

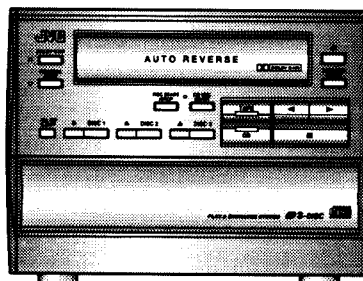
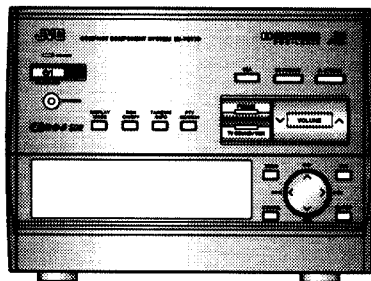
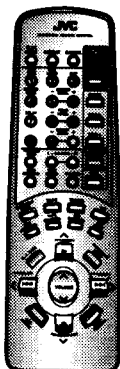
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

CA-TD77R

Pick up	OPT-60
CD Lsi	MN35510



COMPACT
disc
DIGITAL AUDIO

R·D·S EON

Area Suffix

BS	The U. K.
EF	Continental Europe Except Germany & Italy
EN	Nordic Countries
G	Germany

Contents

<i>Safety Precautions</i>	1-2	<i>XT-TD77R</i>	3-1
<i>Important for Laser Products</i>	1-3	<i>Description of Major ICs</i>	3-1
<i>Instruction Book</i>	1-4	<i>Main parts layout</i>	3-9
<i>RX-TD77R</i>	2-1	<i>Disassembly Procedures</i>	3-10
<i>Description of Major ICs</i>	2-1	<i>Adjustment Programs</i>	3-16
<i>Internal Connection of Display</i>	2-10	<i>Flow of Functional Operation</i>	
<i>Main parts layout</i>	2-11	<i>Until TOC Read</i>	3-27
<i>Disassembly Procedures</i>	2-12	<i>Maintenance of Laser Pick up</i>	3-27
<i>Adjustment Programs</i>	2-16	<i>Block Diagrams</i>	3-28
<i>Block Diagrams</i>	2-17	<i>Schematic Circuit Boards</i>	3-29
<i>Schematic Diagrams</i>	2-18	<i>Printed Circuit Boards</i>	3-33
<i>Printed Circuit Boards</i>	2-23	<i>Parts List</i>	4-1

Safety Precautions

1. The 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 (Δ) 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.).

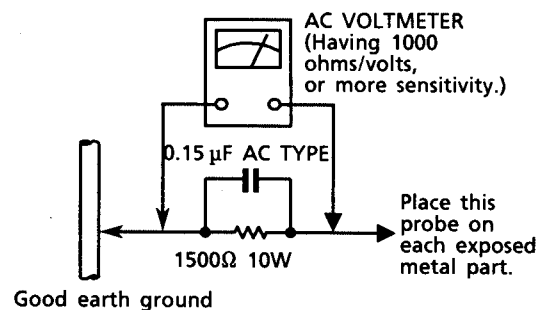
● Alternate check method

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 1,500 Ω 10 W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor.

Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured 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.

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.

VARNING : Osynlig laserstrålning är denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

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

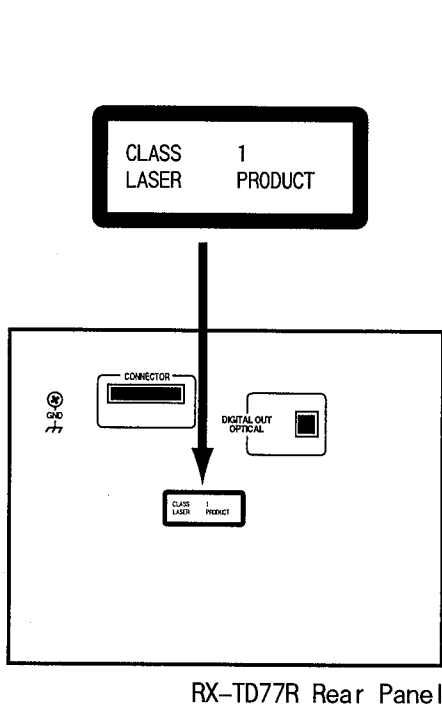
ADVARSEL : Usynlig laserstrålning ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

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

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL

(Except for the U.S.A)

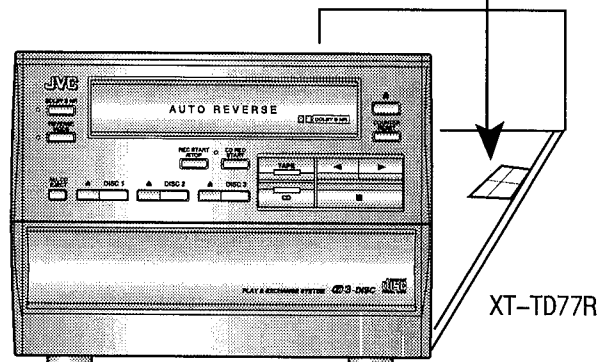


VARO : Avattaessa ja suojalukitus ohitettaessa olet allttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (d)

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

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

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

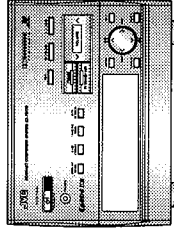


JVC

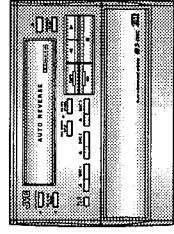
COMPACT COMPONENT SYSTEM
KOMPACTES KOMPONENTENSYSTEM
SYSTEME DE COMPOSANTS COMPACT
KOMPACTO KOMPONENTEN-SYSTEEM
SISTEMA DE COMPONENTES COMPACT
IMPIANTO A COMPONENTI COMPATTO

CA-TD77R

Consists of RX-TD77R and XT-TD77R.
Besteht aus RX-TD77R und XT-TD77R.
Comprend le RX-TD77R et le XT-TD77R.
Bestaat uit RX-TD77R en XT-TD77R.
Consta del RX-TD77R y el XT-TD77R.
Dotato di RX-TD77R e XT-TD77R.



RX-TD77R



XT-TD77R



COMPACT
disc
DIGITAL AUDIO

CORDS EON

JVC

VICTOR COMPANY OF JAPAN, LIMITED

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. _____

0497TYNATJEM

E30580-2602A
[EF, G]

EN, GE, FR, NL, SP, IT

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 points in the 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.548 del 28/06/95 pubblicato sulla Gazzetta Ufficiale della Repubblica Italiana n.301 del 28/12/95.

CAUTION
 To reduce the risk of electrical shocks, fire, etc.:
 1. Do not remove screws, covers or cabinet.
 2. Do not expose this appliance to rain or moisture.
ACHTUNG
 Zur Verhinderung von elektrischen Schlägen, Brandgefahr, usw.:
 1. Keine Schrauben lösen oder Abdeckungen entfernen und das Gehäuse nicht öffnen.
 2. Dieses Gerät weder Regen noch Feuchtigkeit aussetzen.

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

Caution — POWER switch!
 Disconnect the mains plug to shut the power off completely. The POWER switch in any position does not disconnect the mains line. The power can be remote controlled.
Achtung — POWER-Schalter!
 Den Netzstecker aus der Steckdose ziehen, um die Stromversorgung vollkommen zu unterbrechen. Der Schalter POWER unterbricht in keiner Stellung die Stromversorgung. Vonkommen. Die Stromversorgung kann mit der Fernbedienung ein- und ausgeschaltet werden.

Attention — Commutateur POWER!
 Déconnecter la fiche de secteur pour couper complètement le courant. Le commutateur POWER ne coupe jamais complètement la ligne de secteur, quelle que soit sa position. Le courant peut être télécommandé.
Opgelet — POWER schakelaar!
 Om de stroomtoevoer geheel uit te schakelen, trek u de stekker uit het stopcontact. Anders zal er altijd een geringe hoeveelheid stroom naar het apparaat lopen, ongeacht de stand van de POWER schakelaar. U kunt het apparaat ook met de afstandsbediening aan- en uitschakelen.

Atención — Interruptor POWER!
 Desconectar el cable de alimentación para desactivar la alimentación totalmente. Cualquier que sea la posición de ajuste del interruptor POWER, la alimentación no se cortará completamente. La alimentación puede ser controlada remotamente.
Attenzione — L'interruttore POWER!
 Disinserire la spina del cavo di alimentazione dalla presa della rete elettrica per staccare completamente l'alimentazione. L'interruttore POWER in nessuna posizione stacca la linea di alimentazione elettrica principale. È possibile il controllo remoto dell'alimentazione.

Caution: Proper Ventilation
 To avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:
 1 Front: No obstructions and open spacing.
 2 Sides/Top/Back: No obstructions should be placed in the areas shown by the dimensions below.
 3 Bottom: Place on the level surface. Maintain an adequate air path for ventilation by placing on a stand with a height of 10 cm or more.

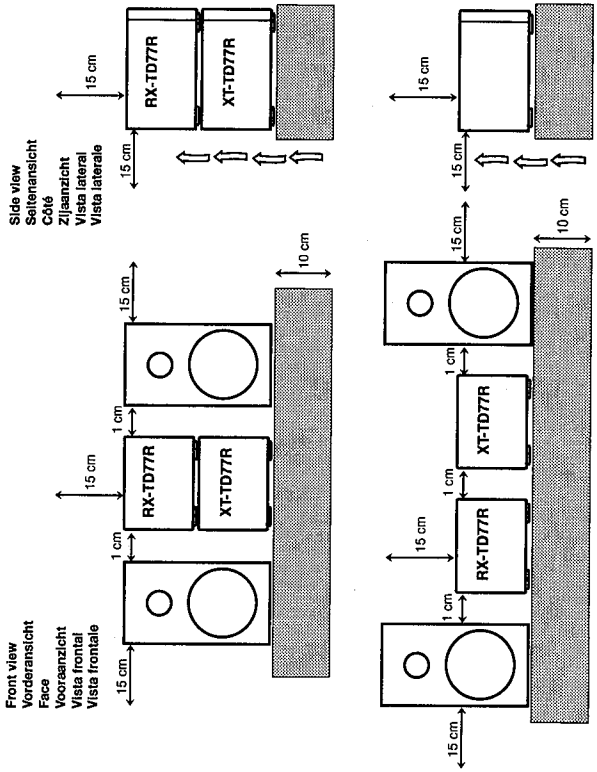
Vorsicht: Ausreichende Belüftung
 Zur Vermeidung von elektrischen Schlägen, Feuer und sonstigen Schäden sollte das Gerät unter folgenden Bedingungen aufgestellt werden:
 1 Vorderseite: Hindernisfrei und gut zugänglich.
 2 Seiten- und Rückwände: Hindernisfrei in allen gegebenen Abständen (s. Abbildung).
 3 Unterseite: Die Stellfläche muß absolut eben sein. Sorgen Sie für ausreichende Luftzufuhr durch Aufstellung auf einem Stand mit mindestens 10 cm Höhe.

Attenzion: Aeración correcta
 Pour prévenir tout risque de choc électrique ou d'incendie et éviter toute détérioration, installez 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: Placez l'appareil sur une surface plane et horizontale. Veillez à ce que sa ventilation ne soit pas gênée par le tapis en le plaçant sur un support d'au moins dix centimètres de hauteur.

Voorzichtig: Goede ventilatie vereist
 Om brand, elektrische schokken en beschadiging te voorkomen, moet u het toestel als volgt opstellen:
 1 Voorkant: Geen belemmeringen en voldoende ruimte.
 2 Zijkanten/boven-/achterkant: Geen belemmeringen plaatsen in de hieronder aangegeven zones.
 3 Onderkant: Op vlakke ondergrond plaatsen. Voldoende ventilatieruimte voorzien door het toestel op een onderstel met een hoogte van 10 cm of meer te plaatsen.

Precaución: ventilación correcta
 Para evitar el riesgo de oscargas 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 scossa elettrica e di incendio, ed evitare possibili danni, collocare le apparecchiature nel modo seguente:
 1 Parte anteriore: Nessun ostacolo e spazio libero.
 2 Lati/Parte superiore/Retro: Lasciare libere le zone indicate dalle dimensioni di seguito.
 3 Base: Collocare su una superficie piana. Consentire un'adeguata ventilazione dell'impianto appoggiandolo su un tavolino alto almeno 10 cm.



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

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

- ① CLASSIFICATION LABEL, PLACED ON REAR
- ② WARNING LABEL, PLACED INSIDE THE UNIT
- ③ WARNETIKETTE IM GERÄTEINNEREN
- ④ CLASSIFIKATIONSETIKETTE AN DER RÜCKSEITE
- ⑤ ETIQUETTE DE CLASSIFICATION, PLACÉE A L'ARRIERE DU COFFRET
- ⑥ L'INTERIEUR DE L'APPAREIL
- ⑦ WAARSCHUWINGSLABEL, IN HET APPARAAT
- ⑧ ETIQUETA DE ADVERTENCIA, PEGADA EN EL INTERIOR DE LA UNIDAD
- ⑨ ETICHETTA DI AVVERTENZA, SITUATA ALL'INTERNO DELL'APPARECCHIO



<p>DANGER: Invisible laser radiation when open and the lock failed or defeated. Avoid direct exposure to beam.</p> <p>CAUTION: Do not open the top cover. There are no user serviceable parts inside the Unit; leave all servicing to qualified service personnel.</p>	<p>WARNING: Don't use the remote laser control when open and spinning the top disk.</p> <p>CAUTION: Do not touch the laser beam directly.</p>
--	---

- 1. CLASS 1 LASER PRODUCT
- 2. DANGER: Invisible laser radiation when open and the lock failed or defeated. Avoid direct exposure to beam.
- 3. CAUTION: Do not open the top cover. There are no user serviceable parts inside the Unit; leave all servicing to qualified service personnel.
- 1. LASER-PRODUKT DER KLASSE 1
- 2. GEFAHR: Unsichtbare Laserstrahlung bei Öffnung des Gehäuses. Vermeiden Sie direkten Kontakt mit dem Strahl.
- 3. ACHTUNG: Das Gehäuse nicht öffnen. Das Gerät enthält keineierlei Teile, die vom Benutzer gewartet werden können. Überlassen Sie Wartungsarbeiten bitte qualifizierten Kundendienst-Fachleuten.
- 1. PRODUIT LASER CLASSE 1
- 2. ATTENTION: Ne pas ouvrir le couvercle de l'appareil est ouvert ou que le verrouillage est en panne.
- 3. ATTENTION: Ne pas ouvrir le couvercle du déssus. Il n'y a aucune pièce utilisable à l'intérieur. Laisser à un personnel qualifié le soin de réparer votre appareil.

- 1. KLAS 1 LASERPRODUKT
- 2. GEVAARLIJK: Onzichtbare laserstraling wanneer open en het slot niet gesloten is.
- 3. VOORZICHTIG: De bovenkap niet openen. Binnenin het toestel bevinden zich geen door de gebruiker te repareren onderdelen; laat onderhoud over aan bekwame vakpersoneel.
- 1. PRODUCTO LASER CLASE 1
- 2. PELIGRO: En el interior hay radiación láser invisible.
- 3. PRECAUCIÓN: No abra la 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: È aperto ed il dispositivo di sicurezza è guasto o disattivato. Evitare l'esposizione diretta ai raggi laser.
- 3. ATTENZIONE: Non aprire il coperchio superiore. Non vi sono parti adoperabili dell'interno all'interno di questo apparecchio; lasciare tutti i controlli a personale qualificato.

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 be answered in the manual, please contact your dealer.

Features

Here are some of the things that make your System powerful and easy to use.

- The controls and operations have been redesigned to make them very easy to use so you can spend your time listening to music.
 - With the One Touch Operation feature of JVC's COMPU PLAY you can turn on the System and start the radio, the Cassette Deck, or the CD Player with a single touch.
- The three types of surround modes including JVC's 3D PHONIC which allows you a nearly surround effect with only two front speakers.
- 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.
- 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, ONCE REC (Recording) Timer, and SLEEP Timer are extremely easy to set.
- The Displays are large and clear. They are organized so you can tell at a glance what's happening because functions light up as you use them, and blink to tell you they are ready. They provide some important messages like "NO DISC", and other informations.

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: VOLUME.
- When we are talking about the Function, rather than the BUTTON or DISPLAY, only the first letter is capitalized.

The manual has a table of contents to help you quickly look up what you want to know. We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your System.

IMPORTANT CAUTIONS

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 (12 watts) is always consumed as long as the power cord is connected to the wall outlet.

Malfunctions, etc.

- When unplugging the Unit from the wall outlet, always pull the plug, not the power cord.
- 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.

Table of Contents

Features.....	1	Using the CD Player.....	26
How This Manual Is Organized.....	1	The Quickest Way To Start a CD Is With the	
IMPORTANT CAUTIONS.....	1	One Touch Operation.....	27
		Basics of Using the CD Player — Continuous Play.....	27
		To Insert Discs.....	27
		To Play a Disc.....	29
		To Change Discs While Playing.....	29
		To Select a Track.....	29
		To Select a Passage Within a Track.....	30
		Locating a Track With the Remote Control Directly.....	30
		Programming the Playing Order of the Tracks.....	30
		To Check the Program.....	32
		To Modify the Program.....	32
		Random Play.....	32
		Repeating a Track or the Discs.....	33
		Tray Lock Function.....	34
		Locking the Electronic Lock.....	34
		Unlocking the Electronic Lock.....	34
		Using the Cassette Deck (Listening to a Tape) .. 35	
		One Touch Play.....	35
		Regular Play.....	36
		Tape Direction Indicator and the Display.....	36
		Fast Forward and Rewind.....	37
		Music Scan.....	37
		Other Useful Features of the Cassette Deck.....	37
		Reverse Mode.....	37
		DOLBY B NR.....	37
		To Control the Cassette Deck While Another Source is	
		being Played.....	37
		Using the Cassette Deck (Recording) .. 38	
		Things To Know Before You Start Recording.....	38
		Standard Recording.....	39
		To Record Any Sound Source To Tape.....	39
		Checking the Tape Counter While Recording.....	39
		How to create a blank section on the tape.....	39
		CD Direct Recording.....	40
		Auto Edit Recording.....	40
		Using the Tuner .. 42	
		Setting the DAILY Timer.....	42
		Turning the DAILY Timer On and Off.....	44
		Setting the ONCE REC (Recording) Timer.....	45
		Turning the ONCE REC Timer On and Off.....	46
		Setting the SLEEP Timer.....	47
		Timer Priority.....	47
		Using the VCR .. 48	
		Operating a JVC VCR or TV.....	48
		Listening to a JVC VCR.....	49
		Recording to a JVC VCR.....	49
		Operating a JVC TV.....	49
		Operating a VCR other than JVC's VCR.....	49
		Listening to a VCR.....	49
		Recording of a VCR.....	49
		Care And Maintenance .. 50	
		Troubleshooting.....	51
		Specifications.....	52
Accessories.....	3		
How To Put Batteries In the Remote Control.....	3		
Using the Remote Control.....	3		
Connecting the System Control Cord.....	4		
Connecting the External Wire.....	4		
Connecting the FM Antenna.....	5		
Connecting the AM (MW/LW) Antenna.....	5		
Connecting the Speakers.....	6		
For Dolby Pro Logic Reproduction.....	6		
Connecting a VCR.....	7		
Connecting a TV.....	7		
Connecting the MD Player.....	7		
COMPU PLAY.....	8		
Setting the Clock.....	8		
Adjusting the Brightness of the Display.....	8		
Common Operations..... 10			
Turning the Power On and Off.....	10		
Turning the System On.....	10		
Turning the System Off.....	10		
Adjusting the Volume.....	11		
FADE MUTING Function.....	11		
Balance adjustment.....	11		
Reinforcing the Bass Sound.....	11		
S.E.A. Mode.....	12		
Selecting a S.E.A. Effect Mode.....	12		
Customizing a S.E.A. Effect Mode.....	12		
Using the Surround Processor .. 14			
On JVC's 3D-PHONIC Mode.....	14		
On DAP Mode.....	14		
On Dolby Pro Logic Mode.....	14		
Playing the Source Using the 3D-PHONIC Modes.....	15		
Playing the Source Using the DAP Modes.....	16		
Preparing the Source Using Dolby Pro Logic Mode.....	17		
Getting Ready to Use Dolby Pro Logic.....	17		
Using the Dolby Pro Logic.....	19		
Using the Tuner .. 20			
One Touch Radio.....	20		
Tuning In a Station.....	20		
Switching between Frequency Bands.....	20		
Selecting a radio station.....	21		
To Change the FM Reception Mode.....	21		
Presetting Stations.....	21		
Receiving FM Stations with RDS.....	22		
What Information RDS can Provide.....	22		
Changing the Display.....	23		
Searching for Programmes by PTY codes.....	23		
EON Function.....	24		
ALARM function.....	25		

Getting Started

Accessories

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

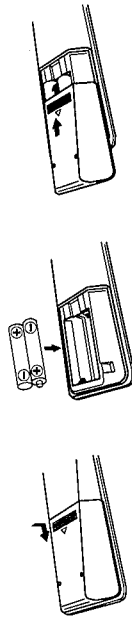
- AM (MW/LW) Loop Antenna (1)
- Remote Control (1)
- Batteries (2)
- FM Wire Antenna (1)
- External Wire (1)

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.

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



CAUTION: Handle batteries properly.

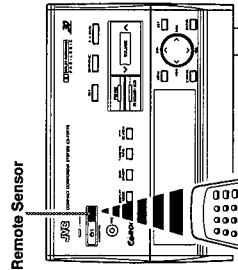
To avoid battery leakage or explosion:

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

Using the Remote Control

The Remote Control makes it easy to use many of the functions of the System from a distance of up to 7m (23 feet) away.

You need to point the Remote Control at the remote sensor on the System's front panel.

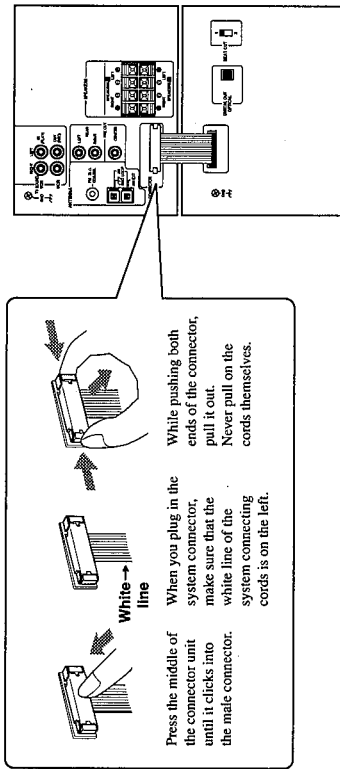


CA-TD77R

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

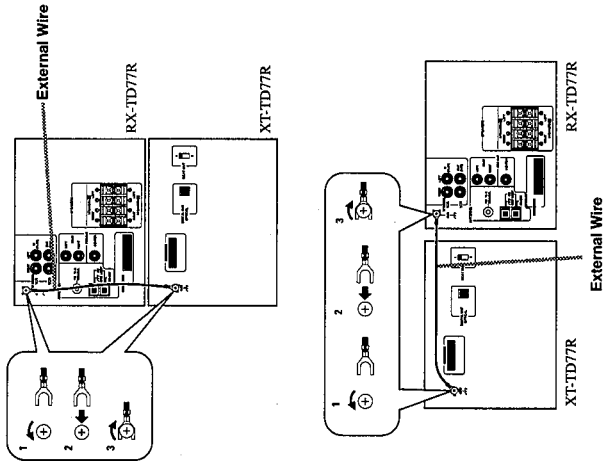
Connecting the System Control Cord

Connect the components exactly as illustrated below.



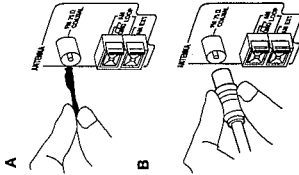
Connecting the External Wire

CAUTION: To prevent malfunction, connect the supplied wire as illustrated below.



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

Connecting the FM Antenna

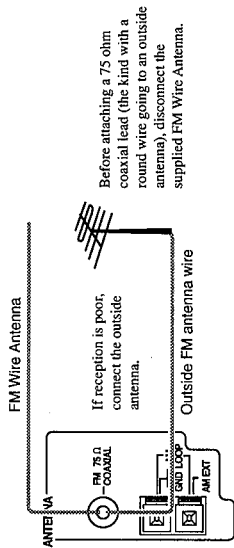


A. Using the Supplied Wire Antenna

The FM Wire Antenna provided can be connected to a FM 75-ohm COAXIAL as temporary measure.

B. Using the Coaxial Type Connector (Not Supplied)

A 75-ohm antenna with coaxial type connector (IEC or DIN 45325) should be connected to the FM 75-ohm COAXIAL terminal.



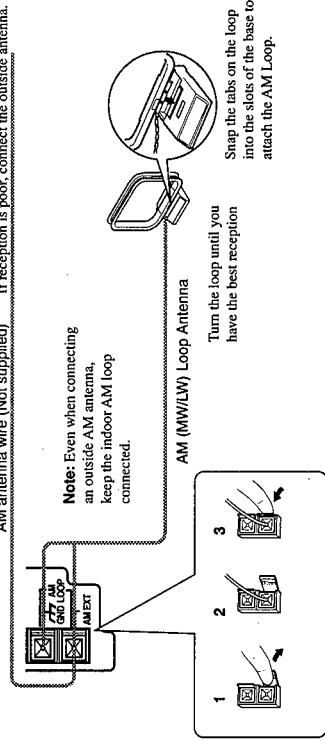
If reception is poor, connect the outside antenna.

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

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



Note: Even when connecting an outside AM antenna, keep the indoor AM loop connected.

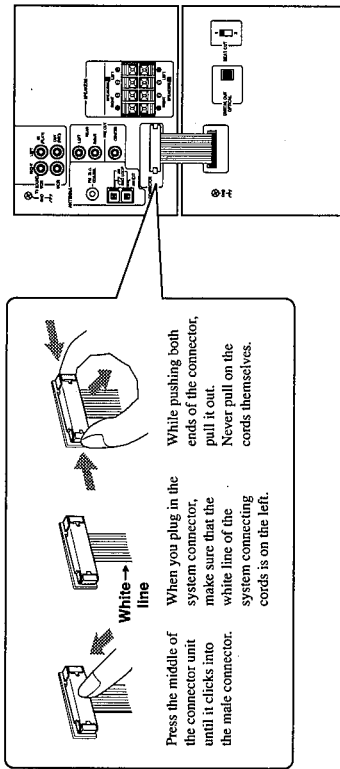
Turn the loop until you have the best reception

Snap the tabs on the loop into the slots of the base to attach the AM Loop.

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

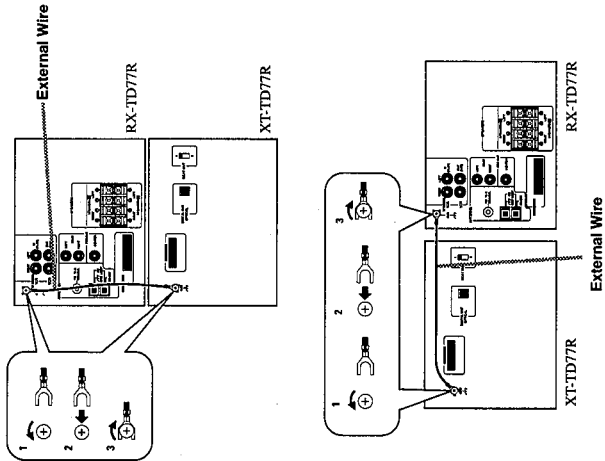
Connecting the System Control Cord

Connect the components exactly as illustrated below.



Connecting the External Wire

CAUTION: To prevent malfunction, connect the supplied wire as illustrated below.

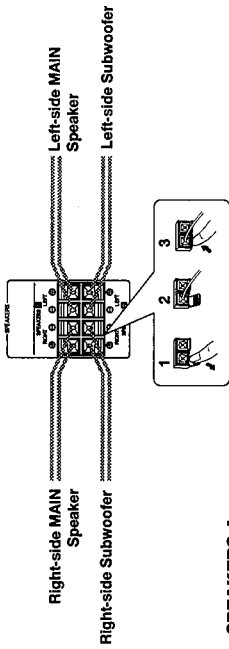


CAUTION: Make all connections before plugging the Unit into an AC power outlet.

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 and one end to the speaker.

- Open each terminal.
- Insert the end of the speaker wire as shown (be sure to remove the insulation at the end of each wire first.)
- Close the terminals to clamp the speaker wires firmly in place.



SPEAKERS A

Connect the MAIN Speakers to the SPEAKERS A terminal on the rear panel as follows.
 Connect the gray (+) and the blue (-) terminals of the right-side MAIN Speaker to the gray (+) and blue (-) terminals marked RIGHT on the rear panel.

Connect the gray (+) and the blue (-) terminals of the left-side MAIN Speaker to the gray (+) and blue (-) terminals marked LEFT on the rear panel.

SPEAKERS B

Connect the Subwoofers to the SPEAKERS B terminal on the rear panel as follows.
 Connect the red (+) and black (-) terminals of the right-side Subwoofer to the red (+) and black (-) terminals marked RIGHT on the rear panel.

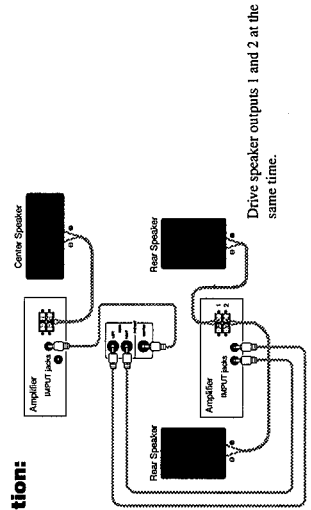
Connect the red (+) and black (-) terminals of the left-side Subwoofer to the red (+) and black (-) terminals marked LEFT on the rear panel.

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

For Dolby Pro Logic Reproduction

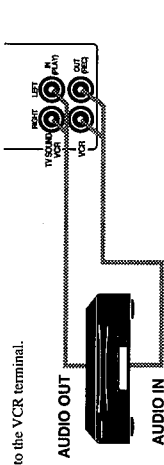
For Dolby Pro Logic reproduction, you need a center speaker, two rear speakers, and two amplifiers (for connecting the center and rear speakers).

Connection:



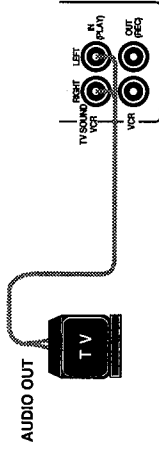
Connecting a VCR

Connect the VCR to the VCR terminal.



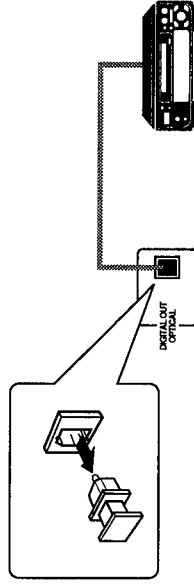
Connecting a TV

Connect a TV to the TV SOUND input terminals.



Connecting the MD Player

You can use a digital fiber-optic cable to connect the MD Player for recording CDs. Remove the cap from the DIGITAL OUT OPTICAL terminal and connect the digital fiber-optic cable. (Not supplied.)



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
 - FM/AM button
 - VCR button
 - TAPE button
 - CD button
 - CD Player DISC 1 to DISC 3 buttons
 - CD Player Open/Close (▲) buttons
 - CD Player ALL CD EJECT button
 - Cassette Deck Open/Close (▶) button

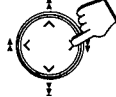
On the Remote Control


- DISC 1 to DISC 3 buttons
- VCR button
- TAPE button
- TUNER button
- CD button


Setting the Clock


The clock should be set before you start using this Unit. If the clock has not been set, "0:00" appears in the display and the CLOCK indicator blinks. You can set the clock regardless of whether the Unit is on or off.


- 


1. Press the MENU button.
"DAILY" blinks on the display and the TIMER selection indicator lights up.
- 

2. Press the >>> cursor key twice to select "CLOCK".
"CLOCK ADJ" blinks on the display.
- 

3. Press the SET button.
The hour digits on the display blink.
- 

4. Set the hour by pressing the >>> cursor key.
Pressing the >>> cursor key increases the hour, and pressing the <<< cursor key decreases it. Pressing down either of these cursor keys adjusts the setting continuously until the key is released.
- 

5. Press the SET button.
The minute digits on the display blink.
- 

6. Set the minute by pressing the >>> cursor key.
Pressing the >>> cursor key increases the minute, and pressing the <<< cursor key decreases it. Holding down either of these cursor keys allows you to continuously adjust the minute setting in 10 minute increments until the key is released.
- 

7. Press the ENTER button.
"CLOCK OK" appears on the display and the blinking "CLOCK" indicator disappears. The clock time starts from zero seconds from the set time.

To correct a mistake:

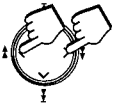
- Repeat the procedure from step 1 after pressing the ENTER key.
- To correct a setting during the procedure, press the CANCEL key to go back to the previous setting item.

Note: If you try to select DAILY or REC without first setting the clock, "CLOCK" and "ADJUST" are displayed alternately on the display, and you will be unable to set the timers.

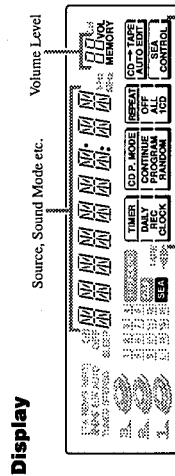
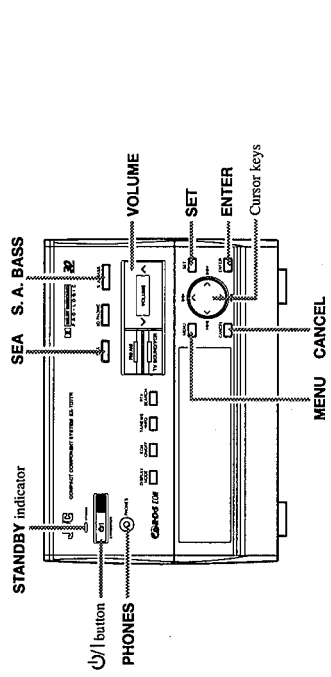
CAUTION: If there is a power failure, the clock loses its setting. The display shows "0:00", and the clock must be reset.

Adjusting the Brightness of the Display

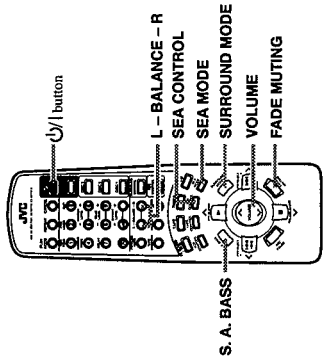
In Standby mode you can adjust the brightness of the clock display. Press the >>> cursor key to make the display brighter. Press the <<< cursor key to make the display darker.



Common Operations



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section. This illustration shows all the items in the Menu display. However, the menu items that are available will change, depending on the source selected.



Adjusting the Volume

Using the Unit

To increase the volume, press the right side of the VOLUME button . To decrease the volume, press the left side of the VOLUME button .

Using the Remote Control

- To increase the volume, press the up side of the VOLUME button . To decrease the volume, press the down side of the VOLUME button .
- Press the button in steps to adjust the volume level one step at a time, press the button continuously to adjust the level continuously.
- You can adjust the volume level between 0 and 50.
- When the System is turned on from Standby mode, the volume is set to 0 and automatically increases to the previous volume level. To stop this automatic volume adjustment, press the VOLUME button.

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.

FADE MUTING Function

Set the Volume Level to 0 by pressing the FADE MUTING button on the Remote Control. Press this button again to restore the Volume Level to its previous level.

Balance adjustment

You can use the Remote Control to adjust the left and right balance of the speakers.

Press the L - BALANCE - R buttons.

The display changes to show the balance adjustment.

Pressing the L button moves the pointer to the left, pressing the R button moves the pointer to the right. Holding a button down, moves the pointer continuously.

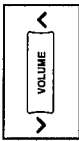
Display when set for no sound from the right speaker.

Display at the centre position.

Display when set for no sound from the left speaker.

The balance is normally set to the center position.

Note: If no adjustments are made for 4 seconds in balance adjustment mode, the display reverts to the previous display.



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 the S.A. BASS button.

The S.A. BASS button lights up.

The display changes with each press of the S.A. (Signal Adaptive) BASS button as shown below.

→ SA-BASS 1 → SA-BASS 2 → OFF → (back to the beginning)

SA-BASS 2 enhances low tones more than SA-BASS 1.

To get the effect, press the S.A. BASS button and select SA-BASS 1 or SA-BASS 2. "SA-BASS 1" or "SA-BASS 2" appears in the display and the button indicator lights up.

When listening to recording with low volume low tones, the difference between SA-BASS 1 and SA-BASS 2 is clear. When listening to recording with louder low tones, however, the difference between SA-BASS 1 and SA-BASS 2 may not be so clear.

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



Turning the Power On and Off

Turning the System On

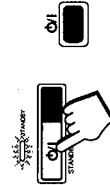
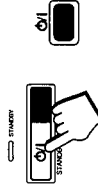
Press the button.

The display comes on 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.

Turning the System Off

Press the button again.

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



S.E.A. Mode

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.

- S.E.A. Mode effects cannot be recorded.
- 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.

Selecting a S.E.A. Effect Mode Press the SEA button (or the SEA MODE button on the Remote Control).

The "SEA" indicator on the display lights up. The display changes with each press of the button as shown below.

→ ROCK → POP → CLASSIC → MANUAL 1 → MANUAL 2 → MANUAL 3 → OFF → (back to the beginning)



- The name of the effect appears on the display, then returns to the previous display after a few seconds. If you want to see the name of the selected mode, press the SEA MODE button once. The name of the currently selected mode appears on the display for a few seconds.

To cancel S.E.A. effect mode, select "OFF". The "SEA" indicator goes out.

Customizing a S.E.A. Effect Mode

You can create up to three of your own customized S.E.A. settings and store them in the unit's memory. You can adjust the level of the LOW, MID, or HIGH tones.

- You can change an existing sound mode to suit your own preferences by adding your own S.E.A. effects to the existing effect. To create an S.E.A. effect from a flat level, perform the following steps after selecting "OFF" for S.E.A. effect mode.



Press the MENU button.

The "TIMER" section of the menu display blinks.

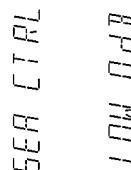
Press the cursor key to the right or left (← or →) and select "SEA CONTROL".

The display changes with each press of the cursor keys as shown below.



When a CD source is selected:
 → Press the left (←) cursor key
 → TIMER → CD P.MODE → REPEAT → AUTO EDIT → SEA CONTROL →
 Press the right (→) cursor key →

When any other source is selected:
 TIMER → SEA CONTROL



Press the SET button.

"LOW 0 dB" blinks on the display.
 If S.E.A. is already on, the low tones for the selected S.E.A. MODE are displayed.



- The level for the low tones of the S.E.A. effect appears on the display while the "SEA CONTROL" indicator is lit.

Adjust the level of the low (LOW), middle (MID), or high (HIGH) tones.

Using the Unit

1. Select the "LOW", "MID", or "HIGH" tone ranges by adjusting the cursor keys left and right (← or →).

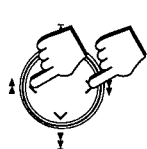
The display changes with each press of the cursor keys as shown below.

→ Press the left (←) cursor key
 → LOW → MID → HIGH →
 Press the right (→) cursor key →

2. Adjust the level of the selected tone range by adjusting the cursor keys up and down (↑ or ↓).

Pressing the ↑ cursor key increases the level in 2dB units, and pressing the ↓ cursor key decreases it in 2dB units.

- You can adjust the level between -6 dB and +6 dB in seven steps.

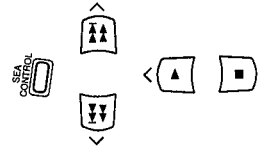


Using the Remote Control

1. Press the SEA CONTROL button.
2. Select the "LOW", "MID", or "HIGH" tone ranges by pressing the ← or → button.

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

→ Press the ← or → button
 → LOW → MID → HIGH →
 Press the ↑ or ↓ button →

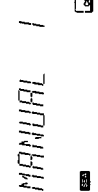


3. Adjust the level of the selected tone range by pressing the ▲ or ▼ button.

You can adjust the level between -6 dB and +6 dB in seven steps.

Press the SET button.

"MANUAL 1" blinks on the display.



Select the number for the MANUAL setting.

Using the Unit

Press the cursor key to the right or left (← or →) and select the number.

Using the Remote Control

Select the number by pressing the ← or → button.

The display changes with each press of the buttons or cursor keys as shown below.



On the unit:

→ Press the left (←) button
 → MANUAL 1 → MANUAL 2 → MANUAL 3 →
 Press the right (→) button →

On the Remote Control:

→ Press the ← button
 → MANUAL 1 → MANUAL 2 → MANUAL 3 →
 Press the → button →

Press the ENTER button.

"MEMORY" and the selected memory number are displayed on the screen, and the adjusted settings are stored in memory. After a few seconds, the display reverts to the item that was displayed before you pressed the MENU button.

- The memory setting will appear in the S.E.A. effect mode using the manual number.

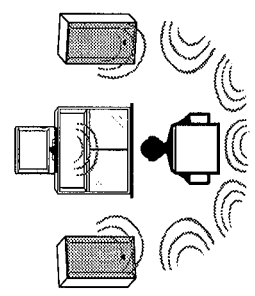


- If you store new settings to a MANUAL number that has already been used, the new settings replace the existing setting.

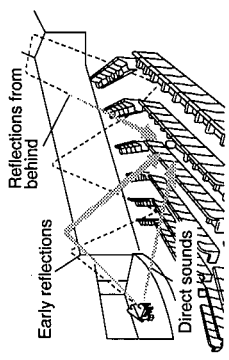
Using the Surround Processor

The Built-in surround processor provides three types of the surround modes — JVC's 3D-PHONIC mode, DAP (Digital Acoustic Processor) mode, and Dolby Pro Logic mode.

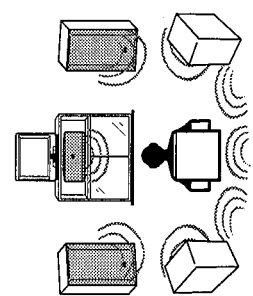
On JVC's 3D-PHONIC Mode
JVC's 3D-PHONIC mode gives you such a nearly surround effect as it is reproduced through the Dolby Surround decoder, which is widely used to reproduce sounds with a feeling of movement like those experienced in movie theaters. JVC's 3D-PHONIC mode is the result of research on sound localization technology carried out at JVC for many years and makes it possible to reproduce the surround sound with only two front speakers.



On DAP Mode
The sound heard in a concert hall or club consists of direct sound and indirect sound — early reflections and reflections from behind. Direct sounds reach the listener directly without any reflection. On the other hand, indirect sounds are delayed by the distances of the ceiling and walls. These direct sounds and indirect sounds are the most important elements of the acoustic surround effects. The DAP mode can create these important elements, and gives you a real "being there" feeling by using only the front speakers.

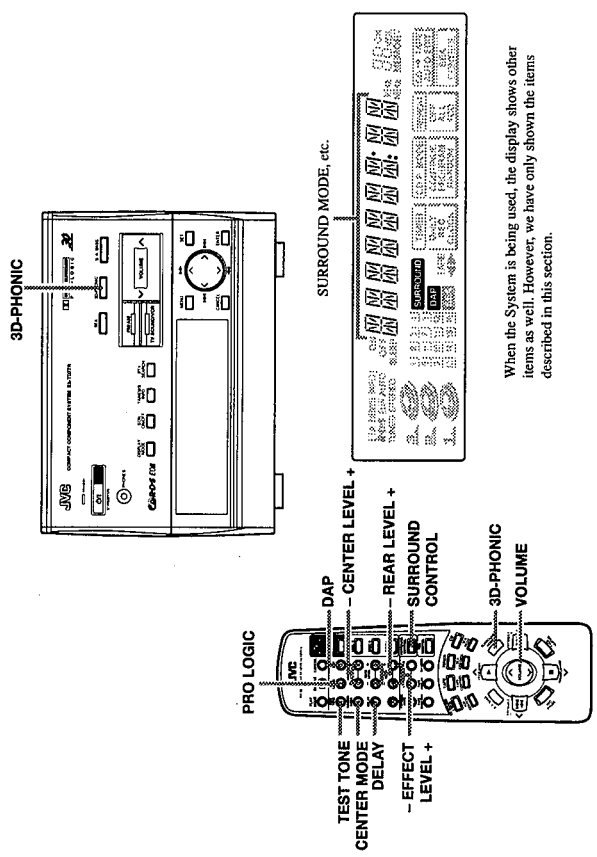


On Dolby Pro Logic Mode
Dolby Pro Logic is a function devised for home use to allow families to enjoy movies and music software bearing the "Dolby Pro Logic" mark which includes the same encoded surround information as found in Dolby Stereo films. Since Dolby Pro Logic reproduces dialogue from a center speaker independently, emphasizes the movement of sound, and gives you a real "being there" feeling.



* Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", the double-D symbol and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.

- Notes:
- The surround processor has no effect on monaural sources.
 - The surround processor cannot be used for recording.



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

Playing the Source Using the 3D-PHONIC Modes

When using JVC's 3D-PHONIC modes, you need only two front speakers to reproduce the soundtracks of video software bearing the mark . The 3D-PHONIC mode give you a very realistic surround effect when the sound is reproduced through the Dolby Surround decoder.

Perform the following steps using the buttons on the Remote Control.

1. Press the **3D-PHONIC button repeatedly to select the 3D-PHONIC mode you want.**
The current 3D-PHONIC mode appears on the display and the 3D-PHONIC button light comes on. Each time you press the button, the 3D-PHONIC mode changes as follows:
→ ACTION → DRAMA → THEATER → OFF → (back to the beginning)

- ACTION:** Best for action and war movies — where the action is fast and explosive.
- DRAMA:** Best for dramas and romantic movies — where the action is slow and soft.
- THEATER:** Reproduces the sound field of a large theater.

2. Press the **SURROUND CONTROL button.**
3. Press the **EFFECT LEVEL + or - button to adjust the effect level.**
The current level is shown on the display. Each time you press the button, the level changes as follows:

- ← Press the **EFFECT - button**
Press the **EFFECT + button** →
- ← Press the **EFFECT - button**
Press the **EFFECT + button** →
- As the number increases, the selected 3D-PHONIC mode becomes stronger.

Select and play a sound source which was processed with Dolby Surround and is labeled with  mark.



- The effect level can be stored for each mode.
 - You can select the 3D-PHONIC mode by pressing the 3D-PHONIC button on the Unit.
- Note:** The 3D-PHONIC mode is not used with other surround modes. When the 3D-PHONIC mode is turned on, the other surround mode, if used, will be turned off.

To cancel the 3D-PHONIC mode, select "OFF" in step 1 or by pressing the 3D-PHONIC button on the Unit.

Playing the Source Using the DAP Modes

When you listen to music, you can create a more realistic sound field by using the DAP modes. Among the DAP mode, there is one suitable for listening to news.

Perform the following steps using the buttons on the Remote Control.

- 1  Press the **SURROUND CONTROL** button.
- 2  Press the **DAP** button repeatedly to select the **DAP mode you want**.
The current DAP mode appears on the display and the DAP indicator lights up.
Each time you press the button, the DAP mode changes as follows:
→ JAZZ CLUB → SYMPHONY → NEWS → OFF → (back to the beginning)

- JAZZ CLUB:** Reproduces the sound field of a live music club.
- SYMPHONY:** Reproduces the sound field of a large concert hall. Best for orchestral music.
- NEWS:** Best for watching or listening to news.

Press the EFFECT LEVEL + or - button to adjust the effect level.

The current level is shown on the display. Each time you press the button, the level change as follows:

← Press the EFFECT - button
EFFECT1 ↔ EFFECT2 ↔ EFFECT3 ↔ EFFECT4 ↔ EFFECT5
Press the EFFECT + button →

- As the number increases, the selected DAP mode becomes stronger.
- The effect level can be stored for each mode.

Note: The DAP mode is not used with other surround modes. When the DAP mode is turned on, the other surround mode, if used, will be turned off.

To cancel the DAP mode, select "OFF" in step 2.



Playing the Source Using Dolby Pro Logic Mode

Preparing the Dolby Pro Logic Reproduction

For connecting the diagram, See page 6 "For Dolby Pro Logic Reproduction". To use the Dolby Pro Logic mode, you need to prepare the various settings as follows:

Center Speaker Mode

Center Speaker mode contains the following four settings.

PHANTOM: Select this setting if you have not connected a center speaker. The left and right front speakers project the sound to give the effect of a center speaker.

NORMAL: Select this setting if you are using a small center speaker. Since the center speaker cannot boost the low tones effectively, this setting uses the front speakers to boost the low tones from the center speaker.

WIDE: Select this setting if you are using a center speaker that is similar in power to the front speakers.

OFF: Select this setting to turn off the output for the center speaker.

Delay Time Mode

Delay Time mode contains the following three settings.

DELAY-1: Select this setting if the rear speakers are further away from your listening position than the front speakers. (Delay time: 15 msec.)

DELAY-2: Select this setting if the rear speakers and front speakers are about the same distance way from your listening position. (Delay time: 20 msec.)

DELAY-3: Select this setting if the rear speakers are nearer to your listening position than the front speakers. (Delay time: 25 msec.)

Adjusting the level of the Center Speaker

Adjust the level of the center speaker between +10 and -10. Set the level so that it is about the same as the level from the front speakers.

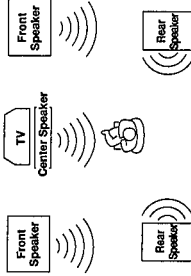
Adjusting the level of the Rear Speakers

Adjust the level of the rear speakers between +10 and -10. Set the level so that it is about the same as the level from the front speakers.

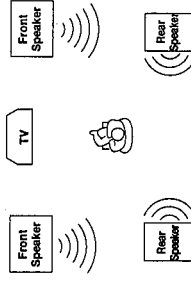
- You cannot adjust the levels of the left and right rear speakers independently.

Getting Ready to Use Dolby Pro Logic Speaker arrangements for Dolby Pro Logic

Layout when using the center speaker and rear speakers



Layout when using the rear speakers



Perform the steps below using the buttons on the Remote Control.



1 Press the SURROUND CONTROL button.



2 Press the PRO LOGIC button.
"PRO LOGIC" appears on the display and the SURROUND indicator lights up.

PRO LOGIC

SURROUND



3 Select the desired Center Speaker mode.
Press the CENTER MODE button. The display changes with each press of the button, as shown below.

→ NORMAL → WIDE → OFF → PHANTOM → (back to the beginning)



4 Select the Delay time.
Press the DELAY button. The display changes with each press of the button, as shown below.

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



5 Set the volume to the level you normally use.
6 Press the TEST TONE button.
A test tone is emitted in the order shown below.

→ LEFT → CENTER → RIGHT → REAR → (back to the beginning)

■ When "PHANTOM" is selected for Center Speaker mode, the test tone for the center speaker is projected by the front speakers.
■ When "OFF" is selected for Center Speaker mode, no test tone is output from the center speaker.



7 Adjust the level for the center speaker.
Press the CENTER LEVEL + or - button. Set the level so that it is about the same as the level from the front speakers.

CNTR 0dB

■ You cannot adjust the level for the center speaker if "PHANTOM" or "OFF" is selected for Center Speaker mode.



8 Adjust the level for the rear speakers.
Press the REAR LEVEL + or - button. Set the level so that it is about the same as the level from the front speakers.

REAR 0dB



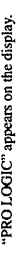
9 To cancel Test Tone mode.
Press the TEST TONE button again.
This completes the preparations required for using Dolby Pro Logic.

Note: The Dolby Pro Logic mode is not used with other surround modes. When the Dolby Pro Logic mode is turned on, the other surround mode, if used, will be turned off.

Using the Dolby Pro Logic

1 Press the SURROUND CONTROL button.

2 Press the PRO LOGIC button to light the SURROUND indicator on the display.
"PRO LOGIC" appears on the display.



3 Start playback from the desired source.
Enjoy the great sound of the Dolby surround processor.

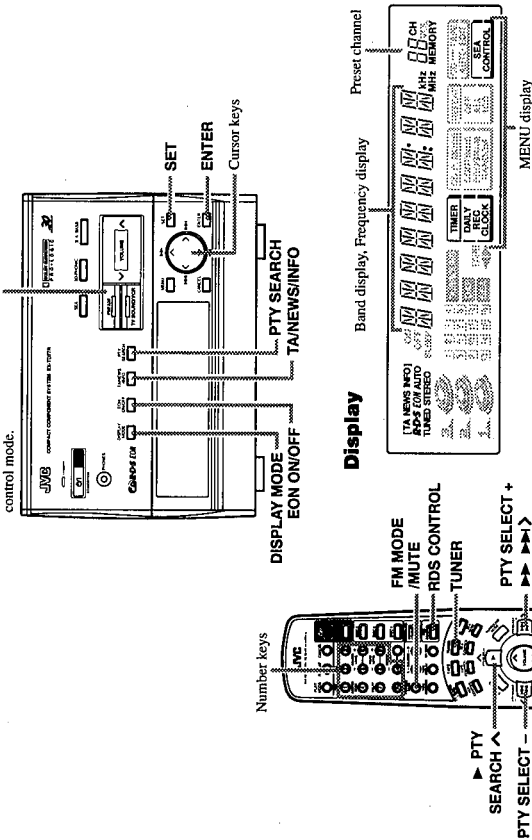
■ Use recording that have the logo.

To cancel the Pro Logic mode, press the PRO LOGIC button after pressing the SURROUND CONTROL button. The SURROUND indicator goes out.

Using the Tuner

FM/AM button

Press this to select the Tuner as the source. The button indicator lights up and the cursor keys operate in Tuner control mode.



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

TUNER button
Press this button to select the Tuner as the source and switch the Remote Control Tuner Control mode.

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

- Before listening to the radio:
 - Check that both the FM and AM (MW/LW) antennas are firmly connected. (See page 5).

One Touch Radio

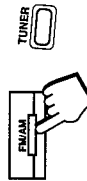
Just press the FM/AM button (or the TUNER button on the Remote Control) to turn on the Unit and start playing the most recent station tuned in.

- You can switch from any other sound source to the radio by pressing the FM/AM button (or the TUNER button on the Remote Control).

Tuning In a Station

Press the FM/AM button (or the TUNER button on the Remote Control) to turn on the radio. The Frequency of the previously selected channel appears on the display.

Switching between Frequency Bands
Press the FM/AM button (or the TUNER button on the Remote Control). Each time you press the button, the band alternates between FM and AM (MW/LW).



Selecting a radio station

Manual Tuning

Press the up and down cursor keys (▶▶ ▲ or ▼ ◀◀) to select the frequency. The frequency changes in one step increments. "TUNED" appears on the display when a signal is found.

Auto Tuning

Keep the up or down cursor key (▶▶ ▲ or ▼ ◀◀) pressed down to change the frequency continuously until a signal is found. "TUNED" will appear on the display when a signal is found. This is called Auto Tuning.

Preset Tuning (possible only after presetting stations)

Using the Unit

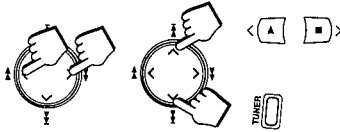
Select the a preset channel number by pressing the left and right (◀◀ ◀ or ▶ ▶▶) cursor keys. Press the right cursor key (▶ ▶▶) to increase the preset channel number and the left cursor key (◀◀ ◀) to decrease it.

Using the Remote Control

Press the ▶ ▲ or ◀ ▼ after pressing the TUNER button to select a preset channel. Press the ▶ ▲ button to increase the preset channel number and the ◀ ▼ button to decrease it.

You can use the Remote Control to select a preset channel directly.

- 1. Press the TUNER button so that you can receive the most recent station tuned in.
- 2. Select the station by entering the preset channel 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 32, press +10 three times, then 2.



To Change the FM Reception Mode

When an FM stereo broadcast is hard to receive or noisy, press the FM MODE/MUTE button on the Remote Control so that the "AUTO" indicator goes off in the display. Reception improves, but there are no stereo effects. In this monaural mode, noise comes out while tuning in stations (since muting is also cancelled).

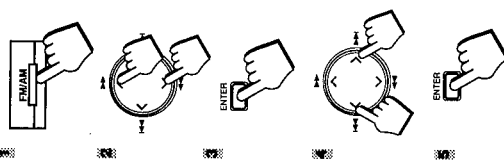
To restore the stereo effect, press the FM MODE/MUTE button on the Remote Control so that the "AUTO" indicator lights up. In this stereo mode, no noise comes out while tuning in stations, and you can hear stereo sounds when a program is broadcast in stereo.

Presetting Stations

You can store up to 40 of your favorite radio stations (FM and AM (MW/LW)) in memory, giving you quick, easy access to the stations.

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 frequency band by pressing the FM/AM button.
2. Press the up or down cursor key (▶▶ ▲ or ▼ ◀◀) to tune to a station.
3. Press the ENTER button.
 - On the display, "MEMORY" will blink for 5 seconds.
 - During these 5 seconds while "MEMORY" is blinking, you can assign a channel number to the station and enter it into the memory.
4. Press the right or left cursor key (◀◀ ◀ or ▶ ▶▶) to select a preset channel number.
5. Press the ENTER button again.
 - "MEMORY" appears on the display and that station is stored in the selected preset number.
 - If a station has been previously stored using the same channel number, this will be erased and the newly selected station will be stored.
 - If "MEMORY" in the display goes off, start again from step 3.
6. Repeat steps 1 to 5 for each station you want to store in memory with a preset number.



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

Receiving FM Stations with RDS

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

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

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

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

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

What Information RDS can Provide

The System can use the following RDS service.

PS (Program Service name)

Identifies each station by a name.

TA (Traffic Announcement Identification)

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

RT (Radio Text)

Allows the RDS station to send text messages that appear on the display of the unit.

PTY (Programme Type)

Identifies the type of RDS programme. This allows you to locate a specific type of programme being broadcast.

The programme types are as follows:

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

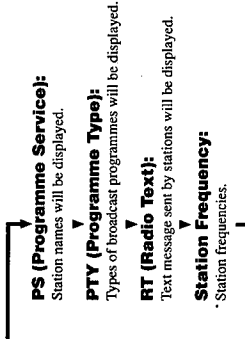
EON (Enhanced Other Networks Information)

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

Changing the Display

You can see RDS information on the display.

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



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

Searching for Programmes by PTY codes

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

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

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

1 Press the PTY SEARCH button.

"PTY" and "SELECT" appear alternately on the display.

Note: If no adjustments are made for 5 seconds in PTY Search mode, the display reverts to the previous display. Perform the next step while "PTY" and "SELECT" are being displayed.

2 Press the cursor key to the left or right (← or →) to select a PTY.

The display changes with each press of the cursor keys as shown below:

- ← Press the left (←) cursor key
- TRAFFIC → NEWS → INFO → POP M → ROCK M → M.O.R. M → LIGHT M → CLASSICS → OTHER M → AFFAIRS → SPORT → EDUCATE → DRAMA → CULTURE → SCIENCE → VARIED →
- Press the right (→) cursor key →

3 Press the PTY SEARCH button again.

While the search function is running, the selected programme type and "SEARCH" alternate on the display. The preset number also change.

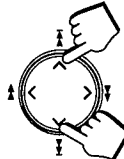
Using the Remote Control

1 Press the RDS CONTROL button.

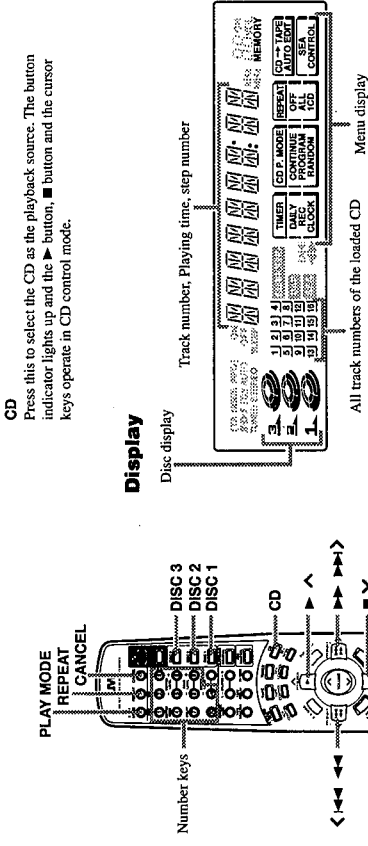
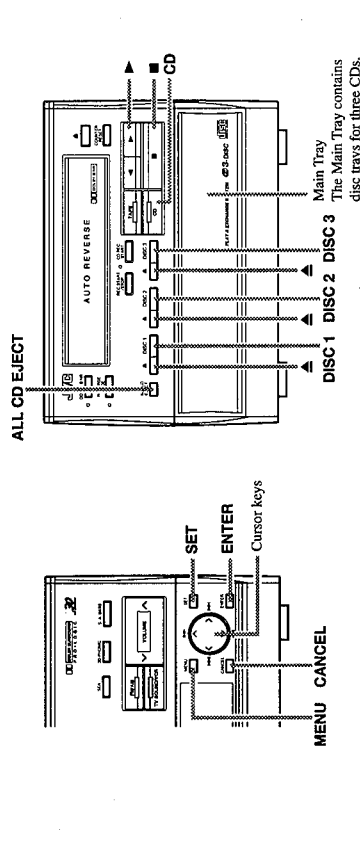
"PTY" and "SEARCH" appear alternately on the display.

2 Press the ► PTY SEARCH ^ button.

Note: If no adjustments are made for 5 seconds in PTY Search mode, the display reverts to the previous display. Perform the next step while "PTY" and "SELECT" are being displayed.



Using the CD Player



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

CD button
Press this button to select the CD as the playback source and switch the Remote Control CD control mode.

DISC button indicator
The buttons DISC 1, DISC 2, and DISC 3 act as indicators for the corresponding trays. This indicator is off when the CD Player is checking that there is no disc in the disc tray for the selected disc number. Pressing the **▶** button turns the indicator on.

Disc display
A disc marker lights on the disc display for the disc number you have selected. The CD indicator blinks while a CD is being played. The CD indicator, for the disc tray corresponding to the "NO DISC" display, goes out. The CD indicator for the disc tray which is opened with the Main Tray lights up. The CD indicator for disc that have been played are dimmed slightly compared to discs that have still to be played, or are being played.

COMPUTER PLAY

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

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

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

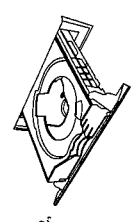
- The power comes on, and operations are done automatically.**
- Press the CD button.
 - If there is a CD in the disc tray of the selected (The Disc marker lights up) disc number, playback begins from the first track of that disc.
 - If there is not a CD in the disc tray of the selected disc number, search starts for a disc tray with a CD. If a CD is found, playback begins from the first track of that disc.
 - If there is no CD in any of the disc trays, the message "NO DISC" appears in the display after a few seconds and the disc tray for DISC 1 opens.
 - Press a DISC (1 to 3) button.
 - If there is a CD in the disc tray for the disc number you have selected, playback begins from the first track of that disc. If there is no CD in the disc tray, the message "NO DISC" appears in the display after a few seconds and the disc tray opens.
 - Press the ALL CD EJECT button.
 - Press the **▶** button.
 - The Main Tray for all the disc trays opens.
 - The Main Tray for the disc number corresponding to the number of the **▶** button pressed, opens.

Basics of Using the CD Player — Continuous Play

You can play the discs continuously in the DISC 1 to DISC 3 trays.

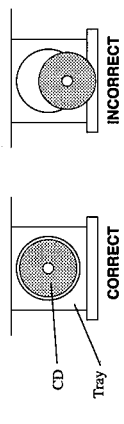
To insert three discs at the same time:

- Press the ALL CD EJECT button.
The Main Tray for all the disc trays opens.
- The disc trays are numbered from the top down; DISC 3, DISC 2, and DISC 1.



Insert a CD into the disc tray for DISC 3, with the label face-up.

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

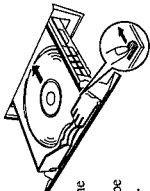


- To put an 8 cm. CD into a tray, insert it so that it is aligned with the groove in the tray's center.

3. Push the disc tray for DISC 3 to the back.

Push the disc tray gently to the back using the finger hold on the front right of the tray. The disc tray for DISC 2 will appear below the disc tray for DISC 3.

- Take care not to touch any CDs in the lower trays when pushing the disc tray into the Unit.
- If excessive force is applied to the Main Tray, the Main Tray will be closed. So, when you push the disc tray, gently push it to the back.
- While pushing the disc tray, take care not to touch any buttons on the Unit.



4. Insert a CD into the disc tray for DISC 2 in the same way as for DISC 3.

After inserting the CD, push the disc tray to the back. The disc tray for DISC 1 will appear.

5. Insert CD into the disc tray for DISC 1.

6. Press the ALL CD EJECT button.

The Main Tray returns to its original position.

- "ALL EJECT" appears on the display when the Main Tray is opened, and "ALL CLOSE" appears when it closes.
- If you press the CD or ► button on the unit (CD button on the Remote Control) instead of the ALL CD EJECT button, the Main Tray is automatically closed and continuous play starts for the lit disc marker. Also, if you press the DISC 1 - 3 buttons, the Main Tray will automatically close and playback will start from that disc.
- If the Main Tray is open when the System switches to standby mode, the Main Tray is closed automatically.



CAUTION: Do not push the disc tray for DISC 1 to the back. If the Main Tray is pushed in with a CD in, the tray will not load properly or may be ejected again after it has been pushed in. This can result in you not being able to use the CD Player. If the CD Player does not respond, disconnect the power cord then reconnect it again. The CD Player will operate normally again.

CAUTION: While closing the Main Tray, take care not to nip any foreign matter (headphone cable, etc.) between the Main Tray cover and the CD Player. If a foreign matter is nipped, the CD Player may be inoperative. In this case, remove it, and push the Main Tray cover to close the Main Tray. Then, the CD Player will operate normally again.

To insert CDs individually:

- **Press the ▲ button on the left of the DISC (1 - 3) button you want to insert the disc into.**
The disc tray for the selected disc number is set to the top and the Main Tray opens.



• **Place a CD onto the tray.**

• **Press the same ▲ button again.**

- The Main Tray closes.
- If you press a different ▲ button, the Main Tray closes then the disc tray for the ▲ button pressed is opened.
- If you press the ALL CD EJECT button, the Main Tray closes. Then the Main Tray opens again, containing all disc trays.



- "D1 OPEN" appears on the display when the Main Tray is opened (when DISC 1 is selected), and "D1 CLOSE" appears when it closes.

To Play a Disc

This function plays the disc in the Unit continuously, and lights the "CONTINUE" indicator.

