

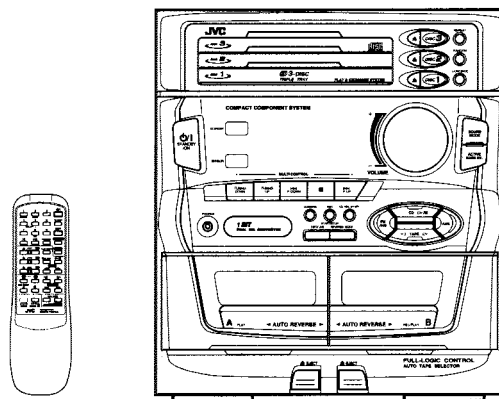
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

MX-D551TR B/E/EN/G/VX

COMPACT
disc
DIGITAL AUDIO




Area Suffix

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

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1. Safety Precautions

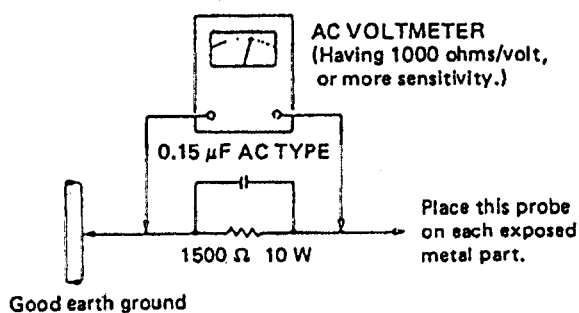
1. The design this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original 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 μ 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 preforming repair of this system.

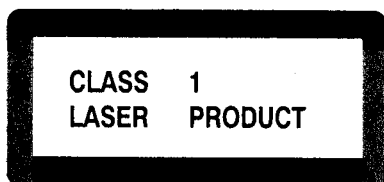
2.Safety Precaution about MX-D551TR

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.

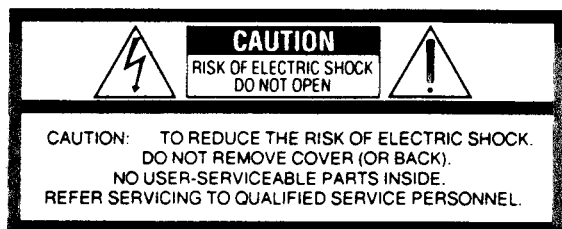
IMPORTANT FOR LASER PRODUCTS REPRODUCTION OF LABELS

- ① CLASSIFICATION LABEL, PLACED ON REAR ENCLOSURE



- ② WARNING LABEL, PLACED INSIDE THE UNIT

<p>DANGER: Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)</p>	<p>VARNING: Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Beträkta ej strålen. (e)</p>	<p>ADVARSEL: Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling (f)</p>	<p>VARO: Avattaessa ja suo- jalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)</p>
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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

Warnings, Cautions and Others / Warnung, Achtung und sonstige Hinweise / Mises en garde, précautions et indications diverses / Waarschuwingen, voorzorgen en andere mededelingen / Avisos, precauciones y otras notas / Avvertenze e precauzioni da osservare

Caution — POWER switch!
Disconnect the mains plug to shut the power off completely. The POWER switch in many points does not disconnect the mains line. The power can be remote controlled.

Achtung — POWER-Schalter!
Den Netzstecker aus der Steckdose ziehen, um die Stromversorgung vollkommen zu unterbrechen. Der Schalter POWER unterbricht in keiner Stellung die Stromversorgung vollkommen. Die Stromversorgung kann mit der Fernbedienung ein- und ausgeschaltet werden.

Attention — Commutateur POWER!
Déconnecter la fiche de secteur pour couper complètement le courant. Le commutateur POWER ne coupe jamais complètement la ligne de secteur, quelle que soit sa position. Le courant peut être télécommandé.

Opgelet — POWER schakelaar!
Om de stroomtoevoer geheel uit te schakelen, trek u de stekker uit het stopcontact. Anders zal er altijd een geringe hoeveelheid stroom naar het apparaat lopen, ongeacht de stand van de POWER schakelaar. U kunt het apparaat ook met de afstandsbediening aan- en uitschakelen.

Atención — Interruptor POWER!
Desconectar el cable de alimentación para desactivar la alimentación completamente. El interruptor POWER no corta completamente la alimentación. La alimentación puede ser controlada remotamente.

Attenzione — L'interruttore POWER!
Disinserire la spina del cavo di alimentazione dalla presa della rete elettrica per staccare completamente l'alimentazione. L'interruttore POWER in nessuna posizione stacca la linea di alimentazione elettrica principale. È possibile il controllo remoto dell'alimentazione.

IMPORTANT for the U.K.

DO NOT cut off the mains plug from this equipment, if the plug fitted is not suitable for the power points in your home or the cable is likely to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as originally fitted.

If nonetheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply. If this product is not supplied fitted with a mains plug then follow the instructions given below:

IMPORTANT:

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:

Blue : Neutral

Brown : Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF IN DOUBT - CONSULT A COMPETENT ELECTRICIAN.

Per l'Italia:
"Si dichiara che il questo prodotto di marca JVC è conforme alle prescrizioni del Decreto Ministeriale n.548 del 28/06/95 pubblicato sulla Gazzetta Ufficiale della Repubblica Italiana n.301 del 28/12/95."

VOORZICHTIG
Ter vermindering van gevaar voor brand, elektrische schokken, enz.:
1. Verwijder geen schroeven, covers of de behuizing.
2. Sta het toestel niet bloot aan regen of vocht.

PRECAUCIÓN
Para reducir riesgos de choques eléctricos, incendio, etc.:
1. No extraiga los tornillos, los cubiertas ni la caja.
2. No exponga este aparato a la lluvia o a la humedad.

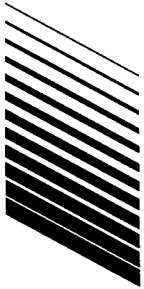
ATTENZIONE
Per ridurre il rischio di shock elettrici, incendi, ecc...
1. Non togliete viti, coperti o la scatola.
2. Non esponete l'apparecchio alla pioggia e all'umidità.

CAUTION
To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

ACHTUNG
Zur Verhinderung von elektrischen Schlägen, Brandgefahr, usw.:
1. Keine Schrauben lösen oder Abdeckungen entfernen und das Gehäuse nicht öffnen.
2. Dieses Gerät weder Regen noch Feuchtigkeit aussetzen.

ATTENTION
Afin d'éviter tout risque d'électrocution, d'incendie, etc.:
1. Ne pas enlever les vis ni les panneaux et ne pas ouvrir le coffret de l'appareil.
2. Ne pas exposer l'appareil à la pluie ni à l'humidité.

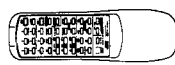
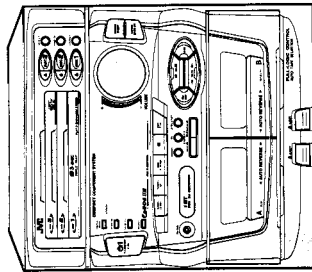
G-1



COMPACT COMPONENT SYSTEM
COMPACTES COMPONENTENSISTEM
SYSTEME DE COMPOSANTS COMPACT
KOMPACTO KOMPONENTEN-SYSTEM
SISTEMA DE COMPONENTES COMPACTO
IMPIANTO A COMPONENTI COMPACTO

**CA-D551TR/CA-D451TR/
CA-D351TR**

COMPACT
disc
DIGITAL AUDIO

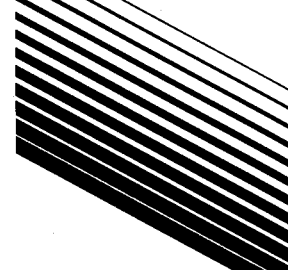


INSTRUCTIONS
BEDIENUNGSANLEITUNG
MANUEL D'INSTRUCTIONS
GEBRUIKSAANWIJZING
MANUAK DE INSTRUCCIONES
ISTRUZIONI

For Customer Use:
Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. _____
Serial No. _____

FMUN9016-661M
(E, G)



Caution: Proper Ventilation
to avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:

- 1 Front: No obstructions and open spacing.
- 2 Sides/Top/Back: No obstructions should be placed in the areas shown by the dimensions below.
- 3 Bottom: Place on the level surface. Maintain an adequate air path for ventilation by placing on a stand with a height of 10 cm or more.

Vorsicht: Ausreichende Belüftung
Zur Vermeidung von elektrischen Schlägen, Feuer und sonstigen Schäden sollte das Gerät unter folgenden Bedingungen aufgestellt werden:

- 1 Vorderseite: Hindernisse frei und gut zugänglich.
- 2 Seiten- und Rückwände: Hindernisse frei in allen gegebenen Abständen (s. Abbildung).
- 3 Unterseite: Die Stellfläche muß absolut eben sein. Sorgen Sie für ausreichende Luftzufuhr durch Aufstellung auf einem Stand mit mindestens 10 cm Höhe.

Attention: Aération correcte
Pour prévenir tout risque de décharge électrique ou d'incendie et éviter toute détérioration, installez l'appareil de la manière suivante:

- 1 Avant: Rien d'obstacle de tout objet.
- 2 Côtés/dessus/dessous: Assurez-vous que rien ne bloque les espaces indiqués sur le schéma ci-dessous.
- 3 Dessous: Posez l'appareil sur une surface plane et horizontale. Veillez à ce que sa ventilation correcte puisse se faire en le plaçant sur un support d'au moins dix centimètres de hauteur.

Voorzichtig: Goede ventilatie vereist
Om brand, elektrische schokken en beschadiging te voorkomen, moet u het toestel als volgt opstellen:

- 1 Voorkant: Geen belemmeringen en voldoende ruimte.
- 2 Zijkanten/boven-/achterkant: Geen belemmeringen plaatsen in de hieronder aangegeven zones.
- 3 Onderkant: Op vlakke ondergrond plaatsen. Voldoende ventilatieruimte voorzien door het toestel op een onderstel met een hoogte van 10 cm of meer te plaatsen.

Precaución: ventilación correcta
Para evitar el riesgo de descargas eléctricas e incendio y prevenir posibles daños, instale el equipo en un lugar que cumpla los siguientes requisitos:

- 1 Parte frontal: Sin obstrucciones, espacio abierto.
- 2 Lados/parte superior/parte posterior: No debe haber ninguna obstrucción en las áreas mostradas por las dimensiones de la siguiente figura.
- 3 Parte inferior: Sitúe el equipo sobre una superficie nivelada. Mantenga un espacio adecuado para permitir el paso del aire y una correcta ventilación, situando el equipo sobre un soporte de 10 o más cm de altura.

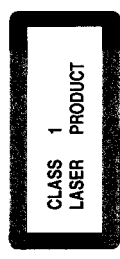
Attenzione: Per una corretta ventilazione
Per prevenire il rischio di scosse elettriche e di incendio ed evitare possibili danni, collocare le apparecchiature nel modo seguente:

- 1 Parte anteriore: Nessun ostacolo e spazio libero.
- 2 Lati/parte superiore/retro: Lasciare libere le zone indicate dalle dimensioni di seguito.
- 3 Base: Collocare su una superficie piana. Consentire un'adeguata ventilazione dell'impianto appoggiandolo su un tavolino/almeno 10 cm.

IMPORTANT FOR LASER PRODUCTS/WICHTIGER HINWEIS FÜR LASER-PRODUKTE / IMPORTANT POUR LES PRODUITS LASER / BELANGRIJKE INFORMATIE VOOR LASER-PRODUKTEN / IMPORTANTE PARA LOS PRODUCTOS LASER / IMPORTANTE PER I PRODOTTI LASER

REPRODUCTION OF LABELS/ABDRUKINGSSORTE FÜR LASER-PRODUKTE/REPRODUZIONE DES ETIQUETTES/VERKLARING VAN DE LABELS/REPRODUCCIÓN DE ETIQUETAS/RIPRODUZIONE DELLE ETICHETTE

- ① CLASSIFICATION LABEL, PLACED ON REAR INSIDE THE UNIT
- ① CLASSIFICAZIONE LABEL, PLACED ON REAR INSIDE THE UNIT
- ① WARNETIKETTE IM GERÄTEINNEREN
- ① ETIQUETTE D'AVERTISSEMENT PLACÉE À L'INTERIEUR DE L'APPAREIL
- ① WAARSCHUWINGSLABEL, IN HET APPARAAT
- ① ETIQUETA DE ADVERTENCIA, PEGADA EN EL INTERIOR DE LA UNIDAD
- ① ETICHETTA DI AVVERTENZA, SITUATA ALL'INTERNO DELL'APPARECCHIO



CLASS 1 LASER PRODUCT	AVVERTENZA: Questo laser non emette radiazioni laser nocive per l'occhio. Evitare di guardare direttamente il fascio laser. Evitare di guardare attraverso lenti o specchi. Evitare di guardare attraverso fibre ottiche.	AVISO: Este laser no emite radiación láser perjudicial para el ojo. Evite mirar directamente el haz. Evite mirar a través de lentes o espejos. Evite mirar a través de fibras ópticas.	VARO: Avvertenza a questo laser non emette radiazioni laser nocive per l'occhio. Evitare di guardare direttamente il fascio laser. Evitare di guardare attraverso lenti o specchi. Evitare di guardare attraverso fibre ottiche.
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CLASS 1 LASER PRODUCT

1. **DANGER:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
2. **CAUTION:** Do not open the top cover. There are no user service-able parts inside the Unit; leave all servicing to qualified service personnel.

1. **KLAS 1 LASERPRODUKT**
GEVAARLIJK: Onzichtbare laserstraling wanneer open en de beveiliging faalt of uitgeschakeld is. Voorkom het direct blootstaan aan de straal.
3. **VOORZICHTIG:** De bovenkap niet openen. Binnenin het toestel bevinden zich geen voor de gebruiker te repareren onderdelen; laat onderhoud over aan betwaamd vakpersoneel.

LASER-PRODUKT DER KLASSE 1

1. **GEFAHR:** Unsichtbare Laserstrahlung bei Öffnung und fehlerhafter oder beschädigter Spre.Direkten Kontakt mit dem Strahl vermeiden!
2. **ACHTUNG:** Das Gehäuse nicht öffnen. Das Gerät enthält keinerlei Teile, die vom Benutzer gewartet werden können. Überlassen Sie Wartungsarbeiten bitte qualifizierten Kundendienst-Fachleuten!

1. **PRODUCTO LASER CLASSE 1**
PERICOLO: Radiazione laser invisibile quando l'apparecchio è aperto e il blocco di sicurezza è guasto o disattivato. Evitare l'esposizione diretta al raggio.
3. **ATTENZIONE:** Non aprire il coperchio superiore. Non vi sono parti adoperabili dall'utente all'interno di questo apparecchio; lasciare tutti i controlli a personale qualificato.

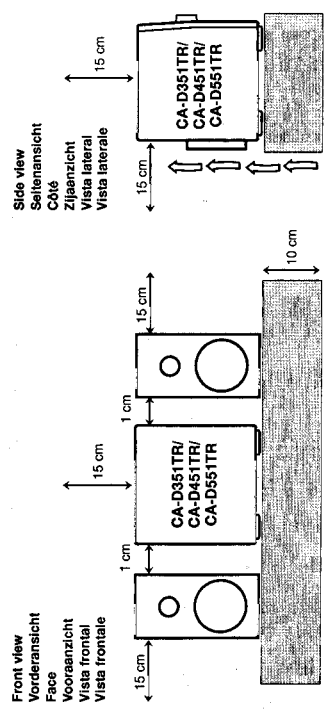


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Thank you for purchasing the JVC Compact Component System. We hope it will be a valued addition to your home, giving you years of enjoyment. Be sure to read this instruction manual carefully before operating your new stereo system. Here you will find all the information you need to set up and use the system. For questions that are not answered in the manual, please contact your dealer.

Features

- Here are some of the things that make your System powerful and easy to use.
 - The controls and operations have been redesigned to make them very easy to use, so you can spend your time listening to music.
 - With the One Touch Operation feature of JVC's **COMPU PLAY** you can turn on the System and start the radio, the Cassette Deck, or the CD Player with a single touch.
 - To get such great sound from such a compact package the System has:
 - Programmed sound mode includes live surround effects **D, CLUB, HALL, and STADIUM**. It also includes S.E.A. (Sound Effect Amplifier) effects **ROCK, CLASSIC, and POP**.
 - The System is compatible with RDS (Radio Data System) broadcasting.
 - The EON data enables you to standby for desired information.
 - The PTY Search function searches for programmes in the category you wish.
 - In addition, Radio Text can be displayed using data sent by station.
 - CD changer function can operate 3 discs.
 - Discs can be changed during play using the **TRIPLE TRAY**.
 - Continuous, random or program play of 3 discs.
 - Includes a timer for recording broadcasts while you are out, and an easy-to-use Sleep timer.

Easy operation



Great sound



Triple Tray

How This Manual Is Organized

- In this manual we have incorporated some special features:
 - Basic information that is the same for many different functions is grouped in one place, and not repeated in each procedure. For instance, in the section on playing a CD, we do not repeat the information about setting the volume and the sound conditions, which are discussed in the Common Operations section.
 - Name of buttons and controls are written in all capital letters like this: **SOUND MODE**.
 - When we are talking about the Function, rather than the **BUTTON** or **DISPLAY**, only the first letter is capitalized.
- The manual has a table of contents to help you quickly look up what you want to know. We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your System.

IMPORTANT CAUTIONS

1. **Installation of the Unit**
 - Select a place which is level, dry and neither too hot nor too cold. (Between 5°C and 35°C or 41°F and 95°F.)
 - Leave sufficient distance between the Unit and a TV.
 - Do not use the Unit in a place subject to vibrations.
2. **Power cord**
 - Do not handle the power cord with wet hands!
 - Some power (12 watts) is always consumed as long as the power cord is connected to the wall outlet.
 - When unplugging the Unit from the wall outlet, always pull the plug, not the power cord.
3. **Malfunctions, etc.**
 - There are no user serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
 - Do not insert any metallic object into the Unit.

Getting Started

Accessories

Check that you have all of the following items, which are supplied with the System:

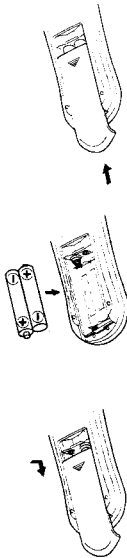
- AM (MW/LW) Loop Antenna (1)
- Remote Control (1)
- Batteries (2)
- FM Wire Antenna (1)

If any of these items is missing, contact your dealer immediately.

How To Put Batteries In the Remote Control

Match the polarity (+ and -) on the batteries with the + and - markings in the battery compartment.

R6P (SUM-3)/AA (15F)

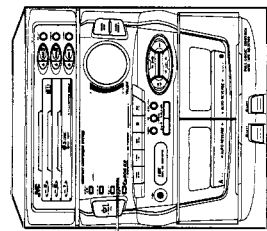


CAUTION: Handle batteries properly.

- To avoid battery leakage or explosion:
- Remove batteries when the Remote Control will not be used for a long time.
- When you need to replace the batteries, replace both batteries at the same time with new ones.
- Don't use an old battery with a new one.
- Don't use different types of batteries together.

Using the Remote Control

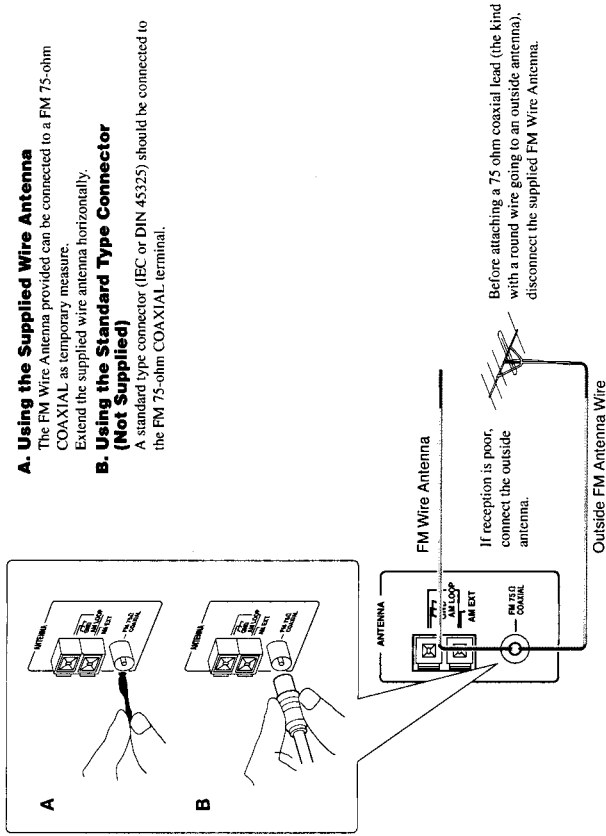
The Remote Control makes it easy to use many of the functions of the System from a distance of up to 7m (23 feet) away. You need to point the Remote Control at the remote sensor on the System's front panel.



CAUTION: Make all connections before plugging the Unit into an AC power outlet.

Connecting the FM Antenna

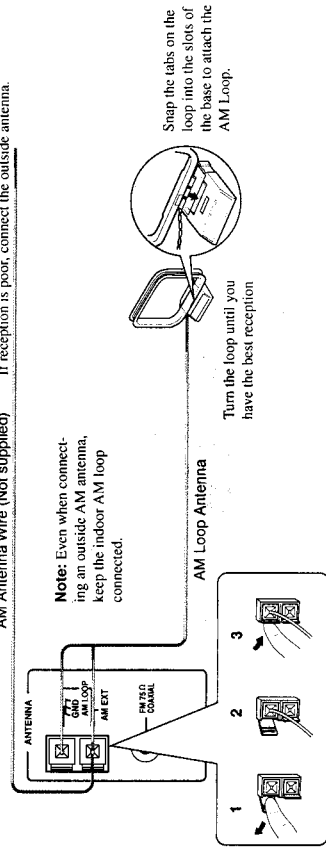
- A. Using the Supplied Wire Antenna**
The FM Wire Antenna provided can be connected to a FM 75-ohm COAXIAL as temporary measure.
Extend the supplied wire antenna horizontally.
- B. Using the Standard Type Connector (Not Supplied)**
A standard type connector (IEC or DIN 45325) should be connected to the FM 75-ohm COAXIAL terminal.



CAUTION: To avoid noise, keep antennas away from metallic parts of the System, connecting cord and the AC power cord.

Connecting the AM (MW/LW) Antenna

AM Antenna Wire (Not supplied) If reception is poor, connect the outside antenna.



English
English

CAUTION: Make all connections before plugging the Unit into an AC power outlet.

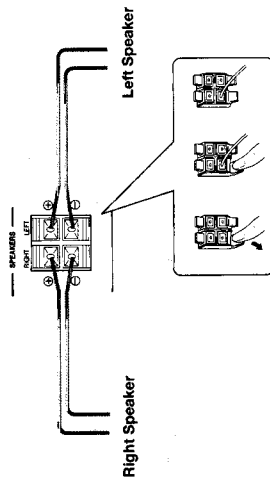
Connecting the Speakers

■ Please refer to instructions for speakers as well when you connect speakers.

For CA-D551TR

For each speaker, connect one end of the speaker wire to the speaker terminals on the back of the System and the other end to the speaker.

1. Open each of the terminals and insert the speaker wires firmly (be sure to remove the insulation at the end of each wire first), then close the terminals.
 2. Connect the red (+) and black (-) terminals of the right side speaker to the red (+) and black (-) terminals marked RIGHT on the System.
- Connect the red (+) and black (-) terminals of the left side speaker to the red (+) and black (-) terminals marked LEFT on the System.

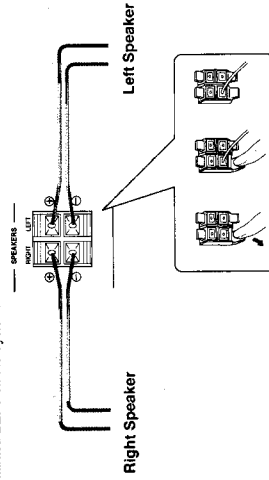


IMPORTANT: Use speakers with the correct impedance only. The correct impedance is indicated on the back panel.
CAUTION: If a TV is installed near speakers, the TV may display irregular colours. In this case, set the speakers away from the TV.

For CA-D451TR or CA-D351TR

For each speaker, connect one end of the speaker wire to the speaker terminals on the back of the System.

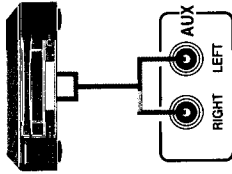
1. Open each of the terminals and insert the speaker wires firmly, then close the terminals.
 2. Connect the red (+) and black (-) terminals of the right side speaker to the red (+) and black (-) terminals marked RIGHT on the System.
- Connect the red (+) and black (-) terminals of the left side speaker to the red (+) and black (-) terminals marked LEFT on the System.



IMPORTANT: Use speakers with the correct impedance only. The correct impedance is indicated on the back panel.
CAUTION: If a TV is installed near speakers, the TV may display irregular colours. In this case, set the speakers away from the TV.

Connecting Auxiliary Equipment

VCR or other equipment
 To listen to this source, press the AUX button.



Now you can plug the AC power cord into the wall outlet, and your System is at your command!

COMPU PLAY

COMPU PLAY is JVC's feature that lets you control the most frequently used functions of the System with a single touch.

One Touch Operation starts playing a CD, turns on the radio, plays a tape, etc. with a single press of the play button for that function. What One Touch Operation does for you is to turn the power on, then start the function you have specified. If the Unit is not ready, such as no CD or tape in place, the Unit still powers on so you can insert a CD or tape.

How One Touch Operation works in each case is explained in the section dealing with that function. The COMPU PLAY buttons are:

On the Unit

- CD >=>/II button
- CD Player DISC-1 to DISC-3 buttons
- CD Player Open/Close (▲) buttons
- FM/AM button
- < TAPE > button
- AUX button

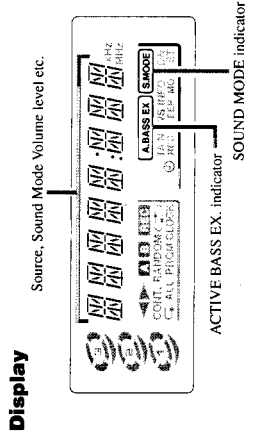
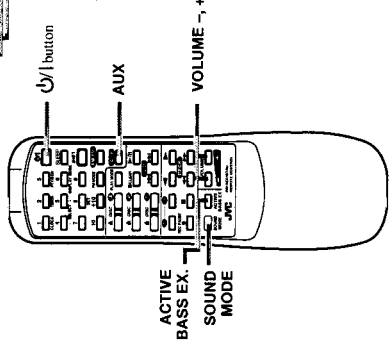
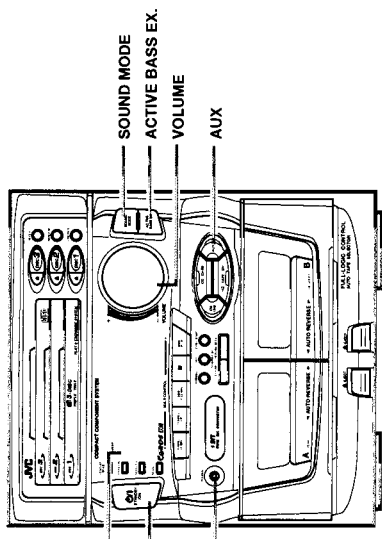
On the Remote Control

- FM/AM button
- AUX button
- CD control >=>/II button
- CD control DISC 1 to DISC 3 buttons
- CD control Open/Close (▲) buttons
- Deck control <▲, ▶ buttons

English

English

Common Operations



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

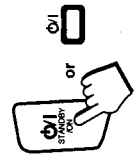
Turning the Power On and Off

Turning the System On

- Press the **STANDBY/ON** button.
- The display comes on and the STANDBY indicator goes out.
- If the last thing you were doing was listening to a tape in Deck B, you are now ready to listen to a tape again in Deck B, or you can change to another source.
- If you were listening to the Tuner last, the Tuner comes on playing the station it was last set to.

Turning the System Off

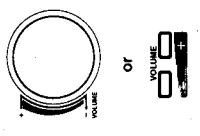
- Press the **STANDBY/ON** button again.
- The STANDBY indicator lights up and the display is blank, except for the clock display.
- Some power (12 watts) is always consumed even though power is turned off (called Standby Mode).
- To switch off the Unit completely, unplug the AC power cord from the AC outlet. When you unplug the AC power cord, the clock will be reset to 0:00 immediately, and preset Tuner stations will be erased after a few days.



English
English

Adjusting the Volume

Turn the VOLUME control clockwise to increase the volume or anticlockwise to decrease it. Turning the VOLUME control quickly also adjusts the volume level quickly. When using the Remote Control, press the VOLUME + button to increase the volume or press the VOLUME - button to decrease it. You can adjust the volume level between 0 and 50.



VOLUME 0

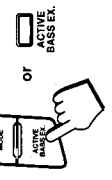
CAUTION: The Volume cannot be adjusted while the Unit is in STANDBY mode. DO NOT turn on the Unit and/or start playing any source without setting the VOLUME control to 0; otherwise, the sudden blast of sound can damage your hearing, speakers and/or headphones.

For private listening

Connect a pair of headphones to the PHONES jack. No sound comes out of the speakers. Be sure to turn down the volume before connecting or putting on headphones.

Reinforcing the Bass Sound

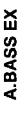
The richness and fullness of the bass sound is maintained regardless of how low you set the volume. You can use this effect only for playback.



To get the effect, press the ACTIVE BASS EX. (Active Bass Extension) button. The frame around the "A. BASS EX" indicator lights up.



To cancel the effect, press the button again. The frame around the "A. BASS EX" indicator goes out.



Sound Modes

The System has some preset sound effects that give you control of the way your music sounds, so you can tailor it for your room and for the quality of the source. We can give you some idea of how each one affects the music, but the only way to really tell is to try them yourself.

- The preset sound modes include modes using surround effects and modes using S.E.A. effects.
- Sound Mode effects cannot be recorded.

Surround effect modes

- D. CLUB (Dance Club)** Increases resonance and bass.
- HALL** Adds depth and brilliance to the sound, like in a concert hall.
- STADIUM** Adds clarity and spreads the sound, like in an outdoor stadium.

S.E.A. effect modes

- ROCK** Boosts low and high frequencies.
- CLASSIC** Set for wide and dynamic sound stereo systems.
- POP** Good for vocal music.

To get an effect, press the SOUND MODE button repeatedly until the Sound Mode you want appears in the display. The frame around the "S.MODE" indicator lights up. Each time you press the SOUND MODE button, the display changes as shown below:



→ D. CLUB → HALL → STADIUM → ROCK → CLASSIC → POP → FLAT → (back to the beginning)

To cancel an effect, press the SOUND MODE button until "FLAT" appears on the display. The frame around the "S. MODE" indicator goes out.



To recall the previous Sound Mode, press the SOUND MODE button again.

Listening to Auxiliary Equipment

By playing the sound from auxiliary equipment through the System, you can gain control over how the music or program sounds. Once the connected equipment is playing through the System, you can apply the sound effects.

- First make sure that the optional equipment is properly connected to the System. (See page 6).

1. Set the **VOLUME** control to 0.

2. Press the **AUX** button.

When System is in Standby mode, the Unit is automatically turned on and "AUX" appears on the display.

AUX

3. Start playing the equipment.

4. Adjust the **VOLUME** control to the desired listening level.

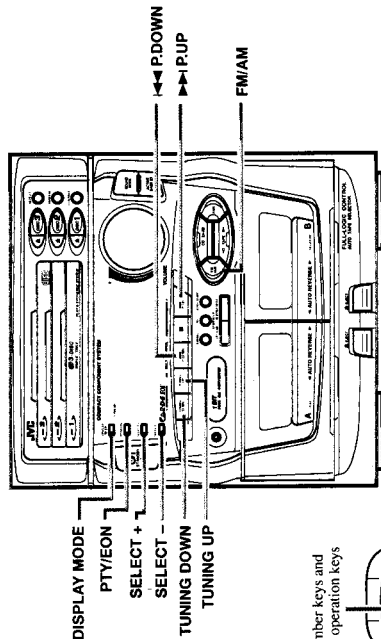
5. Select a sound effect mode, if you wish.

To Cancel the Setting

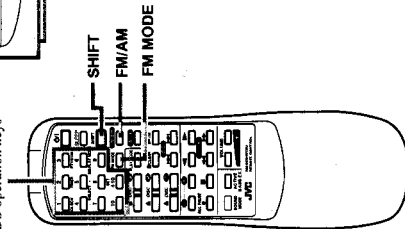
Change the source by starting any one of the System's built-in sound sources, such as the Tuner or CD Player.

English

Using the Tuner

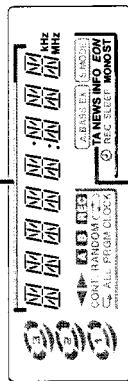


Number keys and RDS operation keys



Display

Band display, Frequency display, Preset channel



TA NEWS INFO, EON indicator

When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

You can listen to both FM and AM (MW/LW) stations. Stations can be tuned in manually, automatically, or from preset memory storage.

- Before listening to the radio:
- Check that both the FM and AM (MW/LW) antennas are firmly connected. (See page 4).

One Touch Radio

- Just press the FM/AM button to turn on the Unit and start playing the most recent station tuned in.
- You can switch from any other sound source to the radio by pressing the FM/AM button.

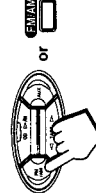
Tuning In a Station

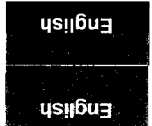
Press the FM/AM button to turn on the radio. The Frequency of the previously selected channel appears on the display.

Switching between Frequency Bands

Press the FM/AM button.

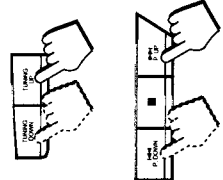
Each time you press the button, the band alternates between FM and AM (MW/LW).





Three ways to select a station

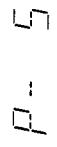
- Press the TUNING DOWN or TUNING UP button repeatedly to move from frequency to frequency until you find the one you want. (Manual Tuning).
- OR
- Press and hold the TUNING DOWN or TUNING UP button for a few seconds, the frequency starts changing on the display. When a station is tuned in, the frequency stops changing. (Auto Tuning).
- OR
- Possible only after presetting stations.



Press once and release the **← P** DOWN or **→ P** UP button to go to the next preset station, or hold the **← P** DOWN or **→ P** UP button to cycle through the preset stations; release the button when the preset station you want shows on the display.

You can also use the Remote Control to tune in preset channels:

1. Press the FM/AM button so that you can receive the most recent station tuned in.
2. Select the station by entering the preset number in the number keys of the Remote Control.
 - Example: for channel 5, press 5. For channel 15, press +10 then 5. For channel 20, press +10, then 10. For channel 30, press +10 twice then 10.

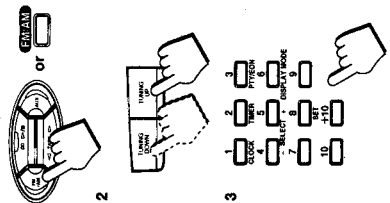


- After you have selected the preset number and the number is displayed, the broadcast frequency of the selected channel is displayed.

Presetting Stations

You can preset up to 30 FM stations and up to 15 AM stations for the preset numbers.
Note: In some cases, test frequencies have been already memorized for the tuner since the factory examined the tuner preset function before shipment. This is not a malfunction. You can preset the stations you want into memory by following the presetting method.

1. Select a band by pressing either the FM/AM button.
2. Press the TUNING DOWN or TUNING UP button to tune into a station.
3. Setting the preset number by pressing the number keys on the Remote Control continuously.
 For preset numbers 1 to 10:
 Press the number key for the preset number you want to set.
 For preset numbers 11 to 20:
 Press the 1 to 10 buttons after pressing the +10 button.
 For preset numbers 21 to 30:
 Press the 1 to 10 buttons after pressing the +10 button twice.



The preset number appears in the display after you have pressed the number keys. If the key is pressed continuously, the preset number display blinks. Release the button after the number starts to blink. This completes the preset setting.

4. Repeat steps 1 - 3 for each station you want to store in memory with a preset number.
- CAUTION: If the Unit is unplugged or if a power failure occurs, the preset stations will be erased after a few days. If this happens, preset the station again.**

To Change the FM Reception Mode

When an FM stereo broadcast is hard to receive or noisy, press the FM MODE button on the Remote Control so that the "MONO" indicator lights up in the display. Reception improves, but there is no stereo effect.

To restore the stereo effect, press the FM MODE button on the Remote Control so that the "MONO" indicator goes off. In this stereo mode, the "ST" indicator lights up and you can hear stereo effects, when a program is broadcast in stereo.



Receiving FM Stations with RDS

RDS (Radio Data System) is a broadcasting service which a growing number of FM stations are now providing. It allows the FM stations to send additional signals along with their regular programme signals. For example, the stations send their station names and information about what type of programme they broadcast, such as sports or music, etc.



When tuned to an FM station which provides the RDS service, the station frequency (and then the station name if sent) is displayed.

One convenient RDS service is "Enhanced Other Networks (EON)". This allows the Unit to automatically switch to a programme type of your choice when one starts in your broadcast area.

- Not all FM stations provide RDS service, nor do all RDS stations provide the same services. If in doubt, check with local radio stations for details on RDS services in your area.

Note: RDS may not work correctly if the station to which you are tuned is not transmitting properly or if the signal strength is weak.

What Information RDS can Provide

The System can use the following RDS service.

PS (Program Service name)
 Identifies each station by a name.

TA (Traffic Announcement Identification)
 Identifies that a traffic announcement is being broadcast in your area.

RT (Radio Text)
 Allows the RDS station to send text messages that appear on the display of the unit.

PTY (Programme Type)
 Identifies the type of RDS programme. This allows you to locate a specific type of programme being broadcast.

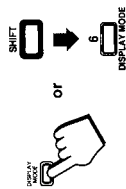
- The programme types are as follows:
- TRAFFIC:** Traffic announcement
 - NEWS:** News
 - AFAIRS:** Topical programme expanding on current news or affairs
 - INFO:** Programmes on medical service, weather forecast, etc.
 - SPORT:** Sports events
 - EDUCATE:** Educational programmes
 - DRAMA:** Radio plays
 - CULTURE:** Programmes on national or regional culture
 - SCIENCE:** Programmes on natural sciences and technology
 - VARIED:** Other programmes like comedies or ceremonies
 - POP M:** Pop music
 - ROCK M:** Rock music
 - M.O.R. M:** Middle-of-the-road music (usually called "easy listening")
 - LIGHT M:** Light music
 - CLASSICS:** Classics
 - OTHER M:** Other music
 - NONE:** Undefined
- ALARM:** Emergency broadcasts

EON (Enhanced Other Networks)

Provides information available on RDS stations other than the one which is being received.

Changing the Display

You can see RDS information on the display. To view RDS information on the display, press the DISPLAY MODE button. (When using the Remote Control, press the 6 DISPLAY MODE button after pressing the SHIFT button.) Each time you press the button, the display changes to show the following information:



PS (Programme Service):

Station names will be displayed.

PTY (Programme Type):

Types of broadcast programmes will be displayed.

RT (Radio Text):

Text message sent by stations will be displayed.

Station Frequency:

Station frequencies.

- While RDS information is being received from a station, "PS", "PTY", or "RT" may appear on the display.

Searching for Programmes by PTY codes

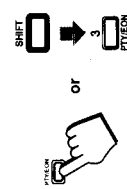
One of the advantages of the RDS service is that you can locate a particular kind of programme by specifying the PTY codes.

- The PTY Search function is applicable to preset stations only.

To search for a programme using the PTY codes, follow this procedure:

1. Press the PTY/EON button once.

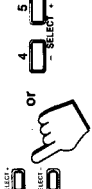
- When using the Remote Control, press the 3 PTY/EON button after pressing the SHIFT button. "PTY" and "SELECT" appear alternately on the display.



Note: If no adjustments are made for 10 seconds in PTY Select mode, the display reverts to the previous display. Perform the next step while "PTY" and "SELECT" are being displayed.

2. Press the SELECT + or SELECT - button to select a PTY.

- When using the Remote Control, press the 5 SELECT + or 4 SELECT - button.

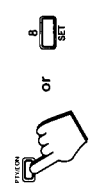


The display changes with each pressing the button as shown below:

- SELECT + → TRAFFIC → NEWS → AFFAIRS → INFO → SPORT → EDUCATE → DRAMA → CULTURE → SCIENCE → VARIED → POP M → ROCK M → M.O.R. M → LIGHT M → CLASSICS → OTHER M → SELECT -

3. Press the PTY/EON button again.

- When using the Remote Control, press the 8 SET button.



While the search function is running, the selected programme type and "SEARCH" alternate on the display.

Once the station which is broadcasting the selected PTY (Programme Type) is located, searching will stop. Then the station name (if PS code is being sent) will be indicated and the broadcast will commence. The Display will stay blinking for 10 seconds from the end of the searching function. If you press the PTY/EON button again during this period, search for the same PTY (Programme Type) will restart.

- If a station broadcasting a selected PTY (Programme Type) cannot be found, "NOTFOUND" is displayed alternately on the display after the Unit has searched through the preset numbers. The Unit will return to the station to which it was tuned prior to the start of the PTY Search.

To cancel a PTY Search operation, press the PTY/EON button. (When using the Remote Control, press the 3 PTY/EON button.)

EON Function

With the EON (Enhanced Other Networks) code, the Unit can perform a standby reception which will enable you to obtain desired information which is available from other stations.

- "EON" will be displayed while receiving stations with an EON code.
- EON Standby reception is applicable for preset stations only.
- You can set EON Standby reception regardless of types of receiving bands.

Setting EON Standby reception

1. Press the PTY/EON button twice.

- When using the Remote Control, press the 3 PTY/EON button after pressing the SHIFT button then press the 8 SET button.

The last EON Information type selected is displayed.

2. Select information you want by pressing the SELECT + or SELECT - button.

- When using the Remote Control, press the 5 SELECT + or 4 SELECT - button.

TA: Identifies that a traffic announcement is being broadcast in your area.

NEWS: News

INFO: Programmes on medical service, weather forecast, etc.

- With each pressing of the button, indications will change as follows:

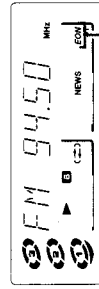
- SELECT + → TA → NEWS → INFO → OFF → SELECT -

3. Press the PTY/EON button.

- When using the Remote Control, press the 8 SET button.
- As soon as your selection is entered the Unit will go into EON Standby reception mode.

If you want to cancel the EON function, select "OFF" by following the steps above.

When this Unit carries out EON Standby reception, the indication will change as follows:



- Waiting for EON Standby reception.

- Preset stations are being searched for and while preparing to change the station, sound will be muted.

- The station will be changed and the Station name being received will appear on the display.

- When using the DISPLAY MODE button to change the display, use the appropriate setting for the type of display.

English

English

Using the CD Player

Notes:

- EON broadcasts of some stations may not be compatible with this Unit. In the case of an incompatible EON broadcast, "EON" will not appear on the display.
- While the Unit is receiving information for an EON code you have selected for EON Standby, you cannot use the following operations: **◀◀ P**, **DOWN** or **▶▶ P**, **UP** button. In addition, if a station transmits information for a programme type you have selected without sending the EON code, the EON Standby operation is still performed. Therefore, you will not be able to use the operations listed above during this period.
- If the reception is unsatisfactory for a station among the preset stations, the station is searched for again. If after searching through the channels, the broadcasting station cannot be found, "NOTFOUND" is displayed alternately on the display. The Unit will return to the station to which it was previously tuned.

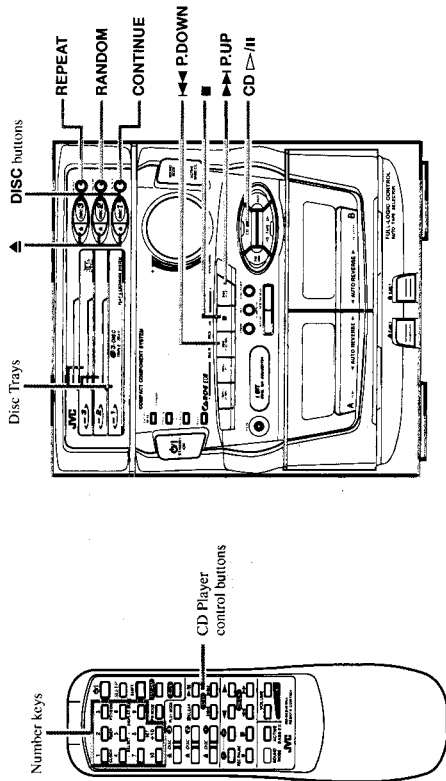
When broadcasting of the desired information has been completed, the Unit will automatically go back to the station which had previously been tuned to.

- While receiving information on EON Standby reception, the station will not change to other stations even if the same information is available from them.
- If you cancel the EON function when in EON Standby reception mode, the Unit will automatically return to the station which had been previously tuned in.

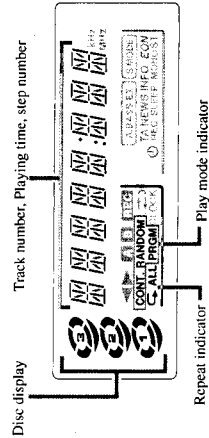
If the information you are waiting for is available from the current station, the indicator will blink.

ALARM function

If an ALARM (Emergency) signal is received while receiving an EON code from a station, the Unit automatically switches to the station broadcasting the ALARM signal.



Display



Disc display
A red marker lights on the disc display for the disc number you have selected. This disc display blinks while a CD is being played. The centre of the disc display is not lit while CD Player is checking that there is no disc in the disc tray for the corresponding disc number.

When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

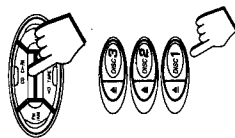
The System's CD Player has an Automatic Changer with 3 disc trays. You can use Continuous, Random, Program or Repeat Play for the discs in DISC-1, DISC-2 and DISC-3. Repeat Play can repeat all the tracks on all the CD's, the tracks on one of the CD's or one track on one CD. There is also the Tray Lock function, which safely keeps discs in the trays.

Here are the basic things you need to know to play a CD and locate the different selections on it. Each selection is called a track, so when we are talking about locating a track, we are also talking about how you find a certain song or performance.

Basics of Using the CD Player — Normal Play

To Play a Disc

1. Prepare the discs.
2. Press the CD Δ /II or DISC button (1-3) of the disc you want to play. When using the Remote Control, press the Δ /II button or the DISC (1 to 3) buttons. The first track of the selected disc will begin playing. The CD Player automatically stops when the playback finishes the last track of the CD.
 - If these buttons are pressed while the tray is open, the tray is automatically closed and playback starts.



To stop play the disc, press the \blacksquare button (or the CLEAR button on the Remote Control).

To stop play and remove the disc, press the Δ button for the disc being played.

To pause, press the CD Δ /II button (or the Δ /II button on the Remote Control).

To cancel pause, press the CD Δ /II button again (or press the Δ /II button on the Remote Control). Play continues from the point where it was paused.

To Select a Disc, Track Or Passage Within a Track

1. Press the DISC button (1-3) for the disc tray containing the track you want to listen to.
 - Example: for the third disc, press 3.

2. Press the \blacktriangleleft P-DOWN or \blacktriangleright P-UP button to select the track. The selected track starts playing.

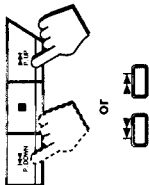
Each time you briefly press and release the \blacktriangleleft P-DOWN or \blacktriangleright P-UP button, the track changes by one.

- Press and release the \blacktriangleright P-UP button to go ahead one track at a time.

- Press and release the \blacktriangleleft P-DOWN button to go back one track at a time.

Holding down the \blacktriangleleft P-DOWN or \blacktriangleright P-UP button, during playback, will fast forward/backwards the CD so you can quickly find a particular passage in the selection you are listening to.

When using the Remote Control, press the \blacktriangleleft or \blacktriangleright button.



Locating a Track With the Remote Control Directly

Using the number keys on the Remote Control allows you to go directly to the beginning of any track.

1. Press the DISC button (1-3) for the disc tray containing the track you want to listen to.
 - Example: for the third disc, press 3.

2. Enter the number of the track you want to listen to with the number keys.

The selected track starts playing.

- Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10. For track 32, press +10 three times, then 2.

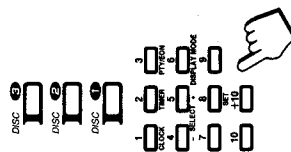
To Change Discs While Playing

You can replace a CD in a tray not being used, while another CD is playing.

1. Press the Δ button of the tray not being used, while another CD is playing. The tray opens.

2. Replace the disc in the tray.

3. Press the Δ button to close the tray.

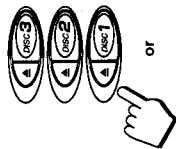


English
English

The Quickest Way To Start a CD Is With the One Touch Operation

- Press the CD Δ /II button (or the Δ /II button on the Remote Control). For Normal Play (Play mode indicator is not lit):
 - If there is a CD in the disc tray for the selected disc number, the power is automatically turned on and the CD is played from the first track.
 - If there is no CD in the disc tray for the selected disc number, the power is automatically turned on and "NO DISC" appears on the display. The CD Player is in stop mode.
- For Continuous Play or Random Play in Display mode (CONT. or RANDOM indicator is lit):
 - If there is a CD in the disc tray for the selected disc number, the power is automatically turned on and the CD is played continuously from the first track or the tracks are played in random order.
 - If there is no CD in the disc tray for the selected disc number, the power is automatically turned on and other tray containing a CD is selected and is played continuously from the first track or the tracks are played in random order.
- If there are no CDs in CD player, the power is automatically turned on and "NO DISC" appears on the display in Normal Play mode. The CD Player is in stop mode.
- Press a DISC button (1 to 3).
 - If there is a CD in the disc tray for the selected disc number, the power is automatically turned on and playback starts from the selected CD.
- If there are no CDs in CD Player, the power is automatically turned on and "NO DISC" appears on the display in Normal Play mode. The CD Player is set to stop mode.
- Press the Δ button.
 - The power turns on, and the tray opens automatically.

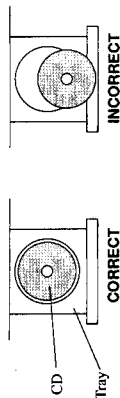
To Insert Discs



1. Press the Δ button on the left of the Disc button you want to insert the disc into. The disc tray slides out automatically.

2. Place a CD, with its label side up, onto the tray.

ATTENTION: To avoid malfunctions when you play a CD, please set the CD in the right place at the centre of the tray.



3. Press the Δ button to close the tray.

4. Repeat steps 1 to 3 to insert other discs into other trays.

- To continue putting discs into other trays, even if a tray is open, by pressing the Δ button of another disc tray, the open tray will close automatically, and the new disc tray will slide out.
- To put an 8 cm CD into a tray, insert it so that it is aligned with the groove in the tray's centre.
- If a tray is open when the System switches to Standby mode, the tray is closed automatically.
- If the CD cannot be read correctly (due to scratches etc.), "00 00000" appears on the display.



Continuous Play

This function plays the disc in the Unit continuously.

1. Prepare the discs.
2. Select Continuous mode.

On the Unit
Press the **CONTINUE** button.

