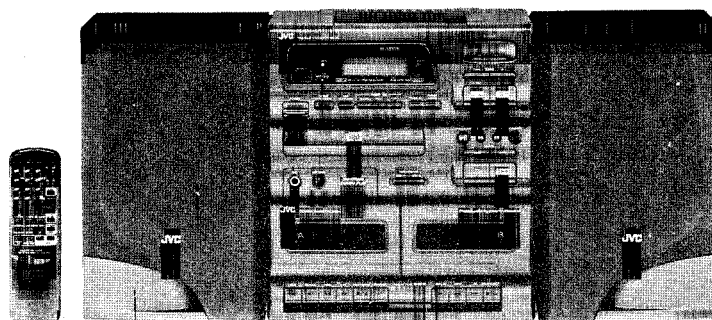


# JVC

## SERVICE MANUAL

### CARRYABLE COMPONENT SYSTEM

## DX-50BK A/UB/US/U



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

#### Area Suffix

|          |             |
|----------|-------------|
| A.....   | Australia   |
| UB ..... | Hong •kong  |
| US ..... | Sigapore    |
| U .....  | Other Areas |

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# 1. Safety Precautions

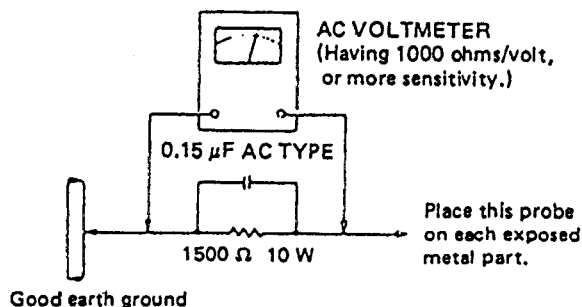
1. The design this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original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

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

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

- Alternate check method

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



## Warning (Singapore only)

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

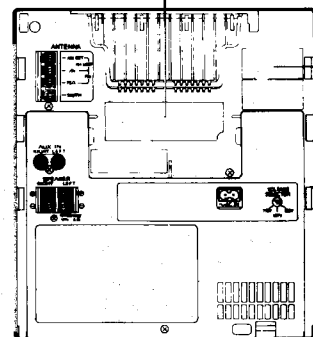
## 2. Safety Precaution about DX-50BK

### IMPORTANT FOR LASER PRODUCTS (For Australia/Singapore only)

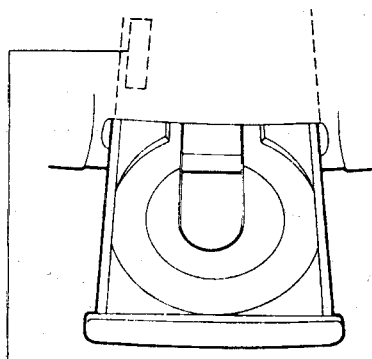
1. **CLASS 1 LASER PRODUCT**
2. **DANGER:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION:** Do not open the rear cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
4. **CAUTION:**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

Obs:  
Apparaten innehåller laserkomponent av högre laserklass än klass 1.

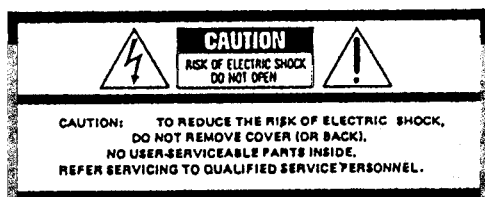
Name/Rating plate



**CLASS 1  
LASER PRODUCT**



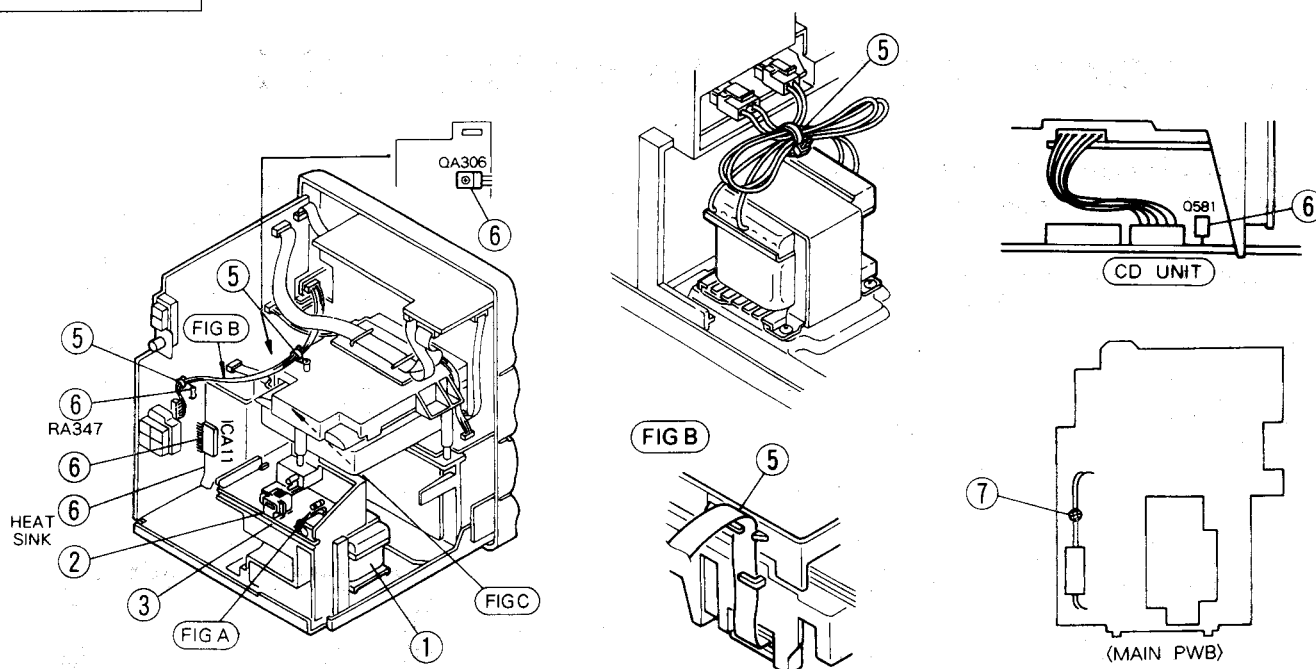
|                                                                                                                                |                                                                                                                                   |                                                                                                               |                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>DANGER:</b> Invisible laser radiation when open and interlock failed or defeated. <b>AVOID DIRECT EXPOSURE TO BEAM.</b> (e) | <b>ADVARSEL:</b> Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. (d) | <b>WARNING:</b> Osynlig laserstråling når denne del er åben og spærren er urkopplad. Betrakta ej strålen. (s) | <b>VARO:</b> Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f) |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|



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 management points regarding safety (Item demanding special safety precautions)

1. Power transformer marking : VTP66G2 – 12H ( US/U version )  
: VTP66T2 – 12G ( A version )  
: VTP66J2 – 12I ( UB version )

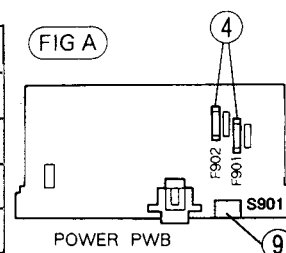
The torque of the screw driver for the power transformer must be controlled.

2. Concerning the AC socket, the next marking must be confirmed and to avoid print circuit board pattern damage. The AC socket must not float from print circuit board.

• Marking ..... HSC1466

3. Concerning the primary terminal and the adjacent secondary terminal on the print circuit board to provide proper creeping and spatial distance, solder must not protrude from soldering round.
4. Before installation confirm the fuse capacity indication (Ⓢ or ⚡ : A/UB ), ( UL or CSA : U ) mark on the holder.

| REF.NO | Capacity and mark | Indication on P.C.board | Version   |
|--------|-------------------|-------------------------|-----------|
| F901   | T630mA            | T630mA                  | A/UB      |
| F901   | T1.25A            | T1.25A                  | US        |
| F901   | 1.25A/250V        | 1.25A/250V              | U         |
| F902   | T8A               | T8A                     | A/UB/US/U |



5. Wires must be clamped or secured at the locations shown in the figure so that the wire do not touch to live parts, moving part , hot part, or sharp edges.

6. Following parts are controlled as the heated parts. confirm that the flammable parts are lifted up the parts in ( ) must be controlled.

• IC : (ICA11), IC502 • Transistor : QA312, (Q581)

• Resistor : (RA347), RA343, R313, RA335 • Diode : D901, • Heat sink

7. The single wire on the printed circuit board must be fixed with spacer or bond.

8. Confirm following EMC ( Electromagnetic compatibility ) control matter.

control parts ( Symbol number )

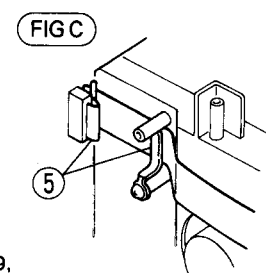
• Main P.C. board

LA102, LA202, CA132, CA232, CA133, CA233, CA354, LA308, LA309, TU1, L5, L6, L8, L9, C9,

• System microcomputer P.C. board

CM308, CM309, CM310, LA101, LA201, LA301

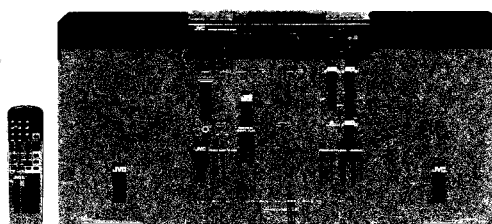
9. The voltage selector switch (S901) must not float from print circuit board.



# 3. Instructions



COMPACT  
disc  
DIGITAL AUDIO



Thank you for purchasing this JVC product. Please read these instructions carefully before starting operation to be sure to obtain optimum performance and a longer service life from the unit.

Enhorabuena por la compra de este producto JVC. Lea detenidamente este manual de instrucciones antes de poner en funcionamiento la unidad a fin de obtener un óptimo rendimiento y mayor vida útil.

承蒙惠顧JVC公司的產品，謹致感謝。在使用之前，請仔細閱讀這本使用說明書，以獲得理想的使用效果和更長的使用壽命。



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### WARNING:

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

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### ADVERTENCIA:

PARA EVITAR RIESGOS DE INCENDIOS O  
ELECTROCUCIONES, NO EXPONGA ESTE APARATO A  
LA LLUVIA O A LA HUMEDAD.

|                  |    |
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### 警告:

爲了防止火災以及觸電，請勿讓本機淋雨受潮。



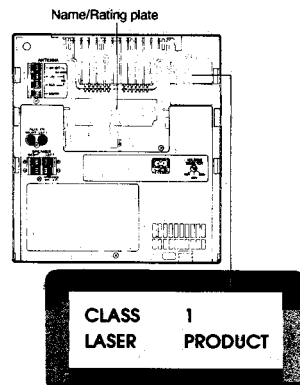
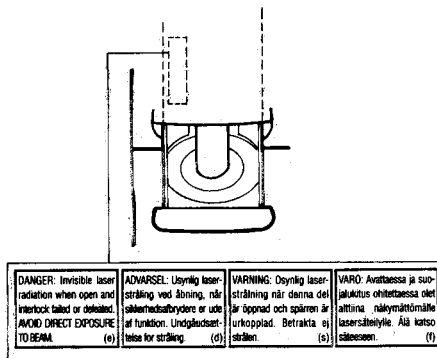
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### IMPORTANT FOR LASER PRODUCTS (For AUSTRALIA/SINGAPORE only)

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

### REPRODUCTION OF LABELS AND THEIR LOCATION



### FEATURES

1. Mini component system consisting of 3 units
2. One-touch operation (COMPU PLAY)
  - When a source button (CD, tape, tuner or AUX) is pressed, the unit's power is turned ON and initiates playback, even when the power is set to STANDBY. (IllumiMagic COMPU PLAY is activated for the  $\triangleright$  II, BAND, AUX buttons.)
3. 33-key remote control unit (CD, tuner and AUX operations)
4. Multi-function CD player
  - Programmed play/repeat play/random play.

### CARACTERISTICAS

1. Sistema de minicomponentes consistente de 3 unidades
2. Operación de un solo toque (COMPU PLAY)
  - Cuando se presiona un botón de fuente (CD, cinta, sintonizador o AUX), se conecta ON la alimentación de la unidad y se inicia la reproducción aun cuando la alimentación sea colocada en STANDBY. (IllumiMagic COMPU PLAY se activa para los botones  $\triangleright$  II, BAND y AUX).
3. Unidad de control remoto con 33 teclas (operación de CD, sintonizador y AUX)
4. Reproductor de CD con funciones múltiples
  - Reproducción/repeticón de reproducción/aleatoria automáticos.

### 特點介紹

1. 微型組合音響系統包含 3 個組件
2. 單觸操作 (COMPU PLAY)
  - 按壓某個音源鍵鈕 (CD 唱機、卡式錄放機、調諧器或 AUX) 時，即使電源設定於 STANDBY (待機)，本機電源會接通并開始放音。按壓  $\triangleright$  II, BAND 或 AUX 鍵鈕時，魔光 COMPU PLAY 會運作。
3. 33 鍵遙控器 (CD 唱機、調諧器及 AUX 操作)
4. 多功能 CD 唱機
  - 編序放音 / 重複放音 / 隨機放音。

5. Double-cassette mechanism (Deck A for recording and playback, Deck B for playback)
  - Metal (type IV) and CrO<sub>2</sub> (type II) tape can be played back for superior tone quality.
  - CrO<sub>2</sub> (type II) tape recording capability.
  - Synchro start dubbing function (normal speed dubbing).
6. 3-Band digital synthesizer tuner with 30-station (10 FM, 10 AM and 10 SW) preset capability
  - Auto preset tuning.
7. Active Hyper-Bass circuit for low-frequency sound reproduction
8. Preset equalizer modes and LIVE SURROUND mode
9. Timer/Clock function
  - Timer on/off with preset volume function.
  - Sleep timer can be preset for up to 120 minutes.
10. Microphone mixing facility

5. Mecanismo de doble cassette (platina A para grabación y reproducción, platina B para reproducción)
  - Las cintas de metal (tipo IV) y de CrO<sub>2</sub> (tipo II) pueden ser reproducidas para obtener sonido de calidad superior.
  - Capacidad para grabar con cinta de CrO<sub>2</sub> (tipo II).
  - Función de copia con inicio sincronizado (copia a velocidad normal).
6. Sintonizador sintetizador digital de 3 bandas con capacidad para programación de 30 estaciones (10 de FM, 10 de AM y 10 de SW (onda corta))
  - Búsqueda/sintonización manual.
  - Sintonización programada.
7. Circuito de hiper graves activo para reproducción de sonidos de baja frecuencia
8. Modos de ecualización preajustados y modo LIVE SURROUND
9. Función de temporización/reloj
  - Función de activación/desactivación del temporizador con volumen preajustado.
  - El temporizador despertador puede ser programado hasta un máximo de 120 minutos.
10. Facilidad para mezcla de micrófono

5. 雙卡機構 (錄音帶艙 A 用於錄音及放音，錄音帶艙 B 用於放音)
  - 可播放金屬 (IV 型) 及 CrO<sub>2</sub> (II 型) 錄音帶以獲得最佳的音質。
  - 可錄製 CrO<sub>2</sub> (II 型) 錄音帶。
  - 同步複製功能 (常速複製)。
6. 具備 30 個電臺 (10 個 FM、10 個 AM 以及 10 個 SW) 預設能力的 3 波段數字合成調諧器
  - 搜尋 / 手動調諧。
  - 自動預設調諧。
7. 低頻音響再生用有源超低頻電路
8. 預設均衡器模態及 LIVE SURROUND (臨場立體聲) 模態
9. 定時 / 時鐘功能
  - 具備預設音量功能的定時器開 / 關。
  - 睡眠定時最長可設為 120 分鐘。
10. 麥克風混聲功能



### SAFETY PRECAUTIONS

#### Prevention of Electric Shocks, Fire Hazards and Damage

1. Even when the POWER button is set to STANDBY, a very small current will flow. To save power and for safety when not using the unit for an extended period of time, disconnect the power cord from the household AC outlet.
2. Do not handle the power cord with wet hands.
3. When unplugging from the wall outlet, always grasp and pull the plug, not the power cord.
4. Consult your nearest dealer when damage, disconnection, or contact failure is found with the cord.

