

CA-D432TR  
CA-D452TR

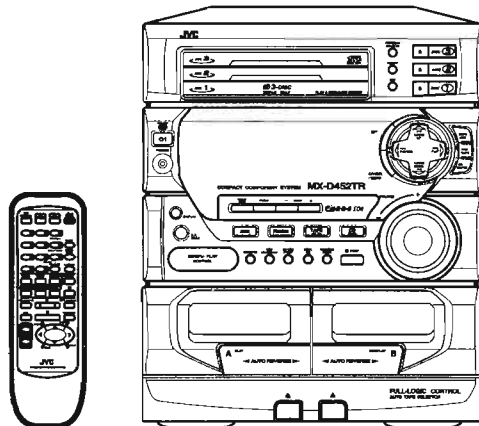
# JVC

## SERVICE MANUAL

COMPACT COMPONENT SYSTEM

**CA-D432TR/SP-D432** B/E/EN

**CA-D452TR/SP-D452** B/E/EN/EE



### Area Suffix

E ..... Continental Europe  
EN ..... Northern Europe  
B ..... U.K.  
EE ..... Eastern Europe

COMPACT  
**disc**  
DIGITAL AUDIO

**R·D·S EON**

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## Safety Precautions

1. This design of 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. Services 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 manufacturer'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 products 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 shading on the schematics and by (!) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts 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 re-assembling.

### 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.

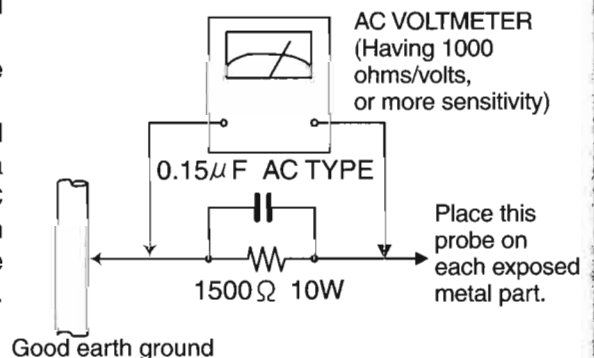
- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA 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 1,500Ω 10W resistor paralleled by a 0.15μF 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 voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).




## Warning

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


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

## **Safety Precautions** (U.K only)

1. This design of 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.
2. Any unauthorised design alterations or additions will void the manufacturer's guarantee ; furthermore the manufacturer cannot accept responsibility for personal injury or property damage resulting therefrom.
3. Essential safety critical components are identified by (  ) on the Parts List and by shading on the schematics, and must never be replaced by parts other than those listed in the manual. Please note however that many electrical and mechanical parts in the product have special safety related characteristics. These characteristics are often not evident from visual inspection. Parts other than specified by the manufacturer may not have the same safety characteristics as the recommended replacement parts shown in the Parts List of the Service Manual and 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 re-assembling.

## **Warning**

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

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

# Important for Laser Products

**1.CLASS 1 LASER PRODUCT**

**2.DANGER :** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.

**3.CAUTION :** There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

**4.CAUTION :** The compact disc player uses invisible laserradiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

**5.CAUTION :** If safety switches malfunction, the laser is able to function.

**6.CAUTION :** Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

**WARNING :** Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

**VARO :** Avattaessa ja suojalukitus ohitettaessa olet alltiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

**ADVARSEL :** Usynlig laserstrålning ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

**ADVARSEL :** Usynlig laserstrålning ved åbning, når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

## REPRODUCTION AND POSITION OF LABELS

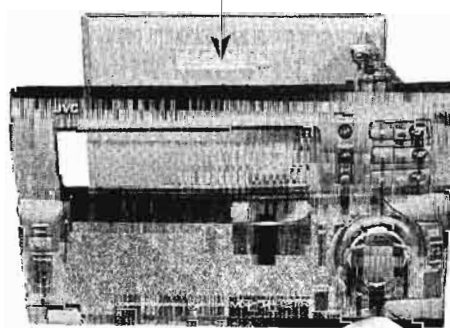
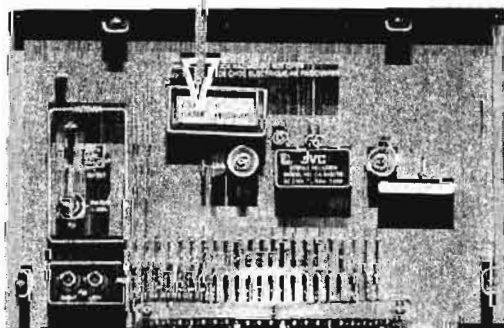
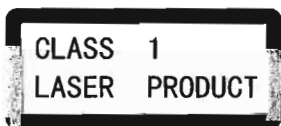
### WARNING LABEL

DANGER : Invisible laser radiation when open and interlock or defeated.  
AVOID DIRECT EXPOSURE TO BEAM (e)

VARO : Avattaessa ja suojalukitus ohitettaessa olet alltiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (d)

VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen. (s)

ADVARSEL : Usynlig laserstrålning ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. (f)



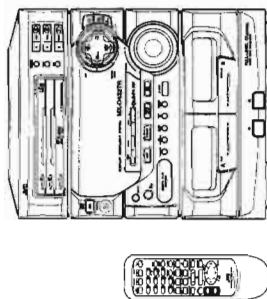
# JVC



**COMPACT COMPONENT SYSTEM**  
**KOMPAKT-KOMPONENTEN-SYSTEM**  
**SYSTEME DE COMPOSANTS COMPACT**  
**KOMPACTO KOMPONENTEN-SYSTEM**  
**SISTEMAS DE COMPONENTES COMPACTOS**  
**IMPIANTO A COMPONENTI COMPACTO**

## CA-D432TR/CA-D452TR

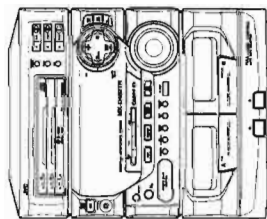
**COMPACT**  
**disc**  
**DIGITAL AUDIO**



CA-D432TR



**R-D-S EON**



CA-D452TR



**R-D-S EON**



**INSTRUCTIONS**  
**BEDIENUNGSANLEITUNG**  
**MANUEL D'INSTRUCTIONS**  
**GEBRUIKSAANWIJZING**  
**MANUAL 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. \_\_\_\_\_

GVT0003-006A (E)

**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**

### 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 point in your home or the cable is too short 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.546 del 28/08/95 pubblicato sulla Gazzetta Ufficiale della Repubblica Italiana n.301 del 28/12/95.\*

### Caution — ⚡/ switch!

Disconnect the mains plug to shut the power off completely. The ⚡/ switch in any position does not disconnect the mains line. The power can be remote controlled.

### Achtung — ⚡/Schalter!

Den Netzstecker aus der Steckdose ziehen, um die Stromversorgung des Gerätes vollständig zu unterbrechen. Der Schalter ⚡/Interfonieret in keiner Stellung die Stromversorgung vollständig. Die Stromversorgung kann mit der Fernbedienung ein- und ausgeschaltet werden.

### Attention — Commutateur ⚡/!

Déconnecter la fiche de secteur pour couper complètement le courant. Le commutateur ⚡/ ne coupe jamais complètement la ligne de secteur, quelle que soit sa position. Le courant peut être télécommandé.

### Voorzichtig — ⚡/ 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 ⚡/ schakelaar. U kunt het apparaat ook met de afstandsbediening aan- en uitschakelen.

### Precaución — Interruptor ⚡/!

Desconectar el cable de alimentación para desactivar la alimentación totalmente. Cualquier que sea la posición de ajuste del interruptor ⚡/ la alimentación nunca se intermite completamente. La alimentación puede ser controlada remotamente.

### Attenzione — L'interruttore ⚡/!

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

### 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 Vermeidung von elektrischen Schlägen, Brandgefahr, usw.:

1. 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 ouvrir le coffret de l'appareil.
2. Ne pas exposer l'appareil à la pluie ni à l'humidité.

### VOORZICHTIG

Ter vermindering van gevaar voor brand, elektrische schokken, enz.:

1. Verwijder geen schroeven, panelen 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

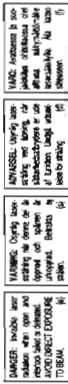
Per ridurre il rischio di shock elettrici, incendio, ecc.:

1. Non togliete viti, coperture o la scatola.
2. Non esponete l'apparecchio alla pioggia e all'umidità.

**IMPORTANT FOR LASER PRODUCTS/ WICHTIGER HINWEIS FÜR LASER-PRODUKTE / IMPORTANT POUR LES PRODUITS LASER / BELANGRIJKE INFORMATIE VOOR LASERPRODUCTEN / IMPORTANTE PARA LOS PRODUCTOS LASER / IMPORTANTE PERI PRODOTTI LASER**

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

- ① CLASSIFICATION LABEL, PLACED ON REAR ENCLOSURE
- ② WARNING LABEL, PLACED INSIDE THE UNIT
- ① ETIQUETTE DE CLASSIFICATION, PLACÉE A L'ARRIÈRE DU COFFRET
- ② MARQUETTE IM GÉRÄTEINNEREN
- ① CLASSIFICATION LABEL, OF DE ACHTERZIJDE VAN HET APPARAAT
- ② WAARSCHUWINGSLABEL, IN HET APPARAAT
- ① ETIQUETA DE CLASIFICACIÓN, PEGADA EN LA PARTE POSTERIOR DE LA CAJA
- ② ETIQUETA DE ADVERTENCIA, PEGADA EN EL INTERIOR DE LA UNIDAD
- ① ETICHETTA DI CLASSIFICAZIONE, SITUATA SUL RIVESTIMENTO POSTERIORE
- ② ETICHETTA DI AVVERTENZA, SITUATA ALL'INTERNO DELL'APPARECCHIO



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

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

**Precaución: ventilación correcta**  
Prevenir 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, installare l'apparecchio nel modo seguente:

- 1. Parte anteriore: Nessun ostacolo e spazio libero.
- 2. Lati/Parte superiore/Posteriore: 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 alto almeno 10 cm.

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

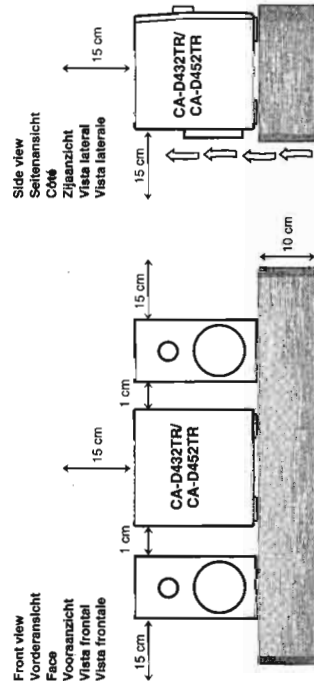
- 1. Front: No obstructions and open spacing.
- 2. Sides/ Top/ Back: No obstructions should be placed in the areas shown by the dimensions below.
- 3. Bottom: Place on the level surface. Maintain an adequate air path for ventilation by placing on a stand with a height of 10 cm or more.

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

- 1. Vorderseite: Hindernisfrei und gut zugänglich.
- 2. Seiten- und Rückwände: Hindernisfrei 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 les dommages matériels, installer l'appareil de la manière suivante:

- 1. Avant: Bien dégagé 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.



1. **KLAS 1 LASER PRODUCT**  
2. **DANGER** Invisible laser radiation when open and interlock failed  
3. **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. **PRODUCTO LASER CLASE 1**  
2. **PELIGRO**: En el interior hay radiación láser invisible. Evite el contacto directo con el haz, tapa superior. En el interior de la unidad no existen piezas reparables por el usuario; deje todo servicio técnico en manos de personal calificado.

1. **PRODOTTO LASER CLASSE 1**  
2. **PERICOLO**: Radiazione laser invisibile quando l'apparecchio è aperto ed il dispositivo di sicurezza è guasto o disattivato. Evitare l'esposizione diretta ai raggi.  
3. **ATTENZIONE**: Non aprire il coperchio superiore. Non vi sono parti riparabili per l'utente; lasciare a 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, 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 designed 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, POP, and CLASSIC**. You can also register up to three customized settings (MANUAL 1 to 3).
    - 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.
    - The three timers, **Daily Timer, Recording Timer, and Sleep Timer** are extremely easy to set.

Easy operation



Great sound



Triple Tray

Three timers

## 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**.

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

- 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.
- Power cord**
  - Do not handle the power cord with wet hands!
  - Some power (10 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.
- 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.

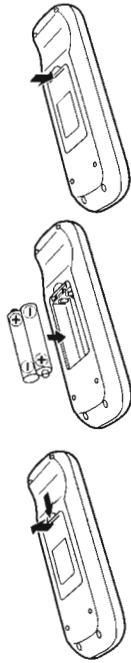
- AM (MW/LW) Loop Antenna (1)
- Remote Control (1)
- Batteries (2)
- FM Wire Antenna (1)

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 (SUIM-3)/AA (15F)



### CAUTION: Handle batteries properly.

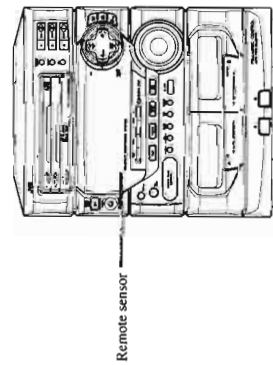
To avoid battery leakage or explosion:

- 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.
- Do not use an old battery with a new one.
- Do not 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.

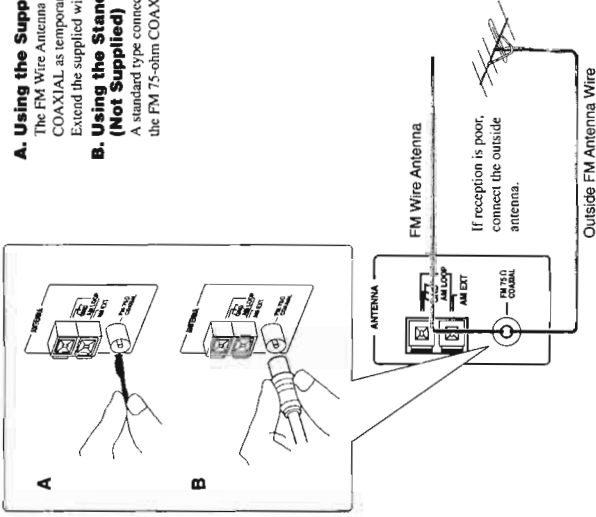


Remote sensor

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

## Connecting the FM Antenna

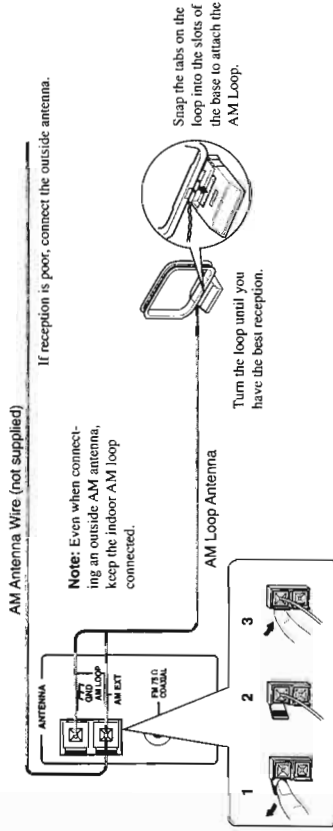
- A. Using the Supplied Wire Antenna**  
The FM Wire Antenna provided can be connected to a FM 75-ohm COAXIAL as temporary measure.  
Extend the supplied wire antenna horizontally.
- B. Using the Standard Type Connector (Not Supplied)**  
A standard type connector (IEC or DIN 45325) should be connected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



Before attaching a 75-ohm coaxial lead (the kind with a round wire going to an outside antenna), disconnect the supplied FM Wire Antenna.

**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



English

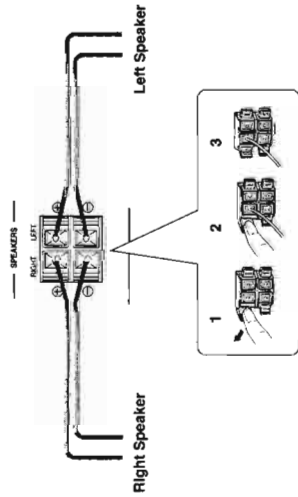


**CAUTION: Make all connections before plugging the Unit into an AC power outlet.**

## Connecting the Speakers

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

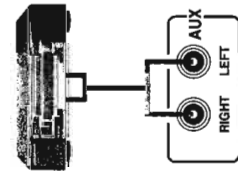
- For each speaker, connect one end of the speaker wire to the speaker terminals on the back of the System.
1. Open each of the terminals and insert the speaker wires firmly, then close the terminals.
  2. Connect the red (+) and black (-) terminals of the right side speaker to the red (+) and black (-) 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 the 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 **AUX**.



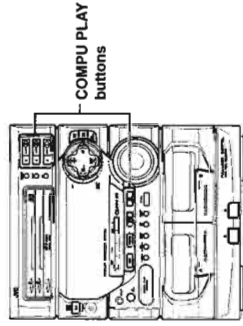
**Now you can plug the AC power cord into the wall outlet, and your System is at your command!**

## 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:

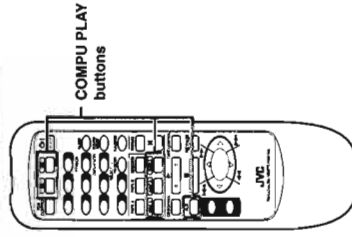
### On the Unit

- CD Player DISC 1 to DISC 3 buttons
- CD Player Open/Close (▲) buttons
- CD ▶/HI button
- TAPE ◀▶ button
- FM/AM button
- AUX button

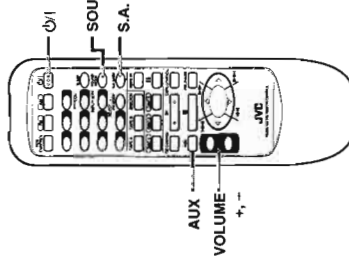
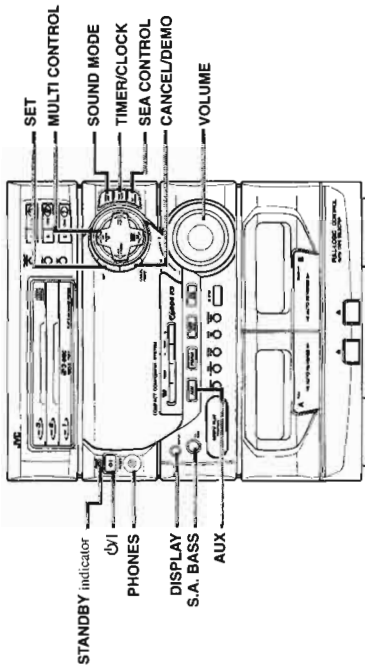


### On the Remote Control

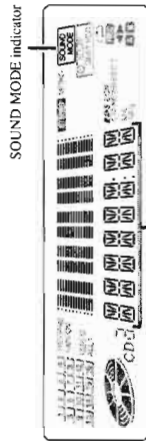
- FM button
- AM button
- DISC 1 to DISC 3 buttons
- AUX button



# Common Operations



## Display



Source, Sound Mode-Volume level, etc.

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

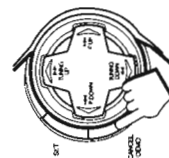
## Demo Mode

When the System is connected to an AC power outlet, a Demo automatically starts showing some of the system's features.

- The Demo display cycles through the following items repeatedly.
  - Scrolling display of "DEMO MODE START".
  - Demo of Sound Modes.
  - Demo of S.A. BASS
  - Demo of continuous play from DISC 1 to DISC 3.

To turn the Demo off, press any of the operation buttons. "DEMO OFF" appears on the display and the Demo automatically stops.

To turn the Demo on, press CANCEL/DEMO for more than 2 seconds.



## Setting the Clock

Before operating the unit, set the correct time. You can set the clock whether the Unit is on or off.

### 1. Press TIMER/CLOCK.

The hour digits begin flashing.



### 2. Press <P> DOWN or <P> UP on the MULTI CONTROL to set the hours.

Press <P> UP to increase the hour. Press <P> DOWN to decrease the hour. Holding down continuously changes the hour setting more rapidly.



### 3. Press SET.

The minute digits begin flashing.



### 4. Press <P> DOWN or <P> UP on the MULTI CONTROL to set the minutes.

Press <P> UP to increase the minutes. Press <P> DOWN to decrease the minutes. Holding down continuously changes the minute setting more rapidly.



### 5. Press SET.

"CLOCK OK" appears on the display.

The clock stops flashing, and the clock timer starts from 0 second.



If the clock is not set, "0:00" will flash instead of the clock indication.

When the time has been set, TIMER/CLOCK can be used to operate the Daily Timer and Recording Timer.

To adjust the time once the clock has been set, press TIMER/CLOCK 5 times and follow the procedure above.

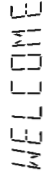
**CAUTION: If there is a power failure, the clock loses its setting. The display shows "0:00", and the clock must be reset.**

## Turning the Power On and Off

### Turning the System On

Press <P>.

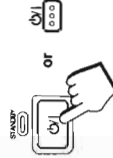
"WELCOME" appears on the display and the STANDBY indicator goes out.



The System comes on ready to continue in the mode it was in when the power was last turned off.

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.



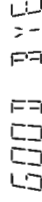
### Turning the System Off

Press <P> again.

"GOOD BYE" appears on the display for a while and the STANDBY indicator lights up. The clock time appears on the display.

Some power (10 watts) is always consumed even though the power is on standby.

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 in a few days.



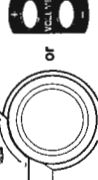
## Adjusting the Volume

Turn VOLUME clockwise to increase the volume or anticlockwise to decrease it.

Turning VOLUME quickly also adjusts the volume level quickly.

When using the Remote Control, press VOLUME + to increase the volume or press VOLUME - to decrease it.

You can adjust the volume level between 0 and 50.



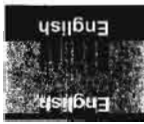
1

2, 4

3, 5

8

7



**CAUTION: The Volume cannot be adjusted while the Unit is on STANDBY. 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**

S.A. (Signal Adaptive) BASS adjusts low tones at low volume to enhance their effect. When the volume level is low, this enhances low tones that are normally difficult to hear and adjusts low tones to a fixed level to reduce low tone distortion.



**Press S.A. BASS.**  
Pressing S.A. (Signal Adaptive) BASS changes the bass setting in the following order.  
→ SA-BASS1 → SA-BASS2 → OFF → (back to the beginning)

The S.A. BASS indicator lights up, and "SA-BASS1" or "SA-BASS2" appears on the display for three seconds.  
■ SA-BASS2 enhances low tones more than SA-BASS1.

**To cancel the effect,** press S.A. BASS until "OFF" appears on the display. The button light goes out.

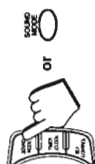
**To recall the previous S.A. BASS mode,** press S.A. BASS once.

- When listening to recording with low volume low tones, the difference between SA-BASS1 and SA-BASS2 is clear. When listening to recording with louder low tones, however, the difference between SA-BASS1 and SA-BASS2 may not be so clear.

**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.

- You can also create up to three of your own customized S.E.A. (Sound Effect Amplifier) settings and store them in the Unit's memory (MANUAL 1, MANUAL 2, MANUAL 3).
- The preset sound modes include modes using surround effects and modes using S.E.A. effects.
- Sound Mode effects cannot be recorded.



**To get an effect,** press SOUND MODE repeatedly until the Sound Mode you want appears on the display. The Sound Mode selected will appear on the display for three seconds. When a surround effect mode is selected, the frame around the SOUND MODE indicator will light up. When a S.E.A. effect mode is selected, the SOUND MODE indicator will light up. Each time you press SOUND MODE, the Sound Mode changes as follows:

→ D. CLUB → HALL → STADIUM → ROCK → POP → CLASSIC → MANUAL 1 → MANUAL 2 → MANUAL 3 → OFF → (back to the beginning)

**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.
- POP Good for vocal music.
- CLASSIC Set for wide and dynamic sound stereo systems.

**To cancel an effect,** press SOUND MODE until "OFF" appears on the display. The SOUND MODE indicator goes out.

**To recall the previous Sound Mode,** press SOUND MODE once.

**Customizing a Sound Mode**

You can change an existing sound mode to suit your own preferences. These changed settings can be stored in the Unit's sound mode memory.

**1. Select the Sound Mode you want to change.**  
If you select D. CLUB, HALL, or STADIUM, the surround effect remains unchanged, but you can adjust the S.E.A. effect.

**2. Press SEA CONTROL.**

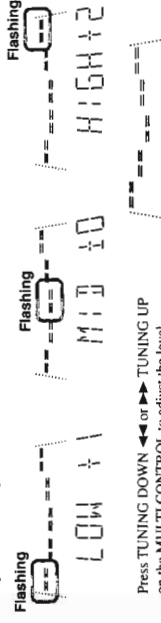
The low tone section of the tone equalizer flashes. Once "SEA CONT" appears, the low tone levels will appear.



**Note:** If no adjustments are made for 10 seconds after SEA CONTROL is pressed, Sound Mode will appear on the display then revert to the previous display.

**3. Use MULTI CONTROL to adjust to any Sound Mode desired.**

Press ← P. DOWN or → P. UP on the MULTI CONTROL to select the tone range you want to adjust. You can adjust "LOW", "MID" or "HIGH" tone.



Press TUNING DOWN ← or → TUNING UP on the MULTI CONTROL to adjust the level. The level can be adjusted between -3 and +3 in 7 steps.

**4. Press SET.**

"MANUAL 1" appears on the display.

**5. Press ← P. DOWN or → P. UP on the MULTI CONTROL to select the MANUAL number for the memory.**

**6. Press SET again.**

"MEMORY" appears for 2 seconds.

The setting that has been created is stored in the memory.

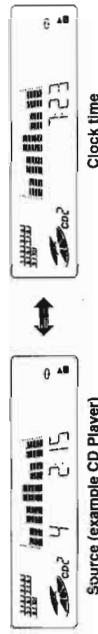
- The adjustment you have made will apply to the sound you hear.
- If you store new settings to a memory number that has already been used, the new settings replace the existing setting.

**Changing the Display**

The display normally indicates each source, but it can be switched to the clock time.

**Press DISPLAY.**

Each time you press the button, the source and the clock time are shown alternately on the display.



Source (example CD Player)

Clock time

■ The clock indication can be interchanged with the source indication using the Unit or Remote Control.

■ The clock indication may change to source indication depending on the operation of the Unit.

## 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 auxiliary equipment is properly connected to the System. (See page 5).
- 1. **Turn down the volume level to 0.**
- 2. **Press AUX.**

"AUX" appears on the display. The AUX button on the Unit lights up.



### COMPU PLAY

When AUX is pressed while the power is on standby, the power is automatically turned on.

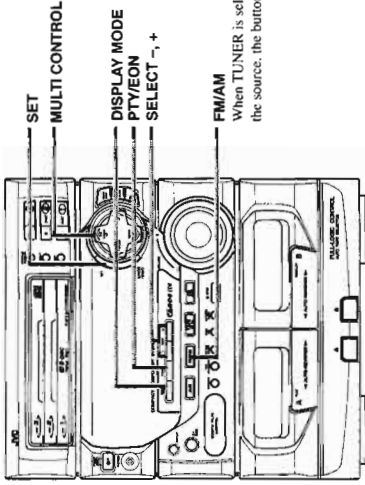
- 3. **Start playing the equipment.**
- 4. **Adjust the volume level to the desired listening level.**
- 5. **Select a Sound Mode, if you wish.**

### To cancel the setting

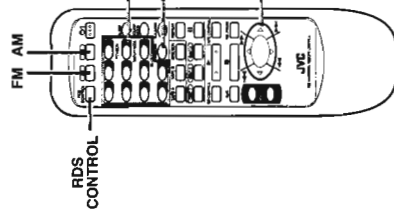
Change the source by starting any one of the System's built-in sound sources, such as the Tuner or CD Player.



## Using the Tuner



**FM/AM**  
When TUNER is selected as the source, the button lights up.



### Display



Band display, Frequency display, Preset channel

RDS: EON, TA, INFO, NEWS 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.

### MULTI CONTROL

Pressing FM or AM makes the Remote Control ready for the Tuner operations. When the Unit is being operated with the Remote Control, press FM or AM first.

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 antennas are firmly connected. (See page 4.)

## Tuning in a Station

**Press FM/AM on the Unit (or FM or AM on the Remote Control) to turn on the radio.**

The frequency of the previously selected channel appears on the display.

### Switching between Frequency Bands

#### On the Unit

**Press FM/AM.**

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

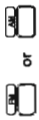
#### COMPU PLAY

When FM/AM is pressed while the power is on standby, the power is automatically turned on.





### On the Remote Control To tune in FM stations, press FM. To tune in AM stations, press AM.

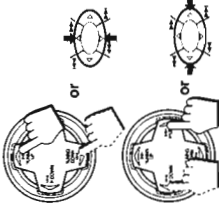


#### COMPU PLAY

When FM or AM is pressed while the power is on standby, the power is automatically turned on.

### Three Ways to Select a Station

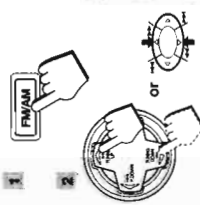
- Press TUNING DOWN ◀◀ or ▶▶ TUNING UP on the MULTI CONTROL repeatedly to move from frequency to frequency until you find the one you want. (Manual Tuning).
  - Press and hold TUNING DOWN ◀◀ or ▶▶ TUNING UP on the MULTI CONTROL for a few seconds, the frequency starts changing on the display. When a station is tuned in, the frequency stops changing. (Auto Tuning).
  - OR
  - Possible only after presetting stations. Press once and release ◀◀ P. DOWN or ▶▶ P. UP on the MULTI CONTROL to go to the next preset station.
- You can also use the Remote Control to tune in preset channels:**
1. Press FM or AM so that you can receive the last 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 appears, the broadcast frequency of the selected channel appears on the display.



### Presetting Stations

You can preset up to 30 FM stations and up to 15 AM (MW/LW) 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 FM/AM on the Unit.**  
When using the Remote Control, press FM or AM.
2. **Press TUNING DOWN ◀◀ or ▶▶ TUNING UP on the MULTI CONTROL to tune into a station.**



#### 3. Press SET.

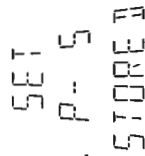
"SET" flashes for 5 seconds. While it is still flashing, carry out the following procedure.

4. **Press ◀◀ P. DOWN or ▶▶ P. UP on the MULTI CONTROL on the Unit to set the preset number.**

#### 5. Press SET again.

"STORED" appears for 2 seconds. The preset station is stored in the memory.

6. **Repeat steps 1 to 5 for each station you want to store in memory using different preset numbers.**



**CAUTION: If the Unit is unplugged or if a power failure occurs, the preset stations will be erased in a few days. If this happens, preset the station again.**

### Changing the FM Reception Mode

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

To restore the stereo effect, press FM MODE on the Remote Control so that the MONO indicator goes out. In this stereo mode, the STEREO 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) 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.
- 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 (Programme 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:

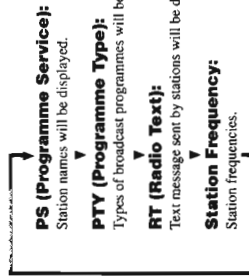
NEWS	SPORT	EDUCATE
AFFAIRS	VARIED	POP M
INFO	CLASSICS	OTHER M
SCIENCE	SOCIAL A	RELIGION
CULTURE	JAZZ	COUNTRY
DRAMA	DOCUMENT	TRAFFIC
ROCK M	FOLK M	
M.O.R. M		
WEATHER		
PHONE IN		
NATIONAL		
TRAVEL		
OLDIES		
ALARM		

#### 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 while listening to a FM station. To view RDS information on the display, press DISPLAY MODE. (When using the Remote Control, press 6 DISPLAY MODE after pressing RDS CONTROL). Each time you press the button, the display changes to show the following information:



- 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 PTY/EON once.
  - When using the Remote Control, press 3 PTY/EON after pressing RDS CONTROL.
  - "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 SELECT + or SELECT - to select a PTY.
  - When using the Remote Control, press 8 SELECT - or 9 SELECT +.

Each time you press the button, PTY codes change as follows:

SELECT + →  
 → NEWS → AFFAIRS → INFO → SPORT → EDUCATE → DRAMA →  
 CULTURE → SCIENCE → VARIED → POP M → ROCK M → M.O.R. M →  
 LIGHT M → CLASSICS → OTHER M → WEATHER → FINANCE →  
 CHILDREN → SOCIAL A → RELIGION → PHONE IN → TRAVEL →  
 LEISURE → JAZZ → COUNTRY → NATIONAL → OLDIES → FOLK M →  
 DOCUMENT → TRAFFIC →  
 ← SELECT -

3. Press PTY/EON again.
  - When using the Remote Control, press 3 PTY/EON.

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 indication will stay flashing for 10 seconds from the end of the searching function. If you press PTY/EON 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" appears 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 PTY/EON . (When using the Remote Control, press 3 PTY/EON.)

**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 shown 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 PTY/EON twice.
  - When using the Remote Control, press 3 PTY/EON after pressing RDS CONTROL.
  - The last EON information type selected appears.



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

- When using the Remote Control, press the 9 SELECT + or 8 SELECT - button.
- Identifies that a traffic announcement is being broadcast in your area.

- TA: News  
 INFO: Programmes on medical service, weather forecast, etc.  
 Each time you press the button, EON codes change as follows:

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

3. Press PTY/EON.
  - When using the Remote Control, press 3 PTY/EON.
  - As soon as your selection is entered, the Unit will go into EON Standby reception mode.

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:**

1. Waiting for EON Standby reception.
2. Preset stations are being searched for and while preparing to change the station, sound will be muted.
3. The station will be changed and the Station name being received will appear on the display.

- To view the other RDS information on the display, press DISPLAY MODE. (When using the Remote Control, press 6 DISPLAY MODE after pressing RDS CONTROL.)

**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.
- 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" appears on the display. The Unit will return to the station to which it was previously tuned.

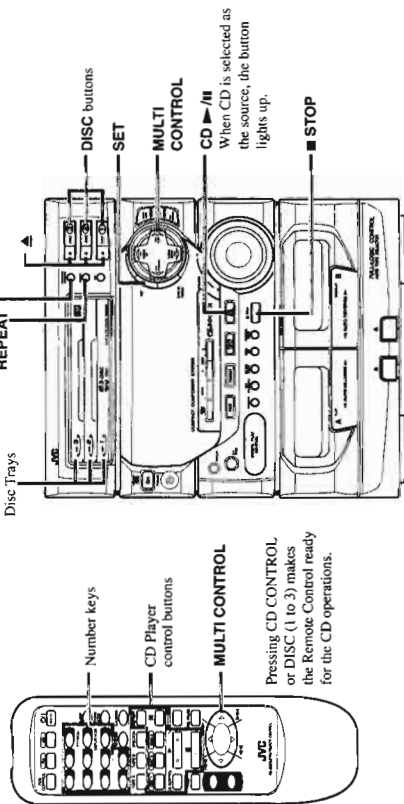
When broadcasting of the desired information has been completed, the Unit will automatically go back to the station which had previously been tuned to.

- 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 the information you are waiting for is available from the current station, the indicator will flash.

**ALARM function**

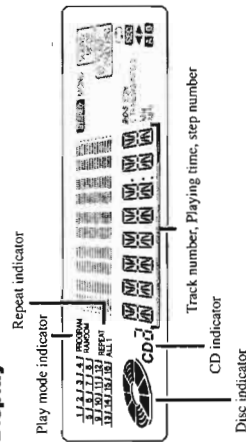
If an ALARM (Emergency) signal is received while receiving an EON code from a station, the Unit automatically switches to the station broadcasting the ALARM signal.

# Using the CD Player



Pressing CD CONTROL or DISC (1 to 3) makes the Remote Control ready for the CD operations.

## 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 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 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.

### Entering CD Operation Mode with the Remote Control

Pressing CD CONTROL or DISC (1 to 3) makes the Remote Control ready for the CD operations. Operate the CD player with ▶, MULTI CONTROL and number keys. The explanation provided in this section assumes that the Remote Control has been put into CD operation mode. When you use the Remote Control, press CD CONTROL first.



# Loading CDs

1. Press ▲ on the CD Player you want to insert the disc onto. "OPEN" appears on the display and the disc tray slides out.

**COMPU PLAY**  
When ▲ is pressed while the power is on standby, the power is automatically turned on.

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

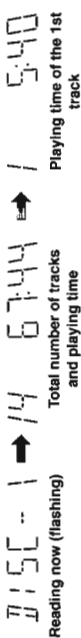


**ATTENTION:** To avoid malfunctions when you play a CD, set the CD in the right place at the centre of the tray.

3. Press ▲ to close the tray. "CLOSE" appears on the display.

4. Repeat steps 1 to 3 to insert other discs onto the other trays.
  - To continue putting discs onto other trays, even if a tray is open, by pressing the ▲ button of another disc tray, the open tray will close automatically, and the new disc tray will slide out.

When you place a CD onto the currently selected tray, whose disc number shown on the CD indicator, reading of the CD starts. The total number of tracks and total playing time appear after the reading is completed, then the playing time of the first track appears.



- To put an 8 cm CD onto 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 the standby mode, the tray will close automatically.

# Basics of Using the CD Player — Continuous Play

**Playing a CD**  
Prepare the CDs.

**On the Unit**  
Press CD ▶/II.  
The source is set to CD and play starts from the first track of the currently selected CD whose disc number shown on the CD indicator.

**Press DISC (1 to 3) of the disc you want to play.**  
The source is set to CD and play starts from the first track of the selected CD.

**COMPU PLAY**  
When CD ▶/II or DISC (1 to 3) is pressed while the power is on standby, the power is automatically turned on.

- When you press CD ▶/II or DISC (1 to 3) while the disc tray is open, the tray will automatically close before beginning to play.
- If there is no CD in the disc tray, "NO DISC" appears on the display.

**Playing order of discs**  
When DISC 3 has finished, the CD Player stops.

When playback starts from DISC 1, the playing order is DISC 1 → DISC 2 → DISC 3 → DISC 1.

When DISC 1 has finished, the CD Player stops.

When playback starts from DISC 3, the playing order is DISC 3 → DISC 1 → DISC 2. When DISC 2 has finished, the CD Player stops.

- If any of the disc trays are empty, the CD Player skips that disc tray and continues through the remaining disc trays in the order shown above. When the last disc has finished playing, the Unit will stop automatically.

# Programming the Playing Order of the Tracks

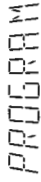
You can change the order in which the discs and tracks play, and select only the discs and tracks you want from among those loaded in the CD Player.

- You can programme up to 32 steps in any desired order from among the discs in the CD player.
- You can only make a programme when the CD Player is stopped.

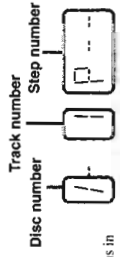
## On the Unit

**1. Press PROGRAM/RANDOM.**  
 "PROGRAM" appears on the display and the "PROGRAM" indicator lights up. If you have already created a programme, the last step of the previous programme will appear on the display.

Each time you press the button, play mode changes as follows:  
 → PROGRAM → RANDOM → No Play mode indicator (Continuous Play) → (back to the beginning)



**2. Select a disc with DISC (1 to 3).**  
 The display changes to the Programme Entry display and the disc number and track number flash for a few seconds.

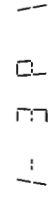


While the indications are flashing, perform the operations in steps 3 to 4. When the flashing indications change to "PROGRAM", repeat the operations in steps 2 to 4.

**3. Press ← P, DOWN or → P, UP on the MULTI CONTROL to select a track for programming.**  
 The disc number and track number starts flashing on the display.



**4. Press SET.**  
 The indications on the display stop flashing and remains lit. The step number appears on the display.

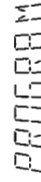


**5. Repeat steps 2 to 4 to select the other tracks for the programme.**  
 To select another track from the same disc, repeat the procedure from step 2.

**6. Press CD ►/II.**  
 The Unit plays the tracks in the order you have programmed them.

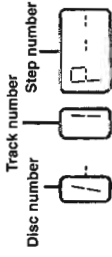
## On the Remote Control

**1. Press PROGRAM/RANDOM on the Unit.**  
 "PROGRAM" appears on the display and the "PROGRAM" indicator lights up. If you have already created a programme, the last step of the previous program will appear on the display unless you have erased the program.



Each time you press the button, play mode changes as follows:  
 → PROGRAM → RANDOM → No Play mode indicator (Continuous Play) → (back to the beginning)

**2. Select a disc with DISC (1 to 3).**  
 The display changes to the Programme Entry display and the disc number and track number flash for a few seconds.



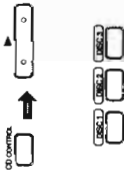
While the indications are flashing, perform the operation in step 3. When the flashing indications change to "PROGRAM", repeat the operations in steps 2 to 3.



**On the Remote Control**  
**Press CD CONTROL then press ►.**  
 The source is set to CD and play starts from the first track of the currently selected CD whose disc number shown on the CD indicator.

- If the above operation is carried out while the power is on standby, the power is automatically turned on.

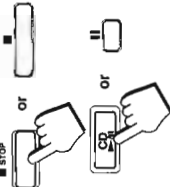
**Press DISC (1 to 3) of the disc you want to play.**  
 The source is set to CD and play starts from the first track of the selected CD.



## COMPU PLAY

When DISC (1 to 3) on the Remote Control is pressed while the power is on standby, the power is automatically turned on.

**To stop play the disc, press ■ STOP or ■ on the Remote Control.** The display will show the total number of tracks and total playing time of the disc that was playing followed by the playing time of the first track.



**To stop play and remove the disc, press ▲** for the disc being played.

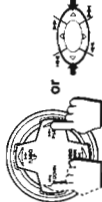
**To pause, press CD ►/II (or II) on the Remote Control.** The playing time will flash.

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

**Selecting a Track**  
**Press ← P, DOWN or → P, UP on the MULTI CONTROL to select the track.**

The selected track starts playing.

Each time you press ← P, DOWN or → P, UP, the track changes by one. Press and hold ← P, DOWN or → P, UP to continuously change tracks.



**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 (1 to 3) for the disc tray containing the track you want to listen to.**

- Example: for the third disc, press DISC 3.



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

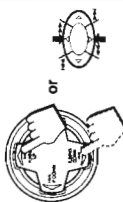
The selected track starts playing.

- 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.



**Fast Forward / Reverse**

**Use TUNING DOWN ◀◀ or ▶▶ TUNING UP on the MULTI CONTROL.**  
 For Fast Forward, press and hold down ▶▶ TUNING UP. For Reverse, press and hold down TUNING DOWN ◀◀. Release the button when the part you wish to listen to is reached.



**Changing Discs While Playing**

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

- Press ▲ of the tray not being used. The tray opens.
- Replace the disc in the tray.
- Press ▲ to close the tray.





**3. Press the number keys (1 to 10 and +10) to select the tracks.**

The indications on the display stop flashing and remains lit.  
 The selected track numbers light up and the step number appears on the display.  
 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.

**4. Repeat steps 2 to 3 to select the other tracks for the programme.**

- 5. Press ►.**  
 The Unit plays the tracks in the order you have programmed them.
- 6. If you try to programme a 33rd track, "FULL" will appear on the display to let you know that the programme is full.**
- 7. If you try to programme 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 programme is played.**
- 8. You can skip to a particular programme step by pressing the MULTI CONTROL (◀▶) P, DOWN or ▶▶ (P, UP) or ◀◀ or ▶▶ on the Remote Control during programme play.**
- 9. To play the programmed tracks repeatedly, press REPEAT. For details, refer to "Repeating a Track or the Discs" on page 22.**

**To stop playing,** press ■ STOP (or ■ on the Remote Control) once.  
**To delete all the tracks in a programme,** press ■ STOP (or ■ on the Remote Control) while the CD Player is stopped. The programme is deleted and "PROGRAM" appears on the display.  
**To cancel programme play,** press ■ STOP (or ■ on the Remote Control) while "PROGRAM" is shown on the display.

**Checking the Programme**  
 While the CD Player is stopped, use ◀◀ or ▶▶ on the Remote Control to check the contents of the programme.  
 Each time you press ▶▶, the programme contents are shown on the display in the programmed order. Pressing ◀◀ displays the previous step in the programme.

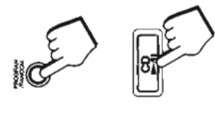
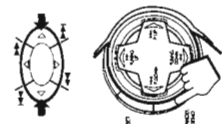
**Changing the Programme**  
 Modify the contents of a programme while the CD Player is stopped.  
 Press CANCEL/DEMO on the Unit, the last step in the programme is deleted.  
 Each time you press the button, the last step listed in the programme is deleted from the programme.  
 To add a step to the programme, follow the procedure above (on either the Unit or the Remote Control). The new steps are added to the end of the programme.

**Random Play**  
 The tracks of all loaded CDs will play at random.  
**1. Press PROGRAM/RANDOM while the CD Player is stopped to change to the Random Mode display.**

Each time you press the button, play mode changes as follows:  
 → PROGRAM → RANDOM → No Play mode indicator (Continuous Play) → (back to the beginning)  
**2. Press CD ►/II.**  
 The tracks of all the CDs are played in random order.  
 When all of the tracks have been played, the CD Player stops.

**Note:** Random Play cannot be activated with the DISC buttons and the number keys.  
 You can skip to the next track by pressing ▶▶ (P, UP) on the MULTI CONTROL, (or ▶▶ on the Remote Control) during Random Play. Each time you press the button, the next track is jumped to. (You cannot skip to the previous tracks, nor to the beginning of the current track during Random Play.)  
 To continue with a different random track selection after the last track is played, press REPEAT to select REPEAT ALL before or during Random Play.

**To cancel Random Play,** press ■ STOP (or ■ on the Remote Control) twice. When the RANDOM indicator goes out, Continuous Play mode is resumed.



**Repeating a Track or the Discs**

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

**Press REPEAT on the Unit.**  
 Each time you press the button, the Repeat Modes change as follows.  
 → REPEAT ALL → REPEAT 1 → No indicator → (back to the beginning)

**REPEAT ALL:** Repeats all the tracks on the CDs, or all the tracks in the program.  
**REPEAT 1:** Repeats one track on one CD.

**To exit Repeat Mode,** press REPEAT 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 Tray Lock function is on, the trays cannot be opened even if the ▲ button is pressed.  
 This function can only be accessed by using the buttons on the Unit itself.

**Locking the Trays**

- 1. Put the System's power into STANDBY mode.**
- 2. While pressing ■ STOP, press ▲ for DISC 1 on the Unit.**



"LOCKED" appears on the display to let you know that the trays have been locked.  
 When the CD Player trays are locked, pressing ▲ displays the message "LOCKED" on the display and the trays do not open. Also, ▲ cannot be used to automatically turn on the power.

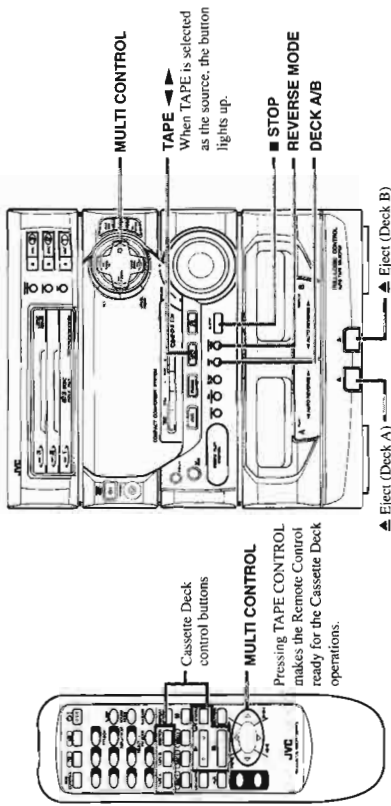
**Unlocking the Trays**

- 1. Put the System's power into STANDBY mode.**
- 2. While pressing ■ STOP, press ▲ for DISC 1 on the Unit.**



When the unlock operation is done, "UNLOCKED" appears on the display to show that the lock has been taken off.  
 The trays can now be opened by pressing ▲.  
 The ▲ can also be used to automatically turn on the power.

# Using the Cassette Deck (Playing)



## 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.

- : Reverse Mode indicator
- : Tape Direction indicator
- A B** : DECK A, B 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 flashes slowly.  
 During fast left or fast right, the indicator flashes quickly.  
 During Music Scan mode, the indicator flashes slowly and quickly alternately.

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.

### Entering the TAPE Operation Mode with the Remote Control

Pressing TAPE CONTROL makes the Remote Control ready for the Cassette Deck operations. Operate the Cassette Deck with and MULTI CONTROL. The explanation provided in "Using the Cassette Deck" section assumes that the Remote Control has been put into Cassette Deck operation mode. When you use the Remote Control, press TAPE CONTROL first.



## Regular Play

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

1. Press down for the deck you want to use.
2. When the cassette holder opens, put a cassette in, with the exposed part of the tape down, toward the base of the Unit.  
 . If the cassette holder does not open, turn the power off, then back on and press down again.
3. Close the holder gently.  
 When both Deck A and Deck B contain a tape, the fast deck to have a tape inserted is selected. To change the selected deck, press DECK A/B. When using the Remote Control, press TAPE A or TAPE B.
4. Press TAPE on the Unit.

### COMPU PLAY

When the TAPE is pressed while the power is on standby, the power is automatically turned on.

When using the Remote Control, first press TAPE CONTROL, followed by .

If the power is on standby, the power will automatically be turned on.

When "TAPE" appears on the display, the tape play starts toward the direction currently selected.

To stop playing, press STOP on the Unit (or on the Remote Control).

To remove the tape, stop the tape, and press down .

To change deck while playing a tape, press TAPE after pressing DECK A/B on the Unit or press after pressing TAPE A or TAPE B on the Remote Control.

To change the direction of a tape while it is playing, press TAPE on the Unit or DIRECTION on the Remote Control.

### Fast Left and Fast Right

While the tape is stopped, press TUNING DOWN on the MULTI CONTROL (or on the Remote Control) and the tape will wind rapidly to the left side of the cassette without playing.

While the tape is stopped, press TUNING UP on the MULTI CONTROL (or on the Remote Control) and the tape will wind rapidly to 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

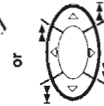
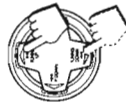
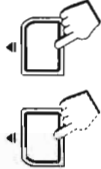
To find the beginning of a music track during play, use the Music Scan function. Music Scan searches for blank portions that usually separate selections, then plays the next selection.

**Finding the Beginning of the Current Selection**  
 Press TUNING DOWN or TUNING UP on the MULTI CONTROL (or or on the Remote Control) during play.

Make sure that you press TUNING DOWN or TUNING UP on the MULTI CONTROL (or or 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.

**Finding the Beginning of the Next Selection**  
 Press TUNING DOWN or TUNING UP on the MULTI CONTROL (or or on the Remote Control) during play.

Make sure that you press TUNING DOWN or TUNING UP on the MULTI CONTROL (or or 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.



# Using the Cassette Deck (Recording)

## Music Scan works by detecting a 4-second long blank at the beginning of each selection, so it will not work well if your tape has . . .

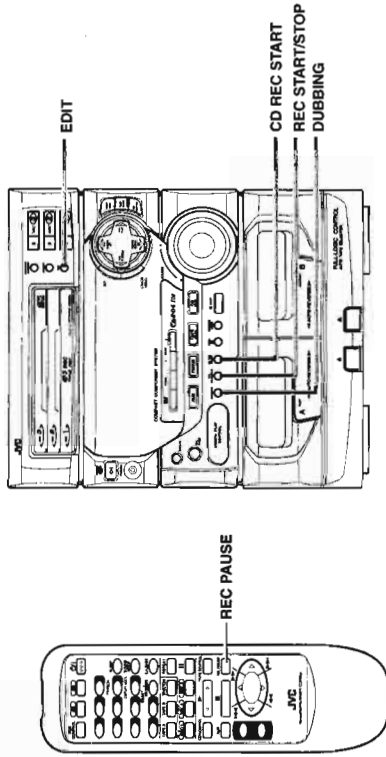
- No blank at the beginning of a selection.
- Noise (often caused by much use or poor quality dubbing) which fills the blank with noise.
- Long, very soft passages or pauses in a selection. The scan will detect these as 4-second long blanks. If this happens, just scan again until you reach the selection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

## Reverse Mode

■ Use **Reverse Mode** to make the tape automatically reverse at the end of a side and start playing the other side.