The playback automatically starts from the selected CD.

- "CONT." on the Play mode indicator lights up.

You can press the CONTINUE button while a CD is playing to switch to Continuous mode.

On the Remote Control

1. Press the **PLAY MODE** button while the **CD Player is stopped**, to select "CONTINUE".

The display changes with each press of the PLAY MODE button as shown below.

→ PROGRAM → RANDOM → CONTINUE → No display → (back to the beginning)

2. Press the **DISC** button (1 to 3) or **▶/⏪** button. Playback starts from the selected CD.

Playing order of the CDs

The selected CDs are played continuously in the following order.

→ DISC 1 → DISC 2 → DISC 3 → (back to the beginning)

To cancel Continuous play, press the CONTINUE button again. The "CONT." indicator on the display goes out and Normal Play is resumed. When using the Remote Control, press the PLAY MODE button while the CD Player is stopped to select a different Play mode. The "CONT." indicator goes out and the next Play mode is selected.

Programming the Playing Order of the Tracks

You can change the order in which the discs and tracks play, and select only the discs and tracks you want from among those loaded in the CD Player.

- You can program up to 20 steps in any desired order from among the discs in the player.
- You can only make a program when the CD Player is stopped.
- Use the Remote Control.

1. Press the **PLAY MODE** button to select "PROGRAM".

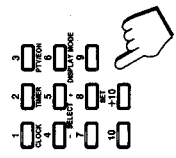
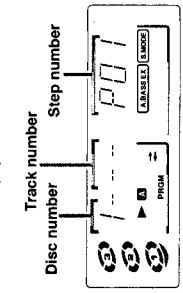
The display changes with each press of the PLAY MODE button as shown below.

→ PROGRAM → RANDOM → CONTINUE → No display → (back to the beginning)

- The "PRGM" play mode indicator light up.
- If a program is already in progress, the last step of the program is displayed.

2. Select a disc with the **DISC** buttons (1-3).

The display changes to the Program Entry display.



3. Press the number keys (1 to 10 and +10) to select the track to program.

• Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10 then 10.

4. Repeat steps 1 to 3 to select the other tracks for the program.

5. Press the **▶/⏪** button.

The Unit plays the tracks in the order you have programmed them.

- If you try to program a disc tray that is empty, or a track number that does not exist on a disc (for example, selecting track 14 on a disc that only has 12 tracks), the selected disc or track are skipped when the program is played.
- You can skip to a particular program step by pressing the **◀** or **▶** button during program play.
- To play the programmed tracks over and over, press the **REPEAT** button. The Repeat mode indicators light up in sequence with each press of the REPEAT button.

To stop playing, press the **■** button (or the **■**/CLEAR button on the Remote Control) once.

To delete all the tracks in a program, press the **■** button on the Unit or the **■**/CLEAR button on the Remote Control while the CD Player is stopped. The program is deleted and the "PRGM" play mode indicator goes out and Normal Play is resumed.

To cancel program play, press the **PLAY MODE** button on the Remote Control while the CD Player is stopped to select a different Play mode. The "PRGM" indicator goes out and the next Play mode is selected.

Note: If you press the CONTINUE or RANDOM button on the unit while a program is playing, the play mode changes to that mode.

Random Play

The tracks will play in no special order when you use this mode.

On the Unit

Press the **RANDOM** button.

The playback automatically starts from the selected CD.

- "RANDOM" on the Play mode indicator lights up.

You can press the RANDOM button while a CD is playing to switch to Random play mode.

On the Remote Control

1. Press the **PLAY MODE** button while the **CD Player is stopped**, to select "RANDOM".

The display changes with each press of the PLAY MODE button as shown below.

→ PROGRAM → RANDOM → CONTINUE → No display → (back to the beginning)

2. Press the **▶/⏪** button.

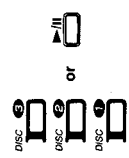
Playback starts from the selected CD.

Note: Random Play cannot be activated with the DISC button (1 to 3).

To skip to the next track, press the **▶** button during playback. The next track is jumped to with each press of the button. Press the **◀** button to jump to the start of the track being played.

- Press the **REPEAT** button before or during random play to instruct the System to continue with a different random track selection after the last selection is played.

To cancel random play, press the **RANDOM** button again. The "RANDOM" play mode indicator goes out and Normal Play is resumed. When using the Remote Control, press the **PLAY MODE** button while the CD Player is stopped to select a different Play mode. The "RANDOM" indicator goes out and the next Play mode is selected.



Repeating a Selection or the Discs

You can have all the discs, the program or the individual selection currently playing repeat as many times as you like.



Press the REPEAT button.

The display changes with each press of the button, as shown below.

→ C → ALL → blank display → (back to the beginning)

C: Repeats one track on a CD.

For Normal Play, repeats all the tracks on the current CD.

ALL: For Continuous Play or Random Play, repeats all the tracks on all the CDs in the CD Player.

For Program Play, repeats all the tracks in the program.

To exit Repeat Mode, press the REPEAT button until the Repeat mode indicator on the display goes out.

Tray Lock Function

In order to safely keep the discs in the CD Player, the three trays can be electronically locked in a single operation.

When the electronic lock is on, the trays cannot be opened even if the EJECT button is pressed.

This function can only be accessed by using the buttons on the Unit itself.

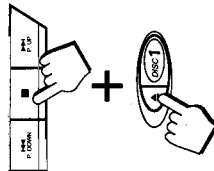
Locking the Electronic Lock

1. Put the System's power into **STANDBY mode**.
2. While pressing the EJECT button, press the LOCK button for **DISC 1's** tray on the Unit.

"LOCK ON" appears on the display to let you know that the trays have been locked.

LOCK ON

When the CD Player trays are locked, pressing the EJECT buttons displays the message "LOCK ON" on the display and the trays do not open. Also, the EJECT button cannot be used to automatically turn on the power.



Unlocking the Electronic Lock

1. Put the System's power into **STANDBY mode**.
2. While pressing the EJECT button, press the LOCK button for **DISC 1's** tray on the Unit.

When the unlock operation is done, "LOCK OFF" appears in the display to show that the lock has been taken off.

LOCK OFF

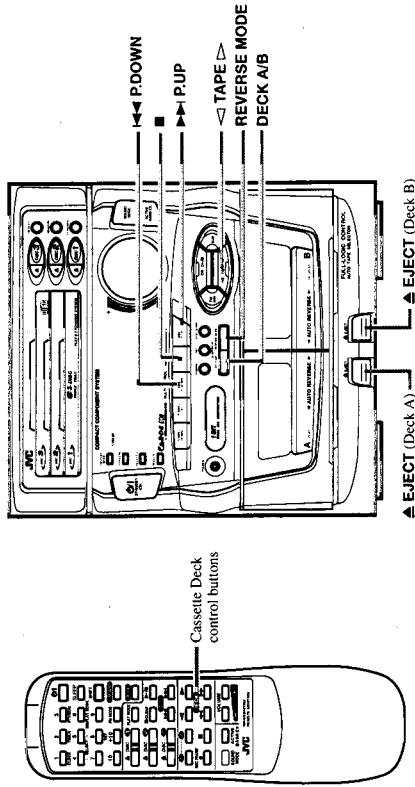
The trays can now be opened by pressing the EJECT buttons.

The EJECT button can also be used to automatically turn on the power.

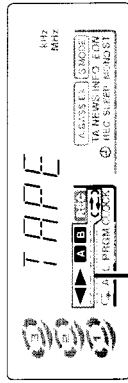
English

English

Using the Cassette Deck (Listening to a Tape)



Display



▶▶ : Tape Direction indicator

A B : DECK A, B indicator

◀▶ : Reverse Mode indicator

Tape Direction Indicator on the Display

The Tape Direction indicator tells you which direction the selected tape deck will use for playback.

During playback, the direction indicator blinks slowly.

During fast left or fast right, the indicator blinks quickly.

During Music Scan mode, the direction indicator alternates between blinking slowly and quickly repeatedly.

When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

The Cassette Deck allows you to play, record and dub audio tapes.

With Automatic Tape Detection, you can listen to type I or II tapes without changing any settings.

The use of tapes longer than 120 minutes is not recommended, since characteristic deterioration may occur and these tapes easily jam in the pinch-rollers and the capstans.

One Touch Play

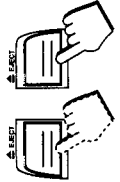
By pressing the TAPE button (or the left or right button on the Remote Control), the Unit will come on, "TAPE" appears in the display, and if a tape is in the deck, it will start to play. If no tape is loaded, the Unit will come on and wait for you to insert a tape, or select another function.



Regular Play

When the power is already on, you can use this basic procedure:

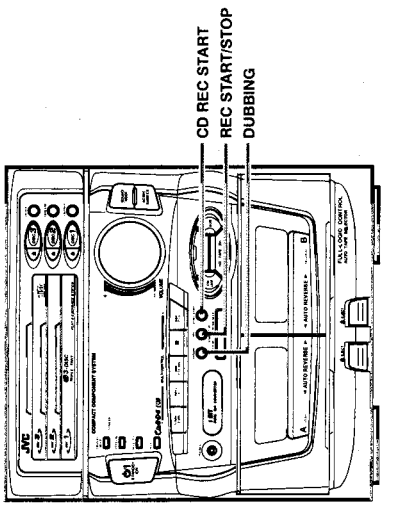
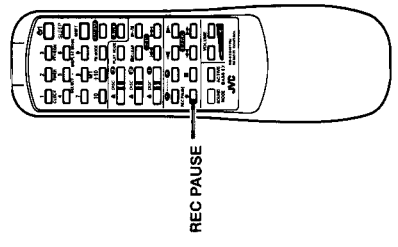
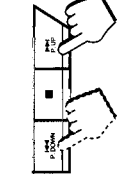
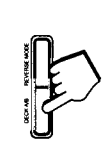
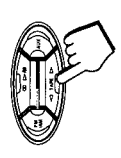
1. Press the EJECT button for the deck you want to use.
2. When the cassette holder opens, put the cassette in, with the exposed part of the tape down, toward the base of the System.
 - If the cassette holder does not open, turn the Unit off, then back on and press the EJECT button again.



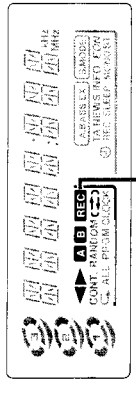
Using the Cassette Deck (Recording)

English English

3. **Close the holder gently.**
When both Deck A and Deck B contain a tape, the last deck to have a tape inserted is selected. To change the selected deck, press the DECK A/B button. When using the Remote Control, press the A or B button.
4. **Press the ◀ TAPE button (or ◀ or ▶ button on the Remote Control).**
The tape is played in the direction of the button pressed for the selected deck.
 - The Cassette Deck automatically stops when one side of a tape has finished playing.



Display

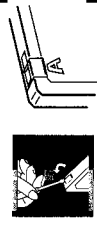


REC indicator

When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

Recording onto a cassette from any of the sound sources is simple. Just place a tape in Deck B, have the source ready, make one or two settings, and you're ready to record. For each source the procedure is a little bit different and now we'll explain just what to do for each one. If you forget, just come back to the section which has the specific procedures you need. But first, here are a few things to make your recordings better:

- **Things To Know Before You Start Recording**
 - It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.
 - When you want to record onto both sides of a tape, you can set Reverse mode on to do so. However, recording automatically stops after recording in the ◀ direction in Reverse mode. Therefore, make sure that the tape direction is ▶ when recording with Reverse mode on.
 - The recording level, which is the volume at which the new tape is being made, is automatically set correctly, so it is not affected by the VOLUME control on the System. Thus, during recording you can adjust the sound you are actually listening to without affecting the recording level.
 - Two small tabs on the back of the cassette tape, one for side A and one for side B, can be removed to prevent accidental erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with adhesive tape first.
 - However, when a type II tape is used, only cover part of the hole as shown, since the other part of the hole is used to detect the tape type.
 - When recording, you can hear Sound Mode effects through the speakers or headphones. However, the sound is recorded without Sound Mode effects.
 - Type I and Type II tapes can be used for recording.



3. Close the holder gently.
When both Deck A and Deck B contain a tape, the last deck to have a tape inserted is selected. To change the selected deck, press the DECK A/B button. When using the Remote Control, press the A or B button.

4. Press the ◀ TAPE button (or ◀ or ▶ button on the Remote Control).
The tape is played in the direction of the button pressed for the selected deck.

- The Cassette Deck automatically stops when one side of a tape has finished playing.

To stop playing, press the ■ button.
To remove the tape, stop the tape, and press the ▲ EJECT button.
To change deck while playing a tape, press the ◀ TAPE button after pressing the DECK A/B button on the Unit or press the ◀ or ▶ button after pressing the A or B button on the Remote Control.

Fast Left And Fast Right

- While the tape is stopped, press the ◀ PDOWN button (or ◀ button on the Remote Control) and the tape will wind rapidly onto the left side of the cassette without playing.
- While the tape is stopped, press the ▶ PUP button (or ▶ button on the Remote Control) and the tape will wind rapidly onto the right side of the cassette without playing.

Note: Deck A and Deck B cannot be used for playback at the same time.

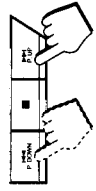
Music Scan

To find the beginning of a music track during play, use the Music Scan function. Music Scan searches for blank portions that usually separate selections, then plays the next selection.

To Find the Beginning of the Current Selection

Press the ◀ PDOWN or ▶ PUP button (or the ◀ or ▶ button on the Remote Control) during play.

- Make sure that you press the ◀ PDOWN button (or the ◀ button on the Remote Control) in the opposite direction to that in which the tape is playing. Searching stops at the beginning of the current selection, and the current selection starts automatically.



To Find the Beginning of the Next Selection

Press the ◀ PDOWN or ▶ PUP button (or the ◀ or ▶ button on the Remote Control) during play.

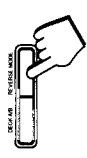
- Make sure that you press the ◀ PDOWN button (or the ◀ button on the Remote Control) in the same direction as that in which the tape is playing. Searching stops at the beginning of the next selection, and the next selection starts automatically.

Music Scan works by detecting a 4-second long blank at the beginning of each selection, so it won't work well if your tape has:

- No blank at the beginning of a selection.
- Noise (often caused by much use or poor quality dubbing) which fills the blank with noise.
- Long, very soft passages or pauses in a selection. The scan will detect these as 4-second long blanks. If this happens, just scan again until you reach the selection you want.

Reverse Mode

You can play both sides of a cassette, or play both the tapes in the two Cassette Decks continuously. **Press the REVERSE MODE button to switch to Reverse Mode.**
 The indicator changes with each press of the button as shown.



- → → → → (back to the beginning)
- ↔ : The Cassette Deck automatically stops after playing one side of the tape, to play).
- ↔ : The Cassette Deck automatically stops after playing both sides of the tape being played (or set to play).
- ↔ : After playing both sides of the tape being played (or set to play), the Unit always checks to see if a tape is in the other deck. If there is, it automatically starts playing that tape. This Continuous Play function works regardless of which deck starts first. The tapes are played continuously until the ■ button is pressed.

To Pause at Any Time During the Recording Process
 Press the REC PAUSE button on the Remote Control. Then press either the Remote Control or REC START/STOP button on the Unit to restart recording.
To Stop at Any Time During the Recording Process
 Press the REC START/STOP button on the Unit again, or press the ■ button.

Recording AM (MW/LW) station to tape

When recording an AM (MW/LW) broadcast, beats may be produced which are not heard when listening to the broadcast. In this case, press the CONTINUE button on the CD Player to eliminate the beats.

1. Set to AM (MW/LW) station and start recording.
 2. Press the CONTINUE button to eliminate the beats.
- Each time you press the button, the display changes as shown below:
 → CUT 2 → CUT 3 → CUT 4 → CUT 1 → (back to the beginning)

CD Direct Recording

Everything on the CD goes onto the tape in the order it is on the CD, or according to the order you have set in a program.

1. Prepare CDs. (See page 17.)

Check that the CD Player is not playing a CD.

2. Insert a cassette in Deck B to record on.

- When you want to record on both sides of a tape, press the REVERSE MODE to turn Reverse Mode on. Check that the recording direction for the tape and the Tape Direction indicator are correct. (See page 25 "Notes for using Reverse Mode for recording".)

3. Press the CD REC START button.

The "REC" indicator light comes on and the System begins recording.
 If you make a recording with Reverse Mode on, the Unit will record the last song at the end of the first side at the beginning of the next side.

To stop at any time during the recording process, press the ■ button.

Note: When making SLEEP timer settings while doing CD Direct recording, set the time so that there is enough leeway to finish the recording before the power goes off. If the time is set to about the length of the CD, the power may go off before recording finishes.

For CD Direct Recording using more than one disc, use a blank tape. If you use a prerecorded tape, prerecorded material may not be erased between newly-recorded tracks.

Tape to Tape Recording (Dubbing)

Recording from one tape to another is called dubbing.

- You can dub tapes simply, with just a single button.
- When dubbing tapes, make sure that the playback direction of Deck A and Deck B are the same.
 - When you want to record both sides of a tape, press the REVERSE MODE button to turn Reverse mode on.
 - It is preferable that the type of tape (Type I or Type II) you record from be the same as the type you record onto.

How to Use the DUBBING Button

1. Insert the source cassette you want to copy from into Deck A for playback.

Insert the cassette so that it will be played in the forwards ► direction.

2. Insert the blank or erasable cassette you want to copy onto in to Deck B for recording.

Insert the cassette so that it will be recorded in the forwards ► direction.

3. Press the DUBBING button.

Deck A and Deck B will start simultaneously.

To stop dubbing, press the ■ button or REC START/STOP button.

- When doing dubbing with the DUBBING button, you can hear Sound Mode effects through the speakers or headphones. However, the sound is dubbed without Sound Mode effects.

English

Note: At the start and end of cassette tapes, there is leader tape, which cannot be recorded onto. Depending on the recording source, the first part of the recording may be missing because of the leader. When recording CDs or radio broadcasts, to get the beginning of the recording on the tape, first wind on the leader before beginning recording.

CAUTION: If recordings you have made have excessive noise or static, the Unit may be too close to a TV which was on during the recording. Either turn off the TV or increase the distance between the TV and the System.

Standard Recording

This is the basic method for recording any source. The System also has special ways for recording CD to tape, and tape to tape, which save you time and effort, as well as give you some special effects. However, when you need to add a selection to a tape you have made, or are combining selections from several sources on one tape, use the method described below; just substitute the source you want into this procedure, such as a tape in Deck A, a CD, or the Tuner. You can also record from auxiliary source with this procedure.

To Record Any Sound Source To Tape

Follow these steps to record from any sound source onto a tape in Deck B.

Using the Unit

- 1. Insert a blank or erasable tape into Deck B.**
- 2. Press the REVERSE MODE button if you want to record on both sides of the tape.**
 Press the button until the "→" or "←" indicator is lit.
 - When using Reverse Mode, insert the tape so that it will be recorded in the forwards ► direction.
- 3. Check the recording direction for the tape.**
 Check that the Tape Direction indicator is the same as that for the tape in the tape deck. If the directions are different, press the ■ button after pressing the ◀TAPE▷ button to set the tape direction.
 - When using Reverse Mode to record both sides of a tape, check that the Tape Direction indicator is in the forwards ► direction. If the direction indicator is not in the forwards ► direction, press the ◀TAPE▷ button then press the ■ button.
- 4. Prepare the source, by, for example, tuning in a radio station, loading CDs, or turning on connected equipment.**
- 5. Press the REC START/STOP button.**
 The "REC" indicator light comes on and the System begins recording.

Using the Remote Control

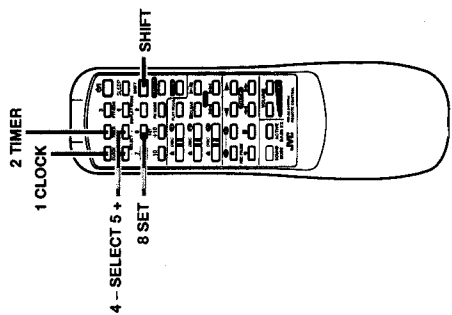
- 1. Insert a blank or erasable tape into Deck B.**
- 2. Press the REC PAUSE button.**
 The "REC" indicator blinks.
- 3. Press the REVERSE MODE button on the Unit if you want to record on both sides of the tape.**
 Press the button until the "→" or "←" indicator is lit.
 - When using Reverse Mode, insert the tape so that it will be recorded in the forwards ► direction.
- 4. Prepare the source by, for example, tuning in a radio station, loading CDs, or turning on connected equipment.**
- 5. Press the ◀ or ► button.**
 Recording starts in the direction of the button pressed.
 - When using Reverse Mode to record both sides of a tape, press the ► button.

Notes for using Reverse Mode for recording

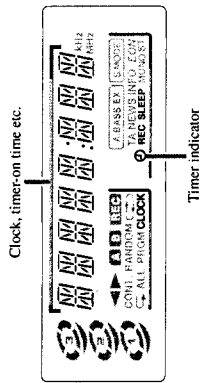
When recording in Reverse Mode, the System automatically stops when it reaches the end of the reverse ◀ direction. To record on both sides of a tape, make sure that the recording direction for the tape inserted into Deck B is forwards ►, and that the Tape Direction indicator is also forwards ►, before you start recording.



Using the Timer



Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

The timers lets you control listening and recording functions automatically. Use the Remote Control to set the clock and timers.

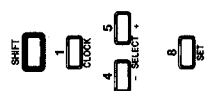
Setting the Clock

The timers depend on the clock; the clock must be right for the timers to work as you expect. You can set the clock whether the Unit is on or off.

Note that the clock must be set, otherwise the timers cannot be set.

- 1. Press the SHIFT button.**
- 2. Press the 1 CLOCK button.**
The "CLOCK" indicator on the display lights up and the clock time blinks.
- 3. Press the SELECT 5 + or 4 - button to set the time.**
Pressing the 5 + button increases the time and pressing 4 - decreases the time. Pressing the button continuously advances or decreases the time in 10 minute intervals.
- 4. Press the 8 SET button.**
The blinking time display changes from a blinking display to a steady display and the clock timer starts from 0 seconds.

CAUTION: if there is a power failure, the clock loses its setting. The display shows "0:00", and the clock must be reset.



Setting the Timer

You can set the Timer whether the Unit is on or off.

Procedure For Setting the Timer

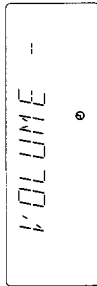
- 1. Press the SHIFT button.**
- 2. Press the 2 TIMER button.**
The Timer indicator on the display lights up and the blinking "TIMER ON" changes to the On Time setting display.
- 3. Set the time you want the Unit to come on.**
Press the SELECT 5 + or 4 - button to set the On Time.
- 4. Press the 8 SET button.**
"TIMER OFF" blinks on the display, and the display changes to the Off Time setting display.
- 5. Set the time you want the Unit to be turned off.**
Press the SELECT 5 + or 4 - button to set the Off Time.
- 6. Press the 8 SET button.**
The name of the source blinks in the display.
- 7. Press the SELECT 5 + or 4 - button to select the source.**
The display changes with each press of the button as shown.

↔ TUNER ↔ TUNER REC ↔ CD ↔ TAPE ↔

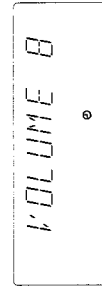
- TUNER:** Selects the last station you were listening to.
- TUNER REC:** Records the last station you were listening to.
- CD:** Plays the last CD you were listening to.
- TAPE:** Plays the last tape you were listening to.

- In the source "TUNER", "CD", or "TAPE", the timer acts as a Daily timer. Once the Daily timer has been set, it will be activated at the same time every day until the setting is turned off. In the source "TUNER REC", the timer acts as a Once timer. After the Once timer has been performed, the details of the setting remain stored but the Timer status is set to off.

8. Press the 8 SET button.
The volume level blinks on the display.



9. Press the SELECT 5 + or 4 - button to set the volume level.



10. Press the 8 SET button.
The display returns to the display before you set the timer.



Before Turning the Unit Off

- Check that the selected source is ready.
- If you will be recording a source while you are out, set the volume to 0.

To turn the **Timer off**, press the 2 TIMER button while pressing the SHIFT button. The Timer indicator on the display goes out.

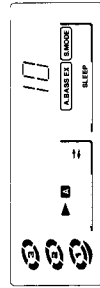
Setting the SLEEP Timer

Use the Sleep Timer to turn the Unit off after a certain number of minutes when it is playing. By setting this timer, you can fall asleep to music and know your Unit will turn off by itself rather than play all night.

- You can only set the Sleep Timer when the Unit is on and a source is playing.

To set the **SLEEP Timer**, follow this procedure:

1. With the System on and a source playing, press the SLEEP button on the Remote Control.



2. Set the length of time you want the source to play before shutting off.

- Each time you press this button, it changes the number of minutes shown on the display in this sequence:

→ 10 → 20 → 30 → 60 → 90 → 120 → Cancelled → (back to the beginning)

When the number of minutes you want shows on the display, just wait 5 seconds until the number of minutes stops blinking, and is lighted steadily.

The Unit is now set to turn off after the number of minutes you set.

To Change the SLEEP Timer Setting

Press the SLEEP button until the number of minutes you want appears on the display.

To Cancel the SLEEP Timer Setting

Press the SLEEP button until the "SLEEP" indicator goes off on the display.

Turning off the Unit also cancels the SLEEP Timer.

Care And Maintenance

Compact Discs

Handle your compact discs, cassette tapes, and Cassette Deck carefully, and they will last a long time.

- Remove the CD from the case by holding it at the edges while pressing the centre hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.
- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.
- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line from centre to edge.



Cassette Tapes

- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.



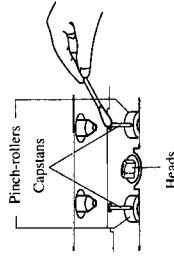
- Do not touch the tape surface.



- Do not store the tape:
 - In dusty places
 - In direct sunlight or heat
 - In moist areas
 - On a TV or speaker
 - Near a magnet

Cassette Deck

- If the heads, capstans, and pinch-rollers of the Cassette Deck become dirty, the following will occur:
 - Loss of sound quality
 - Discontinuous sound
 - Fading
 - Incomplete erasure
 - Difficulty recording
- Clean the heads, capstans, and pinch-rollers using a cotton swab moistened with alcohol.



Moisture Condensation

Moisture may condense on the lens inside the Unit in the following cases:

- After starting the heating in the room.
- In a damp room.
- If the unit is brought directly from a cold to a warm place.

Should this occur, the Unit may malfunction. In this case, leave the unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.



General Notes

In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.

- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the Cassette Deck's tape doors and the CD trays closed when not in use.

Troubleshooting

- If you are having a problem with your System, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit has been physically damaged, call a qualified person, such as your dealer, for service.

Symptom	Possible Cause	Action
No sound is heard.	Connections are incorrect, or loose.	Check all connections and make corrections. (See pages 4 - 6.)
Unable to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Poor radio reception	<ul style="list-style-type: none"> • The antenna is disconnected. • The AM Loop Antenna is too close to the Unit. • The FM Wire Antenna is not properly extended and positioned. 	<ul style="list-style-type: none"> • Reconnect the antenna securely. • Change the position and direction of the AM Loop Antenna. • Extend FM Wire Antenna to the best reception position.
The CD skips.	The CD is dirty or scratched.	Clean or replace the CD.
Unable to operate the Remote Control.	<ul style="list-style-type: none"> • The path between the Remote Control and the sensor on the Unit is blocked. • The batteries have lost their charge. 	<ul style="list-style-type: none"> • Remove the obstruction. • Replace the batteries.
The CD tray cannot be opened.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	The built-in microprocessor has malfunctioned due to external electrical interference.	Unplug the Unit then plug it back in.
The cassette door cannot be opened.	During tape playing, the power cord was unplugged.	Plug in the power cord, press the UI button, and then press the EJECT button.

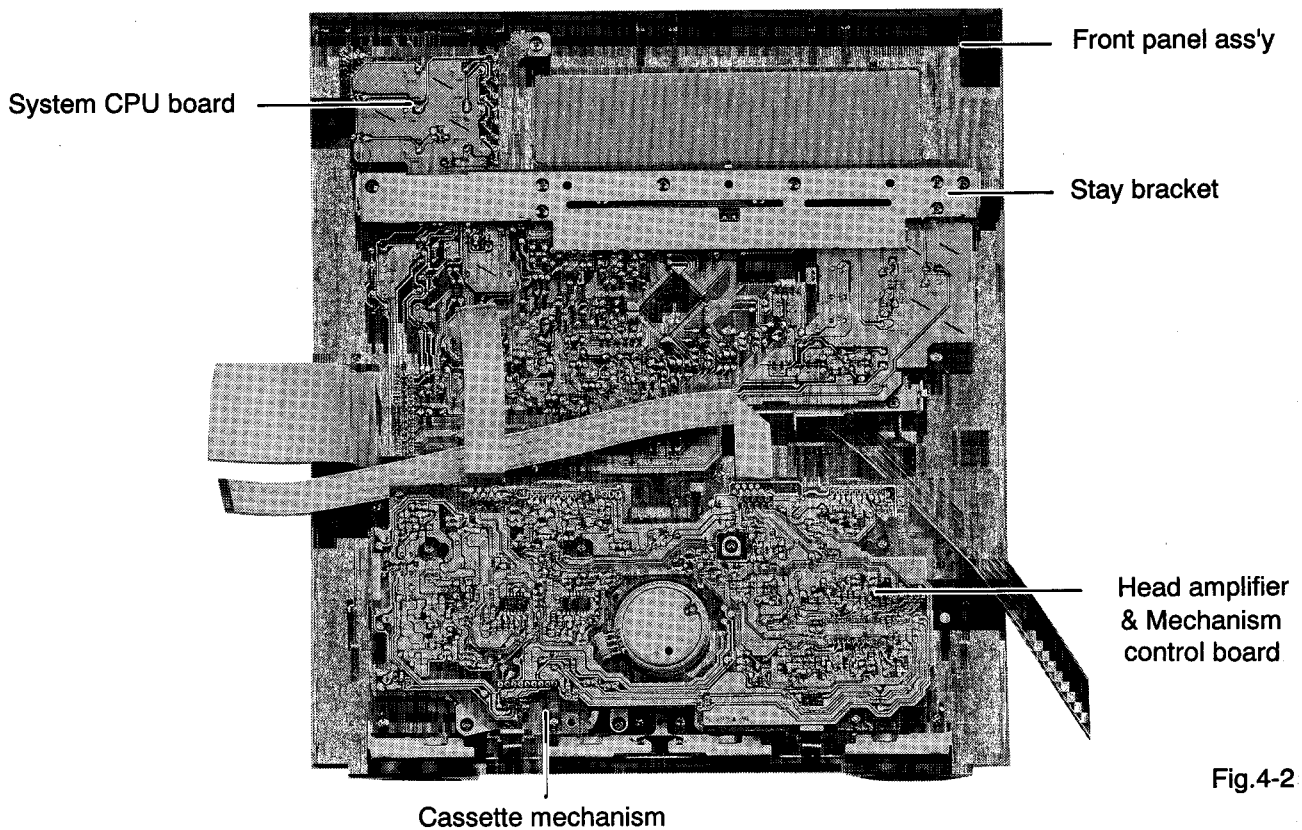
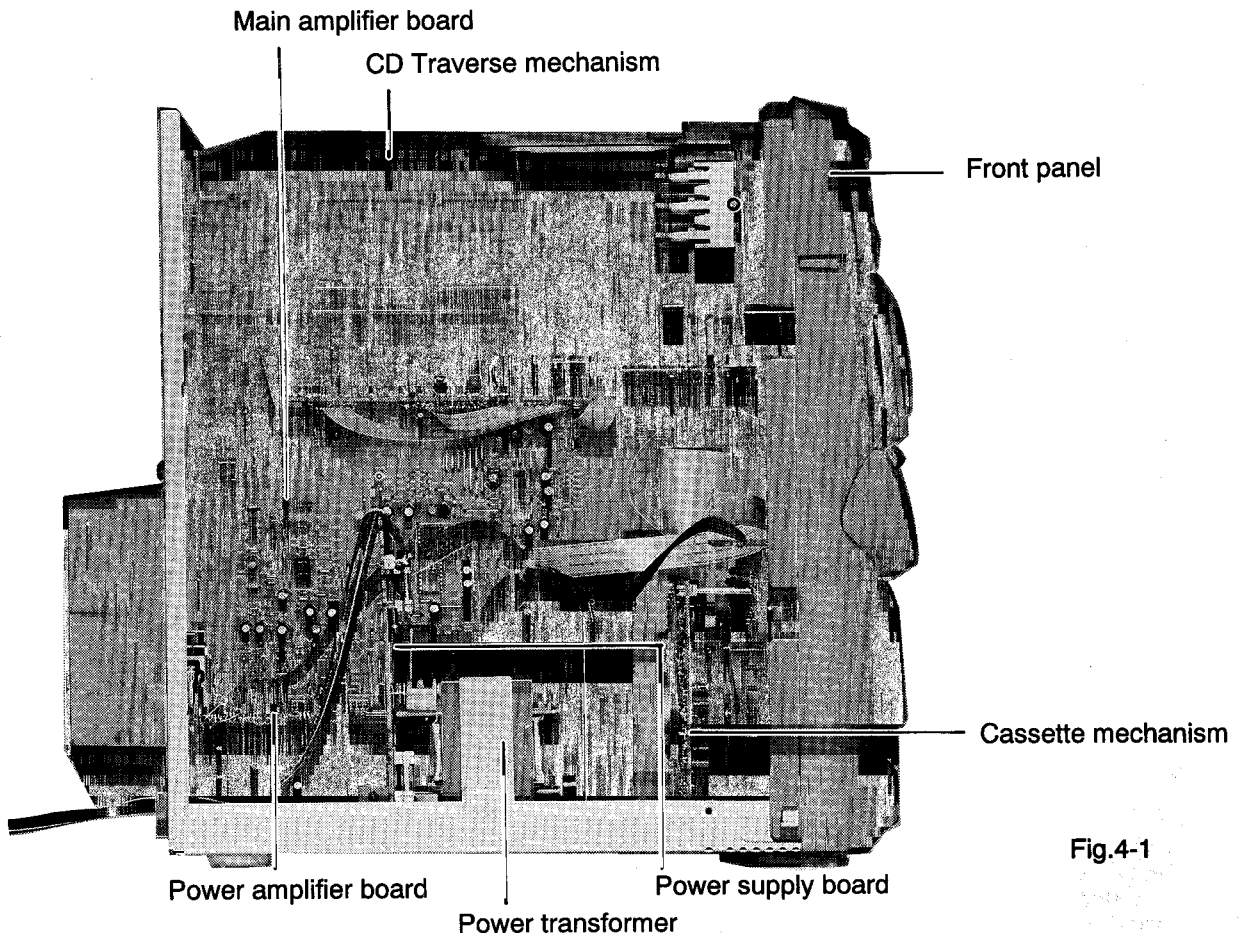
English
English

Specifications

Amplifier	
CA-D551TR/CA-D451TR	Output Power (IEC 268-3/DIN) 27 watts per channel, min. RMS, both channels driven into 6 ohms at 1 kHz with no more than 0.5% total harmonic distortion.
CA-D351TR	Output Power (IEC 268-3/DIN) 12 watts per channel, min. RMS, both channels driven into 4 ohms at 1 kHz with no more than 0.5% total harmonic distortion.
CA-D551TR/CA-D451TR	Input Sensitivity/Impedance (1 kHz) 300 mV/50 kohms
CA-D551TR/CA-D451TR	AUX Speaker terminals 6 - 16 ohms
CA-D351TR	Speaker terminals Minimum 4 ohms
Cassette Deck	
Frequency Response 50 - 14,000 Hz	
Type II (C/O) : 50 - 14,000 Hz	
Type I (NORMAL) : 50 - 14,000 Hz	
Wow And Flutter 0.15% (WRMS)	
CD Automatic Changer	
CD Capacity 3 discs	
Dynamic Range 85 dB	
Signal-To-Noise Ratio 90 dB	
Wow And Flutter Unmeasurable	
Tuner	
FM Tuner 87.5 - 108.0 MHz	
Tuning Range AM Tuner 522 - 1,629 kHz	
MW 144 - 288 kHz	
LW	
CA-D551TR/CA-D451TR	
Dimensions 265 x 295 x 339 mm (W/H/D) (10-7/16 x 11-5/8 x 13-3/8 inches)	
Mass 7.1 kg (15.7 lbs)	
CA-D351TR	
Dimensions 265 x 295 x 339 mm (W/H/D) (105-7/16 x 11-5/8 x 13-3/8 inches)	
Mass 6.7 kg (14.8 lbs)	
Accessories	
AM (MW/LW) Loop Antenna (1)	
Remote Control (1)	
Batteries R6P (SUM-3/JAA (15F) (2)	
FM Wire Antenna (1)	
Power Specifications	
CA-D551TR/CA-D451TR	
Power Requirements AC 230 V \sim , 50 Hz	
Power Consumption 95 watts	
12 watts (in standby mode)	
CA-D351TR	
Power Requirements AC 230 V \sim , 50 Hz	
Power Consumption 55 watts	
12 watts (in standby mode)	

Design and specifications are subject to change without notice.

4. Location of Main Parts



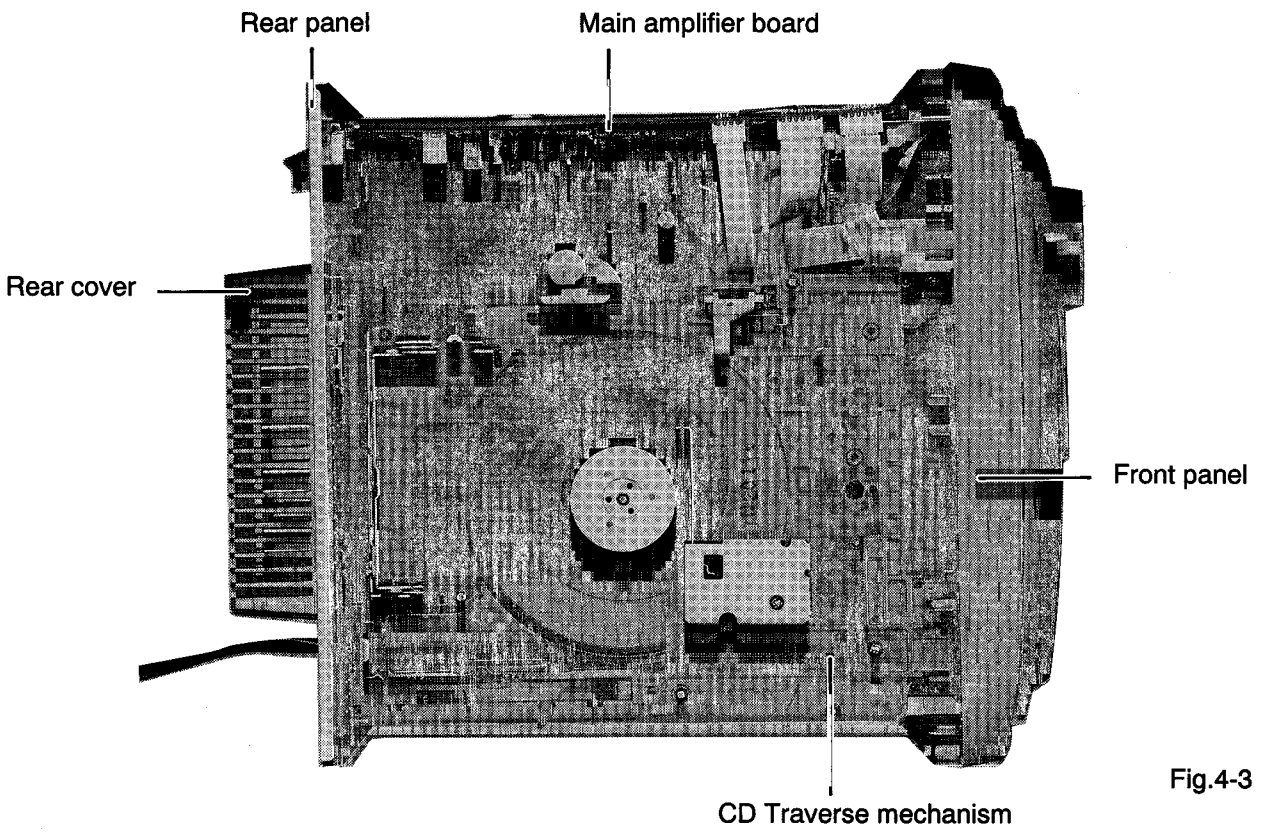


Fig.4-3

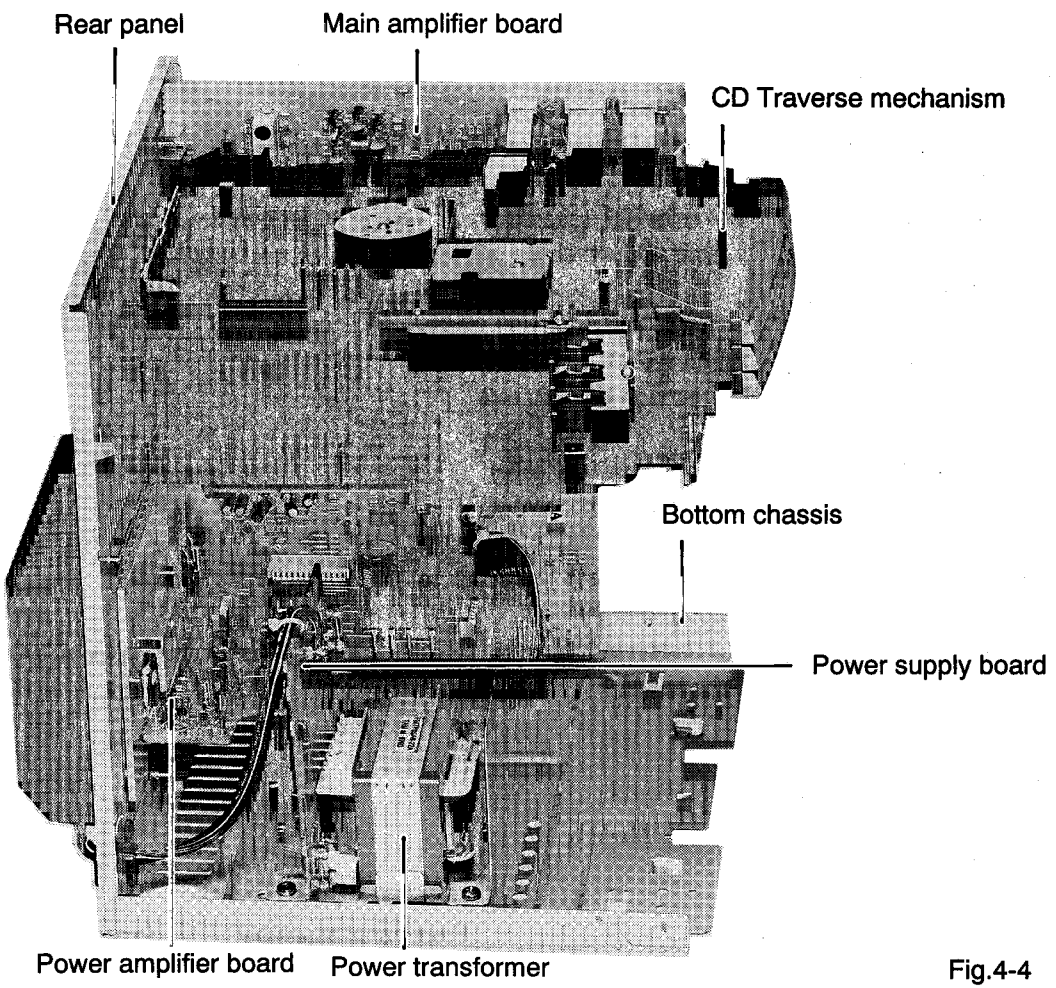


Fig.4-4

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.

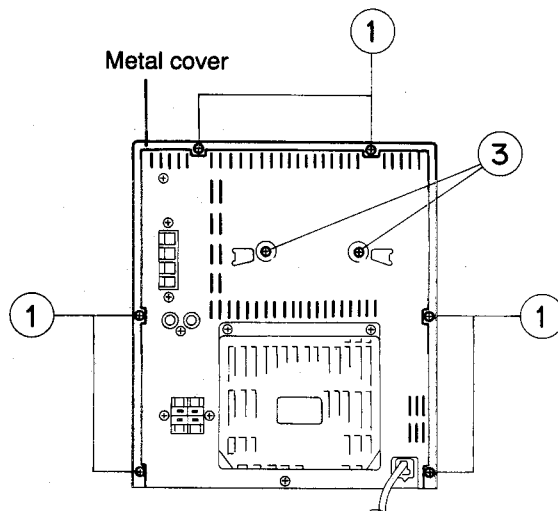
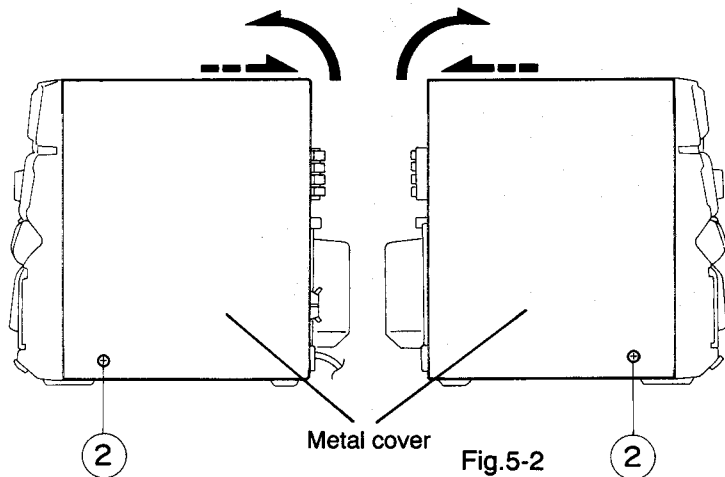


Fig.5-1

■ 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 ① 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)

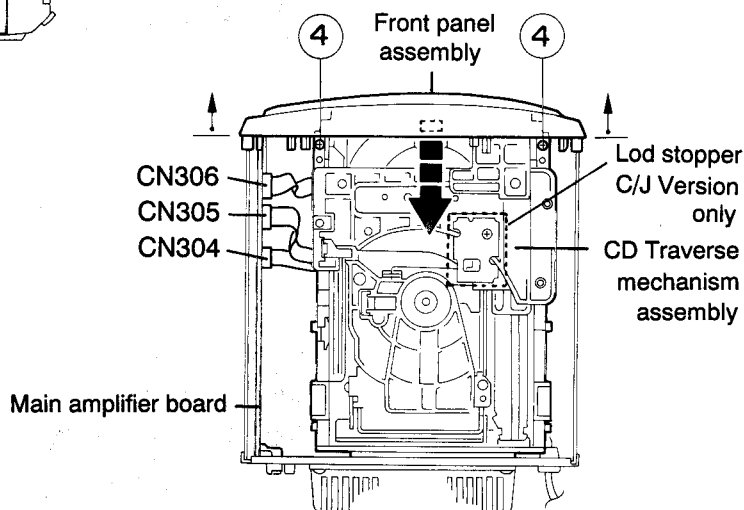


Fig.5-3

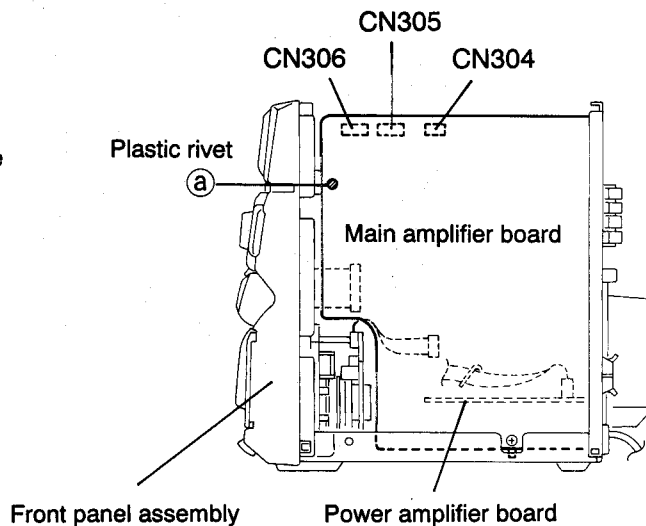


Fig.5-4

■ 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 ③ and ④ 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.