### PRECAUCIONES DE SEGURIDAD

#### Prevención contra electrochoques, riesgos de incendios y daños.

1. Aunque el botón POWER esté ajustado en STANDBY, circula una pequeña cantidad de corriente. Para ahorrar energía y por seguridad, desconecte el cable de alimentación del tomacorriente cuando no vaya a utilizar la unidad por mucho tiempo.
2. No toque el cable de alimentación con las manos húmedas.
3. Al desenchufar el cable del tomacorriente, tire de la clavija y no del cable.
4. Consulte a su vendedor más cercano cuando descubra una falla, desconexión o falta de contacto en el cable.

### 安全須知

#### 為了預防觸電、火災以及故障

1. 即使將電源鍵鈕 (POWER) 設於待機位置 (STANDBY)，仍然會有極少的電流流入。因此，為了省電與安全起見，當您長期不用的時候，請將電源線從牆壁上的市電交流電源插座上拔下來。
2. 切勿用潮濕的手拔電源線。
3. 當您要將電源線從牆壁上的電源插座上拔下來時，務請拿住插頭，切勿拿住電源線拔。
4. 如果發現電源線有損傷、脫落或者接觸不良，請與附近的銷售商聯絡。

5. Do not bend the cord sharply, or pull or twist it.
6. Do not modify the power cord in any manner.
7. Do not remove screws to disassemble the unit and do not touch anything inside the unit to avoid accidents.
8. Do not insert any metallic objects into the unit.
9. Unplug the power cord when there is a possibility of lightning.
10. If water gets inside the unit, unplug the power cord from the outlet and consult your dealer.
11. Do not block the ventilation holes of the unit so that heat can escape.  
Do not install the unit in a badly ventilated place.
12. Never place heavy objects on this unit.
13. Since the DX-50 uses a motor-driven CD tray, make sure your hand or other object does not obstruct tray movement.

**Power button**

When the power cord is plugged into an AC outlet, the power indicator is lit red, indicating STANDBY mode. When the power is switched on, the power indicator goes out.

When this unit is plugged into an AC outlet, it consumes a small current to operate the remote control and timer, or to back up the memory of the microprocessor, even when the POWER button is set to STANDBY.

5. No doble, tire o enrosque demasiado el cable.
6. No efectúe ninguna modificación en el cable.
7. No saque los tornillos para desarmar la unidad ni toque nada dentro de la misma para evitar accidentes.
8. No introduzca ningún objeto metálico dentro de la unidad.
9. Desenchufe el cable lo antes posible si hay posibilidad de tormentas eléctricas.
10. Si entrara agua dentro de la unidad, desenchufe el cable del tomacorriente y consulte a su vendedor.
11. No bloquee los orificios de ventilación de la unidad para que el calor pueda salir.  
No instale la unidad en un lugar mal ventilado.
12. Nunca coloque objetos pesados sobre esta unidad.
13. Como el DX-50 utiliza un portadiscos de CD accionada por motor, asegúrese de no obstruir con su mano o con un objeto el movimiento del mismo.

**Botón de alimentación**

Cuando se conecta el cable de alimentación en un tomacorriente de alterna, se enciende el indicador de alimentación en rojo indicando el modo STANDBY. Cuando se conecta la alimentación, el indicador de alimentación se apaga.

Cuando esta unidad está conectada a un tomacorriente de CA, consume una pequeña cantidad de corriente para operar el control remoto y el temporizador, y para la memoria de apoyo del microprocesador, aún cuando el botón POWER esté colocado en STANDBY.

5. 切勿過分彎折，或者拉拔，拗曲電源線。
6. 切勿以任何方式變更電源線。
7. 切勿卸下螺絲拆卸本裝置：切勿觸摸機殼內部的任何物件，以免發生事故。
8. 切勿將任何金屬物件塞入裝置內。
9. 如果有閃電的可能，請拔下電源線。
10. 萬一有水進入了裝置內，請將電源線從牆壁上的電源插座上拔下來，並且與銷售商聯絡。
11. 切勿堵塞通氣孔，通氣孔是用來散熱的。
12. 切勿在本機上放置重物。
13. 因為DX-50使用電動CD船蓋，所以小心別讓手指或者其他物件夾進去。

**電源鍵鈕**

當將電源線插入家用交流電源插座時，電源指示燈點亮紅燈，表示裝置處於STANDBY（待機）狀態。當按壓電源鍵鈕時，電源指示燈熄滅。

一旦將裝置的電源插頭插入市電交流電源插座，即使電源鍵鈕(Power)設於待機狀態(STANDBY)，仍然會有少量的電流流入，以作為遙控器操作以及定時器、微型電腦記憶裝置的記憶之用。

4

**HANDLING PRECAUTIONS**

Do not use this unit in direct sunlight where it would be exposed to high temperatures above 40°C (104°F).

1. **Avoid installing in the following places**
  - Where it could be subject to vibrations.
  - Where it is excessively humid, such as in a bathroom.
  - Where it could be magnetized by a magnet or speaker.
2. **Pay attention to dust**  
Be sure to close the CD tray so the lens is not contaminated by dust.
3. **Condensation**  
In the following cases, condensation may occur in the unit, in which case the unit may not operate correctly.
  - In a room where a heater has just been switched on.
  - In a place where there is smoke or high humidity.
  - When the unit is moved directly from a cold to a warm room.
 In these cases, set the POWER button to ON and wait 1 or 2 hours before use.
4. **Volume setting**  
Compact discs produce very little noise compared with analog records. When the volume control of an amplifier is adjusted by listening to the noise as is done with analog records, the speakers could be damaged by the sudden increase of output when the music starts. Therefore, turn down the volume before starting and adjust as required while playing a CD.
5. **Safety mechanism**  
This unit incorporates a safety interlock mechanism which switches the laser beam on and off, so that when the disc tray is open, the laser beam stops automatically.
6. **Do not place cassette tapes, etc. near the speakers**  
Since there are magnets in the speakers, do not place tapes or magnetic cards on them as recorded data could be erased.

**PRECAUCIONES DE MANIPULACION**

No utilice esta unidad a la luz directa del sol donde podría estar expuesta a temperaturas superiores a 40°C.

1. **Evite instalarla en los siguientes lugares**
  - Donde podría estar sometida a vibraciones.
  - Donde haya mucha humedad, tal como en un cuarto de baño.
  - Donde podría ser magnetizada por un imán o altavoz.
2. **Preste atención al polvo**  
Asegúrese de cerrar el portadisco de CD para que no se ensucie la lente.
3. **Condensación**  
En los siguientes casos, puede producirse condensación en la unidad y en consecuencia la unidad no funcionará correctamente.
  - En una habitación donde se haya encendido un calefactor.
  - En un lugar con humo o muy húmedo.
  - Cuando la unidad haya sido trasladada directamente de un sitio frío a otro de mayor temperatura.
 En estos casos, coloque el botón POWER en ON y espere 1 ó 2 horas antes de utilizar la unidad.
4. **Regulación del volumen**  
Los compact disc producen muy poco ruido comparados con los discos analógicos. Cuando se ajusta el control de volumen de un amplificador escuchando el ruido, como en el caso de los discos analógicos, los altavoces pueden resultar dañados por un aumento súbito de la salida al comenzar la música. Por lo tanto, disminuya el volumen antes de poner en funcionamiento la unidad y regúlelo como guste mientras reproduzca el CD.
5. **Mecanismo de seguridad**  
Esta unidad cuenta con un mecanismo de seguridad que activa o desactiva el haz láserico, de tal manera que cuando se abre el portadisco de CD, este haz se detiene automáticamente.
6. **No coloque cassettes, etc. cerca de los altavoces.**  
Puesto que los altavoces tienen imanes, no coloque cintas o tarjetas magnéticas sobre los mismos porque podrían borrarse los datos grabados.

**使用須知**

切勿將本機放在直射陽光下溫度高達40°C以上的地方使用。

1. **請勿放置於下列場所**
  - 有振動之處。
  - 有潮氣之處，例如浴室之類。
  - 接近磁體、揚聲器等有磁場之處。
2. **注意灰塵**  
務請關閉CD船蓋，不要讓灰塵磨污了鏡頭。
3. **結露**  
在下列情況下，機內可能發生結露，使本機不能正常工作。
  - 在剛打開取暖器的房間里。
  - 在有煙霧或濕度大的場所。
  - 將本機從寒冷的房間直接移至溫暖的房間時。
 遇此情形，請將POWER（電源）鍵鈕按壓至ON（開）並等上1至2個小時後再使用。
4. **音量的調節**  
與模擬唱片相比，CD唱片產生的噪音極小，如果與聽模擬唱片時一樣以聽噪音來調節音量，揚聲器將會因突然增大的音量而被損壞。因此，在開始放音之前先調低音量，使其適合CD的放音。
5. **安全裝置**  
本機裝有安全自鎖裝置，其控制鐳射射線的開／關。當唱片船蓋打開時，鐳射射線自動關閉。
6. **請勿將卡式錄音帶等物件放置於揚聲器附近**  
由於揚聲器內有磁體，所以切勿將錄音帶，或者磁卡放置於揚聲器之上，否則所記錄的資料將被消除。

7. **Keep this unit away from your TV**  
When this unit is used near a TV, the TV picture could be distorted. If this happens, move this unit away from the TV. If this does not correct the situation, avoid using this unit when the TV is turned on.
8. **Cleaning the cabinet**  
If the cabinet gets dirty, wipe it with a soft, dry cloth. Never use benzene or thinner as these could damage the surface finish.
9. **When listening with headphones**  
Do not listen at high volumes as it could damage your hearing.

7. **Mantenga esta unidad lejos del televisor**  
Cuando se utiliza esta unidad cerca de un televisor, es posible que se distorsione la imagen televisiva. Si esto ocurriese, alejela del televisor. Si esto tampoco mejora la situación, evite utilizar la unidad cuando esté encendido el televisor.
8. **Limpieza del gabinete**  
Si se ensucia el gabinete, límpielo con un paño suave y seco. No utilice bencina ni diluyente ya que éstos podrían perjudicar el acabado.
9. **Cuando escuche con auriculares**  
No escuche con el volumen muy alto porque podrían dañarse sus oídos.

7. **不要讓本機接近電視機**  
如果在電視機附近使用本機，電視機的畫面會失真。如果發生這種情況，請將本機搬離電視機。如果搬離以後仍然不能改善畫面失真，那麼在觀看電視機的時候，不要使用本機。
8. **機殼的清潔工作**  
如果機殼上有污穢，請用柔軟的、乾燥的布擦拭。切勿使用揮發性汽油或溶劑，這些溶液會損壞表面的光澤。
9. **當使用卸離主機的揚聲器時**  
提起鎖定桿並擱後滑動揚聲器，可從主機上卸離揚聲器。

## CONNECTIONS

## CONEXIONES

## 連接

- Do not switch the power on until all connections are completed.

- No encienda la unidad hasta haber concluido todas las conexiones.

- 在所有的連接完成前不要接通電源。

## Antenna connection and adjustment

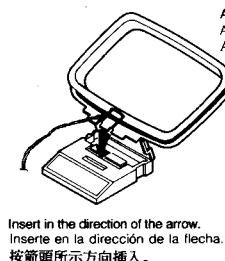
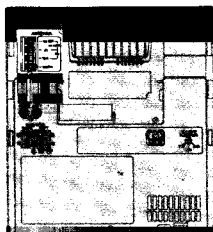
## Conexión y ajuste de la antena

## 天線的安裝和調節

- AM loop antenna adjustment

- Ajuste de la antena de cuadro de AM

- AM環形天線調節



AM loop antenna  
Antena de cuadro de AM  
AM環形天線



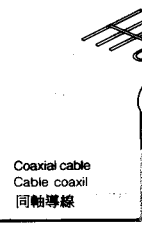
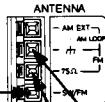
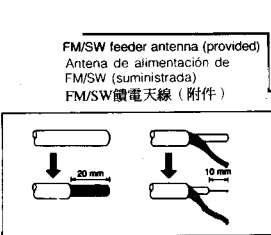
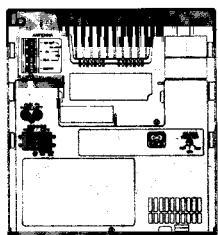
AM loop antenna  
Antena de cuadro de AM  
AM環形天線

- Keep the loop antenna away from the rear panel of the unit and install it so that the best reception is obtained. (Do not leave the antenna wire in a bundle.)
- Mantenga la antena de cuadro lejos del panel posterior de la unidad e instálela de tal modo que pueda obtenerse la mejor recepción. (No deje enrollado el cable de la antena.)
- 將環形天線放置於離開裝置背板的地方，這樣可以獲得最好的接收效果。（請勿天線的導線捆扎起來。）

- FM/SW antenna connections and adjustments

- Conexiones y ajustes de la antena de FM/SW

- FM/SW天線的連接和調節



FM outdoor antenna (option)  
Antena exterior de FM (opcional)  
FM室外天線（選購件）

- Use an outdoor antenna when stable reception cannot be obtained with the telescopic antenna.
- Utilice una antena exterior cuando no pueda obtener una recepción estable con la antena telescópica.
- 如果伸縮式天線不能獲得穩定的接收效果，請使用室外天線。

## Notes:

- Do not place the loop antenna on a metal desk or near a TV or personal computer.
- Installing an outdoor antenna requires experience; we recommend that you consult an audio dealer.
- Install the antenna cord away from the power and speaker cords as these could generate noise. Install the loop antenna so that it does not touch the rear of the unit.

## Notas:

- No coloque la antena de cuadro sobre un escritorio metálico o cerca de un televisor o computadora personal.
- Para instalar la antena exterior se requiere de experiencia; le recomendamos que consulte a su vendedor de equipos de audio.
- Instale el cable de la antena lejos de los cables de alimentación y de altavoces porque podrían generar ruidos. Coloque la antena de cuadro de tal forma que no toque la parte posterior de la unidad.

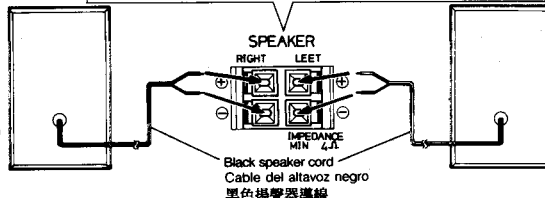
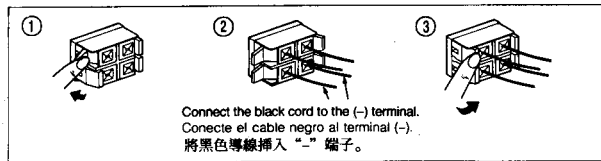
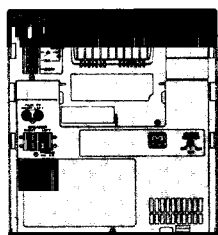
## 注:

- 切勿將環形天線放置於金屬桌子上，或者使其接近電視機以及電腦。
- 天線的安裝需要由經驗，我們建議您與音響設備經銷商聯絡。
- 請勿將天線的導線與電源線、揚聲器導線放在一起，這樣會產生噪音。環形天線不要放置於會觸到裝置背面的地方。

## Speaker cord connection

## Conexión de cables de altavoces

## 連接揚聲器導線



- Connect the cord from the speaker on the left to the (LEFT) terminals and the cord from the speaker on the right to the (RIGHT) terminals.
  - Conecte el cable del altavoz de la izquierda a los terminales (LEFT) y el cable del altavoz de la derecha a los terminales (RIGHT).
  - 將左側揚聲器的導線插入LEFT端子；將右側揚聲器的導線插入RIGHT端子。
- Left speaker (rear side)  
Altavoz izquierdo (lado posterior)  
左側揚聲器（背面）

**Notes:**

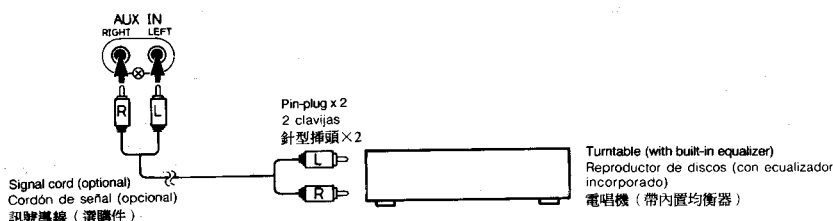
- The polarity with which the two speakers are connected will be the same if the black speaker cords are connected to the ⊖ terminals. If the speakers are connected with reverse polarity, the stereo effect and tone will be degraded.
- The speakers of this unit are not magnetically shielded. When they are placed directly on or adjacent to a TV, the TV's color could be distorted. Install the speakers more than 10 cm away from your TV.
- When connecting the speaker cord, make sure that the wire core, not the insulating cover, is connected to the speaker terminal. Otherwise, sound cannot be heard.

