ-220	C-CAPACITOR	22PF 5% 50V			Q 707 2SC2668(0)
C 726	QCS31HJ-390Z	C-CAPACITOR	39PF 5% 50V			Q 710 DTC14ESTP
C 727	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			Q 711 2SD2144S-(W)
C 728	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			Q 771 2SC945(P-Q)
C 730	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			Q 772 2SC945(P-Q)
C 731	QCBB1HK-101Y	E-CAPACITOR	100PF 10% 50V			R 470 QSD161J-102
C 732	QEKG61AM-227ZM	E-CAPACITOR	220MF 20% 10V			R 471 QRD161J-122
C 733	QCVB1CN-103Y	C-CAPACITOR	.010MF 30% 16V			R 472 QRD161J-152
C 734	QCVB1CN-103Y	C-CAPACITOR	.010MF 30% 16V			R 473 QRD161J-222
C 735	QE41CM-476	E-CAPACITOR	47MF 20% 16V			R 474 QRD161J-272
C 737	QCBB1HK-151Y	C-CAPACITOR	150PF 10% 50V			R 475 QRD161J-392
C 840	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			R 476 QRD161J-562
C 841	QCBB1HK-102Y	C-CAPACITOR	1000PF 10% 50V			R 477 QRD161J-103
C 842	QGBB1HK-102	C-CAPACITOR	1000PF 10% 50V			R 478 QRD161J-183
CN700	EMV7160-011	CONNECTOR				R 479 QRD161J-473
CN701	VMC0163-R29	CONNECTOR				R 480 QRD161J-103
D 4.11	SLA-380LT	LED				R 481 QRD161J-183
D 412	SLR-342MCA47	LED				R 482 QRD161J-73
D 413	SLR-342MCA47	LED				R 484 QRD161J-102
D 414	SLR-342MCA47	LED				R 486 QRD161J-271
D 415	SLR-342MCA47	LED				R 487 QRD161J-271
FL701	QLF0021-001	SI DIODE				R 488 QRD161J-271
FL700	VWSG002-1033SK	TM FLAT				R 489 QRD161J-271
FW701	WWSG06-093SK	EF FLAT WIRE				R 490 QRD161J-301
FW702	WWSG06-093SK	EF FLAT WIRE				R 491 QRD161J-301
IC404	GPIU261X	IR DETECT UNIT				R 690 QRD161J-102
IC701	UPD78044FGF-055	IC				R 691 QRD161J-102
J 850	VM14024-001	JACK				R 692 QRD161J-122
		HEAD PHONE				R 693 QRD161J-152
						R 694 QRD161J-222
						R 695 QRD161J-272
						R 696 QRD161J-392
						R 697 QRD161J-562