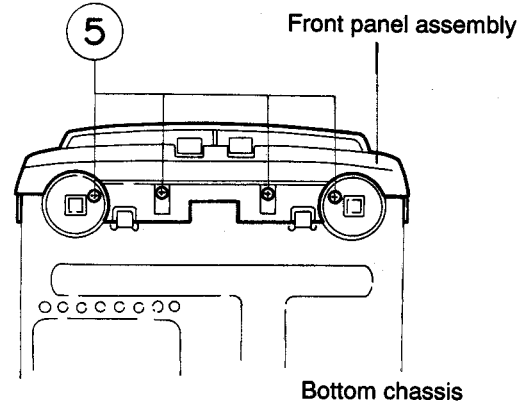


Fig.5-5

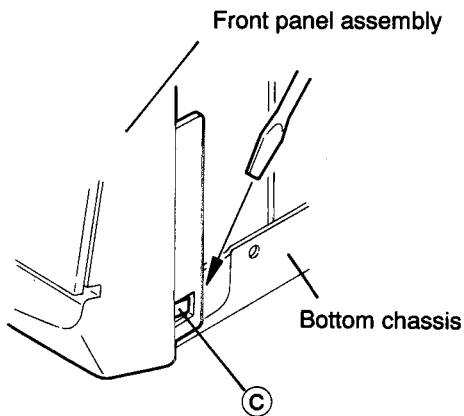


Fig.5-6

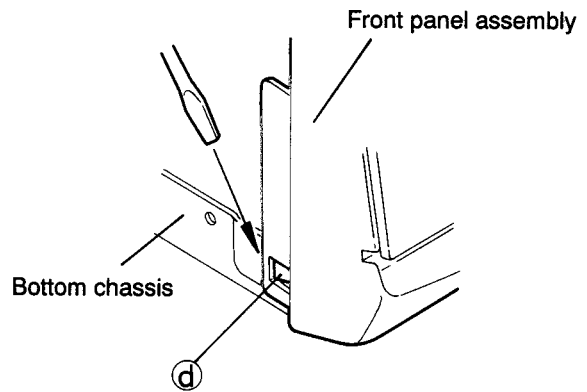


Fig.5-7

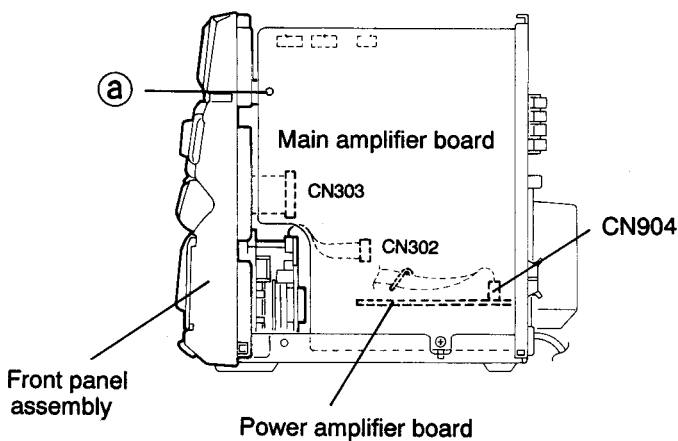


Fig.5-8

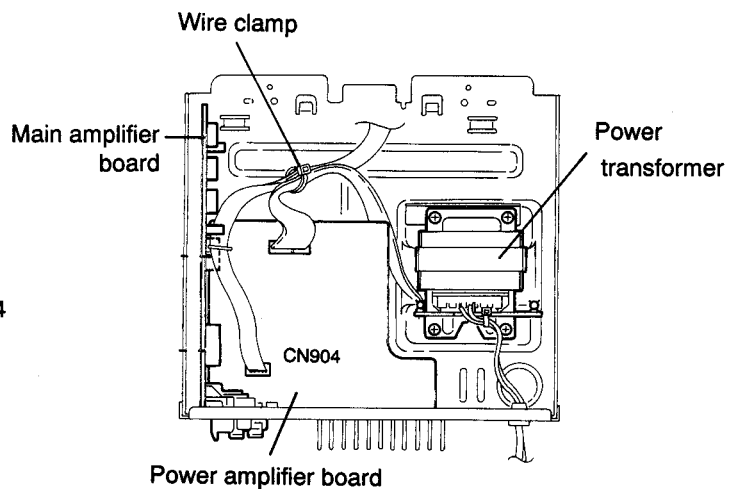
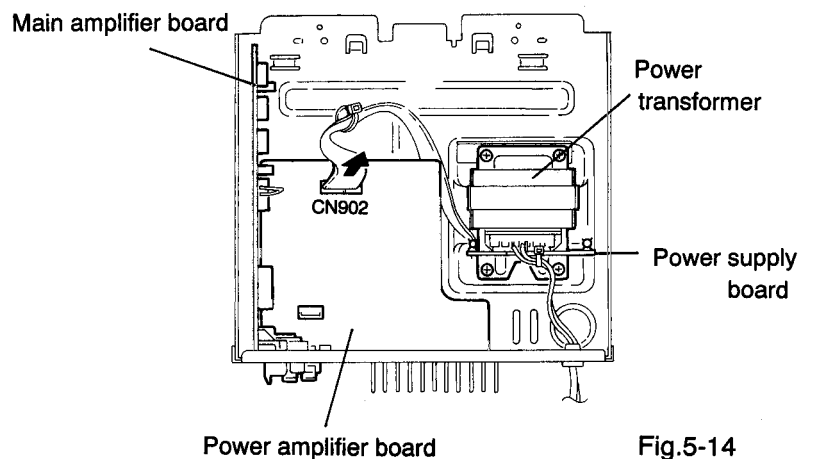
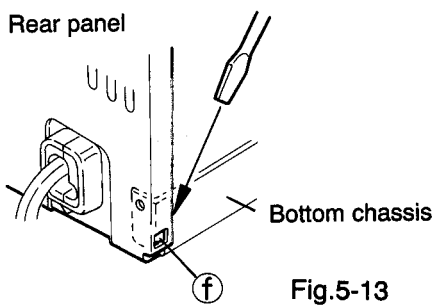
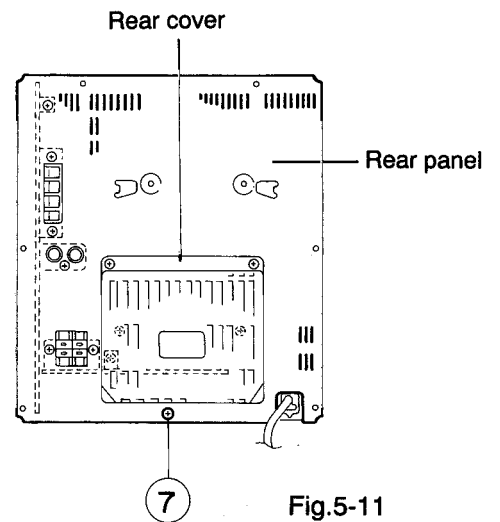
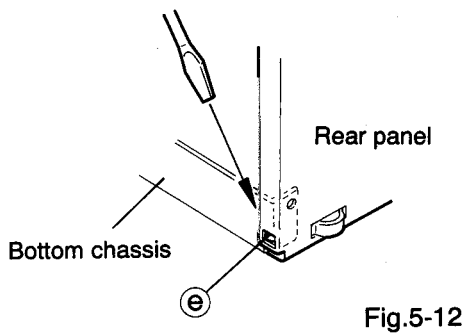
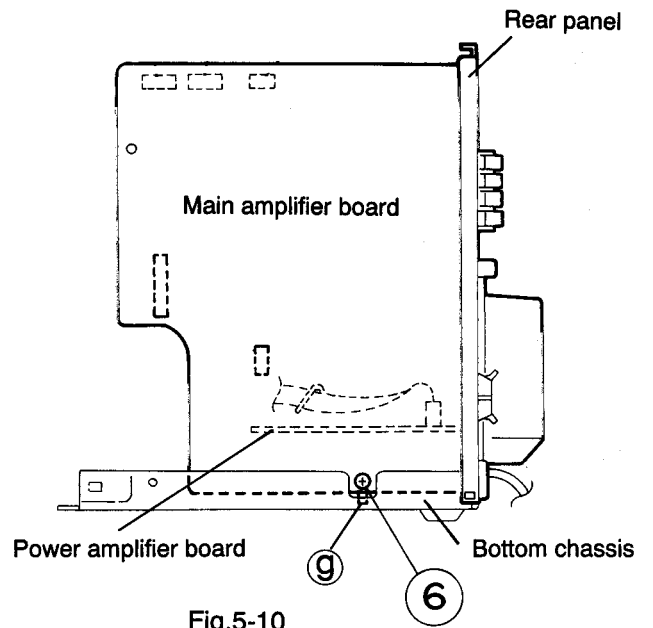


Fig.5-9

■ 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 ⑤ and ① 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 ⑨ of the main amplifier board from the cutout in the bottom chassis.(See Fig. 5-10)



■ 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)

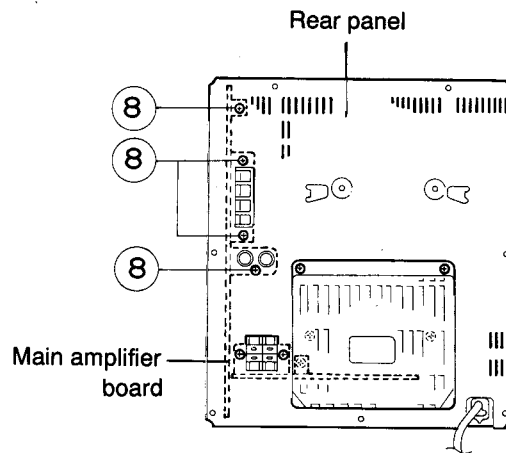


Fig.5-15

■ 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)

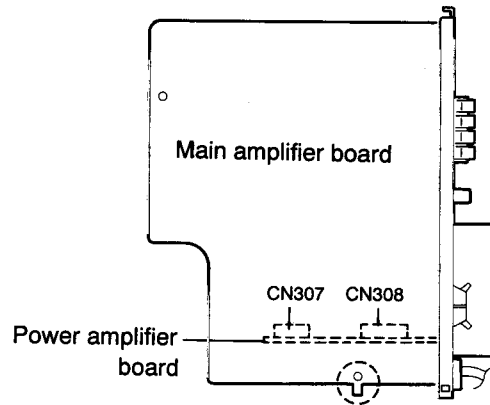


Fig.5-16

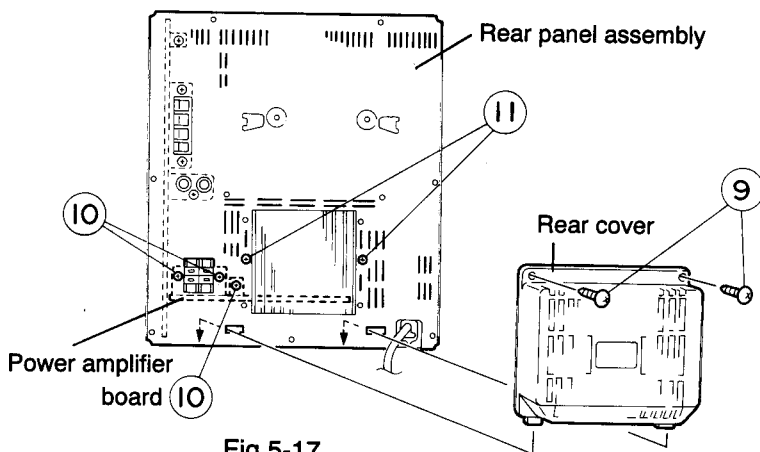


Fig.5-17

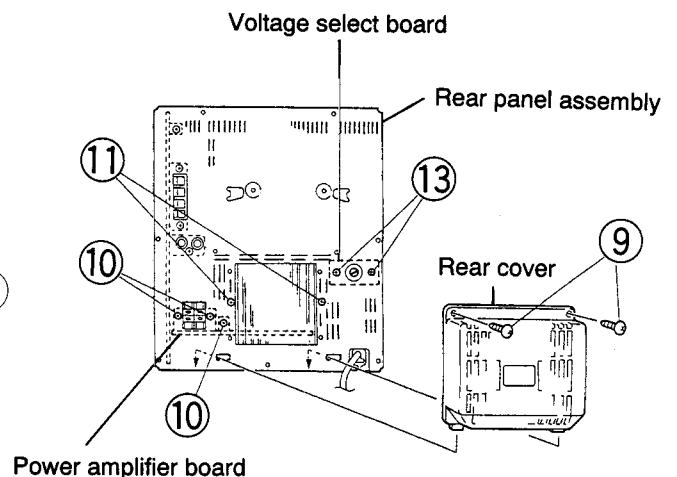


Fig. 5-17a (For U version only)

■ 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.

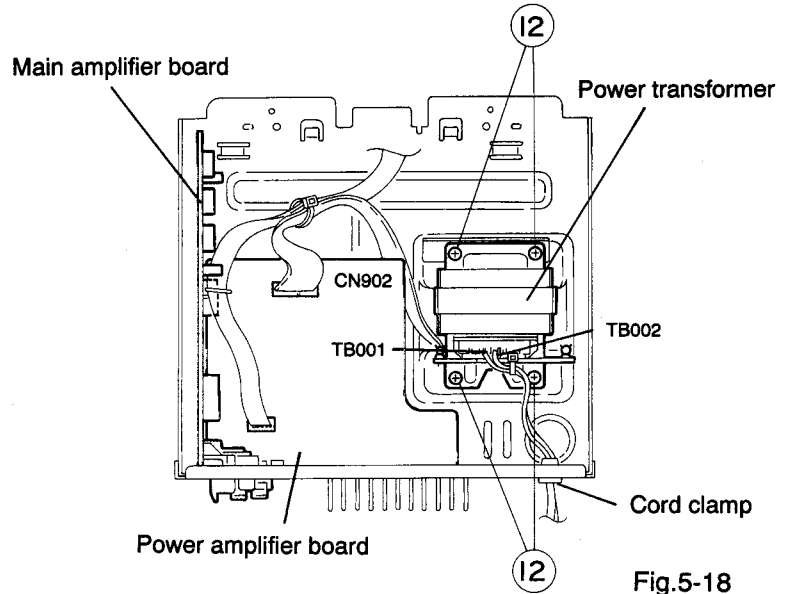


Fig.5-18

■ Removal of the Mic & Echo amplifier board

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

Remove the screw ⑭ 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

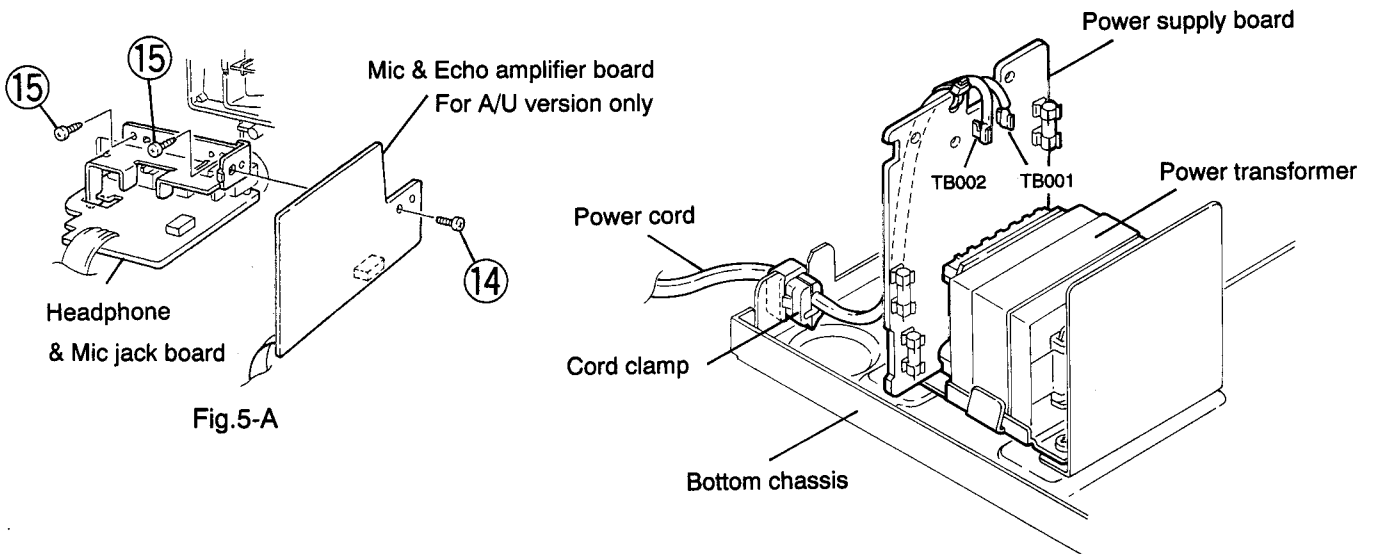


Fig.5-19

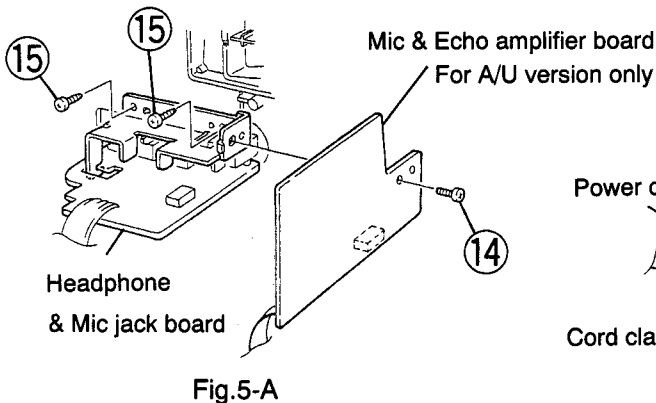


Fig.5-A

《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)

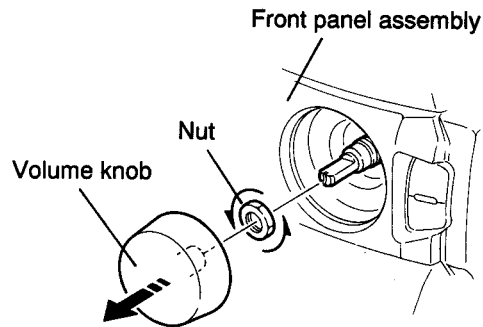


Fig.5-20

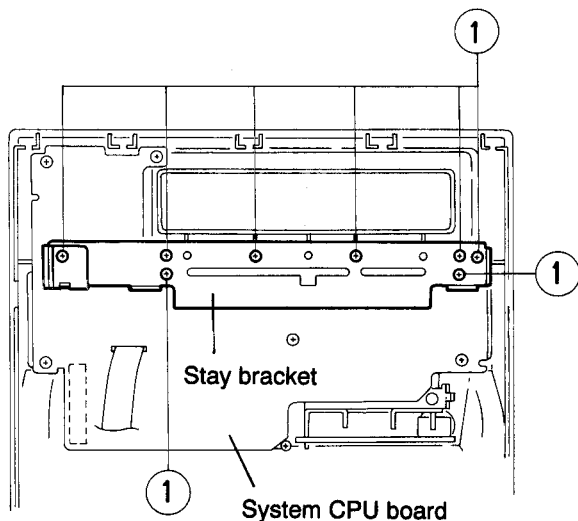


Fig.5-21

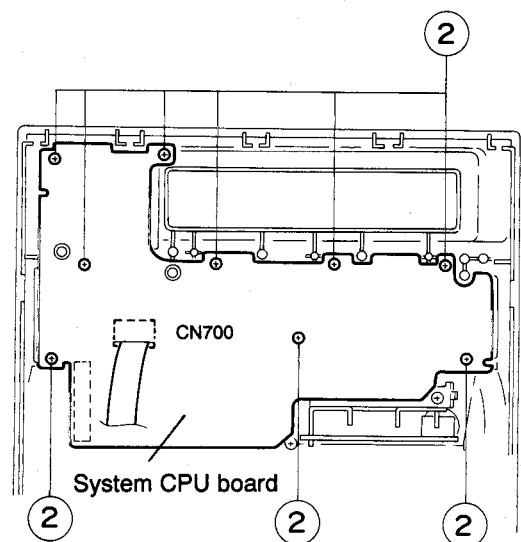


Fig.5-22

■ 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.

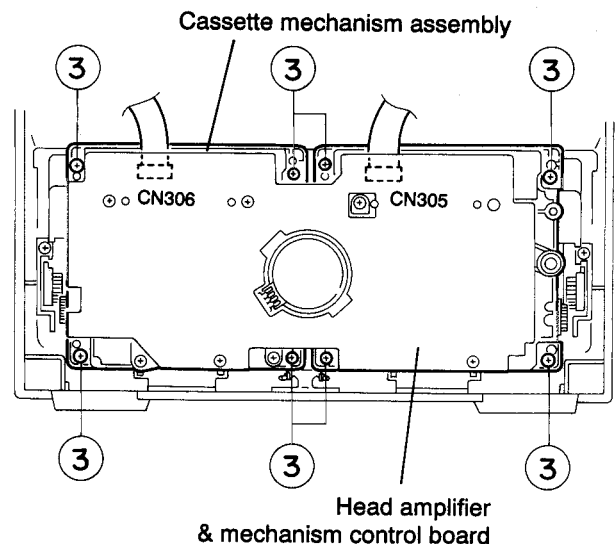


Fig.5-23

《 **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 dismantling the FPC holder, remove the flexible P.C. board.
5. Remove the flexible P.C. board from the chassis base.
6. Remove the spring ③ 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.

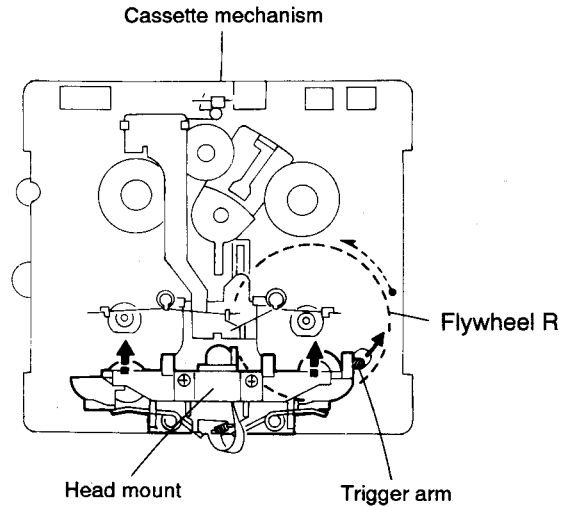


Fig.5-24 (Mechanism A side)

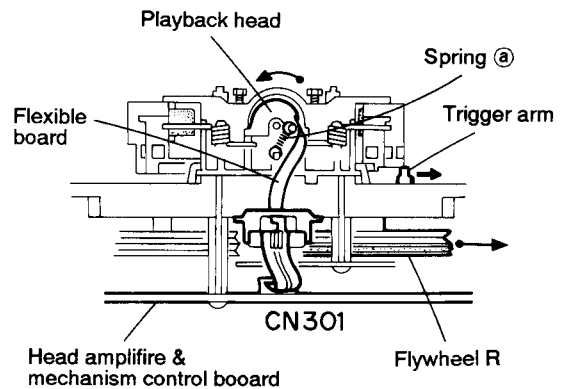


Fig.5-25 (Mechanism A side)

● **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 ③ 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.

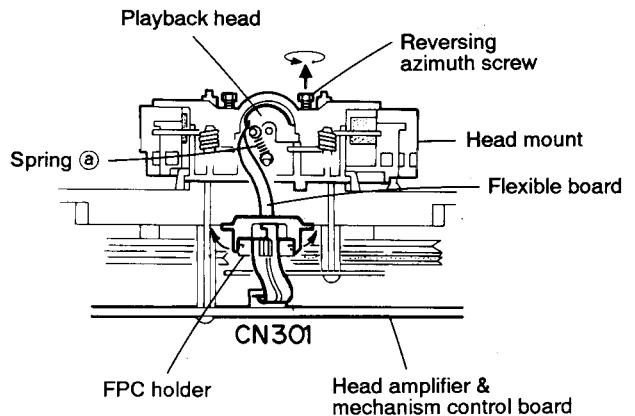


Fig.5-26 (Mechanism B side)

■ 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.

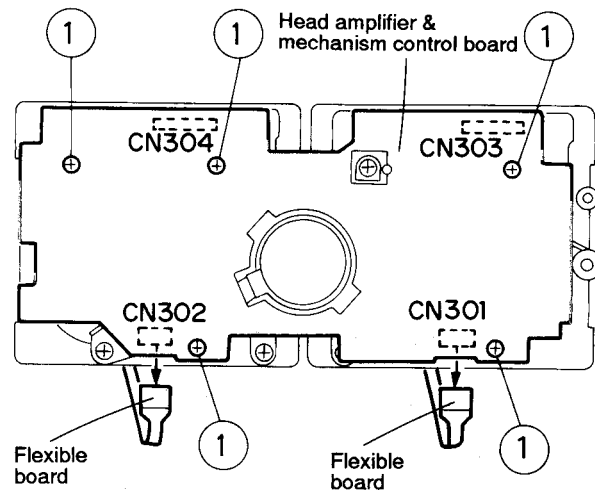


Fig.5-27

■ 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 hung while referring to the capstan belt hanging method in Fig. 5-29,5-30.

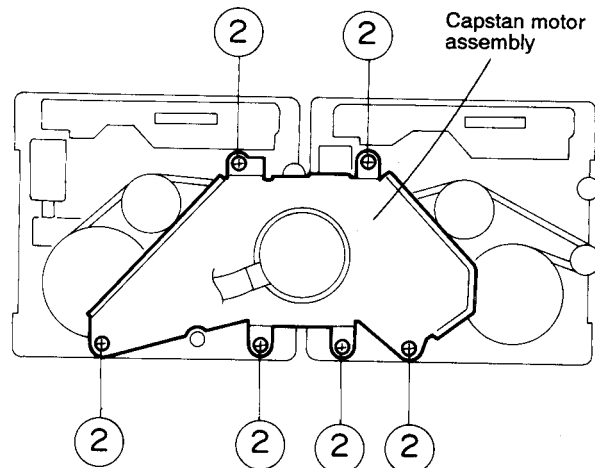


Fig.5-28

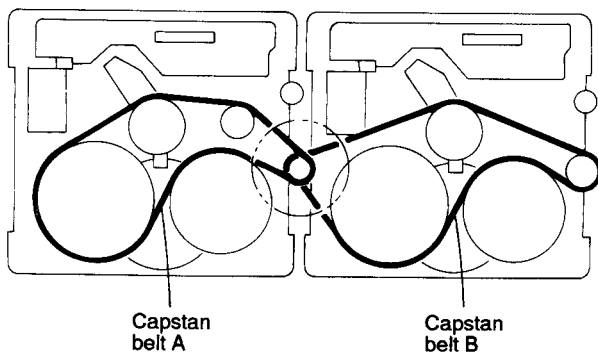


Fig.5-29

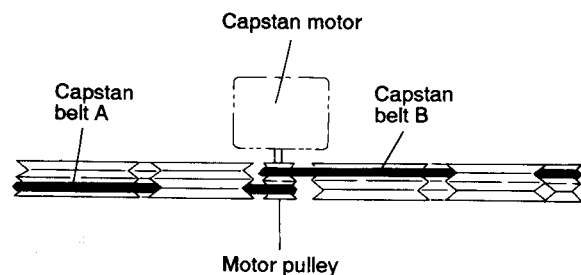


Fig.5-30

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

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

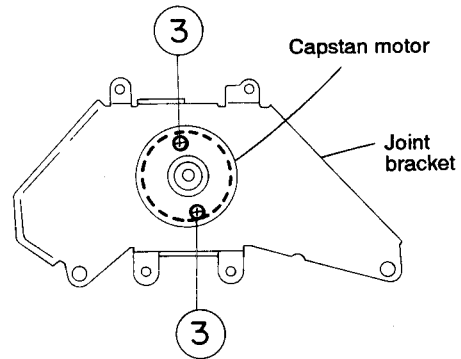


Fig.5-31

■ **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 ① and ② fixing the capstan shafts R and L, and pull out the flywheels R and L respectively from behind the cassette mechanism.

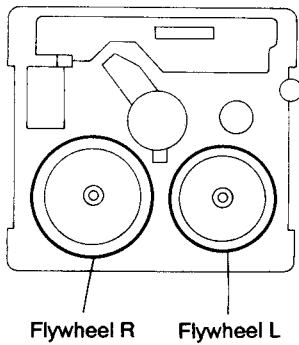


Fig.5-32

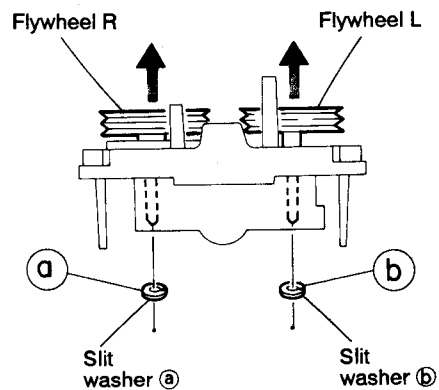


Fig.5-33

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

1. Remove the five pawls (③, ④, ⑤, ⑥ and ⑦) retaining the reel pulse P.C. board.
2. From the surface of the reel pulse P.C. board parts, remove the two pawls ⑧ and ⑨ retaining the solenoid.

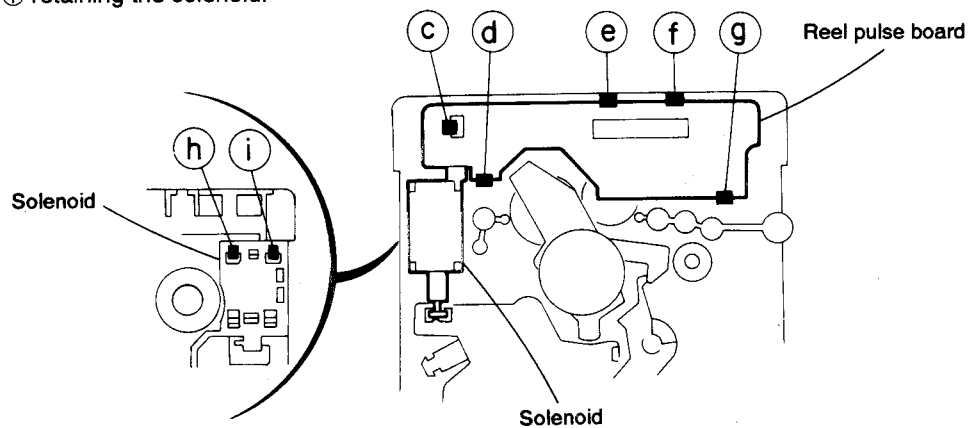


Fig.5-34

《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 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.

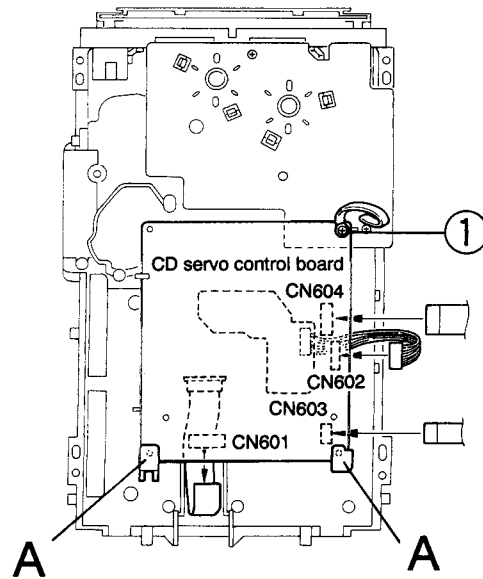


Fig.5-35

■ 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 clamber 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 clamber 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).

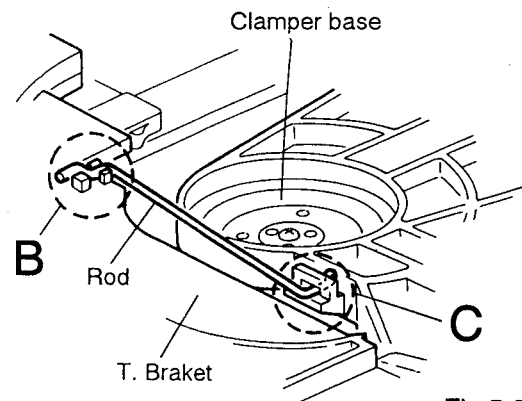


Fig.5-36

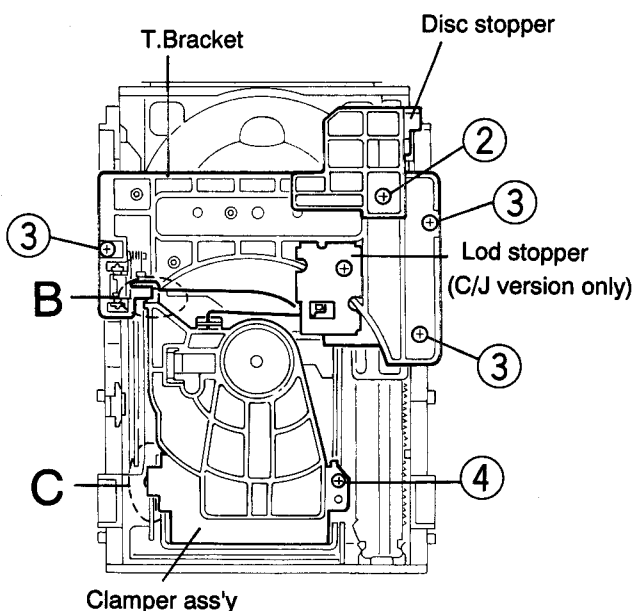


Fig.5-37

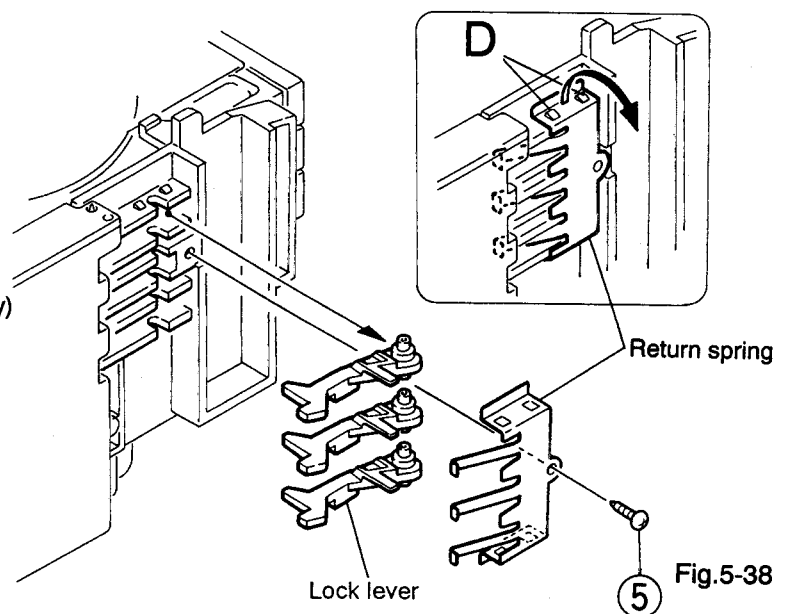


Fig.5-38

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.

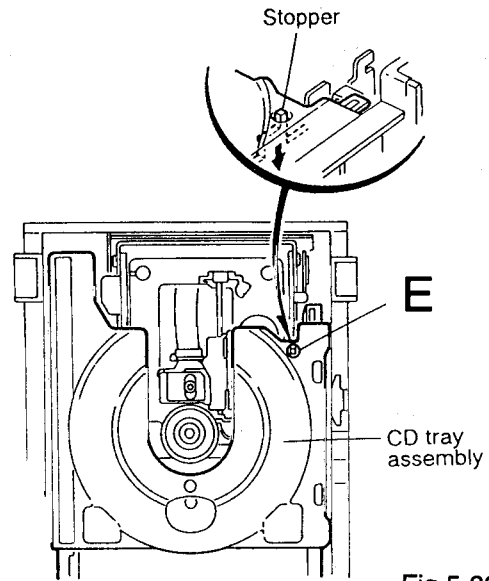


Fig.5-39

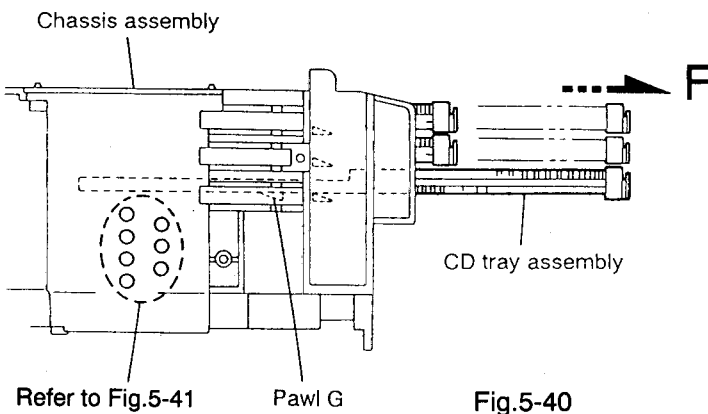


Fig.5-40

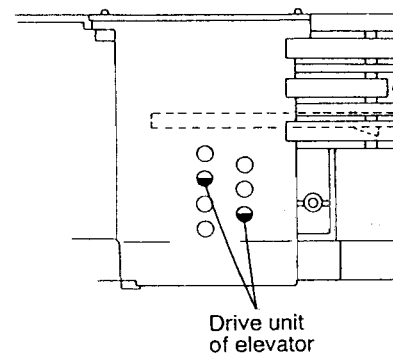


Fig.5-41

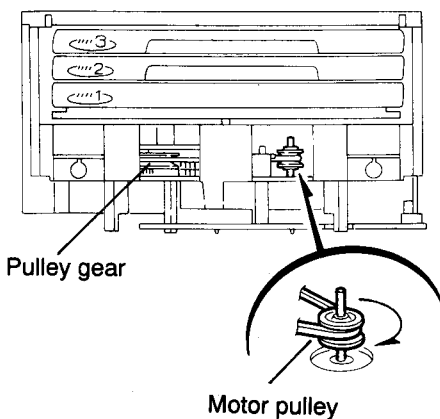


Fig.5-42

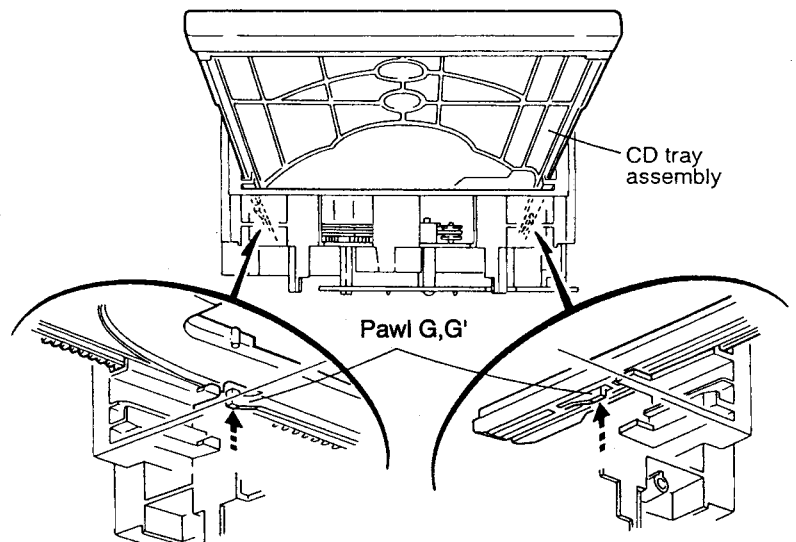


Fig.5-43

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).

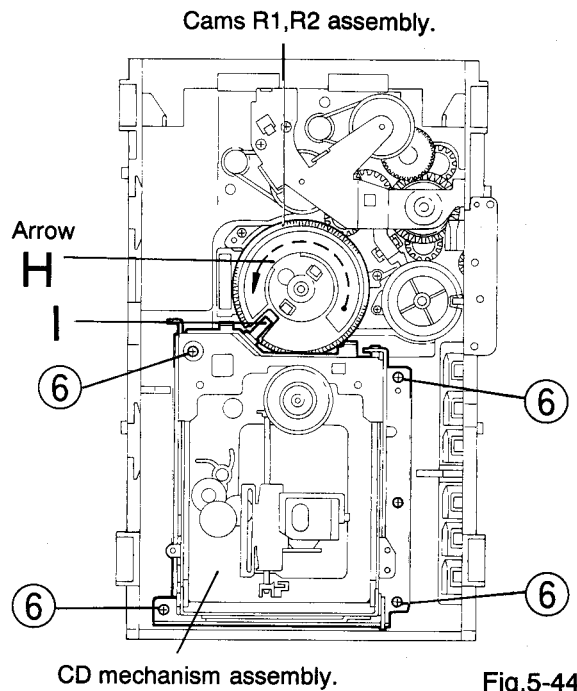


Fig.5-44

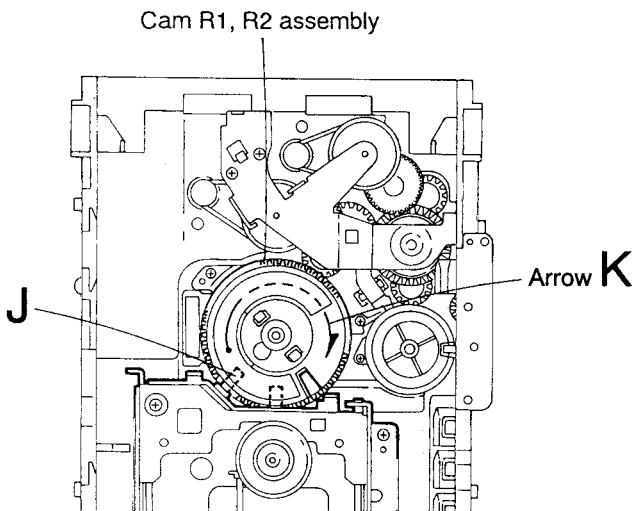


Fig.5-45

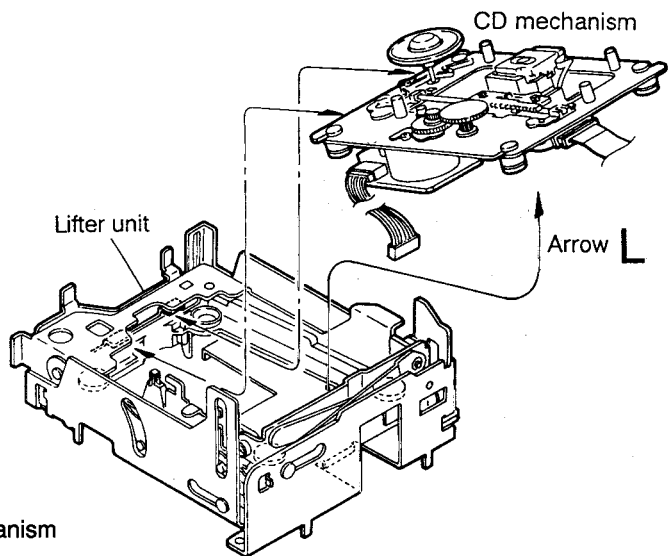


Fig.5-46

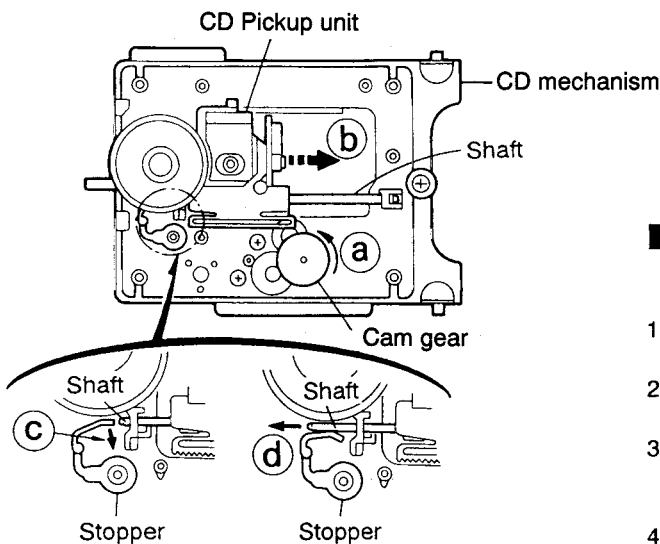


Fig.5-47

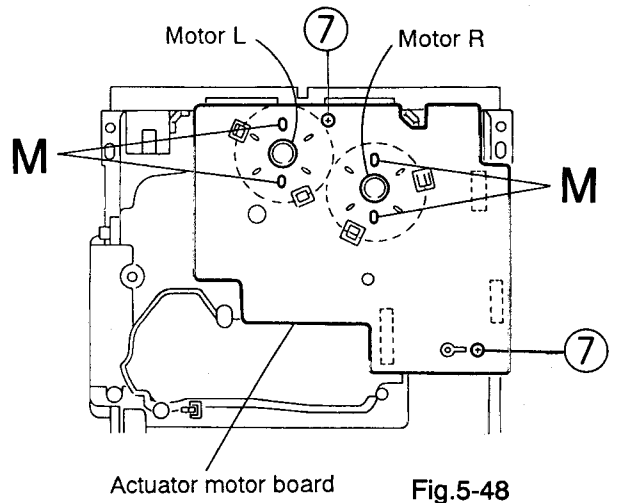
Removing the CD pickup unit (See Fig.5-47)

1. Move the cam gear in the arrow direction ①. Then, the CD pickup unit will be moved in the arrow direction ②.
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 ④ (See Fig.5-47).
4. After dismantling 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).



Actuator motor board Fig.5-48

■ 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).

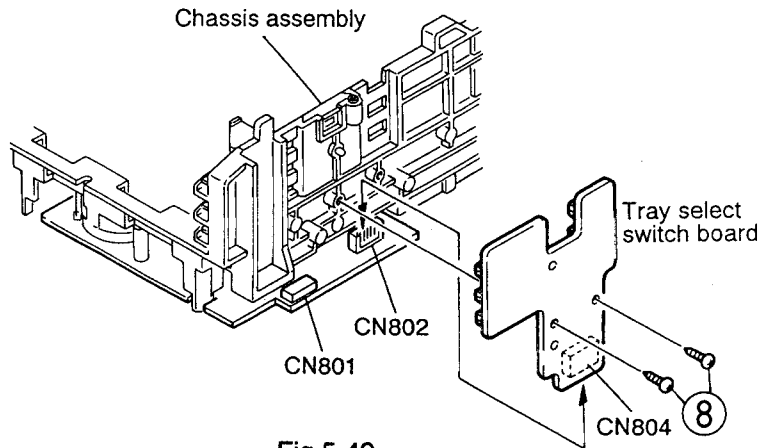


Fig.5-49

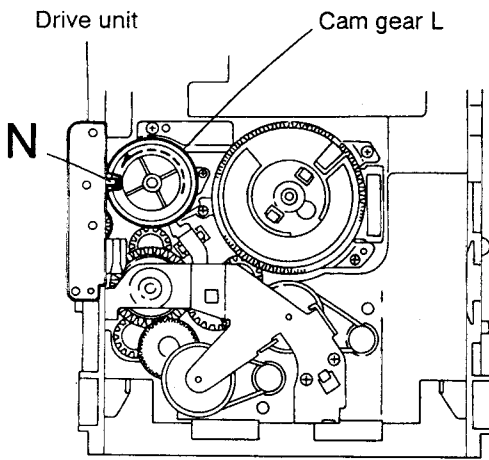


Fig.5-50

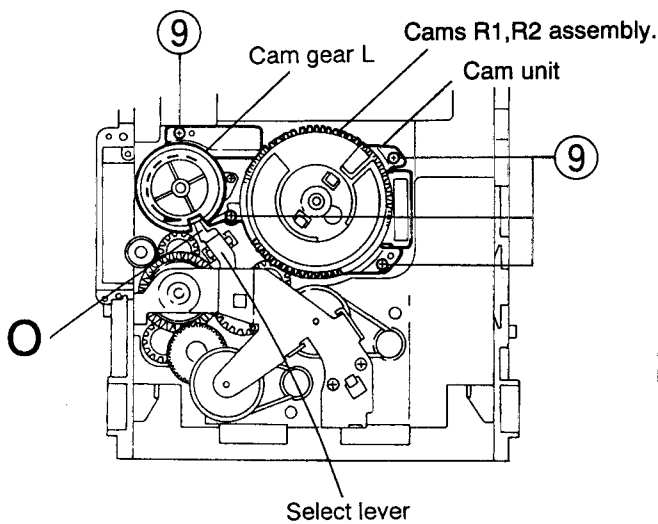


Fig.5-52

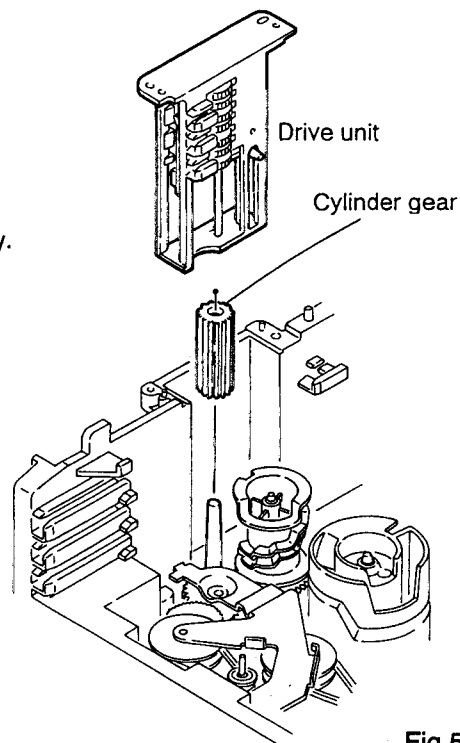


Fig.5-51

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.

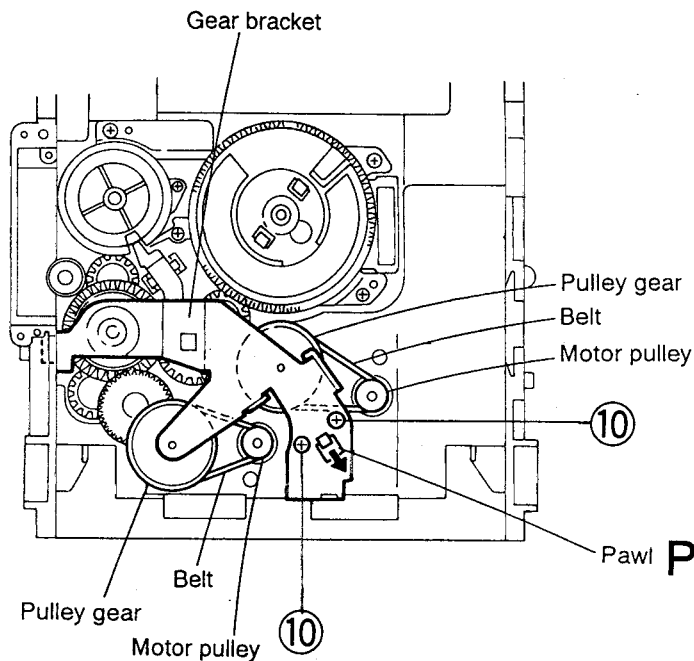


Fig.5-53

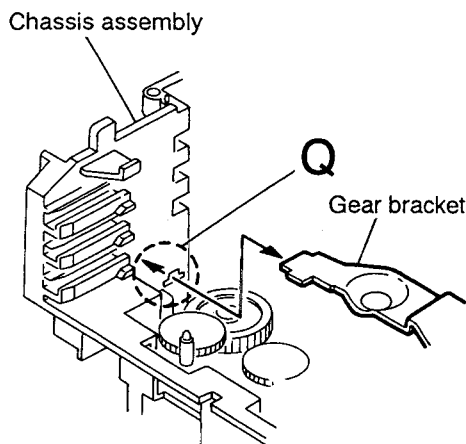


Fig.5-54

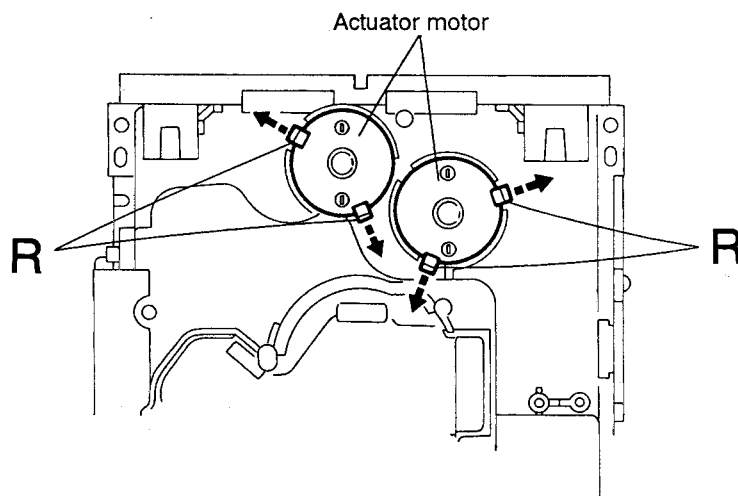


Fig.5-55

Assembly and Configuration Diagram

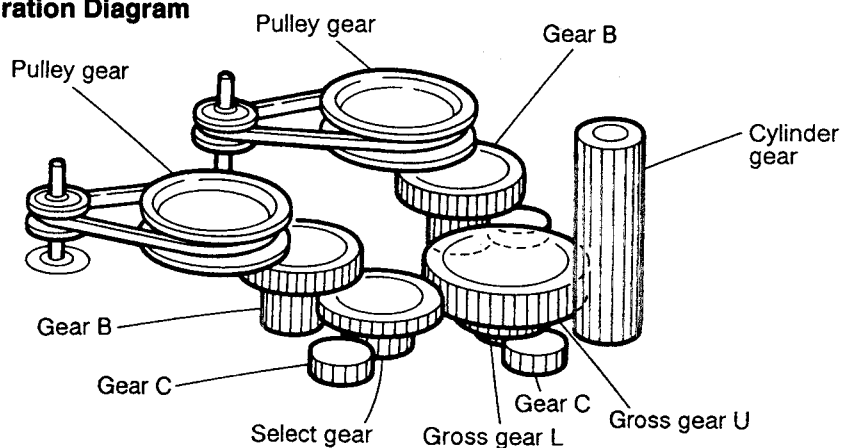


Fig.5-56

■ 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)

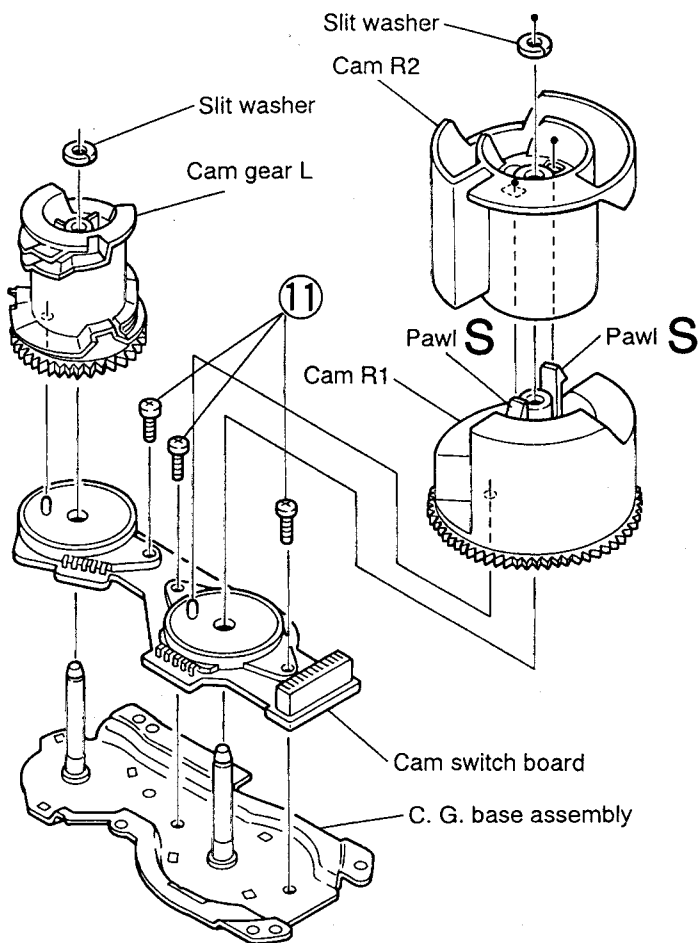


Fig.5-57

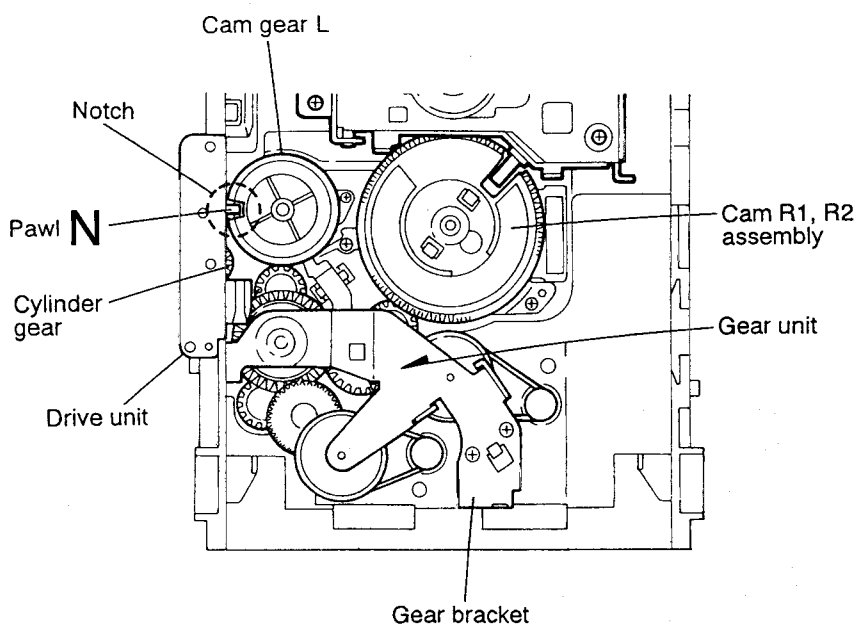


Fig.5-58

《 Speaker unit Section 》

■ **Removing the Saran board** (See Fig. 5-59.)

