JVC

SERVICE MANUAL

STEREO DOUBLE CASSETTE DECK RECEIVER

DR-E11BK

MODEL No. DR-E11LBK

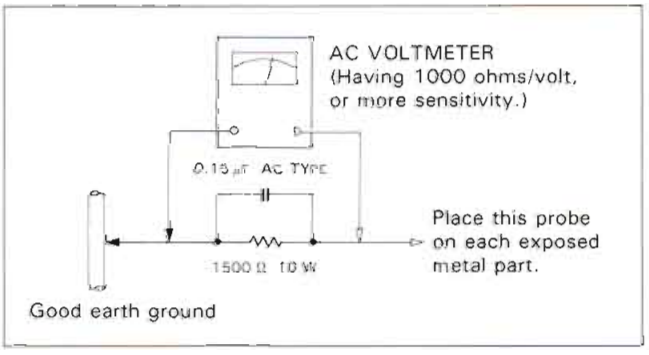
Contents

This manual combines two single volumes; Service manual and Parts list.

No. 2913
Mar. 1986

Safety Precautions

1. The design of this product contains special hardware, many circuits and components specially for safety purposes.
   For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list in 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/or 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 they should be confirmed to be returned to normal, after re-assembling.
5. Leakage current check
   (Safety for electrical shock hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the Products (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mV 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 1500 Ω 10 W resistor paralleled by a 0.15 μF 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.).



CHECKING YOUR LINE VOLTAGE (Except for U.S.A., Canada, Australia, U.K. and Continental Europe.)
Before inserting the power plug, please check this setting to see that it corresponds with the line voltage in your area. If it doesn't, be sure to adjust the voltage selector switch to the proper setting before operating this equipment. The voltage selector switch is located on the rear panel.
CAUTION Before selecting the "Voltage selector switch" to proper voltage disconnect the power plug.

Service Precautions

1. Transistor Replacement (Q461)

When replacing the regulator (Q461) used in the stabilized power supply circuit of this device, use caution concerning the following points.

(a) When replacing transistors, replace all of the 2SB1133 (R,S) type with 2SB941A (P,Q) because the performance is more stable.

(b) Before installing, form the transistor lead wires as shown in the diagram below so the transistor and heat sink will be in closer contact.

(c) After installation, coating the contact surface of the heat sinks is effective for increasing the heat radiation capability.

Forming the transistor lead wires

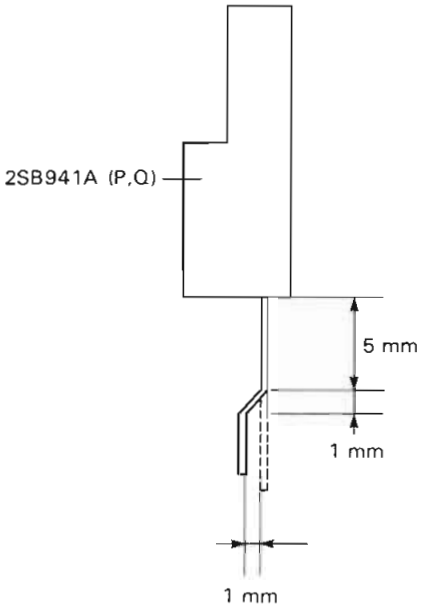
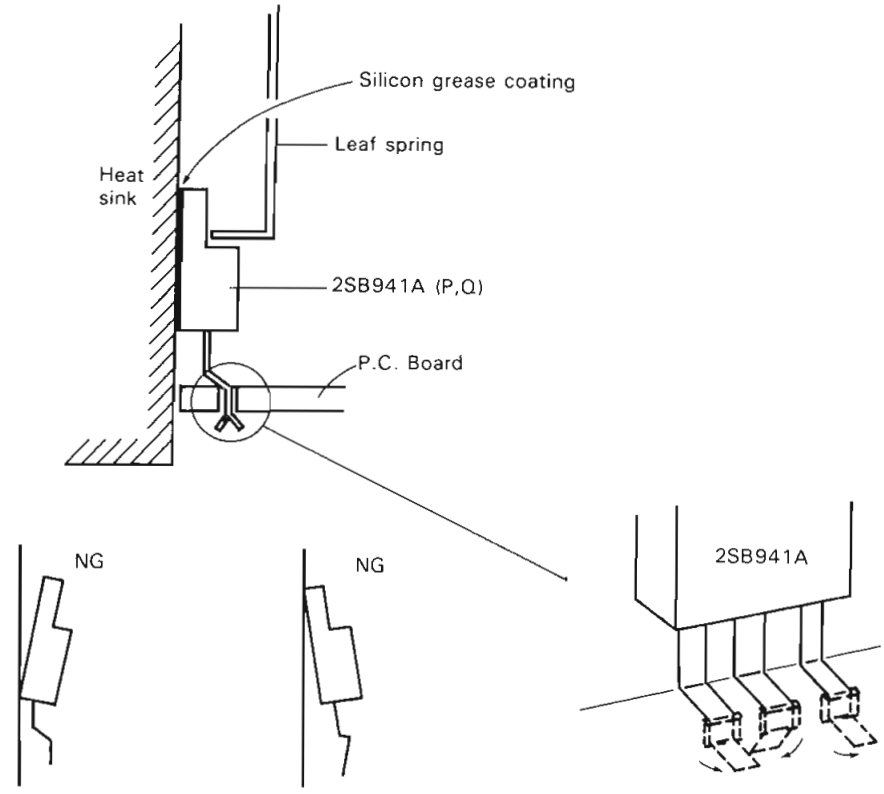


Fig. 1

Method of installation



Always put the transistor and heat sink in close contact.

Bend the legs of the transistor as shown in the diagram and then solder so the transistor will stand vertically.

Fig. 2

2. When the Tuner Section does not Operate with Power On

Although extremely rare, sometimes a tuner (FM, MW, LW) section will not operate even when the power switch is turned on. In such a case, nothing will be displayed in the tuner display window but the tape and audio sections will operate normally.

Cause

This is caused by partial erasure of the RAM memory of the microcomputer (IC261, LC5813H-246) used in the tuner. Normally, the contents of the RAM are protected by a backup capacitor (C265) but, when the power switch of the set is turned off, the voltage of the backup capacitor begins to drop. When this voltage drops to a certain value (approx. 0.17 V) the contents of the memory begin to be erased. After a certain time, all of the contents of the memory are erased but if the power switch is turned back on before total erasure is completed, the tuner may not operate.

Countermeasure

(1) Short between Test Point 265 and the chassis base for 1-2 seconds to discharge the backup capacitor (C265) and completely erase the memory contents. After that, turn the switch on.
(2) Add the circuit shown in Fig. 4.

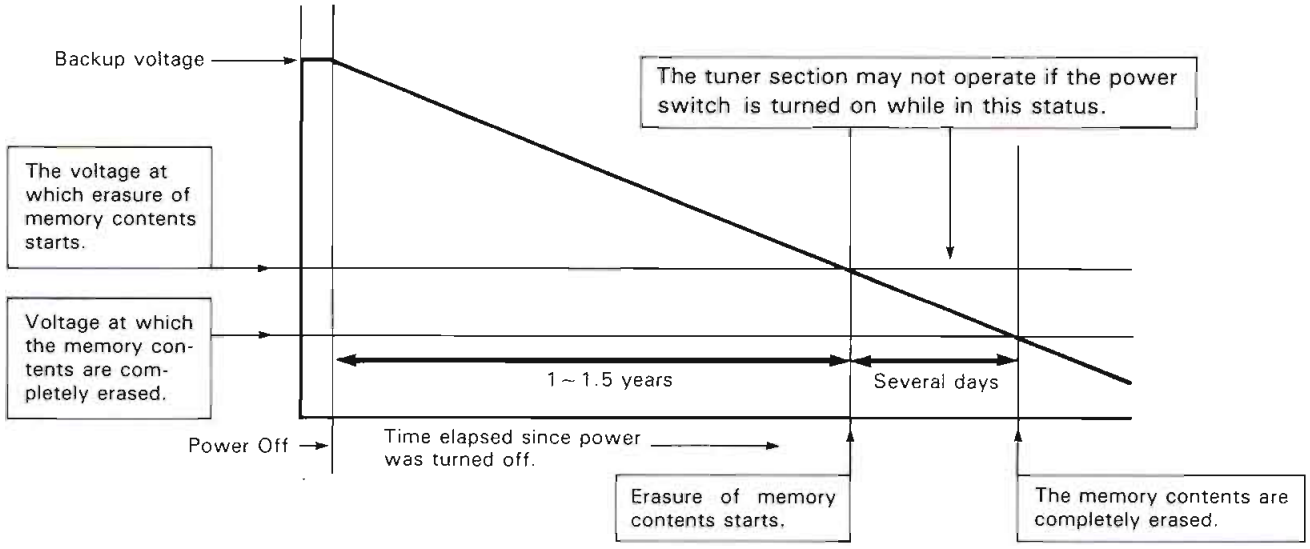


Fig. 3

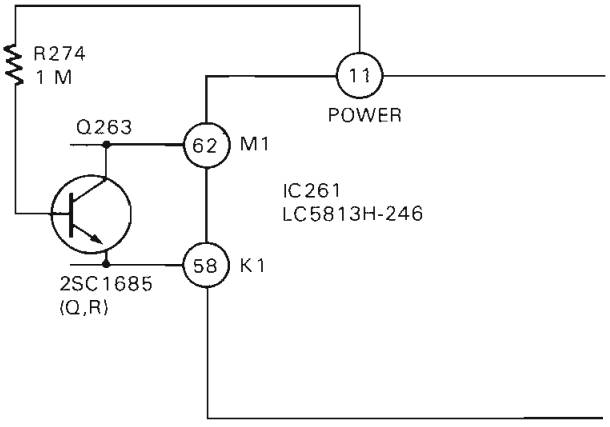


Fig. 4

JVC | Instruction Book

STEREO DOUBLE CASSETTE DECK RECEIVER

DR-E11BK/DR-E11LBK

BEDIENUNGSANLEITUNG: STEREO-DOPPELCASSETTENDECK-RECEIVER
MANUEL D'INSTRUCTIONS: AMPLI-SYNTONISEUR-CASSETTE STEREO A DOUBLE PLATINE
GEBRUIKSAANWIJZING: STEREO DUBBELDECK RECEIVER
MANUAL DE INSTRUCCIONES: RECEPTOR-MAGNETOFONO DE CASSETTE DOBLE ESTEREO

DR-E11BK

DR-E11LBK

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

Model No.

Serial No.

E30580-1321A

(No. 2913)

IMPORTANT (In the United Kingdom)
Mains Supply (AC 240 V~, 50 Hz only)

IMPORTANT

Do not make any connection to the Larger Terminal coded E or Green. The wires in the mains lead are coloured in accordance with following code:

Blue to N (Neutral) or Black
Brown to L (Live) or Red

If these colours do not correspond with the terminal identifications of your plug, connect as follows:
Blue wire to terminal coded N (Neutral) or coloured Black.
Brown wire to terminal coded L (Live) or coloured Red.
If in doubt – consult a competent electrician.

THIS UNIT IS PRODUCED TO COMPLY WITH DIRECTIVE 82/499/EEC

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

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.

Thank you for purchasing this JVC product.
Before you begin operating this unit, please read the instructions carefully to be sure you get the best possible performance.
If you have any questions, consult your JVC dealer.

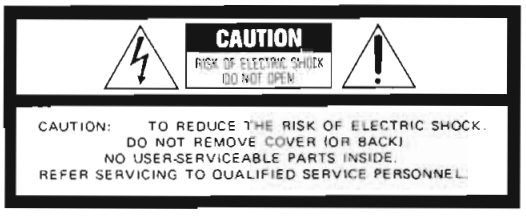
Vielen Dank für den Kauf dieses JVC-Produkts.
Bitte lesen Sie diese Bedienungsanleitung sorgfältig, bevor Sie dieses Gerät in Betrieb nehmen, um die beste Leistung zu erhalten.
Falls Sie Fragen haben, wenden Sie sich bitte an Ihren JVC-Fachhändler.

ACHTUNG

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

Notes:
- Pre-recorded tapes, records or discs should not be re-recorded without the consent of the owners of the copyright of the sound recording and of any copyright musical or literary work embodied in that recording as this constitutes an infringement of copyright.
- This instruction booklet has been prepared for two models – the DR-E11BK and DR-E11LBK. The DR-E11LBK is a version which can receive long-wave broadcasts. Basic operation is virtually identical with both models. The differences are described clearly.

Hinweis:
- Diese Bedienungsanleitung beschreibt zwei Modelle – den DR-E11BK und den DR-E11LBK. Der DR-E11LBK ist eine Version, die Langwellen-Sendungen empfangen kann. Die Bedienung ist für beide Modelle im wesentlichen gleich. Die Unterschiede sind deutlich angegeben.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

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

IMPORTANT (CANADA ONLY/CANADA SEULEMENT)

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT

IMPORTANT

1. Installation
- Select a place which is level, dry and neither too hot nor too cold (between -5°C and 40°C/ 23°F and 104°F).
- Leave sufficient distance between it and your TV.
- Do not use it in a place subject to vibrations.

2. Power cord
- Do not handle the power cord with wet hands!
- When unplugging from the wall outlet, always pull the plug, not the power cord.

3. Malfunctions, etc.
- There are no user serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
- Do not insert any metallic object.

4. Handling of cassette tapes
- Loose tape may become tangled in the tape transport mechanism. Remove slack by winding the tape with a pencil.
- The use of C-120 or thinner tape is not recommended.
- Do not store cassettes near a TV, on the speakers, near a heater, or where it is dusty or humid.
- To prevent the erasure of recordings, break off the tabs. To record using a cassette whose protective tabs have been removed, block the holes using adhesive tape.
- To insert a cassette, press STOP (■)/EJECT (▲) to open the cassette door and insert the cassette, then close the cassette door. Make sure that the cassette is inserted correctly, with the edge where tape is exposed down.

WICHTIG

1. Aufstellung
- Das Gerät an einem ebenen und trockenen Platz aufstellen, der weder zu warm noch zu kalt ist (zwischen -5°C und 40°C).
- Einen ausreichenden Abstand zum Fernseher halten.
- Dieses System keinen Vibrationen aussetzen.

2. Netzkabel
- Das Netzkabel nicht mit nassen Händen anfassen!
- Das Netzkabel immer am Stecker und niemals am Kabel aus der Steckdose ziehen.

3. Fehlfunktionen usw.
- Dieses System enthält keine Teile, die von Laien repariert werden können. Ziehen Sie das Netzkabel aus der Steckdose, wenn Störungen auftreten, und wenden Sie sich an Ihren JVC-Fachhändler.
- Keine Metallgegenstände in das System einführen.

4. Cassetten
- Loses Band kann sich im Transportmechanismus verfangen. Daher das Band durch Drehen mit einem Bleistift straffen.
- Die Verwendung von C-120 Cassetten oder Cassetten mit noch dünnerem Band wird nicht empfohlen.
- Die Cassetten nicht magnetischen Feldern (in der Nähe eines Fernsehers, Lautsprecher usw.), hohen Temperaturen (in der Nähe der Heizung), Feuchtigkeit oder Staub aussetzen.
- Zum Vermeiden von unbeabsichtigtem Löschen die Sicherheitszungen der Cassetten herausbrechen. Zum Aufnehmen auf einer Cassette, deren Sicherheitszungen entfernt wurden, die Öffnung mit Klebeband verschließen.
- Zum Einlegen einer Cassette die STOP (■)/ EJECT (▲) drücken und die Cassette einlegen, danach das Cassettenfach schließen. Die Cassette mit der Bandöffnung nach unten einlegen.

CONNECTION DIAGRAM
ANSCHLUSSDIAGRAMM
DIAGRAMME DES RACCORDEMENTS
AANSLUITINGSSCHEMA
DIAGRAMA DE CONEXIONES

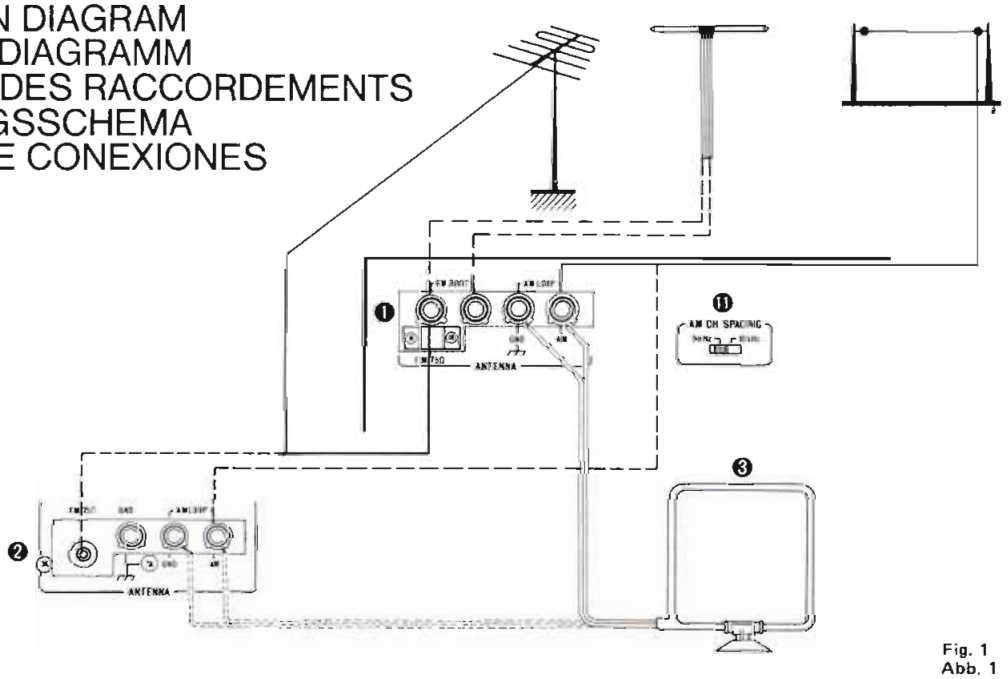


Fig. 1
Abb. 1

IMPORTANT

1. Installation
- Choisir une surface plane, dans un endroit sec ni trop chaud ni trop froid (entre -5° C et 40° C).
- Laisser un espace entre l'appareil et le mur.
- Ne pas l'utiliser dans un endroit soumis aux vibrations.

2. Cordon d'alimentation
- Ne pas le manipuler avec des mains humides!
- Lorsque vous le débranchez de la prise murale, tirer sur la prise et non sur le cordon.

3. Mauvais fonctionnements, etc.
- Aucune pièce intérieure n'est à régler par l'utilisateur. En cas de problème, débranchez l'appareil et consultez votre revendeur.
- Ne pas insérer d'objets métalliques dans l'appareil.

4. Maniement des cassettes
- Une bande détendue risque de s'entortiller sur le mécanisme de défilement de la bande. Le retendre en l'enroulant avec un crayon.
- L'utilisation des bandes C-120 ou plus minces n'est pas recommandée.
- Ne pas entreposer les cassettes dans un endroit où existe un champ magnétique (près d'un téléviseur ou sur les haut-parleurs etc) ou dans un endroit soumis à des températures élevées (près d'un radiateur), à de l'humidité ou poussiéreux.
- Pour éviter un effacement des enregistrements, briser les languettes de sécurité. Pour enregistrer une cassette dont les languettes ont été brisées, recouvrir les trous avec de l'adhésif.
- Pour insérer une cassette, appuyer sur STOP (■)/EJECT (▲) pour ouvrir la porte-cassette et l'y insérer puis refermer la porte-cassette. S'assurer que la cassette est bien en place, le côté où la bande est apparente dirigé vers le bas.

BELANGRIJK

1. Installatie
- Plaats het toestel in een effen, droge en een niet te hete of te koude (tussen -5° en 40°) plaats.
- Houd voldoende afstand tussen dit toestel en het televisietoestel.
- Stel het toestel niet bloot aan trillingen.

2. Netsnoer
- Hanteer het netsnoer niet met natte handen.
- Trek aan de stekker, niet aan het snoer, om de stekker uit het stopkontakt te halen.

3. Defekten, enz.
- Binnenin het toestel bevinden zich geen door de gebruiker te repareren onderdelen. Trek de stekker uit het stopkontakt en raadpleeg een dealer, indien zich problemen voordoen.
- Steek geen metalen voorwerpen in het toestel.

4. Hanteren van cassettetapes
- Losse tape kan in het transportmechanisme verward raken. Wind eventuele lussen op m.b.v. van een potlood.
- Het gebruik van C-120 tapes is niet aanbevelnswaardig.
- Voorkom dat de cassettes in de buurt van een magnetisch veld (zoals bij een televisietoestel of luidsprekers), in de buurt van een verwarmingstoestel, of in een vochtige of stoffige plek wordt geplaatst.
- Verwijder de nokken om abusievelijk wissen van de cassettes te voorkomen. Bedek de uitsparingen met plakband, wanneer opname gewenst is op een tape, waarvan de wispreventienokken zijn uitgebroken.
- Druk voor het inleggen van een cassette de STOP (■)/EJECT (▲) in om de cassettedeur te openen, leg de cassette in de cassettehouder en sluit de cassettedeur. Kontroleer of de cassette met de bandopeningen in benedenwaartse richting is ingelegd.

IMPORTANTE

1. Instalación
- Elija un lugar nivelado, seco y no demasiado caluroso ni frío (entre -5° C y 40° C).
- Deje suficiente distancia entre el sistema y el televisor.
- No lo utilice en un lugar sometido a vibraciones.

2. Cable de alimentación
- No toque el cable con las manos mojadas.
- Al desenchufarlo del tomacorriente, tire siempre de la clavija y nunca del cable mismo.

3. Desperfectos, etc.
- En el interior de la unidad no hay piezas reparables por el usuario. En caso de desperfectos, desenchufe el sistema y consulte con su concesionario.
- No inserte ningún objeto metálico en la unidad.

4. Tratamiento de las cintas de cassette
- Una cinta floja puede enredarse en el mecanismo de transporte. Elimine la flojedad enrollando la cinta con un lápiz.
- No se recomienda el uso de cintas C-120 o más finas.
- No almacene los cassettes donde haya un campo magnético (cerca de un televisor o altavoces, etc.), o en un lugar sometido a altas temperaturas (cerca de un calefactor), humedad o donde haya polvo.
- Para evitar borrados accidentales, rompa las lengüetas protectoras. Para grabar con un cassette cuyas lengüetas hayan sido extraídas, cubra los orificios con cinta adhesiva.
- Para insertar un cassette, presione el STOP (■)/EJECT (▲) a fin de abrir el portacassette.
  Asegurándose de que el cassette está correctamente instalado, con el extremo expuesto de la cinta hacia abajo, cierre el portacassette.

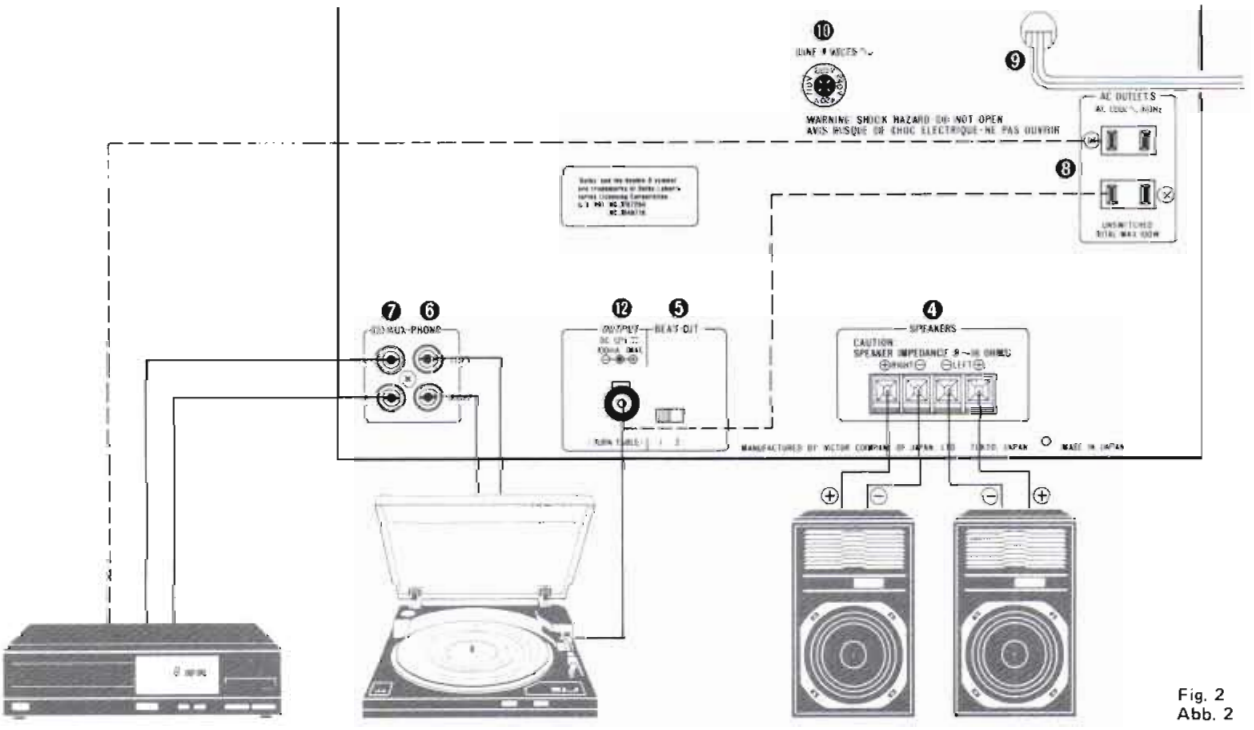


Fig. 2
Abb. 2

❶ External ANTENNA terminals
❷ External ANTENNA terminals (for W. Germany only)
❸ AM loop antenna
❹ SPEAKERS terminals
❺ BEAT CUT knob
Normally set to "1".
When beats occur when recording AM broadcasts, set this knob to the position where beats are least noticeable.
❻ PHONO terminals
❼ CD/AUX terminals
❽ AC OUTLETS (DR-E11BK for the U.S.A. and Canada only)
❾ Power cord
❿ Voltage selector*
When this equipment is used in an area where the supply voltage is different from the preset voltage, reset the voltage selector to the correct position.
⓫ AM channel spacing knob*
* Not provided for the U.S.A., Canada, U.K., Australia and Continental Europe.
⓬ DC OUTPUT terminal
Connect the turntable.

Notes:
1. **Connect the speaker cords correctly; L to L and R to R.**
2. **Switch the power off when connecting any component.**
3. **Connect plugs or wires firmly. Poor contact may result in hum.**
4. **The AC OUTLET provides power even when the front panel POWER button is off. Do not connect equipment requiring a total of more than 100 watts power.**

❶ Anschlüsse für externe Antenne (ANTENNA)
❷ Buchsen für Außenantenne (nur für West Deutschland) (ANTENNA)
❸ MW/LW-Rahmenantenne
❹ Lautsprecheranschlüsse (SPEAKERS)
❺ Interferenzen-Schalter (BEAT CUT)
Normalerweise auf "1" stellen.
Wenn bei der Aufnahme von MW/LW-Sendungen Interferenzen auftreten, diesen Schalter so einstellen, daß die Interferenzen am wenigsten wahrnehmbar sind.
❻ Plattenspieler-Anschlüsse (PHONO)
❼ CD/AUX-Anschlüsse
❽ Netzausgang (AC OUTLETS) (nur DR-E11BK für die U.S.A. und Kanada)
❾ Netzkabel
❿ Spannungswähler*
Wenn die voreingestellte Netzspannung an diesem Gerät nicht mit der tatsächlich vorhandenen übereinstimmt, den Spannungswähler auf den erforderlichen Wert einstellen.
⓫ AM-Kanalabstandsschalter*
* Nicht vorhanden an Geräten für die USA, Kanada, Großbritannien, Australien und Kontinental-Europa.
⓬ DC OUTPUT-Buchse
Mit dem Plattenspieler verbinden.

Hinweise:
1. **Die Lautsprecherkabel richtig anschließen, L an L und R an R.**
2. **Vor dem Anschließen von anderen Geräten die Spannungsversorgung ausschalten.**
3. **Die Stecker und Kabel fest anschließen. Wackelkontakte führen zu Störgeräuschen.**
4. **Der Netzausgang (AC OUTLET) liefert Spannung, auch wenn der POWER-Schalter an der Frontplatte ausgeschaltet ist. Keine Geräte anschließen, die mehr als insgesamt 100 Watt aufnehmen.**

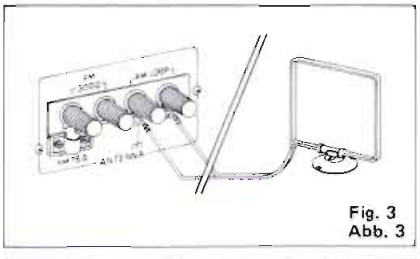


Fig. 3
Abb. 3

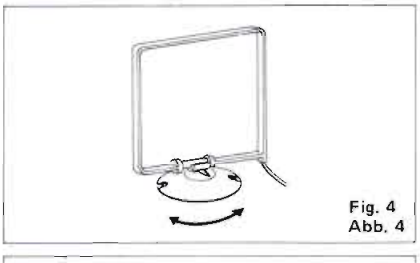


Fig. 4
Abb. 4

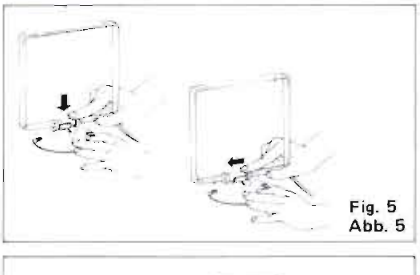


Fig. 5
Abb. 5

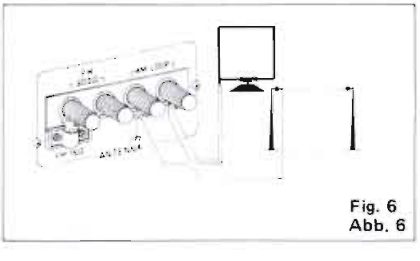


Fig. 6
Abb. 6

ANTENNAS

AM (MW/LW) loop antenna (Fig. 3)
This antenna is for the reception of local AM broadcasts.
When too much noise occurs (Fig. 4)
Change the direction of the loop antenna or reinstall it.
How to fix an AM loop antenna (Fig. 5)
AM (MW/LW) external antenna (Fig. 6)
If AM reception is not good, connect an external AM antenna (single-wire antenna) to the AM terminal.

Notes:
- If the provided loop antenna is not installed or the antenna cord touches the rear panel, it will be impossible to receive AM broadcasts.
- When installing an AM external antenna, leave the AM loop antenna connected.
- When using an AM external antenna, always connect a ground wire to the GND terminal for reduced noise.

ANTENNEN

AM (MW/LW) Rahmenantenne (Abb. 3)
Diese Antenne dient zum Empfang örtlicher AM-Sendungen.
Bei starken Störungen (Abb. 4)
Die Ausrichtung der Rahmenantenne ändern und wieder einsetzen.
Anbringen einer AM-Rahmenantenne (Abb. 5)
AM (MW/LW) externe Antenne (Abb. 6)
Wenn der AM-Empfang nicht gut ist, eine externe AM-Antenne (Eindrahtantenne) an die AM Klemme anschließen.

Hinweise:
- Wenn die beigefügte Rahmenantenne nicht angeschlossen ist, oder wenn das Antennenkabel die Rückwand berührt, können keinerlei AM-Sendungen empfangen werden.
- Bei der Installation einer externen AM-Antenne ist zur Störungsunterdrückung immer ein Massekabel an die GND-Klemme anzuschließen.

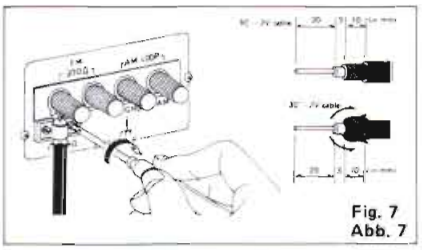


Fig. 7
Abb. 7

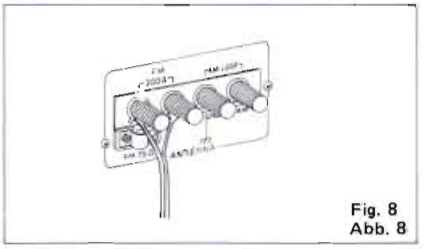


Fig. 8
Abb. 8

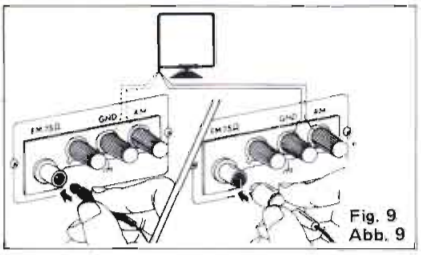


Fig. 9
Abb. 9

FM antennas
(Fig. 7 & 8: Except for W. Germany)

- 75-ohm antenna with coaxial lead (Fig. 7)
  Loosen the screws on the bracket and insert the cable into the ring from below. Then connect the stripped core to the upper screw terminal. The bracket ring works as the ground terminal.
- Feeder antenna (supplied with this unit) (Fig. 8)
  Connect to the 300-ohm terminal.
  Take care that the wires of the feeder antenna do not touch any other terminal.
- For best FM reception using the feeder antenna provided, place the antenna in a location where reception is strongest. Make sure the antenna is fully extended in the form of a "T".

For W. Germany

Using the PAL-type antenna terminal (Fig. 9)
The PAL-type antenna terminal on this model can be used for reception of FM broadcasts. Connect this terminal to the terminal labelled RADIO of the house antenna. The appropriate connecting cable is DIN 45332. For more details, consult your dealer.