## BLOCK NO. 03

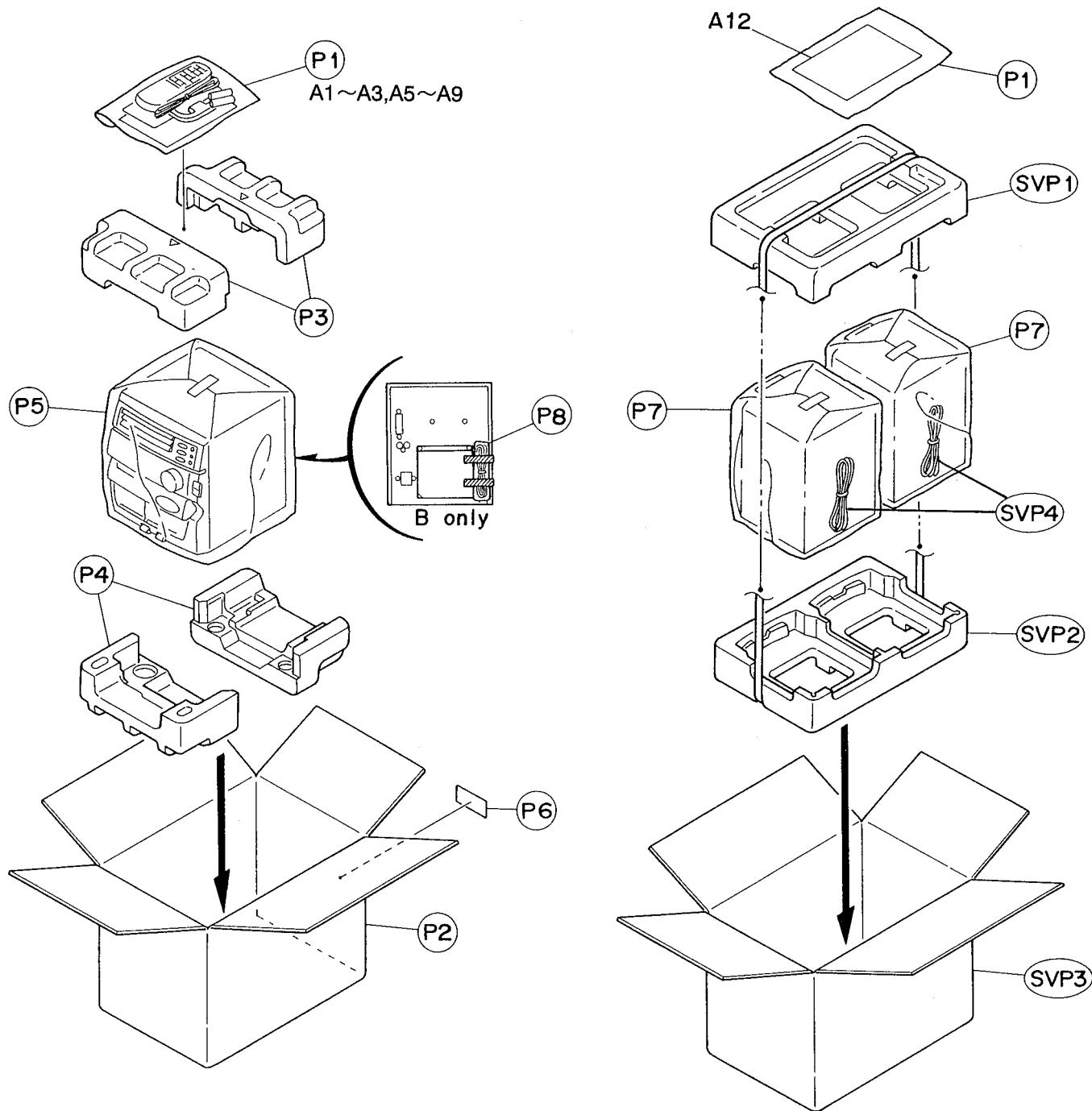
## BLOCK NO. 03

A	REF.	PARTS NO.	PARTS NAME	SUFFIX	REMARKS	BLOCK NO. 03
R 698	GRD161J-753	CARBON RESISTOR	75K 5% 1/6W			
R 699	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 700	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 701	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 702	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 703	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 704	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 705	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 707	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W			
R 708	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 709	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 710	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 711	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 712	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 713	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 714	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 715	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 716	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 717	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 718	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 719	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 720	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 722	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 723	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 724	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 725	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 726	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 727	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W			
R 728	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 729	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W			
R 730	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 731	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W			
R 732	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 733	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 736	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 737	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 738	GRD161J-224	CARBON RESISTOR	220K 5% 1/6W			
R 739	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 740	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 741	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 742	GRD161J-224	CARBON RESISTOR	220K 5% 1/6W			
R 743	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 744	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 745	GRD161J-473	CARBON RESISTOR	47K 5% 1/6W			
R 747	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W			
R 748	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 750	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 752	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 753	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			
R 754	GRD161J-472	CARBON RESISTOR	6.7K 5% 1/6W			
R 755	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			
R 756	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			
R 757	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R 758	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			

A	REF.	PARTS NO.	PARTS NAME	SUFFIX	PARTS NO.	PARTS NAME	SUR FIX
R 759	GRD161J-273	CARBON RESISTOR	75K 5% 1/6W		R 759	GRD161J-273	CARBON RESISTOR
R 760	GRD161J-563	CARBON RESISTOR	56K 5% 1/6W		R 761	GRD161J-103	CARBON RESISTOR
R 762	GRD161J-104	CARBON RESISTOR	10K 5% 1/6W		R 764	GRD161J-273	CARBON RESISTOR
R 765	GRD161J-331	CARBON RESISTOR	33K 5% 1/6W		R 766	GRD161J-102	CARBON RESISTOR
R 767	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		R 768	GRD161J-102	CARBON RESISTOR
R 769	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		R 770	GRD161J-223	CARBON RESISTOR
R 771	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W		R 772	GRD161J-103	CARBON RESISTOR
R 773	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		R 774	GRD161J-472	CARBON RESISTOR
R 775	GRD161J-331	CARBON RESISTOR	33K 5% 1/6W		R 776	GRD161J-103	CARBON RESISTOR
R 777	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		R 778	GRD161J-224	CARBON RESISTOR
R 779	GRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W		R 780	GRD161J-472	CARBON RESISTOR
R 781	GRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W		R 782	GRD161J-822	CARBON RESISTOR
R 783	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		R 784	GRD161J-103	CARBON RESISTOR
R 785	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		R 786	GRD161J-103	CARBON RESISTOR
R 787	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		R 788	GRD161J-222	CARBON RESISTOR
R 789	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		R 790	GRD161J-102	CARBON RESISTOR
R 791	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		R 792	GRD161J-102	CARBON RESISTOR
R 793	GRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W		R 794	GRD161J-152	CARBON RESISTOR
R 795	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		R 796	GRD161J-272	CARBON RESISTOR
R 797	GRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W		R 798	GRD161J-222	CARBON RESISTOR
R 799	GRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W		R 800	GRD161J-103	CARBON RESISTOR
R 801	GRD161J-473	CARBON RESISTOR	4.7K 5% 1/6W		RA700	GRB139J-224	NET RESISTOR
RA701	GRB139J-224	R-NETWORK	220K 5% 1/3W		RA702	GRB139J-224	R-NETWORK
S 406	QSQ1A11-V04Z	TACT SWITCH	2.7K 5% 1/6W		S 407	QSQ1A11-V04Z	TACT SWITCH
S 408	QSQ1A11-V04Z	TACT SWITCH	220K 5% 1/4W		S 409	QSQ1A11-V04Z	TACT SWITCH
S 414	QSQ1A11-V04Z	TACT SWITCH	2.2K 5% 1/6W		S 415	QSQ1A11-V04Z	TACT SWITCH
S 416	QSQ1A11-V04Z	TACT SWITCH	2.2K 5% 1/6W		S 417	QSQ1A11-V04Z	TACT SWITCH
S 418	QSQ1A11-V04Z	TACT SWITCH	2.2K 5% 1/6W		S 422	QSQ1A11-V04Z	TACT SWITCH
S 423	QSQ1A11-V04Z	TACT SWITCH	2.2K 5% 1/6W		S 424	QSQ1A11-V04Z	TACT SWITCH