Hold the Saran board by the two side edges and pull it toward the front in order to detach it from the joint holders.

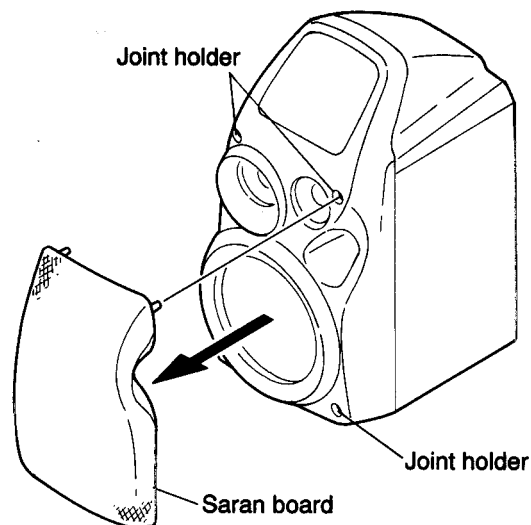


Fig. 5-59

■ **Removing the joint holders** (See Fig. 5-60)

Insert a Phillips screwdriver into each joint holder and remove it by levering. To avoid damaging the wooden cabinet, place a piece of batten wood as shown in Fig. 5-60.

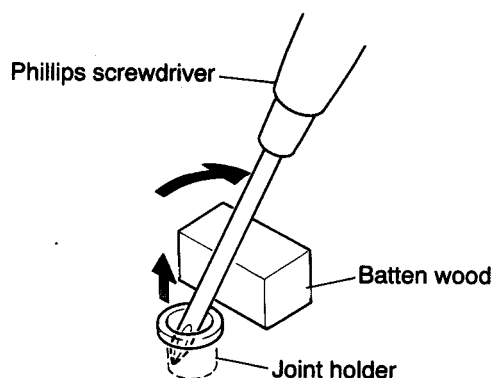


Fig. 5-60

■ **Removing the ornament panel** (See Figs. 5-61 to 5-64.)

1. Remove the Saran board.
2. Remove the joint holders.
3. Remove the four screws ① which retain the ornament panel from the front. (See Fig. 5-61.)

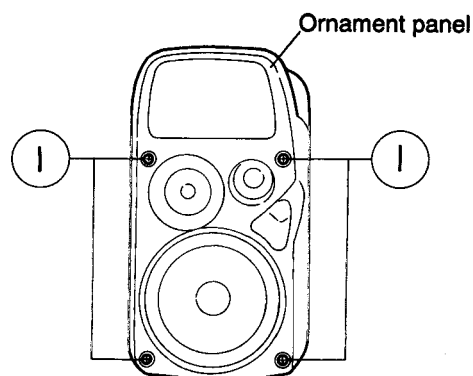


Fig. 5-61

4. Remove the two screws ② which retain the ornament panel from the rear. (See Fig. 5-62.)
5. Detach the ornament panel at the front of the speaker from the wooden cabinet by flipping it up from the lower edge. (See Fig. 5-63.)
6. Detach the ornament panel from the wooden cabinet from the rear and remove it. (See Fig. 5-64.)

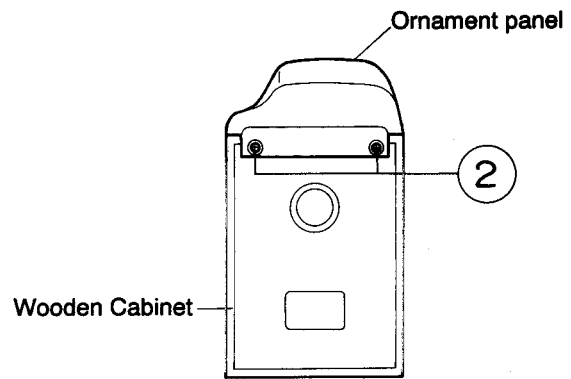


Fig. 5-62

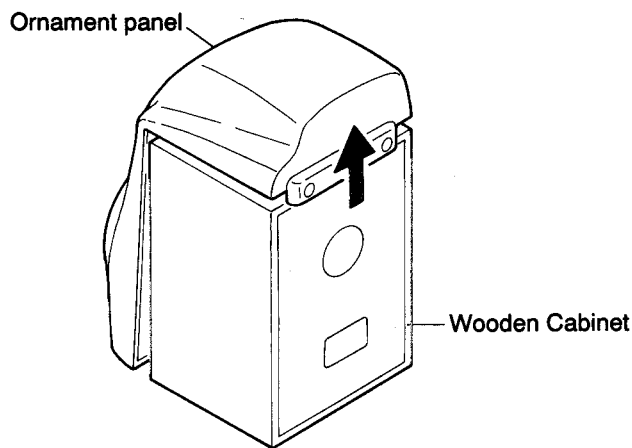


Fig. 5-63

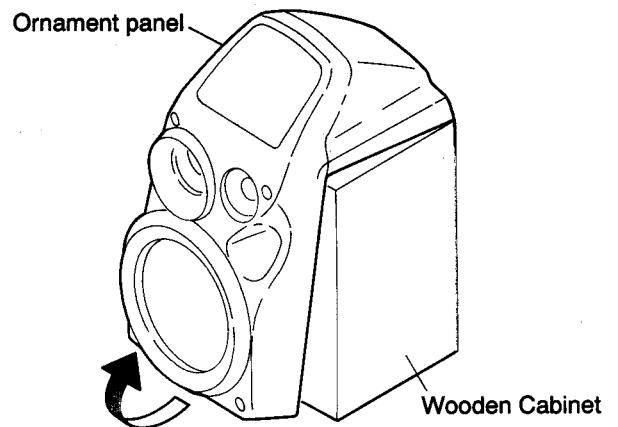


Fig. 5-64

■ **Removing the speaker units**

1. Remove the Saran board.
2. Remove the joint holders.
3. Remove the ornament panel.
4. Remove each of the speaker units by referring to the exploded view of the speaker unit (page 9-5).

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:B/E/EN/G/VX)
 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 characteristicsAUX: - 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

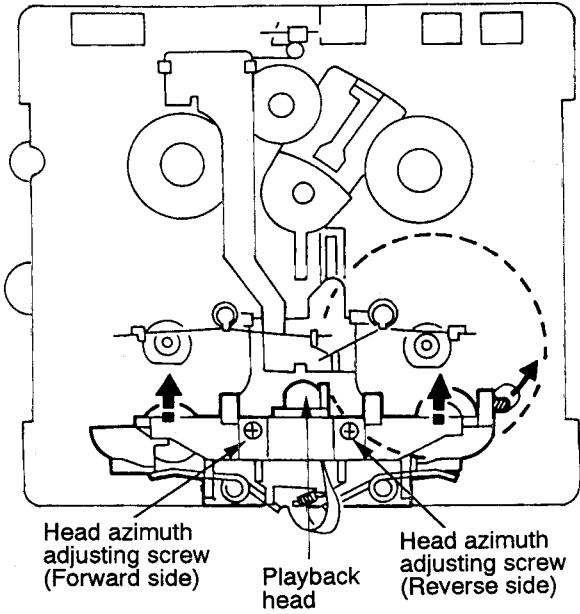
Sound mode Flat position
 Super-bas Off
 Up and down adjustment of volume.....VOL. 23

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)

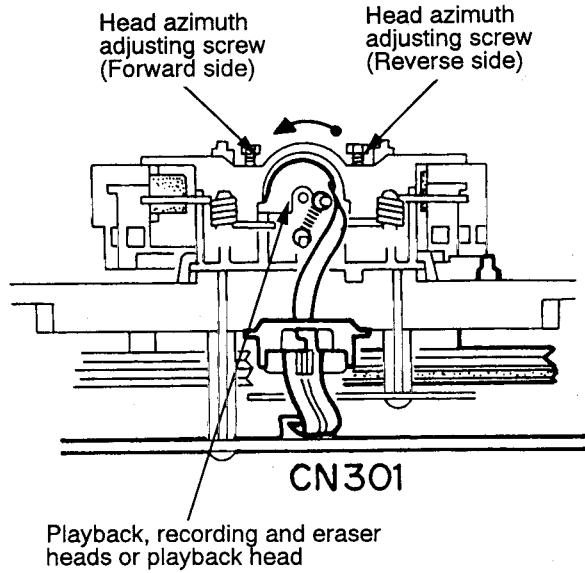


Fig.6-1

■ Cassette Mechanism Unit Section

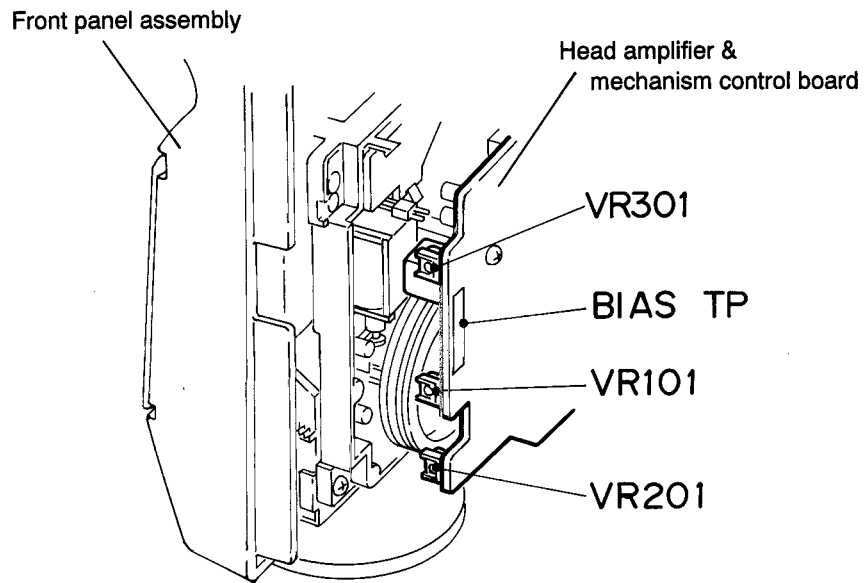


Fig.6-2

■ 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 3,010Hz ± 15Hz 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) : 3,010Hz ± 15Hz	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/-300Hz when the test tape VTT712 (3kHz) has been played back with the playback mechanism.	4,800 +400/-300Hz	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"> Mode: Forward or reverse mode Recording mode Test tape : AC-514 and AC-225 Measurement output terminal : Both recording and headphone terminals	<ol style="list-style-type: none"> 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. After connecting 100 Ω in series to the recorder head, measure the bias current with a valve voltmeter at both of the terminals. 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 4.0 μ A (TYP I) and 4.20 μ A (TYP II). 	AC-225 : 4.20 μ A AC-514 : 4.0 μ A	LcH :VR101 RcH :VR201
Adjustment of recording and playback frequency characteristics	Reference frequency : 1kHz and 10kHz (REF.: -20DB) Test tape : TYP II: AC-514 Measurement input terminal : OSC IN	<ol style="list-style-type: none"> 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. While repetitively inputting the reference frequency signal of 1kHz and 10kHz from OSC IN, record and play back the test tape. 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 -1dB ± 2dB. 	Output deviation between 1kHz and 10kHz : -1dB ± 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"> Recording and playback side forward or reverse Test tape : TYP II: AC-514 Measurement terminal: BIAS TP on P.C. board 	<ol style="list-style-type: none"> While changing over to and from BIAS 1 and 2, confirm that the frequency is changed. 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. Confirm that the BIAS TP frequency on the P.C. board is 100kHz ± 6kHz. 	100kHz ± 6kHz	
Eraser current (Reference value)	<ul style="list-style-type: none"> Recording and playback side forward or reverse Recording mode Test tape : AC-514 and AC-225 Measurement terminal: Both of the eraser head	<ol style="list-style-type: none"> 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. After setting to the recording conditions, connect 1W in series to the eraser head on the recording and playback mechanism side, and measure the eraser current from both of the eraser terminals. 	TYP II : 120mA TYP I : 75mA	

7.Out Line of Main IC

■ IC701 : μ PD78044FGF-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	SOCK	0	Sub Code Clock
15	NC		Non connection
16	SUBO/RDA	I	Sub Code Data/RDS Data
17	REST	I	System Reset
18	A REEL	I	Tape A mechanism runing detection
19	B REEL	I	Tape B mechanism runing 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	BUPE	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

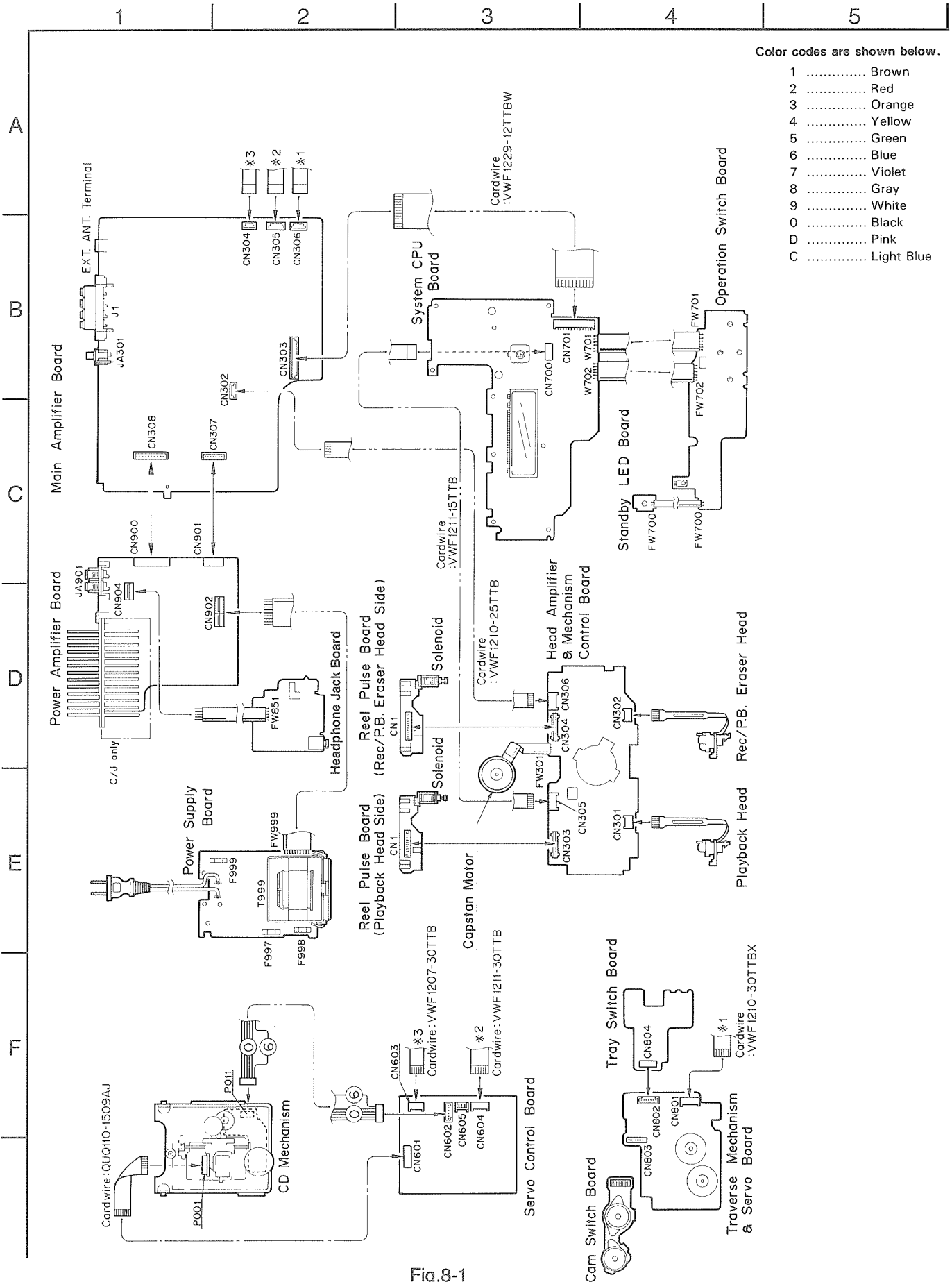
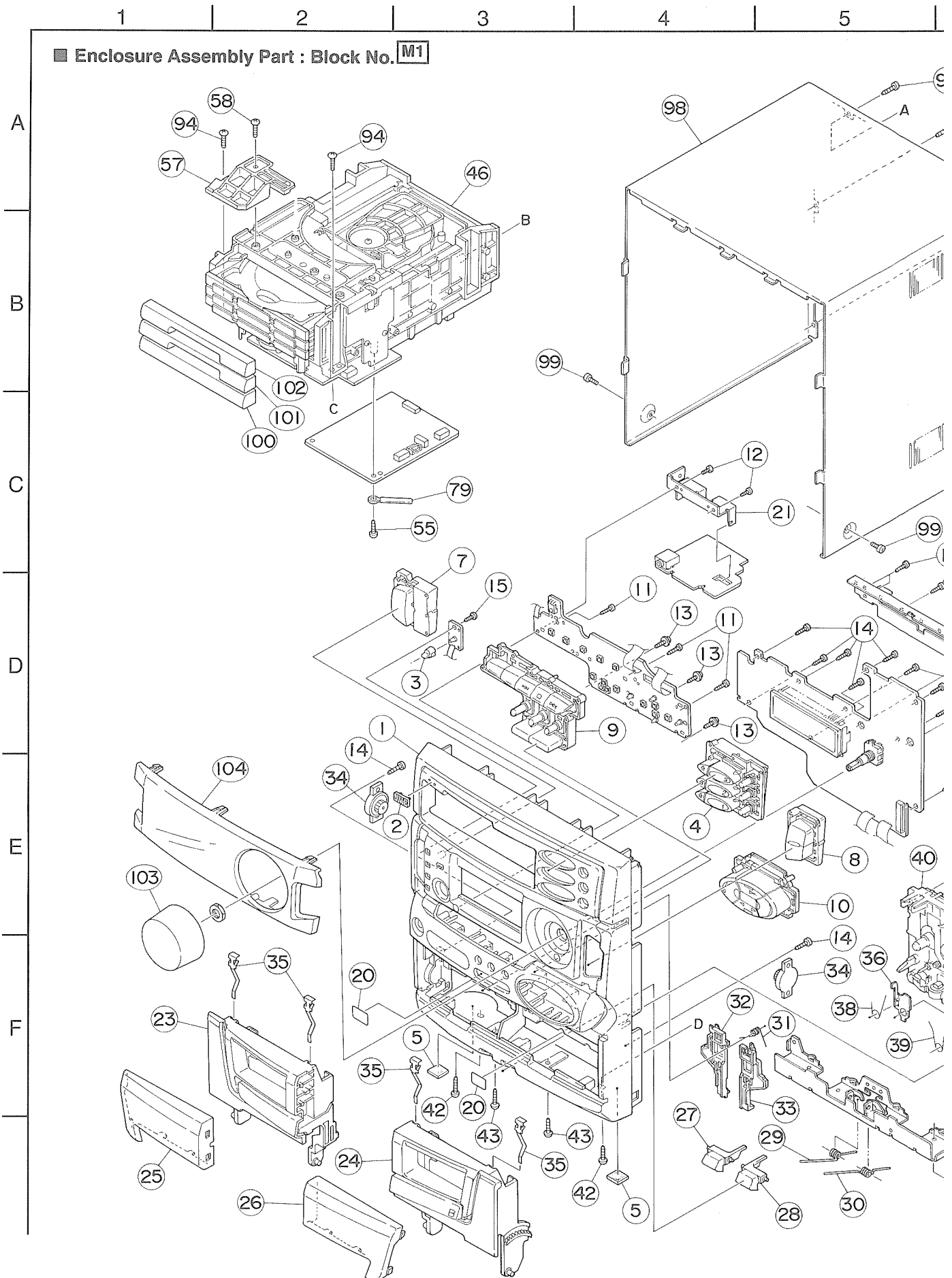
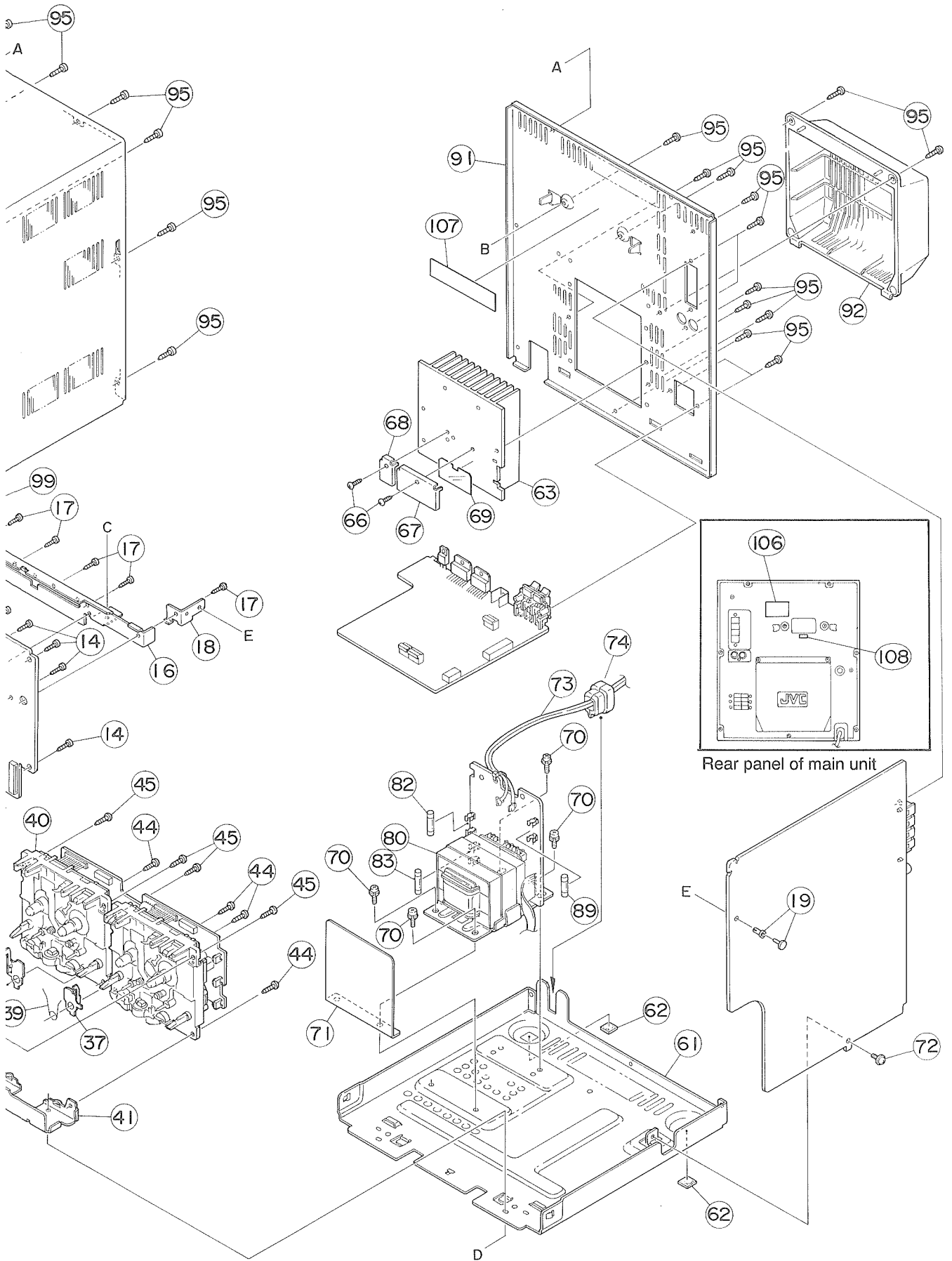


Fig.8-1

9. Analytic Drawing and Parts List





■ Enclosure Assembly Parts List

BLOCK NO.

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
1	FMJC1015-002	FRONT PANEL		1		
2	E406971-001SM	JVC MARK		1		
3	FMJK4013-001	STANDEBY 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	GBSF2608Z	SCREW		3		
12	SDSF2610Z	TAPPING SCREW		2		
13	GBSF2608Z	SCREW		3		
14	SDSF2608Z	SCREW		11		
15	GBSF2608Z	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		
56	VYSA1R2-033	SPACER		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	T.SCREW		2		
67	FMKL4007-001	BRACKET		1		
68	FMKL4015-001	BRACKET		1		
69	FMPK4003-001	MICA SHEET		1		

BLOCK NO. M1MM1111

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	QMP39EO-200	POWER CORD		1	E,EN,G	
	QMP5530-0085BS	POWER CORD		1	B	
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	FUSE	F999	1		
91	FMJC1016-013KP	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	FMJK2004-002	WINDOW SCREEN		1		
106	E70891-001	CLASS 1 LABEL		1		
107	E406709-001	CAUTION LABEL		1		
108	E408919-001	BEAB LABEL		1	B	
C 555	FMND4008-001	SEMKO LABEL		1	E,EN,G	
	QCS31HJ-331Z	CER.CAPACITOR-S	330PF 5% 50V	1		

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■ CD Traverse Mechanism Part : Block No. **M2**

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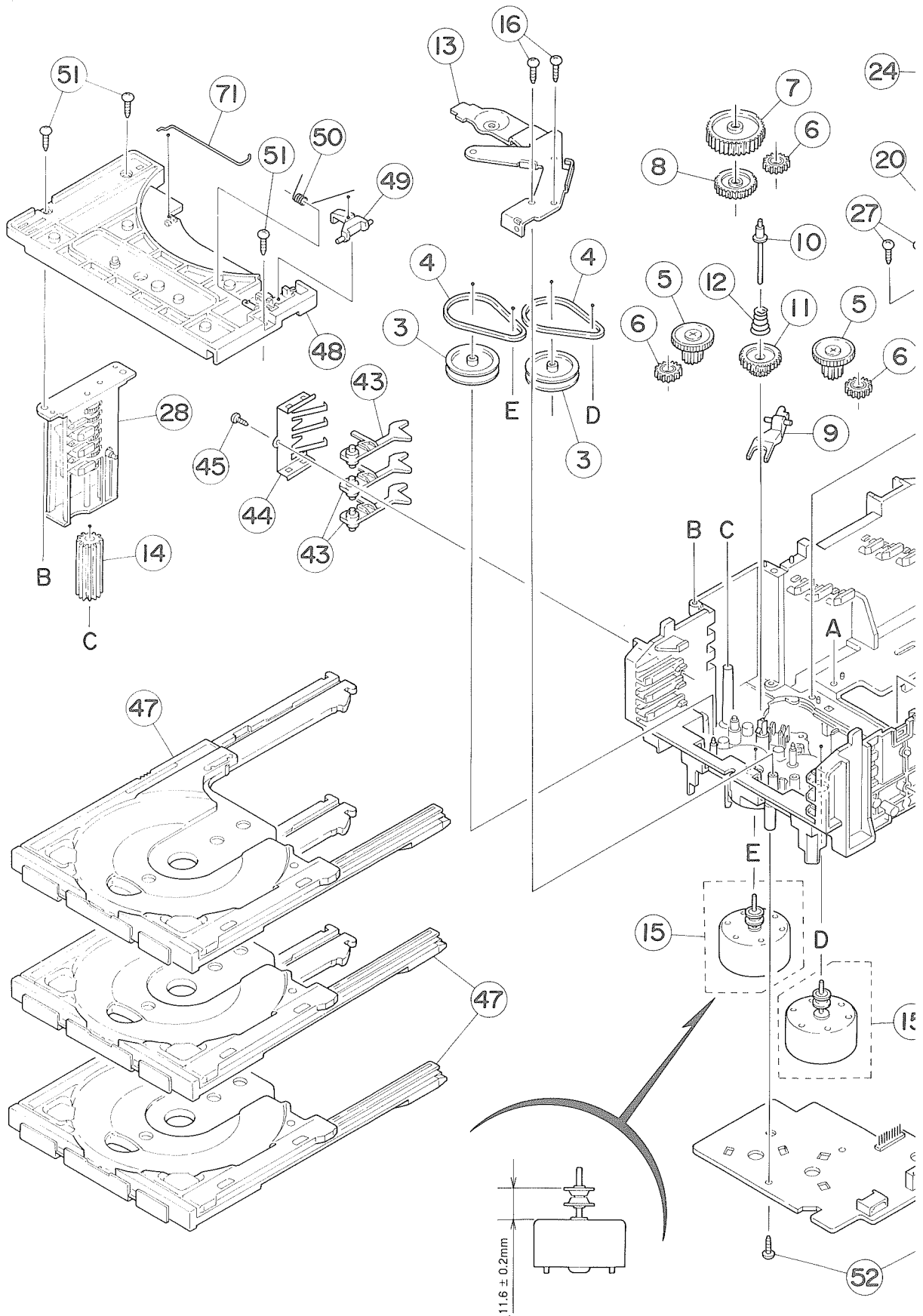
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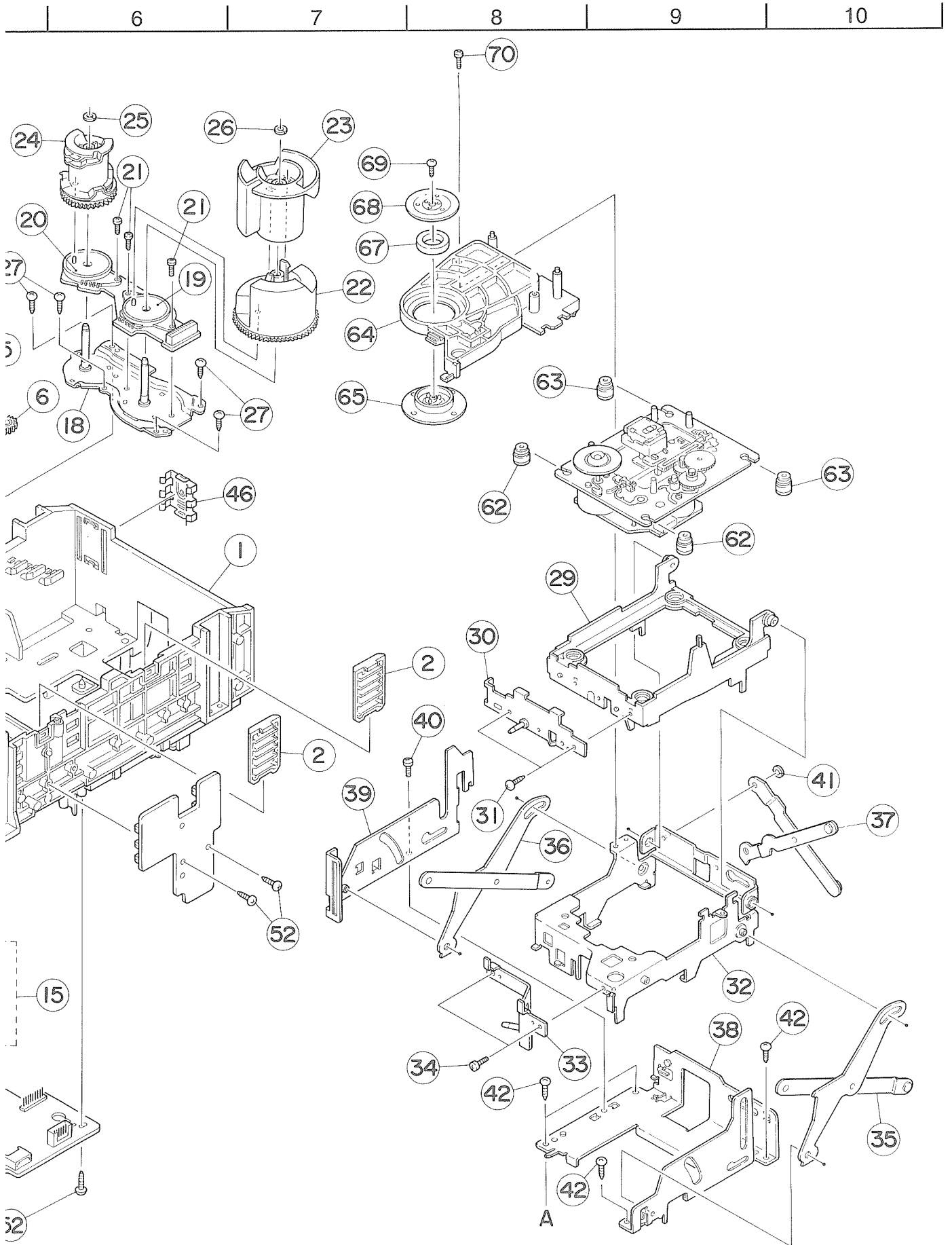
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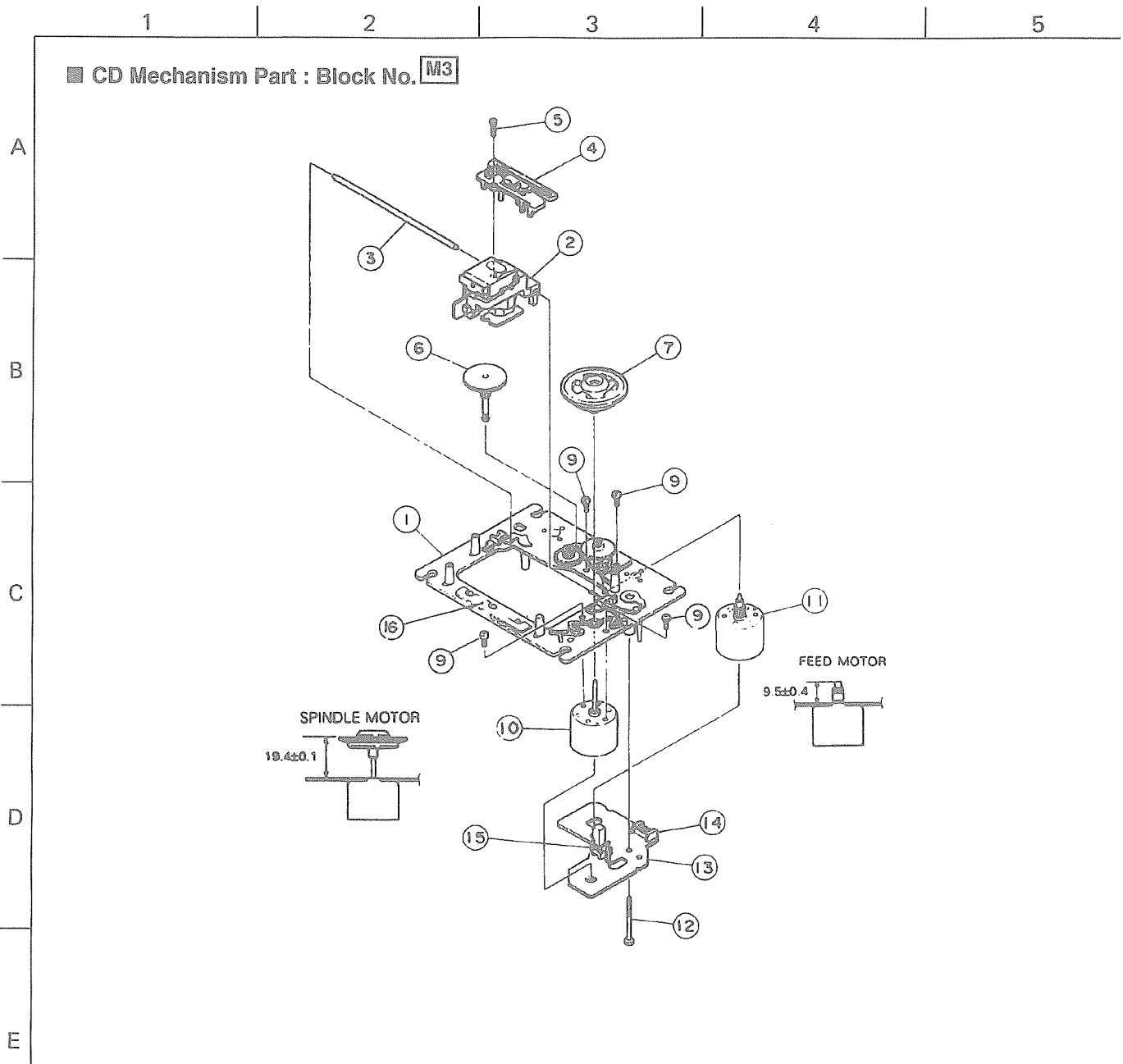




■ CD Traverse Mechanism Parts List

BLOCK NO. M2MM III

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
1	VKS1144-003	AHASSIS		1		
2	VKS3698-003	TRAY GUIDE		2		
3	VKS5532-003	PULLEY GEAR		2		
4	VKB3000-164	BELT		2		
5	VKS5505-003	GEAR B		2		
6	VKS5506-002	GEAR C		3		
7	VKS5507-002	CROSS GEAR U		1		
8	VKS5508-002	CROSS GEAR L		1		
9	VKS5510-003	SELECT LEVER		1		
10	VKH5769-001	S.G.SHAFT		1		
11	VKS5511-002	SELECT GEAR		1		
12	VKW5155-003	COMP.SPRING	FOR SELECT GEAR	1		
13	VKM3846-002	GEAR BRACKET		1		
14	VKS5509-002MM	CYLINDER GEAR		1		
15	MSN5D257A-SA2	D.C.MOTOR		2		
16	DPSP2616Z	SCREW	FOR MOTOR	2		
18	VKM3825-00AMM	C.G.BASE ASS'Y		1		
19	VKZ3172-00A	CAM SW. R ASS'Y		1		
20	VKZ3172-00A	CAM SW. L ASS'Y		1		
21	SPST2606Z	SCREW	FOR CAM SW.	3		
22	VKS2263-002MM	CAM R1		1		
23	VKS2264-002MM	CAM R2		1		
24	VKS2265-002MM	CAM GEAR L		1		
25	WDL316050	SLIT WASHER	FOR CAM GEAR L	1		
26	WDL316050	SLIT WASHER		1		
27	SBSF2608Z	SCREW	FOR C.GEAR BASE	4		
28	VKS3702-00FMM	DRIVE UNIT		1		
29	VKS2247-004	MECHA HOLDER A		1		
30	VKL7767-00B	BRACKET ASS'Y		1		
31	SBSF2606Z	SCREW	FOR BRACKET	2		
32	VKM3860-00A	M.HOLDER B AS'Y		1		
33	VKL7802-00C	M.HOLDER C AS'Y		1		
34	SDST2604Z	SCREW	FOR M.HOLDER C	2		
35	VKL7810-00A	LIFTER ASS'Y R		1		
36	VKL7811-00A	LIFTER ASS'Y L		1		
37	VKL7812-00A	LIFTER ASS'Y H		1		
38	VKL2732-002	LIFTER BASE		1		
39	VKM3823-001	LIFTER BRACKET		1		
40	SDST2604Z	SCREW		1		
41	WDL266035-2	SLIT WASHER		1		
42	SBSF2608Z	SCREW		4		
43	VKS5514-002MM	LOCK LEVER		3		
44	VKY3133-002MM	RETURN SPRING		1		
45	SBSF2608Z	SCREW	FOR RETURN SP.	1		
46	VKY3134-003MM	CLICK SPRING		1		
47	VKS2252-00DMM	TRAY ASS'Y		3		
48	VKS2250-003	TOP BRACKET		1		
49	VKS5515-002	S.TRAY STOPPER		1		
50	VKW5156-004	TORSION SPRING		1		
51	SBSF2608Z	SCREW		3		
52	SBSF2608Z	SCREW		4		
62	FMYH4003-002	INSULATOR		2		
63	FMYH4003-001	INSULATOR		2		
64	VKS3703-00FMM	CLAMPER		1		
65	-----	CD MECHA ASS'Y		1		
70	SPST2606Z	TAPPING SCREW		1		
71	VKW5187-001	ROD		1		



■ CD Mechanism Parts List

BLOCK NO. **M3MM**

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
2	OPTIMA-6S	C.D PICK UNIT	E11363	1		
3	E407782-001	CD SHAFT		1		
4	E307746-001	CD RACK		1		
5	SDSF2006Z	SCREW		1		
6	EPB-003A	MECHA GEAR		1		
7	E75807-302	TURN TABLE		1		
9	SDSP2003N	SCREW	FOR SP MOTOR	4		
10	E406783-001	SP MOTOR		1		
11	E406784-001	FEED MOTOR		1		
12	E75832-001	S.SCREW	FOR M.CB	1		
13	EMW10190-001	PRINTED BOARD		1		
14	EMV5109-006B	CONN.TERMINAL		1		
15	ESB1100-005	LEAF SWITCH		1		
16	E407212-001	DAMPER		1		

1 | 2 | 3 | 4 | 5

■ Cassette Mechanism Part : Block No. **M4**

A

Deck A

Deck B

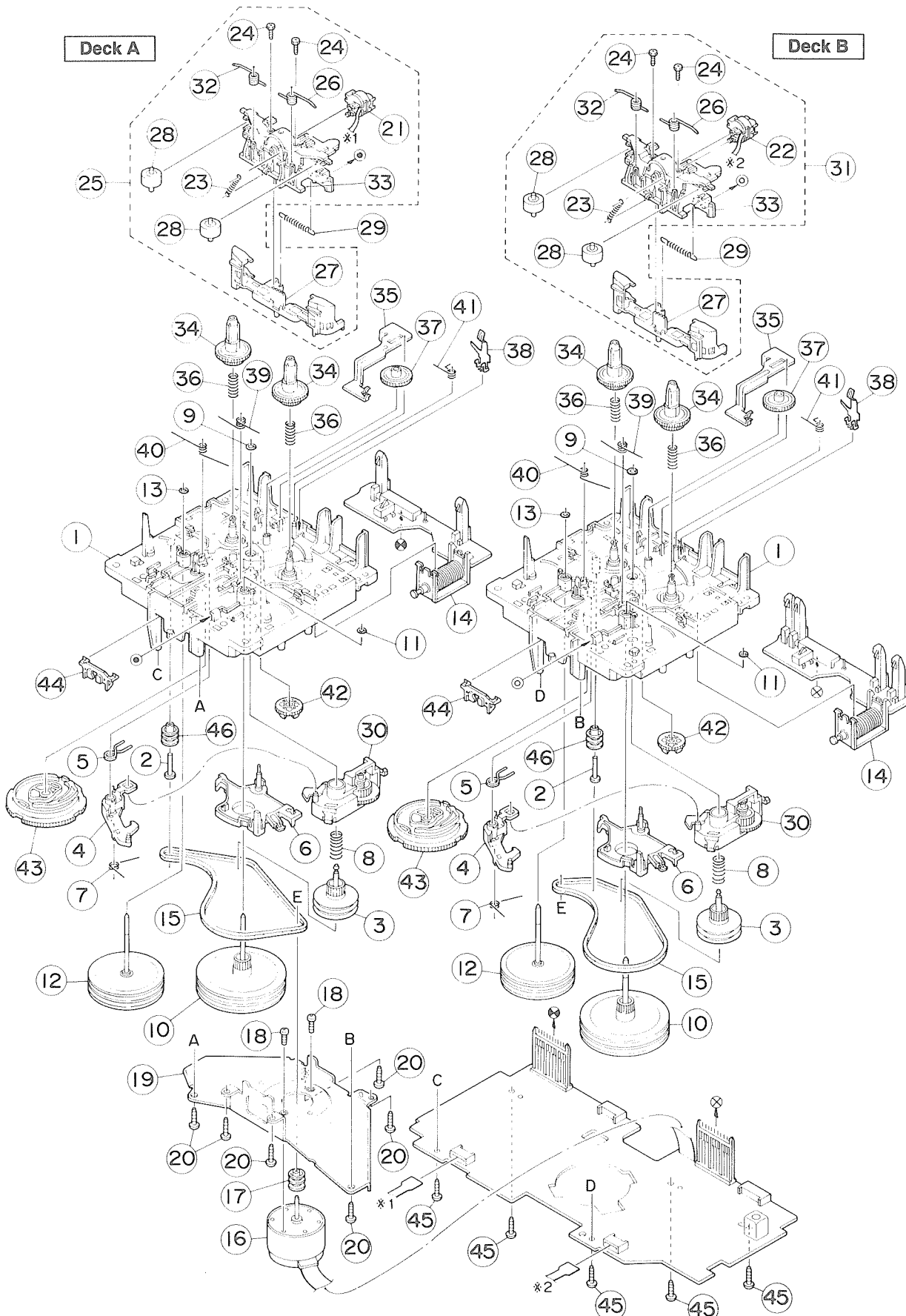
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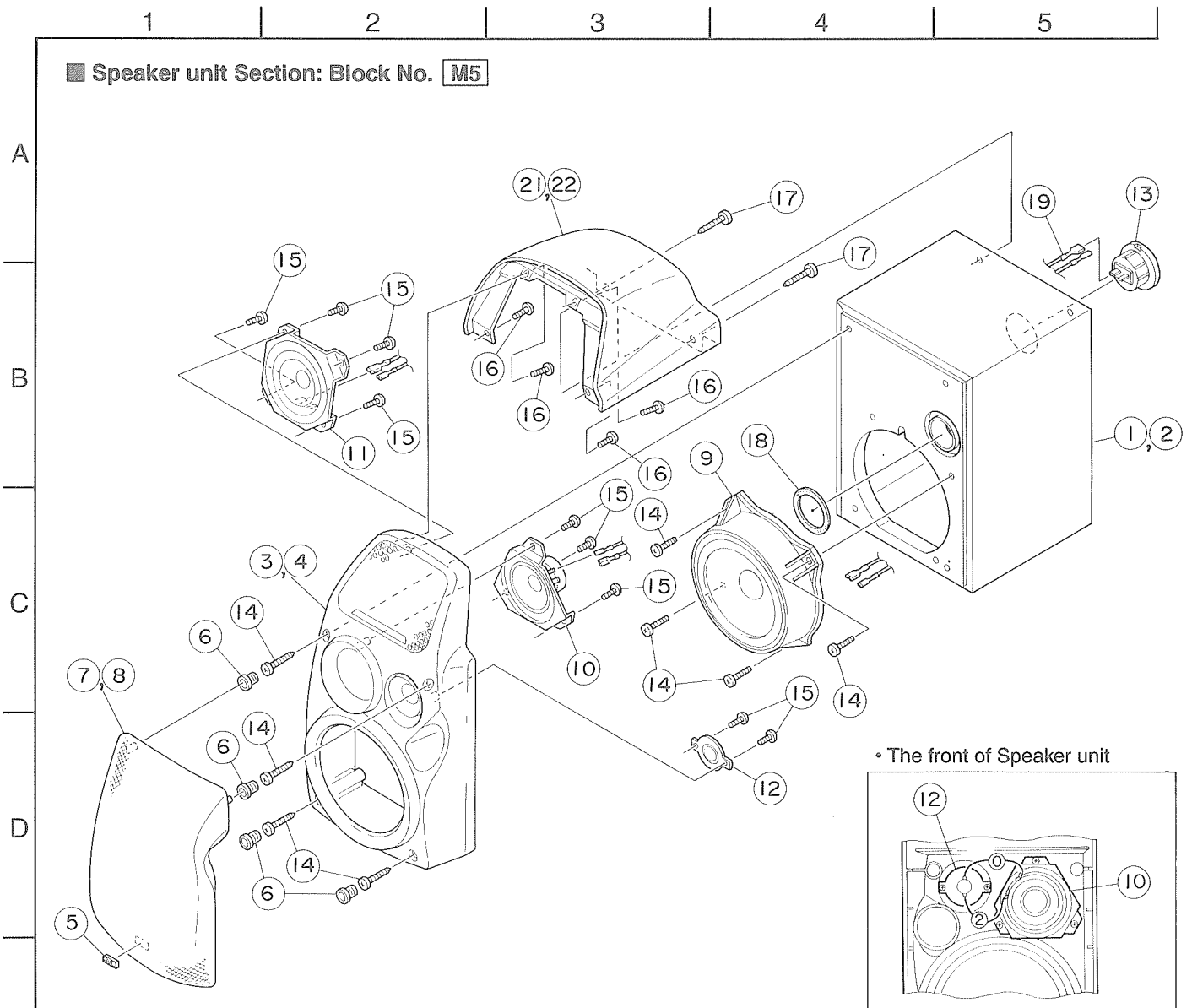
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■ Speaker unit Section: Block No. **M5**