FM wire antenna (Fig. 9: for W. Germany)

The FM wire antenna provided can be connected to the 75-ohm coaxial jack temporarily.

TIPS FOR BETTER FM RECEPTION

Try to find the most suitable antenna for the best possible performance of your tuner.

- An outdoor antenna which has more elements has a higher gain and a sharper directivity.
- Find the direction in which multi-path interference is at its least: set the 16 kHz S.E.A. knob at the maximum and the 63 Hz and 250 Hz knobs at the minimum, then listen to a broadcast at a relatively high volume level, and set the antenna so that distortion and unwanted noise are minimuzed.
- The 3C-2V coaxial cable is sufficient for most reception needs. However, in areas where radio reception is weak, we recommend that you use the 5C-2V, which has less loss than the 3C-2V.

Note:

- **It is not necessary to fold back the mesh wire for 5C-2V.**

FM-Antennen
(Abb. 7 & 8: Außer Bundesrepublik Deutschland)

- 75-Ohm-Antenne mit Koaxialleitung (Abb. 7)
  Die Schrauben aus dem Bügel lösen und das Kabel von unten her in den Ring einführen. Den freigelegten Kern dann an die obere Schraubenklemme anschließen. Der Bügelring dient als Masseklemme.
- Antennenzuleitung (mitgeliefert) (Abb. 8)
  An die 300-Ohm-Klemme anschließen.
  Darauf achten, daß die Drähte der Antennenzuleitung keine andere Klemme berühren.
- Für besten FM-Empfang mit der mitgelieferten Antennenzuleitung stellt man die Antenne dort auf, wo der Empfang am klarsten ist. Vergewissern Sie sich, daß die Antenne vollständig in "T"-Form ausgezogen ist.

Für die Bundesrepublik Deutschland

Verwendung der Antennenklemme für PAL-System (Abb. 9). Die PAL-Antennenklemme an diesem Modell kann für den Empfang von FM-Übertragungen verwendet werden. Verbinden Sie diese Klemme mit der Klemme RADIO der Hausantenne. Das dafür geeignete Verbindungskabel hat die DIN-Bezeichnung 45332. Weitere Einzelheiten erfahren Sie bei Ihrem Händler.

FM-Drahtantenne (Abb. 9: Für die BRD)

Die mitgelieferte FM-Drahtantenne kann provisorisch an die 75-Ohm-Koaxialbuchse angeschlossen werden.

TIPS FÜR BESSEREN FM-EMPFANG

Versuchen Sie, für beste Tuner-Leistungen die dafür bestgeeignete Antenne zu finden.

- Eine Außenantenne mit mehr Elementen weist größeren Gewinn auf und genaueres Richtvermögen.
- Die Ausrichtung wählen, bei der die Mehrweginterferenzen am geringsten sind. Den 16 kHz S.E.A. -Knopf auf Maximum, den 63 Hz-Knopf auf Minimum stellen. Dann den Sender bei relativ hoher Lautstärke abhören. Die Antenne so einstellen, daß Verzerrungen und Störeinstreuungen minimiert sind.
- Für die meisten Empfangsbedingungen genügt das 3C-2V-Koaxialkabel. In Gebieten mit schwachem Empfang empfehlen wir allerdings das 5C-2V, das geringeren Verlust aufweist.

Hinweis:

- **Beim 5C-2V muß der Maschendraht nicht zurückgebogen werden.**

DESCRIPTION AND FUNCTIONS

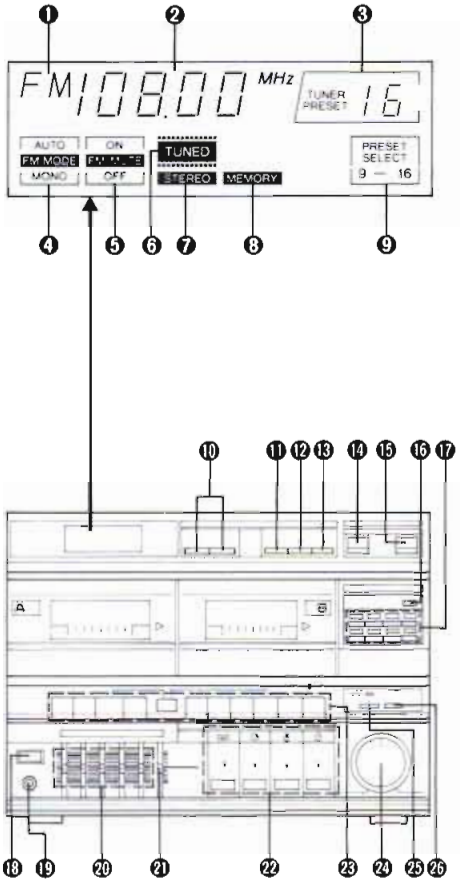


Fig. 10
Abb. 10

❶ **FM/AM indicator**
FM is displayed during FM reception and AM for AM.

❷ **Frequency indicator**
The tuned-in frequency is displayed digitally. Three or four digits (kHz) are displayed during AM reception and five digits (MHz) (for Europe, U.K., Australia and other countries) or four digits (MHz) (for U.S.A. and Canada) are displayed during FM reception.

❸ **TUNER PRESET indicator**
This indicator will display the channel number of the selected preset stations.

❹ **FM MODE indicator**
This indicator shows AUTO or MONO according to the setting of the FM MODE/MUTE button.

❺ **FM MUTE indicator**
This indicator shows ON or OFF according to the setting of the FM MODE/MUTE button.

❻ **TUNED indicator**
If a broadcast is received correctly, this indicator lights.

❼ **STEREO indicator**
When an FM stereo broadcast is being received, this indicator lights. When the MODE indicator shows MONO even if an FM stereo broadcast is received, this indicator will not light; press the FM MODE/MUTE button so that AUTO is shown.

❽ **MEMORY indicator**
This lights for about 5 seconds when the MEMORY button is pressed or 1 second when the frequency is stored in memory during auto memory.

❾ **PRESET SELECT indicator**
Selected preset channels 1 — 8 or 9 — 16 are indicated by the PRESET SELECT button.

❿ **TUNING**
Down (<): To lower the receiving frequency, press this button.
Up (>): To raise the receiving frequency press this button.
DR-E11BK: Each time you press this button, the FM frequency will change by a 50 kHz or 100 kHz step, and AM frequency by a 9 kHz or 10 kHz step.
DR-E11LBK: Each time you press this button, the FM frequency will change by a 50 kHz step, MW by a 9 kHz step, and LW by a 1 kHz step. This unit is constructed so that MW and LW can be changed automatically by pressing the tuning button. For LW, if you want to raise the frequency, it can be changed automatically from 353 kHz to 522 kHz. Conversely, if you wish to lower the frequency, it can be automatically changed from 522 kHz to 353 kHz.

BESCHREIBUNG UND FUNKTIONEN

❶ **FM/AM-Anzeige**
Bei FM-Empfang wird FM angezeigt, bei AM-Empfang AM.

❷ **Frequenzanzeige**
Die abgestimmte Frequenz wird digital angezeigt. Vier Ziffern (kHz) zeigen AM-Empfang an, fünf Ziffern (MHz) (für Europa, Großbritannien, Australien und andere Länder) oder vier Ziffern (MHz) (für die USA und Kanada) zeigen FM-Empfang an.

❸ **Tuner-Vorwahlanzeige (TUNER PRESET)**
Diese Anzeige zeigt die Kanalnummer der gewählten Vorwahlstationen an.

❹ **UKW-Betriebsartanzeige (FM MODE)**
Diese Kontrolleuchte zeigt AUTO oder MONO an, je nach Stellung der FM MODE/MUTE Taste.

❺ **UKW-Stummabstimmanzeige (FM MUTE)**
Diese Kontrolleuchte zeigt ON (EIN) oder OFF (AUS) an, je nach Stellung der FM MODE/MUTE Taste.

❻ **Abstimmanzeige (TUNED)**
Wenn die Übertragung korrekt empfangen wird, leuchtet diese Kontrollampe auf.

❼ **Stereoanzeige (STEREO)**
Bei Empfang einer FM-Stereo-Übertragung leuchtet diese Anzeige auf. Wenn die MODE-Kontrollampe auch bei Empfang einer FM-Stereo-Übertragung MONO anzeigt, dann leuchtet diese Anzeige nicht auf; drücken Sie die FM MODE/MUTE Taste, um AUTO einzustellen.

❽ **Speicheranzeige (MEMORY)**
Leuchtet etwa 5 Sekunden lang auf, wenn man die MEMORY-Taste drückt, oder etwa 1 Sekunde, wenn während Auto-Memory die Frequenz gespeichert wird.

❾ **Vorwahlanzeige (PRESET SELECT)**
Der gewählte Vorwahlkanal 1 — 8 oder 9 — 16 wird gemäß Stellung der PRESET SELECT Taste angezeigt.

❿ **Abstimmung (TUNING)**
Nach unten (<): Zum Verringern der Empfangsfrequenz diese Taste drücken.
Nach oben (>): Zum Erhöhen der Empfangsfrequenz diese Taste drücken.
DR-E11BK: Bei jedem Druck auf diese Taste ändert sich die FM-Frequenz um jeweils 50 kHz oder 100 kHz, und die AM-Frequenz um 9 kHz oder 10 kHz.
DR-E11LBK: Bei jedem Druck auf diese Taste ändert sich die FM-Frequenz um jeweils 50 kHz, die MW-Frequenz um 9 kHz und die LW-Frequenz um 1 kHz. Durch Knopfdruck lassen sich MW und LW automatisch auf den jeweils anderen Bereich überwechseln. Wenn Sie im LW-Bereich die Frequenz erhöhen, springt sie automatisch von 353 kHz auf 522 kHz um. Wenn Sie die Frequenz dagegen verringern, springt sie automatisch von 522 kHz auf 353 kHz um.

Example
Beispiel
Exemple
Voorbeeld
Ejemplo

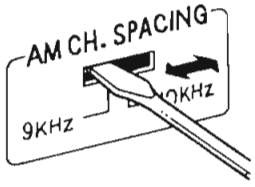
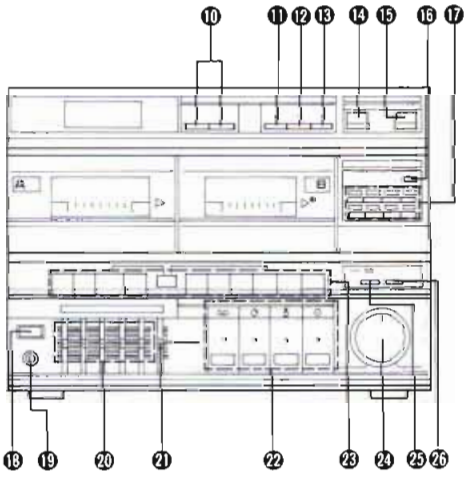


Fig. 11
Abb. 11

Switch over using the tip of a screwdriver as shown in Fig. 11.
Verwenden Sie zum Umschalten die Klinge eines Schraubenziehers, siehe Abb. 11.
Changer à l'aide d'un tournevis comme indiqué dans la Fig. 11.
Schakel m.b.v. een schroevedraaier over, zoals Fig. 11 laat zien.
Conmute usando la punta de un destornillador de la manera que se ve en la Fig. 11.



Holding either button pressed for more than 1 second and then releasing it starts auto tuning. When a broadcast is received, tuning will stop. But if either button is kept held in, scanning continues even when a broadcast is received. In auto tuning, pressing either button stops scanning. Tapping the button stops, changing the frequency when the top or the bottom frequency is reached, while, in auto tuning the scanning changes direction.

Channel spacing

Band / Area	FM	AM (MW)	AM (LW)
U.S.A., Canada	100 kHz	10 kHz	–
Europe, Australia	50 kHz	9 kHz	1 kHz (Europe only)
Other areas	50 kHz	9 kHz or 10 kHz	–

An AM channel spacing knob is provided on the rear panel for selecting 9 kHz or 10 kHz steps according to your area.
Switch over using the tip of a screwdriver as shown in Fig. 11. When performing this, be sure to disconnect the power cord then wait for about 1 minute to switch over the spacing knob.

⑪ MEMORY

When this button is pressed, the MEMORY indicator will light for about 5 seconds to show that the memory is ready to receive preset station information. Press one of the PRESET STATIONS buttons while the MEMORY indicator is lit.

Note:

- **Alter the MEMORY indicator has gone out, pressing the PRESET STATIONS button will not store the frequency in memory; in this case, press this button again.**

⑫ FM MODE/MUTE

Press this button so that AUTO of FM MODE and ON of FM MUTE light in the display for normal FM reception for automatic elimination of interstation noise. When receiving a weak or noisy FM stereo broadcast, press this button so that MONO of FM MODE and OFF of FM MUTE in the display light, the broadcast will be heard in mono but the clarity of reception will be improved.

Wenn man eine der Tasten länger als 1 Sekunde gedrückt hält und dann losläßt, beginnt die automatische Abstimmung. Bei Empfang eines Senders hält der Abstimmvorgang an. Wenn man dagegen eine der Tasten gedrückt hält, wird auch bei Sempfang weiterhin abgestatet. Während automatischer Abstimmung unterbricht die Betätigung einer der Tasten den Abtastvorgang. Antippen der Taste unterbricht die Frequenzänderung, wenn die obere oder untere Frequenzgrenze erreicht ist. Bei automatischer Abstimmung wechseln die Frequenzsprünge in die entgegengesetzte Richtung.

Kanalabstände

Band / Bereich	FM	AM (MW)	AM (LW)
USA, Kanada	100 kHz	10 kHz	–
Europa, Australien	50 kHz	9 kHz	1 kHz (Nur Europa)
Andere Bereiche	50 kHz	9 kHz oder 10 kHz	–

Mit dem AM-Kanalabstandsschalter an der Rückwand lassen sich die Frequenzsprünge auf 9 kHz oder 10 kHz einstellen, je nach Land.
Die Umschaltung erfolgt mit der Spitze eines Schraubenziehers, wie in Abb. 11 gezeigt.
Dabei ist unbedingt das Netzkabel abzuziehen und erst nach etwa 1 Minute der Abstandsschalter umzustellen.

⑪ Speichertaste (MEMORY)

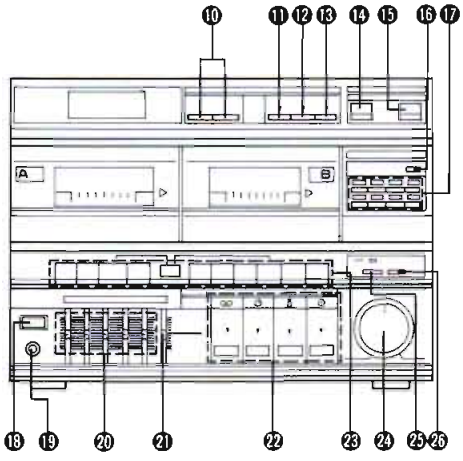
Wenn man diese Taste drückt, leuchtet die MEMORY-Kontrollampe etwa 5 Sekunden lang auf, d.h. der Speicher ist zum Empfang von Informationen über die Vorwahlstationen bereit. Eine der PRESET STATIONS-Tasten drücken, so lange die MEMORY-Kontrollampe aufleuchtet.

Hinweis:

- **Wenn die MEMORY-Kontrollampe erlöscht ist, können keine Frequenzen mehr durch Drücken der PRESET STATIONS Tasten gespeichert werden; es ist also wieder diese Taste zu betätigen.**

⑫ UKW-Betriebsart-/Stummabstimmtaste (FM MODE/MUTE)

Wenn man diese Taste betätigt, leuchten bei normalem FM-Empfang die Kontrollampen von AUTO in FM MODE und ON in FM MUTE auf, wobei automatische Stummabstimmung erzielt wird, benachbarte Sender also unterdrückt werden. Bei Empfang einer schwachen oder gestörten FM-Stereoübertragung einer schwachen oder gestörten FM-Stereoübertragung sollten Sie diese Taste so betätigen, daß die Kontrollampen MONO in FM MODE und OFF in FM MUTE anzeigen. Der Empfang ist dann zwar in Mono, die Empfangsqualität aber verbessert.



⑬ **PRESET SCAN**
This button permits the scanning of preset stations. When this button is pressed, channel 1 is tuned in, then this channel number flashes for about 5 seconds. The following channels are shown in the same way. When the desired station is received, pressing this button stops scanning so that the DR-E11BK/DR-E11LBK remains tuned to the station. After 16 stations (FM/AM) have been scanned, the frequency received before preset scanning is tuned to.

⑭ **FM**
Press this button to listen to the FM broadcast.

⑮ **AM(DR-E11BK), AM MW/LW(DR-E11LBK) button**
Press this button to listen to the AM (MW/LW) broadcast.

⑯ **PRESET SELECT**
Press to set to channels 1 – 8 or channels 9 – 16. The 1 – 8 or 9 – 16 PRESET SELECT indicator lights. Up to 16 stations for each band (FM 16, AM 16 (MW, LW random)) can be preset as required. Even when you pushed MEMORY button and then changed 1 – 8 and 9 – 16 by pressing this button, it is possible to accomplish pre-set memory by pressing the pre-set station button.

⑰ **PRESET STATIONS**
These buttons are used to select one of the preset stations or to store the frequency in the memory of an individual channel. When one of these button is pressed, the channel number is shown by the TUNER PRESET indicator. If one of these buttons is pressed while the MEMORY indicator is lit, the frequency which is being received will be stored in memory.

⑱ **POWER**
ON (⏻): Press this button to turn the power on.
OFF (■): Set to this position to turn the power off.

⑲ **PHONES jack**
Plug in here when using headphones.

Notes:
- **Plugging in headphones switches off the sound from the speakers.**
- **Set the volume properly so that sound from the headphones does not hurt your ears.**

⑳ **S.E.A. graphic equalizer system**
Adjust the tone as required using these knobs.
63 Hz: Raise to emphasize the very low bass response of organs, drums and contrabass. Raising this knob produces stable and solid sound to eliminate unclear sound at low frequencies, lower the knob.
250 Hz: Lower the knob to reduce reflected sound in the listening room or to eliminate unclear sound caused in a small listening room.
1 kHz: Most effective in emphasizing or de-emphasizing the human voice. Raise the knob to cause the vocalist to be brought to the foreground, or lower for the vocalist to recede into the background.

⑬ **Vorwahlabtasttaste (PRESET SCAN)**
Mit dieser Taste lassen sich die voreingestellten Sender abtasten. Bei Betätigen der Taste wird Kanal 1 abgerufen. Die Kanalnummer blinkt dann etwa 5 Sekunden lang auf. Die folgenden Kanalnummern werden ebenso angezeigt. Wenn der gewünschte Sender empfangen wird, unterbricht ein erneuter Tastendruck den Abtastvorgang, so daß das DR-E11BK/DR-E11LBK auf den gewählten Sender eingestellt bleibt. Nach Abtasten von 16 Stationen (FM/AM) wird wieder die vor dem Abtasten empfangene Sendestation eingestellt.

⑭ **UKW-Taste (FM)**
Diese Taste drücken, um FM-Sendungen zu hören.

⑮ **MW-Taste (AM) (DR-E11BK), MW/LW-Taste (AN MW/LW) (DR-E11LBK)**
Diese Tasten drücken, um FM-Sendungen (MW/LW) zu hören.

⑯ **Vorwahltaste (PRESET SELECT)**
Hiermit lassen sich die Kanäle 1 – 8 oder 9 – 16 wählen. Die PRESET SELECT Kontrollampen 1 – 8 oder 9 – 16 leuchten dann auf. Bis zu 16 Stationen pro Band (FM 16, AM 16, MW/LW beliebig) können nach Wunsch voreingestellt werden. Selbst wenn die MEMORY-Taste gedrückt und 1 – 8 oder 9 – 16 durch Drücken dieser Taste angewählt wurde, ist Vorwahlspeicherung möglich, indem man einfach die entsprechende Vorwahlstationstaste drückt.

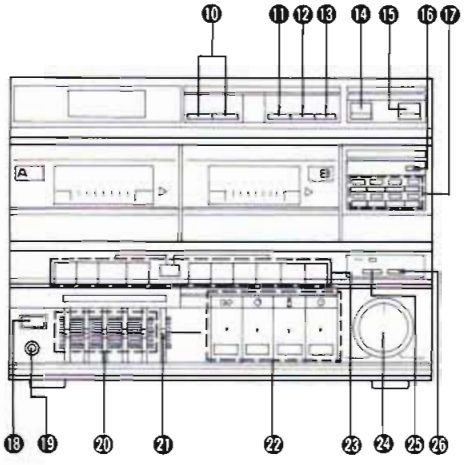
⑰ **Vorwahlstationstaste (PRESET STATIONS)**
Mit diesen Tasten läßt sich einer der vorgewählten Sender abrufen oder aber die Frequenz eines bestimmten Kanals speichern. Wenn man eine dieser Tasten betätigt, erscheint an der TUNER PRESET Kontrollanzeige die betreffende Kanalnummer. Wenn man eine dieser Tasten bei gleichzeitig leuchtender MEMORY-Anzeige betätigt, wird die augenblickliche Empfangsfrequenz gespeichert.

⑱ **Netzschalter (POWER)**
ON (⏻): Diesen Schalter zum Einschalten des Geräts drücken.
OFF (■): Zum Ausschalten auf diese Position stellen.

⑲ **Kopfhörerbuchse (PHONES)**
Zum Anschließen eines Kopfhörers.

Hinweise:
- **Wenn ein Kopfhörer angeschlossen ist, sind die Lautsprecher automatisch ausgeschaltet.**
- **Die Lautstärke nicht zu hoch einstellen, weil es sonst zu Gehörschäden kommen kann können.**

⑳ **S.E.A. Graphic Equalizer**
Mit diesen Reglern kann der Klang nach persönlichem Geschmack eingestellt werden.
63 Hz: Den Regler hochschieben, um die tiefen Bässe von Orgel, Schlagzeug und Kontrabass hervorzuheben. Durch Hochschieben dieses Reglers wird der Klang stabil und fest. Den Regler nach unten schieben, um einen unklaren Klang bei niedrigen Frequenzen zu eliminieren.
250 Hz: Den Regler nach unten schieben, um Klangreflektionen im Hörraum zu reduzieren oder um unklaren Klang in einem kleinen Hörraum zu eliminieren.
1 kHz: Sehr wirkungsvoll zum Hervorheben oder Senken der menschlichen Stimme. Durch Hochschieben des Reglers wird der Vokalist in den Vordergrund und durch Hinunterschieben in den Hintergrund gebracht.



4 kHz: Raise this knob slightly so that the tension of strings can be sensed and vigorous sound can be obtained. Lower the knob for easy listening.

16 kHz: Boosting this frequency range properly adds to the delicacy of highs, with cymbals and triangles resounding in a more ear-pleasing way, and provides a feeling of extension. This knob can also be used to compensate for cartridge response since most moving magnet cartridges have resonance peaks in the frequency range from 10 kHz to 20 kHz.

㉑ **BALANCE**
Balances the volume between the left and right speakers.

㉒ **SOURCE SELECTOR**
TAPE: Press to listen to tapes.
PHONO: Press to listen to records.
TUNER: Press this button to listen to an AM (MW/LW)/FM broadcast.
CD/AUX: Press to listen to the unit connected to the CD/AUX terminals (CD player, etc.).

㉓ **Cassette operation buttons**
((A) means tape deck A and (B), tape deck B.)
PLAY (▶) (A), (B): Press this button to play a tape.
REC (B): Press this button together with the PLAY (▶) button to record.
REW (◀◀) (A), (B): Press this button to rewind a tape.
FF (▶▶) (A), (B): Press this button to fast forward a tape.
STOP (■)/EJECT (≜) (A), (B): Press to stop a tape while the tape is running. When the tape is stopped and this button is pressed, the cassette door is opened for tape loading and unloading.
PAUSE (❚❚) (B): Press to stop the tape temporarily in recording or play back. To release the pause, press again.

㉔ **VOLUME**
Use to adjust the volume of the speakers or headphones.

Note:
- Set the volume so as not to disturb your neighbors, especially late at night.

㉕ **TAPE SYNCHRO**
Press this button when recording the tape played back by tape deck A with tape deck B.
The TAPE SYNCHRO indicator lights.

㉖ **NR SYSTEM (ANRS/DOLBY B)**
ON (▬): Press this button to this position when recording with the ANRS/DOLBY B NR system or playing back a tape recorded with these systems.
OFF (▬): Press this button to this position when the ANRS/DOLBY B NR system is not used.
* "DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

4 kHz: Wenn dieser Regler nach oben geschoben wird, können die Spannungen von Streichinstrumenten empfunden und kräftige Klänge erhalten werden. Wenn der Regler nach unten geschoben wird, wird das Hören erleichtert.

16 kHz: Wenn dieser Frequenzbereich verstärkt wird, werden die Höhen deutlicher und Becken und Triangel klingen angenehmer. Außerdem scheint sich der Hörraum zu vergrößen. Dieser Regler kann auch verwendet werden, um den Frequenzgang des Tonabnehmers auszugleichen, da die meisten magnetischen Tonabnehmer zwischen 10 kHz und 20 kHz eine Resonanzspitze aufweisen.

㉑ **Balanceregler (BALANCE)**
Zur Balanceregelung zwischen linkem und rechtem Kanal.

㉒ **Signalquellentasten (SOURCE SELECTOR)**
TAPE: Zum Hören von Cassetten.
PHONO: Betätigen, um auf Schallplattenwiedergabe zu schalten.
TUNER: Betätigen, um eine Radiosendung wiederzugeben (MW/LW, UKW).
CD/AUX: Betätigen, um auf Wiedergabe der an den CD/AUX-Buchsen angeschlossenen Signalquelle (CD-Player etc.) zu schalten.

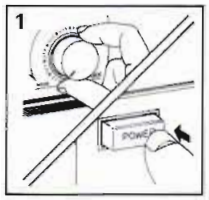
㉓ **Laufwerkfunktionstasten**
((A) kennzeichnet Deck A, (B) kennzeichnet Deck B.)
PLAY (▶) (A), (B): Diese Taste für Wiedergabebetrieb betätigen.
REC (B): Zusammen mit der PLAY (▶)-Taste betätigen, um Aufnahmen durchzuführen.
REW (◀◀) (A), (B): Zum Rückspulen des Bandes diese Taste drücken.
FF (▶▶) (A), (B): Zum Schnellvorspulen des Bandes diese Taste drücken.
STOP (■)/EJECT (≜) (A), (B): Zum Stoppen diese Taste drücken, während das Band läuft. Wenn das Band gestoppt ist und diese Taste gedrückt wird, öffnet sich das Cassettenfach, um eine Cassette einlegen oder entnehmen zu können.
PAUSE (❚❚) (B): Zum Unterbrechen des Bandlaufs bei Aufnahme oder Wiedergabe diese Taste drücken. Zum Fortsetzen des Bandlaufs diese Taste noch einmal drücken.

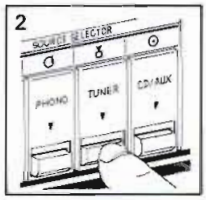
㉔ **Lautstärkeregler (VOLUME)**
Zum Einstellen der Lautstärke der Lautsprecher oder des Kopfhörers.

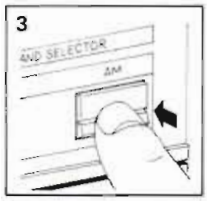
Hinweis:
- Die Lautstärke nur so hoch einstellen, daß andere nicht gestört werden, vor allem in der Nacht.

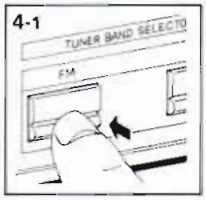
㉕ **Band-Synchrotaste (TAPE SYNCHRO)**
Betätigen, um die Wiedergabe von Deck A mit Deck B aufzuzeichnen.
Die TAPE SYNCHRO-Anzeige leuchtet.

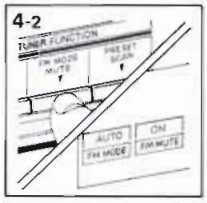
㉖ **Rauschunterdrückung-Schalter (ANRS/DOLBY B)**
ON (▬): Für Aufnahme mit dem ANRS/DOLBY B-Rauschunterdrückungssystem oder für Wiedergabe von Cassetten, die mit diesen Systemen aufgenommen wurden, den Schalter auf diese Position stellen.
OFF (▬): Den Schalter durch nochmaliges Drücken auf diese Position stellen, wenn das ANRS/DOLBY B-Rauschunterdrückungssystem nicht verwendet wird.
* DOLBY und das Doppel-D Symbol ⧈ sind Warenzeichen der Dolby Laboratories Licensing Corporation.

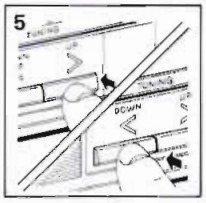


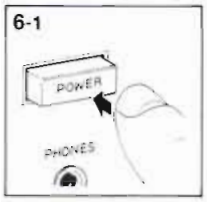


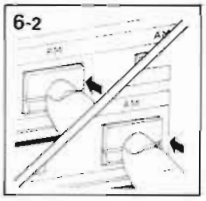


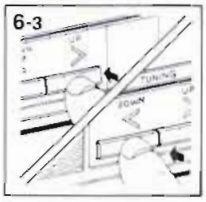


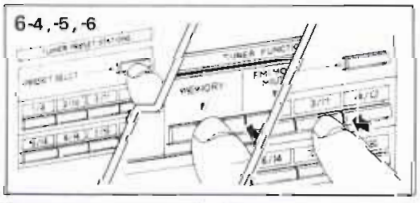


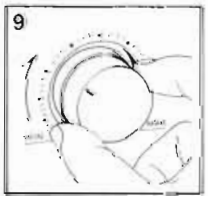


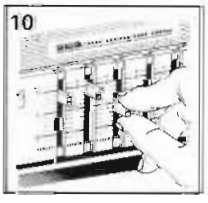












OPERATION

LISTENING TO BROADCASTS OR RECORDS

1. Press the POWER button to ON (▬) after setting the volume knob to minimum.
2. To listen to broadcasts press the TUNER button.
3. To listen to an AM (MW/LW) broadcast, press the AM (MW/LW) button.

4-1. To listen to an FM broadcast, press the FM button.

4-2. Press the FM MODE/MUTE button to AUTO/ON.

Note:

- **In weak signal areas, set the FM MODE/MUTE button to MONO/OFF. FM broadcasts will be heard in mono but noise is reduced.**

5. Tune in a broadcast with the UP/DOWN TUNING button.
   In areas where signals are optimum, the TUNING indicator lights, when an FM or AM (MW/LW) broadcast is received.
   If it is an FM stereo broadcast, the FM STEREO indicator lights.

Presetting to selected stations

6-1. Press the POWER button to ON (▬) and check the frequency of the desired station.

6-2. Press the FM or AM (MW/LW) button.

6-3. Tune to the desired frequency by pressing the UP/DOWN TUNING button.

6-4. To select the preset stations 1 – 8 or 9 – 16, press the PRESET SELECT button.

6-5. Press the MEMORY button.

6-6. Press one of the PRESET STATIONS buttons within 5 seconds after pressing the MEMORY button.

Note:

- No sound is output when the PRESET STATIONS buttons are pressed; this is to prevent noise and is not a malfunction.

Carry out the same pretuning procedure (steps 6-3, 6-4, 6-5, 6-6) for the remaining channels. Pretuning is possible to up to 16 stations.
Press the desired PRESET STATIONS button when you want to listen to that station.

Note:

- A total 32 stations (FM, AM (MW/LW)) can be preset by changing the setting of the PRESET SELECT button (1 – 8, 9 – 16).

7. To listen to a record,
   Press the PHONO button.
   Operate the turntable.
   Concerning the operation of the turntable, read its instruction book.
8. When listening to a source connected to the CD/AUX terminals (CD player, etc.), press the CD/AUX button.
9. Set the volume knob to the desired level.
10. Adjust the SEA knobs to obtain the tone required.

BEDIENUNG

WIEDERGABE VON RADIOSENDUNGEN ODER SCHALLPLATTEN

1. Den Lautstärkeregler auf Minimum stellen und dann den POWER-Schalter auf ON (▬) drücken.
2. Zum Hören einer Sendung die TUNER-Taste betätigen.
3. Zum Hören eines MW/LW-Senders den AM (MW/LW)-Schalter drücken.

4-1. Zum Hören eines UKW-Senders den FM-Schalter drücken.

4-2. Den FM MODE/MUTE-Schalter auf AUTO/ON drücken.

Hinweis:

- **In Gebieten mit schwachen Sendersignalen den FM MODE/MUTE-Schalter auf MONO/OFF stellen. Die UKW-Sender werden dann in Mono gehört, aber die Störgeräusche sind reduziert.**

5. Mit dem UP/DOWN TUNING-Regler einen Sender einstellen.
   In Gebieten mit guten Empfangsbedingungen leuchtet die TUNING-Anzeige, wenn ein UKW- oder MW/LW-Sender empfangen wird. Wenn ein UKW-Stereosender empfangen wird, leuchtet die FM STEREO-Anzeige.

Belegung der Stationstasten

6-1. Die POWER-Taste auf ON (▬) stellen und die Frequenz des gewünschten Senders überprüfen.

6-2. Die FM- oder AM (MW/LW)-Taste betätigen.

6-3. Durch Betätigen der UP/DOWN TUNING-Taste die gewünschte Frequenz einstellen.

6-4. Zur Vorwahl die PRESET SELECT-Taste auf 1 – 8 oder 9 – 16 stellen.

6-5. Die MEMORY-Taste betätigen.