REF.	PARTS NO.	PARTS NAME	BLOCK NO. 03		SUFFIX
			REMARKS		
S 425	QSQ1A11-V04Z	TACT SWITCH			
S 426	QSQ1A11-V04Z	TACT SWITCH			
S 700	QSQ1A11-V04Z	TACT SWITCH			
S 701	QSQ1A11-V04Z	TACT SWITCH			
S 702	QSQ1A11-V04Z	TACT SWITCH			
S 703	QSQ1A11-V04Z	TACT SWITCH			
S 704	QSQ1A11-V04Z	TACT SWITCH			
S 705	QSQ1A11-V04Z	TACT SWITCH			
S 706	QSQ1A11-V04Z	TACT SWITCH			
S 707	QSQ1A11-V04Z	TACT SWITCH			
S 708	QSQ1A11-V04Z	TACT SWITCH			
S 709	QSQ1A11-V04Z	TACT SWITCH			
S 710	QSQ1A11-V04Z	TACT SWITCH			
S 711	QSQ1A11-V04Z	TACT SWITCH			
S 712	QSQ1A11-V04Z	TACT SWITCH			
S 713	QSQ1A11-V04Z	TACT SWITCH			
S 714	QSQ1A11-V04Z	TACT SWITCH			
S 715	QSQ1A11-V04Z	TACT SWITCH			
SP701	VYH7653-001	IC HOLDER			
X 701	VCX5000-002	CRYSTAL			
X 702	M274.19	CERA LOCK			

## 13.Packing



## ■ Packing Parts List

BLOCK NO. M6MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	P 1	E309758-002	POLY BAG	FOR INSTRUCTION	2		
	P 2	FMPG9005-001	CARTON ASSY		1		
	P 3	FMPH1013-001	CUSHION UPPER	FOR SET	1		
	P 4	FMPH1014-001	CUSHION BOTTOM	FOR SET	1		
	P 5	E309758-017	POLY BAG	FOR SET	1		
	P 6	-----	COMPUTER LABEL		1		
	P 7	QPGA010-MX401	POLY BAG	FOR SPEAKER	2		
	P 8	QPGA010-01505	POLY BAG	FOR POWER CORD	1	B	
	SVP 1	720-TPD401-00	SPK CUSHION	UPPER	1		
	SVP 2	720-BPD401-00	SPK CUSHION	BOTTOM	1		
	SVP 3	FMPG9005-002	SPK CARTON		1		

## ■ Packing Parts List

BLOCK NO. M7MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A 1	EQB4001-015	AM LOOP ANT		1		
	A 2	FMUN9016-671M	INSTRUCTIONS		1	B	
		FMUN9016-661M	INSTRUCTIONS		1	E, G	
		FMUN9016-651M	INSTRUCTIONS		1	EN	
	A 3	EWP503-001	ANTENNA WIRE		1		
	A 5	BT-54003-1	WARRANTY CARD		1	B	
		BT-20134	WARRANTY CARD		1	G	
	A 6	BT-20066A	SERVICE NETWORK		1	B	
	A 7	E43486-340A	SAFETY SHEET		1	B	
	A 8	RM-SED40TRU	REMOCON		1		
	A 9	R6SPTT-2ST	BATTERY		1		
	A 12	FMUN9019-681M	INSTRUCTIONS		1		
	SVP 4	SPD451-SPBOX	SPEAKER ASS'Y	SPEAKER	2		



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(No.10057)