1. Prepare the disc.

2. Press the DISC (1-3) button on the Unit or the Remote Control you want to play.

The first track of the selected disc will begin playing. When the selected disc finishes playing, the next disc will begin playing automatically. When the last disc has finished playing, the Unit will stop automatically.

To use Continuous Play from the first track of the disc selected by the disc marker, you do not need to press a DISC (1-3) button, just press the CD or ► button (or CD or ► ▲* button on the Remote Control).

- * The ► ▲ button on the Remote Control can be used to control the CD Player when the Remote Control is in CD mode.

Playing order of discs

- When playback starts from DISC 1, the playing order is DISC 1 → DISC 2 → DISC 3. When DISC 3 has finished, the CD Player selects DISC 1 (the disc marker is on) and stops.
- When playback starts from DISC 2, the playing order is DISC 2 → DISC 3 → DISC 1. When DISC 1 has finished, the CD Player selects DISC 2 (the disc marker is on) and 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 selects DISC 3 (the disc marker is on) and 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.

Note: If there is no CD in the disc tray for the DISC (1-3) button you pressed, the message "NO DISC" appears on the display and the tray for that disc is automatically moved to the top and the Main Tray opens. If there is no disc in the disc tray for the selected disc number when the ► or CD button (or the CD or ► ▲ button on the Remote Control) is pressed, playback begins from the next disc.

To stop playing the disc,

press the ■ button (press the ■ ▼ button after pressing the CD button when using the Remote Control).

To stop play and remove the disc, press the ▲ button for the disc being played or press the ALL CD EJECT button.

To pause, press the ► button. The Disc display will blink. (The Pause function cannot be used with the ► ▲ button on the Remote Control.)

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

To Change Discs While Playing

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

• **Press the ▲ button of the tray not being used.**

The disc tray you selected is set to the top and the Main Tray opens.

• **Replace the disc in the tray.**

- **Press the same ▲ button again.**
The Main Tray closes.

To Select a Track

Press the cursor key to the right or left (◀ or ▶).

Set the tracks by pressing the ◀ or ▶ cursor key to move between tracks.

- Pressing the ► cursor key moves to the next track.
- Pressing the ◀ cursor key moves to the previous track. (Moves to the beginning of the track during playing a track.)

- Pressing down either of these cursor keys scans the tracks continuously until the key is released.

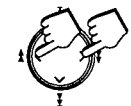
Using the Remote Control

- **Press the ◀ ◀ ◀ ◀ or ▶ ▶ ▶ ▶ button after pressing the CD button.**
Each time you briefly press and release the ◀ ◀ ◀ ◀ or ▶ ▶ ▶ ▶ button, the track changes by one.

- Press and release the ► ▶ ▶ ▶ button to go ahead one track at a time.

- Press and release the ◀ ◀ ◀ ◀ button to go back one track at a time. (Moves to the beginning of the track during playing a track.)

- Holding down the ◀ ◀ ◀ ◀ or ▶ ▶ ▶ ▶ button allows you to change tracks continuously.



To Select a Passage Within a Track
 Press the up or down cursor key continuously while a CD is playing. Pressing the up (▶) or down (◀) cursor key advances the CD rapidly, pressing the down (◀) cursor key plays the CD backwards rapidly. Release the cursor key at the point at which you wish to resume normal playback.

Note: You cannot perform these fast forwards or fast backwards operation with the Remote Control.

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.

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

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 20, press +10, then 10. For track 32, press +10 three times, then 2.

Programming the Playing Order of the Tracks

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

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

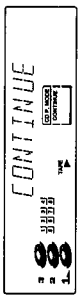
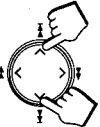
Using the Unit

Press the MENU button.

The TIMER section of the menu display blinks.

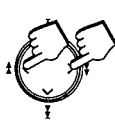


Press the cursor key to the right or left (◀ or ▶) and select 'CD P.MODE'.
 The menu display changes with each press of the cursor keys as shown below.



- ← Press the left (◀) cursor key
- Press the right (▶) cursor key
- ↔ TIMER ↔ CD P.MODE ↔ REPEAT ↔ AUTO EDIT ↔ SEA CONTROL ↔

Press the cursor key to the up or down (▶ or ◀) and select 'PROGRAM'.
 The menu display changes with each press of the cursor keys as shown below.

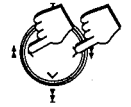
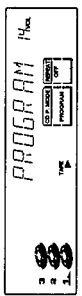


- ↔ Press the up (▶) cursor key
- ↔ CONTINUE ↔ PROGRAM ↔ RANDOM ↔
- ↔ Press the down (◀) cursor key

"PROGRAM" appears on the display.

Press the SET button.

The blinking "PROGRAM" display changes to a steady display.



Press the cursor key to the up or down (▶ or ◀ or ▼ or ▲) to select the disc.

The display changes to the Program Entry display and the disc number and track number sections blink for a few seconds.

The menu display changes with each press of the cursor keys as shown below.

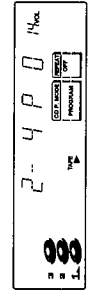
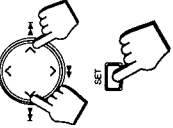
- Press the up (▶) cursor key
- 1 → 2 → 3

Press the down (◀) cursor key →

- If you press the DISC (1-3) buttons instead of pressing the up or down (▶ or ◀ or ▼ or ▲) cursor key, you can select the disc.
- While the display is blinking, perform the operations in steps 6 to 7. When the blinking display changes to the "PROGRAM" display, repeat the operations in steps 5 to 7.

Press the cursor key to the right or left (◀ or ▶) to select the track.

The track number appears on the display.



Press the SET button.

The blinking disc number and track number changes to a steady light, and the step number is displayed.



Repeat steps 5 to 7 to select the other tracks for the program.

- To select another track from the same disc, repeat the procedure from step 6.

Press the ▶ or CD button.

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

Using the Remote Control

Press the PLAY MODE button to select PROGRAM.

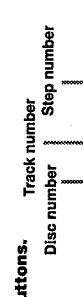
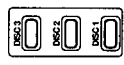
"PROGRAM" lights up on the display. The display changes with each press of the PLAY MODE button as below.



→ CONTINUE → PROGRAM → RANDOM → (back to the beginning)

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

The display changes to the Program Entry display and the disc number and track number sections blink for a few seconds.



• While the display is blinking, perform the operations in step 3. When the blinking display changes to the "PROGRAM" display, repeat the operations in steps 2 to 3.

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

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

The blinking disc number and track number changes to a steady light, and the step number is displayed.

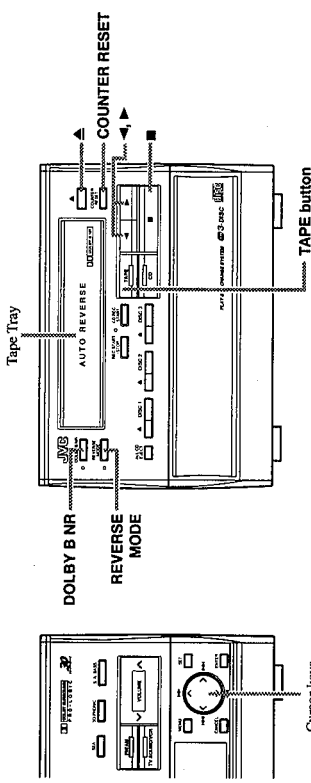


Repeat steps 2 to 3 to select the other tracks for the program.

Press the ▶ or CD button.

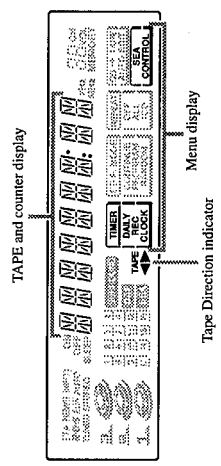
The Unit plays the tracks in the order you have programmed them.

Using the Cassette Deck (Listening to a Tape)

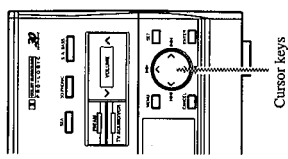


TAPE button
Press this to select the Cassette Deck as the playback source. The button indicator lights up and the ◀ and ▶ buttons and the cursor keys operate in Cassette Deck control mode.

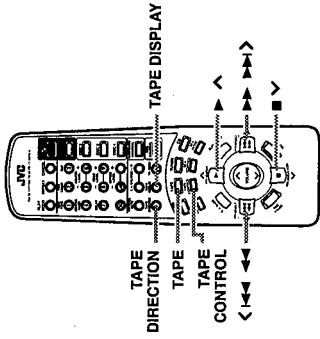
Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section. This illustration shows only the Menu display items for the Cassette Deck.



Cursor keys



TAPE button and TAPE CONTROL button
Press the TAPE or TAPE CONTROL button to switch the Remote Control to Cassette Deck control mode. You can then use the ◀ ▶ buttons to control the Cassette deck.

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

- Most tapes are now recorded with the Dolby NR system, so first check which type of the Dolby NR system has been used on the tape. Only Dolby B NR is incorporated into the System.
- With Automatic Tape Detection, you can listen to type I or II tapes without changing any settings.

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

One Touch Play

Press the **TAPE button (on the Unit or on the Remote Control)**. Press the **▶ ◀ button on the Remote Control (When the Remote Control is in Cassette deck control mode)**

The power comes on and "TAPE" lights up on the display. If there is a tape in the Tape Tray, the tape is automatically played. If there is no tape in the Tape Tray, "OPEN" appears on the display and the Tape Tray opens.



Using the Remote Control

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

- ALL → 1 CD → 1 → OFF → (back to the beginning)

- "REPEAT ALL" and "REPEAT 1" remain on the display even when you change the CD play mode.
- The three Repeat Modes above can be selected during Continuous Play, however, during Program Play and Random Play, you can only select REPEAT ALL or REPEAT 1.

To exit Repeat Mode, select "OFF" in step 3.

Tray Lock Function

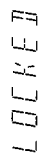
In order to safely keep the discs in the CD Player, the three trays can be electronically locked in a single operation. When the electronic lock is on, the trays cannot be opened even if the ◀ or ALL CD EJECT button is pressed.

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

Locking the Electronic Lock

- Put the System's power into **STANDBY mode**.

- While pressing the **▶ button**, press the **DISC 1's ▲ button**. "LOCKED" appears on the display to let you know that the trays have been locked.

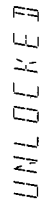


When the CD Player trays are locked, pressing the ◀ or ALL CD EJECT buttons displays the message "LOCKED" on the display and the trays do not open. And the ◀ or ALL CD EJECT button can not be used to automatically turn on the power.

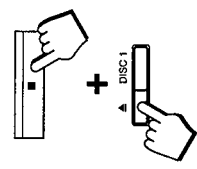
Unlocking the Electronic Lock

- Put the System's power into **STANDBY mode**.

- While pressing the **▶ button**, press the **DISC 1's ▲ button**. When the unlock operation is done, "UNLOCKED" appears in the display to show that the lock has been taken off.



The trays can now be opened by pressing the ◀ or ALL CD EJECT button. The ◀ and ALL CD EJECT buttons can also be used to automatically turn on the power.



Regular Play

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

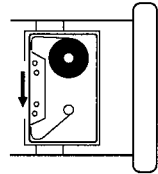
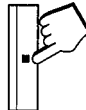
1. **Press the \blacktriangle button.**
"OPEN" appears on the display and the Tape Tray opens.
2. **Insert a tape into the Tape Tray with the tape head at the back.**
3. **Press the \blacktriangle button again.**
"CLOSE" appears on the display and the Tape Tray closes.
4. **Press the TAPE button.**
The tape is played in the direction shown by the Tape Direction indicator.
 - If the Tape Tray is open, it automatically closes and the tape is played when you press the TAPE button.
 - If the Cassette Deck is already selected as the playback source, press the \blacktriangle or \blacktriangleright button to play the tape in that direction.
 - If the Remote Control is in Cassette Deck control mode, press the \blacktriangle \blacktriangle button on the Remote Control to play the tape in the direction shown by the Tape Direction indicator.

To stop playing, press the \blacksquare button on the Unit or press the \blacksquare button on the Remote Control after switching to Cassette deck control mode.

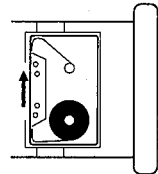
To change the direction of playback for the tape, press the \blacktriangle \blacktriangle button on the Remote Control. If you are using the Remote Control, press the TAPE DIRECTION button.

Tape Direction Indicator and the Display

The Tape Direction indicator shows you which direction the tape is being played in. The direction of playback and the Tape Direction indicator display are shown below.



When the indicator is \blacktriangleright



When the indicator is \blacktriangleleft

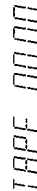
- During playback, the Tape Direction indicator blinks slowly. During fast left or fast right, the indicator blinks quickly. During Music Scan mode, the direction indicator alternates between blinking slowly and quickly repeatedly.

Display

The display includes a tape counter which shows you which direction a tape is being played. The tape counter increases when the tape is playing in the \blacktriangleright direction, and decreases when the tape is played in the \blacktriangleleft direction.

- When the Tape Direction indicator shows \blacktriangleright , the counter increases when you fast forward a tape and decreases when you rewind a tape.
- When the Tape Direction indicator shows \blacktriangleleft , the counter decreases when you fast forward a tape and increases when you rewind a tape.
- When the Tape Direction indicator shows \blacktriangleright , the following happens when you do a Music Scan.
 - When you scan to the next selection, the counter increases.
 - When you scan to the previous selection, the counter decreases.
- When the Tape Direction indicator shows \blacktriangleleft , the following happens when you do a Music Scan.
 - When you scan to the next selection, the counter decreases.
 - When you scan to the previous selection, the counter increases.

To reset the tape counter, press the COUNTER RESET button. The counter returns to "0000".



Fast Forward and Rewind

Press the \blacktriangleright \blacktriangleright or \blacktriangleleft cursor key.

- When the Tape Direction indicator shows \blacktriangleright , the tape fast forwards when you press the \blacktriangleright \blacktriangleright key and rewinds when you press the \blacktriangleleft \blacktriangleleft key.
- When the Tape Direction indicator shows \blacktriangleleft , the tape rewinds when you press the \blacktriangleright \blacktriangleright key and fast forwards when you press the \blacktriangleleft \blacktriangleleft key.
- When using the Remote Control, press the \blacktriangleleft \blacktriangleleft or \blacktriangleright \blacktriangleright button while the tape is stopped after pressing the TAPE or TAPE CONTROL button.

Music Scan

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

Press the \blacktriangleleft \blacktriangleleft or \blacktriangleright \blacktriangleright cursor key.

- When the Tape Direction indicator shows \blacktriangleright , Press the \blacktriangleright \blacktriangleright button to scan to the next selection. Press the \blacktriangleleft \blacktriangleleft button to scan to the previous selection.
- When the Tape Direction indicator shows \blacktriangleleft , Press the \blacktriangleleft \blacktriangleleft button to scan to the next selection. Press the \blacktriangleright \blacktriangleright button to scan to the previous selection.
- When using the Remote Control, press the \blacktriangleleft \blacktriangleleft or \blacktriangleright \blacktriangleright button while playing or Music Scanning after pressing the TAPE or TAPE CONTROL button.

When you press the left or right cursor keys (\blacktriangleleft \blacktriangleleft or \blacktriangleright \blacktriangleright) while the tape is stopped, the unit scans the first part of the selection in the corresponding direction and automatically plays the track.

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

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

Other Useful Features of the Cassette Deck

Reverse Mode

Use Reverse Mode to make the tape automatically reverse at the end of a side and start playing the other side. Press the REVERSE MODE button to switch Reverse Mode on (the indicator lights up) or off (the indicator goes off).
When the Reverse Mode is set to off (the indicator goes off), the tape stops playing after being played on one side.

DOLBY B NR

Press the DOLBY B NR button to switch Dolby B Noise Reduction on (the indicator lights up) or off (the indicator goes off). If a tape is recorded with the Dolby B NR system, playing it back with the Dolby NR on will reduce tape noise and improve the clarity of the sound.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

To Control the Cassette Deck While Another Source is being Played

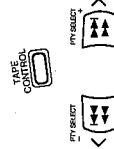
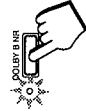
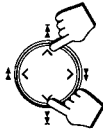
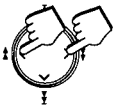
You can use the Remote Control to rewind or fast forward a tape while another source is being played.

Press the TAPE CONTROL button.

The Remote Control switches to Cassette Deck control mode.

Press the \blacktriangleleft \blacktriangleleft or \blacktriangleright \blacktriangleright button to rewind or fast forward the tape.

Note: You cannot use any other Cassette Deck controls, apart from fast forward and rewind, while another source is being played.



CD Direct Recording

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

- 1 **Prepare CDs. (See page 27.)**
Check that the CD Player is not playing a CD.
 - Set the source to CD.

- 2 **Insert a cassette into the Tape Tray to record on.**
When you want to record on both sides of a tape, press the REVERSE MODE button to turn Reverse Mode on. Check that the recording direction for the tape and the Tape Direction indicator are correct. (See page 39 "Notes for using Reverse Mode for recording".)

- 3 **Press the CD REC START button.**
"CD" / "TAPE" appears on the display and the CD Player starts playing the first track to be recorded. At the end of the tape, the System automatically goes back to the beginning of the last selection and records it, this time gently fading out at the end. If you selected the Reverse Mode, the reverse side starts with the first selection on the first side and will be faded out at the end again. (About 10 second blank is created at the beginning of the reverse side.) When the recording is finished, the message "CD REC FINISHED" scrolls by on the display. The CD Player and Cassette Deck stop.

- 4 **To Stop at Any Time During the Recording Process**
Press the REC START/STOP or ■ button.
The recording stops when you press the REC START/STOP button. If you press the ■ button, the unit creates a four second blank section of tape before stopping.

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

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

Auto Edit Recording

Using Auto Edit, you can record the CD tracks to fit the tape, so a selection isn't 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 first side from being cut off, the last track on the first side is selected to fit on the remaining tape length.

- 1 **Prepare the CD or CDs. (See page 27.)**
Set the source to CD and check that the CD Player is not playing a CD.

- 2 **Press the MENU button.**
The "TIMER" section of the menu display blinks.

- 3 **Press the cursor key to the right or left (← or →) and select "AUTO EDIT".**
The display changes with each press of the cursor keys as shown below.

- 4 **TIMER → CD P/MODE → REPEAT → AUTO EDIT → SEA CONTROL →**
Press the left (←) cursor key
Press the right (→) cursor key →

- You cannot select AUTO EDIT if a source other than the CD Player is selected.

- 5 **Press the SET button.**
"DISC" blinks on the display.

- 5 **Press the cursor key up or down (↑ or ↓) or (← or →) and select the disc.**

The display changes with each press of the cursor keys as shown below.

- 6 **Press the down (↓) cursor key 3 → 2 → 1**
- 7 **Press the up (↑) cursor key →**

- If you press the DISC (1-3) buttons instead of pressing the up or down (↑ or ↓) or (← or →) cursor keys, you can select the disc.

- 8 **Press the SET button.**
After "TAPE C" appears on the display, the display shows you the length of tape required to record the CD you selected.

- 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 System: 40, 46, 50, 54, 60, 64, 70, 74, 80, 84, 90. Use the ← or → key to select the length that matches the length of tape you will be using, or the length nearest to the total playing time of the CD, the last tracks on both sides of the tape will be faded out as the tape ends.

- 9 **Press the SET button.**

"SIDE-B" blinks on the display and the tracks that will be recorded on side B of the tape are displayed.

- To display the tracks that will be recorded on side A of the tape, press the SET button again. The Unit switches between side A and side B with each press of the SET button.

- 10 **Press the ENTER button.**

- 11 **Insert a cassette in Tape Tray to record on.**
When you want to record on both sides of a tape, press the REVERSE MODE button to turn Reverse mode on.

- 12 **Press the CD REC START button.**
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.

When the tape is ready, to prevent the start of a track being cut, the System creates a blank period of about 10 seconds before it starts to record the CD. While a blank period is being created, "TAPE SIDE-A STANDBY" scrolls through the display. (The System also creates about 10 second blank period at the start of side B of the tape. While a blank period is being created, "TAPE SIDE-B STANDBY" scrolls through the display.)

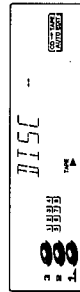
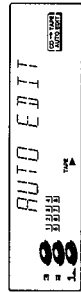
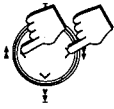
When the recording is finished, the message "CD REC FINISHED" scrolls by on the display. The CD Player and Cassette Deck stop.

- 13 **To stop at any time while recording,** press the REC START/STOP button or the ■ button. The recording stops when you press the REC START/STOP button. If you press the ■ button, the unit creates a four second blank section of tape before stopping.

To cancel Auto Edit, press the ▲ button on the CD Player or the ALL CD EJECT button. You can also cancel Auto Edit by selecting play mode from the Unit or the Remote Control after stopping the recording.

Notes:

- If you change any of the CD's while using Auto Edit, Auto Edit will be cancelled. Therefore, do not change the CD's while using Auto Edit.
- 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 off. If the time is set to about the length of the CD, the power may go off before recording finishes.



6. Press the SET button.

Proceed to step 6.

To use a Cassette Deck as the source
1. Press the left or right cursor key (← or →) until "TAPE" blinks on the display.

2. Press the SET button.

Proceed to step 6.

To use the current source as the playback source:
1. Press the left or right cursor key (← or →) until "A" blinks on the display.

2. Press the SET button.

Proceed to step 6.

6. Setting the volume level.

Press the left or right cursor key (← or →) to adjust the volume level.

VOLUME - A: Sets the volume level to 5.

VOLUME - B: Sets the volume level to 12.

VOLUME - C: Sets the volume level to 20.

VOLUME - -: Sets the volume to the last volume setting used.

7. Press the ENTER button.

The "DAILY" indicator changes from a blinking display to a steady display. The ON TIME, OFF TIME, PLAYBACK SOURCE (including the disc number and track number if a CD source is selected) are displayed then the display reverts to the previous display, before the Timer was set. Turn the power off if you made the timer settings with the power turned on.

If you make a mistake while setting the Timer, press the CANCEL button to return to the previous setting. You can use the CANCEL button to return to the On Time setting.

A few seconds before the start time for the timer, the System automatically turns on the power and displays "DAILY" and "TIMER" alternately on the display. When the set time is reached, playback starts using the selected source. A few seconds before the end time for the timer, "TIMER" blinks on the display and when the end time is reached the power is automatically turned off again.

If you change the source while the DAILY timer is running, the timer operation 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:

- Make sure that there is a tape in the Tape Tray.
- 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.

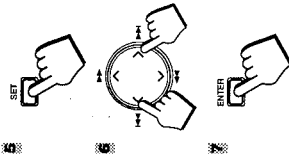
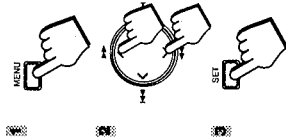
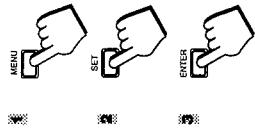
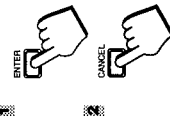
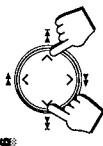
To Turn the DAILY Timer Off

Press the MENU button.

"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.

Press the CANCEL button.

"DAILY OFF" appears on the display and the DAILY indicator in the TIMER section of the menus goes out.



To Turn the DAILY Timer On Again

Press the MENU button.

"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.

Press the SET button.

Press the ENTER button.

The DAILY indicator in the TIMER section of the menu changes from a blinking display to a steady display. The Timer ON TIME, OFF TIME, PLAYBACK SOURCE (including the disc number and track number if a CD source is selected), and VOLUME LEVEL are displayed on the display.

CAUTION: If the System 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 ONCE REC (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 ONCE REC Timer whether the Unit is on or off.

The tape you want to record onto must be in Tape Tray.

Press the MENU button.

"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.

Press the up or down cursor key (↑ or ↓) until "REC" blinks on the display.

"ONCE REC" appears on the display and the REC indicator in the "TIMER" section of the menu display blinks.

Press the SET button.

The display changes to the On Time display.

Set the On Time and Off Time

Use the ← or → key, and the SET key to set the start and end times in the same way as for the DAILY Timer.

When you press the SET button after setting the Off Time, "TUNER" starts to blink on the display.

Press the SET button.

The display changes to the preset channel selection screen.

Press the left or right cursor key (← or →) to select the preset channel you want to listen to.

You can only select a station to receive from amongst the preset channels.

Press the ENTER button.

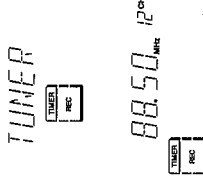
The "REC" indicator changes from a blinking display to a steady display. The ON TIME, OFF TIME, and preset channel number are displayed then the display reverts to the previous display, before the Timer was set.

Turn the power off if you made the timer settings with the power turned on.

If you make a mistake while setting the Timer, press the CANCEL button to return to the previous setting. You can use the CANCEL button to return to the On Time setting.

A few seconds before the start time for the timer, the System automatically turns on the power and displays "ONCE REC" and "TIMER" alternately on the display. When the set time is reached, playback starts using the selected source. A few seconds before the end time for the timer, "TIMER" blinks on the display and when the end time is reached the power is automatically turned off again.

If you change the source while the ONCE REC timer is running the timer operation is cancelled.



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 control is automatically set to 0 when ONCE REC Timer is recording.

It is very easy, and can be very disappointing, to forget to put in a tape, or to accidentally leave a tape in Tape Tray 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

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

Turning the ONCE REC Timer On and Off

Once the ONCE REC Timer has been used to record a source, the setting is maintained but the Timer is set to OFF.

To Turn the REC Timer Off Before the Timer Starts.

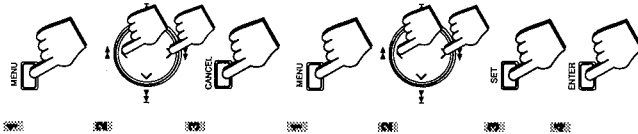
- 1 **Press the MENU button.**
"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.
- 2 **Press the up or down cursor key (↑ or ↓) until "REC" blinks on the display.**
"ONCE REC" appears on the display and the REC indicator in the "TIMER" section of the menu display blinks.
- 3 **Press the CANCEL button.**
"REC OFF" appears on the display and the REC indicator in the TIMER section of the menus goes out.

To Record at the Same Time Again.

- 1 **Press the MENU button.**
"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.
- 2 **Press the up or down cursor key (↑ or ↓) until "REC" blinks on the display.**
"ONCE REC" appears on the display and the REC indicator in the "TIMER" section of the menu display blinks.
- 3 **Press the SET button.**

The DAILY indicator in the TIMER section of the menu changes from a blinking display to a steady display. The ON TIME, OFF TIME, and preset channel number are displayed then the display reverts to the previous display, before the Timer was set.

CAUTION: If the System 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 System on and a source playing, press the SLEEP button on the Remote Control.**
The message "SLEEP" appears on the display.
- 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 blinking, 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 "SLEEP" indicator stops blinking, and is lighted steadily.

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

To Change the SLEEP Timer Setting

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

To Cancel the SLEEP Timer Setting

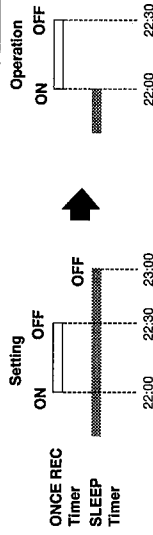
Press the SLEEP button until the "SLEEP" indicator goes off on the display. Turning off the Unit also cancels the SLEEP Timer.

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:

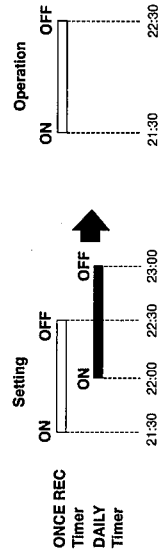
- The ONCE REC Timer always has priority. This means that:
• If another timer is set to come on during a time when the ONCE REC Timer is operating, the other timer just won't come on at all, so you will always get the entire program on tape.
- If the ONCE REC Timer is set to come on while another timer is operating, the other timer will shut off 10 seconds before the ONCE REC Timer is set to turn on, and the ONCE REC Timer will then take over.
- The SLEEP Timer has the least priority. This means that if the SLEEP Timer is set while the DAILY Timer is operating, the DAILY Timer settings are cancelled. However, if the DAILY Timer is set to come while the SLEEP Timer is operating, the SLEEP Timer setting will be cancelled and the Unit will use the settings from the DAILY Timer.

Example 1



The ONCE REC Timer has priority.

Example 2



The ONCE REC Timer has priority.

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 center 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 center to edge.

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

Moisture Condensation



- Moisture may condense on the lens inside the Unit in the following cases:
 - After starting the heating in the room.
 - In a damp room.
 - If the unit is brought directly from a cold to a warm place.
- Should this occur, the Unit may malfunction. In this case, leave the unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

General Notes

- In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.
- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the Cassette Deck's tape holder and the CD trays closed when not in use.

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 wet-type head cleaning tape, available from an audio store. For more details, refer to the Instructions of the Head Cleaning Tape.
- If the heads become magnetized, the Unit will produce noise or lose high frequencies.
- To demagnetize the heads, turn off the Unit, and use a head demagnetizer (available at electronics and record shops).

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 - 7.)
Unable to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Poor radio reception	<ul style="list-style-type: none"> The antenna is disconnected. The AM Loop Antenna is too close to the Unit. The FM Wire Antenna is not properly extended and positioned. 	<ul style="list-style-type: none"> Re-connect the antenna securely. Change the position and direction of the AM Loop Antenna Extend FM Wire Antenna to the best reception position.
The CD skips.	The CD is dirty or scratched.	Clean or replace the CD.
Unable to operate the Remote Control.	<ul style="list-style-type: none"> The path between the Remote Control and the sensor on the Unit is blocked. The batteries have lost their charge. 	<ul style="list-style-type: none"> Remove the obstruction. Replace the batteries.
The CD tray cannot be opened.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	<ul style="list-style-type: none"> The built-in microprocessor has malfunctioned due to external electrical interference. A foreign matter (headphone cable, etc.) is caught by the Main Tray cover. 	<ul style="list-style-type: none"> Unplug the Unit then plug it back in. Remove the foreign matter and then push the Main Tray cover by hand to close it.
The cassette door cannot be opened.	During tape playing, the power cord was unplugged.	Plug in the power cord, press the U button, and then press the ▲ button.
"WARNING" appears in the display.	Problem arised in the Cassette Deck.	Contact your dealer.

Specifications

Amplifier/Tuner Section

Amplifier

Output Power
SPEAKERS A (IEC 268-3/DIN) (Main)

20 watts per channel, min. RMS, both channels driven, into 6 ohms at 1 kHz with no more than 0.9% total harmonic distortion.

SPEAKERS B (Subwoofer)
30 watts per channel, min. RMS, both channels driven, into 3 ohms at 80 Hz, with no more than 10% total harmonic distortion.

Input Sensitivity/Impedance (1 kHz)

TV SOUND/VCR 400 mV/47 kohms

Output Impedance (1 kHz)

TV SOUND/VCR 6.8 kohms

Presets S.E.A.

3 patterns

Manual S.E.A. Control

+6 dB at 1.50 Hz (2 dB step)

+6 dB at 1 kHz (2 dB step)

+6 dB at 10 kHz (2 dB step)

Speaker terminals

SPEAKERS A 6 - 16 ohms

SPEAKERS B 3 - 16 ohms

Tuner

FM Tuner

Tuning Range 87.5 - 108.0 MHz

AM Tuner

Tuning Range

MW 522 - 1,629 kHz

LW 144 - 288 kHz

Dimensions

196 × 145 × 352 mm (W/H/D)
(7-3/4 × 5-3/4 × 13-7/8 inches)

Mass

5.1 kg (11.3 lbs)

CD Player/Cassette Deck Section

CD Automatic Changer

CD Capacity

3 discs

Dynamic Range

96 dB

Signal-To-Noise Ratio

96 dB

Wow And Flutter

Unmeasurable

Cassette Deck

Frequency Response

Type II (CRO): 30 - 16,000 Hz

Type I (NORMAL): 30 - 15,000 Hz

Wow And Flutter 0.09% (WRMS)

Dimensions

196 × 145 × 348 mm (W/H/D)
(7-3/4 × 5-3/4 × 13-3/4 inches)

Mass

4.2 kg (9.3 lbs)

Accessories

AM (MW/LW) Loop Antenna (1)

Remote Control (1)

Batteries R6F (SUM-3)/AAA (15F) (2)

FM Wire Antenna (1)

External Wire (1)

Power Specifications

Power Requirements AC 230 V $\sqrt{}$, 50 Hz

Power Consumption 89 watts

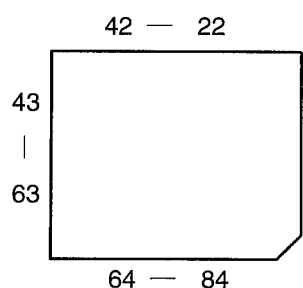
12 watts (in standby mode)

Design and specifications are subject to change without notice.

Description of Major ICs

■ MN173222JAAY (IC801) Tuner & Display controller

1. Terminal Layout



2. Key Matrix

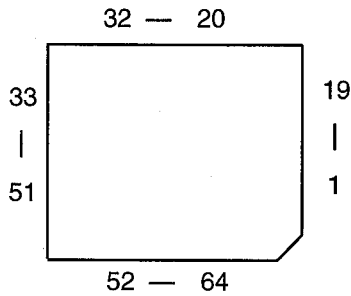
	KEY OUT0	KEY OUT1	KEY OUT2	KEY OUT3	KEY OUT5	KEY OUT6
KEY IN0	POWER	VOLUME ∇	◀	MENU	BAND0	RDS
KEY IN1	SEA	VCR	◀◀	CANCEL	BAND1	
KEY IN2	3DPHONIC	FM/AM	▶▶	ENTER		
KEY IN3	BASS	VOLUME ▲	▶▶	SET		

3. Description

Pin No.	Symbol	I/O	Function and Operation	Pin No.	Symbol	I/O	Function and Operation
1	S10	O	FL segment control signal	43	CMDT2C	O	Data signal for IC751
2	S9	O	FL segment control signal	44	CMRDYA	I	Ready signal
3	S8	O	FL segment control signal	45	CMCLKA	I	Clock signal
4	S7	O	FL segment control signal	46	CMDT1A	I	Data signal from IC401
5	S6	O	FL segment control signal	47	CMDT2A	O	Data signal for IC401
6	S5	O	FL segment control signal	48	INH	O	Inhibit signal output
7	GND	-	Connected to GND	49	RSDST	O	Reset signal for IC191
8	GND	-	Connected to GND	50	/TUNED	O	TUNED indication control
9	GND	-	Connected to GND	51	STEREO	O	STEREO indication control
10	13G	O	FL grid control signal	52	TMUTE	O	Tuner mute signal output
11	12G	O	FL grid control signal	53	DCSOUT	O	DCS control signal output
12	11G	O	FL grid control signal	54	DCSIN	I	DCS control signal input
13	10G	O	FL grid control signal	55		-	Connected to GND
14	9G	O	FL grid control signal	56	KI0	I	Key matrix input
15	8G	O	FL grid control signal	57	KI1	I	Key matrix input
16	7G/KO6	O	FL grid control signal/Key matrix out	58	KI2	I	Key matrix input
17	6G/KO5	O	FL grid control signal/Key matrix out	59	KI3	I	Key matrix input
18	5G/KO4	O	FL grid control signal/Key matrix out	60	IFDATA	I	Data from PLL synthesizer
19	4G/KO3	O	FL grid control signal/Key matrix out	61	TCE	O	Chip select terminal input
20	3G/KO2	O	FL grid control signal/Key matrix out	62	TCK	O	Clock for PLL synthesizer
21	2G/KO1	O	FL grid control signal/Key matrix out	63	TDATA	O	Data for PLL synthesizer
22	1G/KO0	O	FL grid control signal/Key matrix out	64	RDSCLK	I	Clock input from IC191
23	-Vpp	-	Power Supply (-Vpp)	65	RSDATA	I	Data signal from IC191
24	S4	O	FL segment control signal	66	RDSRST	O	Reset signal for IC191
25	S3	O	FL segment control signal	67	FOUT	O	Clock frequency
26	S2	O	FL segment control signal	68	/RESET	I	Reset signal input
27	S1	O	FL segment control signal	69	X1	-	Connected to GND
28		-	Connected to GND	70	X2	-	Non connection
29		-	Connected to GND	71	VSS	-	Connected to GND
30		-	Connected to GND	72	OSC2	I/O	Clock oscillation terminal
31		-	Connected to GND	73	OSC1	I/O	Clock oscillation terminal
32		-	Connected to GND	74	VDD	-	Power supply
33		-	Connected to GND	75		-	Connected to GND
34		-	Connected to GND	76	S19	O	FL segment control signal
35		-	Connected to GND	77	S18	O	FL segment control signal
36		-	Connected to GND	78	S17	O	FL segment control signal
37		-	Connected to GND	79	S16	O	FL segment control signal
38		-	Connected to GND	80	S15	O	FL segment control signal
39		-	Connected to GND	81	S14	O	FL segment control signal
40	CMRDYC	I	Ready signal	82	S13	O	FL segment control signal
41	CMCLKC	I	Clock signal	83	S12	O	FL segment control signal
42	CMDTIC	I	Data signal from IC751	84	S11	O	FL segment control signal

■ HD404019RC87FS (IC401) Amp & DSP controller

1. Terminal Layout

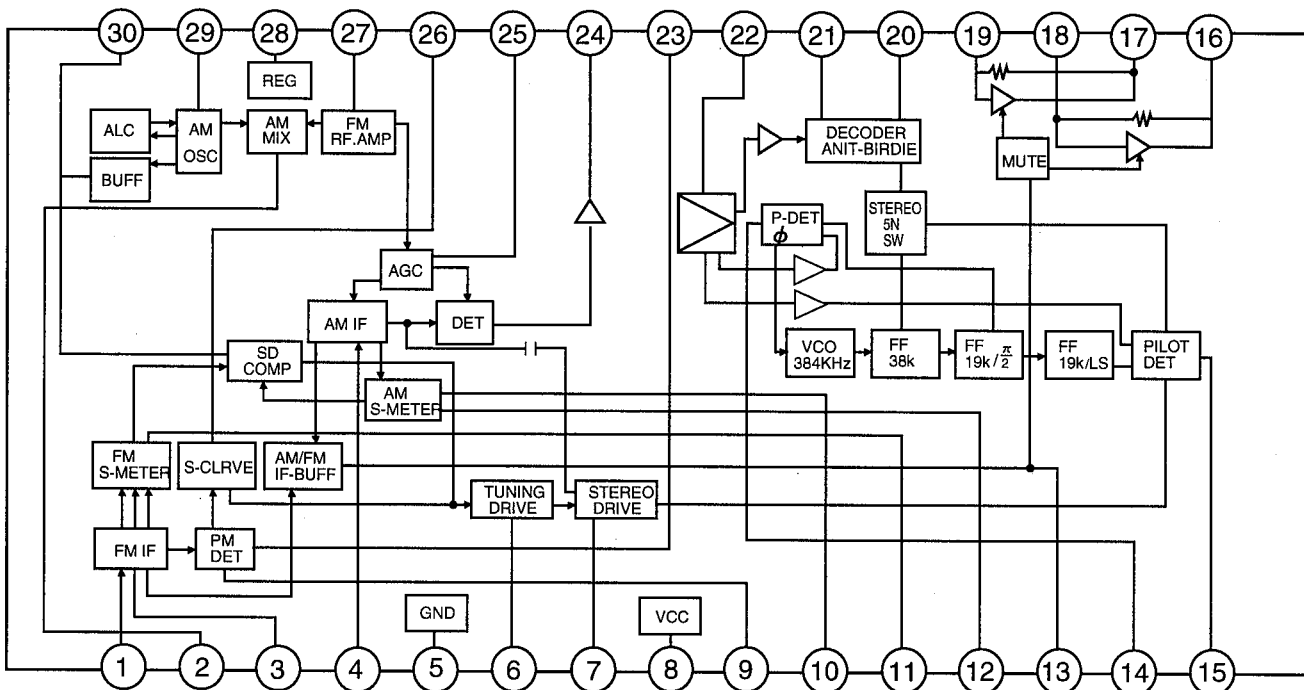


2. Description

Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1		-	Non connection	33	DSCK	O	Clock signal for DSP micon(IC061)
2		-	Non connection	34	DDATA	O	Data signal for DSP micon(IC061)
3	DCSOUT	O	DCS signal output	35	HRS	O	Data frame sync signal for DSP micon(IC061)
4	DCSIN	I	DCS signal input	36	/CS	O	Chip select signal for DSP micon(IC061)
5		-	Connected to GND	37	/RST	O	Reset signal for DSP micon(IC061)
6		-	Connected to GND	38	/MUTE	O	Mute control signal for DSP micon(IC061)
7		-	Connected to GND	39	/EMPTY	I	EMPTY flug input from DSP micon(IC061)
8		-	Connected to GND	40		-	Connected to GND
9		-	Connected to GND	41		-	Connected to GND
10		-	Connected to GND	42		-	Connected to GND
11		-	Connected to GND	43	RESET	I	Reset signal input
12		-	Connected to GND	44	/TEST	-	+5.6V pull up
13		-	Connected to GND	45	OSC	I/O	Osillation terminal
14	SCK1	O	Clock signal output for IC402	46	OSC	I/O	Osillation terminal
15	SDA1	O	Data signal output for IC402	47	GND	-	Connected to GND
16	/RMIN	I	Remoto control signal input	48	SURRON	O	Surrond amp control signal
17		-	Connected to GND.	49	POWER	O	Power ON/OFF control
18		-	Non connection	50	SMUTE	O	Source mute signal output
19		-	Non connection	51		-	Connected to GND
20	/PRT	I	Protector signal input	52		-	Connected to GND
21	/INH	-	Inhibit signal input	53	VSENCE	-	Signal Control
22		-	Non connection	54	SPK	O	Speaker relay ON/OFF control
23	BENA	O		55		-	Connected to GND
24	BDATA	O	Data signal output for IC404	56		-	Connected to GND
25	BCLK	O	Clock signal output for IC404	57		-	Connected to GND
26	Vcc	-	+5.6V	58		-	Connected to GND
27	CMCLKA	O	Clock signal	59	TUNERI	O	TUNER indication signal control
28	CMDT2A	I	Data signal from IC801	60	VCRI	O	VCR indication signal control
29	CMDT1A	O	Data signal for IC801	61	BASSI	O	BASS indication signal control
30	CMRDYA	O	Ready signal	62	3DI	O	3Dphonic indication signal control
31	VRMUTE	O	Main VR mute signal output	63	STDBY	O	STDBY indication signal control
32	STB	-	Strobe signal for IC061	64		-	Non connection

■ LA1837(IC102): FM AM IF AMP&detector, FM MPX Decoder

1. Block Diagram



3. Pin Function

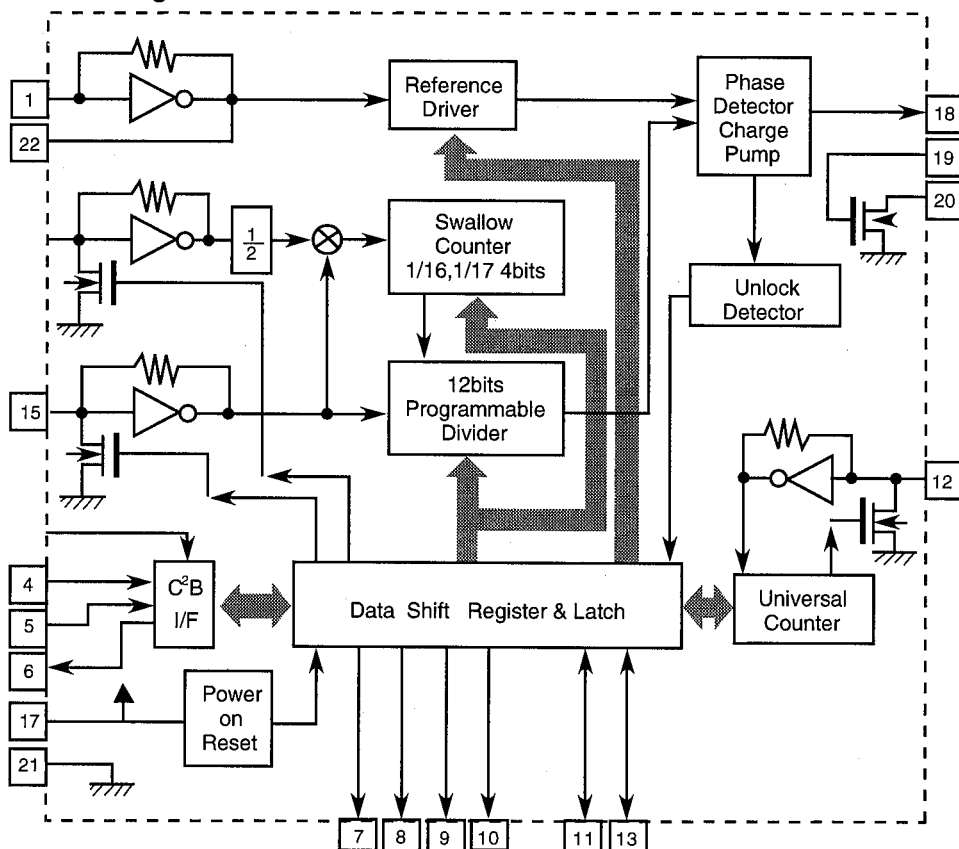
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF signal.	16	L OUT	O	Left channel signal output.
2	AM MIX	O	This is an out put terminal for AM mixer.	17	R OUT	O	Right channel signal output.
3	FM IF	I	Bypass of FM IF	18	L IN	I	Input terminal of the Left channel post AMP.
4	AM IF	I	Input of AM IF Signal.	19	R IN	I	Input terminal of the Right channel post AMP.
5	GND	—	This is the device ground terminal.	20	RO	O	Mpx Right channel signal output.
6	TUNED	O	When the set is tuning, this terminal becomes "L".	21	LO	O	Mpx Left channel signal output.
7	STEREO	O	Stereo indicator output. Stereo "L", Mono: "H"	22	IF IN	I	Mpx input terminal
8	VCC	—	This is the power supply terminal.	23	FM OUT	O	FM detection output.
9	FM DET	—	FM detect transformer.	24	AM DET	O	AM detection output.
10	AM SD	—	This is a terminal of AM ceramic filter.	25	AM AGC	I	This is an AGC voltage input terminal for AM
11	FM VSM	O	Adjust FM SD sensitivity.	26	AFC	—	This is an output terminal of voltage for FM-AFC.
12	AM VSM	O	Adjust AM SD sensitivity.	27	AM RF	I	AM RF signal input.
13	MUTE	I/O	When the signal of IF REQ of IC121(LC72131) appear, the signal of FM/AM IF output. //Muting control input.	28	REG	O	Register value between pin 26 and pin28 desides the frequency width of the input signal.
14	FM/AM	I	Change over the FM/AM input. "H" :FM, "L" : AM	29	AM OSC	—	This is a terminal of AM Local oscillation circuit.
15	MONO/ST	O	Stereo : "H", Mono: "L"	30	OSC BUFFER	O	AM Local oscillation Signal output.

■ LC72131(IC121):PLL Synthesizer

1. Terminal Layout

XIN	1	22	XOUT
	2	21	VSS
PLLCE	3	20	LPF OUT
PLLDA	4	19	LPF IN
PLLCK	5	18	PD
IFDATA	6	17	VDD
FM	7	16	FM OSC
MW	8	15	AM OSC
LW	9	14	
AUTO/MONO	10	13	IF REQ
POWER	11	12	FM/AM IF

2. Block Diagram

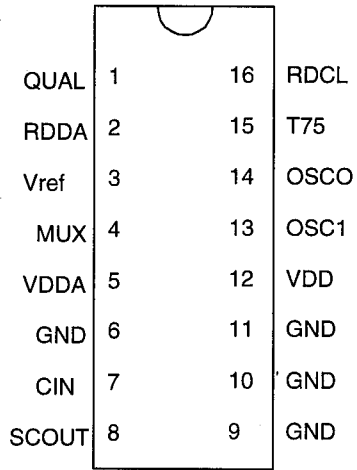


3. Pin Functions

Pin No.	Symbol	I/O	Functions	Pin No.	Symbol	I/O	Functions
1	Xin	I	Crystal oscillator (7.2MHz).	12	FM/AM IF	I	Universal counter input
2		--	Not nse	13	IF REQ	O	Output the "IF-signal request" to IC102
3	PLLCE	I	Fix the chip enable to "H" when inputting (DI) and outputting (DO) the serial data	14		I	Not use
4	PLLDA	I	Receive the control data from the controller (IC801).	15	AMOSC	I	Input the local oscillator signal of AM.
5	PLLCK	I	This clock is used to synchronize data when transmitting the data of DI and DO.	16	FM OSC	I	Input the local oscillator signal of FM.
6	IFDATA	O	Transmit the data from LC72131 to the controller which is synchronized with CK.	17	VDD	O	This is a terminal of power supply.
7	FM	O	It is "L" on FM mode.	18	PD	O	PLL charge pump output : When the local oscillator signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating.
8	MW	O	It is "L" on MW mode.	19	LPF IN	I	Transistor used for the PLL active low-pass filterr
9	LW	O	It is "L" on LW mode.	20	LPF OUT	O	Transistor used for the PLL active low-pass filterr
10	AUTO MONO	O	It is "L" on monaural, "L" on auto	21	VSS	--	Connected toGND
11	POWER	O	Regulator control signal P ON "H" , STANDBY "L"	22	X out	O	Crystal oscillator(7.2MHz).

■ SAA6579(IC192) Radio data system demodulator

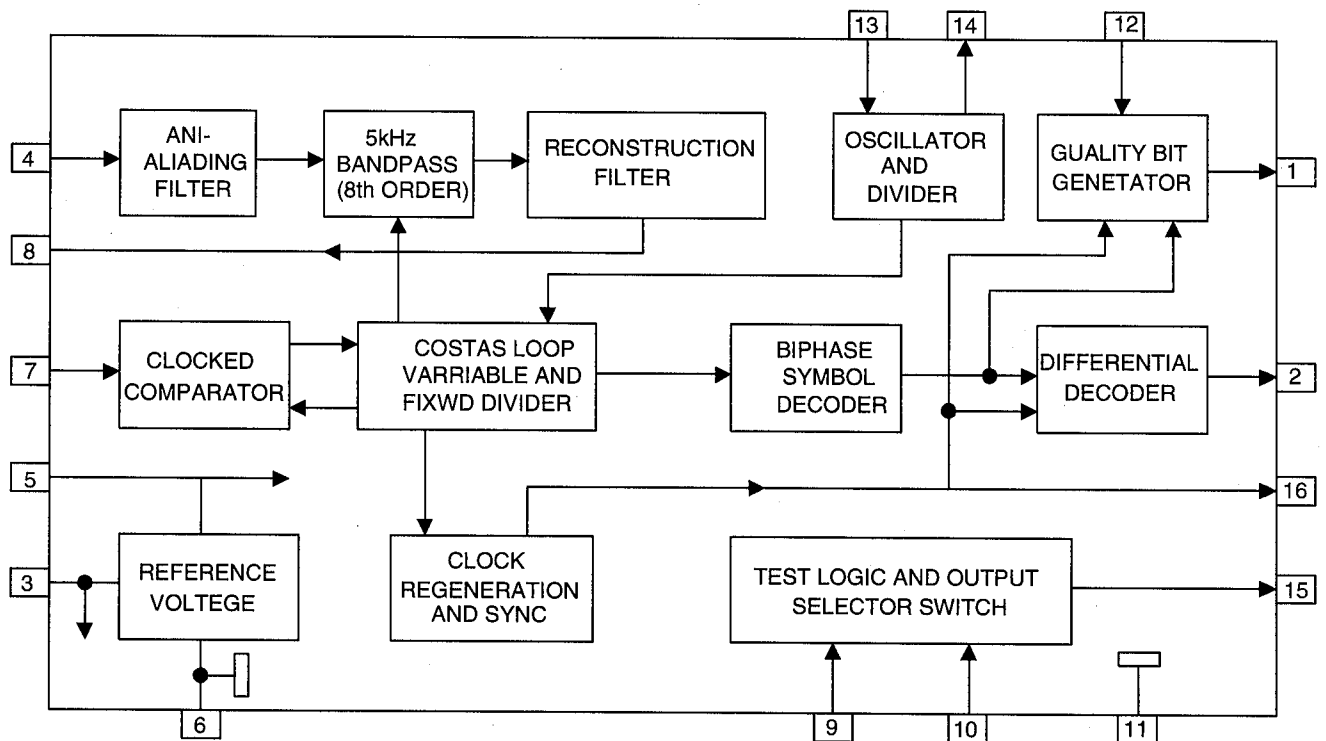
1. Terminal Layout



2. Pin Function

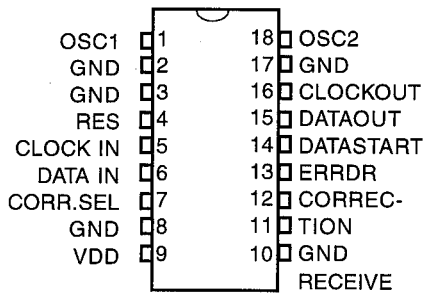
Pin No	Symbol	I/O	Function
1	QUAL	--	Non connection
2	RDDA	O	RDS data output
3	Vref	O	Reference voltage output
4	MUX	I	Multiplex signal input
5	VDDA	--	+5Vsupply voltage for analog
6	GND	--	Ground for analog part(0V)
7	CIN	I	Subcarrier outputof reconstruction filter
8	SCOUT	O	Ground for digital part(0V)
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 fordigital part
13	OSC1	I	Oscilator input
14	OSCO	O	Oscilator OUTput
15	T57	--	Non connection
16	RDCL	O	RDS clock output

3. Block Diagram

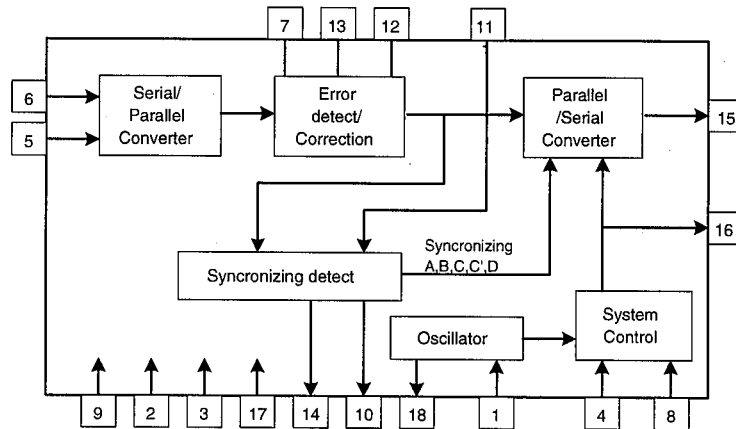


LC7073M (IC191): Radio Data System

1. Terminal Layout



2. Block Diagram

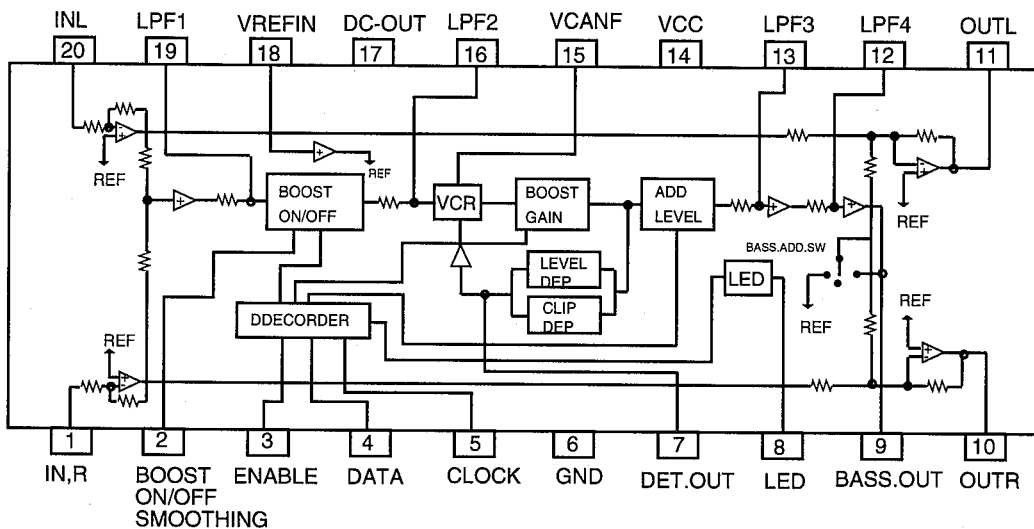


3. Pin Function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	OSC1	I	Oscillation	10	RECEIVE	--	Non connection
2	GND	--	GND	11	GND	--	GND
3	GND	--	GND	12	CORRECTION	--	Non connection
4	RES	I	Reset input	13	ERRDR	--	Non connection
5	CLOCK IN	I	RDS clock input	14	DATA START	O	Data start signal for block data to output serial data
6	DATA IN	I	RDS data input	15	DATA OUT	O	Serial data output
7	CORR.SEL	I	Non connection	16	CLOCK OUT	O	Data output of serial data output
8	GND	I	GND	17	GND	--	GND
9	VDD	--	Power supply	18	OSC2	O	Oscillation terminal

LA2650 (IC404)

1. Terminal Layout/Block diagram

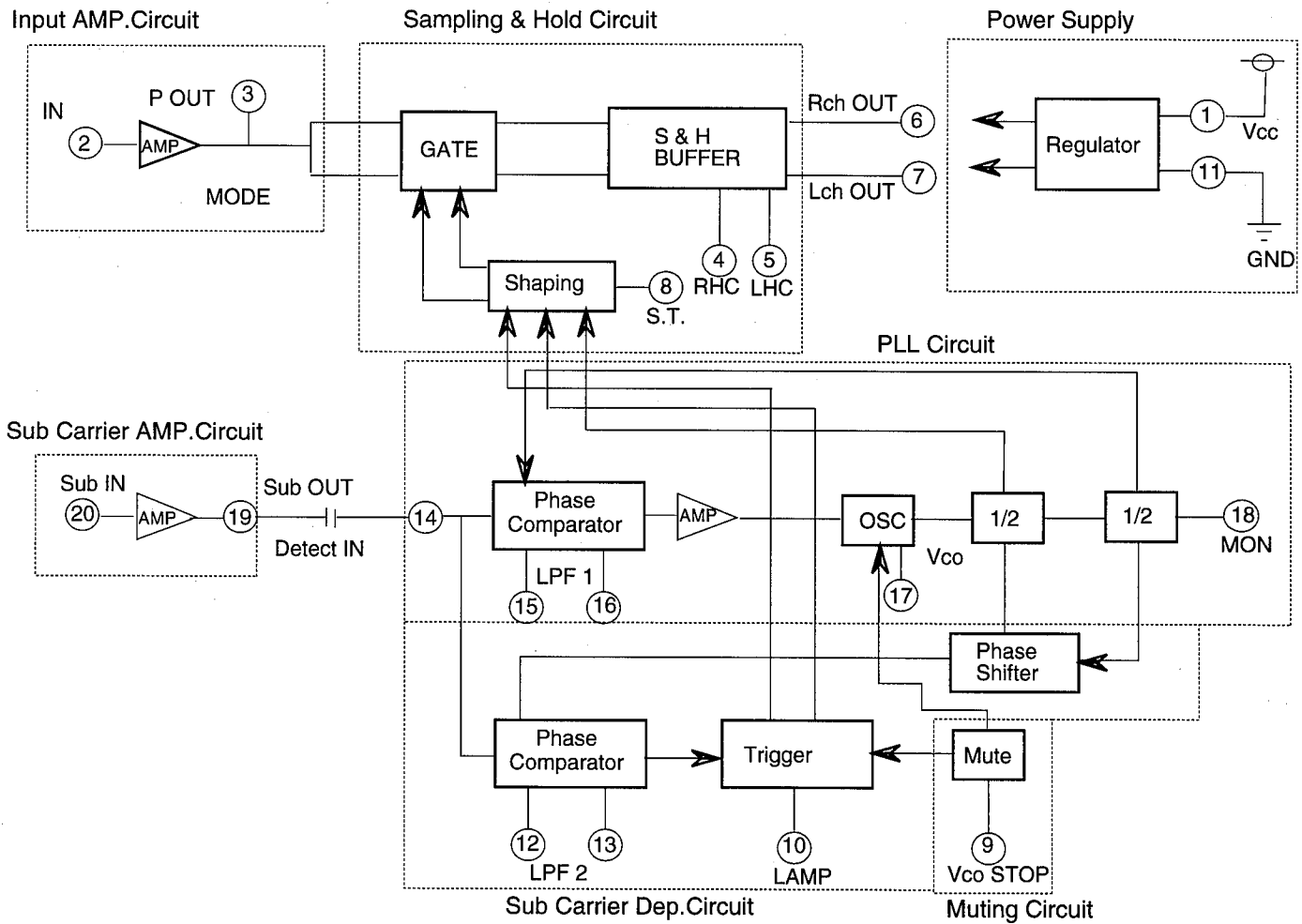


■ IR3R42 (IC104) POLAR STEREO DETECTOR

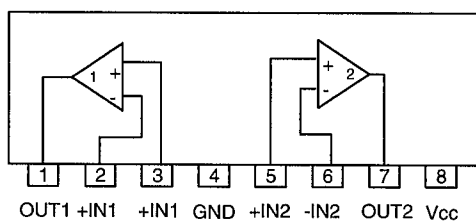
1. Terminal Layout/Block diagram

VDD	1	20	SUMIN
IN	2	19	SUBOUT
PAIT	3	18	MONITOR
RHC	4	17	VCO
LHC	5	16	LPF1A
ROUT	6	15	LPF1B
LOUT	7	14	DETIN
S.T.	8	13	LPF2A
VCOSTOP	9	12	LPF2B
LAMP	10	11	GND

2. Block diagram



■ BA15218N (IC775) Dual OpAmp

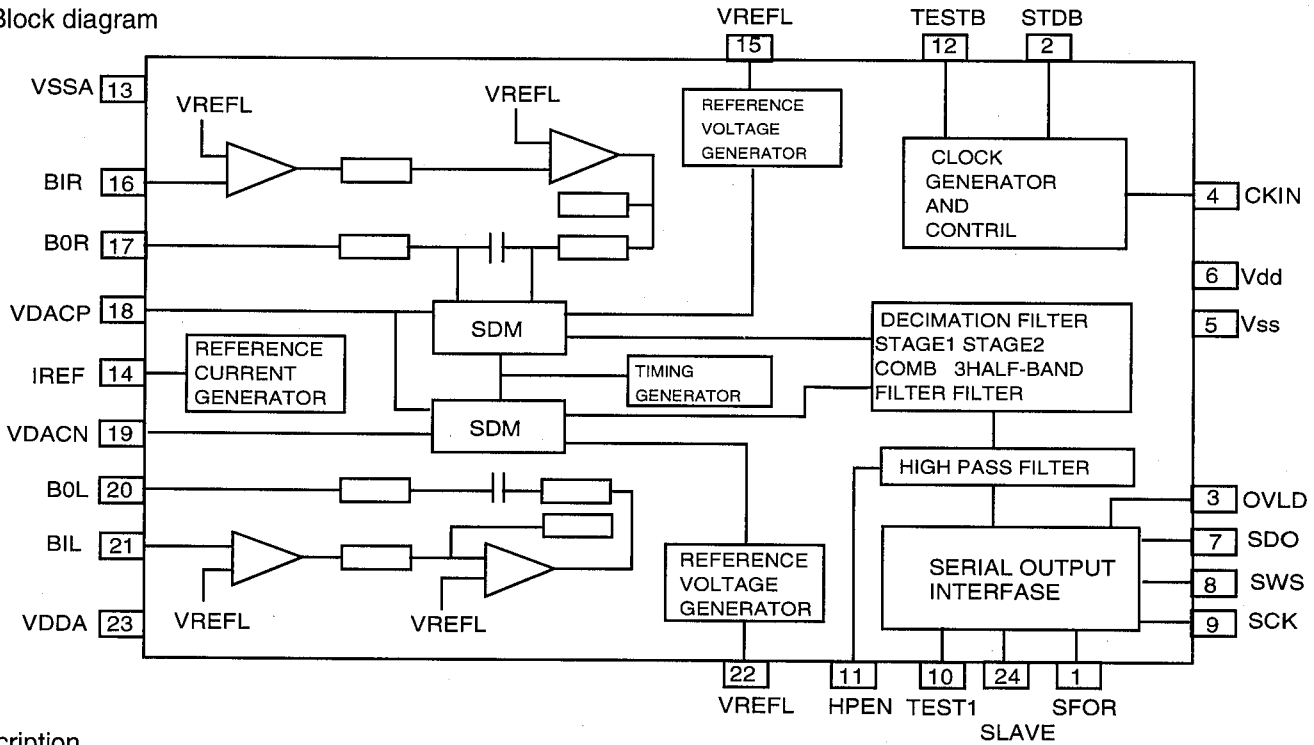


■ SAA7367T (IC031) Bitstream conversion ADC for digital audio system

1. Terminal Layout

SFOR	1	13	SLAVE
STDB	2	14	VDDA
OVLD	3	15	VREFL
CKIN	4	16	BIL
VDD	5	17	BOL
VSS	6	18	VDACP
SOD	7	19	VDACN
SWS	8	20	BOR
SCK	9	21	BIR
TEST1	10	22	VREFR
HPEN	11	23	IREF
TESTB	12	24	VSSA

2. Block diagram

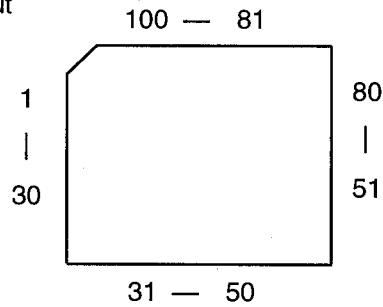


3. Description

Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	SFOR	O	Serial interface output format "H": Format1 "L": Format2	13	VSSA	-	Connected to GND
2	STDB	I	Schmitt trigger input "H":Normal operation "L":STANDBY	14	VOUTL	O	Current reference generator output
3	OVLD	-	Not use	15	D/C_L	O	Right channel analogue VDDA/2 reference output
4	CKIN	I	System clock input.Nominally at 256FS	16	BIR	I	Right channel buffer op-amp inverting input
5	VDD	-	Digital positive supply(+5V)	17	BOR	O	Right channel buffer op-amp output
6	VSS	-	Digital ground also connected to VSSA,analogue ground via the on-chip substrate contacts	18	VDACN	I	Negative 1 bit DAC reference voltage input connected to 0 V
7	SDO	O	Serial data output of interface in STANBY mode	19	VDACP	I	Positive 1 bit DAC reference voltage input connected to 5 V
8	SWS	I/O	Serial interface Word Select signal input /output.	20	BOL	O	Left channel buffer op-amp output
9	SCK	I/O	Serial interface Bit Clock signal input /output.	21	BIL	O	Left channel analogue VDDA/2 reference output
10	TEST1	-	Extra serial interface formats select Connected to GND	22	VREFL	O	Left channel analogue VDDA/2 reference output
11	HPEN	-	Pull up (+5V)	23	VDDA	-	Analogue section positive supply (+5 V)
12	TESTB	-	Pull up (+5V)	24	SLAVE	I	Serial interface operating mode select

■ TMS57052BFT (IC751) DAP controller

1. Terminal Layout

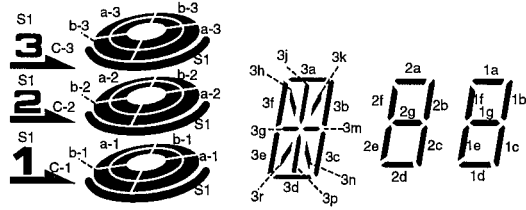
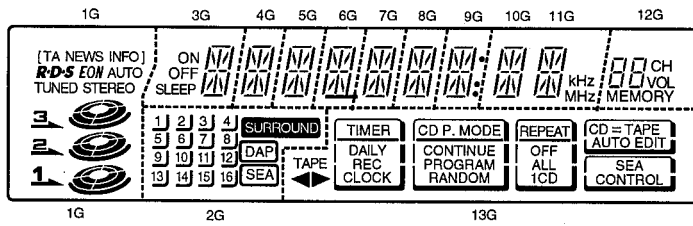


2. Description

Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1-6	ED2-ED7	I/O	Data bus(ED3-ED6 Not use)	58	HRS	I	Frame sync signal from IC401
7	Vss	-	Connected to GND	59	Vss	-	Connected to GND
8	Vdd	-	Power supply	60	Vdd	-	Power supply (+5V)
9	CLKMO	-	+5V pull up	61	HXBCK	O	Connected to GND
10	CLKM1	-	Connected to GND	62	HXS	O	Connected to GND
11	TMS	-	Not use	63	/CS	I	Chip select terminal From IC401
12	TDI	-	Not use	64	HBCKS	-	Connected to GND
13	TCK	-	Not use	65	12CSEL	-	Connected to GND
14	CLKIN	I	Master Clock input	66	Vss	-	Connected to GND
15	Vss	-	Connected to GND	67	Vdd	-	Power supply
16	Vdd	-	Power supply	68	AXBC1	I	Audio data transmit unit1 bit clock
17	CLKO	-	Not use	69	AXBC2	I	Audio data transmit unit2/3 bit clock
18- EA18-EA21	-	-	Not use	70	AXLR1	I	Audio data transmit unit1 frame sync signal
21	-	-	Not use	71	DIVB/16	O	8 divide masine clock signal output
22	Vss	-	Power supply	72	/LAV	O	Not use
23	Vdd	-	Connected to GND	73	/LMV	-	Not use
24- EA16-EA15	-	-	Not use	74	/DRDY	-	Not use
27	-	I	Not use	75	EMU0	-	Pull up (+5V)
28- EA4-EA7	I/O	-	Address bus for IC091	76	EMU1	-	Pull up (+5V)
31	-	I/O	Address bus for IC091	77	TDO	-	Not use
32	Vss	-	Power supply	78	DIV512	O	512 divide masine clock signal
33	Vdd	-	Connected to GND	79	ARLR1	I	Audio data reciver unit1 frame sync signal
34- EA8-EA11	-	-	Non connection	80	ARLR2	I	Audio data reciver unit2 frame sync signal
37	-	-	Non connection	81	HDIR	-	Pull up (+5V)
38- TEST0-	-	-	Non connection	82	SEL5V3V	-	Connected to GND
41	TEST3	-	Non connection	83	/MUTE	I	Mute control
42	/BIO	-	Pull up (+5V)	84	/TRST	-	Connected to GND
43	INT1	-	Pull up (+5V)	85	/RS	I	Reset signal input
44	ARBC1	I	Audio data receiver unit1 data input	86	Vss	-	Connected to GND
45	ARBC2	I	Audio data receiver unit2 data input	87	Vdd	-	Power supply (+5V)
46	AX1	O	Audio data transmit unit1 data output	88	/IOE	-	Not use
47	AX2	O	Audio data transmit unit2 data output	89	RAS	O	Ram low address strobe signal
48	AX3	-	Not use	90	/CAS	O	Ram caram address strobe signal
49	Vss	-	Connected to GND	91	/ROME	-	Not use
50	Vdd	-	Power sully	92	/WE	O	Memory read/write inable
51	HX/SDA	-	Not use	93- EA0-EA2	O	Memory address bus	
52	/EMPTY	-	Not use	95	O	Memory address bus	
53	AXLR2	I	Audio data transmit unit2/3 frame sync	96	EA3	O	Memory address bus
54	AR1	I	Audio data receiver unit1 data input	97	Vss	-	Connected to GND
55	AR2	-	Connected to GND	98	Vdd	-	Power supply (+5V)
56	HRBCK	I	Clock signal from IC401	99	ED0	I/O	Memory data bus
57	HR	I	Data signal input from IC401	100	ED1	I/O	Memory data bus

Internal Connections of thre FL Display

1. Terminal Layout



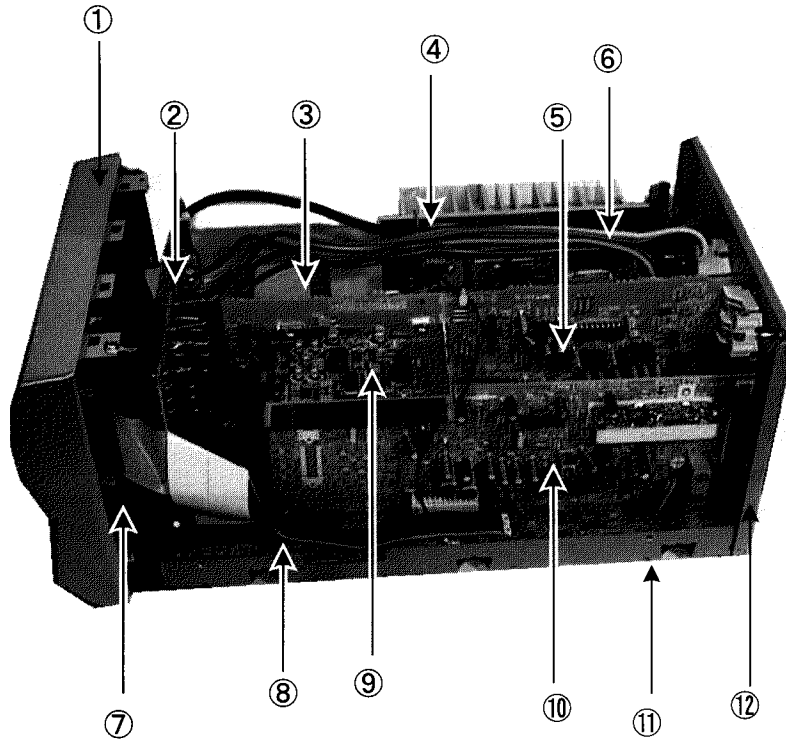
2. Anode Designation

	1G	2G	3G	4-8G	9G	10G	11G	12G	13G
P1	c-1	16	3a	3a	3a	3a	3a		
P2	b-1	15	3b	3b	3b	3b	3b	2a	▷
P3	a-1	14	3j	3j	3j	3j	3j	2b	◁
P4	c-2	13	3k	3k	3k	3k	3k	2f	TAPE
P5	b-2	12	3h	3h	3h	3h	3h	2g	CLOCK
P6	a-2	11	3f	3f	3f	3f	3f	2c	REC
P7	S1	10	3g	3g	3g	3g	3g	2e	DAILY
P8	c-3	9	3m	3m	3m	3m	3m	2d	TIMER
P9	b-3	8	3c	3c	3c	3c	3c		CONTINUE
P10	a-3	7	3n	3n	3n	3n	3n	1a	PROGRAM
P11	TUNED	6	3r	3r	3r	3r	3r	1b	RANDOM
P12	STEREO	5	3p	3p	3p	3p	3p	1f	CD P. MODE
P13	R.D.S	4	3e	3e	3e	3e	3e	1g	OFF
P14	EON	3	3d	3d	3d	3d	3d	1c	ALL
P15	AUTO	2						1e	CD
P16	INFO	1						1d	1
P17	NEWS	SEA	ON		4a		kHz	CH	REPEAT
P18	TA	DAP	OFF		4b		MHz	VOL	CD=TAPE AUTO EDIT
P19	[]	SURROUND	SLEEP		4c			MEMORY	SEA CONTROL

3. Terminal Connection

Terminal No.	1	2	3	4	5	6	7	8	9	10	11										
Electrode	F	F	F	NP	1G	2G	3G	4G	5G	6G	7G										
Terminal No.	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Electrode	8G	9G	10G	11G	12G	13G	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	
Terminal No.											32	33	34	35	36	37	38	39	40	41	42
Electrode											P14	P15	P16	P17	P18	P19	NP	NP	F	F	F

Main parts Layout



RX-TD77R Inside View

- ① Front Panel
- ② Power Supply PCB
- ③ Power Transformer
- ④ Heat sink
- ⑤ Source Select PCB
- ⑥ Power amp PCB ass'y
- ⑦ Front panel PCB
- ⑧ Connector & Speaker out PCB
- ⑨ DSP PCB
- ⑩ Tuner PCB
- ⑪ Bottom Base
- ⑫ Rear panel

Disassembly Procedures

(1) Removing the top cover

- 1.Remove 2 screws(A)fastening both sides of top cover,and 4 screws(B) fastening the rear side.
- 2.Remove the top cover.