■ **Continuous Play:** With the Reverse Mode indicator on, when tape playback in the reverse (◀) direction finishes, the Unit always checks to see if a tape is in the other deck. If there is, it automatically starts playing. This Continuous Play function works regardless of which deck starts first.



## 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.

## 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 volume control. 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.



**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 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 your 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 CD or the Tuner. You can also record from auxiliary source with this procedure.

### Using the Unit

- 1. Insert a blank or erasable tape into Deck B.**  
Reverse Mode comes on.
  - When using Reverse Mode, insert the tape so that it will be recorded in the forward (▶) direction.
- 2. Press REVERSE MODE if you want to record on both sides of the tape.**  
Reverse Mode comes on.
- 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 ■ STOP after pressing TAPE ◀▶ to set the tape direction.
  - When using the Reverse Mode to record both sides of a tape, check that the Tape Direction indicator is in the forward (▶) direction. If the direction indicator is not in the forward (▶) direction, press TAPE ◀▶ then press ■ STOP.
- 4. Prepare the source, for example, by tuning in a radio station, loading CDs, or turning on connected equipment.**
- 5. Press REC START/STOP.**  
The REC indicator lights up and the System begins recording.

### Using the Remote Control

- 1. Insert a blank or erasable tape into Deck B.**  
Reverse Mode comes on.
- 2. Press REVERSE MODE on the Unit if you want to record on both sides of the tape.**  
Reverse Mode comes on.
- 3. Prepare the source, for example, by tuning in a radio station, loading CDs, or turning on connected equipment.**
- 4. Press REC PAUSE.**  
The REC indicator starts flashing.
- 5. Press TAPE CONTROL then press ▶.**  
Recording starts.  
The REC indicator stops flashing and remains lit.

### Notes for using Reverse Mode for recording

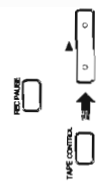
When recording with Reverse Mode on, the System automatically stops when it reaches the end of the reverse (◀) direction. To record on both sides of a tape, make sure that the recording direction for the tape inserted into Deck B is forward (▶), and that the Tape Direction indicator is also forward (▶),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

### To pause at any time during the recording process

Press REC PAUSE on the Remote Control. Then press ▶ on the Remote Control or REC START/STOP on the Unit to restart recording.

### To stop at any time during the recording process

Press REC START/STOP on the Unit again, or press ■ on the Remote Control.



## Recording AM Station to Tape

When recording an AM broadcast, beats may be produced which are not heard when listening to the broadcast. In this case, press PROGRAM/RANDOM on the CD Player to eliminate the beats.

- 1. Set to AM station and start recording.**
- 2. Press PROGRAM/RANDOM repeatedly until the beats are eliminated.**  
Each time you press the button, the indication on the display changes as follows:  
→ 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. Press CD ▶/II, then ■ STOP.**
- 2. Prepare CDs. (See page 18.)**  
Check that the CD Player is not playing a CD.
- 3. Insert a blank or erasable cassette in Deck B.**
  - When you want to record on both sides of a tape, press REVERSE MODE to turn on Reverse Mode. Check that the recording direction for the tape and the Tape Direction indicator are correct. (See page 27 "Notes for using Reverse Mode for recording.")
- 4. Press CD REC START.**  
"CD REC" appears on the display, the REC indicator lights up, and the System begins recording. If the tape reaches its end while recording a song, the last song will be re-recorded at the beginning of the other side.  
When the recording is finished, "CD REC FINISHED" scrolls by on the display. The CD Player and Cassette Deck stop.

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

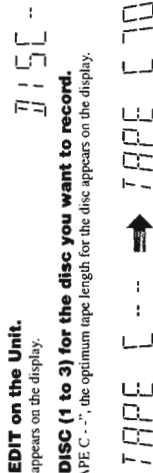
**Note:** When making Sleep Timer settings while doing CD Direct recording, set the time so that there is enough leeway to finish the recording before the power turns off. If the time is set to about the length of the CD, the power may turn off before recording finishes.

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.

## Auto Edit Recording

Using Auto Edit, you can record the CD tracks to fit the tape, so a selection is not cut off. Auto Edit is one of the best ways to copy all of a CD onto a tape. Auto Edit programs the CD tracks in numerical order. To prevent the end of the last track on the front side from being cut off, the last track on the front side is selected to fit on the remaining tape length.

- 1. Press CD ▶/II, then ■ STOP.**
- 2. Prepare CDs. (See page 18.)**  
Check that the CD Player is not playing a CD.
- 3. Press EDIT on the Unit.**  
"DISC" appears on the display.
- 4. Press DISC (1 to 3) for the disc you want to record.**  
After "TAPE C...", the optimum tape length for the disc appears on the display.



You can select a different length of tape, depending on the actual size of the tape you are using, from eleven possibilities programmed into the Unit: 40, 46, 50, 54, 60, 64, 70, 74, 80, 84, 90. Select the tape length that corresponds to the length of tape you are using, or the nearest length to it, by adjusting ◀▶ P. DOWN or ▶▶ P. UP on the MULTI CONTROL.

- If you select a tape length shorter than the total playing time of the CD, the last tracks on both sides of the tape will be faded out as the tape ends.

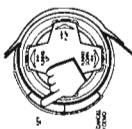


## Using the Timer

### 5. Press SET.

The tracks to be recorded on side B appear on the display.

- Each time you press the button, the tracks to be recorded on side A and side B appear on the display alternately.



### 6. Insert a blank or erasable cassette in Deck B.

When you want to record on both sides of a tape, press REVERSE MODE to turn Reverse mode on.

### 7. Press CD REC START.

The Unit plays the CD and starts recording. If the tape has not been rewound, the Unit rewinds the tape before starting to record the CD.



**To stop at any time while recording,** press ■ STOP or REC START/STOP on the Unit. If ■ STOP is pressed, the Cassette Deck will create a four-second blank space after the CD Player stops. If REC START/STOP is pressed, the CD Player and Cassette Deck will stop simultaneously. When ■ is pressed on the Remote Control, the stop time of the CD Player and Cassette Deck vary according to their mode (CD operation mode or Cassette Deck operation mode). If the Remote Control is in CD operation mode, the Cassette Deck will stop four seconds after the CD Player stops. If the Remote Control is in Cassette Deck operation mode, the CD Player and Cassette Deck will stop simultaneously.

**To cancel Auto Edit,** press PROGRAM/RANDOM while the CD Player is stopped or press ▲ for the disc number being recorded.

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

## Tape to Tape Recording (Dubbing)

Recording from one tape to another is called dubbing.

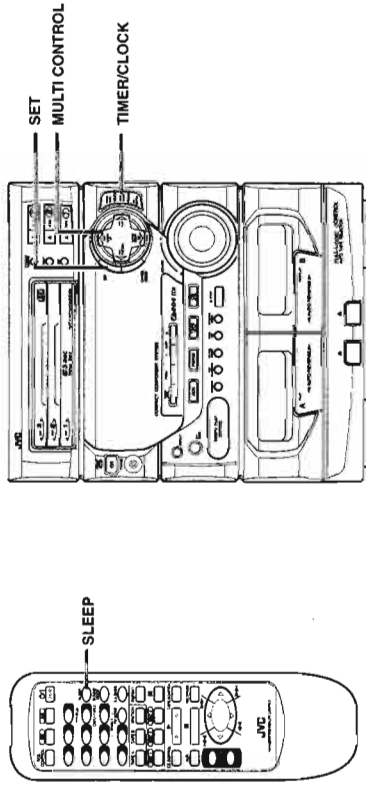
- When dubbing tapes, make sure that the playback direction of Deck A and Deck B are the same.
- When you record both sides of a tape, press REVERSE MODE to turn on the Reverse Mode.
- It is preferable that the type of tape (Type I or Type II) you record from be the same as the type you record onto.

### How to Use DUBBING

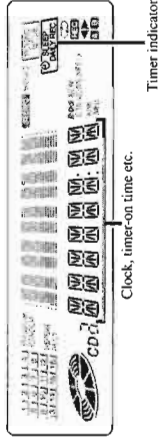
- Press TAPE** ← ▶, then ■ STOP.
- Insert the source cassette you want to copy from into Deck A for playback.**  
Insert the cassette so that it will be played in the forward (▶) direction.
- Insert the blank or erasable cassette you want to copy onto into Deck B for recording.**  
Insert the cassette so that it will be recorded in the forward (▶) direction.
- Press DUBBING.**  
Deck A and Deck B start simultaneously.

**To stop dubbing,** press ■ STOP.

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



### 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 let you control recording and listening functions automatically.

- These types of timers are available:
- **Daily Timer** — Use this timer to set wake up everyday to music from any source, instead of an alarm clock.
  - **Recording Timer** — Unattended recording of radio broadcasts. You can set the starting time and stopping time of the recording.
  - **Sleep Timer** — Fall asleep and have your Unit turn off automatically after a certain length of time.

**Note:** When operating the Daily Timer and Recording Timer, always set the clock first. If the clock is not set, the Daily Timer and Recording Timer functions cannot be used. For details, refer to "Setting the Clock" on page 8.



## Setting the Daily Timer

- With this timer you can wake up to music from a CD, tape, your favourite radio program.
- You can set the Daily Timer whether the Unit is on or off.

### Procedure For Setting the Daily Timer

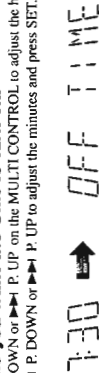
1. Press **TIMER/CLOCK** so that **"DAILY"** appears on the display. The DAILY indicator flashes on the display.
  - Each time you press the button, the timer setting indication changes as follows:  
DAILY → ON TIME (flashes) → REC → ON TIME (flashes) → Clock setting → Cancelled (current source) → (back to the beginning)

Note: If the clock has not been set, even if **TIMER/CLOCK** is pressed, you cannot select the Daily Timer.

2. Press **TIMER/CLOCK** again. After "ON TIME" flashes for 2 seconds, it switches to the on-time setting display.

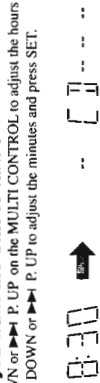


3. Set the time you want the Unit to turn on. Press **←** P. DOWN or **→** P. UP on the MULTI CONTROL to adjust the hours and press SET. Then press **←** P. DOWN or **→** P. UP to adjust the minutes and press SET.



- After adjusting the minutes and pressing SET, "OFF TIME" flashes for two seconds and on-time setting is completed.

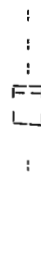
4. Set the time you want the Unit to turn off. Press **←** P. DOWN or **→** P. UP on the MULTI CONTROL to adjust the hours and press SET. Then press **←** P. DOWN or **→** P. UP to adjust the minutes and press SET.



- When the off-time has been set, the indication on the display changes to the source selection.
- To select the source to be played, press **←** P. DOWN or **→** P. UP on the MULTI CONTROL until your choice is shown.

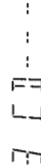
5. Select the source you want to listen to.

To use a CD as the source:  
1. Press **←** P. DOWN or **→** P. UP on the MULTI CONTROL repeatedly until "CD" appears on the display and press SET.



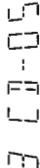
2. Press **←** P. DOWN or **→** P. UP on the MULTI CONTROL repeatedly to select the CD disc number to be played and press SET.

If you press SET without selecting a disc, the last disc played by the Unit will be used.



3. Press **←** P. DOWN or **→** P. UP on the MULTI CONTROL repeatedly to select the CD track number to be played and press SET.

If you press SET without selecting a track, playback will start from the first track on the CD.



To use the Tuner as the source (Possible only after presetting stations.):  
1. To listen to FM, press **←** P. DOWN or **→** P. UP on the MULTI CONTROL repeatedly until "TUNER FM" flashes and press SET.  
To listen to AM, press **←** P. DOWN or **→** P. UP on the MULTI CONTROL repeatedly until "TUNER AM" flashes and press SET.

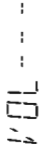


2. Press **←** P. DOWN or **→** P. UP on the MULTI CONTROL repeatedly to select the station to be listened to as a preset channel and press SET.

To use a Cassette Deck as the source:  
Press **←** P. DOWN or **→** P. UP on the MULTI CONTROL repeatedly until "TAPE" flashes on the display and press SET.



6. Setting the Volume Level. Press **←** P. DOWN or **→** P. UP on the MULTI CONTROL to adjust the volume.



- VOL - 10: Sets the volume level to 10.
- VOL - 15: Sets the volume level to 15.
- VOL - 20: Sets the volume level to 20.
- VOL ---: Sets the volume to the last volume setting used.

7. Press SET.

The DAILY indicator stops flashing and remains lit. The on-time, off-time, playback source (including the disc number and track number if a CD source is selected), and volume level appears on the display. Turn the power off if you made the timer settings with the power turned on.

- A few seconds before the on-time, the Unit automatically turns on the power. When the on-time comes, playback starts using the selected source. A few seconds before the off-time, "OFF" flashes on the display. When the off-time comes, the power is automatically turned off.
- If a button is pressed when the Daily Timer is operating, playback continues but the timer is cancelled.

### Before turning off the Unit

- If the source is a CD, make sure that there is a CD in the selected disc number.
- If the source is a tape:
  - The tape in the deck corresponding to the Deck indicator mark is played. Make sure that there is a tape in the selected Cassette Deck.
  - Check that the tape direction is correct. This is important especially when Reverse Mode is off.
  - Set Reverse Mode on if you want to play both sides of the tape.
- Select the Sound Mode if you want to listen using a Sound Mode effect.

### To change the Daily Timer setting

To change the settings for the Daily Timer, repeat the setting procedure from the beginning.

### Turning the Daily Timer On and Off

Once the Daily Timer has been set it will be activated at the same time every day until the setting is turned off.

To turn the Daily Timer off, press **TIMER/CLOCK** until "DAILY" appears on the display. Press **CANCEL/DEMO**. "OFF" appears on the display and the DAILY indicator goes out.

To turn the Daily Timer on again, press **TIMER/CLOCK** until "DAILY" appears on the display, then press SET. The Timer on-time, off-time; playback source (including the disc number and track number if a CD source is selected), and volume level appear on the display, and the DAILY indicator lights up.

**CAUTION: If the Unit is unplugged, or a power failure occurs, the timer setting will be erased in a few days. If the settings are erased in this way, reset the timer settings.**

## Setting the Recording Timer

With the Recording Timer you can make a tape of a radio broadcast automatically whether or not you are home. For the timer to work correctly, you need to make sure of the following in addition to setting the time for the Tuner and Cassette Deck to come on:

- You can set the Recording Timer whether the Unit is on or off.
- The tape you want to record onto must be in Deck B.

### Procedure for Setting the Recording Timer

1. **Press TIMER/CLOCK repeatedly until "REC" appears on the display.**  
The REC indicator flashes on the display.  
  - Each time you press the button, the timer setting indication changes as follows:  
DAILY → ON TIME (flashes) → REC → ON TIME (flashes) → Cancelled (current source) → (back to the beginning)
2. **Press TIMER/CLOCK again.**  
Note: If the clock has not been set, even if TIMER/CLOCK is pressed you cannot select the Recording Timer.
3. **Set the time you want the Unit to be turned on.**  
Press ◀ P. DOWN or ▶ P. UP on the MULTI CONTROL to adjust the hours and press SET. Then press ◀ P. DOWN or ▶ P. UP to adjust the minutes and press SET.
4. **Set the time you want the Unit to be turned off.**  
Press ◀ P. DOWN or ▶ P. UP on the MULTI CONTROL to adjust the hours and press SET. Then press ◀ P. DOWN or ▶ P. UP to adjust the minutes and press SET.
5. **Select the Recording band.**  
Press ◀ P. DOWN or ▶ P. UP on the MULTI CONTROL to select "TUNER FM" or "TUNER AM" and press SET.
6. **Select the preset channel for the station to be recorded.**  
Press ◀ P. DOWN or ▶ P. UP on the MULTI CONTROL to select.
7. **Press SET.**  
The REC indicator stops flashing and remains lit. The on-time, off-time, and Recording band ("TUNER FM" or "TUNER AM") appear on the display.  
Turn the power off if you made the timer settings with the power turned on.

■ A few seconds before the on-time for the recording, the Unit automatically turns on the power. When the on-time comes, recording starts using the selected source. A few seconds before the off-time, "OFF" flashes on the display. When the off-time comes, the power is automatically turned off.

### Before the timer starts

- Check that tape direction is correct. This is important especially when Reverse Mode is off.
- Set Reverse Mode on if you want to record on both sides of the tape.
- The volume level is automatically set to 0 when Recording Timer starts.

**It is very easy, and can be very disappointing, to forget to put in a tape, or to accidentally leave a tape in Deck B you don't want recorded over. Although this happens to almost everyone at one time or another, we hope it won't happen to you!**

### To change the Recording Timer setting

Repeat the setting procedure from the beginning.

## Turning the Recording Timer On and Off

Once the Recording Timer has been used, the setting is maintained but the Timer is set to off. To turn the Recording Timer off before the timer starts, press TIMER/CLOCK repeatedly until "REC" appears on the display, then press CANCEL/DEMO. "OFF" appears on the display and the REC indicator goes out.

To record at the same time again, press TIMER/CLOCK repeatedly until "REC" appears on the display, then press SET. The on-time, off-time, and Recording band ("TUNER FM" or "TUNER AM") appear on the display, and the REC indicator lights up.

**CAUTION: If the Unit is unplugged, or a power failure occurs, the timer setting will be erased in a few days. If the settings are erased in this way, reset the timer settings.**

## 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 Unit on and a source playing, press SLEEP on the Remote Control.**  
"SLEEP" appears on the display.

SLEEP 10

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

• Each time you press this button while the "SLEEP" indicator is flashing, 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 indicator stops flashing, and remains lit.

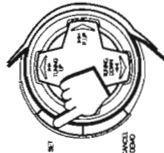
The Unit is now set to turn off after the number of minutes you set.

### To change the Sleep Timer setting

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

### To cancel the Sleep Timer setting

Press SLEEP until the SLEEP indicator goes out on the display. Turning off the Unit also cancels the Sleep Timer.

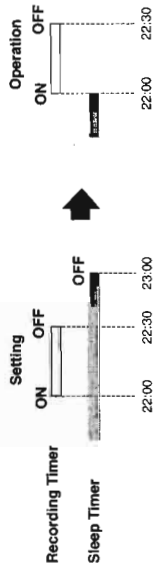


## Timer Priority

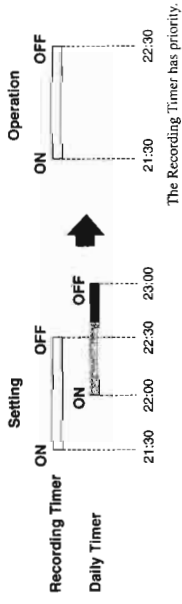
Since each timer can be set independently, you may wonder what happens if the settings overlap. Here are the priorities for each timer:

- The Recording Timer always has priority. This means that:
  - If another timer is set to come on during a time when the Recording Timer is operating, the other timer just will not come on at all, so you will always get the entire program on tape.
  - If the Recording Timer is set to come on while another timer is operating, the other timer will shut off 10 seconds before the Recording Timer is set to turn on, and the Recording Timer will then take over.
- If the Sleep Timer is set while the Daily Timer is operating, the Sleep Timer will take over. However, if the Daily Timer is set to come while the Sleep Timer is operating, the Daily Timer will take over.

### Example 1



### Example 2



## 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

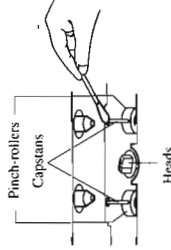
- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.
- Do not touch the tape surface.



- 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.



### 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.

### 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.



**CAUTION: Do not use any solvent (for example, conventional record cleaner, spray thinner, benzene, etc.) to clean a CD.**



# 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 - 5.)
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"> <li>• The antenna is disconnected.</li> <li>• The AM Loop Antenna is too close to the Unit.</li> <li>• The FM Wire Antenna is not properly extended and positioned.</li> </ul>	<ul style="list-style-type: none"> <li>• Reconnect the antenna securely.</li> <li>• Change the position and direction of the AM Loop Antenna.</li> <li>• Extend FM Wire Antenna to the best reception position.</li> </ul>
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"> <li>• The path between the Remote Control and the sensor on the Unit is blocked.</li> <li>• The batteries have lost their charge.</li> </ul>	<ul style="list-style-type: none"> <li>• Remove the obstruction.</li> <li>• Replace the batteries.</li> </ul>
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 <b>⏏</b> and then press <b>▶</b> .

# Specifications

**Amplifier Section**  
Output Power (IEC 268-3/DIN) 47 watts per channel, min. RMS, both channels driven into 6 ohms at 1 kHz with no more than 0.9% total harmonic distortion.

Input Sensitivity/Impedance (1 kHz) 300 mV/50 kohms  
AUX Speaker terminals 6 - 16 ohms

**Cassette Deck Section**  
Frequency Response Type II (CRO): 50 - 14,000 Hz  
Type I (NORMAL): 50 - 14,000 Hz  
Wow And Flutter 0.15% (WRMS)

**CD Automatic Changer Section**  
CD Capacity 3 discs  
Dynamic Range 85 dB  
Signal-To-Noise Ratio 90 dB  
Wow And Flutter Unmeasurable

**Tuner Section**  
FM Tuner Tuning Range 87.5 - 108.0 MHz  
AM Tuner Tuning Range 522 - 1,629 kHz  
MW 144 - 288 kHz  
LW

Dimensions 265 x 315 x 340 mm (W/H/D)  
(10-7/16 x 12-7/16 x 13-7/16 inches)  
Mass 7.8 kg (17.2 lbs)

**Accessories**  
AM (MW/LW) Loop Antenna (1)  
Remote Control (1)  
Batteries R6P (SUM-3)/AA (15F) (2)  
FM Wire Antenna (1)

**Power Specifications**  
Power Requirements AC 230 V  $\sim$ , 50 Hz  
Power Consumption 125 watts  
10 watts (in standby mode)

*Design and specifications are subject to change without notice.*



CA-D432TR/CA-D452TR



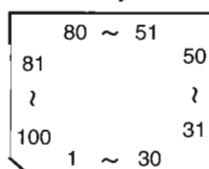
EN, GE, FR, NL, SP, IT

0498TMMNATJEM

## Description of Major ICs

### ■UPD780206GF-039 (IC801) : System control micon

#### 1. Terminal Layout

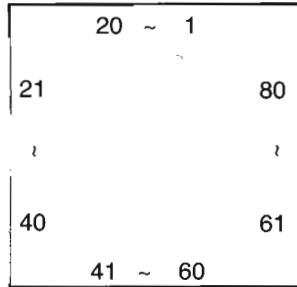


#### 2. Pin Function

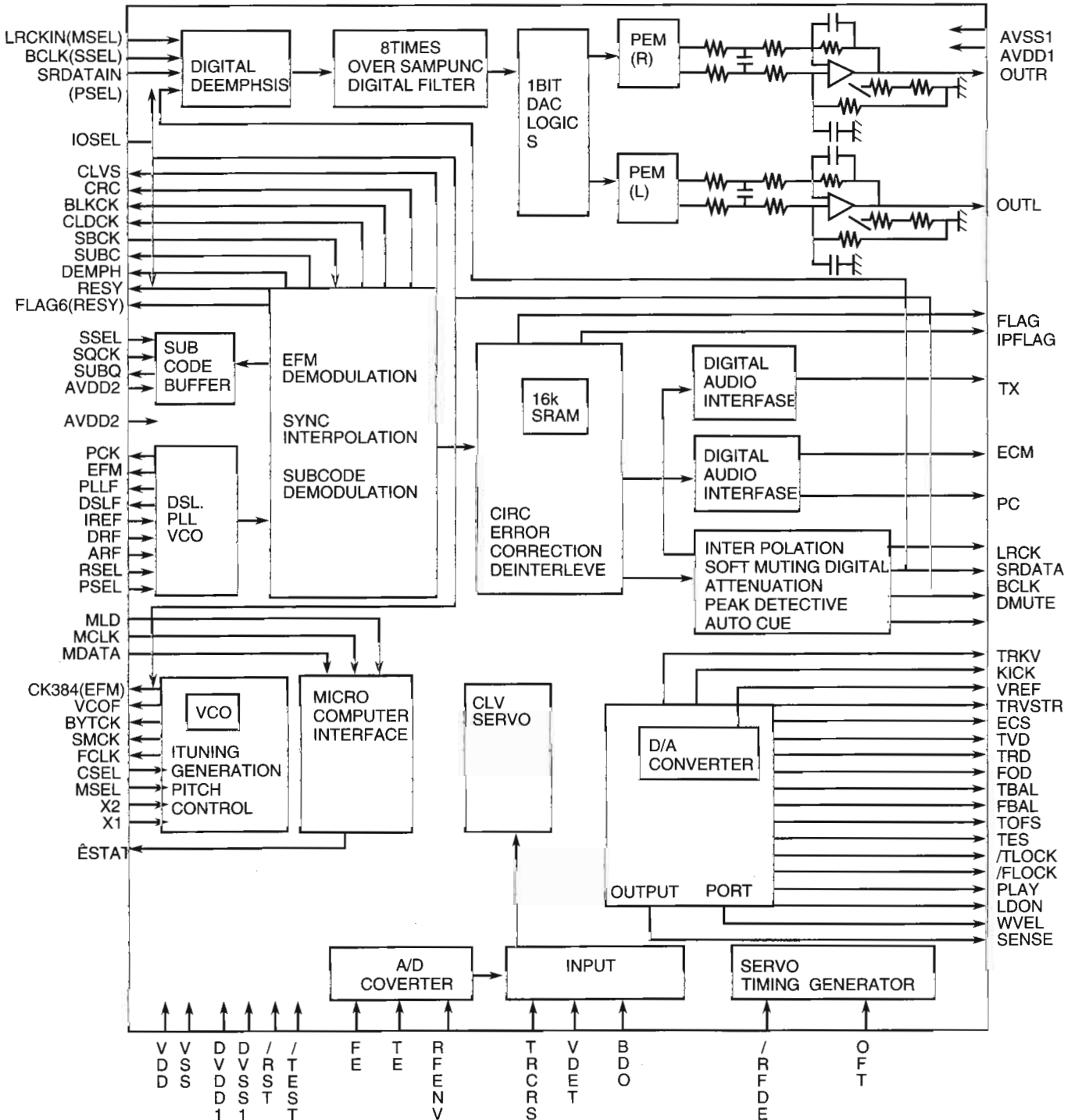
No.	Symbol	I/O	Function	No.	Symbol	I/O	Function
1	VDD	-	Power supply.	33	SPIDTI	I	SPI DATA analog signal input.
2	SPICSB	O	SPI IC chip select signal output.	34	AVDD	-	Power supply for AD converter.
3	SPIA	O	SPI IC control-A.	35	AVREF	-	A/D REF voltage.
4	SPIB	O	SPI IC control-B.	36	REMIN	I	Remote control signal input.
5	PHOTOA	I	Tape A mechanism running detection.	37	MPX	I	MPX IN (Stereo INDI.)
6	PHOTOB	I	Tape B mechanism running detection.	38	RDCK	I	RDS clock input.
7	MSI	I	Music scan input.				
8	SPIC	O	SPI IC control-C	39	PRT	I	Protector input.
9	BEAT	O	Beat cut output (TUNER).	40	VSS	-	Connect to GND.
10	RESET	I	System reset signal.	41	INH	I	Inhibit signal input (Back up).
11	X2	O	Main clock 4.19MHz.	42	HPHONE	I	Headphone input.
12	X1	I	Main clock 4.19MHz.	43	RSDA	I/O	RDS data input.
13		-	Non connect.				
14	XT2	-	Sub clock 32.76kHz.	44	PROSACK	O	Prologic/SA Bass/EXT IC clock.
15	XT1	-	Sub clock 32.76kHz.	45	PROSADA	O	Prologic/SA Bass/EXT IC data.
16	VDD	-	Power supply.	46	VDD	-	Power supply.
17	CK	O	Serial clock signal output to IC304 IC303,IC802,IC2.	47	FVOLDA	O	Front VOL data output to IC401.
				48	VOLCK	O	Clock signal output to IC401.
18	DATA	I/O	Serial data signal output to IC304 IC303,IC802,IC2.	49	RVOLDA	O	Rear VOL data output.
				50		-	Not use.
19	POUT	O	Power ON/Standby.	51	SLCCE	O	Chipenable signal output to IC303,IC304.
20	VC3RESET	O	Reset signal output to IC251.				
21	MRDY	I	Ready signal from IC251.	52	TUCE	O	Chip enable signal to Tuner (IC2).
22	KCLK	I	Clock signal from IC251.	53	PROCE	O	Chip enable signal to prologic.
23	KCMND	O	Command to IC251.	54	SABCE	O	Chip enable signal to SA Bass.
24	MSTAT	I	VC3 MSTAT.	55		-	Not use.
25	AVSS	-	Connect to GND.	56	DSPCE	O	Chip enable signal to DSP.
26	KEY1	I	Key matrix signal input.	57	EXTCE	O	Chip enable signal to EXT(IC802).
27	KEY2	I	Key matrix signal input.	58	SMUTE	O	System mute output.
28	KEY3	I	Key matrix signal input.	59	VOL+	I	Rotary encoder VOL +
29	KEY4	I	Key matrix signal input.	60	VOL-	I	Rotary encoder VOL -
30	SLCKEY1	I	SLC Key input 1	61~78	S1~S18	O	FL segment control signal.
31	SLCKEY2	I	SLC Key input 2	79	VLOAD	-	Power supply.
32	SLCKEY3	I	SLC Key input 3	80~91	S19~S30	O	FL segment control signal.
				92~100	G9~G1	O	FL grid control signal.

■ MN35510(IC651):DIGITAL SERVO&DIGITAL SIGNAL PROCESSER

1. Terminal Layout



2. Block Diagram



## 3. Description

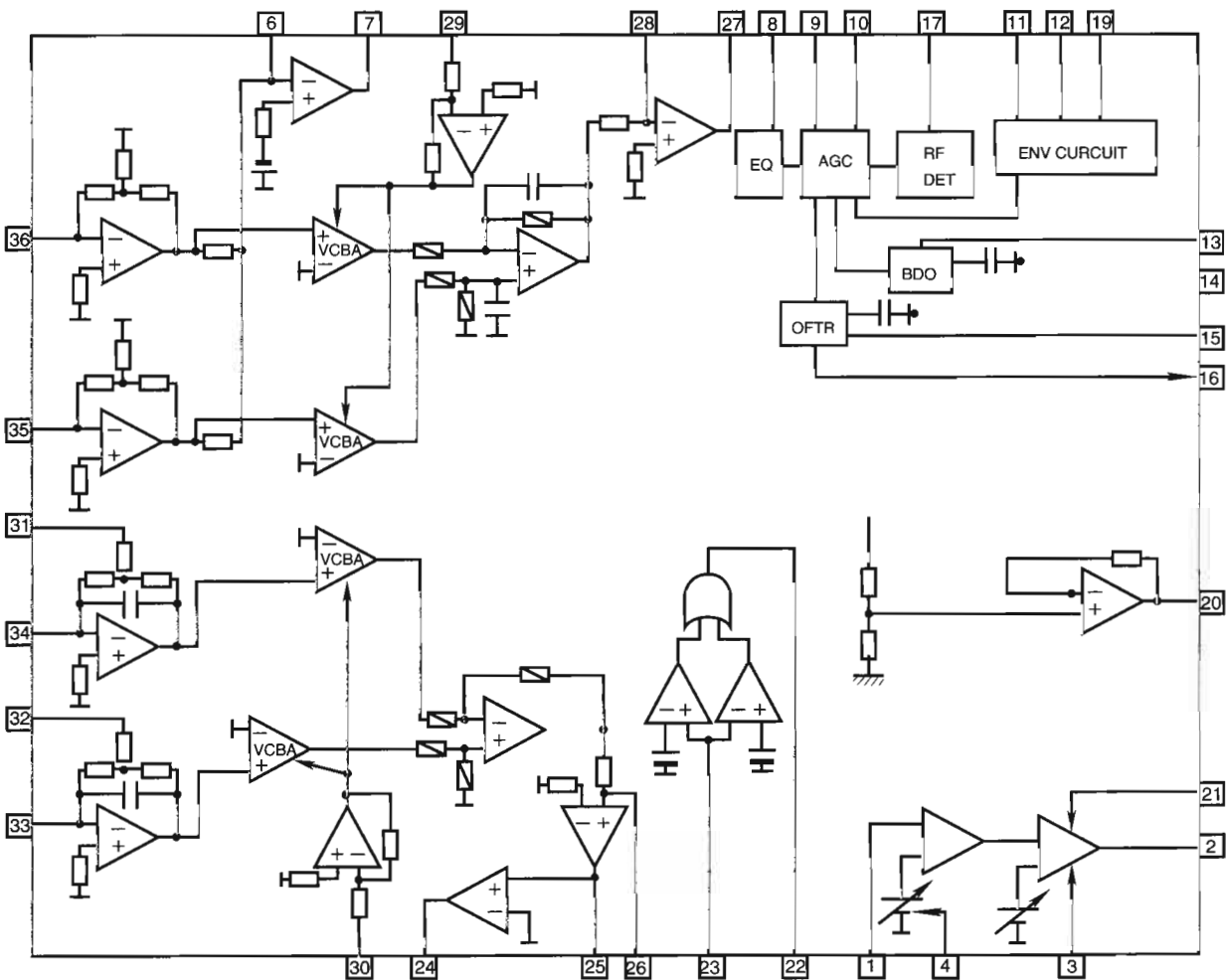
Pin No.	symbol	I/O	Description	Pin No.	symbol	I/O	Description
1	BCLK	O	Not used	41	TES	O	Tracking error shunt signal output(H:shunt)
2	LRCK	O	Not used	42	PLAY	-	Not used
3	SRDATA	O	Not used	43	WVEL	-	Not used
4	DVDD1	-	Power supply (Digital)	44	ARF	I	RF signal input
5	DVSS1	-	Connected to GND	45	IREF	I	Reference current input pin
6	TX	O	Digital audio interface output	46	DRF	I	Bias pin for DSL
7	MCLK	I	$\mu$ com command clock signal input (Data is latched at signal's rising point)	47	DSLFL	I/O	Loop filter pin for DSL
8	MDATA	I	$\mu$ com command data input	48	PLLFL	I/O	Loop filter pin for PLL
9	MLD	I	$\mu$ com command load signal input	49	VCOF	-	Not used
10	SENSE	O	Sence signal output	50	AVDD2	-	Power supply(Analog)
11	FLOCK	O	Focus lock signal output Active :Low	51	AVSS2	-	Connected to GND(Analog)
12	TLOCK	O	Tracking lock signal output Active :Low	52	EFM	-	Not used
13	BLKCK	O	sub-code·block·clock signal output	53	PCK	-	Not used
14	SQCK	I	Outside clock for sub-code Q resister input	54	PDO	-	Not used
15	SUBQ	O	Sub-code Q -code output	55	SUBC	-	Not used
16	DMUTE	-	Connected to GND	56	SBCK	-	Not used
17	STATUS	O	Status signal (CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)	57	VSS	-	Connected to GND(for X'tal oscillation circuit)
18	RST	I	Reset signal input (L:Reset)	58	X1	I	Input of 16.9344MHZ X'tal oscillation circuit
19	SMCK	-	Not used	59	X2	O	Output of X'tal oscillation circuit
20	PMCK	-	Not used	60	VDD	-	Power supply(for X'tal cscillation circuit)
21	TRV	O	Traverse enforced output	61	BYTCK	-	Not used
22	TVD	O	Traverse drive output	62	CLDCK	-	Not used
23	PC	-	Not used	63	FLAG	-	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State	64	IPPLAG	-	Not used
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	-	Not used
26	KICK	O	Kick pulse output	66	CLVS	-	Not used
27	TRD	O	Tracking drive output	67	CRC	-	Not used
28	FOD	O	Focus drive output	68	DEMPH	-	Not used
29	VREF	I	Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)	69	RESY	-	Not used
30	FBAL	O	Focus Balance adjust signal output	70	IOSEL	-	pull up
31	TBAL	O	Tracking Balance adjust signal output	71	TEST	-	pull up
32	FE	I	Focus error signal input(Analog input)	72	AVDD1	-	Power supply(Digital)
33	TE	I	Tracking error signal input(Analog input)	73	OUT L	O	Lch audio output
34	RF ENV	I	RF envelope signal input(Analog input)	74	AVSS1	-	Connected to GND
35	VDET	I	Vibration detect signal input(H:detect)	75	OUT R	O	Rch audio output
36	OFT	I	Off track signal input(H:off track)	76	RSEL	-	pull up
37	TRCRS	I	Track cross signal input	77	CSEL	-	Connected to GND
38	RFDET	I	RF detect signal input(L:detect)	78	PSEL	-	Connected to GND
39	BDO	I	BDO input pin(L:detect)	79	MSEL	-	Connected to GND
40	LDON	O	Laser ON signal output(H:on)	80	SSEL	-	Pull up

■ AN8806SB(IC601):RF&Servo AMP

1. Terminal Layout

PD	1	36	PDAC
LD	2	35	PDBD
LDON	3	34	PDF
LDP	4	33	PDE
VCC	5	32	PDER
RF-	6	31	PDFR
RF OUT	7	30	TBAL
RF IN	8	29	FBAL
C.AGC	9	28	EF-
ARF	10	27	EF OUT
C.ENV	11	26	TE-
C.EA	12	25	TE OUT
CS BDO	13	24	CROSS
BDO	14	23	TE BPF
CS BRT	15	22	VDET
OFTR	16	21	LD OFF
/NRFDET	17	20	VREF
GND	18	19	ENV

2. Block Diagram

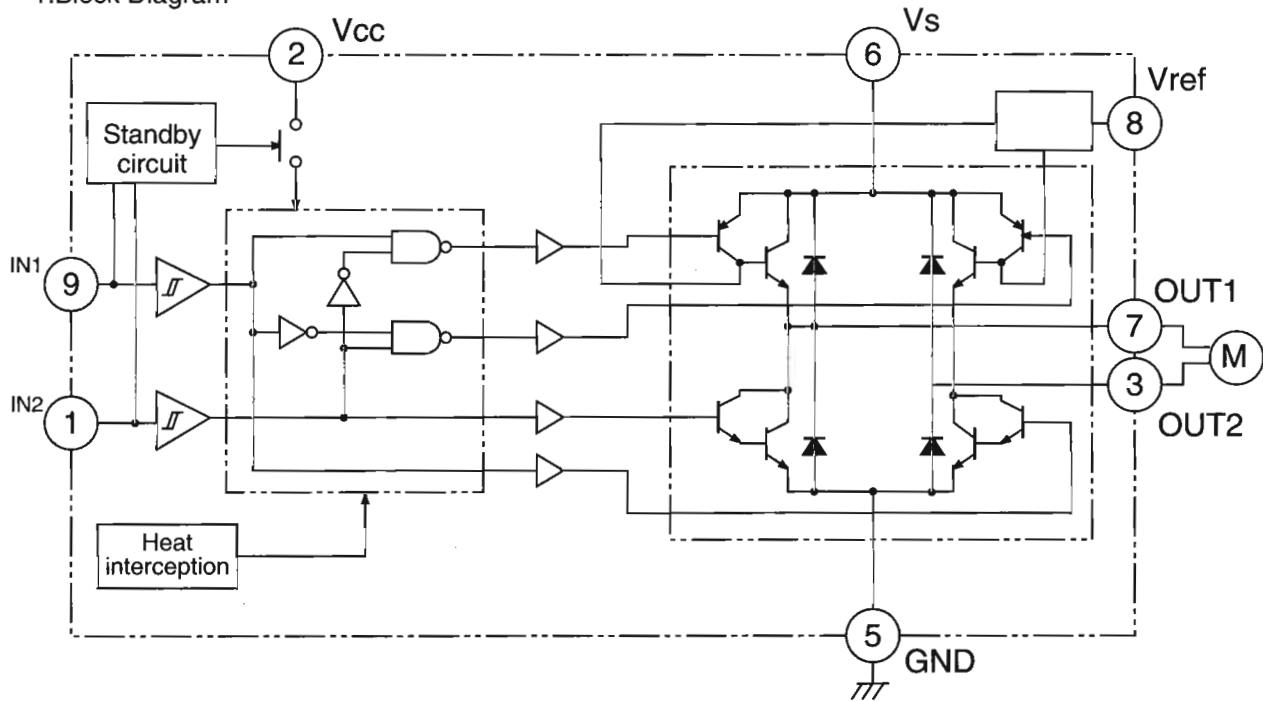


## 3. Functions

Pin No.	Symbol	I/O	Functions and operations
1	PD	I	APC amp input terminal
2	LD	O	APC amp output terminal
3	LD ON	I	APC ON/OFF control terminal
4	LDP	--	Connect to ground
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RFamp output
8	RF IN	I	RF input
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	RF output
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of RF signal
16	OFTR	O	Of-track status signal output
17	/NRFDET	O	RF detection signal output
18	GND	--	Ground
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output
21	LD OFF	--	Connect to ground
22	VDET	O	Vibration detection signal output
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output
25	TE OUT	O	Tracking error signal output
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control
30	TBAL	I	Tracking balance control
31	PDFR	I/O	F I-V amp gain control
32	PDER	I/O	E I-V amp gain control
33	PDF	I	I-V amp input
34	PDE	I	I-V amp input
35	PD BD	I	I-V amp input
36	PD AC	I	I-V amp input

■ TA8409S(IC851.852):CD Changer Motor Driver

1. Block Diagram

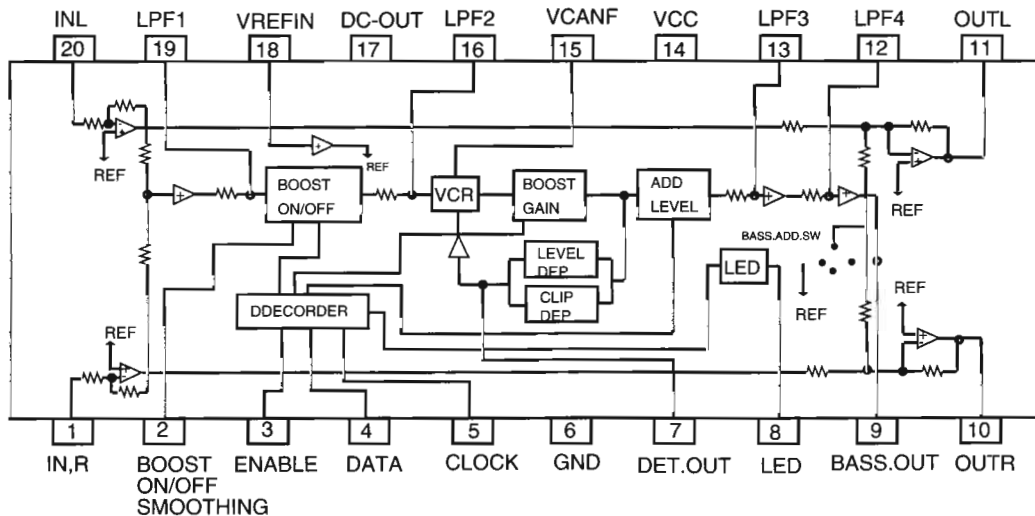


2. Function

INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	MOTOR
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

■ LA2650 (IC406)

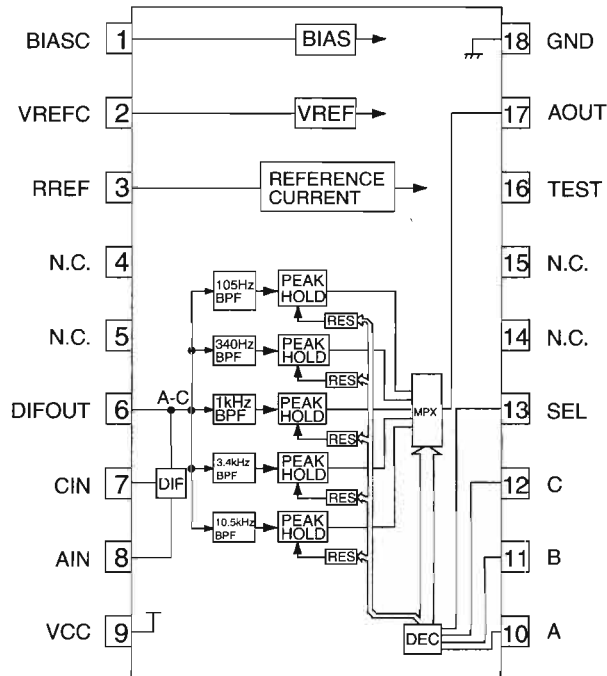
1. Terminal Layout/Block diagram





## ■ BA3835S (IC542):SPI BPF

### 1. Block Diagrams



### 2. Pin Function

No.	Symbol	I/O	Function
1	BIASC	-	Decoupling condenser connection terminal.
2	VREFC	-	Decoupling condenser connection terminal.
3	RREF	-	Reference resistance connection terminal.
4	NC	-	Non connect.
5	NC	-	Connected to GND of audio system through a condenser.
6	DIF OUT	-	Non connect.
7	CIN	-	Connected to GND of audio system through a condenser.
8	AIN	I	Inputs the audio signal through a condenser.
9	VCC	-	Power supply terminal.
10	SPI-A	O	Output selection control terminal.
11	SPI-B	O	Output selection control terminal.
12	SPI-C	O	Output selection control terminal.
13	SPICSB	O	Output selection control terminal.
14	NC	-	Non connect.
15	NC	-	Non connect.
16	TEST	-	Connected to GND upon normal use.
17	AOUT	O	Multi-plexor output terminal.
18	GND	-	Connect to GND.