6-6. Nach Betätigen der MEMORY-Taste innerhalb von 5 Sekunden eine der PRESET STATIONS-Taste drücken.

Hinweis:

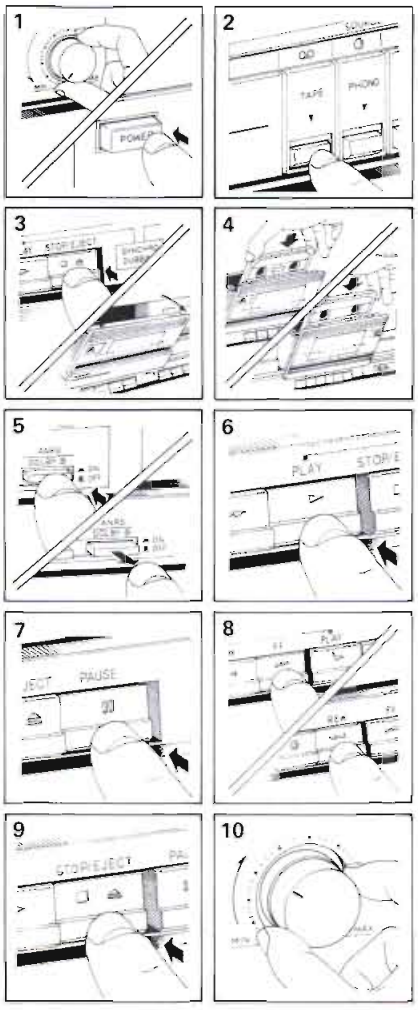
- Bei Betätigen der PRESET STATIONS-Tasten erfolgt keine Tonwiedergabe. Dies ist keine Fehlfunktion, sondern dient der Unterdrückung von Störgeräuschen.

Die Bedienschritte zur Senderprogrammierung (Schritte 6-3, 6-4, 6-5, 6-6) der übrigen Kanäle wiederholen. Bis zu 16 Sender können programmiert werden.
Zur Abrufung eines programmierten Senders die entsprechende PRESET STATIONS-Taste betätigen.

Hinweis:

- Insgesamt können 32 Stationen (UKW, AM (MW/LW)) gespeichert werden, wenn die PRESET SELECT-Taste umgestellt wird (1 – 8, 9 – 16).

7. Zum Hören von Schallplatten den PHONO-Schalter drücken.
   Den Plattenspieler wie erforderlich bedienen. Siehe die Bedienungsanleitung des Plattenspielers.
8. Zum Hören einer Signalquelle, die an den CD/AUX-Buchsen angeschlossen ist (Digitalspieler usw.) den CD/AUX-Schalter drücken.
9. Die Lautstärke wie gewünscht einstellen.
10. Den Klang mit den SEA-Reglern einstellen.



LISTENING TO TAPES

1. Press the POWER button to ON (—) after setting the volume knob to minimum.
2. Press the TAPE button.

Preparation for playing back a tape

3. Either tape deck A or B can be used for playback.
   Press the STOP (■)/EJECT (▲) button of the tape deck selected to open the cassette door.
4. Insert cassettes.

Note:

- It is impossible to obtain the optimum characteristics if it is set to ON (—).

5. If a tape recorded with ANRS or DOLBY B Noise Reduction System is used, press the NR SYSTEM button to ANRS/DOLBY B (—).
   If not, set this button to OFF (▬).
   The selection of metal or normal tape is automatic for tape deck A and B.

When playing back a tape

6. Press the PLAY (▶) button.

Note:

- It is not possible to play tape decks A and B at the same time. If you set both decks to the play mode, only tape deck A's sound is heard.

When interrupting tape play temporarily (tape deck B)

7. Press the PAUSE (❚❚) button. To release this function, press it again.

When fast forwarding or rewinding a tape

8. To fast forward a tape, press the FF (▶▶) button and to rewind a tape, press the REW (◀◀) button.

Note:

- When the tape reaches its end, press the STOP (■)/EJECT (▲) button.

Stopping a tape

9. Press the STOP (■)/EJECT (▲) button.
10. Set the volume to the optimum level.

BANDWIEDERGABE

1. Den Lautstärkeregler auf Minimum stellen und dann den POWER-Schalter auf ON (—) drücken.
2. Die TAPE-Taste drücken.

Wiedergabe einer Cassette

3. Für Wiedergabe kann Deck A oder Deck B verwendet werden. Die STOP (■)/EJECT (▲)-Taste dieses Decks drücken, um das Cassettenfach zu öffnen.
4. Cassetten einlegen.

Hinweis:

- Wenn der Schalter auf ON (—) steht, wird kein guter Klang erzielt.

5. Wenn eine Cassette verwendet wird, die mit ANRS oder DOLBY B Rauschunterdrückung aufgenommen wurde, den NR SYSTEM-Schalter auf ANRS/DOLBY B (—) drücken.
   Für Cassetten ohne Rauschunterdrückung diesen Schalter auf OFF (▬) stellen.
   Die Wahl für Metall- oder Normalband erfolgt für Deck A und B automatisch.

Wiedergabe einer Seite

6. Die PLAY (▶)-Taste betätigen.

Hinweis:

- Deck A und Deck B können nicht gleichzeitig für Wiedergabebetrieb verwendet werden. Sind beide Decks auf Wiedergabe geschaltet, ist nur der Ton von Deck A verfügbar.

Unterbrechung der Wiedergabe (Deck B)

8. Die PAUSE-Taste (❚❚) drücken. Zum Fortsetzen der Wiedergabe die Taste noch einmal drücken.

Schnellvorspulen oder Zurückspulen

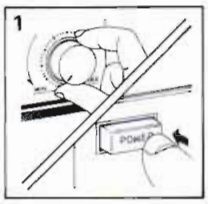
8. Zum Schnellvorspulen die FF-Taste (▶▶) und zum Zurückspulen die REW-Taste (◀◀) drücken.

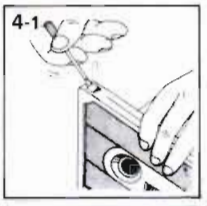
Hinweis:

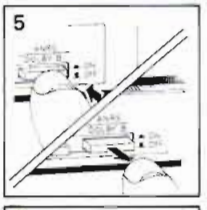
- Bei Erreichen des Bandendes die STOP (■)/EJECT (▲)-Taste betätigen.

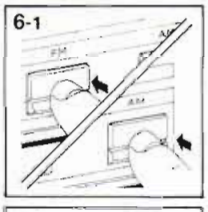
Stoppen des Bandes

9. Die STOP (■)/EJECT (▲)-Taste drücken.
10. Die Lautstärke wie gewünscht einstellen.









RECORDING

Use tape deck B for recording. It is not necessary to adjust the recording level because an auto level control circuit is built into this unit.
When SEA recording is not performed, set the SEA knobs to "0".

1. Press the POWER button to ON (▬) after setting the volume knob to minimum beforehand.
2. Press STOP (■)/EJECT (⏏) to open the cassette door. If the tape is running, press the STOP (■)/EJECT (⏏) button to stop the tape and press STOP (■)/EJECT (⏏) to open the cassette door.
3. Insert a cassette.

4-1. Cassettes are provided with protective tabs. After recording, break the left tab with side A toward you when side A is required to be protected, for side B, break the left tab with side B toward you.
This avoids accidental erasure.
When a tape with its tabs broken is used, it is impossible to record on it.

4-2. When a cassette with its tabs broken off is to be used for recording, seal the holes with adhesive tape.

Note:

- Using a CrO_2 or Ferri-chrome tape is not recommended because this unit does not have the required characteristics.

5. To record with ANRS or DOLBY B Noise Reduction, set the NR SYSTEM button to ANRS/DOLBY B (▬).

When recording a broadcast

6-1. Choose the desired broadcast.
For an FM broadcast, press the FM button.
For an AM broadcast, press the AM (MW/LW) button.
Concerning the method of tuning the broadcast, follow steps 3 – 6 of "LISTENING TO BROADCASTS OR RECORDS" on page 17.

6-2. When recording an AM (MW/LW) broadcast, beats may occur.
Set the BEAT CUT knob located on the rear panel to "1" or "2" so that beats are eliminated.

When recording a record

7-1. Press the PHONO button.

7-2. Operate the turntable.
Concerning the operation of the turntable, refer to its instruction book.

When recording a source from the unit connected to the CD/AUX

8. Press the CD/AUX button and play the unit.

When performing SEA recording

9. Adjust the SEA knobs as required.

AUFNAHME

Für Aufnahme Deck B verwenden. Der Aufnahmepegel braucht nicht manuell geregelt werden, da dieses Gerät über eine automatische Aufnahmeaussteuerung verfügt.
Wenn SEA-Aufnahme nicht erforderlich ist, die SEA-Regler auf "0" stellen.

1. Nach Rückstellung des Lautstärkereglers auf seine Minimalposition, die POWER-Taste auf ON (▬) stellen.
2. Zum Öffnen des Cassettenhalters STOP (■)/EJECT (⏏) drücken. Bei laufendem Band zuerst die STOP (■)/EJECT (⏏) Taste betätigen, dann STOP (■)/EJECT (⏏) drücken.
3. Eine Cassette einlegen.

4-1. Cassetten sind mit Löschschutzlaschen versehen. Soll die Aufnahme vor Löschung geschützt werden, die Lasche herausbrechen. Für Seite A die linke Lasche herausbrechen, wenn Seite A in Ihre Richtung gehalten wird, entsprechend für Seite B die linke Lasche herausbrechen, wenn Seite B in Ihre Richtung gehalten wird. Eine Cassette mit entfernten Laschen kann nicht bespielt werden.

4-2. Soll eine Cassette mit entfernten Laschen für Aufnahmen verwendet werden, die Öffnungen mit Klebeband abdecken.

Hinweis:

- Die Verwendung von CrO_2 oder Ferrichrombändern wird nicht empfohlen, da dieses Gerät nicht die erforderliche Voreinstellung durchführen kann.

5. Aufnahmen mit ANRS/Dolby B-Rauschunterdrückung können bei ANRS/DOLBY B-Position (▬) des NR SYSTEM-Schalters durchgeführt werden.

Aufnahme einer Radiosendung

6-1. Den gewünschten Sender einstellen.
Für UKW die FM-Taste, für AM die AM (MW/LW)-Taste betätigen.
Angaben zur Senderabstimmung siehe Seite 17, Schritte 3 – 6 von Abschnitt "WIEDERGABE VON RADIOSENDUNGEN ODER SCHALLPLATTEN".

6-2. Bei Aufnahme von AM (MW/LW)-Sendungen können Interferenzen auftreten. In diesem Fall den BEAT CUT-Regler an der Rückplatte auf Position "1" oder "2" stellen, um die Interferenzstörungen zu eliminieren.

Aufnahme einer Schallplatte

7-1. Die PHONO-Taste betätigen.

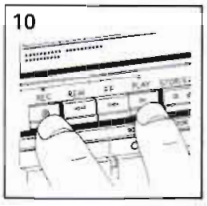
7-2. Den Plattenspieler betätigen.
Angaben zur Bedienung des Plattenspielers finden Sie in dessen Bedienungsanleitung.

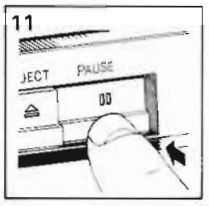
Aufnahme einer an den CD/AUX-Buchsen angeschlossenen Signalquelle

8. Die CD/AUX-Taste betätigen und das angeschlossene Gerät auf Wiedergabe schalten.

SEA-Aufnahme

9. Die SEA-Regler wie erforderlich einstellen.





Operation of tape deck B for recording

10. When the REC (○) and PLAY (▶) buttons are pressed, the recording starts immediately.
11. To cut an unwanted part, press the PAUSE (▮▮) button; the pause mode is set and the recording is interrupted. To restart the recording, press the PAUSE (▮▮) button.

Notes:

- **Do not press the TAPE SYNCHRO button during recording.**
- **If a second tape deck is operated while a tape deck is playing back or recording, the tape running speed of the first tape deck may temporarily change.**
  Therefore, operate a second tape deck only after the first has stopped playing or recording.

Aufnahmebetrieb mit Deck B

10. Bei Betätigen von REC (○) und PLAY (▶) Taste startet die Aufnahme unmittelbar.
11. Zur Aufnahmeunterbrechung die PAUSE (▮▮) Taste betätigen.
    Das Gerät ist auf Pause geschaltet, es findet keine Aufnahme statt. Zur Aufnahmefortsetzung die PAUSE (▮▮) Taste betätigen.

Hinweise:

- **Die TAPE SYNCHRO-Taste nicht bei Aufnahme betätigen.**
- **Wird bei Wiedergabe oder Aufnahme mit einem Deck ein weiteres Deck betrieben, kann die Bandlaufgeschwindigkeit des ersten Decks kurzzeitig schwanken.**
  Daher ein zweites Deck erst betreiben, wenn die Wiedergabe oder Aufnahme des ersten Decks beendet ist.

ERASING

Recording on a cassette automatically erases the previous sound.

To erase without making a new recording

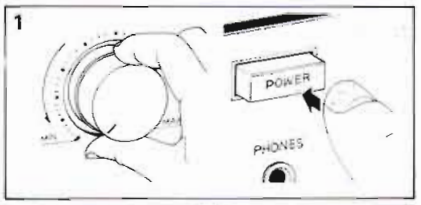
Set tape deck A to the stop mode (PLAY (▶) → STOP (■)). Then, set tape deck B to the recording mode.

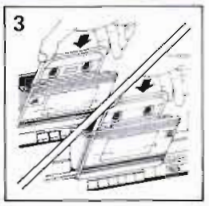
LÖSCHEN

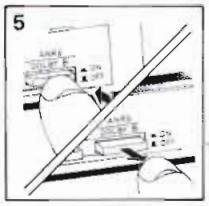
Bei Aufnahme wird automatisch die vorhandene Bespielung gelöscht.

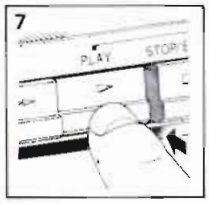
Löschen ohne Neuaufnahme

Deck A auf Stop schalten (PLAY (▶) → STOP (■)). Dann Deck B auf Aufnahme schalten.









DUBBING

Dubbing means to copy a tape to another tape. Dubbing can be done from tape deck A to tape deck B.

1. Press the POWER button to ON (▬) after setting the VOLUME knob to minimum.
2. Press the STOP (■)/EJECT (≜) buttons of tape deck A and B to open the cassette doors.
3. Insert cassettes.
4. Press the PLAY (▶) button of tape deck A to scan to the turie to be copied.
5. Set the NR SYSTEM button as required.
6. Set tape deck B to the record mode (press (○) and (▶) buttons).
7. Set tape deck A to the play mode (press the (▶) button).

Note:

- **Pressing the source select buttons during dubbing switches the source for recording.**

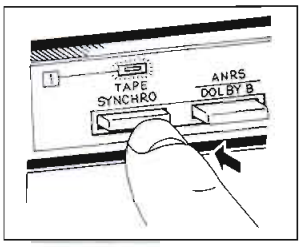
ÜBERSPIELEN

Überspielen bedeutet Kopieren einer Bandaufnahme.
Überspielen ist von Deck A auf Deck B möglich.

1. Nach Rückstellung des Lautstärkereglers auf seine Minimalposition die POWER-Taste auf ON (▬) stellen.
2. Zum Öffnen der Cassettenhalter STOP (■)/EJECT (≜) von Deck A und B betätigen.
3. Cassetten einlegen.
4. Zur Anwahl des zu kopierenden Titels die PLAY (▶) Taste von Deck A betätigen.
5. Die NR SYSTEM-Taste wie erforderlich einstellen.
6. Deck B auf Aufnahme schalten (die (○) und (▶) Taste betätigen).
7. Deck A auf Wiedergabe schalten (die (▶)-Taste betätigen).

Hinweis:

- **Durch Betätigen der Signalquellenschalter wird die Zuspielquelle bei Überspielbetrieb umgeschaltet.**



To dub while listening to another source (TAPE SYNCHRO dubbing)
Press the TAPE SYNCHRO button. The indicator above it lights. Concerning the method of recording, follow steps 2 – 7 of "DUBBING" on page 23.

Notes:
- **The NR SYSTEM button cannot be used in this case.**
- **SEA recording is not possible in this case. (See table 1)**

Überspielen bei gleichzeitiger Wiedergabe einer anderen Signalquelle (TAPE SYNCHRO-Überspielen)
Die TAPE SYNCHRO-Taste betätigen. Die Anzeige oberhalb leuchtet. Angaben zum Aufnahmebetrieb siehe Schritte 2 – 7 von Abschnitt "ÜBERSPIELEN" auf Seite 23.

Hinweise:
- **In diesem Fall ist die NR SYSTEM-Taste ohne Funktion.**
- **In diesem Fall ist keine SEA-Aufnahme möglich. (Siehe Tabelle 1)**

Table 1

	Tape deck A Tape for playback	Tape deck B Tape for recording	NR SYSTEM button	SEA recording
TAPE dubbing	Tape recorded without NR	To make a tape recorded without NR	OFF ▬	Not possible
	Tape recorded with NR	To make a tape recorded without NR	ON ▂	
		To make a tape recorded with NR	OFF ▬	

Tabelle 1

	Deck A Wiedergabeband	Deck B Aufnahmeband	NR SYSTEM-Taste	SEA-Aufnahme
TAPE-Überspielen	Ohne Rauschunterdrückung bespieltes Band	Aufzeichnung ohne Rauschunterdrückung	AUS ▬	Nicht möglich
	Mit Rauschunterdrückung bespieltes Band	Aufzeichnung ohne Rauschunterdrückung	EIN ▂	
		Aufzeichnung mit Rauschunterdrückung	AUS ▬	

CASSETTE TAPE
CASSETTENBAND
CASSETTE
MUZIEKCASSETTES
CINTAS DE CASSETTE

Brand / Marke / Marque / Merk / Marca \ Tape type / Bandsorte / Type de bande / Bandsoort / Tipo de cinta	**NORMAL** **NORMAL** **NORMAL** **NORMAAL** **NORMAL**	**METAL** **METAL** **METAL** **METAAL** **METALIZADA**
JVC FUJI FILM MAXELL TDK SCOTCH	DA1, **DA3** **FR-I,** DR, ER UR, UDI, **XLI-S,** UL, XLI D, **AD,** OD, AD-X, AD-S BX, **CX, XS-I**	**ME PRO II** FR METAL **MX** **MA** METAFINE
SONY BASF DENON MAGNAX	AFH, BHF, FH, HF-S PRO I, LH-X DX1, DX3, DX4 **GM-I,** ML	**METALLIC,** Metal ES PRO IV DXM **METAL**

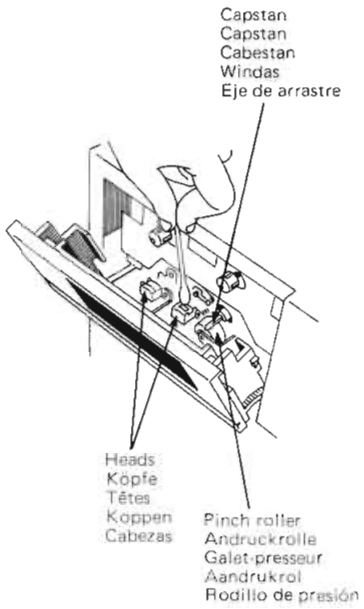
Note:
- Tapes with their names in bold characteristics are recommended in order to achieve the best performance of the DR-E11BK/DR-E11LBK.

Hinweis:
- **Die fett gedrucken Bänder werden empfohlen, um optimale Aufnahmersultate mit dem DR-E11BK/DR-E11LBK zu erzielen.**

Remarque:
- Les bandes dont les noms sont en caractères gras sont recommandées pour obtenir les meilleures performances possibles du DR-E11BK/DR-E11LBK.

Opmerking:
- Cassettes met vetgedrukte namen worden aanbevolen ter verkrijging van de beste prestaties van de DR-E11BK/DR-E11LBK.

Nota:
- Las cintas cuyos nombres están en negrillas se recomiendan para obtener el mejor rendimiento del DR-E11BK/DR-E11LBK.



MAINTENANCE

Head cleaning
Head cleaning is required to assure optimum performance.
The heads which come into contact with the tape attract minute particles of dust and become dirty.
If the heads are dirty . . . .
- Sound quality becomes poor.
- The sound level drops.
- Recording becomes impossible.
- Sound is interrupted.
- Previous recordings are not erased.

Because of this, keep the heads clean.

Wipe the heads with a cleaning stick or cloth moistened with alcohol (not too much).

Notes:
- **Do not bring any iron object, magnet screwdriver, etc. close to the heads.**
- **Do not use force so the right head positions are kept.**
- **Make sure to turn the power off when cleaning.**

Cleaning the pinch roller and capstan
Wipe the pinch roller and capstan referring to "Head cleaning"
Demagnetizing
If the heads become magnetized, noise will occur and high frequency response will deteriorate. In this case, set the POWER button to OFF and demagnetize the heads with a head demagnetizer. For more details, refer to the instruction book of the demagnetizer.

WARTUNG

Kopfreinigung
Um eine optimale Leistung zu gewährleisten, müssen die Köpfe regelmäßig gereinigt werden.
Durch den Kontakt mit dem Band sammeln sich auf den Köpfen Staubpartikel an.
Wenn die Köpfe schmutzig sind . . . .
- Verschlechtert sich die Klangqualität.
- Verringert sich die Lautstärke.
- Ist Aufnehmen nicht mehr möglich.
- Wird der Ton unterbrochen.
- Werden bei Neuaufnahmen die alten Aufnahmen nicht vollständig gelöscht.

Aus diesen Gründen müssen die Köpfe sauber gehalten werden.

Die Köpfe mit einem Wattestäbchen oder einem Tuch, das mit wenig Alkohol befeuchtet wurde, reinigen.

Hinweise:
- **Keine Gegenstände aus Eisen, magnetische Schraubenzieher usw. in die Nähe der Köpfe bringen.**
- **Nicht zu stark drücken, um die Positionen der Köpfe nicht zu verändern.**
- **Vor der Reinigung das Gerät ausschalten.**

Reinigung der Andruckrolle und der Tonwelle
Die Andruckrollen und Tonwellen auf die gleiche Weise wie die Köpfe reinigen, siehe "Kopfreinigung".
Entmagnetisierung
Wenn die Köpfe magnetisiert sind, treten Störgeräusche auf und die hohen Frequenzen werden schlechter. In diesem Fall das Gerät ausschalten und die Köpfe mit einem Tonkopf-Entmagnetisierer entmagnetisieren. Für genaue Einzelheiten siehe die Bedienungsanleitung des Entmagnetisierers.

TROUBLESHOOTING

What appears to be a malfunction may not always be serious.
Make sure first . . . .
Recording is impossible
Is the protective tab broken?
– Seal the hole with adhesive tape.

STÖRUNGSSUCHE

Was wie eine Fehlfunktion erscheint, muß nicht immer ernsthaft sein.
Überprüfen Sie zuerst . . . .
Aufnahme ist nicht möglich
Ist die Aufnahmeschutzzunge herausgebrochen?
– Die Öffnung mit einem Klebeband verschließen.

SPECIFICATIONS

AMPLIFIER SECTION

Output power : **25 watts per channel, min. RMS, both channels driven, into 8 ohms from 40 Hz to 20 kHz, with no more than 0.9 % total harmonic distortion.**

30 watts per channel, min. RMS, both channels driven, into 8 ohms at 1 kHz with no more than 0.9 % total harmonic distortion.

Input sensitivity/impedance
- PHONO : 3 mV/50 kohms
- CD/AUX : 300 mV/50 kohms

S.E.A. graphic equalizer
- Center frequencies: 63 Hz, 250 Hz, 1 kHz, 4 kHz, 16 kHz
- Control range : +10 dB ±1 dB, -10 dB ±1 dB

FM TUNER SECTION

Tuning range : 87.5 MHz – 108.0 MHz
Usable sensitivity : 0.95 µV/75 ohms, 1.5 µV/75 ohms (DIN)
Signal to noise ratio : 80 dB (A-net), 72 dB (DIN)
Stereo separation : 40 dB at 1 kHz, 35 dB at 1 kHz (DIN)

AM TUNER SECTION

MW

Tuning range
- Channel space 9 kHz : 522 kHz – 1629 kHz
- Channel space 10 kHz : 530 kHz – 1630 kHz, 530 kHz – 1710 kHz (for USA & Canada only)

Sensitivity : 300 µV/m

LW (DR-E11LBK only)

Tuning range : 144 kHz – 353 kHz
Sensitivity : 600 µV/m

CASSETTE SECTION

Head Deck A : Metaperm (play)
Deck B : Metaperm (play/rec) Ferrite (erase)
Frequency response : Normal tape: 30 Hz – 17 kHz (-20 dB rec/play) Metal tape: 30 Hz – 18 kHz (-20 dB rec/play)
Wow and flutter : 0.13 % (WRMS), 0.22 % (CCIR WTD)
Signal to noise ratio : 57 dB (metal tape)

GENERAL

Dimensions : 340(W) × 250(H) × 241(D) mm (13-7/16" × 9-7/8" × 9-1/2")
Weight : 5.4 kg (11.9 lbs)

Design and specifications subject to change without notice.

TECHNISCHE DATEN

VERSTÄRKERTEIL

Ausgangsleistung : 25 Watt pro Kanal, min. eff., beide Kanäle an 8 Ohm von 40 Hz – 20 kHz, bei Klirrfaktor nicht über 0,9 %.

30 Watt pro Kanal, min. eff., beide Kanäle an 8 Ohm bei 1 kHz, bei Klirrfaktor nicht über 0,9 %.

Eingangsempfindlichkeit/Impedanz
- PHONO : 3 mV/50 kOhm
- CD/AUX : 300 mV/50 kOhm

S.E.A. Graphic Equalizer
- Mittenfrequenzen : 63 Hz, 250 Hz, 1 kHz, 4 kHz, 16 kHz
- Regelbereich : +10 dB ±1 dB, -10 dB ±1 dB

UKW-TUNERTEIL

Abstimmbereich : 87,5 MHz – 108,0 MHz
Nutzbare Empfindlichkeit : 0,95 µV/75 Ohm, 1,5 µV/75 Ohm (DIN)
Störspannungsabstand : 80 dB (A-Netzwerk), 72 dB (DIN)
Stereokanaltrennung : 40 dB bei 1 kHz, 35 dB bei 1 kHz (DIN)

AM-TUNERTEIL

MW

Abstimmbereich
- Kanalabstand 9 kHz : 522 kHz – 1629 kHz
- Kanalabstand 10 kHz : 530 kHz – 1630 kHz 530 kHz – 1710 kHz (Für U.S.A. und Kanada)

Empfindlichkeit : 300 µV/m

LW (nur DR-E11LBK)

Abstimmbereich : 144 kHz – 353 kHz
Empfindlichkeit : 600 µV/m

KASSETTENTEIL

Kopf Deck A : Metaperm (Wiedergabe)
Deck B : Metaperm (Wiedergabe/Aufnahme) Ferrit (Löschen)
Frequenzgang : Normalband: 30 Hz – 17 kHz (-20 dB Aufn./Wiederg.) Metallband: 30 Hz – 18 kHz (-20 dB Aufn./Wiederg.)
Gleichlaufschwankungen : 0,13 % (WRMS), 0,22 % (CCIR WTD)
Störspannungsabstand : 57 dB (Metallband)

ALLGEMEIN

Abmessungen : 340(B) x 250(H) x 241(T) mm
Gewicht : 5,4 kg

Technische Änderungen vorbehalten.

POWER SPECIFICATIONS

Areas	Line Voltage & Frequency	Power Consumption
U.S.A.	AC 120 V~, 60 Hz	105 watts 125 VA
Canada		
U.K.	AC 240 V~, 50 Hz	100 watts
Australia		
Continental Europe	AC 220 V~, 50 Hz	
Republic of South Africa	AC 110/120/220/240 V~ selectable, 50/60 Hz	
Other Areas		

SPANNUNGSVERSORGUNG UND LEISTUNGSAUFNAHME

Gebiete	Netzspannung und Frequenz	Leistungsaufnahme
USA	120 V~ Wechselstrom, 60 Hz	105 Watt 125 VA
Kanada		
Großbritannien	240 V~ Wechselstrom, 50 Hz	100 Watt
Australien		
Kontinental-Europa	220 V~ Wechselstrom, 50 Hz	
Republik Süd-Afrika	110/120/220/240 V~ Wechselstrom schaltbar, 50/60 Hz	
Andere Gebiete		

CARACTERISTIQUES D'ALIMENTATION

Pays	Tension de ligne et fréquence	Consommation
Etats-Unis	CA 120 V~, 60 Hz	105 watts 125 VA
Canada		
Royaumi-Uni	CA 240 V~, 50 Hz	100 watts
Australie		
Europe Continentale	CA 220 V~, 50 Hz	
République d'Afrique du Sud	CA 110/120/220/240 V~ sélectionnable, 50/60 Hz	
Autres Pays		

SPANNINGSVEREISTEN

Gebieden	Netzspanning en frekwentie	Stroomverbruik
V.S.	120 V~ wisselstroom, 60 Hz	105 Watt 125 VA
Canada		
Engeland	240 V~ wisselstroom, 50 Hz	100 Watt
Australië		
Europese vasteland	220 V~ wisselstroom, 50 Hz	
Republiek van Zuid-Afrika	110/120/220/240 V~ wisselstroom instelbaar, 50/60 Hz	
Andere gebieden		

ESPECIFICACIONES DE ALIMENTACION

Paises	Voltaje y frecuencia	Consumo
EE.UU.	CA 120 V~, 60 Hz	105 vatios 125 VA
Canadá		
R.U.	CA 240 V~, 50 Hz	100 vatios
Australia		
Europa Continental	CA 220 V~, 50 Hz	
República de Sudáfrica	CA 110/120/220/240 V~ seleccionable, 50/60 Hz	
Otras áreas		