**Notas:**

- La polaridad de los dos altavoces será la misma si los cables negros de los altavoces están conectados a los terminales ⊖. Si los altavoces están conectados con las polaridades invertidas, disminuirá la calidad del efecto estéreo y de la tonalidad.
- Los altavoces de esta unidad no están protegidos magnéticamente. Cuando se colocan directamente sobre o cerca de un televisor, es posible que se distorsione el color de las imágenes televisivas. Instale los altavoces a más de 10 cm. del televisor.
- Cuando conecta el cordón del altavoz, asegúrese de que el núcleo del cable, y no la cubierta aislante, quede conectado al terminal del altavoz, de lo contrario no se escuchará sonido.

**註:**

- 兩個揚聲器的連接必須極性一致，黑色的導線應當插入“⊖”端子。如果揚聲器的極性被連接相反，立體聲效果、音質都會降低。
- 本機的兩個揚聲器都沒有磁保護，所以，如果直接放置於電視機上，或者接近電視機，都會使電視機的彩色失真。揚聲器應該放置於離開電視機至少10cm之處。
- 在連接揚聲器導線時，務必確認是芯線而不是絕緣層連接在揚聲器的端子上。否則聽不見聲音。

**Connection of external audio units****Conexión de unidades externas de audio****連接外部音頻裝置****POWER SUPPLY****ALIMENTACION****電源****Operation on household AC**

The DX-50A (for Australia) is not provided with voltage selectors.

1. When the DX-50U/UB/US is used in an area where the supply voltage is different from the preset voltage, reset the voltage selector to the correct position.

**Funcionamiento con corriente alterna**

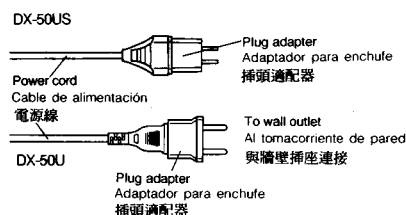
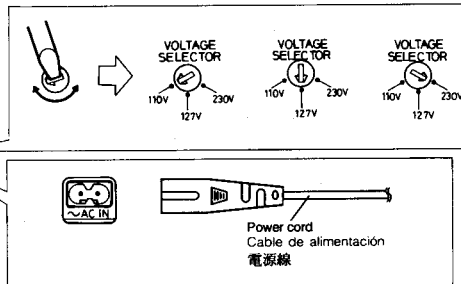
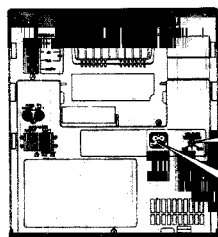
El DX-50A (para Australia) no cuenta con selectores de tensión.

1. Cuando use el DX-50U/UB/US en un área donde la tensión es distinta a la preajustada, vuelva a ajustar el selector de tensión en la posición correcta.

**使用家用交流電源**

DX-50A (澳大利亞用) 未裝備電壓選擇器。

1. 在供電電壓異於預置電壓的地區使用DX-50U/UB/US時，請將電壓選擇器重新設定於正確位置。



2. Connect the AC power cord.

**Note:**

For the DX-50U/US the AC plug adapter is provided. If required, use it.

2. Conexión del cable de corriente alterna.

**Note:**

- Se provee de un adaptador para enchufe de CA para el DX-50U/US. Si fuera necesario, utilícelo.

2. 連接交流電源線。

**註:**

- DX-50U/US附帶交流插頭適配器。請應需使用。

**CAUTIONS:**

1. ONLY USE WITH JVC POWER CORD PROVIDED WITH THIS UNIT TO AVOID MALFUNCTION OR DAMAGE TO THE UNIT.
2. BE SURE TO UNPLUG THE POWER CORD FROM THE OUTLET WHEN GOING OUT OR WHEN THE UNIT IS NOT IN USE FOR AN EXTENDED PERIOD OF TIME.

**PRECAUCIONES:**

1. UTILICE EL CABLE DE ALIMENTACIÓN JVC SUMINISTRADO CON ESTE APARATO PARA PREVENIR FALLAS O DAÑOS.
2. DESENCHUFE EL CABLE DE ALIMENTACIÓN DEL TOMACORRIENTE AL AUSENTARSE DE SU CASA O CUANDO NO UTILICE EL APARATO POR MUCHO TIEMPO.

**注意事項:**

1. 僅可使用本機附帶的JVC電源線，以免造成故障或損壞本機。
2. 外出或長期不使用本機時，務請從交流輸出插座上拔下電源線。

**Note:**

- When there is a power failure for more than 1 minute or the AC power cord is unplugged for more than 1 minute, the timer/clock setting is erased from memory. Reset the clock when the power supply is restored.

**Note:**

- Cuando haya un corte de energía de más de 1 minuto, o cuando se desconecte el cordón de CA durante más de un minuto, la programación del temporizador/reloj se borrará de la memoria. Reposicione el reloj cuando se restaure el suministro eléctrico.

**註:**

- 在停電或交流電源線脫落1分鐘以上時，定時/時鐘設定將從記憶體中被抹消。請在恢復供電時重新設定時鐘。

## NAMES OF PARTS AND THEIR FUNCTIONS

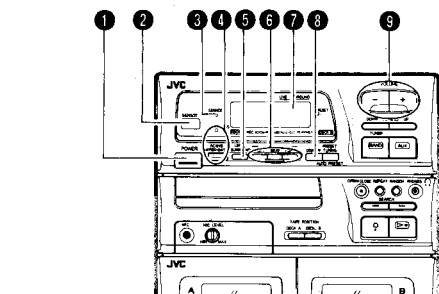
## NOMBRE DE LAS PARTES Y SUS FUNCIONES

## 各部件的名稱以及功能

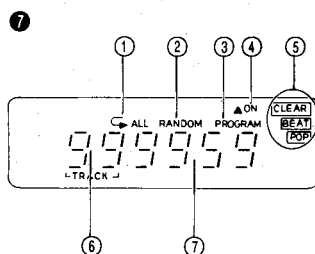
## CD player/General section

## Reproductor de CD/sección general

## CD唱機 / 整體部分



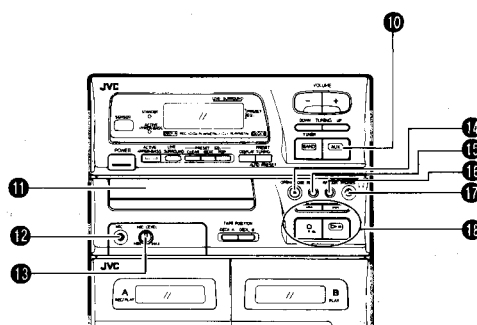
- 1 POWER button
- 2 SENSOR section  
The remote control signal is received in the SENSOR section. When the POWER button is set to STANDBY with AC power supplied, IllumiMagic COMPU PLAY is activated by approaching this section with your hand.
- 3 Power STANDBY indicator
- 4 ACTIVE HYPER-BASS button and indicator
- 5 LIVE SURROUND button
- 6 Preset equalizer (PRESET EQ. (CLEAR/BEAT/POP)) buttons
- 7 Display window
  - ① Repeat play indicator
  - ② RANDOM play indicator
  - ③ PROGRAM mode indicator
  - ④ LIVE SURROUND indicator
  - ⑤ PRESET EQ. indicators
  - ⑥ Function/Track number display
  - ⑦ Play time display
- 8 DISPLAY button  
Use to display the current time.
- 9 VOLUME buttons  
+: Use to increase the volume.  
-: Use to decrease the volume.  
(control range from VOL 0 to VOL 50.)



- 1 Botón POWER
- 2 Sección SENSOR  
La señal de control remoto es recibida en la sección SENSOR. Cuando se coloca el botón POWER en STANDBY con alimentación de CA, se activa IllumiMagic COMPU PLAY al aproximar la mano a esta sección.
- 3 Indicador STANDBY de alimentación
- 4 Botón e indicador ACTIVE HYPER-BASS
- 5 Botón LIVE SURROUND
- 6 Botones (PRESET EQ. (CLEAR/BEAT/POP)) para programación del ecualizador
- 7 Visor de indicación
  - ① Indicador de repetición de reproducción
  - ② Indicador de reproducción RANDOM
  - ③ Indicador de modo PROGRAM
  - ④ Indicador LIVE SURROUND
  - ⑤ Indicadores PRESET EQ.
  - ⑥ Indicación de función/número de pista
  - ⑦ Indicación del tiempo de reproducción
- 8 Botón DISPLAY  
Utilicelo para llamar la hora actual.
- 9 Botones VOLUME  
+: Utilicelo para aumentar el volumen.  
-: Utilicelo para reducir el volumen.  
(límites de control de VOL 0 a VOL 50.)

- 1 電源鍵鈕 (POWER)
- 2 感應器部位 (SENSOR)  
遙控信號由SENSOR部位接收。當交流電源接通、POWER鍵鈕設為STANDBY時，將手靠近此部位即啟動魔光COMPU PLAY。
- 3 電源待機指示燈 (STANDBY)
- 4 有源超低頻鍵鈕及其指示燈 (ACTIVE HYPER-BASS)
- 5 臨場立體聲鍵鈕 (LIVE SURROUND)
- 6 預設均衡器 (清晰/打擊/流行) 鍵鈕 (PRESET EQ. (CLEAR/BEAT/POP))
- 7 顯示窗
  - ① 重複放音指示燈
  - ② 隨機放音指示燈 (RANDOM)
  - ③ 編序模式指示燈 (PROGRAM)
  - ④ 臨場立體聲指示燈 (LIVE SURROUND)
  - ⑤ 預設均衡器指示燈 (PRESET EQ.)
  - ⑥ 功能/曲號顯示
  - ⑦ 放音時間顯示
- 8 顯示鍵鈕 (DISPLAY)  
用於顯示現在時間。
- 9 音量鍵鈕 (VOLUME)  
+: 用於增大音量。  
-: 用於減低音量。  
(調節範圍為VOL 0至VOL 50。)

10



- 10 AUX button
- 11 CD tray
- 12 MIC jack
- 13 MIC LEVEL control
- 14 CD tray OPEN/CLOSE (Δ) button
- 15 REPEAT play button
- 16 RANDOM play button
- 17 Headphones jack (PHONES) (3.5 mm dia. stereo mini)  
Connect headphones (impedance 16 Ω to 1 kΩ) to this jack. Speaker sound automatically switches off when the headphones are connected.
- 18 CD operation buttons  
Play/pause button (▷||):  
Press to play a disc or to stop temporarily.  
Stop/clear button (□):  
Press to stop playing a disc or cancel programmed play. This also sets CD mode.  
SEARCH buttons (◀◀, ▶▶):  
Press to locate the beginning of tunes and to start forward/reverse search operations.

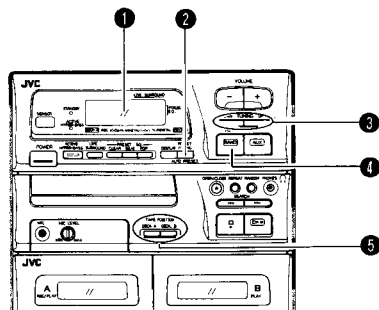
- 10 Botón AUX
- 11 Portadisco de CD
- 12 Jack MIC
- 13 Control MIC LEVEL
- 14 Botón (Δ) OPEN/CLOSE del portadisco de CD
- 15 Botón de reproducción REPEAT
- 16 Botón de reproducción RANDOM
- 17 Jack PHONES para audífonos (mini estéreo 3.5 mm. de diám.)  
Conecte los audífonos (impedancia de 16 Ω a 1 kΩ), a este jack.  
Cuando se conectan los audífonos, el sonido del altavoz es automáticamente silenciado.
- 18 Botones para operación de CD  
Botón (▷||) de reproducción/pausa:  
Presiónelo para reproducir un disco o para parar temporalmente.  
Botón (□) de parada/borrado:  
Presiónelo para detener la reproducción de un disco o cancelar la reproducción programada. Este también activa el modo de CD.  
Botones (◀◀, ▶▶) de SEARCH:  
Presiónelo para localizar el inicio de las músicas y para iniciar las operaciones de búsqueda hacia adelante/atrás.

- 10 補助鍵鈕 (AUX)
- 11 CD艙蓋
- 12 麥克風插孔 (MIC)
- 13 麥克風電平鍵鈕 (MIC LEVEL)
- 14 CD艙蓋開/關 (Δ) 鍵鈕 (OPEN/CLOSE)
- 15 重複放音鍵鈕 (REPEAT)
- 16 隨機放音鍵鈕 (RANDOM)
- 17 耳機插孔 (PHONES) (3.5mm 直徑立體聲微型)  
請將耳機 (阻抗為16Ω至1kΩ) 插入此插孔。連接耳機後，揚聲器的音響自動關閉。
- 18 CD操作鍵鈕  
放音/暫停鍵鈕 (▷||):  
按壓此鍵鈕播放唱片或暫時停止播放。  
停止/取消鍵鈕 (□):  
按壓此鍵鈕停止播放唱片或取消編序放音。  
此鍵鈕還可以設定CD模式。  
搜尋鍵鈕 (SEARCH) (◀◀, ▶▶):  
按壓此鍵鈕搜尋曲頭以及開始正/反向搜尋操作。

## Tuner/Deck section

## Sección del sintonizador/platina

## 調諧器／錄音帶部分



## 1 Display window

- ① Band indicator (FM/AM/SW)
- ② Radio frequency display
- ③ Channel space mode display
- ④ STEREO indicator
- ⑤ MONO indicator
- ⑥ Recording (REC) indicator
- ⑦ Tape (TAPE) mode display
- ⑧ Tape position indicator

## 2 PRESET TUNING button

## 3 TUNING (UP/DOWN) buttons

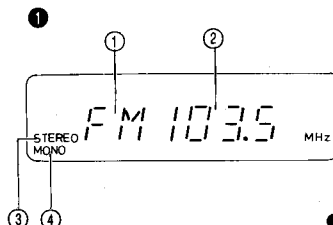
## 4 TUNER/BAND button

Press to select tuner mode.

Press to select the band (FM/AM/SW).

## 5 Tape position (TAPE POSITION-DECK A/DECK B) buttons

- Set these buttons according to the type of tape to be used.
- When recording (Deck A only):  
When recording using a CrO<sub>2</sub> tape, "▼" is shown in the display window.
- When playing back (Decks A and B):  
When playing back using METAL or CrO<sub>2</sub> tape, "▼" is shown in the display window.



## 1 Visor de indicación

- ① Indicador de banda (FM/AM/SW)
- ② Indicación de frecuencia de radio
- ③ Indicación del modo de espacio de canal
- ④ Indicador STEREO
- ⑤ Indicador MONO
- ⑥ Indicador (REC) de grabación
- ⑦ Indicador (TAPE) del modo de cinta
- ⑧ Indicador de la posición de la cinta

## 2 Botón PRESET TUNING

## 3 Botones TUNING (UP/DOWN)

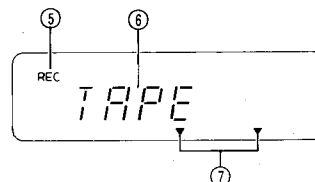
## 4 Botón TUNER/BAND

Presiónelo para seleccionar el modo de sintonizador.

Presiónelo para seleccionar la banda (FM/AM/SW).

## 5 Botones (TAPE POSITION-DECK A/DECK B) de posición de la cinta

- Coloque los botones de acuerdo al tipo de cinta que va a utilizar.
- Cuando graba (platina A exclusivamente):  
Cuando graba usando cinta de CrO<sub>2</sub>, "▼" aparece en el visor de indicación.
- Cuando reproduce (platinas A y B):  
Cuando reproduce una cinta METAL o CrO<sub>2</sub>, "▼" aparece en el visor de indicación.