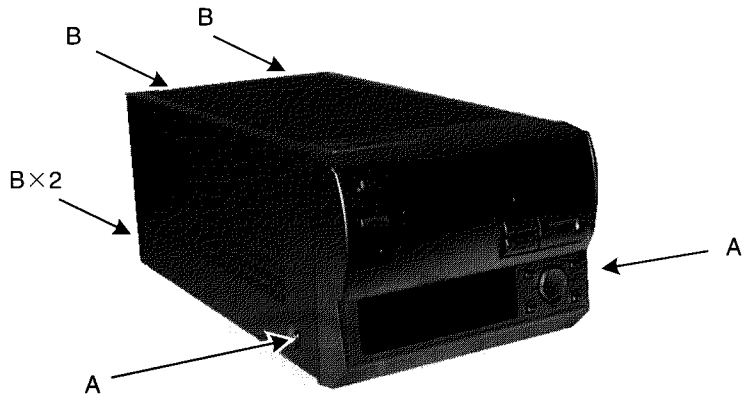


Fig.1

(2) Removing the Rear panel

- 1.Remove 9 screws(C)fastening rear panel(Fig.2).
- 2.Remove 2 screws(C)fastening Voltage selector.
(Universal type only)
- 3.Remove the Rear panel from the Hook of Bottom base.

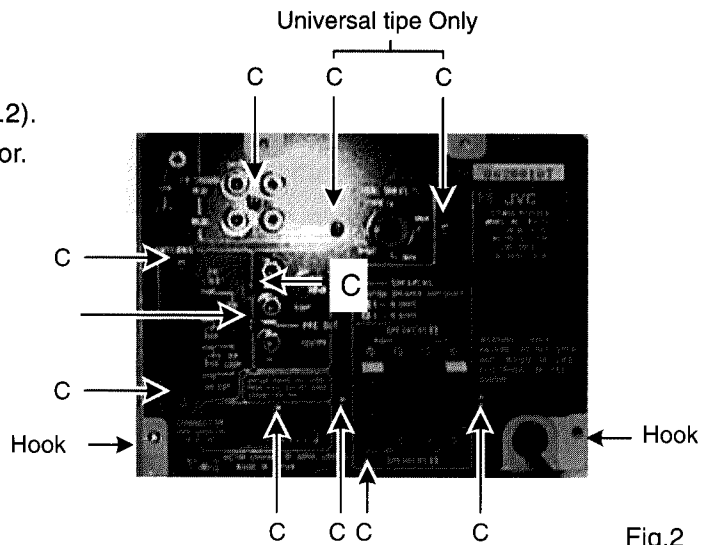


Fig.2

(3) Removing the Tuner PCB and Source Select PCB

- 1.Remove the Rear panel.
- 2.Remove the screw H'(Fig.3).(Universal type only)
- 3.Disconnect the Tuner PCB from the CN101.
- 4.Disconnect the Source Select PCB and DSP PCB from the CN411 and CN412.

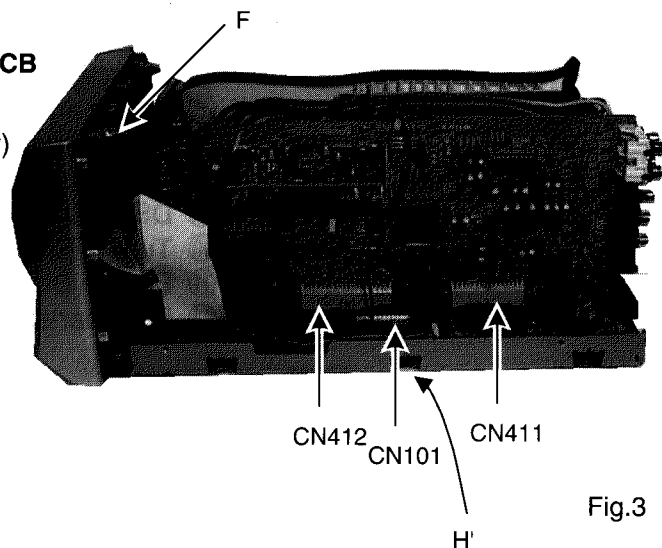


Fig.3

(4) Removing the Front panel Ass'y

- 1.Remove 2 screws(E)fastening Front panel of the Bottom side (Fig.4).
- 2.Remove screws(F)fastening Earth wire of the up side(Fig3).
- 3.Disconnect the Flat Wires from CN891,CN811, CN202.
- 4.Release the 2 Hooks holding the Front panel.
- 5.Remove it.

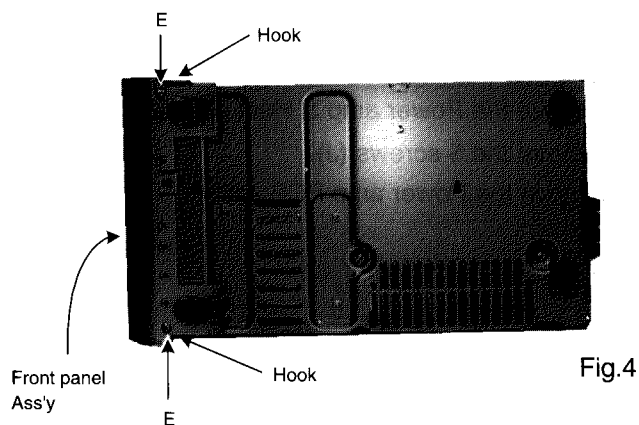


Fig.4

(5) Removing the Power amp PCB & Heat sink Ass'y

- 1.Remove 4 screws(G)fastening the Bracket of Heat sink (Fig.5).
- 2.Disconnect the Power amp PCB with Heat sink Ass'y from CN261,CN311,CN312.

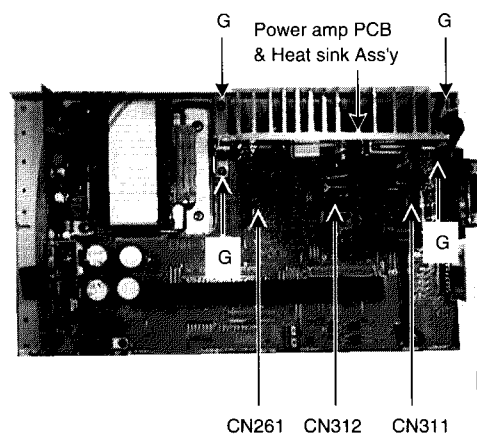


Fig.5

(6) Removing the Connector & Speaker out PCB

- 1.Remove the Rear panel and Power amp PCB and Heat sink ass'y.
- 2.Disconnect the Flat Wires CN891,CN811, CN202.
- 3.Remove 3 screws(H)fastening Connector & Speaker out PCB and Remove it.

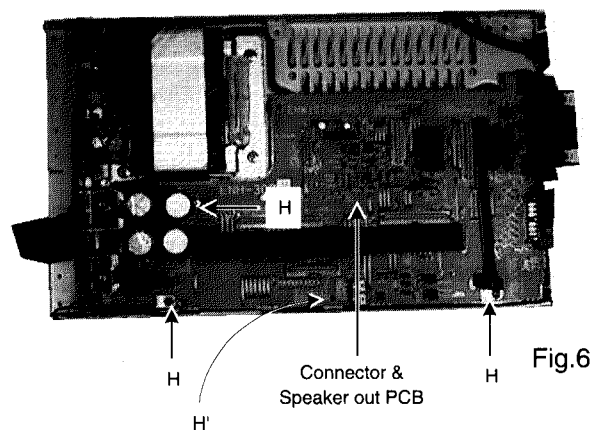


Fig.6

(7) Removing the Front PCB

- 1.Remove the Front panel Ass'y.
- 2.Remove 13 screws(I)fastening Front PCB
- 3.Remove the Front PCB.

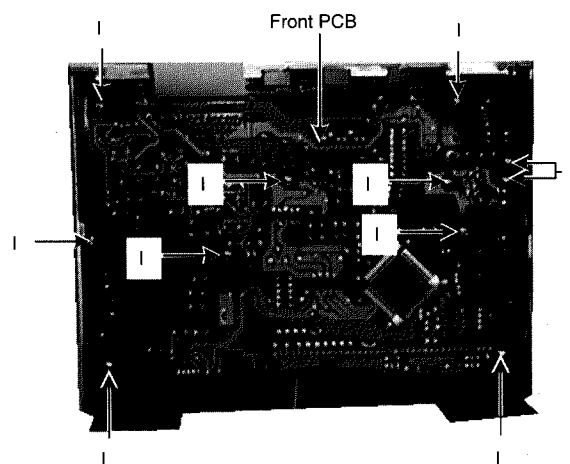
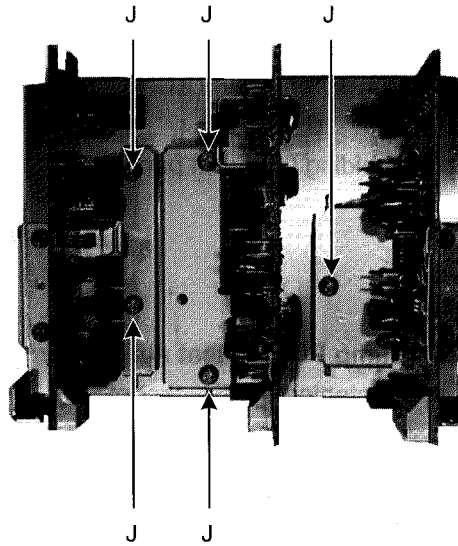


Fig.7

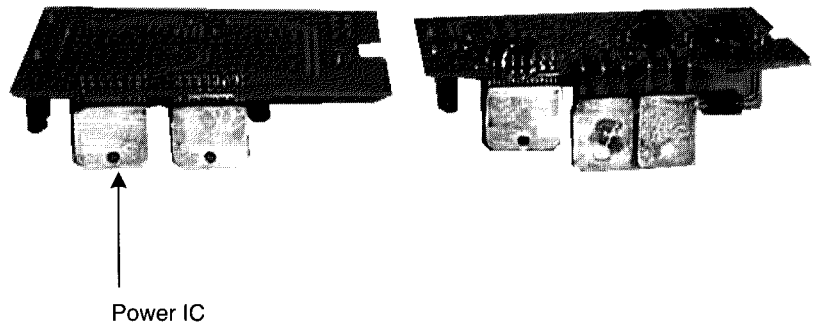
(8) Removing the Power amp PCB ass'y

- 1.Remove the Power amp & Heat sink Ass'y .
- 2.Remove the 5 screws (J).
- 3.Remove the Power amp PCB ass'y.



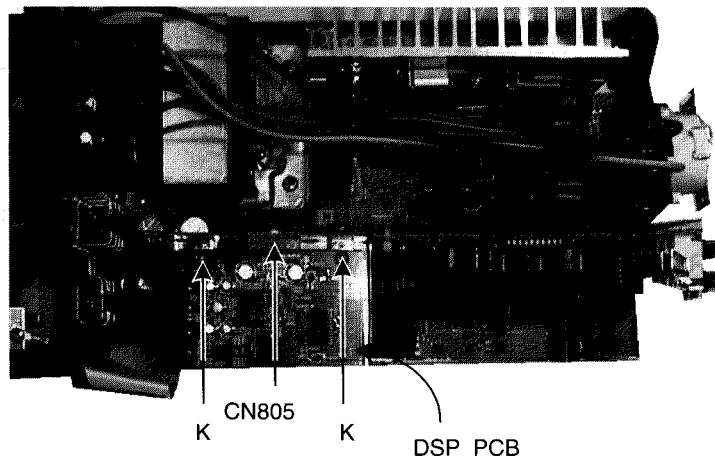
(9) Removing the Power IC

- 1.Remove the Power amp PCB Ass'y.
- 2.Unsolder the Power IC terminal.
- 3.Remove the Power IC.



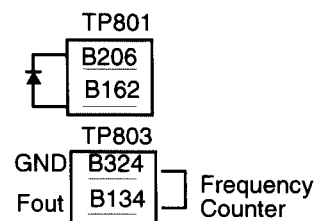
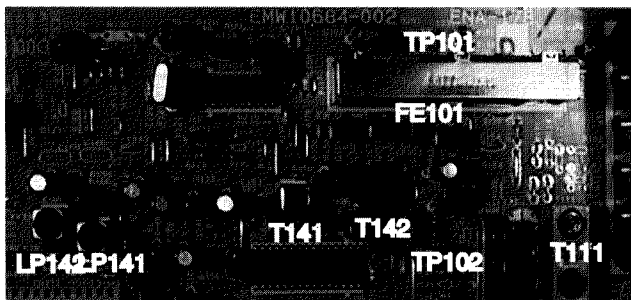
(10) Removing the DSP PCB

- 1.Remove the 2 screws (K) .
- 2.Disconnect the DSP PCB from CN805.
- 3.Remove the DSP PCB.



ADJUSTMENT PROCEDURES

■ Tuner section



Clock Adjustment

1. After connecting B206 and B162(TP801) with some wire as shown in the figure below, connect the AC power cord into an AC outlet.
2. Confirm that the display is off and remove the wire.
3. Connect a frequency counter to TP803 B324 and B134.
4. Check the frequency $50000 \pm 0.29\text{Hz}$.

(1) Tuning voltage

Confirm the voltages at TP101 is within the standard values shown in the table below.

Tuning range & Tuning voltage(Unit:V)

Area	Range				
	LW(kHz)	MW(kHz)	FM(kHz)	FM TU.VOL	
				87.5MHz	108.0MHz
	144~288	522~1629	87.5~108.0	1.6 ± 1.0	8.0 ± 2.0
the U.S.A.Canada	-	530~1710	87.5~108.0	1.6 ± 1.0	8.0 ± 2.0
Universal type(AM Channel space 9kHz)	-	531~1602	87.5~108.0	1.6 ± 1.0	8.0 ± 2.0
Universal type(AM Channel space 10kHz)	-	530~1600	87.5~108.0	1.6 ± 1.0	8.0 ± 2.0
Easern Europe	144~288	522~1629	65.0~74.0 87.5~108.0	65.0MHz >1.3	108.0MHz <11

AM Tuning voltage (Unit:V)

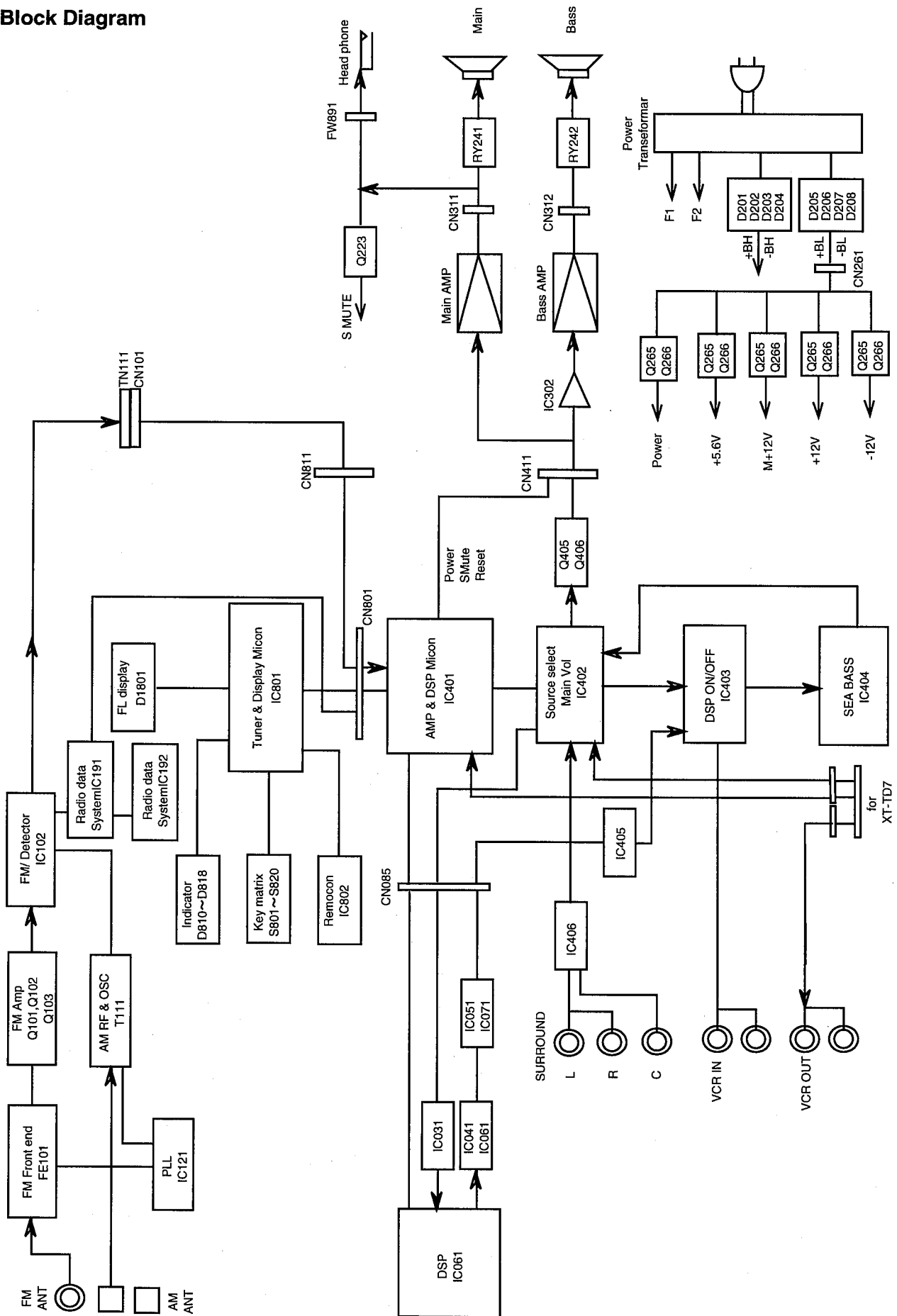
Area	Frequency(MW)							Frequency(LW)	
	522kHz	530kHz	531kHz	1600kHz	1602kHz	1629kHz	1710kHz	144kHz	288kHz
A,the U.K.,Europe	>0.7	-	-	-	-	<8.3	-	$0.5 < 1.0$	$5.0 < 7.5$
the U.S.A.Canada	-	>0.8	-	-	-	-	<8.8	-	-
Universal(Channel space 9kHz)	-	-	>0.8	-	<7.9	-	-	-	-
Universal(Channel space 10kHz)	-	>0.8	-	<7.9	-	-	-	-	-

(2) FM center meter

Receive a broadcast by using the function of 'AUTO STOP'.

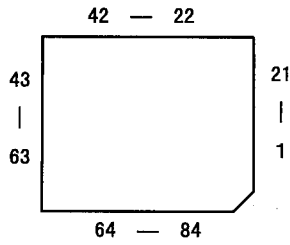
Adjust T105(detector coil)so that the voltage at TP102 becomes $0 \pm 1.5\text{mV}$.

■ Block Diagram



■ MN172412JAAZ (IC751) DECK & CD controller

1. Terminal Layout



2. Key matrix

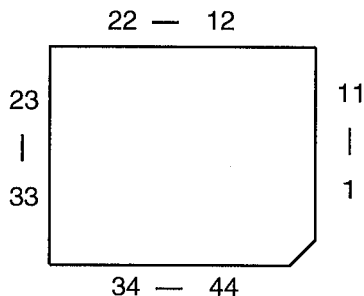
	KEY OUT0	KEY OUT1	KEY OUT2	KEY OUT3	KEY OUT4
KEY IN0	D1 ▲	D2 ▲	D3 ▲	ALL SELECT	REVERSE MODE
KEY IN1	DISC1	DISC2	DISC3	REC	DOLBY NR
KEY IN2	STOP	CD	TAPE	CD REC	
KEY IN3	◀	▶	COUNTER RESET	TAPE ▲	

3. Description

Pin No.	Symbol	I/O	Function and Operation	Pin No.	Symbol	I/O	Function and Operation
1	/PACK	I	PACK switch detect input	43	DATA	I/O	Chenger control/Status data
2	/PLAY	I	Play switch detect input	44	CMRDYCC	O	Redy signal for IC801
3	/OPEN SW	I	Open signal detect input	45	CMCLKC	O	Clock signal for IC801
4	/CLOSE SW	I	Close switch detect input	46	CMOT2C	I	Data signal from IC801
5	OPEN	O	Open signal output	47	CMOT1C	O	Data signal for IC801
6	CLOSE	O	Close signal output	48	REQ	I	Request Data from IC681
7	/DETECT	I	Photo interrapter detect input	49			
8		-	Connected to GND	50			
9		-	Connected to GND	51			
10		-	Connected to GND	52	/KO0	O	Key matrix output
11		-	Connected to GND	53	/KO1	O	Key matrix output
12		-	Connected to GND	54	/KO2	O	Key matrix output
13		-	Connected to GND	55	/KO3	O	Key matrix output
14	/MS IN	I	Music scan signal input	56	/KO4	O	Key matrix output
15	CAPN	O	Capstan moter control	57	/CDRST	O	Key matrix output
16	PLZ	O	Mech.solenoid control	58			
17		-	Non connection	59			
18		-	Non connection	60	/KI0	I	Key matrix input
19		-	Non connection	61	/KI1	I	Key matrix input
20	BIAS	I	Rec bias ON/OFF control	62	/KI2	I	Key matrix input
21	REC	O	It is "H"when recording	63	/KI3	I	Key matrix input
22	RMT	O	Recording mute control	64	RECI	O	Recording indicator control
23		-	Connected to GND	65	REVI	O	Reverse indicator control
24	/PB/REC	O	Rec.P.B select	66	MRI	O	MR indicator control
25	NR	O	Noise reduction control	67	TAPEI	O	TAPE indicator control
26	PMT	O	Play back mute control	68	/RESET	O	Reset signal output
27		-	Non connection	69	GND	-	Connected to GND
28	CONTA	O	CD/Deck output detect	70	NC	-	Non connection
29	CONTB	O	CD/Deck output detect	71	GND	-	Connected to GND
30	LsiON	O	CD Lsi power supply control	72	OSC	I/O	Osillation terminal
31	OMT	O	Deck mute control	73	OSC	I/O	Osillation terminal
32		-	Connected to GND	74	Vdd	-	Power supply(+5V)
33		-	Connected to GND	75	CDI	O	CD indicator control
34		-	Connected to GND	76	DISC3I	O	DISC3 indicator control
35		-	Connected to GND	77	DISC2I	O	DISC2 indicator control
36		-	Connected to GND	78	DISC1I	O	DISC1 indicator control
37		-	Connected to GND	79		-	Connected to GND
38		-	Connected to GND	80		-	Connected to GND
39		-	Connected to GND	81	DCS IN	I	DCS signal input
40	ST	O	Strobe signal for CD micon	82	DCS OUT	O	DCS signal output
41	CK	O	Clock signal for CD micon	83	FREC	I	FWD rec switch detect
42		O	Data signal for CD micon	84	RREC	I	REV REC switch detect

■ MN150837JBR2 (IC681) Changer controller

1. Terminal Layout



2. Description

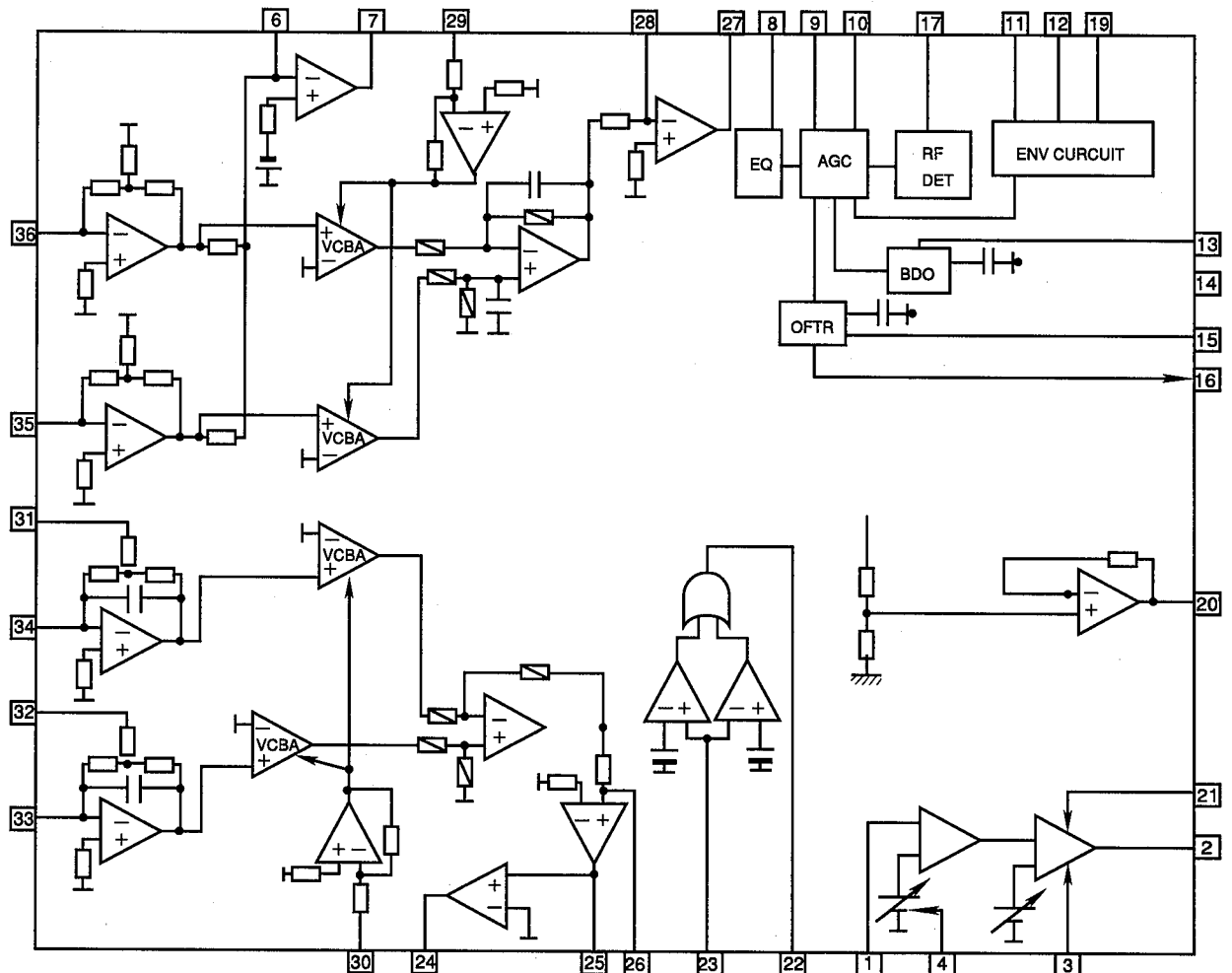
Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	/RESET	I	Reset signal input	23	ST	I	Strobe signal input
2		-	Non connection	24	DATA	I/O	Control/Status data I/
3	WATCH5V	O	+5V	25	CK	O	Clock signal output
4	DOOROPEN	I	/Door open switch detect	26	STATS	I	STATS signal input
5	DOORCLOSE	I	/Door close switch detect	27	/TLOCK	I	TLOCK signal input
6	PHOTOSW	I	/Photo switch detect	28	/FLOCK	I	FLOCK signal input
7	NC	-	Non connection	29	SENSE	I	SENSE signal input
8	TRAY+	O	Tray motor drive + signal output	30	NC	-	NC
9	TRAY-	O	Tray motor drive - signal output	31	SQCK	O	Lock signal for sub-code Q resister
10	CAM+	O	Cam motor drive + signal output	32	MLD	O	Micon command load signal output
11	CAM-	O	Cam motor drive - signal output	33	MDATA	O	Micon command data output
12	SUBQ	I	Sub-code Q-data output	34	MCLK	O	Micon command clock signal input
13	NC	-	Non connection	35	/RST	-	Reset signal output (L:reset)
14	/INTALSW	I	Initial switch detect	36	NC	-	Non connection
15	/SUBSW	I	Sub tray switch detect	37	NC	I	Non connection
16	/RESETSW	I	Rest switch detect	38	/DRIVERMUTE	O	BTL driver mute signal output
17	NC	-	Non connection	39	Vss	-	Connected to GND
18	NC	-	Non connection	40	OSC2	I/O	Oscillation terminal
19	NC	-	Non connection	41	OSC1	I/O	Oscillation terminal
20	NC	-	Non connection	42	VDD	-	Power supply
21	REQ	O	Output the "CD micon data request"	43	X1	-	Connected to GND
22	BLKCK	I	Subcode/block/clock signal input	44	X0	-	Non connection

■ AN8806SB(IC601):RF&SERVO AMP

1. Terminal Layout

PD 1	36 PDAC
LD 2	35 PDBD
LDON 3	34 PDE
LDP 4	33 PDF
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	21LD OFF
/NRFDET 17	20 VREF
GND 18	19 ENV

2. Block Diagram

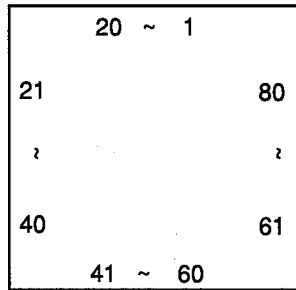


3. Functions

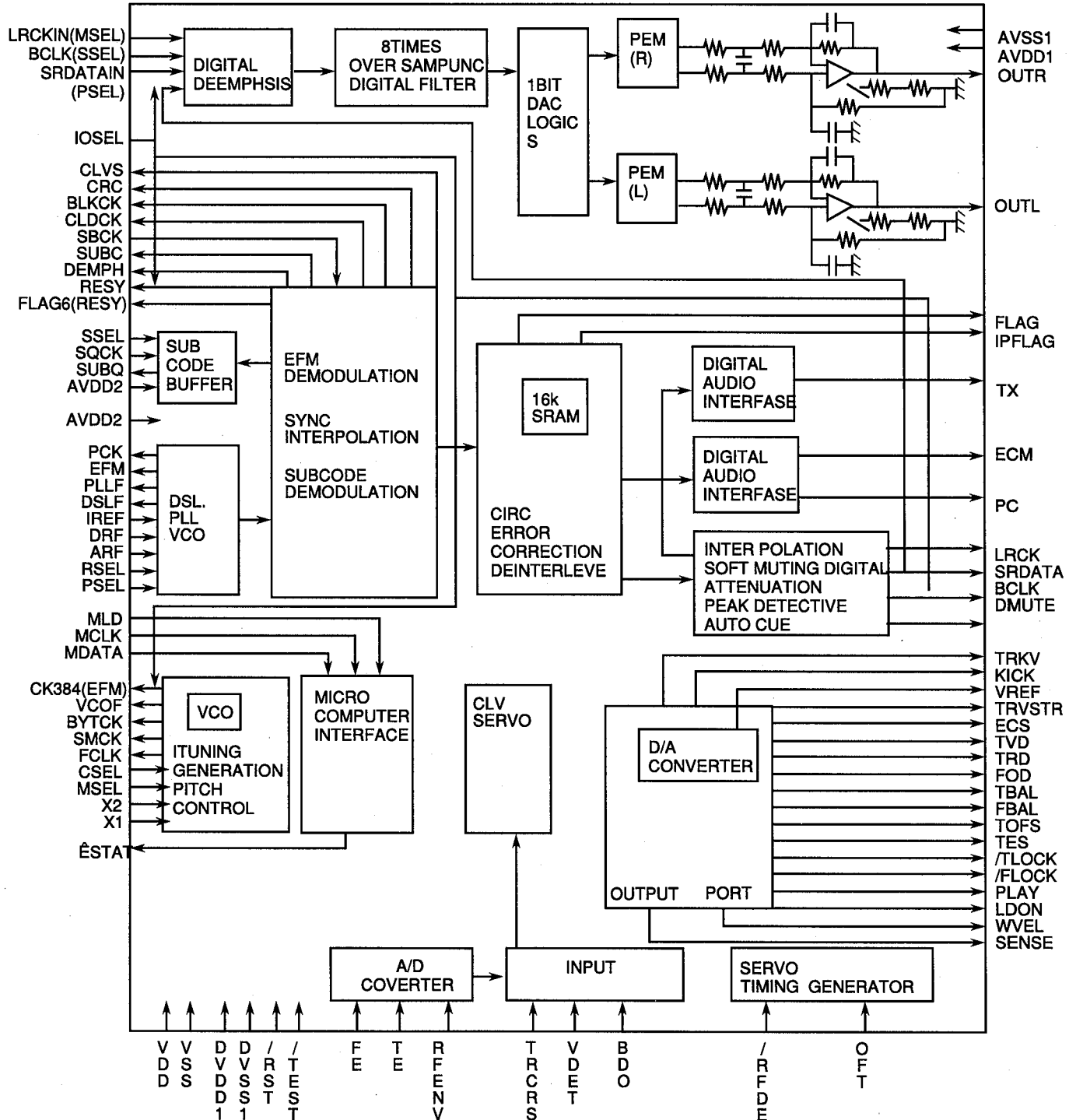
Pin No.	Symbol	I/O	Functions and operations
1	PD	I	APC amp input terminal
2	LD	O	APC amp output terminal
3	LD ON	I	APC ON/OFF control terminal
4	LDP	--	Connect to ground
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RFamp output
8	RF IN	I	RF input
9	C.AGC	I/O	Connecting pin of 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

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

1. Terminal Layout



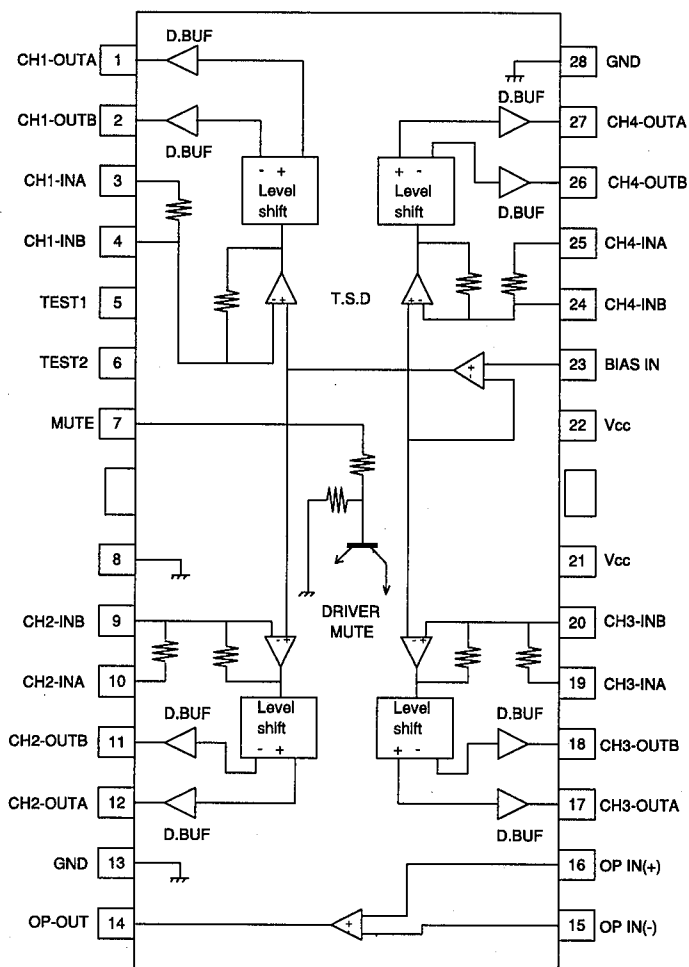
2. Block Diagram



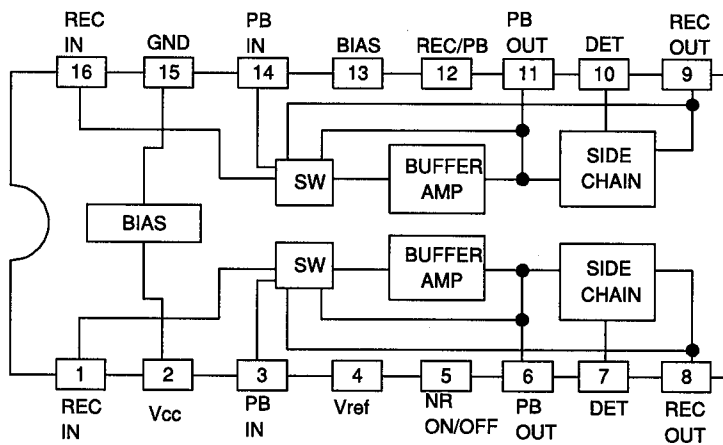
3. Description

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 inter output	46	DRF	I	Bias pin for DSL
7	MCLK	I	μ com command clock signal input (Data is latched at signal's rising point)	47	DSLIF	I/O	Loop filter pin for DSL
8	MDATA	I	μ com command data input	48	PLLIF	I/O	Loop filter pin for PLL
9	MLD	I	μ com command load signal input	49	VCOF	-	Not used
10	SENSE	O	Sence signal output	50	AVDD2	-	Power supply(Analog)
11	FLOCK	O	Focus clock signal output Active :Low	51	AVSS2	-	Connected to GND(Analog)
12	TLOCK	O	Tracking clock 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 lock 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 cscillation 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 cscillationcircuit)
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

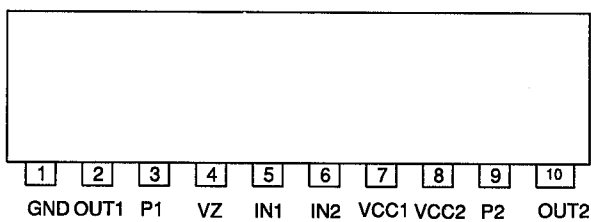
■ BA6897FP(IC701,IC801) 4channel driver



■ HA12136(IC351)
Noise Reduction Amplifier



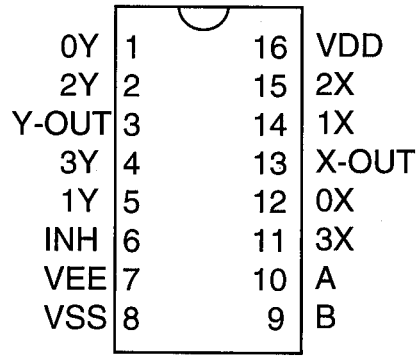
■ LB1641(IC775) DC Motor Driver



FUNCTION

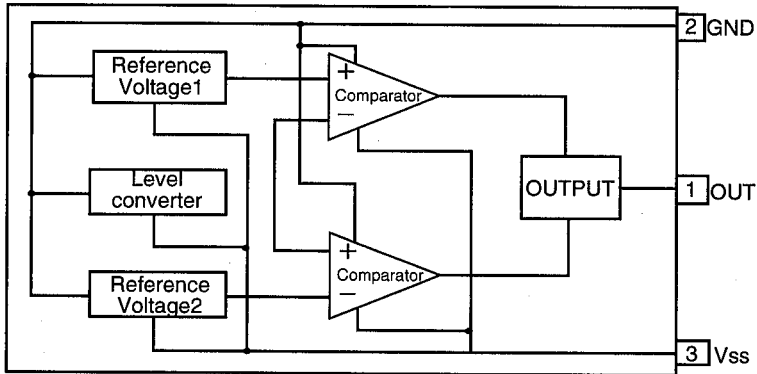
Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	CLOCKWISE
0	1	0	1	COUNTER-CLOCKWISE
1	1	0	0	Brake

■ TC4052BP(IC731) : Multiplexer



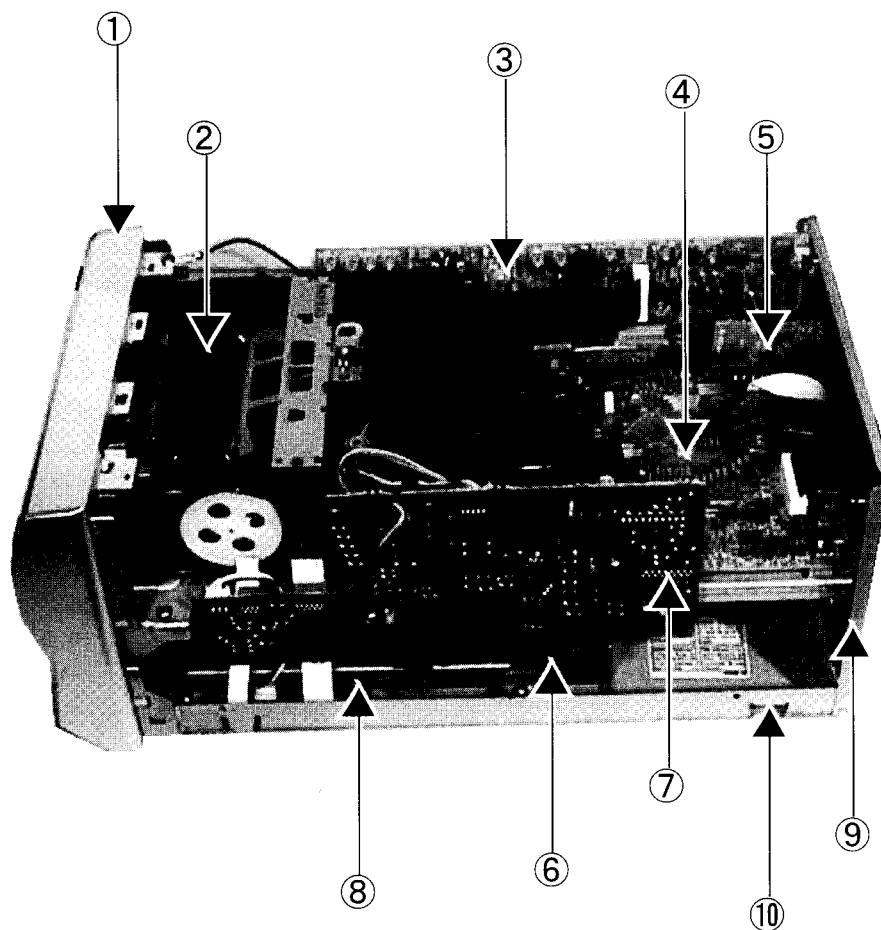
INHIBIT	B	A	X-OUT	Y-OUT
L	L	L	0X	0X
L	L	H	1X	1X
L	H	L	2X	2X
L	H	H	3X	3X
L	L	L	-	-
L	L	H	-	-
L	H	L	-	-
L	H	H	-	-
H	*	*	NONE	NONE

■ MN1381(IC752) : Reset IC



Pin No	symbol	Function
1	OUT	Reset signal output Reset : L
2	Vdd	Power supply
3	Vss	GND

Main parts Layout



XT-TD77R Inside View

- ① Front Panel
- ② Cassette mech.ass'y
- ③ Deck PCB
- ④ Deck/CD control
- ⑤ Optical out PCB
- ⑥ CD changer mech. ass'y
- ⑦ Deck loading mech. PCB
- ⑧ CD servo PCB
- ⑨ Rear panel
- ⑩ Bottom Base

Disassembly Procedures

(1) Removing the top cover

- 1.Remove 2 screws(A)fastening both sides of top cover,and 4 screws(B) fastening the rear side.
- 2.Remove the top cover.

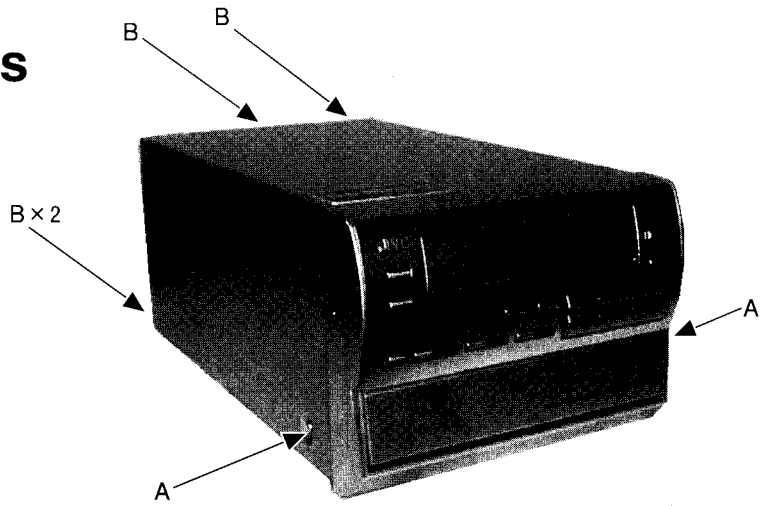


Fig.1

(2) Removing the Rear panel

- 1.Remove 6 screws(C)fastening rear panel(Fig.2).
- 2.Disconnect the Flat wire from the CN701.
- 3.Remove the Rear panel from the Hook of Bottom base.

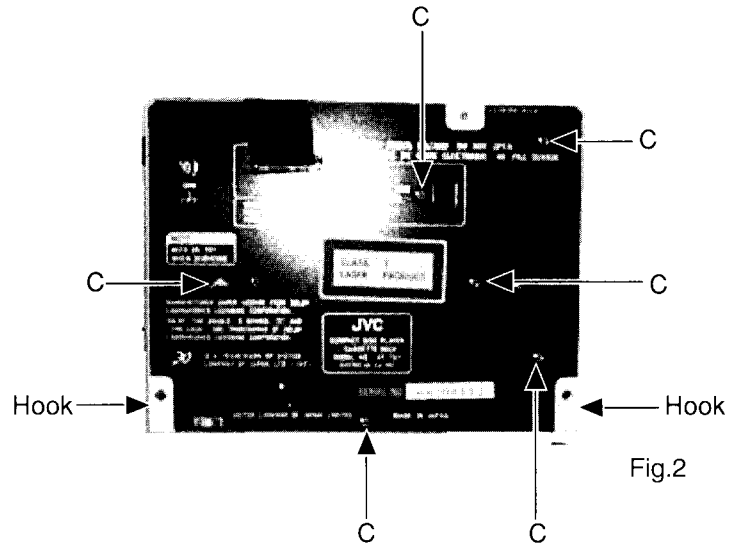


Fig.2

(3) Removing the Cassette Deck mech. ass'y.

- 1.Rotate the Pulley (D) clockwise with finger so that Cassette tray is unloading .
- 2.Take out the tray hitting.
- 3.Disconnect the CN791.
- 4.Remove the 2 screws (E) and Remove the Cassette Deck mech.ass'y.

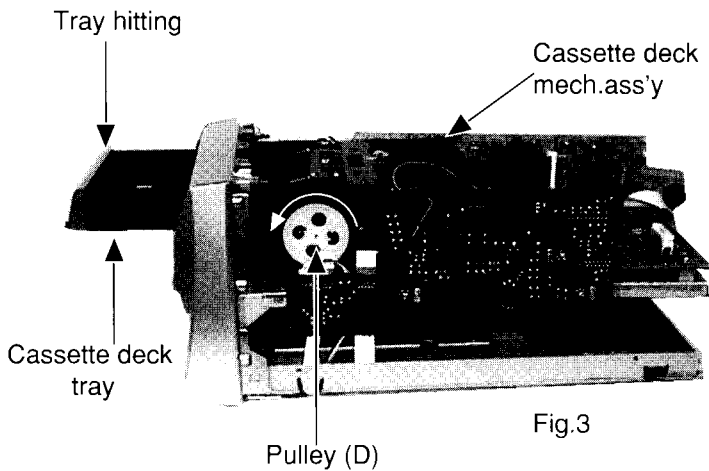


Fig.3

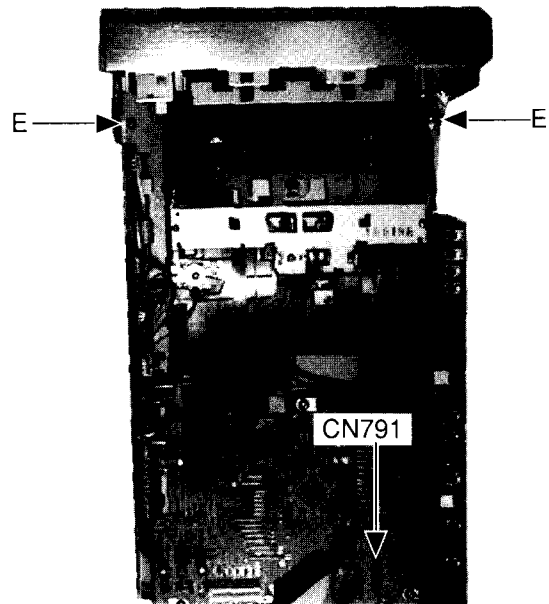


Fig.4

(4) Removing the CD changer mech. Ass'y

- 1.Remove the cassette mech.ass'y.
- 2.Remove 4 screws (F)fastening the CD changer mech.ass'y (Fig.5).
- 3.Push the Rack gear so that CD tray is open(Fig.6).
- 4.Remove the CD tray hitting(Fig.7).
- 5.Remove the CD changer mech.ass'y.

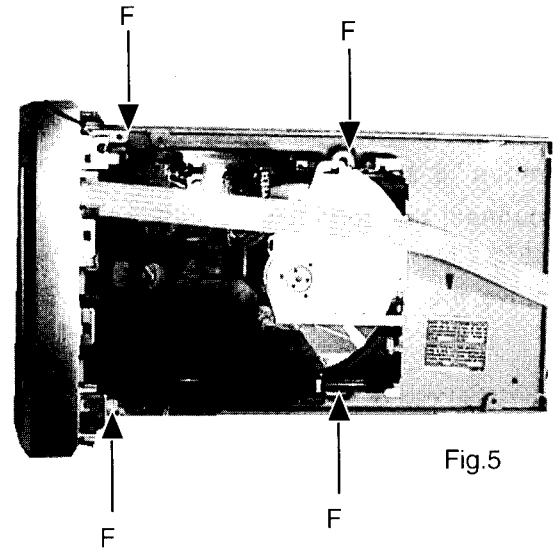


Fig.5

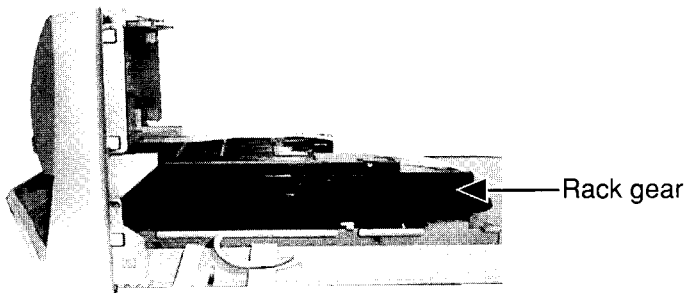


Fig.6

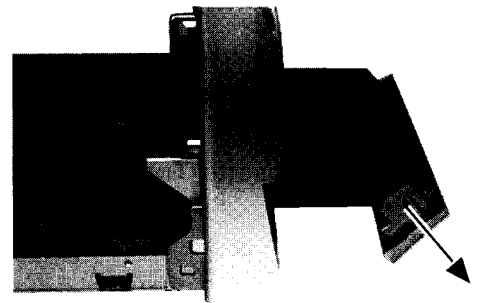


Fig.7

(5) Removing the Front panel Ass'y

- 1.Remove the Top cover.
- 2.Remove the Cassette tray hitting and CD changer tray hitting .
- 3.Disconnect the flat wire from CN791.
- 5.Remove the 2 screws (G) (Fig8).
- 6.Release the 2 hooks holding the Front panel ass'y and Remove it.

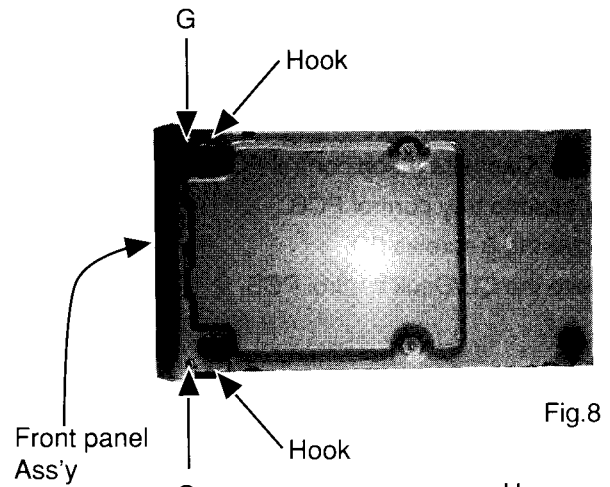


Fig.8

(6) Removing the Front PCB

- 1.Remove the Front panel ass'y.
- 2.Remove the 6 screws(H)fastening the Bracket and Front PCB.
- 3.Remove the Front PCB.

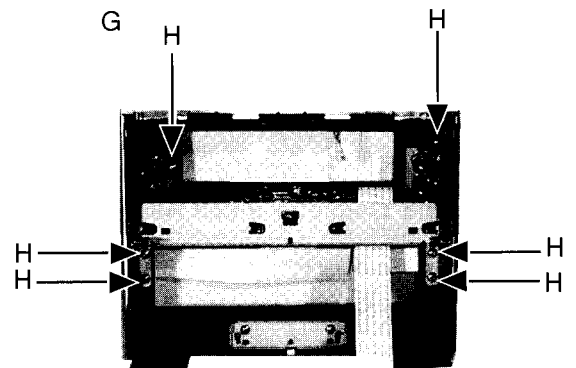


Fig.9

Cassette Mech. Ass'y removal

(7) Removing Cassette mech. control PCB

- 1.Remove 3 screws (I).
- 2.Disconnect the connector CN502 and CN513,CN514
- 3.Remove the Cassette mech. control PCB.

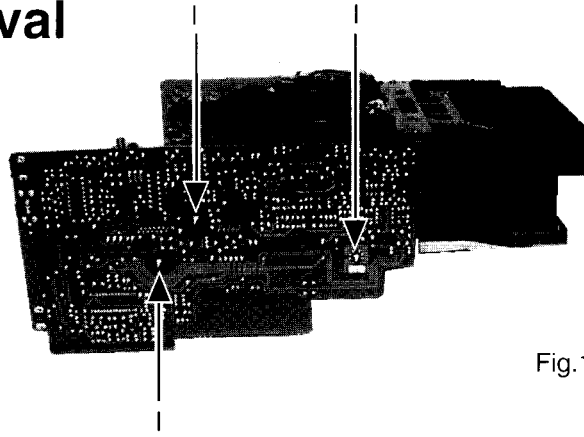


Fig.10

(8) Removing Cassette Tray control PCB

- 1.Remove 3 screws (J) .
- 2.Disconnect the connector CN702 and CN703.
- 3.Remove the Cassette Tray control PCB.

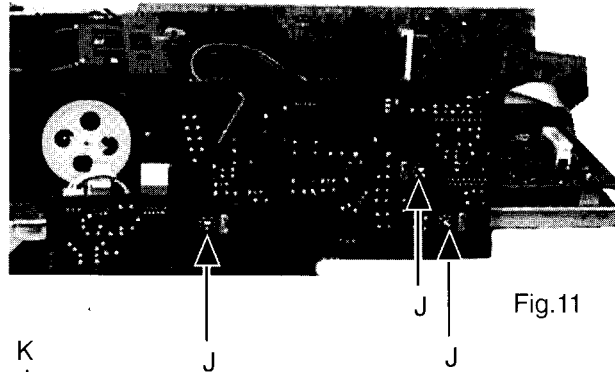


Fig.11

(9) Removing CD/Deck control PCB

- 1.Remove the Cassette mech. Ass'y .
- 2.Remove Cassette mech.control PCB and Cassette tray control PCB.
- 3.Remove the 3 screws (K).
- 4.Remove the CD/Deck control PCB.

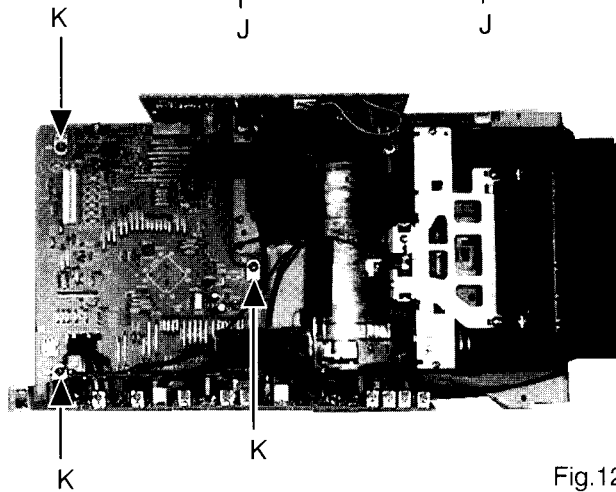


Fig.12

(10) Removing Cassette mech. Ass'y (with out control PCB)

- 1.Remove the (7),(8),(9).
- 2.Remove the 4 screws (L).
- 3.Remove the Cassette mech.Ass'y.

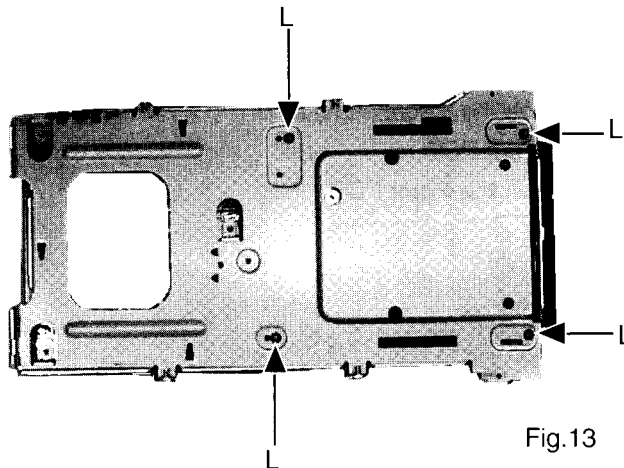


Fig.13

(11) Removing Cassette Tray

- 1.Remove the Cassette mech. Ass'y .
- 2.Remove 2 screws (M).
- 3.Release the spring from the plate,and Remove a plate.
- 4.Push the hook shown in the figure Fig.14,and Remove the Cassette holder.
- 5.Rotate the loading pulley counterclock wise ,and open the Cassette tray.(Fig.15)
- 6.Push the Cassette tray hooks of both side shown in the figure Fig.15 .
- 7.Pull out the Cassette tray.