• The front of Speaker unit

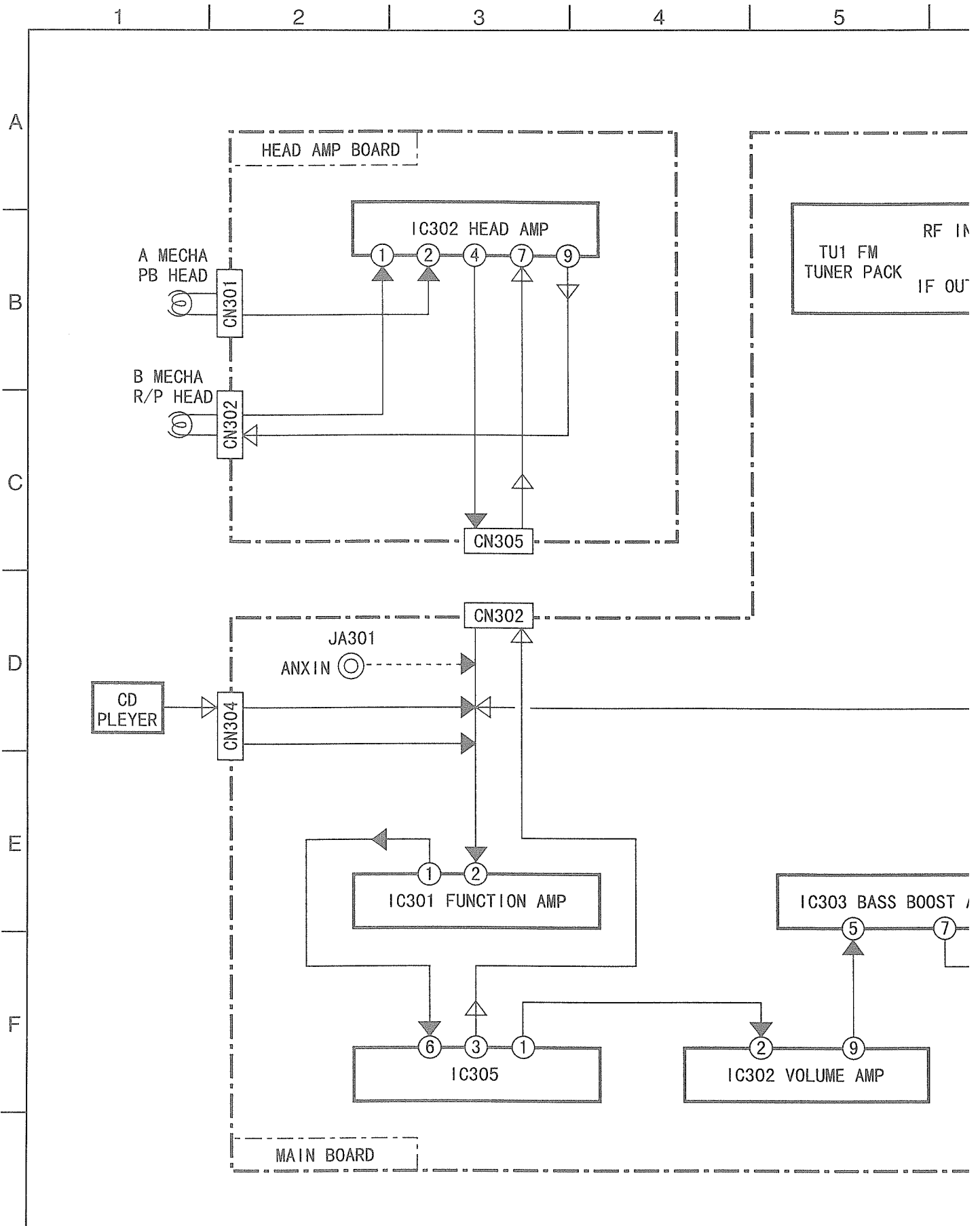
■ Speaker unit Section Parts List

BLOCK NO. **M5MM**

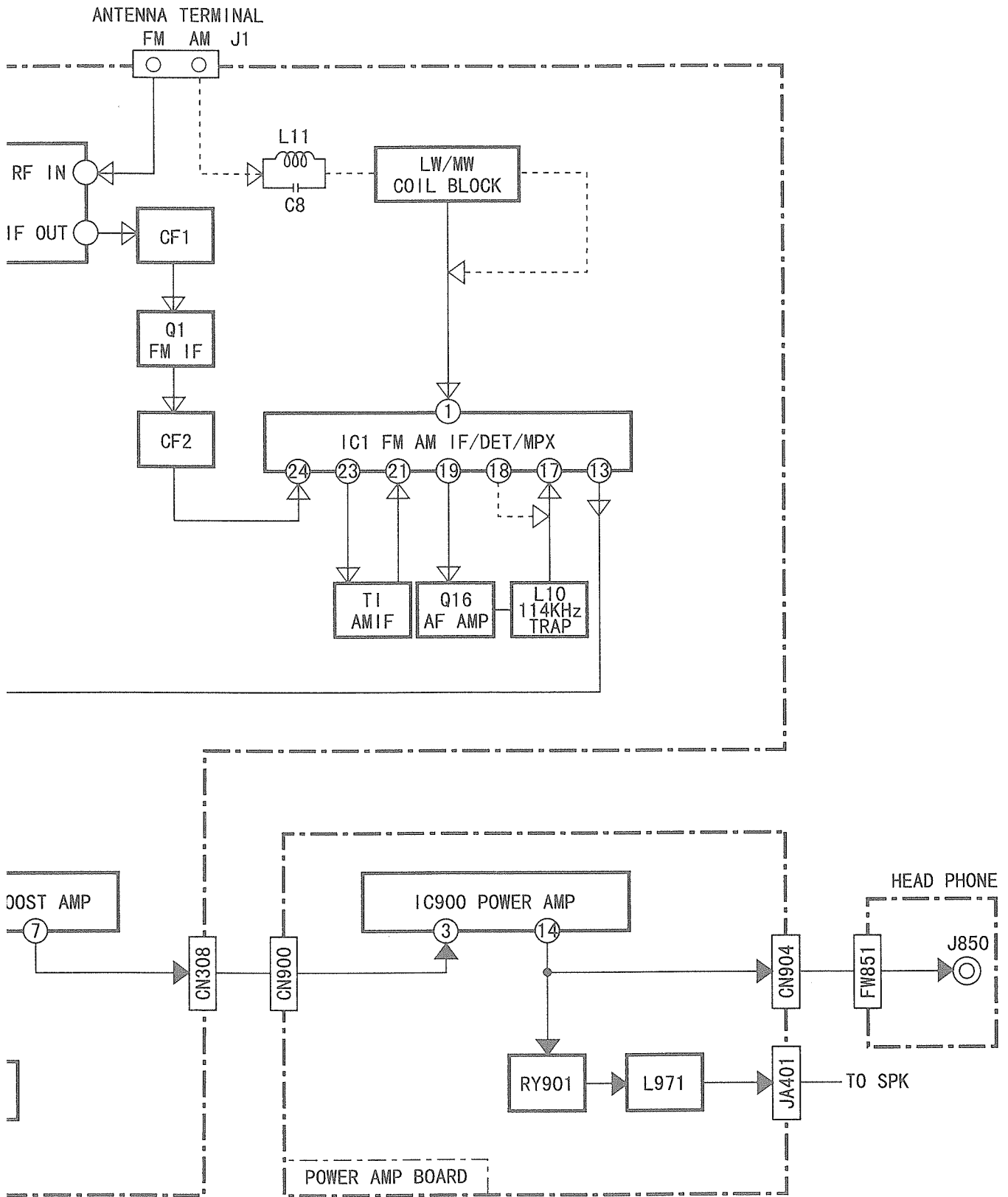
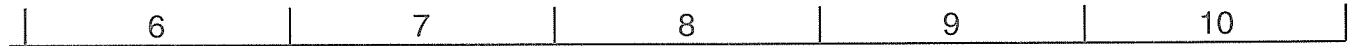
△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	EZC-SP-D5TR	WOOD CABINET		1		
	2	EZC-SP-D5TL	WOOD CABINET		1		
	3	E309698-003	ORNAMENT PANEL	RIGHT	1		
	4	E309698-004	ORNAMENT PANEL	LEFT	1		
	5	E75939-001	JVC MARK		1		
	6	E407076-001	JOINT HOLDER		4		
	7	E103105-005	SARAN BOARD	RIGHT	1		
	8	E103105-006	SARAN BOARD	LEFT	1		
	9	HSA1699-03N	CONE SPEAKER		1		
	10	HSA0799-01L	CONE SPEAKER		1		
	11	HSA0899-02H	CONE SPEAKER		1		
	12	E409044-001	TWEETER ASSY		1		
	13	E03823-092	SPK. TERMINAL		1		
	14	SDSA4020Z	TAPPING SCREW		8		
	15	SBSF4008Z	TAPPING SCREW		9		
	16	SBSF4010Z	TAPPING SCREW		4		
	17	SDSA4020M	SCREW		2		
	18	E408987-001	SPACER		1		
	19	E409191-001	SPEAKER NETWORK		1		
	21	E309915-001	TOP COVER	RIGHT	1		
	22	E309915-002	TOP COVER	LEFT	1		

-MEMO-

10. Block Diagram



MX-D551TR



11. Standard Schematic Diagram

1 | 2 | 3 | 4 | 5

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

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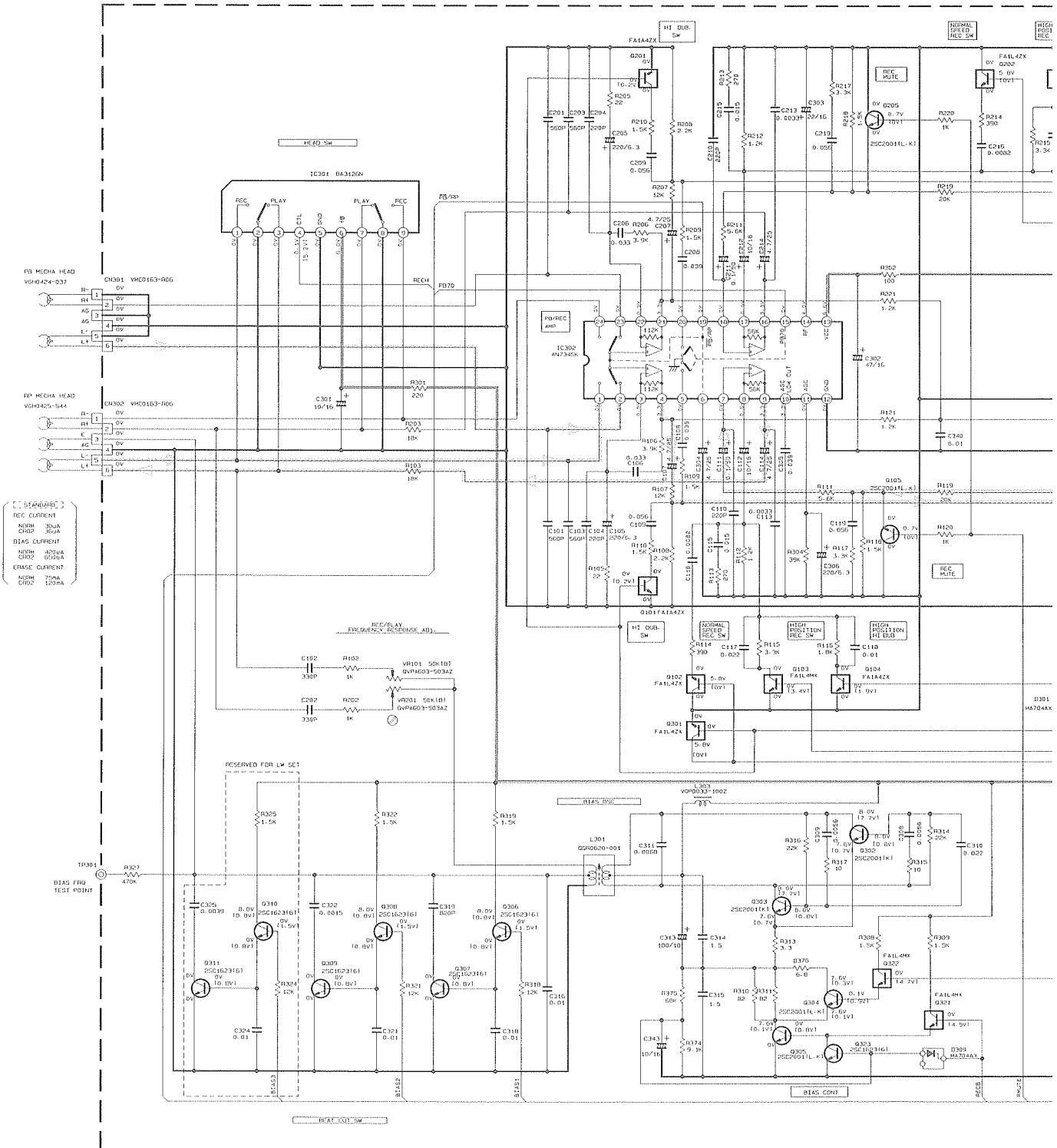
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NOTES
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. () IS INVERT MODE
 2. UNLESS OTHERWISE SPECIFIED
 ALL RESISTANCE VALUES ARE IN OHM/Ω.
 ALL CAPACITORS ARE CERAMIC CAPACITOR
 ALL CAPACITANCE VALUES ARE IN μF/PF/pF.
 ALL INDUCTANCE VALUES ARE IN μH/mH/mH.
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
 PLYPROPYLENE CAPACITOR

TABLE 1: DIGITAL TR LIST

PART. NO.	CONSTRUCTION	REF. NO.	SYMBOL	REF. NO.
F4142		Q310	FAST-ON	Q317
F4142		Q101/Q201 Q104/Q204	FA14M	Q103/Q203 Q319
F4142		Q102/Q202 Q301		Q320/Q321/Q322

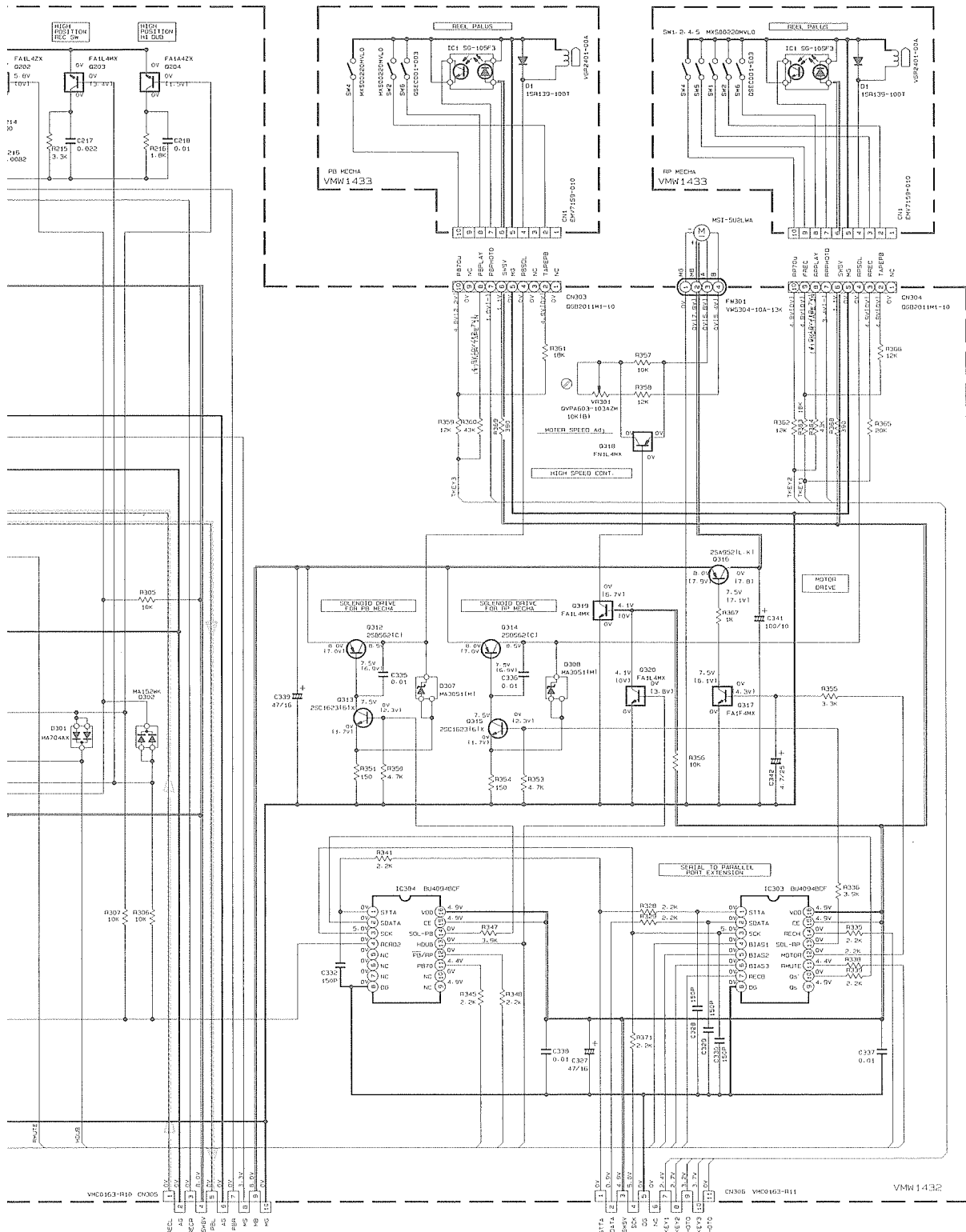
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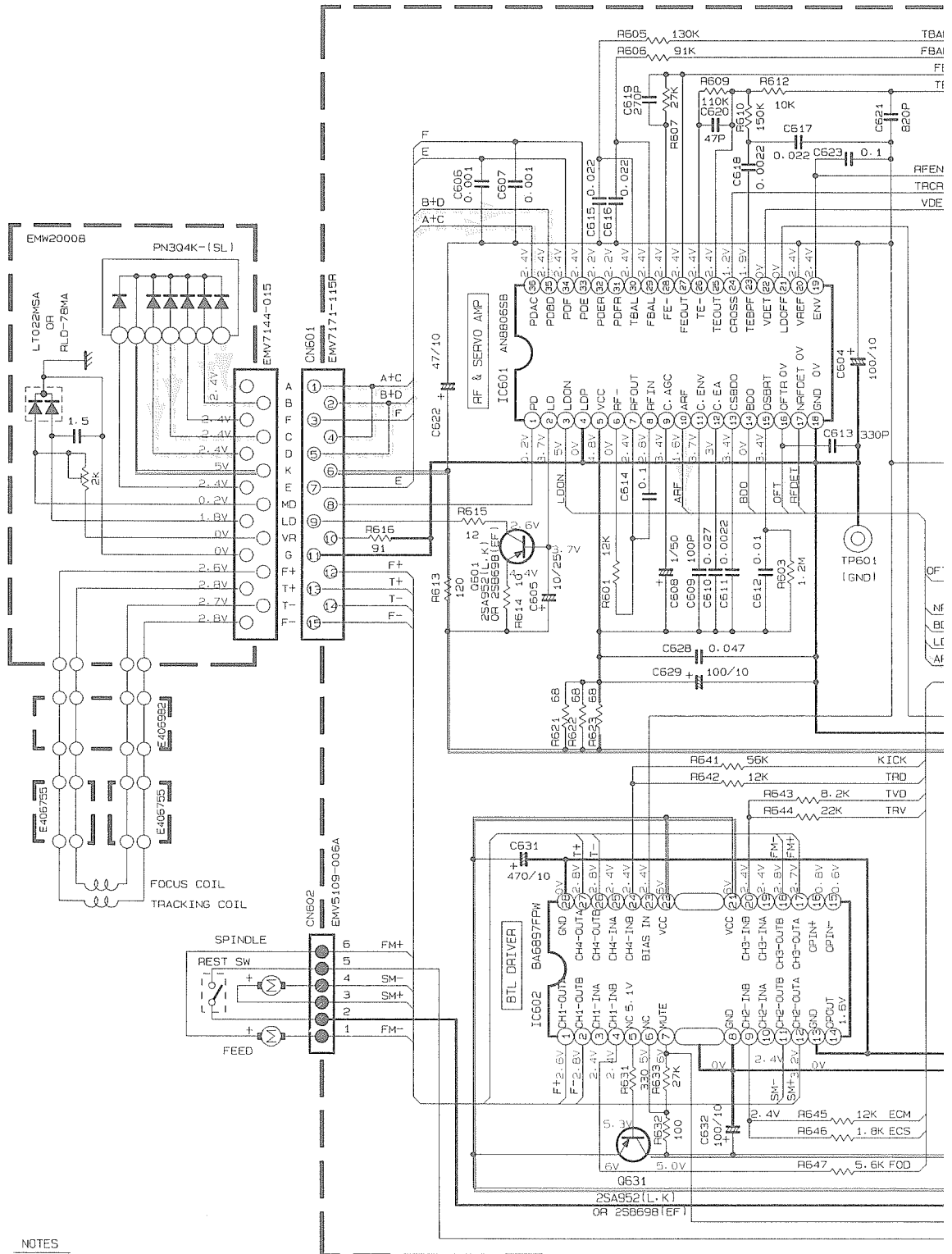
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Tape/PB Signal
REC Signal
+B Line

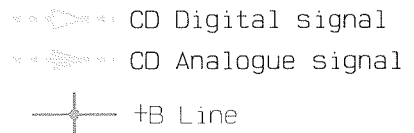
CD Servo Control Circuit : Drawing No.FMDH9002-001CW

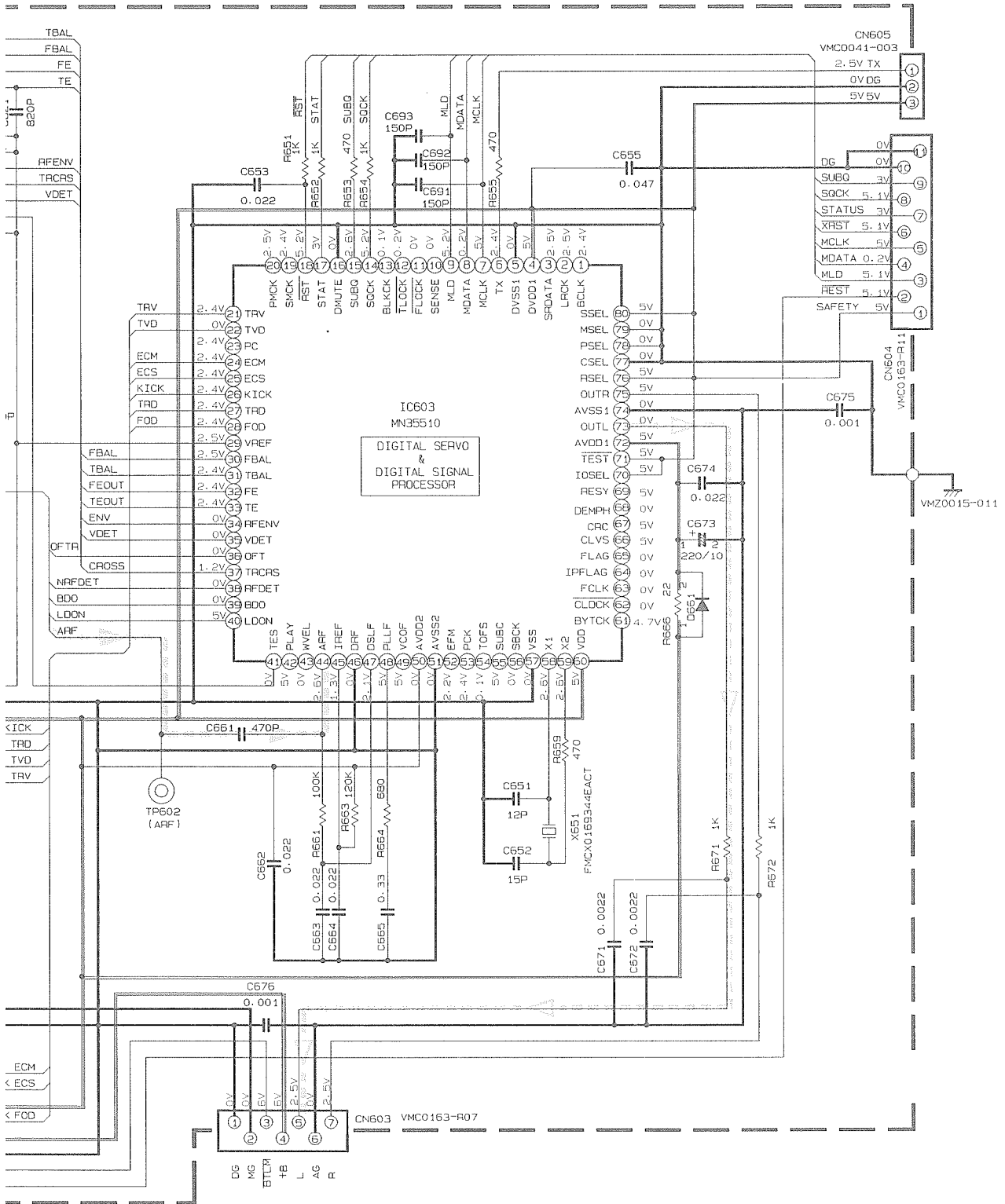


NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W ±5% CARBON RESISTOR.
 ALL RESISTANCE VALUES ARE IN Ω(M)Ω.
 ALL CAPACITANCE VALUES ARE IN #F(P=PF).

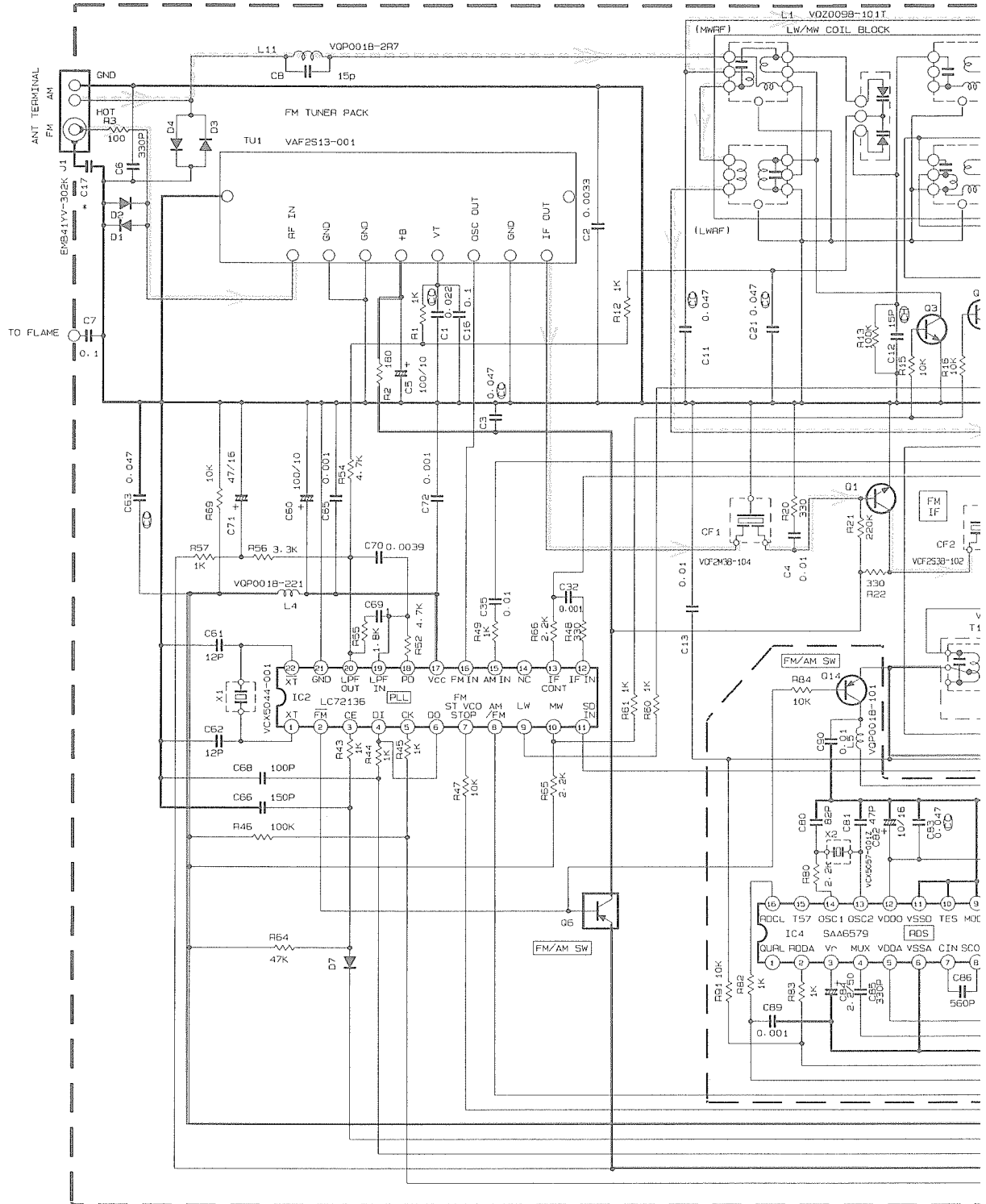
Note : FMDH9002001CW(/s/g/)





nal
gnal

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



* MARK

MODEL LOC.	CA-D301T CA-D351TR	CA-D401T CA-D451TR	CA-D501T CA-D551TR
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
IC1 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
IC1 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	0	2.6	5.2	1.0	1.0	3.7	0	2.7		

Tr. NO.	PIN NO.	FM 67.5MHz NO SIGNAL	AM 520KHz NO SIGNAL
	E	0	0
Tr. NO. <th>PIN NO.</th> <th>FM 67.5MHz NO SIGNAL</th> <th>AM 520KHz NO SIGNAL</th>	PIN NO.	FM 67.5MHz NO SIGNAL	AM 520KHz NO SIGNAL
	E	0	0
	2.	2.	2.

Note : FMDH9002005TW(/s/g)

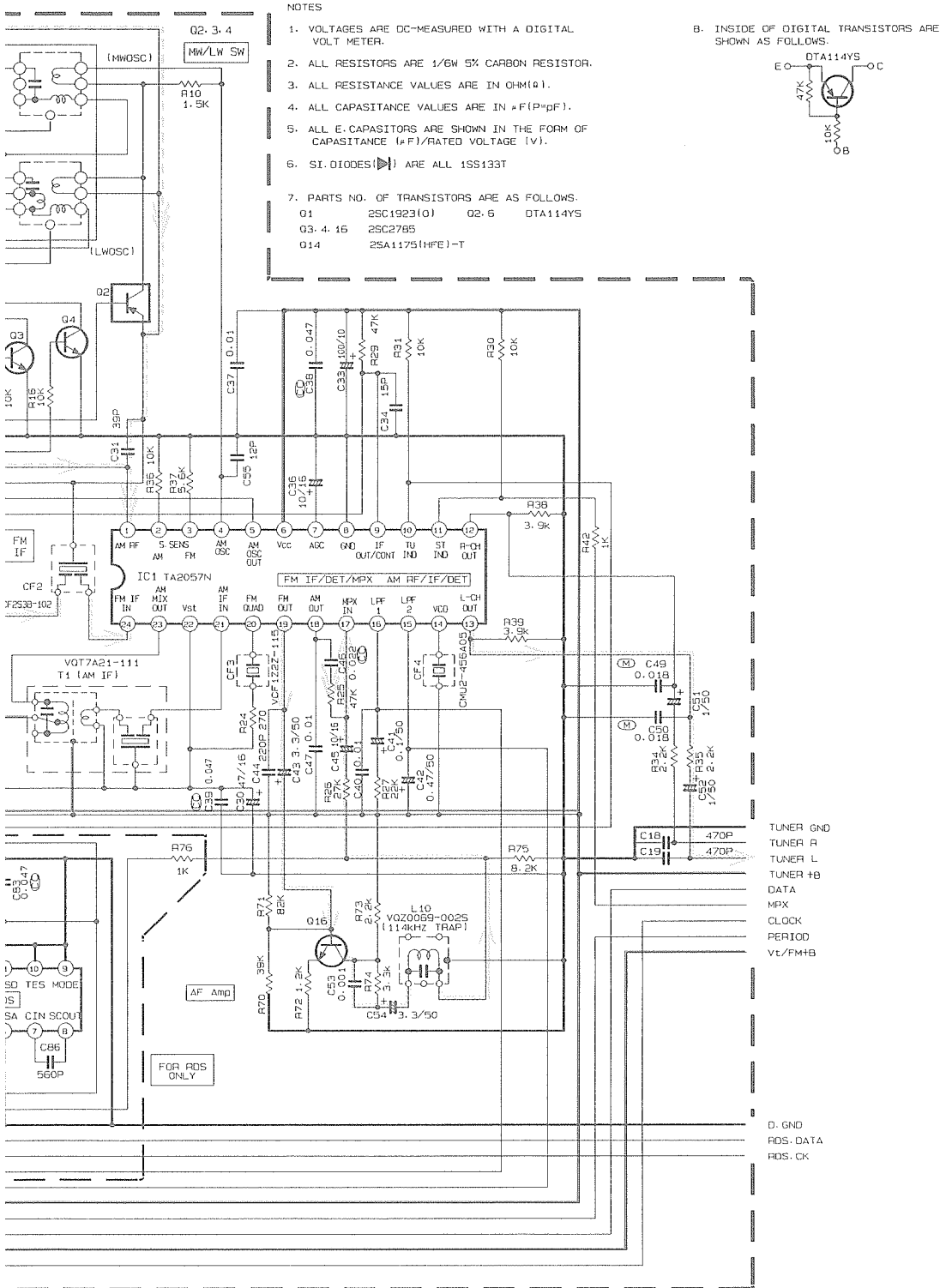
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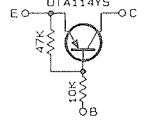
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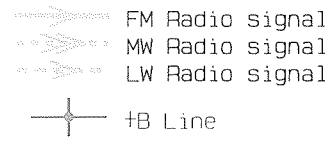


NOTES

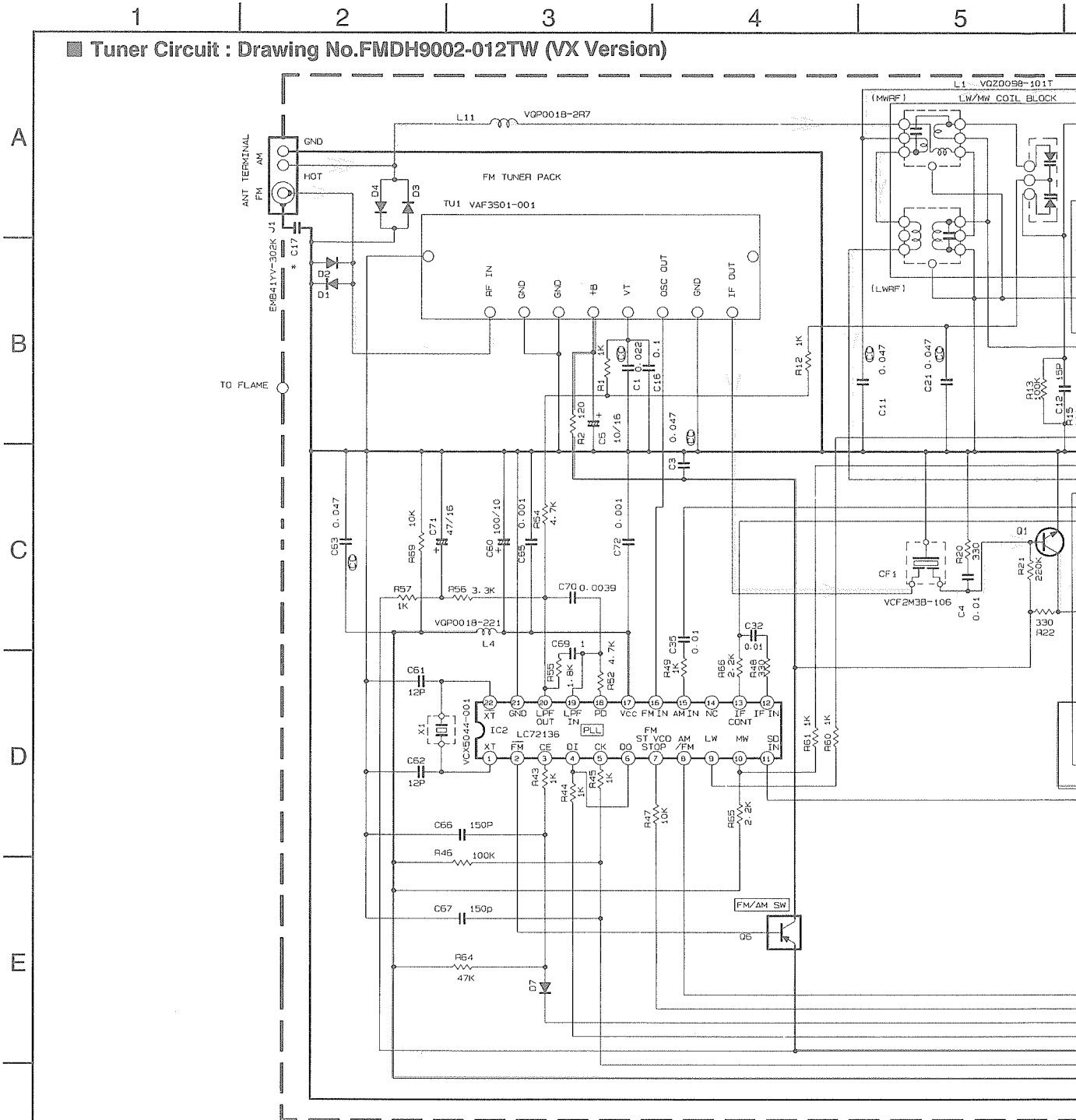
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
2. ALL RESISTORS ARE 1/8W 5% CARBON RESISTOR.
3. ALL RESISTANCE VALUES ARE IN OHM(Ω).
4. ALL CAPACITANCE VALUES ARE IN #F(P=pF).
5. ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).
6. SI. DIODES (▶) ARE ALL 1SS133T
7. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.
 Q1 2SC1923(G) Q2-6 DTA114YS
 Q3-4, 16 2SC2785
 Q14 2SA1175(HFE)-T
8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.



	Q1			Q6			Q16		
	E	C	B	E	C	B	E	C	B
SIGNAL	0	B.3	0.8	9.8	9.7	0	1.0	3.5	1.6
SIGNAL	0	0	0	9.8	0	9.7	1.0	3.5	1.6
	Q2			Q3			Q4		
	E	C	B	E	C	B	E	C	B
SIGNAL	2.0	2.0	0.1	0	0	0.7	0	0	0.7
SIGNAL	2.0	2.0	2.0	0	0	0.1	0	0	0.1



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



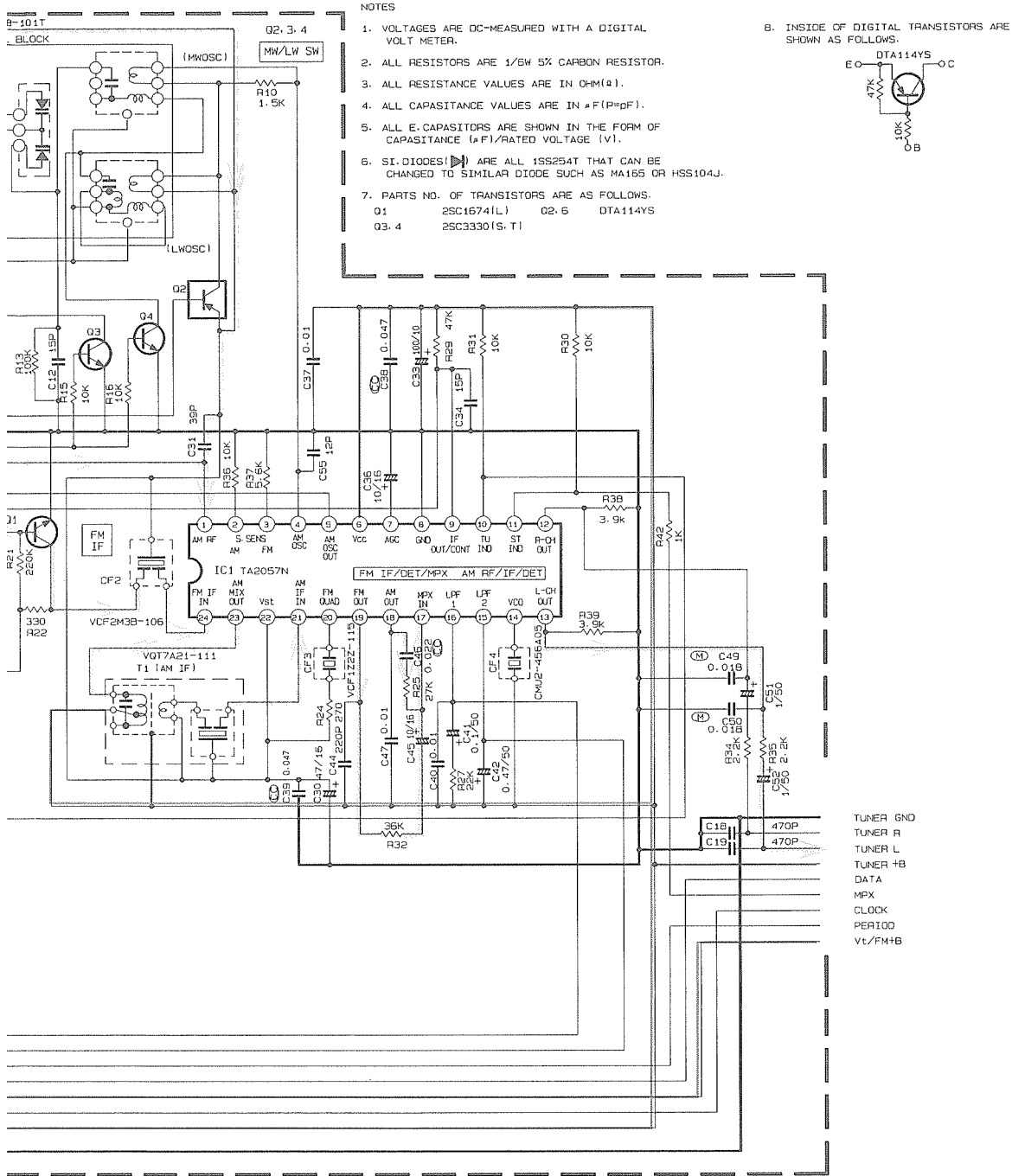
CONDITION	PH NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC1	FM NO SIGNAL	2.0	0.5	0	2.0	5.2	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.6	3.8	3.8	1.4	0	1.3	1.1	2.0	2.0	5.2	2.0
	FM GOOD STEREO	2.0	0.5	0	2.0	5.2	5.2	1.1	0	0.2	0	0	1.0	1.0	4.5	4.1	3.9	1.4	0	1.2	1.1	2.0	2.0	5.2	2.0
	AM NO SIGNAL	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	0	2.6	5.2	1.0	1.0	3.7	0	2.7		

* MARK

MODEL	CA-D301T	CA-D401T
LCC	0.01	0.001

Tr 1	FM 87.5MHz
Tr 2	FM 520kHz
Tr 3	FM 1440Hz

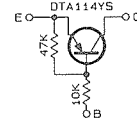
Note : FMDH9002012TW (/s/g)



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
2. ALL RESISTORS ARE 1/8W 5% CARBON RESISTOR.
3. ALL RESISTANCE VALUES ARE IN OHM(Ω).
4. ALL CAPACITANCE VALUES ARE IN nF(P=pF).
5. ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (nF)/RATED VOLTAGE (V).
6. SI. DIODES(▷) ARE ALL 1SS254T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA165 OR HSS104J.
7. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.
 Q1 2SC1674(L) Q2-6 DTA114YS
 Q3-4 2SC3330(S. T)

B. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.