## 1 顯示窗

- ① 波段指示燈 (FM/AM/SW)
- ② 無線電廣播頻率顯示
- ③ 頻道間隔模式顯示
- ④ 立體聲指示燈 (STEREO)
- ⑤ 單聲道指示燈 (MONO)
- ⑥ 錄音中指示燈 (REC)
- ⑦ 錄音帶模式顯示 (TAPE)
- ⑧ 錄音帶位置指示燈

## 2 預設調諧鍵鈕 (PRESET TUNING)

## 3 調諧 (高/低) 鍵鈕 (TUNING (UP/DOWN))

## 4 調諧器／波段鍵鈕 (TUNER/BAND)

按壓此鍵鈕選擇調諧器模式。

按壓此鍵鈕選擇波段 (FM/AM/SW)

## 5 錄音帶位置鍵鈕 (TAPE POSITION-DECK A/DECK B)

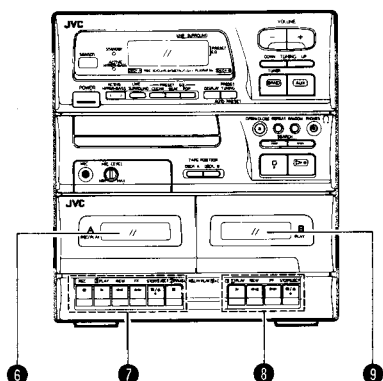
按照使用的錄音帶類型設定此開關。

• 錄音時 (僅限於錄音帶A) :

用CrO<sub>2</sub>錄音帶進行錄音時, "▼" 會出現在顯示窗上。

• 放音時 (錄音帶A及B) :

用METAL或CrO<sub>2</sub>錄音帶進行放音時, "▼" 會出現在顯示窗上。

Rear panel  
Panel trasero  
後面板

## 6 Cassette holder (Deck A)

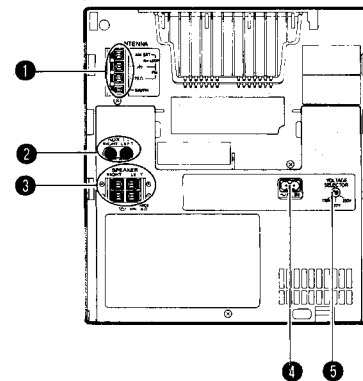
## 7 Cassette operation buttons (Deck A)

- REC:  
Press this button with the ► PLAY button to start recording.
- PLAY:  
Press to play the tape.
- ◄◄ REW:  
Press to rewind the tape rapidly.
- FF:  
Press to wind the tape forward rapidly.

## 8 Portacassette (platina A)

## 9 Botones de operación del cassette (platina A)

- REC:  
Para iniciar la grabación, presione este botón conjuntamente con el botón ► PLAY
- PLAY:  
Presiónelo para reproducir la cinta.
- ◄◄ REW:  
Presiónelo para rebobinar la cinta rápidamente.
- FF:  
Presiónelo para avanzar la cinta rápidamente.



## 6 卡式座 (錄音帶A)

## 7 錄音帶操作鍵鈕 (錄音帶A)

OREC:  
按壓此鍵鈕與放音鍵鈕 (►PLAY) 開始錄音。

►PLAY:  
按壓此鍵鈕播放錄音帶。

◄◄REW:  
按壓此鍵鈕快速倒帶。

►►FF:  
按壓此鍵鈕快速進帶。

**■/▲ STOP/EJECT:**

Press to stop the tape. Pressing this button when the tape has stopped opens the cassette holder.

**■ PAUSE:**

Press to stop the tape temporarily. Press again to release the pause mode.

**③ Cassette operation buttons (Deck B)****▶ PLAY:**

Press to play the tape.

**◀◀ REW:**

Press to rewind the tape rapidly.

**▶▶ FF:**

Press to wind the tape forward rapidly.

**■/▲ STOP/EJECT:**

Press to stop the tape. Pressing this button when the tape has stopped opens the cassette holder.

**③ Cassette holder (Deck B)****■/▲ STOP/EJECT:**

Presiónelo para detener la cinta. Al presionar este botón cuando la cinta está detenida, se abre el portacassette.

**■ PAUSE:**

Presiónelo para parar la cinta temporalmente. Presiónelo otra vez para desactivar el modo de pausa.

**③ Botones para operación del cassette (platina B)****▶ PLAY:**

Presiónelo para reproducir la cinta.

**◀◀ REW:**

Presiónelo para rebobinar la cinta rápidamente.

**▶▶ FF:**

Presiónelo para avanzar la cinta rápidamente.

**■/▲ STOP/EJECT:**

Presiónelo para detener la cinta. Al presionar este botón cuando la cinta está detenida, se abre el portacassette.

**③ Portacassette (platina B)****■/▲ STOP/EJECT:**

按壓此鍵鈕停止走帶。在走帶停止時按壓此鍵鈕即時開卡式座。

**■ PAUSE:**

按壓此鍵鈕暫時停止走帶。再按壓一次即解除暫停狀態。

**③ 錄音帶操作鍵鈕 (錄音帶艙B)****▶ PLAY:**

按壓此鍵鈕播放錄音帶。

**◀◀ REW:**

按壓此鍵鈕快速倒帶。

**▶▶ FF:**

按壓此鍵鈕快速進帶。

**■/▲ STOP/EJECT:**

按壓此鍵鈕停止走帶。在走帶停止時按壓此鍵鈕即時開卡式座。

**③ 卡式座 (錄音帶艙B)****• Rear panel****① External ANTENNA terminals****② AUX IN jacks****③ SPEAKER terminals**

Connect the provided speakers to these terminals.

**④ AC IN (AC input) jack****⑤ VOLTAGE SELECTOR (DX-50U/UB/US only)****• Panel trasero****① Terminales de ANTENNA externos****② Jacks AUX IN****③ Terminales SPEAKER**

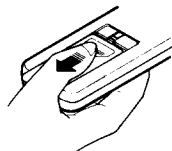
Conecte los altavoces suministrados a estos terminales.

**④ Jack AC IN (entrada de CA)****⑤ Selector de tensión (VOLTAGE SELECTOR) (DX-50U/UB/US exclusivamente)****後面板****① 外部天線端子 (ANTENNA)****② 輔助輸入插孔 (AUX IN)****③ 揚聲器端子 (SPEAKER)**

將附屬的揚聲器連接於這些端子上。

**④ 交流輸入插孔 (AC IN)****⑤ 電壓選擇器 (VOLTAGE SELECTOR) (僅限於 DX-50U/UB/US)****REMOTE CONTROL UNIT****Preparation before use****• Installing batteries in the remote control unit**

1. Remove the battery cover from the back of the remote control unit.
2. Insert two "R6" size batteries.
  - Insert the batteries with the ⊕ and ⊖ terminals matching the indication inside the battery compartment.



3. Replace the cover.

**• Battery replacement**

When the remote control operation becomes unstable or the distance from which remote control is possible becomes shorter, replace the batteries with new ones.

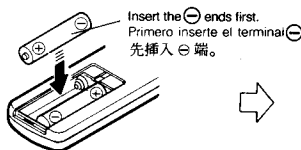
**Using the remote control unit**

To use the remote control unit, point it at the REMOTE SENSOR and press the buttons gently and firmly. Remote control operation is possible within about 7 m (approx. 23 ft). However, since the remote control range is less when the unit is used at an angle, use directly in front of the REMOTE SENSOR, as far much possible.

Do not expose the REMOTE SENSOR to strong light (direct sunlight or artificial lighting) and make sure that there are no obstacles between the REMOTE SENSOR and the remote control unit.

**UNIDAD DE CONTROL REMOTO****Preparación previa****• Colocación de las pilas en el control remoto**

1. Saque la tapa de las pilas en la parte posterior del control remoto.
2. Coloque 2 pilas de tamaño "R6".
  - Coloque las pilas teniendo en cuenta que los terminales ⊕ y ⊖ coincidan con las indicaciones dentro del compartimento de las pilas.



3. Vuelva a colocar la tapa.

**• Cambio de las pilas**

Cuando el funcionamiento del control remoto sea inestable o disminuya la distancia de operación, cambie las pilas por otras nuevas.

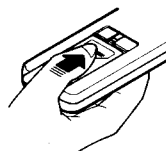
**Uso de la unidad de control remoto**

Cuando utilice esta unidad, dirijala hacia REMOTE SENSOR y presione los botones suave y firmemente. El control remoto es posible dentro de un límite aproximado de 7 m. No obstante, puesto que el alcance disminuye cuando se emplea la unidad desde un ángulo, utilícela en lo posible situándose directamente frente a REMOTE SENSOR.

No exponga REMOTE SENSOR a luces intensas (directamente al sol o luces artificiales) y asegúrese que no haya ningún obstáculo entre REMOTE SENSOR y la unidad de control remoto.

**遙控器****使用前的準備工作****• 將電池裝入遙控器**

1. 打開遙控器背面的電池艙蓋。
2. 裝入2節 "R6" 號電池。
  - 裝入的時候，按照電池艙內所示的方向裝，不要將 ⊕ ⊖ 端子弄錯。



3. 重新蓋上蓋子。

**• 電池的更換**

如果遙控器的操縱失靈，或者操縱距離變得短了，此時請更換新的電池。

**遙控器的使用方法**

使用遙控器的時候，將遙控器對準遙控感應器 (REMOTE SENSOR)，然後慢而確實地按壓鍵鈕。遙控器的操縱距離為7m以內。但是，如果從斜角使用遙控器，其操縱距離便會變得短。因此，使用時應當盡可能從正面對準遙控感應器 (REMOTE SENSOR) 使用。

請不要將遙控感應器暴露於強光之下 (直射太陽光或人工光線)，並且要確認在遙控器和遙控感應器之間沒有障礙物。

The following operations can be performed using the remote control unit.

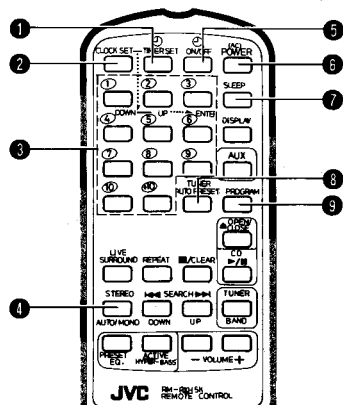
- Check the functions of the operation buttons carefully and operate them correctly.

Las siguientes operaciones pueden realizarse utilizando la unidad de control remoto.

- Estudie detenidamente las funciones de los botones de operación y utilícelos correctamente.

使用遙控器可做下列各項操縱。

- 仔細檢查各個操縱鍵鈕的功能，並且正確使用它們。



- 1 (⊙) TIMER SET button
  - 2 CLOCK SET button
  - 3 Track (tune) number buttons (No.1 to No.10, +10)  
Preset station buttons (No.1 to No.10)  
• Buttons No.1 to No.3 are also used for clock and timer settings.
  - 4 STEREO AUTO/MONO button
  - 5 Timer (⊙) ON/OFF button
  - 6 POWER button
  - 7 SLEEP button
  - 8 TUNER AUTO PRESET button
  - 9 PROGRAM button
- Buttons not mentioned here have the same functions as those on the main unit.

- 1 Botón (⊙) TIMER SET
- 2 Botón CLOCK SET
- 3 Botones numéricos de pista (música) (Nº 1 a Nº 10, +10)  
Botones de estaciones presintonizadas (Nº 1 a Nº 10)  
• Los botones Nº 1 a Nº 3 también son utilizados para el ajuste del reloj y del temporizador.
- 4 Botón STEREO AUTO/MONO
- 5 Botón (⊙) ON/OFF del temporizador
- 6 Botón POWER
- 7 Botón SLEEP
- 8 Botón TUNER AUTO PRESET
- 9 Botón PROGRAM

- Los botones que no han sido mencionados aquí tienen las mismas funciones que las de la unidad principal.

- 1 (⊙) 定時設定鍵鈕 (TIMER SET)
- 2 時鐘設定鍵鈕 (CLOCK SET)
- 3 樂曲號碼鍵鈕 (第1首至第10首, +10)  
預設電臺鍵鈕 (第1臺至第10臺)  
• 第1個至第3個鍵鈕還用於時鐘與定時器設定。
- 4 立體聲自動/單聲道鍵鈕 (STEREO AUTO/MONO)
- 5 定時器 (⊙) 開/關鍵鈕 (ON/OFF)
- 6 電源鍵鈕 (POWER)
- 7 睡眠鍵鈕 (SLEEP)
- 8 調諧器自動預設鍵鈕 (TUNER AUTO PRESET)
- 9 編序鍵鈕 (PROGRAM)

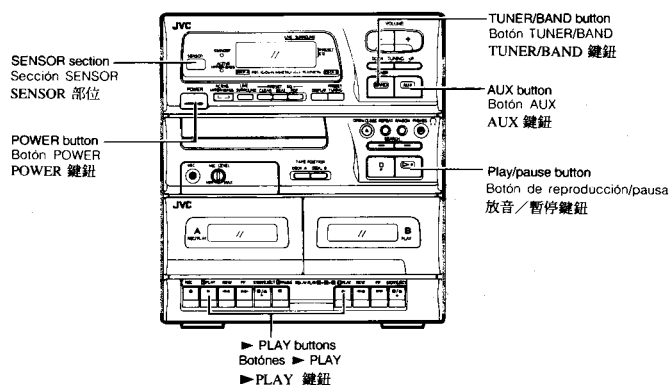
- 未述及的鍵鈕與主機上的相應鍵鈕具有相同的功能。

16

## SWITCHING THE POWER ON/OFF

## CONEXION/DESCONEXION DE LA ALIMENTACION

## 電源的接通與切斷



### Switching the power on/off

- Switching on:



STANDBY

The indicator goes out.  
Se apaga el indicador.  
指示燈熄滅。

- Switching off:



STANDBY

The red indicator lights.  
Se enciende el indicador rojo.  
紅色指示燈點亮。

### Conexión/desconexión de la alimentación

- Conexión:

### 電源的接通與切斷

- 接通:

- 切斷:

**One-touch operation (COMPU PLAY)**

Even when the power is set to STANDBY, pressing the button shown below switches on the power and selects the source.

**Operación de un solo toque (COMPU PLAY)**

Aun cuando la alimentación esté en STANDBY, el presionar el botón mostrado abajo, conecta la energía y selecciona la fuente.

**單觸放音 (COMPU PLAY)**

即使電源設於待機 (STANDBY)，按壓下表所示鍵鈕可接通電源並選擇聲源。

|                                                                                                                                                                                                                                                   | Function mode<br>Modo de función<br>功能模態 | Operations<br>Operaciones<br>操作                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                  | CD<br>CD (雷射唱片)                          | When this button is pressed with a CD loaded, CD playback begins.<br>Cuando se presiona este botón habiendo un CD colocado, comienza la reproducción del mismo.<br>裝有CD而按壓此鍵鈕時，CD放音自動開始。             |
| (Deck A)<br>(Platina A)<br>錄音帶A<br> or<br>或<br> (Deck B)<br>(Platina B)<br>錄音帶B | TAPE<br>TAPE (錄音帶)                       | When this button is pressed with a tape loaded, tape playback begins.<br>Cuando se presiona este botón habiendo una cinta colocada, comienza la reproducción de la misma.<br>裝有錄音帶而按壓此鍵鈕時，錄音帶放音自動開始。 |
|                                                                                                                                                                  | TUNER<br>TUNER (調諧器)                     | When this button is pressed, the tuner is engaged.<br>Cuando se presiona este botón, se activa el sintonizador.<br>按壓此鍵鈕時，即為調諧器接通狀態。                                                                 |
|                                                                                                                                                                  | AUX<br>AUX (輔助)                          | A sound source connected to the AUX IN terminals can be engaged.<br>Es posible escuchar una fuente de sonido conectada a los terminales AUX IN.<br>連接於AUX IN端子上的音源能接通。                               |

**IlumiMagic COMPU PLAY**

When approaching the SENSOR section with your hand while the POWER button is set to STANDBY, the , BAND and AUX button indicators automatically blink for 10 seconds so that these button indicators can be easily found for sound source selection. COMPU PLAY operates effectively even after these indicators go out.

- If nothing is done while these indicators blink.....  
The blinking indicators go out after 10 seconds as mentioned above. Then, after 2 seconds elapse, IlumiMagic COMPU PLAY will be activated again.

**IlumiMagic COMPU PLAY**

Si el botón POWER está colocado en STANDBY y aproxima la mano a la sección SENSOR, los indicadores de los botones , BAND y AUX parpadean automáticamente durante 10 segundos para que usted pueda encontrarlos rápidamente para la selección de la fuente de sonido. COMPU PLAY funciona efectivamente aun después de que estos indicadores se apaguen.

- Si no se hace nada mientras estos indicadores están parpadeando.....  
Los indicadores parpadeantes se apagan después de transcurridos 10 segundos, como se menciona arriba. Luego, después de transcurridos 2 segundos, IlumiMagic COMPU PLAY se activa otra vez.

**魔光COMPU PLAY**

在POWER鍵鈕設為STANDBY中，用手接近SENSOR部位時，, BAND及AUX鍵鈕指示燈自動閃爍10秒鐘，使在選擇音源時能輕易地找到這些鍵鈕。即使這些指示燈熄滅，COMPU PLAY操作依舊有效。

- 若在這些指示燈閃爍中未進行任何操作.....  
如上所述，10秒鐘後閃爍的指示燈熄滅。然後經過2秒鐘，魔光COMPU PLAY將會再次啟動。

**Notes:**

- When your hand approaches approx. 30 cm from the SENSOR section, the indicators blink.
- Since the sensor detects light reflection, an object other than a hand approaching the sensor can activate IlumiMagic COMPU PLAY. However, operational distance varies depending on the shape or color of object, or brightness of conditions.
- When an object is placed in front of the SENSOR section, the indicator may blink repeatedly. However, this is not a malfunction. Take one of the following measures.
  - Do not place anything in front of the remote SENSOR within a distance of 1 m.
  - Change the direction of this unit.
  - Relocate this unit.