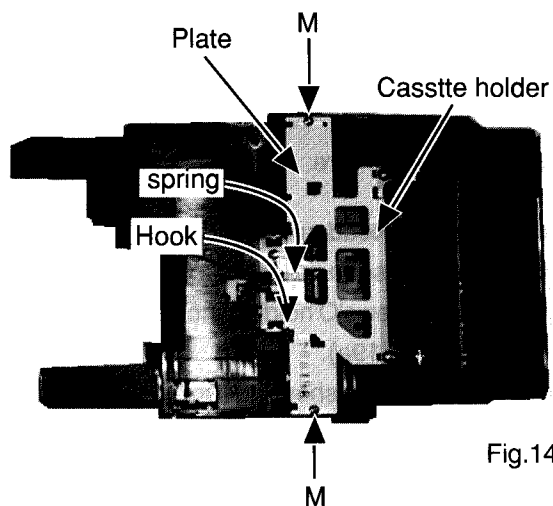


Fig.14

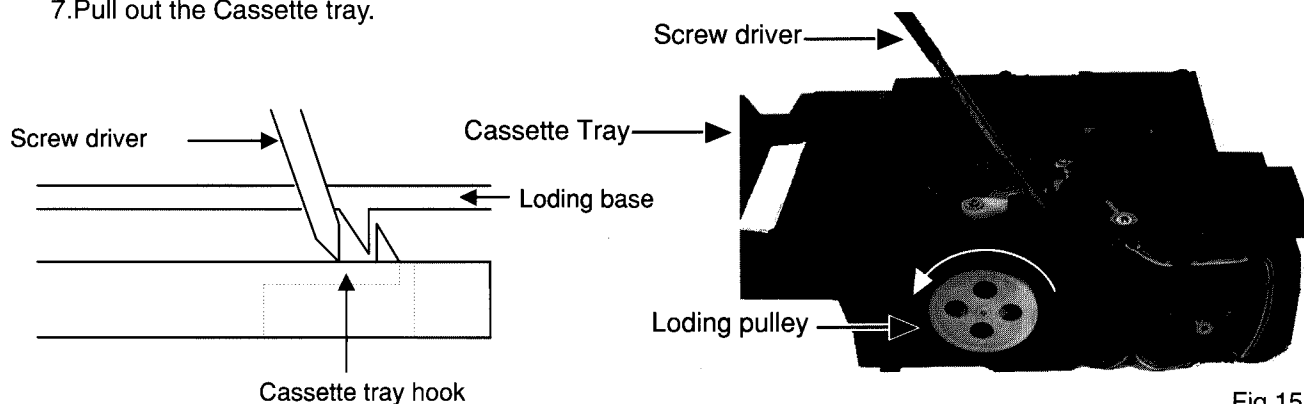


Fig.15

**(12) Removing Cassette Mech. Ass'y
(with out loading mech.ass'y)**

- 1.Remove the Cassette mech. Ass'y.
- 2.Remove 6 screws (N).
- 3.Remove the Cassette mech.ass'y.

● Procedures for Reassembling the Cassette mech. Ass'y.

- 1.Open the Cassete Tray.
- 2.Mounting the Cassette mech.Ass'y.

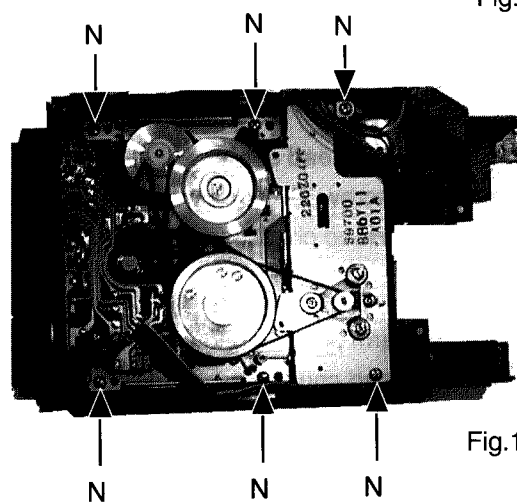


Fig.16

(13) Removing the Cassette mech. Switch PCB

- 1.Remove the Cassette mech. Ass'y .
- 2.Unsolder the 4 pin wire and solenoid terminal.
- 3.Remove the 2 screws (O).
- 4.Remove the Cassette mech. PCB.

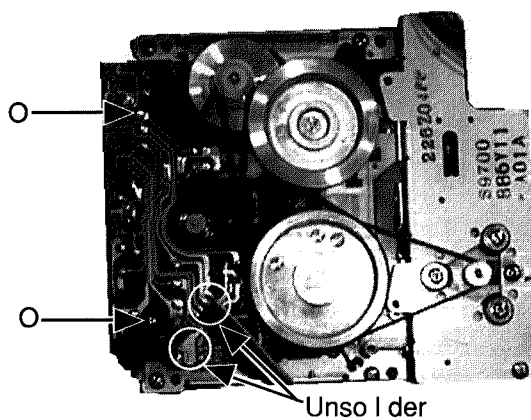


Fig.17

(14) Removing the Head

1. Remove the Cassette mech. Ass'y.
2. Remove 2 screws 'P'.
3. Unsolder the 4 pin wire.

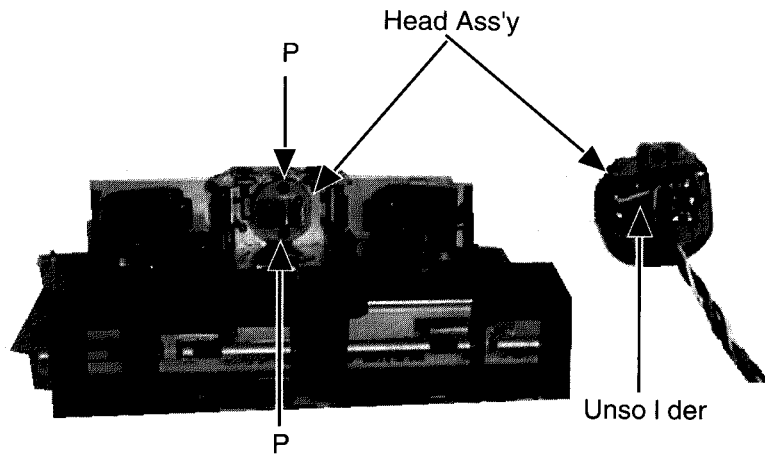


Fig.18

(15) Removing the Head ass'y

1. Remove the Cassette mech. Ass'y.
2. Remove the 2 screws 'O' holding the motor bracket (Fig.19a).
3. Remove the nylon washer (Fig.19b).
4. Remove the Rotation Gear .
5. Remove the Head ass'y with wire ass'y.

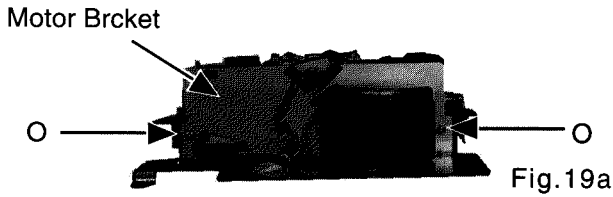


Fig.19a

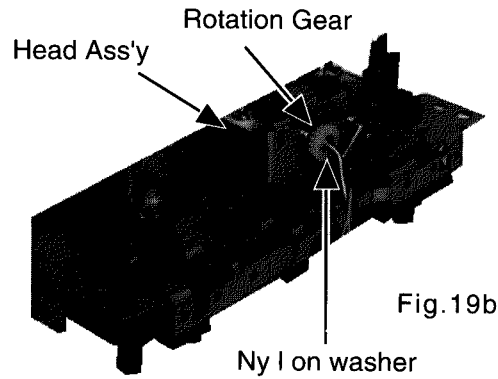


Fig.19b

(16) How to assemble the Head ass'y

1. Set the Forward playing position of the return gear and Rotation gear .
2. Attach the Nylon washer.

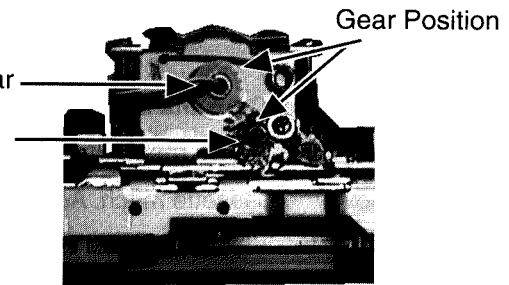
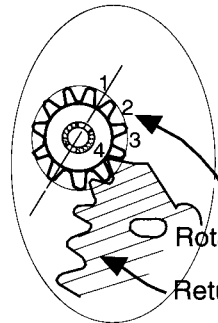


Fig.20

(17) Removing the Head ass'y

1. Remove the screw 'Q' holding the cassette guide.
2. Remove the Head chassis ass'y.

(18) How to assemble the Head chassis ass'y

1. Set the play arm position shown in the figure below (Fig.21).
2. Attach the Head chassis ass'y and chassis base.

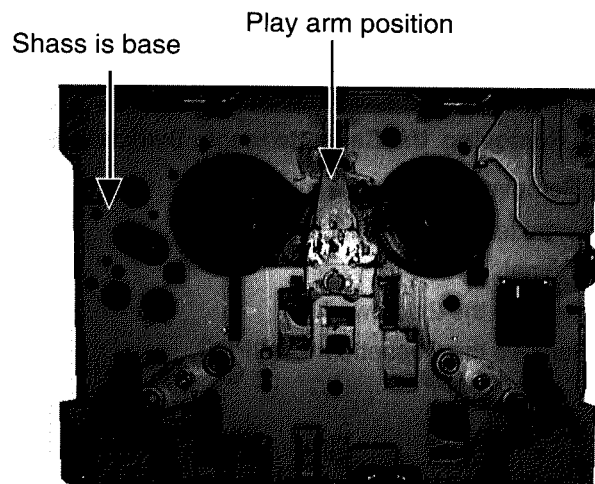
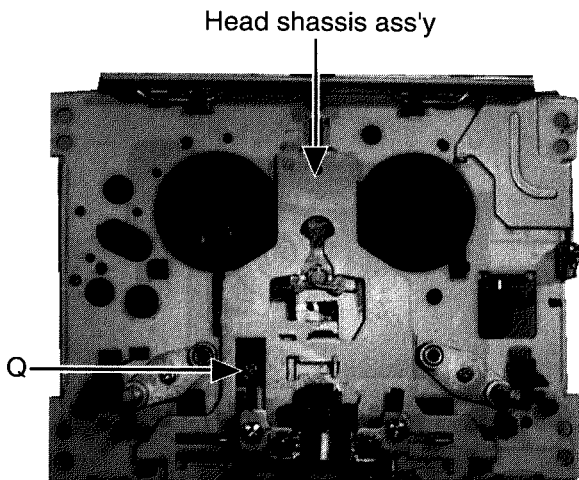


Fig.21

(19) Removing the Pinch roller

- 1.Remove the Deck mech. Ass'y.
- 2.Release the hook holding the Pinch roller.

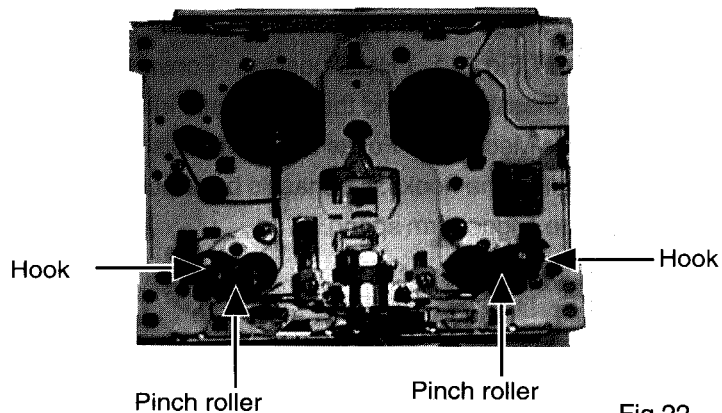


Fig.22

(20) Removing the Capstan motor .

- 1.Remove the Deck mech. Ass'y.
- 2.Remove the Belt "A".
- 3.Remove the 3 screws (Q).
- 4.Unsolder the 4 pin wire of the Capstan motor terminal.
- 5.Remove the Capstan motor.

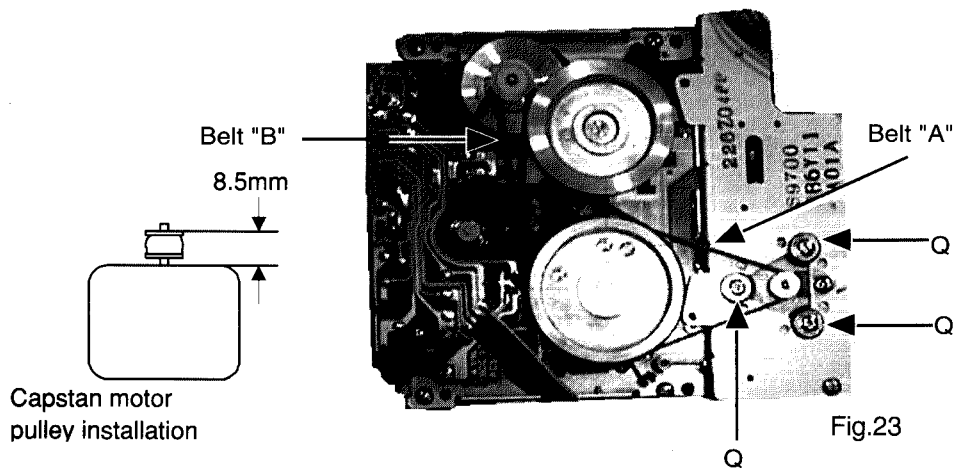


Fig.23

(21) Removing the Flywheel .

- 1.Remove the Deck mech. Ass'y.
- 2.Remove the Belt "B".
- 2.Remove the Nailon washer holding the Flywheel shaft.
- 3.Remove the Flywheel.

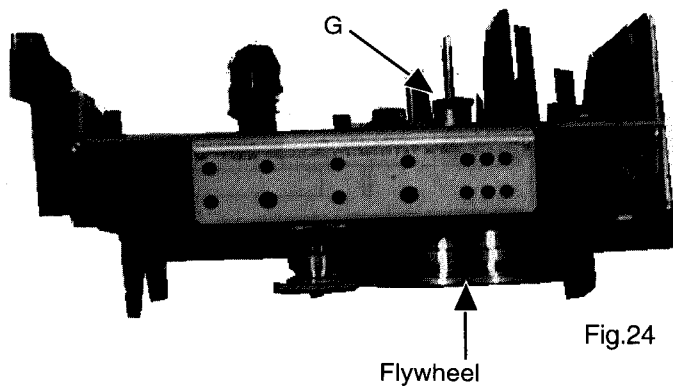


Fig.24

(22) Removing the Mech.Base

- 1.Remove the Deck mech. Ass'y.
- 2.Remove Capstan motor bracket and mech.switch PCB .
- 3.Remove the 4 screws (R).
- 4.Release the 4 Hooks holding the Control cam Ass'y.
- 5.Remove the Mech. Base.

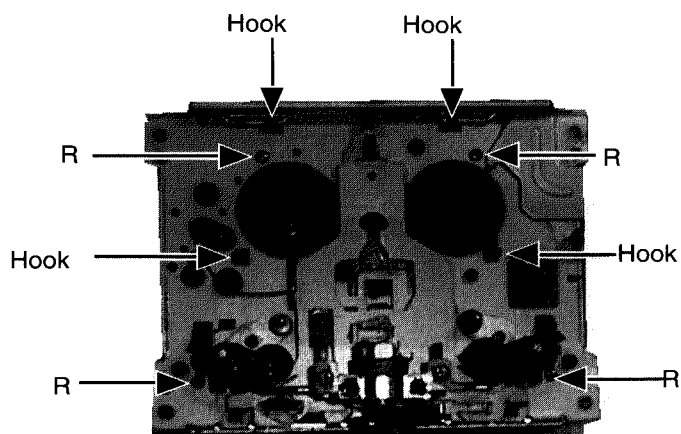
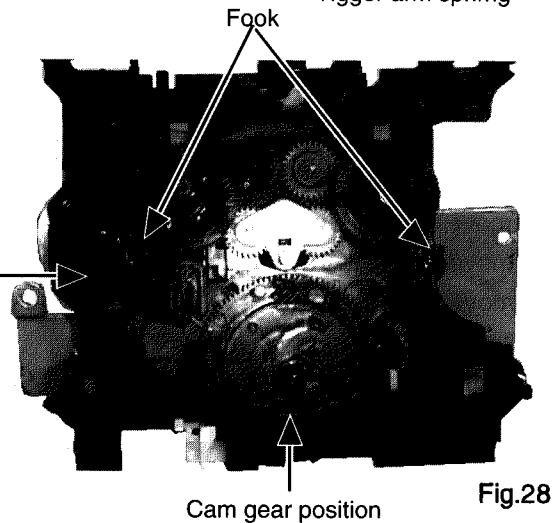
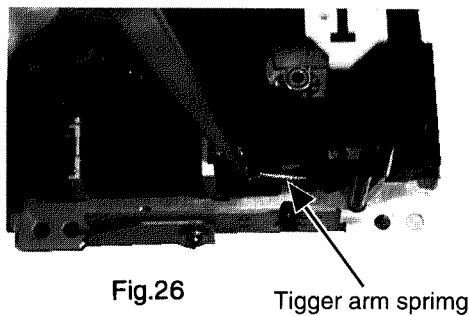
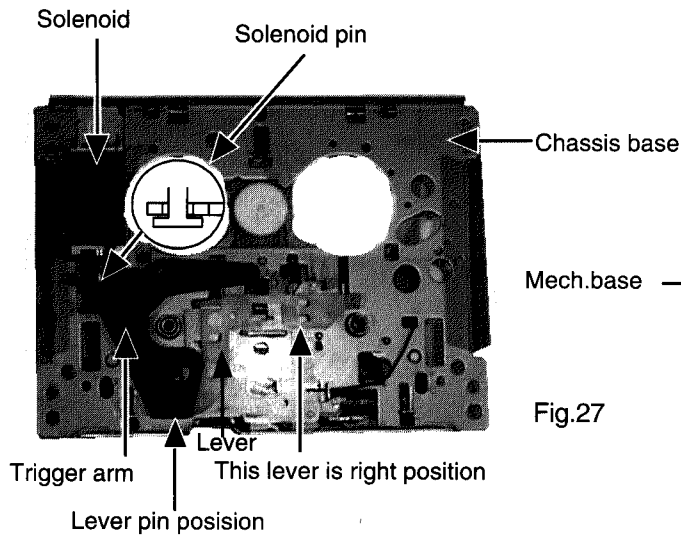


Fig.25

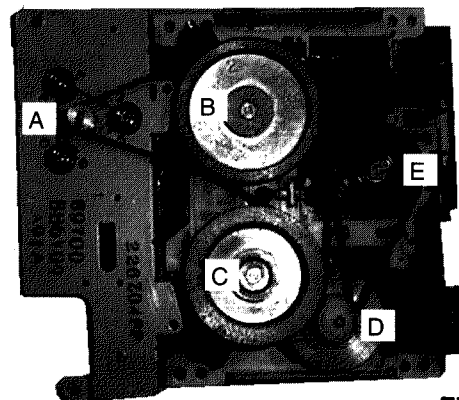
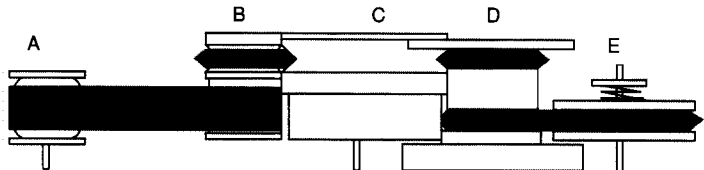
(23) How to assemble the Chassis base and Mech. base

1. Set the Levers and Gear position as shown in the figure below. (Fig.27, Fig.28) (Head position : Forward)
2. Unite the Chassis base and the Mech. base into one.
3. Be hook the Mech. base Fooks to the Chassis base.
(When installing the hooks, the chassis base pull up littele.)
4. Be hook the Trigger arm spring.



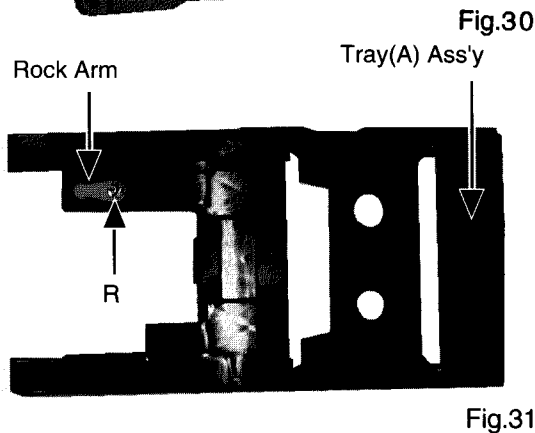
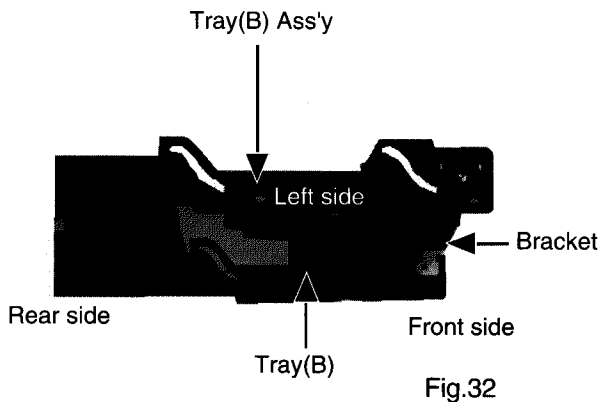
(24) How to install the belts

1. Install the flywheels and belts as shown in the figure below. (Fig.29, Fig.30)



(25) Deassemble the Tray Ass'y

1. Remove the Cassette Tray .
2. Remove the screw 'R' and remove the Rock Arm.
3. Slide the Bracket for rear side.
4. Remove the Tray 'B' ass'y from the Tray 'A' ass'y.



(26) How to assemble the Tray Ass'y

1. Slide the Tray(B) for front side (Fig.32).
2. Unite the Tray 'A' ass'y and Tray 'B' ass'y.

CD Driver Mechanism Section

■ Removing the CD Mechanism Section

1.Remove the CD traverse mechanism assembly from the body.

Caution 1:Prior to removing CD traverse mechanism assembly,be sure to set alo of the sub-trays to the [STOP]mode.

Caution 2:In the case of removing the mechanism when this system has been set to the[PLAY] mode,the slide cam L on the left side of the CD traverse mechanism should be moved in the arrow A direction and positioned to A. Under this condition, the CD traverse mechanism will be lowered to the position as shown in Fig.1).

2.Remove the four screws 1 retaining the top cover(See Fig.2).

3.After pulling out the rod from the clamber, remove it together with the top cover(See Figs.2 and 2a).

4.Pull out the CD tray.

5.Remove the one screw 2 retaining the clamber (See Fig.3).

6.After moving the clamber in the arrow B direction and shifting it in the arrow C direction, take it out from the engagement section B(See Fig.3).

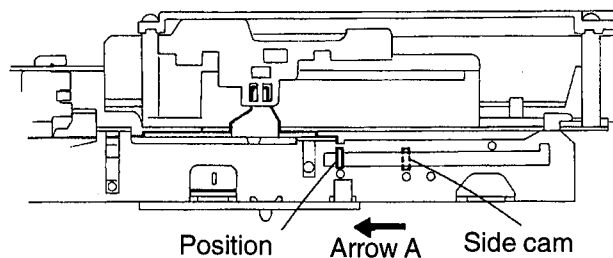


Fig.1

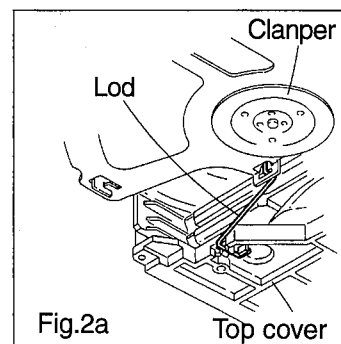
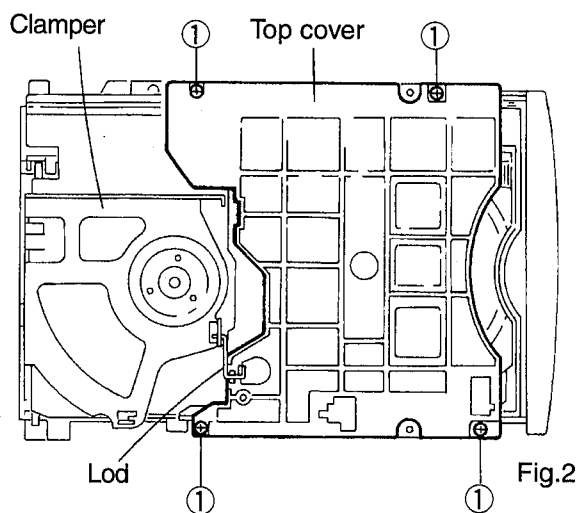


Fig.2a

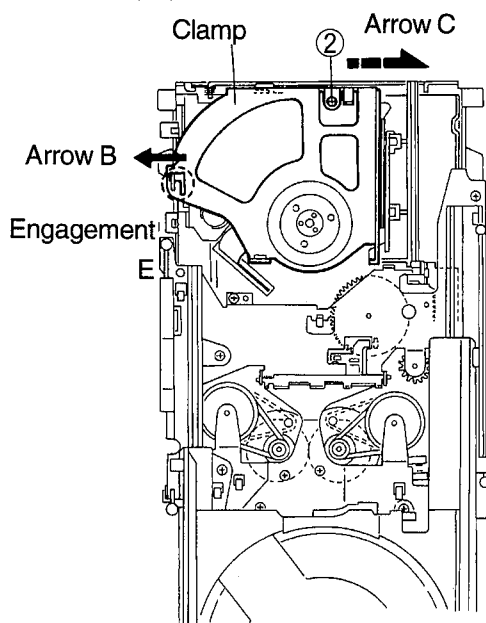


Fig.3

7. Move the center pawl in the arrow D direction and remove the stopper fixing the CD mechanism as shown in Fig.4
8. Remove and take out the three insulators from the CD mechanism by using tweezers and so forth (See Fig.4).
9. By soldering, fill the position (in Fig.5) of the flexible P.C.board outgoing from the CD mechanism.
10. From the connector CN601 on the CD traverse mechanism control & servo P.C.board, remove the flexible P.C.board (See Fig.5).

caution: Since it will be hard to remove the flexible P.C.board from the connector CN601 use pliers after covering with cloth, etc. so as not to cause any damage to the P.C.board and connector.

- Procedures for Reassembling the CD Mechanism
 - In principle, reassemble the CD mechanism according to the opposite orders of the removing steps. Meanwhile, be sure to remove any filed position by soldering in "Removing Step 9" above.
 - After aligning the engagements [B] and [C] at the position where the CD mechanism has been lowered as described in "Removing Steps 6 and 7", be sure to mount the mechanism straight and fix the mechanism with screws.
 - After aligning the slide cam R as shown in Fig.6 (See "Removing Step 2"), mount the top cover and fix the mechanism with screws.

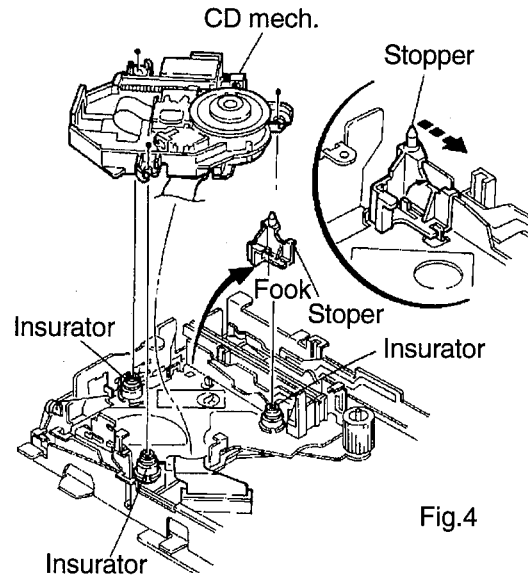


Fig.4

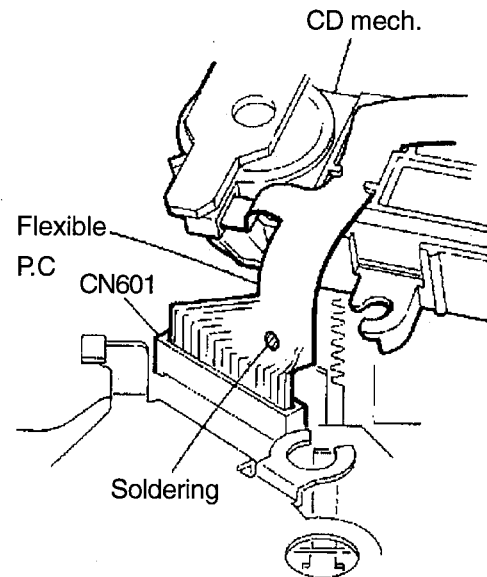


Fig.5

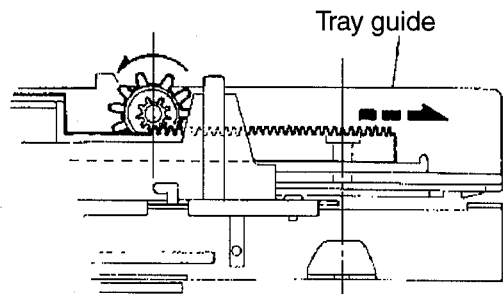
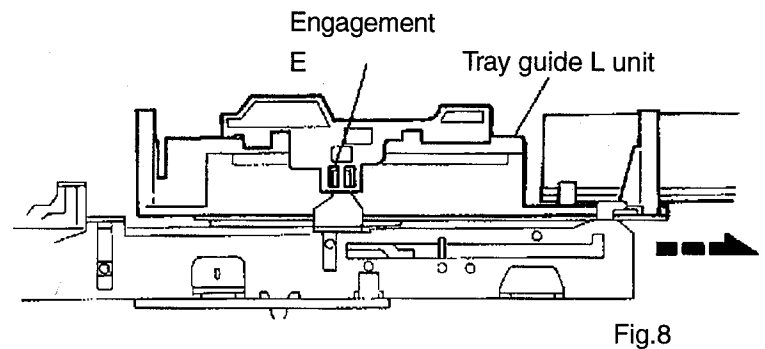
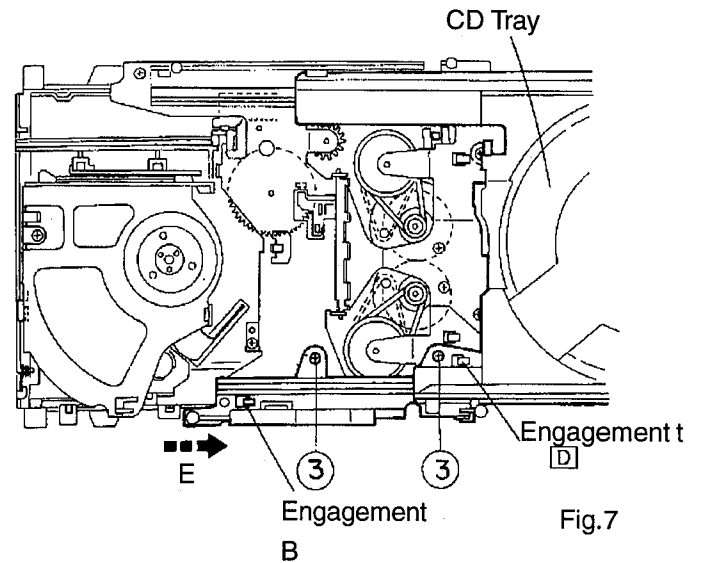


Fig.6

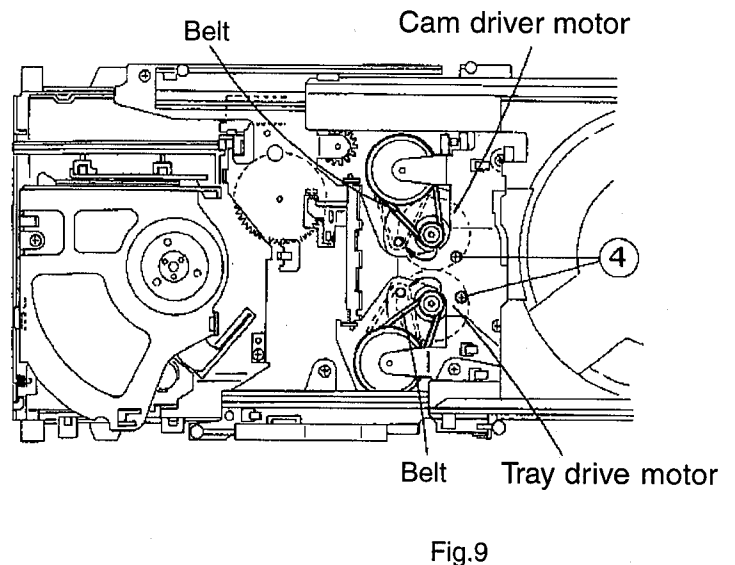
■ Removing the CD Tray

- 1.Remove the top cover.
- 2.Pull out the CD tray.
- 3.Remove the two screws ③ retaining the tray guide(L)unit(See Fig.7).
- 4.Disengage the two engagements D fixing the tray guide(L) unit while moving the engagements in the arrow D direction (See Fig. 8).
- 5.Pull out the engagement E from the mechanism chassis,and remove it together with the CD tray (See Fig.8).



■ Removing the CD traverse Mechanism Control & P.C.Board

- 1.Remove the top cover.
- 2.Pull out the CD tray.
- 3.The two belts which have been dismantled from the tray & cam drive motor should be hanged again to the motor pulley as shown in Fig.9.
- 4.Remove the two screws ④ retaining the tray & cam drive motor (See Fig.9).

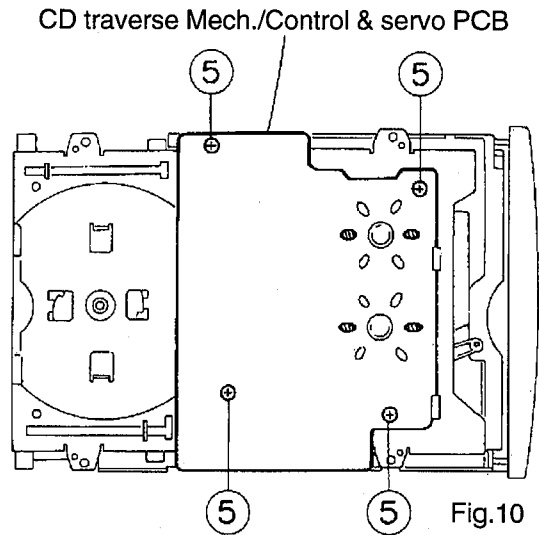


5. After turning over the CD traverse mechanism, remove the four screws 5 retaining the CD traverse mechanism control & servo P.C. board (See Fig.10).

6. While raising the P.C. board, perform soldering to fill the position on the flexible P.C. board outgoing from the CD pickup unit (See Fig.11).

7. After turning over the CD traverse mechanism, remove the flexible P.C. board from the connector CN601 on the CD traverse mechanism control & servo P.C. board (See Fig.11).

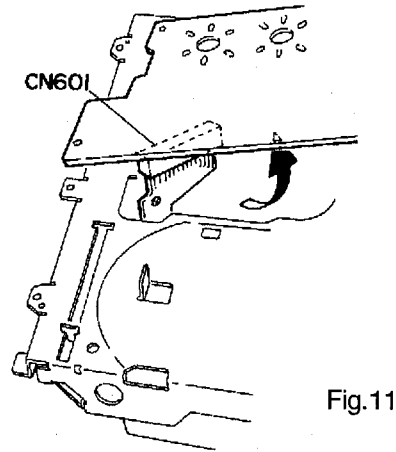
8. Remove the CD traverse mechanism control & servo P.C. board.



● Procedures for Reassembling the CD Traverse Mechanism Control & Servo P.C. Board

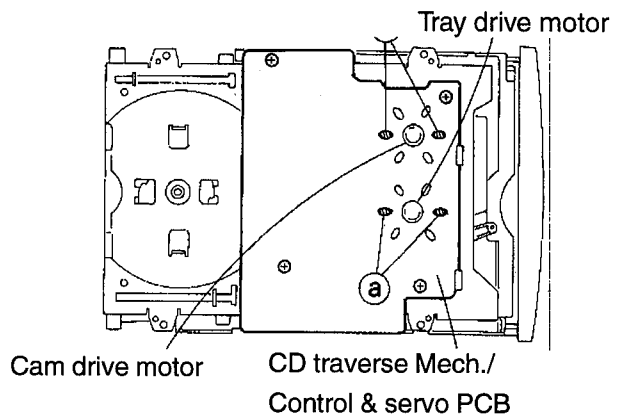
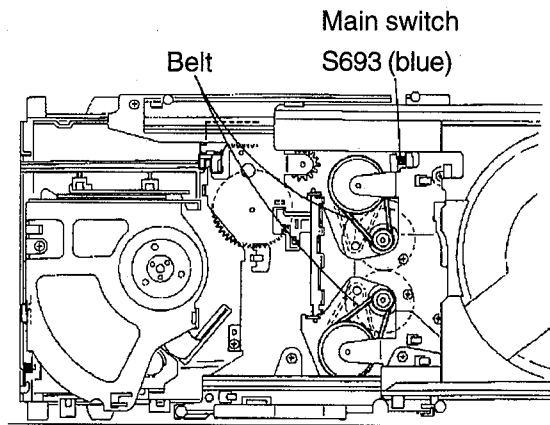
- In principle, this P.C. board should be reassembled according to the opposite removing steps. For mounting the CD traverse mechanism control & Servo P.C. board, insert the main switch (blue) on the P.C. board into the position in Fig.12.

- Be sure to hang the two belts which have been dismantled from the tray & cam drive motor.



■ Removing the Cam and Tray Drive Motors

1. Remove the top cover.
2. Pull out the CD tray.
3. Remove the CD traverse mechanism control & servo P.C. board.
4. After removing the two soldered portions [a] on the surface of the CD traverse mechanism control & servo P.C. board, remove the tray drive motor (See Fig.13).
5. After removing the two soldered portions [b] on the surface of the CD traverse mechanism control & servo P.C. board, remove the cam drive motor (See Fig.13).



■ Removing the CD Pickup Unit

1. Remove the top cover.
2. Pull out the clamber.
3. Remove the CD mechanism.
4. Shift the CD pickup unit in the arrow F direction (See Fig.14).
5. Remove the one screw ⑥ retaining the shaft holder(See Fig.14).
6. After removing the two screws ⑦ retaining the rack arm. take out the S.S. gear assembly(See Fig.14).
7. By soldering, fill the position on the back surface of the CD pickup unit (See Fig.15).
8. Remove the flexible P.C.board from the connector on the back surface of the CD pickup unit.

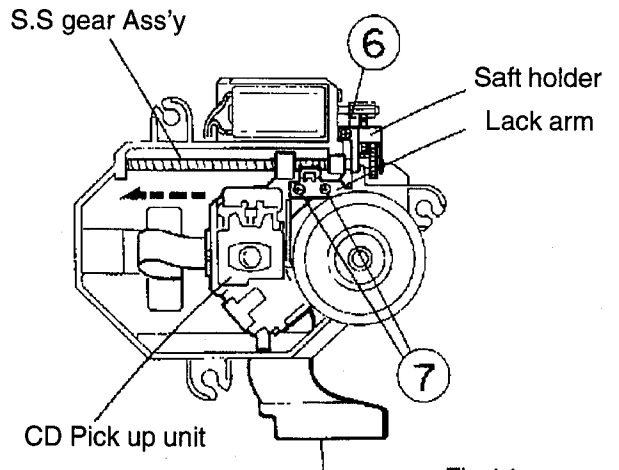


Fig.14

● Procedures for Reassembling the CD pickup unit

- In principle, this unit should be reassembled according to the opposite order of the removing steps.

Caution

The rack arm should be screw-clamped first from the round hole.

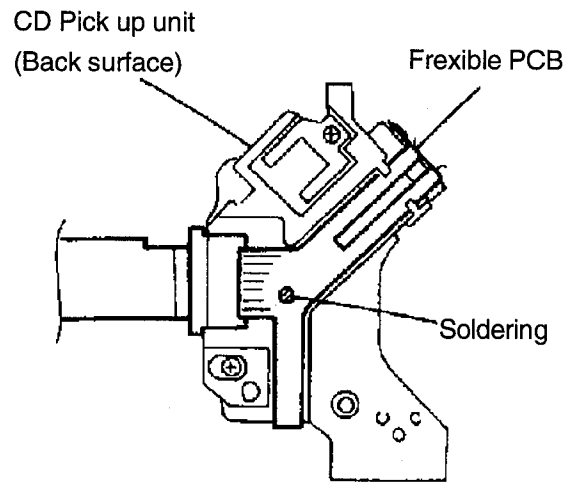


Fig.15

■ Removing the Feed Motor Assembly

1. Remove the top cover.
2. Pull out the clamber.
3. Remove the CD mechanism.
4. After removing the one screw ⑧ retaining the feed motor assembly, take out this assembly (See Fig.16).
5. After turning over the CD mechanism, remove it from the lead wire treating key way on the feed motor assembly (See Fig.16).
6. Remove the soldered portion of the lead wires (red and black) from the spindle motor P.C.board (See Fig.16).

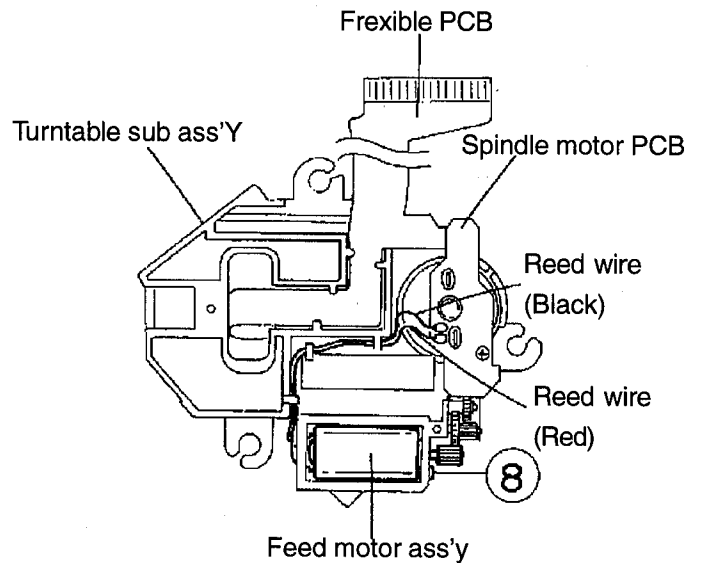
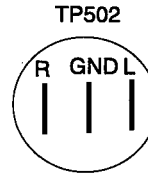
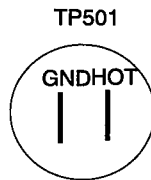
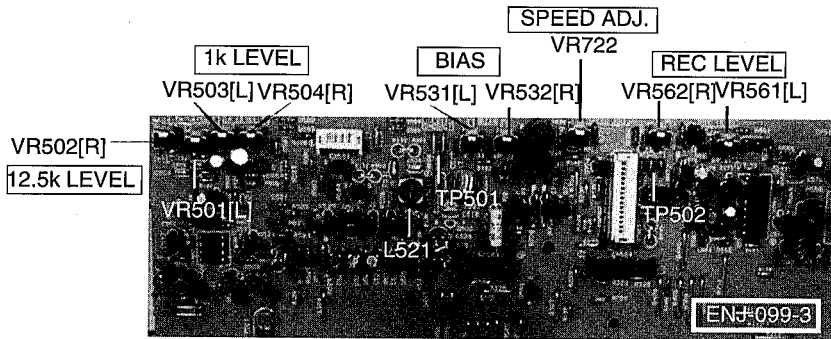


Fig.15

Deck Adjust point



Deck section

1.Measuring instruments

- Audio frequency signal generator (0db output at 600ohm output terminal from 50Hz to 20kHz)
- Electronic voltmeter
- Frequency counter
- Wow & Flutter meter
- Distortion Meter with band filter
- Attenuator(600 ohm impedance)
- A resistor with 600Ω

Tape No.	Frequency	Leve(Wow & Flutter)	Purpose
VTT-703L	10kHz	-10dBs	Head azimuth, Frequency Response
VTT-712	3000Hz	0dBs 0.025%WRMS	Tape Speed, Wow & Flutter
VTT-724	1kHz	-4dBs	Standard Level
TMT-6447	-	-	Blank Skip
TMT-6247, TMT-6237	-	-	Music Scan
TMT-7088S	-	-	Recording standard Normal:UR
AC-712	-	-	Recording standard METAL :MA
AC-513	-	-	Recording standard CrO ₂ :UR
TW-2111, TW2121	-	-	Forward/reverse play torque measuring
TW-2231	-	-	Feed forward/rewind torque measuring
C-120 Tape	-	-	Confirming the tape running

2.Adjustment and repairing the mechanism

Item	Adjustment method	Standard value	Remarks
Head azimuth	<ol style="list-style-type: none"> 1.Connect an electronic viltmeter to the NR TP502 (figure2) to playback VTT-703L 2.Adjust screw [A] so that the indication of the viltmeter becomes maximum when play(▶) is pressed. 3.Adjust screw [B] so that the indication of the viltmeter becomes maximum when play(◀) 	Maximum	<ol style="list-style-type: none"> 1.Refer to figure 3. 2.When the specified characteristic cannot be obtained because of head wear,excessive magnetization,etc, replace the head assembly and adjust the head azimuth.Also,perform the electric adjustment. 3.When there is the difference of more than 3~4 dB between left and right output levels,replace the head assembly to avoid complaints.
Playback torque	1.Measure the torque in the playback mode by the torque meter.	26~72 g-cm	When the standerd torque cannot be obtained,replace the FR arm assembly or motor
Fast forward torque	1.Measure the torque in the fast forward mode by the torque meter.	75~175 g-cm	When the standerd torque cannot be obtained,replace the FR arm assembly or motor
Rewind torque	1.Measure the torque in the rewind mode by the torque meter.	75~175 g-cm	When the standerd torque cannot be obtained,replace the FR arm assembly or motor
Wow & Flutter	<ol style="list-style-type: none"> 1.Connect the wow & flutter meter to the DOLBY TP (figure2)and play back VTT-712. 2.Its reading should be within 0.25%(WTD) 	Less than 0.25%	As a comllaint may occur if the wow & flutter fluctuates by 0.1% even though it is allowed in the standard,repairing is required.

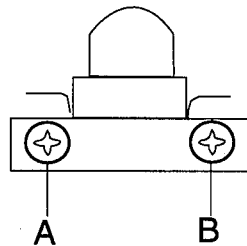


Fig.3

3.Electrical Adjustments(Make the following adjustments after adjustment the head azimuth.)

In principle, the adjustments should be made in the following sequence.

Set the NR switch to OFF and the BEAT CUT switch to "1".

Adjustments marked with an asterisk (*) should always be made after the head is replaced

0dBs=0.775V

Item	Adjustment method	Adjustment Location	Standard value	Remarks
Tape speed	1.Connect a frequency counter to the NR TP502 (figure 2) and play back VTT-712 . 2.Adjust the semi-fixed resistor VR722 on ENJ-099 - 3 (figure 2).	VR722	3,000Hz ±10Hz	Connect a wow & flutter meter with a builtin frequency counter to the speaker terminals.
Standard level (Playback Level)	1.Connect an electronic voltmeter to the NR TP501(figure 2) . Play back VTT-724 (1 kHz : -4dBs) to adjust the semifixed resistors.	L-VR503 R-VR504	488mV (-4dBs)	1)The playback level varies when the head is replaced so should be adjusted. Use an electronic voltmeter with an impedance of 100kΩ or more.
Playback Frequency Response	1.Connect an electronic voltmeter to the NR TP501(figure 2) . 2.Play VTT-703L(10kHz:-10dBs)and adjust semifixed resistors to obtain the standard values.	L-VR501 R-VR502	245mV (-10dBs)	
Record/play Frequency Response (Bias current)	1.Supply 1kHz and 12.5kHz with 30mV signals to VCR terminals respectively to record them. 2.Connect an electronic voltmeter to the NR TP501 (figure 2) to confirm the recorded values. 3.If the values are not satisfied,adjust the semifixed resistors and record the signal again to confirm the recorded values.	L-VR531 R-VR532	0±2dB with 1kHz as the standerd	Refer to figure 4 below. 1)The recording and playback frequency response of a cassette deck are adjusted by adjusting the bias. 2)Perform the adjustment with normal tape and confirm that the values are within the range for metal tape.

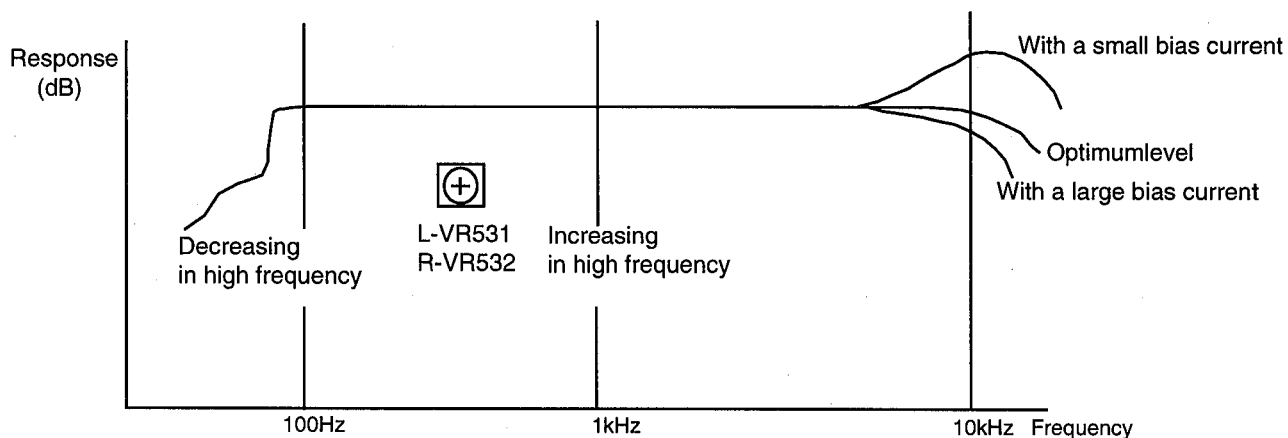
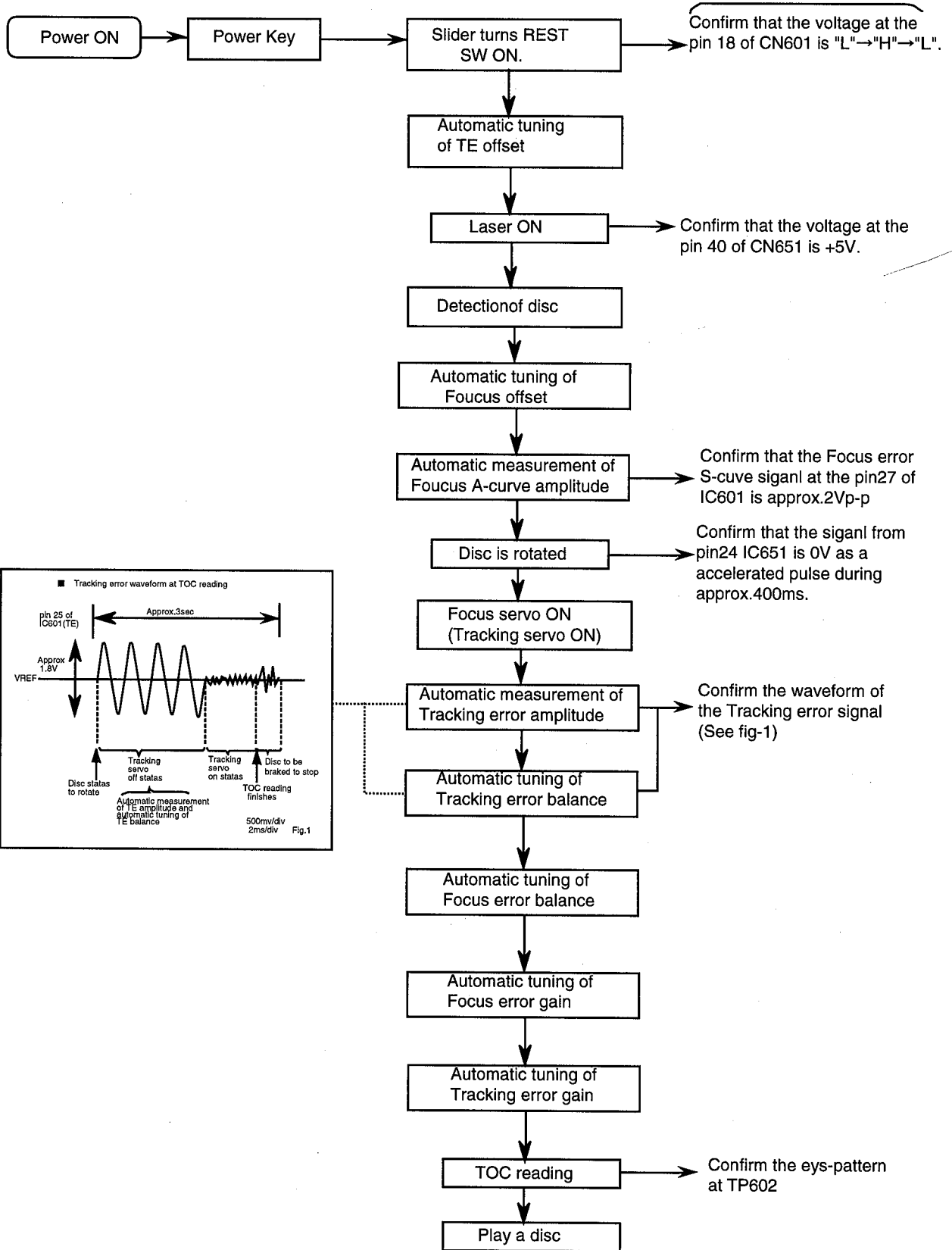


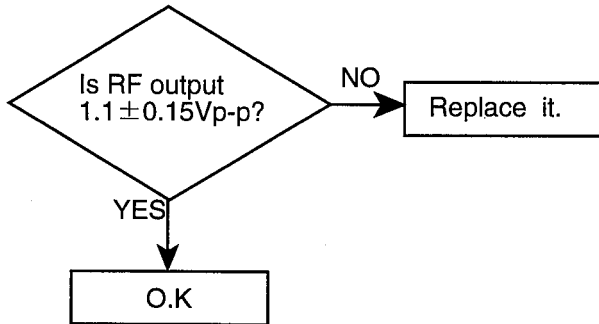
Fig.4

Flow of Functional Operation Until TOC Read



Maintenance of Laser Pickup

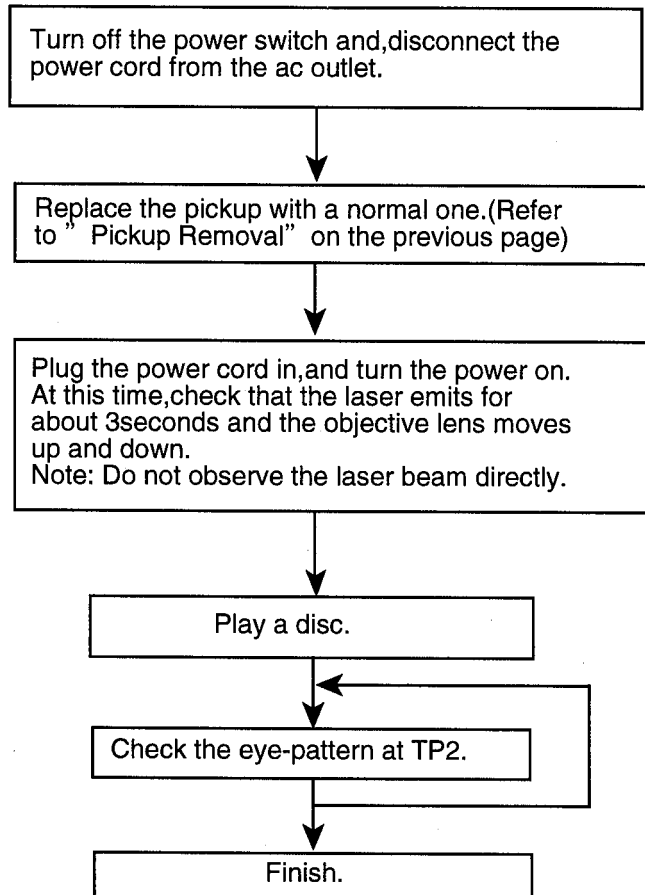
- (1) Cleaning the pick up lens
 Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.
- (2) Life of the laser diode (Fig.1)
 When the life of the laser diode has expired, the following symptoms will appear.
 - (1) The level of RF output (EFM output: amplitude of eye pattern) will be low.



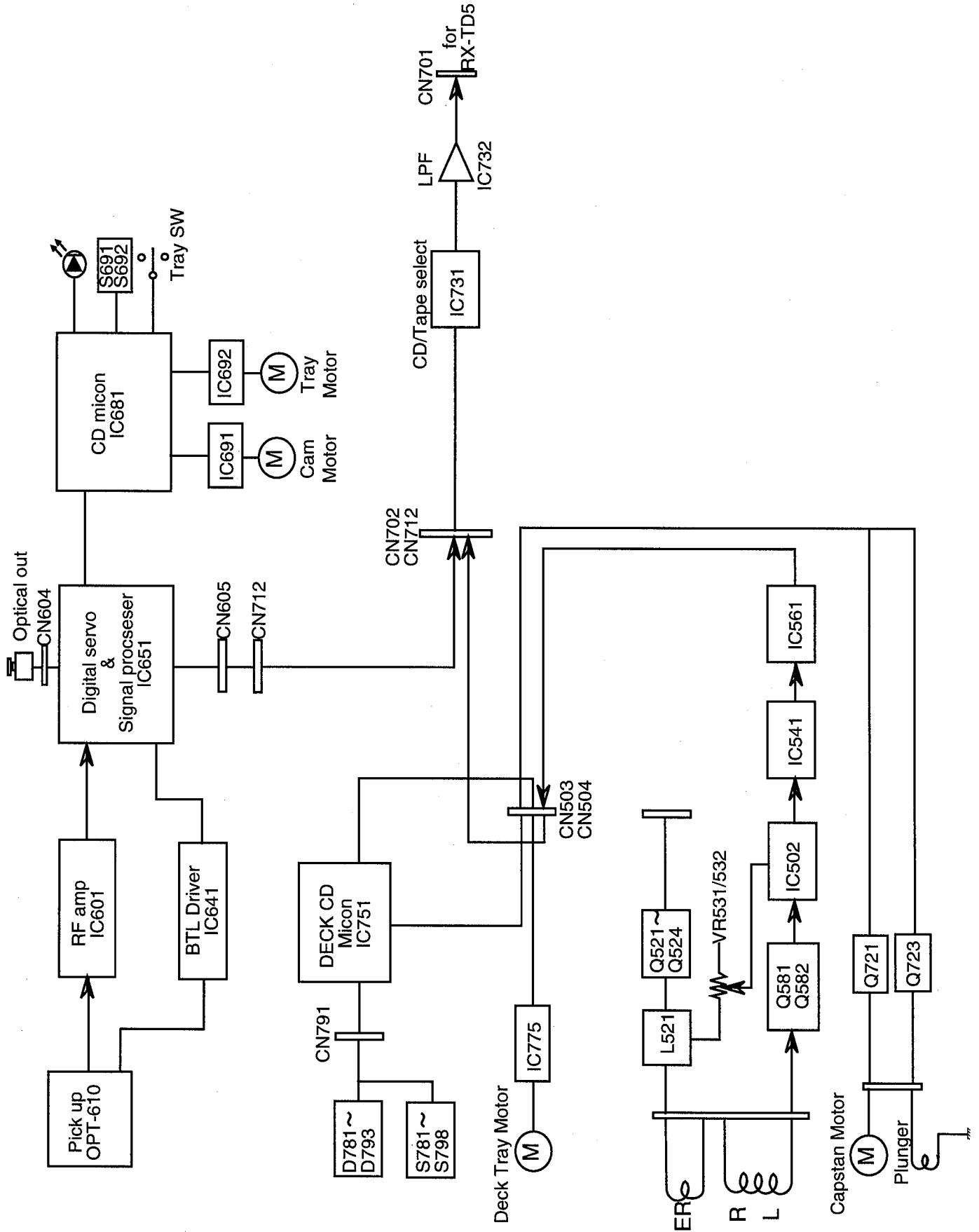
(Fig.1)

- (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.