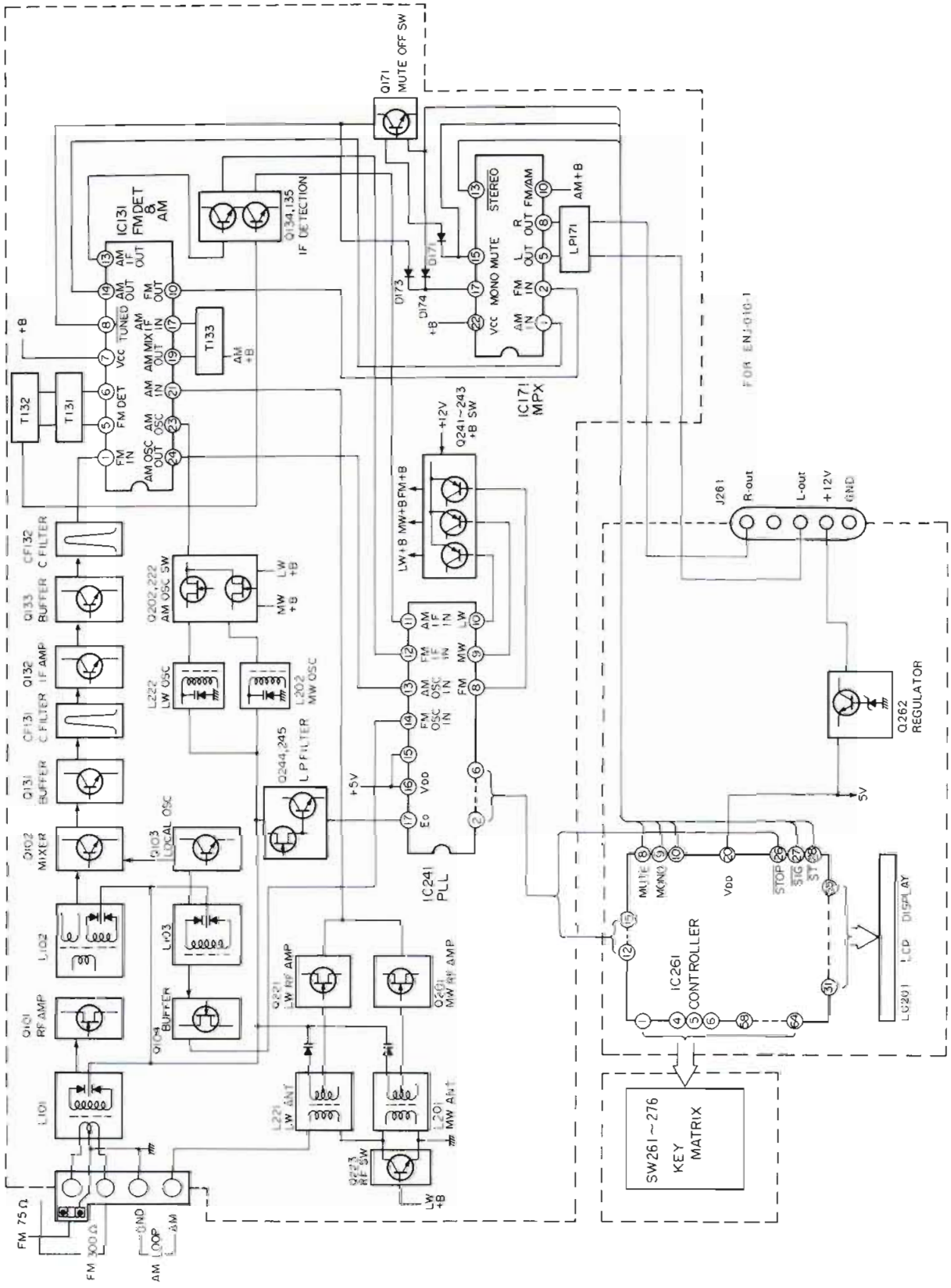
JVC
VICTOR COMPANY OF JAPAN, LIMITED

Printed in Japan

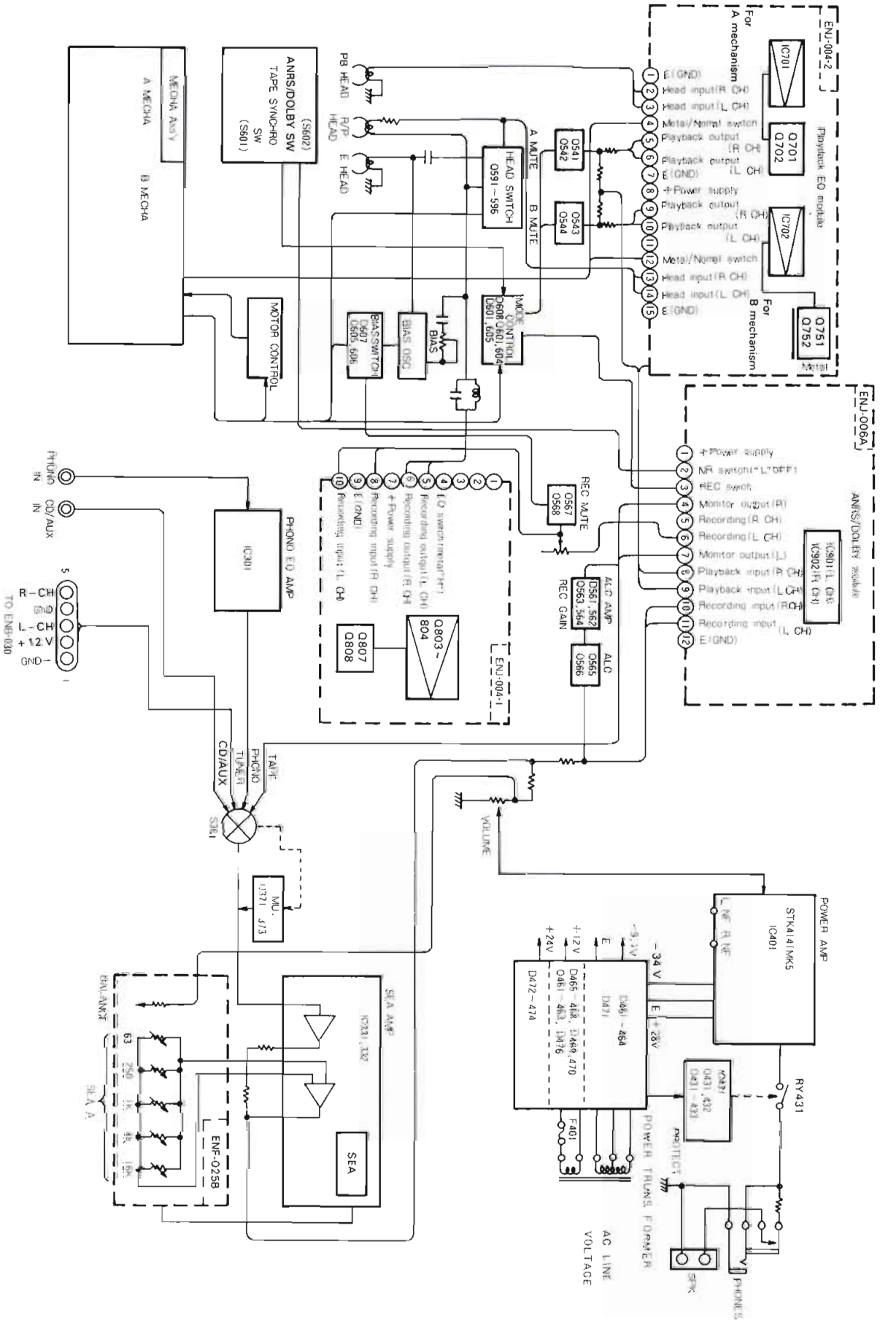
(No.2913)

Block Diagram

■ Tuner Section

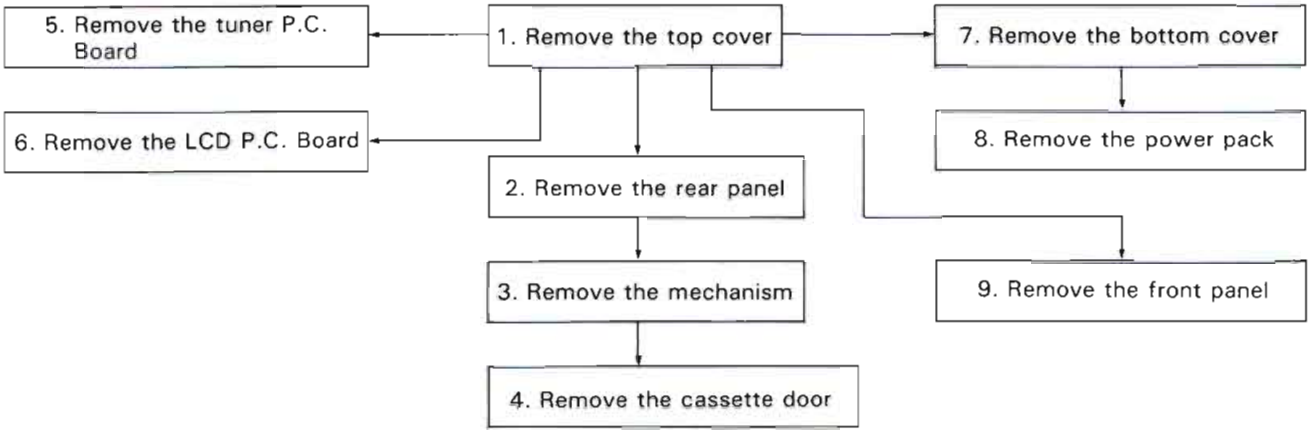


■ Cassette & Audio Amplifier Section



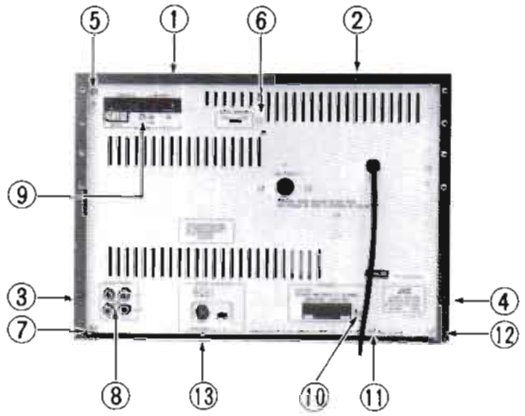
Removal Procedures

This machine was assembled using a specific sequence, so follow the flow chart shown below when removing parts.



1. Top Cover Removal

(1) Remove the 2 screws (4 in total) from each of the side panels.
(2) Remove the 4 screws ① ~ ④ from the rear panel and lift up the back of the top cover.

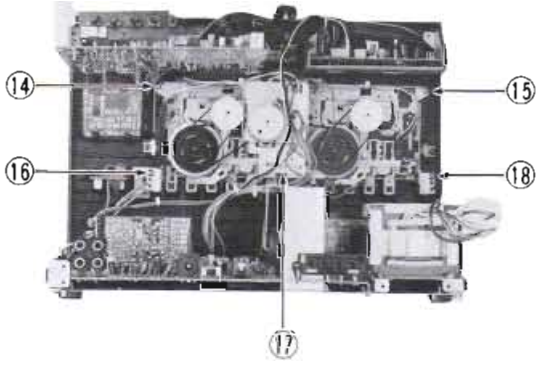


2. Rear Panel Removal

(1) Remove the 8 screws ⑤ ~ ⑫ holding the rear panel.
(2) Remove the screw ⑬ (the same as screw ㉚) holding the bottom cover.
(3) Remove the rear panel. The appearance will be as shown in Fig. 2.

3. Mechanism Removal

(1) Remove the 2 special double-threaded screws ⑭ , ⑮ holding the top part of the mechanism.
(2) Remove the 3 screws ⑯ ~ ⑱ holding the lower part of the mechanism (⑯ , ⑰ are tapping screws; ⑱ is a double-threaded screw).
(3) Open the cassette door and remove the mechanism.
(4) Disconnect the 3 connectors from the cassette mechanism.

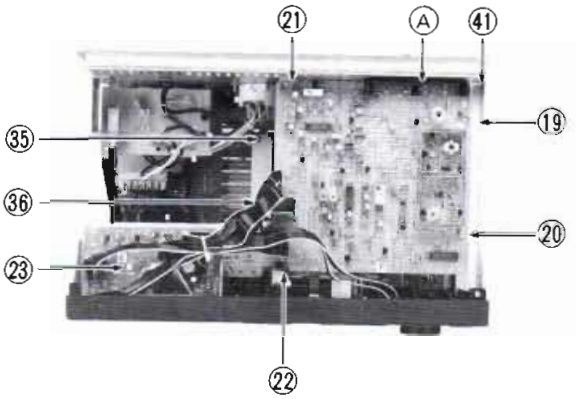


4. Cassette Door Removal

(1) Disconnect the cassette spring from the bracket.
(2) Remove the screw holding the damper unit and then remove the damper unit.
(3) Remove the screw holding the holder bracket and remove the cassette door.

5. Tuner P.C. Board Removal

(1) Remove the 2 screws ⑲ , ⑳ holding the tuner P.C. Board.
(2) Removing the screw ㉑ (the same as screw ⑥) from the rear panel.
(3) Remove the plastic rivet ㉒ holding the tuner P.C. Board.
(4) Removing the screw Ⓐ (the same as screw ⑨) from the rear panel.

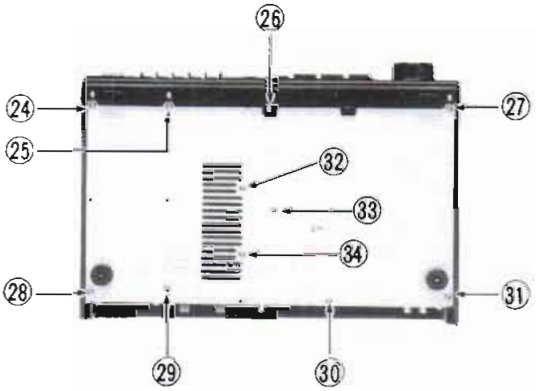


6. LCD P.C. Board Removal

(1) Remove the screw ㉓ from the parts side of the LCD P.C. Board.

7. Bottom Cover Removal

(1) Remove the 11 screws ㉔ ~ ㉞ holding the bottom cover.

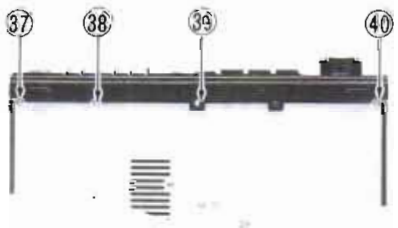


8. Power Pack Removal

(1) Remove the 2 screws ㉟ , ㊱ holding the heat sink bracket.
(2) Unsolder the Power Pack connections.

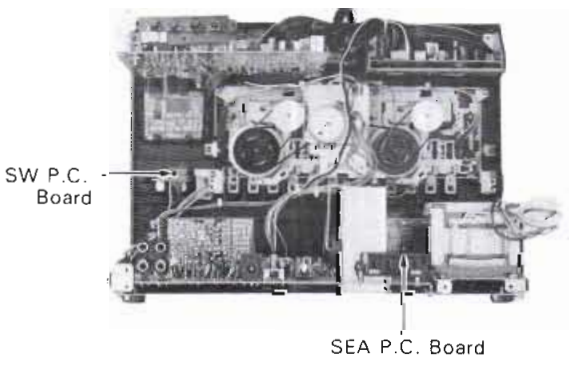
9. Front Panel Removal

(1) Remove the 4 screws ㊲ ~ ㊵ holding the bottom panel.
(2) Remove the screw ㊶ (the same as screw ⑤) holding the side bracket from the rear panel.
(3) Remove the screw ㉑ (the same as screw ⑥) holding the tuner P.C. Board from the rear panel.
(4) Remove the screw Ⓐ (the same as screw ⑨) holding the antenna terminal from the rear panel.
(5) Pull off the volume knob and remove the nut.
(6) Disengage the tab of the SEA P.C. Board.
(7) Pull out all of the wires protruding from the front panel (3 connectors, 1 bracket wire).
(8) Disengage the 2 tabs of the SW P.C. Board.
(9) Remove the power switch rod and remove the front panel by pulling forward.



10. Others

- The lid plate on the front of the cassette door can easily be removed because it is held with double-sided tape.
- Remove the bottom plate to check or remove the module P.C. Board standing erect on the audio P.C. Board.
- Adjust the azimuth by inserting a small screwdriver through the gap at the bottom of the cassette door.

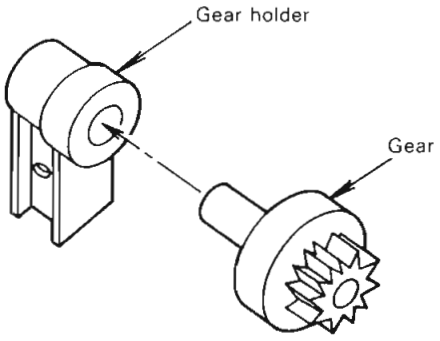


Maintenance

(1) Cleaning

1. **Record and play heads**
   When the heads are used for a long period of time, magnetic powder and dust accumulates on the tape-contact surface of the heads. Thus causes imperfect erasing or high frequency drop-off. Clean the heads with a soft cloth soaked with alcohol.
2. **Pinch roller and capstan**
   When the surfaces where the pinch roller and capstan come into contact with the tape become dirty, the tape speed becomes irregular and this causes wow and flutter. Clean the tape-contact surfaces of pinch roller and capstan with a soft cloth soaked with alcohol in the same way as cleaning the heads.
   * Do not wipe them with silicone grease nor oil and do not use a strong solvent such as hexane or carbon tetrachloride.
3. **External panels**
   When the external sections such as panels become dirty, clean them with a soft cloth soaked with a neutral cleaning solution or polishing cloth. Do not use a strong solvent such as benzine or thinner.
   • Do not use alcohol to clean transparent sections as cracks may occur.

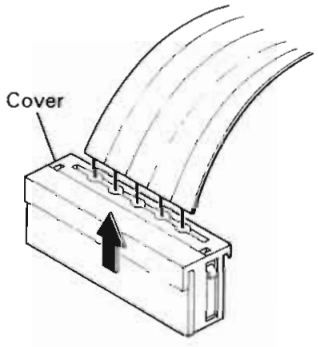
(2) Gear Damping Unit



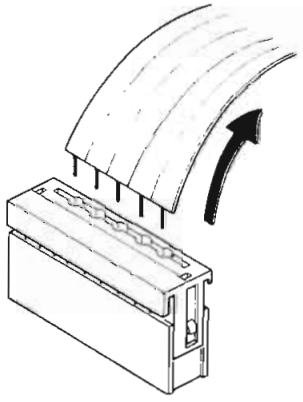
Apply a small amount of grease (G-333) on the unit and rotate the gear slowly to insert into the gear holder.

Use of New-type Connector

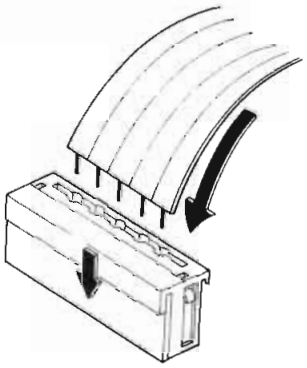
1. Slide the cover upward.



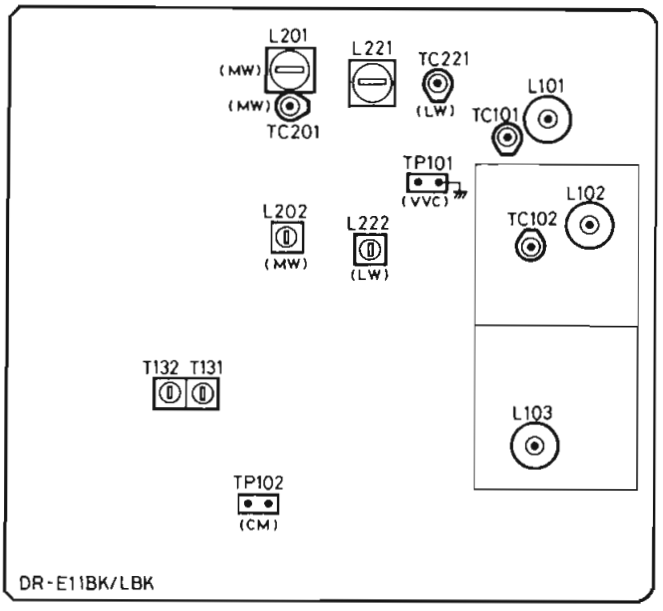
2. Extract the wires.



3. Insert the wires after pusing in the cover.



FM/MW/LW Tuner Alignment Procedures



(1) Front-end Section

FM oscillator coil : L103

1. Set the frequency display to "108.0 MHz" and the FM MODE switch to "MONO" position.
2. Confirm that the noise occurs in the condition of no signal input.
3. Adjust L103 so that the voltage of test point "TP101" becomes 9.0 V±0.1 V.
4. Set the frequency display to "87.5 MHz" and confirm that the output of test point "TP101" is 1.6 V±0.5 V.

FM antenna coil : L101, L102

5. Adjust L101 and L102 to obtain the maximum sensitivity at 89.9 MHz.

FM antenna trimmer : TC101, TC102

6. Adjust TC101 and TC102 to obtain the maximum sensitivity at 105.9 MHz.
7. Repeat the above adjustment of L101, L102, TC101 and TC102.

Note: After adjustment, confirm that the Band Cover is in the following range (for West Germany only).
Lower edge: 87.5 MHz (+0 Hz, −300 kHz)
Higher edge: 108.0 MHz (+500 kHz, −0 Hz)

(2) IF Detection

FM detector coil : T131, T132

1. Connect a center-meter or a digital voltmeter to test point "TP102", and receive to 100.1 MHz signal in the condition of SSG ATT 70 dB.
2. Adjust T131 so that the center-meter indicates "0" or the digital voltmeter reads 0 mV.
3. At the same time, adjust T132 so that the distortion is minimized.

(3) MW Section

Note: ( ) ; 9 kHz step, [ ] ; 10 kHz step

MW oscillator coil : L202

1. Set the frequency display to (522 kHz) [530 kHz] and confirm that the output at test point "TP101" is (1.1 V ±0.3 V) [1.1 V±0.3 V].
2. Set the frequency display to (1629 kHz) [1630 kHz or 1710 kHz] and confirm that the output at test point "TP101" is (7.5 V±0.8 V) [7.5 V±0.8 V or 8.2 V±0.8 V].
3. If its output is over 9 V at [170 kHz], adjust L202 to obtain [9.0 V].

MW antenna coil : L201

4. Connect a loop antenna to "AM LOOP" terminal on the rear panel.
5. Adjust L201 to obtain the best receiving sensitivity on (603 kHz) [600 kHz].

MW antenna trimmer : TC201

6. Adjust TC201 to obtain the best receiving sensitivity on (1404 kHz) [1400 kHz].

(4) LW Section

LW oscillator coil : L222

1. Set the frequency display to 144 kHz.
2. Adjust L222 to obtain 1.0 V at test point "TP101".
3. Set the frequency display to 353 kHz and confirm that output at the test point "TP101" is 7.2 V±1.2 V.

LW antenna coil : L221

4. Connect a loop antenna to "AM LOOP" terminal on the rear panel.
5. Adjust L221 to obtain the best receiving sensitivity on 164 kHz.

LW antenna trimmer : TC221

6. Adjust TC221 to obtain the best receiving sensitivity on 353 kHz.

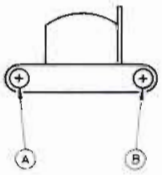
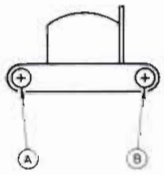
Cassette Deck Adjustment Procedures

(1) Measuring Instruments Required for Adjustment

1. Audio frequency signal generator (0 dBs output at the 600 Ω output terminal from 50 Hz to 20 kHz)
2. Attenuator (600 Ω impedance)
3. Electronic voltmeter
4. Standard tapes
   VTT-703L (head azimuth adjustment)
   VTT-712 (tape speed, wow & flutter measurement)
   VTT-738 (playback frequency adjustment)
   VTT-724 (reference level)
5. Recording standard tapes
   TS-5 (SF), TS-7 (metal) or equivalent, (Use JVC standard tapes.)
6. 600 Ω resisters (for attenuator matching)
7. Distortion meter (band-pass filter)
8. Torque gauge (cassette) CTG-N } For mechanical
9. C-120 tape (to check tape travel) } adjustments

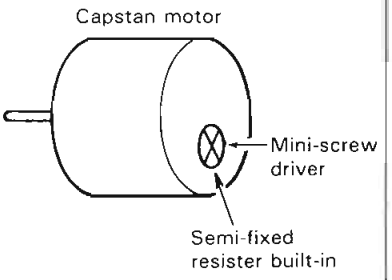
(2) Mechanical Adjustments and Repairs

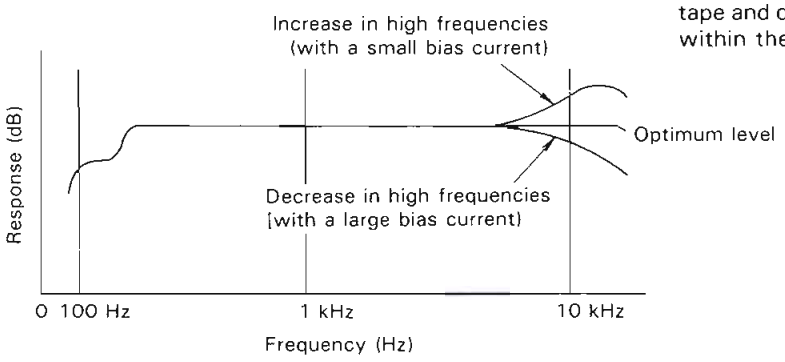
(Adjust and inspect the mechanical system before making electrical circuit adjustments)

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
Recording/ playback head azimuth adjustment	1.Connect the SPK OUT terminal output to an electronic voltmeter. 2.Play VTT-703L.			1. Replace the head when it does not deliver the required performance due to wear, disconnection, excessive magnetization, etc. After replacement, adjust the head azimuth. Also adjust the playback level, recording bias current, recording level, etc. 2. Replace the head when the left and right output level differ by more 3~4 dB to avoid claims.
A mechanism 	3.Put the deck in the PLAY ►mode and adjust screw Ⓐ until the output of the electronic voltmeter is maximum.	Screw Ⓐ	Maximum	
B mechanism 	4.Put the deck in the PLAY ► mode and adjust screw Ⓐ until the output of the electronic voltmeter is maximum.	Screw Ⓐ	Maximum	
	5.After making the adjustment, apply screw lock to prevent screws Ⓐ, Ⓑ coming loose.			
Playback torque	Use cassette CTG-N to measure the playback torque.		35~75 g-cm	When the standard torque cannot be obtained, clean or replace the take-up disk assembly.
Fast forward torque	Measure the fast forward torque, using the above method.		60 g-cm or more	When the standard torque cannot be obtained: 1. Clean the outer circumference of the capstan belt, motor pulley, flywheel, etc. 2. Replace the belt, idler, etc.
Rewind torque	Measure the rewind torque, using the above method.		60 g-cm or more	When the standard torque cannot be obtained, clean the outer circumference of the capstan belt, motor pulley, flywheel, supply reel disk, etc.
Wow & flutter	Playback VTT-712 with a wow & flutter meter connected to the SPK OUT terminal to make sure the wow & flutter is 0.26% (WRMS) or less.			When fluctuation is 0.1% or more even though within the rated value, repair to avoid a possible second claim.

(3) Electrical Circuit Adjustments

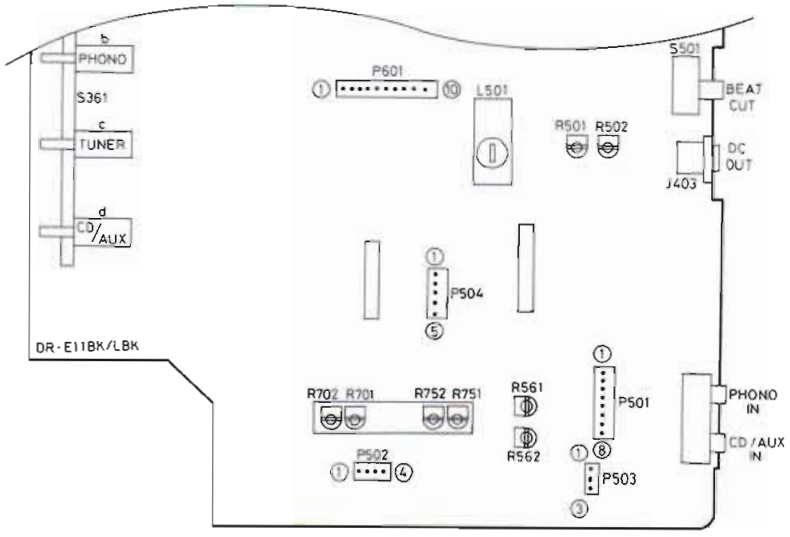
* Make the following adjustments after adjusting the head azimuth.
* In principle, the adjustments should be made in the following sequence.
* Set the NR switch to OFF and the BEAT CUT switch to "1".
* Adjustments marked with an asterisk (*) should always be made after the head is replaced.

	Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
Motor speed		1. Playback VTT-712 with the deck set to TAPE and an electronic counter connected to the SPK OUT terminal.	Semi-fixed resistance of the capstan motor		Connect a wow & flutter meter with a built-in electronic counter to the INPUT. 
		2. Speed Adjustment (1) For the A mechanism: playback the A mechanism and adjust the semi-fixed resister to 3,000 Hz.	Capstan motor	3,000 Hz	
		(2) For the B mechanism: playback the B mechanism.			
* 1	Playback level	Playback VTT-724 (1 kHz) and adjust so that the output between ⑤, ④ (L) of P504 and ⑤ and ① (R) of P504 is −3 dB.	[A] R701 (L) (R)702 [B] R751 (L) (R)752	−3 dBs	The playback level varies when the head is replaced so should be adjusted. Use an electronic voltmeter with an impedance of 100 kΩ or more.
* 2	Recording bias frequency	Connect a frequency counter between ① and ② of P501 and playback a metal tape.	L501	105 kHz ±5 kHz	
* 3	Recording frequency response	Record 100 Hz/1 kHz/10 kHz with the NR switch off and −30 dBs input from AUX. While playing back these recorded signals, adjust the variation of the 100 Hz and 10 kHz outputs from the 1 kHz output to the standard value using R501 and R502. (Basically, adjust so that the 1 kHz and 10 kHz outputs are flat.)	R501 (L) R502 (R)	0±3 dB for 100 Hz and 10 kHz with 1 kHz as the standard.	1) The recording and playback frequencies of a cassette deck are adjusted by adjusting the bias. This is because the frequency response depends more on the bias current than with an open-reel deck. 2) When the bias current is not correctly adjusted, recording and playback become as shown in the diagram below. 3) Perform the adjustment with normal tape and confirm that the values are within the range for metal tape.



Note: After completing the recording level adjustment in item (4), check the recording and playback frequencies with the NR switch on. Fine adjust again if the value is 0±4 dB or more at 1 kHz and 10 kHz.

	Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
* 4	Recording Level	1) Add a 1 kHz (– 8 dB) input to the AUX terminal and record on the left and right channels using normal tape. 2) When playing this back, adjust the recording signal current so that output between ⑤ – ④ (L) of P504 and ⑤ – ① (R) of P504 is – 3 dB.	R561 (L) R562 (R)	– 3 dBs	Adjust with normal tape and make sure that the level difference is 1.5 dB or less with metal tape and that the left/right level difference is 1.0 dB or less.
* 5	Recording/ playback distortion check	1) Record a 1 kHz (– 8 dBs) AUX input signal. 2) Play this back and check the output with a distortion meter to make sure it is the rated value.		2% or less with normal tape or metal tape.	Perform after the bias current and recording level adjustments.
6	Recording/ playback S/N ratio check	1) Record 1 kHz (– 8 dB) AUX output signal. While recording, remove the input and record without a signal. 2) Play this back and use an electronic voltmeter to compare the 0 dB recording output and the output of the recording without a signal to make sure this is the rated value.		42 dB or more with normal tape or metal tape	
7	Erase ratio check	1) Record a 1 kHz (0 dB) AUX input signal. 2) Rewind and erase part of the recorded section. 3) Compare the outputs of the recorded and erased sections using an electronic voltmeter.		65 dB or more	Connect a 1 kHz band-pass filter between the deck and electronic voltmeter when making the adjustment.
8	Auto-stop check	When playing back and recording, make sure to operate AUTO STOP.			



Troubleshooting the Cassette Amplifier P.C. Board

There are three types of small P.C. Boards (cassette modules) installed vertically on the cassette amplifier P.C. Board (ENJ-010-1).

1. Recording amplifier P.C. Board (ENJ-004D-1)
2. Playback amplifier P.C. Board (ENJ-004D-2)
3. ANRS P.C. Board (ENJ-006A)

(1) Before replacing the parts in the cassette module, check the various Terminals

1. Recording amplifier P.C. Board (ENJ-004D-1)

Problem	Check Items	Check Point
Cannot record in any mode	Is power being supplied?	⑦⑨
	Is recording bias applied?	⑤⑥
	Is the recording signal being supplied?	⑧⑩
Semi-fixed resistance of the capstan motor	Is the playback frequency correct?	→ Playback module
	Is the recording equalize switch input correct?	④

2. Playback amplifier P.C. Board (ENJ-004D-2)

Problem	Check Items	Check Point
Cannot playback	Is power bening supplied?	⑦⑧
	Is the head wire disconnected?	②③⑬⑭
	Is there output?	⑤⑥⑨⑩
When playback frequency response is faulty	Is the playback equalize switch input correct?	④⑫

3. ANRS P.C. Board (ENJ-006A)

Problem	Check Items	Check Point
Cannot playback	Is power being supplied?	①⑫
	Is the deck in the recording mode?	③
	Is there input?	⑧⑨
	Is there output?	④⑦
NR cannot be turned on and off	Is NR switch input correct?	②
Cannot record	Is the deck in the playback mode?	③
	Is there input?	⑩
	Is there output?	⑤⑥
Dubbing not possible	Is the deck in the recording mode?	③
	Is there input?	⑧⑨
	Is there output?	⑤⑥

(2) Determine which module is faulty using the results of the above checks. The applications for which semiconductors used on the P.C. Boards are used are shown below.

1. Recording amplifier P.C. Board

Application	L	R	Remarks
Signal amp	Q803	Q804	2SC1740LN(R,S)
Metal EQ switch	Q807	Q808	2SC1740(R,S)

2. Playback amplifier P.C. Board

Application	L	R	Remarks
Signal amp B mechanism/A mechanism	IC701/702	IC701/702	M51522L
B mechanism metal EQ switch	Q701	Q702	2SK301(P,Q)
A mechanism metal EQ switch	Q751	Q752	2SK301 (P,Q)

3. ANRS P.C. Board

Application	L	R	Remarks
Signal switch amp	IC901	IC902	AN7363N

(3) The input/output and control conditions for the P.C. Boards are as follows.

1. Recording amplifier P.C. Board (ENJ-004D-1)

Terminal No.	Terminal Function	Remarks
4	Metal EQ	Electric switch input 5 V
5	L CH signal output	
6	R CH signal output	
7	+B	12 V
8	R CH signal input	
9	GND	
10	L CH signal input	

Gain

Control		④ -Open	④ 5V
in ⑩ OUT ⑤	100 Hz	−11.6 dB±1.5 dB	−7.9 dB±1.5 dB
	1 kHz	−12.3 dB±1.5 dB	−8.4 dB±1.5 dB
	10 kHz	− 3.2 dB±1.5 dB	−2.1 dB±1.5 dB
in ⑧ OUT ⑥	100 Hz	−11.6 dB±1.5 dB	−7.9 dB±1.5 dB
	1 kHz	−12.3 dB±1.5 dB	−8.4 dB±1.5 dB
	10 kHz	− 3.2 dB±1.5 dB	−2.1 dB±1.5 dB

Note: (1) Insert 10 kohms in series with the signal source for the input terminal.
(2) With the output voltage at −20 dBs as the standard value and the load resistance of the output terminal at 1 kohms.

2. Playback amplifier P.C. Board (ENJ-004D-2)

Terminal No.	Terminal Function	Remarks
1	GND	For A mechanism input
2	R CH head input for A mechanism	
3	L CH head input for A mechanism	
4	Normal EQ for A mechanism	Electric switch input (GND short)
5	R CH EQ output for A mechanism	
6	L CH EQ output for A mechanism	
7	GND	For power supply
8	+B	12 V
9	R CH EQ output for B mechanism	
10	L CH EQ output for B mechanism	
12	Normal EQ for B mechanism	Electric switch input (GND short)
13	R CH head input for B mechanism	
14	L CH head input for B mechanism	
15	GND	For B mechanism input

Gain

Control		⑫ -Open	⑫ -GND
in ⑬ OUT ⑨	100 Hz	57.0 dB±2 dB	—
	1 kHz	40.0 dB±2 dB	—
	10 kHz	32.0 dB±2 dB	37.0 dB±2 dB
in ⑭ OUT ⑩	100 Hz	57.0 dB±2 dB	—
	1 kHz	40.0 dB±2 dB	—
	10 kHz	32.0 dB±2 dB	37.0 dB±2 dB

Control		④ -Open	④ -GND
in ② OUT ⑤	100 Hz	57.0 dB±2 dB	—
	1 kHz	40.0 dB±2 dB	—
	10 kHz	32.0 dB±2 dB	37.0 dB±2 dB
in ③ OUT ⑥	100 Hz	57.0 dB±2 dB	—
	1 kHz	40.0 dB±2 dB	—
	10 kHz	32.0 dB±2 dB	37.0 dB±2 dB

Notes: (1) With the output voltage at −20 dBs as the standard and the load resistance for the output terminal at 10 kohms.
(2) The adjustment control is preset at the center.
* The actual range of the adjustment control is approximately 11 dB.