**When the indicator blinking is not required.....**

When the POWER button is set to STANDBY, operate as follows.

**Notas:**

- Cuando aproxima la mano a 30 cm. aprox. de la sección SENSOR, los indicadores parpadean.
- Como el sensor detecta la luz reflejada, un objeto que no sea la mano y que se aproxime al sensor, puede activar IlumiMagic COMPU PLAY. Sin embargo, la distancia de funcionamiento varía dependiendo de la forma y color del objeto o de la iluminación.
- Cuando se coloca un objeto enfrente de la sección SENSOR, el indicador puede parpadear repetidamente. Sin embargo, esto no es una falla. Tome una de las siguientes medidas.
  - No coloque ningún objeto delante del SENSOR remoto a menos de 1 m de distancia.
  - Cambie la dirección de esta unidad.
  - Mueva la unidad.

**Cuando no sea necesario que los indicadores parpadeen.....**

Cuando se coloca el botón POWER en STANDBY, efectúe lo siguiente.

Press the POWER button while pressing the PRESET TUNING button.  
Presione el botón POWER conjuntamente con el botón PRESET TUNING.  
按著PRESET TUNING鍵鈕的同時，按壓POWER鍵鈕。



"OFF" is shown in the display window.  
"OFF" aparece en el visor de indicación.  
"OFF" 出現在顯示窗上。

- Perform the same operations to activate the IlumiMagic COMPU PLAY again.  
"ON" is shown in the display window.

**Notes:**

1. When the CD tray OPEN/CLOSE () button is pressed, the sound source does not switch over, and the CD tray opens or closes.  
(When the POWER is switched off with the CD tray open, the CD tray closes, then the POWER switches off.)
2. When switching off the power, be sure to press the POWER button.

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**Notas:**

1. Cuando se presiona el botón OPEN/CLOSE () del portadisco de CD, la fuente de sonido no se conmuta, y el portadisco de CD se abre o cierra.  
(Cuando se desconecta POWER con el portadisco de CD abierto, éste se cierra, luego se desconecta POWER.)
2. Cuando desconecte la alimentación, asegúrese de presionar el botón POWER.

**註:**

- 當手接近至離SENSOR部位30cm左右位置時，指示燈即閃爍。
- 因為感應器檢測光線反射，手以外的物體接近感應器會啟動魔光COMPU PLAY。但動作距離隨著物體的形狀、顏色和亮度條件的不同而不同。
- 當一個物體被放在SENSOR部位前面時，指示燈會反復閃爍。但是，這不是故障。可採取下列措施之一：
  - 在SENSOR部位前1米距離之內不放任何物體。
  - 改變本機的方嚮。
  - 重新安放本機。

**無需指示燈閃爍時.....**

當POWER鍵鈕設定在STANDBY時，可做下列操作。

3. The COMPU PLAY button on the remote control has the same function as that on the main unit. IllumiMagic COMPU PLAY is activated using the main unit only.
4. If installed in an audio rack, the rack's front glass plate may impede the unit's SENSOR section function so that IllumiMagic COMPU PLAY may not be activated.
5. When the  $\odot$  REC or  $\blacktriangleright$  PLAY button is pressed for timer recording or playback, IllumiMagic COMPU PLAY cannot be activated. However, this is not a malfunction.

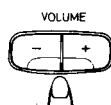
3. El botón COMPU PLAY del control remoto posee la misma función que el de la unidad principal. IllumiMagic COMPU PLAY se activa utilizando la unidad principal exclusivamente.
4. Si se lo instala en una estantería de audio, el vidrio frontal de la misma puede impedir que funcione la sección SENSOR de la unidad, y por ello IllumiMagic COMPU PLAY puede no activarse.
5. Cuando se presiona el botón  $\odot$  REC o el  $\blacktriangleright$  PLAY para la grabación o reproducción por temporizador, no es posible activar IllumiMagic COMPU PLAY. Sin embargo, esto no es una falla.

3. 遙控器上的COMPU PLAY鍵與主機上的具有相同的功能。魔光COMPU PLAY僅可用主機上的來啟動。
4. 若將本機安裝於音響機架內，機架的前玻璃板可能阻礙本機的SENSOR部位工作，使魔光COMPU PLAY不會被啟動。
5. 按壓OREC或 $\blacktriangleright$ PLAY鍵做定時錄音或放音時，魔光COMPU PLAY不會被啟動。但這不是故障。

## VOLUME, TONE AND OTHER CONTROLS

### VOLUME button

- + : Use to increase the volume.
  - : Use to decrease the volume.
- (control range from VOL 0 to VOL 50.)



### Sound effect controls

This unit has three preset equalizer modes (CLEAR, BEAT, POP) and LIVE SURROUND mode. These modes can be selected to enhance the type of music being played.

#### Preset equalizer (PRESET EQ.)

When operating the main unit, use one of the PRESET EQ. buttons to select the mode. Press the same buttons again to cancel the mode.



When operating the remote control unit, each time the PRESET EQ. button is pressed, the equalizer mode changes as follows:

### Botón VOLUME

- + : Utilicelo para aumentar el volumen.
  - : Utilicelo para reducir el volumen.
- (los límites de control van de VOL 0 a VOL 50.)

### Controles de efecto de sonido

Esta unidad posee tres modos de ecualización programados (CLEAR, BEAT, POP) y el modo LIVE SURROUND. Estos modos pueden ser seleccionados para realzar el tipo de música que está siendo reproducida.

#### Ecualizador programado (PRESET EQ.)

Cuando ponga en funcionamiento la unidad principal, utilice uno de los botones PRESET EQ. para seleccionar el modo. Presione el mismo botón otra vez para cancelar el modo.

Cuando opera la unidad de control remoto, cada vez que presione el botón PRESET EQ., el modo de ecualización cambia de la siguiente manera:



No sound effect  
Sin efecto de sonido  
無音響效果

## 音量、音調及其它調節

### 音量鍵鈕 (VOLUME)

- +: 用於增大音量。
  - : 用於減低音量。
- (調節範圍為VOL.0至VOL.50。)

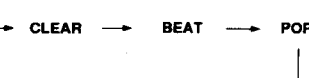
### 音響效果調節

本機具備三種預設均衡模態 (CLEAR, BEAT, POP) 及LIVE SURROUND模態。這些模態能被選擇來增強放音的音響魅力。

#### 預設均衡 (PRESET EQ.)

操作主機時，可使用PRESET EQ. 鍵鈕之一來選擇模態。再按壓同一鍵鈕可取消該模態。

操作遙控器時，每按壓一次PRESET EQ. 鍵鈕，均衡模態按下列順序轉換：



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#### CLEAR:

Set to this position for crisp and clear sounding music with transparent highs.

#### BEAT:

Set to this position for music with a heavy beat, such as rock or disco music.

#### POP:

Set to this position for light music including popular and vocal music.

#### LIVE SURROUND

Set this button to ON to enjoy impressive sound like that in a concert hall.

- When this button is set to ON, "▲ON" is shown. When this button is pressed again, this mode is released. If the PRESET EQ. mode is selected, the selected mode is engaged.
- LIVE SURROUND is specially effective for stereo sound.

#### Note:

The selected mode is effective when listening to speaker or headphone sound, not recorded sound.

#### ACTIVE HYPER-BASS button

ON : The Active Hyper-Bass indicator lights. Set to this position when listening to Active Hyper-Bass sound.

OFF : The Active Hyper-Bass indicator goes out. Set to this position when Active Hyper-Bass sound is not required.

#### DISPLAY button

Use this button to switch between the function and time display.

#### CLEAR:

Colóquelo en esta posición para obtener sonidos contrastados y claros con altos transparentes.

#### BEAT:

Colóquelo en esta posición para músicas con ritmo pesado tales como rock o música de discoteca.

#### POP:

Colóquelo en esta posición para música suave incluyendo música popular y vocal.

#### LIVE SURROUND

Coloque este botón en ON para disfrutar de sonidos grandiosos tales como en una sala de conciertos.

- Cuando se coloca este botón en ON aparece "▲ON". Si se lo presiona otra vez, el modo es desactivado. Si selecciona el modo PRESET EQ., se activa el modo seleccionado.
- LIVE SURROUND es especialmente efectivo para sonido estereofónico.

#### Nota:

El modo seleccionado queda activado cuando se escucha el sonido a través de los altavoces o audífonos, pero no se escuchará en el sonido grabado.

#### Botón ACTIVE HYPER-BASS

ON : Se enciende el indicador Active Hyper-Bass. Colóquelo en esta posición cuando escucha sonidos Active Hyper-Bass.

OFF : Se apaga el indicador Active Hyper-Bass. Colóquelo en esta posición cuando no desee escuchar Active Hyper-Bass.

#### Botón DISPLAY

Utilice este botón para conmutar entre las indicaciones de función y de hora.

#### CLEAR:

設定於此位置以獲得清脆、明晰的透亮高音。

#### BEAT:

設定於此位置以獲得帶重打擊樂（如搖滾或的士高）的音樂。

#### POP:

設定於此位置以獲得包括通俗音樂及聲樂的輕音樂。

#### LIVE SURROUND

將此鍵設於ON，可欣賞如同在音樂廳裡的、印象深刻的聲音。

- 此鍵置於ON，"▲ON"顯示。再按此鍵，該模態解除。如果選擇了PRESET EQ.模態，則處於該選擇模態。
- 對於立體聲，LIVE SURROUND有特殊的效果。

#### 註

所選擇的模態僅在聽揚聲器或耳機聲音時有效，聽錄製的聲音時無效。

#### 動態重低音鍵鈕 (ACTIVE HYPER-BASS)

ON : 動態重低音指示燈點亮。收聽動態重低音音響時設於此位置。

OFF : 動態重低音指示燈熄滅。不要動態重低音音響時設於此位置。

#### 顯示鍵鈕 (DISPLAY)

用此鍵鈕在功能與時間顯示之間轉換。

## CONCERNING COMPACT DISCS

Since dirty, damaged and warped discs may damage the unit, care should be taken of the following:

## 1. Usable compact discs

Use compact discs with the mark shown.

## 2. Notes on handling discs

- Do not touch the reflective recorded surface.
- Do not stick anything to or write anything on the label side.
- Do not bend compact discs.

## 3. Storage

- After removing a disc from the unit, be sure to put it back in its case.
- Do not expose discs to direct sunlight, high temperatures from a heater, etc., high humidity, or dust.

## 4. Cleaning discs

Before loading a disc, wipe off any dust, dirt or fingerprints with a soft cloth. Discs should be cleaned by wiping radially, from the center to the edge.

- Never use thinner, benzene, record cleaner or antistatic spray.

## EN CUANTO A LOS COMPACT DISC

Puesto que los discos sucios, alabeados y con defectos pueden dañar la unidad, deben tenerse en cuenta los siguientes puntos:

## 1. Compact disc utilizables

Utilice compact disc con la siguiente marca.

## 2. Notas sobre la manipulación de discos

- No toque la superficie grabada reflectante.
- No pegue ni escriba nada sobre el lado del rótulo.
- No doble el compact disc.

## 3. Almacenamiento

- Guarde los discos en sus cajas luego de sacarlos del reproductor.
- No los exponga a la luz solar directa, altas temperaturas de un calefactor, etc., gran humedad o polvo.

## 4. Limpieza de discos

Antes de colocar un disco, limpie la superficie de polvo, suciedad e impresiones digitales con un paño suave. El disco debe limpiarse de forma radial, desde el centro hacia el borde.

- Nunca utilice diluyente, bencina, limpiadores de discos analógicos o pulverizadores antiestáticos.

## 有關CD唱片

由於污穢的、損壞的、彎曲的唱片會損壞唱機，因此必須注意下列事項：

## 1. 可用的CD唱片

請使用有標記的CD唱片。

## 2. 關於使用CD唱片的注意事項

- 切勿觸摸如明鏡般反射的、錄有聲音的一面。
- 切勿在有標籤的一面張貼或者書寫任何東西。
- 切勿彎曲CD唱片。

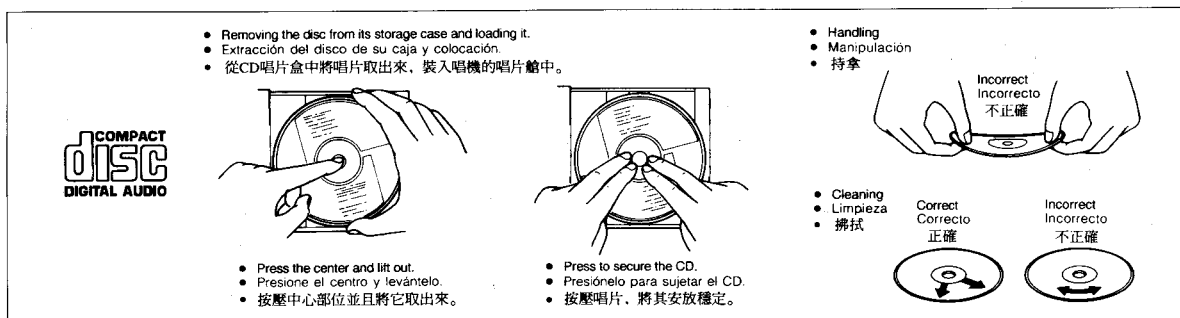
## 3. CD唱片的保管

- 將CD唱片從唱機的唱片盒取出來以後，務必放回唱片盒。
- 切勿讓唱片暴露於陽光下、取暖器等的高溫和濕氣以及灰塵之中。

## 4. CD唱片的保管

在將CD唱片裝入唱機之前，請用柔軟的布拭去灰塵、污穢以及指印。應該由中心往邊緣方向拂拭。

- 切勿使用溶劑、揮發性汽油、唱片清潔劑以及抗靜電噴霧劑。



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## PLAYING COMPACT DISCS

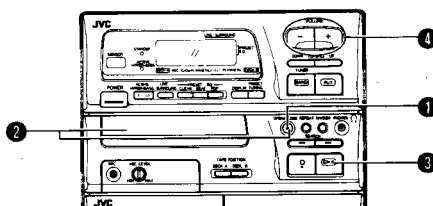
Playing an entire disc ... The following example assumes a compact disc with 12 tunes and a total playing time of 48 minutes 57 seconds.

Operate in the order shown

## REPRODUCCION DE COMPACT DISCS

Reproducción de un disco completo... El siguiente ejemplo considera un compact disc con 12 canciones y un tiempo de reproducción total de 48 minutos, 57 segundos.

Proceda en el orden indicado



- Press to open the CD tray. (The power is switched ON.)
- Load a disc with the label side facing up. Press to close the CD tray. (The tray can be closed by pressing the >|| button.)
- Press to start play.
- Adjust.

## Note:

When the CD tray is closed by pressing the >|| button, the CD starts playing as soon as the tray is closed.

- 8-cm (3-3/16") compact discs can be used in this unit without an adapter.

- Presione para abrir el portadisco de CD. (La energía se conecta ON).
- Coloque un disco con la etiqueta hacia arriba. Presione para cerrar el portadisco de CD. (El portadisco puede ser cerrado presionando el botón >||).
- Presione para iniciar la reproducción.
- Ajuste.

## Nota:

Cuando se cierra el portadisco de CD presionando el botón >||, la reproducción del CD se inicia en el momento que el portadisco se cierra.

- Con esta unidad es posible utilizar compact disc de 8-cm sin necesidad de adaptador.

## CD唱片的放音

整張CD唱片的放音...

再此所示的例子，假設為一張錄有12樂曲、總放音時間為48分57秒的CD唱片。

根據下面所示順序進行操作

- 按壓鍵鈕打開CD盒蓋。(電源便接通。)
- 將有標籤的一面朝上裝入CD唱片。按壓鍵鈕關閉CD盒蓋。(按壓>||鍵鈕亦可關閉盒蓋。)
- 按壓鍵鈕開始放音。
- 調節。

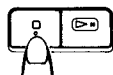
## 註:

當按壓>||鍵鈕關閉CD盒蓋時，盒蓋關上的同時，CD唱機開始放音。

- 本機可以播放8cm CD唱片，無需適配器。

## To stop play

- To stop in the middle of a disc  
During playback, press the □ button to stop play.



## Para detener la reproducción

- Para detenerla en la mitad de un disco  
Presione el botón □ para detener la reproducción.