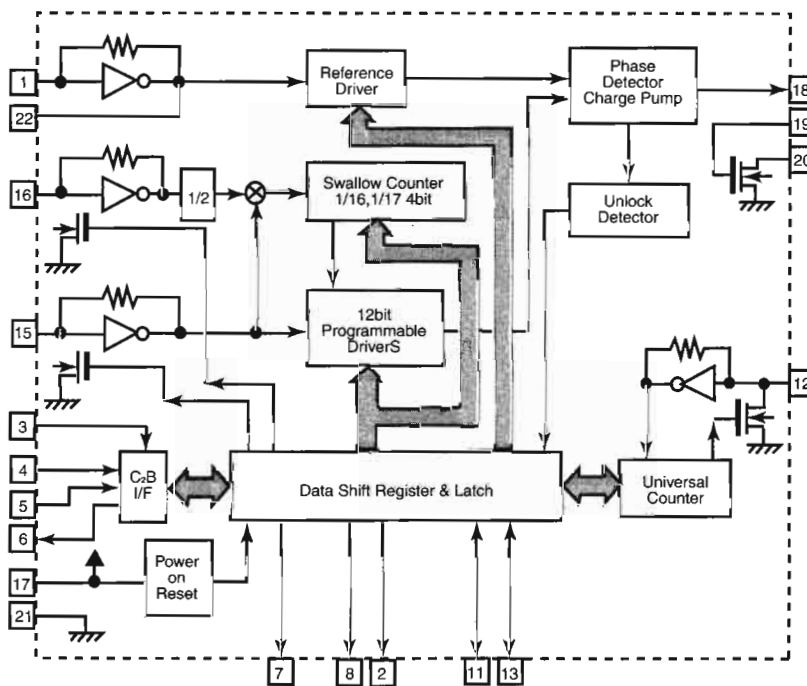
# CA-D432TR/CA-D452TR

## LC72136N(IC2):PLL Frequency synthesizer L S I

### 1. Layout

XT	1	22	XT
FM	2	21	GND
CE	3	20	LPFOUT
DI	4	19	LPFIN
CLOCK	5	18	PD
DO	6	17	VCC
FM/ST/VCO	7	16	FMIN
AM/FM	8	15	AMIN
LW	9	14	POLAR
MW	10	13	IFCONT
SDIN	11	12	IFIN

### 2. Block

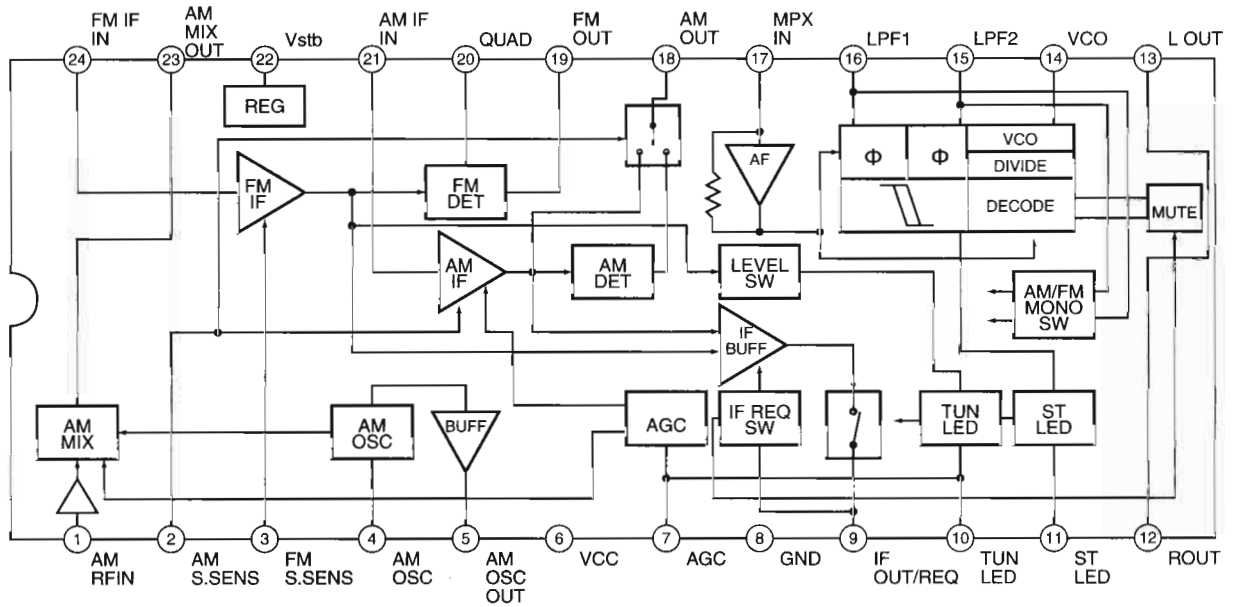


### 3. Function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XT	I	X'tal oscillator connect (75KHz)	12	IFIN	I	IF counter signal input
2	FM	O	LOW:FM mode	13	IFCONT	O	IF signal output
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H	14	POLAR	I	High : POLAR mode
4	DI	I	Input for receive the sirisl data from controller	15	AMIN	I	AM Local OSC signal output
5	CLOCK	I	Sync signal input use	16	FMIN	I	FM Local OSC signal input
6	DO	O	Data output for Controller Output port	17	VCC	-	Power suply(VDD=4.5~5.5V) When power ON:Reset circuit move
7	FM/ST/VCO	O	"Low": MW mode	18	PD	O	PLL charge pump output(H: Local OSC frequency Height than Reference frequency. L: Low Agreement: Height impedance)
8	AM/FM	O	Not use	19	LPFIN	I	Input for active lowpassfilter of PLL
9	LW	I	High : LW	20	LPFOUT	O	Output for active lowpassfilter of PLL
10	MW	I	High : MW	21	GND	-	Connected to GND
11	SDIN	I/O	Data input/output	22	XT	O	X'tal oscillator(75KHz)

■TA2057N(IC1) FM/AM IF AMP & Detector

1. Block Diagrams

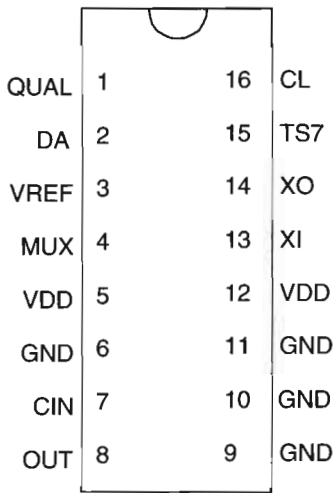


2. Pin Function

Pin No.	I/O	Symbol	Function	Pin No.	I/O	Symbol	Function
1	I	AM RF	AMRF signal input	13	O	Lch OUT	Output Lch
2		AM S.SENS		14	O	VCO	Voltage controlled terminal
3		FM S.SENS		15	O	LPF2	When voltage of terminal is MONO at "H" and ST at "L"
4	-	AM OSC	AM local oscillation circuit	16	O	LPF1	When voltage of terminal is AM at "H" and FM at "L"
5	O	AM OSC OUT	AM local oscillation signal output	17	I	MPX IN	Multi plex signal input
6	-	VCC	Power supply	18	O	AM OUT	AM detection signal output
7	I	AGC	AGC voltage input terminal	19	O	FM OUT	FM detection signal output
8	-	GND	Connect to GND	20	I	FM QUAD	Bypass to FMIF
9	O	IF OUT	IF REQ signal output to IC2	21	I	AM IF IN	Input of AMIF signal
10	O	TU IND	Indicator drive output when tuning	22	-	Vst	Fixed voltage output terminal
11	O	ST IND	Stereo indicator output "H"mono . "L"stereo	23	O	AM MIX OUT	Output terminal for AM mixer
12	O	Rch OUT	Output Rch	24	I	FM IF IN	Input of FMIF signal

■ BU1923(IC4):RDS Detector

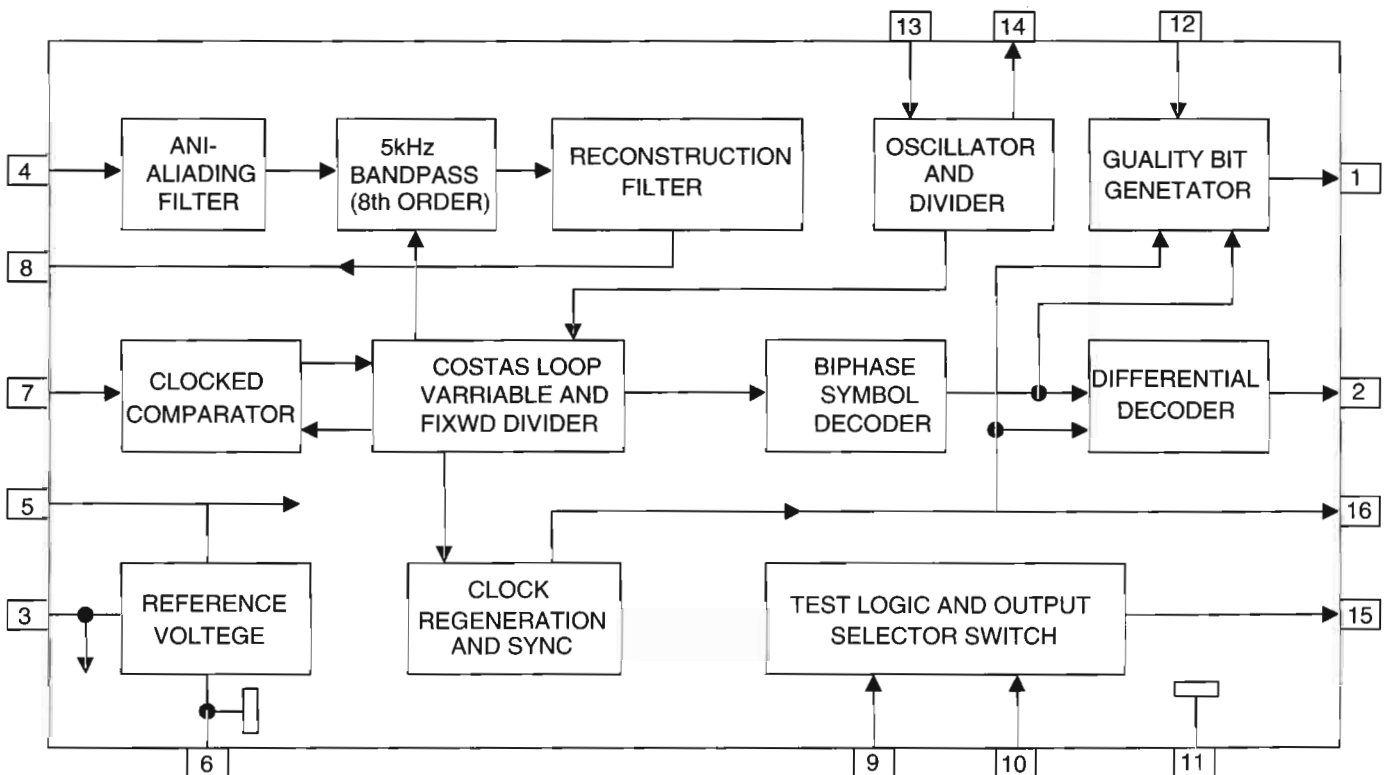
1.Terminal Layout



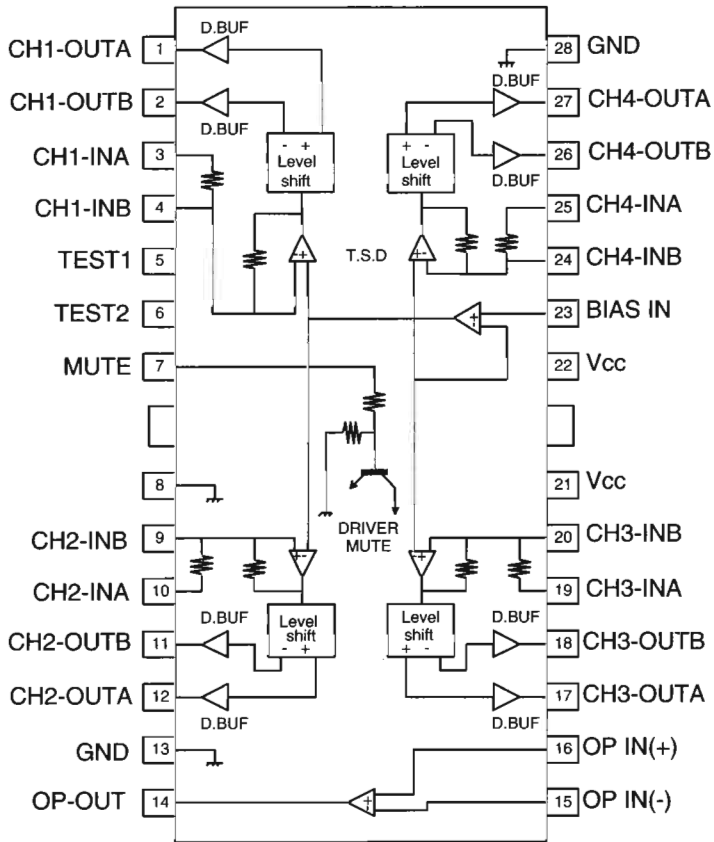
2.Pin Function

Pin No	Symbol	I/O	Function
1	QUAL	--	Non connection
2	DA	O	RDS data output
3	VREF	O	Reference voltage output
4	MUX	I	Multiplex signal input
5	VDD	--	+5Vsupply voltage for analog
6	GND	--	Ground for analog part(0V)
7	CIN	I	Subcarrier outputof reconstruction filter
8	OUT	O	Ground for digital part(0V)
9	GND	--	Ground for digital part(0V)
10	GND	--	Ground for digital part(0V)
11	GND	--	Ground for digital part(0V)
12	VDD	--	+5Vsupply voltage for digital part
13	XI	I	Oscilator input
14	XO	O	Oscilator output
15	TS7	--	Non connection
16	CL	O	RDS clock output

3.Block Diagram



■ BA6897FP(IC801) 4channel driver





## Disassembly Procedures

### ■ Removal of the Metal Cover

1. Remove the six screws A fastening the metal cover to the rear panel of the main unit.
2. Remove the two screws B fastening the metal cover to the side panel of the main unit.
3. Spread both sides of the metal cover outward and remove from the back panel by lifting upward.

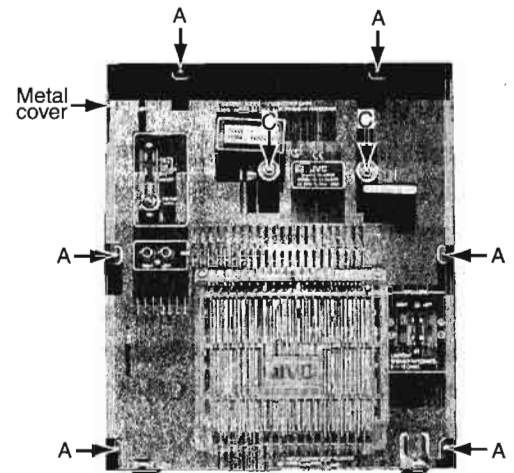


Fig 1

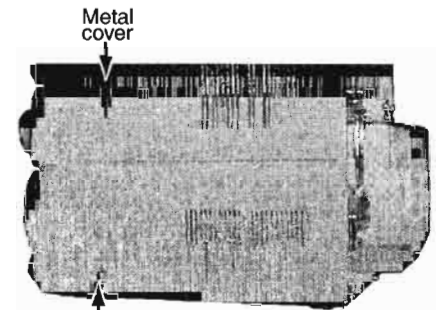


Fig 2

### ■ Removal of the CD Changer Mechanism Assembly

1. Remove the metal cover
2. Remove the two screws C fastening the CD changer mechanism assembly to the rear panel of the main unit.
3. Remove the two screws D fastening the CD changer mechanism assembly to the top panel of the main unit.
4. Disconnect the card wire connected to the CD changer mechanism assembly from connector CN410 on the main amplifier board on the right side of the main unit.
5. Expand a rear panel outside, back of CD changer mechanism is lifted and detached.

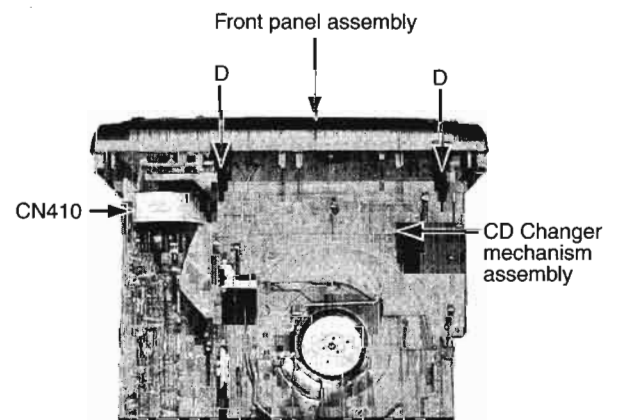


Fig 3

■ Removal of the Front Panel Assembly

- 1.Remove the metal cover.
- 2.Remove the CD changer mechanism assembly.
- 3.Remove the four screws E fastening the front panel assembly to the bottom of the main unit.
- 4.Use a screwdriver,etc...,to disengage clips (a) and (b) from the side panels of the main unit.
- 5.Disconnect the wires connected to the front panel assembly from connectors CN411.CN412.CN413 on the main amplifier board.
- 6.Disconnect the wires CN915 and CN007 on the power amplifier board.
- 7.Remove the plastic rivet (c) fastening the main P.C.Board and front panel assembly.
- 8.Remove the front panel assembly.

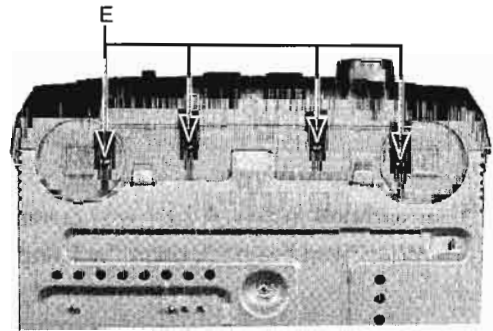


Fig 4

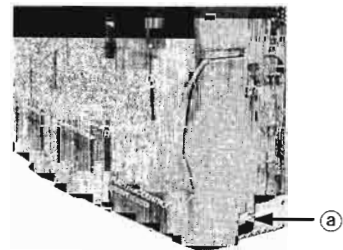


Fig 5

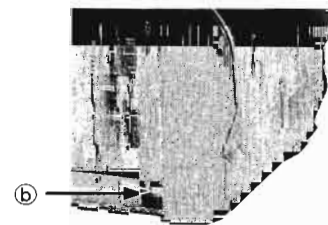


Fig 6

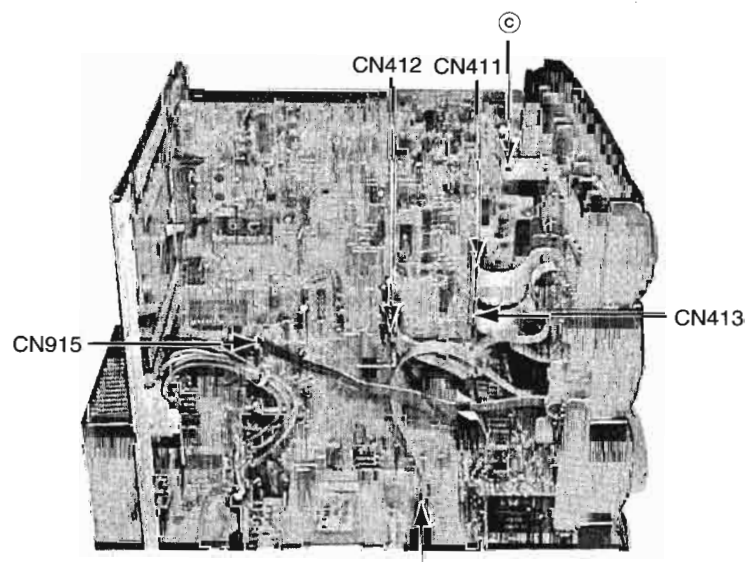
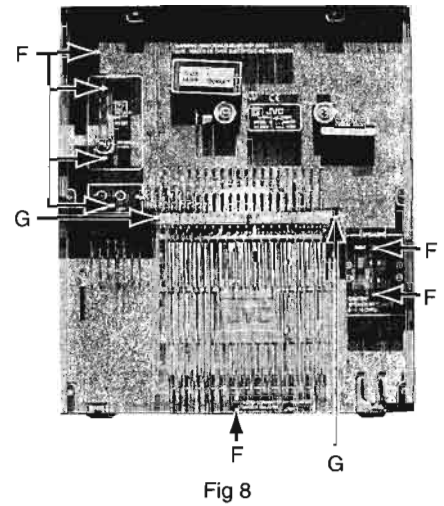


Fig 7



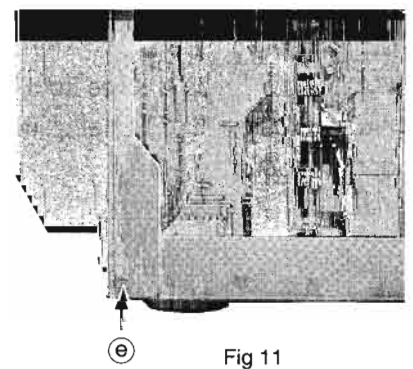
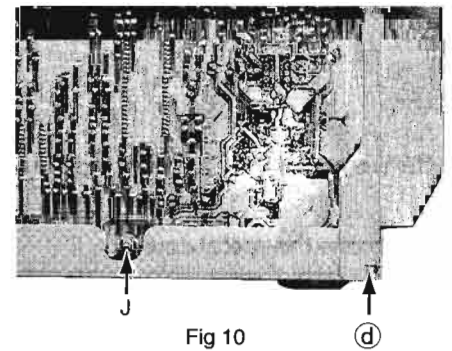
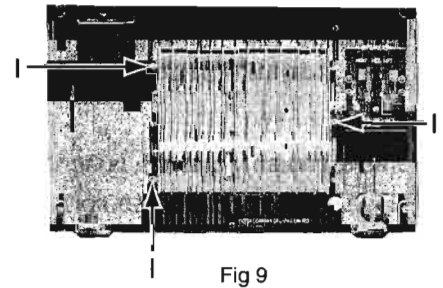
### ■ Removal of the Rear Panel Assembly

- 1.Remove the metal cover.
- 2.Remove the CD changer mechanism assembly.
- 3.Remove seven screws F fastening the rear panel.
- 4.Remove two screws G fastening the rear cover.
- 5.Remove three screws I fastening the heat sink of the rear panel.
- 6.Use a screwdriver,etc.,to disengage the two engagements bottom chassis clips ④ and ⑤ from the bottom part of the side panels of the rear panel assembly.



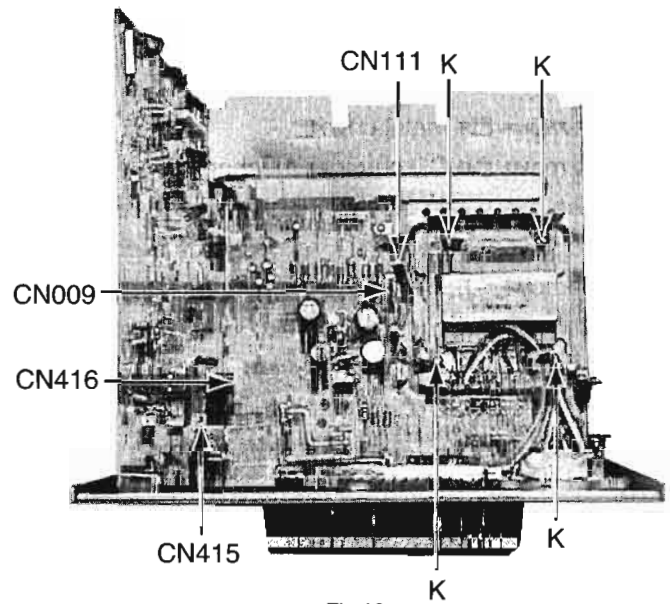
### ■ Removal of the Main Amplifier Board

- 1.Remove the rear panel.
- 2.Remove one screw J fastening the main amplifire board and bottom chassis to the side panel of the main unit.
- 3.Disconnect the main amplifier board CN415 and CN416 from the power amplifier board. (See Fig 12)



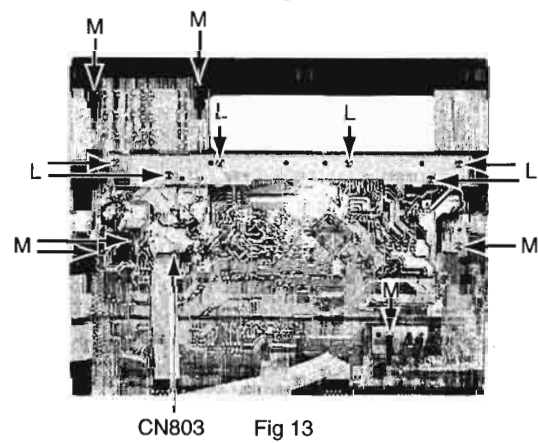
■ Remove of the Power Transformer

- 1.Remove the metal cover.
- 2.Remove the CD changer mechanism assembly.
- 3.Remove the rear panel .
- 4.Remove the four screws K fastening the power transformer.
- 5.Disconnect the connector CN111 and CN009 on the power amplifier board.



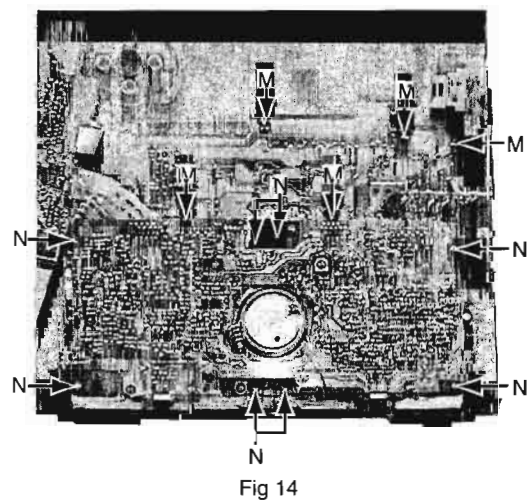
■ Removal of the Front Panel

- 1.Remove the metal cover.
- 2.Remove the CD changer mechanism assembly.
- 3.Remove the front panel assembly.
- 4.Remove the volume knob and nut from the front panel assembly.
- 5.Remove the six screws L fastening the stay bracket inside the front panel assembly.
- 6.Remove the eleven screws M fastening the system CPU board.
- 7.Disconnect the card wires protruding from connector CN803 on the system CPU board.



■ Removal of the Cassette Mechanism Assembly.

- 1.Remove the metal cover.
- 2.Remove the CD traverse mechanism assembly.
- 3.Remove the front panel assembly.
- 4.Remove the eight screws N 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.



«CD Changer Mechanism Type:VC3 Section»

## ■ Removing the CD Servo control board (See Fig.1)

- 1.Remove the metal cover.
- 2.Remove the CD changer mechanism assembly.
- 3.From bottom side the CD changer mechanism assembly, remove the two screws 1 retaining the CD servo control board.
- 4.Absorb the four soldered positions "M" of the right and left motors with a soldering absorber.
- 5.Pull out the earth wire on the CD changer mechanism assembly.
- 6.The two screws A is removed and C.B.holder is detached.
- 7.Disconnect the connector CN854 on the CD servo control board.
- 8.Disconnect the card wire CN601 and the connector CN801 on the CD servo control board.

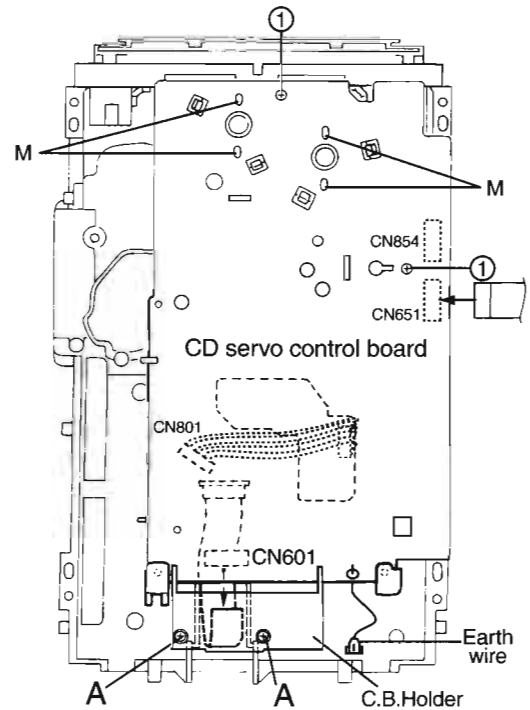


Fig.1

## ■ Removing the CD tray assembly (See Fig.2~4)

1. Remove the front panel assembly.
2. Remove the CD changer mechanism assembly.
3. Remove the CD Servo control board.
4. From the T.bracket section "B" and clamer base section "C", remove both of the edges fixing the rod(See Fig.2 and 3).
5. Remove the screw 2 retaining the Disc stopper (See Fig.3).
6. Remove the three screws 3 retaining the T.bracket (See Fig.3).
7. Remove the screws 4 retaining the clamer assembly (See Fig.3).
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. 4).
9. By removing the pawl at the section "D" fixing the return spring, dismount the return spring(See Fig.4).
10. Remove the three lock levers(See Fig.4).

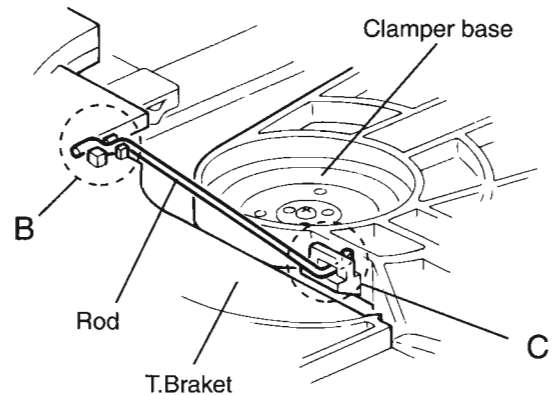


Fig.2

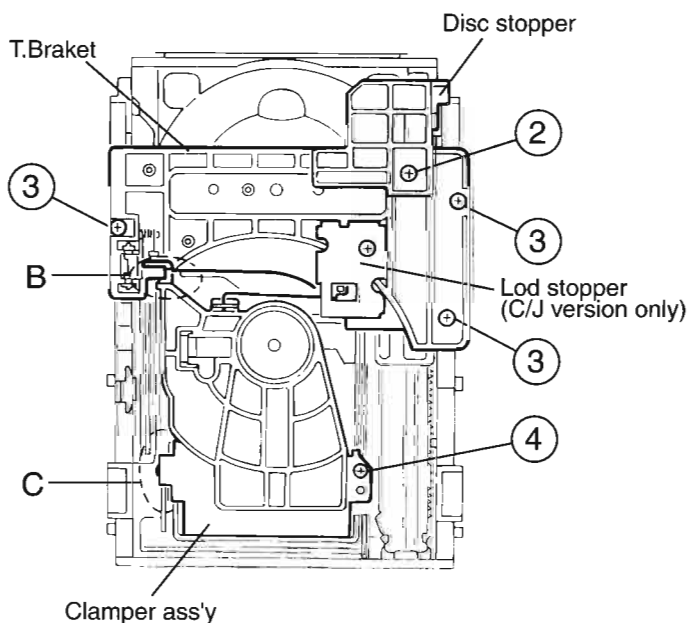


Fig.3

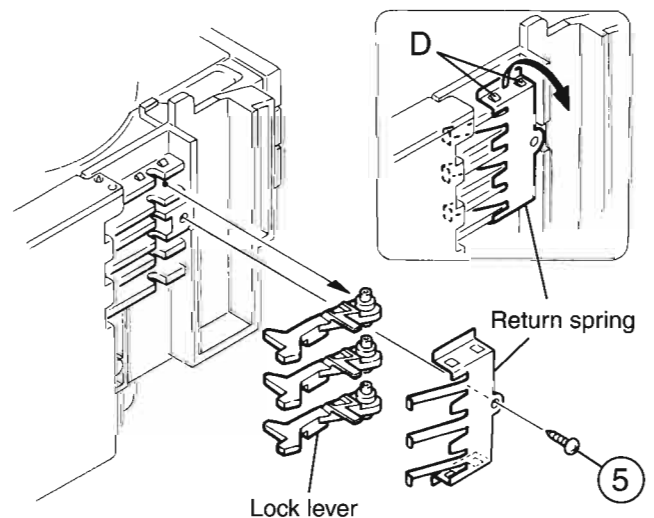


Fig.4

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.
  12. Make sure that the driver unit elevator is positioned as shown in Fig.6 from to the second or fifth hole on the left side face of the CD changer mechanism assembly.
- [Caution]** In case the driver unit elevator is not at above position, set the elevator to the position as shown in Fig.7 by manually turning the pulley gear as shown in Fig.8.
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.8).
  14. Pull out all of the three stages of CD tray assembly in the arrow direction "F" until these stages stop (See Fig.6).
  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.9). In this case, it is easy to pull out the assembly when it is pulled out first from the stage CD tray assembly.

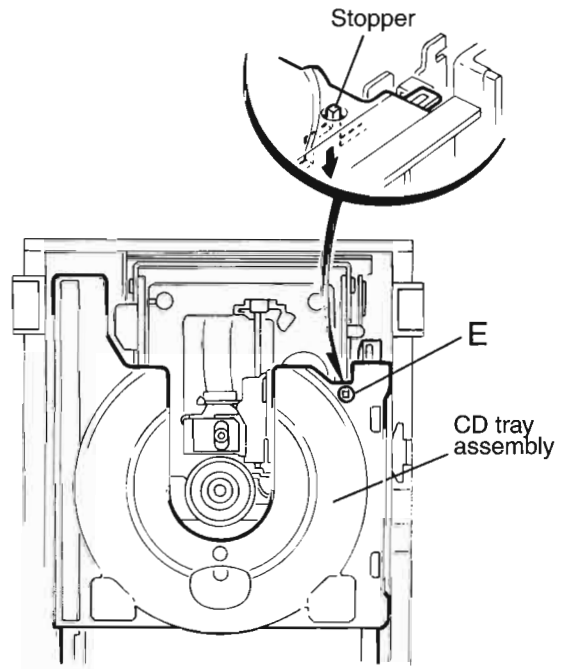


Fig.5

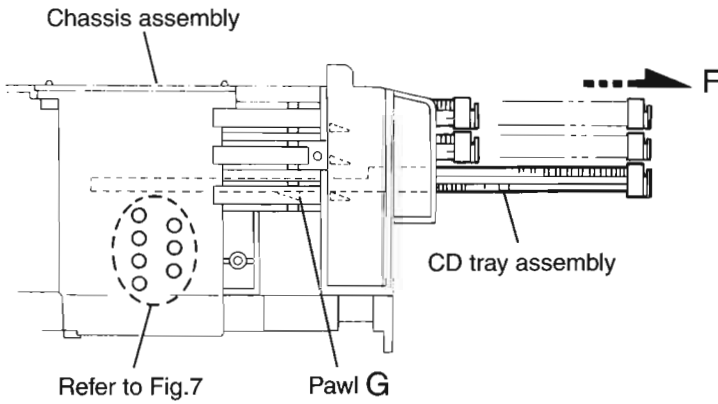


Fig.6

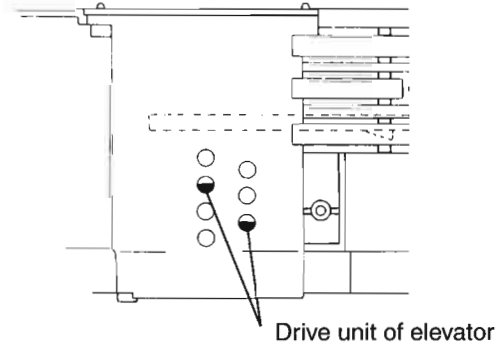


Fig.7

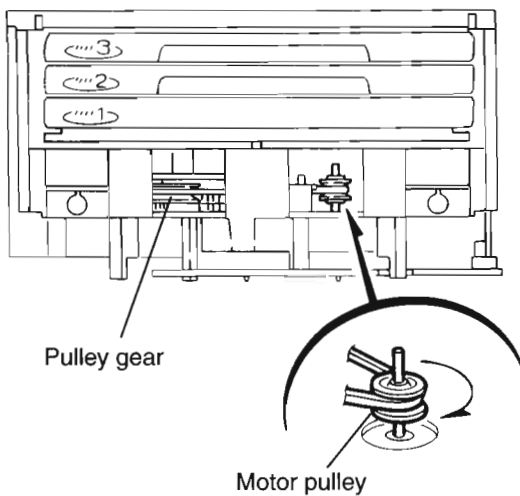


Fig.8

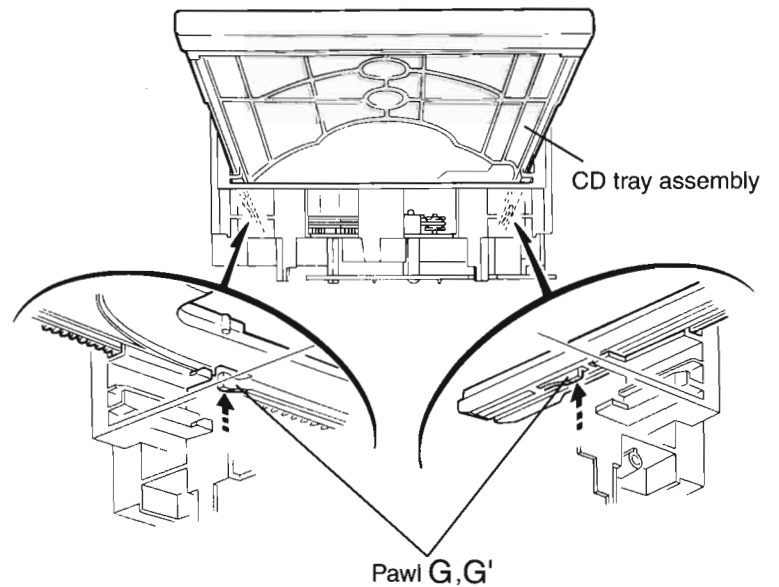


Fig.9

### ■ Removing the CD loading mechanism assembly (See Fig.10)

1. While turning the cams R1 and R2 assembly in the arrow direction "H", align the shaft "I" of the CD loading mechanism assembly to the position shown in 2. Fig.10.
2. Remove the four screws 6 retaining the CD loading mechanism assembly.

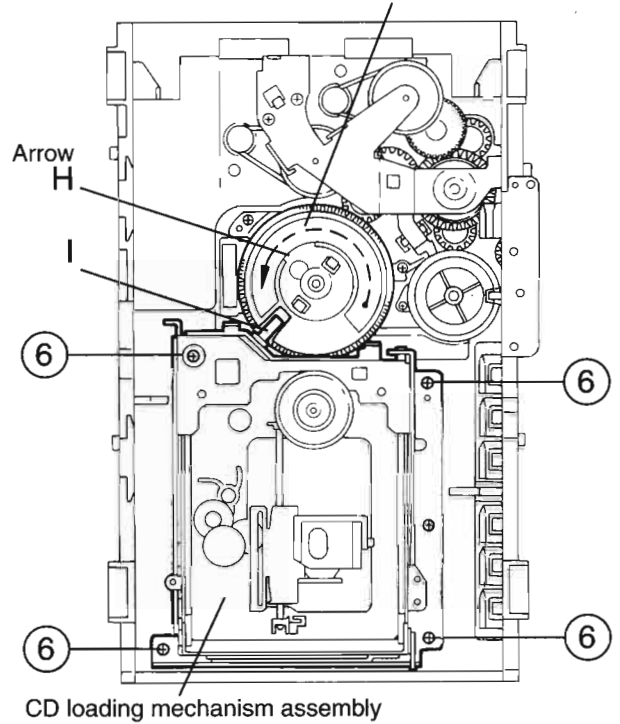


Fig.10

### ■ Removing the CD traverse mechanism (See Fig.11 and 12)

1. For dismantling only the CD traverse mechanism without removing the CD loading mechanism assembly, align the shaft "J" of the CD loading mechanism assembly to the position shown Fig.11 while turning the cam R1 and R2 assembly in the arrow direction "K".
2. By raising the CD loading mechanism assembly in the arrow direction "L", remove the assembly from the lifter unit

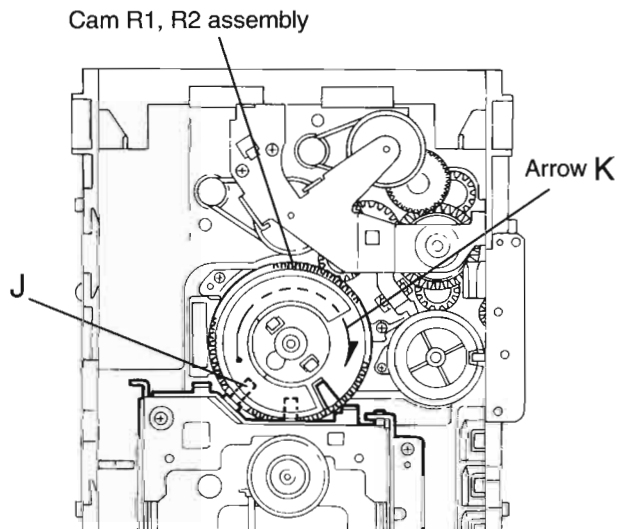


Fig.11

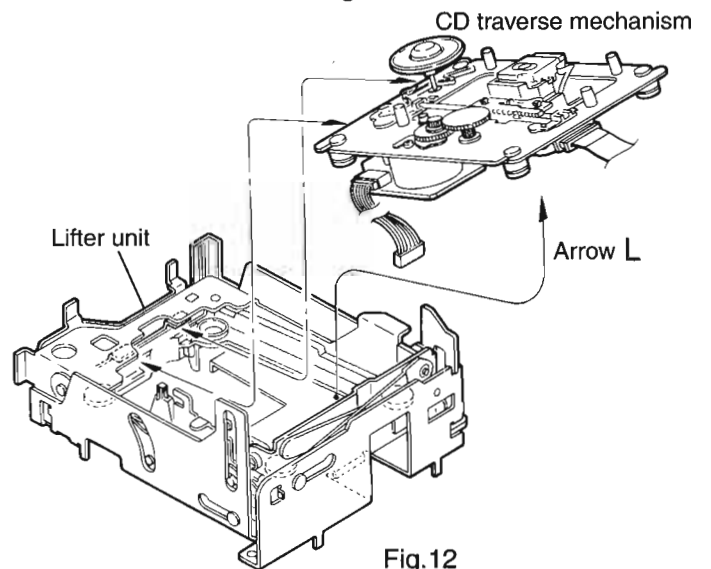


Fig.12

### ■ Removing the CD pick unit (See Fig.13)

1. Move the cam gear in the arrow direction a. Then, the CD pickup unit will be moved in the arrow direction b.
2. According to the above step, shift the CD pickup unit to the center position.
3. While pressing the stopper retaining the shaft in the arrow direction c, pull out the shaft in the arrow direction d.
4. After dismantling the shaft from the CD pickup unit, remove the CD pickup unit

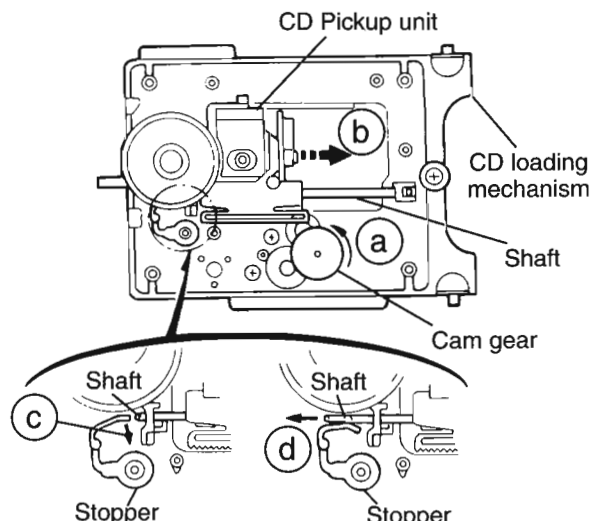


Fig.13

■ Removing the cam unit

(See Fig.14 ~17 )

1. Remove the CD loading mechanism assembly.
2. While turning the cam gear L, align the pawl "N" position of the drive unit to the notch position(Fig.16) on the cam gear L.
3. Pull out the drive unit and cylinder gear(See Fig.17).
4. While turning the cam gear L, align the pawl "O" position of the select lever to the notch position(Fig.18) 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.18).

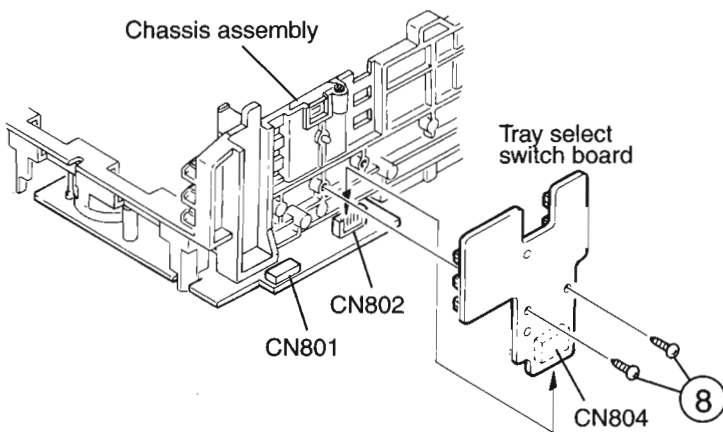


Fig.14

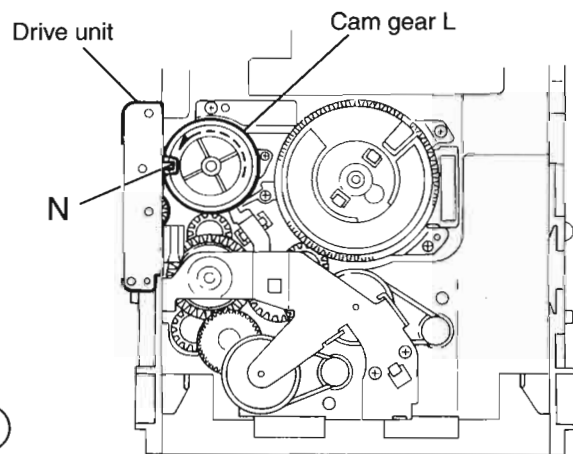


Fig.15

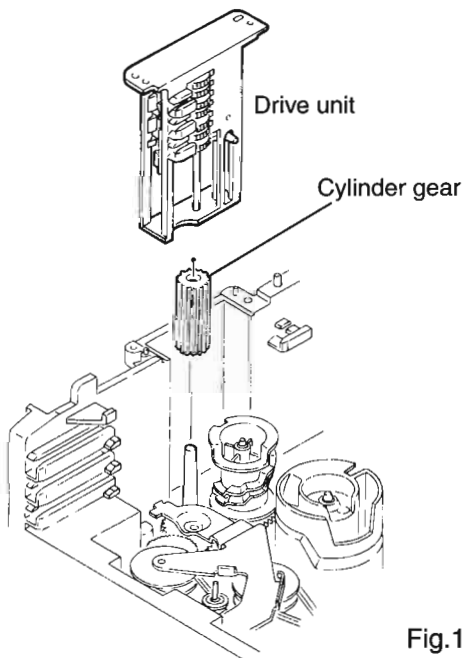


Fig.16

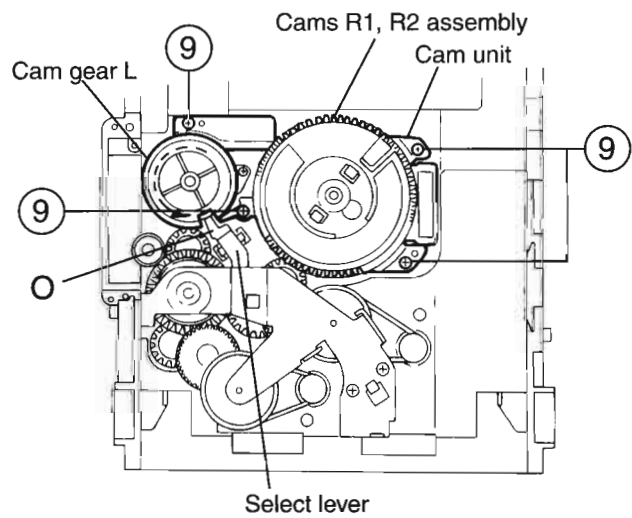


Fig.17

**■ Removing the actuator motor and belt  
(See Fig.18~21)**

1. Remove the two screws 10 retaining the gear bracket  
(See Fig.19).
2. While pressing the pawl "P" fixing the gear bracket in the arrow direction, remove the gear bracket  
(See Fig.19).
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. 20).
4. Remove the belts respectively from the right and left actuator motor pulleys and pulley gears(See Fig. 19).
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. 21).

**[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. 22.

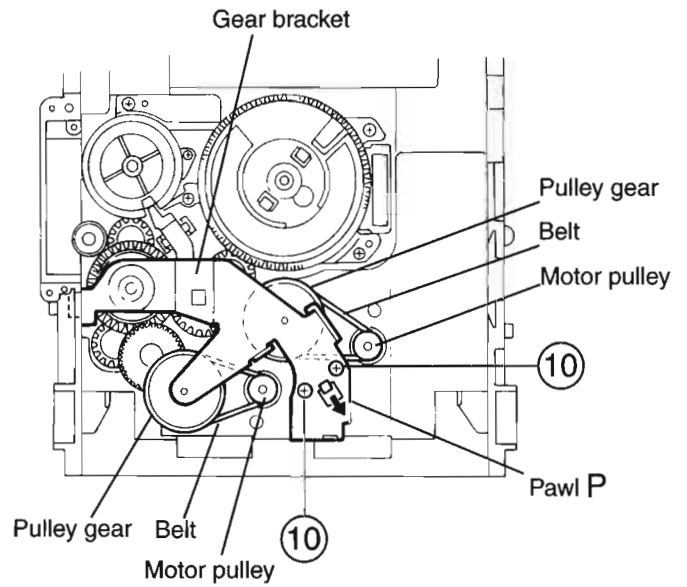


Fig.18

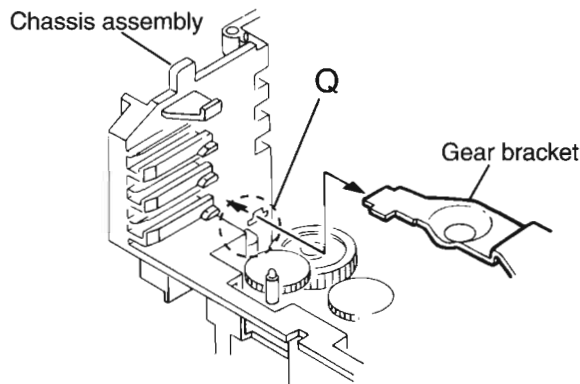


Fig.19

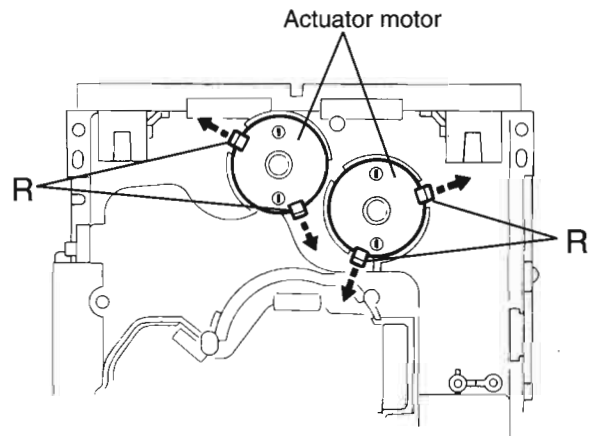


Fig.20

**Assembly and Configuration Diagram**

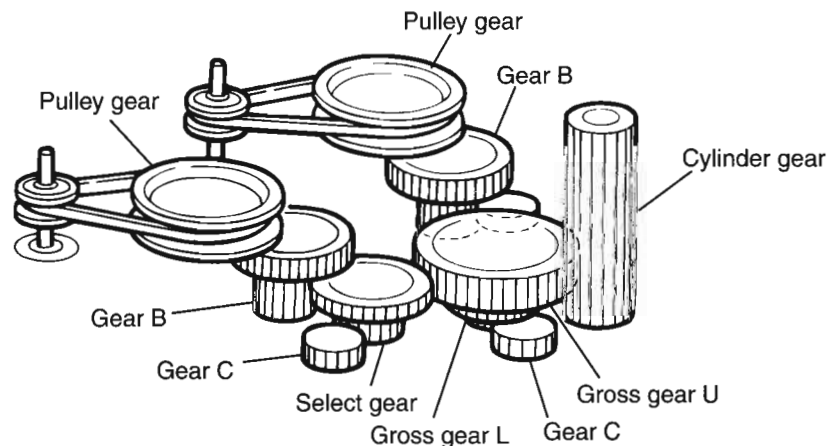


Fig.21

**■ Removing the cams R1/R2 assembly and cam gear L (See Fig.22)**

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 Fig.22 and 23)**

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 cans 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. 24).

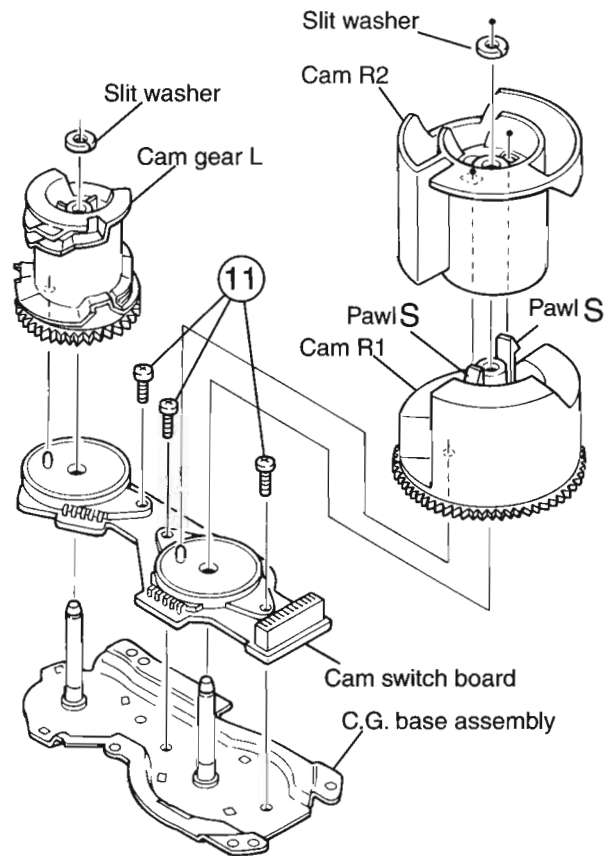


Fig.22

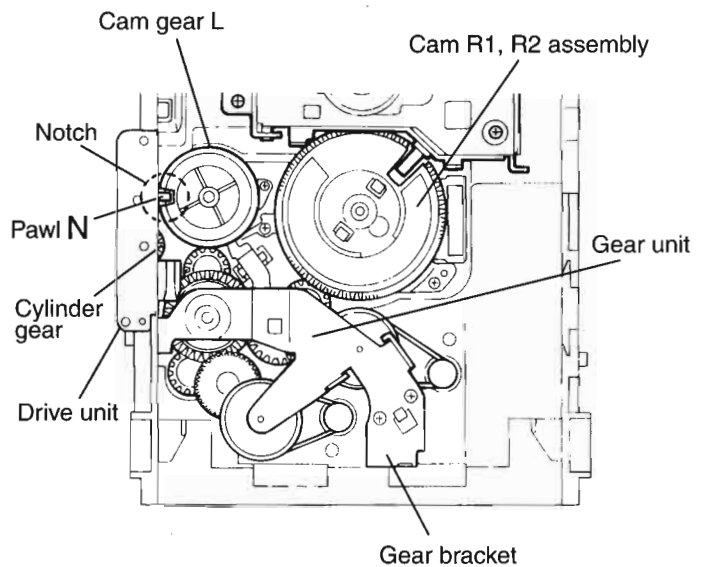


Fig.23

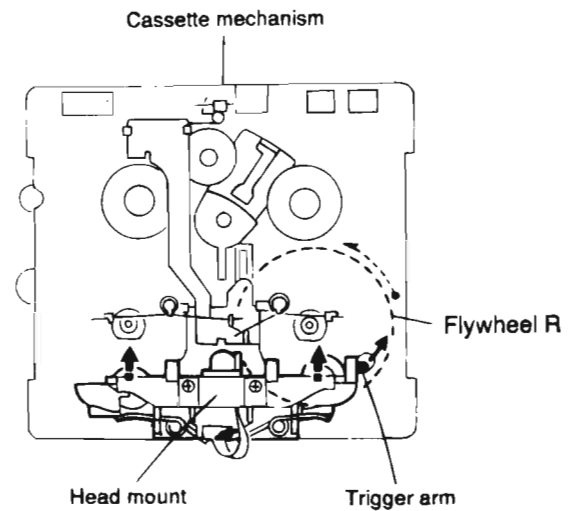
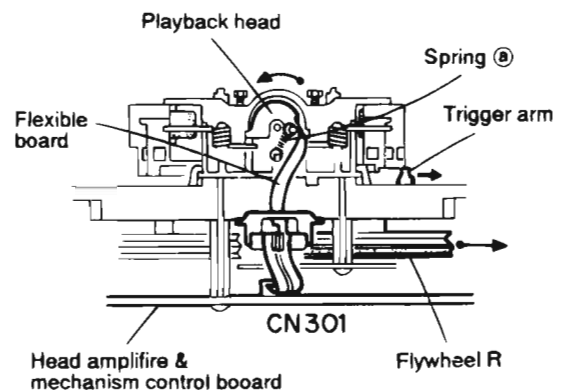
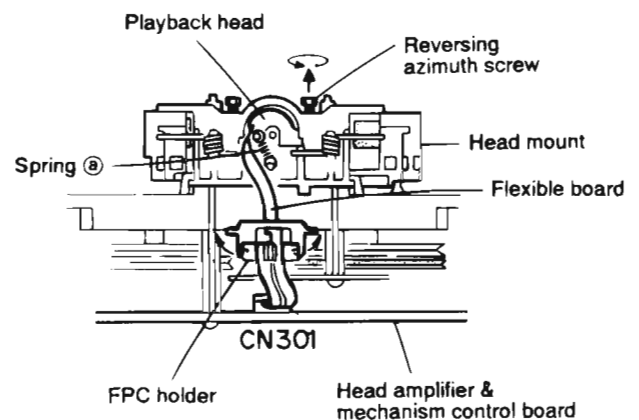


< **Cassette Mechanism Section** >**■ Removing the Playback, Recording and Eraser Heads**

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 1).
2. When the flywheel R is rotated in counterclockwise direction, the playback head will be turned in counterclockwise direction from the position in Fig 2 to that in Fig 3.
3. At this position, disconnect the flexible P.C. board (outgoing from the playback head) from the connector CN301 on the head amp. and mechanism control P.C. board.
4. After dismounting the FPC holder, remove the flexible P.C. board.
5. Remove the flexible P.C. board from the chassis base.
6. Remove the spring ㉑ 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 erase heads should also be removed similarly according to Steps 1~8 above.