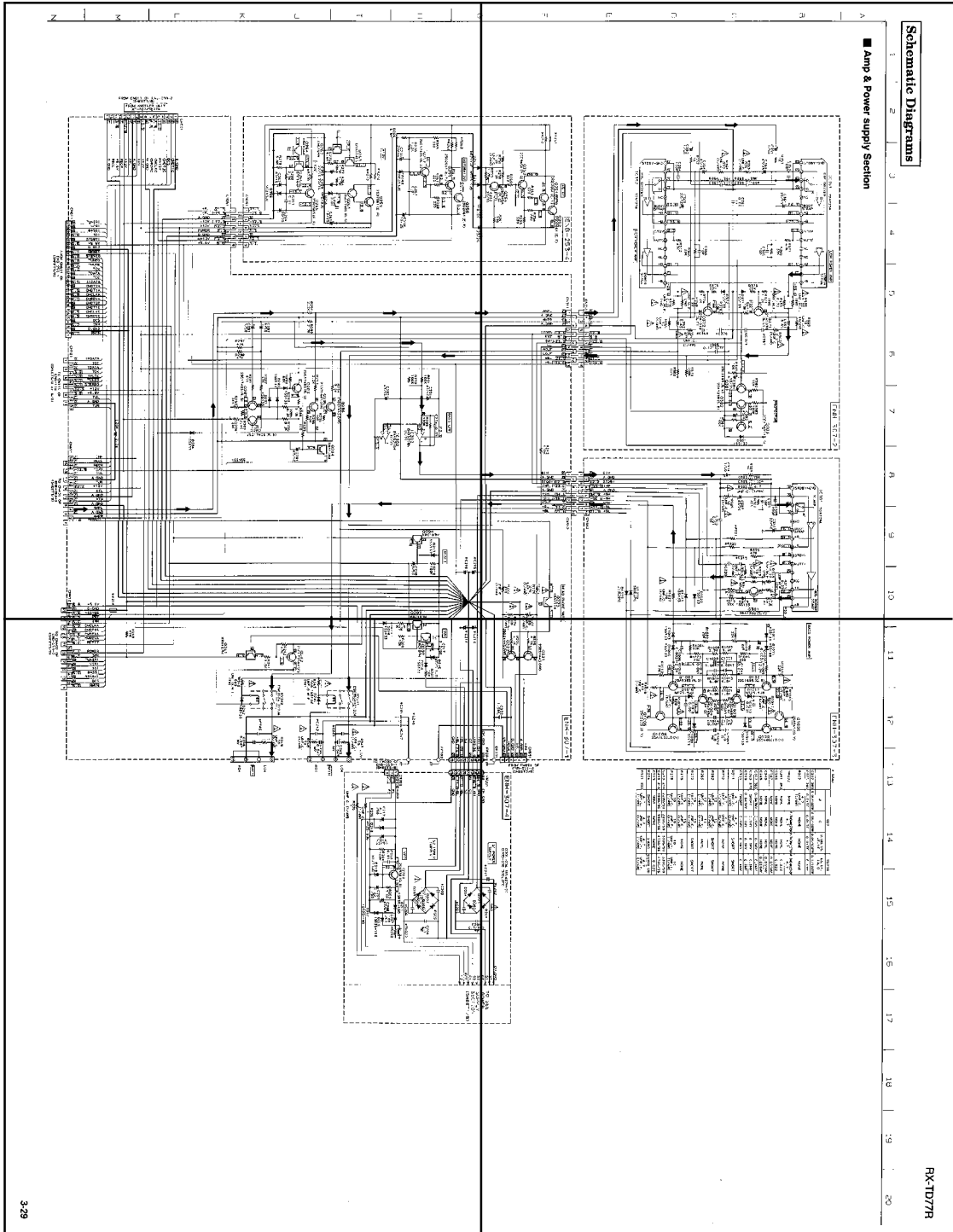
Replacement of Laser Pickup



Block Diagram



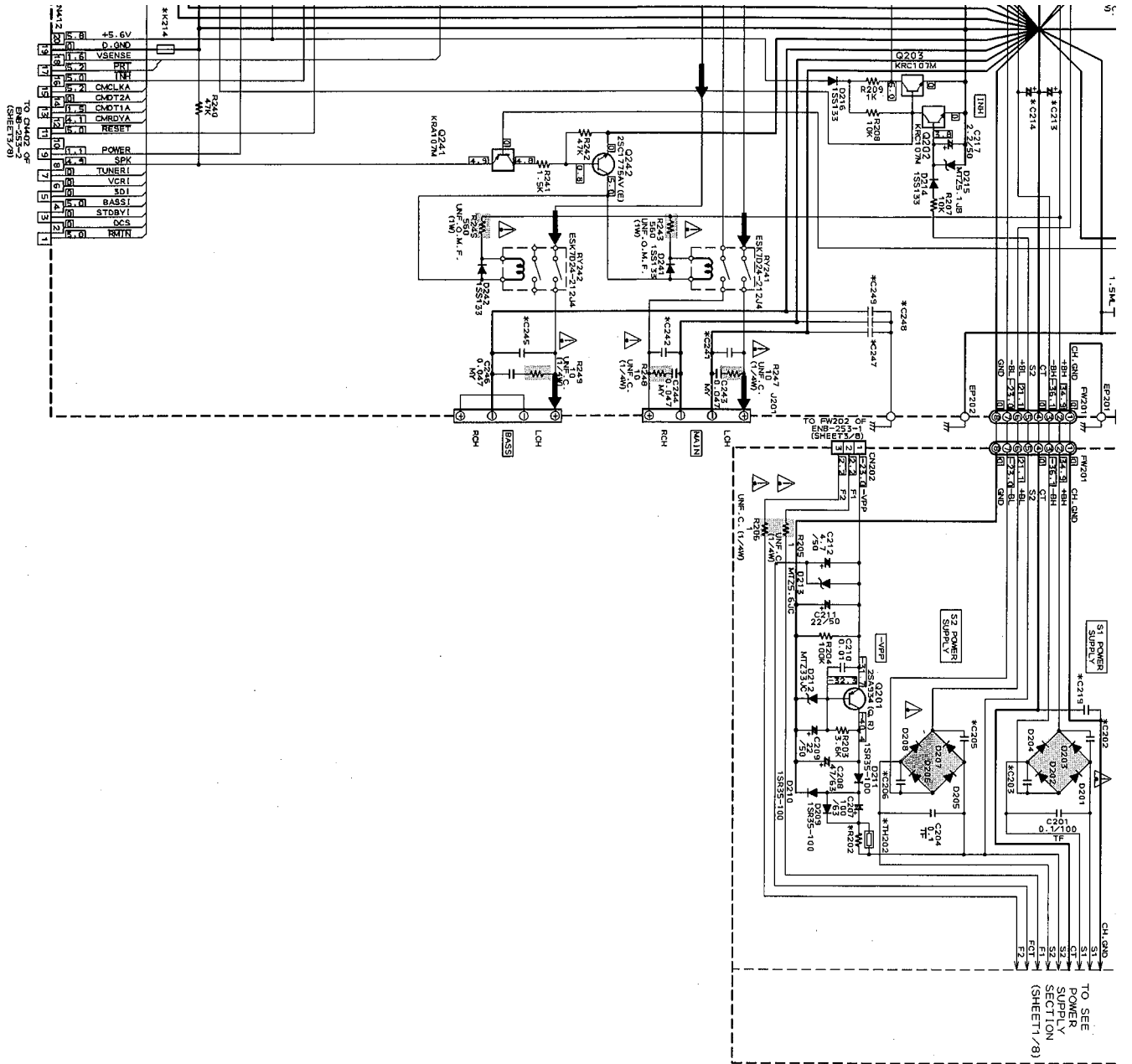
P3-29-a

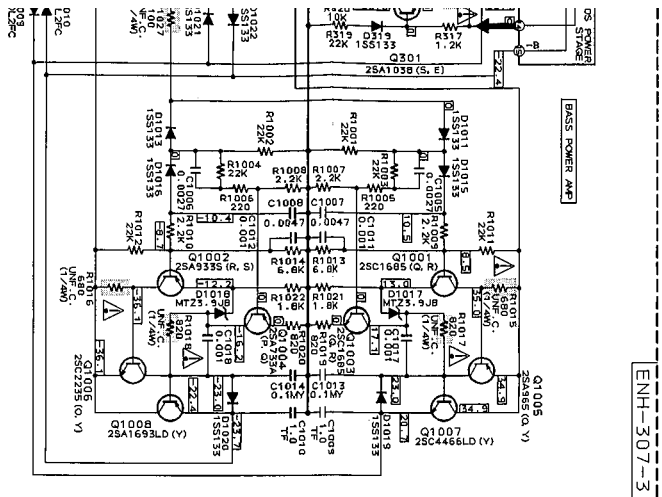


P3-29-c

P3-29-b

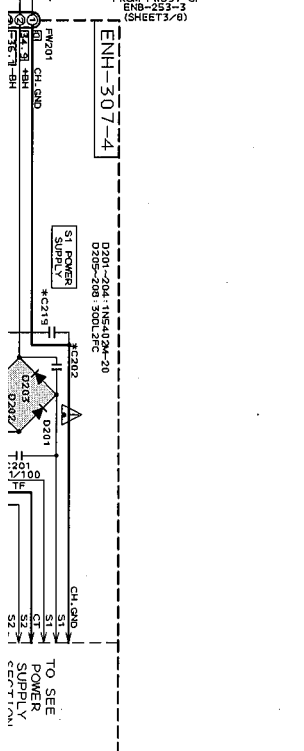
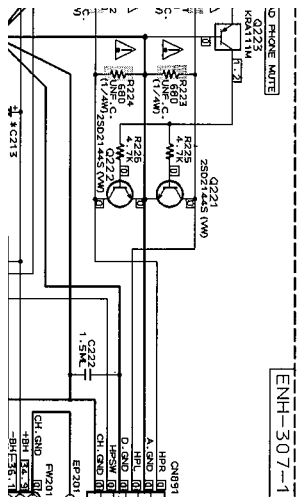
P3-29-d

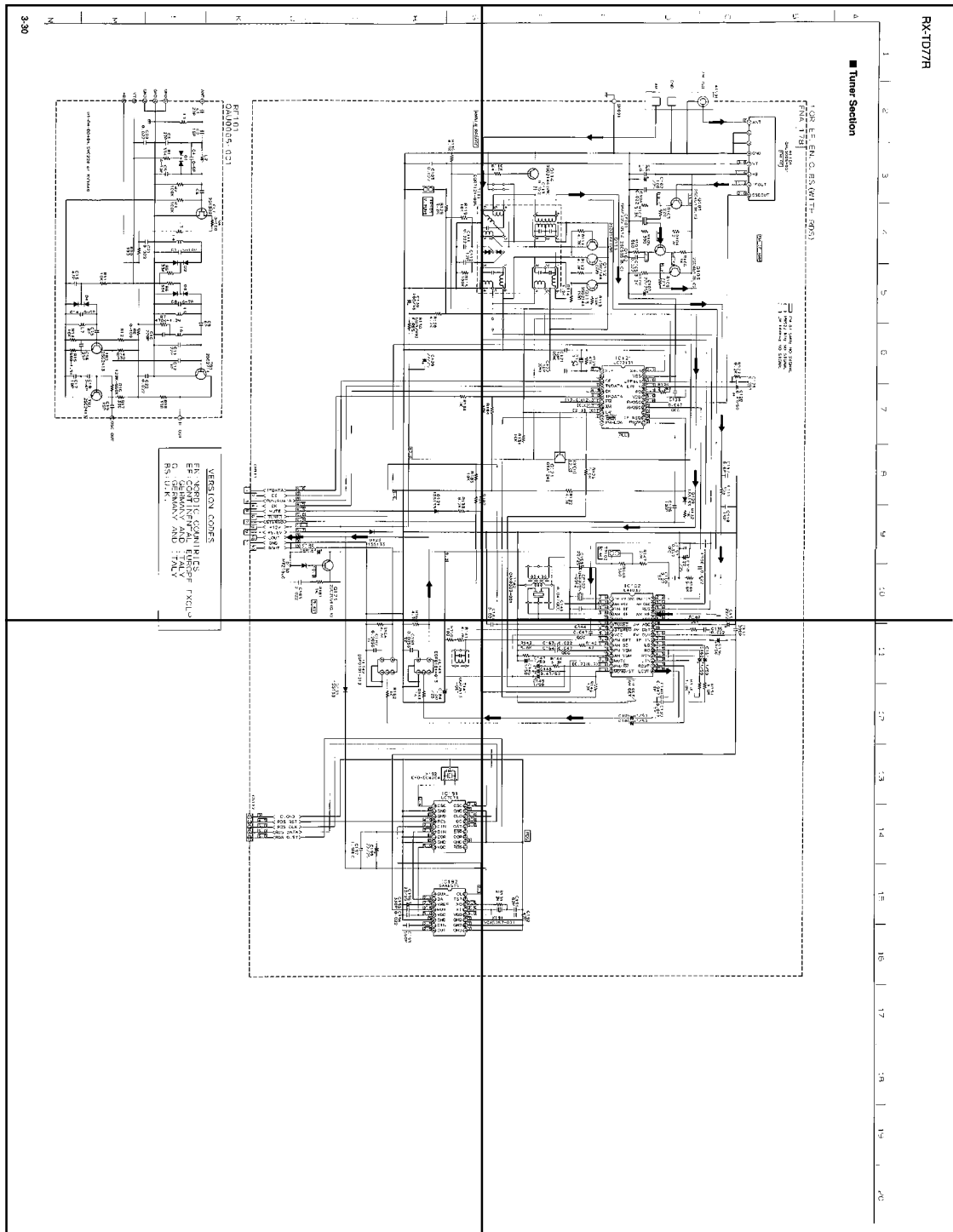


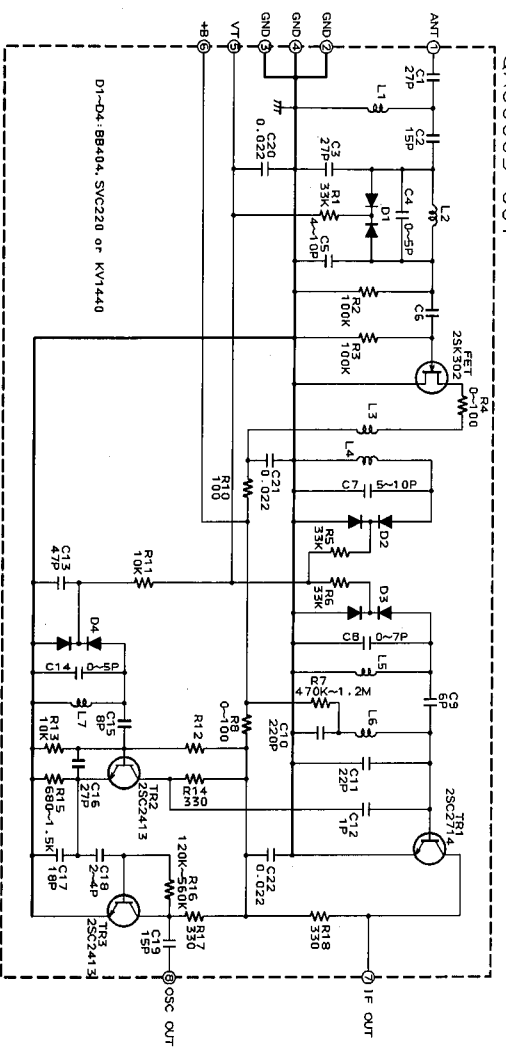
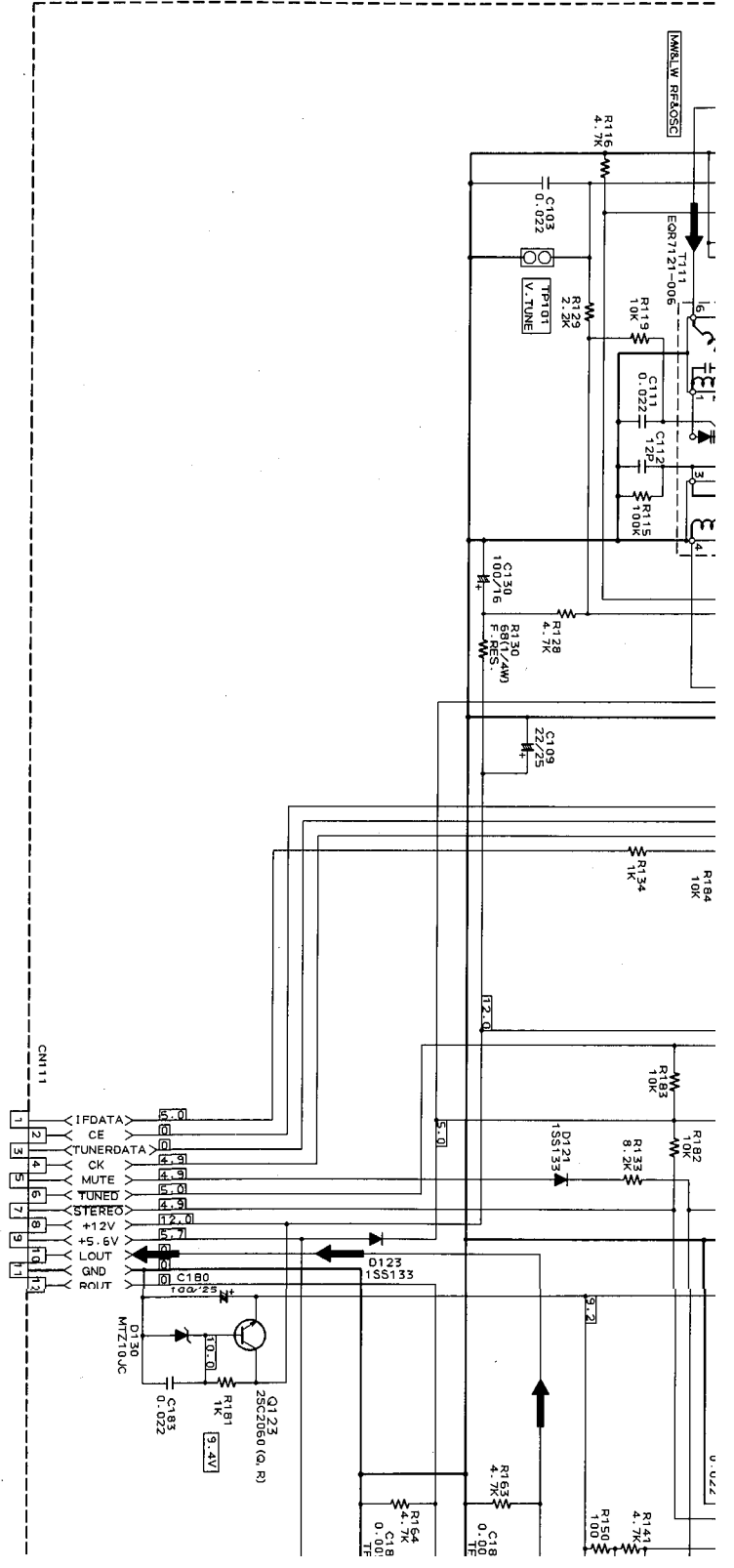


* MARK

	J	C	U, UN, US, UT, UP, UR, UG	TD77R
C202, 203	0.01UF	0.01UF	0.01UF	0.01UF
C205, 206	0.01TF	0.01TF	0.01TF	0.01TF
R202	4.7K (1/4W)	NONE	NONE	NONE
T1	4.7K (1/4W)	NONE	NONE	NONE
T1	NONE	PHYSISTOP	PHYSISTOP	PHYSISTOP
C241, 242	NONE	NONE	NONE	4.7
C245	NONE	NONE	NONE	0.022
C247	NONE	NONE	NONE	0.022
C248	NONE	NONE	NONE	0.033W
C249	NONE	NONE	NONE	0.033W
C367, 368	0.021WV	0.11WV	0.11WV	0.11WV
C369, 370	SHORT	0.11WV	0.11WV	0.11WV
C373	SHORT	0.11WV	0.11WV	0.11WV
C370	SHORT	0.11WV	0.11WV	0.11WV
C250	SHORT	0.11WV	0.11WV	0.11WV
R251	4.7K (1/4W)	4.7K (1/4W)	SHORT	SHORT
R252	4.7K (1/4W)	4.7K (1/4W)	NONE	NONE
R253	1.2K (1/4W)	1.2K (1/4W)	SHORT	SHORT
R254	1.2K (1/4W)	1.2K (1/4W)	SHORT	SHORT
R255	1.2K (1/4W)	1.2K (1/4W)	NONE	NONE
R272	1.2K (1/4W)	1.2K (1/4W)	SHORT	SHORT
R273	1.2K (1/4W)	1.2K (1/4W)	NONE	NONE
R278	1.2K (1/4W)	1.2K (1/4W)	1.0	1.0
C218, 219	3300/25	3300/25	3300/25	3300/25
C219	3300/25	3300/25	4700/25	4700/25
K214	SHORT	SHORT	SHORT	SHORT
R231, 232	4.7K (1/4W)	4.7K (1/4W)	4.7K (1/4W)	4.7K (1/4W)







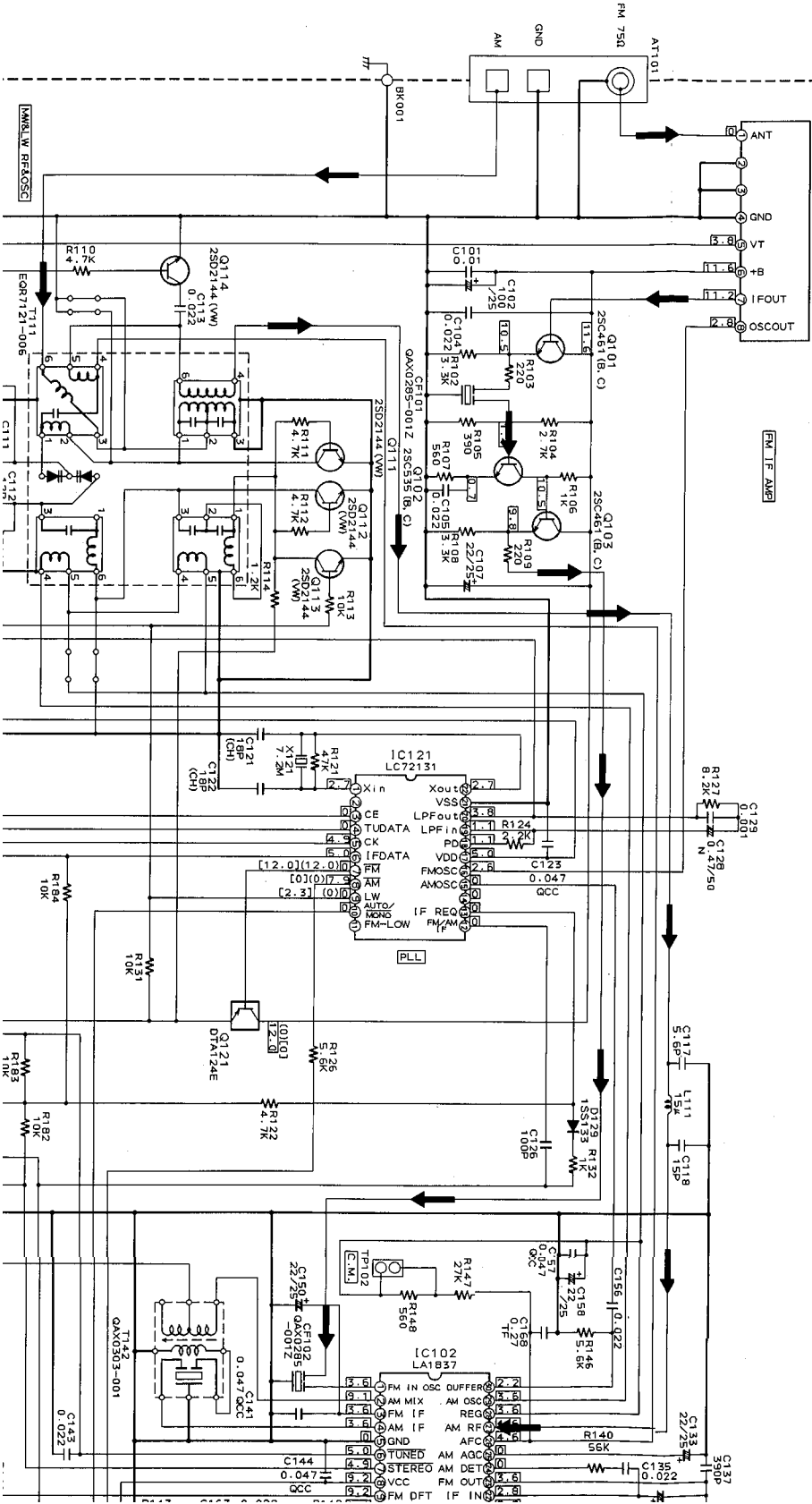
VERSION CODES
 EN: NORDIC COUNTRIES
 EF: CONTINENTAL EUROPE EXCEPT
 G: GERMANY AND ITALY
 BS: U.K.

■ Tuner Section

FOR EF, EN, G, BS (WITH RDS)
ENA-178

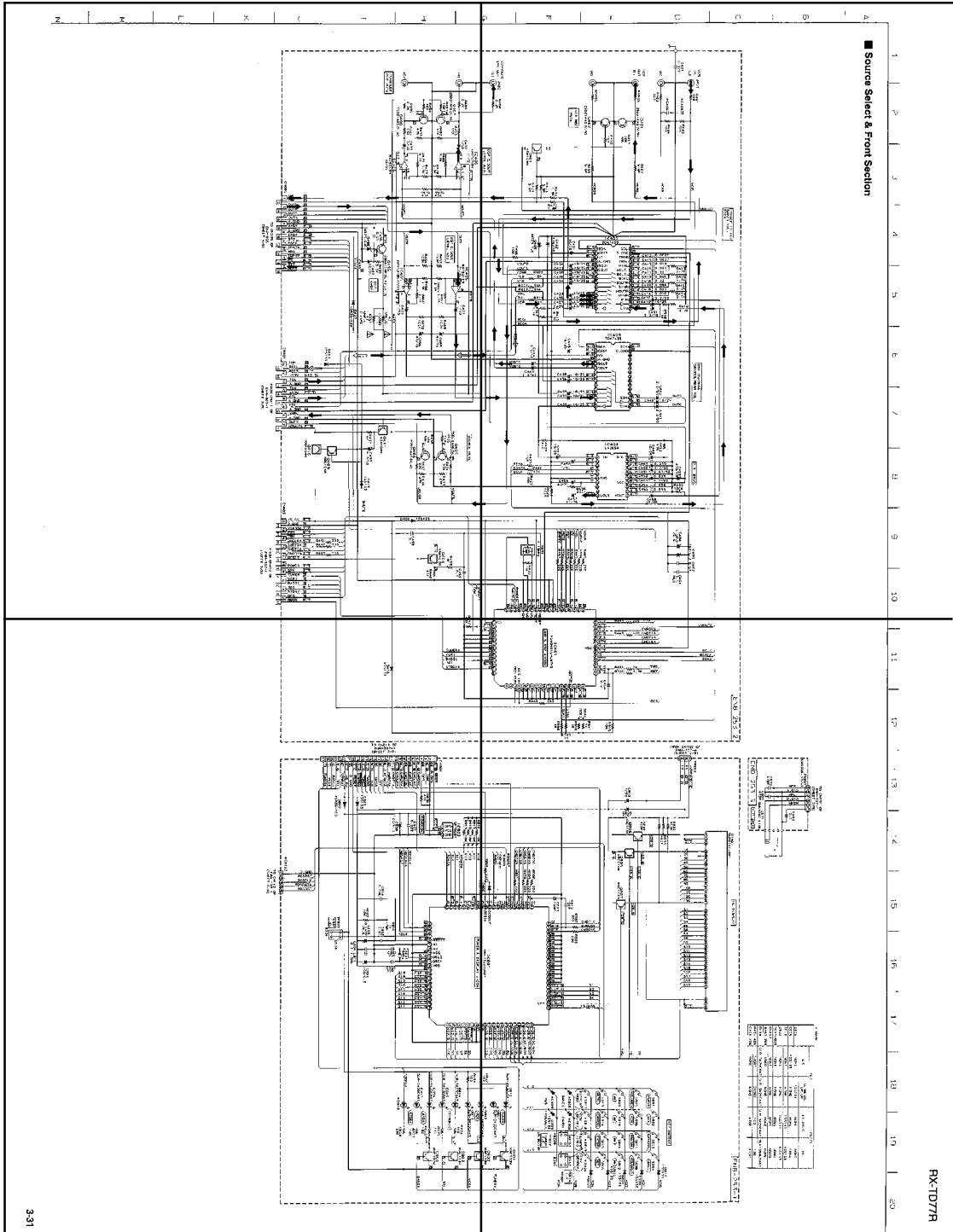
9A0U005-001
EX USE

[] FM 87.5MHz NO SIGNAL
[] FM85.2 kHz NO SIGNAL
[] LW 144kHz NO SIGNAL



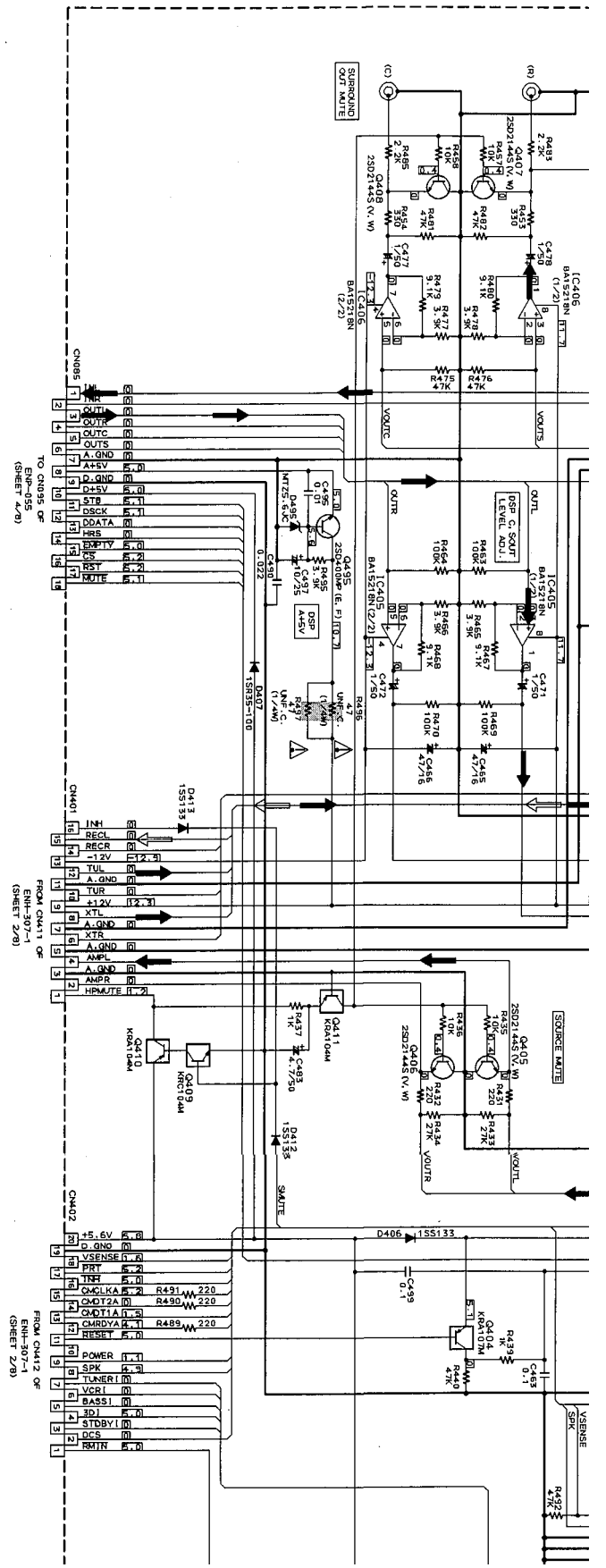
P3-31-a

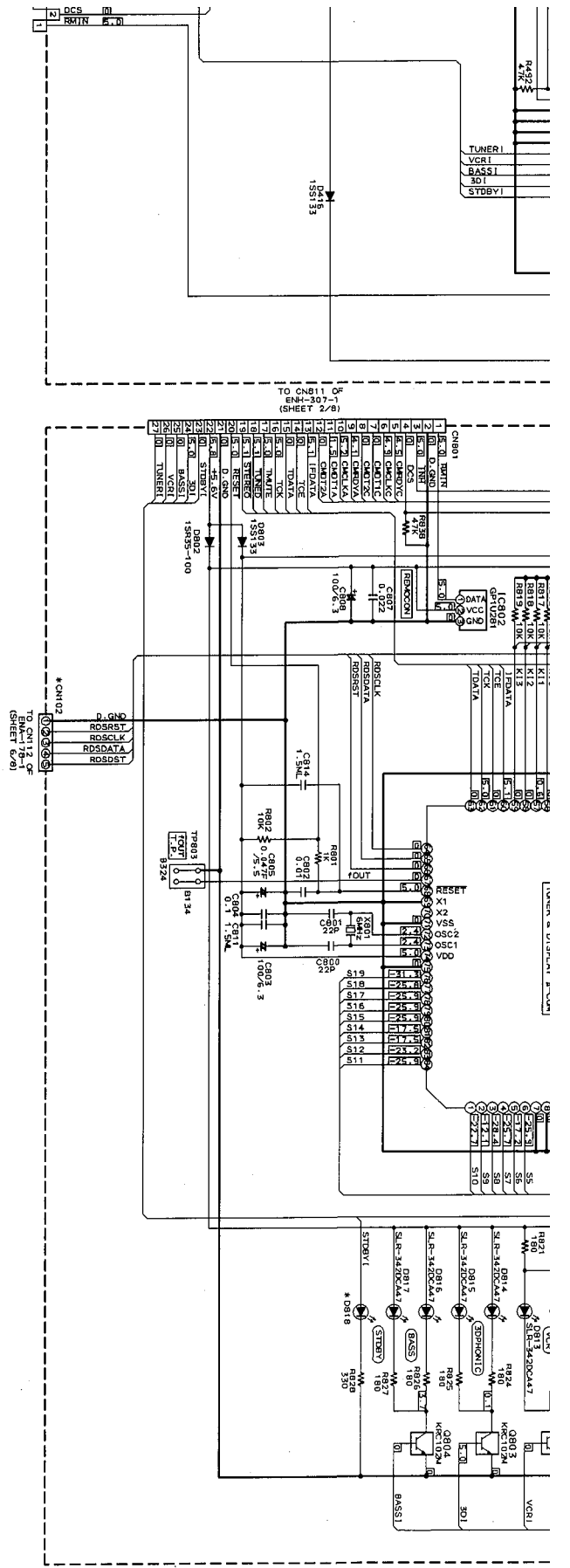
P3-31-b

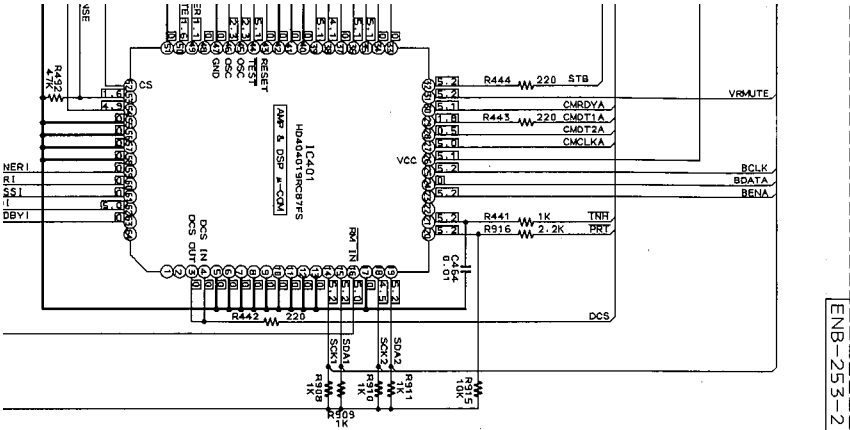


P3-31-c

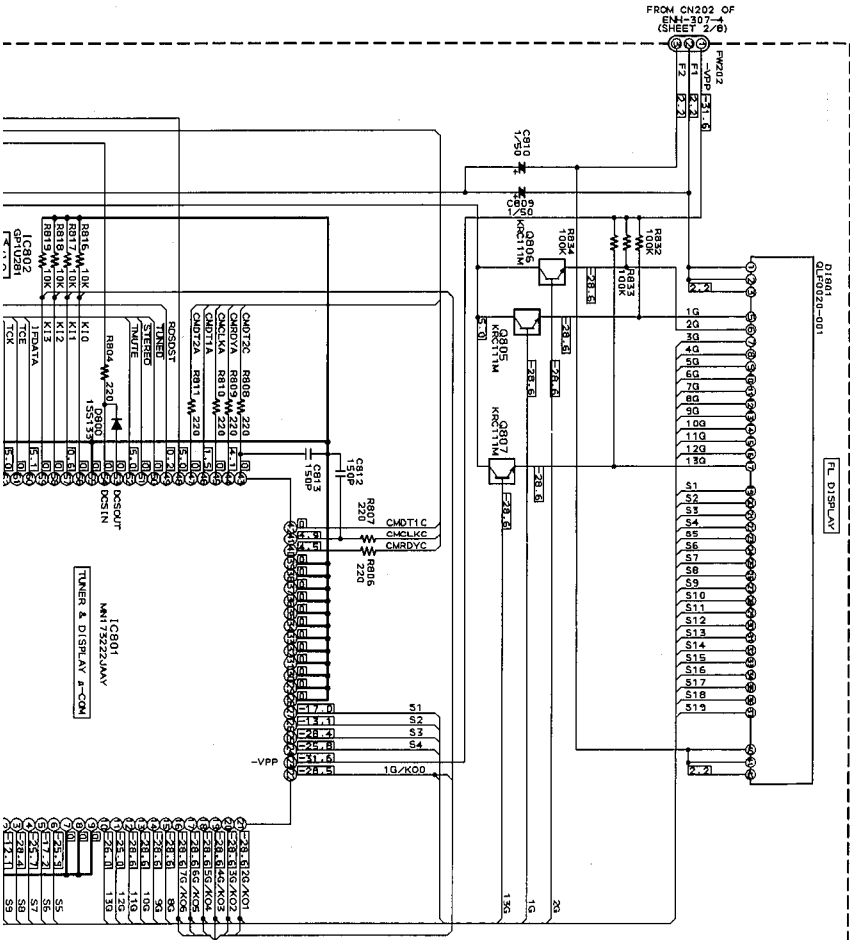
P3-31-d



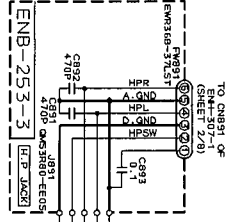




ENB-253-2



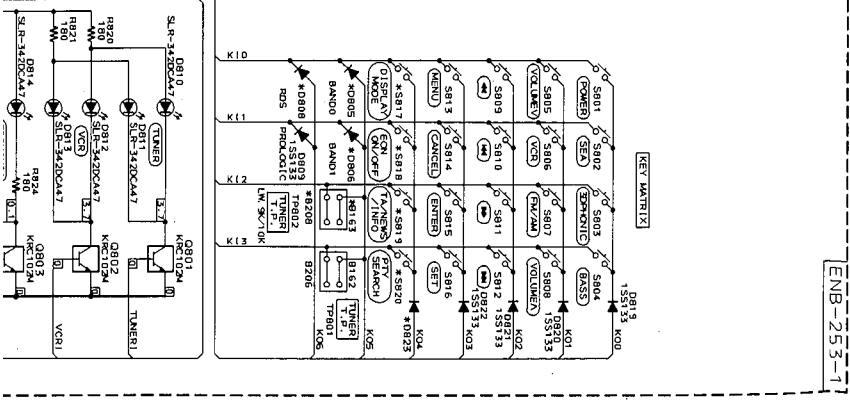
ENB-253-1



ENB-253-3

* MARK

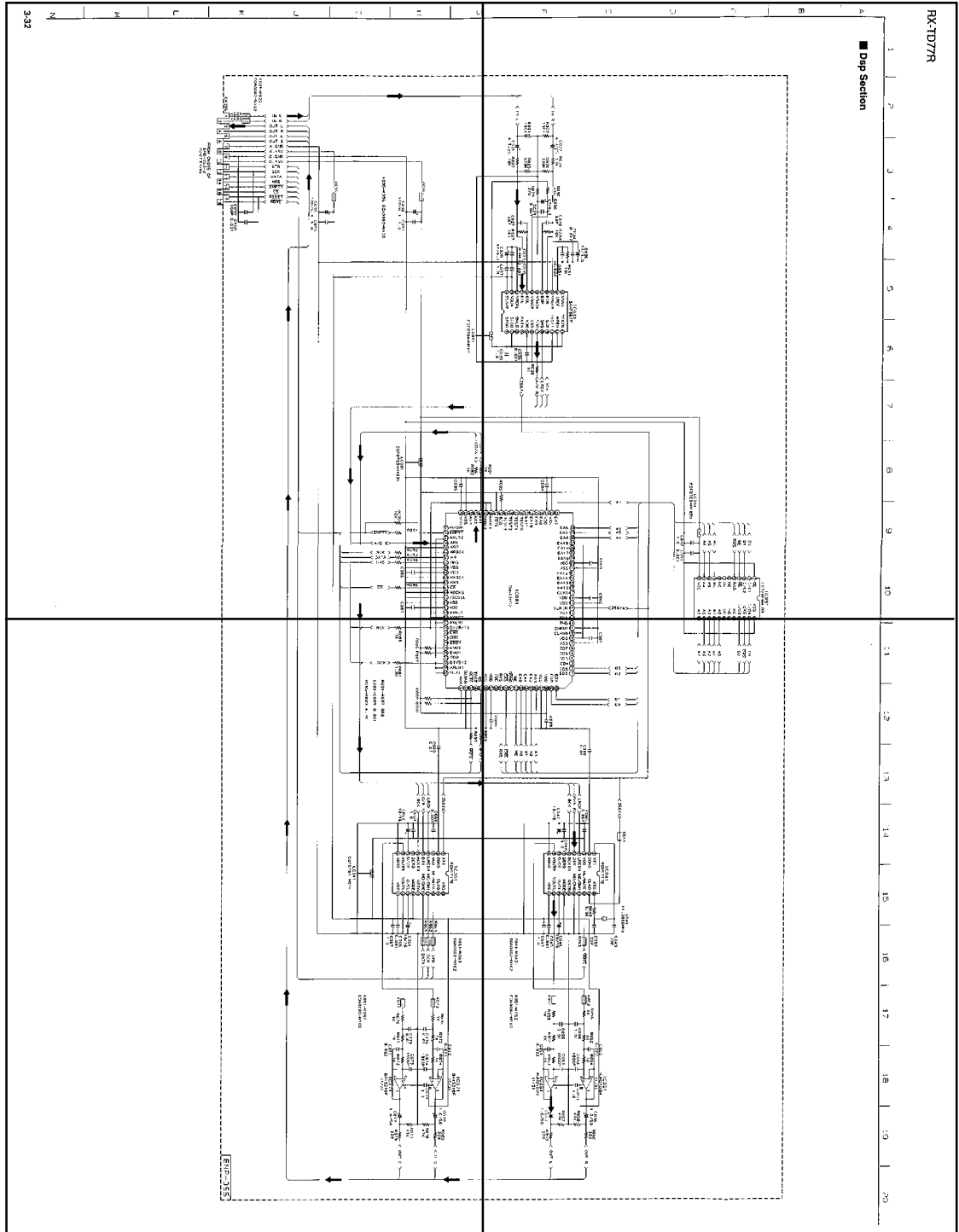
	TD7	U, UR, US, UT, U*	EF, EN, G	BS
DB06	J, C	NONE	NONE	NONE
DB07	NONE	15S113	NONE	NONE
DB08	NONE	15S113	NONE	NONE
DB09	NONE	15S113	NONE	NONE
DB10	NONE	15S113	NONE	NONE
DB11	NONE	15S113	NONE	NONE
DB12	NONE	15S113	NONE	NONE
DB13	NONE	15S113	NONE	NONE
DB14	NONE	15S113	NONE	NONE
DB15	NONE	15S113	NONE	NONE
DB16	NONE	15S113	NONE	NONE
DB17	NONE	15S113	NONE	NONE
DB18	NONE	15S113	NONE	NONE
DB19	NONE	15S113	NONE	NONE
DB20	NONE	15S113	NONE	NONE
DB21	NONE	15S113	NONE	NONE
DB22	NONE	15S113	NONE	NONE
DB23	NONE	15S113	NONE	NONE
DB24	NONE	15S113	NONE	NONE
DB25	NONE	15S113	NONE	NONE
DB26	NONE	15S113	NONE	NONE
DB27	NONE	15S113	NONE	NONE
DB28	NONE	15S113	NONE	NONE
DB29	NONE	15S113	NONE	NONE
DB30	NONE	15S113	NONE	NONE
DB31	NONE	15S113	NONE	NONE
DB32	NONE	15S113	NONE	NONE
DB33	NONE	15S113	NONE	NONE
DB34	NONE	15S113	NONE	NONE
DB35	NONE	15S113	NONE	NONE
DB36	NONE	15S113	NONE	NONE
DB37	NONE	15S113	NONE	NONE
DB38	NONE	15S113	NONE	NONE
DB39	NONE	15S113	NONE	NONE
DB40	NONE	15S113	NONE	NONE
DB41	NONE	15S113	NONE	NONE
DB42	NONE	15S113	NONE	NONE
DB43	NONE	15S113	NONE	NONE
DB44	NONE	15S113	NONE	NONE
DB45	NONE	15S113	NONE	NONE
DB46	NONE	15S113	NONE	NONE
DB47	NONE	15S113	NONE	NONE
DB48	NONE	15S113	NONE	NONE
DB49	NONE	15S113	NONE	NONE
DB50	NONE	15S113	NONE	NONE
DB51	NONE	15S113	NONE	NONE
DB52	NONE	15S113	NONE	NONE
DB53	NONE	15S113	NONE	NONE
DB54	NONE	15S113	NONE	NONE
DB55	NONE	15S113	NONE	NONE
DB56	NONE	15S113	NONE	NONE
DB57	NONE	15S113	NONE	NONE
DB58	NONE	15S113	NONE	NONE
DB59	NONE	15S113	NONE	NONE
DB60	NONE	15S113	NONE	NONE
DB61	NONE	15S113	NONE	NONE
DB62	NONE	15S113	NONE	NONE
DB63	NONE	15S113	NONE	NONE
DB64	NONE	15S113	NONE	NONE
DB65	NONE	15S113	NONE	NONE
DB66	NONE	15S113	NONE	NONE
DB67	NONE	15S113	NONE	NONE
DB68	NONE	15S113	NONE	NONE
DB69	NONE	15S113	NONE	NONE
DB70	NONE	15S113	NONE	NONE
DB71	NONE	15S113	NONE	NONE
DB72	NONE	15S113	NONE	NONE
DB73	NONE	15S113	NONE	NONE
DB74	NONE	15S113	NONE	NONE
DB75	NONE	15S113	NONE	NONE
DB76	NONE	15S113	NONE	NONE
DB77	NONE	15S113	NONE	NONE
DB78	NONE	15S113	NONE	NONE
DB79	NONE	15S113	NONE	NONE
DB80	NONE	15S113	NONE	NONE
DB81	NONE	15S113	NONE	NONE
DB82	NONE	15S113	NONE	NONE
DB83	NONE	15S113	NONE	NONE
DB84	NONE	15S113	NONE	NONE
DB85	NONE	15S113	NONE	NONE
DB86	NONE	15S113	NONE	NONE
DB87	NONE	15S113	NONE	NONE
DB88	NONE	15S113	NONE	NONE
DB89	NONE	15S113	NONE	NONE
DB90	NONE	15S113	NONE	NONE
DB91	NONE	15S113	NONE	NONE
DB92	NONE	15S113	NONE	NONE
DB93	NONE	15S113	NONE	NONE
DB94	NONE	15S113	NONE	NONE
DB95	NONE	15S113	NONE	NONE
DB96	NONE	15S113	NONE	NONE
DB97	NONE	15S113	NONE	NONE
DB98	NONE	15S113	NONE	NONE
DB99	NONE	15S113	NONE	NONE
DB100	NONE	15S113	NONE	NONE



ENB-253-1

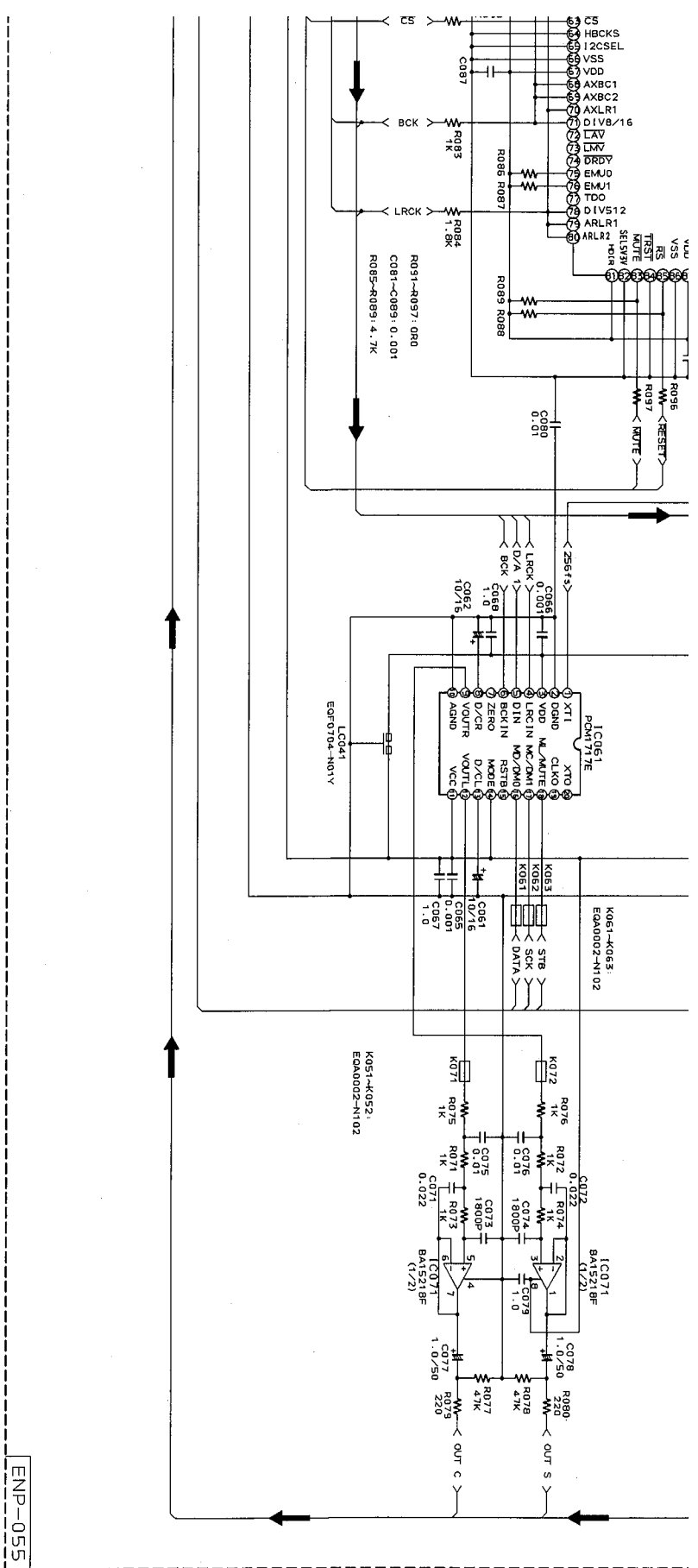
P3-32-a

P3-32-b



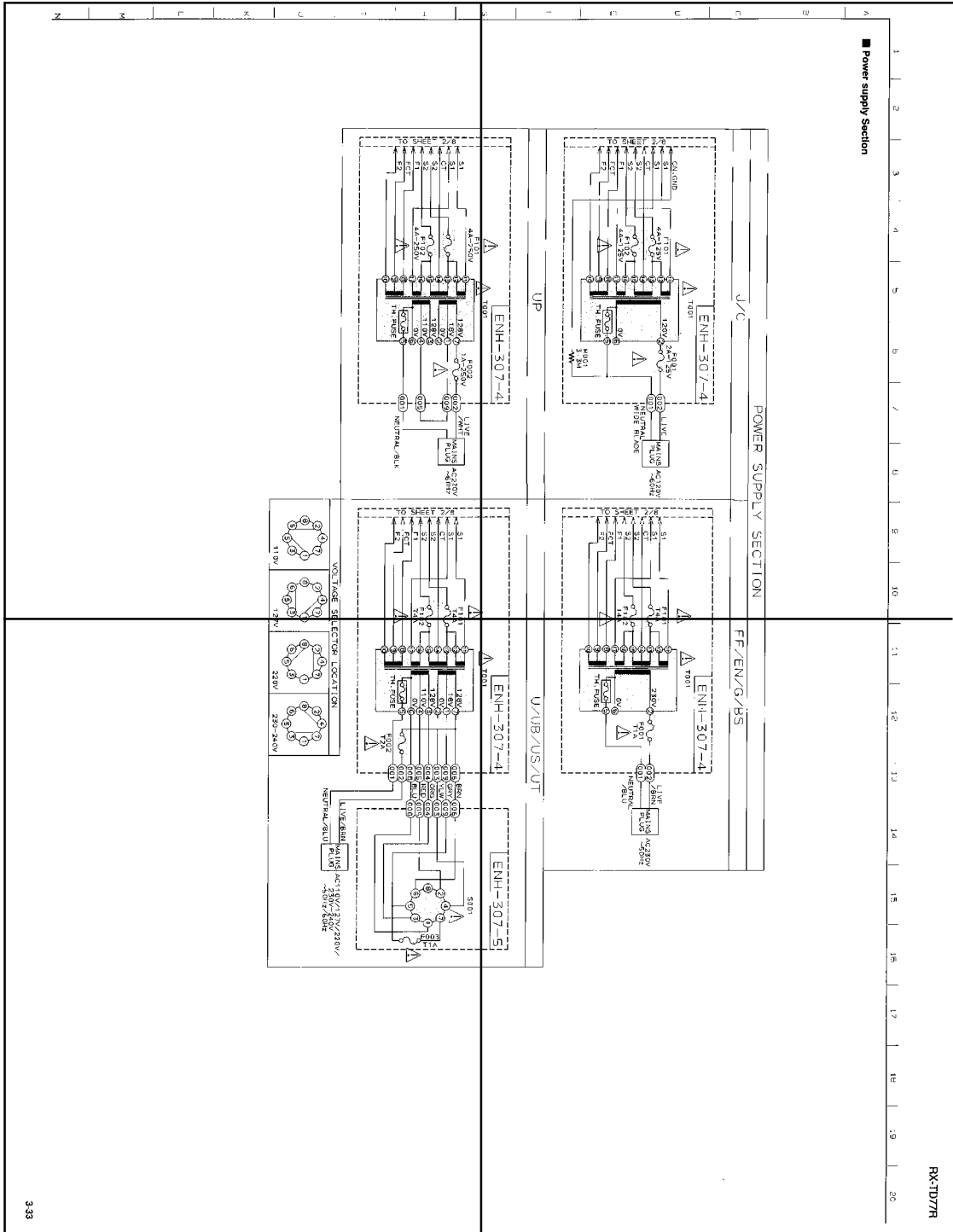
P3-32-c

P3-32-d



ENP-055

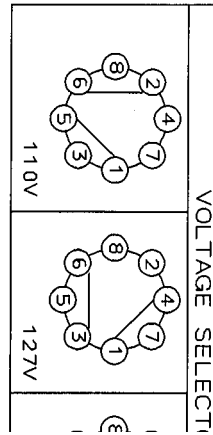
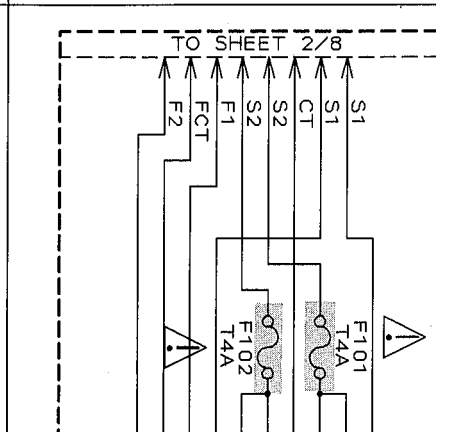
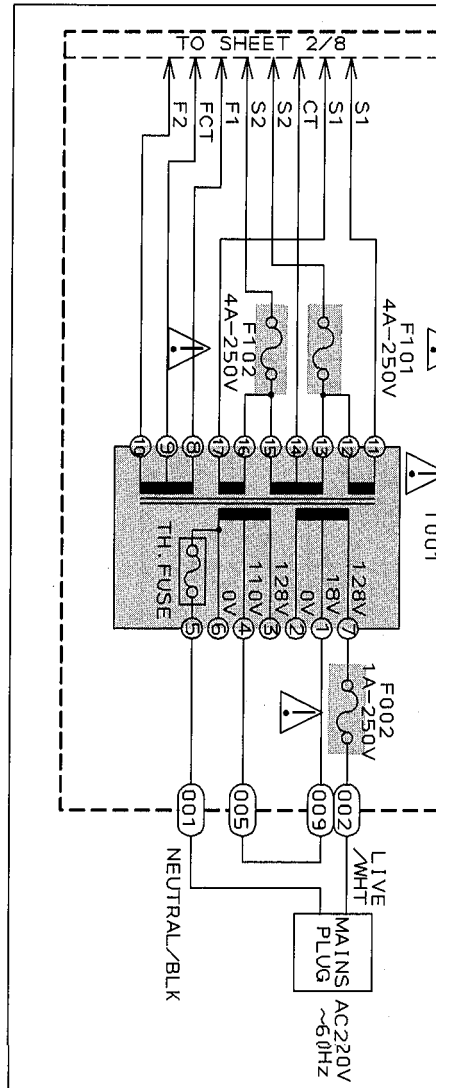
P3-33-a



P3-33-c

P3-33-b

P3-33-d



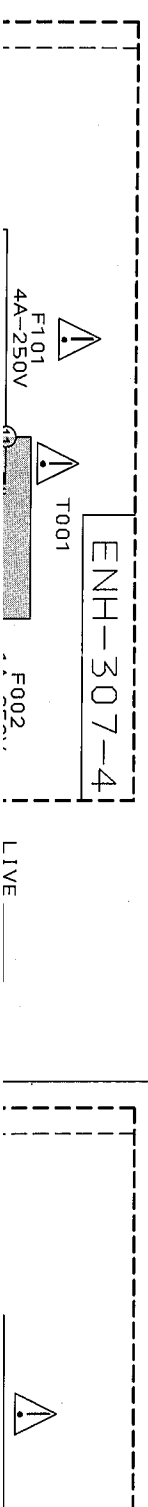
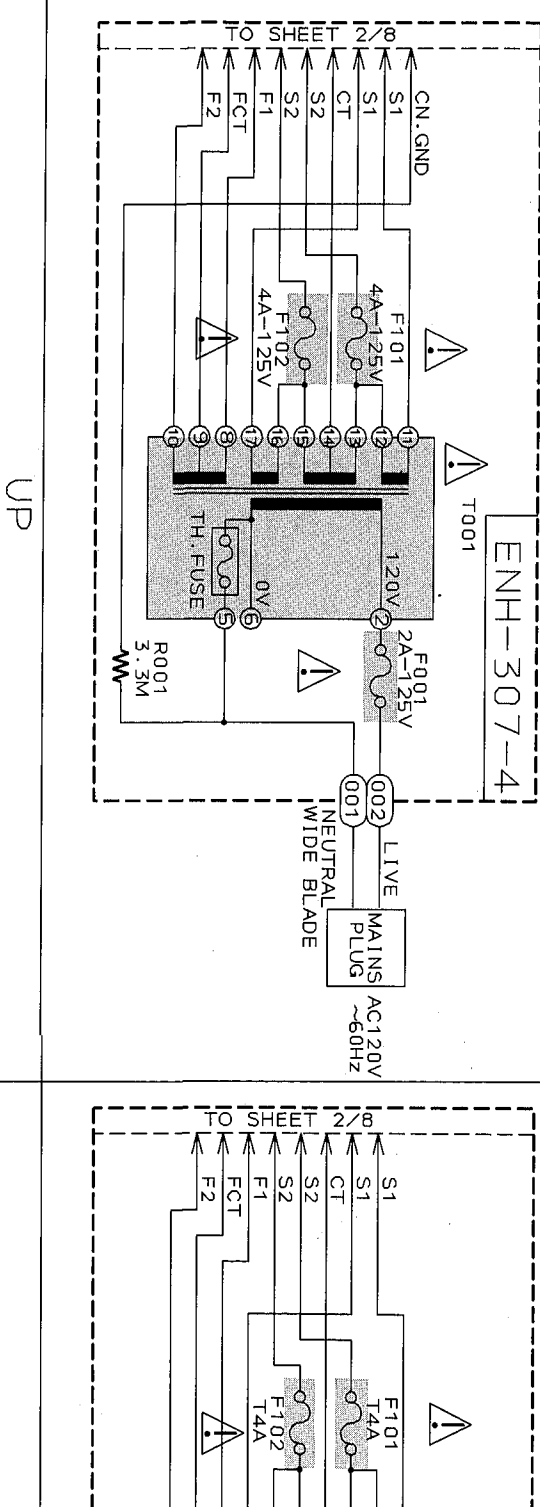
1 2 3 4 5 6 7 8 9 10

Power supply Section

POWER SUPPLY SECTION

J/C

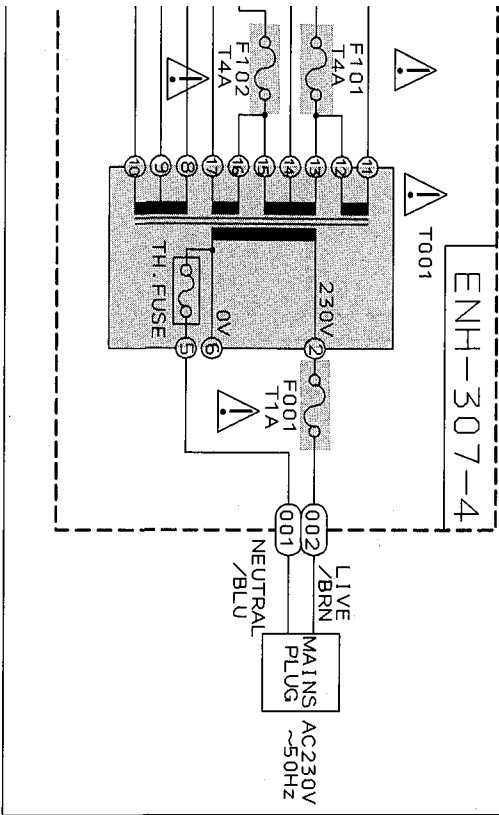
EF



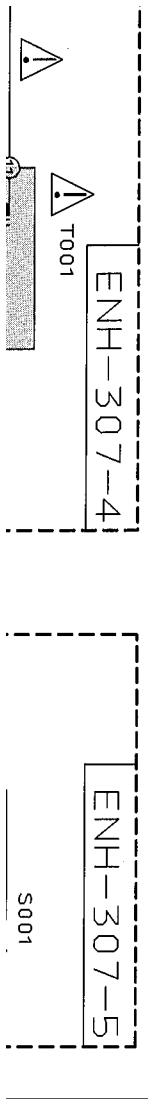
A B C D E F G

11 12 13 14 15 16 17 18 19 20

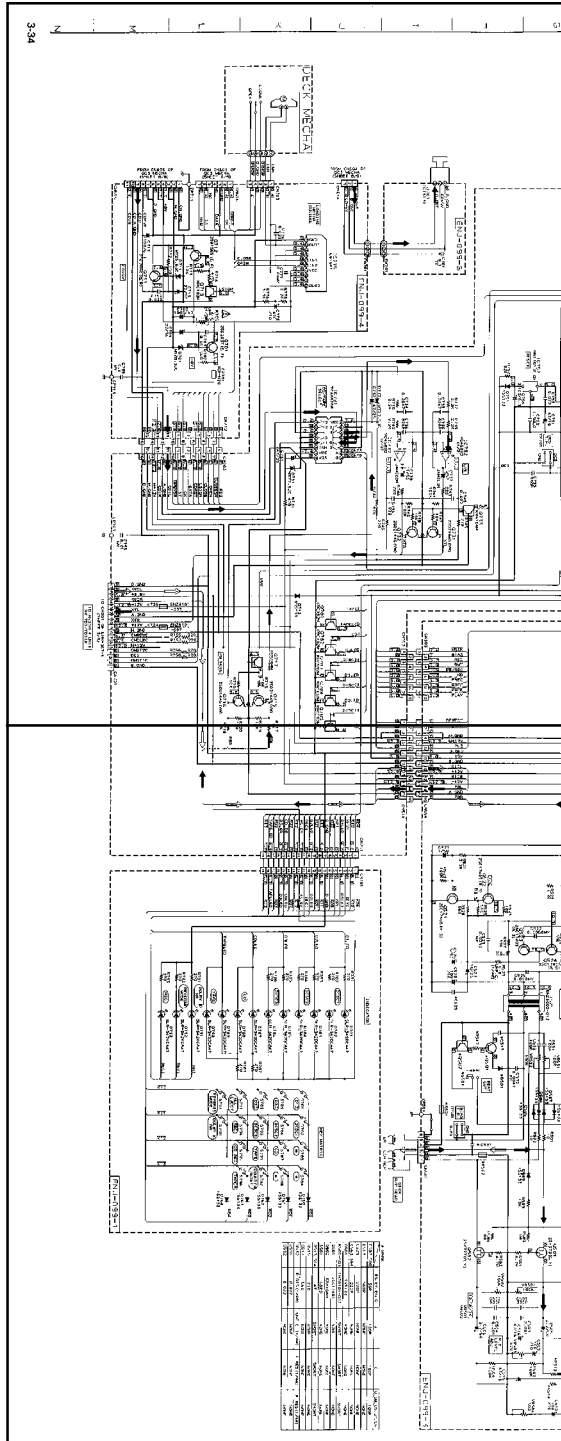
EF/EN/G/BS



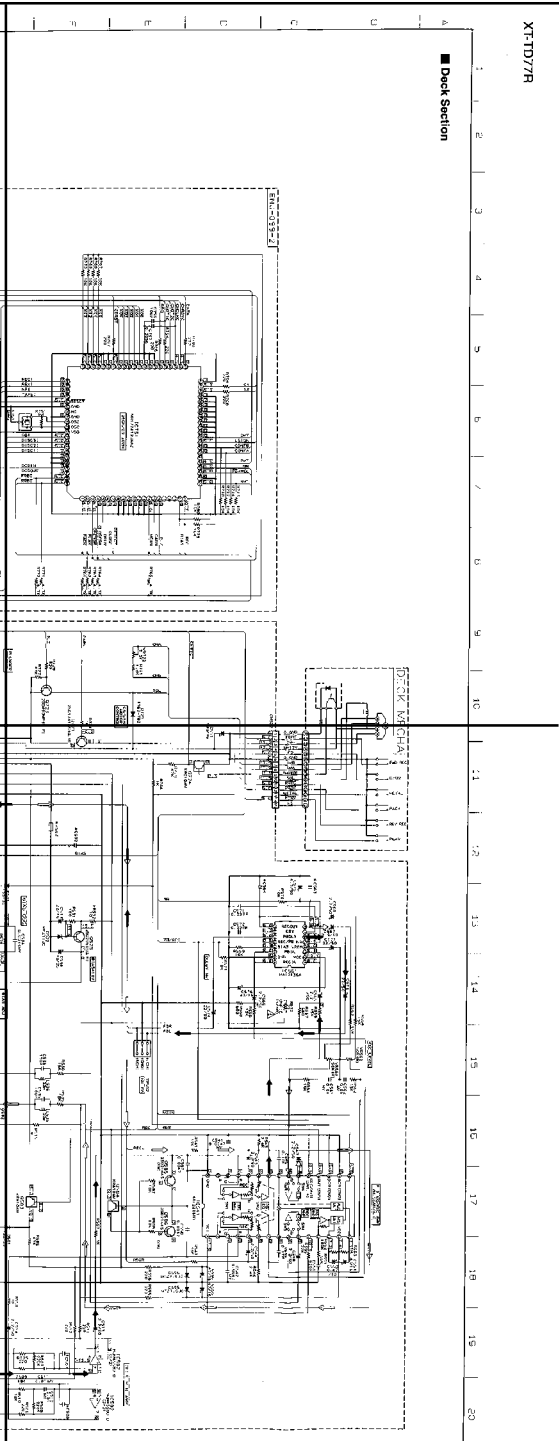
U/UB/US/UT



P3-34-a



P3-34-b

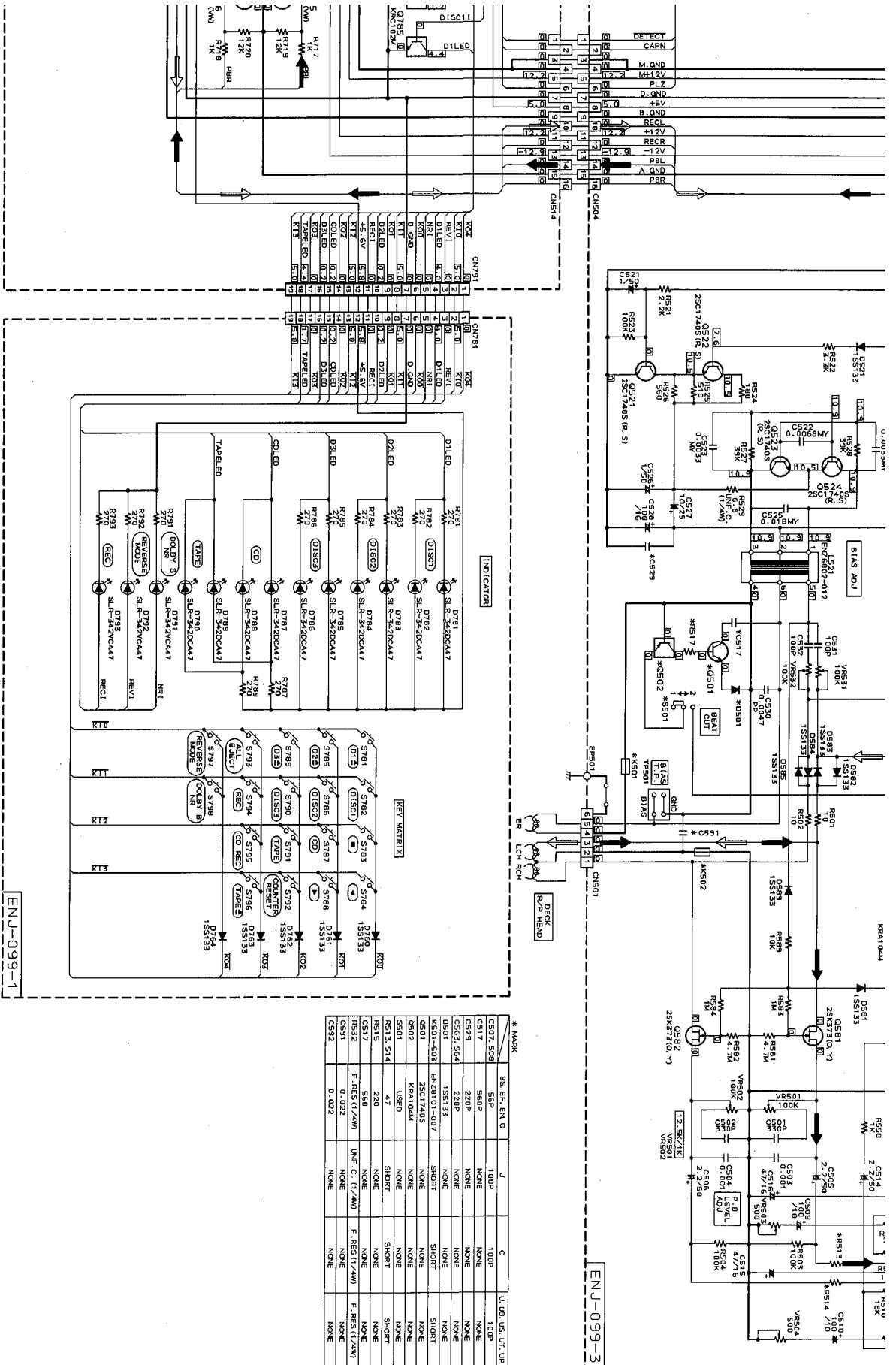


P3-34-c



P3-34-d

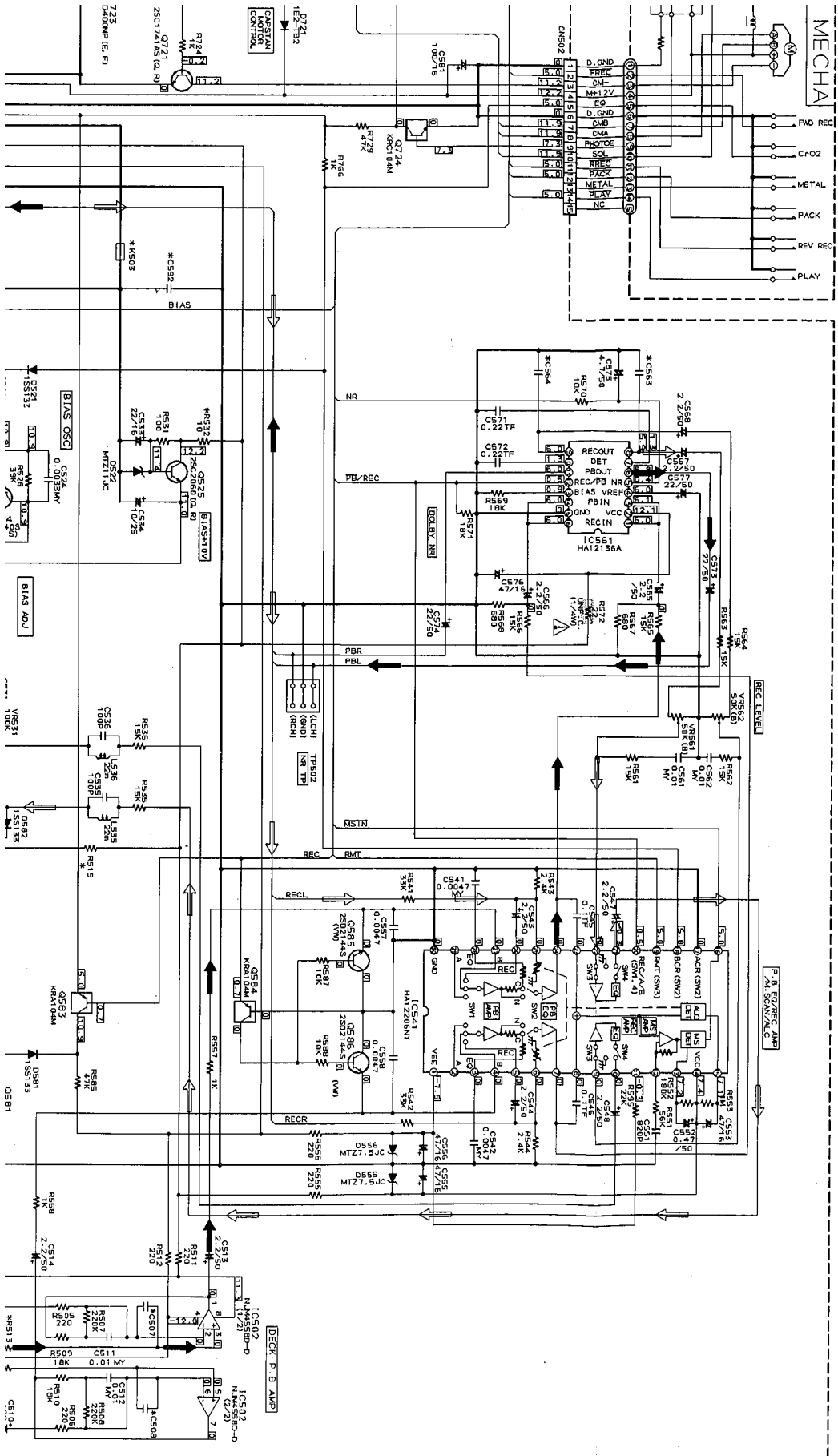




* MARK

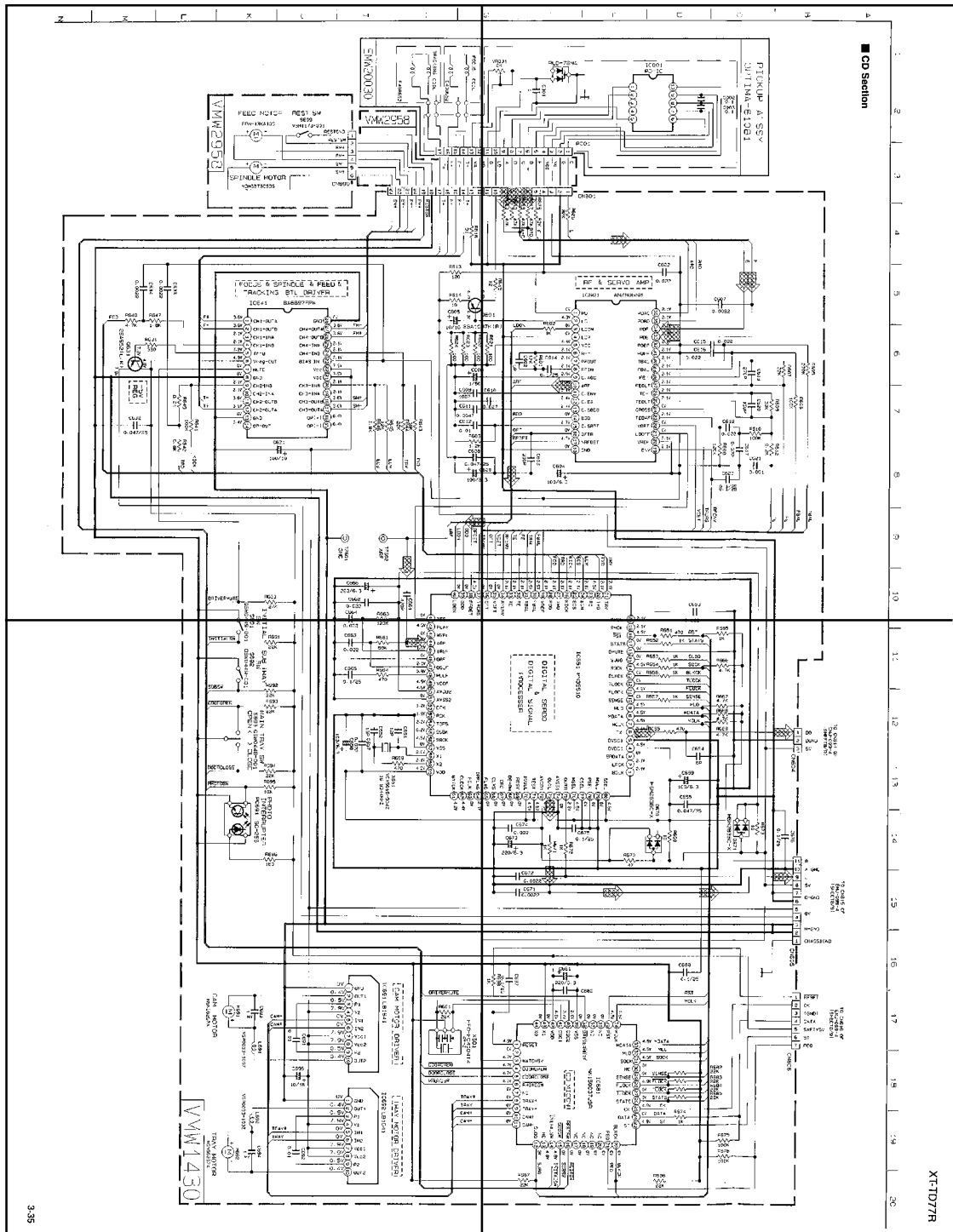
MARK	BS. ER. EN. G	J	C	U. LB. US. UTP. UP
CS07	50P	100P	100P	100P
CS17	50P	NONE	NONE	NONE
CS29	220P	NONE	NONE	NONE
CS31, 504	220P	NONE	NONE	NONE
CS01	15S133	NONE	NONE	NONE
CS01-503	EN28101-017	SHOBT	SHOBT	SHOBT
CS01	2SC1740S	NONE	NONE	NONE
CS01	NSI	NONE	NONE	NONE
CS01	NSI	NONE	NONE	NONE
BS13, 514	47	NONE	NONE	NONE
BS15	220	NONE	NONE	NONE
CS17	50P	NONE	NONE	NONE
CS12	F-RES (1/4W)	NONE	F-RES (1/4W)	NONE
CS31	0.022	NONE	NONE	NONE
CS92	0.022	NONE	NONE	NONE