## 停止放音

- 在唱片放音途中停止放音  
在放音中，按壓□鍵鈕即停止放音。

- The total number of tracks (tunes) and total playing time are displayed.
- Se visualiza el número total de pistas (canciones) y el tiempo total de reproducción.
- 顯示總曲數(曲子)和總放音時間。

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### ● To stop a disc temporarily

Press the **⏏** button to stop play temporarily and the playing time blinks. When pressed again, play resumes from the point where it was paused.

#### Notes:

- The following indication may be shown when a disc is dirty or scratched, or when the disc is loaded upside down.

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- In such a case, check the disc and insert again after cleaning the disc or turning it over.
- When a CD is not loaded in the tray, "OPEN" is displayed and the CD tray opens when the **⏏** button is pressed.
- Do not use the unit at excessive high or low temperatures. The recommended temperature range is from 5°C (41°F) to 35°C (95°F).
- After playback, unload the disc and close the CD tray.
- If mistracking occurs during play, lower the volume.
- Mistracking may occur if a strong shock is applied to the unit or if it is used in a place subject to vibrations.

### Skip playback

- During playback, it is possible to skip forward to the beginning of the next tune or back to the beginning of the tune being played or the previous tune; when the beginning of the required tune has been located, play starts automatically.

#### To listen to the next tune ...

Press the **▶▶** button once to skip to the beginning of the next tune.

#### To listen to the previous tune ...

Press the **◀◀** button to skip to the beginning of the tune being played back and press again to skip to the beginning of the previous tune.

### ● Para detener temporariamente un disco

Presione el botón **⏏** para detener el disco temporariamente; el tiempo de reproducción parpadeará. Cuando se lo presiona otra vez, se reinicia la reproducción en el punto donde fue detenida.

#### Notas:

- La siguiente indicación puede aparecer cuando el disco está sucio o rayado, o puesto al revés. En tal caso, verifique el disco e insértelo nuevamente después de haberlo limpiado o invertido.
- Si no se ha colocado un CD en el portadisco, aparece la indicación "OPEN" y el portadisco de CD se abre si se presiona el botón **⏏**.
- No utilice esta unidad en lugares con temperaturas excesivamente altas o bajas. El margen de temperatura recomendado es de 5°C a 35°C.
- Después de la reproducción, retire el disco y cierre el portadisco del CD.
- Si ocurriese una falla de seguimiento de pista durante la reproducción, reduzca el volumen.
- El mal seguimiento puede producirse si la unidad recibe un fuerte golpe o se utiliza en un lugar sometido a vibraciones.

### Reproducción por salto

- Durante la reproducción, es posible saltar al comienzo de la próxima canción o retroceder al comienzo de la canción que se está reproduciendo o de la canción previa; una vez localizado el comienzo de la canción deseada, la reproducción comienza automáticamente.

#### Para escuchar la próxima canción...

Presione el botón **▶▶** una vez para saltar al comienzo de la próxima canción.

#### Para escuchar la canción previa ...

Presione el botón **◀◀** para saltar al comienzo de la canción que se está reproduciendo y presiónelo nuevamente para saltar al comienzo de la canción previa.

### ● 暫時停止唱片放音

按壓**⏏**鍵即暫時停止放音，放音時間指示閃爍。再按壓一下，放音便從暫停位置重新開始。

#### 註：

- 裝入唱機的唱片碟或有劃痕，或者唱片的面裝反時，下面的指示便會出現。
- 這時，請檢查唱片，在拂拭乾淨或翻轉後再裝入。
- 如果盒內未裝CD時，按**⏏**鍵即顯示出 "OPEN" 並打開CD盒蓋。
- 請勿在酷熱或者嚴寒的環境之中使用。我們所建議的使用溫度為5°C至35°C的範圍以內。
- 待放音結束以後，請取出CD唱片，並且將此唱片放回CD盒子中。
- 如果在放音中發生跳曲，請降低音量。
- 當唱機受到強烈的衝擊或者在有振動的地方使用時，有可能發生跳曲現象。

### 跳躍放音

- 在放音中，可以往前跳躍至下一樂曲的曲頭或者往後跳躍至放音中樂曲的曲頭或者是已經放音的前一支樂曲的曲頭。當您要選聽的樂曲的曲頭被找到後，就會自動開始播放。

#### 聽下一支樂曲...

若要聽下一支樂曲，按壓一下**▶▶**鍵即可跳躍至下一樂曲的曲頭。

#### 聽前一支樂曲...

若要聽前一支樂曲，按壓一下**◀◀**鍵即可跳躍至放音中樂曲的曲頭；如果再按壓一次該鍵即可跳躍至前一支樂曲的曲頭。

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### Search playback (to locate the required position on the disc)

- The required position can be located using fast-forward or reverse search while playing a disc.

Keep pressing for fast-reverse search.  
Mantenga presionado para la búsqueda regresiva rápida.  
若要倒帶搜尋，可按壓此鍵鈕。



Keep pressing for fast-forward search.  
Mantenga presionado para la búsqueda progresiva rápida.  
若要快速搜尋，可按壓此鍵鈕。

- Hold down the button; search play starts slowly and then gradually increases in speed.
- Since low-volume sound (at about one quarter of the normal level) can be heard in the search mode, monitor the sound and release the button when the required position is located.

### Búsqueda por reproducción (para ubicar la posición deseada en el disco)

- La posición deseada puede ubicarse utilizando la búsqueda progresiva o regresiva rápida durante la reproducción del disco.

- Mantenga presionado el botón; se iniciará lentamente la reproducción, aumentando posteriormente su velocidad en forma gradual.
- Puesto que se puede escuchar un sonido muy bajo (aproximadamente un cuarto del nivel normal) en el modo de búsqueda, monitorea el sonido y suelte el botón cuando localice la posición deseada.

### 搜尋放音

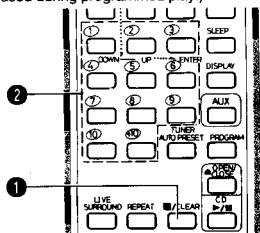
(在唱片中搜尋您所需要的某個位置)

- 若要在唱片中搜尋您所需要的某個位置，可以在放音中，用快速搜尋或者倒帶搜尋來進行。

- 按壓住鍵鈕，搜尋開始的時候慢，然後逐漸增快。
- 在搜尋的過程中您可以聽到較低的聲音（約為普通音量的四分之一），當您聽到您所需要之處時，請放開按壓著的鍵鈕。

### Direct access playback (using the remote control unit)

- Pressing any of the track number buttons will start play from the beginning of the designated tune, without your having to press the CD **▶/⏏** button. (This function cannot be used during programmed play.)



- Press the **■/CLEAR** button to set to the CD mode.
- Designate the required tune using the track number buttons.
  - To designate tune numbers 1 to 10, press the track number button corresponding to the tune (track) number.
  - To designate tune number 11 or higher, press the +10 button the required number of times, then the track number button. (Example: To designate the 20th tune, press the +10 button once, then press track number button 10.)

### Reproducción por acceso directo (utilizando la unidad de control remoto)

- Presionando cualquier botón de número de pista se iniciará la reproducción desde el comienzo de la canción designada, sin tener que pulsar el botón CD **▶/⏏**. (Esta función no puede emplearse durante la reproducción programada.)

- Presione el botón **■/CLEAR** para establecer el modo CD.
- Seleccione la canción deseada usando los botones de número de pista.
  - Para seleccionar los números de canciones 1 al 10, presione el botón del número de pista correspondiente al número de la canción (pista).
  - Para seleccionar el número de canción del 11 en adelante, presione el botón +10 el número de veces necesario y luego un botón de número de pista. (Ejemplo: Para seleccionar la canción Nº 20, presione el botón +10 una vez, luego presione el botón 10 de número de pista.)

### 直接放音（使用遙控器）

- 直接按壓您所欣賞的樂曲的號碼鍵鈕，便可從曲頭開始播放該曲，而不需要按壓CD **▶/⏏** 鍵鈕（此功能不可以在編序放音中使用）。

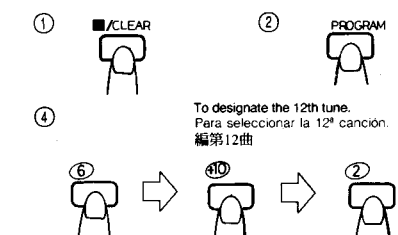
- 按壓 **■/CLEAR** 鍵鈕，將本音響設備設於CD功能。
- 按壓樂曲的號碼鍵鈕，選擇您欲欣賞的樂曲。
  - 根據樂曲號碼，按壓與之相符合的樂曲號碼鍵鈕，以選擇1至10的樂曲號碼。
  - 若要選擇11以上的樂曲號碼，根據所要選擇的樂曲號碼的數字按壓+10鍵鈕，然後按壓樂曲號碼鍵鈕。（譬如，要選擇第20號樂曲，先按壓+10鍵鈕，然後按壓樂曲號碼鍵鈕10。）

\* +10 button:  
Each time this button is pressed, the number increases by 10. First press this button to set the 10's digit, then press the track number button to set the 1's digit.

- **To skip to another tune during play**  
When the required track number button is pressed, the display shows the designated track number and play starts from the beginning of the designated tune.

#### Programmed play (using the remote control unit)

- Up to 20 tunes can be programmed to be played in any required order.  
The total playing time of programmed tunes is displayed (up to 99 minutes, 59 seconds).  
(Example: When programming the 2nd tune to be played first, the 6th tune next, and then the 12th tune, etc.)



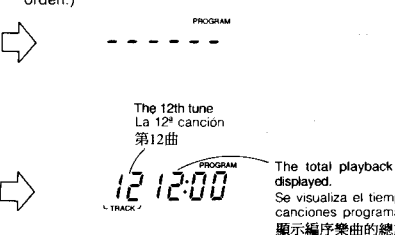
- Press the /CLEAR button.
- Pulse the PROGRAM button to set to the programming mode.
- Press to designate the required track number.
- Designate the remaining tunes by pressing the track number buttons.
- Press the button when programming is completed. Programmed playback starts.

\* Botón +10:  
Cada vez que se presiona este botón, el número aumenta en incrementos de 10. Púlselo primero para fijar el dígito de las decenas y luego presione el botón de número de pista para fijar el dígito de las unidades.

- **Para saltar a otra canción durante la reproducción**  
Cuando se presiona el botón de número de pista deseado, el indicador muestra el número de pista designado y comienza la reproducción desde el comienzo de la canción seleccionada.

#### Reproducción programada (utilizando la unidad de control remoto)

- Puede programarse la reproducción de hasta 20 canciones en cualquier orden deseado.  
Se visualiza el tiempo total de reproducción de las canciones programadas (hasta 99 minutos, 59 segundos).  
(Ejemplo: Cuando programe la reproducción de la 2ª canción, la 6ª canción, la 12ª canción, etc., en dicho orden.)



- Presione el botón /CLEAR.
- Pulse el botón PROGRAM para establecer el modo de programación.
- Presione para designar el número de pista deseada.
- Seleccione las canciones restantes presionando los botones de número de pista.
- Presione el botón cuando finalice la programación. Se iniciará la reproducción programada.

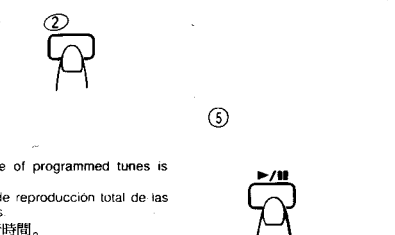
\* +10鍵鈕:

每按壓一次此鍵鈕，數字便增加10。先按壓此鍵鈕設定10位數，然後按壓樂曲號碼鍵設定個位數。

- **在放音中跳躍至別的樂曲**  
祇要您按壓了您所希望欣賞的樂曲的號碼鍵鈕，該曲的樂曲號碼便會被顯示出來，並且從該樂曲的曲頭開始放音。

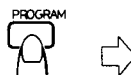
#### 編序放音 (使用遙控器)

- 有20個樂曲可以按照您希望的順序進行編序。  
所編序樂曲的總放音時間將被顯示出來 (最長為99分59秒)。  
(譬如: 將第2曲編為第1放音曲、第6曲為其次、其後為第12曲等等。)



- 按壓 /CLEAR 鍵鈕。
- 按壓PROGRAM鍵鈕，以設定編序功能。
- 按壓樂曲號碼鍵鈕以選擇您所需要的樂曲的號碼。
- 按壓樂曲號碼鍵鈕以選擇剩餘的樂曲的號碼。
- 待編序完成以後，按壓 鍵鈕，編序放音開始。

**To confirm the details of a program...**  
Press the PROGRAM button; the tunes making up the program will be displayed in programmed order.



**To clear the programmed tunes ...**  
Press the /CLEAR button before playing a disc. During programmed playback, press this button twice. When the CD tray is opened, programmed tunes are cleared automatically.

#### Notes:

- If the total playing time of the programmed tunes exceeds 99 minutes 59 seconds, the total playing time indication will go out. In this case, cancel the program and program the tracks (tunes) again.
- Programming of track (tune) number 21 or more is impossible.
- When performing CD synchro recording or timer playback in "Programmed play" order, step ① above is not required.

#### Repeat play

Press the REPEAT button before or during play. A single tune or all the tunes can be repeated.

Whether a single tune or all tunes are to be repeated can be specified. Each time the REPEAT button is pressed, the mode will change from a single tune () to all the tunes ( ALL), to the clear mode, in this order.

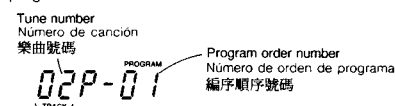


Single tune  
Una canción  
一支樂曲

ALL  
All tunes  
Todas las canciones  
所有樂曲

Goes off  
Se apaga  
消失  
Repeat playback is released.  
Se desactiva la reproducción repetida.  
重複放音被解除。

**Para confirmar el contenido de una programación ...**  
Al pulsar el botón PROGRAM, se visualizan las canciones que conforman el programa en el orden programado.



**Para anular las canciones programadas...**  
Presione el botón /CLEAR antes de reproducir un disco. Durante la reproducción programada, presione este botón dos veces. Al abrirse el portadisco del CD, se cancelan automáticamente las canciones programadas.

#### Notas:

- Si el tiempo total de reproducción de las canciones programadas excede 99 minutos, 59 segundos, se apaga la indicación de tiempo total de reproducción. En este caso cancele el programa y programe las pistas (músicas) otra vez.
- Es imposible programar la pista Nº 21 o más.
- El paso ① de arriba no es necesario cuando se ejecuta una grabación sincronizada de CD o una reproducción por temporizador en "reproducción programada".

#### Reproducción repetida

Pulse el botón REPEAT antes o durante la reproducción. Puede repetirse una sola canción o todas las canciones.

Puede especificarse la repetición de una canción o todas las canciones. Cada vez que pulse el botón REPEAT, cambiará el modo de una sola canción () a todas las canciones ( ALL), a modo de cancelación, en este orden.

**要確認編序內容...**

按壓PROGRAM鍵鈕：編序內的樂曲將按編序順序顯示出來。

**要取消編序樂曲...**

在唱片放音之前，按壓 /CLEAR 鍵鈕。如果是在編序放音中，按兩次此鍵鈕。如果CD艙蓋被打開，編序樂曲便被自動取消。

#### 註：

- 如果編序樂曲的總放音時間超過99分59秒，總放音時間指示便消失。這時，取消程序並重新編曲。
- 編序樂曲的曲數不可超過20曲。
- 按“編序放音”順序進行CD同步錄音或定時放音時，不必進行第①步。

#### 重複放音

在放音之前或放音中，按壓REPEAT鍵鈕。單曲或所有樂曲都可以重複播放。

您可以指定重複一支樂曲或所有樂曲。每按壓一次REPEAT鍵鈕，模式按重複一支樂曲 () → 重複所有樂曲 ( ALL) → 取消重複放音模式的順序轉換。

- **Repeat play of a single tune (◀)**  
The tune being played back will be heard repeatedly.
- **Repeat play of all tunes (◀ ALL)**  
When playing back an entire disc or programmed tunes, all tunes or the programmed tunes will be heard repeatedly.

#### Random play (◀ ALL RANDOM)

Press the RANDOM button to play all tunes repeatedly on a disc, in random order.

- **Reproducción repetida de una sola canción (◀)**  
La canción reproducida puede escucharse repetidamente.

- **Reproducción repetida de todas las canciones (◀ ALL)**  
Cuando se reproduce el disco completo o las canciones programadas, pueden escucharse repetidamente todas las canciones o las programadas.

#### Reproducción aleatoria (◀ ALL RANDOM)

Presione el botón RANDOM para reproducir repetidamente todas las músicas de un disco en forma aleatoria.