**● Reassembling the Playback, Recording and Erase Heads**

1. Reassemble the playback head from the front of the head mount to the position as shown in Fig 3.
2. Fix the reversing azimuth screw.
3. Set the spring ㉑ 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 3.
5. The recording and eraser heads should also be reassembled similarly according to Steps 1~4 above.

Fig 1  
(Mechanism A side)Fig 2  
(Mechanism A side)Fig 3  
(Mechanism B side)

### ■ Removing the head Amp. and Mechanism Control P.C. Board (See Fig 4)

1. Remove the cassette mechanism assembly.
2. After turning over the cassette mechanism assembly, remove the five screws ① retaining the head amp. and 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

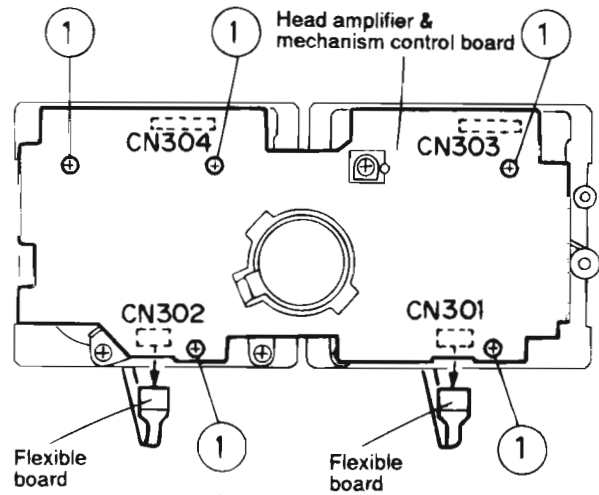


Fig 4

### ■ Removing the Capstan Motor Assembly

1. Remove the six screws ② retaining capstan motor assembly (See Fig 5).
2. While raising the capstan motor, remove the capstan belts A and B respectively from the motor pulley (See Fig 6).

**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 hand while referring to the capstan belt hanging method.

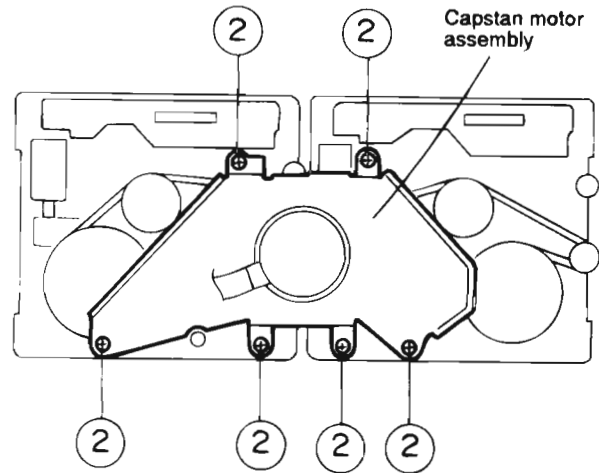


Fig 5

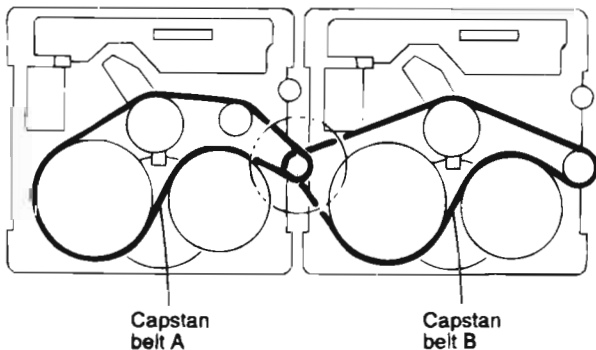


Fig 6

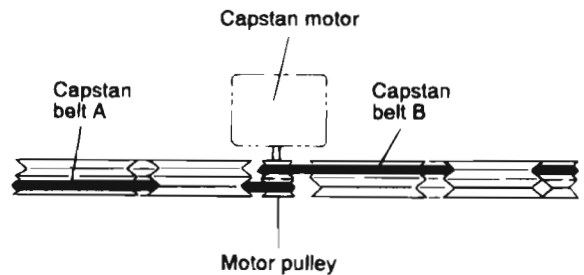


Fig 7

### ■ Removing the Capstan Motor (See Fig 8)

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

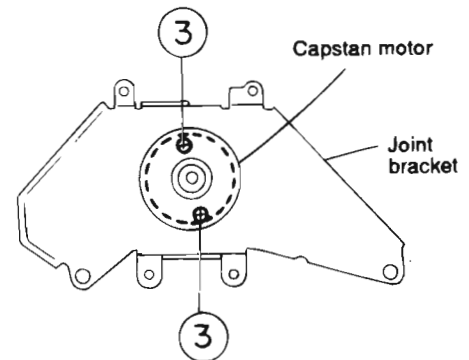


Fig 8

### ■ Removing the Flywheel (See Fig 9.10)

1. Remove the head amp. and 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.

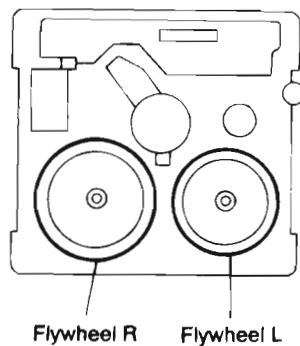


Fig 9

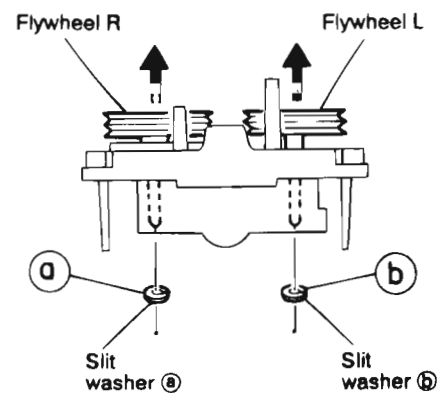


Fig 10

### ■ Removing the Reel Pulse P.C.Board and Solenoid (See Fig 11)

1. Remove the five pawls (c d e f) retaining the reel pulse P.C.Board.
2. From the surface of the reel pulse P.C.Board parts, remove the two pawls (h) and (i) retaining the solenoid.

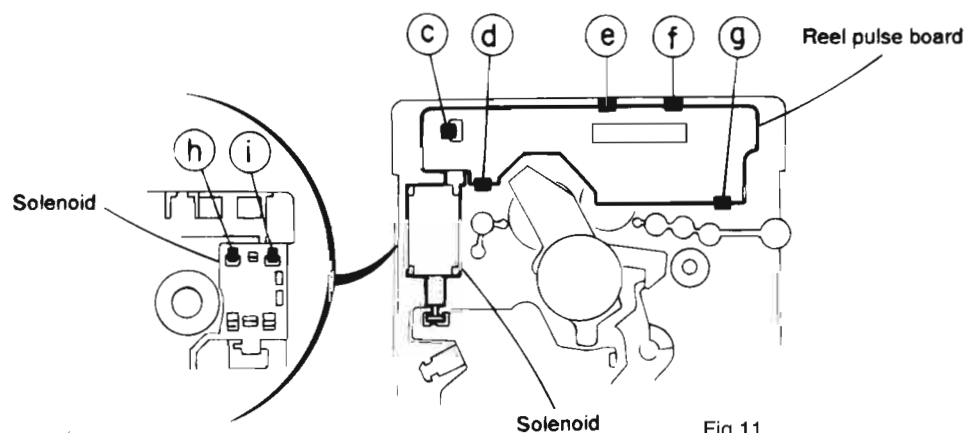
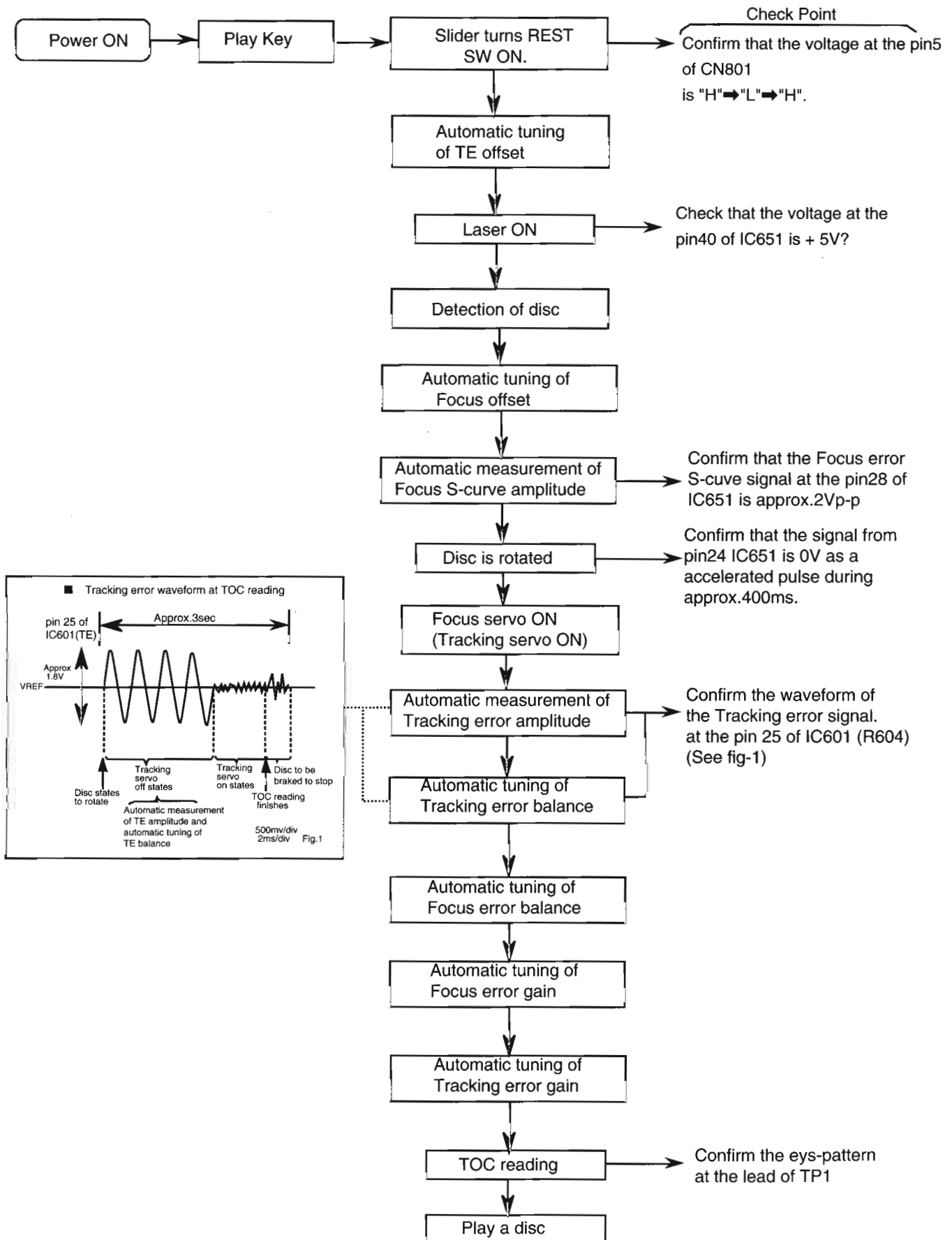


Fig 11

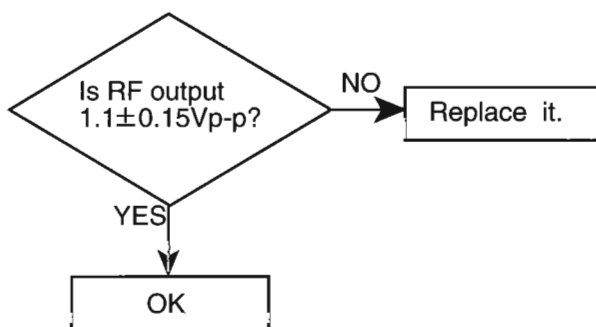
## Flow of Functional Operation Until TOC Read



## Maintenance of Laser Pickup      Replacement of Laser Pickup

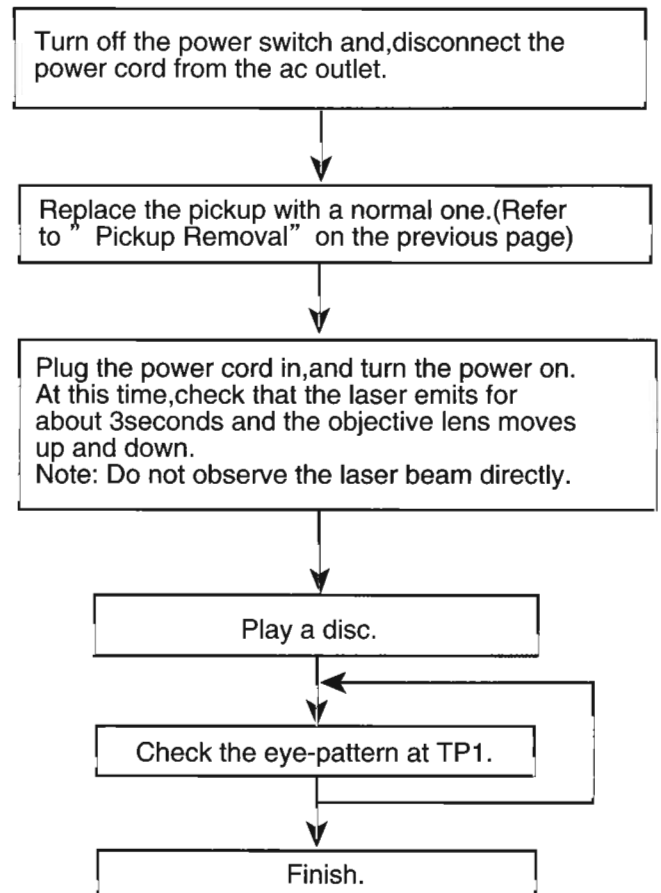
- (1) Cleaning the pick up lens  
Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

- (2) Life of the laser diode (Fig.1)  
When the life of the laser diode has expired, the following symptoms will appear.  
(1) The level of RF output (EFM output:ampli tube of eye pattern) will below.



(Fig.1)

- (3) Semi-fixed resistor on the APC PC board  
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.  
If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.  
If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.



## Adjustment Procedures

### ■ Measurement Instruments Required for Adjustment

1. Low frequency oscillator,  
This oscillator should have a capacity to output 0dBs to 600  $\Omega$  at an oscillation frequency of 50Hz-20kHz.
2. Attenuator impedance : 600  $\Omega$
3. Electronic voltmeter
4. Frequency counter
5. Wow flutter meter
6. Test tape  
VTT712 : For Tape speed and wow flutter ( 3kHz)  
VTT724 : For Reference level (1kHz)  
TMT7036 : For Head angle(10kHz),Play back frequency characteristics(1kHz),and dubbing frequency characteristics(63,1,10kHz)  
Because of frequency-mixed tape with 63,1k,10k and 14kHz(250nWb/m -24dB).  
Use this tape together with a filter.
7. Blank tape  
TAPE I : AC-225, TAPE II : AC-514
8. Torque gauge : For play and back tension  
Forward ; TW2111A, Reverse ; TW2121A  
Fast Forward and Rewind ; TW2231A
9. Test disc  
: CTS-1000(12cm),GRG-1211(8cm)
10. Jitter meter

### ■ Measurement Conditions

Power supply voltage : AC 230V (50Hz)  
 Reference output : Speaker 0.775V/6  $\Omega$   
   : Headphone 0.0775V/32  $\Omega$   
 Measurement  
 Output terminal : Speaker out  
   :TP101(Mesuring for TUNER/DECK/CD)

### Radio input signal

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

### Standard measurement positions of volume and switch

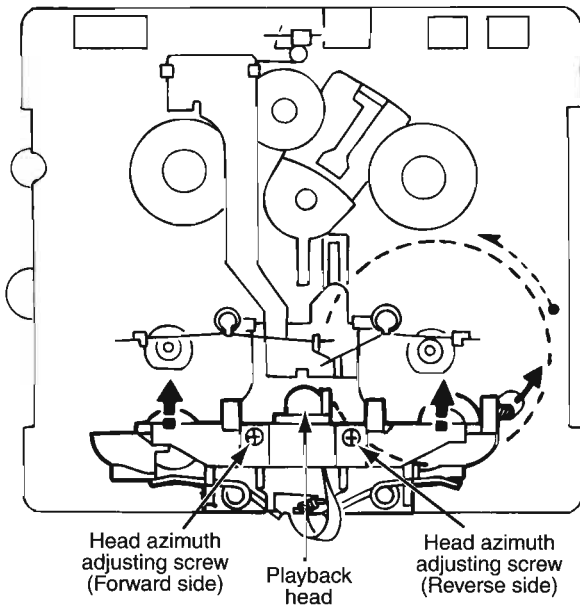
Power : Standby (Light STANDBY Indicator)  
 Sound mode : Off  
 SA-Bass : Off  
 Main VOL. : 0 Minimum  
 Travers mecha set position : Disc 1

### Precautions for Measurement

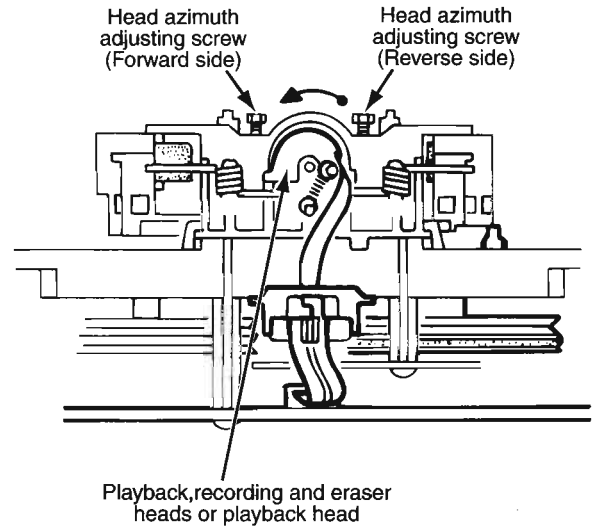
1. Apply 30pF and 33k  $\Omega$  to the IF sweeper output side and 0.082  $\mu$  F and 100k  $\Omega$  in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust 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.
7. In the case of BTL connection amplifier, 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.

■ Arrangement of Adjusting Positions

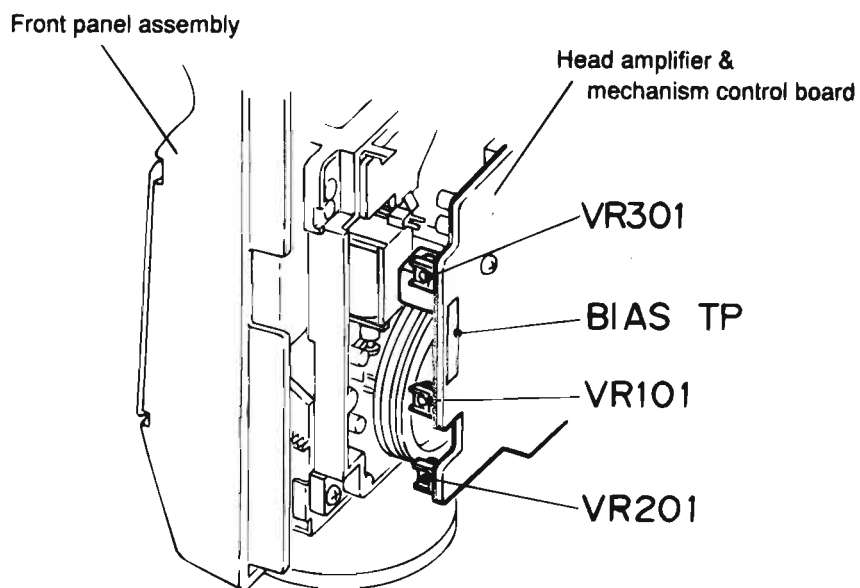
Cassette mechanism section (Mechanism A section)



Cassette mechanism section (Back side)



Cassette Mechanism Unit Section



### ■ 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 resistor:3Ω) :Headphone terminal	1.Playback 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	Adjusting positions
Double tape speed	Test tape :TMT7036(10kHz) Measurement output terminal :Speaker terminal Speaker R (Load resistance:3Ω) measurement output terminal :Headphone terminal	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 play back with the playback mechanism.	4,800+400/-300Hz	Playback mechanism side
Difference between the forward and reverse speed. P.mecha and R/P mecha speed		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.	60Hz or less	Both the playback and recording & playback mechanism
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 mechanism



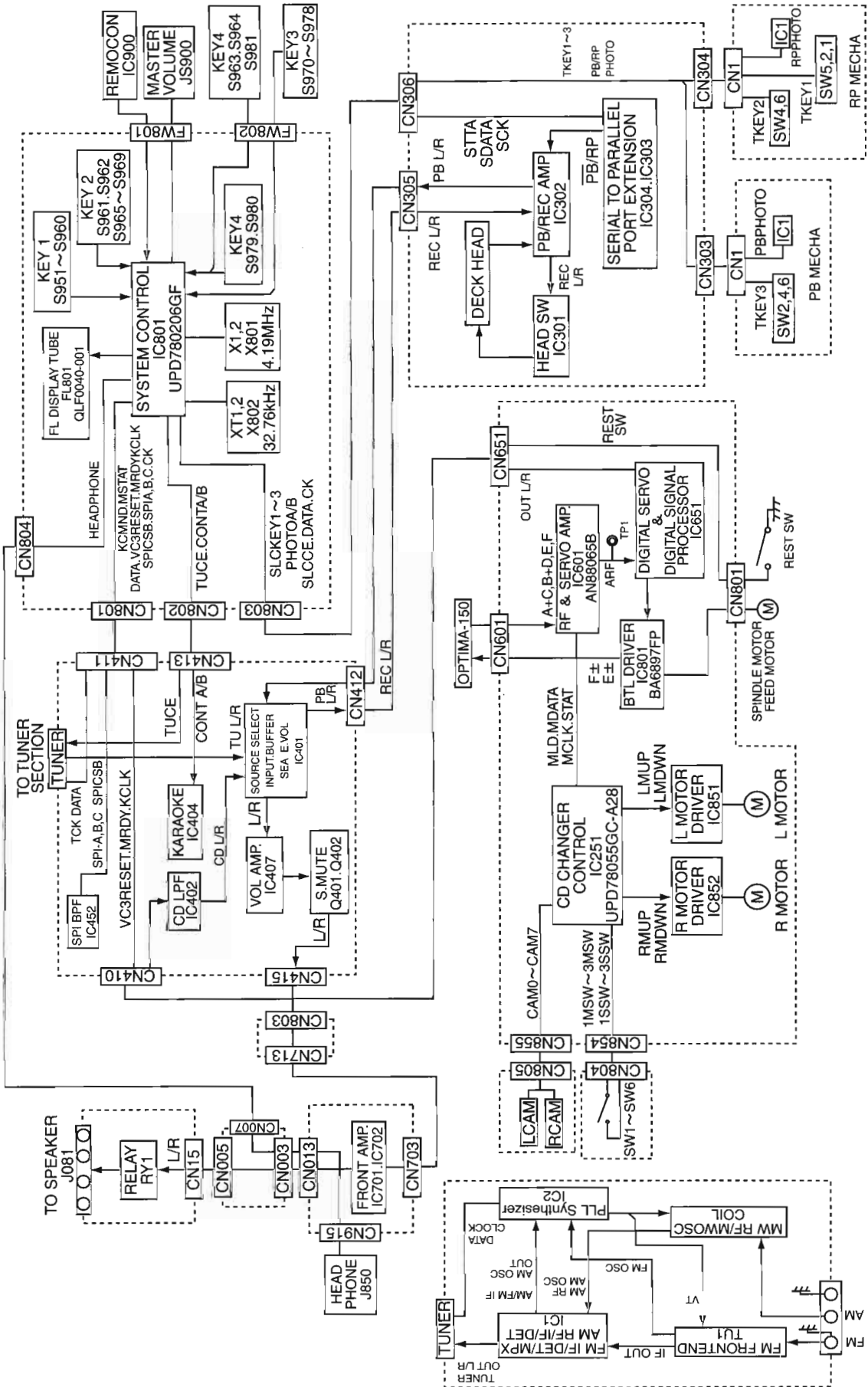
### ■ Electrical Performance

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Adjustment of recording bias current (Reference value)	*Mode : Forward or reverse mode *Recording mode *Test tape :AC-514 and AC-225 Measurement output terminal :Both recording and headphone terminals	1.With the recording and playback mechanism, load the test tapes(AC-514 to TYP II and AC-225 to TYP I ),and set the mechanism to the recording and pausing conditions in advance. 2.After connecting $100\Omega$ in series to the recorder head,measure the bias current with a valve voltmeter at both of the terminals. 3.After resetting the [PAUSE] mode,start recording. At this time,adjust VR101 for LcH and VR201 for RcH so that the recording bias current values become $4.0\mu A$ (TYP I ) and $4.20\mu A$ (TYP II ).	AC-225 : $4.20\mu A$ AC-514 : $4.0\mu A$	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	1.With the recording and playback mechanism,load the test tape(AC-514 to TYP II ),and set the mechanism to the recording and pausing condition in advance. 2.While repetitively inputting the reference frequency signal of 1kHz and 10kHz from OSC IN, record and playback the test tape. 3.While recording and playing back the test tape in TYP II ,adjust VR101 for LcH and VR201 for RcH so that the output deviation between 1kHz and 10kHz becomes $-1dB\pm 2dB$ .	Output deviation between 1kHz and 10kHz : $-1dB\pm 2dB$	LcH :VR101 RcH :VR201

### ■ Reference Values for Electrical Function Confirmation Items

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Recording bias frequency	*Recording and playback side forward or reverse *Test tape :TYP II AC-514 *Measurement terminal BIAS TP on P.C.board	1.While changing over to and from BIAS 1 and 2, confirm that the frequency is changed. 2.With the recording and playback mechanism. load the test tape (AC-514 to TYP II ),and set the mechanism to the recording and pausing conditions in advance. 3.Confirm that the BIAS TP frequency on the P.C.board is $100kHz\pm 6kHz$ .	100kHz $\pm 6kHz$	
Eraser current (Reference value)	*Recording and playback side forward or reverse *Recording mode *Test tape :AC-514 and AC-225 Measurement terminal Both of the eraser head	1.With the recording and playback mechanism, load the test tapes(AC-514 to TYP II and AC-225 to TYP I ),and set the mechanism to the recording and pausing condition in advance. 2.After setting to the recording conditions,connect $1M\Omega$ in series to the eraser head on the recording and playback mechanism side,and measure the eraser current from both of the eraser terminal.	TYP II :120mA TYP I :75mA	

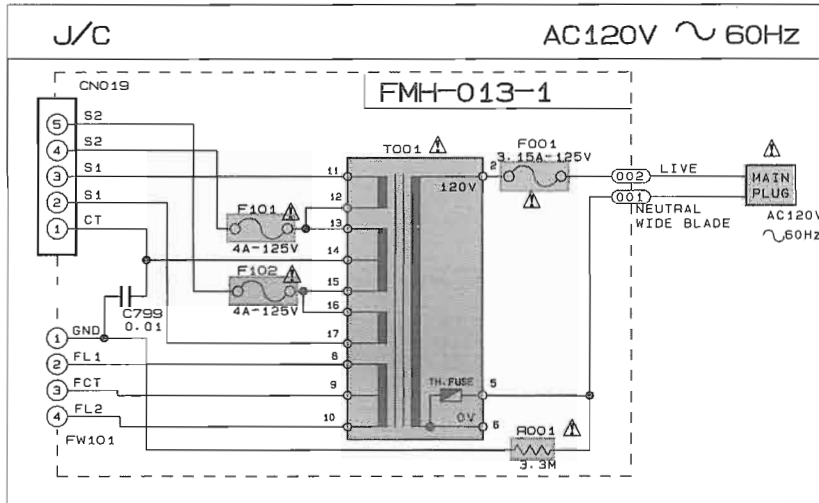
■ Block Diagrams



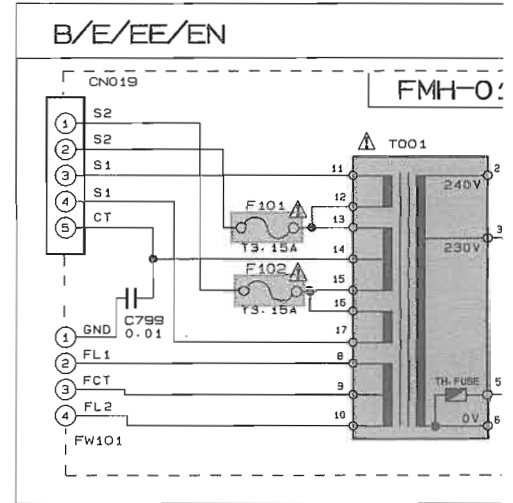


# Power Transformer Section

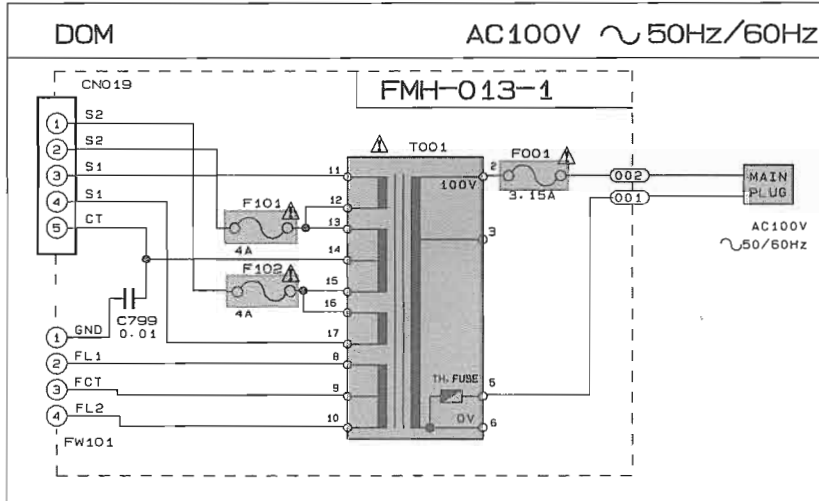
POWER SUPPLY BLOCK



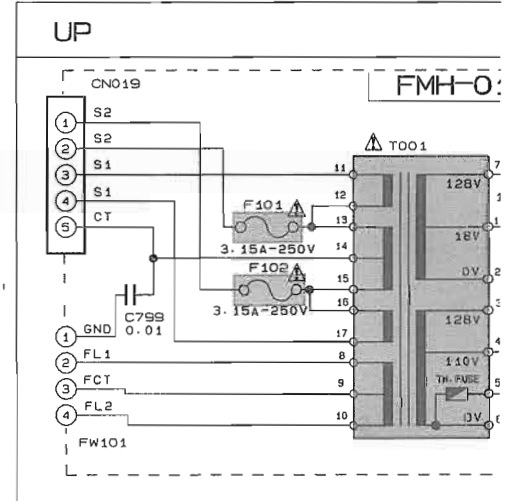
POWER SUPPLY BLOCK



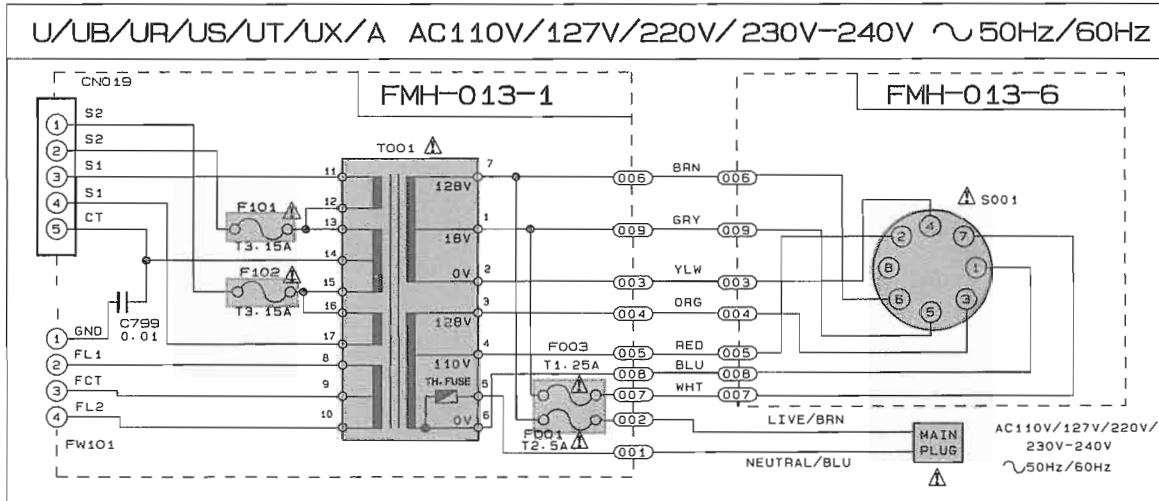
POWER SUPPLY BLOCK



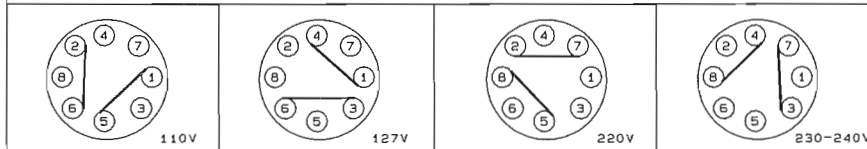
POWER SUPPLY BLOCK



POWER SUPPLY BLOCK



VOLTAGE SELECTOR LOCATION

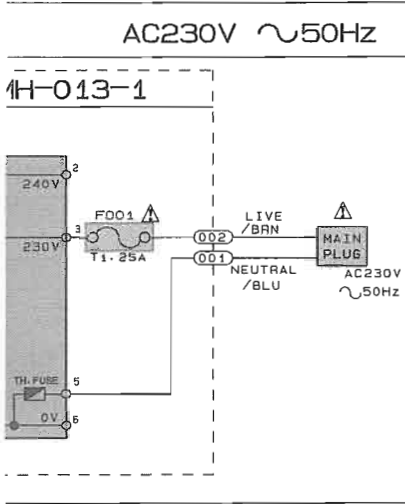


A

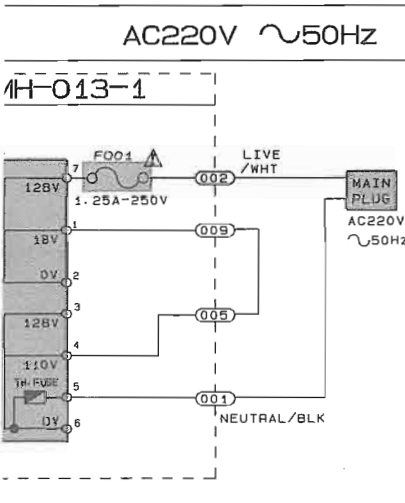
B

C

D



VERSION CODES	
J	U. S. A.
C	CANADA
B	U. K.
E	CONTINENTAL EUROPE
EE	EASTERN EUROPE
EN	NORDIC COUNTRIES
A	AUSTRALIA
UB	HONGKONG
UP	KOREA
UR	BRAZIL
US	SINGAPORE
UT	TAIWAN
UX	SAUDI ARABIA
U	UNIVERSIAL EXCEPT ALL OF ABOVE
DOM	JAPAN



EXPLANATION OF OVERALL OF SCHEMA.  
 MODEL MX-D402T/CA-D432TR/CA-D452TR/CA-MXD330

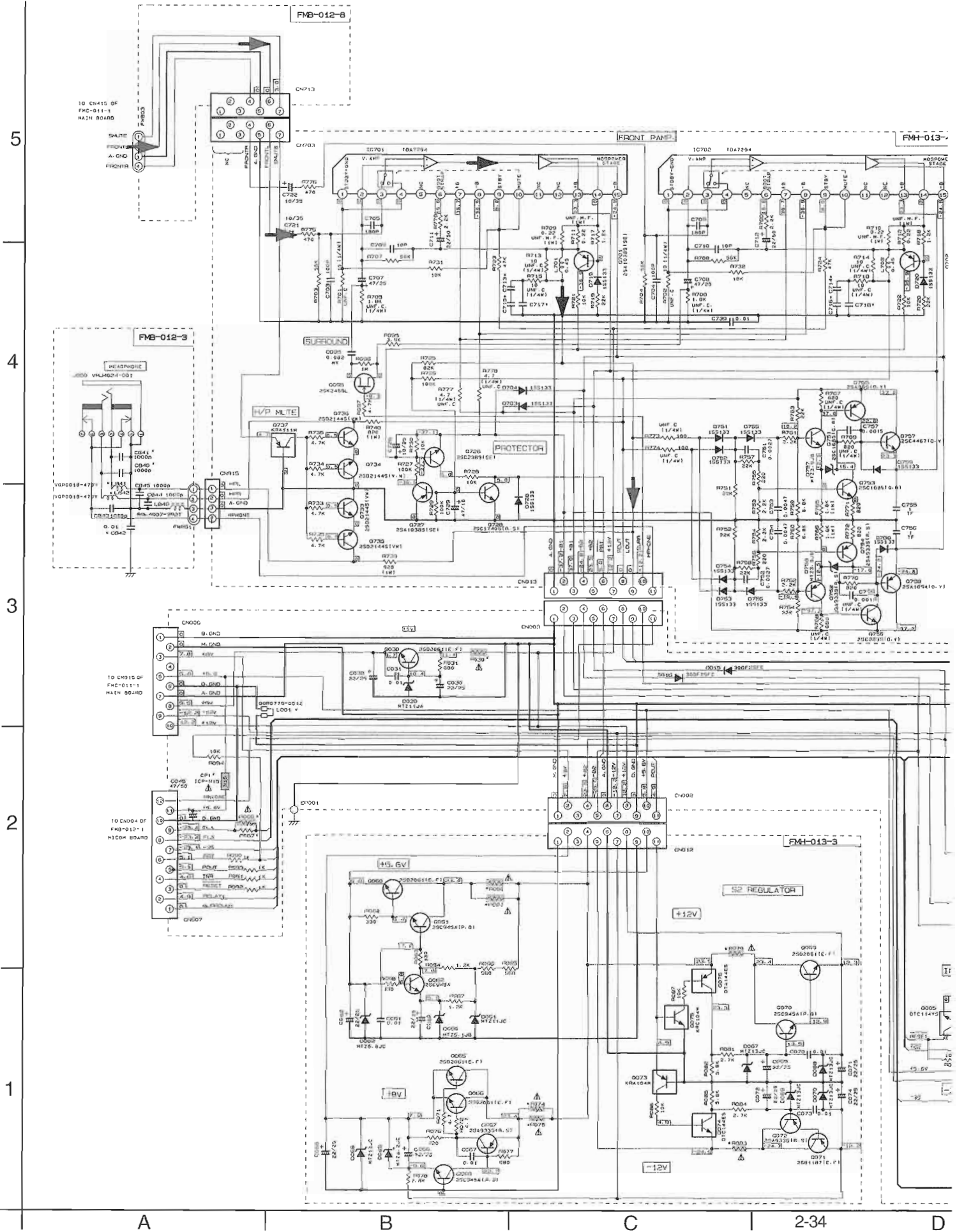
SHEET NUMBER	MODEL NUMBERS TO BE APPLIED	CIRCUITS DESCRIPTION
1/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	. PRIMARY WITH MAINS TRANSFORMER
2/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	. DC REGULATORS/AUDIO OUTPUT
3/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	. EXTERNAL INPUT. SOURCE SELECTOR SWITCH
4/11	MX-D402T/CA-MXD330	. TUNER RF/IF/FM MULTIPLEX (ONLY FOR J. C. U. UB. UP. UR. US. UT. UX. A. DOM)
5/11	CA-D432TR/CA-D452TR	. TUNER RF/IF/FM MULTIPLEX (ONLY FOR E. EN. B)
6/11	CA-D452TR	. TUNER RF/IF/FM MULTIPLEX (ONLY FOR EE)
7/11	CA-D452TR	. POLAR STEREO MULTIPLEX (ONLY FOR EE)
8/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	. FL DISPLAY. SYSTEM CONTROL LSI. USER CONTROL KEYS
9/11	MX-D402T	. MIC AMP. ECHO CIRCUIT (ONLY FOR U. UB. UP. UR. US. UT. UX. A)
10/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	. TAPE DECK MECHANISM CONTROL . TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
11/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	. CD SERVO AND CD SYSTEM CONTROL . CD CHANGER MECHANISM CONTROL

NOTES: MARK [\*] IS TO SHOW DEVIATION IN VERSIONS.  
 DETAILS ARE EXPLAINED NEAR THE MARK.

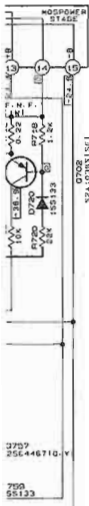
Parts are safety assurance parts.  
 When replacing those parts make  
 sure to use the specified one.

MODEL MX-D402T/CA-D432TR  
 CA-D452TR/CA-MXD330

Power Amplifier & Regulator Section

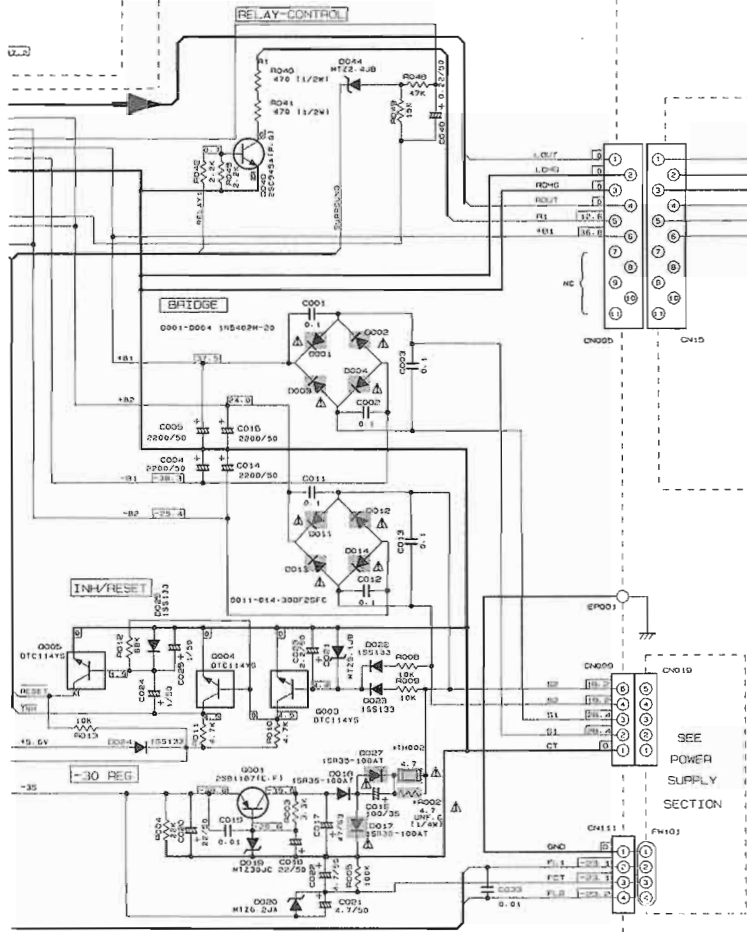


FM1-013-4



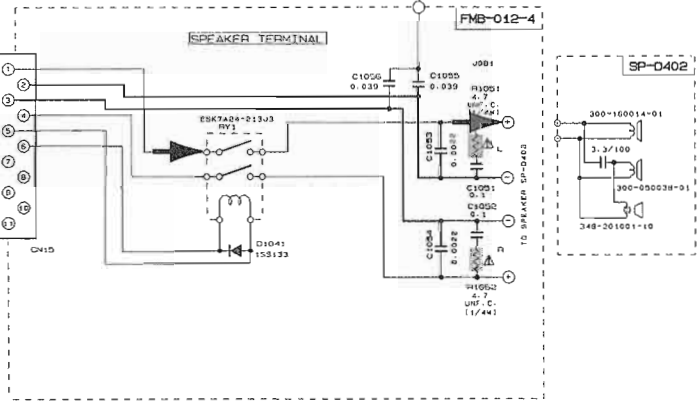
3297  
25A446710-Y  
799  
55133  
C758  
1F  
C796  
1F  
24A  
0750  
25A109410-Y

FM1-013-2



\* MARK

	MX-D402T	CA-D432TR/D452TR	MX-D402T	CA-MXD30
RE02	U-1B-LP, LA MG UT, LA-A	B-E ES-EN	C	DOM
TH02	NONE	NONE	USED	NONE
C713-714	0.1	0.1	0.1	NONE
C715-716	0.1	0.1	0.1	NONE
C717-718	NONE	NONE	NONE	0.047 3-D47
R006	4.7 F. RES (1/4W)	4.7 F. RES (1/4W)	2.2 UNF. C. (1/4W)	2.2 UNF. C. (1/4W)
R007	4.7 F. RES (1/4W)	4.7 F. RES (1/4W)	NONE	NONE
R008	SHORT	SHORT	SHORT	10(1W) SHORT
R009	NONE	NONE	SHORT	10(1W) NONE
R07A	22 F. RES. 12W	22 F. RES. 12W	22 F. RES. 12W	22(2W) 22 F. RES. 12W
R07B	22 F. RES. 12W	22 F. RES. 12W	22 F. RES. 12W	22(2W) 22 F. RES. 12W
R07C	SHORT	SHORT	SHORT	10(1W) SHORT
R07D	SHORT	SHORT	SHORT	10(1W) SHORT
R07E	SHORT	SHORT	SHORT	10(1W) SHORT
R07F	SHORT	SHORT	SHORT	10(1W) SHORT
R07G	SHORT	SHORT	SHORT	10(1W) SHORT
R07H	SHORT	SHORT	SHORT	10(1W) SHORT
R07I	SHORT	SHORT	SHORT	10(1W) SHORT
R07J	SHORT	SHORT	SHORT	10(1W) SHORT
R07K	SHORT	SHORT	SHORT	10(1W) SHORT
R07L	SHORT	SHORT	SHORT	10(1W) SHORT
R07M	SHORT	SHORT	SHORT	10(1W) SHORT
R07N	SHORT	SHORT	SHORT	10(1W) SHORT
R07O	SHORT	SHORT	SHORT	10(1W) SHORT
R07P	SHORT	SHORT	SHORT	10(1W) SHORT
R07Q	SHORT	SHORT	SHORT	10(1W) SHORT
R07R	SHORT	SHORT	SHORT	10(1W) SHORT
R07S	SHORT	SHORT	SHORT	10(1W) SHORT
R07T	SHORT	SHORT	SHORT	10(1W) SHORT
R07U	SHORT	SHORT	SHORT	10(1W) SHORT
R07V	SHORT	SHORT	SHORT	10(1W) SHORT
R07W	SHORT	SHORT	SHORT	10(1W) SHORT
R07X	SHORT	SHORT	SHORT	10(1W) SHORT
R07Y	SHORT	SHORT	SHORT	10(1W) SHORT
R07Z	SHORT	SHORT	SHORT	10(1W) SHORT
U01A/U01B	SHORT	USED EXCEPT EE	SHORT	SHORT
C002/C011/C042	NONE	USED EXCEPT EE	NONE	NONE
C01	USED	USED EXCEPT EE	USED	USED
C01	USED	USED	SHORT	USED



➔ MAIN SIGNAL

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

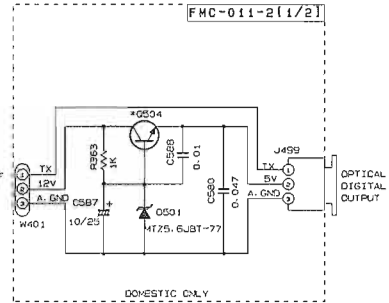
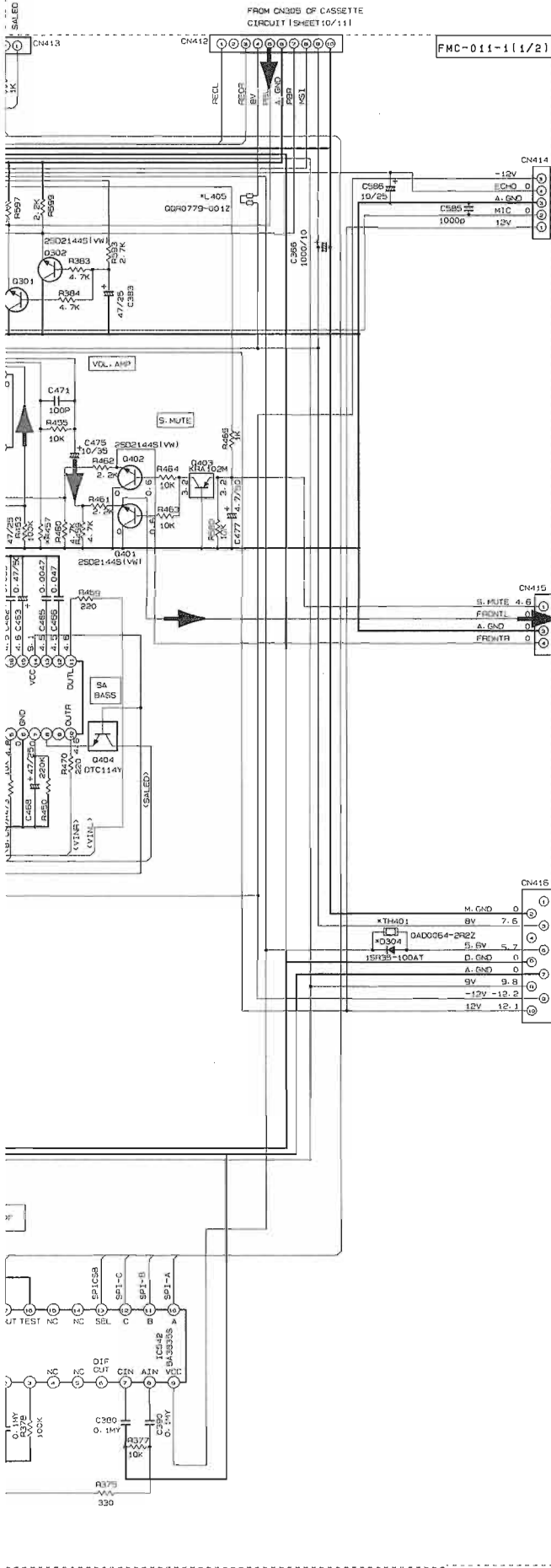
MODEL  
MX-D402T/CA-D452TR  
/CA-D432TR/CA-MXD30