3. ANRS P.C. Board (ENJ-006A)

Terminal No.	Terminal Function	Remarks
1	+B	12 V
2	NR (OFF)	Electric switch input (GND short)
3	REC/PB (REC)	〃 (〃)
4	R CH output (playback)	REC/PB monitor
5	R CH output (recording)	REC monitor
6	L CH output (recording)	〃
7	L CH output (playback)	REC/PB monitor
8	R CH playback input	
9	L CH playback input	
10	R CH recording input	
11	L CH recording input	
12	GND	

Gain

PB mode	Input/output	in ⑨ →out ⑦	in ⑨ →Out ⑦	in ⑧ →Out ④	in ⑧ →Out ④
	Control	②-GND, ③-Open	②, ③-Open	②-GND, ③-Open	②, ③-Open
	100 Hz gain	33 dB±1.5 dB →	Gain fluctuation 0±1.5 dB	33 dB±1.5 dB →	Gain fluctuation 0±1.5 dB
	1 kHz gain	33 dB±1.5 dB →	〃 −3.0±1.5 dB	33 dB±1.5 dB →	〃 −3.0±1.5 dB
	10 kHz gain	33 dB±1.5 dB →	〃 −3.0±1.5 dB	33 dB±1.5 dB →	〃 −3.0±1.5 dB
REC mode	Input/output	in ⑪ →Out ⑥	in ⑪ →Out ⑥	in ⑩ →Out ⑤	in ⑩ →Out ⑤
	Control	②, ③-GND	②-Open, ③-GND	②, ③-GND	②—Open, ③-GND
	100 Hz gain	33 dB±1.5 dB →	Gain fluctuation 0±1.5 dB	33 dB±1.5 dB →	Gain fluctuation 0±1.5 dB
	1 kHz gain	33 dB±1.5 dB →	〃 −3.0±1.5 dB	33 dB±1.5 dB →	〃 −3.0±1.5 dB
	10 kHz gain	33 dB±1.5 dB →	〃 −3.0±1.5 dB	33 dB±1.5 dB →	〃 −3.0±1.5 dB

Note: The standard output voltage 120 dB and the load resistance for the output terminal is 22 kohms.

MEMO

DR-E11BK
DR-E11LBK

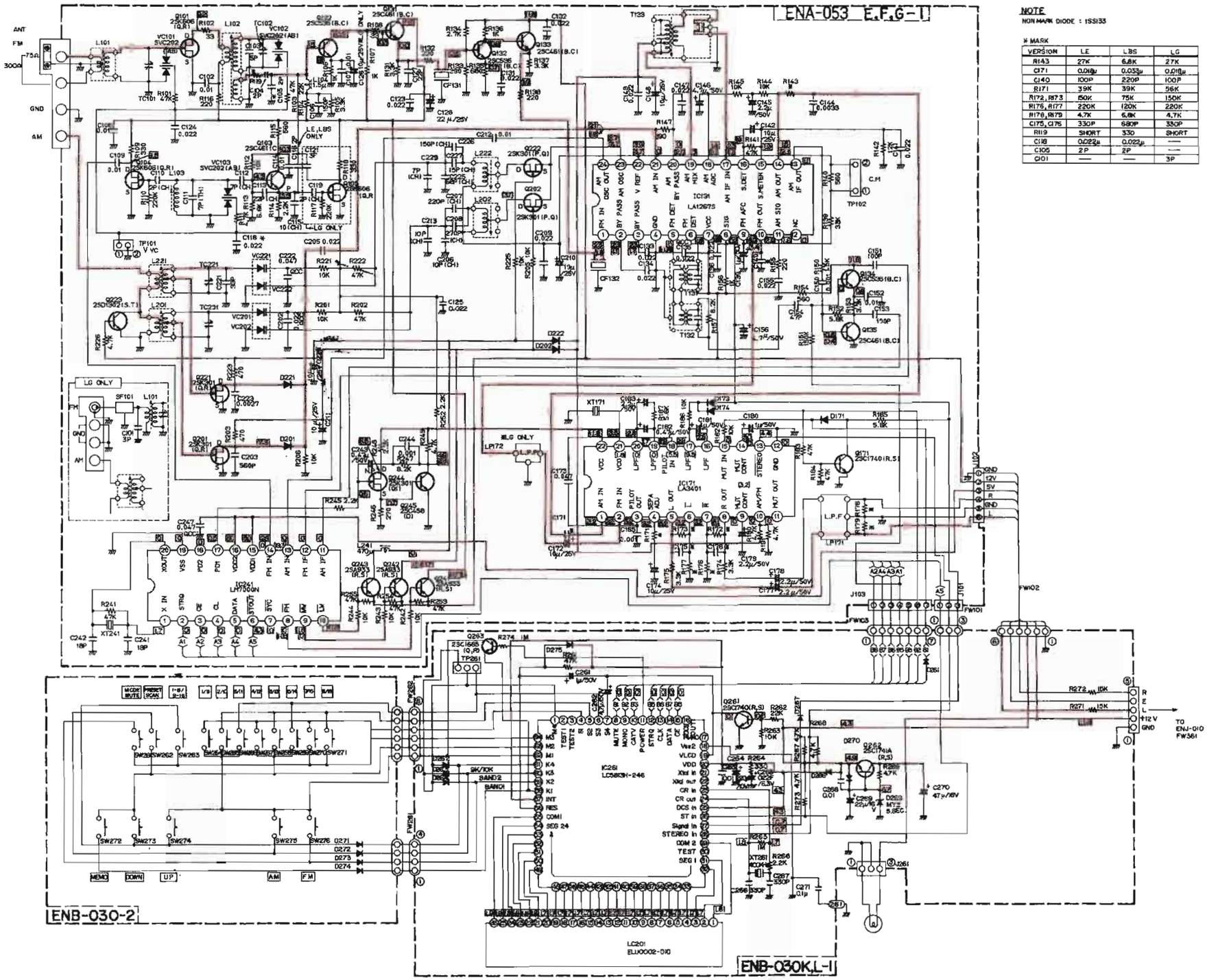
JVC

VICTOR COMPANY OF JAPAN, LIMITED
STEREO DIVISION, YAMATO PLANT, 1644, SHIMOTSURUMA, YAMATO-SHI, KANAGAWA-KEN, 242, JAPAN

(No. 2193)

Printed in Ja
6103(O)

(2) FM/MW/LW Tuner Section



NOTE
NON MARK DIODE : 1SS133

※ MARK

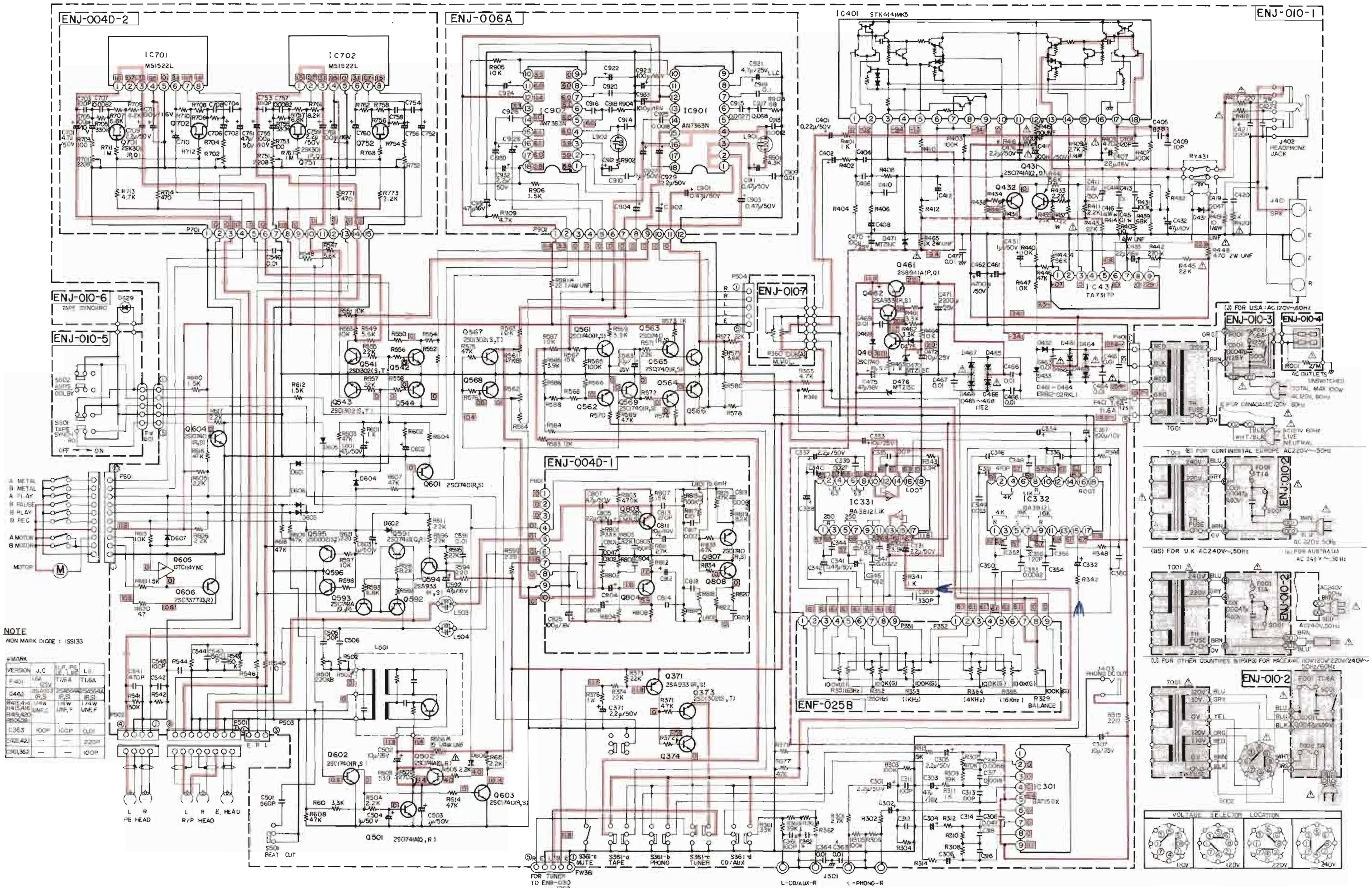
VERSION	LE	LBS	LG
R143	27K	6.8K	27K
C171	0.018μ	0.033μ	0.018μ
C140	100P	220P	100P
R171	39K	39K	56K
R172, R173	150K	75K	150K
R176, R177	220K	120K	220K
R178, R179	4.7K	6.8K	4.7K
C175, C176	330P	680P	330P
R119	SHORT	330	SHORT
C118	0.022μ	0.022μ	—
C105	2P	2P	—
C101	—	—	3P

Notes:

1. ▭ shows DC voltage to the chassis with no signal input.
2. —— indicates positive B power supply.
3. ------ indicates negative B power supply.
4. ▭ indicates signal path.
5. When replacing the parts in the darkned are (▩) and those marked with ⚠, be sure to use the designated parts to ensure safety.
6. This is the standard circuit diagram.
   The design and contents are subject to change without notice.
7. For the terminal voltages, refer to 14-(5) Terminal Voltage Table on the following pages.

DR-E11BK
DR-E11LBK

(3) Cassette & Power Amplifier Section



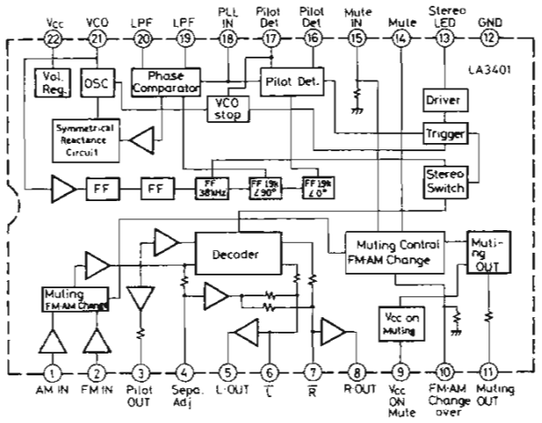
VERSION	J, C	U, E, BS, A, BR	LG
F401	1.6A 125V	T1.6A	T1.6A
Q462	2SA933 (R,S)	2SA564A (R,S)	2SA564A (R,S)
R413,414, R415,416, R419,420, R505,28	1/4W UNF.C	1/4W UNF.F	1/4W UNF.F
C363	100P	100P	0.01
C421,422	—	—	220P
C361,362	—	—	100P

Notes:

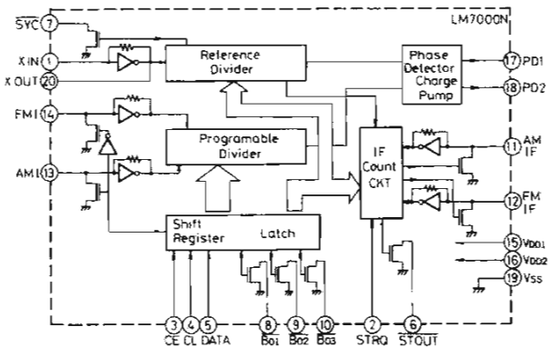
1. [shaded box] shows DC voltage to the chassis with no signal input.
2. ——— indicates positive B power supply.
3. - - - - indicates negative B power supply.
4. [shaded band] indicates signal path.
5. When replacing the parts in the darkned are ([shaded]) and those marked with ⚠, be sure to use the designated parts to ensure safety.
6. This is the standard circuit diagram. The design and contents are subject to change without notice.
7. For the terminal voltages, refer to 14-(5) Terminal Voltage Table on the following pages.

Internal Block Diagrams of Major ICs

IC171 : LA3401

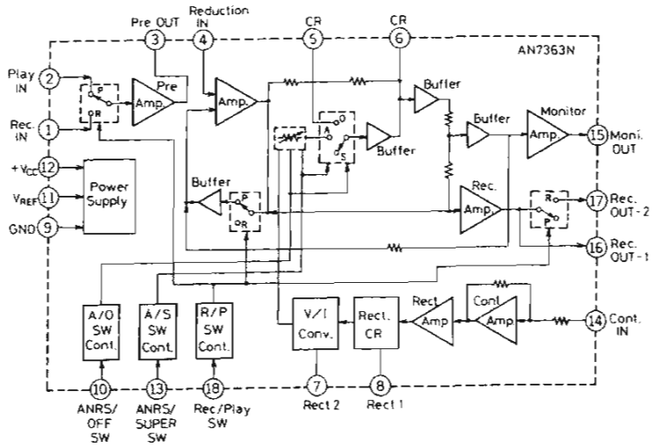


IC241 : LM7000N

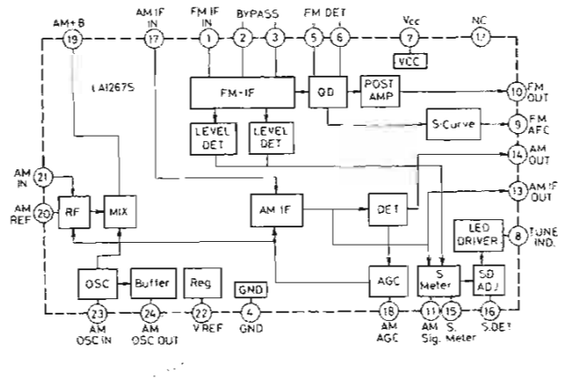


Terminal Name	Function
SYC	Clock(400kHz) for controller
XIN, XOUT	Crystal oscillator(3.6MHz) Included the feedback resistor.
FMI, AMI	Local oscillator signal input
CE, CL, DATA	Data input
BO1, BO2, BO3	Band data output
STRQ	Request of IF counter input
STOUT	Auto-search stop signal output
Vdd1, Vdd2, Vss	Power supply(Vdd2:for back-up)
AMIF, FMIF	IF signal input
PD1, PD2	Charge pump output

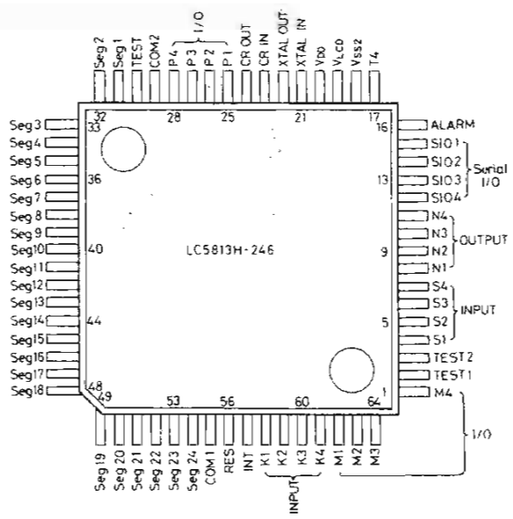
IC901, IC902 : AN7363N



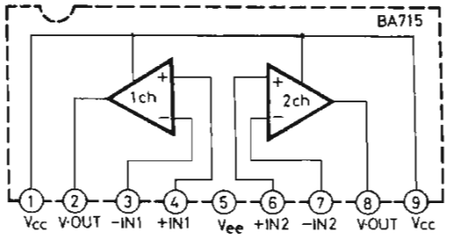
IC131 : LA1267S



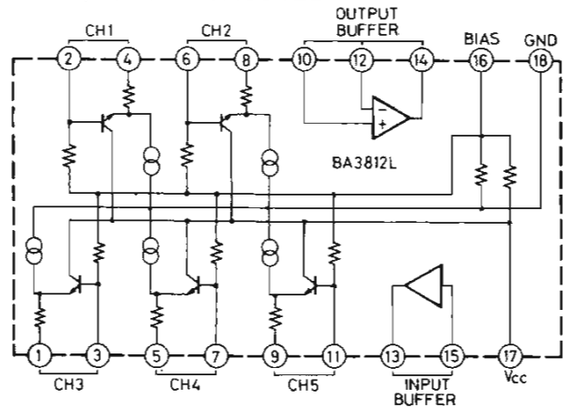
IC261 : LC5813H-246



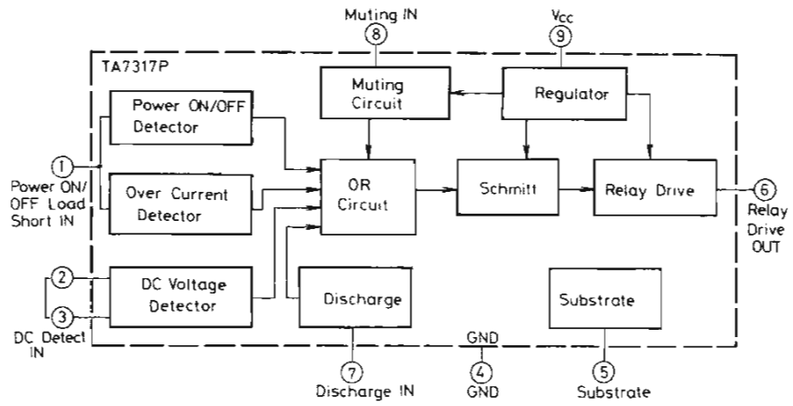
IC301 : BA715DX



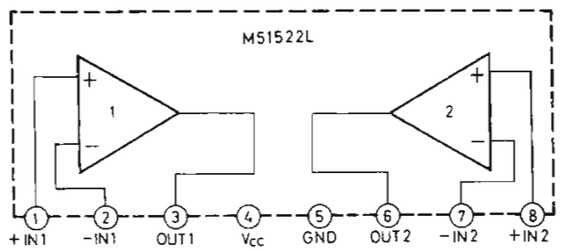
IC331, IC332 : BA3812L



IC431 : TA7317P

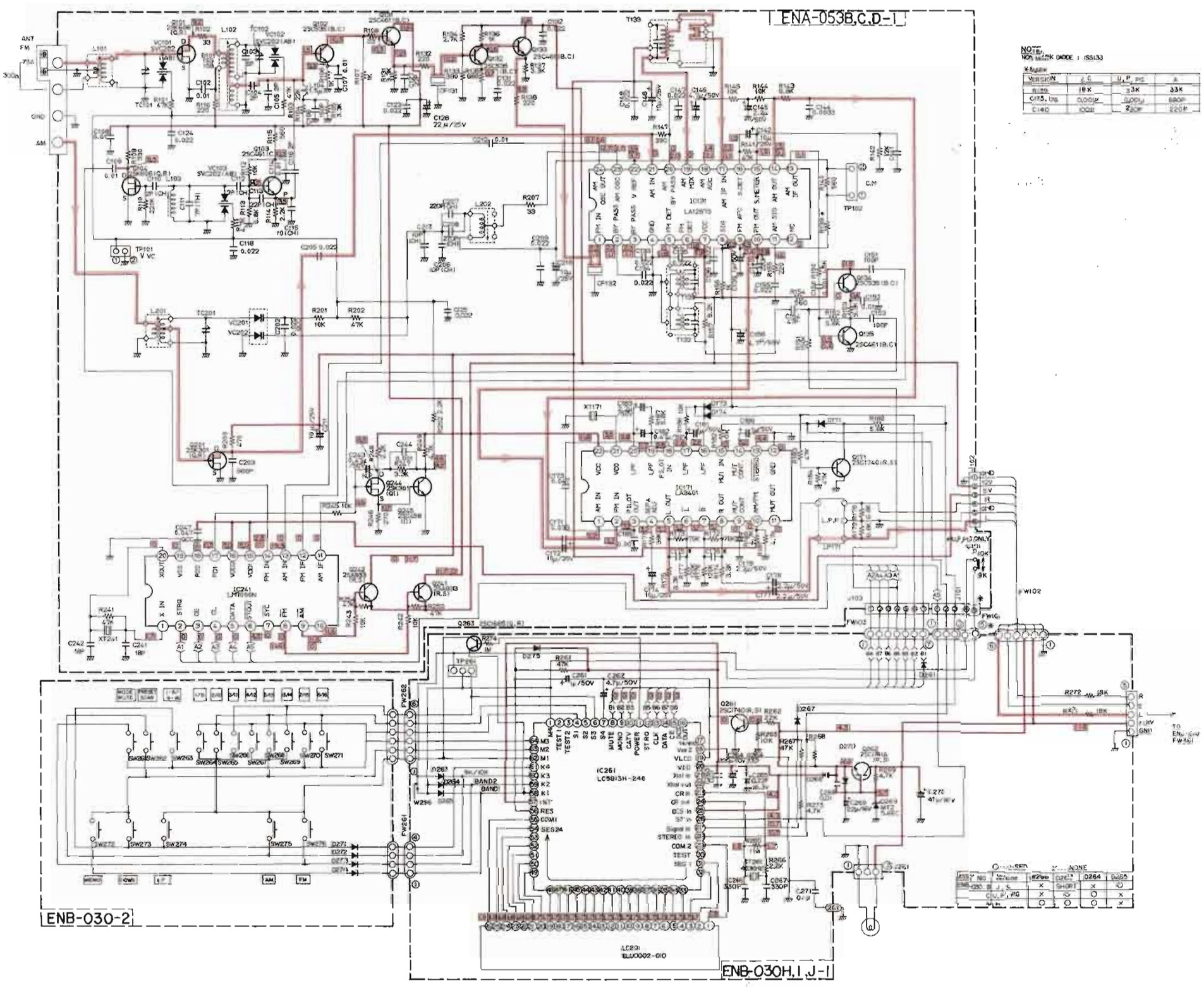


IC701, IC702 : M51522L



DR-E11BK	DR-E11BK
DR-E11LBK	DR-E11LBK

Schematic Diagrams (1) FM/AM Tuner Section



NOTE:
NON MARK DIODE : 1SS133

VERSION	J, C	U, P, PC	A
R139	18K	33K	33K
C175, 176	0.001μ	0.001μ	680P
C140	102P	220P	220P

Notes:

1. shows DC voltage to the chassis with no signal input.
2. indicates positive B power supply.
3. indicates negative B power supply.
4. indicates signal path.
5. When replacing the parts in the darkned are ( ) and those marked with ⚠, be sure to use the designated parts to ensure safety.
6. This is the standard circuit diagram.
   The design and contents are subject to change without notice.
7. For the terminal voltages, refer to 14-(5) Terminal Voltage Table on the following pages.

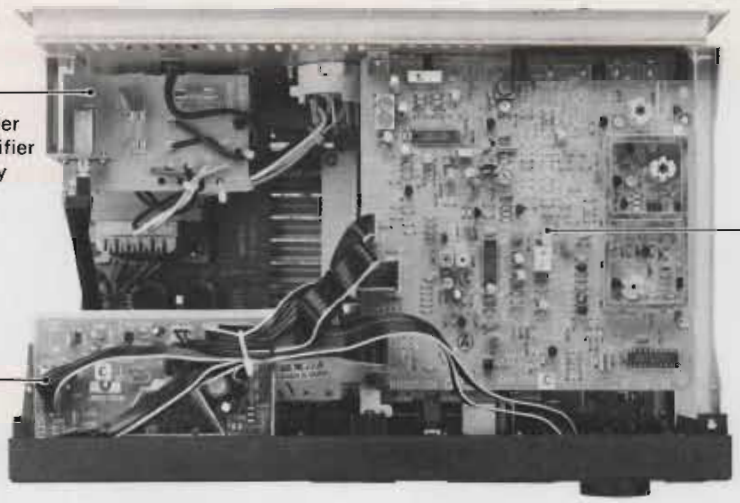
PARTS LIST

Contents

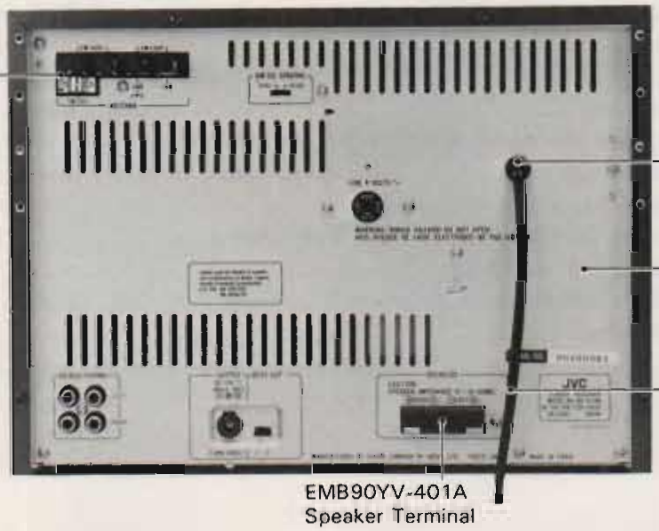
Main Parts Locations

■ Front View

■ Top View

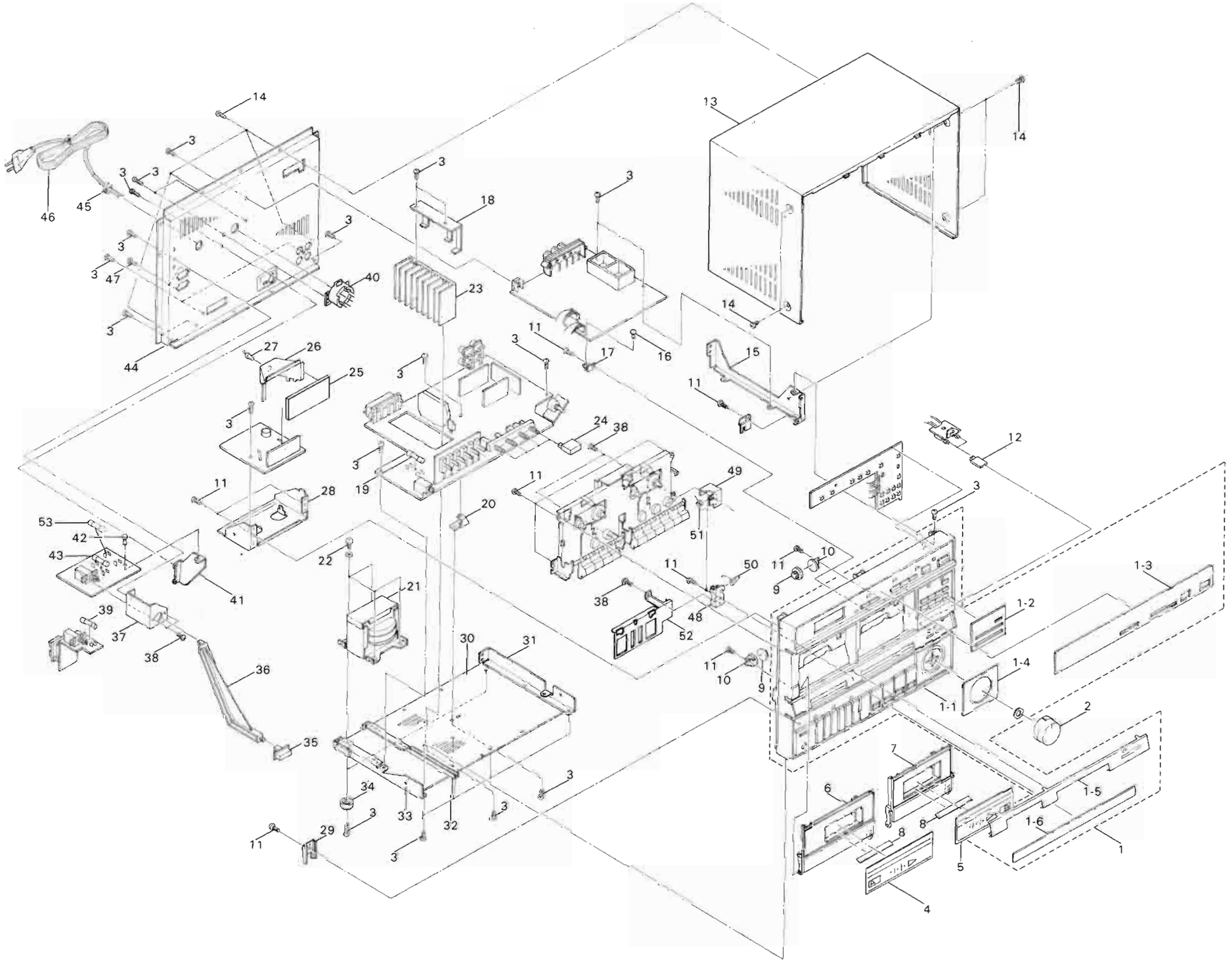


■ Rear View



⚠ : Safety parts

Exploded View and Parts List



DR-E11BK	DR-E11BK
DR-E11LBK	DR-E11LBK

■ Exploded View and Parts List

⚠	Item No.	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-DRE11BKE	Front Panel Ass'y	1		Except E,G,BS
		EFP-DRE11LBKE	Front Panel Ass'y	1		E,G,BS
	1-1	E11261-004	Front Panel	1		
	1-2	E72885-004	Ornament	1		
	1-3	E304145-005	Dial Plate	1		Except E,G,BS
		E304145-006	Dial Plate	1		E,G,BS
	1-4	72887-004	Volume Plate	1		
	1-5	E25302-004	Cassette Plate	1		
	1-6	E304147-002	SEA Plate	1		
	2	E72898-001	Volume Knob	1		
	3	SBSB3008N	Screw	33		
	4	E72881-004	Lid Plate	1		
	5	E72883-002	Lid Plate	1		
	6	E25304-004	Cassette Holder	1		
	7	E25306-004	Cassette Holder	1		
	8	E73041-002	Holder Plate	2		
	9	VYH5601-001	Damper Gear	2		
	10	VYH5602-001	Gear Holder	2		
	11	SBSF3010Z	Screw	12		
	12	E72890-001	Push Button	2		
	13	E25310-001	Metal Cover	1		
	14	SDSB3008M	Screw	8		
	15	E304155-001	Side Bracket	1		
	16	E48729-008	Plastic Rivet	1		
	17	E72926-001	L-Bracket	1		
	18	E72894-001	Leaf Spring	1		
⚠	19	QMF51U1-1R6	Fuse	1	F401	J,C
⚠		QMF51A2-1R6S	Fuse	1	F401	E,G,A,U,P,PG
⚠		QMF51E2-1R6SBS	Fuse	1	F401	BS
	20	E68587-005	Z. Bracket	1		
⚠	21	ETP1050-11JA	Power Transformer	1		J,C
⚠		ETP1050-11EA	Power Transformer	1		E,G,A
⚠		ETP1050-11FA	Power transformer	1		U,P,PG
⚠		ETP1050-11EABS	Power Transformer	1		BS
	22	E65389-002	Ass'y Screw	4		
	23	E72895-002	Heat Sink	1		J,C
		E72895-003	Heat Sink	1		Except J,C
	24	E72889-001	Push Button	4		
	25	E73005-001	Sheet	1		
	26	E303726-001	Lamp Holder	1		
	27	ELP3104-B100W	Pilot Lamp	1		
	28	E304156-002	LCD Bracket	1		
	29	E73188-001	Bracket	1		
	30	E25315-001	Bottom Plate	1		
	31	E304154-001	Right Bracket	1		
	32	E304153-001	Center Bracket	1		
	33	E304152-001	Left Bracket	1		
	34	E47227-006	Foot	2		
	35	E303883-001	Power Button	1		
	36	E304151-001	Push Shaft	1		
	37	E72226-002	Switch Bracket	1		
	38	SBST3006Z	Screw	5		
⚠	39	QMF51U1-1R6	Fuse	1	F001	J,C
⚠	40	QSR0085-007	Voltage Selector	1		U,P,PG
	41	E72331-002	Stay Bracket	1		U,P,PG,E,G,A,BS
	42	E48729-007	Plastic Rivet	1		U,P,PG,E,G,A,BS
⚠	43	QMF51A2-1R0S	Fuse	1	F001	E,A,G
⚠		QMF51A2-1R6S	Fuse	1	F001	U,P,PG
⚠		QMF51E2-1R0SBS	Fuse	1	F001	BS
	44	E25308-002	Rear Panel	1		J,C