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

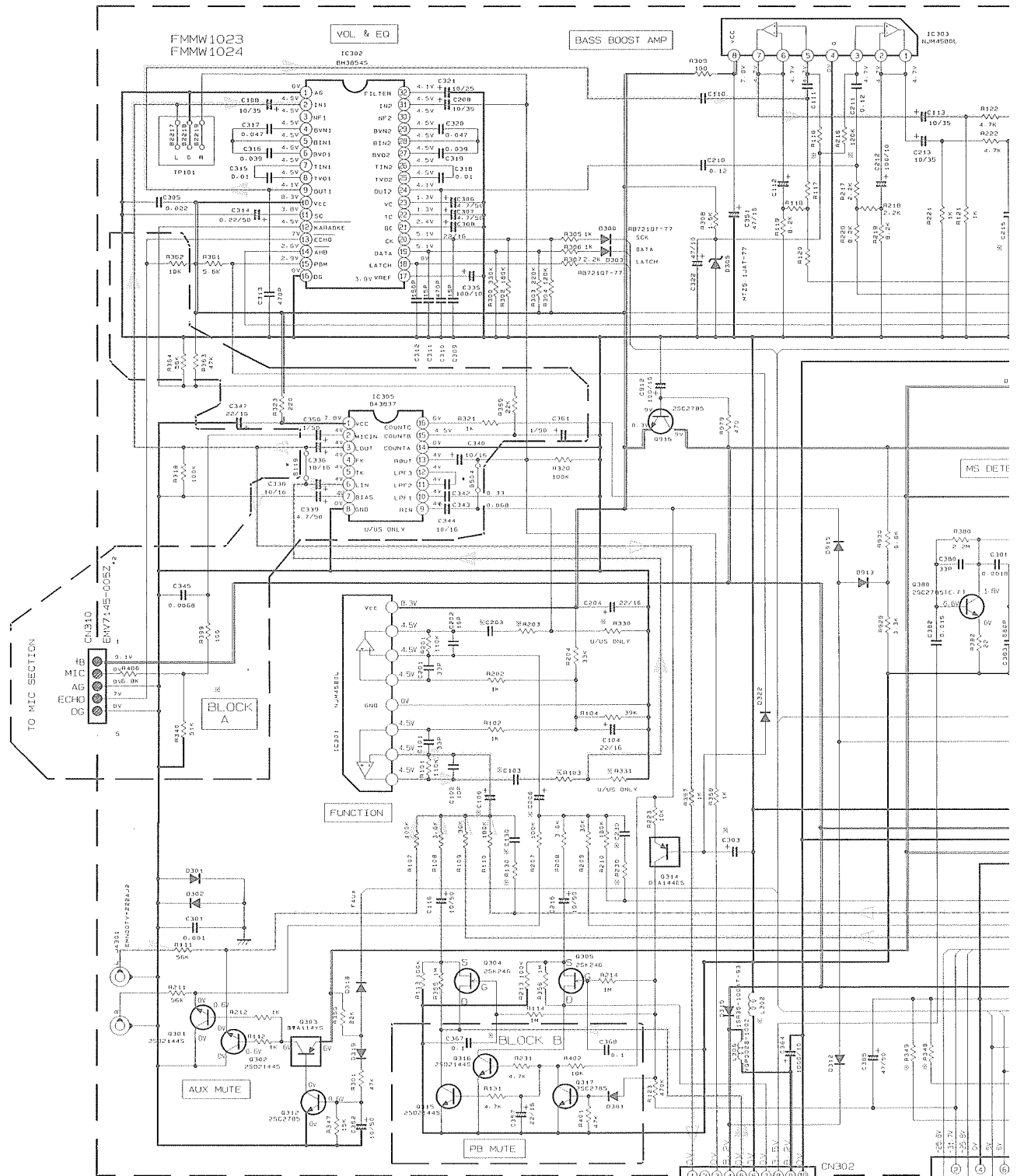
Tr. NO.	G1			G2			G3			G4		
PIN NO.	E	C	B	E	C	B	E	C	B	E	C	B
FM 87.5MHz NO SIGNAL	0	0.3	0.8	0.8	0.8	0.7	0					
AM 523kHz NO SIGNAL	0	0	0	0.8	0	0.7						
Tr. NO.	G1			G2			G3			G4		
PIN NO.	E	C	B	E	C	B	E	C	B	E	C	B
FM 523kHz NO SIGNAL	2.0	2.0	0.1	0	0	0.7	0	0	0	0	0.7	
AM 1440Hz NO SIGNAL	2.0	2.0	2.0	0	0	0.1	0	0	0	0	0.1	

- FM Radio signal
- AM Radio signal
- LW Radio signal
- +B Line

1 2 3 4 5

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

A
B
C
D
E
F

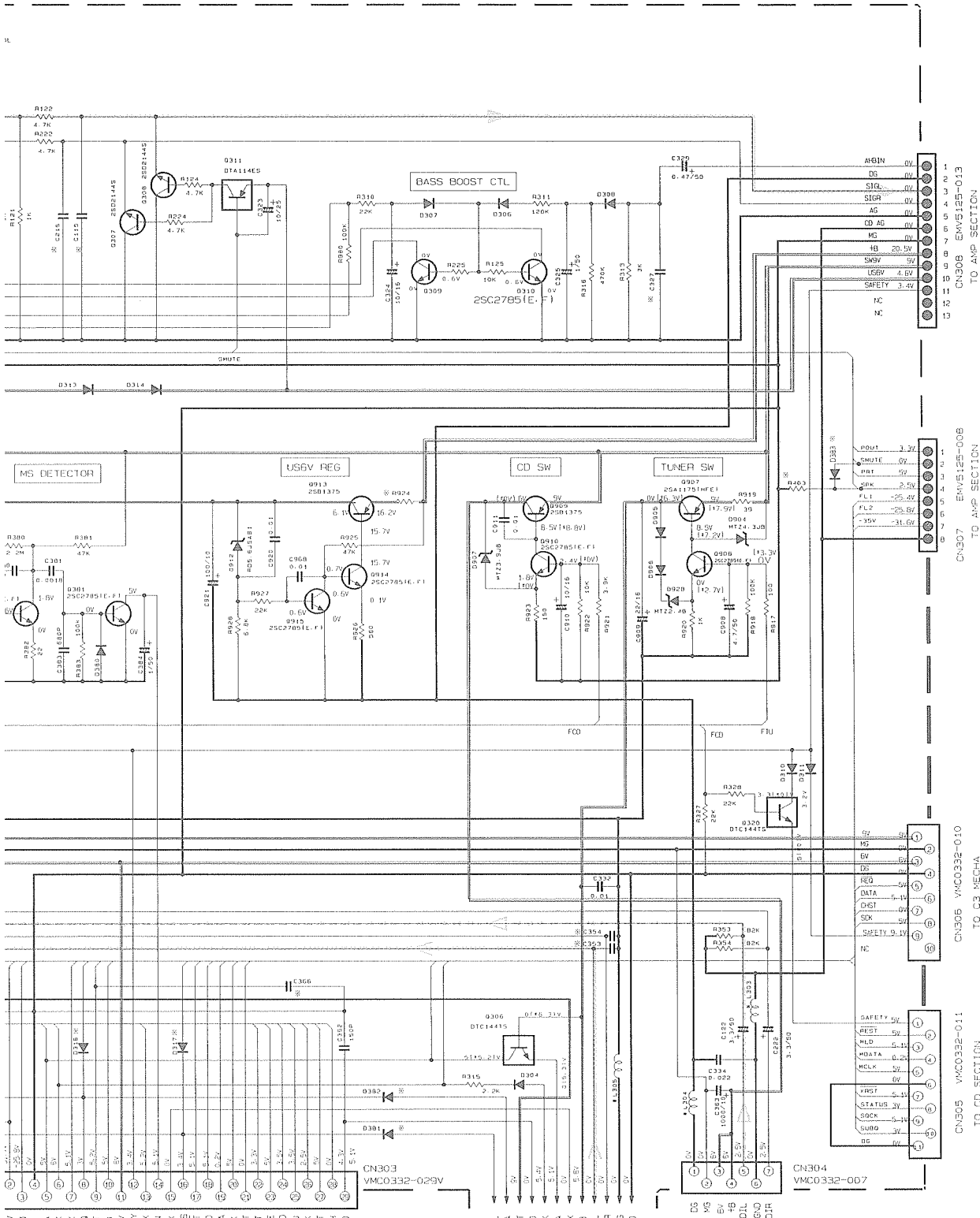


†1 INDICATE THE VALUE FOR MODEL CA-05011CA-05511R

*MARK

MODEL	VER.	L302	L303/L304	L305	RES. WRES. R	R119/R250	R316/R317	R303	R381/R303	R306	C103	C115/C211	C253/C254	R349	R403	R304	R130/R331	R101/R203	R340	C105/C205	C106/C206	C207	CT
CA-04011	J-C	B163	B106/B105	B107	--	USE	B103/B104	--	1500	2.2/50	--	470P	--	--	560	22 F RES 11/4W	5.6K	22K	--	0.20	3.1/50	0.18	
	U-UB,UP,UR,BS,UT	B163	B106/B105	B107	USE	--	B103/B104	1051337-77	--	1500	--	470P	--	560	22 F RES 11/4W	5.6K	22K	100K	10K	10K	6-8	6-1	17-0
	B-C,EN-G	V020048-009	V020048-009	V020048-009	--	USE	B103/B104	--	--	2.2/50	--	470P	--	--	560	22 F RES 11/4W	5.6K	22K	100K	10K	10K	6-1	17-0
1CA-050111	A	B163	B106/B105	B107	--	USE	B103/B104	--	1500	2.2/50	--	470P	--	--	560	22 F RES 11/4W	5.6K	22K	100K	10K	10K	6-1	17-0
	VA	B163	B106/B105	V020048-009	--	USE	B103/B104	--	1500	2.2/50	--	470P	--	--	560	22 F RES 11/4W	5.6K	22K	100K	10K	10K	6-1	17-0
NR-04511R 1CA-05511R1	B-E,EN-G	V020048-009	V020048-009	V020048-009	--	USE	R07261-77	--	R072101-17	2.2/50	130P	--	10K	--	560	22 F RES 11/4W	5.6K	22K	100K	10K	10K	6-1	17-0

Note : FMDH9003006AV(1/s/g) .003



206	C327	C130/C230	113B/W30	116/4216
50	0.1B	33P	100K	100K
501	0.221	100P1	10K1	100K1

TO MICRON SECTION

TO TUNER SECTION

TO CD SECTION

TO AMP SECTION
CN308 EW5125-013

TO AMP SECTION
CN307 EW5125-008

TO CD MECHA
CN310 VMCO332-010

TO CD SECTION
CN305 VMCO332-011

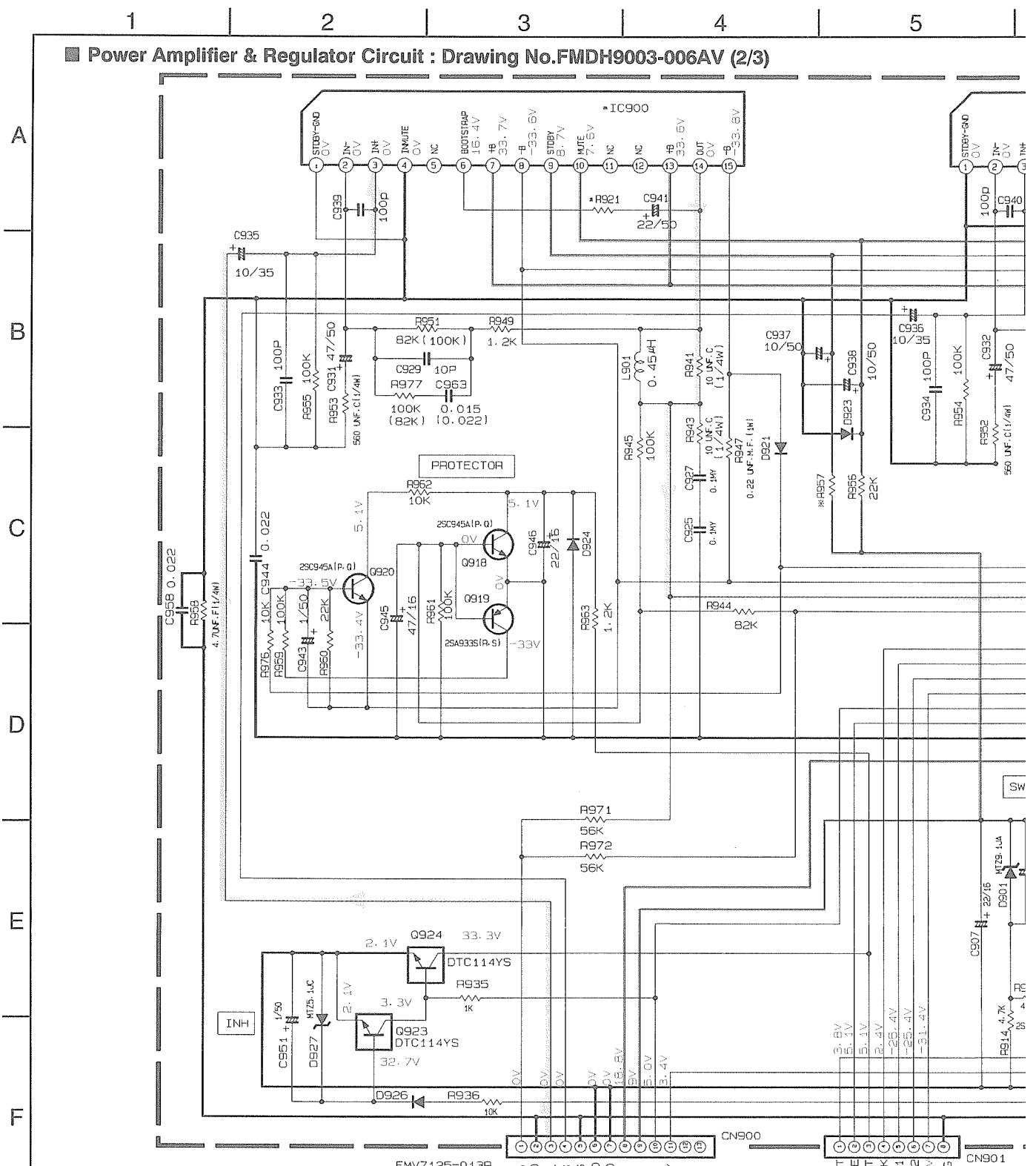
CN304 VMCO332-007

- CD Digital signal
- CD Analogue signal
- Tape/PB Main signal
- FM Radio signal
- AUX IN Signal



NOTES
 1. VOLTAGE ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE METHOD INPUT SIGNAL IDENTIFICATION -- CD MODE!
 VOLTAGE VALUE MARKED * IS IN TUNER POSITION
 2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W 1%SR CARBON RESISTORS.
 ALL RESISTANCE VALUES ARE IN OHMS!
 ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR
 ALL CAPACITANCE VALUES ARE IN nF(p-pF).
 ALL DIMENSIONS ARE IN mm(INCHES).
 ALL DIMENSIONS ARE SHOWN IN THE FORM OF CAPACITANCE 1μF/15V(RATED VOLTAGE 1V).
 ALL DIMENSIONS ARE 100±0.13mm/4mm
 3. ALL DIMENSIONS ARE SHOWN IN THE FORM OF CAPACITANCE 1μF/15V(RATED VOLTAGE 1V).
 ALL DIMENSIONS ARE 100±0.13mm/4mm
 4. MARK ARE FOR USE 0.75/2.0V 4PIN I/O

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



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/R9 19-B
B-E-EN-G	0.022	0.0027	1N5401TM	TDA7295	VOZ0104-003	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-FD	TDA7294	--	2.2K	10K	680 F.RES(1/4W)	22 F.RES (1/4W)	--

MX-D551TR

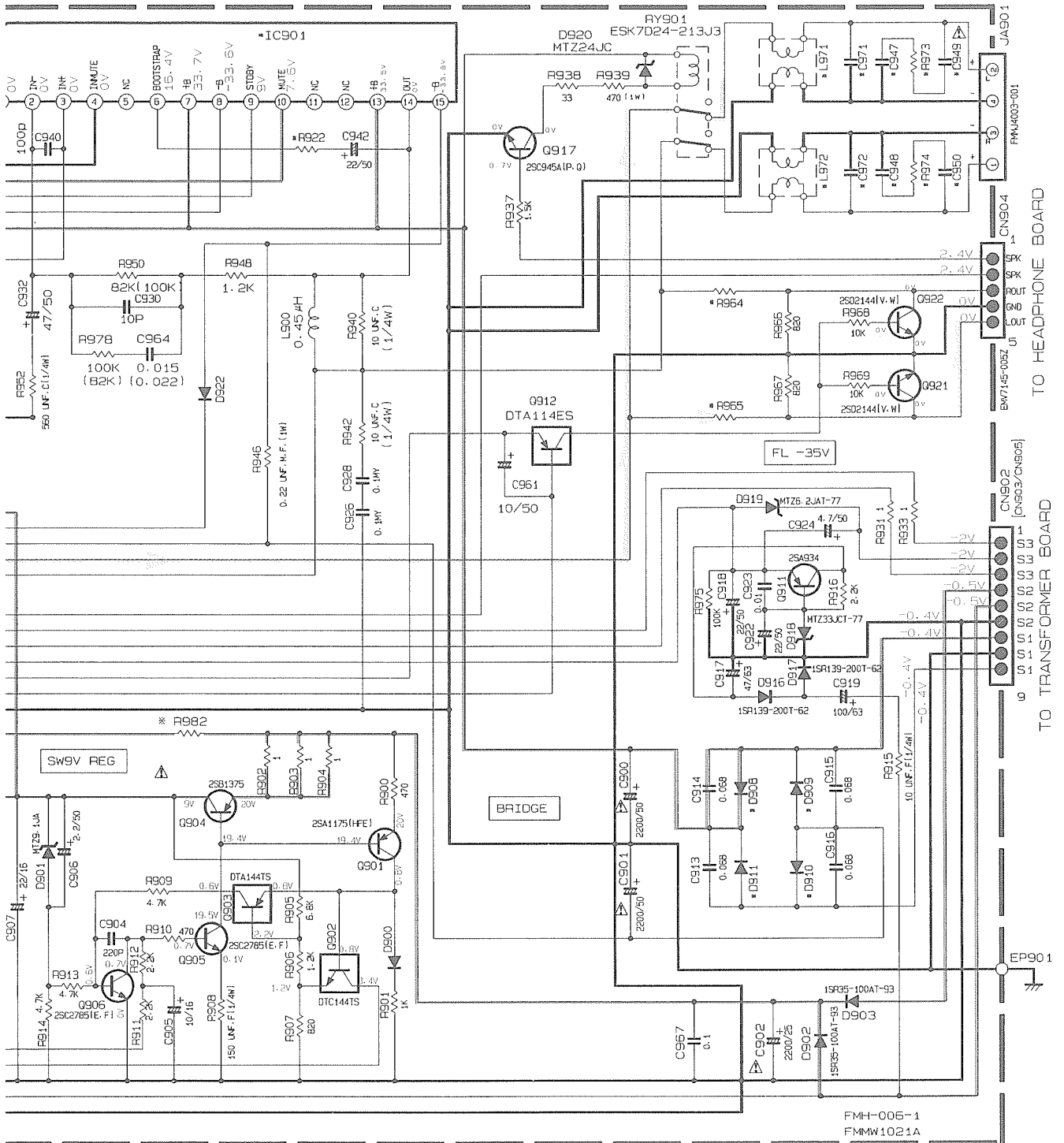
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IC901
EMV7125-008R

NOTES

- VOLTAGES ARE DC-MEASURED USING AN OSCILLOSCOPE WITHOUT INPUT SIGNAL CONDITION.
- UNLESS OTHERWISE SPECIFIED
ALL RESISTORS ARE 1/8W ± 5% CARBON RESISTOR.
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
ALL RESISTANCE VALUES ARE IN OHM(Ω).
ALL CAPACITANCE VALUES ARE IN μF(P=pf).
ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).
ALL DIODES ARE 1SS133T-77 TYPE
Ⓢ POLYPROPYLENE CAPACITOR
Ⓜ 50V ± 5% MYLAR CAPACITOR OR 50V ± 5% THIN FILM CAPACITOR
- THOSE PART WITH BRACKET IS NOT USED.
FOR RESISTOR IT WOULD BE A SHORT.
FOR CAPACITOR IT WOULD BE AN OPEN.

R973/R974	19-B
	4.7
	—
	—

Main PB Signal



+B Line

1

2

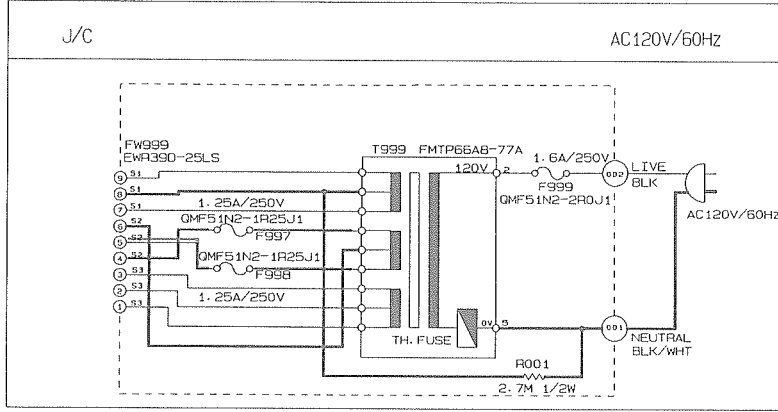
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4

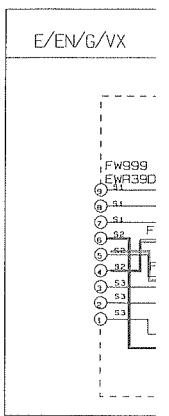
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■ Power Transformer Circuit : Drawing No.FMDH9003-006AV (3/3)

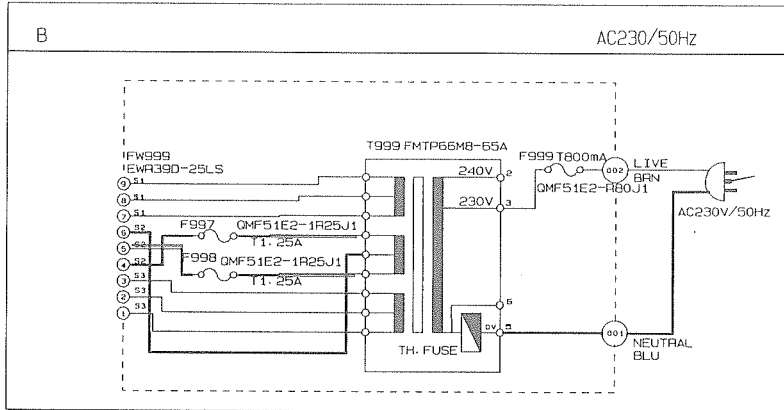
POWER SUPPLY BLOCK



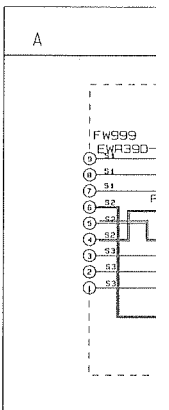
POWER SUPP



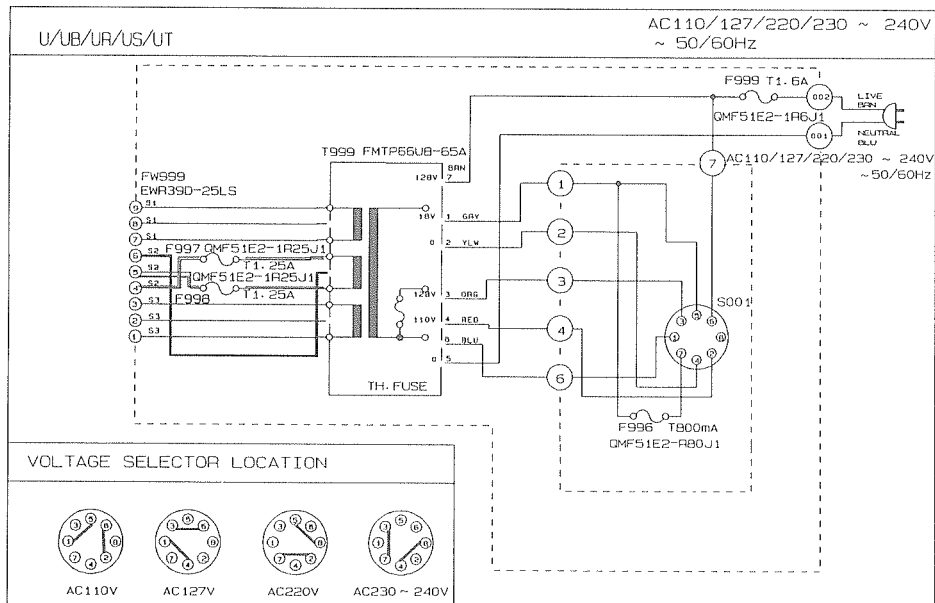
POWER SUPPLY BLOCK



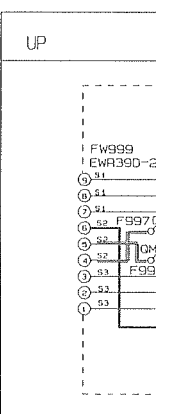
POWER SUPP



POWER SUPPLY BLOCK



POWER SUPPL



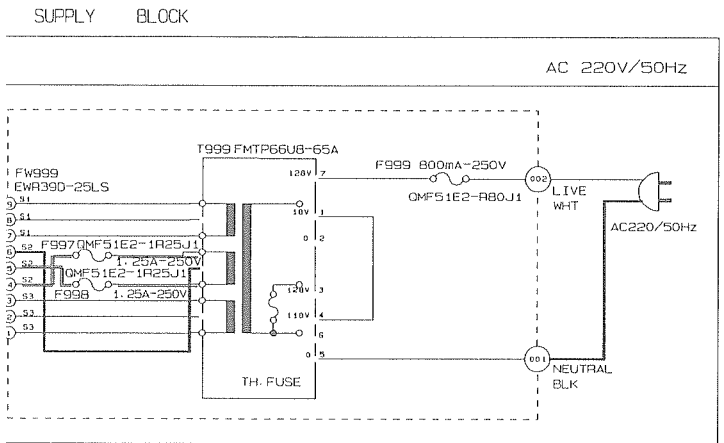
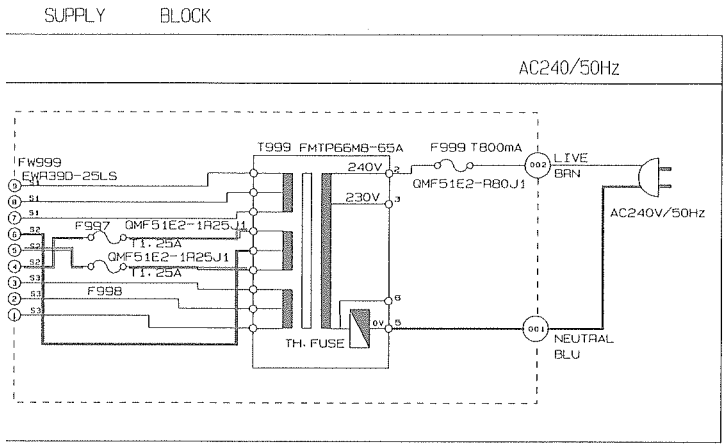
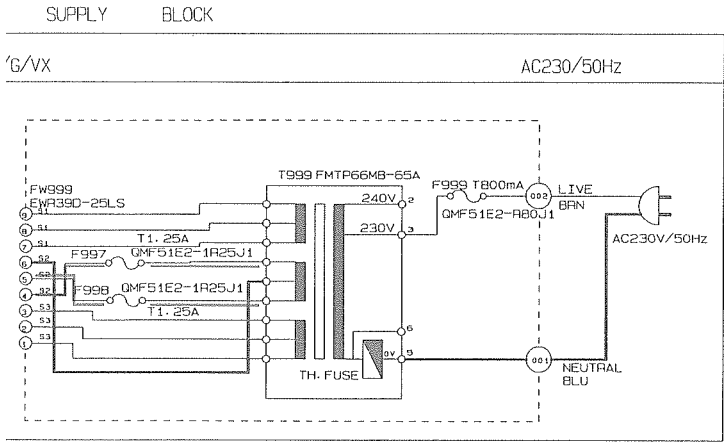
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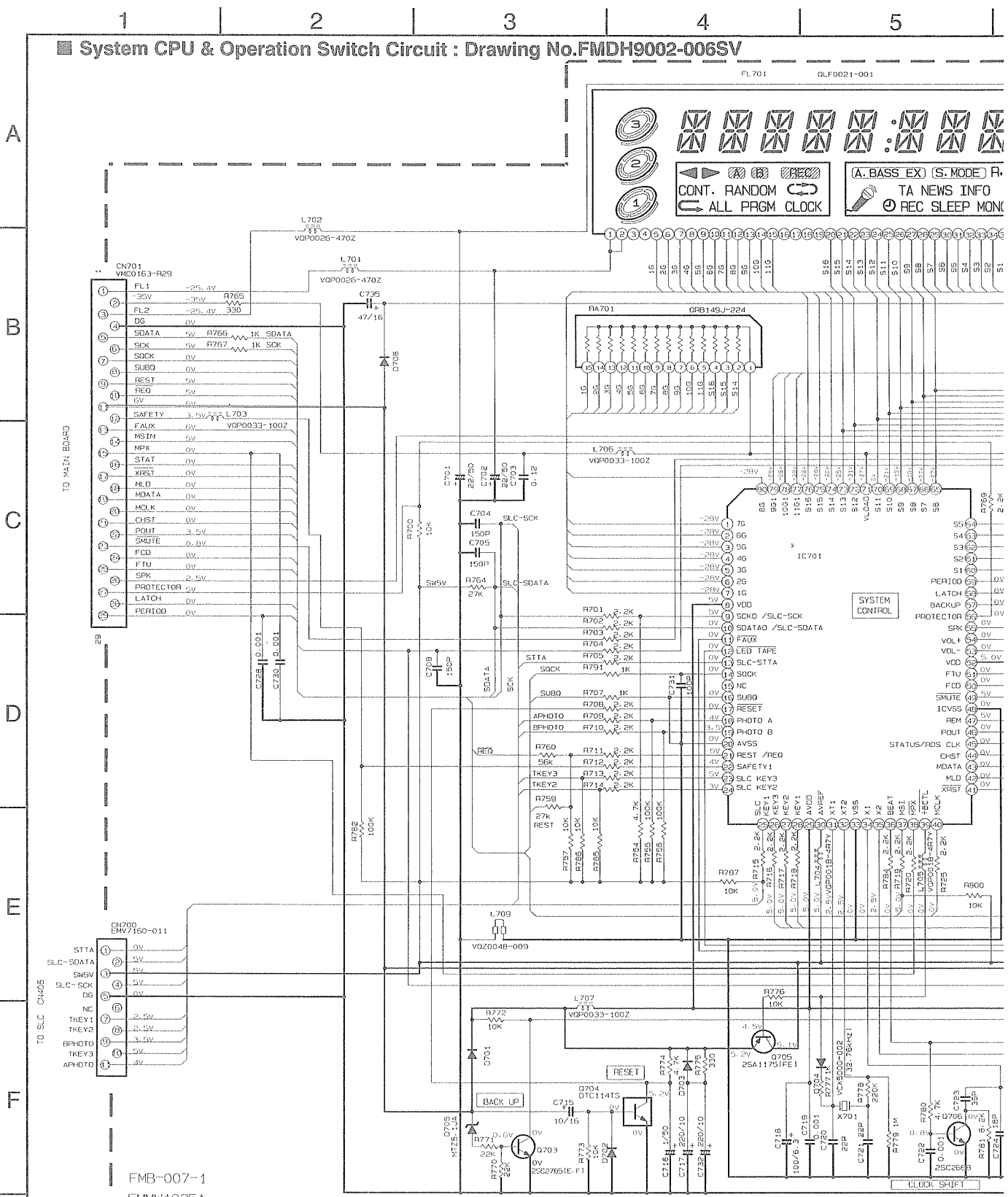
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FB Line

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

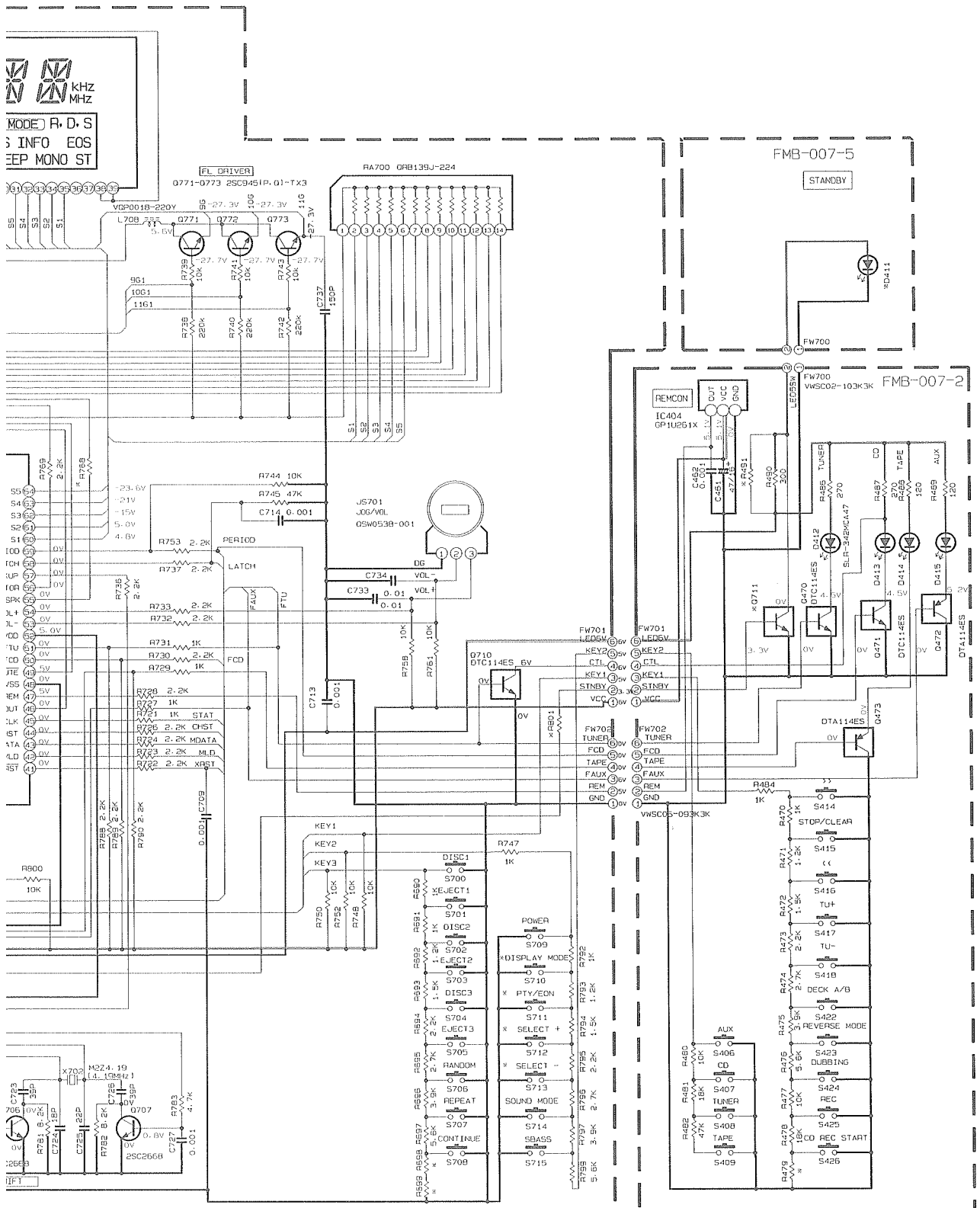


FMB-007-1
FMMW1025A

* MARK

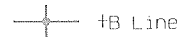
MODEL	VERSIONS	R479 19-M	R690 15-L	R690 15-M	S710/711/712/713 16-K	R491 16-F	R601 19-M	D411 19-C	Q711 18-G	R760 11-F	MODEL	IC701 10-F
CA-D301T	J-C	47K	--	--	--	--	B134	SLA-342VCA47	01C-114ES	2.2K	MX-D301T	IC701 10-F
	U.UB-UP. US. UT.	--	--	--	--	300	47K	SLA-380LT-TB	2S02144S	56		
CA-D401T	tR	300	47K	75K	--	300	47K	SLA-380LT-TB	2S02144S	56	OTHERS	UF078044FG-057
	B-E-EN-G	47K	75K	B129	--	300	47K	SLA-380LT-TB	2S02144S	2.2K		
CA-D501T	A	--	B133	10K	--	300	47K	SLA-380LT-TB	2S02144S	2.2K	OTHERS	UF078044FG-055
	VX	--	18K	10K	--	300	47K	SLA-380LT-TB	2S02144S	2.2K		
MX-D551TR	B-E-EN-G	47K	18K	10K	USE	300	47K	SLA-380LT-TB	2S02144S	2.2K		

Note : FMDH9002006SV (/s/g)



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION --- TAPE FB MODE
2. UNLESS OTHERWISE SPECIFIED
 RESISTORS ARE 1/8W 5% CARBON RESISTOR.
 ALL RESISTANCE VALUES ARE IN OHM(S).
 ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
 ALL CAPACITANCE VALUES ARE IN nF(p-pF).
 ALL INDUCTANCE VALUES ARE IN mH(mH).
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (pF)/(RATED VOLTAGE (V)).
 ALL DIODES ARE 1S5133



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

A
B
C
D
E
F

1 2 3 4 5

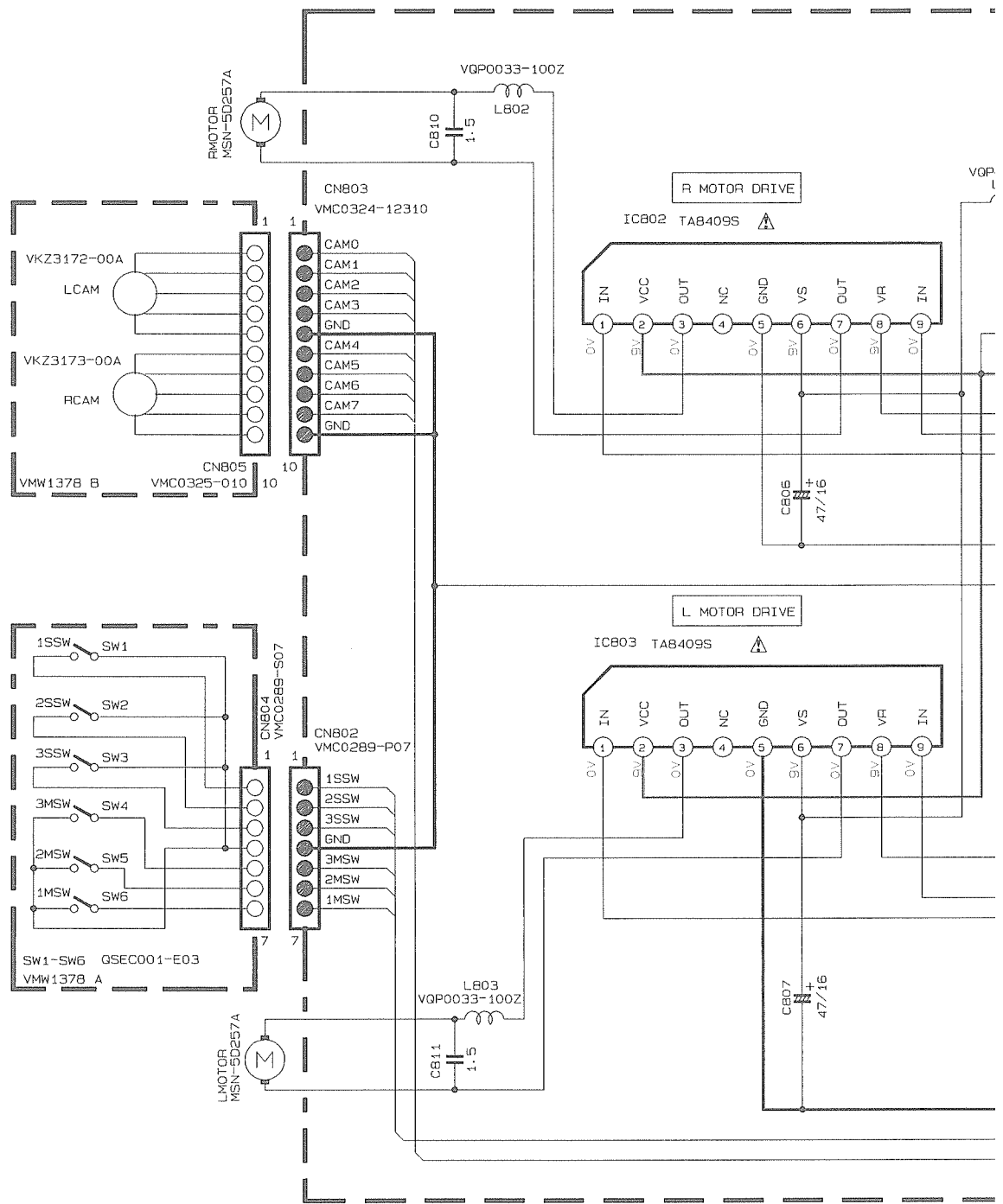


TABLE 1 CAM PATTERN LIST

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

0=0V
1=5V

NOTES

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT ME OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION ---- DISC 1 CD STOP MODE
- UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W ±5%. ALL RESISTANCE VALUES ARE IN OHM(Ω). ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAP. ALL CAPACITANCE VALUES ARE IN μF (P=pF). ALL INDUCTANCE VALUES ARE IN μH (m=mH). ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITORS.

Note : FMDH9002006MW (/s/g)

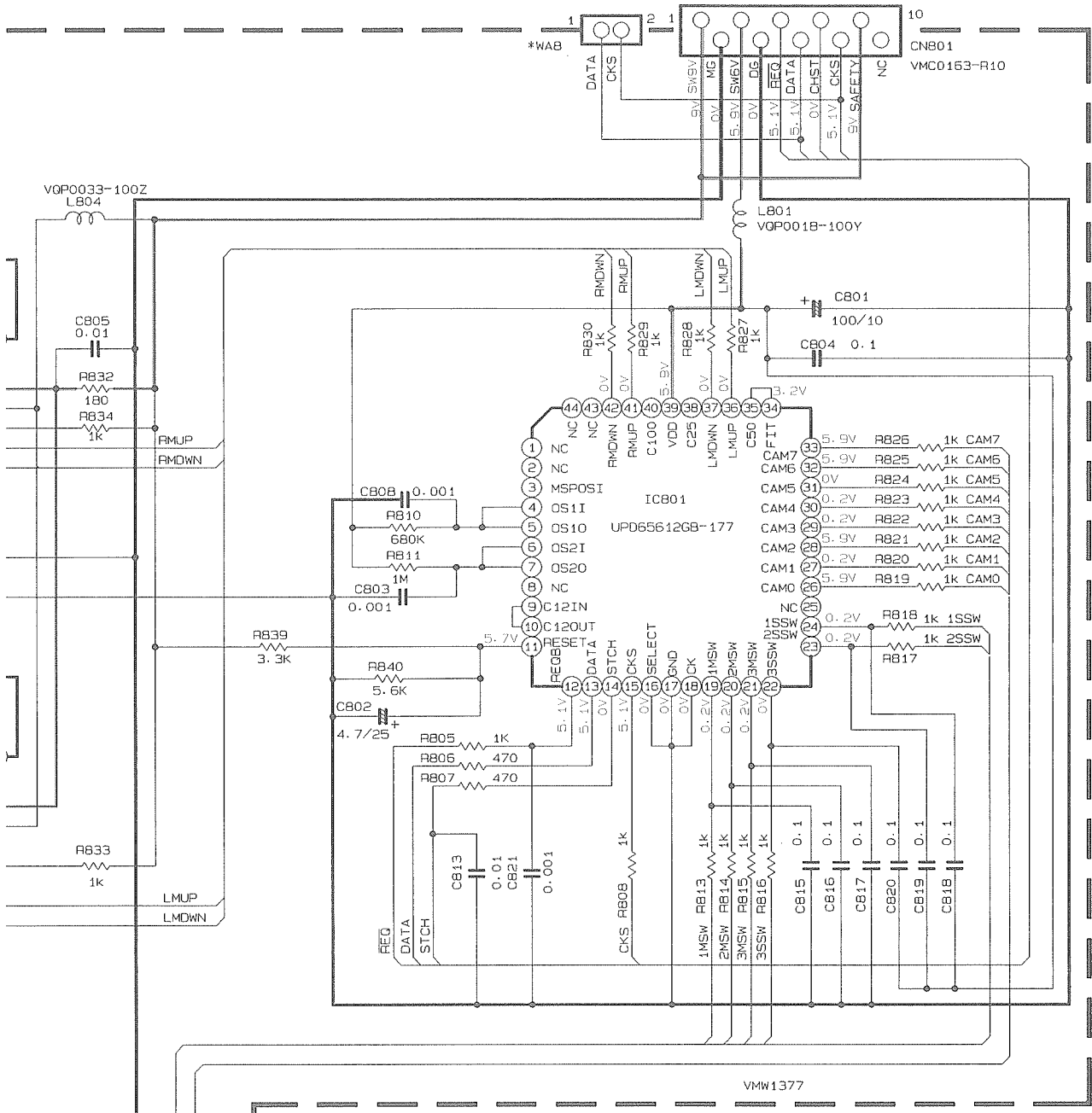
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- (CF) UNFLAMMABLE CARBON RESISTOR
- (MF) METAL FILM RESISTOR
- (OF) OXIDE METAL FILM RESISTOR
- (LE) ±20% LOW LEAK CURRENT ELECTROLYTIC CAPACITOR
- (NP) NON-POLARISED ELECTROLYTIC CAPACITOR
- (PP) POLYPROPYLENE CAPACITOR
- (PS) POLYSTYROL CAPACITOR

VOLT METER

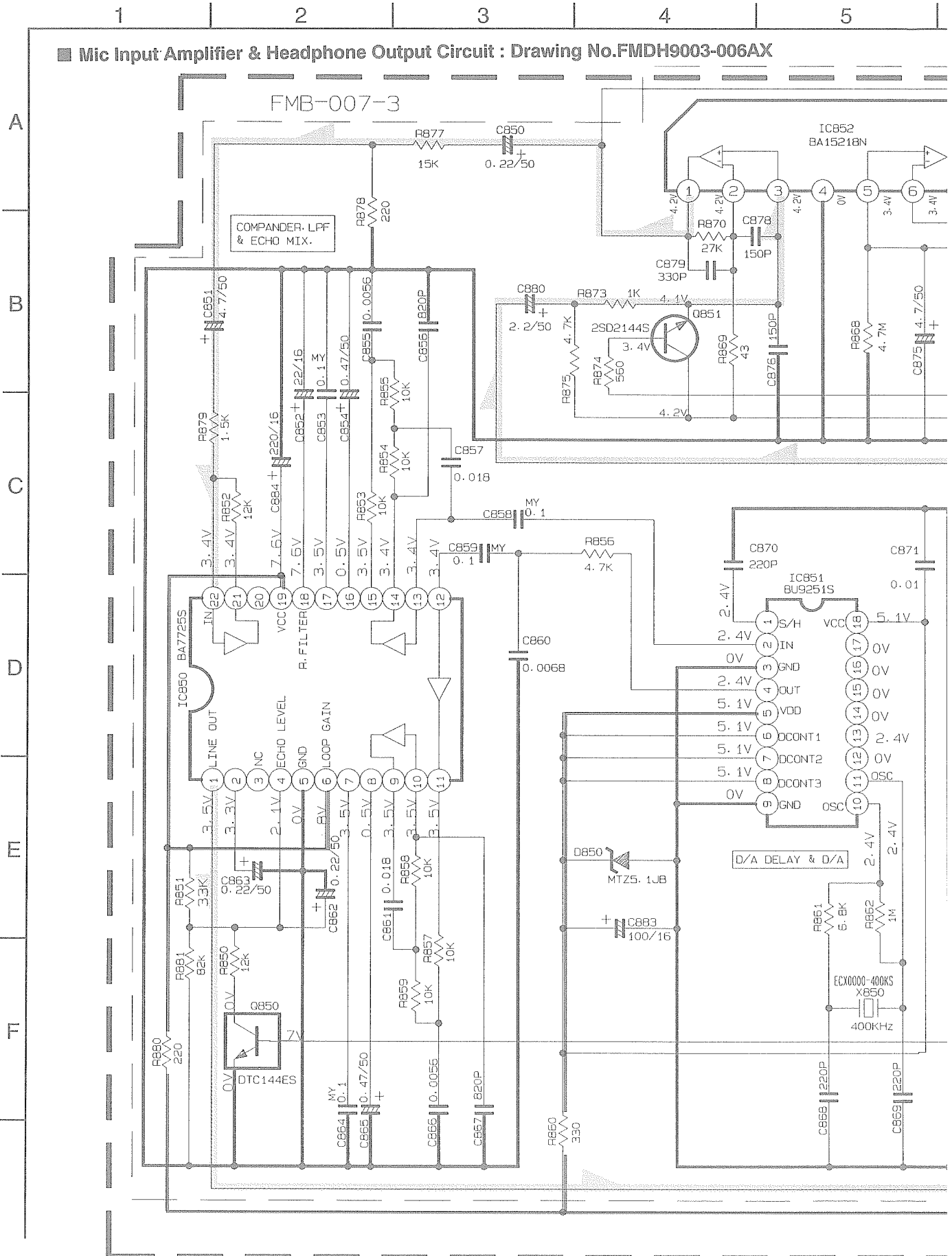
1/6W ±5% CARBON RESISTOR.

MYLAR CAPACITOR.

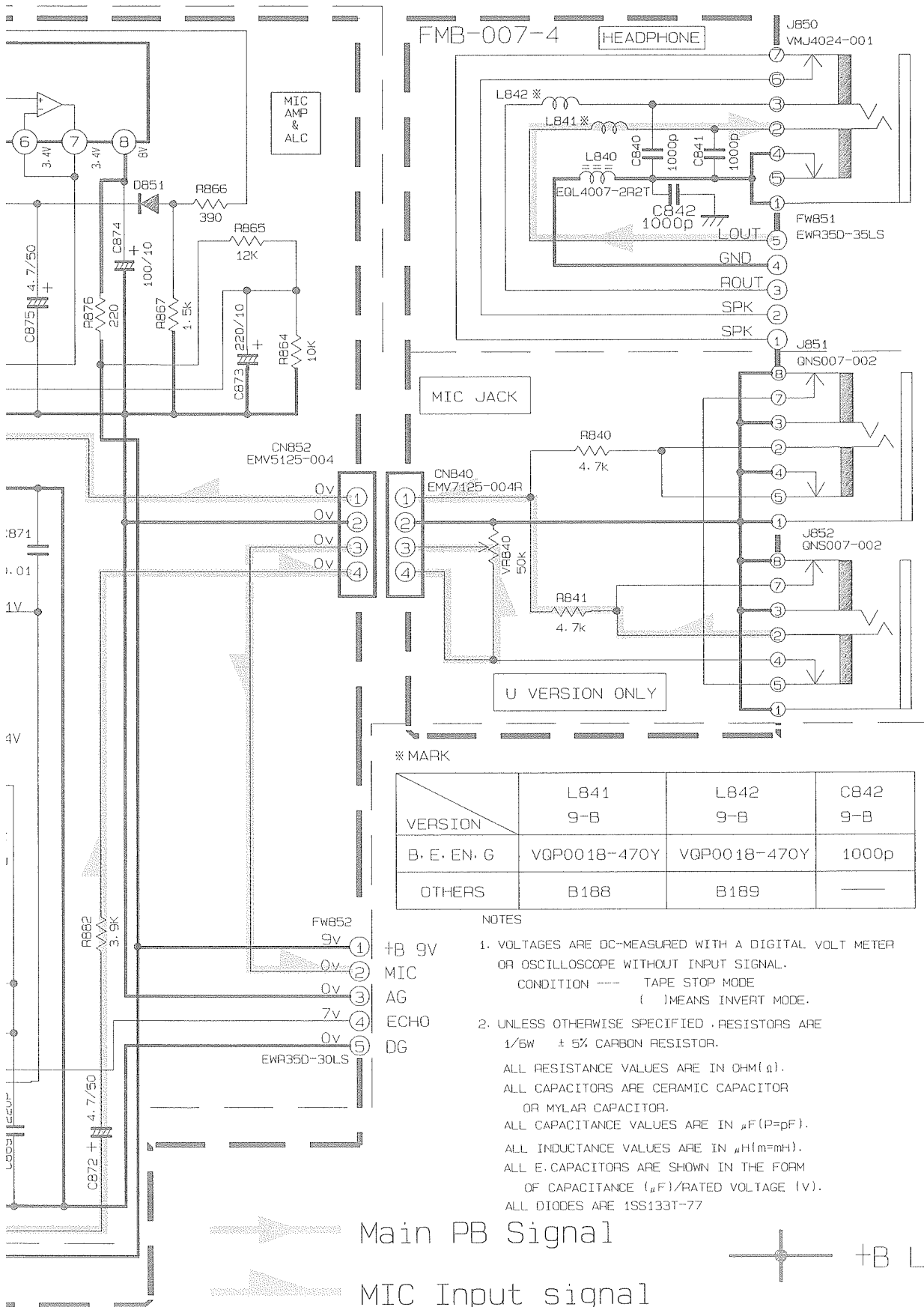
µF CAPACITANCE (µF)/RATED VOLTAGE (V).