D | E | F | G | H





HEET 2/11



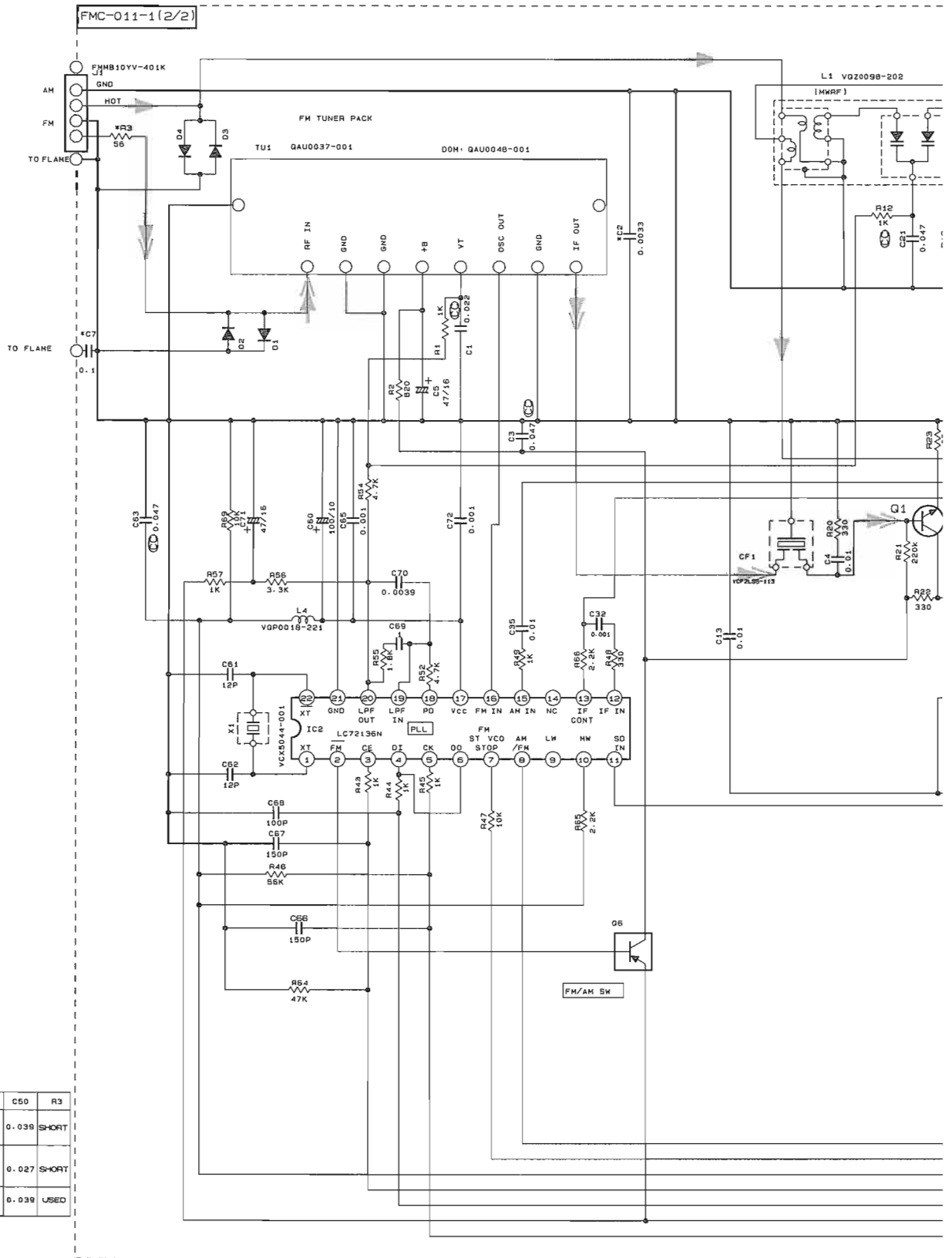
\*MARK      0=USED X=NONE

FUNC	SYMBOL	J	C	U-US-UP UT-US	A	B-E-EN	EE	QGM
X-RANGE	R423-R428	X	X	0	0	X	X	X
	C435-C440	X	X	0	0	X	X	X
	IC404	X	X	0	0	X	X	X
MUTING	R429-R433	X	X	0	0	X	X	X
	C441-C442	X	X	0	0	X	X	X
	D401-D402	X	X	0	0	X	X	X
	B431-B442	0	0	X	X	0	0	0
MTC	R443-R444	X	X	0	0	X	X	X
	R431, R435	4.7K	4.7K	8.2K	8.2K	4.7K	4.7K	4.7K
MTR	R457, R458	5.1K	5.1K	7.5K	7.5K	7.5K	7.5K	7.5K
	R455, R456	X	X	X	X	X	X	X
OPTIC	C485	X	X	X	X	X	X	0
	O481-O483	X	X	X	X	X	X	0
	C481-C483	X	X	X	X	X	X	0
	R481-R485	X	X	X	X	X	X	0
SP1	D483-D484	X	X	X	X	X	X	0
	CN419	X	X	X	X	X	X	0
	R373	1/4W UNF. C. RES						
	D304	0	X	X	X	X	X	X
	TH401	X	0	0	0	0	0	0
	L402	0	0	0	0	0	0	SHORT
	L403	0	0	0	0	0	0	SHORT
	L404	SHORT	SHORT	SHORT	SHORT	0	0	SHORT
	L405	SHORT	SHORT	SHORT	SHORT	0	0	SHORT
	R482	X	X	X	X	0	0	X
	C484, C486	X	X	X	X	0	0	X
	C484	100P	100P	100P	100P	0.0022	100P	100P
	R481	X	X	X	X	X	X	1/4W FUSIBLE RESISTOR

- TAPE.PB/MAIN SIGNAL
- CD SIGNAL
- FM/RADIO MAIN SIGNAL

MODEL MX-D402T  
 MODEL CA-D452TR  
 MODEL CA-D432TR  
 MODEL CA-MX0330

**Tuner Section (For Ver.E/EN.B)**



#MARK

	C2, C7	C49	C50	R3
J-C	USED	0.039	0.039	SHORT
DDN	SHORT	0.027	0.027	SHORT
U-A	SHORT	0.039	0.039	USED

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	FH NO SIGNAL	2.0	0.6	0	2.0	5.2	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.6	3.6	3.8	1.4	0	1.3	1.1	2.0	2.0	5.2	2.0
	FH 80dB 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	0.8	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	1.5	2.0	2.0	5.2	2.0
IC2	FH 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	2.5	5.2	1.0	1.0	3.7	0	2.7		

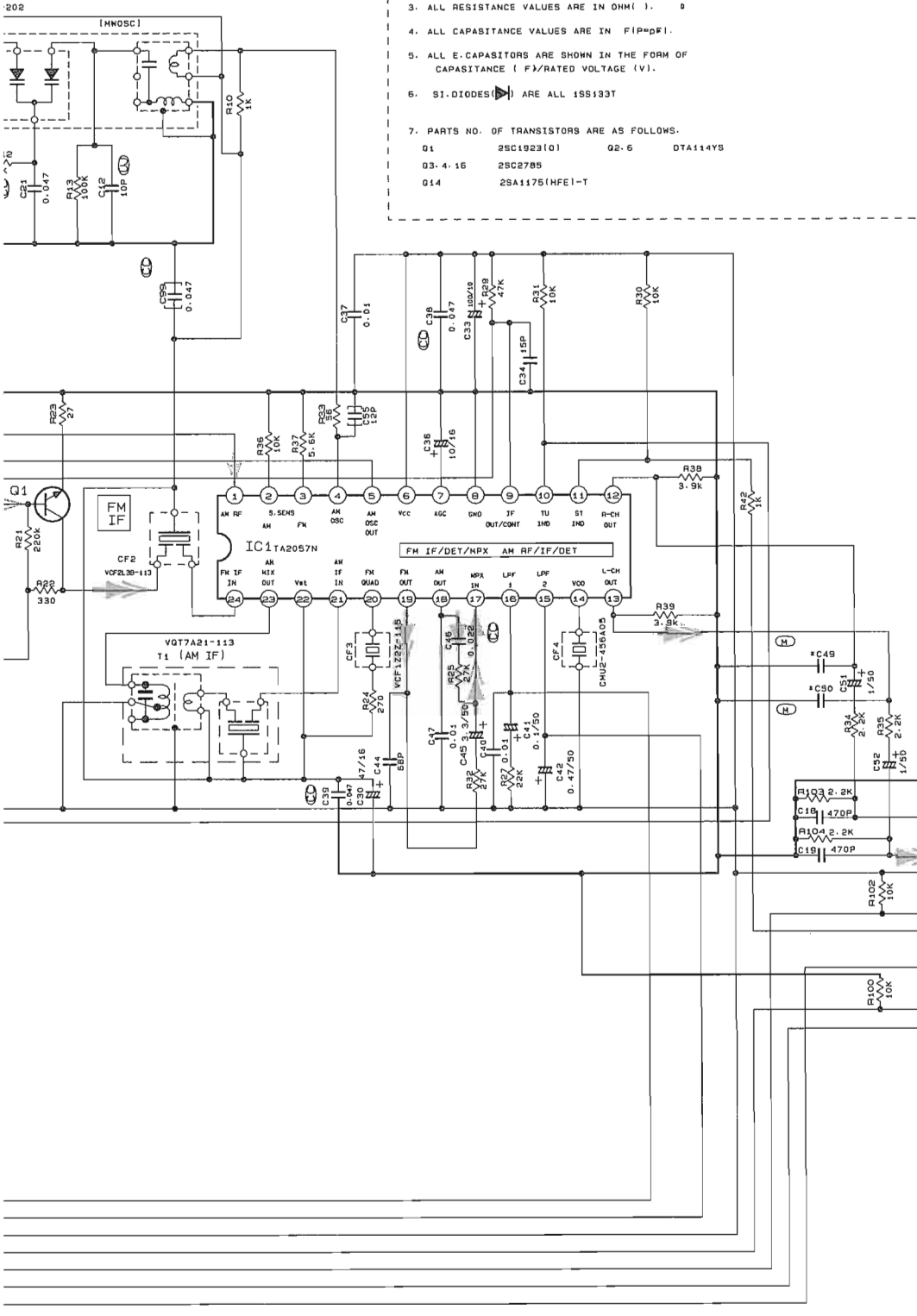
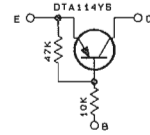
T1
P11
FH 87.5
AM 522K
T1
P11
AM 522K
AM 144K

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 ( ).
4. ALL CAPACITANCE VALUES ARE IN PICOPIE ( ).
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.
 

01	2SC1923(10)	02-6	DTA1144YS
03-4-15	2SC2785		
014	2SA1175(HFE1-T)		

8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.



TUNER GND  
TUNER R  
TUNER L  
TUNER +B  
DATA  
MPX  
CLOCK  
PERIOD  
Vt/FM+8

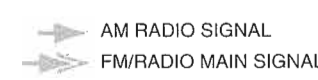
FROM EXTERNAL SIGNAL  
INPUT SECTION

Tr. NO.	01			06			015		
PIN NO.	E	C	B	E	C	B	E	C	B
FM 87.5MHz NO SIGNAL	0	0.3	0.0	9.8	9.7	0	1.0	3.6	1.6
AM 522KHz NO SIGNAL	0	0	0	9.0	0	9.7	1.0	3.5	1.6

Tr. NO.	02			03			04		
PIN NO.	E	C	B	E	C	B	E	C	B
AM 522KHz NO SIGNAL	2.0	2.0	0.1	0	0	0.7	0	0	0.7
AM 144KHz NO SIGNAL	2.0	2.0	2.0	0	0	0.1	0	0	0.1

J/C/U/A/DOM  
MX-D402T  
CA-MXD330



# Tuner Section (For Ver.EE)

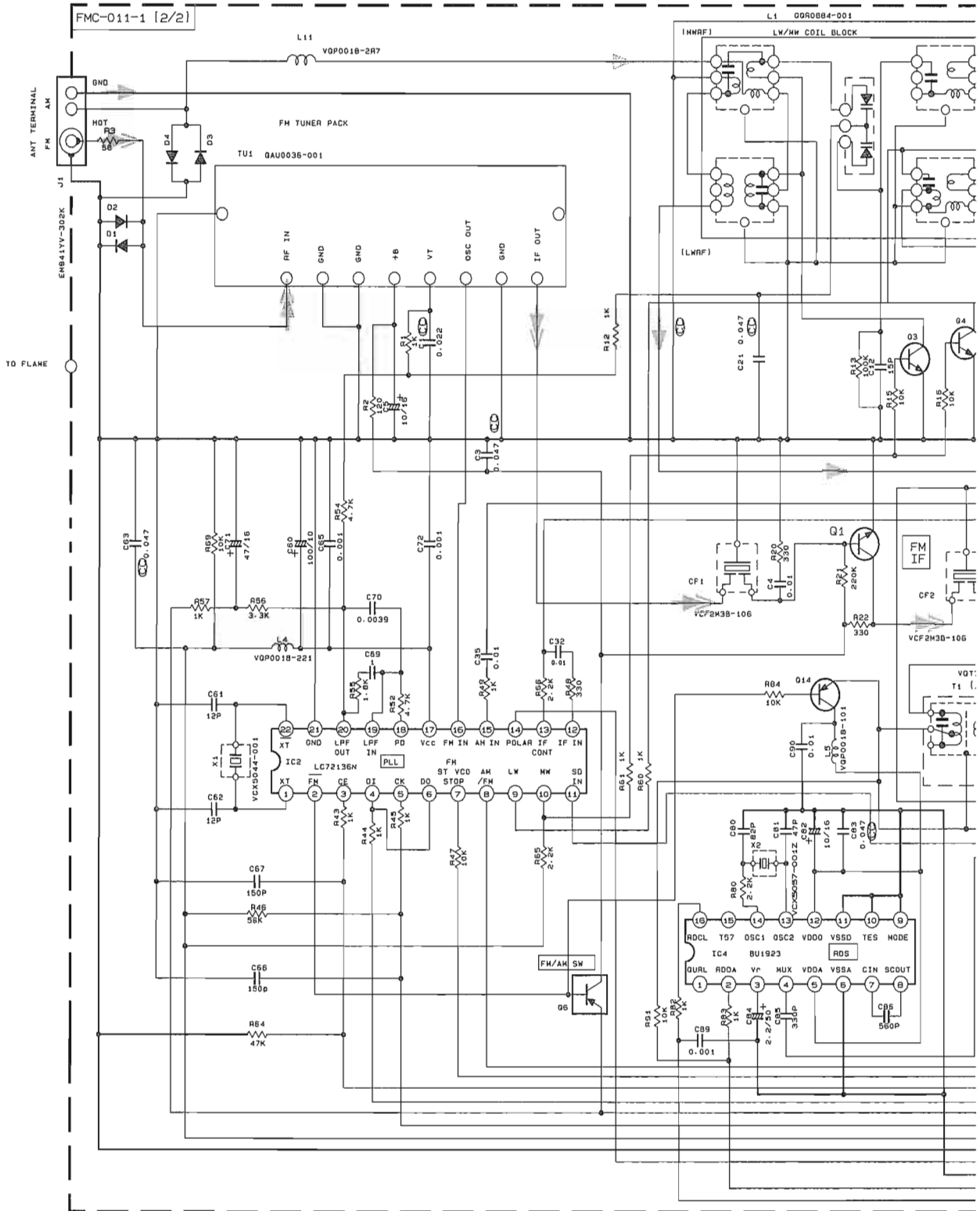
5

4

3

2

1



CONDITION	PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC1	FM NO SIGNAL	2.0	0.5	0	2.0	5.2	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.6	3.8	3.8	1.4	0	1.3	1.1	2.0	2.0	5.2	2.0
	FM 60dB STEREO	2.0	0.5	0	2.0	5.2	5.2	1.1	0	0.2	0	0	1.0	1.0	4.5	4.1	3.9	1.4	0	1.2	1.1	2.0	2.0	5.2	2.0
	AM NO SIGNAL	2.0	0.5	0	2.0	5.0	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.8	2.2	0	1.4	1.4	1.5	1.6	2.0	2.0	5.2	2.0
IC2	FM NO SIGNAL	2.7	0	0	4.9	4.9	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.	E
	FM 87.5MHZ NO SIGNAL	0
	AM 522KHZ NO SIGNAL	0
Tr NO.	PIN NO.	E
	AM 522KHZ NO SIGNAL	2.0
	AM 144KHZ NO SIGNAL	2.0

A

B

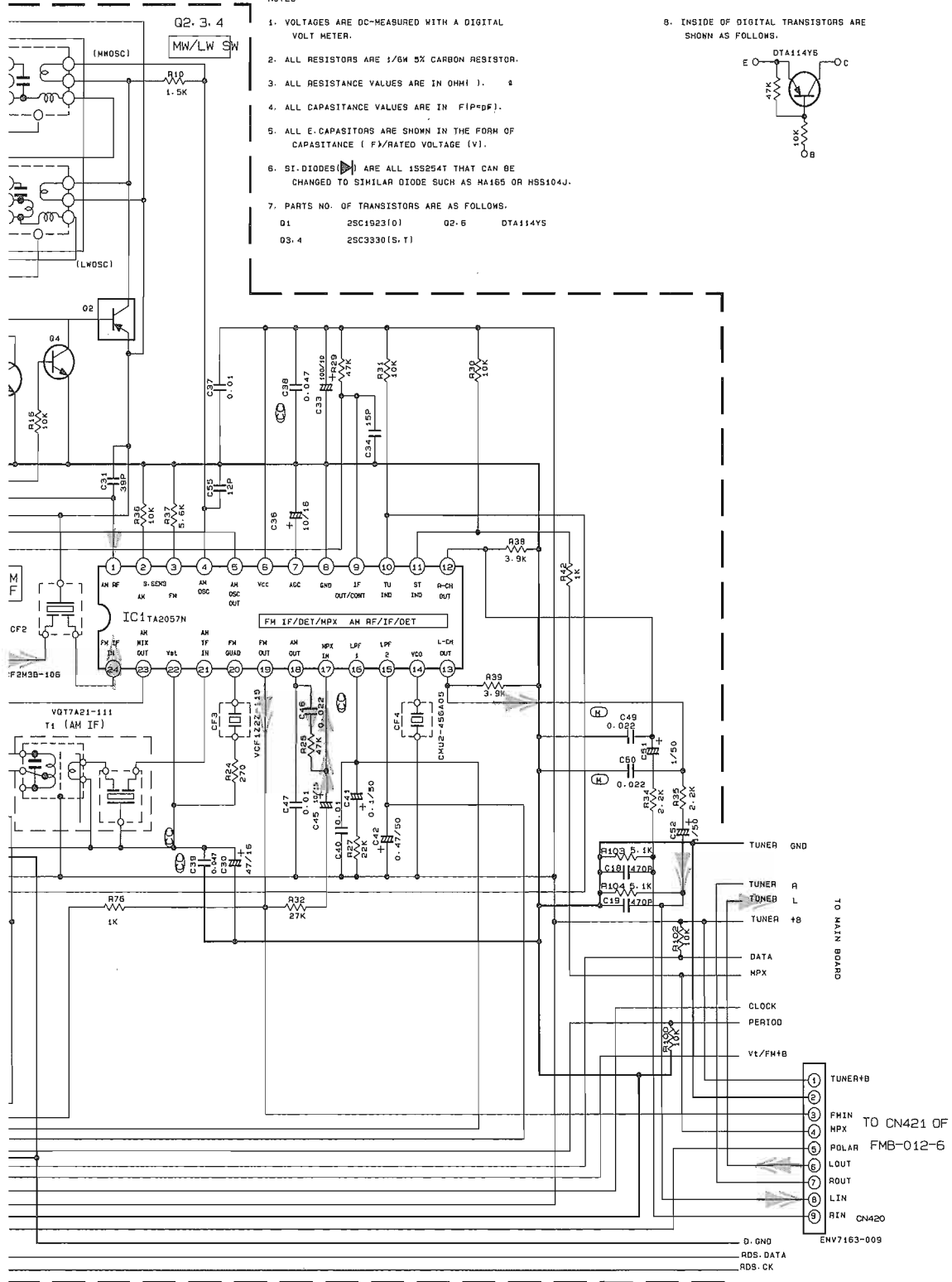
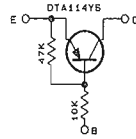
C

D

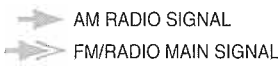
NOTES

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 OHMS ( ).
4. ALL CAPACITANCE VALUES ARE IN PICO(F).
5. ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE ( F)/RATED VOLTAGE (V).
6. SI-DIODES ARE ALL 1SS254T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS HA165 OR HSS104J.
7. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.

8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.

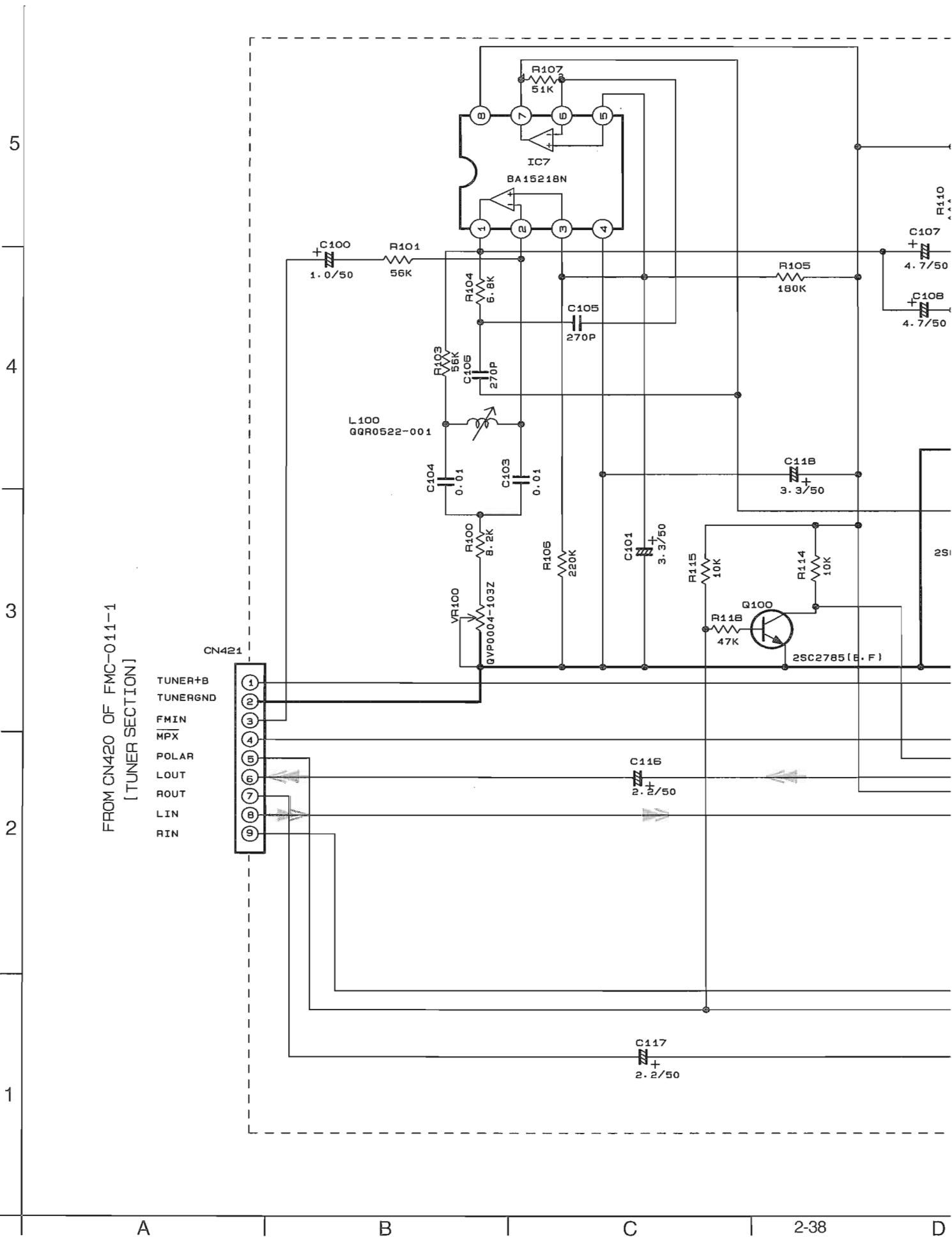


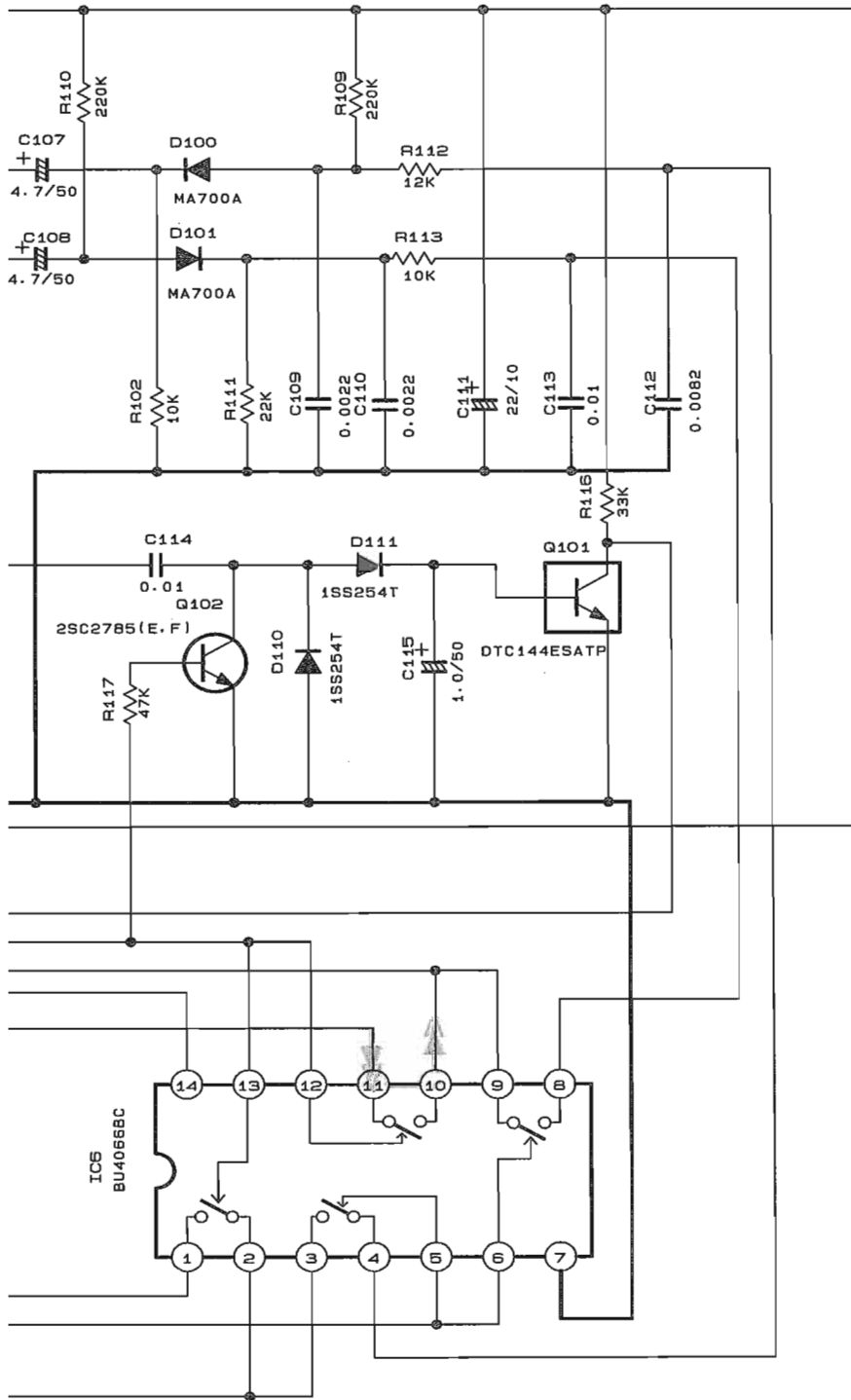
	01			06					
	E	C	B	E	C	B	E	C	B
IGNAL	0	0.3	0.8	9.8	9.7	0			
GNAL	0	0	0	9.8	0	9.7			
	02			03			04		
	E	C	B	E	C	B	E	C	B
GNAL	2.0	2.0	0.1	0	0	0.7	0	0	0.7
GNAL	2.0	2.0	2.0	0	0	0.1	0	0	0.1



EE  
CA-D452TR

■ FM Detect Section (For Ver.EE)





FMB-012-6

EE  
CA-D452TR  
CA-D752TR

➤ RADIO MAIN SIGNAL

D | E | F | G | H

# System Control & Operation Switch Section

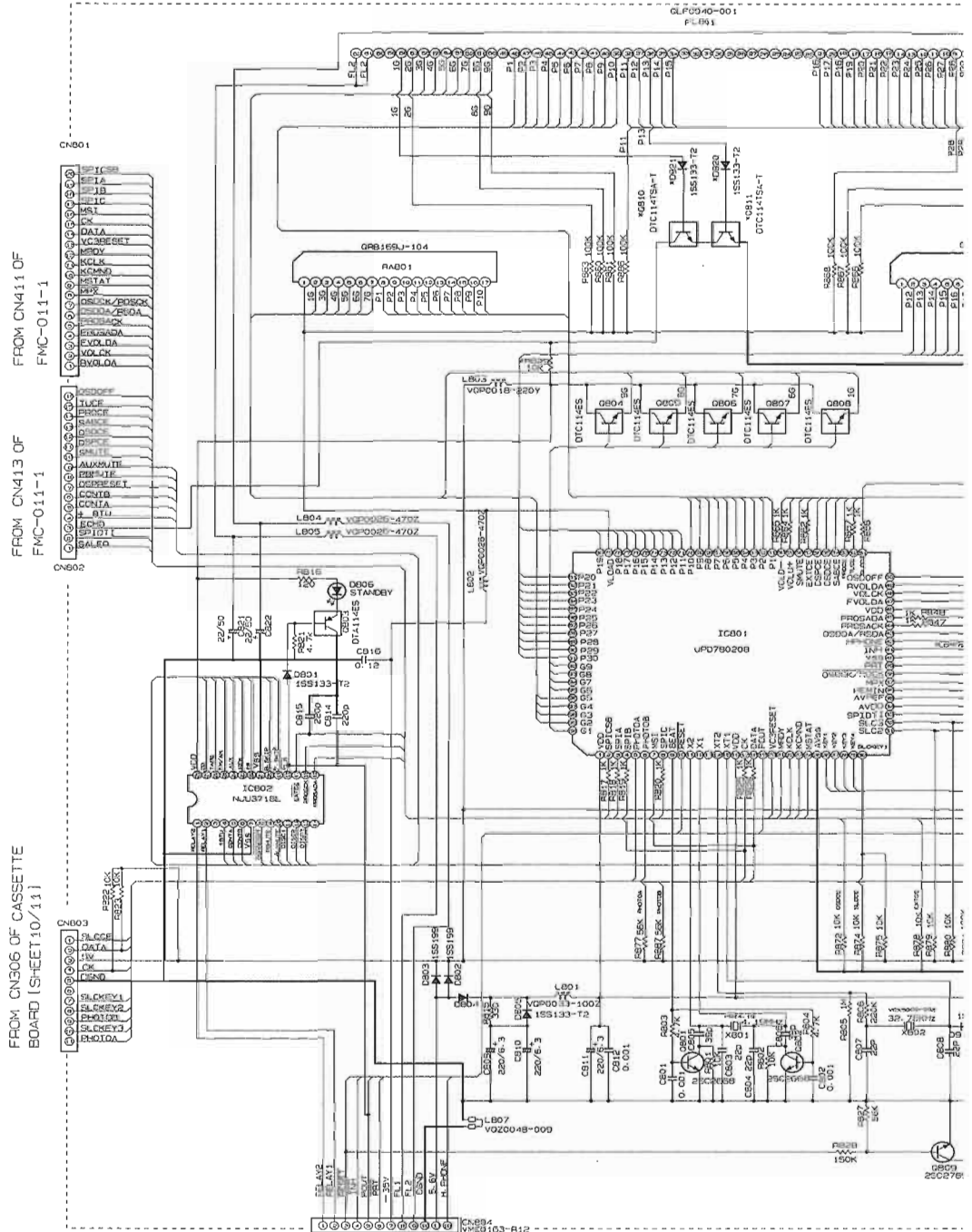
5

4

3

2

1



\*MARK

FROM CN007 OF FMH-013-2

MODEL	VERSION	R992	R993	R990	R991	S982	S983	S984	S985	S963	Q810/Q811	D920/D921	R829
MX-D402T	J/C	18K	18K	220K	33K	NONE	NONE	NONE	NONE	USED	NONE	NONE	NONE
	U	18K	68K	220K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
	UR	18K	NONE	220K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
	A	18K	68K	220K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
CA-D452TR/D432TR	B/E/EN	18K	68K	220K	82K	USED	USED	USED	USED	USED	NONE	NONE	NONE
	EE	68K	18K	220K	82K	USED	USED	USED	USED	USED	NONE	NONE	NONE
MX-D502T	J/C	18K	18K	47K	33K	NONE	NONE	NONE	NONE	USED	NONE	NONE	NONE
CA-D702T	U/UP/US/UT/UX	18K	68K	47K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
	UR	18K	NONE	47K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
	A	18K	68K	47K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
CA-D752TR	B/E/EN	18K	68K	47K	82K	USED	USED	USED	USED	USED	NONE	NONE	NONE
	EE	68K	18K	47K	82K	USED	USED	USED	USED	USED	NONE	NONE	NONE
CA-MXD330		68K	68K	220K	82K	NONE	NONE	NONE	NONE	USED	NONE	NONE	NONE

A

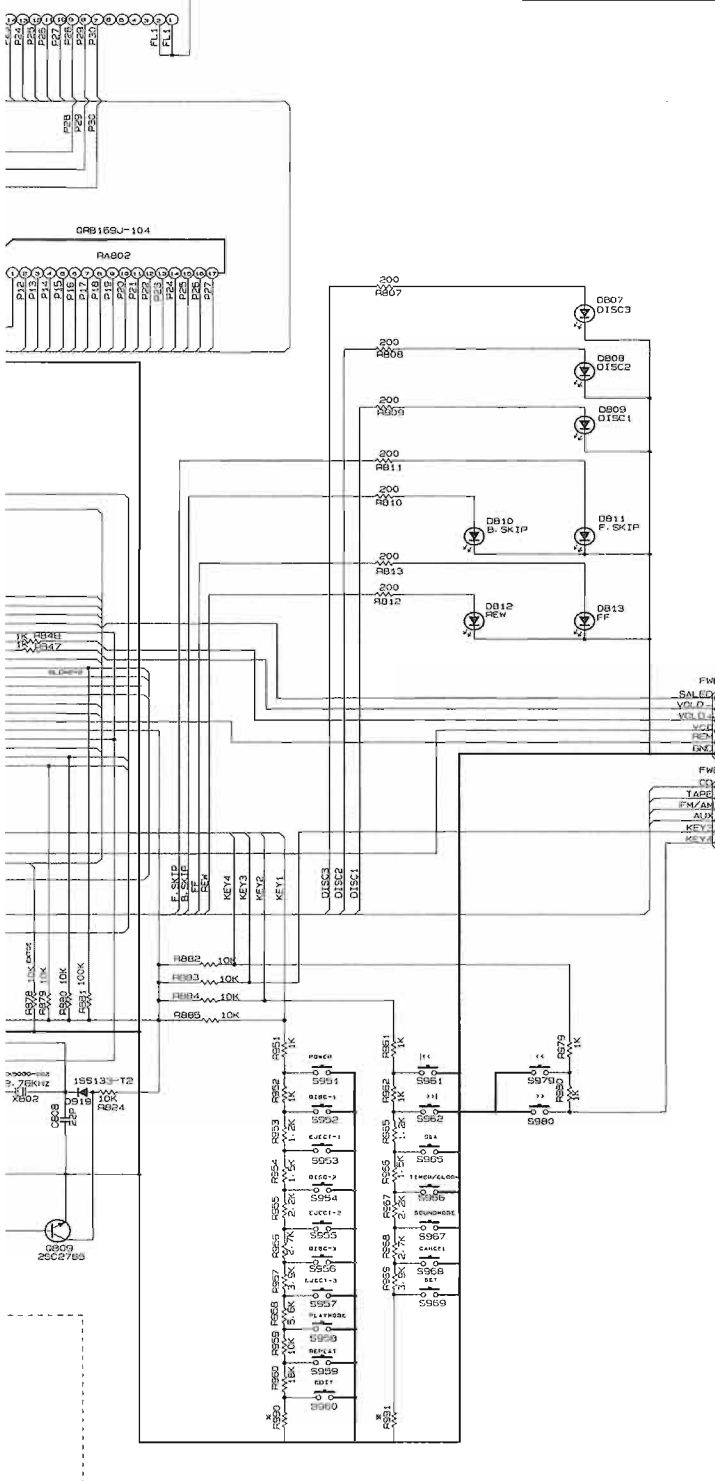
B

C

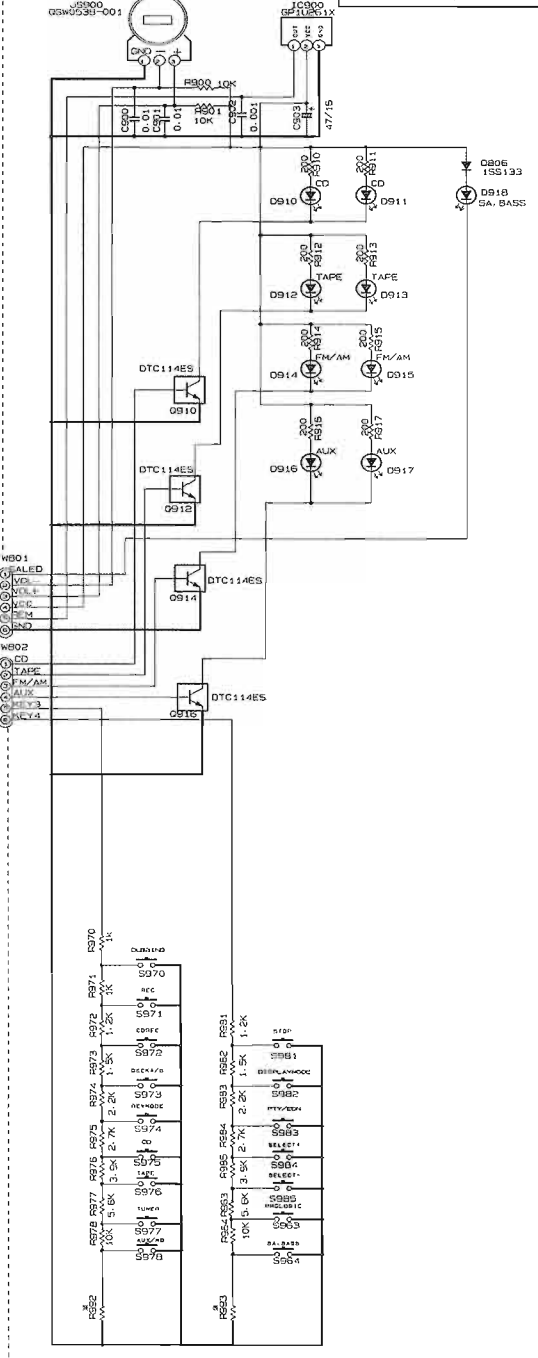
D



FMB-012-1



FMB-012-2



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER ON OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION --- TAPE RE MODE
2. UNLESS OTHERWISE SPECIFIED  
 RESISTORS ARE 1/4W 5% CARBON RESISTOR.  
 ALL RESISTANCE VALUES ARE IN OHMS.  
 ALL CAPACITORS ARE CERAMIC CAPACITOR ON HIGH CAPACITORS.  
 ALL CAPACITANCE VALUES ARE IN MICROFARADS.  
 ALL INDUCTANCE VALUES ARE IN MILLIHENRYS.  
 ALL DIODES ARE SHOWN IN THE POLAR OF CAPACITANCE (PREFERRED VOLTAGE 1V).  
 ALL DIMENSIONS ARE IN MILLIMETERS

- MODEL MX-D402T
- MODEL CA-D452TR
- MODEL CA-D432TR
- MODEL CA-MX0330
- MODEL MX-D502T
- MODEL CA-D702T
- MODEL CA-D752TR

Head Amplifier & Mechanism Control Section

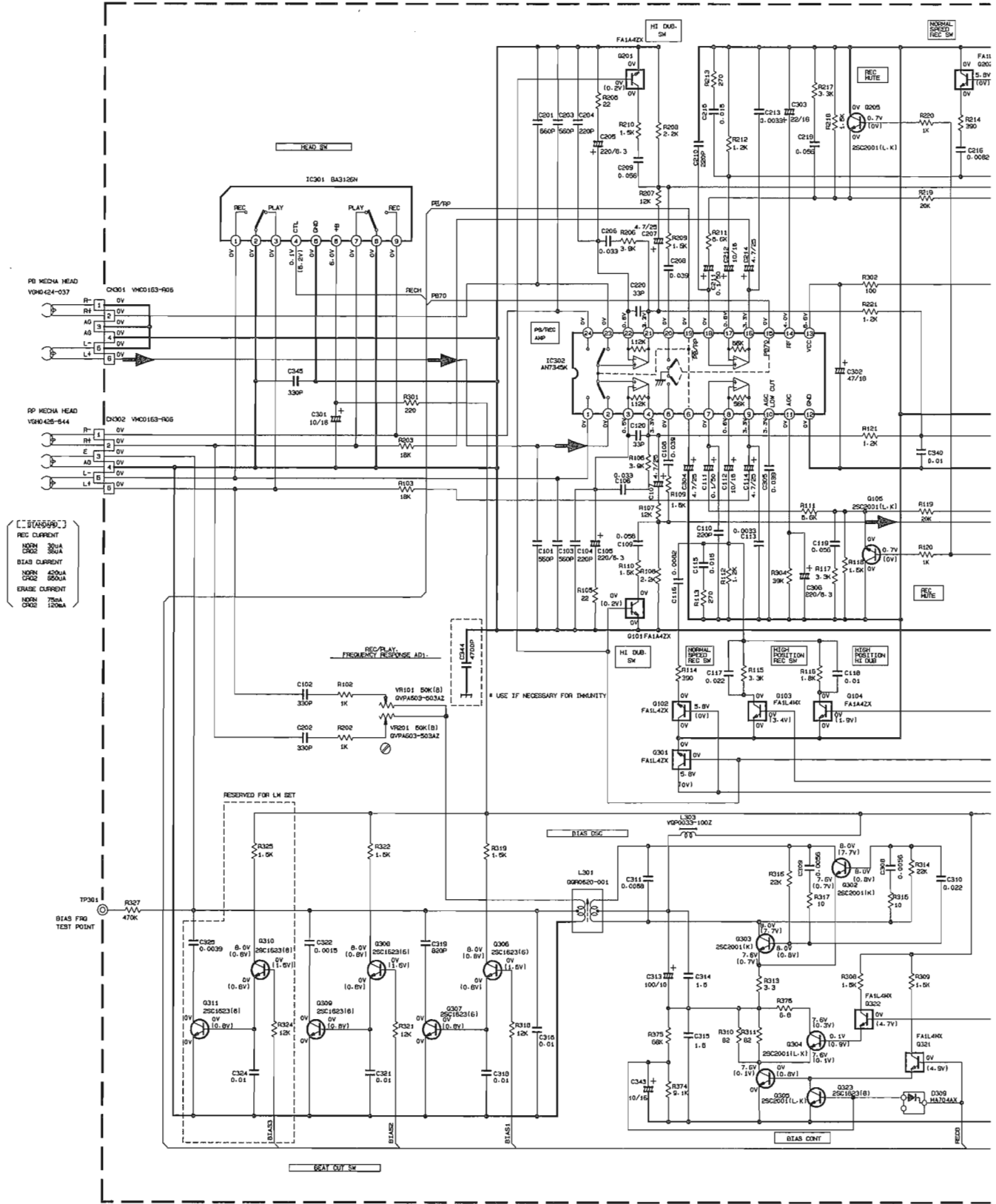
5

4

3

2

1



- REC CURRENT
- NORM 300A
- CR22 300A
- BIAS CURRENT
- NORM 4200A
- CR22 500A
- ERASE CURRENT
- NORM 750A
- CR22 1200A

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 OHMS (Ω).
    - ALL CAPACITANCE VALUES ARE IN μF (μF).
    - ALL CAPACITANCE VALUES ARE IN pF (pF).
    - ALL INDUCTANCE VALUES ARE IN μH (μH).
    - ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
- ELECTROLYTIC CAPACITOR  
 POLYPROPYLENE CAPACITOR

TABLE 1. DIGITAL TR LIST

PART. NO.	CONSTRUCTION	REF. NO.	PART. NO.	CONSTRUCTION	REF. NO.
FN14H		Q310	FA1F-04		Q317
FA1A4Z		Q101/Q201	FA1L-04		Q103/Q203
FA1L-4Z		Q104/Q204			Q310
					Q320/Q321/Q322

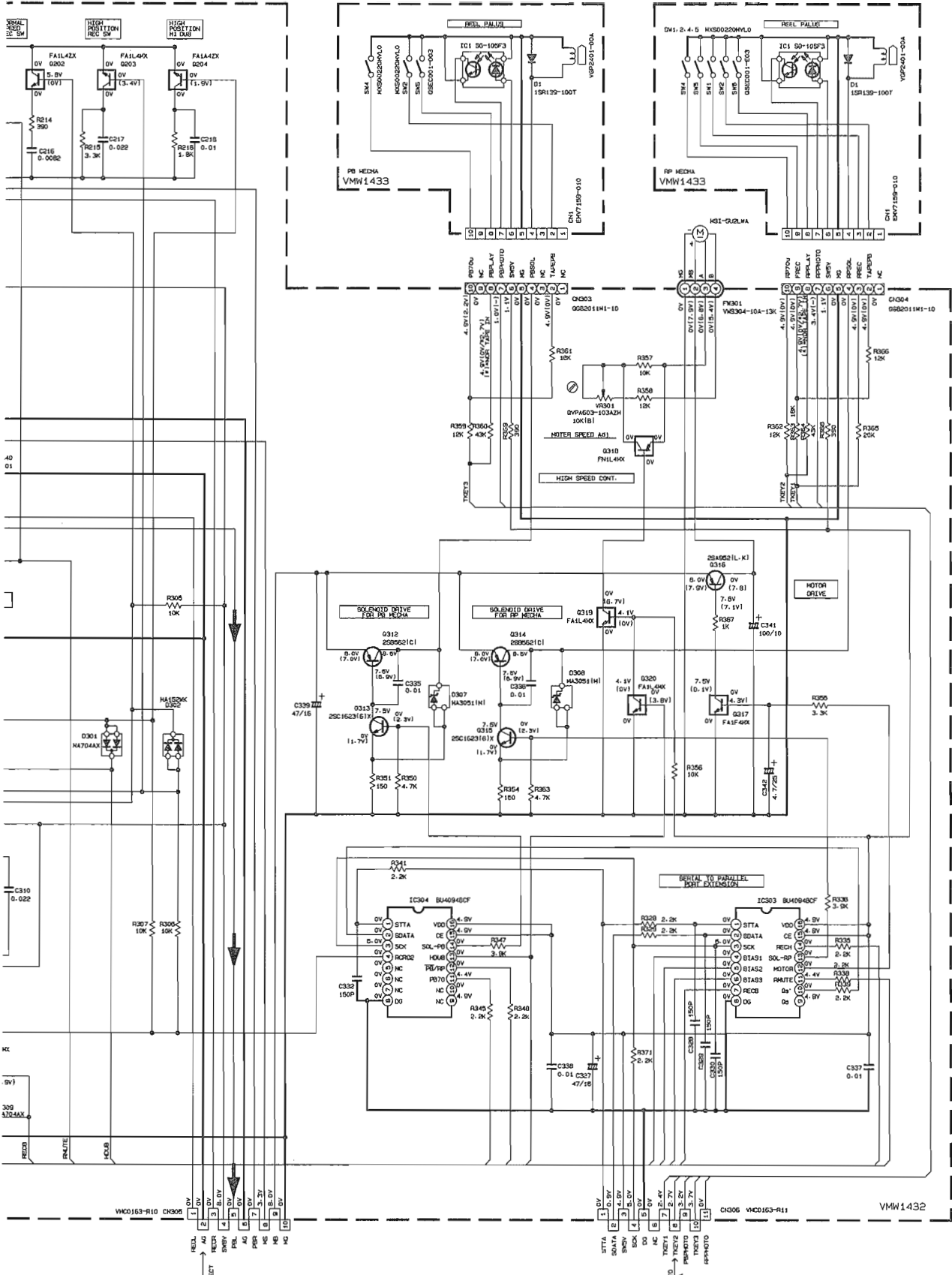
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D