⚠ : Safety parts

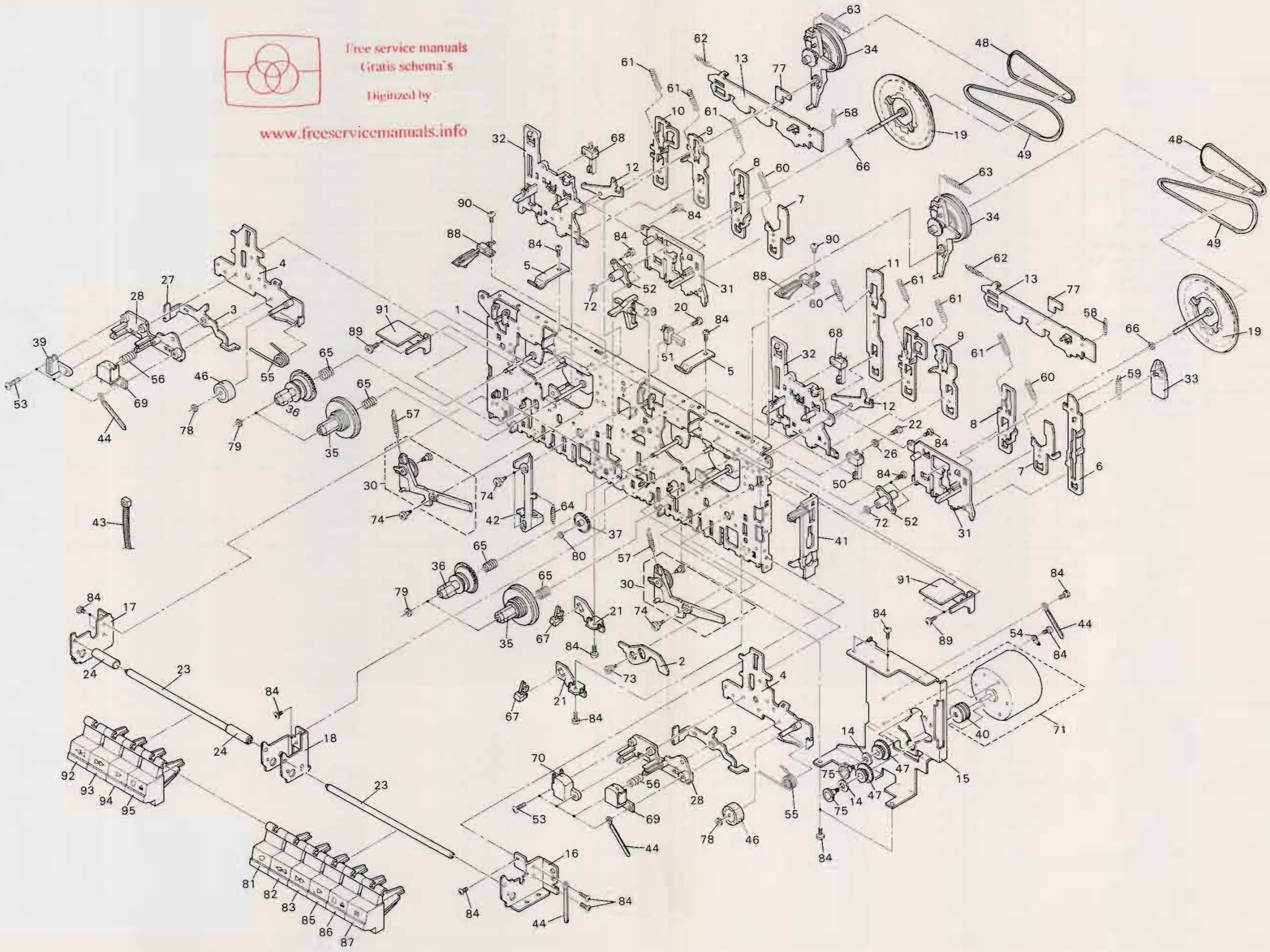
⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
		E25308-003	Rear Panel	1		U,P,PG
		E25308-004	Rear Panel	1		A
		E25308-005	Rear Panel	1		E
		E25308-006	Rear Panel	1		G
		E25308-008	Rear Panel	1		BS
⚠	45	QHS3876-162	Cord Stopper	1		Except BS
⚠		QHS3876-162BS	Cord Stopper	1		BS
⚠	46	QMP1900-200	Power Cord	1		J
⚠		QMP1480-200H	Power Cord	1		C
⚠		QMP2560-244	Power Cord	1		A
⚠		QMP7600-200	Power Cord	1		U,P,PG
⚠		QMP3900-200	Power Cord	1		E,G
⚠		QMP9017-008BS	Power Cord	1		BS
	47	SDSB3008N	Screw	2		
	48	E72892-001	Holder Bracket	1		
	49	E72893-001	Holder Bracket	1		
	50	E72896-001	Holder Spring	1		
	51	E72897-002	Holder Spring	1		
	52	E304226-002	Shield Plate	1		
⚠	53	QMF51A2-1R0S	Fuse	1	F002	U,P,PG

⚠ : Safety parts

The Marks for Designated Areas			
J	U.S.A.	G	West Germany
C	Canada	BS	U.K.
A	Australia	P,PG	U.S. Military Market
E	Europe	U	Other Countries

No mark indicates all areas.

Mechanism Assembly



DR-E11BK	DR-E11BK
DR-E11LBK	DR-E11LBK

■ **Mechanism Ass'y Parts List**

⚠	Item No.	Part Number	Part Name	Q'ty	Description	Areas
	1	EGSC1538	Chassis (W) Ass'y	1		
	2	EGSD1522	Pause Arm	1		
	3	EGSD1514	AS Arm	2		
	4	EGSD1535	Head Chassis Ass'y	2		
	5	EGSD1537	Pack Spring	2		
	6	EGSD1508	Pause Level	1		
	7	EGSD1509	Stop Lever	2		
	8	EGSD1504	Play Lever	2		
	9	EGSD1506	FF Lever	2		
	10	EGSD1507	Rew Lever	2		
	11	EGSD1505	Rec Lever	1		
	12	EGSD1570	Rew Arm (S)	2		
	13	EGSD1525	Lock Cam (A) Ass'y	2		
	14	EGMD1270	Washer (B)	2		
	15	EGSC1550	Motor Bracket	1		
	16	EGSD1544	Button Bracket (RF)	1		
	17	EGSD1533	Button Bracket (LW)	1		
	18	EGSDS1604	Button Bracket	1		
	19	EGSD3552	Flywheel Ass'y	2		
	20	SDST2610Z	Screw	1		
	21	EGSD1593	Switch Bracket (F)	2		
	22	SDST2005	Screw	1		
	23	EGSD2513	Button Shaft	2		
	24	EGMD2043	Button Collar	2		
	25	———				
	26	8233023431	Washer (S)	1		
	27	EGMD3020	Sencer Cap	2		
	28	EGSC3506	head Base	2		
	29	EGMC3021	Rec Sencer	1		
	30	EGSD3537	Idler Arm Ass'y	2		
	31	EGSB3502	Lever Base (A)	2		
	32	EGSB3501	Lever Base (B)	2		
	33	EGSC3504	Pause Cam	1		
	34	EGSD3534	Clutch Arm Ass'y (W)	2		
	35	EGMD3153	T. Reel Ass'y	2		
	36	EGSC3550	S. Reel	2		
	37	EGSD3509	FF Gear	2		
	38	———				
	39	EGMD3062	Tape Guide	1		
	40	EGSD3543	Motor Pulley	1		
	41	EGSC3505	Eject Lever (F)	1		
	42	EGSC3517	Eject Lever (W)	1		
	43	E33754-001	Nylon Band	1		
	44	1114-03-02	Cord Clamp	4		
	45	———				
	46	EGZD4707	Pinch Roller	2		
	47	EGMD4002	Motor Cushion	2		
	48	EGZD4704	Belt	2		
	49	EGSD4508	Belt	2		
	50	LSA-119G	Leaf Switch	1		
	51	LSA-1120F-1N	Leaf Switch	1		
	52	EGSD5501	Housing Ass'y	2		
	53	SDSP2009Z	Screw	8		
	54	8170020001	Lug Plate	1		
	55	EGSD6522	Head Chassis Spring	2		
	56	EGKD6009	Head Spring	2		
	57	EGSD6503	Idler Arm Spring	2		
	58	EGSD6504	Auto Arm Spring	2		
	59	EGSD6505	Pause Lever Spring	1		
	60	EGSD6506	Lever Spring (A)	3		

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	61	EGSD6521	Lever Spring (C)	6		
	62	EGSD6508	Cam Spring	2		
	63	EGSD6509	Clutch Arm Spring	2		
	64	EGSD6510	Eject Spring	1		
	65	EGSD6514	Back Tension Spring	4		
	66	8342121013	Polyslider Washer	2		
	67	LSA-119R	Leaf Switch	2		
	68	LSA-1120C-1	Leaf Switch	2		
	69	ENZ6004-005	R/P Head	2		
	70	ENZ6004-006	E Head	1		
	71	EGSHL-2LSA	Motor Ass'y	1		
	72	8341116033	Polyslider Washer	2		
	73	EGMD8002	Screw (A)	1		
	74	EGSD8501	Screw (P)	4		
	75	EGSD8511	Motor Screw	2		
	76	———				
	77	EGSD8515	Insulator Sheet	2		
	78	8341121034	Polyslider Washer	2		
	79	8341116029	Polyslider Washer	4		
	80	8341112032	Polyslider Wahser	2		
	81	E304172-001	Button	1		
	82	E304172-002	Button	1		
	83	E304172-003	Button	1		
	84	8213112004	Screw	23		
	85	E304172-004	Button	2		
	86	E304172-005	Button	1		
	87	E304172-006	Button	1		
	88	LSA-1132EAU	Leaf Switch	2		
	89	SSST2005	Screw	4		
	90	SPST2605	Screw	2		
	91	EGSDS1558	Switch Guard	2		
	92	E304172-007	Button	1		
	93	E304172-008	Button	1		
	94	E304172-009	Button	1		
	95	E304172-010	Button	1		

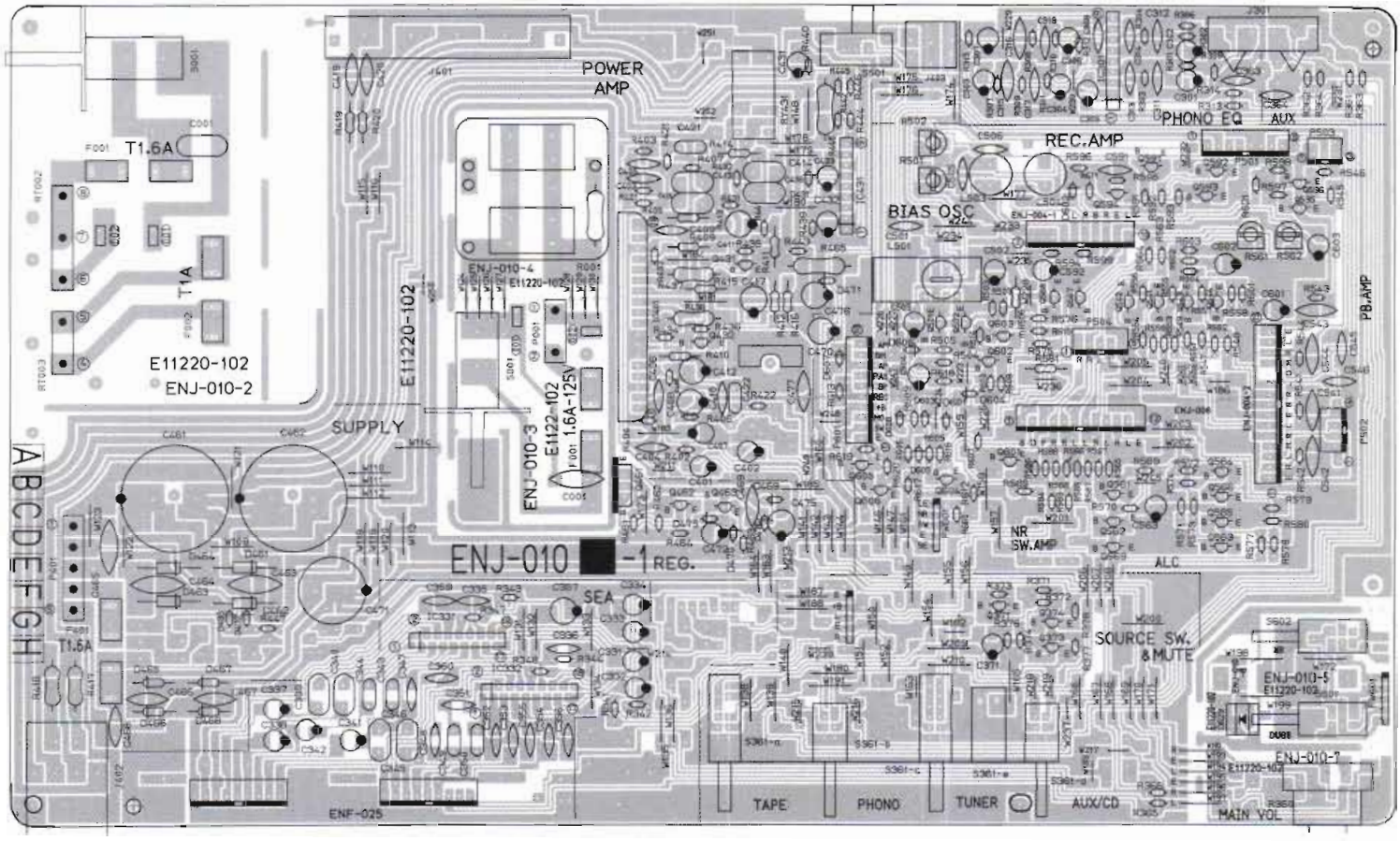
Printed Circuit Board Ass'y and Parts List

■ ENJ-010□ Cassette Amplifier and Audio Amplifier P.C. Board Ass'y

Note : ENJ-010□ Varies according to the areas employed. See Note (1) when placing an order.

Note (1)

P.C. Board Ass'y	Designated Areas
ENJ-010[B]	U.S.A.
ENJ-010[C]	U.S. Military Market & Other Countries
ENJ-010[D]BS	U.K.
ENJ-010[E]	Australia & Europe
ENJ-010[F]	West Germany
ENJ-010[G]	Canada



Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	Q371	2SA933(R,S)	SILICON	ROHM	
	Q373	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q374	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q431	2SC1741A(Q,R)	SILICON	ROHM	
	Q432	2SC1741A(Q,R)	SILICON	ROHM	
	Q461	2SB941A(R,S)	SILICON	MATSUSHITA	
	Q462	2SA564A(R,S)	SILICON	MATSUSHITA	C
	Q462	2SA564A(R,S)	SILICON	MATSUSHITA	DBS
	Q462	2SA564A(R,S)	SILICON	MATSUSHITA	E
	Q462	2SA564A(R,S)	SILICON	MATSUSHITA	F
	Q462	2SA933(R,S)	SILICON	ROHM	B
	Q462	2SA933(R,S)	SILICON	ROHM	G
	Q463	2SC1740(R,S)	SILICON	ROHM	
	Q501	2SC1741A(Q,R)	SILICON	ROHM	
	Q502	2SC1741A(Q,R)	SILICON	ROHM	
	Q541	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q542	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q543	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q544	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q561	2SC1740(R,S)	SILICON	ROHM	
	Q562	2SC1740(R,S)	SILICON	ROHM	
	Q563	2SC1740(R,S)	SILICON	ROHM	
	Q564	2SC1740(R,S)	SILICON	ROHM	
	Q565	2SC1740(R,S)	SILICON	ROHM	
	Q566	2SC1740(R,S)	SILICON	ROHM	
	Q567	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q568	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q569	2SC1740(R,S)	SILICON	ROHM	
	Q591	2SC1741A(Q,R)	SILICON	ROHM	
	Q592	2SC1741A(Q,R)	SILICON	ROHM	
	Q593	2SC1741A(Q,R)	SILICON	ROHM	
	Q594	2SA933(R,S)	SILICON	ROHM	
	Q595	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q596	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q601	2SC1740(R,S)	SILICON	ROHM	
	Q602	2SC1740(R,S)	SILICON	ROHM	
	Q603	2SC1740(R,S)	SILICON	ROHM	
	Q604	2SC1740(R,S)	SILICON	ROHM	
	Q605	DTC114YN	SILICON	ROHM	
	Q606	2SC3377(Q,R)	SILICON	ROHM	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	IC301	BA715DX	I.C.	ROHM	
	IC331	BA3812L	I.C.	ROHM	
	IC332	BA3812L	I.C.	ROHM	
	IC401	STK4141MK5	I.C.	SANYO	
	IC431	TA7317P	I.C.	TOSHIBA	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	D431	1SS133	SILICON	ROHM	
	D432	1SS133	SILICON	ROHM	
	D433	1SS133	SILICON	ROHM	
⚠	D461	ERB12-02RKL1	SILICON	FUJI ELECTRO	
⚠	D462	ERB12-02RKL1	SILICON	FUJI ELECTRO	
⚠	D463	ERB12-02RKL1	SILICON	FUJI ELECTRO	
⚠	D464	ERB12-02RKL1	SILICON	FUJI ELECTRO	
	D465	11E2	SILICON	NIHONINTER	
	D466	11E2	SILICON	NIHONINTER	
	D467	11E2	SILICON	NIHONINTER	
	D468	11E2	SILICON	NIHONINTER	
	D469	1SS133	SILICON	ROHM	
	D470	MTZ12C	ZENER	ROHM	
	D471	MTZ9.1C	ZENER	ROHM	
	D475	1SS133	SILICON	ROHM	
	D476	MTZ13C	ZENER	ROHM	
	D601	1SS133	SILICON	ROHM	
	D602	1SS133	SILICON	ROHM	
	D603	1SS133	SILICON	ROHM	
	D604	1SS133	SILICON	ROHM	
	D605	1SS133	SILICON	ROHM	
	D606	1SS133	SILICON	ROHM	
	D607	1SS133	SILICON	ROHM	
	D608	1SS133	SILICON	ROHM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
⚠	C001	QCZ9019-472	4700PF		CERAMIC	B
⚠	C001	QCZ9019-472	4700PF		CERAMIC	C
⚠	C001	QCZ9019-472	4700PF		CERAMIC	E
⚠	C001	QCZ9019-472	4700PF		CERAMIC	F
⚠	C001	QCZ9019-472	4700PF		CERAMIC	G
⚠	C001	QCZ9019-472BS	4700PF		CERAMIC	DBS
	C301	QETB1HM-225	2.2MF	50V	ELECTRO	
	C302	QETB1HM-225	2.2MF	50V	ELECTRO	
	C303	QETB1AM-476	47MF	10V	ELECTRO	
	C304	QETB1AM-476	47MF	10V	ELECTRO	
	C305	QETB1HM-225	2.2MF	50V	ELECTRO	
	C306	QETB1HM-225	2.2MF	50V	ELECTRO	
	C307	QETB1EM-106	10MF	25V	ELECTRO	
	C308	QCF21HP-473	0.047MF	50V	CERAMIC	
	C311	QCS21HJ-101	100PF	50V	CERAMIC	
	C312	QCS21HJ-101	100PF	50V	CERAMIC	
	C313	QCS21HJ-101	100PF	50V	CERAMIC	
	C314	QCS21HJ-101	100PF	50V	CERAMIC	
	C315	QCY21HK-682	6800PF	50V	CERAMIC	
	C316	QCY21HK-682	6800PF	50V	CERAMIC	
	C317	QCY21HK-182	1800PF	50V	CERAMIC	
	C318	QCY21HK-182	1800PF	50V	CERAMIC	
	C331	QETB1HM-225	2.2MF	50V	ELECTRO	
	C332	QETB1HM-225	2.2MF	50V	ELECTRO	
	C333	QETB1EM-106	10MF	25V	ELECTRO	
	C334	QETB1EM-106	10MF	25V	ELECTRO	
	C335	QCS21HJ-101	100PF	50V	CERAMIC	
	C336	QCS21HJ-101	100PF	50V	CERAMIC	
	C337	QETB1HM-225	2.2MF	50V	ELECTRO	
	C338	QETB1HM-225	2.2MF	50V	ELECTRO	
	C339	QFN81HK-273	0.027MF	50V	MYLAR	
	C340	QFN81HK-273	0.027MF	50V	MYLAR	
	C341	QETB1HM-474	0.47MF	50V	ELECTRO	
	C342	QETB1HM-474	0.47MF	50V	ELECTRO	
	C343	QFN81HK-822	8200PF	50V	MYLAR	
	C344	QFN81HK-822	8200PF	50V	MYLAR	
	C345	QFN81HK-124	0.12MF	50V	MYLAR	
	C346	QFN81HK-124	0.12MF	50V	MYLAR	
	C347	QCY21HK-222	2200PF	50V	CERAMIC	
	C348	QCY21HK-222	2200PF	50V	CERAMIC	
	C349	QFN81HK-333	0.033MF	50V	MYLAR	
	C350	QFN81HK-333	0.033MF	50V	MYLAR	
	C351	QCS21HJ-471	470PF	50V	CERAMIC	
	C352	QCS21HJ-471	470PF	50V	CERAMIC	
	C353	QCY21HK-822	8200PF	50V	CERAMIC	
	C354	QCY21HK-822	8200PF	50V	CERAMIC	
	C355	QCS21HJ-121	120PF	50V	CERAMIC	
	C356	QCS21HJ-121	120PF	50V	CERAMIC	
	C357	QETB1AM-107	100MF	10V	ELECTRO	
	C359	QCS21HJ-331	330PF	50V	CERAMIC	
	C360	QCS21HJ-331	330PF	50V	CERAMIC	
	C361	QCS21HJ-101	100PF	50V	CERAMIC	F
	C362	QCS21HJ-101	100PF	50V	CERAMIC	F
	C363	QCS21HJ-101	100PF	50V	CERAMIC	
	C364	QCF21HP-103	0.01MF	50V	CERAMIC	
	C371	QETB1HM-225	2.2MF	50V	ELECTRO	
	C401	QEK61HM-224G	0.22MF	50V	ELECTRO	
	C402	QEK61HM-224G	0.22MF	50V	ELECTRO	
	C403	QCS21HJ-121	120PF	50V	CERAMIC	
	C404	QCS21HJ-121	120PF	50V	CERAMIC	
	C405	QCS21HJ-820	82PF	50V	CERAMIC	
	C406	QCS21HJ-820	82PF	50V	CERAMIC	
	C407	QETB1CM-226	22MF	16V	ELECTRO	
	C408	QETB1CM-226	22MF	16V	ELECTRO	
	C409	QCS21HJ-100	10PF	50V	CERAMIC	
	C410	QCS21HJ-100	10PF	50V	CERAMIC	
	C411	QETB1HM-226	22MF	50V	ELECTRO	
	C412	QETB1HM-226	22MF	50V	ELECTRO	
	C413	QFV81HJ-104	0.1MF	50V	T.FILM	
	C414	QFV81HJ-104	0.1MF	50V	T.FILM	
	C415	QFV81HJ-104	0.1MF	50V	T.FILM	
	C416	QFV81HJ-104	0.1MF	50V	T.FILM	
	C417	QETB1HM-107	100MF	50V	ELECTRO	
	C419	QCF21HP-473	0.047MF	50V	CERAMIC	
	C420	QCF21HP-473	0.047MF	50V	CERAMIC	
	C431	QETB1HM-105	1MF	50V	ELECTRO	
	C432	QETB1AM-476	47MF	10V	ELECTRO	
	C433	QETB1CM-226	22MF	16V	ELECTRO	
	C461	QEZ0061-478	4700MF	50V	NON POLE	
	C462	QEZ0061-478	4700MF	50V	NON POLE	
	C463	QCE22HP-103	0.01MF	500V	CERAMIC	
	C464	QCE22HP-103	0.01MF	500V	CERAMIC	
	C465	QCE22HP-103	0.01MF	500V	CERAMIC	
	C466	QCF21HP-103	0.01MF	50V	CERAMIC	
	C467	QCF21HP-103	0.01MF	50V	CERAMIC	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C468	QCF21HP-103	0.01MF	50V	CERAMIC	
	C469	QCF21HP-103	0.01MF	50V	CERAMIC	
	C470	QETB1EM-107	100MF	25V	ELECTRO	
	C471	QETB1EM-228E	2200MF	25V	ELECTRO	
	C472	QETB1EM-106	10MF	25V	ELECTRO	
	C475	QETB1CM-476	47MF	16V	ELECTRO	
	C476	QETB1HM-225	2.2MF	50V	ELECTRO	
	C477	QCF21HP-103	0.01MF	50V	CERAMIC	
	C501	QCS21HJ-561	560PF	50V	CERAMIC	
	C502	QETB1EM-106	10MF	25V	ELECTRO	
	C503	QETB1HM-105	1MF	50V	ELECTRO	
	C504	QETB1HM-105	1MF	50V	ELECTRO	
	C505	QCS21HJ-101	100PF	50V	CERAMIC	
	C506	QCS21HJ-101	100PF	50V	CERAMIC	
	C541	QCS21HJ-471	470PF	50V	CERAMIC	
	C542	QCS21HJ-471	470PF	50V	CERAMIC	
	C543	QCS21HJ-561	560PF	50V	CERAMIC	
	C544	QCS21HJ-561	560PF	50V	CERAMIC	
	C545	QCS21HJ-101	100PF	50V	CERAMIC	
	C546	QCF21HP-103	0.01MF	50V	CERAMIC	
	C563	QETB1EM-106	10MF	25V	ELECTRO	
	C591	QCF21HP-103	0.01MF	50V	CERAMIC	
	C592	QETB1CM-476	47MF	16V	ELECTRO	
	C601	QEK61EM-475G	4.7MF	25V	ELECTRO	
	C602	QEK61EM-475G	4.7MF	25V	ELECTRO	
	C603	QETB1HM-105	1MF	50V	ELECTRO	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
⚠	R001	QRC128K-275EM	2.7M	1/2W	COMPOSI	B
⚠	R001	QRC128K-275EM	2.7M	1/2W	COMPOSI	G
	R301	QRD161J-272	2.7K	1/6W	CARBON	
	R302	QRD161J-272	2.7K	1/6W	CARBON	
	R303	QRD161J-104	100K	1/6W	CARBON	
	R304	QRD161J-104	100K	1/6W	CARBON	
	R305	QRD161J-104	100K	1/6W	CARBON	
	R306	QRD161J-104	100K	1/6W	CARBON	
	R307	QRD161J-474	470K	1/6W	CARBON	
	R308	QRD161J-474	470K	1/6W	CARBON	
	R309	QRD161J-393	39K	1/6W	CARBON	
	R310	QRD161J-393	39K	1/6W	CARBON	
	R311	QRD161J-102	1K	1/6W	CARBON	
	R312	QRD161J-102	1K	1/6W	CARBON	
	R313	QRD161J-153	15K	1/6W	CARBON	
	R314	QRD161J-153	15K	1/6W	CARBON	
	R315	QRD161J-221	220	1/6W	CARBON	
	R341	QRD161J-102	1K	1/6W	CARBON	
	R342	QRD161J-102	1K	1/6W	CARBON	
	R343	QRD161J-392	3.9K	1/6W	CARBON	
	R344	QRD161J-392	3.9K	1/6W	CARBON	
	R347	QRD161J-392	3.9K	1/6W	CARBON	
	R348	QRD161J-392	3.9K	1/6W	CARBON	
	R360	QVDB96A-E15B			VARIABLE	
	R361	QRD161J-333	33K	1/6W	CARBON	
	R362	QRD161J-333	33K	1/6W	CARBON	
	R363	QRD161J-393	39K	1/6W	CARBON	
	R364	QRD161J-393	39K	1/6W	CARBON	
	R365	QRD161J-472	4.7K	1/6W	CARBON	
	R366	QRD161J-472	4.7K	1/6W	CARBON	
	R371	QRD161J-473	47K	1/6W	CARBON	
	R372	QRD161J-473	47K	1/6W	CARBON	
	R373	QRD161J-223	22K	1/6W	CARBON	
	R374	QRD161J-223	22K	1/6W	CARBON	
	R376	QRD161J-102	1K	1/6W	CARBON	
	R377	QRD161J-473	47K	1/6W	CARBON	
	R378	QRD161J-473	47K	1/6W	CARBON	
	R401	QRD161J-102	1K	1/6W	CARBON	
	R402	QRD161J-102	1K	1/6W	CARBON	
	R403	QRD161J-104	100K	1/6W	CARBON	
	R404	QRD161J-104	100K	1/6W	CARBON	
	R405	QRD161J-471	470	1/6W	CARBON	
	R406	QRD161J-471	470	1/6W	CARBON	
	R407	QRD161J-104	100K	1/6W	CARBON	
	R408	QRD161J-104	100K	1/6W	CARBON	
	R409	QRD148J-272S	2.7K	1/4W	CARBON	
	R410	QRD148J-272S	2.7K	1/4W	CARBON	
	R411	QRD148J-222S	2.2K	1/4W	CARBON	
	R412	QRD148J-222S	2.2K	1/4W	CARBON	
⚠	R413	QRD145J-100S	10	1/4W	UNF.CARBON	B