ENJ-099-3



P3-35-a

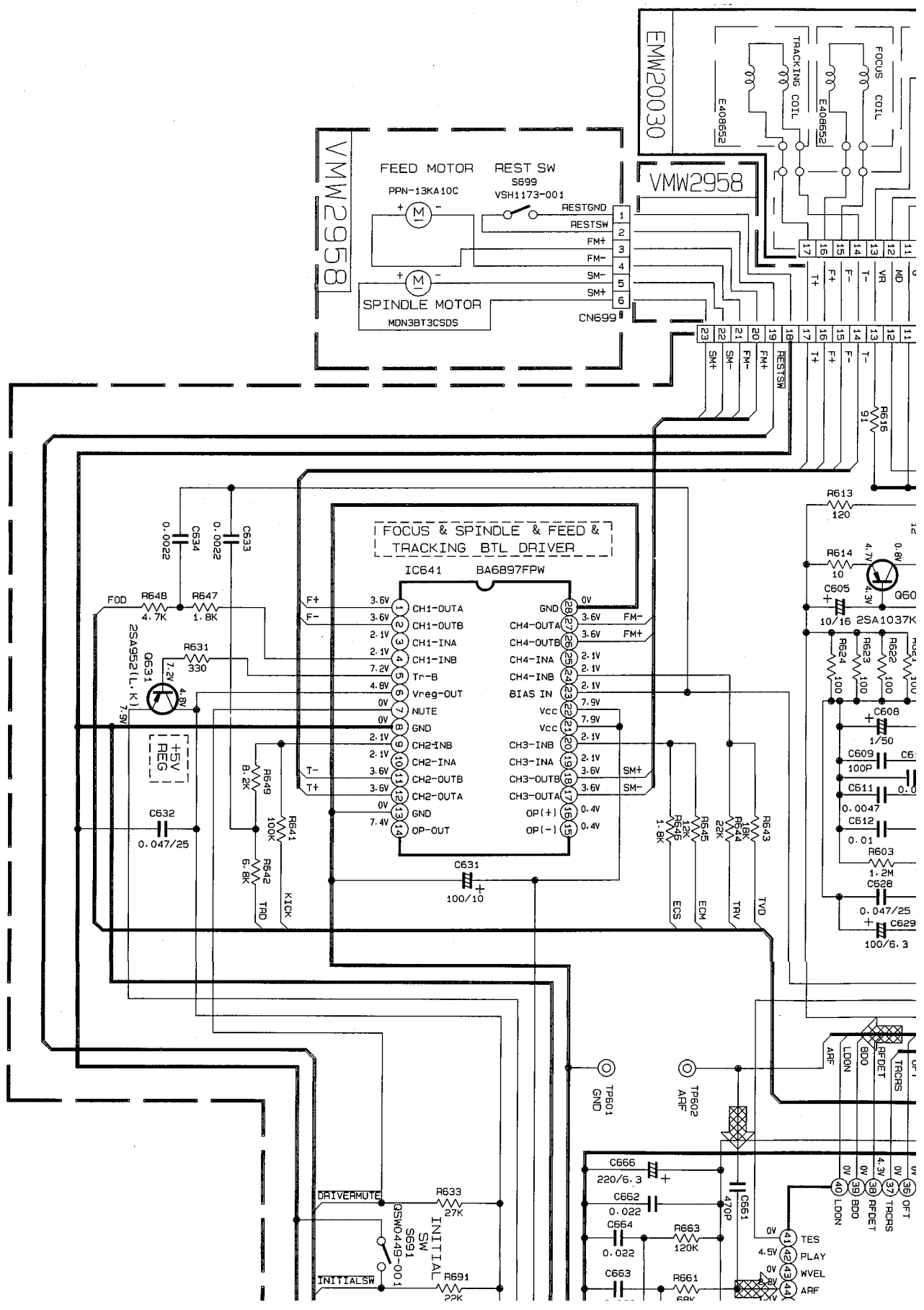
P3-35-b



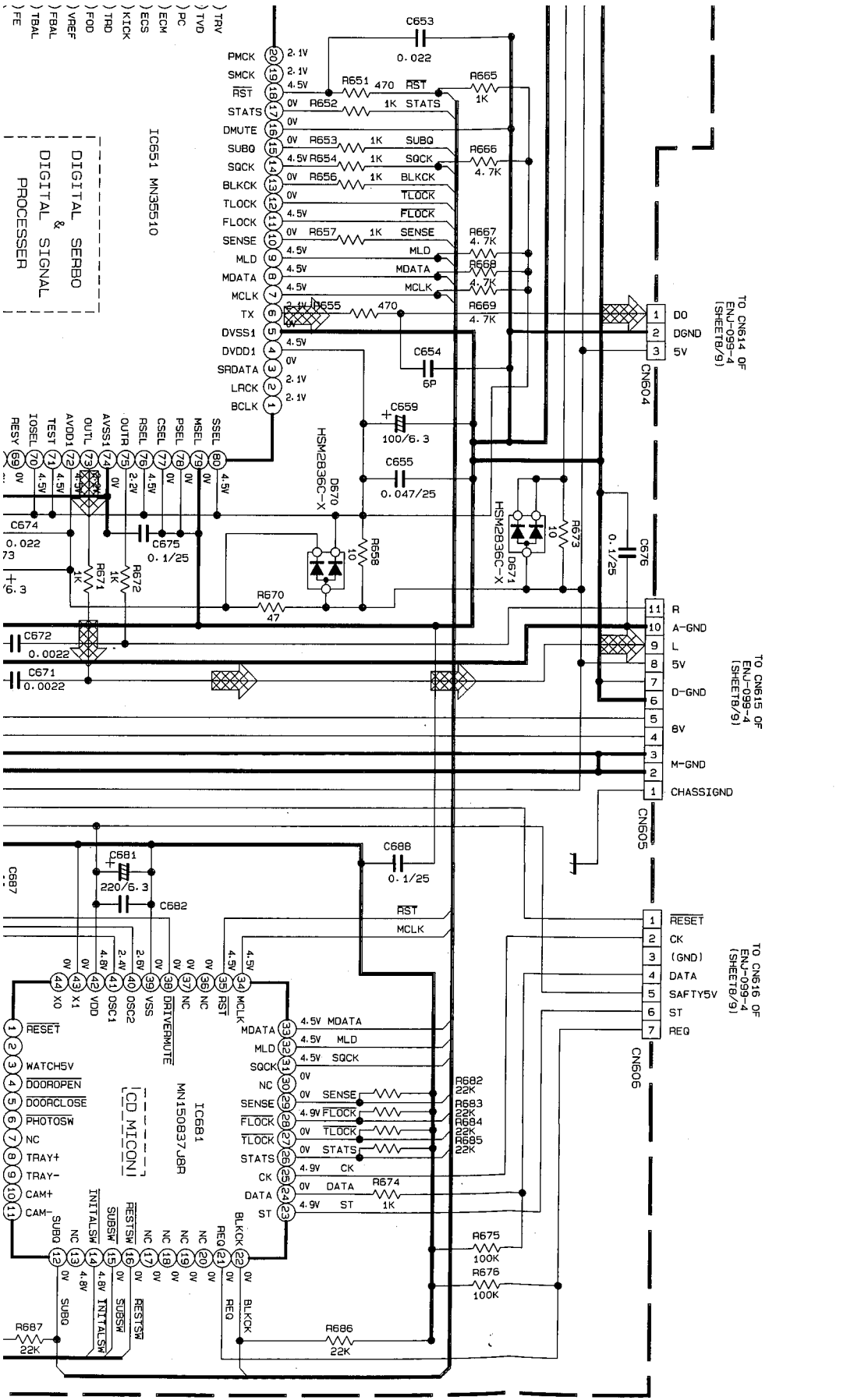
P3-35-c

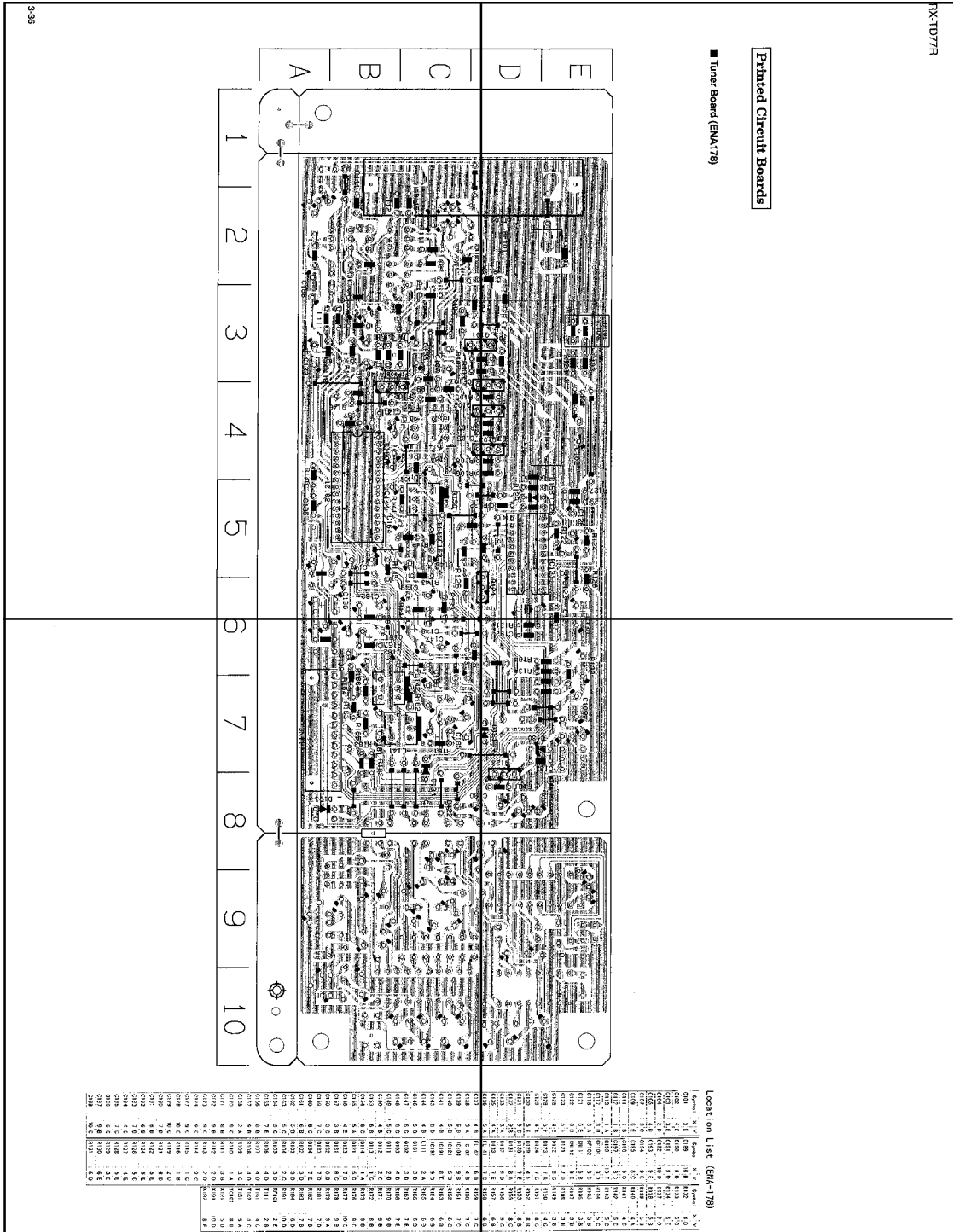
P3-35-d

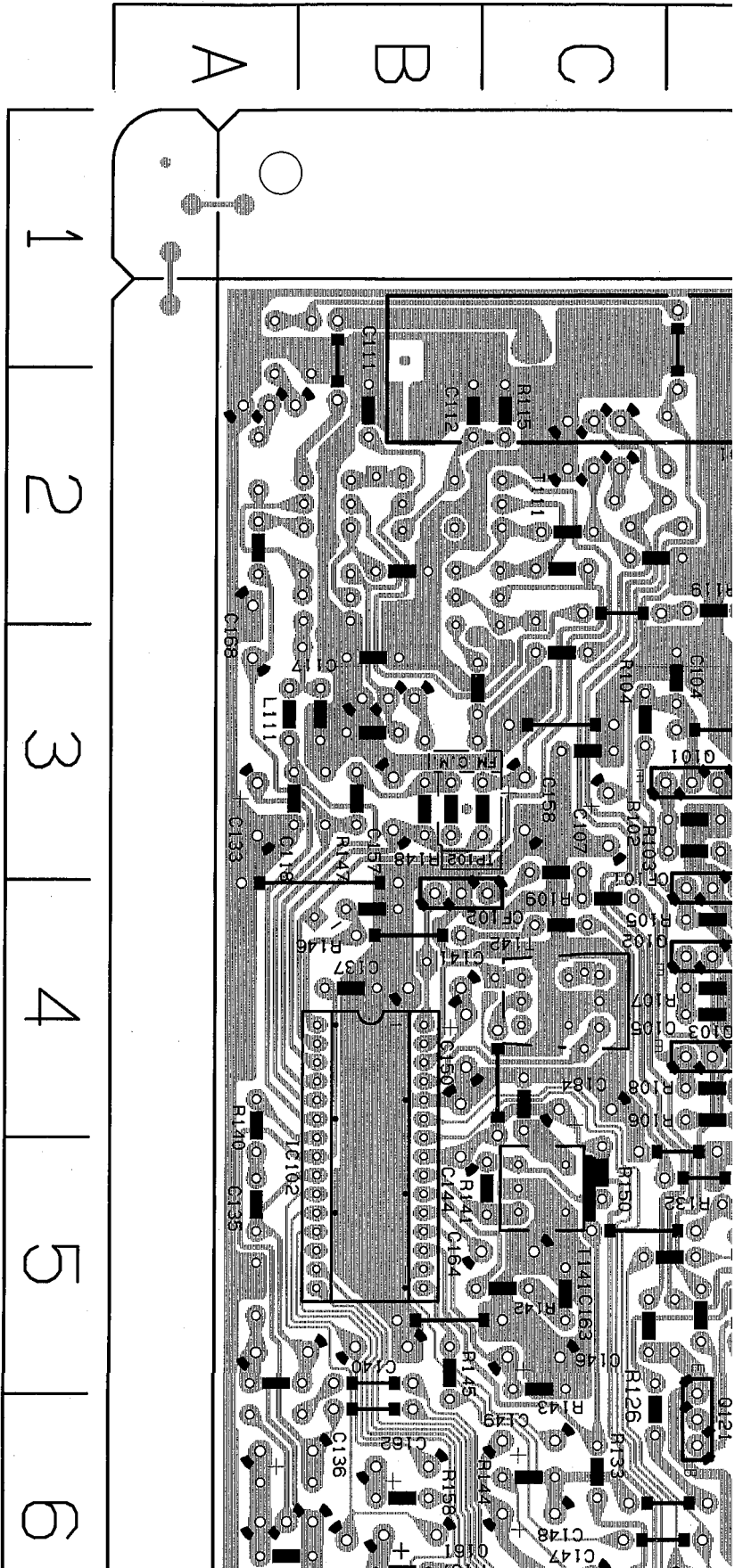
Z N L X C I I G

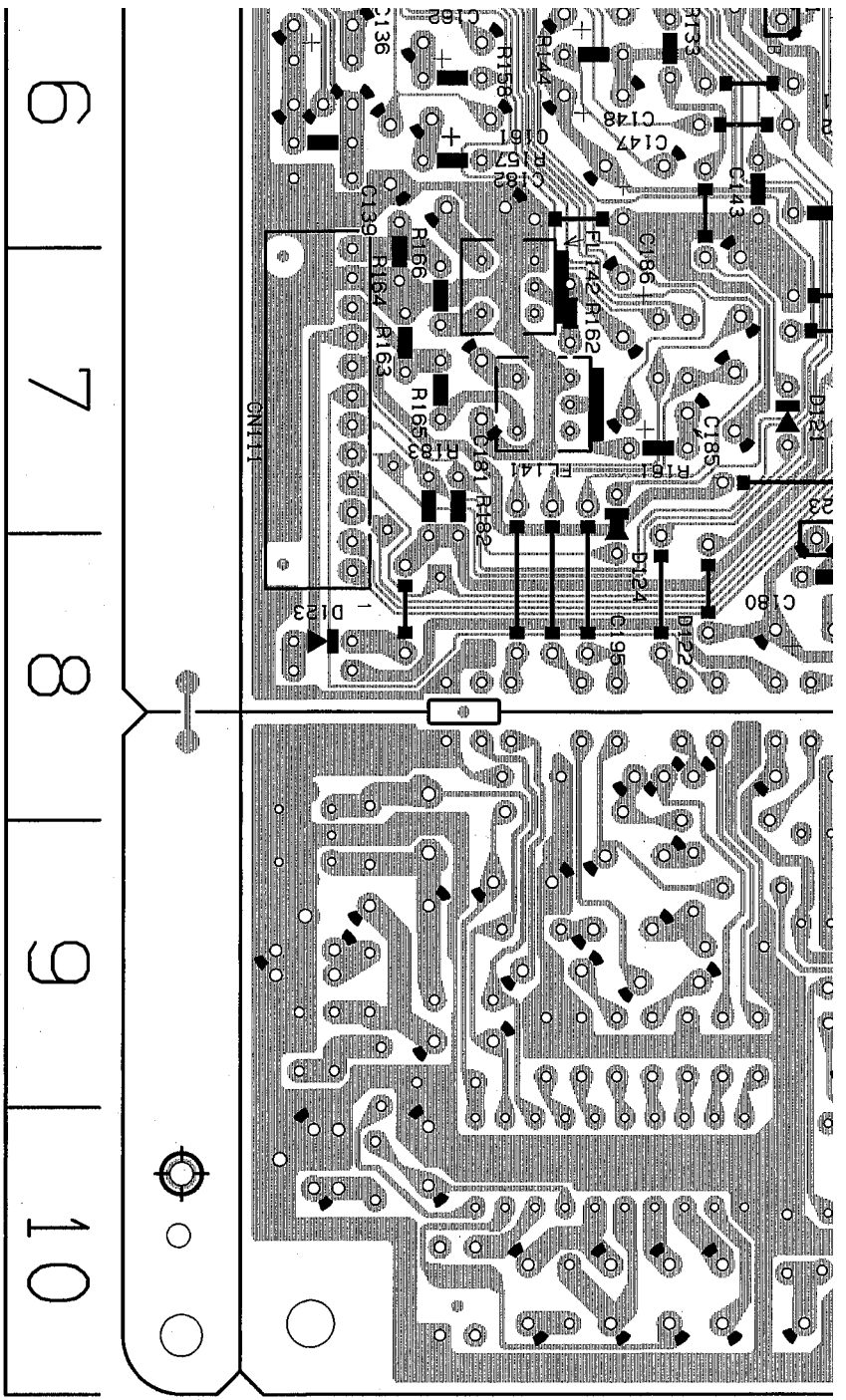


2 11 12 13 14 15 16 17 18 19 20

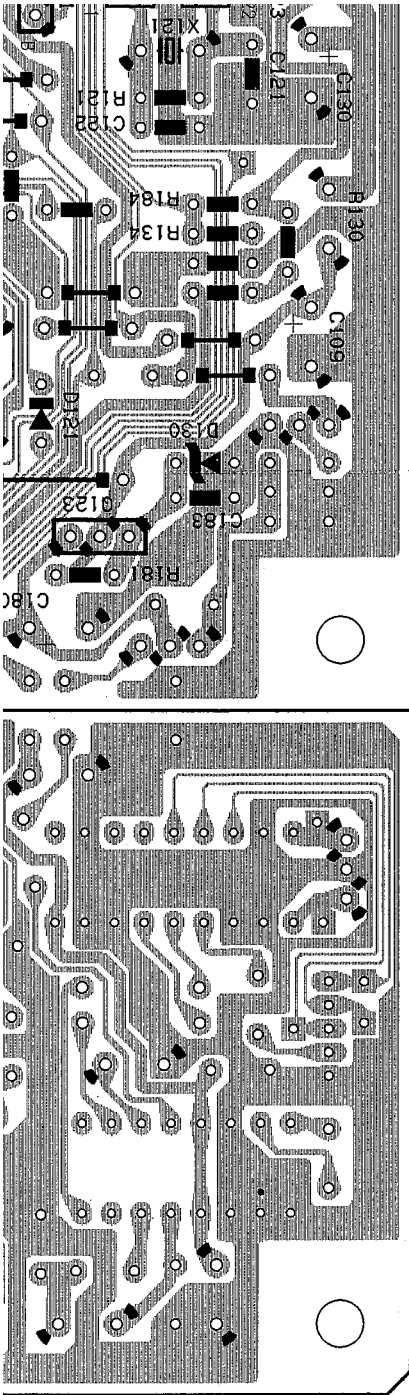








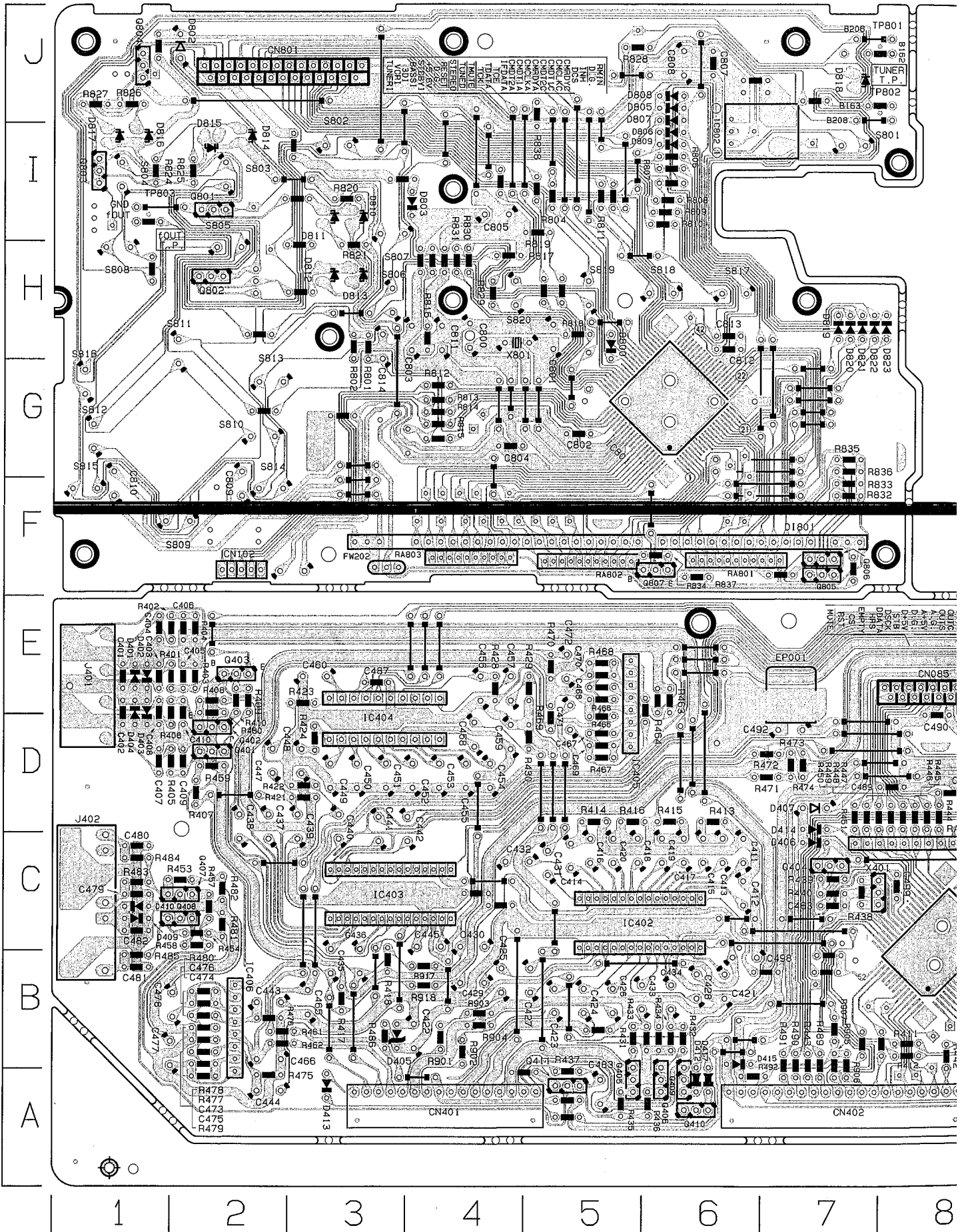
C135	4 A	D133	7 E	R157	6 B
C136	5 A	FL141	7 C	R158	6 B
C137	4 B	FL142	6 B	R159	7 C
C138	5 A	IC102	4 B	R160	7 C
C139	6 B	IC104	9 B	R161	7 C
C140	5 B	IC121	5 D	R162	6 C
C141	4 B	IC191	8 E	R163	6 B
C143	6 D	IC192	9 D	R164	6 B
C144	4 B	L111	2 A	R165	6 B
C146	5 C	IC101	3 D	R166	6 B
C147	6 C	IC102	3 D	R167	7 E
C148	6 C	IC103	4 D	R168	7 E
C149	5 C	IC111	2 B	R170	9 B
C150	4 B	IC112	2 C	R171	9 B
C153	6 B	IC113	1 C	R172	8 B
C154	8 C	IC114	1 A	R173	9 B
C155	5 A	IC121	5 D	R176	9 C
C156	4 E	IC123	7 D	R177	10 C
C157	3 B	IC131	8 C	R178	9 B
C158	3 C	IC132	6 B	R179	9 A
C159	7 C	IC133	7 D	R181	7 D
C160	6 C	IC134	7 E	R182	7 B
C161	6 B	R102	3 D	R183	7 B
C162	5 B	R103	3 D	R184	6 D
C163	5 C	R104	2 C	R191	10 D
C164	5 C	R105	3 D	RF101	2 E
C165	7 E	R106	4 D	T111	2 B
C166	8 B	R107	4 D	T141	4 C
C167	9 B	R108	4 D	T142	4 C
C168	2 A	R109	3 C	T151	8 A
C170	8 C	R110	1 A	TC101	8 B
C171	8 B	R111	3 B	X121	5 D
C172	9 B	R112	2 D	X191	10 D
C173	9 C	R113	2 D	X192	8 E
C174	9 C	R114	2 C		
C177	9 C	R115	1 C		
C178	10 C	R116	1 B		
C179	10 C	R119	2 D		
C180	7 D	R121	6 D		
C181	6 B	R122	5 E		
C182	6 B	R124	5 E		
C183	7 D	R126	5 C		
C184	4 C	R127	4 E		
C185	7 C	R128	5 E		
C186	6 C	R129	3 E		
C187	9 B	R130	6 E		
C188	10 C	R131	5 D		



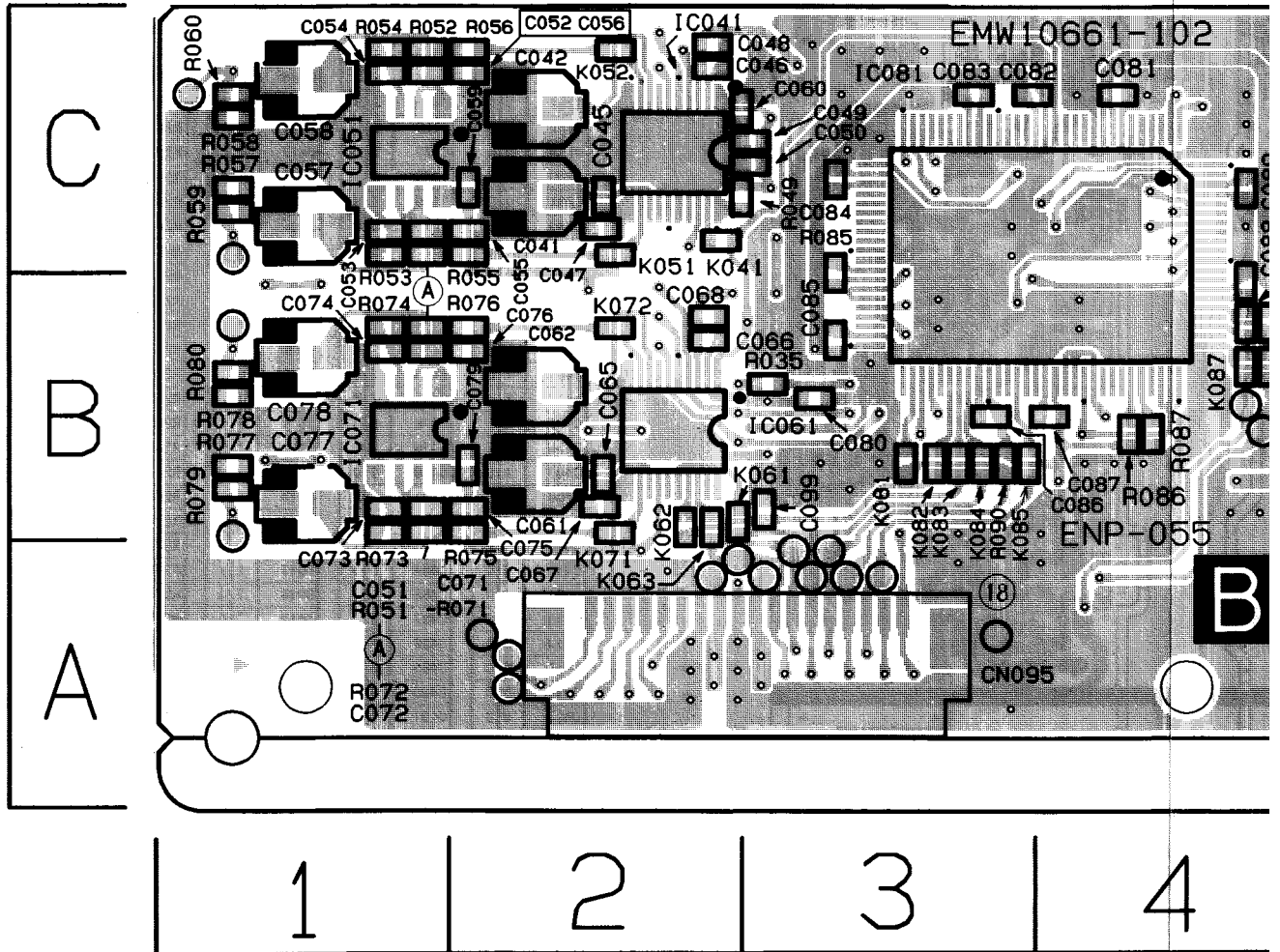
Location List (ENA-178)

Symbol	X	Y	Symbol	X	Y	Symbol	X	Y
C101	3.E		C189	10.B		R132	4.D	
C102	4.E		C190	9.B		R133	6.C	
C103	3.E		C191	9.D		R134	6.E	
C104	2.D		C192	10.D		R137	7.D	
C105	4.D		C193	9.E		R138	5.B	
C107	3.C		C194	9.E		R139	5.B	
C109	6.E		C195	8.C		R140	4.A	
C111	1.B		C196	9.D		R141	4.C	
C112	1.B		C197	8.D		R142	5.C	
C113	1.A		C199	10.E		R143	5.C	
C117	3.B		CF101	3.D		R144	5.C	
C118	3.A		CF102	3.C		R145	5.B	
C121	5.E		CN111	6.B		R146	3.B	
C122	6.D		CN112	9.E		R147	3.B	
C123	5.E		D121	7.D		R148	3.B	
C126	4.E		D122	8.C		R149	3.B	
C128	5.E		D123	7.A		R150	4.C	
C129	4.E		D124	7.C		R151	8.C	
C130	5.E		D129	4.E		R152	8.B	
C131	9.C		D130	7.E		R153	8.B	
C132	9.B		D131	8.A		R155	8.C	
C133	3.A		D132	9.D		R156	9.C	
C135	4.A		D133	7.E		R157	6.B	
C136	5.A		FL141	7.C		R158	6.B	
C137	4.B		FL142	6.B		R159	7.C	

■ Amp Tuner Control Board (ENB-253)

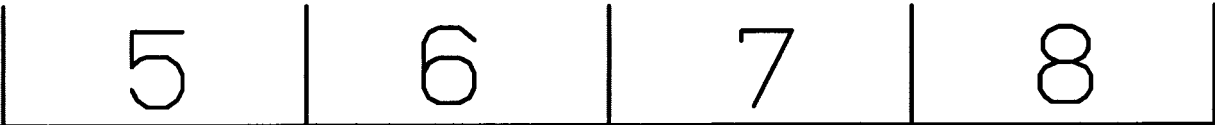
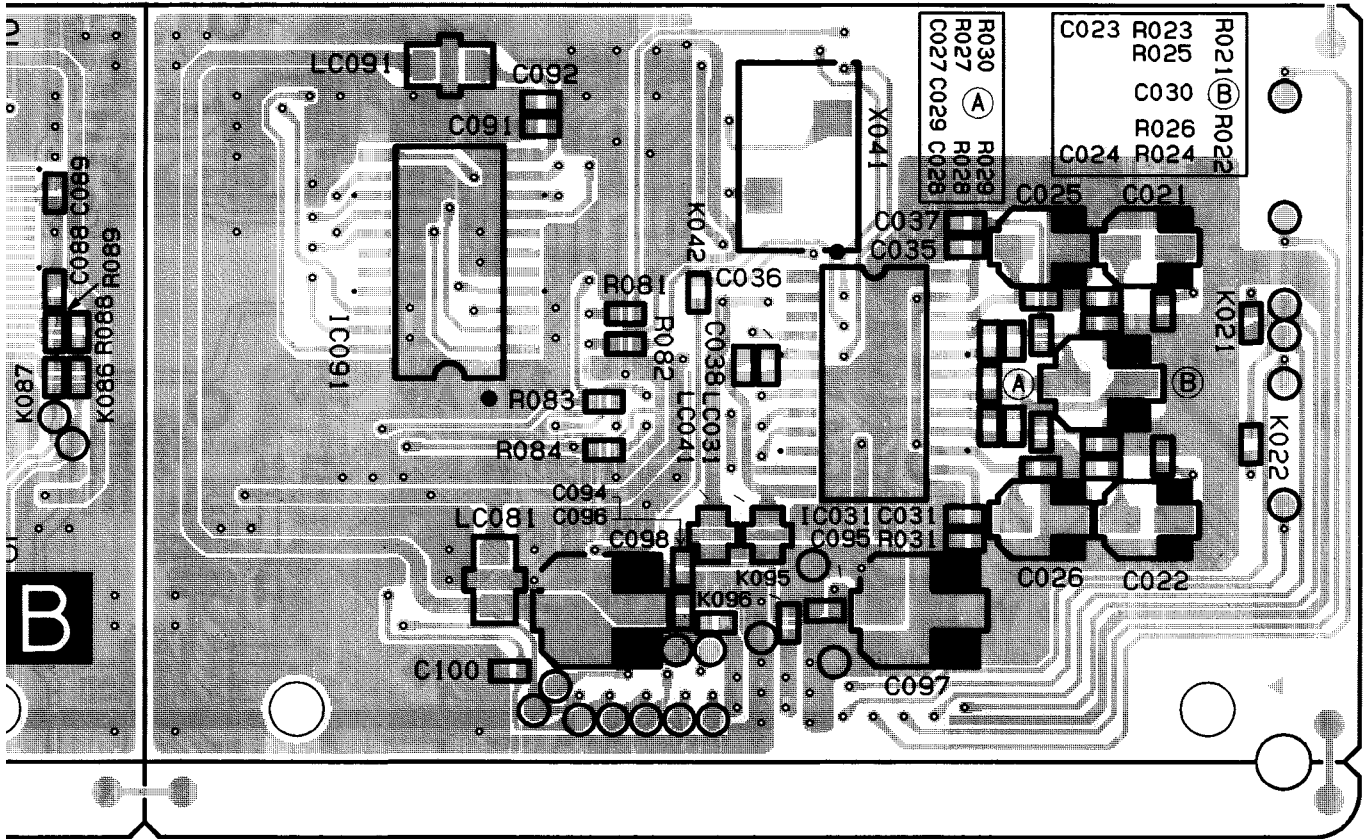


■ 3D-Phonic P. C. Board (ENP-055)



Location List (ENP-055)

Symbol	X	Y	Symbol	X	Y	Symbol
C021	8	C	C049	3	C	C074
C022	8	B	C050	3	C	C075
C023	7	B	C051	1	C	C076
C024	7	B	C052	1	C	C077
C025	7	C	C053	1	C	C078
C026	7	B	C054	1	C	C079
C027	7	B	C055	2	C	C080
C028	7	B	C056	2	C	C081
C029	7	B	C057	1	C	C082
C030	8	B	C058	1	C	C083
C031	7	B	C059	2	C	C084
C035	7	C	C060	2	C	C085
C036	7	B	C061	2	B	C086
C037	7	C	C062	2	B	C087
C038	6	B	C065	2	B	C088
C041	2	C	C066	2	B	C089
C042	2	C	C067	2	B	C091
C045	2	C	C068	2	B	C092
C046	2	C	C071	1	B	C094
C047	2	C	C072	1	B	C095
C048	2	C	C073	1	B	C096



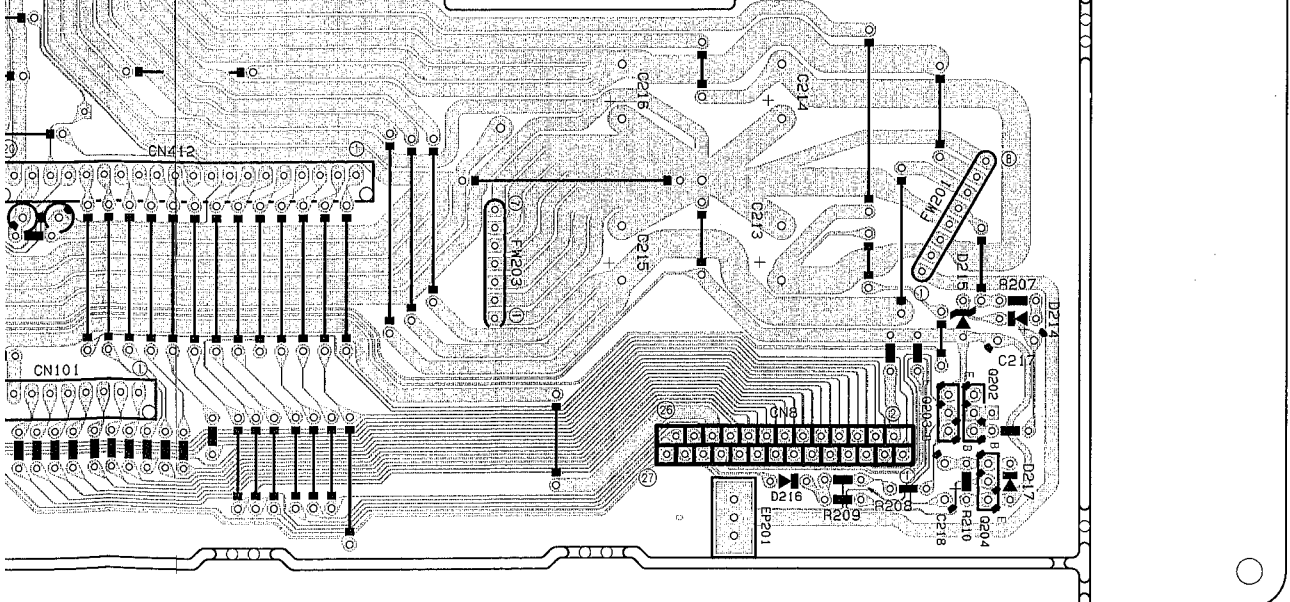
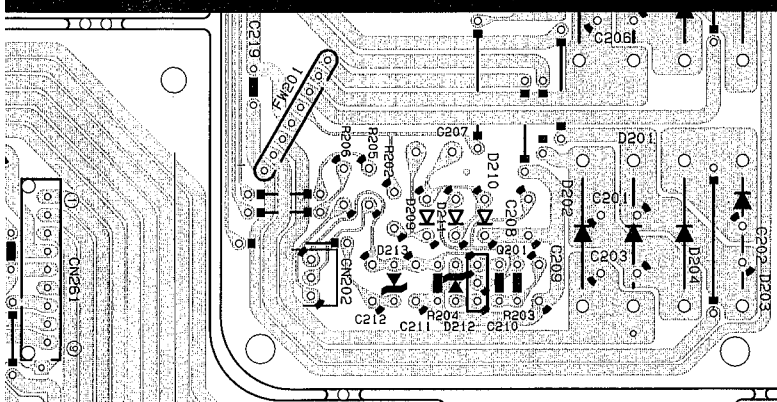
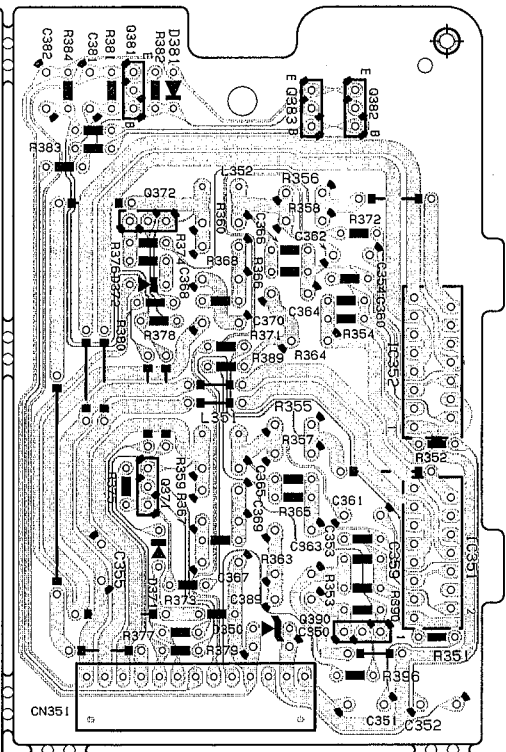
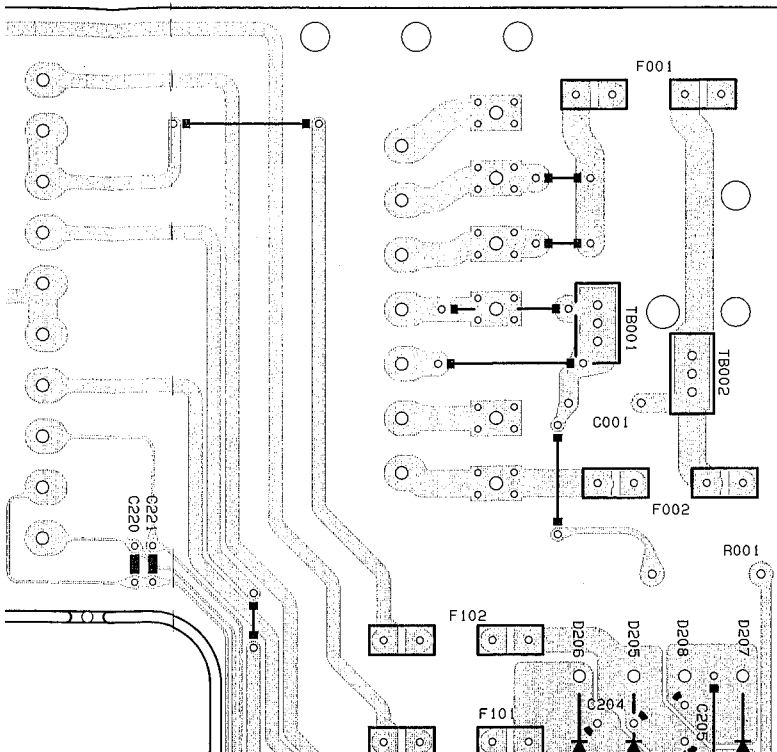
Symbol	X	Y
J74	1	B
J75	2	B
J76	2	B
J77	1	B
J78	1	B
J79	2	B
J80	3	B
J81	4	C
J82	3	C
J83	3	C
J84	3	C
J85	3	B
J86	3	B
J87	4	B
J88	4	B
J89	4	C
J91	6	C
J92	6	C
J94	6	A
J95	7	A
J96	6	A

Symbol	X	Y
C097	7	A
C098	6	A
C099	3	B
C100	6	A
CN095	2	A
IC031	7	B
IC041	2	C
IC051	1	C
IC061	2	B
IC071	1	B
IC081	4	C
IC091	5	C
K021	8	B
K022	8	B
K042	6	B
K051	2	C
K052	2	C
K061	2	B
K062	2	B
K063	2	B
K071	2	B

Symbol	X	Y
K072	2	B
K081	3	B
K082	3	B
K083	3	B
K084	3	B
K085	3	B
K086	4	B
K087	4	B
K095	7	A
K096	6	A
LC031	7	B
LC041	6	B
LC081	6	A
LC091	5	C
R021	8	B
R022	8	B
R023	8	B
R024	8	B
R025	8	B
R026	8	B
R027	7	B

Symbol	X	Y
R028	7	B
R029	7	B
R030	7	B
R031	7	B
R035	3	B
R049	2	C
R051	1	C
R052	1	C
R053	1	C
R054	1	C
R055	2	C
R056	2	C
R057	1	C
R058	1	C
R059	1	C
R060	1	C
R071	1	B
R072	1	B
R073	1	B
R074	1	B
R075	2	B

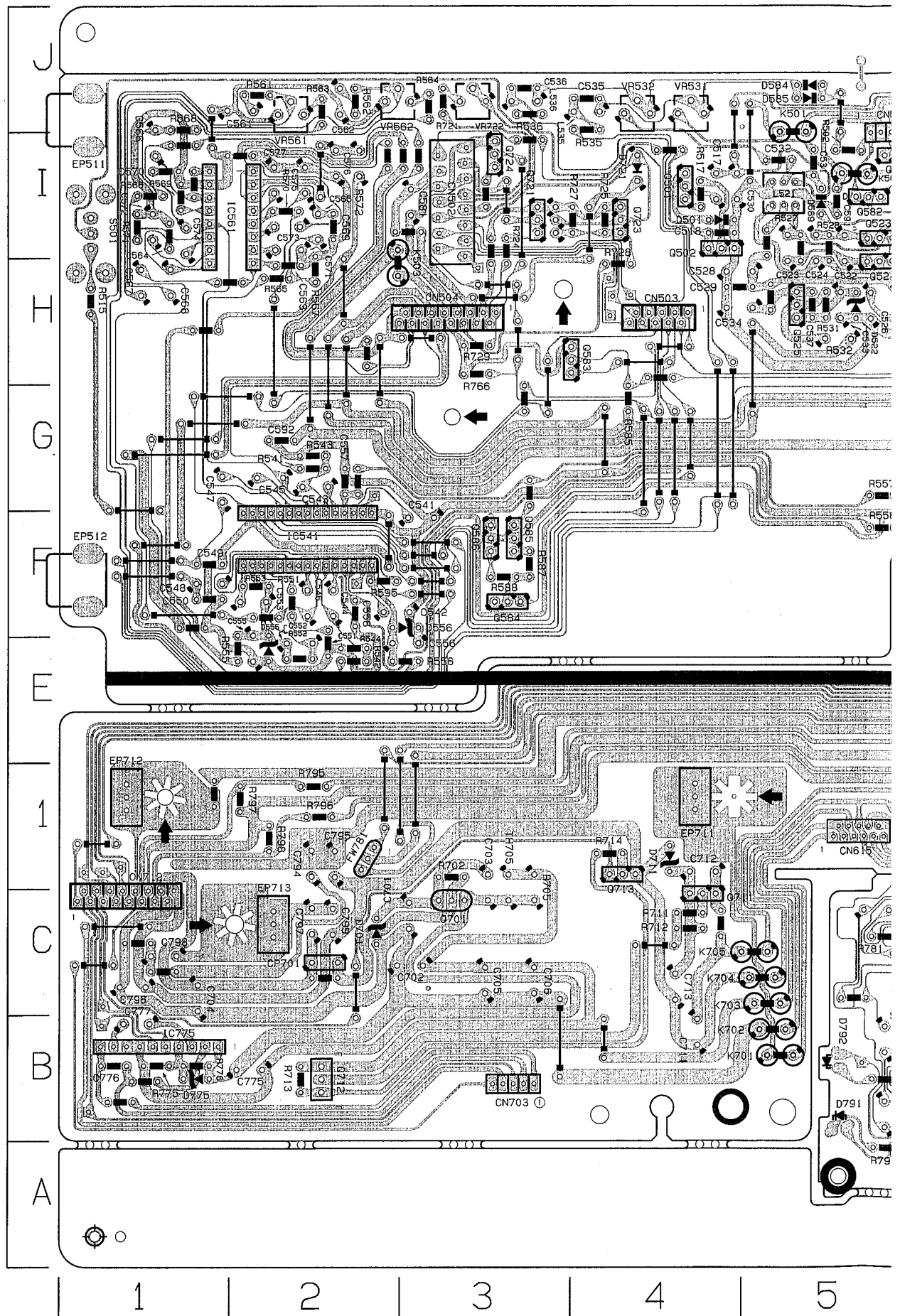
Symbol	X	Y
R076	2	B
R077	1	B
R078	1	B
R079	1	B
R080	1	B
R081	6	B
R082	6	B
R083	6	B
R084	6	B
R085	3	C
R086	4	B
R087	4	B
R088	4	B
R089	4	B
R090	3	B
X041	7	C



■ Location List (ENH-307)

Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y
C001	7	H	C364	9	I	IC352	10	H	R1023	3	I	R357	10	H
C1005	3	I	C365	10	H	J201	1	F	R1024	4	J	R358	10	I
C1006	3	J	C366	10	I	K201	2	B	R1027	3	H	R359	9	H
C1007	3	I	C367	9	G	K205	2	B	R202	7	E	R360	9	I
C1008	3	J	C368	9	I	K207	2	C	R203	7	E	R363	10	G
C1009	3	H	C369	9	H	K209	2	C	R204	7	E	R364	10	I
C1010	4	H	C370	9	I	K210	2	C	R205	7	E	R365	10	H
C1011	3	J	C381	9	J	K211	2	C	R206	7	E	R366	10	I
C1012	3	I	C382	9	J	K212	2	D	R207	9	B	R367	9	H
C1013	3	I	C389	10	G	K213	1	B	R208	9	A	R368	9	I
C1014	3	J	C391	4	C	K214	5	C	R209	9	A	R371	9	I
C1017	3	H	CN001	1	B	L204	5	B	R210	9	A	R372	10	I
C1018	3	J	CN101	5	B	L301	3	G	R212	3	E	R373	9	G
C201	8	E	CN202	6	E	L351	9	H	R221	3	A	R374	9	I
C202	8	E	CN261	5	E	L352	9	I	R222	3	A	R375	9	H
C203	8	E	CN302	3	G	Q1001	3	I	R223	3	A	R376	9	I
C204	8	F	CN311	2	D	Q1002	3	J	R224	3	A	R377	9	G
C205	8	F	CN312	4	D	Q1003	3	I	R225	3	A	R378	9	I
C206	8	F	CN351	9	G	Q1004	3	J	R226	3	A	R379	9	G
C207	7	E	CN411	3	C	Q1005	3	I	R231	4	D	R380	9	I
C208	7	E	CN412	5	C	Q1006	3	J	R232	4	D	R381	9	J
C209	7	E	CN811	9	A	Q1007	4	H	R233	4	E	R382	9	J
C210	7	E	CN891	4	A	Q1008	4	I	R240	3	B	R383	9	J
C211	7	E	D1009	4	I	Q201	7	E	R241	4	B	R384	9	J
C212	7	E	D1010	4	I	Q202	9	A	R242	4	A	R389	9	H
C213	8	B	D1011	3	I	Q203	9	A	R243	3	D	R390	10	G
C214	8	C	D1013	3	J	Q204	9	A	R244	3	D	R391	4	C
C215	8	B	D1015	3	I	Q221	3	A	R245	3	D	R392	4	C
C216	8	C	D1016	3	J	Q222	3	A	R246	3	D	R393	4	C
C217	9	B	D1017	3	I	Q223	4	A	R247	2	F	R396	10	G
C218	9	A	D1018	3	J	Q241	3	B	R248	2	D	RED	7	I
C219	6	F	D1019	3	H	Q242	3	D	R249	2	E	RY241	2	D
C220	6	G	D1020	4	J	Q281	4	D	R281	4	D	RY242	3	D
C221	6	G	D1021	3	H	Q282	4	D	R282	4	D	S001	1	H
C222	3	A	D1022	4	J	Q283	4	D	R283	5	D	TB001	8	I
C231	5	E	D1023	4	G	Q284	5	E	R284	5	D	TB002	8	H
C232	5	E	D201	8	E	Q285	4	E	R285	4	D			
C234	4	E	D202	7	E	Q286	4	E	R286	4	D			
C235	4	E	D203	8	E	Q301	3	H	R287	4	D			
C241	1	F	D204	8	E	Q371	9	H	R288	4	D			
C242	1	D	D205	8	F	Q372	9	I	R289	5	D			
C243	2	F	D206	7	F	Q381	9	J	R291	4	D			
C244	2	D	D207	8	F	Q382	10	J	R292	4	D			
C245	2	E	D208	8	F	Q383	10	J	R293	4	E			
C246	2	E	D209	7	E	Q389	4	C	R294	5	E			
C247	1	F	D210	7	E	Q390	10	G	R295	4	E			
C248	2	D	D211	7	E	R001	8	G	R296	4	E			
C249	1	D	D212	7	E	R002	2	G	R297	4	C			
C281	4	D	D213	7	E	R003	1	H	R298	5	D			
C282	5	D	D214	9	B	R004	1	G	R299	5	E			
C291	5	E	D215	9	B	R1001	3	I	R301	4	F			
C300	4	G	D216	8	A	R1002	3	I	R302	4	F			
C301	4	G	D217	9	A	R1003	3	I	R303	4	G			
C303	4	G	D241	2	D	R1004	3	J	R305	4	G			
C305	4	G	D242	3	D	R1005	3	I	R307	4	G			
C307	3	G	D281	4	D	R1006	3	J	R309	3	G			
C309	4	G	D282	4	D	R1007	3	I	R311	3	G			
C311	4	G	D283	4	D	R1008	3	I	R312	3	H			
C319	3	G	D284	5	D	R1009	3	I	R313	3	G			
C320	3	G	D319	3	H	R1010	3	I	R315	3	G			
C350	10	G	D350	9	G	R1011	3	I	R317	3	H			
C351	10	G	D371	9	G	R1012	3	J	R319	3	H			
C352	10	G	D372	9	I	R1013	3	I	R320	3	G			
C353	10	G	D381	9	J	R1014	3	I	R321	3	H			
C354	10	I	F001	7	J	R1015	3	I	R322	3	H			
C355	9	G	F002	8	H	R1016	3	J	R323	4	F			
C356	3	D	F003	2	J	R1017	3	H	R351	10	G			
C359	10	G	F101	7	F	R1018	3	J	R352	10	H			
C360	10	I	F102	7	G	R1019	3	I	R353	10	G			
C361	10	H	IC301	4	G	R1020	3	J	R354	10	I			
C362	10	I	IC302	4	E	R1021	3	I	R355	10	H			
C363	9	H	IC351	10	G	R1022	3	I	R356	10	I			

■ CD Control Board (ENJ-099)



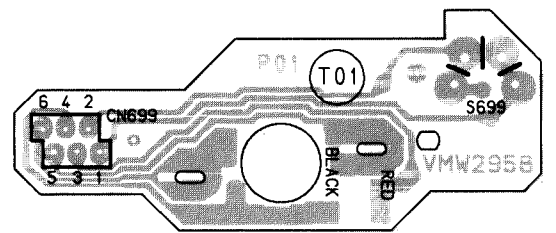
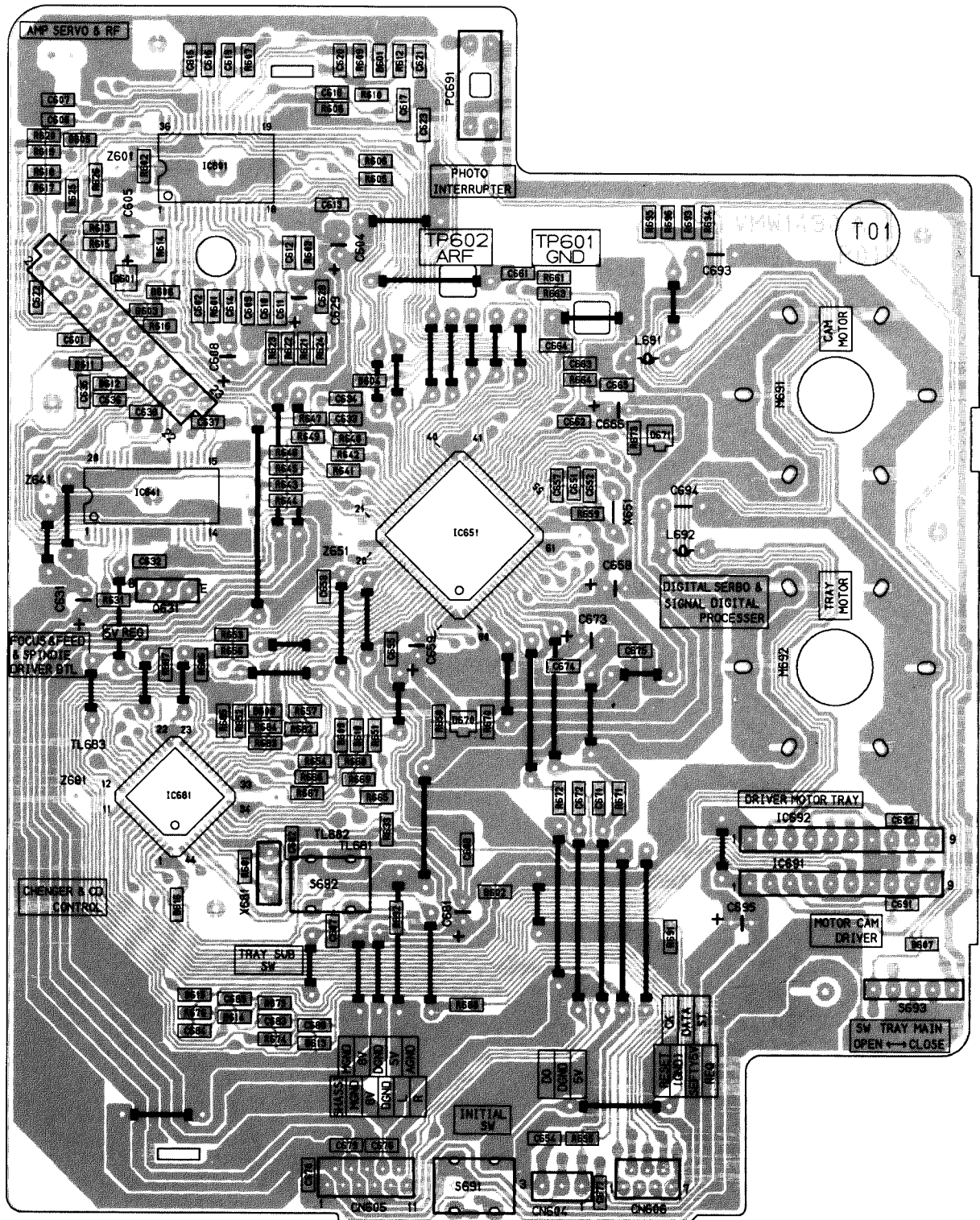
■ Location List (ENJ-099)

Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y
C501	7	I	G701	3	C	D712	10	G	Q717	10	D	R589	6	I	R782	6	C
C502	7	I	C702	3	C	D721	4	I	Q721	3	I	R595	2	F	R783	7	C
C503	7	I	C703	3	D	D731	8	H	Q722	3	I	R700	8	B	R784	6	C
C504	7	I	C704	1	C	D732	8	I	Q723	4	I	R702	3	D	R785	8	C
C505	7	I	C705	3	C	D751	7	F	Q724	3	I	R703	8	G	R786	7	C
C506	7	I	G706	3	C	D760	5	C	Q731	10	I	R704	8	G	R787	9	C
C507	6	H	C711	4	B	D761	10	B	Q732	10	J	R705	3	D	R789	9	C
C508	7	H	C712	4	D	D762	7	C	Q733	10	J	R706	8	F	R791	5	A
C509	6	I	C713	4	C	D763	7	C	Q781	10	E	R707	8	H	R792	5	B
C510	6	I	C721	6	D	D764	5	C	Q782	10	E	R708	8	G	R793	7	B
C511	6	H	C722	6	E	D775	1	B	Q783	10	E	R711	4	C	R795	2	D
C512	7	H	C723	6	E	D781	6	C	Q784	10	E	R712	4	C	R796	2	D
C513	6	H	C724	6	D	D782	6	C	Q785	9	E	R713	2	B	R797	2	D
C514	7	H	C725	6	D	D783	7	C	R501	6	J	R714	4	D	R798	2	D
C515	6	H	C731	8	H	D784	7	C	R502	5	I	R715	9	D	R799	6	E
C516	7	H	C732	8	I	D785	8	C	R503	7	I	R716	9	D	R800	6	B
C517	4	I	C733	9	I	D786	8	C	R504	7	I	R717	9	D	S501	1	I
C518	4	I	C734	9	J	D787	8	C	R505	6	I	R718	9	D	S781	6	C
C521	6	H	C735	9	I	D788	9	C	R506	6	I	R719	9	D	S782	6	C
C522	5	H	C736	9	J	D789	8	C	R507	6	H	R720	9	D	S783	10	C
C523	5	H	C737	9	I	D790	9	C	R508	7	H	R721	3	J	S784	9	C
C524	5	I	C738	9	J	D791	5	B	R509	6	H	R724	3	H	S785	7	C
C525	5	H	C745	9	I	D792	5	B	R510	7	H	R725	4	I	S786	7	C
C526	5	H	C746	9	I	D793	7	B	R511	7	H	R727	3	I	S787	9	C
C527	5	H	C751	7	F	IC502	6	H	R512	6	H	R728	4	H	S788	10	C
C528	5	H	C752	7	F	IC541	2	F	R513	6	I	R729	3	H	S789	7	C
C529	5	H	C753	7	F	IC561	2	I	R514	7	I	R731	8	H	S790	8	C
C530	4	I	C754	7	F	IC731	8	I	R515	1	H	R732	7	I	S791	8	C
C531	5	I	C755	8	F	IC732	9	I	R517	4	I	R735	9	I	S792	10	B
C532	5	I	C756	9	H	IC751	8	F	R521	6	I	R736	9	J	S793	5	C
C533	5	H	C757	10	G	IC752	7	F	R522	6	I	R737	9	I	S794	7	C
C534	5	H	C775	2	B	IC775	1	B	R523	6	H	R738	9	J	S795	8	C
C535	3	J	C776	1	B	K501	5	I	R524	6	H	R739	9	I	S796	10	B
C536	3	J	C777	1	B	K502	5	I	R525	6	H	R740	9	J	S797	5	B
C537	5	H	C781	7	B	K503	2	H	R526	6	H	R741	9	I	S798	5	B
C541	3	F	C791	10	D	K701	5	B	R527	5	H	R742	10	I	TH705	3	D
C542	2	F	C792	10	I	K702	5	B	R528	5	I	R743	9	I	X751	8	F
C543	2	G	C793	7	F	K703	5	C	R529	5	H	R744	9	J			
C544	2	F	C794	2	D	K704	5	C	R531	5	H	R745	9	I			
C545	2	G	C795	2	D	K705	4	G	R532	5	H	R746	9	I			
C546	2	F	C796	1	C	K706	6	D	R535	3	J	R747	10	I			
C547	1	G	C797	2	C	K721	10	I	R536	3	J	R748	10	I			
C548	1	F	C798	1	C	K722	10	I	R541	2	G	R749	9	I			
C549	1	F	C799	2	C	K723	10	H	R542	2	E	R750	9	J			
C550	1	F	CN501	5	I	K724	10	H	R543	2	G	R751	8	F			
C551	2	F	CN502	3	I	K725	10	H	R544	2	E	R752	7	F			
C552	2	E	CN503	4	H	K726	10	H	R551	2	F	R754	9	G			
C553	2	F	CN504	3	H	K727	10	H	R552	2	E	R755	10	I			
C555	2	F	CN513	7	D	K728	10	G	R553	2	F	R756	10	H			
C556	3	E	CN514	8	D	L521	5	I	R555	2	E	R757	10	H			
C557	2	G	CN614	6	D	L535	3	J	R556	3	E	R758	10	I			
C558	2	F	CN615	5	D	L536	3	J	R557	5	G	R761	7	E			
C561	1	J	CN616	6	D	P781	7	B	R558	5	F	R762	7	D			
C562	2	J	CN701	10	I	Q501	4	I	R561	2	J	R763	9	E			
C563	2	H	CN702	8	J	Q502	4	I	R562	2	J	R764	9	E			
C564	1	I	CN703	3	B	Q521	6	H	R563	2	J	R765	7	D			
C565	2	I	CN712	1	C	Q522	6	H	R564	3	J	R766	3	H			
C566	1	I	CN781	6	C	Q523	5	I	R565	2	H	R767	9	F			
C567	1	H	CN791	9	F	Q524	5	H	R566	1	I	R768	9	F			
C568	1	H	D501	4	I	Q525	5	H	R567	2	H	R769	10	F			
C569	2	I	D521	6	I	Q581	5	I	R568	1	J	R770	10	F			
C570	1	I	D522	5	H	Q582	5	I	R569	1	I	R771	7	E			
C571	2	I	D555	2	E	Q583	3	H	R570	2	I	R772	7	E			
C572	1	I	D556	2	F	Q584	3	F	R571	1	I	R773	9	G			
C573	2	I	D581	6	I	Q585	3	F	R572	2	I	R774	9	G			
C574	1	I	D582	6	J	Q586	3	F	R581	6	I	R775	1	B			
C575	2	I	D583	6	J	Q701	3	C	R582	6	I	R776	1	B			
C576	2	I	D584	5	J	Q711	4	C	R583	6	I	R777	9	G			
C577	2	I	D585	5	J	Q712	2	B	R584	5	I	R778	9	G			
C581	3	I	D589	5	I	Q713	4	D	R585	4	G	R779	9	F			
C591	5	I	D701	2	C	Q715	9	D	R587	3	F	R780	9	F			
C592	2	G	D711	4	D	Q716	9	D	R588	3	F	R781	5	C			

1 2 3 4 5

CD Servo Board

A
B
C
D
E
F
G



— MEMO —

PARTS LIST

<RX-TD77R>

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

The Marks for Designated Areas

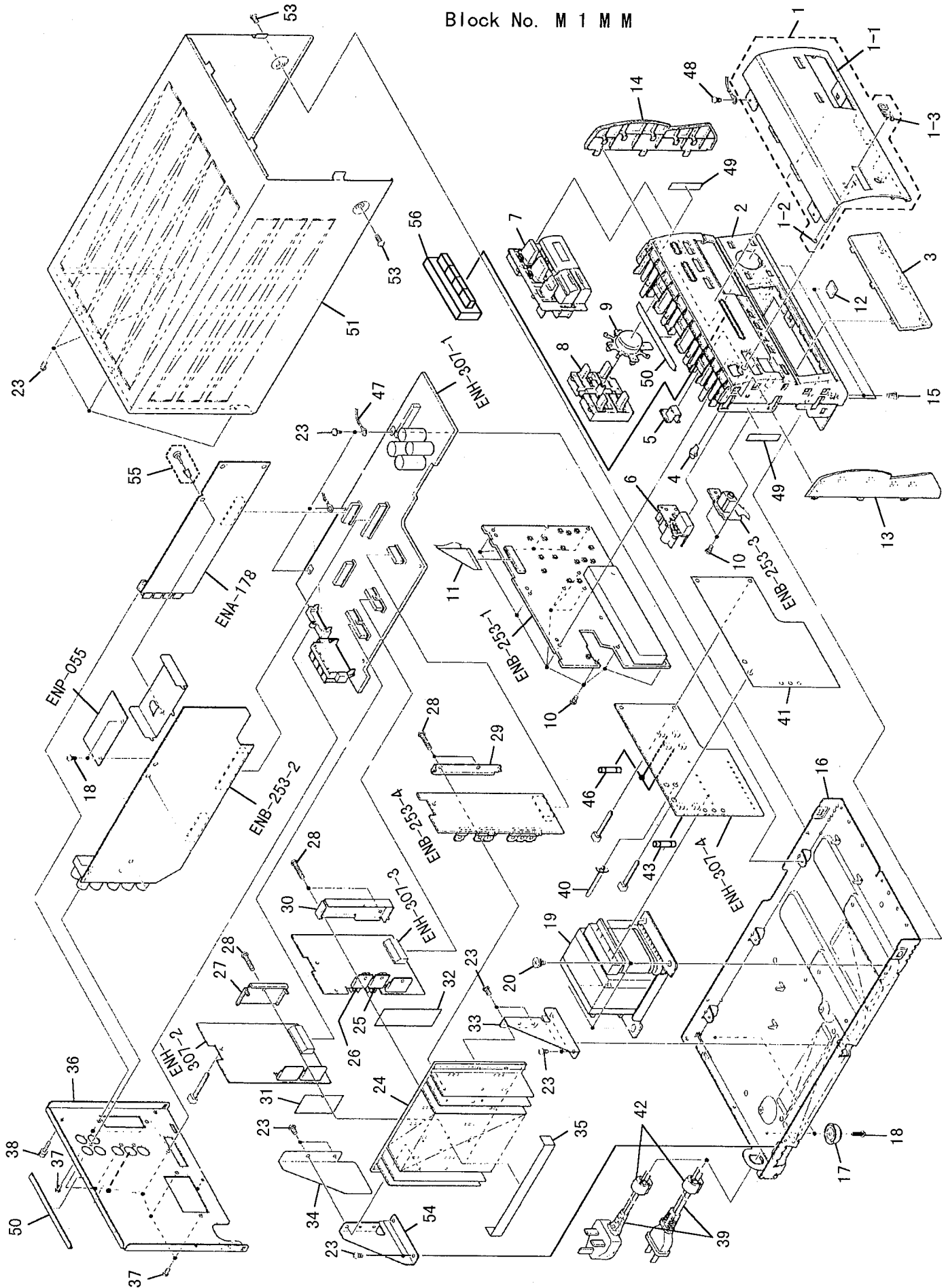
BS ---- the U.K.
 EF ---- Continental Europe
 EN ---- Scandinavia
 G ---- Germany
 No marks indicates all areas.

- Contents -

General Exploded View and Parts List -----	4-2
Electrical Parts List -----	4-5
■ (ENH-307) -----	4-5
■ (ENB-253) -----	4-7
■ (ENA-178) -----	4-10
■ (ENP-055) -----	4-11

General Exploded View and Parts List

Block No. M 1 M M



■ Parts List

Block No. M 1 M M

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EFP-RXTD77RE (S)	FRONT PANEL ASSY	1		
	1-1	LE20087-004A	FRONT PANEL	1		
	1-2	E60912-003	SPEED NUT	1		
	1-3	E406971-221	JVC MARK	1		
	2	LE10062-001A	FRONT BASE	1		
	3	LE20094-001A	WINDOW SCREEN	1		
	4	LE40119-002A	INDICATOR LENS	1	POWER	
	5	LE40120-001A	REMOTE CONTROL WINDOW	1		
	6	LE30326-002A	POWER BUTTON	1		
	7	LE20089-004A	PUSH BUTTON ASSY	1	SOURCE	
	8	LE20092-001A	PUSH BUTTON	1	SET	
	9	LE20093-001A	PUSH BUTTON	1	CURSOR	
	10	SDSF2608Z	SCREW	13		
	11	VWF1227-25TTB	FLAT WIRE	1		
	12	E75896-001	SPACER	2		
	13	LE20098-001A	SIDE FITTING	1		
	14	LE20099-001A	SIDE FITTING	1		
	15	SDSG3006CC	SCREW	2		
	16	LE10064-003A	CHASSIS BASE	1		
	17	E47227-029	FOOT	2		
	18	SBSG3008Z	TAPPING SCREW	4		
△	19	QQT0165-002	POWER TRANSFORMER	1		
	20	E65389-002	SPECIAL SCREW	4		
	23	SBSG3008CC	TAPPING SCREW	15		
	24	LE30333-003A	HEAT SINK	1		
	25	2SC4466LD/Y/	TRANSISTOR	1	Q1007	
	26	2SA1693LD/Y/	TRANSISTOR	1	Q1008	
	27	FMKL4007-001	HEAT SINK BRACKET	1		
	28	SBSG3014Z	TAPPING SCREW	5		
	29	E407434-001SM	LEAF SPRING	1		
	30	LE40125-001A	BOTTOM BRACKET	1		
	31	FMPK4003-001	MICA SHEET	1		
	32	LE40124-002A	MICA SHEET	1		
	33	LE30334-001A	HEAT SINK BRACKET	1		
	34	LE40265-201A	PROTECTOR COVER	1		
	35	EX0150010H09S11	FELT SPACER	1		
	36	LE20095-024A	REAR PANEL	1		
	37	E73273-003	SPECIAL SCREW	9		
	38	E409257-001	EARTH TERMINAL	1		
△	39	QMP39E0-200	POWER CORD	1		EF EN G
△		QMP5530-0085BS	POWER CORD	1		BS
	40	E307572-001	VINYL TIE	1		
	41	LE30476-201A	PROTECT SHEET	1		
△	42	QHS3876-162	CORD STOPPER	1		
△	43	QMF51E2-1R0J1	FUSE	1	F001 (T1.0A/250V)	
△	46	QMF51E2-4R0	FUSE	2	F101/F102	
	47	EWT025-006	TERMINAL WIRE	1		
	48	SDSG3008Z	SCREW	1		
	49	LE30001-016A	SPACER	2		
	50	LE30001-017A	SPACER	2		
	51	LE20097-001A	METAL COVER	1		
	53	SDSG3006N	TAPPING SCREW	2		
	54	LE30335-001A	HEAT SINK BRACKET	1		
	55	E48729-010	PLASTIC RIVET	1		
	56	LE30331-001A	PUSH BUTTON	1	RDS	

■ Electrical Parts List (ENH-307)

△	Item	Parts Number	Description	Area
		I. C. S		
	IC301	TDA7294	I. C (M)	
	IC302	BA15218N	I. C (MONO-ANALOG)	
	IC351	TDA7294	I. C (M)	
	IC352	TDA7294	I. C (M)	
		DIODES		
△	D201	1N5402M-20	DIODE	
△	D202	1N5402M-20	DIODE	
△	D203	1N5402M-20	DIODE	
△	D204	1N5402M-20	DIODE	
△	D205	30DL2FC	SI. DIODE	
△	D206	30DL2FC	SI. DIODE	
△	D207	30DL2FC	SI. DIODE	
△	D208	30DL2FC	SI. DIODE	
	D209	1SR35-100	SI. DIODE	
	D210	1SR35-100	SI. DIODE	
	D211	1SR35-100	SI. DIODE	
	D212	MTZ33JC	ZENER DIODE	
	D213	MTZ5.6JC	ZENER DIODE	
	D214	1SS133	SI. DIODE	
	D215	MTZ5.1JB	ZENER DIODE	
	D216	1SS133	SI. DIODE	
	D217	1SS133	SI. DIODE	
	D241	1SS133	SI. DIODE	
	D242	1SS133	SI. DIODE	
	D281	1SS133	SI. DIODE	
	D282	1SS133	SI. DIODE	
	D283	1SS133	SI. DIODE	
	D284	1SS133	SI. DIODE	
	D319	1SS133	SI. DIODE	
	D371	1SS133	SI. DIODE	
	D372	1SS133	SI. DIODE	
	D381	1SS133	SI. DIODE	
△	D1009	30DL2FC	SI. DIODE	
△	D1010	30DL2FC	SI. DIODE	
	D1011	1SS133	SI. DIODE	
	D1013	1SS133	SI. DIODE	
	D1015	1SS133	SI. DIODE	
	D1016	1SS133	SI. DIODE	
	D1017	MTZ3.9JB	ZENER DIODE	
	D1018	MTZ3.9JB	ZENER DIODE	
	D1019	1SS133	SI. DIODE	
	D1020	1SS133	SI. DIODE	
	D1021	1SS133	SI. DIODE	
	D1022	1SS133	SI. DIODE	
		TRANSISTORS		
	Q201	2SA934 (Q, R)	SI. TRANSISTOR	
	Q202	KRC107M-T	DIGITAL TRANSISTOR	
	Q203	KRC107M-T	DIGITAL TRANSISTOR	
	Q204	KRC107M-T	DIGITAL TRANSISTOR	
	Q221	2SD2144S (VW)	SI. TRANSISTOR	
	Q222	2SD2144S (VW)	SI. TRANSISTOR	
	Q223	KRA111M-T	DIGITAL TRANSISTOR	
	Q241	KRA107M-T	DIGITAL TRANSISTOR	
	Q242	2SC1775AV (F1)	SI. TRANSISTOR	
	Q281	2SC1740S (R, S)	SI. TRANSISTOR	
	Q282	2SC1740S (R, S)	SI. TRANSISTOR	
	Q283	2SC1740S (R, S)	SI. TRANSISTOR	
	Q284	KRA104M-T	DIGITAL TRANSISTOR	
	Q285	2SD2144S (VW)	SI. TRANSISTOR	
	Q286	2SD2144S (VW)	SI. TRANSISTOR	
	Q301	2SA1038 (R, S)	SI. TRANSISTOR	
	Q371	2SA1038 (R, S)	SI. TRANSISTOR	
	Q372	2SA1038 (R, S)	SI. TRANSISTOR	
	Q381	2SC2389 (S, E)	SI. TRANSISTOR	
	Q382	2SA1038 (R, S)	SI. TRANSISTOR	
	Q383	2SC1740S (R, S)	SI. TRANSISTOR	
	Q1001	2SC1685	SI. TRANSISTOR	
	Q1002	2SA933S (RS)	SI. TRANSISTOR	
	Q1003	2SC1685	SI. TRANSISTOR	

△	Item	Parts Number	Description	Area
	Q1004	2SA733A (P, K)	SI. TRANSISTOR	
	Q1005	2SA965 (Y)	SI. TRANSISTOR	
	Q1006	2SC2235 (O, Y)	SI. TRANSISTOR	
		CAPACITORS		
	C201	QFV82AJ-104	0.1MF 100V THIN FILM CAP.	
	C202	QFV82AJ-104	0.1MF 100V THIN FILM CAP.	
	C203	QFV82AJ-104	0.1MF 100V THIN FILM CAP.	
	C204	QFV81HJ-104	0.1MF 50V THIN FILM CAP.	
	C205	QFV81HJ-104	0.1MF 50V THIN FILM CAP.	
	C206	QFV81HJ-104	0.1MF 50V THIN FILM CAP.	
	C207	QETB1JM-107	100MF 63V AL E. CAP.	
	C208	QETB1JM-476	47MF 63V AL E. CAP.	
	C209	QETB1HM-226E	22MF 50V E. CAP.	
	C210	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C211	QETB1HM-226E	22MF 50V E. CAP.	
	C212	QETB1HM-475E	4.7MF 50V E. CAP.	
	C213	QETM1HM-338	3300MF 50V E. CAP.	
	C214	QETM1HM-338	3300MF 50V E. CAP.	
	C215	QETB1VM-478N	4700MF 35V AL E. CAP.	
	C216	QETB1VM-478N	4700MF 35V AL E. CAP.	
	C217	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C218	QETB1HM-105	1MF 50V AL E. CAP.	
	C219	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C220	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C221	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C222	QCZ0202-155	1.5MF 25V CER. RES.	
	C231	QETB1CM-476	47MF 16V AL E. CAP.	
	C232	QETB1CM-476	47MF 16V AL E. CAP.	
	C234	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C241	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C242	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C243	QFLB1HJ-473	0.047MF 50V MYLAR CAP.	
	C244	QFLB1HJ-473	0.047MF 50V MYLAR CAP.	
	C245	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C246	QFLB1HJ-473	0.047MF 50V MYLAR CAP.	
	C247	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C248	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C249	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C281	QETB1HM-105	1MF 50V AL E. CAP.	
	C282	QETB1HM-105	1MF 50V AL E. CAP.	
	C291	QETB1CM-476	47MF 16V AL E. CAP.	
	C300	QFV81HJ-103	0.01MF 50V THIN FILM CAP.	
	C301	EETB1HM-105E	1MF 50V E. CAP.	
	C303	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C305	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C307	QETB1EM-476	47MF 25V AL E. CAP.	
	C309	QCSB1HJ-100Y	10PF 50V CER. CAP.	
	C311	QETB1HM-226E	22MF 50V E. CAP.	
	C319	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C320	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C350	QFV81HJ-103	0.01MF 50V THIN FILM CAP.	
	C351	EETB1HM-105E	1MF 50V E. CAP.	
	C352	EETB1HM-105E	1MF 50V E. CAP.	
	C353	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C354	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C355	QFV82AJ-104	0.1MF 100V THIN FILM CAP.	
	C359	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C360	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C361	QETB1HM-226E	22MF 50V E. CAP.	
	C362	QETB1HM-226E	22MF 50V E. CAP.	
	C363	QETB1EM-476	47MF 25V AL E. CAP.	
	C364	QETB1EM-476	47MF 25V AL E. CAP.	
	C365	QCSB1HJ-100Y	10PF 50V CER. CAP.	
	C366	QCSB1HJ-100Y	10PF 50V CER. CAP.	
	C367	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C368	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C369	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C370	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C381	QETB1EM-106	10MF 25V AL E. CAP.	
	C382	QETB1CM-476	47MF 16V AL E. CAP.	

■ Electrical Parts List (ENH-307)

△	Item	Parts Number	Description	Area
	C1005	QCXB1CM-272Y	2700PF 16V CER. CAP.	
	C1006	QCXB1CM-272Y	2700PF 16V CER. CAP.	
	C1007	QCXB1CM-472Y	4700PF 16V CER. CAP.	
	C1008	QCXB1CM-472Y	4700PF 16V CER. CAP.	
	C1009	QFV81HJ-105	1MF 50V THIN FILM CAP.	
	C1010	QFV81HJ-105	1MF 50V THIN FILM CAP.	
	C1011	QCGB1HK-102	1000PF 50V CER. CAP.	
	C1012	QCGB1HK-102	1000PF 50V CER. CAP.	
	C1013	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C1014	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	
	C1017	QCGB1HK-102	1000PF 50V CER. CAP.	
	C1018	QCGB1HK-102	1000PF 50V CER. CAP.	
		RESISTORS		
	R203	QRD161J-362	3.6K 1/6W CARBON RES.	
	R204	QRD161J-104	100K 1/6W CARBON RES.	
△	R205	QRD14CJ-1R0SX	1 1/4W UNF. CARBON R	
△	R206	QRD14CJ-1R0SX	1 1/4W UNF. CARBON R	
	R207	QRD161J-103	10K 1/6W CARBON RES.	
	R208	QRD161J-103	10K 1/6W CARBON RES.	
	R209	QRD161J-102	1K 1/6W CARBON RES.	
	R210	QRD161J-104	100K 1/6W CARBON RES.	
	R212	QRD161J-104	100K 1/6W CARBON RES.	
△	R221	QRD14CJ-271S	270 1/4W UNF. CARBON R	
△	R222	QRD14CJ-271S	270 1/4W UNF. CARBON R	
△	R223	QRD14CJ-681SX	680 1/4W UNF. CARBON R	
△	R224	QRD14CJ-681SX	680 1/4W UNF. CARBON R	
	R225	QRD161J-472	4.7K 1/6W CARBON RES.	
	R226	QRD161J-472	4.7K 1/6W CARBON RES.	
	R227	QRD161J-0R0	0 1/6W CARBON RES.	
	R231	QRD161J-104	100K 1/6W CARBON RES.	
	R232	QRD161J-104	100K 1/6W CARBON RES.	
	R233	QRD161J-104	100K 1/6W CARBON RES.	
	R240	QRD161J-473	47K 1/6W CARBON RES.	
	R241	QRD167J-152	1.5K 1/6W CARBON RES.	
	R242	QRD161J-473	47K 1/6W CARBON RES.	
	R244	QRG01DJ-561X	560 1W OXIDE METAL	
	R245	QRG01DJ-561X	560 1W OXIDE METAL	
△	R247	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
△	R248	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
△	R249	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
	R281	QRD161J-473	47K 1/6W CARBON RES.	
	R282	QRD161J-473	47K 1/6W CARBON RES.	
	R283	QRD161J-243	24K 1/6W CARBON RES.	
	R284	QRD161J-243	24K 1/6W CARBON RES.	
	R285	QRD167J-822	8.2K 1/6W CARBON RES.	
	R286	QRD167J-822	8.2K 1/6W CARBON RES.	
	R287	QRD161J-242	2.4K 1/6W CARBON RES.	
	R288	QRD161J-683	68K 1/6W CARBON RES.	
	R289	QRD161J-392	3.9K 1/6W CARBON RES.	
	R291	QRD161J-222	2.2K 1/6W CARBON RES.	
	R292	QRD161J-222	2.2K 1/6W CARBON RES.	
	R293	QRD161J-222	2.2K 1/6W CARBON RES.	
	R294	QRD161J-222	2.2K 1/6W CARBON RES.	
	R295	QRD161J-103	10K 1/6W CARBON RES.	
	R296	QRD161J-103	10K 1/6W CARBON RES.	
	R297	QRD161J-473	47K 1/6W CARBON RES.	
	R298	QRD161J-473	47K 1/6W CARBON RES.	
	R299	QRD161J-331	330 1/6W CARBON RES.	
	R301	QRD161J-102	1K 1/6W CARBON RES.	
	R302	QRD14CJ-4R7SX	4.7 1/4W UNF. CARBON R	
	R303	QRD161J-753	75K 1/6W CARBON RES.	
	R305	QRD14CJ-102SX	1K 1/4W UNF. CARBON R	
	R307	QRD161J-753	75K 1/6W CARBON RES.	
△	R309	QRX014J-R22	0.22 1W METAL FILM R	
△	R311	QRX014J-R22	0.22 1W METAL FILM R	
△	R313	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
△	R315	QRD14CJ-2R2SX	2.2 1/4W UNF. CARBON R	
	R317	QRD161J-122	1.2K 1/6W CARBON RES.	
	R319	QRD167J-223	22K 1/6W CARBON RES.	
	R320	QRD161J-103	10K 1/6W CARBON RES.	

△	Item	Parts Number	Description	Area
△	R321	QRZ0077-4R7	4.7 1/4W FUSE RESISTO	
△	R322	QRZ0077-4R7	4.7 1/4W FUSE RESISTO	
	R323	QRD161J-473	47K 1/6W CARBON RES.	
	R351	QRD161J-102	1K 1/6W CARBON RES.	
	R352	QRD161J-102	1K 1/6W CARBON RES.	
	R353	QRD161J-393	39K 1/6W CARBON RES.	
	R354	QRD161J-393	39K 1/6W CARBON RES.	
△	R355	QRX014J-R22	0.22 1W METAL FILM R	
△	R356	QRX014J-R22	0.22 1W METAL FILM R	
△	R357	QRX014J-R22	0.22 1W METAL FILM R	
△	R358	QRX014J-R22	0.22 1W METAL FILM R	
△	R359	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
△	R360	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
	R363	QRD14CJ-821SX	820 1/4W CARBON RES.	
	R364	QRD14CJ-821SX	820 1/4W CARBON RES.	
	R365	QRD161J-393	39K 1/6W CARBON RES.	
	R366	QRD161J-393	39K 1/6W CARBON RES.	
△	R367	QRD14CJ-2R2SX	2.2 1/4W UNF. CARBON R	
△	R368	QRD14CJ-2R2SX	2.2 1/4W UNF. CARBON R	
	R371	QRD161J-473	47K 1/6W CARBON RES.	
	R372	QRD161J-473	47K 1/6W CARBON RES.	
	R373	QRD161J-122	1.2K 1/6W CARBON RES.	
	R374	QRD161J-122	1.2K 1/6W CARBON RES.	
	R375	QRD167J-223	22K 1/6W CARBON RES.	
	R376	QRD167J-223	22K 1/6W CARBON RES.	
	R377	QRD161J-103	10K 1/6W CARBON RES.	
	R378	QRD161J-103	10K 1/6W CARBON RES.	
	R379	QRD161J-104	100K 1/6W CARBON RES.	
	R380	QRD161J-823	82K 1/6W CARBON RES.	
	R381	QRD161J-103	10K 1/6W CARBON RES.	
	R382	QRD161J-103	10K 1/6W CARBON RES.	
	R383	QRD161J-104	100K 1/6W CARBON RES.	
	R384	QRD161J-104	100K 1/6W CARBON RES.	
	R1001	QRD167J-223	22K 1/6W CARBON RES.	
	R1002	QRD167J-223	22K 1/6W CARBON RES.	
	R1003	QRD167J-223	22K 1/6W CARBON RES.	
	R1004	QRD167J-223	22K 1/6W CARBON RES.	
	R1005	QRD161J-221	220 1/6W CARBON RES.	
	R1006	QRD161J-221	220 1/6W CARBON RES.	
	R1007	QRD161J-222	2.2K 1/6W CARBON RES.	
	R1008	QRD161J-222	2.2K 1/6W CARBON RES.	
	R1009	QRD161J-222	2.2K 1/6W CARBON RES.	
	R1010	QRD161J-222	2.2K 1/6W CARBON RES.	
	R1011	QRD167J-223	22K 1/6W CARBON RES.	
	R1012	QRD167J-223	22K 1/6W CARBON RES.	
	R1013	QRD167J-682	6.8K 1/6W CARBON RES.	
	R1014	QRD167J-682	6.8K 1/6W CARBON RES.	
△	R1015	QRD14CJ-681SX	680 1/4W UNF. CARBON R	
△	R1016	QRD14CJ-681SX	680 1/4W UNF. CARBON R	
	R1017	QRD14CJ-821SX	820 1/4W CARBON RES.	
	R1018	QRD14CJ-821SX	820 1/4W CARBON RES.	
	R1019	QRD161J-821	820 1/6W CARBON RES.	
	R1020	QRD161J-821	820 1/6W CARBON RES.	
	R1021	QRD161J-182	1.8K 1/6W CARBON RES.	
	R1022	QRD161J-182	1.8K 1/6W CARBON RES.	
△	R1027	QRD14CJ-101S	100 1/4W UNF. CARBON R	
		OTHERS		
		ENW10706-004	PRINTED BOARD	
	J201	QNB0034-001	SPEAKER TERMINAL	
	K214	ENZ8101-007	INDUCTOR	
	L204	EGL4004-2R2	INDUCTOR	
	L301	EQL0011-R45J1	INDUCTOR	
	L351	EQL0011-R45J1	INDUCTOR	
	L352	EQL0011-R45J1	INDUCTOR	
	CN001	EMV7127-017	CONNECT TERMINAL	
	CN101	EMV7163-012	CONNECT TERMINAL	
	CN202	EMV7145-003Z	SOCKET ASSY	
	CN261	EMV7163-009	CONNECT TERMINAL	
	CN302	EMV5163-010R	CONNECT TERMINAL	
	CN311	EMV7163-013	CONNECT TERMINAL	

■ Electrical Parts List (ENH-307)

△	Item	Parts Number	Description	Area
	CN312	EMV7163-010	CONNECT TERMINAL	
	CN351	EMV5163-013R	CONNECT TERMINAL	
	CN411	EMV7163-016	CONNECT TERMINAL	
	CN412	EMV7163-020	CONNECT TERMINAL	
	CN811	VMC0163-027	CONNECT TERMINAL	
	EP201	EMZ4002-002Z	EARTH PLATE	
	EP202	EMZ4002-002Z	EARTH PLATE	
	FT001	EMG7331-003Z	FUSE CLIP	
	FT002	EMG7331-003Z	FUSE CLIP	
	FT101	EMG7331-003Z	FUSE CLIP	
	FT102	EMG7331-003Z	FUSE CLIP	
	FT103	EMG7331-003Z	FUSE CLIP	
	FT104	EMG7331-003Z	FUSE CLIP	
	FW201	EWR38D-20SS	FLAT WIRE	
	FW203	EWR37D-25SS	FLAT WIRE	
	FW204	EWR33D-16SS	CORD	
	JT891	EMV7145-003Z	SOCKET ASSY	
	JT892	EMV7145-003Z	SOCKET ASSY	
	PW001	EWT015-025	TERMINAL WIRE	
	RY241	ESK7D24-2120	RELAY	
	RY242	ESK7D24-2120	RELAY	
	TB001	EMZ4001-002Z	TAB	
	TB002	EMZ4001-002Z	TAB	
	TH202	QAD0095-4R7Z	POSITIVE THERMISTOR	

■ Electrical Parts List (ENB-253)

△	Item	Parts Number	Description	Area
		I. C. S		
	IC401	HD404019RC87FS	I. C (MICRO-COMPUTER)	
	IC402	TDA7439	I. C (M)	
	IC403	TDA7439	I. C (M)	
	IC404	LA2650	I. C (MONO-ANALOG)	
	IC405	BA15218N	I. C (MONO-ANALOG)	
	IC406	BA15218N	I. C (MONO-ANALOG)	
	IC801	MN173222JAAY	I. C (MICRO-COMPUTER)	
	IC802	GP1U281X	INFRARED DETECT UNIT	
		DIODES		
	D251	MTZ11JC	ZENER DIODE	
	D252	MTZ5.1JB	ZENER DIODE	
	D253	MTZ13JC	ZENER DIODE	
	D254	MTZ13JC	ZENER DIODE	
	D255	MTZ13JC	ZENER DIODE	
	D405	MTZ9.1JC	ZENER DIODE	
	D406	1SS133	SI. DIODE	
	D407	1SR35-100	SI. DIODE	
	D412	1SS133	SI. DIODE	
	D413	1SS133	SI. DIODE	
	D416	1SS133	SI. DIODE	
	D495	MTZ5.6JC	ZENER DIODE	
	D800	1SS133	SI. DIODE	
	D802	1SR35-100	SI. DIODE	
	D803	1SS133	SI. DIODE	
	D808	1SS133	SI. DIODE	
	D809	1SS133	SI. DIODE	
	D810	SLR-342DCA47	L. E. D.	
	D811	SLR-342DCA47	L. E. D.	
	D812	SLR-342DCA47	L. E. D.	
	D813	SLR-342DCA47	L. E. D.	
	D814	SLR-342DCA47	L. E. D.	
	D815	SLR-342DCA47	L. E. D.	
	D816	SLR-342DCA47	L. E. D.	
	D817	SLR-342DCA47	L. E. D.	
	D818	SLA-380LT	L. E. D.	BS
	D818	SLR-342VC3F	L. E. D.	EF EN G
	D819	1SS133	SI. DIODE	
	D820	1SS133	SI. DIODE	
	D821	1SS133	SI. DIODE	
	D822	1SS133	SI. DIODE	
	D823	1SS133	SI. DIODE	
		TRANSISTORS		
	Q251	2SD2061 (F. G)	SI. TRANSISTOR	
	Q252	2SD2061 (F. G)	SI. TRANSISTOR	
	Q253	2SC945A	SI. TRANSISTOR	
	Q254	2SC945A	SI. TRANSISTOR	
	Q255	2SD2061 (F. G)	SI. TRANSISTOR	
	Q256	2SD2061 (F. G)	SI. TRANSISTOR	
	Q257	2SC1740S (R. S)	SI. TRANSISTOR	
	Q259	2SD2061 (F. G)	SI. TRANSISTOR	
	Q261	2SC1740S (R. S)	SI. TRANSISTOR	
	Q262	KRC104M-T	DIGITAL TRANSISTOR	
	Q263	DTA114ES	DIGITAL TRANSISTOR	
	Q264	KRA104M-T	DIGITAL TRANSISTOR	
	Q265	DTC144ES	DIGITAL TRANSISTOR	
	Q266	2SB1565 (E. F)	SI. TRANSISTOR	
	Q401	2SD2144S (VW)	SI. TRANSISTOR	
	Q402	2SD2144S (VW)	SI. TRANSISTOR	
	Q403	KRA104M-T	DIGITAL TRANSISTOR	
	Q404	KRA107M-T	DIGITAL TRANSISTOR	
	Q405	2SD2144S (VW)	SI. TRANSISTOR	
	Q406	2SD2144S (VW)	SI. TRANSISTOR	
	Q407	2SD2144S (VW)	SI. TRANSISTOR	
	Q408	2SD2144S (VW)	SI. TRANSISTOR	
	Q409	KRC104M-T	DIGITAL TRANSISTOR	
	Q410	KRA104M-T	DIGITAL TRANSISTOR	
	Q411	KRA104M-T	DIGITAL TRANSISTOR	
	Q495	2SD400MP (E. F)	SI. TRANSISTOR	
	Q801	KRC102M-T	DIGITAL TRANSISTOR	

△	Item	Parts Number	Description	Area
	Q802	KRC102M-T	DIGITAL TRANSISTOR	
	Q803	KRC102M-T	DIGITAL TRANSISTOR	
	Q804	KRC102M-T	DIGITAL TRANSISTOR	
	Q805	KRC111M-T	SI. TRANSISTOR	
	Q806	KRC111M-T	SI. TRANSISTOR	
	Q807	KRC111M-T	SI. TRANSISTOR	
		CAPACITORS		
	C252	QETB1CM-226	22MF 16V E. CAP.	
	C253	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C254	QETB1CM-226	22MF 16V E. CAP.	
	C256	QETB1CM-476	47MF 16V AL E. CAP.	
	C257	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C258	QETB1EM-106	10MF 25V AL E. CAP.	
	C259	QETB1CM-226	22MF 16V E. CAP.	
	C260	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C261	QETB1EM-106	10MF 25V AL E. CAP.	
	C262	QETB1CM-476	47MF 16V AL E. CAP.	
	C263	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C264	QETB1EM-106	10MF 25V AL E. CAP.	
	C265	QETB1CM-226	22MF 16V E. CAP.	
	C401	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C405	QCBB1HK-471Y	470PF 50V CER. CAP.	
	C406	QCBB1HK-471Y	470PF 50V CER. CAP.	
	C411	QFLB1HJ-272	2700PF 50V MYLAR CAP.	
	C412	QFLB1HJ-272	2700PF 50V MYLAR CAP.	
	C413	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C414	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C415	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C416	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C417	QFV81HJ-224	0.22MF 50V THIN FILM CAP.	
	C418	QFV81HJ-224	0.22MF 50V THIN FILM CAP.	
	C419	QFLB1HJ-563	0.056MF 50V MYLAR CAP.	
	C420	QFLB1HJ-563	0.056MF 50V MYLAR CAP.	
	C421	QETB1EM-106	10MF 25V AL E. CAP.	
	C422	QETB1AM-477	470MF 10V E. CAP.	
	C423	QETB1EM-106	10MF 25V AL E. CAP.	
	C424	QETB1EM-106	10MF 25V AL E. CAP.	
	C425	QETB1EM-106	10MF 25V AL E. CAP.	
	C426	QETB1EM-106	10MF 25V AL E. CAP.	
	C427	QETB1EM-106	10MF 25V AL E. CAP.	
	C428	QETB1EM-106	10MF 25V AL E. CAP.	
	C429	QETB1EM-106	10MF 25V AL E. CAP.	
	C430	QETB1EM-106	10MF 25V AL E. CAP.	
	C431	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C432	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C433	QETB1EM-106	10MF 25V AL E. CAP.	
	C434	QETB1EM-106	10MF 25V AL E. CAP.	
	C435	QETB1EM-106	10MF 25V AL E. CAP.	
	C436	QETB1EM-106	10MF 25V AL E. CAP.	
	C437	QETB1EM-106	10MF 25V AL E. CAP.	
	C438	QETB1EM-106	10MF 25V AL E. CAP.	
	C439	QETB1EM-106	10MF 25V AL E. CAP.	
	C440	QETB1EM-106	10MF 25V AL E. CAP.	
	C441	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C442	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C443	QETB1EM-106	10MF 25V AL E. CAP.	
	C444	QETB1EM-106	10MF 25V AL E. CAP.	
	C445	QETB1EM-106	10MF 25V AL E. CAP.	
	C447	QETB1EM-106	10MF 25V AL E. CAP.	
	C448	QETB1EM-106	10MF 25V AL E. CAP.	
	C449	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C450	QETB1HM-475E	4.7MF 50V E. CAP.	
	C451	QETB1HM-474	0.47MF 50V E. CAP.	
	C452	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C453	QETB1HM-475E	4.7MF 50V E. CAP.	
	C454	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C455	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C456	QETB1EM-476	47MF 25V AL E. CAP.	
	C457	QETB1EM-106	10MF 25V AL E. CAP.	
	C458	QETB1EM-106	10MF 25V AL E. CAP.	

■ Electrical Parts List (ENB-253)

△	Item	Parts Number	Description	Area
	C459	QETB1AM-477	470MF 10V E. CAP.	
	C460	QETB1HM-105	1MF 50V AL E. CAP.	
	C461	QCZ0202-155	1.5MF 25V CER. RES.	
	C462	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C463	QCFB1HZ-104Y	0.1MF 50V CER. CAP.	
	C464	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C465	QETB1CM-476	47MF 16V AL E. CAP.	
	C466	QETB1CM-476	47MF 16V AL E. CAP.	
	C471	QETB1HM-105	1MF 50V AL E. CAP.	
	C472	QETB1HM-105	1MF 50V AL E. CAP.	
	C477	QETB1HM-105	1MF 50V AL E. CAP.	
	C478	QETB1HM-105	1MF 50V AL E. CAP.	
	C483	QETB1HM-475E	4.7MF 50V E. CAP.	
	C484	QEAD0HZ-479A	47000MF E. CAP.	
	C485	QETB0JM-107	100MF 6.3V AL E. CAP.	
	C490	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C495	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C497	QETB1EM-106	10MF 25V AL E. CAP.	
	C499	QCFB1HZ-104Y	0.1MF 50V CER. CAP.	
	C800	QCT25CH-220Z	22PF 50V CER. CAP.	
	C801	QCT25CH-220Z	22PF 50V CER. CAP.	
	C802	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C803	QER50JM-107	100MF 6.3V AL E. CAP.	
	C804	QCFB1HZ-104Y	0.1MF 50V CER. CAP.	
	C805	QEAD0HZ-479A	47000MF E. CAP.	
	C807	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C808	QETB0JM-107	100MF 6.3V AL E. CAP.	
	C809	QER61HM-105Z	1MF 50V AL E. CAP.	
	C810	QER61HM-105Z	1MF 50V AL E. CAP.	
	C811	QCZ0202-155	1.5MF 25V CER. RES.	
	C812	QCB1HK-151	150PF 50V CER. CAP.	
	C813	QCB1HK-151	150PF 50V CER. CAP.	
	C814	QCZ0205-155	1.5MF 25V C. CAP.	
	C891	QCB1HK-471Y	470PF 50V CER. CAP.	
	C892	QCB1HK-471Y	470PF 50V CER. CAP.	
	C893	QCFB1HZ-104Y	0.1MF 50V CER. CAP.	
		RESISTORS		
	R253	QRD161J-221	220 1/6W CARBON RES.	
	R254	QRD161J-221	220 1/6W CARBON RES.	
	R255	QRD161J-331	330 1/6W CARBON RES.	
△	R256	QRD14CJ-122SX	1.2K 1/4W UNF. CARBON R	
	R258	QRD161J-122	1.2K 1/6W CARBON RES.	
	R259	QRD161J-122	1.2K 1/6W CARBON RES.	
	R260	QRD161J-331	330 1/6W CARBON RES.	
	R261	QRD161J-331	330 1/6W CARBON RES.	
	R264	QRD167J-152	1.5K 1/6W CARBON RES.	
	R265	QRD161J-331	330 1/6W CARBON RES.	
	R266	QRD167J-562	5.6K 1/6W CARBON RES.	
	R267	QRD161J-221	220 1/6W CARBON RES.	
	R268	QRD161J-221	220 1/6W CARBON RES.	
	R270	QRD161J-122	1.2K 1/6W CARBON RES.	
	R276	QRD167J-562	5.6K 1/6W CARBON RES.	
	R277	QRD167J-152	1.5K 1/6W CARBON RES.	
△	R278	QRZ0077-100	10 1/4W FUSIBLE RES.	
	R279	QRD167J-562	5.6K 1/6W CARBON RES.	
	R280	QRD167J-272	2.7K 1/6W CARBON RES.	
	R401	QRD161J-221	220 1/6W CARBON RES.	
	R402	QRD161J-221	220 1/6W CARBON RES.	
	R403	QRD161J-913	91K 1/6W CARBON RES.	
	R404	QRD161J-913	91K 1/6W CARBON RES.	
	R405	QRD161J-101	100 1/6W CARBON RES.	
	R406	QRD161J-101	100 1/6W CARBON RES.	
	R407	QRD161J-912	9.1K 1/6W CARBON RES.	
	R407	QRD167J-562	5.6K 1/6W CARBON RES.	
	R408	QRD161J-912	9.1K 1/6W CARBON RES.	
	R408	QRD167J-562	5.6K 1/6W CARBON RES.	
	R409	QRD161J-103	10K 1/6W CARBON RES.	
	R410	QRD161J-103	10K 1/6W CARBON RES.	
	R413	QRD167J-272	2.7K 1/6W CARBON RES.	
	R414	QRD167J-272	2.7K 1/6W CARBON RES.	

△	Item	Parts Number	Description	Area
	R415	QRD161J-222	2.2K 1/6W CARBON RES.	
	R416	QRD161J-222	2.2K 1/6W CARBON RES.	
	R417	QRD161J-472	4.7K 1/6W CARBON RES.	
	R418	QRD161J-472	4.7K 1/6W CARBON RES.	
	R421	QRD161J-473	47K 1/6W CARBON RES.	
	R422	QRD161J-473	47K 1/6W CARBON RES.	
	R425	QRD161J-103	10K 1/6W CARBON RES.	
	R426	QRD161J-103	10K 1/6W CARBON RES.	
	R427	QRD161J-103	10K 1/6W CARBON RES.	
	R428	QRD161J-224	220K 1/6W CARBON RES.	
	R429	QRD161J-104	100K 1/6W CARBON RES.	
	R430	QRD161J-104	100K 1/6W CARBON RES.	
	R431	QRD161J-221	220 1/6W CARBON RES.	
	R432	QRD161J-221	220 1/6W CARBON RES.	
	R433	QRD161J-273	27K 1/6W CARBON RES.	
	R434	QRD161J-273	27K 1/6W CARBON RES.	
	R435	QRD161J-103	10K 1/6W CARBON RES.	
	R436	QRD161J-103	10K 1/6W CARBON RES.	
	R437	QRD161J-102	1K 1/6W CARBON RES.	
	R438	QRD161J-105	1M 1/6W CARBON RES.	
	R439	QRD161J-102	1K 1/6W CARBON RES.	
	R440	QRD161J-473	47K 1/6W CARBON RES.	
	R441	QRD161J-102	1K 1/6W CARBON RES.	
	R442	QRD161J-221	220 1/6W CARBON RES.	
	R443	QRD161J-221	220 1/6W CARBON RES.	
	R444	QRD161J-221	220 1/6W CARBON RES.	
	R445	QRD161J-221	220 1/6W CARBON RES.	
	R446	QRD161J-221	220 1/6W CARBON RES.	
	R447	QRD161J-221	220 1/6W CARBON RES.	
	R448	QRD161J-221	220 1/6W CARBON RES.	
	R449	QRD161J-221	220 1/6W CARBON RES.	
	R450	QRD161J-221	220 1/6W CARBON RES.	
	R451	QRD161J-221	220 1/6W CARBON RES.	
	R453	QRD161J-331	330 1/6W CARBON RES.	
	R454	QRD161J-331	330 1/6W CARBON RES.	
	R457	QRD161J-103	10K 1/6W CARBON RES.	
	R458	QRD161J-103	10K 1/6W CARBON RES.	
	R463	QRD161J-104	100K 1/6W CARBON RES.	
	R464	QRD161J-104	100K 1/6W CARBON RES.	
	R465	QRD161J-392	3.9K 1/6W CARBON RES.	
	R466	QRD161J-392	3.9K 1/6W CARBON RES.	
	R467	QRD161J-912	9.1K 1/6W CARBON RES.	
	R468	QRD161J-912	9.1K 1/6W CARBON RES.	
	R469	QRD161J-104	100K 1/6W CARBON RES.	
	R470	QRD161J-104	100K 1/6W CARBON RES.	
	R471	QRD161J-392	3.9K 1/6W CARBON RES.	
	R472	QRD161J-392	3.9K 1/6W CARBON RES.	
	R473	QRD161J-362	3.6K 1/6W CARBON RES.	
	R474	QRD161J-362	3.6K 1/6W CARBON RES.	
	R475	QRD161J-473	47K 1/6W CARBON RES.	
	R476	QRD161J-473	47K 1/6W CARBON RES.	
	R477	QRD161J-392	3.9K 1/6W CARBON RES.	BS EF EN
	R477	QRD161J-912	9.1K 1/6W CARBON RES.	G
	R478	QRD161J-392	3.9K 1/6W CARBON RES.	BS EF EN
	R478	QRD161J-912	9.1K 1/6W CARBON RES.	G
	R479	QRD161J-912	9.1K 1/6W CARBON RES.	
	R480	QRD161J-912	9.1K 1/6W CARBON RES.	
	R481	QRD161J-473	47K 1/6W CARBON RES.	
	R482	QRD161J-473	47K 1/6W CARBON RES.	
	R483	QRD161J-222	2.2K 1/6W CARBON RES.	
	R484	QRD161J-222	2.2K 1/6W CARBON RES.	
	R485	QRD161J-222	2.2K 1/6W CARBON RES.	
	R486	QRD161J-101	100 1/6W CARBON RES.	
	R489	QRD161J-221	220 1/6W CARBON RES.	
	R490	QRD161J-221	220 1/6W CARBON RES.	
	R491	QRD161J-221	220 1/6W CARBON RES.	
	R492	QRD161J-473	47K 1/6W CARBON RES.	
	R495	QRD161J-392	3.9K 1/6W CARBON RES.	
△	R496	QRD14CJ-470SX	47 1/4W UNF. CARBON R	
△	R497	QRD14CJ-470SX	47 1/4W UNF. CARBON R	

■ Electrical Parts List (ENB-253)

△	Item	Parts Number	Description	Area
	R801	QRD161J-102	1K 1/6W CARBON RES.	
	R802	QRD161J-103	10K 1/6W CARBON RES.	
	R804	QRD161J-221	220 1/6W CARBON RES.	
	R806	QRD161J-221	220 1/6W CARBON RES.	
	R807	QRD161J-221	220 1/6W CARBON RES.	
	R808	QRD161J-221	220 1/6W CARBON RES.	
	R809	QRD161J-221	220 1/6W CARBON RES.	
	R810	QRD161J-221	220 1/6W CARBON RES.	
	R811	QRD161J-221	220 1/6W CARBON RES.	
	R816	QRD161J-103	10K 1/6W CARBON RES.	
	R817	QRD161J-103	10K 1/6W CARBON RES.	
	R818	QRD161J-103	10K 1/6W CARBON RES.	
	R819	QRD161J-103	10K 1/6W CARBON RES.	
	R820	QRD161J-181	180 1/6W CARBON RES.	
	R821	QRD161J-181	180 1/6W CARBON RES.	
	R824	QRD161J-181	180 1/6W CARBON RES.	
	R825	QRD161J-181	180 1/6W CARBON RES.	
	R826	QRD161J-181	180 1/6W CARBON RES.	
	R827	QRD161J-181	180 1/6W CARBON RES.	
	R828	QRD161J-331	330 1/6W CARBON RES.	
	R832	QRD161J-104	100K 1/6W CARBON RES.	
	R833	QRD161J-104	100K 1/6W CARBON RES.	
	R834	QRD161J-104	100K 1/6W CARBON RES.	
	R838	QRD161J-473	47K 1/6W CARBON RES.	
	R901	QRD167J-153	15K 1/6W CARBON RES.	
	R902	QRD167J-153	15K 1/6W CARBON RES.	
	R903	QRD161J-913	91K 1/6W CARBON RES.	
	R904	QRD161J-913	91K 1/6W CARBON RES.	
	R908	QRD161J-102	1K 1/6W CARBON RES.	
	R909	QRD161J-102	1K 1/6W CARBON RES.	
	R910	QRD161J-102	1K 1/6W CARBON RES.	
	R911	QRD161J-102	1K 1/6W CARBON RES.	
	R915	QRD161J-103	10K 1/6W CARBON RES.	
	R916	QRD161J-222	2.2K 1/6W CARBON RES.	
	R917	QRD161J-112	1.1K 1/6W CARBON RES.	
	R918	QRD161J-112	1.1K 1/6W CARBON RES.	
		OTHERS		
		EMW10707-003	PRINTED BOARD	
	J401	QNN0018-002	PIN JACK	
	J402	QNN0073-001	PIN JACK	
	J891	QMS3R80-EE0S	HEADPHONE JACK	
	S801	ESPO001-023M	TACT SWITCH	
	S802	ESPO001-023M	TACT SWITCH	
	S803	ESPO001-023M	TACT SWITCH	
	S804	ESPO001-023M	TACT SWITCH	
	S805	ESPO001-023M	TACT SWITCH	
	S806	ESPO001-023M	TACT SWITCH	
	S807	ESPO001-023M	TACT SWITCH	
	S808	ESPO001-023M	TACT SWITCH	
	S809	ESPO001-023M	TACT SWITCH	
	S810	ESPO001-023M	TACT SWITCH	
	S811	ESPO001-023M	TACT SWITCH	
	S812	ESPO001-023M	TACT SWITCH	
	S813	ESPO001-023M	TACT SWITCH	
	S814	ESPO001-023M	TACT SWITCH	
	S815	ESPO001-023M	TACT SWITCH	
	S816	ESPO001-023M	TACT SWITCH	
	S817	ESPO001-023M	TACT SWITCH	
	S818	ESPO001-023M	TACT SWITCH	
	S819	ESPO001-023M	TACT SWITCH	
	S820	ESPO001-023M	TACT SWITCH	
	X401	ECX0004-194KM	CERAMIC RESONATOR	
	X801	FSCX4001-002	CRYSTAL	
	BK401	LE30337-002A	SHIELD BRACKET	
	BK801	LE30338-001A	HOLDER BRACKET	
	CN085	EMV7158-018	CONNECT TERMINAL	
	CN102	EWS265-A420	SOCKET WIRE ASSY	
	CN251	EMV5163-009R	CONNECT TERMINAL	
	CN401	EMV5163-016R	SOCKET WIRE ASSY	
	CN402	EMV5163-020R	CONNECT TERMINAL	

△	Item	Parts Number	Description	Area
	CN801	VMC0163-R27	CONNECT TERMINAL	
	D1801	QLF0020-001	FLUORESCENT DISPLAY TUBE	
	EP001	E409182-001SM	EARTH TERMINAL	
	EP002	E409182-001SM	EARTH TERMINAL	
	FS801	LE30001-002A	FELT SPACER	
	FS814	E3400-431	FELT SPACER	
	FW202	EWR33D-16LS	FLAT WIRE	
	FW891	EWR36D-37LS	FLAT WIRE	
	SP401	VYH7653-001	LEAF SPRING	
	SP801	VYH7653-001	LEAF SPRING	

■ Electrical Parts List (ENA-178)

△	Item	Parts Number	Description	Area
		I. C. S		
	IC102	LA1837	I. C (MONO-ANALOG)	
	IC121	LC72131	I. C (M)	
	IC191	LC7073	I. C (DIGI-MOS)	
	IC192	SAA6579	I. C (M)	
		DIODES		
	D121	1SS133	SI. DIODE	
	D123	1SS133	SI. DIODE	
	D129	1SS133	SI. DIODE	
	D130	MTZ10JC	ZENER DIODE	
	D131	1SS133	SI. DIODE	
		TRANSISTORS		
	Q101	2SC461	SI. TRANSISTOR	
	Q102	2SC535	SI. TRANSISTOR	
	Q103	2SC461	SI. TRANSISTOR	
	Q111	2SD2144S (VW)	SI. TRANSISTOR	
	Q112	2SD2144S (VW)	SI. TRANSISTOR	
	Q113	2SD2144S (VW)	SI. TRANSISTOR	
	Q114	2SD2144S (VW)	SI. TRANSISTOR	
	Q121	DTA124ES	DIGITAL TRANSISTOR	
	Q123	2SC2060 (Q. R)	SI. TRANSISTOR	
		CAPACITORS		
	C101	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C102	QETN1EM-107Z	100MF 25V E. CAP.	
	C103	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C104	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C105	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C107	QETN1EM-226Z	22MF 25V E. CAP.	
	C109	QETN1EM-226Z	22MF 25V E. CAP.	
	C111	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C112	QCT30CH-120Y	12PF 50V CER. CAP.	
	C113	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C117	QCSB1HK-5R6Y	5.6PF 50V CER. CAP.	
	C118	QCSB1HJ-150Y	15PF 50V CER. CAP.	
	C121	QCT30CH-180Y	18PF 50V CER. CAP.	
	C122	QCT30CH-180Y	18PF 50V CER. CAP.	
	C123	QCC21EM-473	0.047MF 25V CER. CAP.	
	C126	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C128	GENB1HM-474	0.47MF 50V NP E. CAP.	
	C129	QCGB1HK-102	1000PF 50V CER. CAP.	
	C130	QETN1EM-107Z	100MF 25V E. CAP.	
	C133	QETN1EM-226Z	22MF 25V E. CAP.	
	C134	QCBB1HK-331Y	330PF 50V CER. CAP.	
	C135	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C136	QETN1HM-105Z	1MF 50V AL E. CAP.	
	C137	QCBB1HK-391Y	390PF 50V CER. CAP.	
	C139	QFLB1HJ-473	0.047MF 50V MYLAR CAP.	
	C140	QFLB1HJ-473	0.047MF 50V MYLAR CAP.	
	C141	QCC21EM-473	0.047MF 25V CER. CAP.	
	C143	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C144	QCC21EM-473	0.047MF 25V CER. CAP.	
	C146	QETN1HM-105Z	1MF 50V AL E. CAP.	
	C147	QETN1HM-105Z	1MF 50V AL E. CAP.	
	C148	QETN1HM-474Z	0.47MF 50V AL E. CAP.	
	C149	QETN1HM-105Z	1MF 50V AL E. CAP.	
	C150	QETN1EM-226Z	22MF 25V E. CAP.	
	C156	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C157	QCC21EM-473	0.047MF 25V CER. CAP.	
	C158	QETN1EM-226Z	22MF 25V E. CAP.	
	C161	QETN1HM-105Z	1MF 50V AL E. CAP.	
	C162	QETN1HM-105Z	1MF 50V AL E. CAP.	
	C163	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C164	QCC21EM-473	0.047MF 25V CER. CAP.	
	C168	QFV81HJ-274	0.27MF 50V THIN FILM CAP.	
	C180	QETN1EM-107Z	100MF 25V E. CAP.	
	C181	QFLB1HJ-562	5600PF 50V MYLAR CAP.	
	C182	QFLB1HJ-562	5600PF 50V MYLAR CAP.	
	C183	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C184	QETN1EM-107Z	100MF 25V E. CAP.	
	C185	QETN1HM-105Z	1MF 50V AL E. CAP.	
	C186	QETN1HM-105Z	1MF 50V AL E. CAP.	
	C191	QCBB1HK-820Y	82PF 50V CER. CAP.	
	C192	QCSB1HJ-470	47PF 50V CER. CAP.	
	C193	QCBB1HK-561Y	560PF 50V CER. CAP.	
	C194	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C195	QCBB1HK-331Y	330PF 50V CER. CAP.	

△	Item	Parts Number	Description	Area
	C196	QETN1EM-226Z	22MF 25V E. CAP.	
	C197	QCZ0205-155	1.5MF 25V C. CAP.	
	C199	QETN1EM-226Z	22MF 25V E. CAP.	
		RESISTORS		
	R102	QRD167J-332	3.3K 1/6W CARBON RES.	
	R103	QRD161J-221	220 1/6W CARBON RES.	
	R104	QRD167J-272	2.7K 1/6W CARBON RES.	
	R105	QRD161J-391	390 1/6W CARBON RES.	
	R106	QRD161J-102	1K 1/6W CARBON RES.	
	R107	QRD161J-561	560 1/6W CARBON RES.	
	R108	QRD167J-332	3.3K 1/6W CARBON RES.	
	R109	QRD161J-221	220 1/6W CARBON RES.	
	R110	QRD161J-472	4.7K 1/6W CARBON RES.	
	R111	QRD161J-472	4.7K 1/6W CARBON RES.	
	R112	QRD161J-472	4.7K 1/6W CARBON RES.	
	R113	QRD161J-103	10K 1/6W CARBON RES.	
	R114	QRD161J-122	1.2K 1/6W CARBON RES.	
	R115	QRD161J-104	100K 1/6W CARBON RES.	
	R116	QRD161J-472	4.7K 1/6W CARBON RES.	
	R119	QRD161J-103	10K 1/6W CARBON RES.	
	R121	QRD161J-473	47K 1/6W CARBON RES.	
	R122	QRD161J-472	4.7K 1/6W CARBON RES.	
	R124	QRD161J-222	2.2K 1/6W CARBON RES.	
	R126	QRD167J-562	5.6K 1/6W CARBON RES.	
	R127	QRD167J-822	8.2K 1/6W CARBON RES.	
	R128	QRD161J-472	4.7K 1/6W CARBON RES.	
	R129	QRD161J-222	2.2K 1/6W CARBON RES.	
△	R130	QRZ0077-680	68 1/4W FUSIBLE RES.	
	R131	QRD161J-103	10K 1/6W CARBON RES.	
	R132	QRD161J-102	1K 1/6W CARBON RES.	
	R133	QRD167J-822	8.2K 1/6W CARBON RES.	
	R134	QRD161J-102	1K 1/6W CARBON RES.	
	R140	QRD161J-563	56K 1/6W CARBON RES.	
	R141	QRD161J-472	4.7K 1/6W CARBON RES.	
	R142	QRD161J-470	47 1/6W CARBON RES.	
	R143	QRD167J-562	5.6K 1/6W CARBON RES.	
	R144	QRD167J-332	3.3K 1/6W CARBON RES.	
	R145	QRD161J-103	10K 1/6W CARBON RES.	
	R146	QRD167J-562	5.6K 1/6W CARBON RES.	
	R147	QRD161J-273	27K 1/6W CARBON RES.	
	R148	QRD161J-561	560 1/6W CARBON RES.	
	R150	QRD161J-101	100 1/6W CARBON RES.	
	R157	QRD161J-182	1.8K 1/6W CARBON RES.	
	R158	QRD161J-182	1.8K 1/6W CARBON RES.	
	R161	QRD161J-102	1K 1/6W CARBON RES.	
	R162	QRD161J-102	1K 1/6W CARBON RES.	
	R163	QRD161J-472	4.7K 1/6W CARBON RES.	
	R164	QRD161J-472	4.7K 1/6W CARBON RES.	
	R181	QRD161J-102	1K 1/6W CARBON RES.	
	R182	QRD161J-103	10K 1/6W CARBON RES.	
	R183	QRD161J-103	10K 1/6W CARBON RES.	
	R184	QRD161J-103	10K 1/6W CARBON RES.	
	R191	QRD161J-222	2.2K 1/6W CARBON RES.	
		OTHERS		
		EMW10684-003	PRINTED BOARD	
	L111	EQL4007-150T	INDUCTOR	
	T111	EQR7121-006	RF COIL	
	T141	QQR0613-001	I. F. TRANSFORMER	
	T142	QAX0303-001	CERAMIC FILTER	
	X121	ECX0007-200KWJ1	CRYSTAL	
	X191	VCX5057-001	CRYSTAL	
	X192	EFO-EC4004T4	CERAMIC RESONATOR	
	AT101	EMB41YV-302K	ANTENNA TERMINAL	
	BK001	E308963-223SM	SHIELD BRACKET	
	CF101	QAX0285-001Z	CERAMIC FILTER	
	CF102	QAX0285-001Z	CERAMIC FILTER	
	CN111	EMV5163-012R	CONNECT TERMINAL	
	CN112	EMV5109-005A	MALE CONNECTOR	
	FL141	EQF0101-013	LOWPASS FILTER	
	FL142	EQF0101-013	LOWPASS FILTER	
	RF101	GAU0005-001	FRONT END	

■ Electrical Parts List (ENP-055)

△	Item	Parts Number	Description	Area
		I. C. S		
	IC031	SAA7367TX	I. C(DIGI-MOS)	
	IC041	PCM1717AE-X	I. C(MONO-ANALOG)	
	IC051	NJM2100MW	I. C(MONO-ANALOG)	
	IC061	PCM1717AE-X	I. C(MONO-ANALOG)	
	IC071	BA15218F	I. C(MONO-ANALOG)	
	IC081	TMS57052BFT	I. C(M)	
	IC091	LC32464M-80X	I. C(D-RAM)	
		CAPACITORS		
	C021	NEA21EM-475NZ	4.7MF 25V AL E. CAP.	
	C022	NEA21EM-475NZ	4.7MF 25V AL E. CAP.	
	C023	NCB31CK-473AY	0.047MF 16V CER. CAP.	
	C024	NCB31CK-473AY	0.047MF 16V CER. CAP.	
	C025	NEA20GM-476NZ	47MF AL E. CAP.	
	C026	NEA20GM-476NZ	47MF AL E. CAP.	
	C027	NCS31HJ-680AY	68PF 50V CER. CAP.	
	C028	NCS31HJ-680AY	68PF 50V CER. CAP.	
	C029	NCB31CK-473AY	0.047MF 16V CER. CAP.	
	C030	NEA20JM-476NZ	47MF 6.3V AL E. CAP.	
	C031	NCB31CK-223A	0.022MF 16V CER. CAP.	
	C035	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C036	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C037	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C038	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C041	NEA21CM-106NZ	10MF 16V AL E. CAP.	
	C042	NEA21CM-106NZ	10MF 16V AL E. CAP.	
	C045	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C046	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C047	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C048	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C049	NCS31HJ-220AY	22PF 50V CER. CAP.	
	C050	NCS31HJ-220AY	22PF 50V CER. CAP.	
	C051	NCB31CK-223A	0.022MF 16V CER. CAP.	
	C052	NCB31CK-223A	0.022MF 16V CER. CAP.	
	C053	NCB21HK-182AY	1800PF 50V CER. CAP.	
	C054	NCB21HK-182AY	1800PF 50V CER. CAP.	
	C055	NCB31CK-103AYM	0.01MF 16V CER. CAP.	
	C056	NCB31CK-103AYM	0.01MF 16V CER. CAP.	
	C057	NEA21HM-105NZ	1MF 50V AL E. CAP.	
	C058	NEA21HM-105NZ	1MF 50V AL E. CAP.	
	C059	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C060	NCB31CK-103AYM	0.01MF 16V CER. CAP.	
	C061	NEA21CM-106NZ	10MF 16V AL E. CAP.	
	C062	NEA21CM-106NZ	10MF 16V AL E. CAP.	
	C065	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C066	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C067	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C068	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C071	NCB31CK-223A	0.022MF 16V CER. CAP.	
	C072	NCB31CK-223A	0.022MF 16V CER. CAP.	
	C073	NCB21HK-182AY	1800PF 50V CER. CAP.	
	C074	NCB21HK-182AY	1800PF 50V CER. CAP.	
	C075	NCB31CK-103AYM	0.01MF 16V CER. CAP.	
	C076	NCB31CK-103AYM	0.01MF 16V CER. CAP.	
	C077	NEA21HM-105NZ	1MF 50V AL E. CAP.	
	C078	NEA21HM-105NZ	1MF 50V AL E. CAP.	
	C079	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C080	NCB31CK-103AYM	0.01MF 16V CER. CAP.	
	C081	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C082	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C083	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C084	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C085	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C086	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C087	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C088	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C089	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C091	NCB31HK-102AY	1000PF 50V CER. CAP.	
	C092	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C095	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C096	NCF31AZ-105AY	1MF 10V CER. CAP.	
	C097	NEA20JM-107NPM	100MF 6.3V E. CAP.	
	C098	NEA20JM-107NPM	100MF 6.3V E. CAP.	