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



Note : FMDH900306AX (/s/g)



12. Location of P.C.Board Parts

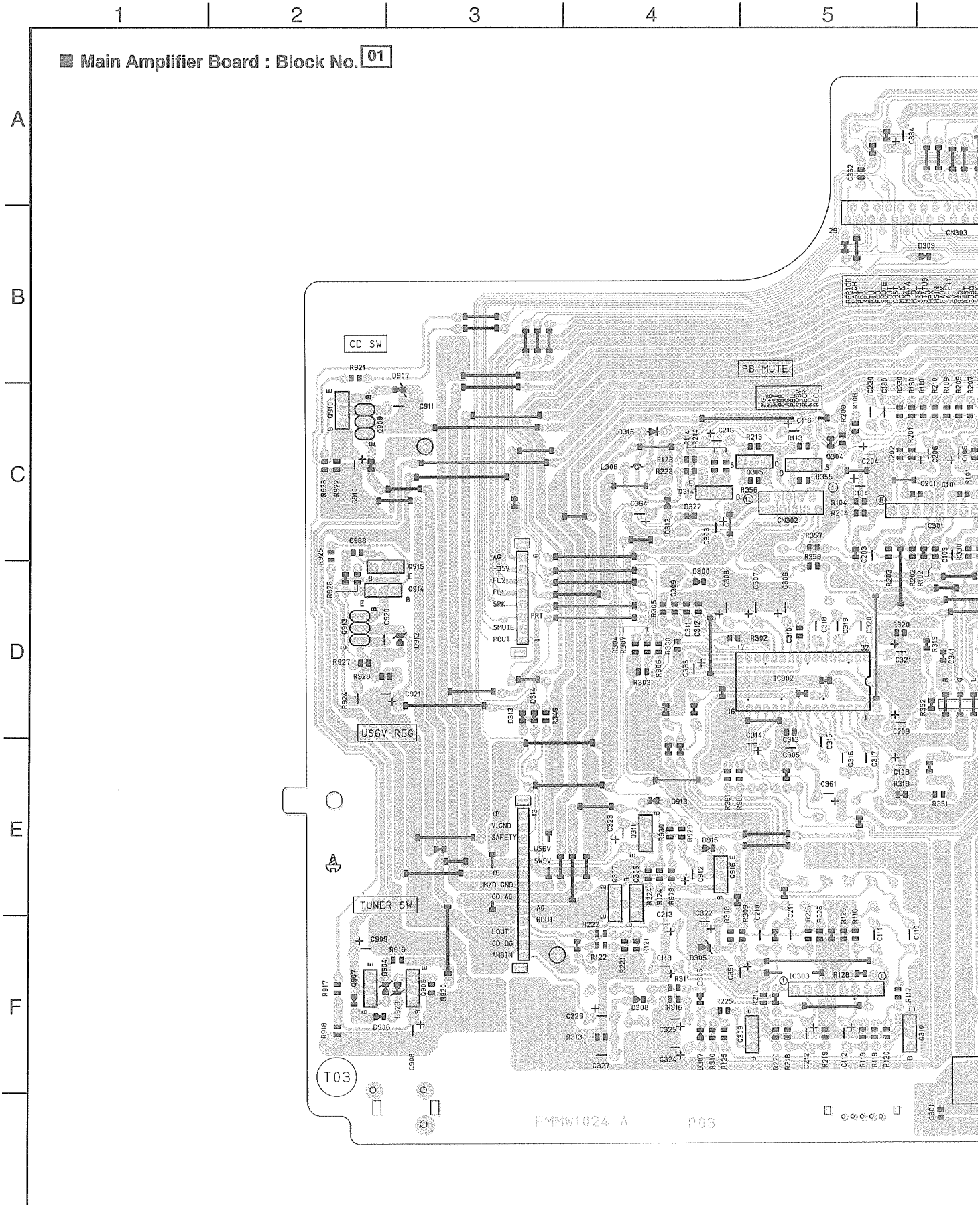


Fig.12-1

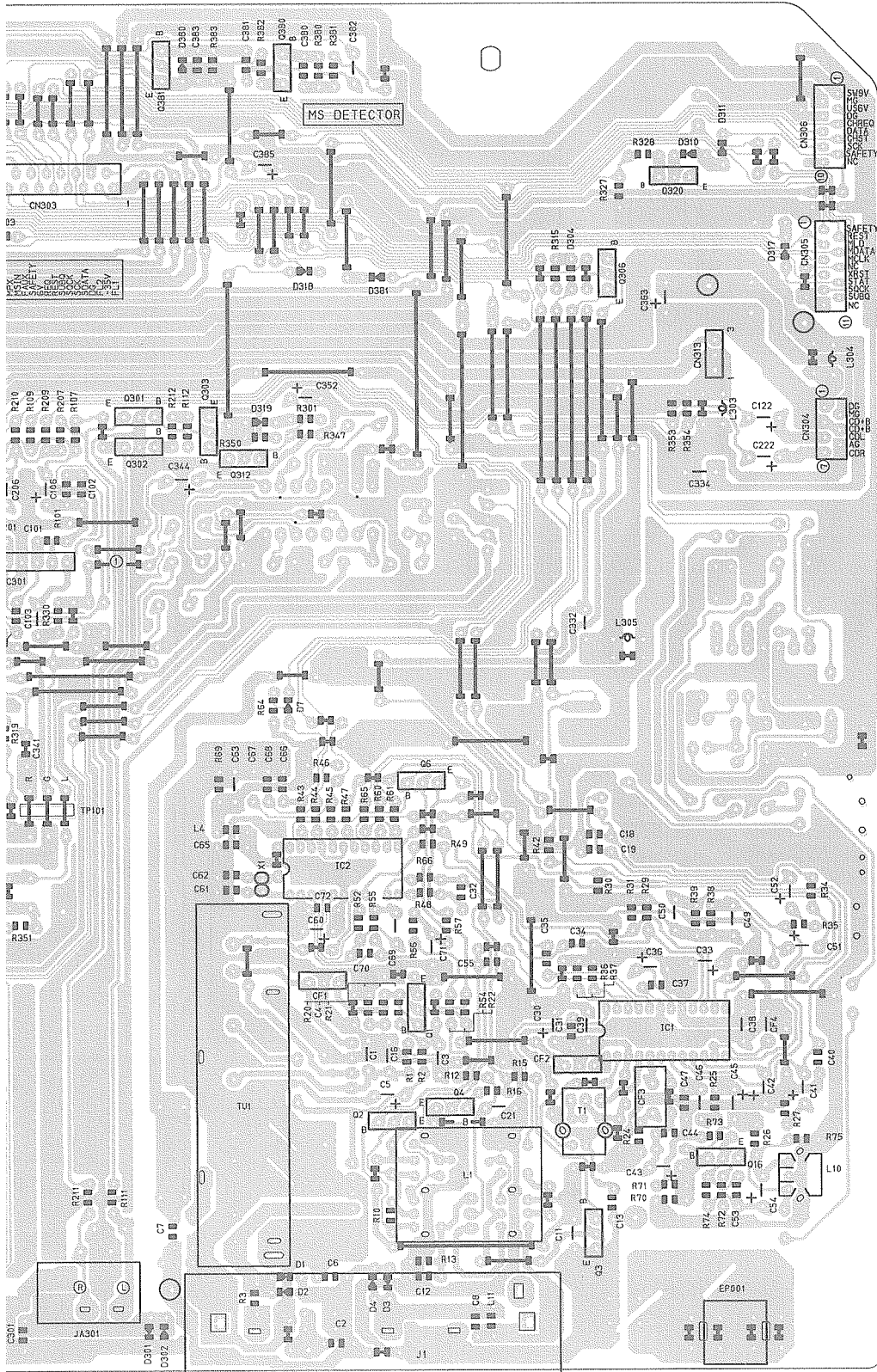
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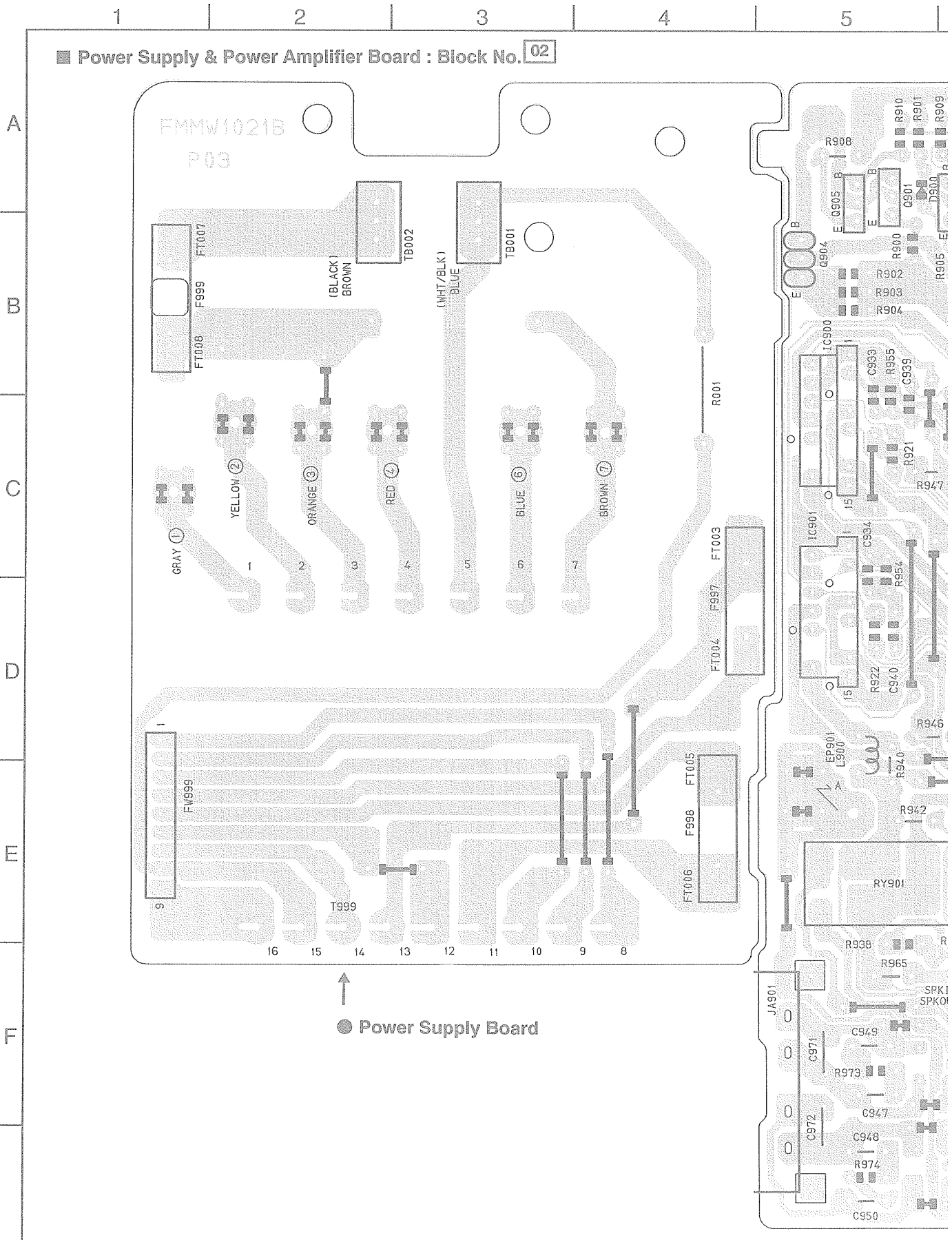
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10



ig.12-1

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



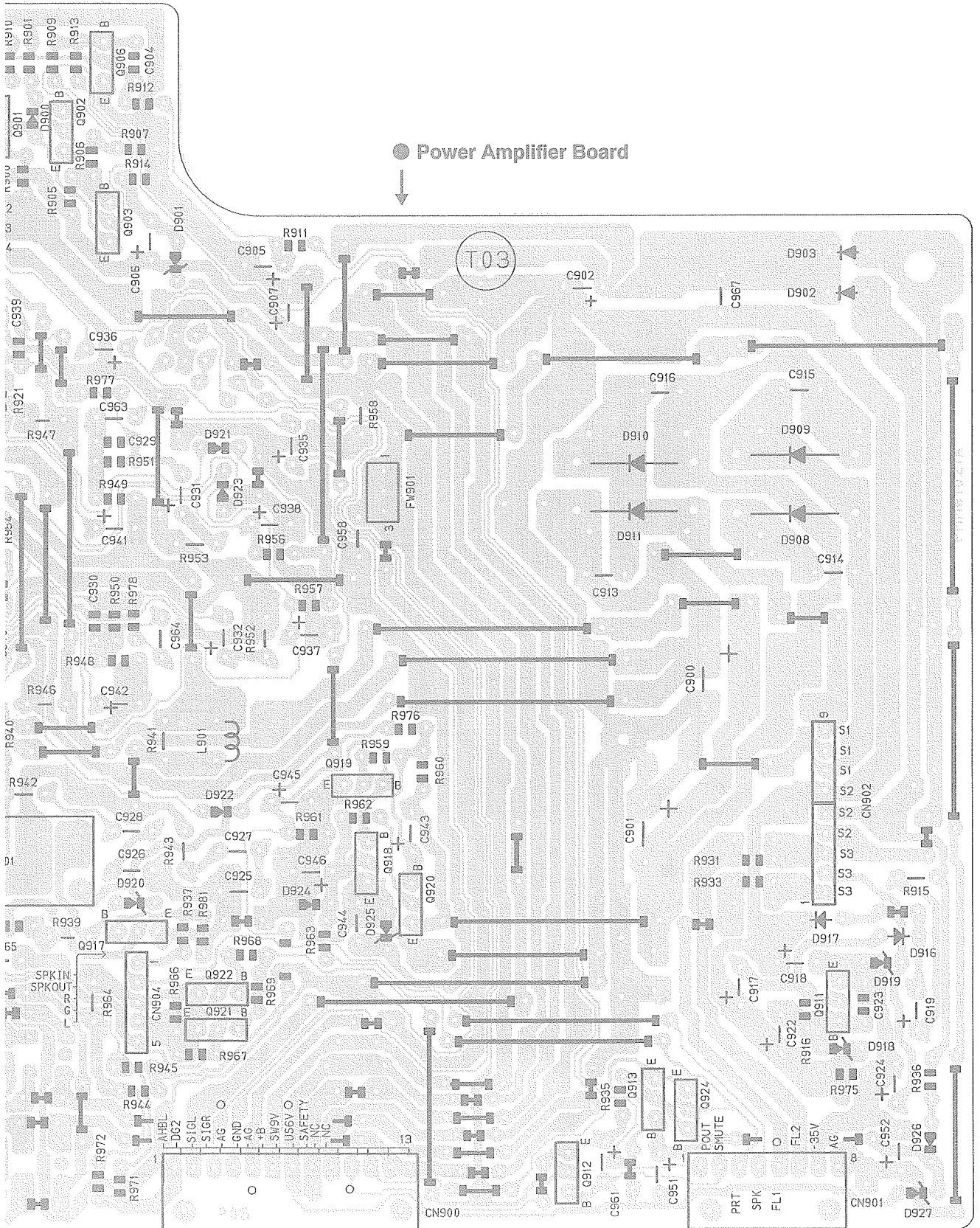


Fig.12-2

1

2

3

4

5

■ System CPU & Operation Switch Board : Block No. 03

A

B

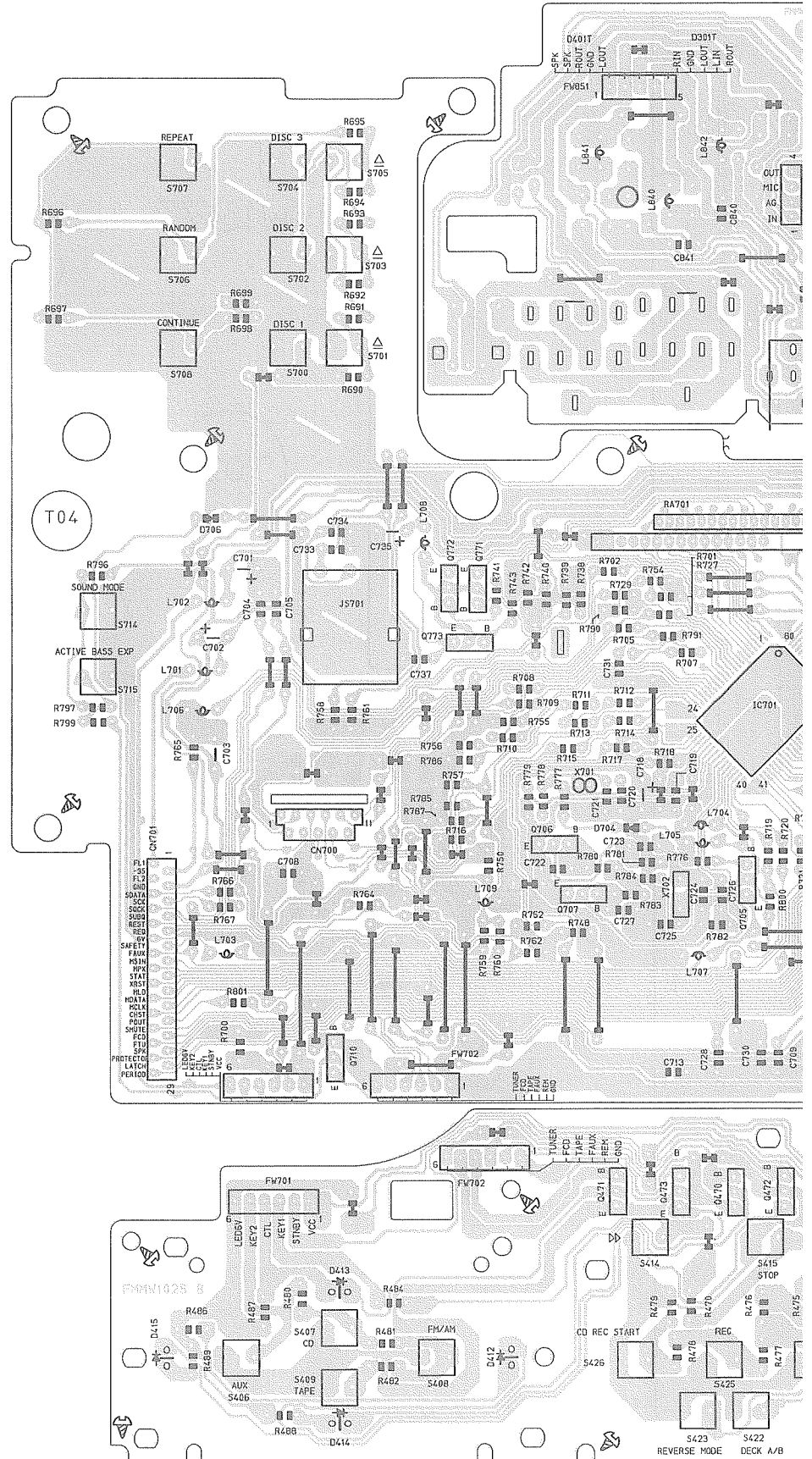
C

D

E

F

● System CPU Board →



6

7

8

9

10

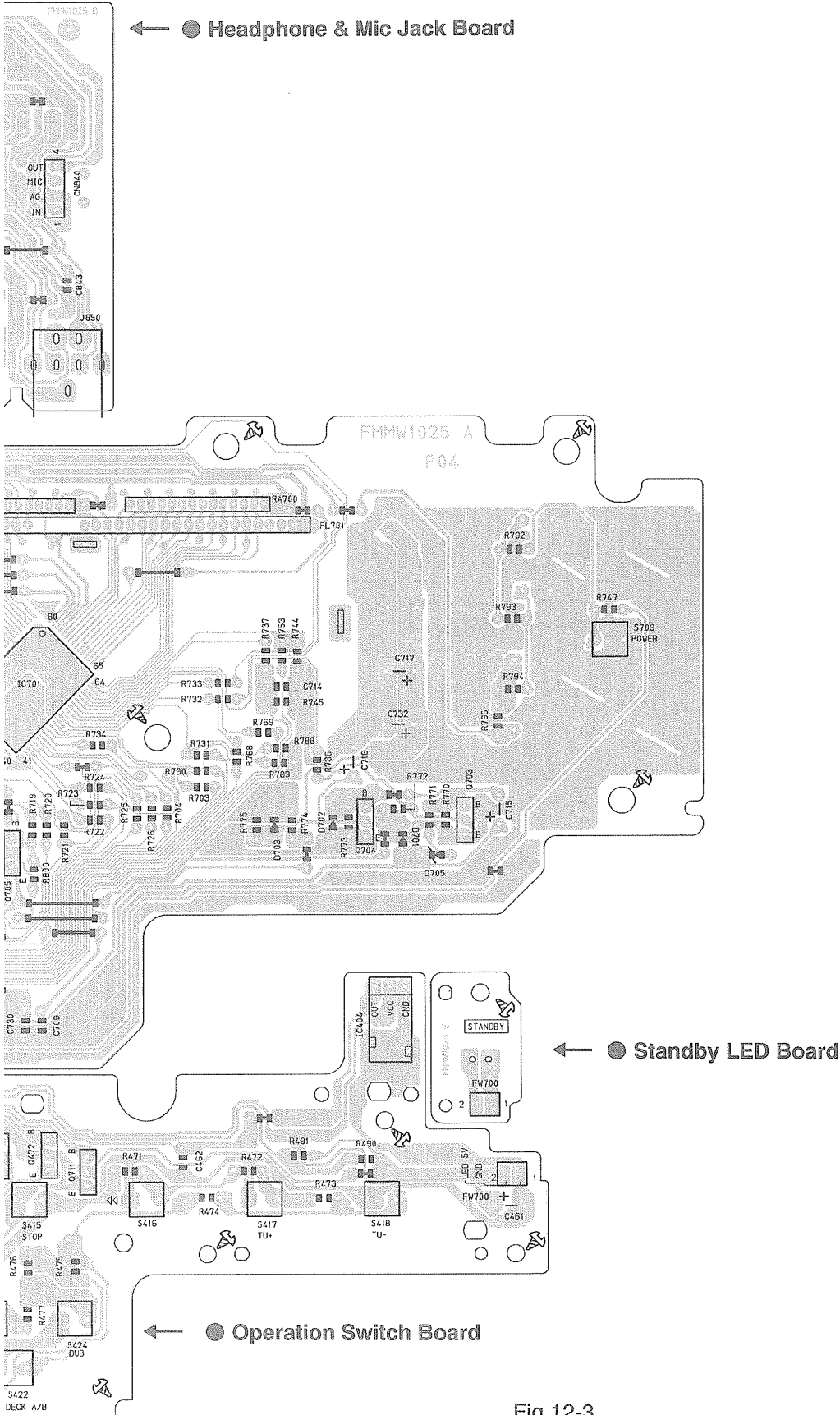


Fig.12-3

■ CD Servo Control Board : Block No. 04

A
B
C
D
E
F

1 2 3 4 5

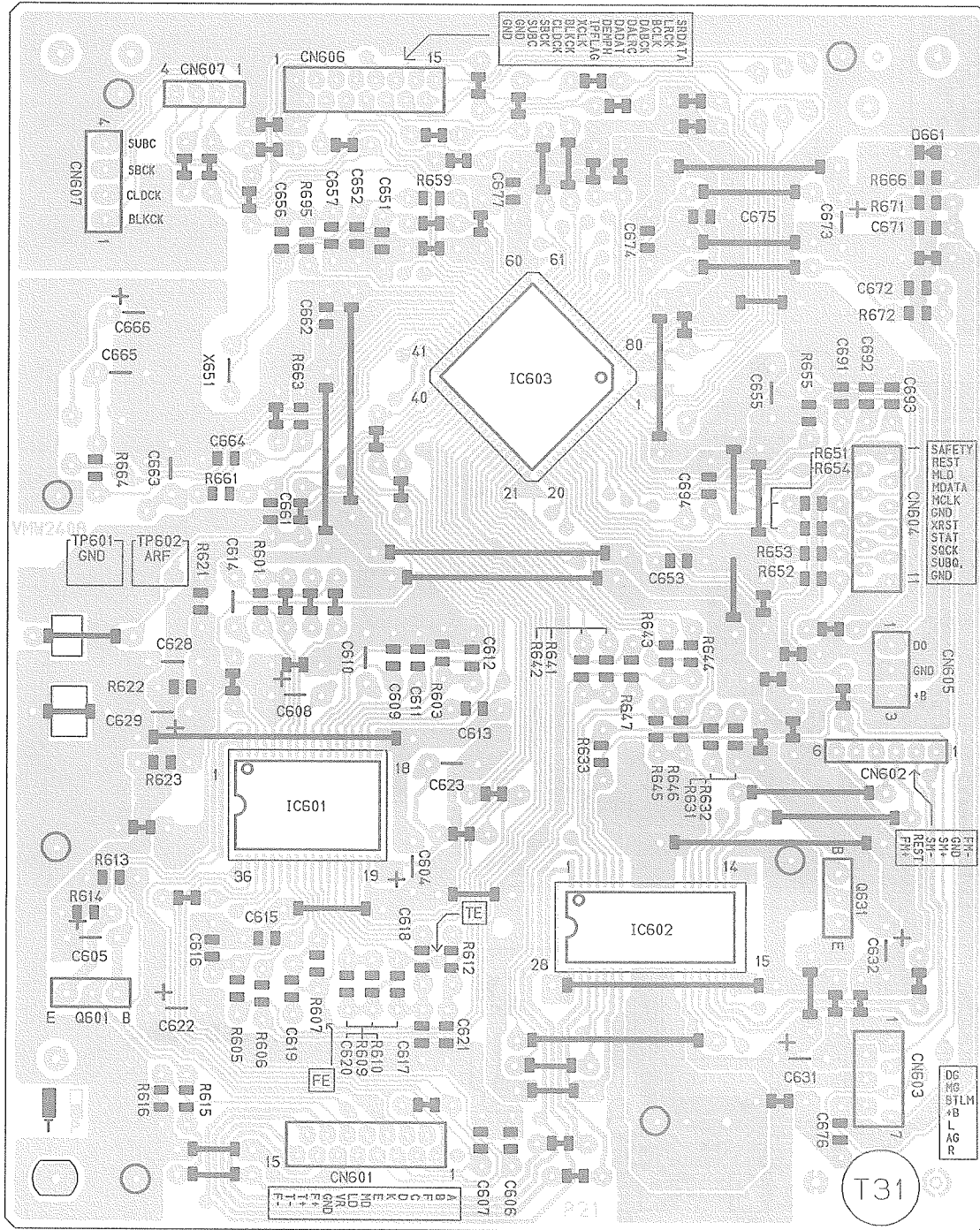


Fig.12-4

1 2 3 4 5

■ Actuator Motor Board : Block No. 05

A

B

C

D

E

F

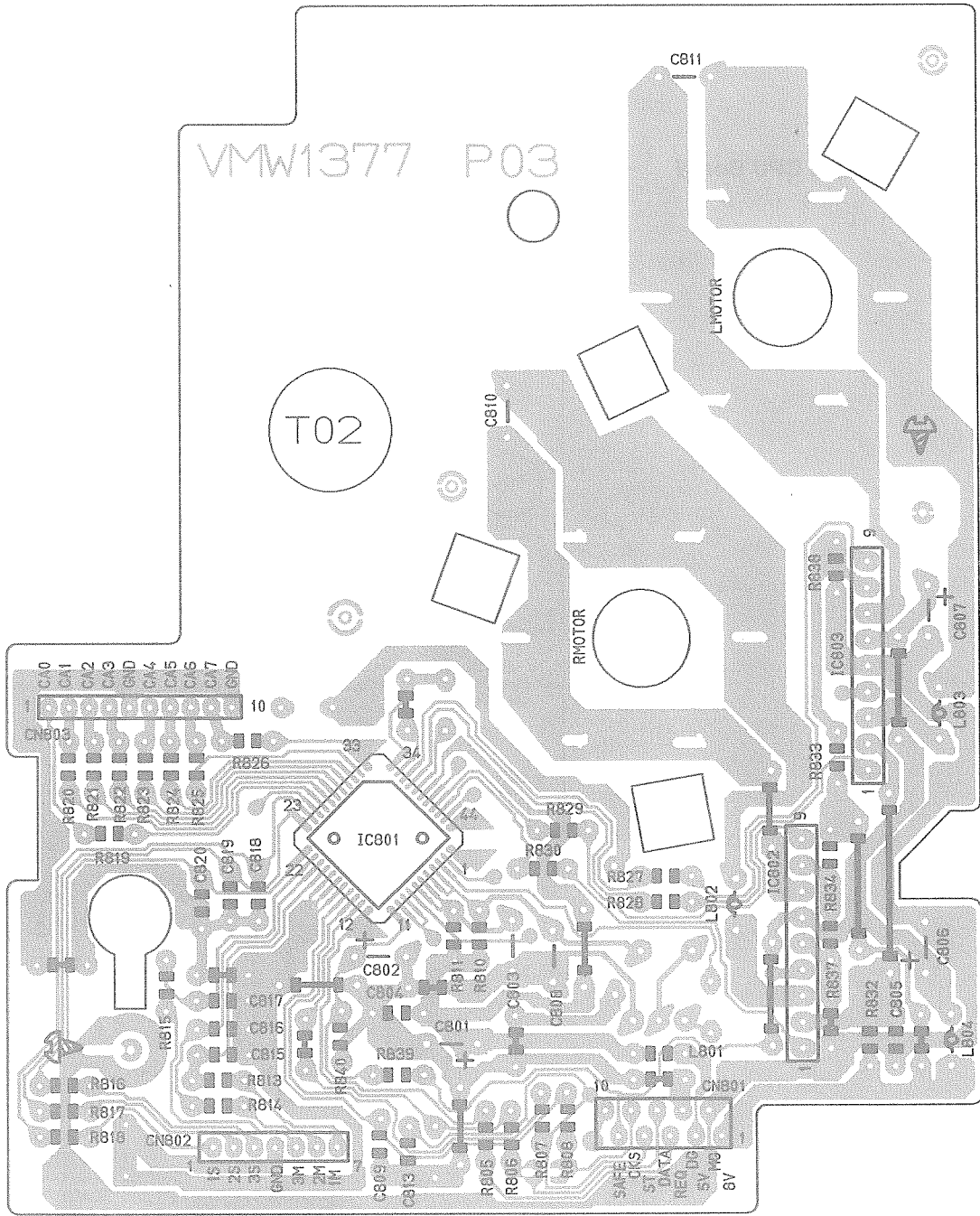


Fig.12-5

1 | 2 | 3 | 4 | 5

■ CD Tray Select Switch Board : Block No. 06

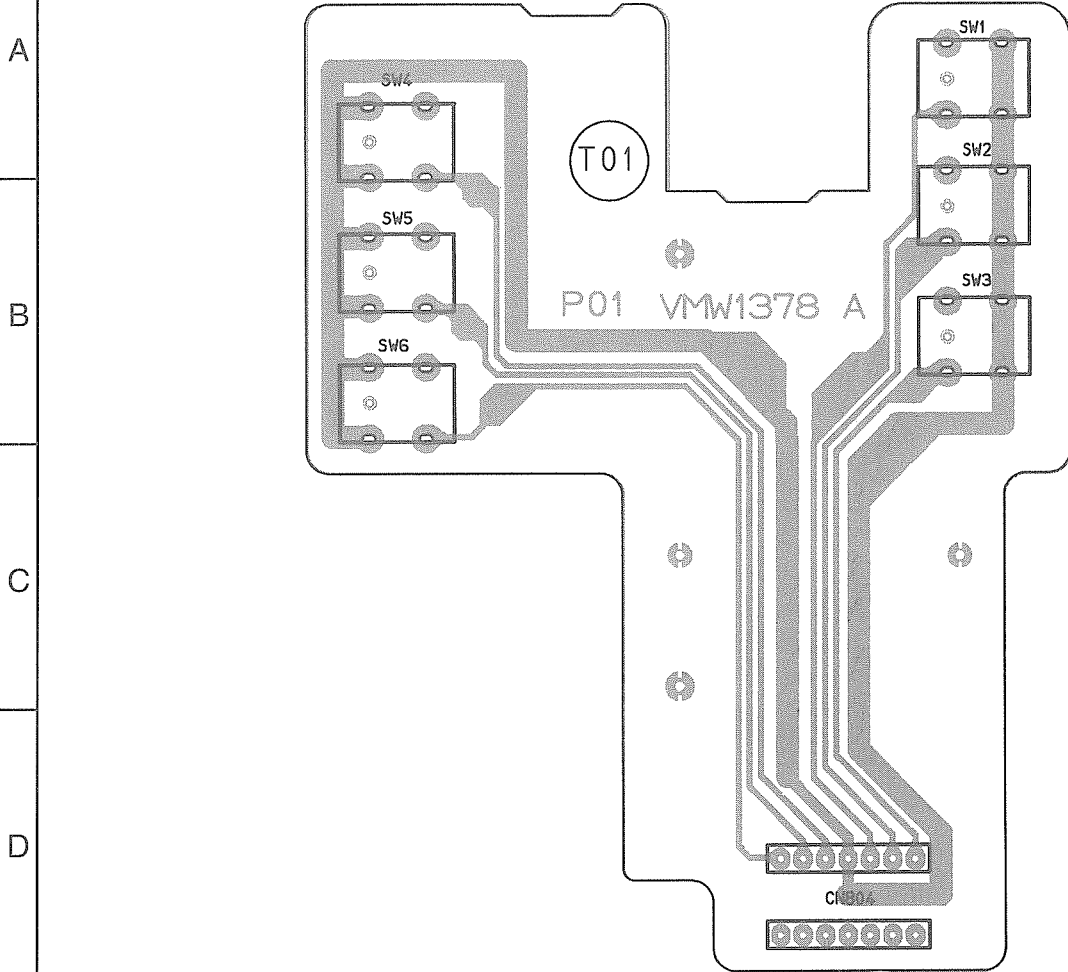


Fig.12-6

■ Cam Switch Board : Block No. 07

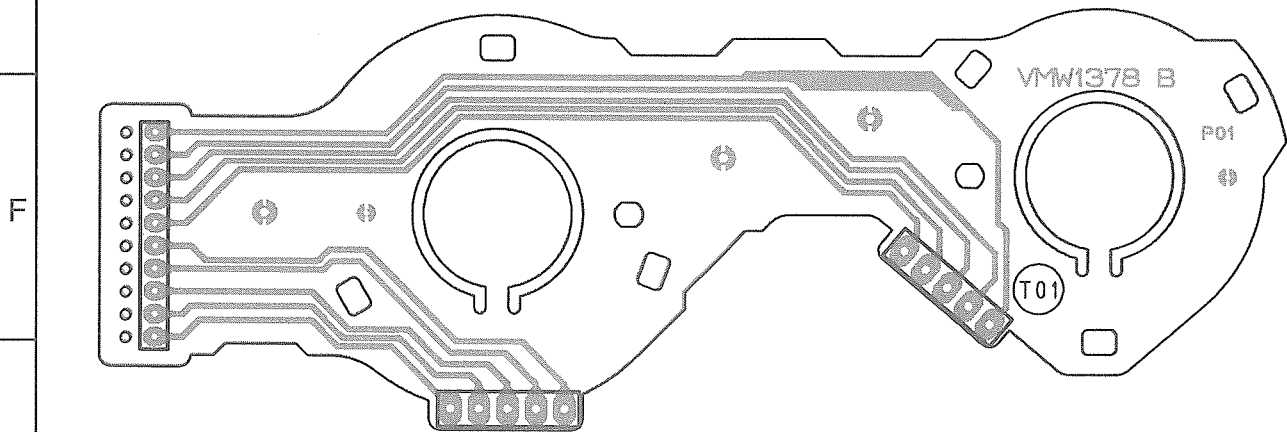


Fig.12-7

1 2 3 4 5

■ Head Amplifier & Mechanism Control Board : Block No. 08

A

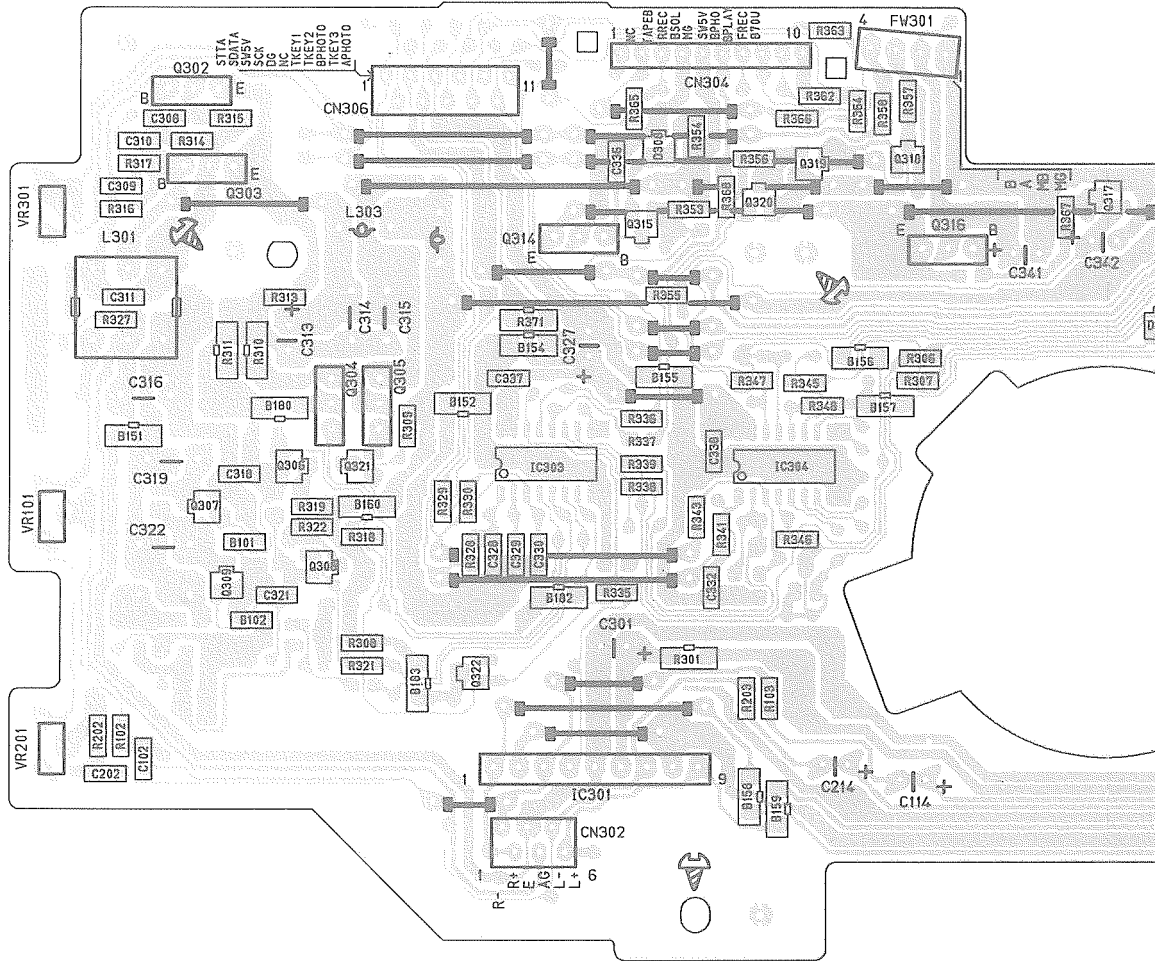
B

C

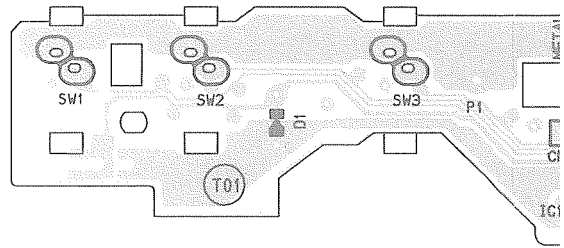
D

E

F



■ Reel Pulse Board : Block No. 09



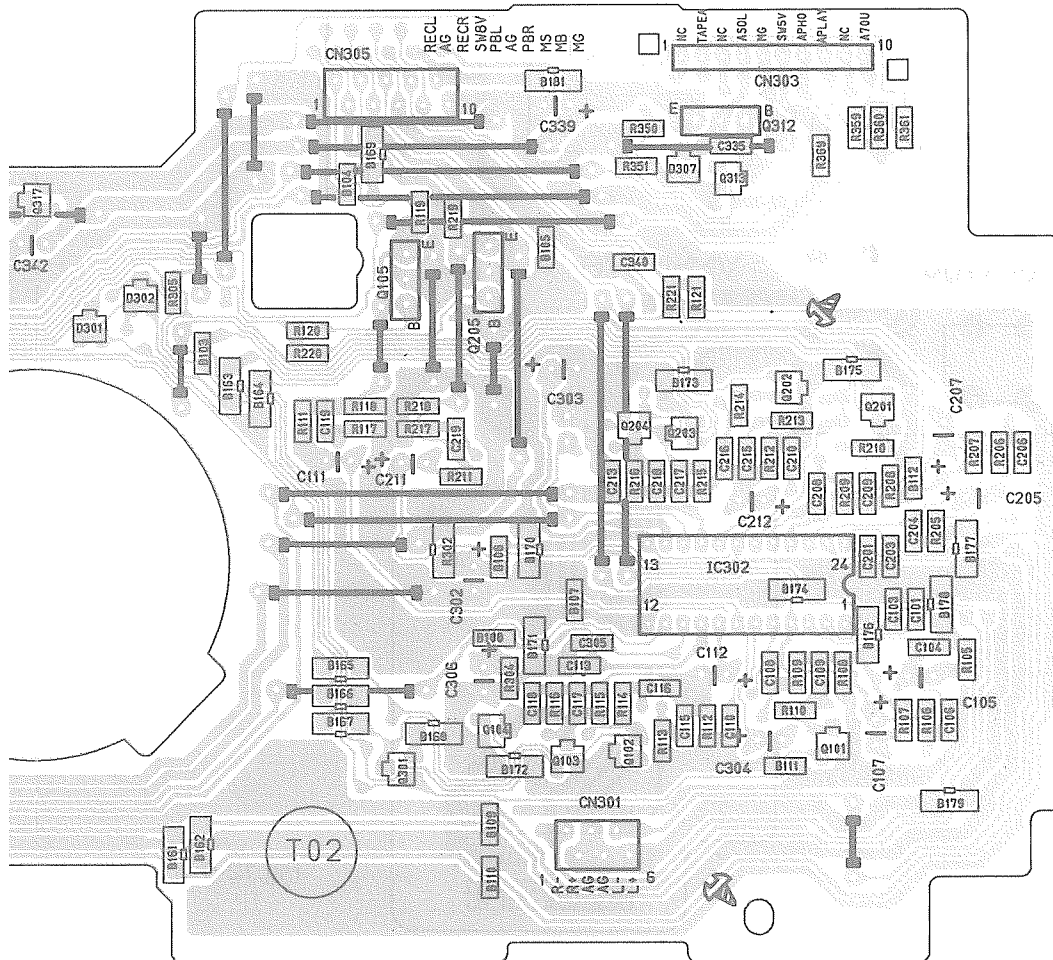


Fig.12-8

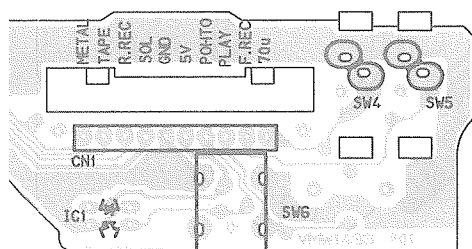


Fig.12-9

13. Electrical Parts List

■ Main Amplifier Board

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 1	QC11EM-223V	C.CAPACITOR	.022MF 20% 25V	
C 2	QCXB1EM-332Y	C.CAPACITOR	3300PF 10% 16V	
C 3	QC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
C 4	QCVB1EM-103Y	C.CAPACITOR	.010MF 30% 16V	
C 5	QET41AM-107	E.CAPACITOR	100MF 20% 10V	
C 6	QCB1HK-331Y	C.CAPACITOR	330PF 10% 50V	
C 7	QCFB1HZ-104Y	C.CAPACITOR	.10MF +80% -20%	
C 8	QCSB1HJ-150Y	C.CAPACITOR	15PF 5% 50V	
C 11	QC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
C 12	QCS11HJ-150	C.CAPACITOR	15PF 5% 50V	
C 13	QCVB1EM-103Y	C.CAPACITOR	.010MF 30% 16V	
C 16	QFV41HJ-104ZM	FILM CAPACITOR	.10MF 5% 50V	
C 18	QCB1HK-471Y	C.CAPACITOR	.047MF 20% 25V	
C 19	QCB1HK-471Y	C.CAPACITOR	.047MF 20% 25V	
C 21	QC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
C 30	QEK41CM-476	E.CAPACITOR	47MF 20% 16V	
C 31	QCS31HJ-390Z	C.CAPACITOR	39PF 5% 50V	
C 32	QCB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
C 33	QEK61AM-107Z	E.CAPACITOR	100MF 20% 10V	
C 34	QCS11HJ-150	C.CAPACITOR	15PF 5% 50V	
C 35	QCVB1EM-103Y	C.CAPACITOR	.010MF 30% 16V	
C 36	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
C 37	QCVB1EM-103Y	C.CAPACITOR	.010MF 30% 16V	
C 38	QC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
C 39	QC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
C 40	QCVB1EM-103Y	C.CAPACITOR	.010MF 30% 16V	
C 41	QEK41HM-104	E.CAPACITOR	.10MF 20% 50V	
C 42	QEK41HM-474	E.CAPACITOR	.47MF 20% 50V	
C 43	QEK61HM-352Z	E.CAPACITOR	3.3MF 20% 50V	
C 44	QCB1HK-221Y	C.CAPACITOR	220PF 10% 50V	
C 45	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
C 46	QC11EM-223V	C.CAPACITOR	.022MF 20% 25V	
C 47	QCVB1EM-103Y	C.CAPACITOR	.010MF 20% 16V	
C 49	QFLC1HJ-183ZM	M CAPACITOR	.018MF 5% 50V	
C 50	QFLC1HJ-183ZM	M CAPACITOR	.018MF 5% 50V	
C 51	QEK41HM-105	E.CAPACITOR	1.0MF 20% 50V	
C 52	QEK41HM-105	E.CAPACITOR	1.0MF 20% 50V	
C 53	QCB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
C 54	QEK61HM-352Z	E.CAPACITOR	3.3MF 20% 50V	
C 55	QCS11HJ-120	C.CAPACITOR	12PF 5% 50V	
C 60	QEK61AM-107Z	E.CAPACITOR	100MF 20% 10V	
C 61	QCS11HJ-120	C.CAPACITOR	12PF 5% 50V	
C 62	QCS11HJ-120	C.CAPACITOR	12PF 5% 50V	
C 63	QC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
C 65	QCB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
C 66	QCB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
C 68	QCB1HK-101Y	C.CAPACITOR	100PF 10% 50V	
C 69	QFV41HJ-105	TF.CAPACITOR	1.0MF 5% 50V	
C 70	QCVB1EM-392Y	C.CAPACITOR	3900PF 20% 16V	
C 71	QET41CM-476	E.CAPACITOR	47MF 20% 16V	
C 72	QCB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
C 80	QCB1HK-820Y	C.CAPACITOR	82PF 10% 50V	
C 81	QCSB1HJ-470	E.CAPACITOR	47PF 5% 50V	
C 82	EETC1CM-106Z1C	E.CAPACITOR	.047MF 20% 25V	
C 83	QC21EM-473	C.CAPACITOR	.047MF 20% 25V	

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 84	QETC1HM-225ZM	E.CAPACITOR	2.2MF 20% 50V	
C 85	QCB1HK-331Y	C.CAPACITOR	330PF 10% 50V	
C 86	QCB1HK-561Y	C.CAPACITOR	560PF 10% 50V	
C 89	QCB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
C 90	QCVB1EM-103Y	C.CAPACITOR	.010MF 30% 16V	
C 101	QCS11HJ-330	C.CAPACITOR	33PF 5% 50V	
C 102	QCS11HJ-100	C.CAPACITOR	10PF 5% 50V	
C 103	QTE1H06-475Z	E.CAPACITOR	4.7MF 20% 50V	
C 104	EETB1CM-226E	E.CAPACITOR	.12MF 5% 50V	
C 106	QTE1H06-475Z	E.CAPACITOR	4.7MF 20% 50V	
C 108	QTE1V06-106Z	E.CAPACITOR	.12MF 5% 50V	
C 110	QFV71HJ-124ZM	FILM CAPACITOR	.12MF 5% 50V	
C 111	QFV71HJ-124ZM	FILM CAPACITOR	.12MF 5% 50V	
C 112	QET41AM-107	E.CAPACITOR	100MF 20% 10V	
C 113	QTE1V06-106Z	E.CAPACITOR	10PF 5% 50V	
C 115	QCB1HK-331Y	C.CAPACITOR	330PF 10% 50V	
C 116	QETC1HM-106ZM	E.CAPACITOR	10MF 20% 50V	
C 122	QETN1HM-335Z	E.CAPACITOR	3.3MF 20% 50V	
C 130	QCS31HJ-820Z	C.CAPACITOR	82PF 5% 50V	
C 201	QCS11HJ-330	C.CAPACITOR	33PF 5% 50V	
C 202	QCS11HJ-100	C.CAPACITOR	10PF 5% 50V	
C 203	QTE1H06-475Z	E.CAPACITOR	4.7MF 20% 50V	
C 204	EETB1CM-226E	E.CAPACITOR	3.3MF 20% 50V	
C 206	QTE1H06-475Z	E.CAPACITOR	4.7MF 20% 50V	
C 208	QTE1V06-106Z	E.CAPACITOR	10PF 5% 50V	
C 210	QFV71HJ-124ZM	FILM CAPACITOR	.12MF 5% 50V	
C 211	QFV71HJ-124ZM	FILM CAPACITOR	.12MF 5% 50V	
C 212	QET41AM-107	E.CAPACITOR	100MF 20% 10V	
C 213	QTE1V06-106Z	E.CAPACITOR	10PF 5% 50V	
C 215	QCB1HK-331Y	C.CAPACITOR	330PF 10% 50V	
C 216	QETC1HM-106ZM	E.CAPACITOR	10MF 20% 50V	
C 222	QETN1HM-335Z	E.CAPACITOR	3.3MF 20% 50V	
C 230	QCS31HJ-820Z	C.CAPACITOR	82PF 5% 50V	
C 301	QCB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
C 303	QETC1HM-225ZM	E.CAPACITOR	2.2MF 20% 50V	
C 305	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C 306	EETB1HM-475E	E.CAPACITOR	470PF 10% 50V	
C 307	EETB1HM-475E	E.CAPACITOR	15PF 5% 50V	
C 308	EETB1CM-226E	E.CAPACITOR	470PF 10% 50V	
C 309	QCS11HJ-150	C.CAPACITOR	15PF 5% 50V	
C 310	QCB1HK-471Y	C.CAPACITOR	470PF 10% 50V	
C 311	QCS11HJ-150	C.CAPACITOR	15PF 5% 50V	
C 312	QCB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
C 313	QCB1HK-471Y	C.CAPACITOR	470PF 10% 50V	
C 314	QETC1HM-224Z	E.CAPACITOR	.22MF 20% 50V	
C 315	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	
C 316	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
C 317	QFLC1HJ-473ZM	M CAPACITOR	.047MF 5% 50V	
C 318	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	
C 319	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
C 320	QFLC1HJ-473ZM	M CAPACITOR	.047MF 5% 50V	
C 321	EETB1EM-106E	E.CAPACITOR	10MF 20% 25V	
C 322	EETB1AM-476E	E.CAPACITOR	47MF 20% 25V	
C 323	QET41EM-106	E.CAPACITOR	10MF 20% 25V	
C 324	EETC1CM-106Z1C	E.CAPACITOR	10MF 20% 25V	

BLOCK NO. 01111111

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
D 314	1SS133	SI DIODE		
D 315	1SR35-100	SI DIODE		
D 316	RB721Q	DIODE		
D 317	RB721Q	DIODE		
D 318	1SS133	SI DIODE		
D 319	1SS133	SI DIODE		
D 322	1SS133	SI DIODE		
D 380	1SS133	SI DIODE		
D 381	RB721Q	DIODE		
D 382	RB721Q	DIODE		
D 904	MTZ4.3JB	ZENER DIODE		
D 905	1SS133	SI DIODE		
D 906	1SS133	SI DIODE		
D 907	MTZ3.9JB	ZENER DIODE		
D 912	RD5.6JSAB1	ZENER DIODE		
D 913	1SS133	SI DIODE		
D 915	1SS133	SI DIODE		
D 928	MTZ2.4JB	ZENER DIODE		
EP001	E409182-001SM	GRAND TERMINAL		
IC 1	TA2037N	IC		
IC 2	LC72136N	IC		
IC 4	SAA6579	I-C(M)		
IC301	NJM4580L	IC		
IC302	BH3854AS	IC		
IC303	NJM4580L	IC		
J 1	EMB41YV-302K	ANT TERMINAL		
JA301	EMN00TV-222AJ2	PIN JACK		
L 1	VQZ0098-101	COIL BLOCK		
L 4	VQP0018-221	INDUCTOR		
L 5	VQP0018-101	INDUCTOR		
L 10	VQZ0069-002S	TRAP COIL		
L 11	VQP0018-2R7	INDUCTOR		
L 302	VQZ0048-009	INDUCTOR		
L 303	VQZ0048-009	INDUCTOR		
L 304	VQZ0048-009	INDUCTOR		
L 305	VQZ0048-009	INDUCTOR		
L 306	VQP0028-100Z	INDUCTOR		
PP301	VMZ0015-005	POST PIN		
PP302	VMZ0015-005	POST PIN		
Q 1	2SC1923	TRANSISTOR		
Q 2	DTA114YS	TRANSISTOR		
Q 3	2SC2785	TRANSISTOR		
Q 4	2SC2785	TRANSISTOR		
Q 6	DTA114YS	TRANSISTOR		
Q 14	2SA1175	TRANSISTOR		
Q 16	2SC2785	TRANSISTOR		
Q 301	2SD2144S(VW)	TRANSISTOR		
Q 302	2SD2144S(VW)	TRANSISTOR		
Q 303	DTA114YS	TRANSISTOR		
Q 304	2SK246(GR-BL)	FET		
Q 305	2SK246(GR-BL)	FET		
Q 306	DTC144TSTP	TRANSISTOR		
Q 307	2SD2144S(VW)	TRANSISTOR		
Q 308	2SD2144S(VW)	TRANSISTOR		
Q 309	2SC2785	TRANSISTOR		