- 一支樂曲的重複放音 (◀)  
重複欣賞正在放音的樂曲。

- 所有樂曲的重複放音 (◀ ALL)  
當播放整個唱片或編序樂曲時，可重複欣賞唱片或編序樂曲內的所有樂曲。

#### 隨機放音 (◀ ALL RANDOM)

按壓RANDOM鍵鈕，按隨機順序播放唱片中的所有樂曲。

### CASSETTE TAPE

#### Cassette tape

1. Loose tape may cause trouble. With a pencil, gently tighten the tape as shown.
2. To prevent recordings from being erased accidentally, remove the tab(s) with a screwdriver. Reseal the slots with adhesive tape to erase and re-record after the tabs have been broken off.

#### Cassette loading

1. Press the STOP/EJECT (■/▲) button to open the cassette holder.
2. Load a cassette as shown.
3. Close the cassette holder by pressing it gently. Listen for the click that tells you that you've closed the holder securely.

### CASSETTE

#### Cassette

1. Una cinta floja puede causar fallas. Ajústela cuidadosamente con un lápiz, etc. como se muestra en la ilustración.
2. Para prevenir el borrado accidental de una grabación, extraiga la(s) lengüeta(s) con un destornillador. Cubra los orificios con cinta adhesiva para borrar y regrabar después de haber sacado las lengüetas.

#### Colocación de un cassette

1. Presione el botón STOP/EJECT (■/▲) para abrir el portacassette.
2. Coloque un cassette tal como se muestra.
3. Cierre el portacassette presionándolo suavemente. Escuchará un "clic" indicando que el portacassette se ha cerrado correctamente.

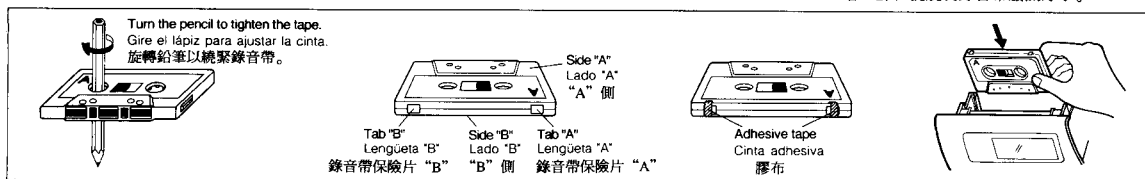
### 卡式錄音帶

#### 卡式錄音帶

1. 鬆散的錄音帶會引起麻煩的事情。按照下面圖示，用一支鉛筆將錄音帶慢慢繞緊。
2. 為預防意外地抹消您所需要的錄音內容，請用螺絲刀將錄音保險片拆掉。當錄音保險片拆掉以後，若要抹消錄音內容或者重新錄音，可用膠布將開孔封住。

#### 錄音帶的裝入

1. 按壓STOP/EJECT (■/▲) 鍵鈕可以打開錄音帶艙。
2. 按照下圖所示裝入錄音帶。
3. 輕輕地按壓便可關閉錄音帶艙。當您聽到了“卡塔”聲，就說明錄音帶艙關好了。



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### CASSETTE PLAYBACK

(The example shows Deck A)  
Operate in the order shown

### REPRODUCCION DE CASSETTES

(El ejemplo muestra la platina A)  
Proceda en el orden indicado

### 卡式錄音帶的放音

(例示錄音帶艙A的情形)  
按照下列順序操作

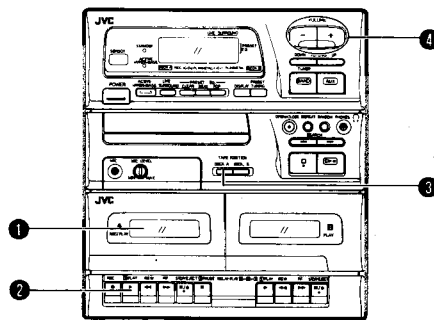
- 1 Load a cassette tape in Deck A.
- 2 Press to start playback. (The power is switched on, TAPE mode is engaged and tape playback starts.)
- 3 Set the TAPE POSITION button as required. (See page 12.)
- 4 Adjust.

#### Playback in Deck B

The previous procedures ② through ④ also apply to Deck B when a cassette is loaded in Deck B. (Set the TAPE POSITION (DECK B) button as required.) When Decks A and B are simultaneously set to the play mode, only the playback sound of Deck B is heard.

#### Notes:

1. When the power is turned off while the tape is still running, cassette operation buttons which are depressed do not return to the original positions. Press the ■/▲ STOP/EJECT button to stop the tape running before turning off the power.
2. When the ► PLAY button of deck is pressed, the function cannot be switched over.



- 1 Coloque el cassette de cinta en la platina A.
- 2 Presione para iniciar la reproducción. (La alimentación se conecta, se activa el modo TAPE y se inicia la reproducción.)
- 3 Coloque el botón TAPE POSITION como sea necesario (ver página 12).
- 4 Ajuste.

#### Reproducción en la platina B

Los pasos previos ② y ④ también son aplicables a la platina B cuando se coloca un cassette en la misma. (Coloque el botón TAPE POSITION (DECK B) como sea necesario.) Cuando se ajustan simultáneamente ambas platinas A y B en el modo de reproducción, sólo se escucha el cassette de la platina B.

#### Notes:

1. Cuando se apaga la unidad mientras está en movimiento una cinta, los botones de operación del cassette presionados no vuelven a sus posiciones originales. Presione el botón ■/▲ STOP/EJECT para detener la cinta antes de apagar la unidad.
2. Si presiona el botón ► PLAY de la platina, la función no podrá ser conmutada.

- ① 在錄音帶艙A內裝入一盤卡式錄音帶。
- ② 按壓鍵鈕以開始放音。(接通電源，進入TAPE模式，開始錄音帶的放音。)
- ③ 應需設定TAPE POSITION鍵鈕。(請參看第12頁。)
- ④ 調節。

#### 在錄音帶艙B上放音

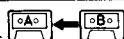
錄音帶艙B內裝入錄音帶時，上述步驟②至④同樣適用於錄音帶艙B。(應需設定TAPE POSITION (DECK B)鍵鈕。)

如果錄音帶艙A與B同時被設為放音模式，則僅能聽到錄音帶艙B的放音音響。

#### 註：

1. 如果在走帶中切斷電源，按壓過的卡式錄音帶操作鍵鈕不會回到原位。請在切斷電源之前先按壓■/▲STOP/EJECT鍵鈕停止走帶。
2. 按壓錄音帶艙的►PLAY鍵鈕時，功能不能轉換。

## RELAY PLAYBACK



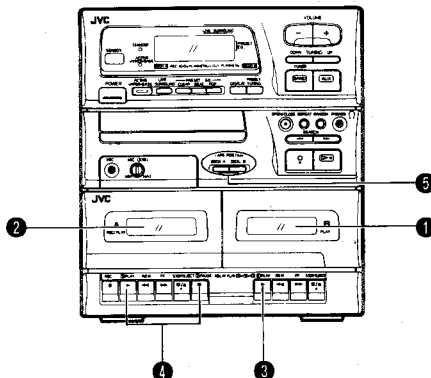
(From Deck B to Deck A)  
Operate in the order shown

- 1 Load a cassette tape in Deck B.
- 2 Load a cassette tape in Deck A.
- 3 Press the ►PLAY button on Deck B.
- 4 Set Deck A to the play-pause mode.
- 5 Set the TAPE POSITION (DECK A and B) buttons as required. (See page 12.)

\* When Deck B stops, Deck A's pause mode will be released and it will start playback. When Deck A stops automatically, relay playback will be released.

## REPRODUCCION POR RELEVO

(De la platina B a la platina A)  
Proceda en el orden indicado



- 1 Coloque un cassette en la platina B.
- 2 Coloque un cassette en la platina A.
- 3 Presione el botón ►PLAY de la platina B.
- 4 Coloque la platina A en el modo de pausa de reproducción.
- 5 Coloque los botones TAPE POSITION (DECK A y B) como sea necesario. (Ver página 12).

\* Cuando se detenga la platina B, se liberará el modo de pausa de la platina A y comenzará la reproducción. Cuando se detenga automáticamente la platina A, se liberará la reproducción por relevo.

## 連續放音

(從錄音帶B至錄音帶A)  
按照下列順序操作

- 1 在錄音帶B內裝入一盤卡式錄音帶。
- 2 在錄音帶A內裝入一盤卡式錄音帶。
- 3 按壓錄音帶B上的►PLAY鍵鈕。
- 4 設定錄音帶A於放音暫停狀態。
- 5 應需設定 TAPE POSITION (DECK A 及 B) 鍵鈕。(請參看第12頁。)

\* 當錄音帶B停止走帶時，錄音帶A的暫停狀態便被解除並開始放音。當錄音帶A自動停止走帶時，連續放音便被解除。

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## RADIO RECEPTION

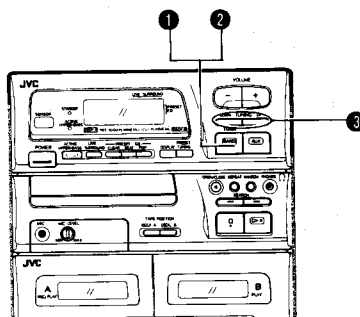
Operate in the order shown

## RADIORRECEPCION

Proceda en el orden indicado

## 無線電廣播的接收

按照下列順序操作



- 1 Press the TUNER/BAND button.
  - The power is switched on and a band and radio frequency will be shown in the display.
- 2 Select the band (FM, AM or SW).
- 3 Tune to the required station.

## STEREO AUTO/MONO button

**Auto mode:**  
Set to this position when listening to or recording an FM stereo broadcast. The STEREO indicator lights when the FM stereo broadcast is received.

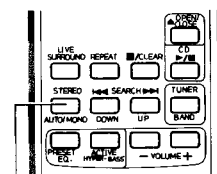
**MONO:**  
Set to this position when FM stereo reception is noisy. When another station is tuned to in mono mode, the unit automatically enters Auto mode.

- 1 Presione el botón TUNER/BAND.
  - Se conectará la alimentación; la banda y frecuencia de radio serán mostradas en la indicación.
- 2 Seleccione la banda (FM, AM o SW).
- 3 Sintonice la estación deseada.

## Botón STEREO AUTO/MONO

**Modo auto:**  
Ajuste en esta posición cuando escuche o grabe una radioemisión estereofónica por FM. Se enciende el indicador STEREO cuando se recibe una radioemisión estereofónica.

**MONO:**  
Colóquelo en esta posición cuando la recepción estereofónica de FM tenga ruido. Si se sintoniza otra estación en el modo monofónico, la unidad ingresa automáticamente en el modo automático.



STEREO AUTO/MONO button  
Botón STEREO AUTO/MONO  
STEREO AUTO/MONO鍵鈕

- 1 按壓TUNER/BAND鍵鈕。
  - 電源接通，波段和廣播頻率將顯示在顯示窗上。
- 2 選擇波段（FM、AM或SW）。
- 3 調諧出您所想聽的電臺。

## STEREO AUTO/MONO鍵鈕

## 自動狀態：

收聽或錄製FM立體聲廣播時，設定於此位置。接收到FM立體聲廣播時，STEREO指示燈點亮。

## MONO：

FM立體聲廣播接收有噪音時，設定於此位置。當在單聲道模式下調入另一個電臺時，本機自動進入自動狀態。

### Seek tuning

Press the UP or DOWN button for one second or more; the unit enters the seek tuning mode and tunes to higher or lower frequencies, and when the broadcast is received, it stops tuning automatically and the broadcast can be heard.

### Manual tuning

Each time the UP or DOWN button is pressed, the unit steps through the current frequency band. Tuning is in steps of 50 kHz/100 kHz for FM and 9 kHz/10 kHz for AM and 5 kHz for SW.

### Sintonización por búsqueda

Presionando el botón UP o DOWN por más de un segundo, la unidad se establece en el modo de sintonización por búsqueda sintonizando las frecuencias más altas o más bajas; cuando recibe una radiodifusión, detiene automáticamente la sintonización y se escucha la radiodifusión.

### Sintonización manual

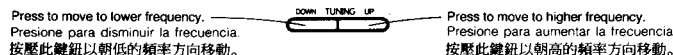
Cada vez que presiona el botón UP o DOWN, la unidad avanza a través de la banda actual de frecuencias. La sintonización se realiza en pasos de 50 kHz/100 kHz para FM y de 9 kHz/10 kHz para AM y 5 kHz para SW.

### 搜尋調諧

按壓UP或者DOWN鍵一秒钟以上，收音裝置便開始搜尋調諧，朝高頻率或者低頻率方向調諧。當接收到某個廣播時，便自動停止調諧，這時您就可以收聽這個廣播。

### 手動調諧

每按一次UP或者DOWN鍵，便會跳過正在收聽的頻率波段。FM、AM、SW的跳躍頻寬分別為50kHz/100kHz、9kHz/10kHz、5kHz。



### Notes:

- When seek tuning to the required station is not possible because it is broadcasting too weak a signal, press the UP or DOWN button momentarily to perform manual tuning.
- When the power is set to STANDBY, or another mode (TAPE or CD) is selected, the last tuned frequency is stored in memory. When the power is switched on again and TUNER/BAND button is pressed, the same station will be heard.

### Notas:

- Cuando no pueda sintonizar la estación deseada con este método debido a que la señal de difusión es muy débil, presione el botón UP o DOWN temporalmente para realizar una sintonización manual.
- Cuando la unidad está en el modo STANDBY, o se ha seleccionado otro modo (TAPE o CD), la última frecuencia sintonizada es almacenada en memoria. Al encender nuevamente la unidad y presionar el botón TUNER/BAND, se escuchará la misma estación.

### 註:

- 如果，由於您所收聽的廣播的信號極為低弱，使用搜尋調諧功能無法接收到，請小心地按壓UP或者DOWN鍵，作手動調諧。
- 如果在收聽的時候，將電源鍵設於STANDBY（待機），或者選擇錄音機（TAPE）或者唱機（CD）功能，那麼，最後所收聽的電台的頻率便被儲存於記憶裝置中。當再一次接通電源，按壓TUNER/BAND鍵時，將會收聽到同一電台。

### Auto preset tuning (using the remote control unit)

This function scans the current band (FM, AM or SW), detecting frequencies used to broadcast signals, and stores the first 10 frequencies in memory automatically.

- Press the TUNER AUTO PRESET button. The frequencies of stations broadcasting signals can be preset automatically in the order of increasing frequency. (10 stations in each band (FM, AM and SW)).

### Presintonización automática (utilizando la unidad de control remoto)

Esta función explora la banda actual (FM, AM o SW), detectando las frecuencias utilizadas para emitir señales y almacena automáticamente las primeras 10 frecuencias en memoria.

- Presione el botón TUNER AUTO PRESET. Las frecuencias de las estaciones que difunden señales pueden preajustarse automáticamente en el orden de frecuencias ascendentes. (10 estaciones en cada banda (FM, AM y SW)).

### 自動預設調諧（使用遙控器）

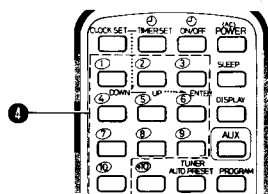
此功能根據廣播信號的頻率，來搜尋正在播放的波段（FM、AM以及SW），並且，自動地將前面的10個電台頻率儲存於記憶裝置。

- 按壓TUNER AUTO PRESET鍵，便會按照頻率的遞增順序，自動地預設電台廣播信號的頻率（FM、AM以及SW各為10個電台）。

### Presetting stations (using the remote control unit)

10 stations in each band (FM, AM and SW) can be preset as follows:

- Example (when presetting an FM station broadcasting at 103.5 MHz to preset button "10")



- Press the TUNER/BAND button.
- Select the FM band using the TUNER/BAND button.
- Tune to the required station.
- Press preset button "10" for more than 2 sec. (When "10" blinks in the preset station display, the station has been preset.)

- Repeat the above procedure for each of the other stations, using a different preset button each time.
- Repeat the above procedure for the other bands.

### To change preset stations

Perform step ① above after tuning to the required station.

### Notes:

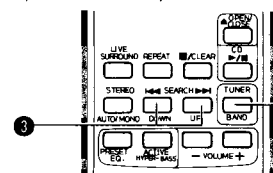
- The previous preset station is erased when a new station is set as the new station's frequency replaces the previous frequency in memory.
- When listening to an AM broadcast, noise may be heard if the remote control is used.

- All preset stations will be erased when a power failure occurs for more than 24 hours or the power cord is unplugged for more than 24 hours. In such cases, preset the stations again.