⚠ : SAFETY PARTS

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
⚠	R413	QRD145J-100S	10	1/4W	UNF.CARBON	G
⚠	R413	QRZ0062-100	10	1/4W	FUSIBLE	C
⚠	R413	QRZ0062-100	10	1/4W	FUSIBLE	DBS
⚠	R413	QRZ0062-100	10	1/4W	FUSIBLE	E
⚠	R413	QRZ0062-100	10	1/4W	FUSIBLE	F
⚠	R414	QRD145J-100S	10	1/4W	UNF.CARBON	B
⚠	R414	QRD145J-100S	10	1/4W	UNF.CARBON	G
⚠	R414	QRZ0062-100	10	1/4W	FUSIBLE	C
⚠	R414	QRZ0062-100	10	1/4W	FUSIBLE	DBS
⚠	R414	QRZ0062-100	10	1/4W	FUSIBLE	E
⚠	R414	QRZ0062-100	10	1/4W	FUSIBLE	F
⚠	R415	QRD145J-100S	10	1/4W	UNF.CARBON	B
⚠	R415	QRD145J-100S	10	1/4W	UNF.CARBON	G
⚠	R415	QRZ0062-100	10	1/4W	FUSIBLE	C
⚠	R415	QRZ0062-100	10	1/4W	FUSIBLE	DBS
⚠	R415	QRZ0062-100	10	1/4W	FUSIBLE	E
⚠	R415	QRZ0062-100	10	1/4W	FUSIBLE	F
⚠	R416	QRD145J-101S	100	1/4W	UNF.CARBON	B
⚠	R416	QRD145J-101S	100	1/4W	UNF.CARBON	G
⚠	R416	QRZ0062-101	100	1/4W	FUSIBLE	C
⚠	R416	QRZ0062-101	100	1/4W	FUSIBLE	DBS
⚠	R416	QRZ0062-101	100	1/4W	FUSIBLE	E
⚠	R416	QRZ0062-101	100	1/4W	FUSIBLE	F
⚠	R417	QRD125J-221	220	1/2W	UNF.CARBON	
⚠	R418	QRD125J-221	220	1/2W	UNF.CARBON	
⚠	R419	QRD145J-100S	10	1/4W	UNF.CARBON	B
⚠	R419	QRD145J-100S	10	1/4W	UNF.CARBON	G
⚠	R419	QRZ0062-100	10	1/4W	FUSIBLE	C
⚠	R419	QRZ0062-100	10	1/4W	FUSIBLE	DBS
⚠	R419	QRZ0062-100	10	1/4W	FUSIBLE	E
⚠	R419	QRZ0062-100	10	1/4W	FUSIBLE	F
⚠	R420	QRD145J-100S	10	1/4W	UNF.CARBON	B
⚠	R420	QRD145J-100S	10	1/4W	UNF.CARBON	G
⚠	R420	QRZ0062-100	10	1/4W	FUSIBLE	C
⚠	R420	QRZ0062-100	10	1/4W	FUSIBLE	DBS
⚠	R420	QRZ0062-100	10	1/4W	FUSIBLE	E
⚠	R420	QRZ0062-100	10	1/4W	FUSIBLE	F
	R431	QRD161J-104	100K	1/6W	CARBON	
	R432	QRD161J-104	100K	1/6W	CARBON	
	R433	QRD161J-222	2.2K	1/6W	CARBON	
	R434	QRD161J-222	2.2K	1/6W	CARBON	
	R435	QRD161J-272	2.7K	1/6W	CARBON	
	R436	QRD161J-272	2.7K	1/6W	CARBON	
⚠	R437	QRX012J-R22A	0.22	1W	M.FILM	
⚠	R438	QRX012J-R22A	0.22	1W	M.FILM	
	R439	QRD161J-683	68K	1/6W	CARBON	
	R440	QRD161J-103	10K	1/6W	CARBON	
	R441	QRD161J-562	5.6K	1/6W	CARBON	
	R442	QRD161J-274	270K	1/6W	CARBON	
	R443	QRD161J-223	22K	1/6W	CARBON	
	R444	QRD161J-563	56K	1/6W	CARBON	
	R445	QRD161J-223	22K	1/6W	CARBON	
	R446	QRD161J-473	47K	1/6W	CARBON	
	R447	QRD161J-103	10K	1/6W	CARBON	
⚠	R448	QRG022J-471AF	470	2W	O.M.FILM	
	R461	QRD161J-332	3.3K	1/6W	CARBON	
	R462	QRD161J-332	3.3K	1/6W	CARBON	
	R463	QRD161J-102	1K	1/6W	CARBON	
	R464	QRD161J-103	10K	1/6W	CARBON	
⚠	R465	QRG022J-102AF	1K	2W	O.M.FILM	
	R501	QVZ3518-224			VARIABLE	
	R502	QVZ3518-224			VARIABLE	
	R503	QRD161J-331	330	1/6W	CARBON	
	R504	QRD161J-222	2.2K	1/6W	CARBON	
	R505	QRD161J-222	2.2K	1/6W	CARBON	
⚠	R506	QRD145J-150S	15	1/4W	UNF.CARBON	B
⚠	R506	QRD145J-150S	15	1/4W	UNF.CARBON	G
⚠	R506	QRZ0062-150	15	1/4W	FUSIBLE	C
⚠	R506	QRZ0062-150	15	1/4W	FUSIBLE	DBS
⚠	R506	QRZ0062-150	15	1/4W	FUSIBLE	E
⚠	R506	QRZ0062-150	15	1/4W	FUSIBLE	F
	R507	QRD161J-271	270	1/6W	CARBON	
	R541	QRD161J-154	150K	1/6W	CARBON	
	R542	QRD161J-154	150K	1/6W	CARBON	
	R543	QRD161J-154	150K	1/6W	CARBON	
	R544	QRD161J-154	150K	1/6W	CARBON	
	R545	QRD161J-100	10	1/6W	CARBON	
	R546	QRD161J-100	10	1/6W	CARBON	
	R547	QRD161J-562	5.6K	1/6W	CARBON	
	R548	QRD161J-562	5.6K	1/6W	CARBON	
	R549	QRD161J-562	5.6K	1/6W	CARBON	
	R550	QRD161J-562	5.6K	1/6W	CARBON	
	R551	QRD161J-103	10K	1/6W	CARBON	
	R552	QRD161J-103	10K	1/6W	CARBON	
	R553	QRD161J-103	10K	1/6W	CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R554	QRD161J-103	10K	1/6W	CARBON	
	R555	QRD161J-223	22K	1/6W	CARBON	
	R556	QRD161J-223	22K	1/6W	CARBON	
	R557	QRD161J-223	22K	1/6W	CARBON	
	R558	QRD161J-223	22K	1/6W	CARBON	
	R561	QVZ3518-473			VARIABLE	
	R562	QVZ3518-473			VARIABLE	
	R563	QRD161J-103	10K	1/6W	CARBON	
	R564	QRD161J-103	10K	1/6W	CARBON	
	R565	QRD161J-104	100K	1/6W	CARBON	
	R566	QRD161J-104	100K	1/6W	CARBON	
	R567	QRD161J-153	15K	1/6W	CARBON	
	R568	QRD161J-153	15K	1/6W	CARBON	
	R569	QRD161J-392	3.9K	1/6W	CARBON	
	R570	QRD161J-392	3.9K	1/6W	CARBON	
	R571	QRD161J-223	22K	1/6W	CARBON	
	R572	QRD161J-223	22K	1/6W	CARBON	
	R573	QRD161J-102	1K	1/6W	CARBON	
	R574	QRD161J-102	1K	1/6W	CARBON	
	R575	QRD161J-473	47K	1/6W	CARBON	
	R576	QRD161J-473	47K	1/6W	CARBON	
	R577	QRD161J-223	22K	1/6W	CARBON	
	R578	QRD161J-223	22K	1/6W	CARBON	
	R579	QRD161J-362	3.6K	1/6W	CARBON	
	R580	QRD161J-362	3.6K	1/6W	CARBON	
⚠	R581	QRD145J-220S	22	1/4W	UNF.CARBON	B
⚠	R581	QRD145J-220S	22	1/4W	UNF.CARBON	G
⚠	R581	QRZ0062-220	22	1/4W	FUSIBLE	C
⚠	R581	QRZ0062-220	22	1/4W	FUSIBLE	DBS
⚠	R581	QRZ0062-220	22	1/4W	FUSIBLE	E
⚠	R581	QRZ0062-220	22	1/4W	FUSIBLE	F
	R583	QRD161J-123	12K	1/6W	CARBON	
	R584	QRD161J-123	12K	1/6W	CARBON	
	R585	QRD161J-392	3.9K	1/6W	CARBON	
	R586	QRD161J-392	3.9K	1/6W	CARBON	
	R587	QRD161J-103	10K	1/6W	CARBON	
	R588	QRD161J-103	10K	1/6W	CARBON	
	R589	QRD161J-473	47K	1/6W	CARBON	
	R591	QRD161J-822	8.2K	1/6W	CARBON	
	R592	QRD161J-822	8.2K	1/6W	CARBON	
	R593	QRD161J-682	6.8K	1/6W	CARBON	
	R594	QRD161J-221	220	1/6W	CARBON	
	R595	QRD161J-223	22K	1/6W	CARBON	
	R596	QRD161J-223	22K	1/6W	CARBON	
	R597	QRD161J-103	10K	1/6W	CARBON	
	R598	QRD161J-103	10K	1/6W	CARBON	
	R599	QRD161J-221	220	1/6W	CARBON	
	R601	QRD161J-102	1K	1/6W	CARBON	
	R602	QRD161J-102	1K	1/6W	CARBON	
	R603	QRD161J-473	47K	1/6W	CARBON	
	R604	QRD161J-473	47K	1/6W	CARBON	
	R605	QRD161J-222	2.2K	1/6W	CARBON	
	R606	QRD161J-222	2.2K	1/6W	CARBON	
	R607	QRD161J-473	47K	1/6W	CARBON	
	R608	QRD161J-473	47K	1/6W	CARBON	
	R609	QRD161J-473	47K	1/6W	CARBON	
	R610	QRD161J-332	3.3K	1/6W	CARBON	
	R611	QRD161J-223	22K	1/6W	CARBON	
	R612	QRD161J-152	1.5K	1/6W	CARBON	
	R613	QRD161J-103	10K	1/6W	CARBON	
	R614	QRD161J-473	47K	1/6W	CARBON	
	R615	QRD161J-222	2.2K	1/6W	CARBON	
	R616	QRD161J-473	47K	1/6W	CARBON	
	R617	QRD161J-222	2.2K	1/6W	CARBON	
	R618	QRD161J-473	47K	1/6W	CARBON	
	R619	QRD161J-152	1.5K	1/6W	CARBON	
	R620	QRD161J-4R7	4.7	1/6W	CARBON	
	R621	QRD161J-221	220	1/6W	CARBON	
	R660	QRD161J-152	1.5K	1/6W	CARBON	

⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMG7331-001	FUSE CLIP	
		EMG7331-001	FUSE CLIP	
		ENF-025B	P.C. BOARD ASSY	
		ENJ-004D	P.C.BOARD ASSY	
		ENJ-006A	P.C.BOARD ASSY	
		ESK7D24-211	RELAY	
		EWT011-088	TERMINAL WIRE	B
		EWT011-088	TERMINAL WIRE	G
		E11220-103	CIRCUIT BOARD	B
		E11220-103	CIRCUIT BOARD	C
		E11220-103	CIRCUIT BOARD	G
		E11220-103	CIRCUIT BOARD	E
		E11220-103	CIRCUIT BOARD	F
		E11220-203BS	CIRCUIT BOARD	DBS
		E61380-032	FUSE LABEL	B
		E61380-032	FUSE LABEL	G
		E65508-002	TAB	
		E70859-001	EARTH PLATE	
⚠		QMC0437-002	AC SOCKET	B
⚠		QMC0440-001	AC SOCKET	G
		SL8-26VW50F	L.E.D.	
	J301	EMN00TV-405A	PIN JACK ASSY	
	J401	EM890YV-401A	SPK.TERMINAL	
	J402	QMS6312-022	JACK ASSY	
	J403	QMA1221-009	DC TERMINAL	
	L501	ENZ6003-004	BIAS OSC	
	L503	EQF0401-002	FILTER	
	L504	EQF0401-002	FILTER	
	P501	QMV5005-008K	PLUG ASSY	
	P502	QMV5005-004K	PLUG ASSY	
	P503	QMV5005-003K	PLUG ASSY	
	P504	QMV5005-005K	PLUG ASSY	
	P601	QMV5005-010K	PLUG ASSY	
	S001	QSP1106-004	PUSH SWITCH	B
	S001	QSP1106-004	PUSH SWITCH	C
	S001	QSP1106-004	PUSH SWITCH	E
	S001	QSP1106-004	PUSH SWITCH	F
	S001	QSP1106-004	PUSH SWITCH	G
	S001	QSP1106-004BS	PUSH SWITCH	DBS
	S361	QST3481-E01	PUSH SWITCH	
	S501	QSS6A12-E01	SLIDE SWITCH	
	S601	QST3101-E05	PUSH SWITCH	
	S602	QST3101-E05	PUSH SWITCH	
	RT001	E67764-202	TERMINAL	B
	RT001	E67764-202	TERMINAL	G
	RT002	E67764-203	TERMINAL ASSY	C
	RT002	E67764-203	TERMINAL ASSY	DBS
	RT002	E67764-203	TERMINAL ASSY	E
	RT002	E67764-203	TERMINAL ASSY	F
	RT003	E67764-202	TERMINAL	C
	RT003	E67764-202	TERMINAL	DBS
	RT003	E67764-202	TERMINAL	E
	RT003	E67764-202	TERMINAL	F
	RT401	E67764-005	TERMINAL	

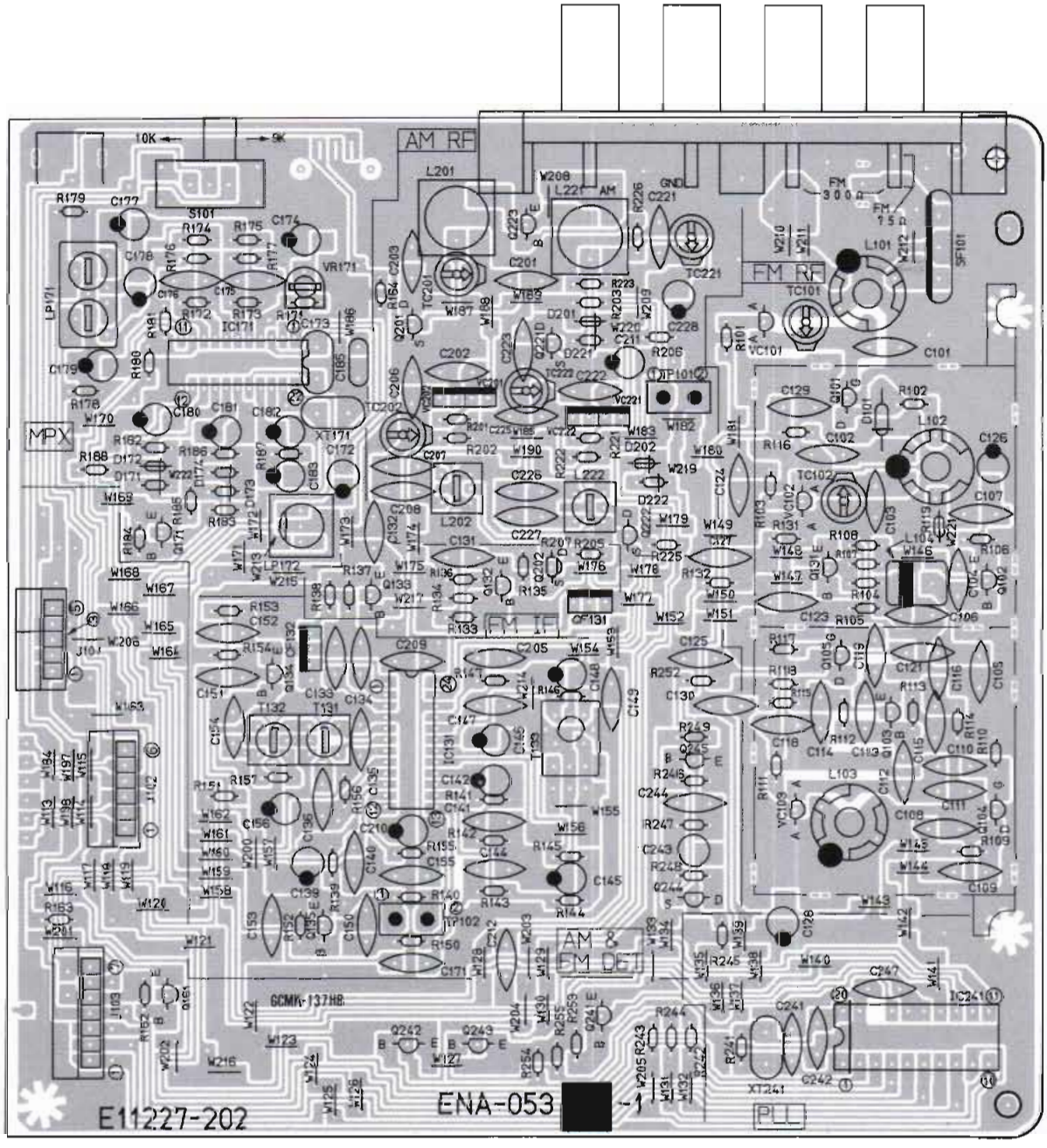
⚠ : SAFETY PARTS

■ ENA-053□ Tuner P.C. Board Ass'y

Note : ENA-053□ Varies according to the areas employed. See Note (1) when placing an order.

Note (1)

P.C. Board Ass'y	Designated Areas
ENA-053[B]	U.S.A. & Canada
ENA-053[C]	U.S. Military Market & Other Countries
ENA-053[D]	Australia
ENA-053[E]	Europe
ENA-053[F]	West Germany
ENA-053[G]	U.K.



Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	Q101	2SK606(Q,R)	F.E.T	MATSUSHITA	
	Q102	2SC535(B,C)	SILICON	HITACHI	
	Q103	2SC461(C)	SILICON	HITACHI	
	Q104	2SK606(Q,R)	F.E.T	MATSUSHITA	
	Q105	2SK606(Q,R)	F.E.T	MATSUSHITA	F
	Q131	2SC461(B,C)	SILICON	HITACHI	
	Q132	2SC535(B,C)	SILICON	HITACHI	
	Q133	2SC461(B,C)	SILICON	HITACHI	
	Q134	2SC535(B,C)	SILICON	HITACHI	
	Q135	2SC461(B,C)	SILICON	HITACHI	
	Q171	2SC1740(R,S)	SILICON	ROHM	
	Q201	2SK301(Q,R)	F.E.T	MATSUSHITA	
	Q202	2SK301(P,Q)	F.E.T	MATSUSHITA	E
	Q202	2SK301(P,Q)	F.E.T	MATSUSHITA	F
	Q202	2SK301(P,Q)	F.E.T	MATSUSHITA	G
	Q221	2SK301(Q,R)	F.E.T	MATSUSHITA	E
	Q221	2SK301(Q,R)	F.E.T	MATSUSHITA	F
	Q221	2SK301(Q,R)	F.E.T	MATSUSHITA	G
	Q222	2SK301(P,Q)	F.E.T	MATSUSHITA	E
	Q222	2SK301(P,Q)	F.E.T	MATSUSHITA	F
	Q222	2SK301(P,Q)	F.E.T	MATSUSHITA	G
	Q223	2SD1302(S,T)	SILICON	MATSUSHITA	E
	Q223	2SD1302(S,T)	SILICON	MATSUSHITA	F
	Q223	2SD1302(S,T)	SILICON	MATSUSHITA	G
	Q241	2SA933(R,S)	SILICON	ROHM	
	Q242	2SA933(R,S)	SILICON	ROHM	
	Q243	2SA933(R,S)	SILICON	ROHM	E
	Q243	2SA933(R,S)	SILICON	ROHM	F
	Q243	2SA933(R,S)	SILICON	ROHM	G
	Q244	2SK301(Q1)	F.E.T	MATSUSHITA	
	Q245	2SC458(D)	SILICON	HITACHI	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	IC131	LA1267S	I.C.	SANYO	
	IC171	LA3401	I.C.	SANYO	
	IC241	LM7000N	I.C.	SANYO	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	D171	1SS133	SILICON	ROHM	
	D173	1SS133	SILICON	ROHM	
	D174	1SS133	SILICON	ROHM	
	D201	1SS133	SILICON	ROHM	E
	D201	1SS133	SILICON	ROHM	F
	D201	1SS133	SILICON	ROHM	G
	D202	1SS133	SILICON	ROHM	E
	D202	1SS133	SILICON	ROHM	F
	D202	1SS133	SILICON	ROHM	G
	D221	1SS133	SILICON	ROHM	E
	D221	1SS133	SILICON	ROHM	F
	D221	1SS133	SILICON	ROHM	G
	D222	1SS133	SILICON	ROHM	E
	D222	1SS133	SILICON	ROHM	F
	D222	1SS133	SILICON	ROHM	G
	VC101	SVC202(AB)	VALICAP	SANYO	
	VC102	SVC202(AB)	VALICAP	SANYO	
	VC103	SVC202(AB)	VALICAP	SANYO	
	VC201	KV1236Z	VALICAP	TOKO	
	VC202	KV1236Z	VALICAP	TOKO	
	VC221	KV1236Z	VALICAP	TOKO	E
	VC221	KV1236Z	VALICAP	TOKO	F
	VC221	KV1236Z	VALICAP	TOKO	G
	VC222	KV1236Z	VALICAP	TOKO	E
	VC222	KV1236Z	VALICAP	TOKO	F
	VC222	KV1236Z	VALICAP	TOKO	G

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C102	QCF21HP-103	0.01MF	50V	CERAMIC	
	C103	QCS21HJ-5R0	5.0PF	50V	CERAMIC	
	C104	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C105	QCS21HJ-2R0	2.0PF	50V	CERAMIC	
	C106	QCS21HJ-151	150PF	50V	CERAMIC	
	C107	QCF21HP-103	0.01MF	50V	CERAMIC	
	C108	QCF21HP-103	0.01MF	50V	CERAMIC	
	C109	QCF21HP-103	0.01MF	50V	CERAMIC	
	C110	QCT26CH-2R0	2.0PF	50V	CERAMIC	
	C111	QCT26TH-7R0	7.0PF	50V	CERAMIC	
	C112	QCT26CH-7R0	7.0PF	50V	CERAMIC	
	C113	QCT26CH-220	22PF	50V	CERAMIC	
	C114	QCF21HP-103	0.01MF	50V	CERAMIC	
	C115	QCT26CH-100	10PF	50V	CERAMIC	
	C116	QCS21HJ-2R0	2.0PF	50V	CERAMIC	B
	C116	QCS21HJ-2R0	2.0PF	50V	CERAMIC	C
	C116	QCS21HJ-2R0	2.0PF	50V	CERAMIC	D
	C116	QCS21HJ-2R0	2.0PF	50V	CERAMIC	E
	C116	QCS21HJ-2R0	2.0PF	50V	CERAMIC	G
	C118	QCF21HP-223	0.022MF	50V	CERAMIC	
	C119	QCT26CH-2R0	2.0PF	50V	CERAMIC	F
	C121	QCS21HJ-3R0	3.0PF	50V	CERAMIC	F
	C123	QCF21HP-223	0.022MF	50V	CERAMIC	
	C124	QCF21HP-223	0.022MF	50V	CERAMIC	
	C125	QCF21HP-223	0.022MF	50V	CERAMIC	
	C127	QCS21HJ-220	22PF	50V	CERAMIC	
	C128	QETB1EM-226	22MF	25V	ELECTRO	
	C131	QCF21HP-223	0.022MF	50V	CERAMIC	
	C132	QCF21HP-223	0.022MF	50V	CERAMIC	
	C133	QCF21HP-223	0.022MF	50V	CERAMIC	
	C134	QCF21HP-223	0.022MF	50V	CERAMIC	
	C135	QCC21EM-223	0.022MF	25V	CERAMIC	
	C136	QCF21HP-223	0.022MF	50V	CERAMIC	
	C139	QETB1HM-105	1MF	50V	ELECTRO	
	C140	QCS21HJ-101	100PF	50V	CERAMIC	E
	C140	QCS21HJ-101	100PF	50V	CERAMIC	F
	C140	QCS21HJ-221	220PF	50V	CERAMIC	B
	C140	QCS21HJ-221	220PF	50V	CERAMIC	C
	C140	QCS21HJ-221	220PF	50V	CERAMIC	D
	C140	QCS21HJ-221	220PF	50V	CERAMIC	G
	C141	QCF21HP-223	0.022MF	50V	CERAMIC	
	C142	QETB1EM-106	10MF	25V	ELECTRO	
	C144	QFN81HK-332	3300PF	50V	MYLAR	
	C145	QETB1HM-225	2.2MF	50V	ELECTRO	
	C146	QETB1HM-475	4.7MF	50V	ELECTRO	
	C147	QCF21HP-223	0.022MF	50V	CERAMIC	
	C148	QETB1EM-106	10MF	25V	ELECTRO	
	C149	QCF21HP-223	0.022MF	50V	CERAMIC	
	C150	QCY21HK-102	1000PF	50V	CERAMIC	
	C151	QCS21HJ-101	100PF	50V	CERAMIC	
	C152	QCF21HP-103	0.01MF	50V	CERAMIC	
	C153	QCS21HJ-101	100PF	50V	CERAMIC	
	C154	QCS21HJ-470	47PF	50V	CERAMIC	
	C155	QCF21HP-223	0.022MF	50V	CERAMIC	
	C156	QETB1HM-475	4.7MF	50V	ELECTRO	
	C171	QFN81HK-183	0.018MF	50V	MYLAR	E
	C171	QFN81HK-183	0.018MF	50V	MYLAR	F
	C171	QFN81HK-333	0.033MF	50V	MYLAR	B
	C171	QFN81HK-333	0.033MF	50V	MYLAR	C
	C171	QFN81HK-333	0.033MF	50V	MYLAR	D
	C171	QFN81HK-333	0.033MF	50V	MYLAR	G
	C172	QETB1EM-106	10MF	25V	ELECTRO	
	C173	QFN81HK-473	0.047MF	50V	MYLAR	
	C174	QETB1EM-106	10MF	25V	ELECTRO	
	C175	QCY21HK-102	1000PF	50V	CERAMIC	B
	C175	QCY21HK-102	1000PF	50V	CERAMIC	C
	C175	QCY21HK-331	330PF	50V	CERAMIC	E
	C175	QCY21HK-331	330PF	50V	CERAMIC	F
	C175	QCY21HK-681	680PF	50V	CERAMIC	D
	C175	QCY21HK-681	680PF	50V	CERAMIC	G
	C176	QCY21HK-102	1000PF	50V	CERAMIC	B
	C176	QCY21HK-102	1000PF	50V	CERAMIC	C
	C176	QCY21HK-331	330PF	50V	CERAMIC	E
	C176	QCY21HK-331	330PF	50V	CERAMIC	F
	C176	QCY21HK-681	680PF	50V	CERAMIC	D
	C176	QCY21HK-681	680PF	50V	CERAMIC	G
	C177	QETB1HM-225	2.2MF	50V	ELECTRO	
	C178	QETB1HM-225	2.2MF	50V	ELECTRO	
	C179	QETB1HM-225	2.2MF	50V	ELECTRO	
	C180	QETB1HM-105	1MF	50V	ELECTRO	
	C181	QETB1HM-105	1MF	50V	ELECTRO	
	C182	QETB1HM-474	0.47MF	50V	ELECTRO	
	C183	QETB1HM-225	2.2MF	50V	ELECTRO	
	C185	QCY21HK-102	1000PF	50V	CERAMIC	
	C202	QCC21EM-223	0.022MF	25V	CERAMIC	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C203	QCS21HJ-561	560PF	50V	CERAMIC	
	C205	QCF21HP-223	0.022MF	50V	CERAMIC	
	C206	QCT26CH-100	10PF	50V	CERAMIC	
	C207	QCT26CH-221	220PF	50V	CERAMIC	
	C208	QCT26CH-271	270PF	50V	CERAMIC	
	C209	QCF21HP-223	0.022MF	50V	CERAMIC	
	C210	QETB1EM-106	10MF	25V	ELECTRO	
	C211	QETB1EM-106	10MF	25V	ELECTRO	
	C212	QCF21HP-103	0.01MF	50V	CERAMIC	
	C213	QCT26CH-100	10PF	50V	CERAMIC	
	C221	QCS21HJ-330	33PF	50V	CERAMIC	E
	C221	QCS21HJ-330	33PF	50V	CERAMIC	F
	C221	QCS21HJ-330	33PF	50V	CERAMIC	G
	C222	QCC21EM-473	0.047MF	25V	CERAMIC	E
	C222	QCC21EM-473	0.047MF	25V	CERAMIC	F
	C222	QCC21EM-473	0.047MF	25V	CERAMIC	G
	C223	QCY21HK-272	2700PF	50V	CERAMIC	E
	C223	QCY21HK-272	2700PF	50V	CERAMIC	F
	C223	QCY21HK-272	2700PF	50V	CERAMIC	G
	C225	QCT26CH-680	68PF	50V	CERAMIC	E
	C225	QCT26CH-680	68PF	50V	CERAMIC	F
	C225	QCT26CH-680	68PF	50V	CERAMIC	G
	C226	QCT26CH-151	150PF	50V	CERAMIC	E
	C226	QCT26CH-151	150PF	50V	CERAMIC	F
	C226	QCT26CH-151	150PF	50V	CERAMIC	G
	C227	QCT26CH-150	15PF	50V	CERAMIC	E
	C227	QCT26CH-150	15PF	50V	CERAMIC	F
	C227	QCT26CH-150	15PF	50V	CERAMIC	G
	C228	QETB1EM-106	10MF	25V	ELECTRO	E
	C228	QETB1EM-106	10MF	25V	ELECTRO	F
	C228	QETB1EM-106	10MF	25V	ELECTRO	G
	C229	QCT26CH-7R0	7.0PF	50V	CERAMIC	E
	C229	QCT26CH-7R0	7.0PF	50V	CERAMIC	F
	C229	QCT26CH-7R0	7.0PF	50V	CERAMIC	G
	C241	QCS21HJ-180	18PF	50V	CERAMIC	
	C242	QCS21HJ-180	18PF	50V	CERAMIC	
	C243	QEN51HM-474	0.47MF	50V	NON POLE	
	C244	QCY21HK-102	1000PF	50V	CERAMIC	
	C247	QCC21EM-473	0.047MF	25V	CERAMIC	
	TC101	ENZ1003-003			TRIMMER	
	TC102	ENZ1003-003			TRIMMER	
	TC201	ENZ1003-006			TRIMMER	
	TC221	ENZ1003-006			TRIMMER	E
	TC221	ENZ1003-006			TRIMMER	F
	TC221	ENZ1003-006			TRIMMER	G

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
⚠	R101	QRD161J-473	47K	1/6W	CARBON	
⚠	R102	QRD161J-330	33	1/6W	CARBON	
	R103	QRD161J-473	47K	1/6W	CARBON	
	R104	QRD161J-223	22K	1/6W	CARBON	
	R105	QRD161J-332	3.3K	1/6W	CARBON	
	R106	QRD161J-102	1K	1/6W	CARBON	
	R107	QRD161J-102	1K	1/6W	CARBON	
	R108	QRD161J-330	33	1/6W	CARBON	
	R109	QRD161J-331	330	1/6W	CARBON	
	R110	QRD161J-224	220K	1/6W	CARBON	
	R111	QRD161J-472	4.7K	1/6W	CARBON	
	R112	QRD161J-103	10K	1/6W	CARBON	
	R113	QRD161J-682	6.8K	1/6W	CARBON	
	R114	QRD161J-222	2.2K	1/6W	CARBON	
	R115	QRD161J-561	560	1/6W	CARBON	
	R116	QRD161J-221	220	1/6W	CARBON	
	R117	QRD161J-224	220K	1/6W	CARBON	F
	R118	QRD161J-331	330	1/6W	CARBON	F
	R131	QRD161J-332	3.3K	1/6W	CARBON	
	R132	QRD161J-221	220	1/6W	CARBON	
	R133	QRD161J-391	390	1/6W	CARBON	
	R134	QRD161J-272	2.7K	1/6W	CARBON	
	R135	QRD161J-681	680	1/6W	CARBON	
	R136	QRD161J-102	1K	1/6W	CARBON	
	R137	QRD161J-332	3.3K	1/6W	CARBON	
	R138	QRD161J-221	220	1/6W	CARBON	
	R139	QRD161J-183	18K	1/6W	CARBON	B
	R139	QRD161J-333	33K	1/6W	CARBON	C
	R139	QRD161J-333	33K	1/6W	CARBON	D
	R139	QRD161J-333	33K	1/6W	CARBON	E
	R139	QRD161J-333	33K	1/6W	CARBON	F
	R139	QRD161J-333	33K	1/6W	CARBON	G
	R140	QRD161J-561	560	1/6W	CARBON	
	R141	QRD161J-473	47K	1/6W	CARBON	
	R142	QRD161J-123	12K	1/6W	CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R143	QRD161J-273	27K	1/6W	CARBON	E
	R143	QRD161J-273	27K	1/6W	CARBON	F
	R143	QRD161J-682	6.8K	1/6W	CARBON	B
	R143	QRD161J-682	6.8K	1/6W	CARBON	C
	R143	QRD161J-682	6.8K	1/6W	CARBON	D
	R143	QRD161J-682	6.8K	1/6W	CARBON	G
	R144	QRD161J-103	10K	1/6W	CARBON	
	R145	QRD161J-103	10K	1/6W	CARBON	
	R147	QRD161J-391	390	1/6W	CARBON	
	R150	QRD161J-152	1.5K	1/6W	CARBON	
	R151	QRD161J-154	150K	1/6W	CARBON	
	R152	QRD161J-562	5.6K	1/6W	CARBON	
	R153	QRD161J-332	3.3K	1/6W	CARBON	
	R154	QRD161J-561	560	1/6W	CARBON	
	R155	QRD161J-221	220	1/6W	CARBON	
	R156	QRD161J-102	1K	1/6W	CARBON	
	R157	QRD161J-822	8.2K	1/6W	CARBON	
	R171	QRD161J-393	39K	1/6W	CARBON	B
	R171	QRD161J-393	39K	1/6W	CARBON	C
	R171	QRD161J-393	39K	1/6W	CARBON	D
	R171	QRD161J-393	39K	1/6W	CARBON	E
	R171	QRD161J-393	39K	1/6W	CARBON	G
	R171	QRD161J-563	56K	1/6W	CARBON	F
	R172	QRD161J-154	150K	1/6W	CARBON	E
	R172	QRD161J-154	150K	1/6W	CARBON	F
	R172	QRD161J-753	75K	1/6W	CARBON	B
	R172	QRD161J-753	75K	1/6W	CARBON	C
	R172	QRD161J-753	75K	1/6W	CARBON	D
	R172	QRD161J-753	75K	1/6W	CARBON	G
	R173	QRD161J-154	150K	1/6W	CARBON	E
	R173	QRD161J-154	150K	1/6W	CARBON	F
	R173	QRD161J-753	75K	1/6W	CARBON	B
	R173	QRD161J-753	75K	1/6W	CARBON	C
	R173	QRD161J-753	75K	1/6W	CARBON	D
	R173	QRD161J-753	75K	1/6W	CARBON	G
	R174	QRD161J-332	3.3K	1/6W	CARBON	
	R175	QRD161J-332	3.3K	1/6W	CARBON	
	R176	QRD161J-124	120K	1/6W	CARBON	B
	R176	QRD161J-124	120K	1/6W	CARBON	C
	R176	QRD161J-124	120K	1/6W	CARBON	D
	R176	QRD161J-124	120K	1/6W	CARBON	G
	R176	QRD161J-224	220K	1/6W	CARBON	E
	R176	QRD161J-224	220K	1/6W	CARBON	F
	R177	QRD161J-124	120K	1/6W	CARBON	B
	R177	QRD161J-124	120K	1/6W	CARBON	C
	R177	QRD161J-124	120K	1/6W	CARBON	D
	R177	QRD161J-124	120K	1/6W	CARBON	G
	R177	QRD161J-224	220K	1/6W	CARBON	E
	R177	QRD161J-224	220K	1/6W	CARBON	F
	R178	QRD161J-472	4.7K	1/6W	CARBON	E
	R178	QRD161J-472	4.7K	1/6W	CARBON	F
	R178	QRD161J-682	6.8K	1/6W	CARBON	B
	R178	QRD161J-682	6.8K	1/6W	CARBON	C
	R178	QRD161J-682	6.8K	1/6W	CARBON	D
	R178	QRD161J-682	6.8K	1/6W	CARBON	G
	R179	QRD161J-472	4.7K	1/6W	CARBON	E
	R179	QRD161J-472	4.7K	1/6W	CARBON	F
	R179	QRD161J-682	6.8K	1/6W	CARBON	B
	R179	QRD161J-682	6.8K	1/6W	CARBON	C
	R179	QRD161J-682	6.8K	1/6W	CARBON	D
	R179	QRD161J-682	6.8K	1/6W	CARBON	G
	R180	QRD161J-472	4.7K	1/6W	CARBON	
	R181	QRD161J-472	4.7K	1/6W	CARBON	
	R182	QRD161J-103	10K	1/6W	CARBON	
	R183	QRD161J-473	47K	1/6W	CARBON	
	R184	QRD161J-473	47K	1/6W	CARBON	
	R185	QRD161J-562	5.6K	1/6W	CARBON	
	R186	QRD161J-103	10K	1/6W	CARBON	
	R187	QRD161J-562	5.6K	1/6W	CARBON	
	R201	QRD161J-103	10K	1/6W	CARBON	
	R202	QRD161J-473	47K	1/6W	CARBON	
	R203	QRD161J-471	470	1/6W	CARBON	
	R205	QRD161J-103	10K	1/6W	CARBON	E
	R205	QRD161J-103	10K	1/6W	CARBON	F
	R205	QRD161J-103	10K	1/6W	CARBON	G
	R206	QRD161J-103	10K	1/6W	CARBON	E
	R206	QRD161J-103	10K	1/6W	CARBON	F
	R206	QRD161J-103	10K	1/6W	CARBON	G
	R207	QRD161J-330	33	1/6W	CARBON	
	R221	QRD161J-103	10K	1/6W	CARBON	E
	R221	QRD161J-103	10K	1/6W	CARBON	F
	R221	QRD161J-103	10K	1/6W	CARBON	G
	R222	QRD161J-473	47K	1/6W	CARBON	E
	R222	QRD161J-473	47K	1/6W	CARBON	F
	R222	QRD161J-473	47K	1/6W	CARBON	G