BLOCK NO. 01111111

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 325	EETB1HM-105E	E-CAPACITOR		
C 327	QFV41HJ-224ZM	M.M-CAPACITOR	.22MF 5% 50V	
C 329	QETB1HM-474N	E-CAPACITOR	.47MF 20% 50V	
C 332	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	
C 334	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C 335	QET41AM-107	E CAPACITOR	100MF 20% 10V	
C 351	EETB1CM-476	E-CAPACITOR		
C 352	QET41EM-106	E CAPACITOR	10MF 20% 25V	
C 362	QCB1HK-151Y	C-CAPACITOR	150PF 10% 50V	
C 363	QET41AM-108	E CAPACITOR	1000MF 20% 10V	
C 364	QET41AM-108	E CAPACITOR	1000MF 20% 10V	
C 380	QCS11HJ-330	C-CAPACITOR	33PF 5% 50V	
C 381	QCB1CM-182Y	C-CAPACITOR	1800PF 20% 16V	
C 382	QFLC1HJ-153ZM	M CAPACITOR	.015MF 5% 50V	
C 383	QCB1HK-681Y	C-CAPACITOR	680PF 10% 50V	
C 384	EETB1HM-105E	E-CAPACITOR		
C 385	QETC1HM-474ZM	E-CAPACITOR	47NF 20% 50V	
C 908	EETB1HM-475E	E-CAPACITOR		
C 909	EETB1CM-226E	E-CAPACITOR		
C 910	EETC1CM-106ZJC	E-CAPACITOR		
C 911	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	
C 912	QET41AM-107	E CAPACITOR	100MF 20% 10V	
C 920	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	
C 921	QET41AM-107	E CAPACITOR	100MF 20% 10V	
C 968	QCB1CM-105Y	C-CAPACITOR	.010MF 20% 16V	
CF 1	VCF2M3B-104	CERAMIC FILTER		
CF 2	VCF2S3B-102	CERAMIC FILTER		
CF 3	VCF172Z-115Z	CERAMIC FILTER		
CF 4	CMU2-456A05	CERA LOCK		
CN302	VMC0332-010V	CONNECTOR		
CN303	VMC0163-029	CONNECTOR		
CN304	VMC0332-007V	CONNECTOR		
CN305	VMC0332-011V	CONNECTOR		
CN306	VMC0332-010V	CONNECTOR		
CN307	EMV5125-008	CONNECTOR		
CN308	EMV5125-013	CONNECTOR		
CN313	EMV7145-003Z	CONNECTOR		
D 1	1SS133	SI DIODE		
D 2	1SS133	SI DIODE		
D 3	1SS133	SI DIODE		
D 4	1SS133	SI DIODE		
D 7	1SS133	SI DIODE		
D 300	RB721Q	DIODE		
D 301	1SS133	SI DIODE		
D 302	1SS133	SI DIODE		
D 303	RB721Q	DIODE		
D 304	1SS133	SI DIODE		
D 305	MTZ5.1JAT-77	ZENER DIODE		
D 306	1SS133	SI DIODE		
D 307	1SS133	SI DIODE		
D 308	1SS133	SI DIODE		
D 310	1SS133	SI DIODE		
D 311	1SS133	SI DIODE		
D 312	1SS133	SI DIODE		
D 313	1SS133	SI DIODE		

BLOCK NO. 04111111

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 65	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 66	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 69	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 70	QRD161J-393	CARBON RESISTOR	39K 5% 1/6W	
R 71	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W	
R 72	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
R 73	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 74	QRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W	
R 75	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
R 76	QRD161J-102	C. RESISTOR	1.0K 5% 1/6W	
R 80	QRD161J-222	C. RESISTOR	2.2K 5% 1/6W	
R 82	QRD161J-102	C. RESISTOR	1.0K 5% 1/6W	
R 83	QRD161J-102	C. RESISTOR	1.0K 5% 1/6W	
R 84	QRD161J-103	C. RESISTOR	10K 5% 1/6W	
R 91	QRD161J-103	C. RESISTOR	10K 5% 1/6W	
R 101	QRD161J-114	CARBON RESISTOR	110K 5% 1/6W	
R 102	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 103	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 104	QRD161J-393	CARBON RESISTOR	39K 5% 1/6W	
R 107	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R 108	QRD161J-362	CARBON RESISTOR	3.6K 5% 1/6W	
R 109	QRD161J-303Y	CARBON RESISTOR	30K 5% 1/6W	
R 110	QRD161J-184	CARBON RESISTOR	180K 5% 1/6W	
R 111	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
R 112	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 113	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R 114	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R 116	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R 117	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 118	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 119	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
R 120	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
R 121	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 122	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R 123	QRD161J-474	CARBON RESISTOR	4.7K 5% 1/6W	
R 124	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R 125	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 130	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W	
R 201	QRD161J-114	CARBON RESISTOR	110K 5% 1/6W	
R 202	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 203	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 204	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
R 207	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R 208	QRD161J-362	CARBON RESISTOR	3.6K 5% 1/6W	
R 209	QRD161J-303Y	CARBON RESISTOR	30K 5% 1/6W	
R 210	QRD161J-184	CARBON RESISTOR	180K 5% 1/6W	
R 211	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
R 212	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 213	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R 214	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R 216	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R 217	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 218	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 219	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
R 220	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	

BLOCK NO. 04111111

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
Q 310	25C2785	TRANSISTOR		
Q 311	DTA1144ES	TRANSISTOR		
Q 312	25C2785	TRANSISTOR		
Q 314	DTA144ES	D. TRANSISTOR		
Q 320	DTC144TSTP	TRANSISTOR		
Q 380	25C2785	TRANSISTOR		
Q 381	25C2785	TRANSISTOR		
Q 907	25A1175	TRANSISTOR		
Q 908	25C2785	TRANSISTOR		
Q 909	25B1375	TRANSISTOR		
Q 910	25C2785	TRANSISTOR		
Q 913	25B1375	TRANSISTOR		
Q 914	25C2785	TRANSISTOR		
Q 915	25C2785	TRANSISTOR		
Q 916	25C2785	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-103	CARBON RESISTOR	10K 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-482	CARBON RESISTOR	1.8K 5% 1/6W	
R 56	QRD161J-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	
R 64	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	

BLOCK NO. 01111111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 980	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	T 1	VQ17A21-111	IFT		
	TU 1	VAF2S13-001	FRONT END		
	X 1	VCX5044-001	CRYSTAL		
	X 2	VCX5057-001	CRYSTAL		

BLOCK NO. 01111111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 221	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 222	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		
R 223	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 224	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		
R 225	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 230	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W		
R 300	QRD161J-334	CARBON RESISTOR	330K 5% 1/6W		
R 301	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W		
R 302	QRD161J-184	CARBON RESISTOR	180K 5% 1/6W		
R 303	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W		
R 304	QRD161J-124	CARBON RESISTOR	120K 5% 1/6W		
R 305	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 306	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 307	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		
R 308	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W		
R 309	QRD161J-101	CARBON RESISTOR	100 5% 1/6W		
R 310	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		
R 311	QRD161J-124	CARBON RESISTOR	120K 5% 1/6W		
R 313	QRD161J-302	CARBON RESISTOR	3.0K 5% 1/6W		
R 315	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		
R 316	QRD161J-474	CARBON RESISTOR	470K 5% 1/6W		
R 318	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W		
R 320	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W		
R 327	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		
R 328	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		
R 317	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W		
R 348	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		
R 349	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 350	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		
R 353	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W		
R 354	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W		
R 355	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W		
R 356	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W		
R 357	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 358	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 361	QRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W		
R 380	QRD161J-225	CARBON RESISTOR	2.2M 5% 1/6W		
R 381	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W		
R 382	QRD161J-220	CARBON RESISTOR	22.5K 1/6W		
R 383	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W		
R 917	QRD161J-101	CARBON RESISTOR	100 5% 1/6W		
R 918	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W		
R 919	QRD161J-390	CARBON RESISTOR	39.5K 1/6W		
R 920	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 921	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W		
R 922	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 923	QRD161J-151	CARBON RESISTOR	150 5% 1/6W		
R 924	QR70077-220X	F. RESISTOR	22 1/0W		
R 925	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W		
R 926	QRD161J-561	CARBON RESISTOR	560 5% 1/6W		
R 927	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		
R 928	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W		
R 929	QRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W		
R 930	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W		
R 979	QRD161J-471	CARBON RESISTOR	470 5% 1/6W		

Power Supply & Power Amplifier Board

BLOCK NO. 02111111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C	900	QETM1HM-228	E CAPACITOR	2200MF 20% 50V	
C	901	QETM1HM-228	E CAPACITOR	2200MF 20% 50V	
C	902	QETM1EM-228	E CAPASITOR	2200MF 20% 25V	
C	904	QCBBIHK-221Y	C-CAPACITOR	220PF 10% 50V	
C	905	QET41CM-106	E CAPACITOR	10MF 20% 16V	
C	906	QETN1HM-225Z	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	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
C	918	QET41HM-226	E CAPACITOR	22MF 20% 50V	
C	919	QETB1JM-107	E CAPACITOR	100MF 20% .63V	
C	922	QET41HM-226	E CAPACITOR	22MF 20% 50V	
C	923	QCVB1CN-103Y	C-CAPACITOR	.010MF 30% 16V	
C	924	QET41HM-475	M 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	QCS11HJ-100	C-CAPACITOR	10PF 5% 50V	
C	930	QCS11HJ-100	C-CAPACITOR	10PF 5% 50V	
C	931	QET41HM-476	E CAPACITOR	47MF 20% 50V	
C	932	QET41HM-476	E CAPACITOR	47MF 20% 50V	
C	933	QCBBIHK-101Y	C-CAPACITOR	100PF 10% 50V	
C	934	QCBBIHK-101Y	C-CAPACITOR	100PF 10% 50V	
C	935	QTE1V06-106Z	E-CAPACITOR	10MF 20% 50V	
C	936	QTE1V06-106Z	E-CAPACITOR	10MF 20% 50V	
C	937	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
C	938	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
C	939	QCBBIHK-101Y	C-CAPACITOR	100PF 10% 50V	
C	940	QCBBIHK-101Y	C-CAPACITOR	100PF 10% 50V	
C	941	QET41HM-226	E CAPACITOR	22MF 20% 50V	
C	942	QET41HM-226	E CAPACITOR	22MF 20% 50V	
C	943	QET41HM-105	E CAPACITOR	1.0MF 20% 50V	
C	944	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C	945	QET41CM-476	E CAPACITOR	47MF 20% 16V	
C	946	QET41CM-226	E CAPACITOR	22MF 20% 16V	
C	947	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C	948	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C	949	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C	950	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C	951	QET41HM-105	E CAPACITOR	1.0MF 20% 50V	
C	958	QCF11HP-223	C-CAPACITOR	.022MF +100% -0%	
C	961	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
C	963	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C	964	QFLC1HJ-223ZM	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		EMV7125-008R	CONNECTOR		
CN903		EMV7145-004Z	CONNECTOR		
CN904		EMV7145-005Z	CONNECTOR		

BLOCK NO. 02111111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
CN905		EMV7145-005Z	CONNECTOR		
D	900	1SS133	DIODE		
D	901	MTZ9.1JA	ZENER DIODE		
D	902	1SR35-100	SI-DIODE		
D	903	1SR35-100	SI-DIODE		
D	908	1N5401TM	SI-DIODE		
D	909	1N5401TM	SI-DIODE		
D	910	1N5401TM	SI-DIODE		
D	911	1N5401TM	SI-DIODE		
D	916	1SR139-200	DIODE		
D	917	1SR139-200	DIODE		
D	918	MTZ33JC	ZENER DIODE		
D	919	MTZ6.2JAT-77	ZENER DIODE		
D	920	MTZ24JC	ZENER DIODE		
D	921	1SS133	DIODE		
D	922	1SS133	DIODE		
D	923	1SS133	DIODE		
D	924	1SS133	DIODE		
D	926	1SS133	DIODE		
D	927	MTZ5.1JC	ZENER DIODE		
EP901		E409182-001SM	GRAND TERMINAL		
FT003		EMG7331-003Z	FUSE CLIP		
FT004		EMG7331-003Z	FUSE CLIP		
FT005		EMG7331-003Z	FUSE CLIP		
FT006		EMG7331-003Z	FUSE CLIP		
FT007		EMG7331-003Z	FUSE CLIP		
FT008		EMG7331-003Z	FUSE CLIP		
FW999		EMR39D-25LS	CORD		
IC900		TDAT7295	IC	SPEAKER	
IC901		TDAT7295	IC		
JA901		FMJ14003-001	TERMINAL		
L	900	EGL0011-R45J1	INDUCTOR		
L	901	EGL0011-R45J1	INDUCTOR		
L	942	VQZ0104-003	INDUCTOR		
L	971	VQZ0104-003	INDUCTOR		
Q	901	2SA1175	TRANSISTOR		
Q	902	DT144TSTP	TRANSISTOR		
Q	903	DT144TSTP	TRANSISTOR		
Q	904	2SB1375	TRANSISTOR		
Q	905	2SC2785	TRANSISTOR		
Q	906	2SC2785	TRANSISTOR		
Q	911	2SA934(Q-R)	TRANSISTOR		
Q	912	DTA114ES	TRANSISTOR		
Q	917	2SC945A	TRANSISTOR		
Q	918	2SC945A	TRANSISTOR		
Q	919	2SA933S(RS)	TRANSISTOR		
Q	920	2SC945A	TRANSISTOR		
Q	921	2SD2144S(VW)	TRANSISTOR		
Q	922	2SD2144S(VW)	TRANSISTOR		
Q	923	DT144TSTP	TRANSISTOR		
Q	924	DT144TSTP	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. 02

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 976	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 977	GRD161J-823	CARBON RESISTOR	82K 5% 1/6W	
R 978	GRD161J-823	CARBON RESISTOR	82K 5% 1/6W	
RY901	ESK7D24-213R	RELAY		
TB001	EMZ4001-002Z	TAB		
TB002	EMZ4001-002Z	TAB		

BLOCK NO. 02

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 904	GRD161J-1R0	CARBON RESISTOR	1.0 5% 1/6W	
R 905	GRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R 906	GRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
R 907	GRD161J-821	CARBON RESISTOR	820 5% 1/6W	
R 908	QRZ0077-151X	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	QRZ0077-472	CARBON RESISTOR	4.7K 5% 1/6W	
R 915	QRZ0077-100X	FUSE RESISTOR	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	33 5% 1/6W	
R 939	QRG01D1-471X	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	QRX014J-R22	UNF. MF. RESISTOR	5% 1/1W	
R 947	QRX014J-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-104	CARBON RESISTOR	100K 5% 1/6W	
R 951	GRD161J-104	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-104	CARBON RESISTOR	100K 5% 1/6W	
R 956	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 957	GRD161J-102	CARBON RESISTOR	10K 5% 1/6W	
R 958	QRZ0077-4R7X	FUSE RESISTOR	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	GRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
R 973	GRD161J-4R7	CARBON RESISTOR	4.7 5% 1/6W	
R 974	GRD161J-4R7	CARBON RESISTOR	4.7 5% 1/6W	
R 975	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W	

System CPU & Operation Switch Board

BLOCK NO. 03111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 698	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
R 699	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 700	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 701	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 702	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 703	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 704	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 705	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 707	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 708	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 709	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 710	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 711	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 712	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 713	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 714	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 715	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 716	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 717	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 718	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 719	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 720	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 721	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 722	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 723	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 724	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 725	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 726	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 727	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 728	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 729	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 730	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 731	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 732	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 733	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 736	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 737	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 738	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 739	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 740	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 741	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 742	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 743	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 744	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 745	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R 747	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 748	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 750	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 752	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 753	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 754	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R 755	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R 756	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R 757	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 758	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	

BLOCK NO. 03111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
J5701	QSM0538-001	ROTARY ENCODER		
L 701	VQP0026-470Z	INDUCTOR		
L 702	VQP0026-470Z	INDUCTOR		
L 703	VQP0033-100Z	INDUCTOR		
L 704	VQP0018-4R7	INDUCTOR		
L 705	VQP0018-4R7	INDUCTOR		
L 706	VQP0033-100Z	INDUCTOR		
L 707	VQP0033-100Z	INDUCTOR		
L 708	VQP0018-220	INDUCTOR		
L 709	VQZ0048-009	INDUCTOR		
L 840	EGL4007-2R2T	INDUCTOR	HP GND(D401T)	
L 841	VQP0018-470	INDUCTOR	EMC	
L 842	VQP0018-470	INDUCTOR	EMC	
Q 470	DTC114ESTP	TRANSISTOR		
Q 471	DTC114ESTP	TRANSISTOR		
Q 472	DTA114ES	TRANSISTOR		
Q 473	DTA114ES	TRANSISTOR		
Q 703	2SC2785	TRANSISTOR		
Q 704	DTC114TSTP	TRANSISTOR		
Q 705	2SA1175	TRANSISTOR		
Q 706	2SC2668(C)	TRANSISTOR		
Q 707	2SC2668(C)	TRANSISTOR		
Q 710	DTC114ESTP	TRANSISTOR		
Q 711	2SD2144S(VW)	TRANSISTOR		
Q 771	2SC945(P-A)	TRANSISTOR		
Q 772	2SC945(P-A)	TRANSISTOR		
Q 773	2SC945(P-A)	TRANSISTOR		
R 470	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 471	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
R 472	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
R 473	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 474	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
R 475	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
R 476	QRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W	
R 477	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 478	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
R 479	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R 480	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 481	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
R 482	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R 484	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 486	QRD161J-271	CARBON RESISTOR	270 5% 1/6W	
R 487	QRD161J-271	CARBON RESISTOR	270 5% 1/6W	
R 488	QRD161J-271	CARBON RESISTOR	270 5% 1/6W	
R 489	QRD161J-271	CARBON RESISTOR	270 5% 1/6W	
R 490	QRD161J-301	CARBON RESISTOR	300 5% 1/6W	
R 491	QRD161J-301	CARBON RESISTOR	300 5% 1/6W	
R 690	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 691	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 692	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
R 693	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
R 694	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 695	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
R 696	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
R 697	QRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W	

BLOCK NO. 03

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
S 425	QS01A11-V04Z	TACT SWITCH		
S 426	QS01A11-V04Z	TACT SWITCH		
S 700	QS01A11-V04Z	TACT SWITCH		
S 701	QS01A11-V04Z	TACT SWITCH		
S 702	QS01A11-V04Z	TACT SWITCH		
S 703	QS01A11-V04Z	TACT SWITCH		
S 704	QS01A11-V04Z	TACT SWITCH		
S 705	QS01A11-V04Z	TACT SWITCH		
S 706	QS01A11-V04Z	TACT SWITCH		
S 707	QS01A11-V04Z	TACT SWITCH		
S 708	QS01A11-V04Z	TACT SWITCH		
S 709	QS01A11-V04Z	TACT SWITCH		
S 710	QS01A11-V04Z	TACT SWITCH		
S 711	QS01A11-V04Z	TACT SWITCH		
S 712	QS01A11-V04Z	TACT SWITCH		
S 713	QS01A11-V04Z	TACT SWITCH		
S 714	QS01A11-V04Z	TACT SWITCH		
S 715	QS01A11-V04Z	TACT SWITCH		
SP701	VYH7653-001	IC HOLDER		
X 701	VCX5000-002	CRYSTAL		
X 702	M2Z4.19	CERA LOCK		

BLOCK NO. 03

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 759	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
R 760	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
R 761	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 762	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R 764	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
R 765	QRD161J-331	CARBON RESISTOR	330 5% 1/6W	
R 766	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 767	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 768	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 769	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 770	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 771	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 772	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 773	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 774	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R 775	QRD161J-331	CARBON RESISTOR	330 5% 1/6W	
R 776	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 777	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 778	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 779	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R 780	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R 781	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
R 782	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
R 783	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R 784	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 785	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 786	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 787	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 788	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 789	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 790	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 791	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 792	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 793	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
R 794	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
R 795	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 796	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
R 797	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
R 799	QRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W	
R 800	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 801	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
RA700	QRB139J-224	NET RESISTOR	220K 5% 1/3W	
RA701	QRB149J-224	R-NETWORK	220K 5% 1/4W	
S 406	QS01A11-V04Z	TACT SWITCH		
S 407	QS01A11-V04Z	TACT SWITCH		
S 408	QS01A11-V04Z	TACT SWITCH		
S 409	QS01A11-V04Z	TACT SWITCH		
S 414	QS01A11-V04Z	TACT SWITCH		
S 415	QS01A11-V04Z	TACT SWITCH		
S 416	QS01A11-V04Z	TACT SWITCH		
S 417	QS01A11-V04Z	TACT SWITCH		
S 418	QS01A11-V04Z	TACT SWITCH		
S 422	QS01A11-V04Z	TACT SWITCH		
S 423	QS01A11-V04Z	TACT SWITCH		
S 424	QS01A11-V04Z	TACT SWITCH		

BLOCK NO. 03

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 461	QEK41CM-476	E-CAPACITOR	47MF 20% 16V	
C 462	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 701	QEK51HM-226	E-CAPACITOR	22MF 20% 50V	
C 702	QEK51HM-226	E-CAPACITOR	22MF 20% 50V	
C 703	QFV71HJ-124ZM	FILM CAPACITOR	.12MF 5% 50V	
C 704	QCB1HK-151Y	E-CAPACITOR	150PF 10% 50V	
C 705	QCB1HK-151Y	E-CAPACITOR	150PF 10% 50V	
C 708	QCB1HK-151Y	E-CAPACITOR	150PF 10% 50V	
C 709	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 713	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 714	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 715	QER41CM-106	E-CAPACITOR	10MF 20% 16V	
C 716	QER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 717	QEK61AM-227ZM	E-CAPACITOR	220MF 20% 10V	
C 718	QEK60JM-107ZM	E-CAPACITOR	100MF 20% 6.3V	
C 719	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 720	QCS11HJ-220	E-CAPACITOR	22PF 5% 50V	
C 721	QCS11HJ-220	E-CAPACITOR	22PF 5% 50V	
C 722	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 723	QCS31HJ-390Z	E-CAPACITOR	39PF 5% 50V	
C 724	QCS11HJ-180	E-CAPACITOR	18PF 5% 50V	
C 725	QCS11HJ-220	E-CAPACITOR	22PF 5% 50V	
C 726	QCS31HJ-390Z	E-CAPACITOR	39PF 5% 50V	
C 727	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 728	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 730	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 731	QCB1HK-101Y	E-CAPACITOR	100PF 10% 50V	
C 732	QEK61AM-227ZM	E-CAPACITOR	220MF 20% 10V	
C 733	QCVB1CN-103Y	E-CAPACITOR	.010MF 30% 16V	
C 734	QCVB1CN-103Y	E-CAPACITOR	.010MF 30% 16V	
C 735	QEK41CM-476	E-CAPACITOR	47MF 20% 16V	
C 737	QCB1HK-151Y	E-CAPACITOR	150PF 10% 50V	
C 840	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 841	QCB1HK-102Y	E-CAPACITOR	100PF 10% 50V	
C 842	QCB1HK-102	E-CAPACITOR	100PF 10% 50V	
CN700	EMV7160-011	CONNECTOR		
CN701	VMC0163-R29	CONNECTOR		
D 411	SLA-380LT	LED		
D 412	SLR-342MCA47	LED		
D 413	SLR-342MCA47	LED		
D 414	SLR-342MCA47	LED		
D 415	SLR-342MCA47	LED		
D 701	1SS133	SI DIODE		
D 702	1SS133	SI DIODE		
D 703	1SS133	SI DIODE		
D 704	1SS133	SI DIODE		
D 705	MTZ5.1JAT-77	ZENER DIODE		
D 706	1SS133	SI DIODE		
FL701	QLF0021-001	FL TUBE		
FW700	VWSC02-103K3K	TM FLAT		
FW701	VWSC06-093K3K	EF FLAT WIRE		
FW702	VWSC06-093K3K	EF FLAT WIRE		
IC404	GP1U261X	IR DETECT UNIT		
IC701	UPD78044FGF-055	IC		
J 850	VMJ4024-001	JACK	HEAD PHONE	

CD Servo Control Board

BLOCK NO. 04

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 604	QEK61AM-107Z	E.CAPACITOR	100MF 20% 10V	
C 605	EETB1EM-106E	E.CAPACITOR		
C 606	QCB81HK-102Y	C.CAPACITOR	1000PF 10% 50V	
C 607	QCB81HK-102Y	C.CAPACITOR	1000PF 10% 50V	
C 608	EETB1EM-105E	E.CAPACITOR		
C 609	QCB81HK-101Y	C.CAPACITOR	100PF 10% 50V	
C 610	QFLC1HJ-273ZM	M CAPACITOR	.027MF 5% 50V	
C 611	QCB11CM-222Y	C.CAPACITOR	2200PF 20% 16V	
C 612	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V	
C 613	QCB81HK-331Y	C.CAPACITOR	330PF 10% 50V	
C 614	QFLC1HJ-104ZM	M CAPACITOR	.10MF 5% 50V	
C 615	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%	
C 616	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%	
C 617	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%	
C 618	QCB11CM-222Y	C.CAPACITOR	2200PF 20% 16V	
C 619	QCB81HK-271Y	C.CAPACITOR	270PF 10% 50V	
C 620	QCS11HJ-470	C.CAPACITOR	47PF 5% 50V	
C 621	QCB81HK-821Y	C.CAPACITOR	820PF 10% 50V	
C 622	EETB1AM-476E	E.CAPACITOR		
C 623	QFLC1HJ-104ZM	M CAPACITOR	.10MF 5% 50V	
C 628	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
C 629	EETB1AM-107E	E.CAPACITOR		
C 631	QET41AM-477	E.CAPACITOR	470MF 20% 10V	
C 632	QEK61AM-107Z	E.CAPACITOR	100MF 20% 10V	
C 651	QCS11HJ-120	C.CAPACITOR	12PF 5% 50V	
C 652	QCS11HJ-150	C.CAPACITOR	15PF 5% 50V	
C 653	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%	
C 655	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
C 661	QCB81HK-471Y	C.CAPACITOR	470PF 10% 50V	
C 662	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%	
C 663	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C 664	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%	
C 665	QFV71HJ-334ZM	FILM CAPACITOR	.33MF 5% 50V	
C 671	QCB11CM-222Y	C.CAPACITOR	2200PF 20% 16V	
C 672	QCB11CM-222Y	C.CAPACITOR	2200PF 20% 16V	
C 673	QET41AM-227	E.CAPACITOR	220MF 20% 10V	
C 674	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%	
C 675	QCB81HK-102Y	C.CAPACITOR	1000PF 10% 50V	
C 676	QCB81HK-102Y	C.CAPACITOR	1000PF 10% 50V	
C 691	QCB81HK-151Y	C.CAPACITOR	150PF 10% 50V	
C 692	QCB81HK-151Y	C.CAPACITOR	150PF 10% 50V	
C 693	QCB81HK-151Y	C.CAPACITOR	150PF 10% 50V	
C 694	QCB81HK-151Y	C.CAPACITOR	150PF 10% 50V	
CN601	EMV7144-015R	15PIN CONNECTOR		
CN602	EMV5109-006A	6P PLUG ASSY		
CN603	VMCO163-R07	CONNECTOR		
CN604	VMCO163-R11	CONNECTOR		
CN605	VMCO041-003	CONNECTOR		
D 661	1S5133	SI DIODE		
IC601	AN8806SB	IC		
IC602	BA6897FPW	IC		
IC603	MN35510-S	IC		
Q 601	2SA952(L-K)	TRANSISTOR		
Q 631	2SA952(L-K)	TRANSISTOR		
R 601	GRD161J-123	CARBON RESISTOR	12K 5% 1/6W	

BLOCK NO. 04

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 603	GRD161J-125	CARBON RESISTOR	1.2M 5% 1/6W	
R 605	GRD161J-134	CARBON RESISTOR	130K 5% 1/6W	
R 606	GRD161J-913	CARBON RESISTOR	91K 5% 1/6W	
R 607	GRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
R 609	GRD161J-114	CARBON RESISTOR	110K 5% 1/6W	
R 610	GRD161J-154	CARBON RESISTOR	150K 5% 1/6W	
R 612	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 613	GRD161J-121	CARBON RESISTOR	120 5% 1/6W	
R 614	GRD161J-100	CARBON RESISTOR	10 5% 1/6W	
R 615	GRD161J-120	CARBON RESISTOR	12 5% 1/6W	
R 616	GRD161J-910Y	CARBON RESISTOR	91 5% 1/6W	
R 621	GRD161J-330	CARBON RESISTOR	33 5% 1/6W	
R 622	GRD161J-330	CARBON RESISTOR	33 5% 1/6W	
R 623	GRD161J-330	CARBON RESISTOR	33 5% 1/6W	
R 631	GRD161J-331	CARBON RESISTOR	330 5% 1/6W	
R 632	GRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 633	GRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
R 641	GRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
R 642	GRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
R 643	GRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
R 644	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 645	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 646	GRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R 647	GRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W	
R 651	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 652	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 653	GRD161J-471	CARBON RESISTOR	470 5% 1/6W	
R 654	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 655	GRD161J-471	CARBON RESISTOR	470 5% 1/6W	
R 659	GRD161J-471	CARBON RESISTOR	470 5% 1/6W	
R 661	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R 663	GRD161J-124	CARBON RESISTOR	120K 5% 1/6W	
R 664	GRD161J-681	CARBON RESISTOR	680 5% 1/6W	
R 666	GRD161J-220	CARBON RESISTOR	22 5% 1/6W	
R 671	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 672	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
X 651	VX5016-934V	CRYSTAL		

■ Actuator Motor Board

BLOCK NO. 05

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 803	QFLB1HJ-102	M-CAPACITOR	1000PF 5% 50V	
C 804	QCFB1HZ-104Y	C-CAPACITOR	-10MF +80:-20%	
C 805	QCVB1CM-103Y	C-CAPACITOR	.010MF 20% 16V	
C 808	QFLB1HJ-102	M-CAPACITOR	1000PF 5% 50V	
C 810	QZ0205-155	ML-C-CAPACITOR	1.5MF	
C 811	QZ0205-155	ML-C-CAPACITOR	1.5MF	
C 813	QCVB1CM-103Y	C-CAPACITOR	.010MF 20% 16V	
C 821	QCB1HK-102Y	C-CAPACITOR	1000PF 10% 50V	
CN801	VMC0163-R10	CONNECTOR	TO MICON	
CN802	VMC0289-P07	CONNECTOR	TO SWITCH PWB	
CN803	VMC0324-12310	CONNECTOR	TO CAM SW PWB	
IC802	TA8409S	IC		
IC803	TA8409S	IC		
L 801	VGP0018-100	INDUCTOR		
L 802	VGP0033-100Z	INDUCTOR		
L 803	VGP0033-100Z	INDUCTOR		
L 804	VGP0033-100Z	INDUCTOR		
R 805	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 806	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	
R 807	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	
R 808	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 810	QRD161J-684	CARBON RESISTOR	680K 5% 1/6W	
R 811	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R 813	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 814	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 815	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 816	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 817	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 818	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 819	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 820	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 821	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 822	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 823	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 824	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 825	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 826	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 827	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 828	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 829	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 830	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 832	QRD161J-181	CARBON RESISTOR	180 5% 1/6W	
R 833	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 834	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 839	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
R 840	QRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W	

■ CD Tray Select Switch Board

BLOCK NO. 06

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
CN804	VMC0289-S07	CONNECTOR		
SW 1	QSEC001-E03	LEVER SWITCH		
SW 2	QSEC001-E03	LEVER SWITCH		
SW 3	QSEC001-E03	LEVER SWITCH		
SW 4	QSEC001-E03	LEVER SWITCH		
SW 5	QSEC001-E03	LEVER SWITCH		
SW 6	QSEC001-E03	LEVER SWITCH		

■ Head Amplifier & Mechanism Control Board

		BLOCK NO. 08			
A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 101	NCS21HJ-561AY	C CAPACITOR	560PF 5% 50V	
	C 102	NCS21HJ-331AY	C CAPACITOR	330PF 5% 50V	
	C 103	NCS21HJ-561AY	C CAPACITOR	560PF 5% 50V	
	C 104	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V	
	C 105	QEK40JM-227	E-CAPACITOR	220MF 20% 6.3V	
	C 106	NCB21HK-333AY	C CAPACITOR	.033MF 10% 50V	
	C 107	QEK41EM-475	E-CAPACITOR	4.7MF 20% 25V	
	C 108	NCB21HK-393AY	C CAPACITOR	.039MF 10% 50V	
	C 109	NCB21HK-563AY	C CAPACITOR	.056MF 10% 50V	
	C 110	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V	
	C 111	QEK41HM-104	E-CAPACITOR	.10MF 20% 50V	
	C 112	QEK41CM-106	E-CAPACITOR	10MF 20% 16V	
	C 113	NCB21HK-332AY	C CAPACITOR	3300PF 10% 50V	
	C 114	QEK41EM-475	E-CAPACITOR	4.7MF 20% 25V	
	C 115	NCB21HK-153AY	C CAPACITOR	.015MF 10% 50V	
	C 116	NCB21HK-822AY	C CAPACITOR	8200PF 10% 50V	
	C 117	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	
	C 118	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
	C 119	NCB21HK-563AY	C CAPACITOR	.056MF 10% 50V	
	C 120	NCS21HJ-330AY	C CAPACITOR	33PF 5% 50V	
	C 201	NCS21HJ-561AY	C CAPACITOR	560PF 5% 50V	
	C 202	NCS21HJ-331AY	C CAPACITOR	330PF 5% 50V	
	C 203	NCS21HJ-561AY	C CAPACITOR	560PF 5% 50V	
	C 204	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V	
	C 205	QEK40JM-227	E-CAPACITOR	220MF 20% 6.3V	
	C 206	NCB21HK-333AY	C CAPACITOR	.033MF 10% 50V	
	C 207	QEK41EM-475	E-CAPACITOR	4.7MF 20% 25V	
	C 208	NCB21HK-393AY	C CAPACITOR	.039MF 10% 50V	
	C 209	NCB21HK-563AY	C CAPACITOR	.056MF 10% 50V	
	C 210	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V	
	C 211	QEK41HM-104	E-CAPACITOR	.10MF 20% 50V	
	C 212	QEK41CM-106	E-CAPACITOR	10MF 20% 16V	
	C 213	NCB21HK-332AY	C CAPACITOR	3300PF 10% 50V	
	C 214	QEK41EM-475	E-CAPACITOR	4.7MF 20% 25V	
	C 215	NCB21HK-153AY	C CAPACITOR	.015MF 10% 50V	
	C 216	NCB21HK-822AY	C CAPACITOR	8200PF 10% 50V	
	C 217	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	
	C 218	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
	C 219	NCB21HK-563AY	C CAPACITOR	.056MF 10% 50V	
	C 220	NCS21HJ-330AY	C CAPACITOR	33PF 5% 50V	
	C 301	QEK41CM-106	E-CAPACITOR	10MF 20% 16V	
	C 302	QEK41CM-476	E-CAPACITOR	47MF 20% 16V	
	C 303	QEK41CM-226	E-CAPACITOR	22MF 20% 16V	
	C 304	QEK41EM-475	E-CAPACITOR	4.7MF 20% 25V	
	C 305	NCB21HK-393AY	C CAPACITOR	.039MF 10% 50V	
	C 306	QEK40JM-227	E-CAPACITOR	220MF 20% 6.3V	
	C 308	NCB21HK-562AY	C CAPACITOR	5600PF 10% 50V	
	C 309	NCB21HK-562AY	C CAPACITOR	5600PF 10% 50V	
	C 310	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	
	C 311	NCB21HK-682AY	C CAPACITOR	6800PF 10% 50V	
	C 313	QEK41FM-1077M	E-CAPACITOR	100MF 20% 10V	
	C 314	QCZ0205-155	ML.C-CAPACITOR	1.5MF	
	C 315	QCZ0205-155	ML.C-CAPACITOR	1.5MF	
	C 316	QF632AJ-1032N	PP CAPACITOR	.010MF 5% 100V	
	C 318	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	

■ Cam Switch Board

		BLOCK NO. 07			
A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	CN	VMC0325-010	CONNECTOR		

BLOCK NO. 08

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
Q 313	2SC1623(C)	TRANSISTOR		
Q 314	2SB562(C)	TRANSISTOR		
Q 315	2SC1623(C)	TRANSISTOR		
Q 316	2SA952(L,K)	CHIP TRANSISTOR		
Q 317	FA1F4MX	TRANSISTOR		
Q 318	FN1L4M	TRANSISTOR		
Q 319	FA1L4M	TRANSISTOR		
Q 320	FA1L4M	TRANSISTOR		
Q 321	FA1L4M	TRANSISTOR		
Q 322	FA1L4M	TRANSISTOR		
Q 323	2SC1623(C)	TRANSISTOR		
R 102	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 103	NRSA02J-183NY	MG RESISTOR	18K 5% 1/10W	
R 105	NRSA02J-220NY	MG RESISTOR	22 5% 1/10W	
R 106	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
R 107	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 108	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 109	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 110	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 111	NRSA02J-562NY	MG RESISTOR	5.6K 5% 1/10W	
R 112	NRSA02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
R 113	NRSA02J-271NY	MG RESISTOR	270 5% 1/10W	
R 114	NRSA02J-391NY	MG RESISTOR	390 5% 1/10W	
R 115	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 116	NRSA02J-182NY	MG RESISTOR	1.8K 5% 1/10W	
R 117	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 118	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 119	NRSA02J-203NY	MG RESISTOR	20K 5% 1/10W	
R 120	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 121	NRSA02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
R 202	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 203	NRSA02J-183NY	MG RESISTOR	18K 5% 1/10W	
R 205	NRSA02J-220NY	MG RESISTOR	22 5% 1/10W	
R 206	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
R 207	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 208	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 209	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 210	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 211	NRSA02J-562NY	MG RESISTOR	5.6K 5% 1/10W	
R 212	NRSA02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
R 213	NRSA02J-271NY	MG RESISTOR	270 5% 1/10W	
R 214	NRSA02J-391NY	MG RESISTOR	390 5% 1/10W	
R 215	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 216	NRSA02J-182NY	MG RESISTOR	1.8K 5% 1/10W	
R 217	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 218	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 219	NRSA02J-203NY	MG RESISTOR	20K 5% 1/10W	
R 220	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 221	NRSA02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
R 301	NRS181J-221NY	MG RESISTOR	220 5% 1/8W	
R 302	NRS181J-101NY	MG RESISTOR	100 5% 1/8W	
R 304	NRSA02J-393NY	MG RESISTOR	39K 5% 1/10W	
R 305	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 306	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 307	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	

BLOCK NO. 08

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 319	QF632AJ-821ZN	TF CAPACITOR	820PF 5% 100V	
C 321	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 322	QF632AJ-152ZN	M CAPACITOR	1500PF 5% 100V	
C 327	QEK41CM-476	E. CAPACITOR	47MF 20% 16V	
C 328	NCB21HJ-151AY	C. CAPACITOR	150PF 5% 50V	
C 329	NCB21HJ-151AY	C CAPACITOR	150PF 5% 50V	
C 330	NCB21HJ-151AY	C CAPACITOR	150PF 5% 50V	
C 332	NCB21HJ-151AY	C CAPACITOR	150PF 5% 50V	
C 335	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 336	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 337	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 338	NCB21HK-103AY	E. CAPACITOR	.010MF 10% 50V	
C 339	QEK41CM-476	E. CAPACITOR	47MF 20% 16V	
C 340	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 341	QEK41CM-476	E. CAPACITOR	47MF 20% 16V	
C 342	QEK41EM-475	E. CAPACITOR	4.7MF 20% 25V	
C 343	QEK41CM-106	E. CAPACITOR	10MF 20% 16V	
C 344	NCB21HK-472AY	C CAPACITOR	4700PF 10% 50V	
CN301	VNC0163-R06	CONNECTOR		
CN302	VNC0163-R06	CONNECTOR		
CN303	QGB2011M1-10	PWB CONNECTOR		
CN304	QGB2011M1-10	PWB CONNECTOR		
CN305	VNC0163-R10	CONNECTOR		
CN306	VNC0163-R11	CONNECTOR		
D 301	MA704A	S. K. DIODE		
D 302	MA152WK-TX	SI DIODE		
D 307	MA3051(M)	ZENER DIODE		
D 308	MA3051(M)	ZENER DIODE		
D 309	MA704A	S. K. DIODE		
IC301	BA3126N	IC		
IC302	AN7345K	IC		
IC303	BU4094BCF-X	IC		
IC304	BU4094BCF-X	IC		
L 301	QGR0620-001	OSC COIL (BIAS)		
L 303	WQP0033-100Z	INDUCTOR		
Q 101	FA1A4ZX	TRANSISTOR		
Q 102	DTC144TKA-X	TRANSISTOR		
Q 103	FA1L4M	TRANSISTOR		
Q 104	FA1A4ZX	TRANSISTOR		
Q 105	2SC2001(L,K)	TRANSISTOR		
Q 201	FA1A4ZX	TRANSISTOR		
Q 202	DTC144TKA-X	TRANSISTOR		
Q 203	FA1L4M	TRANSISTOR		
Q 204	FA1A4ZX	TRANSISTOR		
Q 205	2SC2001(L,K)	TRANSISTOR		
Q 301	DTC144TKA-X	TRANSISTOR		
Q 302	2SC2001(L,K)	TRANSISTOR		
Q 303	2SC2001(L,K)	TRANSISTOR		
Q 304	2SC2001(L,K)	TRANSISTOR		
Q 305	2SC2001(L,K)	TRANSISTOR		
Q 306	2SC1623(C)	TRANSISTOR		
Q 307	2SC1623(C)	TRANSISTOR		
Q 308	2SC1623(C)	TRANSISTOR		
Q 309	2SC1623(C)	TRANSISTOR		
Q 312	2SB562(C)	TRANSISTOR		

Reel Pulse Board

BLOCK NO. 08

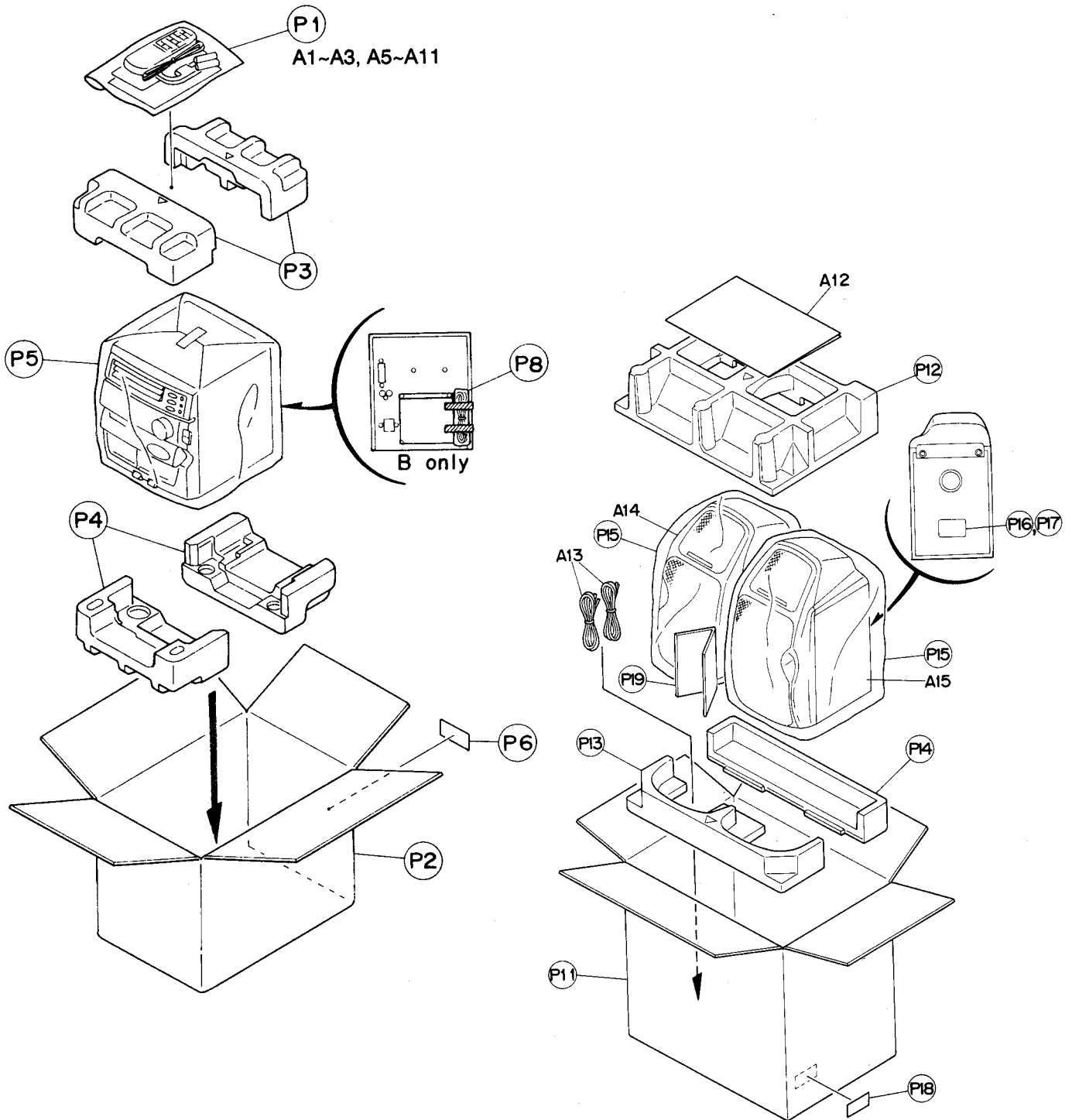
REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
CN 1	EM7159-010	TOP PLUG ASSY		
CN 1	EM7159-010	TOP PLUG ASSY		
D 1	1SR139-100	SI DIODE		
D 1	1SR139-100	SI DIODE		
IC 1	SG-105F3-BB-C	PHOTO SENSER		
IC 1	SG-105F3-BB-C	PHOTO SENSER		
P 1	VMZ0015-002	POST PIN		
P 1	VMZ0015-002	POST PIN		
SW 1	MXS00220MVLO	CASSETTE SWITCH	R.REC	
SW 2	MXS00220MVLO	CASSETTE SWITCH	TAPE	
SW 4	MXS00220MVLO	CASSETTE SWITCH	TAPE	
SW 4	MXS00220MVLO	CASSETTE SWITCH	70U	
SW 5	MXS00220MVLO	CASSETTE SWITCH	70U	
SW 5	MXS00220MVLO	CASSETTE SWITCH	F.REC	
SW 6	QSEC001-E03	SWITCH		
SW 6	QSEC001-E03	SWITCH		

BLOCK NO. 08

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 308	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 309	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 310	NRS181J-820NY	MG RESISTOR	82 5% 1/8W	
R 311	NRS181J-820NY	MG RESISTOR	82 5% 1/8W	
R 313	NRSA02J-3R3NYM	RESISTOR	3.3 5% 1/10W	
R 314	NRSA02J-223NY	MG RESISTOR	22K 5% 1/10W	
R 315	NRSA02J-100NY	MG RESISTOR	10 5% 1/10W	
R 316	NRSA02J-223NY	MG RESISTOR	22K 5% 1/10W	
R 317	NRSA02J-100NY	MG RESISTOR	10 5% 1/10W	
R 318	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 319	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 321	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 322	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 327	NRSA02J-474NY	MG RESISTOR	470K 5% 1/10W	
R 328	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 329	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 330	NRSA02J-ORONY	MG RESISTOR	5% 1/10W	
R 335	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 336	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
R 338	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 339	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 341	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 343	NRSA02J-ORONY	MG RESISTOR	5% 1/10W	
R 345	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 346	NRSA02J-ORONY	MG RESISTOR	5% 1/10W	
R 347	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
R 348	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 350	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 351	NRSA02J-151NY	MG RESISTOR	150 5% 1/10W	
R 354	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 355	NRSA02J-151NY	MG RESISTOR	150 5% 1/10W	
R 355	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 356	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 357	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 358	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 359	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 360	NRSA02J-433NY	RESISTOR	43K 5% 1/10W	
R 361	NRSA02J-183NY	MG RESISTOR	18K 5% 1/10W	
R 362	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 363	NRSA02J-183NY	MG RESISTOR	18K 5% 1/10W	
R 364	NRSA02J-433NY	RESISTOR	43K 5% 1/10W	
R 365	NRSA02J-203NY	MG RESISTOR	20K 5% 1/10W	
R 366	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 367	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 368	NRSA02J-391NY	MG RESISTOR	390 5% 1/10W	
R 369	NRSA02J-391NY	MG RESISTOR	390 5% 1/10W	
R 371	NRS181J-222NY	MG RESISTOR	2.2K 5% 1/8W	
R 374	NRSA02J-912NY	RESISTOR	9.1K 5% 1/10W	
R 375	NRSA02J-683NY	MG RESISTOR	68K 5% 1/10W	
R 376	NRS181J-688NY	MG RESISTOR	6.8 5% 1/8W	
VR101	QVPA603-503A	SEMI.V.RESISTOR		
VR201	QVPA603-503A	SEMI.V.RESISTOR		
VR301	QVPA603-103M	SEMI.V.RESISTOR		

-MEMO-

14.Packing



Packing Parts List

BLOCK NO. **M6MM**

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
P 1	E309758-002	POLY BAG	FOR INSTRUCTION	1		
P 2	FMPC9012-001	CARTON ASSY	FOR SET	1		
P 3	FMPH1013-001	CUSHION	FOR SET,UPPER	1		
P 4	FMPH1014-001	CUSHION	FOR SET,BOTTOM	1		
P 5	E309758-017	POLY BAG	FOR SET	1		
P 6	-----	COMPUTER LABEL		1		
P 8	QPGA010-01505	POLY BAG	FOR POWER CORD	1	B	
P 11	E307733-166	CARTON ASSY	SPEAKER	1		
P 12	E103116-001	CUSHION	SPEAKER TOP	1		
P 13	E208754-001	CUSHION	SP BOTTOM FRONT	1		
P 14	E208754-002	CUSHION	SP BOTTOM REAR	1		
P 15	E309822-016	POLY BAG	SPEAKER	2		
P 16	LE40198-007A	RATING LABEL	RIGHT SPEAKER	1		
P 17	LE40198-008A	RATING LABEL	LEFT SPEAKER	1		
P 18	-----	CARTON LABEL	SPEAKER	1		
P 19	E409074-001	CARTON SHEET	SPEAKER	1		

Accessories Parts List

BLOCK NO. **M7MM**

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
A 1	EQB4001-015	AM LOOP ANT		1		
A 2	FMUN9016-651M	INSTRUCTIONS		1	EN	
	FMUN9016-661M	INSTRUCTIONS		1	E,G	
	FMUN9016-671M	INSTRUCTIONS		1	B	
A 3	EWP503-001	ANTENNA WIRE		1		
A 5	BT-20134	WARRANTY CARD		1	G	
	BT-54003-1	WARRANTY CARD		1	B	
A 6	BT-20066A	SERVICE NETWORK		1	B	
A 7	E43486-340A	SAFETY SHEET		1	B	
A 8	RM-SED40TEU	REMOCON		1		
A 9	R6SPTT-2ST	BATTERY		1		
A 12	LET0058-001A	INSTRUCTIONS(E)	SPEAKER	1		
A 13	E407448-001	SPEAKER CORD		2		
A 14	-----	SPEAKER ASS'Y	LEFT Refer to P9-6	1		
A 15	-----	SPEAKER ASS'Y	RIGHT Refer to P9-6	1		


MX-D551TR

JVC

VICTOR COMPANY OF JAPAN LIMITED

AUDIO DIVISION 10-1, 1-chome, Ohwatari-machi, Maebashi-city, Japan

(No.10056)

 Printed in Japan
-H0908-V-