△	Item	Parts Number	Description	Area
	C099	NCS31HJ-101AY	100PF 50V CER. CAP.	
	C100	NCB31HK-102AY	1000PF 50V CER. CAP.	
		RESISTORS		
	R021	NRSA63J-104NY	METAL GLAZE	
	R022	NRSA63J-104NY	METAL GLAZE	
	R023	NRSA63J-103N	METAL GLAZE	
	R024	NRSA63J-103N	METAL GLAZE	
	R025	NRSA63J-624NY	METAL GLAZE	
	R026	NRSA63J-334NY	METAL GLAZE	
	R027	NRSA63F-103NY	METAL GLAZE	
	R028	NRSA63F-103NY	METAL GLAZE	
	R029	NRSA63J-271NY	METAL GLAZE	
	R030	NRSA63J-271NY	METAL GLAZE	
	R031	NRSA63J-333NY	METAL GLAZE	
	R035	NRSA63J-102NY	METAL GLAZE	
	R049	NRSA63J-332NY	METAL GLAZE	
	R051	NRSA63J-102NY	METAL GLAZE	
	R052	NRSA63J-102NY	METAL GLAZE	
	R053	NRSA63J-102NY	METAL GLAZE	
	R054	NRSA63J-102NY	METAL GLAZE	
	R055	NRSA63J-102NY	METAL GLAZE	
	R056	NRSA63J-102NY	METAL GLAZE	
	R057	NRSA63J-473NY	METAL GLAZE	
	R058	NRSA63J-473NY	METAL GLAZE	
	R059	NRSA63J-221NY	METAL GLAZE	
	R060	NRSA63J-221NY	METAL GLAZE	
	R071	NRSA63J-102NY	METAL GLAZE	
	R072	NRSA63J-102NY	METAL GLAZE	
	R073	NRSA63J-102NY	METAL GLAZE	
	R074	NRSA63J-102NY	METAL GLAZE	
	R075	NRSA63J-102NY	METAL GLAZE	
	R076	NRSA63J-102NY	METAL GLAZE	
	R077	NRSA63J-473NY	METAL GLAZE	
	R078	NRSA63J-473NY	METAL GLAZE	
	R079	NRSA63J-221NY	METAL GLAZE	
	R080	NRSA63J-221NY	METAL GLAZE	
	R081	NRSA63J-102NY	METAL GLAZE	
	R082	NRSA63J-102NY	METAL GLAZE	
	R083	NRSA63J-102NY	METAL GLAZE	
	R084	NRSA63J-182NY	METAL GLAZE	
	R085	NRSA63J-472NY	METAL GLAZE	
	R086	NRSA63J-472NY	METAL GLAZE	
	R087	NRSA63J-472NY	METAL GLAZE	
	R090	NRSA63J-103N	METAL GLAZE	
	R091	NRSA63J-OR0AY	METAL GLAZE	
	R092	NRSA63J-OR0AY	METAL GLAZE	
	R093	NRSA63J-OR0AY	METAL GLAZE	
	R094	NRSA63J-OR0AY	METAL GLAZE	
	R095	NRSA63J-OR0AY	METAL GLAZE	
	R096	NRSA63J-OR0AY	METAL GLAZE	
	R097	NRSA63J-OR0AY	METAL GLAZE	
		OTHERS		
		EMW10661-102	PRINTED BOARD	
	K021	EQA0002-N102Y	FERRITE BEADS	
	K022	EQA0002-N102Y	FERRITE BEADS	
	K041	EQA0002-N102Y	FERRITE BEADS	
	K042	EQA0002-N102Y	FERRITE BEADS	
	K051	EQA0002-N102Y	FERRITE BEADS	
	K052	EQA0002-N102Y	FERRITE BEADS	
	K061	EQA0002-N102Y	FERRITE BEADS	
	K062	EQA0002-N102Y	FERRITE BEADS	
	K063	EQA0002-N102Y	FERRITE BEADS	
	K071	EQA0002-N102Y	FERRITE BEADS	
	K072	EQA0002-N102Y	FERRITE BEADS	
	K095	EQA0002-N102Y	FERRITE BEADS	
	K096	EQA0002-N102Y	FERRITE BEADS	
	X041	NAX0001-001X	CRYSTAL	
	CN095	EMV5158-018E	CONNECT TERMINAL	
	LC031	EQF0704-N01YU	INDUCTOR	
	LC041	EQF0704-N01YU	INDUCTOR	
	LC081	EQF0703-N103NZ	INDUCTOR	
	LC091	EQF0703-N103NZ	INDUCTOR	

PARTS LIST

<XT-TD77R>

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

The Marks for Designated Areas

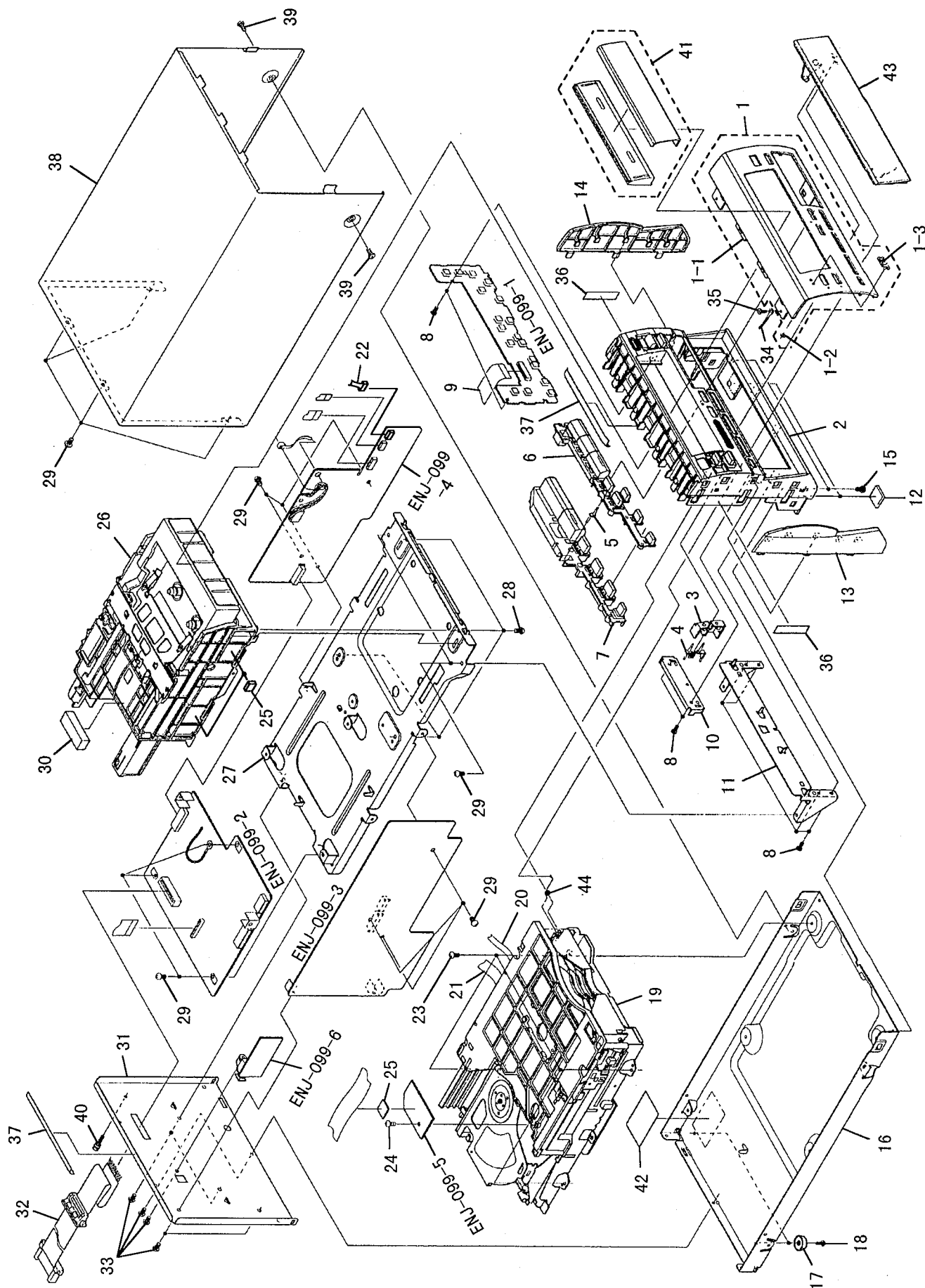
BS ---- the U.K.
 EF ---- Continental Europe
 EN ---- Scandinavia
 G ---- Germany
 No marks indicates all areas.

- Contents -

General Exploded View and Parts List -----	5-3
CD Changer Mechanism Ass'y and Parts List-----	5-5
Chassette Mechanism Ass'y and Parts List -----	5-7
Chassette Loading Mechansim Ass'y and Parts -----	5-9
Electrical Parts List -----	5-11
■ (ENJ-099) -----	5-11
Accessories List -----	5-14
Packing Materials and Parts List -----	5-15

General Exploded View and Parts List

Block No. M 2 M M



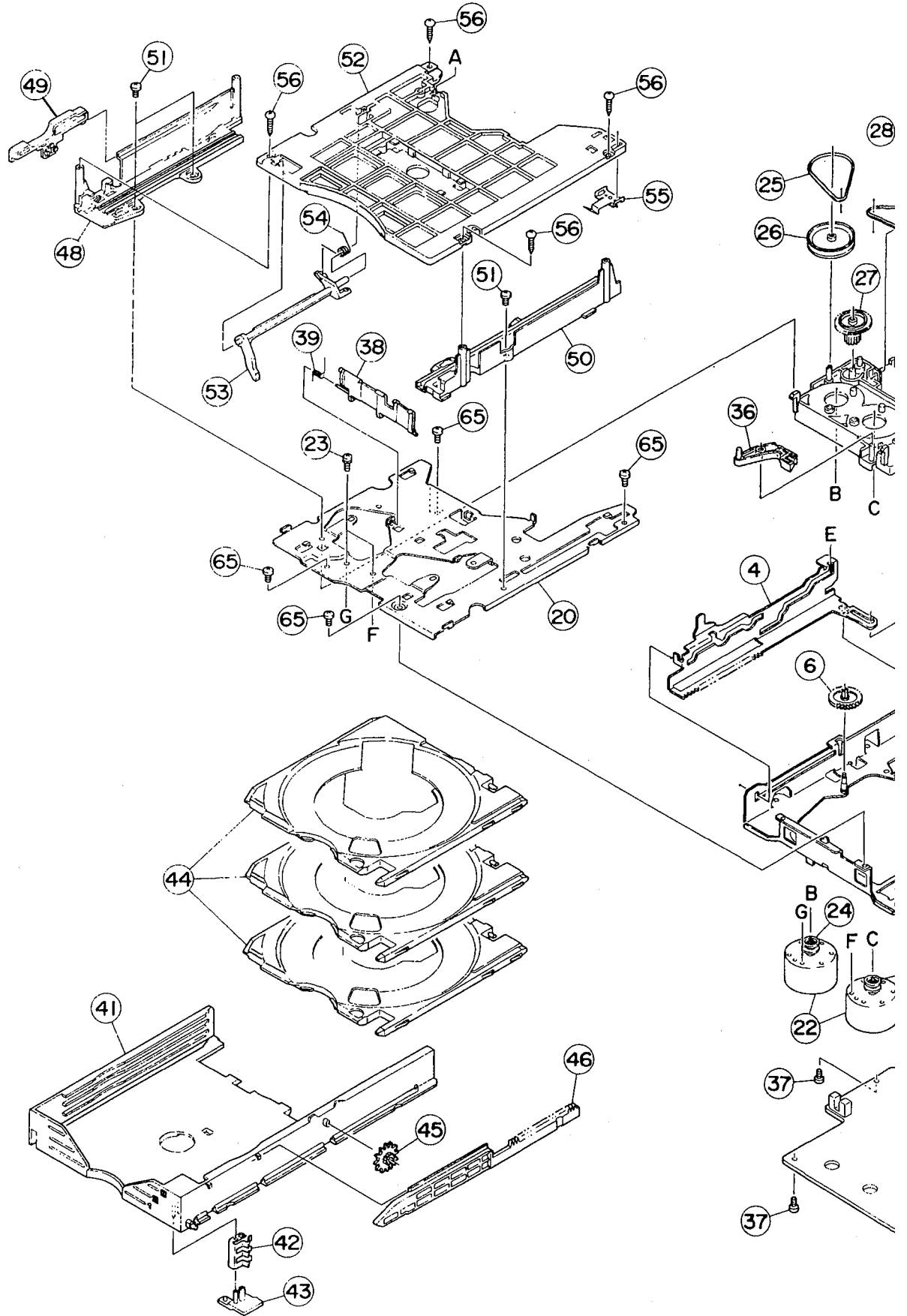
■ Parts List

Block No. M 2 M M

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EFP-XTTD77RE (S)	FRONT PANEL ASSY	1		
	1-1	LE20101-001A	FRONT PANEL	1		
	1-2	E60912-003	SPEED NUT	1		
	1-3	E406971-221	JVC MARK	1		
	2	LE10067-001A	FRONT BASE	1		
	3	LE30380-001A	L. E. D. HOLDER	1		
	4	LE40126-002A	INDICATOR LENS	1		
	5	LE40127-002A	INDICATOR LENS	1		
	6	LE20103-001A	PUSH BUTTON ASSY	1		
	7	LE20106-003A	PUSH BUTTON ASSY	1		
	8	SDSF2608Z	SCREW	8		
	9	VWF1019-45TTA	FLAT WIRE	1	FC781	
	10	LE30340-001A	STAY BRACKET	1		
	11	LE30341-001A	STAY BRACKET	1		
	12	E75896-001	SPACER	2		
	13	LE20098-001A	SIDE FITTING	1		
	14	LE20099-001A	SIDE FITTING	1		
	15	SDSG3006CC	SCREW	2		
	16	LE10068-001A	CHASSIS BASE	1		
	17	E47227-029	FOOT	2		
	18	SBSG3008Z	TAPPING SCREW	2		
	19	-----	CHANGER MECHANISM ASSY	1	See Page 5-5	
	20	VWF1007-12TTAX	FLAT WIRE	1	CN616-CN606	
	21	VWF1011-12TTAX	FLAT WIRE	1	CN615-CN605	
	22	EWS243-088	SOCKET WIRE ASSY	1	CN604-CN614	
	23	SBST3006CC	TAPPING SCREW	4		
	24	SBSF3006Z	TAPPING SCREW	1		
	25	E3400-431	FELT SPACER	3		
	26	-----	CASSETTE MECHANISM ASSY	1	See Page 5-7,9	
	27	LE10069-002A	CHASSIS BASE	1		
	28	SBSF3008Z	TAPPING SCREW	4		
	29	SBSG3008CC	TAPPING SCREW	15		
	30	LE30001-004A	SPACER	1		
	31	LE20109-016A	REAR PANEL	1		
	32	EWP907-023	FLAT WIRE	1	SYSTEM WIRE	
	33	E73273-003	SPECIAL SCREW	6		
	34	EWT025-006	TERMINAL WIRE	1		
	35	SDSG3008Z	SCREW	1		
	36	LE30001-016A	SPACER	2		
	37	LE30001-017A	SPACER	2		
	38	LE20097-002A	METAL COVER	1		
	39	SDSG3006N	TAPPING SCREW	2		
	40	E409257-001	EARTH TERMINAL	1		
	41	LE30342-001ASA	FITTING ASSY	1		
	42	E406507-001	CAUTION LABEL	1		
	43	LE20164-001A	CD FITTING	1		
	44	LE40133-002A	SPRING	1		
	-	LET0074-001A	CAUTION SHEET	1		

CD Changer Mechanism Ass'y and Parts List

Block No. **M3MM**



■ Parts List (CD Changer Mechanism Ass'y)

Block No. **M3MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	VKM3893-00B	CHASSIS BASE	1		
	2	VKL7846-00A	CONNECT ARM	1		
	3	VKL2763-001	SLIDE CAM	1		
	4	VKL2764-001	SLIDE CAM	1		
	5	VKS3765-001	HOOK GEAR	1		
	6	VKS3766-001	POSITION GEAR	1		
	7	VKM3895-00B	LIFTER BASE	1		
	8	VKL2766-004	LIFTER	1		
	9	VKW5245-002	DIRECTION SPRING	1		
	10	VKS3767-001	HOOK	1		
	11	VKM3896-001	SLIDER	1		
	12	VKM3897-001	LOCK ARM	1		
	13	VKS3768-001	GUIDE RAIL	1		
	14	SDST2605Z	SCREW	2		
	15	VKM3898-00C	FLOATING BASE	1		
	16	VKS3769-001	TRAY HOLDER	1		
	17	VKW5250-002	LEAF SPRING	1		
	18	VKL7881-002	PROTECTOR	1		
	20	VKL2768-001	TRAY BASE	1		
	21	VKS1162-001	ACTUATOR	1		
	22	MSN5G257A	DC MOTOR	2		
	23	LPSP2606Z	ASSY SCREW	2		
	24	VKS5548-001	MOTOR PULLEY	2		
	25	VKB3000-177	CAPSTAN BELT	2		
	26	VKS5549-001	PULLEY GEAR	2		
	27	VKS5550-001	THIRD GEAR	1		
	28	VKS5551-001	THIRD GEAR	1		
	29	VKS5552-001	ELEVATOR GEAR	1		
	30	VKS5553-001	TIMING GEAR	1		
	31	VKS5554-001	DOWN GEAR	1		
	32	VKS3770-001	SWITCH GEAR	1		
	33	VKS2269-001	ELEVATOR ARM	1		
	34	VKH5783-001	ELEVATOR PIN	1		
	35	VKW5246-001	ELEVATOR SPRING	2		
	36	VKS3772-001	SELECT LEVER	1		
	37	SDST2605Z	SCREW	4		
	38	VKS3773-001	LID PLATE	1		
	39	VKW5247-003	SPRING	1		
	41	VKS1157-001	DISK CASE	1		
	42	VKM3900-001	CLICK SPRING	1		
	43	VKS3774-001	SPRING COVER	1		
	44	VKS1158-001	SUB TRAY	3		
	45	VKS5555-001	PLANET GEAR	1		
	46	VKS3775-001	DOOR LEVER	1		
	48	VKS1159-001	TRAY GUIDE	1		
	49	VKS3777-001	SELECT SWITCH	1		
	50	VKS1160-001	TRAY GUIDE	1		
	51	SDST2605Z	SCREW	3		
	52	VKS1163-003	TOP COVER	1		
	53	VKS3778-001	SELECTOR	1		
	54	VKW5248-001	SELECTOR SPRING	1		
	55	VKM3901-001	CLICK SPRING	1		
	56	SBSF2608Z	TAPPING SCREW	2		

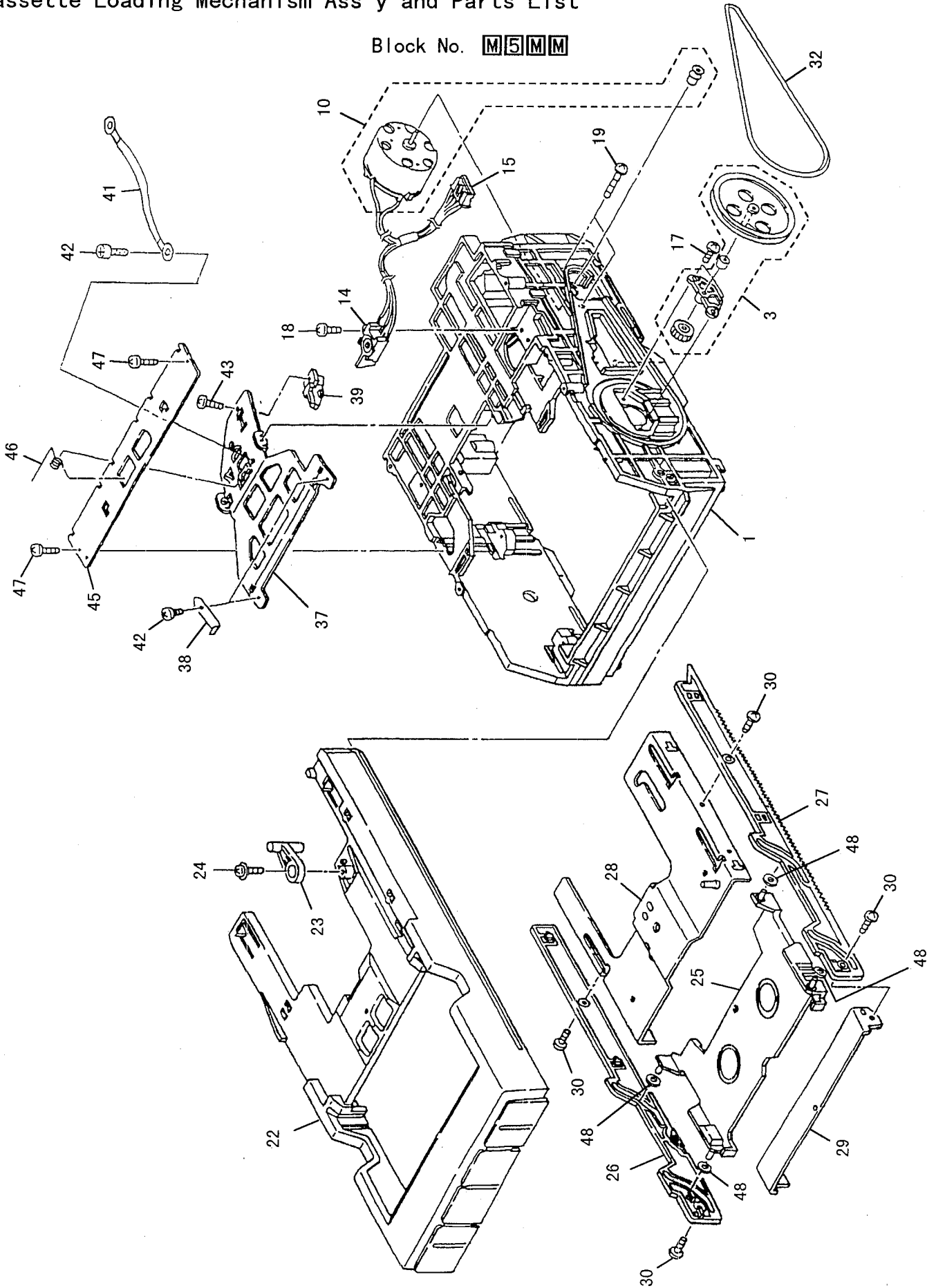
■ Parts List (CD Changer Mechanism Ass'y)

Block No. **M3MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	57	VKZ4791-001	INSULATOR	3		
	58	VKS3779-001	STOPPER	1		
	59	VKW5249-001	ROD	1		
	60	VKL2769-002	CLAMPER BASE	1		
	61	VYH7313-003	MAGNET	1		
	62	VKL7757-001	YOKE PLATE	1		
	63	VKS3780-001	CLAMPER	1		
	64	SPSF2604Z	TAPPING SCREW	1		
	65	SDST2605Z	SCREW	4		
	66	VMW3699-001	F. P. C.	1		
	67	SDST2605Z	SCREW	1		
	68	VKS1161-002	MECHA CHASSIS ASSY	1		
	69	VKZ4781-001	SCREW SHAFT	1		
	70	VKS5556-001	FEED GEAR	1		
	71	VKS5557-001	LOADING GEAR	1		
	72	PPN-13KA10C	DC MOTOR ASSY	1		
	73	OPTIMA-610B1	OPTICAL PICK-UP	1		
	74	VKM3903-001	RACK ARM	1		
	75	SPSK1714M	SCREW	2		
	76	VKS5558-001	MIDDLE GEAR	1		
	77	VKM3904-001	SHAFT HOLDER	1		
	78	VKZ4248-206	TAPPING SCREW	1		
	79	LPSP2004Z	ASSY SCREW	1		

Cassette Loading Mechanism Ass'y and Parts List

Block No. **M5MM**



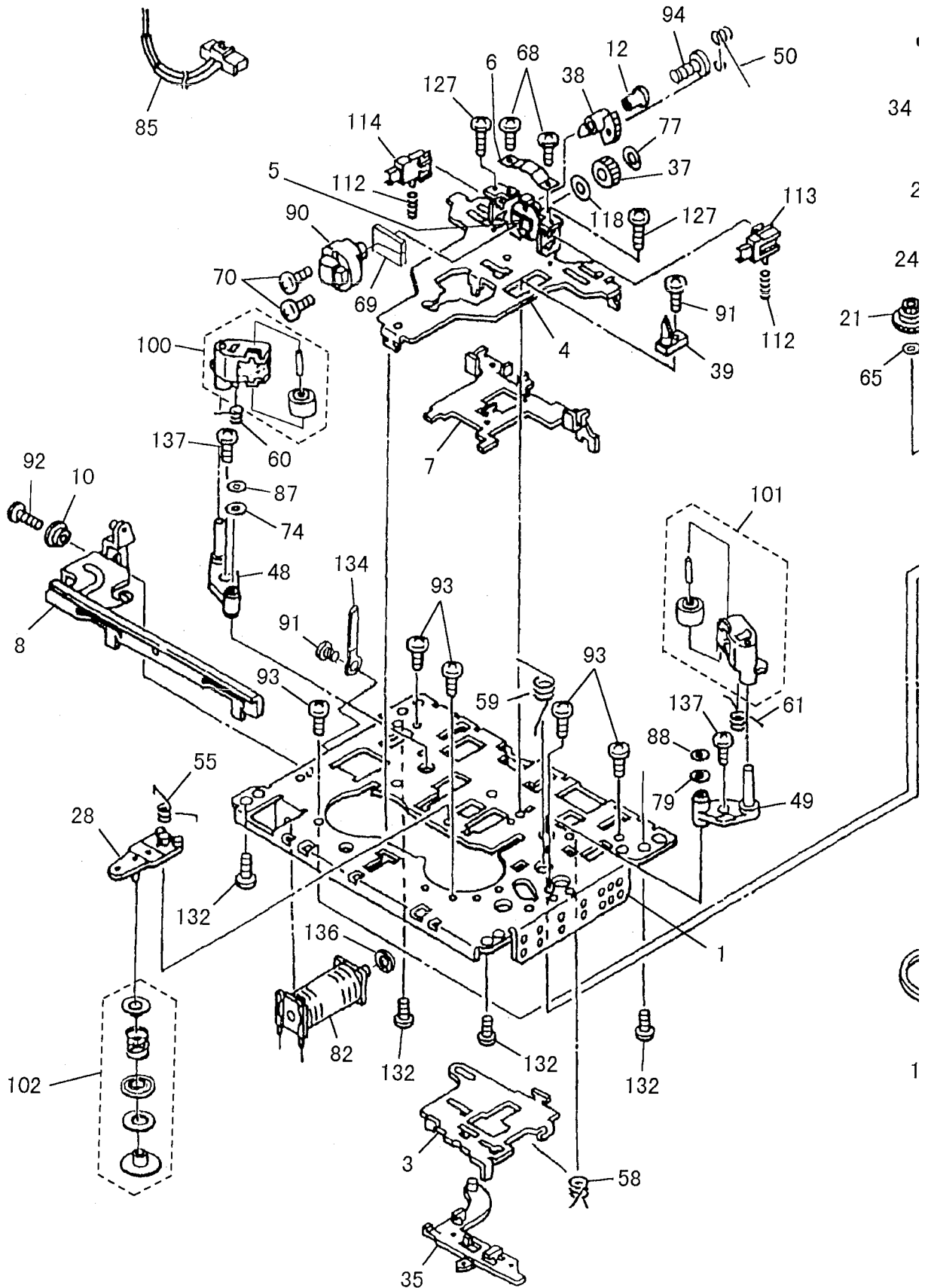
■ Parts List (Cassette Loading Mechanism Ass'y)

Block No. **M5MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EGS-A10303708	MECHA BASE	1		
	3	EGS-D13153608	LOADING GEAR ASSY	1		
	10	EGS-T42063408	LOADING MOTOR ASSY	1		
	14	EGS-S33206105	LEVER SWITCH	1		
	15	EGS-FD9072	CONNECT. WIRE ASSY	1		
	17	SDSF2605Z	SCREW	2		
	18	SDSF2606M	SCREW	1		
	19	SDSP2604Z	SCREW	2		
	22	EGS-J99052308	TRAY	1		
	23	EGS-D10335908	ARM STOPPER	1		
	24	EGS-N09302505	SCREW	1		
	25	EGS-J99052408	TRAY	1		
	26	EGS-D10335708	SLIDER	1		
	27	EGS-D10335808	SLIDER	1		
	28	EGS-J21598108	TRAY BRACKET	1		
	29	EGS-J21598308	BRACKET	1		
	30	SDST2005Z	SCREW	4		
	32	EGS-D16034508	LOADING BELT	1		
	37	EGS-J11019108	CLAMPER PLATE	1		
	38	EGS-G02101908	LEAF SPRING	2		
	39	EGS-J90070008	CLAMPER GUIDE	1		
	41	EGS-E35072008	EARTH WIRE	1		
	42	SDST2003Z	SCREW	3		
	43	SDSF2006Z	SCREW	1		
	45	EGS-F39006508	CLAMPER BRACKET	1		
	46	EGS-G01355408	TORSHON SPRING	1		
	47	SDSF2008Z	SCREW	2		
	48	EGS-8342126017	POLY WASHER	4		

Cassette Mechanism Ass'y and Parts List

Block No. **M4MM**



■ Parts List (Cassette Mechanism Ass'y)

Block No. **M4MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EGS-FB1011	MECHA. BASE	1		
	2	EGS-FD1053	CASSETTE SPRING	1		
	3	EGS-FC1004	SHIFT LEVER	1		
	4	EGS-FD1036	HEAD BASE ASSY	1		
	5	EGS-FD1024	HEAD PLATE ASSY	1		
	6	EGS-FD1005	LEAF SPRING	1		
	7	EGS-FC1003	SHIFT LEVER	1		
	8	EGS-FCS1043	LEVER PLATE	1		
	9	EGS-FCS1042	MOTOR BRACKET	1		
	10	EGS-FD2023	COLLAR	1		
	12	EGS-FD2002	COLLAR	1		
	21	EGS-FD3018	CLUTCH GEAR	1		
	22	EGS-FD3015	REW GEAR	1		
	23	EGS-FD3016	F. R. ARM	1		
	24	EGS-FD3017	CAM GEAR	2		
	25	EGS-FD3014	REEL DISK	2		
	26	EGS-FC3037	REEL CAP	2		
	27	EGS-FDS3029	REEL CAP	2		
	28	EGS-FD3010	RELEASE ARM	1		
	32	EGS-FD3009	SHIFT LEVER	1		
	33	EGS-FC3002	CAM GEAR	1		
	34	EGS-FC3003	ACTION LEVER	1		
	35	EGS-FC3004	STOPPER ARM	1		
	37	EGS-PD3034	CAM GEAR	1		
	38	EGS-PD3033	TURN GEAR	1		
	39	EGS-FD3027	CASSETTE GUIDE	1		
	42	EGS-FC3008	STOPPER ARM	1		
	43	EGS-FC5013	FLYWHEEL RD (HK) ASSY	1		
	44	EGS-FDS5011	FLYWHEEL LD	1		
	48	EGS-FD5006	ROLLER ARM	1		
	49	EGS-FD5002	ROLLER ARM	1		
	50	EGS-PD6055	TORSHON SPRING	1		
	51	EGS-FD6023	REEL SPRING	2		
	53	EGS-FD6031	TORSHON SPRING	1		
	55	EGS-FD6002	TORSHON SPRING	1		
	56	EGS-FD6022	SHIFT LEVER SELECT SPRING	1		
	57	EGS-FD6005	TRIGGER ARM SPRING	1		
	58	EGS-FD6019	TORSHON SPRING	1		
	59	EGS-FD6018	TORSHON SPRING	1		
	60	EGS-FD6007	TORSHON SPRING	1		
	61	EGS-FD6008	TORSHON SPRING	1		
	62	EGS-FD6003	TORSHON	1		
	65	EGS-ED8002	POLYSLIDER WASHER	2		
	66	EGS-FD8002	REFLECT SEAL	1		
	68	EGS-FD80360	AZIMUTH SCREW	2		
	69	EGS-PD8011	SPACER	1		
	70	EGS-ZD8725	HEAD SCREW	2		
	71	EGS-FCS9054	PRINTED BOARD	1		
	72	EGS-PD9058	I. C. (PH. SENSOR)	1		
	73	QRD161J-152	CARBON RESISTER	1		
	74	EGS-8341118065	POLYSLIDER WASHER	1		
	75	EGS-8342123076	POLYSLIDER WASHER	1		
	76	EGS-FD8015	REEL FELT	2		

■ Parts List (Cassette Mechanism Ass'y)

Block No. **M4MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	77	EGS-8541335018	LUMILER WASHER	1		
	78	EGS-8342121014	POLYSLIDER WASHER	3		
	79	EGS-8341116591	POLYSLIDER WASHER	1		
	80	EGS-94019090	LEAF SWITCH	3		
	81	EGS-94019087	LEAF SWITCH	1		
	82	EGS-FD9042	SOLENOID ASSY	1		
	83	EGS-FD9052	FLAT WIRE	1	4PIN	
	84	EGS-FD90553	FLAT WIRE	1	15PIN	
	85	EGS-FD9073	SOCKET WIRE ASSY	1	6PIN	
	86	EGS-E40424405	CONNECT TERMINAL	1		
	87	EGS-8340421023	NYLON WASHER	1		
	88	834-0419-002	NYLON WASHER	1		
	90	EGS-92070222	HEAD	1		
	91	8113112004	SCREW	5		
	92	SPST2006Z	SCREW	1		
	93	EGS-8114112006	SCREW	5		
	94	EGS-FD8023	POWER LOCK SCREW	1		
	95	EGSD8511	MOTOR SCREW	3		
	97	EGS-FD9040	LEAF SWITCH	2		
	99	EGS-FC3055	MECHA. BASE	1		
	100	EGS-FD3030	P. ROLLER ASSY	1		
	101	EGS-FD3031	P. ROLLER ASSY	1		
	102	EGS-FD3032	CAM GEAR ASSY	1		
	105	EGS-FC9068	DRIVE MOTOR ASSY	1		
	106	EGS-FC3056	CLUTCH ASSY	1		
	109	EGS-FDS5014	PULLEY ASSY	1		
	111	EGS-8341113899	POLYSLIDER WASHER	2		
	112	EGS-PD6009	TAPE GUIDE SPRING	2		
	113	EGS-FCS3042	TAPE GUIDE	1		
	114	EGS-FCS3043	TAPE GUIDE	1		
	115	EGS-8540419025	NYLON WASHER	1		
	116	EGS-FD4008	DRIVE BELT	1		
	117	EGS-FD4009	DRIVE BELT	1		
	118	EGS-8342144593	POLYSLIDER WASHER	1		
	119	EGS-FD4010	DRIVE BELT	1		
	121	EGS-FD8026	SPACER	1		
	122	EGS-FD8014	PROTECT SHEET	1		
	127	EGS-FD8022	BIND MACHINE SCREW	2		
	129	EGMD1270	WASHER	3		
	130	EGMD4002	MOTOR CUSHION	3		
	131	SPSP3003Z	SCREW	1		
	132	EGS-8114512608	SCREW	4		
	134	PU49485-3	CORD CLAMP	1		
	136	EGS-8341116095	POLY WASHER	1		
	137	SPST2004Z	SCREW	2		

■ Electrical Parts List (ENJ-099)

△	Item	Parts Number	Description	Area
		I. C. S		
	IC502	NJM4558D-D	I. C (MONO-ANALOG)	
	IC541	HA12206NT	I. C (MONO-ANALOG)	
	IC561	HA12136A	I. C (MONO-ANALOG)	
	IC731	TC4052BP	I. C (DIGI-MOS)	
	IC732	NJM4580DD	I. C (MONO-ANALOG)	
	IC751	MN172412JAAZ	I. C (MICRO-COMPUTER)	
	IC752	MN1381 (P. Q) TA	I. C (DIGI-MOS)	
	IC775	LB1641	I. C (DIGI-OTHER)	
		DIODES		
	D501	1SS133	SI. DIODE	
	D521	1SS133	SI. DIODE	
	D522	MTZ11JC	ZENER DIODE	
	D555	MTZ7. 5JC	ZENER DIODE	
	D556	MTZ7. 5JC	ZENER DIODE	
	D581	1SS133	SI. DIODE	
	D582	1SS133	SI. DIODE	
	D583	1SS133	SI. DIODE	
	D584	1SS133	SI. DIODE	
	D585	1SS133	SI. DIODE	
	D589	1SS133	SI. DIODE	
	D701	MTZ8. 2JC	ZENER DIODE	
	D711	MTZ5. 6JC	ZENER DIODE	
	D712	1SS133	SI. DIODE	
△	D721	11E2	SI. DIODE	
	D731	MTZ7. 5JC	ZENER DIODE	
	D732	MTZ7. 5JC	ZENER DIODE	
	D751	1SS133	SI. DIODE	
	D760	1SS133	SI. DIODE	
	D761	1SS133	SI. DIODE	
	D762	1SS133	SI. DIODE	
	D763	1SS133	SI. DIODE	
	D764	1SS133	SI. DIODE	
	D781	SLR-342DCA47	L. E. D.	
	D782	SLR-342DCA47	L. E. D.	
	D783	SLR-342DCA47	L. E. D.	
	D784	SLR-342DCA47	L. E. D.	
	D785	SLR-342DCA47	L. E. D.	
	D786	SLR-342DCA47	L. E. D.	
	D787	SLR-342DCA47	L. E. D.	
	D788	SLR-342DCA47	L. E. D.	
	D789	SLR-342DCA47	L. E. D.	
	D790	SLR-342DCA47	L. E. D.	
	D791	SLR-342VC3F	L. E. D.	
	D792	SLR-342VC3F	L. E. D.	
	D793	SLR-342VC3F	L. E. D.	
		TRANSISTORS		
	Q501	2SC1740S (R. S)	SI. TRANSISTOR	
	Q502	KRA104M-T	DIGITAL TRANSISTOR	
	Q521	2SC1740S (R. S)	SI. TRANSISTOR	
	Q522	2SC1740S (R. S)	SI. TRANSISTOR	
	Q523	2SC1740S (R. S)	SI. TRANSISTOR	
	Q524	2SC1740S (R. S)	SI. TRANSISTOR	
	Q525	2SC2060 (Q. R)	SI. TRANSISTOR	
	Q581	2SK373 (O. Y)	F. E. T.	
	Q582	2SK373 (O. Y)	F. E. T.	
	Q583	KRA104M-T	DIGITAL TRANSISTOR	
	Q584	KRA104M-T	DIGITAL TRANSISTOR	
	Q585	2SD2144S (VW)	SI. TRANSISTOR	
	Q586	2SD2144S (VW)	SI. TRANSISTOR	
	Q701	2SD2037 (E. F)	SI. TRANSISTOR	
	Q711	2SC2060 (Q. R)	SI. TRANSISTOR	
	Q712	2SB1565 (E. F)	SI. TRANSISTOR	
	Q713	KRC102M-T	DIGITAL TRANSISTOR	
	Q715	2SD2144S (VW)	SI. TRANSISTOR	
	Q716	2SD2144S (VW)	SI. TRANSISTOR	
	Q717	KRA104M-T	DIGITAL TRANSISTOR	
	Q721	2SC1741AS (QR)	SI. TRANSISTOR	
	Q723	2SD400MP (E. F)	SI. TRANSISTOR	
	Q724	KRC104M-T	DIGITAL TRANSISTOR	

△	Item	Parts Number	Description	Area
	Q731	2SD2144S (VW)	SI. TRANSISTOR	
	Q732	2SD2144S (VW)	SI. TRANSISTOR	
	Q733	KRA104M-T	DIGITAL TRANSISTOR	
	Q781	KRC102M-T	DIGITAL TRANSISTOR	
	Q782	KRC102M-T	DIGITAL TRANSISTOR	
	Q783	KRC102M-T	DIGITAL TRANSISTOR	
	Q784	KRC102M-T	DIGITAL TRANSISTOR	
	Q785	KRC102M-T	DIGITAL TRANSISTOR	
		CAPACITORS		
	C501	QCBB1HK-331Y	330PF 50V CER. CAP.	
	C502	QCBB1HK-331Y	330PF 50V CER. CAP.	
	C503	QCGB1HK-102	1000PF 50V CER. CAP.	
	C504	QCGB1HK-102	1000PF 50V CER. CAP.	
	C505	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C506	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C507	QCSB1HJ-560Y	56PF 50V CER. CAP.	
	C508	QCSB1HJ-560Y	56PF 50V CER. CAP.	
	C509	QETC1AM-107ZN	100MF 10V E. CAP.	
	C510	QETC1AM-107ZN	100MF 10V E. CAP.	
	C511	QFLB1HJ-103	0. 01MF 50V MYLAR CAP.	
	C512	QFLB1HJ-103	0. 01MF 50V MYLAR CAP.	
	C513	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C514	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C515	QETB1CM-476	47MF 16V AL E. CAP.	
	C516	QETB1CM-476	47MF 16V AL E. CAP.	
	C517	QCY41HK-561	560PF 50V CER. CAP.	
	C521	QETB1HM-105	1MF 50V AL E. CAP.	
	C522	QFLB1HJ-682	6800PF 50V MYLAR CAP.	
	C523	QFLB1HJ-332	3300PF 50V MYLAR CAP.	
	C524	QFLB1HJ-332	3300PF 50V MYLAR CAP.	
	C525	QFLB1HJ-183	0. 018MF 50V MYLAR CAP.	
	C526	QETB1HM-105	1MF 50V AL E. CAP.	
	C527	QETB1EM-106	10MF 25V AL E. CAP.	
	C528	QETB1CM-107	100MF 16V AL E. CAP.	
	C529	QCBB1HK-221Y	220PF 50V CER. CAP.	
	C530	QFP31HJ-472Z	4700PF 50V POLYPROP. FILM	
	C531	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C532	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C533	QETB1CM-226	22MF 16V E. CAP.	
	C534	QETB1EM-106	10MF 25V AL E. CAP.	
	C535	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C536	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C541	QFLB1HJ-472	4700PF 50V MYLAR CAP.	
	C542	QFLB1HJ-472	4700PF 50V MYLAR CAP.	
	C543	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C544	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C545	QFV81HJ-104	0. 1MF 50V THIN FILM CAP.	
	C546	QFV81HJ-104	0. 1MF 50V THIN FILM CAP.	
	C547	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C548	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C551	QCBB1HK-821Y	820PF 50V CER. CAP.	
	C552	QETB1HM-474	0. 47MF 50V E. CAP.	
	C553	QETB1CM-476	47MF 16V AL E. CAP.	
	C555	QETB1CM-476	47MF 16V AL E. CAP.	
	C556	QETB1CM-476	47MF 16V AL E. CAP.	
	C557	QCXB1CM-472Y	4700PF 16V CER. CAP.	
	C558	QCXB1CM-472Y	4700PF 16V CER. CAP.	
	C561	QFLB1HJ-103	0. 01MF 50V MYLAR CAP.	
	C562	QFLB1HJ-103	0. 01MF 50V MYLAR CAP.	
	C563	QCBB1HK-221Y	220PF 50V CER. CAP.	
	C564	QCBB1HK-221Y	220PF 50V CER. CAP.	
	C565	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C566	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C567	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C568	QETB1HM-225	2. 2MF 50V AL E. CAP.	
	C571	QFV81HJ-224	0. 22MF 50V THIN FILM CAP.	
	C572	QFV81HJ-224	0. 22MF 50V THIN FILM CAP.	
	C573	QETB1HM-226E	22MF 50V E. CAP.	
	C574	QETB1HM-226E	22MF 50V E. CAP.	
	C575	QETB1HM-475E	4. 7MF 50V E. CAP.	

■ Electrical Parts List (ENJ-099)

△	Item	Parts Number	Description	Area
	C576	QETB1CM-476	47MF 16V AL E. CAP.	
	C577	QETB1CM-226	22MF 16V E. CAP.	
	C581	QETB1CM-107	100MF 16V AL E. CAP.	
	C591	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C592	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C701	QETB1CM-226	22MF 16V E. CAP.	
	C702	QETB1AM-108	1000MF 10V E. CAP.	
	C703	QCF21HP-103A	0.01MF 50V CER. CAP.	
	C711	QETBOJM-107	100MF 6.3V AL E. CAP.	
	C712	QCF21HP-103A	0.01MF 50V CER. CAP.	
	C713	QETB1AM-226	22MF 10V E. CAP.	
	C731	QETB1EM-476	47MF 25V AL E. CAP.	
	C732	QETB1EM-476	47MF 25V AL E. CAP.	
	C733	QCY31HK-472Z	4700PF 50V CER. CAP.	
	C734	QCY31HK-472Z	4700PF 50V CER. CAP.	
	C735	QCY31HK-821Z	820PF 50V CER. CAP.	
	C736	QCY31HK-821Z	820PF 50V CER. CAP.	
	C737	EETB1HM-105E	1MF 50V E. CAP.	
	C738	EETB1HM-105E	1MF 50V E. CAP.	
	C745	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C746	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C751	QETB1CM-476	47MF 16V AL E. CAP.	
	C752	QCZO202-155	1.5MF 25V CER. RES.	
	C753	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C754	QETBOJM-107	100MF 6.3V AL E. CAP.	
	C755	QCBB1HK-331Y	330PF 50V CER. CAP.	
	C756	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C757	QCXB1CM-562Y	5600PF 16V CER. CAP.	
	C775	QETB1AM-477	470MF 10V E. CAP.	
	C776	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C777	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C781	QFV81HJ-104	0.1MF 50V THIN FILM CAP.	
	C791	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C792	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C793	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C799	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
		RESISTORS		
	R501	QRD161J-100	10 1/6W CARBON RES.	
	R502	QRD161J-100	10 1/6W CARBON RES.	
	R503	QRD161J-104	100K 1/6W CARBON RES.	
	R504	QRD161J-104	100K 1/6W CARBON RES.	
	R505	QRD161J-221	220 1/6W CARBON RES.	
	R506	QRD161J-221	220 1/6W CARBON RES.	
	R507	QRD161J-224	220K 1/6W CARBON RES.	
	R508	QRD161J-224	220K 1/6W CARBON RES.	
	R509	QRD161J-183	18K 1/6W CARBON RES.	
	R510	QRD161J-183	18K 1/6W CARBON RES.	
	R511	QRD161J-221	220 1/6W CARBON RES.	
	R512	QRD161J-221	220 1/6W CARBON RES.	
	R513	QRD161J-470	47 1/6W CARBON RES.	
	R514	QRD161J-470	47 1/6W CARBON RES.	
	R515	QRD161J-221	220 1/6W CARBON RES.	
	R517	QRD161J-561	560 1/6W CARBON RES.	
	R521	QRD161J-222	2.2K 1/6W CARBON RES.	
	R522	QRD167J-332	3.3K 1/6W CARBON RES.	
	R523	QRD161J-104	100K 1/6W CARBON RES.	
	R524	QRD161J-181	180 1/6W CARBON RES.	
	R525	QRD167J-511	510 1/6W CARBON RES.	
	R526	QRD161J-561	560 1/6W CARBON RES.	
	R527	QRD161J-393	39K 1/6W CARBON RES.	
	R528	QRD161J-393	39K 1/6W CARBON RES.	
	R529	QRD14CJ-6R8SX	6.8 1/4W UNF. CARBON R	
	R531	QRD161J-101	100 1/6W CARBON RES.	
△	R532	QRZ0077-100	10 1/4W FUSIBLE RES.	
	R535	QRD167J-153	15K 1/6W CARBON RES.	
	R536	QRD167J-153	15K 1/6W CARBON RES.	
	R541	QRD161J-333	33K 1/6W CARBON RES.	
	R542	QRD161J-333	33K 1/6W CARBON RES.	
	R543	QRD161J-242	2.4K 1/6W CARBON RES.	
	R544	QRD161J-242	2.4K 1/6W CARBON RES.	

△	Item	Parts Number	Description	Area
	R551	QRD161J-563	56K 1/6W CARBON RES.	
	R552	QRD161J-184	180K 1/6W CARBON RES.	
	R553	QRD161J-105	1M 1/6W CARBON RES.	
	R555	QRD161J-221	220 1/6W CARBON RES.	
	R556	QRD161J-221	220 1/6W CARBON RES.	
	R557	QRD161J-102	1K 1/6W CARBON RES.	
	R558	QRD161J-102	1K 1/6W CARBON RES.	
	R561	QRD167J-153	15K 1/6W CARBON RES.	
	R562	QRD167J-153	15K 1/6W CARBON RES.	
	R563	QRD167J-153	15K 1/6W CARBON RES.	
	R564	QRD167J-153	15K 1/6W CARBON RES.	
	R565	QRD167J-153	15K 1/6W CARBON RES.	
	R566	QRD167J-153	15K 1/6W CARBON RES.	
	R567	QRD161J-681	680 1/6W CARBON RES.	
	R568	QRD161J-681	680 1/6W CARBON RES.	
	R569	QRD161J-183	18K 1/6W CARBON RES.	
	R570	QRD161J-103	10K 1/6W CARBON RES.	
	R571	QRD161J-183	18K 1/6W CARBON RES.	
△	R572	QRD14CJ-220S	22 1/4W UNF. CARBON R	
	R581	QRD161J-475	4.7M 1/6W CARBON RES.	
	R582	QRD161J-475	4.7M 1/6W CARBON RES.	
	R583	QRD161J-105	1M 1/6W CARBON RES.	
	R584	QRD161J-105	1M 1/6W CARBON RES.	
	R585	QRD161J-473	47K 1/6W CARBON RES.	
	R587	QRD161J-103	10K 1/6W CARBON RES.	
	R588	QRD161J-103	10K 1/6W CARBON RES.	
	R589	QRD161J-103	10K 1/6W CARBON RES.	
	R595	QRD167J-223	22K 1/6W CARBON RES.	
	R700	QRD161J-102	1K 1/6W CARBON RES.	
	R702	QRD161J-561	560 1/6W CARBON RES.	
	R703	QRD161J-221	220 1/6W CARBON RES.	
	R704	QRD161J-221	220 1/6W CARBON RES.	
△	R705	QRD12CJ-2R2SX	2.2 1/2W UNF. CARBON R	
	R706	QRD161J-221	220 1/6W CARBON RES.	
	R707	QRD161J-221	220 1/6W CARBON RES.	
	R708	QRD161J-221	220 1/6W CARBON RES.	
	R712	QRD167J-151	150 1/6W CARBON RES.	
	R713	QRD161J-103	10K 1/6W CARBON RES.	
	R714	QRD161J-471	470 1/6W CARBON RES.	
	R715	QRD161J-103	10K 1/6W CARBON RES.	
	R716	QRD161J-103	10K 1/6W CARBON RES.	
	R717	QRD161J-102	1K 1/6W CARBON RES.	
	R718	QRD161J-102	1K 1/6W CARBON RES.	
	R719	QRD161J-123	12K 1/6W CARBON RES.	
	R720	QRD161J-123	12K 1/6W CARBON RES.	
	R721	QRD161J-182	1.8K 1/6W CARBON RES.	
	R724	QRD161J-102	1K 1/6W CARBON RES.	
	R727	QRD161J-473	47K 1/6W CARBON RES.	
	R728	QRD161J-821	820 1/6W CARBON RES.	
	R729	QRD161J-473	47K 1/6W CARBON RES.	
	R731	QRD161J-471	470 1/6W CARBON RES.	
	R732	QRD161J-471	470 1/6W CARBON RES.	
	R737	QRD161J-222	2.2K 1/6W CARBON RES.	
	R738	QRD161J-222	2.2K 1/6W CARBON RES.	
	R739	QRD161J-222	2.2K 1/6W CARBON RES.	
	R740	QRD161J-222	2.2K 1/6W CARBON RES.	
	R741	QRD161J-104	100K 1/6W CARBON RES.	
	R742	QRD161J-104	100K 1/6W CARBON RES.	
	R743	QRD161J-221	220 1/6W CARBON RES.	
	R744	QRD161J-221	220 1/6W CARBON RES.	
	R745	QRD161J-271	270 1/6W CARBON RES.	
	R746	QRD161J-271	270 1/6W CARBON RES.	
	R747	QRD161J-103	10K 1/6W CARBON RES.	
	R748	QRD161J-103	10K 1/6W CARBON RES.	
	R751	QRD161J-105	1M 1/6W CARBON RES.	
	R752	QRD161J-821	820 1/6W CARBON RES.	
	R754	QRD161J-221	220 1/6W CARBON RES.	
	R755	QRD161J-221	220 1/6W CARBON RES.	
	R756	QRD161J-221	220 1/6W CARBON RES.	
	R757	QRD161J-221	220 1/6W CARBON RES.	

■ Electrical Parts List (ENJ-099)

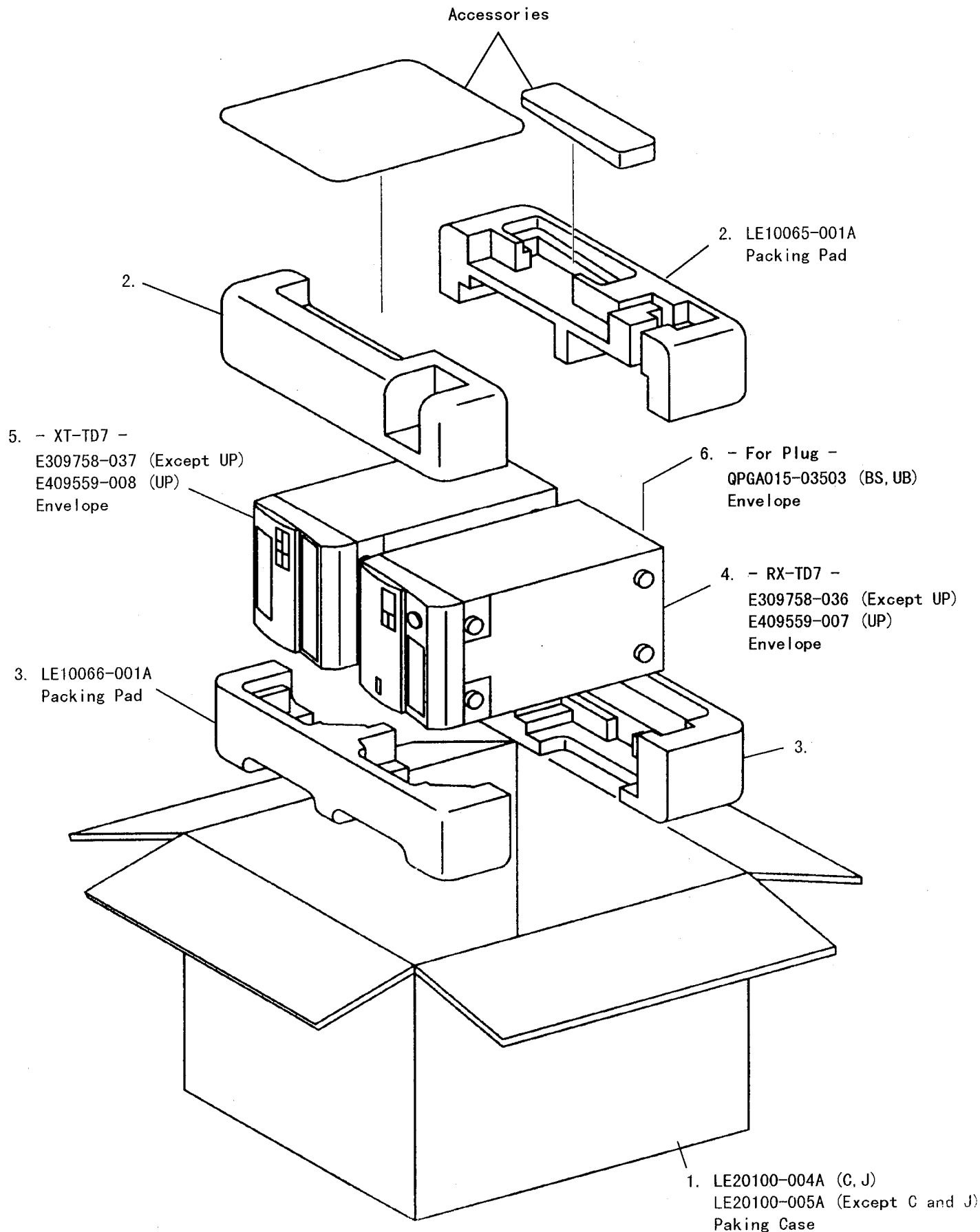
△	Item	Parts Number	Description	Area
	R758	QRD161J-221	220 1/6W CARBON RES.	
	R761	QRD161J-472	4.7K 1/6W CARBON RES.	
	R762	QRD161J-472	4.7K 1/6W CARBON RES.	
	R763	QRD161J-472	4.7K 1/6W CARBON RES.	
	R764	QRD161J-472	4.7K 1/6W CARBON RES.	
	R765	QRD161J-472	4.7K 1/6W CARBON RES.	
	R766	QRD161J-102	1K 1/6W CARBON RES.	
	R767	QRD161J-103	10K 1/6W CARBON RES.	
	R768	QRD161J-103	10K 1/6W CARBON RES.	
	R769	QRD161J-103	10K 1/6W CARBON RES.	
	R770	QRD161J-103	10K 1/6W CARBON RES.	
	R771	QRD161J-472	4.7K 1/6W CARBON RES.	
	R772	QRD161J-472	4.7K 1/6W CARBON RES.	
	R773	QRD161J-103	10K 1/6W CARBON RES.	
	R774	QRD161J-103	10K 1/6W CARBON RES.	
	R775	QRD161J-222	2.2K 1/6W CARBON RES.	
	R776	QRD161J-392	3.9K 1/6W CARBON RES.	
	R777	QRD161J-103	10K 1/6W CARBON RES.	
	R778	QRD161J-103	10K 1/6W CARBON RES.	
	R779	QRD161J-103	10K 1/6W CARBON RES.	
	R780	QRD161J-103	10K 1/6W CARBON RES.	
	R781	QRD161J-271	270 1/6W CARBON RES.	
	R782	QRD161J-271	270 1/6W CARBON RES.	
	R783	QRD161J-271	270 1/6W CARBON RES.	
	R784	QRD161J-271	270 1/6W CARBON RES.	
	R785	QRD161J-271	270 1/6W CARBON RES.	
	R786	QRD161J-271	270 1/6W CARBON RES.	
	R787	QRD161J-271	270 1/6W CARBON RES.	
	R789	QRD161J-271	270 1/6W CARBON RES.	
	R791	QRD161J-271	270 1/6W CARBON RES.	
	R792	QRD161J-271	270 1/6W CARBON RES.	
	R793	QRD161J-271	270 1/6W CARBON RES.	
	VR501	QVPA603-104A	100K TRIMMER RES.	
	VR502	QVPA603-104A	100K TRIMMER RES.	
	VR503	QVPA603-501A	500 TRIMMER RES.	
	VR504	QVPA603-501A	500 TRIMMER RES.	
	VR531	QVPA603-104A	100K TRIMMER RES.	
	VR532	QVPA603-104A	100K TRIMMER RES.	
	VR561	QVPA603-503A	50K VARIABLE RES.	
	VR562	QVPA603-503A	50K VARIABLE RES.	
	VR722	QVPA603-222A	2.2K TRIMMER RES.	
		OTHERS		
		EMW10708-003	PRINTED BOARD	
	J781	TOTX178	OPTICAL JACK	
	K501	ENZ8101-007	INDUCTOR	
	K502	ENZ8101-007	INDUCTOR	
	K503	ENZ8101-007	INDUCTOR	
	K724	ENZ8101-007	INDUCTOR	
	K726	ENZ8101-007	INDUCTOR	
	L521	ENZ6002-012	OSCILLATOR COIL	
	L535	EQL2106-223	INDUCTOR	
	L536	EQL2106-223	INDUCTOR	
	S501	QSS7A12-E01	SLIDE SWITCH	
	S781	ESP0001-023M	TACT SWITCH	
	S782	ESP0001-023M	TACT SWITCH	
	S783	ESP0001-023M	TACT SWITCH	
	S784	ESP0001-023M	TACT SWITCH	
	S785	ESP0001-023M	TACT SWITCH	
	S786	ESP0001-023M	TACT SWITCH	
	S787	ESP0001-023M	TACT SWITCH	
	S788	ESP0001-023M	TACT SWITCH	
	S789	ESP0001-023M	TACT SWITCH	
	S790	ESP0001-023M	TACT SWITCH	
	S791	ESP0001-023M	TACT SWITCH	
	S792	ESP0001-023M	TACT SWITCH	
	S793	ESP0001-023M	TACT SWITCH	
	S794	ESP0001-023M	TACT SWITCH	
	S795	ESP0001-023M	TACT SWITCH	
	S796	ESP0001-023M	TACT SWITCH	
	S797	ESP0001-023M	TACT SWITCH	

△	Item	Parts Number	Description	Area
	S798	ESP0001-023M	TACT SWITCH	
	X751	ECX0060-000EM	CERAMIC RESONATOR	
	CN501	EMV5109-006B	CONNECT TERMINAL	
	CN502	EMV7141-015	PIN CONNECTOR	
	CN503	VMC0314-S10	CONNECT TERMINAL	
	CN504	VMC0314-S16	CONNECT TERMINAL	
	CN513	VMC0314-P10	CONNECT TERMINAL	
	CN514	VMC0314-P16	CONNECT TERMINAL	
	CN614	VMC0041-003	CONNECTOR	
	CN615	EMV7171-111R	CONNECTOR	
	CN616	EMV7171-107R	CONNECTOR	
	CN701	EMV7141-017	CONNECT TERMINAL	
	CN702	VMC0314-P16	CONNECT TERMINAL	
	CN703	EMV5109-005B	CONNECT TERMINAL	
	CN712	VMC0314-S16	CONNECT TERMINAL	
	CN781	EMV7171-119R	CONNECTOR	
	CN791	EMV7171-119	CONNECTOR	
△	CP701	ICP-N20	I. C. PROTECTOR	
	EP501	EMZ4002-002Z	EARTH PLATE	
	EP511	E409182-001SM	EARTH TERMINAL	
	EP512	E409182-001SM	EARTH TERMINAL	
	EP701	EMZ4002-002Z	EARTH PLATE	
	EP702	EMZ4002-002Z	EARTH PLATE	
	EP703	EMZ4002-002Z	EARTH PLATE	
	EP711	EMZ4002-002Z	EARTH PLATE	
	EP712	EMZ4002-002Z	EARTH PLATE	
	EP713	EMZ4002-002Z	EARTH PLATE	
	EP811	E409182-001SM	EARTH TERMINAL	
	EP812	E409182-001SM	EARTH TERMINAL	
	FW781	EWB33D-20SS	FLAT WIRE	
	SP751	VYH7653-001	LEAF SPRING	

△	Item	Parts Number	Parts Name	Q' ty	Description	Area
	1	E30580-2601ABS	INSTRUCTION BOOK	1		BS
		E30580-2602A	INSTRUCTION BOOK	1		EF G
		E30580-2603A	INSTRUCTION BOOK	1		EN
	2	E309758-003	POLY BAG	1		
	3	BT-20134	WARRANTY CARD	1		G
		BT-54003-1	WARRANTY CARD	1		BS
	4	BT-20066A	DISTRIBUTOR LIST	1		BS
	5	E43486-340A	SAFETY SHEET	1		BS
	6	EWP503-001	ANTENNA WIRE	1		
	7	EQB4001-015	LOOP ANTENNA	1		
	8	RM-SETD77RU	WIRE-LESS REMOTE CONTROL	1		
	9	R6SPTT-2ST	BATTERY	1		
	10	EWPZ01-028	EARTH WIRE	1		

Packing Materials and Part Numbers

Block No. M 7 M M



JVC

VICTOR COMPANY OF JAPAN, LIMITED

AUDIO PRODUCTS DIVISION 10-1, 1-chome, ohwatari-machi, maebashi-city, Japan