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R223	QRD161J-471	470	1/6W	CARBON	E
	R223	QRD161J-471	470	1/6W	CARBON	F
	R223	QRD161J-471	470	1/6W	CARBON	G
	R225	QRD161J-103	10K	1/6W	CARBON	E
	R225	QRD161J-103	10K	1/6W	CARBON	F
	R225	QRD161J-103	10K	1/6W	CARBON	G
	R226	QRD161J-472	4.7K	1/6W	CARBON	E
	R226	QRD161J-472	4.7K	1/6W	CARBON	F
	R226	QRD161J-472	4.7K	1/6W	CARBON	G
	R241	QRD161J-473	47K	1/6W	CARBON	
	R242	QRD161J-103	10K	1/6W	CARBON	
	R243	QRD161J-103	10K	1/6W	CARBON	
	R244	QRD161J-103	10K	1/6W	CARBON	E
	R244	QRD161J-103	10K	1/6W	CARBON	F
	R244	QRD161J-103	10K	1/6W	CARBON	G
	R245	QRD161J-103	10K	1/6W	CARBON	B
	R245	QRD161J-103	10K	1/6W	CARBON	C
	R245	QRD161J-103	10K	1/6W	CARBON	D
	R245	QRD161J-222	2.2K	1/6W	CARBON	E
	R245	QRD161J-222	2.2K	1/6W	CARBON	F
	R245	QRD161J-222	2.2K	1/6W	CARBON	G
	R246	QRD161J-271	270	1/6W	CARBON	
	R247	QRD161J-332	3.3K	1/6W	CARBON	B
	R247	QRD161J-332	3.3K	1/6W	CARBON	C
	R247	QRD161J-332	3.3K	1/6W	CARBON	D
	R247	QRD161J-822	8.2K	1/6W	CARBON	E
	R247	QRD161J-822	8.2K	1/6W	CARBON	F
	R247	QRD161J-822	8.2K	1/6W	CARBON	G
	R248	QRD161J-222	2.2K	1/6W	CARBON	
	R249	QRD161J-472	4.7K	1/6W	CARBON	
	R252	QRD161J-222	2.2K	1/6W	CARBON	
	R253	QRD161J-473	47K	1/6W	CARBON	
	R254	QRD161J-473	47K	1/6W	CARBON	
	R255	QRD161J-473	47K	1/6W	CARBON	E
	R255	QRD161J-473	47K	1/6W	CARBON	F
	R255	QRD161J-473	47K	1/6W	CARBON	G

⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMB01YV-401K	ANT.TERMINAL	B
		EMB01YV-401K	ANT.TERMINAL	C
		EMB01YV-401K	ANT.TERMINAL	D
		EMB01YV-401K	ANT.TERMINAL	E
		EMB01YV-401K	ANT.TERMINAL	G
		EMB01YV-402K	ANT.TERMINAL	F
		E11227-202	CIRCUIT BOARD	
		E304180-001	SHIELD CASE	
		E70225-001	EARTH PLATE	
	J101	EMV7112-003	SOCKET WIRE	B

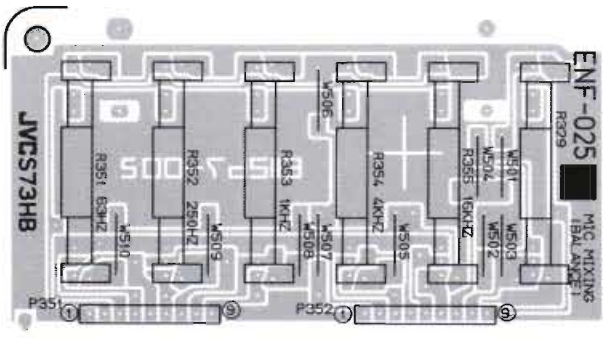
⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	J101	EMV7112-003	SOCKET WIRE	D
	J101	EMV7112-003	SOCKET WIRE	E
	J101	EMV7112-003	SOCKET WIRE	F
	J101	EMV7112-003	SOCKET WIRE	G
	J101	EMV7112-005	SOCKET WIRE	C
	J102	EMV7112-006	SOCKET WIRE	
	J103	EMV7112-007	SOCKET WIRE	
	L101	EQR2306-014	RF COIL	B
	L101	EQR2306-014	RF COIL	C
	L101	EQR2306-014	RF COIL	D
	L101	EQR2306-014	RF COIL	E
	L101	EQR2306-014	RF COIL	G
	L101	EQR2306-016	ANT.COIL	F
	L102	EQR2106-014	RF COIL	
	L103	EQR2406-004	RF COIL	
	L104	EQL3001-1R5KY	INDUCTOR	
	L201	EQR1111-006	RF COIL	
	L202	EQR1207-009	RF COIL	
	L221	EQR1111-005	RF COIL	E
	L221	EQR1111-005	RF COIL	F
	L221	EQR1111-005	RF COIL	G
	L222	EQR1307-002	RF COIL	E
	L222	EQR1307-002	RF COIL	F
	L222	EQR1307-002	RF COIL	G
	L241	EQL3001-471KYL	INDUCTOR	E
	L241	EQL3001-471KYL	INDUCTOR	F
	L241	EQL3001-471KYL	INDUCTOR	G
	S101	QSS6A12-E01	SLIDE SWITCH	C
	T131	EQT2140-012	I.F.TRANSFORMER	
	T132	EQT2140-013	I.F.TRANSFORMER	
	T133	ECB1560-003	CERAMIC FILTER	
	CF131	ECB2118-001R	CERAMIC FILTER	E
	CF131	ECB2118-001R	CERAMIC FILTER	F
	CF131	ECB2123-001R	CERAMIC FILTER	B
	CF131	ECB2123-001R	CERAMIC FILTER	C
	CF131	ECB2123-001R	CERAMIC FILTER	D
	CF131	ECB2123-001R	CERAMIC FILTER	G
	CF132	ECB2118-001R	CERAMIC FILTER	E
	CF132	ECB2118-001R	CERAMIC FILTER	F
	CF132	ECB2123-001R	CERAMIC FILTER	B
	CF132	ECB2123-001R	CERAMIC FILTER	C
	CF132	ECB2123-001R	CERAMIC FILTER	D
	CF132	ECB2123-001R	CERAMIC FILTER	G
	LP171	EQF0101-002L	FILTER	
	LP172	EQF0102-001	FILTER	F
	SF101	EQF0201-006	FILTER	F
	TP101	E67764-002	TERMINAL ASSY	
	TP102	E67764-002	TERMINAL ASSY	
	XT171	ECX0000-456KR	RESONATOR	
	XT241	ECX0007-200KC	CRYSTAL	

⚠ : SAFETY PARTS

■ ENF-025B SEA P.C. Board Ass'y



Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R329	QVWB06W-E15C	VARIABLE	
	R351	QVWB06W-E15C	VARIABLE	
	R352	QVWB06W-E15C	VARIABLE	
	R353	QVWB06W-E15C	VARIABLE	
	R354	QVWB06W-E15C	VARIABLE	
	R355	QVWB06W-E15C	VARIABLE	

⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		E11267-002	CIRCUIT BOARD	
	P351	EMV5101-009B	PLUG ASSY	
	P352	EMV5101-009B	PLUG ASSY	

⚠ : SAFETY PARTS

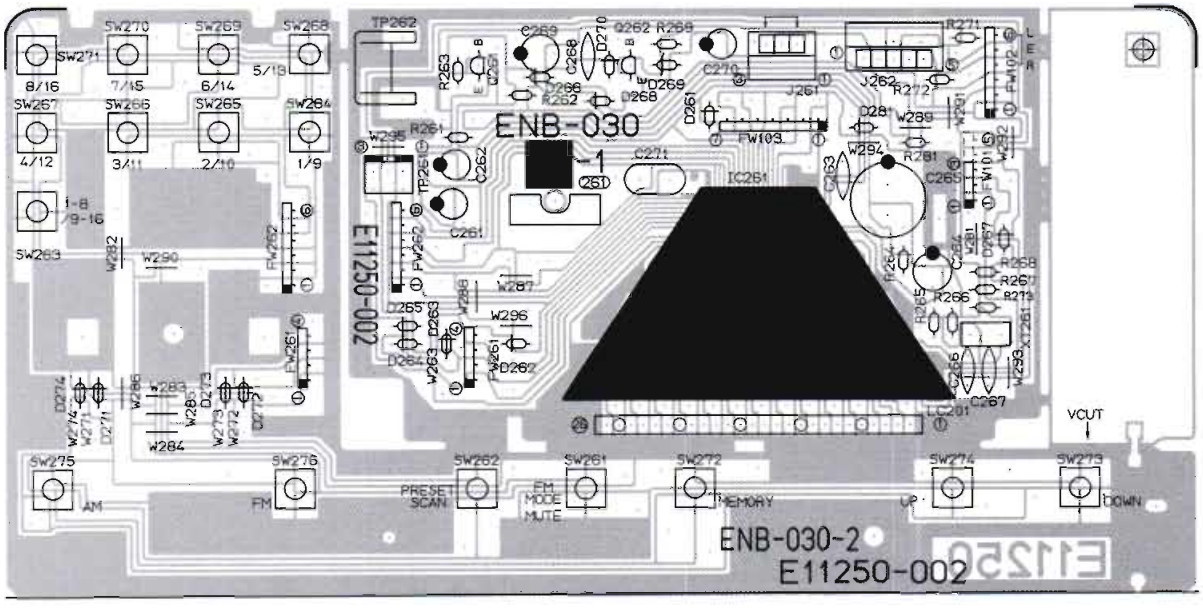
■ ENB-030□ LCD Display and Operation Switch P.C. Board Ass'y

Note : ENB-030□ Varies according to the areas employed. See Note (1) when placing an order.

Note (1)

P.C. Board Ass'y	Designated Areas
ENB-030H	U.S.A. & Canada
ENB-030I	U.S. Military Market & Other Countries

P.C. Board Ass'y	Designated Areas
ENB-030J	Australia
ENB-030K	Europe & U.K.
ENB-030L	West Germany



Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	Q261	2SC1740(R,S)	SILICON	ROHM	
	Q262	2SC1741A(Q,R)	SILICON	ROHM	
	Q263	2SC1685(Q,R)	SILICON	MATSUSHITA	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	IC261	LC5813H-246	I.C.	SANYO	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	D261	1SS133	SILICON	ROHM	
	D262	1SS133	SILICON	ROHM	K
	D262	1SS133	SILICON	ROHM	L
	D263	1SS133	SILICON	ROHM	I
	D263	1SS133	SILICON	ROHM	J
	D263	1SS133	SILICON	ROHM	K
	D263	1SS133	SILICON	ROHM	L
	D264	1SS133	SILICON	ROHM	I
	D264	1SS133	SILICON	ROHM	J
	D264	1SS133	SILICON	ROHM	K
	D264	1SS133	SILICON	ROHM	L
	D265	1SS133	SILICON	ROHM	H
	D266	1SS133	SILICON	ROHM	
	D267	1SS133	SILICON	ROHM	
	D269	MTZ5.6C	ZENER	ROHM	
	D270	1SS133	SILICON	ROHM	
	D271	1SS133	SILICON	ROHM	
	D272	1SS133	SILICON	ROHM	
	D273	1SS133	SILICON	ROHM	
	D274	1SS133	SILICON	ROHM	
	D275	1SS133	SILICON	ROHM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C261	QETB1HM-105	1MF	50V	ELECTRO	
	C262	QETB1HM-475	4.7MF	50V	ELECTRO	
	C263	QCF21HP-103	0.01MF	50V	CERAMIC	
	C264	QETB1AM-227	220MF	10V	ELECTRO	
	C265	EEZ0501-229	0.022MF	5.5V	ELECTRO	
	C266	QCS21HJ-331	330PF	50V	CERAMIC	
	C267	QCS21HJ-331	330PF	50V	CERAMIC	
	C268	QCF21HP-103	0.01MF	50V	CERAMIC	
	C269	QETB1CM-226	22MF	16V	ELECTRO	
	C270	QETB1CM-476	47MF	16V	ELECTRO	
	C271	QFN81HK-104	0.1MF	50V	MYLAR	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R261	QRD161J-473	47K	1/6W	CARBON	
	R262	QRD161J-223	22K	1/6W	CARBON	
	R263	QRD161J-103	10K	1/6W	CARBON	
	R264	QRD161J-331	330	1/6W	CARBON	
	R265	QRD161J-105	1M	1/6W	CARBON	
	R266	QRD161J-222	2.2K	1/6W	CARBON	
	R267	QRD161J-472	4.7K	1/6W	CARBON	
	R268	QRD161J-472	4.7K	1/6W	CARBON	
	R269	QRD161J-472	4.7K	1/6W	CARBON	
	R271	QRD161J-153	15K	1/6W	CARBON	
	R272	QRD161J-153	15K	1/6W	CARBON	
	R273	QRD161J-472	4.7K	1/6W	CARBON	
	R274	QRD161J-105	1M	1/6W	CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R261	QRD161J-473	47K	1/6W	CARBON	
	R262	QRD161J-223	22K	1/6W	CARBON	
	R263	QRD161J-103	10K	1/6W	CARBON	
	R264	QRD161J-331	330	1/6W	CARBON	
	R265	QRD161J-105	1M	1/6W	CARBON	
	R266	QRD161J-222	2.2K	1/6W	CARBON	
	R267	QRD161J-472	4.7K	1/6W	CARBON	
	R268	QRD161J-472	4.7K	1/6W	CARBON	
	R269	QRD161J-472	4.7K	1/6W	CARBON	
	R271	QRD161J-153	15K	1/6W	CARBON	
	R272	QRD161J-153	15K	1/6W	CARBON	
	R273	QRD161J-472	4.7K	1/6W	CARBON	
	R274	QRD161J-105	1M	1/6W	CARBON	

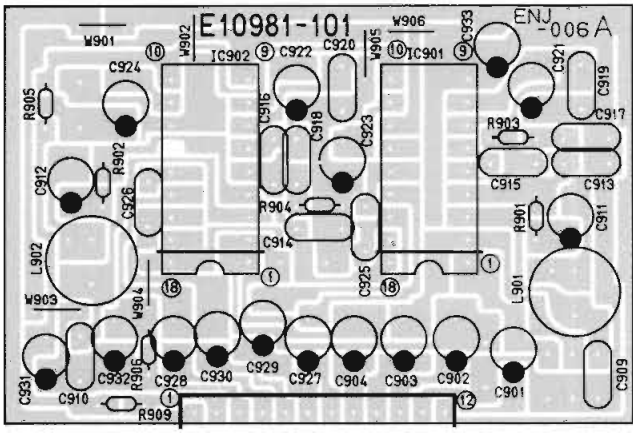
⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		E11250-003	CIRCUIT BOARD	
		E70859-001	EARTH PLATE	
	J261	EMV7112-003	SOCKET WIRE	
	J262	EMV7112-005	SOCKET WIRE	
	LC201	ELU0002-010	LCD PANEL	
	SW261	ESP0001-007	PUSH SWITCH	
	SW262	ESP0001-007	PUSH SWITCH	
	SW263	ESP0001-007	PUSH SWITCH	
	SW264	ESP0001-007	PUSH SWITCH	
	SW265	ESP0001-007	PUSH SWITCH	
	SW266	ESP0001-007	PUSH SWITCH	
	SW267	ESP0001-007	PUSH SWITCH	
	SW268	ESP0001-007	PUSH SWITCH	
	SW269	ESP0001-007	PUSH SWITCH	
	SW270	ESP0001-007	PUSH SWITCH	
	SW271	ESP0001-007	PUSH SWITCH	
	SW272	ESP0001-007	PUSH SWITCH	
	SW273	ESP0001-007	PUSH SWITCH	
	SW274	ESP0001-007	PUSH SWITCH	
	SW275	ESP0001-007	PUSH SWITCH	
	SW276	ESP0001-007	PUSH SWITCH	
	TP261	QMV5005-003K	PLUG ASSY	
	TP262	E70225-001	EARTH PLATE	
	XT261	ECX0000-400KS	RESONATOR	

⚠ : SAFETY PARTS

■ ENJ-006A Noise Reduction P.C. Board Ass'y



I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	IC901	AN7363N	I.C.	MATSUSHITA	
	IC902	AN7363N	I.C.	MATSUSHITA	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C901	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C902	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C903	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C904	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C909	QCF21HP-103	0.01MF	50V	CERAMIC	
	C910	QCF21HP-103	0.01MF	50V	CERAMIC	
	C911	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C912	QEK61HM-474G	0.47MF	50V	ELECTRO	
	C913	QCY21HK-122	1200PF	50V	CERAMIC	
	C914	QCY21HK-122	1200PF	50V	CERAMIC	
	C915	QFN81HJ-272	2700PF	50V	MYLAR	
	C916	QFN81HJ-272	2700PF	50V	MYLAR	
	C917	QFV81HJ-683	0.068MF	50V	T.FILM	
	C918	QFV81HJ-683	0.068MF	50V	T.FILM	
	C919	QFV81HJ-104	0.1MF	50V	T.FILM	

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C920	QFV81HJ-104	0.1MF	50V	T.FILM	
	C921	QEK61EM-475G	4.7MF	25V	ELECTRO	
	C922	QEK61EM-475G	4.7MF	25V	ELECTRO	
	C923	QETB1CM-107	100MF	16V	ELECTRO	
	C924	QETB1CM-107	100MF	16V	ELECTRO	
	C925	QFN81HJ-182	1800PF	50V	MYLAR	
	C926	QFN81HJ-182	1800PF	50V	MYLAR	
	C927	QEK61HM-105G	1MF	50V	ELECTRO	
	C928	QEK61HM-105G	1MF	50V	ELECTRO	
	C929	QEK61HM-225G	2.2MF	50V	ELECTRO	
	C930	QEK61HM-225G	2.2MF	50V	ELECTRO	
	C931	QETB1CM-476	47MF	16V	ELECTRO	
	C932	QEK61HM-225G	2.2MF	50V	ELECTRO	
	C933	QEK61CM-107	100MF	16V	ELECTRO	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R901	QRD161J-432	4.3K	1/6W	CARBON	
	R902	QRD161J-432	4.3K	1/6W	CARBON	
	R903	QRD161J-680	68	1/6W	CARBON	
	R904	QRD161J-680	68	1/6W	CARBON	
	R905	QRD161J-103	10K	1/6W	CARBON	
	R906	QRD161J-152	1.5K	1/6W	CARBON	
	R909	QRD161J-472	4.7K	1/6W	CARBON	

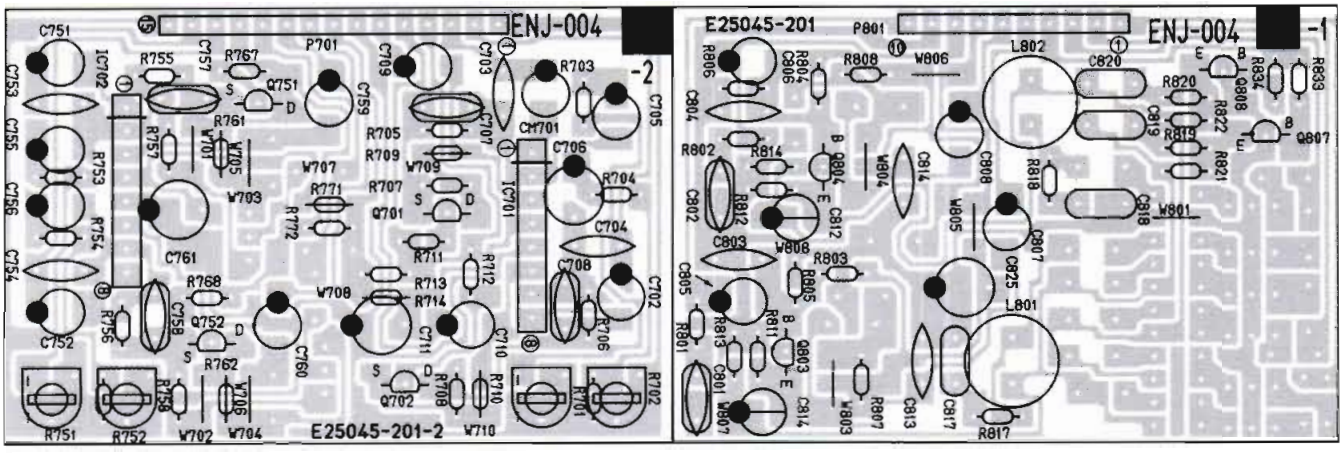
⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		E10981-101	CIRCUIT BOARD	
	L901	EQF0401-002	FILTER	
	L902	EQF0401-002	FILTER	
	P901	EMV5101-012B	PLUG ASSY	

⚠ : SAFETY PARTS

■ ENJ-004D Record Amplifier and Playback Amplifier P.C. Board Ass'y



Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	Q701	2SK301(P,Q)	F.E.T	MATSUSHITA	
	Q702	2SK301(P,Q)	F.E.T	MATSUSHITA	
	Q751	2SK301(P,Q)	F.E.T	MATSUSHITA	
	Q752	2SK301(P,Q)	F.E.T	MATSUSHITA	
	Q803	2SC1740LN(R,S)	SILICON	ROHM	
	Q804	2SC1740LN(R,S)	SILICON	ROHM	
	Q807	2SC1740(R,S)	SILICON	ROHM	
	Q808	2SC1740(R,S)	SILICON	ROHM	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	IC701	M51522L	I.C.	MITSUBISHI	
	IC702	M51522L	I.C.	MITSUBISHI	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C701	QETB1HM-475	4.7MF	50V	ELECTRO	
	C702	QETB1HM-475	4.7MF	50V	ELECTRO	
	C703	QCS21HJ-101	100PF	50V	CERAMIC	
	C704	QCS21HJ-101	100PF	50V	CERAMIC	
	C705	QETB1AM-107	100MF	10V	ELECTRO	
	C706	QETB1AM-107	100MF	10V	ELECTRO	
	C707	QFN81HJ-822	8200PF	50V	MYLAR	
	C708	QFN81HJ-822	8200PF	50V	MYLAR	
	C709	QETB1HM-225	2.2MF	50V	ELECTRO	
	C710	QETB1HM-225	2.2MF	50V	ELECTRO	
	C711	QETB1CM-107	100MF	16V	ELECTRO	
	C751	QETB1HM-475	4.7MF	50V	ELECTRO	
	C752	QETB1HM-475	4.7MF	50V	ELECTRO	
	C753	QCS21HJ-101	100PF	50V	CERAMIC	
	C754	QCS21HJ-101	100PF	50V	CERAMIC	
	C755	QETB1AM-107	100MF	10V	ELECTRO	
	C756	QETB1AM-107	100MF	10V	ELECTRO	
	C757	QFN81HJ-822	8200PF	50V	MYLAR	
	C758	QFN81HJ-822	8200PF	50V	MYLAR	
	C759	QETB1HM-225	2.2MF	50V	ELECTRO	
	C760	QETB1HM-225	2.2MF	50V	ELECTRO	
	C761	QEK61CM-107	100MF	16V	ELECTRO	
	C801	QCF21HP-473	0.047MF	50V	CERAMIC	
	C802	QCF21HP-473	0.047MF	50V	CERAMIC	
	C803	QCS21HJ-151	150PF	50V	CERAMIC	

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C804	QCS21HJ-151	150PF	50V	CERAMIC	
	C805	QETB1HM-225	2.2MF	50V	ELECTRO	
	C806	QETB1HM-225	2.2MF	50V	ELECTRO	
	C807	QETB1HM-475	4.7MF	50V	ELECTRO	
	C808	QETB1HM-475	4.7MF	50V	ELECTRO	
	C811	QEK61CM-106G	10MF	16V	ELECTRO	
	C812	QEK61CM-106G	10MF	16V	ELECTRO	
	C813	QCS21HJ-271	270PF	50V	CERAMIC	
	C814	QCS21HJ-271	270PF	50V	CERAMIC	
	C817	QFN81HJ-123	0.012MF	50V	MYLAR	
	C818	QFN81HJ-123	0.012MF	50V	MYLAR	
	C819	QFN81HJ-822	8200PF	50V	MYLAR	
	C820	QFN81HJ-822	8200PF	50V	MYLAR	
	C825	QEK61CM-107	100MF	16V	ELECTRO	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R701	QVZ3518-221			VARIABLE	
	R702	QVZ3518-221			VARIABLE	
	R703	QRD161J-101	100	1/6W	CARBON	
	R704	QRD161J-101	100	1/6W	CARBON	
	R705	QRD161J-334	330K	1/6W	CARBON	
	R706	QRD161J-334	330K	1/6W	CARBON	
	R707	QRD161J-682	6.8K	1/6W	CARBON	
	R708	QRD161J-682	6.8K	1/6W	CARBON	
	R709	QRD161J-822	8.2K	1/6W	CARBON	
	R710	QRD161J-822	8.2K	1/6W	CARBON	
	R711	QRD161J-105	1M	1/6W	CARBON	
	R712	QRD161J-105	1M	1/6W	CARBON	
	R713	QRD161J-472	4.7K	1/6W	CARBON	
	R714	QRD161J-471	470	1/6W	CARBON	
	R751	QVZ3518-221			VARIABLE	
	R752	QVZ3518-221			VARIABLE	
	R753	QRD161J-101	100	1/6W	CARBON	
	R754	QRD161J-101	100	1/6W	CARBON	
	R755	QRD161J-334	330K	1/6W	CARBON	
	R756	QRD161J-334	330K	1/6W	CARBON	
	R757	QRD161J-682	6.8K	1/6W	CARBON	
	R758	QRD161J-682	6.8K	1/6W	CARBON	
	R761	QRD161J-822	8.2K	1/6W	CARBON	
	R762	QRD161J-822	8.2K	1/6W	CARBON	
	R767	QRD161J-105	1M	1/6W	CARBON	
	R768	QRD161J-105	1M	1/6W	CARBON	
	R771	QRD161J-471	470	1/6W	CARBON	
	R772	QRD161J-222	2.2K	1/6W	CARBON	
	R801	QRD161J-333	33K	1/6W	CARBON	
	R802	QRD161J-333	33K	1/6W	CARBON	
	R803	QRD161J-474	470K	1/6W	CARBON	
	R804	QRD161J-474	470K	1/6W	CARBON	
	R805	QRD161J-823	82K	1/6W	CARBON	
	R806	QRD161J-823	82K	1/6W	CARBON	
	R807	QRD161J-153	15K	1/6W	CARBON	

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R808	QRD161J-153	15K	1/6W	CARBON	
	R811	QRD161J-272	2.7K	1/6W	CARBON	
	R812	QRD161J-272	2.7K	1/6W	CARBON	
	R813	QRD161J-104	100K	1/6W	CARBON	
	R814	QRD161J-104	100K	1/6W	CARBON	
	R817	QRD161J-101	100	1/6W	CARBON	
	R818	QRD161J-101	100	1/6W	CARBON	
	R819	QRD161J-822	8.2K	1/6W	CARBON	
	R820	QRD161J-822	8.2K	1/6W	CARBON	
	R821	QRD161J-472	4.7K	1/6W	CARBON	
	R822	QRD161J-472	4.7K	1/6W	CARBON	
	R833	QRD161J-473	47K	1/6W	CARBON	
	R834	QRD161J-473	47K	1/6W	CARBON	

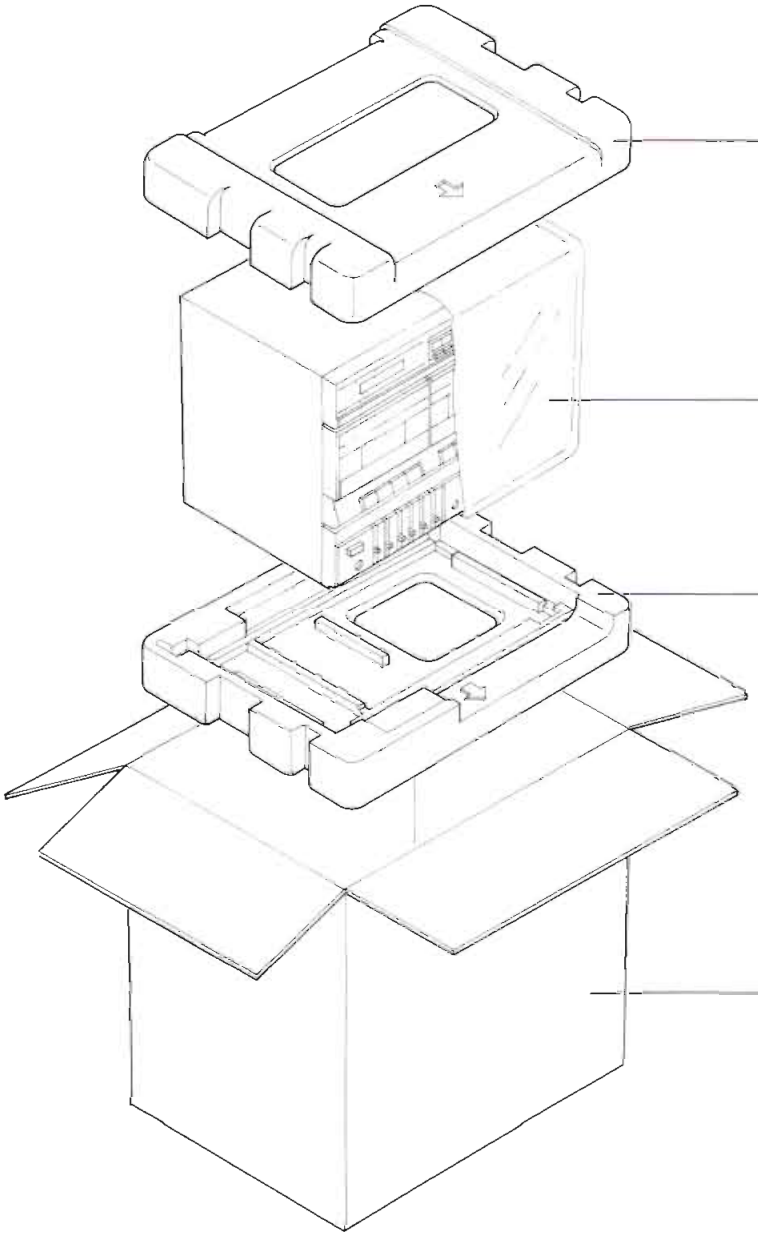
⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		E25045-201	CIRCUIT BOARD	
	L801	EQL2106-562	INDUCTOR	
	L802	EQL2106-562	INDUCTOR	
	P701	EMV5101-015B	PLUG ASSY	
	P801	EMV5101-010B	PLUG ASSY	

⚠ : SAFETY PARTS

Packing Materials and Part Numbers



Accessories List

⚠	Part Number	Part Name	Q'ty	Description	Areas
	E30580-1321A	Instruction Book	1		J
	E30580-1302B	Instruction Book	1		C,U,P,PG,E,A,G
	E30580-1302BBS	Instruction Book	1		BS
	BT20048B	Warranty Card	1		J,P,PG
	BT20025H	Warranty Card	1		C
	BT20029C	Warranty Card	1		A
	BT20064	Warranty Card	1		G
	BT20060	Warranty Card	1		BS
	BT20046B	Service Information	1		J,P.PG
	BT20071A	Service Center	1		C
	BT20044E	Safety Instruction Sheet	1		J
	BT20054-006A	FTZ Information	1		G
	BT20066	EEC Agency	1		G.BS
⚠	E04056	Siemens Plug	1		U,PG
	EQB4001-012	AM Loop Antenna	1		
	E304084-001	Loop Stand	1		
	EWP502-001	Bilt-in Antenna	1		Except G
	E67007-001	Wire Antenna Ass'y	1		G
	E35497-017	Caution Sheet	1	110 V	P
	E35497-019	Caution Sheet	1	220 V	U,PG
	E66416-003	Envelope	1		J
	E300196-033	Envelope	1		Except BS
	E300196-033B	Envelope	1		BS

⚠ : Safety parts

The Marks for Designated Areas	
J	U.S.A.
C	Canada
A	Australia
E	Europe
G	West Germany
BS	U.K.
P,PG	U.S. Military Market
U	Other Countries

No mark indicates all areas.