Q317	0103/0203
Q310	
Q326/Q321/Q322	

TAPE.PB/MAIN SIGNAL

# CD Servo & Changer Mechanism Control Section

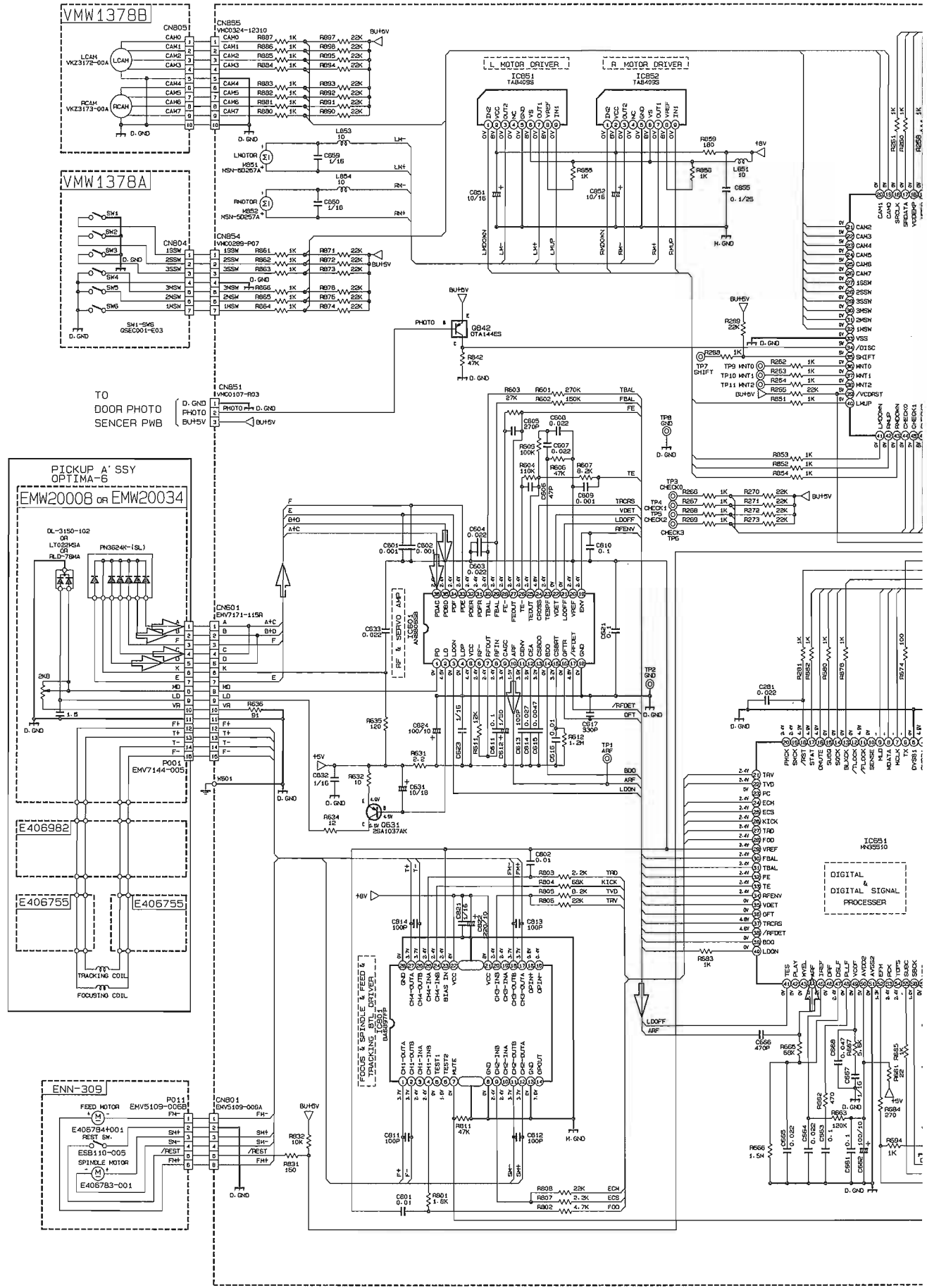
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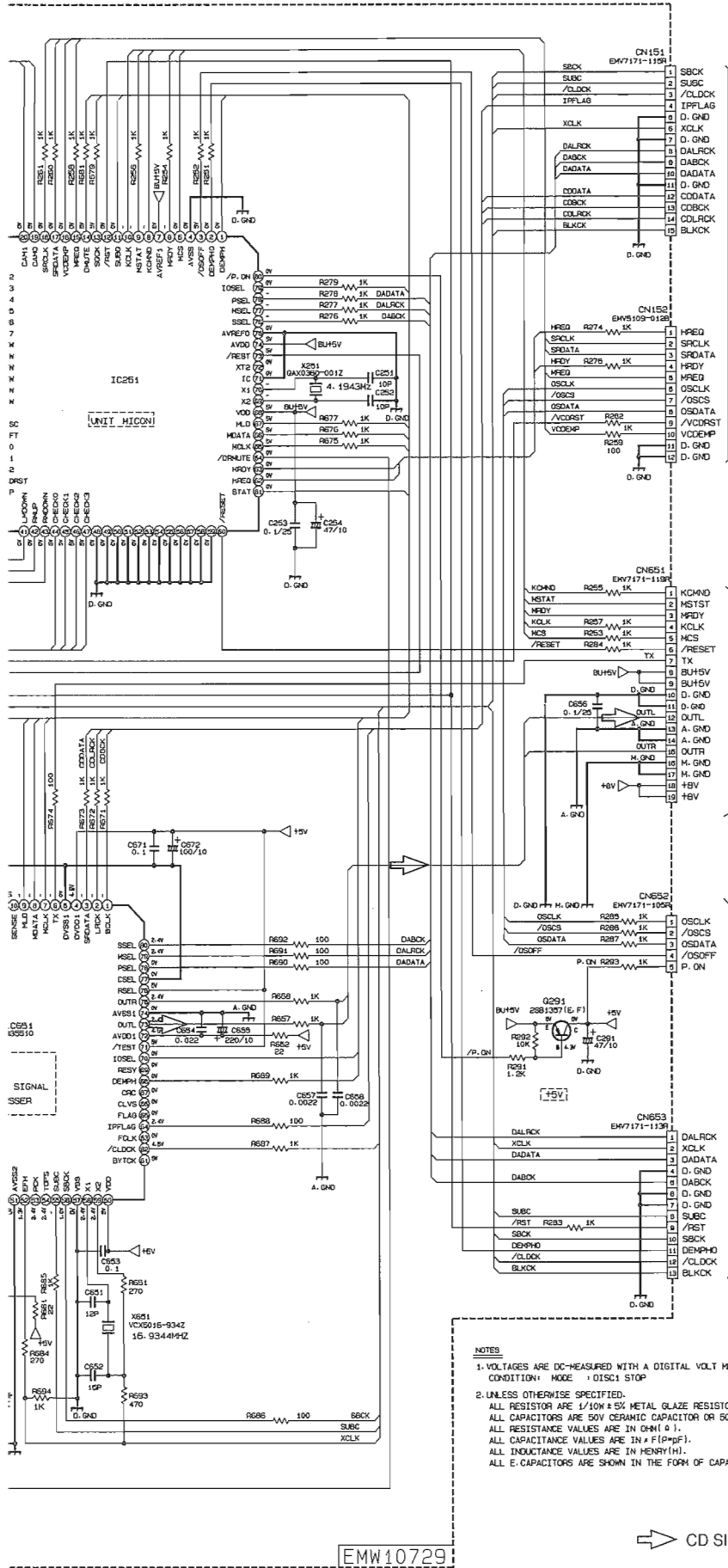


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DON'T USE

FROM CN410 OF  
FMC-021-1  
(SHEET /11)

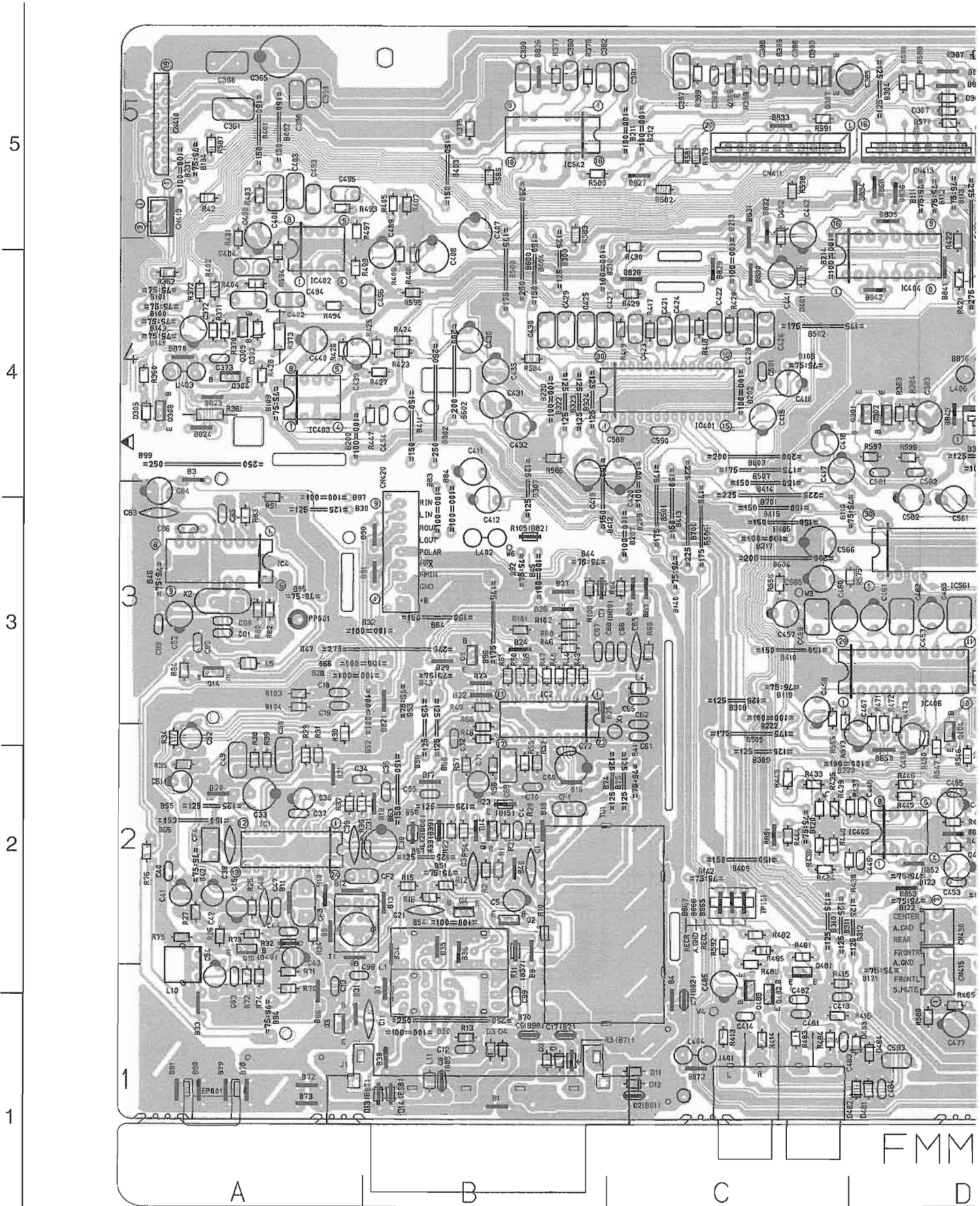
DON'T USE

- NOTES**
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER  
CONDITION: MODE : DISC1 STOP
  2. UNLESS OTHERWISE SPECIFIED.  
ALL RESISTORS ARE 1/10W ± 5% METAL GLAZE RESISTOR.  
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V NYLAR CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN pF (pF).  
ALL INDUCTANCE VALUES ARE IN HENRY (H).  
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE / F1 / RATED VOLTAGE (V).

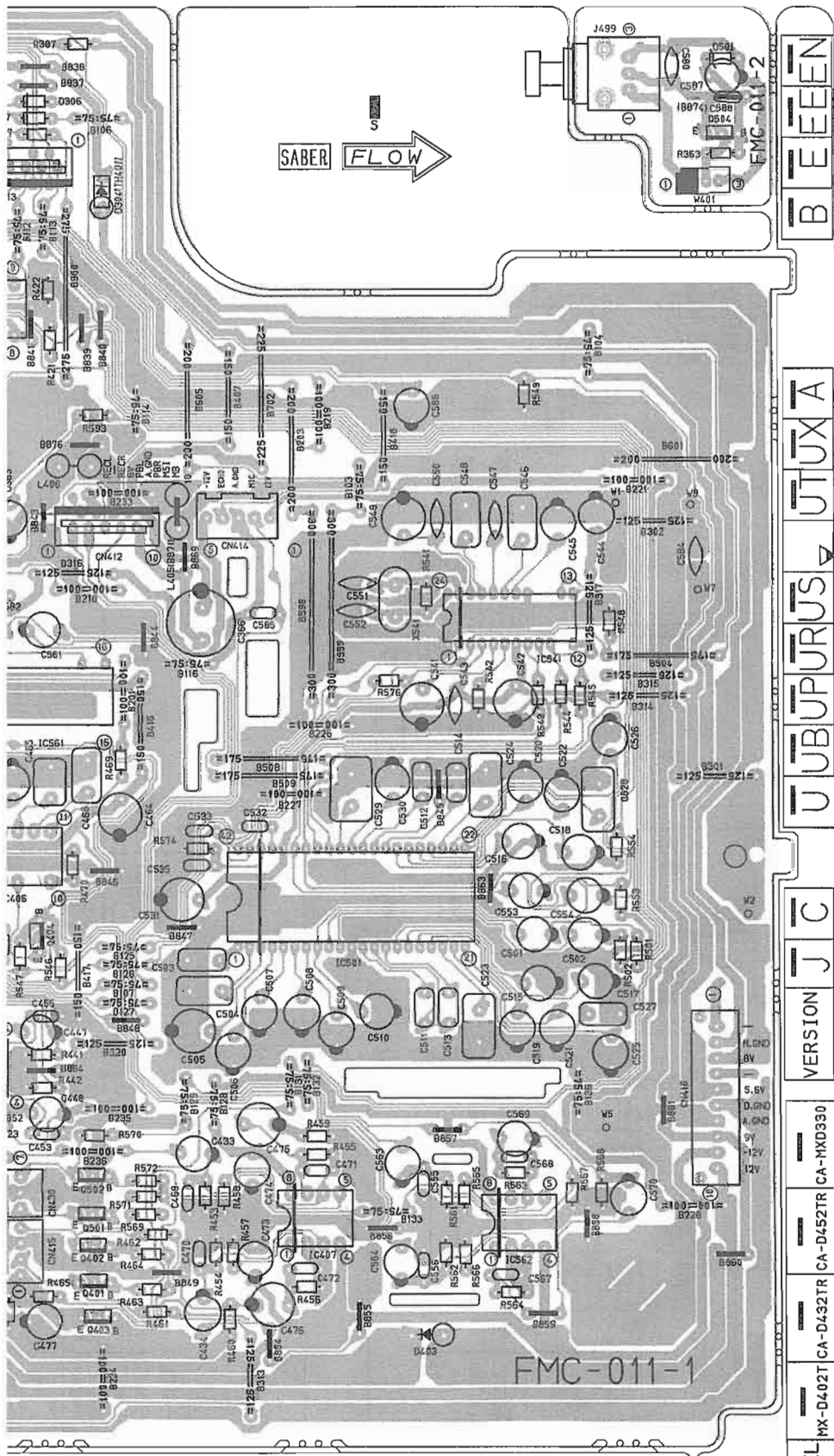
CD SIGNAL

EMW10729

Main Amplifier & Tuner Board : Block No, 0 2



FMM



1MW1038-003

(S03)

B E E E E N

U B U B U R U S U T U X A

VERSION J C

MODEL MX-D402T CA-D432TR CA-D452TR CA-NXD330

D | E | F | G | H

■ Power Supply & Power Amplifier Board : Block No. 0 1

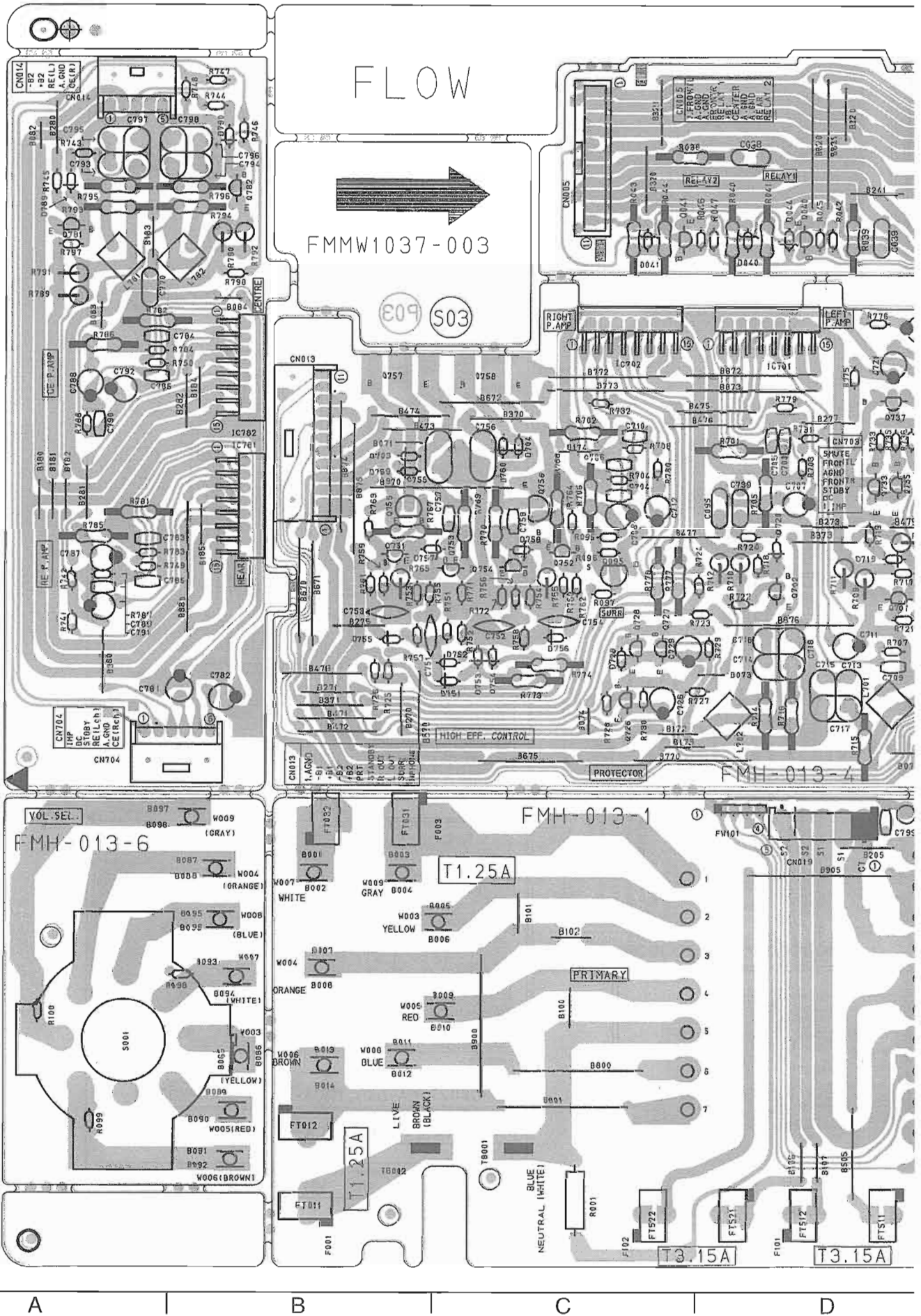
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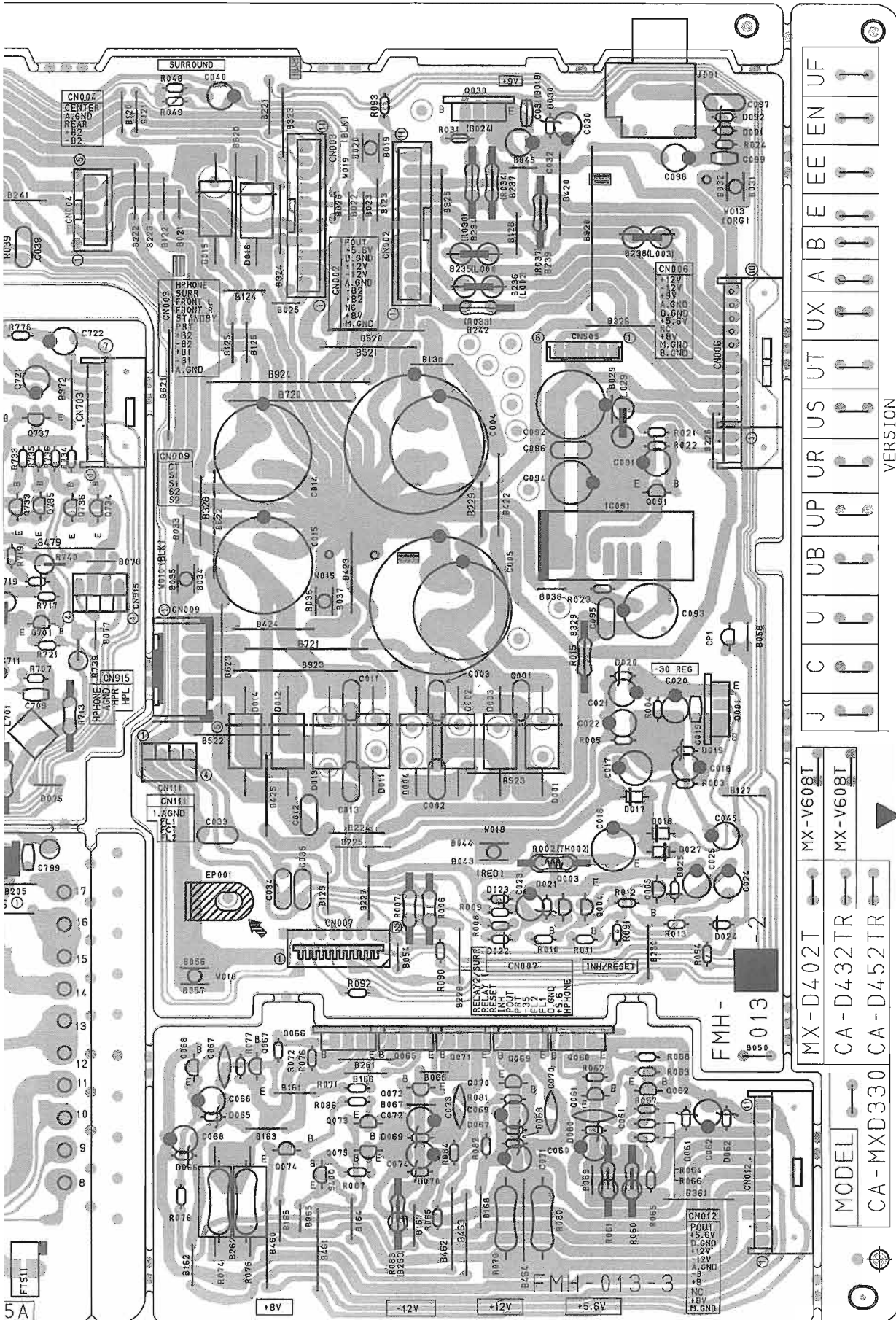
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MX-D402T    MX-V608T  
 CA-D432TR    MX-V608T  
 CA-MXD330    CA-D452TR

MODEL

J C U UB UP UR US UT UX A B E EE EN UF

VERSION

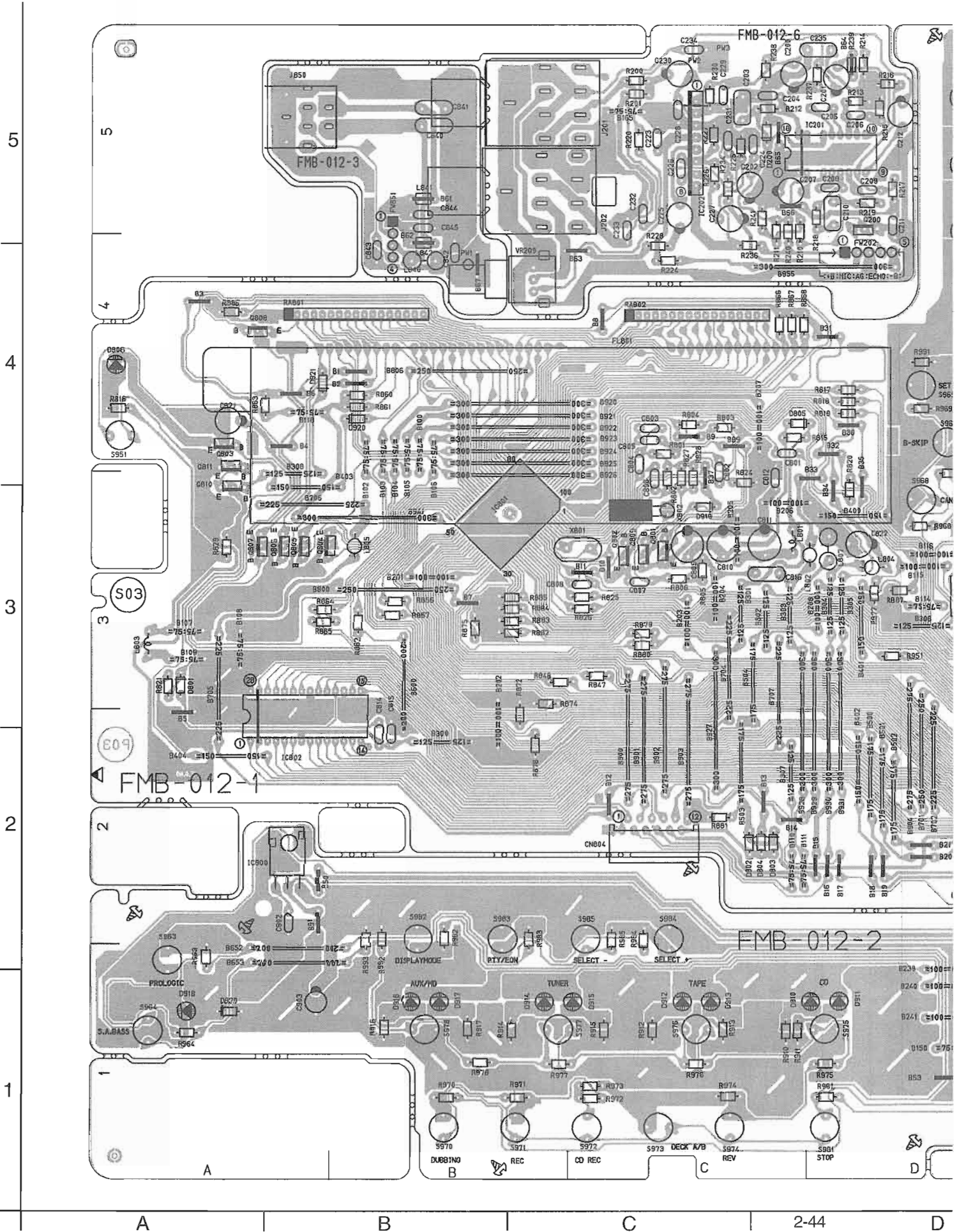
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G

System CPU & Operation Switch Board : Block No. 0 3





■ CD Servo & Mechanism Control Board : Block No. 0 4

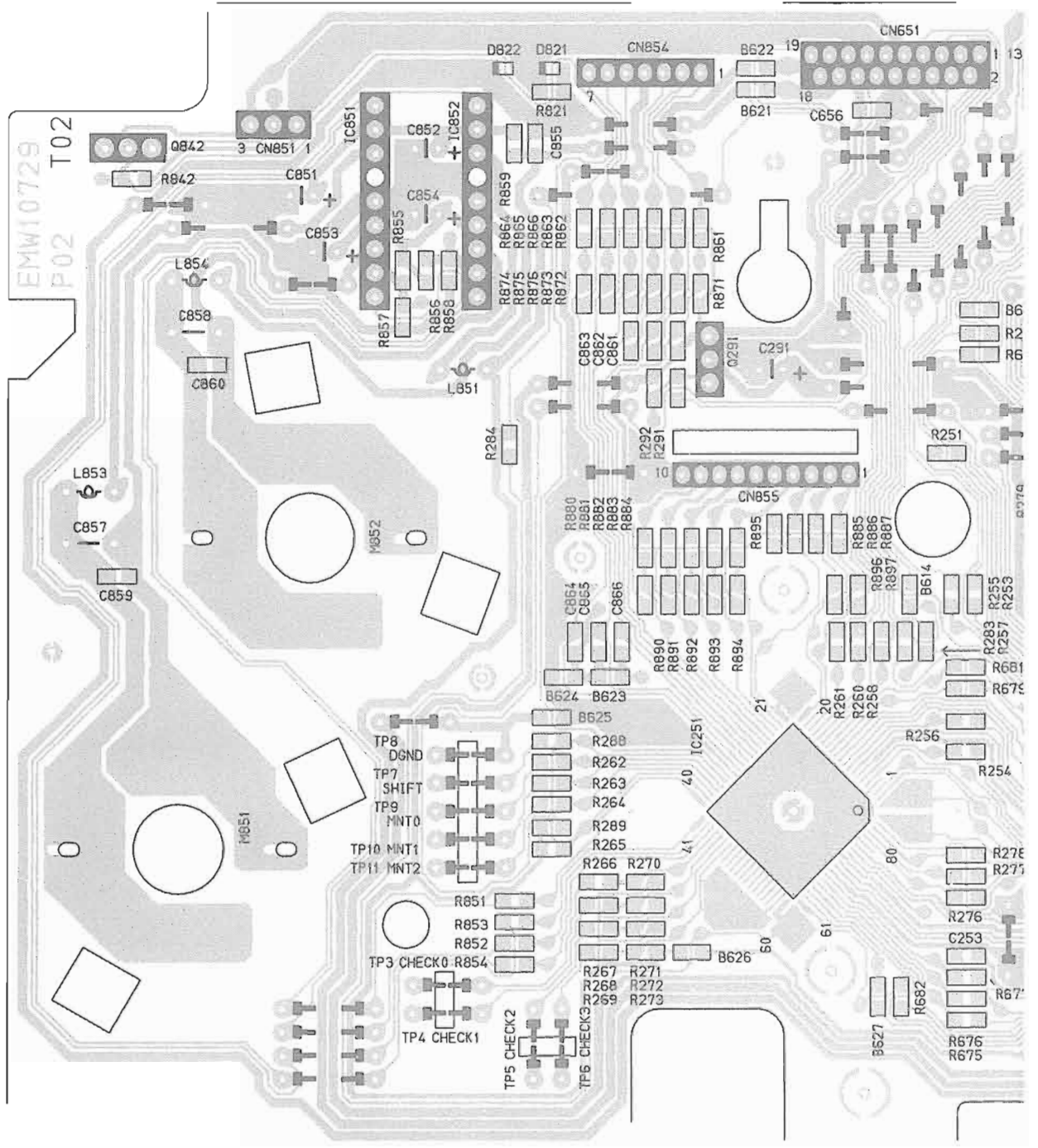
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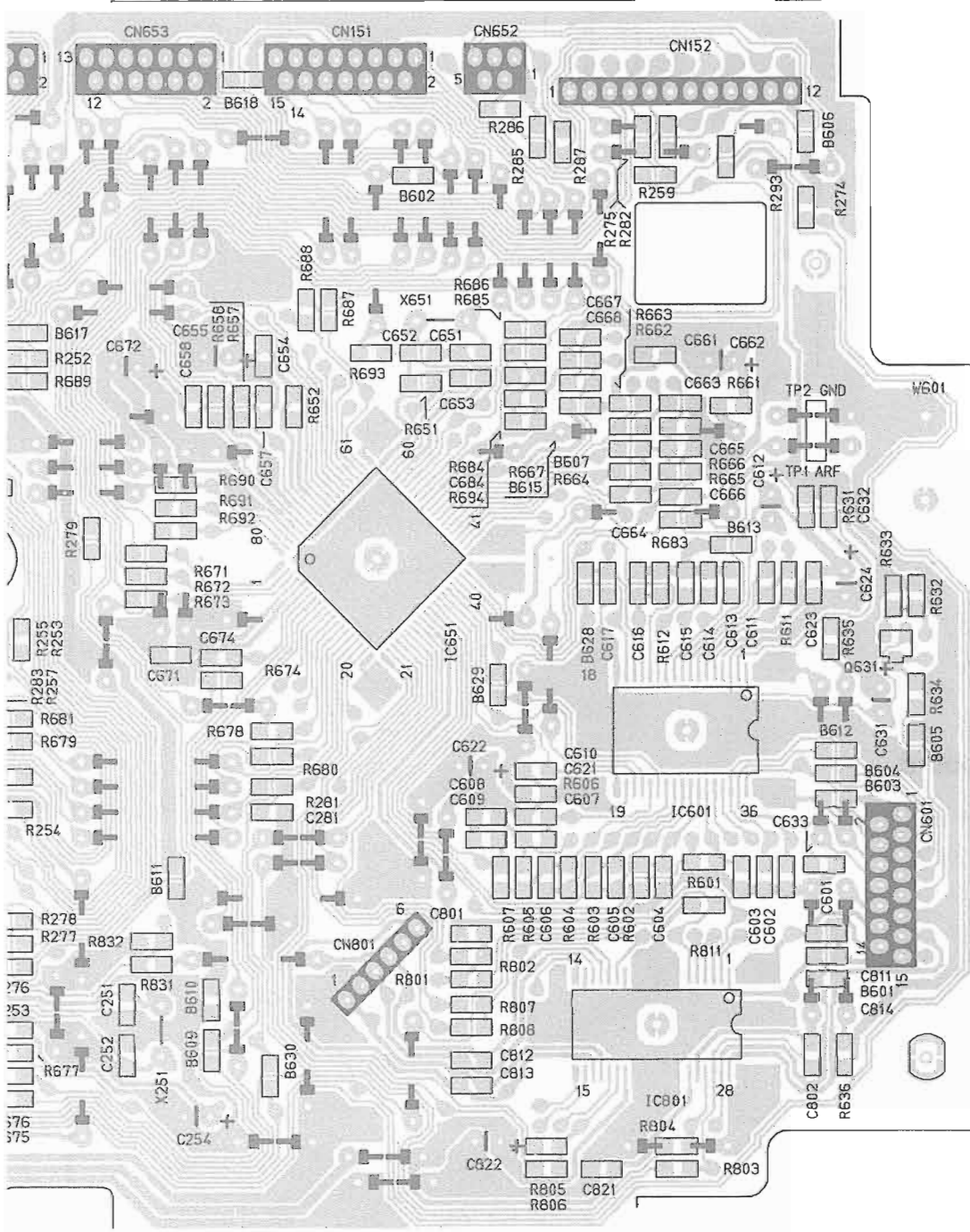


A

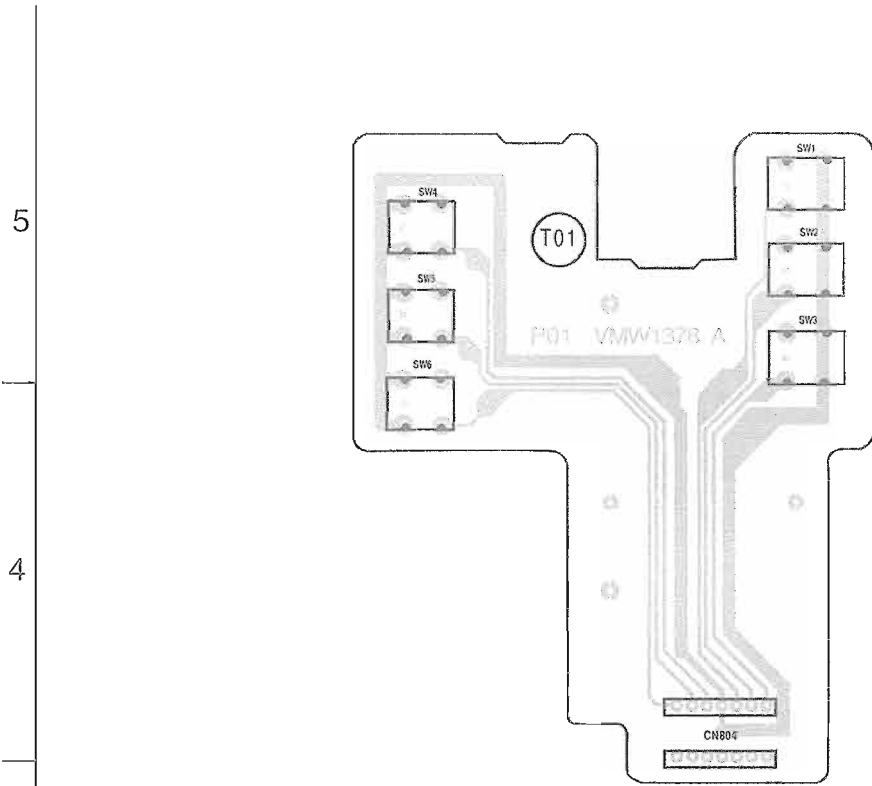
B

C

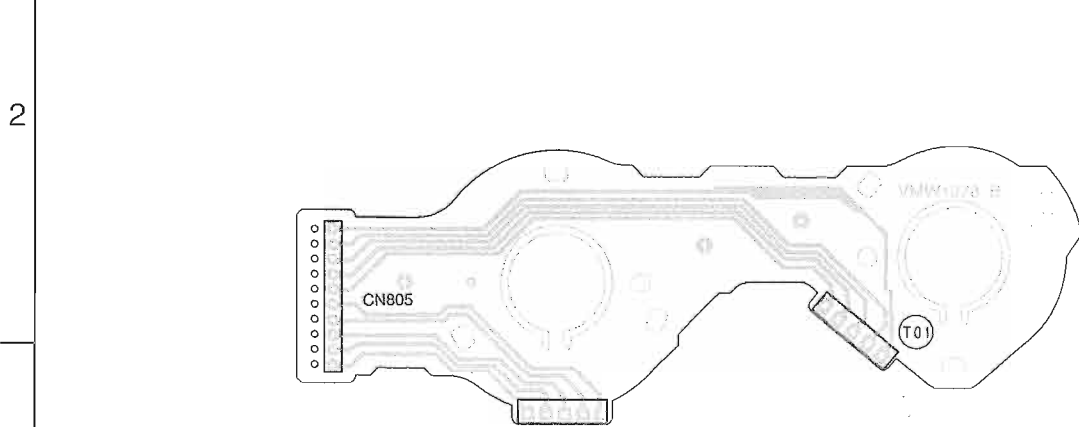
D



■ CD Tray Select Board : Block No, 0 5



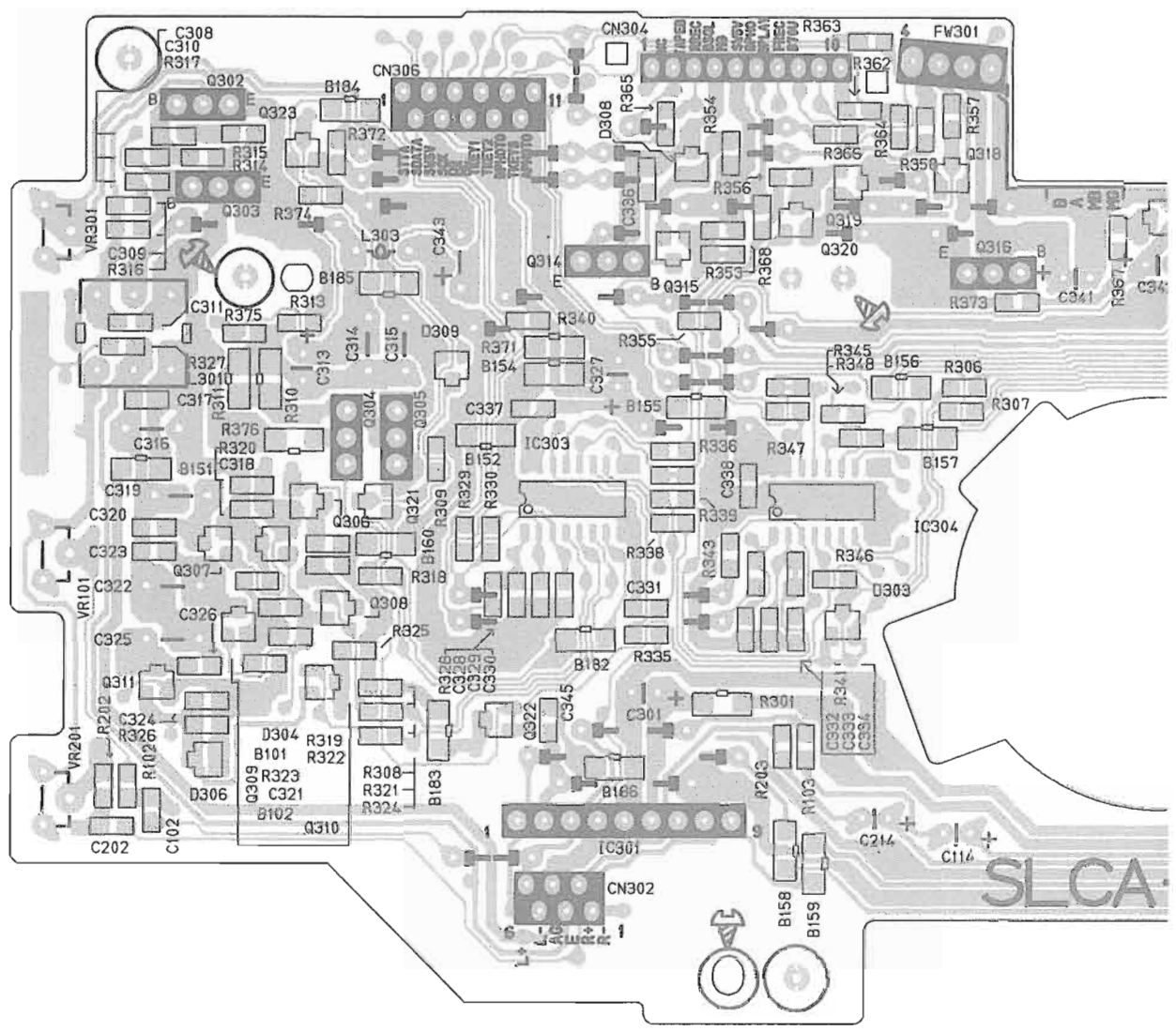
■ Cam Switch board



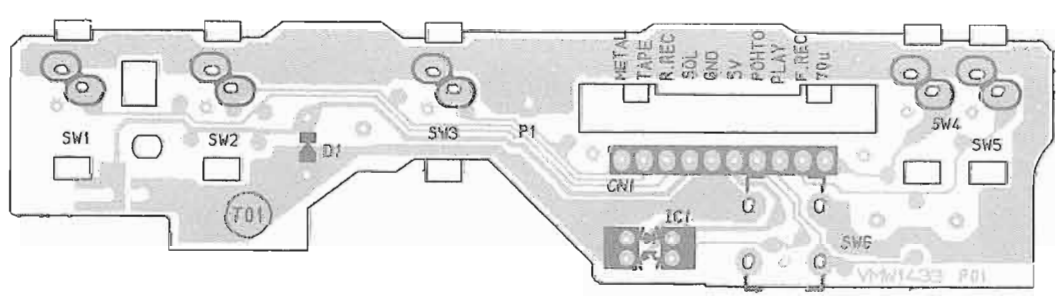
D | E | F | G | H

■ Head Amplifier & Mechanism Control Board : Block No, 0 6

5  
4  
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1

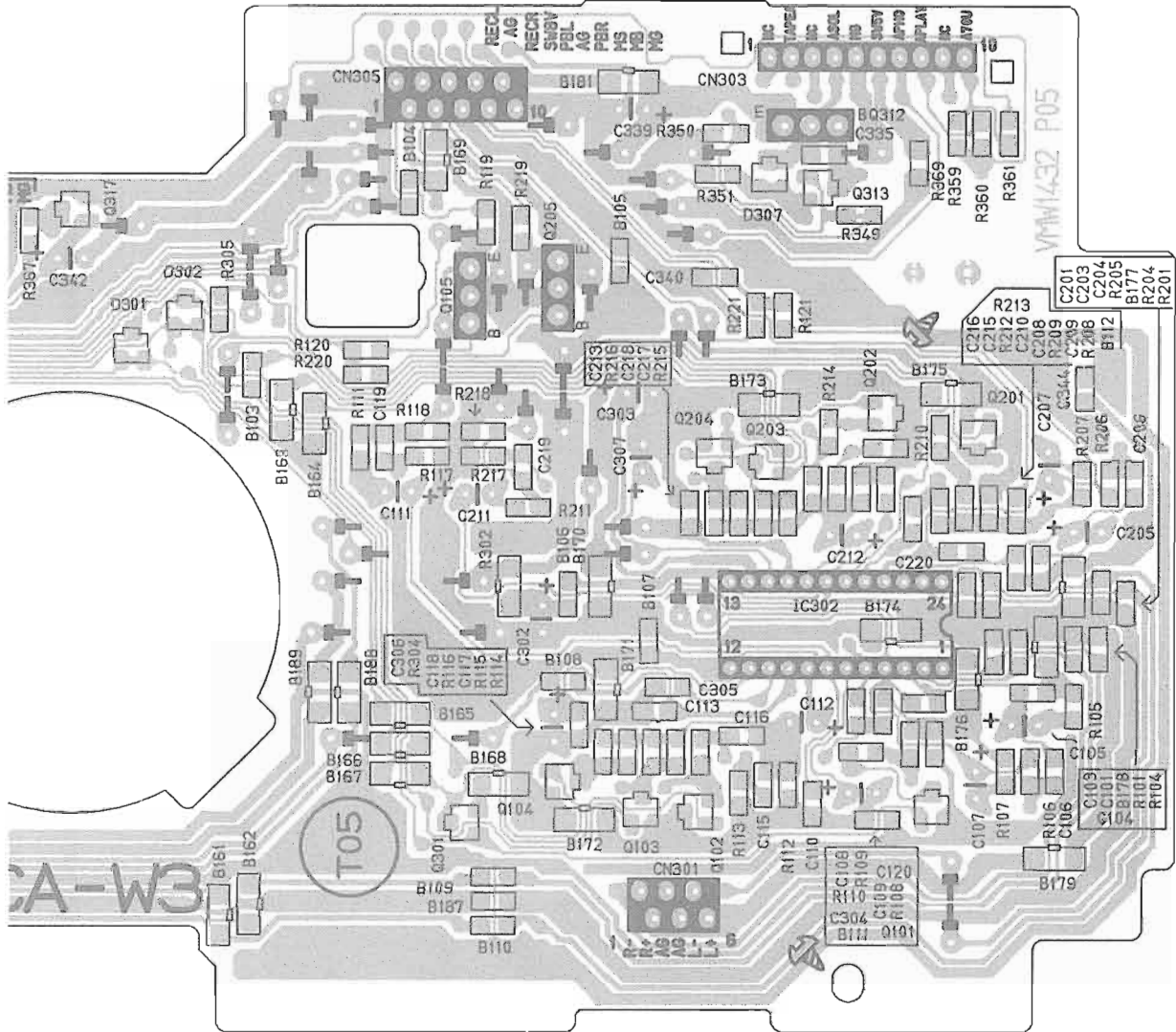


■ Reel Pulse Board : Block No, 0 7 0 8



A B C D





**-MEMO-**

-MEMO-



**PARTS LIST**

[ C A -D452TR / C A -D432TR ]

SP - D 4 5 2 / SP - D 4 3 2

B/E/EN/EE

B/E/EN

\* All printed circuit boards and its assemblies are not available as service parts.

<b>Area Suffix</b>
B---U.K
E---Continental Europe
EN---North Europe
EE---East Europe

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■ Parts list (CA-D432TR B/E/EN)

\* Please see the parts list of CA-D452TR for parts which are not described.

	Item	Parts Number	Parts Name	Q'ty	Discription	Area
	1	GV10001-009A	FRONT PANEL	1		
	5	GV20009-001A	CD BUTTON	1		
	7	GV30010-002A	POWER BUTTON	1	ON/STANDBY MARK	
	8	GV30016-001A	PUSH BUTTON	1		
	10	GV20006-003A	SOUND BUTTON	1		
	11	GV30018-007B	SEARCH BTN. ASSY	1		
	12	GV30009-001A	CONTROL BUTTON	1		
	22	GV20001-005A	CASS HOLDER (L)	1		
	23	GV20002-005A	CASS HOLDER (R)	1		
	26	GV30014-004A	EJECT BUTTON (A)	1		
	27	GV30015-004A	EJECT BUTTON (B)	1		
	81	GV10004-019A	REAR PANEL	1		
	92	GV10002-010A	METAL COVER	1		
	99	GV20005-003A	WINDOW SCREEN	1		
	100	GV20007-010A	ORNAMENT	1		
	P1	GV20011-005A	CARTON ASSY	1		

### ■ General Exploded View and Parts List

BLOCK NO. M1MM

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	GV10001-005AKP	FRONT PANEL		1		
	2	E75896-001	SPACER		2		
	3	E406971-001SM	JVC MARK		1		
	4	GV40003-001AKP	STBY.INDICATOR		1		
	5	GV20009-002AKP	CD BUTTON		1		
	6	GV30008-001AKP	DISC BUTTON	ATTACH TO CD BT	1		
	7	GV30010-004AKP	POWER BUTTON	ON/STANDBY MARK	1		
	8	GV30016-002AKP	PUSH BUTTON		1		
	9	GV30017-002AKP	PUSH BUTTON		1		
	10	GV20006-001AKP	SOUND BUTTON		1		
	11	GV30018-002BKP	SERCH BTN.ASS'Y		1		
	12	GV30009-002AKP	CONTROL BUTTON		1		
	13	GV30013-001AKP	SOURCE BUTTON		1		
	14	SDSF2608Z	SCREW	SWITCH BOARD	5		
	15	SDSF2608Z	SCREW	MICOM BOARD	4		
	16	SDSF2608Z	SCREW	STY.BKT+F.PANEL	6		
	17	GV30003-001AKP	STAY BRACKET		1		
	18	FMYH4004-001	PLASTIC RIVET	MAIN BOARD&BKT.	1		
	19	GV40001-001AKP	H.P BRACKET		1		
	20	SDSF2608Z	SCREW	H.P BKT.+F.PANE	1		
	21	GV30012-001AKP	RDS BUTTON		1		
	22	GV20001-004AKP	CASS HOLDER(L)		1		
	23	GV20002-004AKP	CASS HOLDER(R)		1		
	24	GV20003-001AKP	CASS LENS (L)		1		
	25	GV20004-001AKP	CASS LENS (R)		1		
	26	GV30014-005AKP	EJECT BUTTON(A)		1		
	27	GV30015-005AKP	EJECT BUTTON(B)		1		
	28	FMKW4009-001	HOLDER SPRING A	FOR CASS HOLDER	1		
	29	FMKW4010-001	HOLDER SPRING B	FOR CASS HOLDER	1		
	30	FMKW4011-001	SPRING	FOR EJECT LEVER	1		
	31	FMKS3002-002KP	EJECT LEVER(A)		1		
	32	FMKS3003-002KP	EJECT LEVER(B)		1		
	33	VYH7779-00B	DUMPER ASS'Y		2		
	34	VKY4180-001	CASSETTE SPRING		4		
	35	-----	SLC(W)MECHA UNI		1		
	36	FMKL4012-003	EJECT SAFETY(A)		1		
	37	FMKL4013-001	EJECT SAFETY(B)		1		
	38	FMKW4007-001	SPRING (A)	EJECT SAFETY A	1		
	39	FMKW4008-001	SPRING (B)	EJECT SAFETY B	1		
	40	FMKL2002-001	HOLDER BRACKET		1		
	41	SBSG3010Z	T.SCREW	F.P.TO H.BRKT.	2		
	42	VKS5560-002	T.SCREW	F.P.TO CHS.BASE	2		
	43	SBSG3010Z	T.SCREW	MECHA & H.BRKT.	4		
	44	SBSF3010Z	SCREW	MECHA & F.PANEL	4		
	45	-----	VIDEO 3CD CHANG		1		
	46	E309662-001	DISC STOPPER		1		
	47	SBSF3008Z	SCREW	FOR DISC STOPPE	1		
	48	VKZ4001-110	WIRE HOLDER	EE EXCEPT	1		
	49	SBSF2608Z	T.SCREW	FOR WIRE HOLDER	1		
	50	GV10003-001AKP	CHASSIS BASE		1		
	51	E75896-006	FELT SPACER	CHAS.BASE FOOT	2		
	52	GV30006-001AKP	HEAT SINK		1		
	53	SBSG3014CC	T.SCREW		5		
	54	FMKL4007-001	BRACKET	FOR POWER IC	1		
	55	E406969-002SM	LEAF SPRING		1		

BLOCK NO. M1MM

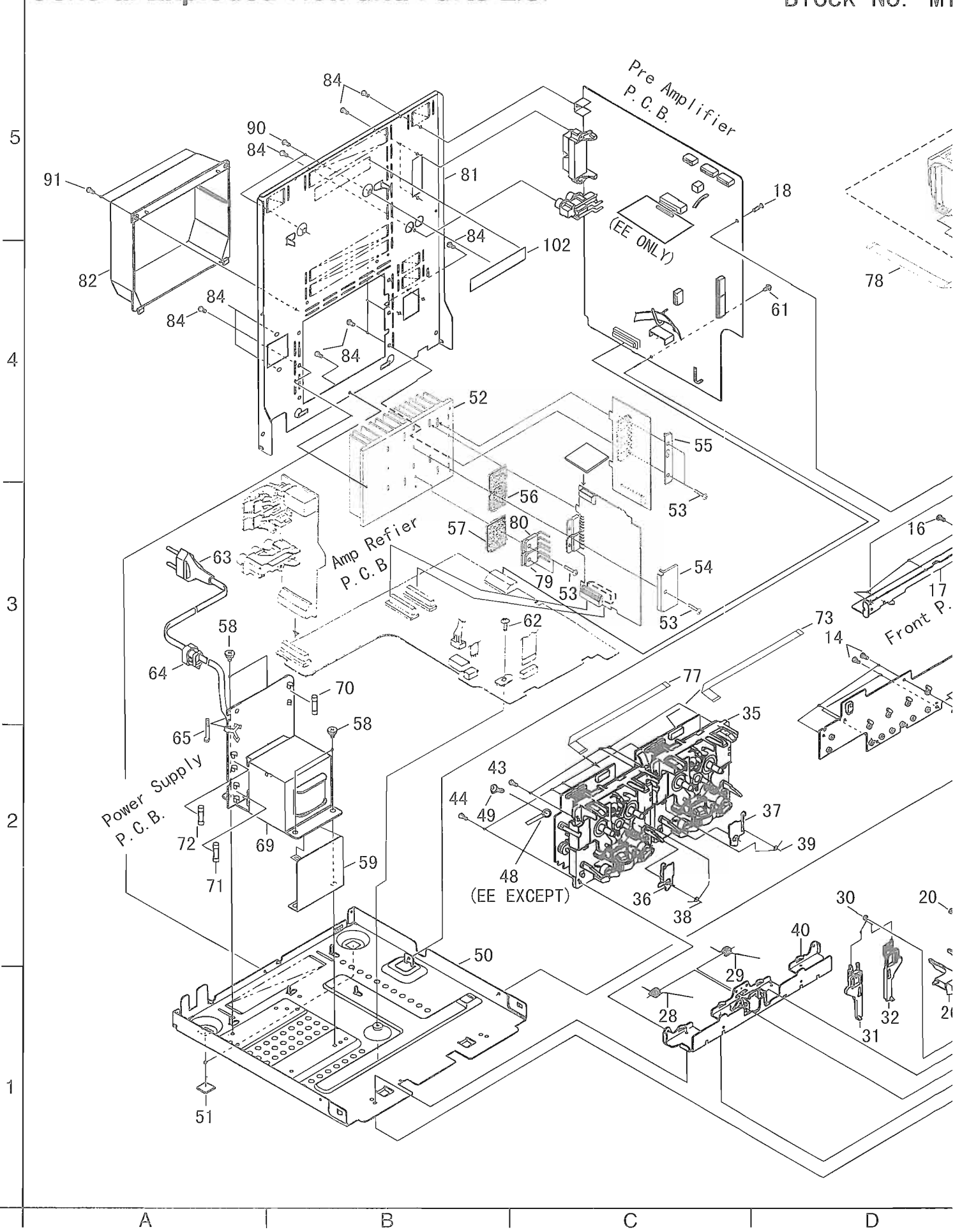
REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
56	FMPK4003-001	MICA SHEET		1		
57	FMPK4004-001	MICA SHEET		1		
58	E65389-002	SPECIAL SCREW		4		
59	E409015-001SM	SHIELD PLATE		1		
61	GBSG3008CC	T.SCREW	M.BOARD & C.BAS	1		
62	GBSG3008CC	T.SCREW	FMH BRD. & C.BA	1		
63	QMPN090-200-JC	POWER CORD		1	B	
64	QMPK090-205-JN	POWER CORD		1		
64	QHS3771-108	CORD STOPPER		1		
65	QHX2075-001	WIRE CLAMP	WIRE ARRANG.	2		
	QHX2075-001	WIRE CLAMP	P.CORD/P.PWB	1		
	QHX2075-001	WIRE CLAMP	P.CORD/P.PWB	1		
68	VKZ4001-110	WIRE HOLDER		1		
69	QQT0156-002	POWER TRANS		1		
70	QMF51E2-1R25	FUSE		1		
71	QMF51E2-3R15J1	FUSE		1		
72	QMF51E2-3R15J1	FUSE		1		
73	VWF1211-15TTB	CARD WIRE	FMB-SLC	1		
74	VWF1220-10TTB	CARD WIRE	FMB-MAIN	1		
75	VWF1216-10TTB	CARD WIRE	FMB-MAIN	1		
76	VWF1212-25TTB	TAF CARD	FMB-FMH	1		
77	VWF1210-20TTB	CARD WIRE	MAIN-SLC	1		
78	VWF1019-20TTA	CARD WIRE	MAIN-VC3	1		
79	2SC4467/OPY/-F1	TRANSISTOR		1		
80	2SA1694/OPY/-F1	TRANSISTOR		1		
81	GV10004-011AKP	REAR PANEL		1		
	GV10004-012A	REAR PANEL		1	EE	
82	E207356-001SM	REAR COVER		1		
83	SBSG3008Z	T.SCREW	C3 & STAY BRKT.	2		
84	E73273-003	SPECIAL SCREW	AUX/REAR PANEL	1		
	E73273-003	SPECIAL SCREW	E.PLATE/R.PANEL	1		
	E73273-003	SPECIAL SCREW	R.PANEL/ C.BASE	1		
	E73273-003	SPECIAL SCREW	H.SINK/ R.PANEL	3		
	E73273-003	SPECIAL SCREW	C3 / REAR PANEL	2		
	E73273-003	SPECIAL SCREW	SPK.TEM./R.PANE	2		
90	E73273-003	SPECIAL SCREW	ANTENA/ R.PANEL	2		
91	E73273-003	SPECIAL SCREW	R.COVER/R.PANEL	2		
92	GV10002-012AKP	METAL COVER		1		
93	SBSB3006M	T.SCREW		2		
94	E73273-003	SPECIAL SCREW		6		
95	E209153-004SMKP	CD FITTING	DISC 1	1		
96	E209155-003SMKP	CD FITTING	DISC 2	1		
97	E209157-004SMKP	CD FITTING	DISC 3	1		
98	E310080-231SMKP	M.VOL.KNOB		1		
99	GV20005-005AKP	WINDOW SCREEN		1		
100	GV20007-003AKP	ORNAMENT		1		
101	E70891-001	CLASS 1 LABEL		1		
102	E406709-001	LASER CAUTION		1		

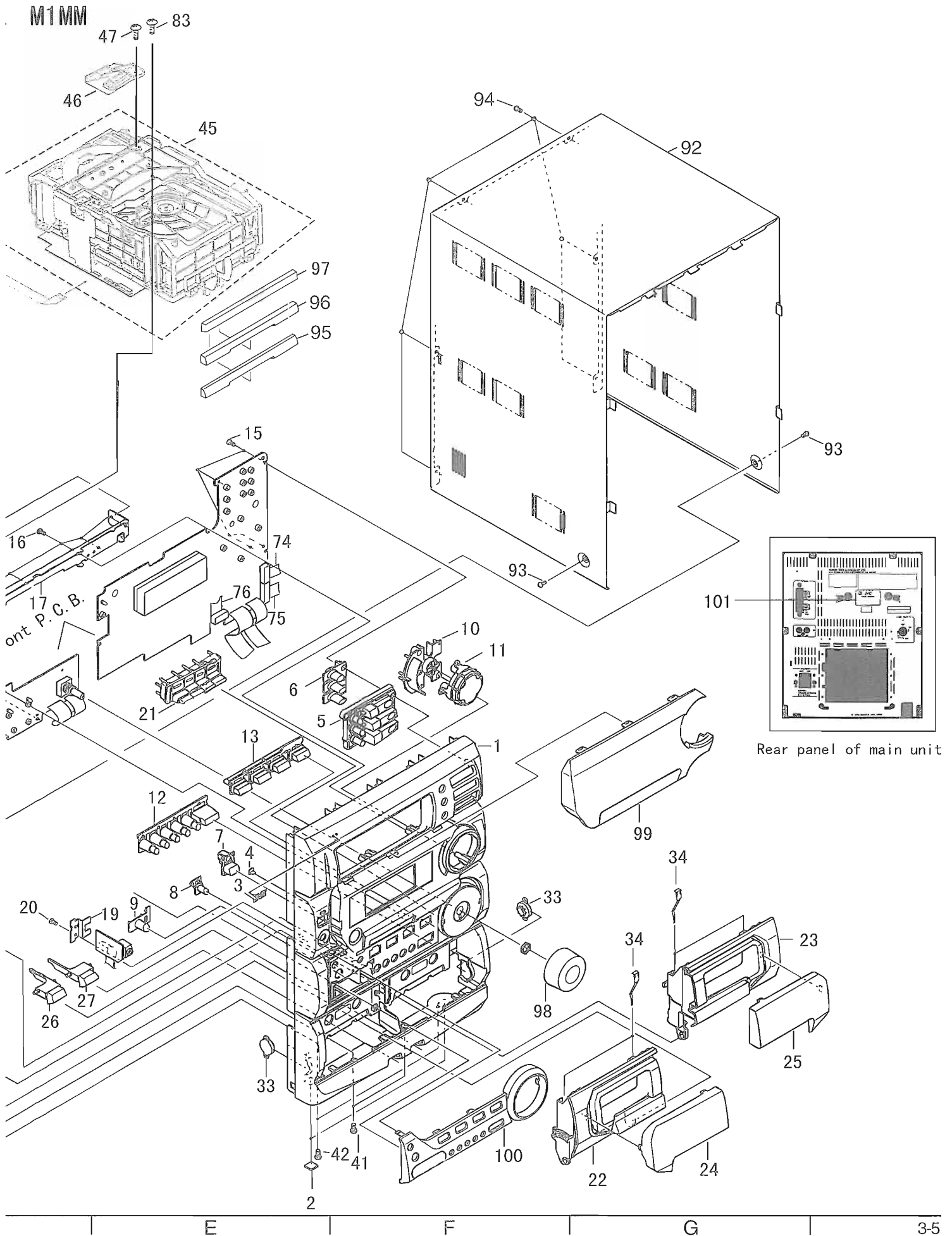




# General Exploded View and Parts List

Block No. M1





BLOCK NO.  

Δ	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	VKS1144-003	CHASSIS		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	MSN-5D257A	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	VKZ3173-00A	CAM SW. L ASS'Y		1		
	21	SPST2606Z	SCREW	FOR CAM SW.	4		
	22	VKS2263-002MM	CAM R1		1		
	23	VKS2264-002MM	CAM R2		1		
	24	VKS2265-002MM	CAM GEAR L		1		
	25	WDL316050	SLIT WASHER		1		
		WDL316050	SLIT WASHER	FOR CAM GEAR L	1		
	27	SBSF2608Z	T.SCREW	FOR C.GEAR BASE	16		
	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	3		
	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		
	41	WDL266035-2	SLIT WASHER		1		
	43	VKS5514-002MM	LOCK LEVER		3		
	44	VKY3133-002MM	RETURN SPRING		1		
	46	VKY3134-003MM	CLICK SPRING		1		
	47	VKS2252-00EKP	TRAY ASS'Y		3		
	48	VKS2250-003	TOP BRACKET		1		
	49	VKS5515-002	S.TRAY STOPPER		1		
	50	VKW5156-004	TORSION SPRING		1		
	52	SBSF2608Z	T.SCREW		2		
	62	FMYH4003-002	INSULATOR		2		
	63	FMYH4003-001	INSULATOR		2		
	64	VKS3703-00F	CLAMPER ASS'Y		1		
	65	-----	CD MECHA.ASS'Y		1		
	69	QGB2021L1-10	CONNECTOR		1		
	71	VKW5187-001	ROD		1		
	72	VYSA1R2-033	SPACER	FOR EWS176-008	1		
	73	LE30611-001AKP	C.B HOLDER	FOR CD CB	1		
	74	SBSF3008Z	SCREW	FOR HOLDER	2		
	75	QUQ110-1509AJ	FLAT WIRE	TRAVERSE 15	1		
	76	EWS176-008	FLAT WIRE	TRAVERSE 6	1		

# CD Changer Mechanism and Parts List

Block No. M 2 M M

VC3-1M

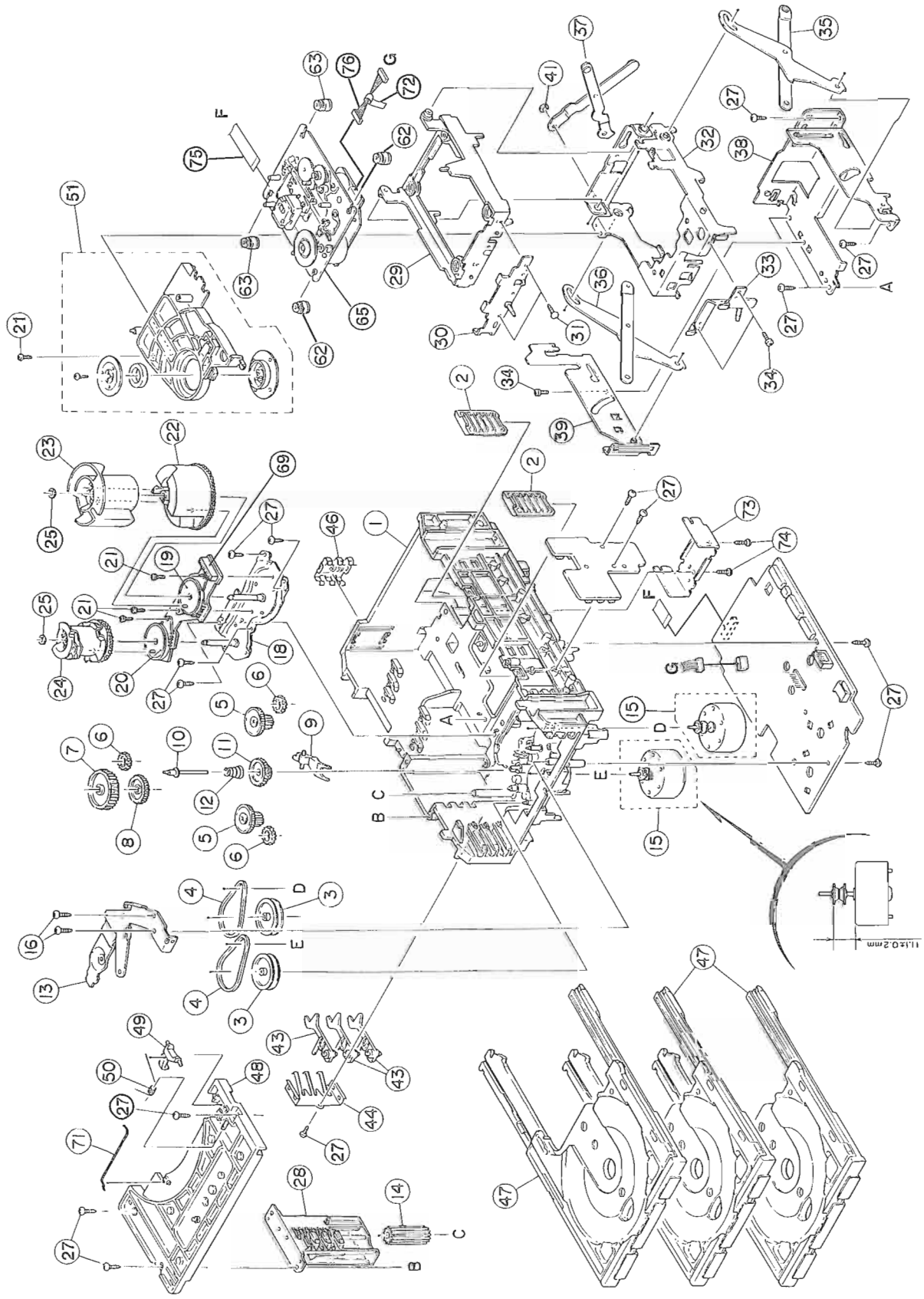
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A B C D



# CD Mechanism Ass'y and Parts List

## Grease Point

G-31KB  
(Grease to apply have to be alittle for the exchange)

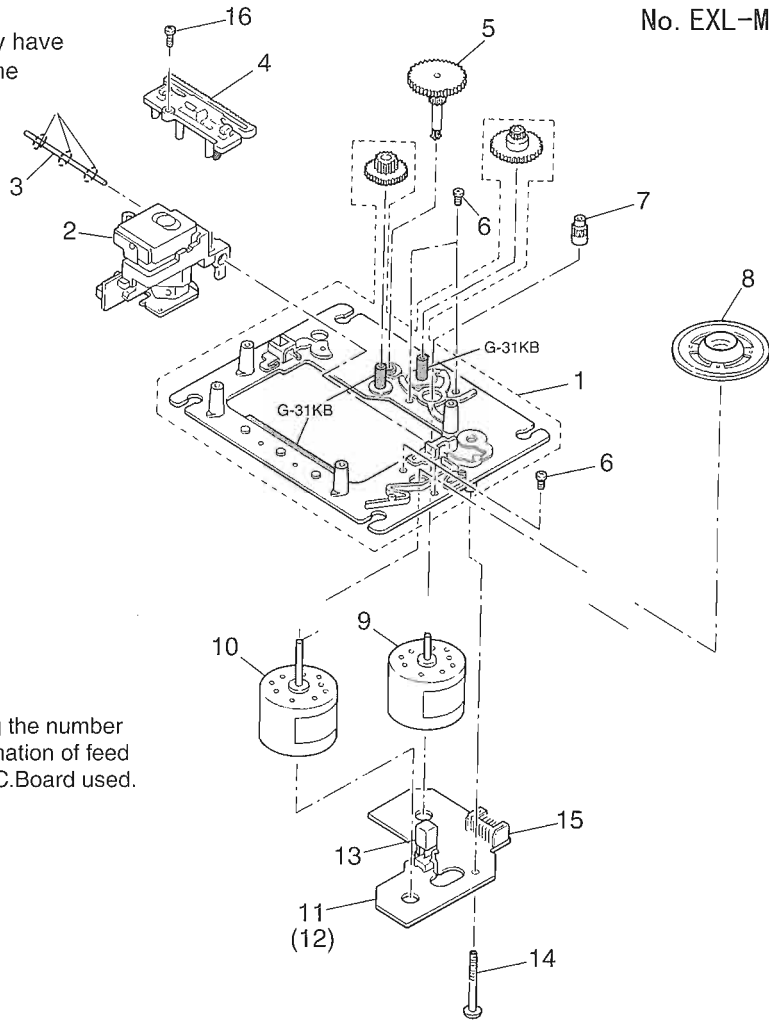
Block No. M 3 M M

No. EXL-M6

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**NOTE**  
Please order motor after confirming the number of the P.C.Board because the combination of feed motor is different according to the P.C.Board used.

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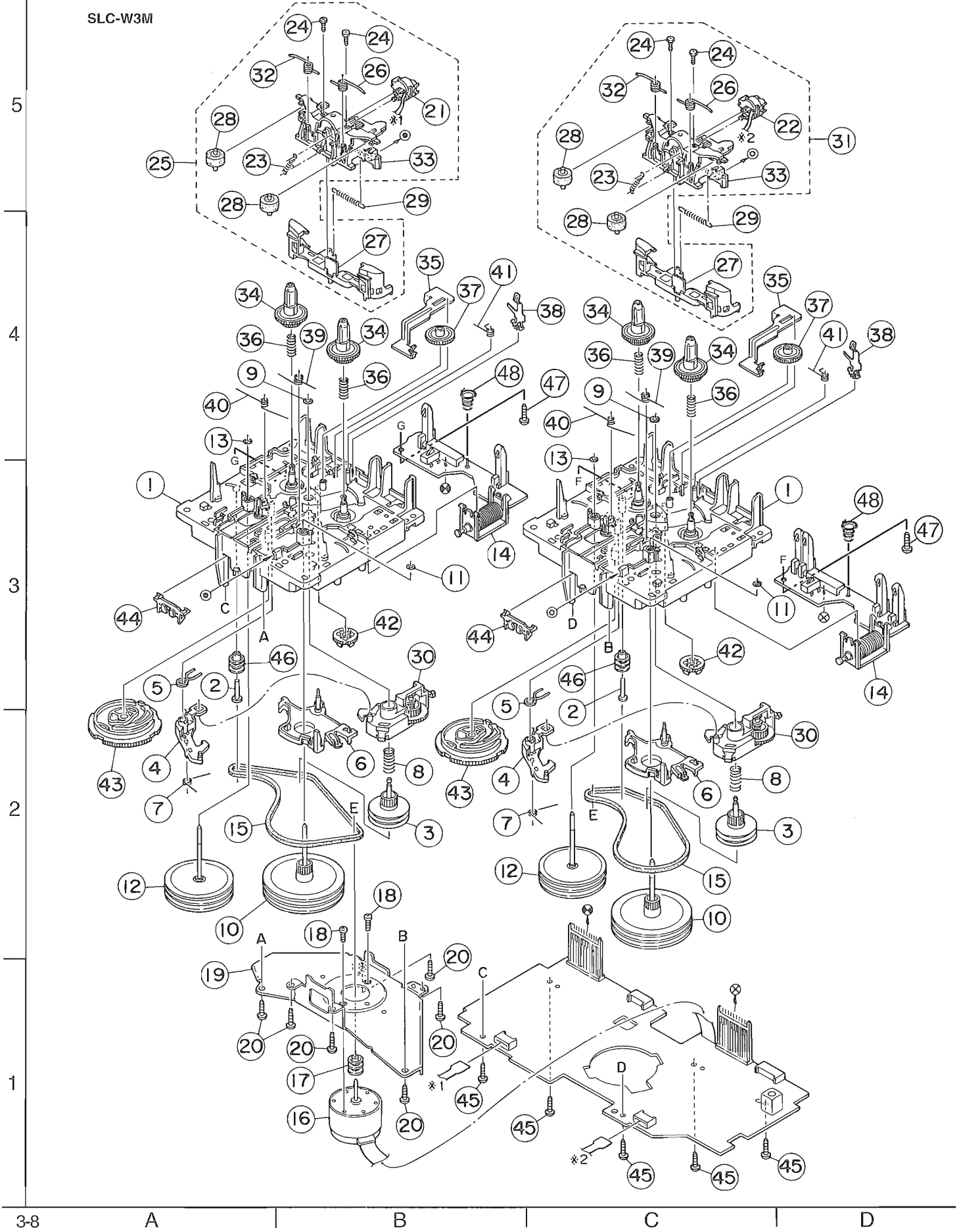
## CD Mechanism Assembly Parts List

	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EPB-002PK	MECHA. BASE ASSY	1		
	2	OPT1MA-150S	OPTICAL PICK UP	1		
	3	E407782-001	CD SHAFT	1		
	4	E307746-001	CD RACK	1		
	5	EPB-003A	MECHA GEAR	1		
	6	SDSP2003N	SCREW	4		
	7	E406750-001	PINION GEAR	1		
	8	EPB309173A	TURN TABLE	1		
	9	E406784-001	FEED MOTOR	1	Use the No.11 P.C.Board	
		MDN-4RA3ETA-1	FEED MOTOR	1	Use the No.12 P.C.Board	
	10	E406783-001	SPINDLE MOTOR	1		
	11	EMW10190-001 (S)	P. C. BOARD	1		
	12	EMW10190-221 (S)	P. C. BOARD	1		
	13	ESB1100-005	LEAF SWITCH	1		
	14	E75832-001	SCREW	1		
	15	EMV5109-006B	CONN. TERMINAL	1		
	16	SDSF2006Z	SCREW	1		

# Cassette Mechanism Ass'y and Parts List

Block No. M 4 M M

SLC-W3M





BLOCK NO. 

△ REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
1	VKS1165-00FKP	CHASSIS B. ASSY		2		
2	VKH5786-002	SHAFT		2		
3	VKR3199-002	MAIN PULLEY		2		
4	VKS3785-001MM	FR ARM		2		
5	VKW5284-002	SWING SPRING		2		
6	VKS2278-001	TRIGGER ARM		2		
7	VKW5301-001	FR SPRING		2		
8	VKW5266-001	ELEVATOR SPRING		2		
9	WDL214025	WASHER		2		
10	VKF3205-00B	F.WHEEL ASSY(R)		2		
11	WDL183425	SLIT WASHER		2		
12	VKF3207-00B	F.WHEEL ASSY(L)		2		
13	WDL173525-6	SLIT WASHER		2		
14	VGP2401-00A	DC SOLENOID		2		
15	VKB3000-174	CAPSTAN BELT(B)		2		
16	MSI-5U2LWA	D.C.MOTOR ASS'Y		1		
17	VKR4761-001	MOTOR PULLEY		1		
18	SPSP2604Z	SCREW		2		
19	VKM3907-001	JOINT BRACKET		1		
20	SBSF2608Z	T.SCREW		6		
21	VGH0424-037	ERASE HEAD		1		
22	VGH0425-544	R/P&E HEAD		1		
23	VKW5302-001	HEAD SPRING		2		
24	VKZ4730-001	SPECIAL SCREW		4		
25	VKS2279-00CKP	HEAD MOUNT ASSY		1		
26	VKW5299-001	PIN.ROL.SP.(R)		2		
27	VKS2277-005	DIRECTION LEVER		2		
28	VKP4233-00A	PINCH ROL. ASSY		4		
29	VKW5285-001	RETURN SPRING		2		
30	VKS3786-00EKP	CLUTCH ASSY		2		
31	VKS2275-00C	HEAD MOUNT ASSY		1		
32	VKW5300-001	PIN.ROL.SP.(L)		2		
33	VKS1167-001KP	HEAD MOUNT BASE		2		
34	VKS2274-002	REEL GEAR		4		
35	VKM3906-002	PLAY SW.LEVER		2		
36	VKW5286-002	B.T. SPRING		4		
37	VKS5559-001	PLAY IDLE GEAR		2		
38	VKY3149-001	CASSETTE SP.		2		
39	VKW5279-001	HEAD BASE SP(R)		2		
40	VKW5280-001	HEAD BASE SP(L)		2		
41	VKW5296-001	EARTH SPRING		2		
42	VKS5560-001	FR IDLE GEAR		2		
43	VKS1166-003KP	CONTROL CAM		2		
44	VKS5577-001	FPC HOLDER		2		
45	SBSF2608Z	T.SCREW	FOR P.W.B.	5		
46	VKR4749-002	IDLE PULLEY		2		
47	SBSF2006Z	SCREW		2		
48	LV40450-001AKP	CONNECT SP		2		

# Electrical Parts List

## Power Supply & Power Amplifier Board

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C001	QFV82AJ-104	M.CAPA. I.M	.10MF 5% 100V	
C002	QFV82AJ-104	M.CAPA. I.M	.10MF 5% 100V	
C003	QFV82AJ-104	M.CAPA. I.M	.10MF 5% 100V	
C004	QETM1HM-228	E CAPACITOR	2200MF 20% 50V	
C005	QETM1HM-228	E CAPACITOR	2200MF 20% 50V	
C011	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C012	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C013	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C014	QETM1HM-228	E CAPACITOR	2200MF 20% 50V	
C015	QETM1HM-228	E CAPACITOR	2200MF 20% 50V	
C016	QET41HM-107	E CAPACITOR	100MF 20% 35V	
C017	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
C018	QET41HM-226	E CAPACITOR	22MF 20% 50V	
C019	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
C020	QET41HM-226	E CAPACITOR	22MF 20% 50V	
C021	QET41HM-475	E CAPACITOR	4.7MF 20% 50V	
C022	QET41HM-475	E CAPACITOR	4.7MF 20% 50V	
C023	QET41HM-474	E CAPACITOR	.47MF 20% 50V	
C024	QET41HM-105	E CAPACITOR	1.0MF 20% 50V	
C025	QET41HM-105	E CAPACITOR	1.0MF 20% 50V	
C030	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
C031	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
C032	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
C033	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	
C040	QETC1HM-224Z	E CAPACITOR	22MF 20% 50V	
C045	QET41EM-476	E CAPACITOR	47MF 20% 25V	
C060	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
C061	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
C062	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
C066	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
C067	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
C068	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
C069	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
C070	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
C071	QETM1EM-226Z	E CAPACITOR	22MF 20% 25V	
C072	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
C073	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
C074	QETM1EM-226Z	E CAPACITOR	22MF 20% 25V	
C095	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
C703	QCB1HK-101Y	C CAPACITOR	EE EXCEPT	
C704	QCB1HK-471Y	C CAPACITOR	EE EXCEPT	
C705	QCB1HK-181Y	C CAPACITOR	180PF 10% 50V	
C706	QCB1HK-181Y	C CAPACITOR	180PF 10% 50V	
C707	QET41EM-476	E CAPACITOR	47MF 20% 25V	
C708	QET41EM-476	E CAPACITOR	47MF 20% 25V	
C709	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
C710	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
C711	QET41HM-226	E CAPACITOR	22MF 20% 50V	
C712	QET41HM-226	E CAPACITOR	22MF 20% 50V	
C713	QFV41HJ-104ZM	TF CAPACITOR	EE EXCEPT	
C714	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C715	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C716	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C721	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
C722	QTE1V06-106Z	E.CAPA. I.M		

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C726	QET1EM-106	E CAPACITOR	10MF 20% 25V	
C729	QET41CM-476	E CAPACITOR	47MF 20% 16V	
C739	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	
C751	QCV31HK-272Z	C.CAPA. I.M	2700PF 10% 50V	
C752	QCV31HK-272Z	C.CAPA. I.M	2700PF 10% 50V	
C753	QCV31HK-472Z	C.CAPA. I.M	4700PF 10% 50V	
C754	QCV31HK-472Z	C.CAPA. I.M	4700PF 10% 50V	
C755	QFV41HJ-105	TF.CAPA. I.M XX	1.0MF 5% 50V	
C756	QFV41HJ-105	TF.CAPA. I.M XX	1.0MF 5% 50V	
C757	QCB1CM-152Y	C CAPACITOR	1500PF 20% 16V	
C758	QCB1CM-152Y	C CAPACITOR	1500PF 20% 16V	
D001	1N5402M-20	DIODE	HIGH	
D002	1N5402M-20	DIODE	HIGH	
D003	1N5402M-20	DIODE	HIGH	
D004	1N5402M-20	DIODE	HIGH	
D011	30DF2FC	DIODE	LOW	
D012	30DF2FC	DIODE	LOW	
D013	30DF2FC	DIODE	LOW	
D014	30DF2FC	DIODE	LOW	
D015	30DF2FC	DIODE	CHANGE	
D016	30DF2FC	DIODE	CHANGE	
D017	1SR35-100	SI DIODE		
D018	1SR35-100	SI DIODE		
D019	MTZ50JC	ZENER DIODE		
D020	UZ6-2BSA	Z.DIODE IDM		
D021	MTZ5.1B	ZENER DIODE		
D022	1SS133-T2	DIODE		
D023	1SS133-T2	DIODE		
D024	1SS133-T2	DIODE		
D025	1SS133-T2	DIODE		
D027	1SR35-100	SI DIODE		
D030	MTZ11JA	Z.DIODE I.M		
D044	MTZ2.4JB	Z.DIODE I.M		
D060	MTZ5.1B	ZENER DIODE		
D061	MTZ11JC	Z.DIODE I.M		
D062	MTZ13JC	ZENER DIODE		
D065	MTZ8.2JC	ZENER DIODE		
D066	MTZ13JC	ZENER DIODE		
D067	MTZ13JC	ZENER DIODE		
D068	MTZ13JC	ZENER DIODE		
D069	MTZ13JC	ZENER DIODE		
D070	MTZ13JC	ZENER DIODE	SHORT TEST	
D703	1SS133-T2	DIODE		
D704	1SS133-T2	DIODE		
D719	1SS133-T2	DIODE		
D720	1SS133-T2	DIODE		
D728	1SS133-T2	DIODE		
D751	1SS133-T2	DIODE		
D752	1SS133-T2	DIODE		
D753	1SS133-T2	DIODE		
D754	1SS133-T2	DIODE		
D755	1SS133-T2	DIODE		
D756	1SS133-T2	DIODE		
D757	MTZ3.9JB	Z DIODE		
D758	MTZ3.9JB	Z DIODE		

BLOCK NO. 01111111

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R030	GRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
R031	GRD161J-681	C RESISTOR	680 5% 1/4W	
R040	GRD12CJ-471SX	C RESISTOR	470 5% 1/2W	
R041	GRD12CJ-471SX	C RESISTOR	470 5% 1/2W	
R042	GRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R045	GRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R048	GRD161J-473	C RESISTOR	47K 5% 1/4W	
R049	GRD161J-153	C RESISTOR	15K 5% 1/4W	
R062	GRD161J-331	C RESISTOR	330 5% 1/4W	
R063	GRD161J-331	C RESISTOR	330 5% 1/4W	
R064	GRD161J-122	C RESISTOR	1.2K 5% 1/4W	
R065	GRD161J-561	C RESISTOR	560 5% 1/4W	
R066	GRD161J-561	C RESISTOR	560 5% 1/4W	
R067	GRD161J-122	C RESISTOR	1.2K 5% 1/4W	
R068	GRD161J-331	C RESISTOR	330 5% 1/4W	
R071	GRD167J-4R7	C RESISTOR	4.7 5% 1/4W	
R072	GRD167J-4R7	C RESISTOR	4.7 5% 1/4W	
R074	GR29021-220	FUSI RESISTOR	22 1/0W	
R075	GRG022J-220AM	UNF.OMF.RES.	22 5% 1/2W	
R076	GRD161J-221	C RESISTOR	220 5% 1/4W	
R077	GRD161J-681	C RESISTOR	680 5% 1/4W	
R078	GRD161J-182	C RESISTOR	1.8K 5% 1/4W	
R081	GRD161J-272	C RESISTOR	2.7K 5% 1/4W	
R082	GRD167J-562	C RESISTOR	5.6K 5% 1/4W	
R084	GRD161J-272	C RESISTOR	2.7K 5% 1/4W	
R085	GRD167J-562	C RESISTOR	5.6K 5% 1/4W	
R086	GRD161J-103	C RESISTOR	10K 5% 1/4W	
R087	GRD161J-103	C RESISTOR	10K 5% 1/4W	
R090	GRD161J-102	C RESISTOR	FMB REQUEST	
R091	GRD161J-102	C RESISTOR	FMB REQUEST	
R092	GRD161J-102	C RESISTOR	FMB REQUEST	
R093	GRD161J-102	C RESISTOR	FMB REQUEST	
R094	GRD161J-103	C RESISTOR	10K 5% 1/4W	
R095	GRD161J-392	C RESISTOR	3.9K 5% 1/4W	
R096	GRD161J-105	C RESISTOR	1.0M 5% 1/4W	
R097	GRD161J-475	C RESISTOR	4.7M 5% 1/4W	
R701	GRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
R702	GRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
R703	GRD161J-563	C RESISTOR	56K 5% 1/4W	
R704	GRD161J-563	C RESISTOR	56K 5% 1/4W	
R705	GRD14CJ-182SX	UNF.C.RES. I.M	1.8K 5% 1/4W	
R706	GRD14CJ-182SX	UNF.C.RES. I.M	1.8K 5% 1/4W	
R707	GRD161J-563	C RESISTOR	56K 5% 1/4W	
R708	GRD161J-563	C RESISTOR	56K 5% 1/4W	
R709	GRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
R710	GRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
R711	GRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
R712	GRX014J-R22	UNF.MF.RES.I.M	5% 1/1W	
R713	GRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
R714	GRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
R715	GRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
R716	GRD14CJ-100SX	UNF.C.RES. I.M	10 5% 1/4W	
R717	GRD161J-122	C RESISTOR	1.2K 5% 1/4W	
R718	GRD161J-122	C RESISTOR	1.2K 5% 1/4W	
R719	GRD161J-223	C RESISTOR	22K 5% 1/4W	

BLOCK NO. 01111111

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
D759	1SS133-T2	DIODE		
D760	1SS133-T2	DIODE		
L001	VGZ0048-009	INDUCTOR	EE EXCEPT	
L701	EQL0011-R45J1	INDUCTOR		
L702	EQL0011-R45J1	INDUCTOR		
Q001	2SB1187(F-G)	TRANSISTOR		
Q003	DTC114YSA-T	D.TR.I.M		
Q004	DTC114YSA-T	D.TR.I.M		
Q005	DTC114YS	D.TR.I.M		
Q030	2SD2061/EF/	TR.		
Q040	2SC945A	TRANSISTOR		
Q060	2SD2061/EF/	TR.		
Q061	2SC945A	TRANSISTOR		
Q062	2SC945A	TRANSISTOR		
Q065	2SD2061/EF/	TR.		
Q066	2SD2061/EF/	TR.		
Q067	2SA933S(RS)	TR.I.M		
Q068	2SC945A	TRANSISTOR		
Q069	2SD2061/EF/	TR.		
Q070	2SC945A	TRANSISTOR		
Q071	2SB1187(F-G)	TRANSISTOR X*		
Q072	2SA933S(RS)	TR.I.M		
Q073	KRA104M-T	D.TR.I.M		
Q074	DTC144ESA-T	D.TR.I.M		
Q075	KRC104M-T	D.TR.I.M		
Q076	DTA144ES	D.TR.I.M		
Q095	2SK301(P-Q)	FET I.M		
Q701	2SA1038(R-S)	TR.I.M		
Q702	2SA1038(R-S)	TR.I.M		
Q726	2SC2389S/SE/-T	TR.I.M		
Q727	2SA1038(R-S)	TR.I.M		
Q728	2SC1740S(R-S)	TR.I.M		
Q733	2SD2144S(VW)	TRANSISTOR		
Q734	2SD2144S(VW)	TRANSISTOR		
Q735	2SD2144S(VW)	TRANSISTOR		
Q736	2SD2144S(VW)	TRANSISTOR		
Q737	KRA111M-T	D.TR.I.M		
Q751	2SC1685/QR/-T	TR.I.M		
Q752	2SA933S(RS)	TR.I.M		
Q753	2SC1685/QR/-T	TR.I.M		
Q754	2SA933S(RS)	TR.I.M		
Q755	2SA965(Y)	TR.I.M		
Q756	2SC2235(O-P-Y)	TR.I.M		
R002	GRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
R003	GRD167J-332	C RESISTOR	3.3K 5% 1/4W	
R004	GRD161J-223	C RESISTOR	22K 5% 1/4W	
R005	GRD161J-104	C RESISTOR	100K 5% 1/4W	
R006	GRD14CJ-2R2SX	C RESISTOR	2.2 5% 1/4W	
R007	GRZ0077-4R7X	F RESISTOR	4.7 1/0W	
R008	GRD161J-103	C RESISTOR	10K 5% 1/4W	
R009	GRD161J-103	C RESISTOR	10K 5% 1/4W	
R010	GRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R011	GRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R012	GRD161J-683	C RESISTOR	68K 5% 1/4W	
R013	GRD161J-103	C RESISTOR	10K 5% 1/4W	

BLOCK NO. 01

BLOCK NO. 01

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
CN009	SV40-05WS	CONNECTOR	TO TRANS	
CN012	EMV5163-011R	CONNECTOR	TO FMH-014-2	
CN013	EMV5163-011R	CONNECTOR	TO FMH-014-2	
CN019	EMS285-202V	SKT WIRE	TO TRANS	
CN111	EMV7145-004Z	SOCKET I.M		
CN703	EMV5163-007R	CONNECTOR	FOR H/PHONE FW	
CN915	EMV7145-004Z	SOCKET I.M		
CP 1	ICP-N15	ICP I.M		
EP001	EMZ4002-003Z	IM EARTH PLATE	TO GND CHASSIS	
FI011	EMG7331-003Z	FUSE CLIP I.M	F001 LIVE FUSE	
FT012	EMG7331-003Z	FUSE CLIP I.M	F001 LIVE FUSE	
FT511	EMG7331-003Z	FUSE CLIP I.M	F101 SEC FUSE	
FT512	EMG7331-003Z	FUSE CLIP I.M	F101 SEC FUSE	
FT521	EMG7331-003Z	FUSE CLIP I.M	F102 SEC FUSE	
FT522	EMG7331-003Z	FUSE CLIP I.M	F102 SEC FUSE	
FW101	EMR340-14LSV	EF WIRE		
IC701	TDA7294	I.C.		
IC702	TDA7294	I.C.		
R 100	QRD161J-104	C RESISTOR	100K 5% 1/4W	
TB001	EMZ4001-002Z	TAB I.M		
TB002	EMZ4001-002Z	TAB I.M		
TH002	QAD0095-4R7Z	POSISTOR I.M	EE EXCEPT	
TW799	EMPZ01-025	TER.WIRE-ASSY	EE EXCEPT	
W 019	QME880-13RR	WIRE		

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R720	QRD161J-223	C RESISTOR	22K 5% 1/4W	
R721	QRD161J-403	C RESISTOR	10K 5% 1/4W	
R722	QRD161J-403	C RESISTOR	10K 5% 1/4W	
R723	QRD161J-473	C RESISTOR	47K 5% 1/4W	
R724	QRD161J-473	C RESISTOR	47K 5% 1/4W	
R725	QRD161J-823	C RESISTOR	82K 5% 1/4W	
R726	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R727	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R728	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R729	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R730	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R731	GRE141J-183Y	C RESISTOR	18K 5% 1/4W	
R732	GRE141J-183Y	C RESISTOR	18K 5% 1/4W	
R733	QRD161J-473	C RESISTOR	47K 5% 1/4W	
R734	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R735	QRD161J-473	C RESISTOR	47K 5% 1/4W	
R736	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R739	QRG01DJ-821X	OMF RESISTOR	820 5% 1/1W	
R740	QRG01DJ-821X	OMF RESISTOR	820 5% 1/1W	
R751	QRD161J-223	C RESISTOR	22K 5% 1/4W	
R752	QRD161J-223	C RESISTOR	22K 5% 1/4W	
R753	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R754	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R755	QRD161J-221	C RESISTOR	220 5% 1/4W	
R756	QRD161J-221	C RESISTOR	220 5% 1/4W	
R757	QRD161J-223	C RESISTOR	22K 5% 1/4W	
R758	QRD161J-223	C RESISTOR	22K 5% 1/4W	
R759	QRD167J-682	C RESISTOR	6.8K 5% 1/4W	
R760	QRD167J-682	C RESISTOR	6.8K 5% 1/4W	
R761	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R762	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R763	QRD161J-223	C RESISTOR	22K 5% 1/4W	
R764	QRD161J-223	C RESISTOR	22K 5% 1/4W	
R765	QRG01DJ-182X	OMF RESISTOR	1.8K 5% 1/1W	
R766	QRG01DJ-182X	OMF RESISTOR	1.8K 5% 1/1W	
R767	QRD14CJ-681SX	UNF C RES I M	680 5% 1/4W	
R768	QRD14CJ-681SX	UNF C RES I M	680 5% 1/4W	
R769	QRD14CJ-821SX	C RESISTOR	820 5% 1/4W	
R770	QRD14CJ-821SX	C RESISTOR	820 5% 1/4W	
R771	QRD161J-821	C RESISTOR	820 5% 1/4W	
R772	QRD161J-821	C RESISTOR	820 5% 1/4W	
R773	QRD14CJ-101SX	UF RESISTOR	100 5% 1/4W	
R774	QRD14CJ-101SX	UF RESISTOR	100 5% 1/4W	
R775	QRD161J-471	C RESISTOR	470 5% 1/4W	
R776	QRD161J-471	C RESISTOR	470 5% 1/4W	
R777	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
R778	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
R779	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R780	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
C 799	QFLC1HJ-103ZM	M CAPACITOR	EE EXCEPT	
CN002	EMV7163-011	CONNECTOR	TO FMH-014-3 RE	
CN003	EMV7163-011	CONNECTOR	TO FMH-014-4 FR	
CN005	EMV7163-011	CONNECTOR	TO SPK BOARD	
CN006	EMV5163-010R	CONNECTOR	TO FMC (MAIN)	
CN007	QGF1201C3-12	VMC0332-012	TO FMB (MICOM)	

# Main Amplifier & Tuner Board

BLOCK NO. 02

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C360	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C365	QET41CM-227	E CAPACITOR	220PF 20% 16V	
C366	QET41AM-108	E CAPACITOR	1000MF 20% 10V	
C372	EETB1HM-475E	E.CAPA. I.M	.010MF 30% 16V	
C373	QCVB1CN-103Y	C CAPACITOR	.10MF 5% 50V	
C380	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C381	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C382	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C383	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C383	EETC1EM-476ZE	E CAPACITOR	.10MF 5% 50V	
C385	EETB1HM-105E	E.CAPA. I.M	680PF 10% 50V	
C386	QCB81HK-681Y	C CAPACITOR	.015MF 5% 50V	
C387	QFLC1HJ-153ZM	M CAPACITOR	1800PF 20% 16V	
C388	QCB81CM-182Y	C CAPACITOR	33PF 5% 50V	
C389	QCS11HJ-330	C CAPACITOR	.10MF 5% 50V	
C390	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C401	QFLM1HJ-222Z	M CAPACITOR	2200PF 5% 50V	
C402	QFLM1HJ-472Z	M CAPACITOR	4700PF 5% 50V	
C403	QFLM1HJ-102Z	M CAPACITOR	1000PF 5% 50V	
C404	QFLM1HJ-102Z	M CAPACITOR	1000PF 5% 50V	
C407	EETB1EM-106E	E.CAPA. I.M		B,E,EN
C408	QTE1V06-106Z	E.CAPA. I.M		B,E,EN
C411	EETB1EM-106E	E.CAPA. I.M		
C412	EETB1EM-106E	E.CAPA. I.M		
C413	QCB81HK-471Y	C CAPACITOR	470PF 10% 50V	
C414	QCB81HK-471Y	C CAPACITOR	470PF 10% 50V	
C415	EETB1EM-106E	E.CAPA. I.M		
C416	EETB1EM-106E	E.CAPA. I.M		
C417	EETB1EM-106E	E.CAPA. I.M		
C418	QETC1HM-225ZM	E.CAPA. I.M	2.2MF 20% 50V	
C419	EETB1EM-106E	E.CAPA. I.M		
C420	QET41AM-227	E CAPACITOR	220MF 20% 10V	
C421	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C422	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C423	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C424	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C425	QFLC1HJ-183ZM	M CAPACITOR	.018MF 5% 50V	
C426	QFLC1HJ-183ZM	M CAPACITOR	.018MF 5% 50V	
C427	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C428	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
C429	QFLM1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
C430	QFLM1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
C431	QETC1HM-225ZM	E.CAPA. I.M	2.2MF 20% 50V	
C432	QETC1HM-225ZM	E.CAPA. I.M	2.2MF 20% 50V	
C433	EETB1HM-105E	E.CAPA. I.M		
C434	EETB1HM-105E	E.CAPA. I.M		
C435	EETB1EM-106E	E.CAPA. I.M		
C436	EETB1EM-106E	E.CAPA. I.M		
C445	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V	
C446	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V	
C447	EETB1EM-106E	E.CAPA. I.M		
C448	EETB1EM-106E	E.CAPA. I.M		
C453	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V	B,E,EN
C454	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V	B,E,EN
C455	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V	B,E,EN

BLOCK NO. 02

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C457	EETB1EM-106E	E.CAPA. I.M		
C458	EETB1EM-106E	E.CAPA. I.M		
C459	QFLM1HJ-333Z	M CAPACITOR	.033MF 5% 50V	
C460	EETB1HM-475E	E.CAPA. I.M	.47MF 20% 50V	
C461	QETB1HM-474N	E.CAPA. I.M	.039MF 5% 50V	
C462	QFLC1HJ-393ZM	M CAPACITOR	.047MF 5% 50V	
C463	EETB1HM-475E	E.CAPA. I.M	47MF 20% 25V	B,E,EN
C465	QFLC1HJ-393ZM	M CAPACITOR	100PF 10% 50V	B,E,EN
C466	QFLC1HJ-473ZM	M CAPACITOR	100PF 10% 50V	
C467	EETB1HM-105E	E.CAPA. I.M	100PF 10% 50V	
C468	QETC1EM-476ZM	E.CAPA. I.M	47MF 20% 25V	
C469	QCB81HK-101Y	C CAPACITOR	47MF 20% 25V	
C470	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V	
C471	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V	
C472	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V	
C473	QETC1EM-476ZM	E.CAPA. I.M	47MF 20% 25V	
C474	QETC1EM-476ZM	E.CAPA. I.M	47MF 20% 25V	
C475	EETB1EM-106E	E.CAPA. I.M		
C476	QTE1V06-106Z	E.CAPA. I.M		
C477	EETB1HM-475E	E.CAPA. I.M		
C483	QCB81CM-222Y	C CAPACITOR	2200PF 20% 16V	
C484	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V	B,E,EN
C489	QET41CM-476	E CAPACITOR	47MF 20% 16V	
C490	QET41CM-476	E CAPACITOR	47MF 20% 16V	
C493	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C494	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C495	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C496	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C581	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
C582	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
C583	QFV71HJ-103	TF CAPACITOR	.010MF 5% 50V	B,E,EN
C584	QCF11HP-103	C CAPACITOR	.010MF +80% -20%	B,E,EN
C589	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
D301	1SR35-100	SI DIODE		
D302	MT23.9JB	Z DIODE		
D303	1SS133-T2	DIODE		
D304	1SR35-100	SI DIODE		
D305	1SS133-T2	DIODE		
D306	1SS133-T2	DIODE		
D307	1SS133-T2	DIODE		
D403	1SR35-100	SI DIODE		
D481	1SS133-T2	DIODE		
D482	1SS133-T2	DIODE		
J401	EMN00TV-222AJ2	PIN JACK		
L401	QQL29BJ-100Z	INDUCTOR		
L402	VQZ0048-009	INDUCTOR		B,E,EN
L403	VQZ0048-009	INDUCTOR		B,E,EN
L404	VQZ0048-009	INDUCTOR		B,E,EN
L405	VQZ0048-009	INDUCTOR		B,E,EN
Q301	2SD2144S(VW)	TRANSISTOR		
Q302	2SD2144S(VW)	TRANSISTOR		
Q304	2SA1175	TRANSISTOR		
Q305	2SG2785	TRANSISTOR		
Q306	2SG2785	TRANSISTOR		
Q307	2SC2785	TRANSISTOR		

BLOCK NO. 02111111

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R455	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R456	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R457	QRD161J-562	C RESISTOR	7.5K 5% 1/4W	
R458	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
R459	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R460	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R461	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R462	QRD161J-221	C RESISTOR	220 5% 1/4W	
R463	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R464	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R465	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R469	QRD161J-221	C RESISTOR	220 5% 1/4W	
R470	QRD161J-221	C RESISTOR	220 5% 1/4W	
R471	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R472	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R473	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R493	QRD167J-113	C RESISTOR	11K 5% 1/4W	
R494	QRD161J-203	C RESISTOR	20K 5% 1/4W	
R497	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R498	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R546	QRD161J-473	C RESISTOR	47K 5% 1/4W	
R547	QRD161J-473	C RESISTOR	47K 5% 1/4W	
R548	QRD161J-563	C RESISTOR	56K 5% 1/4W	
R549	QRD161J-563	C RESISTOR	56K 5% 1/4W	
R555	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R556	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R573	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R574	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R578	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R579	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R580	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R581	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R582	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R583	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R584	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R585	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R586	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R587	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R588	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R589	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R590	QRD161J-223	C RESISTOR	22K 5% 1/4W	
R591	QRD161J-223	C RESISTOR	22K 5% 1/4W	B/E/EN
R593	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R594	QRD161J-101	C RESISTOR	100 5% 1/4W	
R595	QRD161J-181	C RESISTOR	180 5% 1/4W	
R597	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R599	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
C 1	QC11EM-233V	C CAPACITOR	.022MF 20% 25V	
C 3	QC11EM-473V	C CAPACITOR	.047MF 20% 25V	
C 4	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
C 5	QET1CM-476	E CAPACITOR	47MF 20% 16V	
C 8	QCS11HJ-150	C CAPACITOR	15PF 5% 50V	B/E/EN
C 12	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	B/E/EN
C 13	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	B/E/EN
C 18	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	B/E/EN

BLOCK NO. 02111111

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
G308	DTC144TSA-T	D. TR. I. M		
G401	2SD2144S(VW)	TRANSISTOR		
G402	2SD2144S(VW)	TRANSISTOR		
G403	KRA102M-T	D. TR. I. M	SA BASS LED	
G404	DTC144TSA-T	D. TR. I. M		
R360	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R361	QRZ0077-470	F RES I M	47 1/0W	
R362	QRD161J-221	C RESISTOR	220 5% 1/4W	
R370	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R371	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R372	QRD161J-103	C RESISTOR	10K 5% 1/4W	B/E/EN
R373	QRD161J-390	C RESISTOR	39 5% 1/4W	
R375	QRD161J-331	C RESISTOR	330 5% 1/4W	
R377	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R378	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R383	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R384	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R386	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R387	QRD161J-473	C RESISTOR	47K 5% 1/4W	
R388	QRD161J-220	C RESISTOR	22 5% 1/4W	
R389	QRD161J-225	C RESISTOR	2.2M 5% 1/4W	
R401	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R402	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R403	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R404	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R405	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R406	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
R407	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
R408	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
R413	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R414	QRD161J-123	C RESISTOR	12K 5% 1/4W	
R415	QRD161J-823	C RESISTOR	82K 5% 1/4W	
R416	QRD161J-823	C RESISTOR	82K 5% 1/4W	
R417	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
R418	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
R419	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
R420	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
R421	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R422	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R433	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
R434	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
R435	QRD161J-822	C RESISTOR	8.2K 5% 1/4W	
R436	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R437	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R438	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R439	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R440	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R441	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R442	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R445	QRD161J-303Y	C RESISTOR	30K 5% 1/4W	
R446	QRD161J-303Y	C RESISTOR	30K 5% 1/4W	
R447	QRD161J-153	C RESISTOR	15K 5% 1/4W	
R450	QRD161J-224	C RESISTOR	220K 5% 1/4W	
R453	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R454	QRD161J-104	C RESISTOR	100K 5% 1/4W	

BLOCK NO. 02111111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	CN412	VMC0332-010V	CONNECTOR	MAIN-SLC	
	CN413	VMC0332-016V	FFC/FPC CONNE	FMB-MAIN	
	CN415	EMV7145-004Z	SOCKET I.M	MAIN-C.BRD	
	CN416	QGB2510J1-10	CONNECTOR	FMH-FMC**	
	CN420	EMV7163-009	CONNECTOR		EE
	D 1	1SS133-T2	DIODE		
	D 2	1SS133-T2	DIODE		
	D 3	1SS133-T2	DIODE		
	D 4	1SS133-T2	DIODE		
	EP001	E409182-001SM	GRAND TERMINAL		
	IC 1	TA2057N	IC		
	IC 2	LC72136N	IC		
	IC 4	BU1923	IC(RDS)		
	IC401	TDA7439	IC	MAIN VOL	
	IC402	BA15218	IC		
	IC403	BA15218	IC	KARAOKE	
	IC405	BA15218	IC		
	IC406	LA2650	IC		
	IC407	BA15218	IC		
	IC542	BA3835S	IC		
	J 1	EMB41YV-302K	ANT TERMINAL		
	L 1	VQZ0098-202	COIL BLOCK		
	L 4	VQP0018-221	INDUCTOR		
	L 5	EQL4007-101	INDUCTOR I.M		B,E,EN
	L 10	VQZ0069-002S	TRAP COIL		
	L 11	VQP0018-2R7	INDUCTOR		
	L 12	VQP0018-530	INDUCTOR		B,E,EN
	PP001	QZM0007-001	POST PIN		
	Q 1	2SC1923	TR. TAPE		
	Q 2	DTA114YS	D.TR.I.M		
	Q 3	2SC2785	TRANSISTOR		
	Q 4	2SC2785	TRANSISTOR		
	Q 6	DTA114YS	D.TR.I.M		
	Q 14	2SA1175	TRANSISTOR		
	Q 16	2SC2785	TRANSISTOR		B,E,EN
	R 1	GRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 2	GRD167J-121	C RESISTOR	120 5% 1/4W	
	R 3	GRD161J-560	C RESISTOR	56 5% 1/4W	
	R 10	GRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 12	GRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 13	GRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 15	GRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 16	GRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 20	GRD161J-331	C RESISTOR	330 5% 1/4W	
	R 21	GRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 22	GRD161J-331	C RESISTOR	330 5% 1/4W	
	R 24	GRD161J-271	C RESISTOR	270 5% 1/4W	
	R 25	GRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 26	GRD161J-273	C RESISTOR	27K 5% 1/4W	
	R 27	GRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 29	GRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 30	GRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 31	GRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 32	GRD161J-273	C RESISTOR	27K 5% 1/4W	
	R 34	GRD161J-222	C RESISTOR	2.2K 5% 1/4W	EE

BLOCK NO. 02111111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 19	QCB81HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 21	QCC11EM-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	QCB81HK-102	C CAPACITOR	1000PF 10% 50V	
	C 33	QEK61AM-107ZM	E CAPACITOR	100MF 20% 10V	
	C 34	QCS11HJ-150	C CAPACITOR	15PF 5% 50V	
	C 35	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 36	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 37	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 38	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 39	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 40	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 41	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 42	QEK41HM-474	E CAPACITOR	.47MF 20% 50V	
	C 43	QEK61HM-335ZN	E CAPACITOR	3.3MF 20% 50V	B,E,EN
	C 44	QCB81HK-221Y	C CAPACITOR	220PF 10% 50V	B,E,EN
	C 45	QEK61HM-335ZN	E CAPACITOR	3.3MF 20% 50V	
	C 46	QCC11EM-223V	C CAPACITOR	.022MF 20% 25V	
	C 47	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 49	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
	C 50	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	C 51	QEK41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 52	QEK41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 53	QCB81HK-102	C CAPACITOR	1000PF 10% 50V	B,E,EN
	C 54	QEK61HM-335ZN	E CAPACITOR	3.3MF 20% 50V	B,E,EN
	C 55	QCS11HJ-120	C CAPACITOR	12PF 5% 50V	
	C 60	QEK61AM-107ZM	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	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 65	QCB81HK-102	C CAPACITOR	1000PF 10% 50V	
	C 66	QCB81HK-151Y	C CAPACITOR	150PF 10% 50V	
	C 67	QCB81HK-151Y	C CAPACITOR	150PF 10% 50V	
	C 68	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V	B,E,EN
	C 69	QFV41HJ-105	TF.CAPA. I.M XX	1.0MF 5% 50V	
	C 70	QCB81CM-392Y	C CAPACITOR	3900PF 20% 16V	
	C 71	QET41CM-476	E CAPACITOR	47MF 20% 16V	
	C 72	QCB81HK-102	C CAPACITOR	1000PF 10% 50V	
	C 80	QCB81HK-820Y	C CAPACITOR	82PF 10% 50V	
	C 81	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 82	EETC1CM-106ZJC	E.CAPACITOR	.047MF 20% 25V	
	C 83	QCC11EM-473V	C CAPACITOR	2.2MF 20% 50V	
	C 84	QETC1HM-225ZM	E.CAPA. I.M	330PF 10% 50V	
	C 85	QCB81HK-331Y	C CAPACITOR	560PF 10% 50V	
	C 86	QCB81HK-561Y	C CAPACITOR	560PF 10% 50V	
	C 89	QCB81HK-102	C CAPACITOR	1000PF 10% 50V	
	C 90	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 98	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	B,E,EN
	CF 1	VCF2M3B-104	C FILTER		
	CF 2	VCF2S3B-102	C FILTER		
	CF 3	VCF1Z2Z-115Z	C FILTER		
	CF 4	CMU2-456A05	CERA LOCK		
	CN410	EMV7171-119	CONNECTOR	MAIN-VCS	
	CN411	QGF1201C3-20	FFC/FPC CONNE	FMB-MAIN	

System C. P. U & Operation Switch Board

BLOCK NO. 02

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 35	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R 36	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R 37	QRD161J-562	C RESISTOR	5.6K 5% 1/4W	
R 38	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
R 39	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
R 42	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 43	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 44	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 45	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 46	QRD161J-104	C RESISTOR	100K 5% 1/4W	
R 47	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R 48	QRD161J-531	C RESISTOR	330 5% 1/4W	
R 49	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 52	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R 54	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
R 55	QRD161J-182	C RESISTOR	1.8K 5% 1/4W	
R 56	QRD161J-332	C RESISTOR	3.3K 5% 1/4W	
R 57	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 60	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 61	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 64	QRD161J-473	C RESISTOR	47K 5% 1/4W	
R 65	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R 66	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R 69	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R 70	QRD161J-393	C RESISTOR	39K 5% 1/4W	
R 71	QRD161J-823	C RESISTOR	82K 5% 1/4W	
R 72	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
R 73	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R 74	QRD161J-332	C RESISTOR	3.3K 5% 1/4W	
R 75	QRD161J-822	C RESISTOR	8.2K 5% 1/4W	
R 76	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 80	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
R 82	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 83	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
R 84	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R 91	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R 100	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R 101	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R 102	QRD161J-103	C RESISTOR	10K 5% 1/4W	
R 103	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
SP 56	VYS1R4-056	SPACER	5.1K 5% 1/4W	
T 1	VQT7A21-113	IFT		
TH401	PTH8L07B2R2N1	POSITION I.M		
TU 1	GAU0034-001	FRONT END		
X 1	GAX0402-001	CRYSTAL		
X 2	VCS5057-001	CRYSTAL		

BLOCK NO. 03

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
J81	QNB0088-001	SPK TERMINAL		B,E,EN
C 100	EETB1HM-105E	E.CAPA. I.M		EE
C 101	EETC1HM-335ZE	E.CAPACITOR		EE
C 103	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	EE
C 104	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	EE
C 105	QCB1HK-271Y	C CAPACITOR	270PF 10% 50V	EE
C 106	QCB1HK-271Y	C CAPACITOR	270PF 10% 50V	EE
C 107	EETB1HM-475E	E.CAPA. I.M		EE
C 108	EETB1HM-475E	E.CAPA. I.M		EE
C 109	QCB1CM-222Y	C CAPACITOR	2200PF 20% 16V	EE
C 110	QCB1CM-222Y	C CAPACITOR	2200PF 20% 16V	EE
C 111	QET41AM-226	M CAPACITOR	22NF 20% 10V	EE
C 112	QFLM1HJ-822Z	M CAPACITOR	8200PF 5% 50V	EE
C 113	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	EE
C 114	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	EE
C 115	EETB1HM-105E	E.CAPA. I.M		EE
C 116	QETC1HM-225ZM	E.CAPA. I.M	2.2MF 20% 50V	EE
C 117	QETC1HM-225ZM	E.CAPA. I.M	2.2MF 20% 50V	EE
C 801	QCB1HK-102	C CAPACITOR	1000PF 10% 50V	EE
C 802	QCB1HK-102	C CAPACITOR	1000PF 10% 50V	
C 803	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
C 804	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
C 805	QCS31HJ-390Z	C CAPACITOR	39PF 5% 50V	
C 806	QCS31HJ-390Z	C CAPACITOR	39PF 5% 50V	
C 807	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
C 808	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
C 809	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
C 810	QEK41AM-227N	E.CAPA. I.M	220MF 20% 10V	
C 811	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
C 812	QCB1HK-102	C CAPACITOR	1000PF 10% 50V	
C 814	QCB1HK-221Y	C CAPACITOR	220PF 10% 50V	
C 815	QCB1HK-221Y	C CAPACITOR	220PF 10% 50V	
C 816	QF71HJ-124ZM	TF CAPACITOR	.12MF 5% 50V	
C 821	QET41HM-226	E CAPACITOR	22MF 20% 50V	
C 822	QET1HM-226Z	E CAPACITOR	22MF 20% 10V	
C 840	QFLB1HJ-222	M CAPACITOR	2200PF 5% 50V	
C 841	QCB1HK-102	C CAPACITOR	1000PF 10% 50V	
C 842	QCB1HK-102	C CAPACITOR	1000PF 10% 50V	
C 843	QCB1HK-102	C CAPACITOR	1000PF 10% 50V	B,E,EN
C 844	QCB1HK-102	C CAPACITOR	1000PF 10% 50V	EE
C 845	QCB1HK-102	C CAPACITOR	1000PF 10% 50V	EE
C 900	QCB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
C 901	QCB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
C 902	QCB1HK-102	C CAPACITOR	1000PF 10% 50V	
C 903	QER50JM-476	E.CAPA. I.M	47MF 20% 6.3V	
CN015	EMV5163-011R	CONNECTOR		EE
CN421	EMV5163-009R	CONNECTOR		
CN705	EMV7163-007	CONNECTOR		
CN801	QGF1201F3-20	FFC/FPC CONNE		
CN802	VMC0163-R16	CONNECTOR		
CN803	EMV7160-011	CONNECTOR		
CN804	EMV7123-012R	CONNECTOR		
C1051	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	B,E,EN
C1052	QFLC1HJ-683ZM	M CAPACITOR	.068MF 5% 50V	B,E,EN



BLOCK NO. 03

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
Q 805	DTC114ESA-T	D.TR.I.M		
Q 806	DTC114ESA-T	D.TR.I.M		
Q 807	DTC114ESA-T	D.TR.I.M		
Q 808	DTC114ESA-T	D.TR.I.M		
Q 809	2SC2785	TRANSISTOR		
Q 910	DTC114ESA-T	D.TR.I.M		
Q 912	DTC114ESA-T	D.TR.I.M		
Q 914	DTC114ESA-T	D.TR.I.M		
Q 916	DTC114ESA-T	D.TR.I.M		
R 100	QRD161J-822	C RESISTOR	8.2K 5% 1/4W	EE
R 101	QRD161J-563	C RESISTOR	56K 5% 1/4W	EE
R 102	QRD161J-103	C RESISTOR	10K 5% 1/4W	EE
R 103	QRD161J-563	C RESISTOR	56K 5% 1/4W	EE
R 104	QRD161J-682	C RESISTOR	6.8K 5% 1/4W	EE
R 105	QRD161J-184	C RESISTOR	180K 5% 1/4W	EE
R 106	QRD161J-224	C RESISTOR	220K 5% 1/4W	EE
R 107	QRD161J-513	C RESISTOR	51K 5% 1/4W	EE
R 109	QRD161J-224	C RESISTOR	220K 5% 1/4W	EE
R 110	QRD161J-224	C RESISTOR	220K 5% 1/4W	EE
R 111	QRD161J-223	C RESISTOR	22K 5% 1/4W	EE
R 112	QRD161J-123	C RESISTOR	12K 5% 1/4W	EE
R 113	QRD161J-103	C RESISTOR	10K 5% 1/4W	EE
R 114	QRD161J-103	C RESISTOR	10K 5% 1/4W	EE
R 115	QRD161J-103	C RESISTOR	10K 5% 1/4W	EE
R 116	QRD161J-333	C RESISTOR	33K 5% 1/4W	EE
R 117	QRD161J-473	C RESISTOR	47K 5% 1/4W	EE
R 118	QRD161J-473	C RESISTOR	47K 5% 1/4W	EE
R 801	QRD161J-103	C RESISTOR	10K 5% 1/4W	EE
R 802	QRD161J-103	C RESISTOR	10K 5% 1/4W	EE
R 803	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	EE
R 804	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	EE
R 805	QRD161J-105	C RESISTOR	1.0M 5% 1/4W	EE
R 806	QRD161J-224	C RESISTOR	220K 5% 1/4W	EE
R 815	QRD161J-331	C RESISTOR	330 5% 1/4W	EE
R 816	QRD161J-121	C RESISTOR	120 5% 1/4W	EE
R 817	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 818	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 819	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 820	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 821	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	EE
R 822	QRD161J-103	C RESISTOR	10K 5% 1/4W	EE
R 823	QRD161J-103	C RESISTOR	10K 5% 1/4W	EE
R 824	QRD161J-103	C RESISTOR	10K 5% 1/4W	EE
R 825	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 826	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 827	QRD161J-563	C RESISTOR	56K 5% 1/4W	EE
R 828	QRD161J-154	C RESISTOR	150K 5% 1/4W	EE
R 847	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 848	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 856	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 857	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 860	QRD161J-104	C RESISTOR	100K 5% 1/4W	EE
R 861	QRD161J-104	C RESISTOR	100K 5% 1/4W	EE
R 862	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	EE
R 863	QRD161J-104	C RESISTOR	100K 5% 1/4W	EE

BLOCK NO. 03

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C1053	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
C1054	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
C1055	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
C1056	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
D 100	MA700	ZENER DIODE		EE
D 101	MA700	ZENER DIODE		EE
D 110	1SS133	SI DIODE		EE
D 111	1SS133	SI DIODE		EE
D 801	1SS133-T2	DIODE		EE
D 802	1SS119-02	SI DIODE		
D 803	1SS119-02	SI DIODE		
D 804	1SS119-02	SI DIODE		
D 805	1SS133-T2	DIODE		
D 806	SLR-342VC-T	LED I.M		
D 820	1SS133-T2	DIODE		
D 910	SLR-342MCA47	LED I.M		
D 911	SLR-342MCA47	LED I.M		
D 912	SLR-342MCA47	LED I.M		
D 913	SLR-342MCA47	LED I.M		
D 914	SLR-342MCA47	LED I.M		
D 915	SLR-342MCA47	LED I.M		
D 916	SLR-342MCA47	LED I.M		
D 917	SLR-342MCA47	LED I.M		
D 918	SLR-342VC-T	LED I.M		
D 919	1SS133-T2	DIODE		
D1041	1SS133-T2	DIODE		
FL801	QLF0040-001	FL TUBE		
FW801	VWSC06-093K3K	EF FLAT WIRE		
FW802	VWSC06-093K3K	EF FLAT WIRE		
FW803	EW34D-10LS	FLAT WIRE		
FW851	EW34D-25LS	FLAT WIRE		
IC 6	BU4066BC	IC		EE
IC 7	BA15218	IC		EE
IC801	UPD780206GF-039	IC		
IC802	NJU3718L	IC		
IC900	6P1U261X	IR DETECT UNIT		
J 850	GNS0032-001	JACK	HEAD PHONE	
JS900	QSW0538-001	ROTARY ENCODER		
L 100	QQR0522-001	COIL		EE
L 801	QQL298J-100Z	INDUCTOR		
L 802	VQP0026-470Z	INDUCTOR		
L 803	VQP0018-220	INDUCTOR		
L 804	VQP0026-470Z	INDUCTOR		
L 805	VQP0026-470Z	INDUCTOR		
L 807	VQZ0048-009	INDUCTOR		
L 840	VQZ0048-009	INDUCTOR	HP GND	B/E/EN
L 841	VQP0018-470	INDUCTOR	EMC	B/E/EN
L 842	VQP0018-470	INDUCTOR	EMC	B/E/EN
Q 100	2SC2785	TRANSISTOR		EE
Q 101	DTC114ESA-T	D.TR.I.M		EE
Q 102	2SC2785	TRANSISTOR		EE
Q 801	2SC2668(O)	TRANSISTOR		
Q 802	2SC2668(O)	TRANSISTOR		
Q 803	DTA114ES	D.TR.I.M		
Q 804	DTC114ESA-T	D.TR.I.M		

BLOCK NO. 03

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 977	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 978	QRD161J-102	C RESISTOR	10K 5% 1/4W	
	R 979	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 980	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 981	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 982	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 983	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 984	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 985	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 990	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 991	QRD161J-823	C RESISTOR	82K 5% 1/4W	
	R 992	QRD161J-683	C RESISTOR	68K 5% 1/4W	
	R 993	QR141J-183Y	C RESISTOR	18K 5% 1/4W	
	RA801	QR169J-104	R-NETWORK	100K 5% 1/6W	
	RA802	QR169J-104	R-NETWORK	100K 5% 1/6W	
	RY 1	ESK7D24-212J4	RELAY		
	A R1051	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
	A R1052	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
	S 951	QSW0674-001Z	TACT SW		
	S 952	QSW0674-001Z	TACT SW		
	S 953	QSW0674-001Z	TACT SW		
	S 954	QSW0674-001Z	TACT SW		
	S 955	QSW0674-001Z	TACT SW		
	S 956	QSW0674-001Z	TACT SW		
	S 957	QSW0674-001Z	TACT SW		
	S 958	QSW0674-001Z	TACT SW		
	S 959	QSW0674-001Z	TACT SW		
	S 960	QSW0674-001Z	TACT SW		
	S 961	QSW0674-001Z	TACT SW		
	S 962	QSW0674-001Z	TACT SW		
	S 963	QSW0674-001Z	TACT SW		
	S 964	QSW0674-001Z	TACT SW		
	S 965	QSW0674-001Z	TACT SW		
	S 966	QSW0674-001Z	TACT SW		
	S 967	QSW0674-001Z	TACT SW		
	S 968	QSW0674-001Z	TACT SW		
	S 969	QSW0674-001Z	TACT SW		
	S 970	QSW0674-001Z	TACT SW		
	S 971	QSW0674-001Z	TACT SW		
	S 972	QSW0674-001Z	TACT SW		
	S 973	QSW0674-001Z	TACT SW		
	S 974	QSW0674-001Z	TACT SW		
	S 975	QSW0674-001Z	TACT SW		
	S 976	QSW0674-001Z	TACT SW		
	S 977	QSW0674-001Z	TACT SW		
	S 978	QSW0674-001Z	TACT SW		
	S 979	QSW0674-001Z	TACT SW		
	S 980	QSW0674-001Z	TACT SW		
	S 981	QSW0674-001Z	TACT SW		
	S 982	QSW0674-001Z	TACT SW		
	S 983	QSW0674-001Z	TACT SW		
	S 984	QSW0674-001Z	TACT SW		
	S 985	QSW0674-001Z	TACT SW		
	SP801	VYH7653-001	IC HOLDER		
	VR100	QVPA601-103A	V.RES. I.M		EE
	X 801	QAX0410-001Z	CERA LOCK		
	X 802	QAX0401-001	CRYSTAL		

BLOCK NO. 03

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 864	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 865	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 866	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 867	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 868	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 872	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 874	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 875	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 877	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 878	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 879	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 880	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 881	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 882	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 883	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 884	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 885	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 886	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 887	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 900	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 901	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 910	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 911	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 912	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 913	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 914	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 915	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 916	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 917	QRD161J-201	C.RES. I.M	200 5% 1/4W	
	R 951	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 952	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 953	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 954	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 955	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 956	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 957	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 958	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 959	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 960	QR141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 961	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 962	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 963	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 964	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 965	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 966	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 967	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 968	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 969	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 970	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 971	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 972	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 973	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 974	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 975	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 976	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	

# CD Servo & Mechanism Control Board

BLOCK NO. 04

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 251	NCS21HJ-100AY	C CAPACITOR	X1	
	C 252	NCS21HJ-100AY	C CAPACITOR	X2	
	C 253	NCB21HK-104	C CAPACITOR	VDD-VSS	
	C 254	GERF1AM-476Z	E CAPACITOR	VDD-VSS	
	C 281	NCB21HK-223AY	C CAPACITOR	/RST CD LSI	
	C 291	GERF1AM-476Z	E CAPACITOR	+5V-D.GND	
	C 601	NCB21HK-102AY	C CAPACITOR	PU E	
	C 602	NCB21HK-102AY	C CAPACITOR	PU F	
	C 603	NCB21HK-223AY	C CAPACITOR	TBAL	
	C 604	NCB21HK-223AY	C CAPACITOR	FBAL	
	C 605	NCS21HJ-271AY	C CAPACITOR	FE	
	C 606	NCS21HJ-470AY	C CAPACITOR	TE	
	C 607	NCB21HK-223AY	C CAPACITOR	TEBPF	
	C 608	NCB21HK-223AY	C CAPACITOR	TEBPF	
	C 609	NCB21HK-102AY	C CAPACITOR	TE	
	C 610	NCB21HK-104	C CAPACITOR	ENV	
	C 611	NCB21HK-104	C CAPACITOR	RF	
	C 612	GER41HM-105	E CAPACITOR	CAGC	
	C 613	NCS21HJ-101AY	C CAPACITOR	CENV	
	C 614	NCB21HK-273AY	C CAPACITOR	CEA	
	C 615	NCB21HK-472AY	C CAPACITOR	CSBDO	
	C 616	NCB21HK-103AY	C CAPACITOR	CSBRT	
	C 617	NCS21HJ-531AY	C CAPACITOR	OFT	
	C 621	NCB21HK-104	C CAPACITOR	VREF-D.GND	
	C 623	NCF21CZ-105AY	C CAPACITOR	VCC-D.GND	
	C 624	GER41AM-107	E CAPACITOR	VCC-D.GND	
	C 631	GER41CM-106	E CAPACITOR	APC +5V-BASE	
	C 632	NCF21CZ-105AY	C CAPACITOR	APC +5V-D.GND	
	C 633	NCB21HK-223AY	C CAPACITOR	PU K-VREF	
	C 651	NCS21HJ-120AY	C CAPACITOR	X1	
	C 652	NCS21HJ-150AY	C CAPACITOR	X2	
	C 653	NCB21HK-104	C CAPACITOR	VDD-VSS	
	C 654	NCB21HK-223AY	C CAPACITOR	AVDD1-AVSS1	
	C 655	GER41AM-237N	E CAPACITOR	AVDD1-AVSS1	
	C 656	NCB21HK-104	C CAPACITOR	D.GND-A.GND	
	C 657	NCB21HK-222AY	C CAPACITOR	OUTL	
	C 658	NCB21HK-222AY	C CAPACITOR	OUTR	
	C 661	NCB21HK-104	C CAPACITOR	AVDD2-AVSS2	
	C 662	GER41AM-107	E CAPACITOR	AVDD2-AVSS2	
	C 663	NCB21HK-104	C CAPACITOR	PLLF	
	C 664	NCB21HK-223AY	C CAPACITOR	IREF	
	C 665	NCB21HK-223AY	C CAPACITOR	DSLIF	
	C 666	NCS21HJ-471AY	C CAPACITOR	ARF	
	C 667	NCF21CZ-105AY	C CAPACITOR	VCOF	
	C 668	NCB21HK-473AY	C CAPACITOR	VCOF	
	C 671	NCB21HK-104	C CAPACITOR	DVDD1-DVSS1	
	C 672	GER41AM-107	E CAPACITOR	DVDD1-DVSS1	
	C 801	NCB21HK-103AY	C CAPACITOR	FDD	
	C 802	NCB21HK-103AY	C CAPACITOR	TRD	
	C 811	NCS21HJ-101AY	C CAPACITOR	FOCUS	
	C 812	NCS21HJ-101AY	C CAPACITOR	SPINDLE	
	C 813	NCS21HJ-101AY	C CAPACITOR	FEED	
	C 814	NCS21HJ-101AY	C CAPACITOR	TRACKING	
	C 821	NCF21CZ-105AY	C CAPACITOR	VCC-M.GND	
	C 822	GER41AM-227N	E CAPACITOR	VCC-M.GND	

BLOCK NO. 04

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 851	GER41CM-106	E CAPACITOR	LM VCC-M.GND	
	C 852	GER41CM-106	E CAPACITOR	RM VCC-M.GND	
	C 855	NCB21HK-104	C CAPACITOR	VCC-M.GND	
	C 859	NCF21CZ-105AY	C CAPACITOR	L MOTOR	
	C 860	NCF21CZ-105AY	C CAPACITOR	R MOTOR	
	CN151	EMV7171-115R	15FFC CONNECTOR	VIDEO CD	
	CN152	EMV5109-012B	12P CN RIG	VIDEO CD	
	CN601	EMV7171-115R	15FFC CONNECTOR	TRAVERSE	
	CN651	EMV7171-115R	CONNECTOR	MAIN	
	CN652	EMV7171-105R	CONNECTOR	OSD	
	CN653	EMV7171-113R	CONNECTOR	CD TEXT	
	CN801	VMC0075-006	6P PLUG ASSY	TRAVERSE	
	CN851	VMC0107-R03	SOCKET	DISC DETECTION	
	CN854	QGB2016K1-07	CONNECTOR	TRAY SWITCH	
	CN855	QGG2002M4-10	CONNECTOR	CAM SWITCH	
	IC251	UPD780556C-A28	IC(MCU)		
	IC601	AN8806SB	IC C.M	RF AMP	
	IC651	MN55510	IC	DSP & DAC	
	IC801	BA6897FP-W	IC	PU DRIVE	
	IC851	TAB409S	IC	L MOTOR DRIVE	
	IC852	TAB409S	IC	R MOTOR DRIVE	
	L 851	VQP0033-100Z	INDUCTOR	VS DE-COUPLE	
	L 853	VQP0033-100Z	INDUCTOR	L MOTOR	
	L 854	VQP0033-100Z	INDUCTOR	R MOTOR	
	Q 291	2SB1357(E-F)	TR-I.M	/P.ON	
	Q 631	2SA1037AKT146	CHIP TRANSISTOR	APC	
	Q 842	DTA144ES	TR I/M	/DISC	
	R 251	NRSA02J-102NY	MG RESISTOR	DEMPO	
	R 252	NRSA02J-102NY	MG RESISTOR	/OSOFF	
	R 253	NRSA02J-102NY	MG RESISTOR	MCS	
	R 254	NRSA02J-102NY	MG RESISTOR	MRDY	
	R 255	NRSA02J-102NY	MG RESISTOR	KCMND	
	R 256	NRSA02J-102NY	MG RESISTOR	MSTAT	
	R 257	NRSA02J-102NY	MG RESISTOR	KCLK	
	R 258	NRSA02J-102NY	MG RESISTOR	MREQ	
	R 259	NRSA02J-101NY	MG RESISTOR	VCDEMP	
	R 260	NRSA02J-102NY	MG RESISTOR	SRDATA	
	R 261	NRSA02J-102NY	MG RESISTOR	SRCLK	
	R 262	NRSA02J-102NY	MG RESISTOR	MNT0	
	R 263	NRSA02J-102NY	MG RESISTOR	MNT1	
	R 264	NRSA02J-102NY	MG RESISTOR	MNT2	
	R 265	NRSA02J-223NY	MG RESISTOR	/VCDRST PULL-UP	
	R 266	NRSA02J-102NY	MG RESISTOR	CHECK0	
	R 267	NRSA02J-102NY	MG RESISTOR	CHECK1	
	R 268	NRSA02J-102NY	MG RESISTOR	CHECK2	
	R 269	NRSA02J-102NY	MG RESISTOR	CHECK3	
	R 270	NRSA02J-223NY	MG RESISTOR	CHECK0 PULL-UP	
	R 271	NRSA02J-223NY	MG RESISTOR	CHECK1 PULL-UP	
	R 272	NRSA02J-223NY	MG RESISTOR	CHECK2 PULL-UP	
	R 273	NRSA02J-223NY	MG RESISTOR	CHECK3 PULL-UP	
	R 274	NRSA02J-102NY	MG RESISTOR	HRDQ	
	R 275	NRSA02J-102NY	MG RESISTOR	HRDY	
	R 276	NRSA02J-102NY	MG RESISTOR	DABCK	
	R 277	NRSA02J-102NY	MG RESISTOR	DALRCK	
	R 278	NRSA02J-102NY	MG RESISTOR	DADATA	

BLOCK NO. 04

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 689	NRSA02J-102NY	MG RESISTOR	DEMPH	
R 690	NRSA02J-101NY	MG RESISTOR	DADATA	
R 691	NRSA02J-101NY	MG RESISTOR	DALRCK	
R 692	NRSA02J-101NY	MG RESISTOR	DABCK	
R 693	NRSA02J-471NY	RES. C.M	470 5% 1/10W	
R 694	NRSA02J-102NY	MG RESISTOR	XCLK	
R 801	NRSA02J-182NY	MG RESISTOR	FOD	
R 802	NRSA02J-472NY	MG RESISTOR	FOD	
R 803	NRSA02J-222NY	MG RESISTOR	TRD	
R 804	NRSA02J-683NY	MG RESISTOR	KICK	
R 805	NRSA02J-822NY	MG RESISTOR	TVD	
R 806	NRSA02J-223NY	MG RESISTOR	TRV	
R 807	NRSA02J-222NY	MG RESISTOR	ECS	
R 808	NRSA02J-223NY	MG RESISTOR	ECM	
R 811	NRSA02J-473NY	MG RESISTOR	/DRMUTE	
R 851	NRSA02J-151NY	MG RESISTOR	/REST	
R 832	NRSA02J-103NY	MG RESISTOR	/REST PULL-UP	
R 842	NRSA02J-473NY	MG RESISTOR	/DISC	
R 851	NRSA02J-102NY	MG RESISTOR	LMUP	
R 852	NRSA02J-102NY	MG RESISTOR	RMUP	
R 853	NRSA02J-102NY	MG RESISTOR	LMDOWN	
R 854	NRSA02J-102NY	MG RESISTOR	RMDOWN	
R 855	NRSA02J-102NY	MG RESISTOR	LM VCC-VREF	
R 856	NRSA02J-102NY	MG RESISTOR	RM VCC-VREF	
R 859	NRSA02J-181NY	MG RESISTOR	VCC DE-COUPLE	
R 861	NRSA02J-102NY	MG RESISTOR	1SSW	
R 862	NRSA02J-102NY	MG RESISTOR	2SSW	
R 863	NRSA02J-102NY	MG RESISTOR	3SSW	
R 864	NRSA02J-102NY	MG RESISTOR	1MSW	
R 865	NRSA02J-102NY	MG RESISTOR	2MSW	
R 866	NRSA02J-102NY	MG RESISTOR	3MSW	
R 871	NRSA02J-223NY	MG RESISTOR	1SSW PULL-UP	
R 872	NRSA02J-223NY	MG RESISTOR	2SSW PULL-UP	
R 873	NRSA02J-223NY	MG RESISTOR	3SSW PULL-UP	
R 874	NRSA02J-223NY	MG RESISTOR	1MSW PULL-UP	
R 875	NRSA02J-223NY	MG RESISTOR	2MSW PULL-UP	
R 876	NRSA02J-223NY	MG RESISTOR	3MSW PULL-UP	
R 880	NRSA02J-102NY	MG RESISTOR	CAM0	
R 881	NRSA02J-102NY	MG RESISTOR	CAM1	
R 882	NRSA02J-102NY	MG RESISTOR	CAM2	
R 883	NRSA02J-102NY	MG RESISTOR	CAM3	
R 884	NRSA02J-102NY	MG RESISTOR	CAM4	
R 885	NRSA02J-102NY	MG RESISTOR	CAM5	
R 886	NRSA02J-102NY	MG RESISTOR	CAM6	
R 887	NRSA02J-102NY	MG RESISTOR	CAM7	
R 890	NRSA02J-223NY	MG RESISTOR	CAM0 PULL-UP	
R 891	NRSA02J-223NY	MG RESISTOR	CAM1 PULL-UP	
R 892	NRSA02J-223NY	MG RESISTOR	CAM2 PULL-UP	
R 893	NRSA02J-223NY	MG RESISTOR	CAM3 PULL-UP	
R 894	NRSA02J-223NY	MG RESISTOR	CAM4 PULL-UP	
R 895	NRSA02J-223NY	MG RESISTOR	CAM5 PULL-UP	
R 896	NRSA02J-223NY	MG RESISTOR	CAM6 PULL-UP	
R 897	NRSA02J-223NY	MG RESISTOR	CAM7 PULL-UP	
W 601	EMF102-047	TER.WIRE	D.GND	
X 251	QAX0360-001Z	CRYSTAL	FOR IC251	
X 651	VCX5016-934V	CRYSTAL	FOR I651	

BLOCK NO. 04

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 279	NRSA02J-102NY	MG RESISTOR	I0SEL	
R 281	NRSA02J-102NY	MG RESISTOR	/RST CD LSI	
R 282	NRSA02J-102NY	MG RESISTOR	/VCDRST	
R 283	NRSA02J-102NY	MG RESISTOR	/RST OTHER	
R 284	NRSA02J-102NY	MG RESISTOR	/RESET MICOM	
R 285	NRSA02J-102NY	MG RESISTOR	OSCLK	
R 286	NRSA02J-102NY	MG RESISTOR	/OSCS	
R 287	NRSA02J-102NY	MG RESISTOR	OSDATA	
R 288	NRSA02J-102NY	MG RESISTOR	SHIFT	
R 289	NRSA02J-102NY	MG RESISTOR	SHIFT PULL-UP	
R 291	NRSA02J-122NY	MG RESISTOR	/P-ON	
R 292	NRSA02J-103NY	MG RESISTOR	BASE-EMITTER	
R 293	NRSA02J-102NY	MG RESISTOR	P.ON	
R 601	NRSA02J-274NY	MG RESISTOR	TBAL	
R 602	NRSA02J-154NY	RES. C.M	FBAL	
R 603	NRSA02J-273NY	MG RESISTOR	FE	
R 604	NRSA02J-114NYM	MG RESISTOR	TE	
R 605	NRSA02J-104NY	MG RESISTOR	TEBPF	
R 606	NRSA02J-473NY	MG RESISTOR	TEBPF	
R 607	NRSA02J-822NY	MG RESISTOR	TE	
R 611	NRSA02J-123NY	MG RESISTOR	RF	
R 612	NRSA02J-125NY	MG RESISTOR	CSBRT	
R 631	NRSA02J-2R2NYM	RES. C.M	+5V DE-COUPLE	
R 632	NRSA02J-100NY	MG RESISTOR	APC EMITTER	
R 634	NRSA02J-120NY	MG RESISTOR	APC COLLECTOR	
R 635	NRSA02J-121NY	MG RESISTOR	PU K	
R 636	NRSA02J-910NY	RES. C.M	PU LD	
R 651	NRSA02J-271NY	MG RESISTOR	X2	
R 652	NRSA02J-220NY	MG RESISTOR	AVDD1 DE-COUPLE	
R 657	NRSA02J-102NY	MG RESISTOR	OUTL	
R 658	NRSA02J-102NY	MG RESISTOR	OUTR	
R 661	NRSA02J-220NY	MG RESISTOR	AVDD2 DE-COUPLE	
R 662	NRSA02J-471NY	RES. C.M	PLLF	
R 663	NRSA02J-124NY	MG RESISTOR	IREF	
R 665	NRSA02J-683NY	MG RESISTOR	ARF	
R 666	NRSA02J-155NY	MG RESISTOR	1.5M 5% 1/10W	
R 667	NRSA02J-562NY	MG RESISTOR	VCOF	
R 671	NRSA02J-102NY	MG RESISTOR	CDBCK	
R 672	NRSA02J-102NY	MG RESISTOR	CDLRCK	
R 673	NRSA02J-102NY	MG RESISTOR	CDDATA	
R 674	NRSA02J-101NY	MG RESISTOR	TX	
R 675	NRSA02J-102NY	MG RESISTOR	MCLK	
R 676	NRSA02J-102NY	MG RESISTOR	MDATA	
R 677	NRSA02J-102NY	MG RESISTOR	MLD	
R 678	NRSA02J-102NY	MG RESISTOR	BLKCK	
R 679	NRSA02J-102NY	MG RESISTOR	SQCK	
R 680	NRSA02J-102NY	MG RESISTOR	SUBQ	
R 681	NRSA02J-102NY	MG RESISTOR	DMUTE	
R 682	NRSA02J-102NY	MG RESISTOR	STAT	
R 683	NRSA02J-102NY	MG RESISTOR	LDON	
R 684	NRSA02J-271NY	MG RESISTOR	XCLK	
R 685	NRSA02J-102NY	MG RESISTOR	SUBC	
R 686	NRSA02J-101NY	MG RESISTOR	SBCK	
R 687	NRSA02J-102NY	MG RESISTOR	/CLDCK	
R 688	NRSA02J-101NY	MG RESISTOR	IPFLAG	

**CD Tray Select Switch Board**

BLOCK NO. 05

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C N804 SW	QGB2016J1-07 QSW0507-001	CONNECTOR SWITCH	SW1-6	

**Head Amplifier & Mechanism Control Board**

BLOCK NO. 06

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 101	NC821HJ-561AY	C. CAPA. C.M	560PF 5% 50V	
C 102	NC821HJ-331AY	C CAPACITOR	330PF 5% 50V	
C 103	NC821HJ-561AY	C. CAPA. C.M	560PF 5% 50V	
C 104	NC821HJ-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	NC821HJ-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	NC821HJ-330AY	C CAPACITOR	33PF 5% 50V	
C 201	NC821HJ-561AY	C. CAPA. C.M	560PF 5% 50V	
C 202	NC821HJ-331AY	C CAPACITOR	330PF 5% 50V	
C 203	NC821HJ-561AY	C. CAPA. C.M	560PF 5% 50V	
C 204	NC821HJ-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	NC821HJ-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	NC821HJ-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	QEK41M-107ZN	E CAPACITOR	100MF 20% 10V	
C 314	QC20205-155	ML C CAP I/M	1.5MF	
C 315	QC20205-155	ML C CAP I/M	1.5MF	
C 316	QFG32AJ-103ZN	PP CAPACITOR	.010MF 5% 100V	
C 318	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	

BLOCK NO. 06

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
Q 312	2S8562(C)	TRANSISTOR		
Q 313	2SC2412K/RS/-X	CHIP TR.C.M		
Q 314	2S8562(C)	TRANSISTOR		
Q 315	2SC2412K/RS/-X	CHIP TR.C.M		
Q 316	2SA952(L,K)	TRANSISTOR		
Q 317	DTC124EK	TRANSISTOR		
Q 318	DTA144EKA-X	TRANSISTOR		
Q 319	DTC144EKA-X	TRANSISTOR		
Q 320	DTC144EKA-X	TRANSISTOR		
Q 321	DTC144EKA-X	TRANSISTOR		
Q 322	DTC144EKA-X	TRANSISTOR		
Q 323	2SC2412K/RS/-X	CHIP TR.C.M		
R 102	NRS02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 103	NRS02J-183NY	MG RESISTOR	18K 5% 1/10W	
R 105	NRS02J-220NY	MG RESISTOR	22 5% 1/10W	
R 106	NRS02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
R 107	NRS02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 108	NRS02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 109	NRS02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 110	NRS02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 111	NRS02J-562NY	MG RESISTOR	5.6K 5% 1/10W	
R 112	NRS02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
R 113	NRS02J-271NY	MG RESISTOR	270 5% 1/10W	
R 114	NRS02J-391NY	MG RESISTOR	390 5% 1/10W	
R 115	NRS02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 116	NRS02J-182NY	MG RESISTOR	1.8K 5% 1/10W	
R 117	NRS02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 118	NRS02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 119	NRS02J-203NY	MG RESISTOR	20K 5% 1/10W	
R 120	NRS02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 121	NRS02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
R 202	NRS02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 203	NRS02J-183NY	MG RESISTOR	18K 5% 1/10W	
R 205	NRS02J-220NY	MG RESISTOR	22 5% 1/10W	
R 206	NRS02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
R 207	NRS02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 208	NRS02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 209	NRS02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 210	NRS02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 211	NRS02J-562NY	MG RESISTOR	5.6K 5% 1/10W	
R 212	NRS02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
R 213	NRS02J-271NY	MG RESISTOR	270 5% 1/10W	
R 214	NRS02J-391NY	MG RESISTOR	390 5% 1/10W	
R 215	NRS02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 216	NRS02J-182NY	MG RESISTOR	1.8K 5% 1/10W	
R 217	NRS02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 218	NRS02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 219	NRS02J-203NY	MG RESISTOR	20K 5% 1/10W	
R 220	NRS02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 221	NRS02J-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	NRS02J-393NY	MG RESISTOR	39K 5% 1/10W	
R 305	NRS02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 306	NRS02J-103NY	MG RESISTOR	10K 5% 1/10W	

BLOCK NO. 06

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 319	GF32AJ-831Z	TF CAPACITOR	820PF 5% 100V	
C 321	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 322	GF32AJ-152ZN	M CAPACITOR	1500PF 5% 100V	
C 327	GEK41CM-476	E CAPACITOR	47MF 20% 16V	
C 328	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
C 329	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
C 330	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
C 332	NCS21HJ-151X	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	C CAPACITOR	.010MF 10% 50V	
C 339	GEK41CM-476	E CAPACITOR	47MF 20% 16V	
C 340	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 341	GEK41AM-107ZN	E CAPACITOR	100MF 20% 10V	
C 342	GEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
C 343	GET41CM-106	E CAPACITOR	10MF 20% 16V	
C 344	NCB21HK-472AY	C CAPACITOR	4700PF 10% 50V	
C 345	NCS21HJ-331AY	C CAPACITOR	330PF 5% 50V	
CN301	VMC0163-R06	CONNECTOR		
CN302	VMC0163-R06	CONNECTOR		
CN303	GB2011M1-10	PWB CONNECTOR		
CN304	GB2011M1-10	PWB CONNECTOR		
CN305	VMC0163-R10	CONNECTOR		
CN306	VMC0163-R11	CONNECTOR		
D 301	MA704A	S.K-DIODE		
D 302	HM2838C	DIODE		
D 307	HZM5.1NB2-X	CHIP Z DIODE CM		
D 308	HZM5.1NB2-X	CHIP Z DIODE CM		
D 309	MA704A	S.K-DIODE		
IC301	BA3126N	IC		
IC302	AN7345K	IC		
IC303	BU4094BCF-X	IC		
IC304	BU4094BCF-X	IC		
L 301	6R0620-001	OSC COIL(BIAS)		
L 303	VGPO033-100Z	INDUCTOR		
Q 101	DTC144TKT146	TRANSISTOR		
Q 102	DTC144TKA-X	TRANSISTOR		
Q 103	DTC144EKA-X	TRANSISTOR		
Q 104	DTC144TKT146	TRANSISTOR		
Q 105	2SC2001(L,K)	TRANSISTOR		
Q 201	DTC114TKT146	TRANSISTOR		
Q 202	DTC144TKA-X	TRANSISTOR		
Q 203	DTC144EKA-X	TRANSISTOR		
Q 204	DTC114TKT146	TRANSISTOR		
Q 205	2SC2001(L,K)	TRANSISTOR		
Q 301	DTC144TKA-X	TRANSISTOR		
Q 302	2SC2001(L,K)	TR I/M		
Q 303	2SC2001(L,K)	TR I/M		
Q 304	2SC2001(L,K)	TRANSISTOR		
Q 305	2SC2001(L,K)	TRANSISTOR		
Q 306	2SC2412K/RS/-X	CHIP TR.C.M		
Q 307	2SC2412K/RS/-X	CHIP TR.C.M		
Q 308	2SC2412K/RS/-X	CHIP TR.C.M		
Q 309	2SC2412K/RS/-X	CHIP TR.C.M		

■ Reel Pulse Board

BLOCK NO. 07

BLOCK NO. 06

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
CN 1	EMV7159-010	10P PLUG ASSY		
D 1	1SR139-100	SI DIODE		
IC 1	SG-105F3-BB/C	PHOTO SENSER		
P 1	VMZ0015-002	POST PIN		
SW 2	MXS00220MVLO	CASSETTE SWITCH TAPE		
SW 4	MXS00220MVLO	CASSETTE SWITCH 70U		
SW 6	QSW0507-001	SWITCH		

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 307	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
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-393NYM	RES. C.M	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-OR0NY	BUS WIRE I/M	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-OR0NY	BUS WIRE I/M	5% 1/10W	
R 345	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 346	NRSA02J-OR0NY	BUS WIRE I/M	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 353	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 354	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-423NY	MG RESISTOR	12K 5% 1/10W	
R 360	NRSA02J-433NYT	RES. C.M **	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-433NYT	RES. C.M **	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	RES. C.M	9.1K 5% 1/10W	
R 375	NRSA02J-683NY	MG RESISTOR	68K 5% 1/10W	
R 376	NRS181J-6R8NY	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		

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
△				
CN 1	EM7159-010	TOP PLUG ASSY		
D 1	1SR139-100	SI DIODE		
IC 1	SG-105F3-BB-C	PHOTO SENSER		
P 1	VM20015-002	POST PIN		
SW 1	MXS00220MVLO	CASSETTE SWITCH R-REC		
SW 2	MXS00220MVLO	CASSETTE SWITCH TAPE		
SW 4	MXS00220MVLO	CASSETTE SWITCH 70U		
SW 5	MXS00220MVLO	CASSETTE SWITCH F-REC		
SW 6	QSW0507-001	SWITCH		

■ Accessories and Packing Materials and Parts List

BLOCK NO. M5MM | | |

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	P 1	GV20011-003A	CARTON ASSY		1		
	P 2	GV10007-001A	CUSHION UPPER		1		
	P 3	GV10008-001A	CUSHION BOTTOM		1		
	P 4	QPC06506515P	POLY BAG		1		
	P 5	-----	COMPUTER LABEL		1		
	P 6	E409393-004	GOST LABEL		1	EE	
	P 7	138736001051	POLY BAG		2		

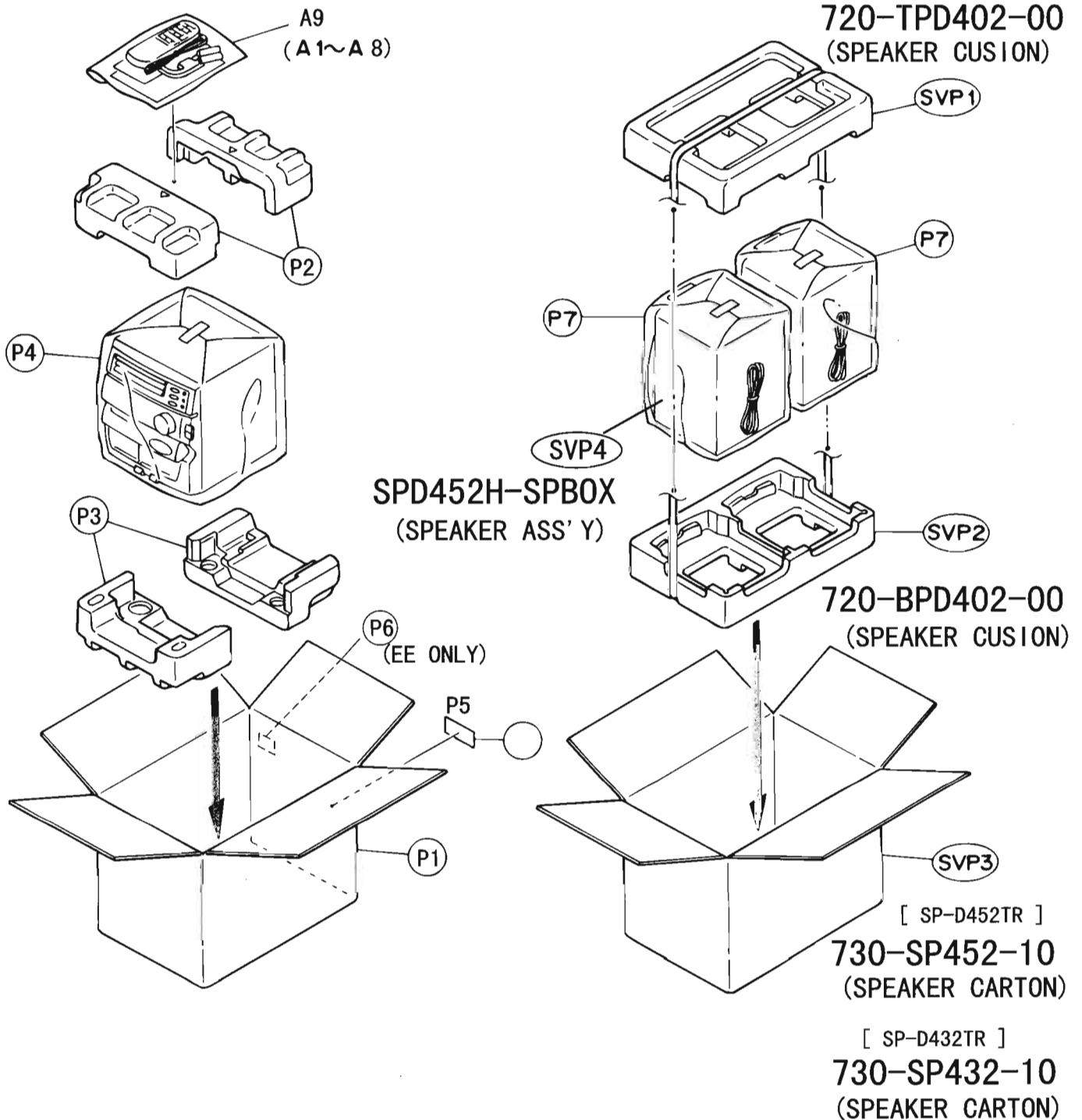
BLOCK NO. M6MM | | |

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A 1	QAL0014-001	AM LOOP ANT		1		
	A 2	GVT0003-008A	INST.BOOK		1	B	
		GVT0003-006A	INST.BOOK		1	E	
		GVT0003-009A	INST.BOOK		1	EE	
		GVT0003-007A	INST.BOOK		1	EN	
	A 3	EWP503-001	ANT.WIRE		1		
	A 4	RM-SED452TRUKP	REMOCON		1		
	A 5	R6SPTT/2STS	BATTERY		2		
		R6SPTT/2STS	BATTERY		2		
		BT-54008-1	W.CARD		1		
	A 6	BT-54008-1	W.CARD	EE EXCEPT	1		
	A 7	E43486-340A	SAFETY I.SHEET		1	B	
	A 9	E309758-002	POLY BAG		1		



# Accessories and Packing Materials and Parts List

Block No. M5MM & M6MM



**CA-D432TR**  
**CA-D452TR**

**JVC**

VICTOR COMPANY OF JAPAN, LIMITED

AUDIO DIVISION, 10-1, 1Chome, Ohwatari-machi, Maebashi-city, 371-8543, Japan