### Presintonización de estaciones (utilizando la unidad de control remoto)

Pueden presintonizarse 10 estaciones en cada banda (FM, AM y SW) del siguiente modo:

- Ejemplo: (cuando preajuste una radiomisor de FM difundiendo a 103.5 MHz en el botón de estación presintonizada "10")



- Presione el botón TUNER/BAND.
- Seleccione la banda de FM utilizando el botón TUNER/BAND.
- Sintonice la estación deseada.
- Presione el botón de estación presintonizada "10" por más de 2 seg. (Cuando destelle "10" en el indicador de estación presintonizada, la estación ha quedado presintonizada.)

- Repita el procedimiento mencionado para las demás estaciones, utilizando un botón de estación presintonizada diferente cada vez.
- Repita el procedimiento de arriba para las otras bandas.

### Para cambiar las estaciones presintonizadas

Realice el paso ① mencionado después de sintonizar la estación deseada.

### Notas:

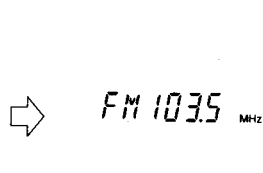
- Se borrará la estación previa cuando se presintonice una nueva estación ya que la nueva frecuencia reemplaza a la previa en la memoria.
- Cuando sintonice una radiodifusión de AM con el control remoto, es posible que escuche ruido.

- Todas las estaciones presintonizadas se borran cuando ocurre un corte de energía durante más de 24 horas, o cuando se desconecta el cordón de alimentación durante más de 24 horas. En tales casos, presintonice las estaciones otra vez.

### 預設電臺（使用遙控器）

按照下面所示的順序，各波段（FM、AM以及SW）可以預設10個電台。

- 例（將FM103.5MHz電台預設於號碼鍵“10”）。



- 按壓TUNER/BAND鍵。
- 用TUNER/BAND鍵選擇FM波段。
- 調諧出您所需要的電台。
- 按壓預設鍵“10”2秒鐘以上（如果預設電台的顯示窗中有“10”在閃爍，便說明該電台已經被預設完畢）。
- 重複上述步驟，按壓所需號碼鍵，預設其他各個電台。
- 重複上述步驟記憶其他波段。
- 若要更改預設電台  
調諧出所需要的電台以後，作上述第①步的操作。

### 註:

- 如果重新預設一個新的電台，並且將該電台頻率取代原先儲存於記憶裝置中的電台頻率，那麼，原先的預設電台便被取消。
- 在收聽AM廣播時，如果使用遙控器，那麼，有可能會有噪音。

- 若電源線脫落或停電24小時以上時，所有預設電台將被抹消。這時，請重新預設電台。

## Preset tuning

- The stations must be preset before this operation can be performed.

## (Using the controls of the main unit)

- ① Press the TUNER/BAND button.
- ② Select the band (FM, AM or SW) using the TUNER/BAND button.
- ③ Press the PRESET TUNING button to select the required preset station.

## (Using the remote control unit)

- ① Press the TUNER/BAND button.
  - ② Select the band (FM, AM or SW) using the TUNER/BAND button.
  - ③ Press the required preset station buttons (No.1 - No.10).
- The preset station number and frequency corresponding to the button pressed are shown.

## Using the antennas

**FM/SW:** Connect the provided FM/SW feeder antenna (see page 7).

**AM:** Adjust the position of AM loop antenna.

## To Change the Channel Space Mode

When this unit is shipped, the channel space mode is set to (AM-9 kHz). Set it to (AM-10 kHz), if the unit is to be used in North or South America. (This enables 10 kHz increment steps in AM frequencies and 100 kHz increment steps in FM frequencies.)

## How To Operate (using the main unit)

Set the POWER button to ON while pressing the TUNING UP button. Keep pressing the buttons until (AM-10 kHz) is shown in the display window.

- To change back to the original mode, set the POWER button to ON while pressing the TUNING DOWN button. Keep pressing the buttons until (AM-9 kHz) is shown in the display window.

## Sintonización de estaciones presintonizadas

- Deberán presintonizarse las estaciones para poder realizar esta operación.

## (Utilizando los controles de la unidad principal)

- ① Presione el botón TUNER/BAND.
- ② Seleccione la banda (FM, AM o SW) utilizando el botón TUNER/BAND.
- ③ Presione el botón PRESET TUNING para seleccionar la estación presintonizada deseada.

## (Utilizando la unidad de control remoto)

- ① Presione el botón TUNER/BAND.
  - ② Seleccione la banda (FM, AM o SW) utilizando el botón TUNER/BAND.
  - ③ Presione los botones de estaciones presintonizadas deseadas (Nº 1 - Nº 10).
- Se visualizará el número de estación presintonizada y la frecuencia correspondiente al botón presionado.

## Uso de antenas

**FM/SW:** Conecte la antena de alimentación de FM/SW suministrada (Véase la página 7).

**AM:** Ajuste la posición de la antena de cuadro de AM.

## Cambio del modo de espaciamento entre canales

El modo de espaciamento entre canales está fijado en (AM-9 kHz) en fábrica.

Ajustelo en (AM-10 kHz) si utiliza la unidad en América del Norte o del Sur. (Esto le permite pasos con incrementos de 10 kHz en frecuencias de AM y con incrementos de 100 kHz para las frecuencias de FM.

## Cómo realizar el cambio (utilizando la unidad principal)

Coloque el botón POWER en ON presionando conjuntamente el botón TUNING UP. Mantenga los botones presionados hasta que aparezca (AM-10 kHz) en el visor de indicación.

- Para regresar al modo original, coloque el botón POWER en ON presionando conjuntamente el botón TUNING DOWN. Mantenga los botones presionados hasta que aparezca (AM-9 kHz) en el visor de indicación.

## 預設調諧

- 在進行這一操作之前，必須先預設好各電臺。

## (使用主機的控制鍵鈕)

- ① 按壓TUNER/BAND鍵鈕。
- ② 用TUNER/BAND鍵鈕選擇波段 (FM、AM或SW)。
- ③ 按壓PRESET TUNING鍵鈕選擇所要的預設電臺。

## (使用遙控器)

- ① 按壓TUNER/BAND鍵鈕。
  - ② 用TUNER/BAND鍵鈕選擇波段 (FM、AM或SW)。
  - ③ 按壓所要的預設電臺鍵鈕 (第1臺 - 第10臺)。
- 預設電臺號碼和所按壓鍵鈕對應的頻率會顯示出來。

## 使用天線

**FM/SW:** 連接附帶的FM/SW饋電天線 (請參看第7頁)。

**AM:** 調節AM環形天線的位置。

## 要改變頻道間隔方式

本機出廠時的頻道間隔方式設定於 (AM-9 kHz)。

如果在北美洲或者南美洲使用本機，請將其設為 (AM-10 kHz)。(這使AM頻率按10 kHz增量遞增，FM頻率按100 kHz增量遞增。)

## 操作方法 (使用主機)

按著TUNING UP鍵鈕的同時，按壓POWER鍵鈕接通電源。按著鍵鈕不放，直至 (AM-10 kHz) 出現在顯示窗上。

- 要變回原模態時，按著TUNING DOWN鍵鈕的同時，按壓POWER鍵鈕接通電源。按著鍵鈕不放，直至 (AM-9 kHz) 出現在顯示窗上。

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## RECORDING



- In recording, the ALC circuit automatically optimizes the recording level; adjustment of the recording level is unnecessary.
- Check that the safety tab on the cassette tape is not broken off.

## Note:

This unit has recording characteristics suitable for normal and CrO<sub>2</sub> tapes. Normal and CrO<sub>2</sub> tapes have different characteristics from metal tapes.

## Synchronized recording with the CD player

- In this system, the CD player starts play when the cassette deck enters the recording mode.

## Operate in the order shown

## GRABACION

- Al efectuar una grabación, el circuito ALC (control automático de nivel) optimiza automáticamente el nivel de grabación; por lo tanto no es necesario ajustar el nivel de grabación.
- Verifique que el cassette tenga su lengüeta de seguridad.

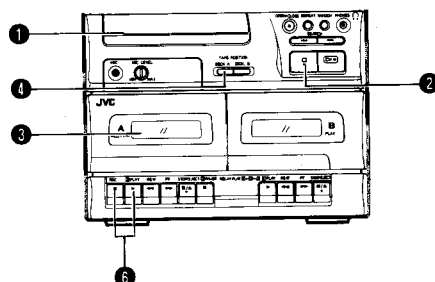
## Nota:

Esta unidad posee funciones de grabación adecuadas para cintas normales y de CrO<sub>2</sub>. Estas cintas poseen características diferentes que las de metal.

## Grabación sincronizada con el reproductor de CD

- En este sistema, el reproductor de CD comenzará la reproducción cuando la platina de cassette se establezca en el modo de grabación.

## Proceda en el orden indicado



- ① Load a disc and close the CD tray.
- ② Set CD mode.
- ③ Load a cassette in Deck A. (Wind past the leader tape before starting recording.)

- ① Coloque un disco y cierre el portadisco de CD.
- ② Active el modo CD.
- ③ Coloque un cassette en la platina A. (Antes de iniciar la grabación, avance la cinta hasta pasar el extremo no grabable de la misma.)

## 錄音

- 錄音的時候，ALC電路會自動選擇最合適的錄音電平，您無需調節錄音電平。
- 檢查卡式錄音帶上的錄音保險片是否存在。

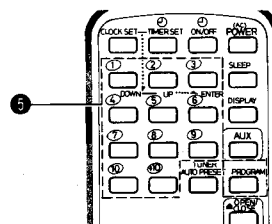
## 注：

本機具備適於普通錄音帶及CrO<sub>2</sub>錄音帶的錄音特性。普通錄音帶與CrO<sub>2</sub>錄音帶的錄音特性與金屬帶的不同。

## 用CD唱機進行同步錄音

- 本系統的CD唱機在卡式錄音帶輸入錄音模態的同時開始放音。

## 按照下列順序操作



- ① 裝入一張唱片並關閉CD箱蓋。
- ② 設定CD模態。
- ③ 在錄音帶輸入A內裝入一盤卡式錄音帶。(在開始錄音之前，請捲過前頭空白帶。)

④ Set the TAPE POSITION (DECK A) button as required. (See page 12.)

⑤ When programmed playback is required, program the required tunes using the remote control. (See page 26.)

- Select tunes with a total playing time which does not exceed the tape's length.

⑥ Press the  $\bigcirc$  REC button with the PLAY  $\blacktriangleright$  button; synchronized recording will start.

- Non-recorded sections of approx. 4 seconds are automatically left between tunes.

- When the tape reaches the end first, the CD player stops automatically; when the CD player stops first, the tape continues running. In this case, press the  $\blacksquare/\blacktriangle$  STOP/EJECT button to stop the tape.

• When automatic spacing between tunes is not required...

Perform the following after finishing the previous operation (④ to ⑥).

① Press the  $\blacktriangleright \parallel$  button of the CD player twice. The CD player enters the pause mode.

② Press the  $\bigcirc$  REC and PLAY  $\blacktriangleright$  buttons simultaneously. Now, the CD player starts playback simultaneously.

#### Note:

- During CD synchro recording, the  $\blacktriangleright \parallel$  and SEARCH ( $\blacktriangleleft\blacktriangleright$ ) buttons do not function.

It may be unlawful to record or playback copyrighted material without the consent of the copyright owner.

④ Coloque el botón TAPE POSITION (DECK A) como sea necesario. (Ver página 12.)

⑤ Cuando se requiera efectuar una reproducción programada, programe las canciones deseadas utilizando el control remoto. (Véase la página 26.)

- Seleccione las canciones que posean un tiempo de reproducción total que no exceda la duración de la cinta.

⑥ Para iniciar la grabación sincronizada presione el botón  $\bigcirc$  REC al mismo tiempo que presiona el botón PLAY  $\blacktriangleright$ .

- Quedan automáticamente secciones sin grabar de unos 4 segundos entre canciones.

- Cuando la cinta llega al final primero, el reproductor se detiene automáticamente; cuando el reproductor se detiene primero, la cinta continúa moviéndose. En este caso, presione el botón  $\blacksquare/\blacktriangle$  STOP/EJECT para detener la cinta.

• Cuando el espaciado automático entre canciones no es necesario...

Realice lo siguiente después de finalizar los pasos anteriores (④ al ⑥).

① Presione dos veces el botón  $\blacktriangleright \parallel$  del reproductor; éste se establece en el modo de pausa.

② Presione los botones  $\bigcirc$  REC y PLAY  $\blacktriangleright$  simultáneamente. El reproductor inicia simultáneamente la reproducción.

#### Nota:

- Durante la grabación sincronizada de CD, no funcionarán los botones  $\blacktriangleright \parallel$  y SEARCH ( $\blacktriangleleft\blacktriangleright$ ).

Es ilegal grabar o reproducir materiales con derechos registrados sin la autorización del propietario.

④ 應需設定TAPE POSITION (DECK A)鍵鈕。(請參看第12頁。)

⑤ 需要編序放音時，用遙控器編序所要的樂曲。(參見第26頁。)

- 選擇樂曲時不要讓總放音時間超過錄音帶長度。

⑥ 同時按壓OREC鍵鈕與PLAY  $\blacktriangleright$ 鍵鈕：同步錄音即開始進行。

- 曲間自動留有約4秒鐘的無錄音部分。

- 錄音帶先走到頭時，CD唱機將自動停止；CD唱機先停止時，錄音帶將繼續走帶。這時，請按壓 $\blacksquare/\blacktriangle$  STOP/EJECT鍵鈕停止走帶。

• 不要在曲間自動留空白間隔時...

在完成上述操作 (④至⑥) 後，進行下列操作。

① 按壓兩次CD唱機的 $\blacktriangleright \parallel$ 鍵鈕。CD唱機進入暫停狀態。

② 同時按壓OREC與 $\blacktriangleright$  PLAY鍵鈕。這時，CD唱機便同時開始放音。

#### 註：

- 在CD同步錄音中， $\blacktriangleright \parallel$ 及SEARCH ( $\blacktriangleleft\blacktriangleright$ ) 鍵鈕不能使用。

未經版權所有者的許可而錄製或播放受版權法保護的音響資料，可能會觸犯法規。

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## DUBBING (SYNCHRO START DUBBING)



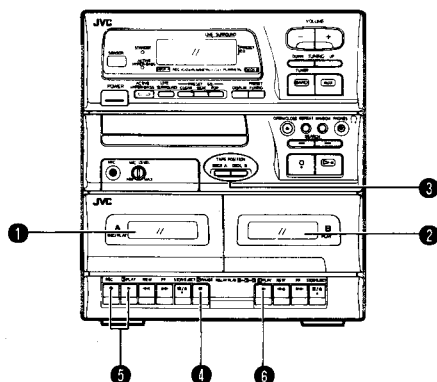
Normal speed dubbing can be done from deck B to deck A.

Operate in the order shown

## COPIA (CON COMIENZO SINCRONIZADO)

La copia a velocidad normal puede ser efectuada de la platina B a la platina A.

Proceda en el orden indicado



① Load a cassette tape in Deck A. (Refer to the note on page 35.)

② Load a pre-recorded cassette in Deck B.

- Lightly press the  $\blacktriangleright$  PLAY button to set to TAPE mode. (The button should not be locked.)

③ Set the TAPE POSITION (DECK A and B) buttons as required.

④ Press the  $\parallel$  PAUSE button.

⑤ Press the  $\bigcirc$  REC button with the  $\blacktriangleright$  PLAY button. (Record-pause mode.)

⑥ Press the  $\blacktriangleright$  PLAY button. (Synchronized dubbing will start.)

#### Note:

- With Deck A in the record-pause mode, the  $\parallel$  PAUSE button is released when Deck B enters the stop mode.

① Coloque un cassette de cinta en la platina A. (Reliérase a la nota de la página 35.)

② Coloque un cassette grabado en la platina B.

- Para activar el modo TAPE, presione levemente el botón  $\blacktriangleright$  PLAY. (El botón no debe quedar bloqueado.)

③ Coloque los botones TAPE POSITION (DECK A y B) como sea necesario.

④ Presione el botón  $\parallel$  PAUSE.

⑤ Presione el botón  $\bigcirc$  REC con el botón  $\blacktriangleright$  PLAY. (Modo de pausa de grabación.)

⑥ Presione el botón  $\blacktriangleright$  PLAY; se iniciará la copia sincronizada.

#### Nota:

- Con la platina A en el modo de pausa de grabación, el botón  $\parallel$  PAUSE se libera cuando la platina B se establece en el modo de parada.

## 複製 (同步複製)

您可以從錄音帶B向錄音帶A進行常速複製。

按照下列順序操作

① 在錄音帶A內裝入一盤卡式錄音帶。(請參見第35頁上的註。)

② 在錄音帶B內裝入一盤已錄音的卡式錄音帶。

- 輕輕按壓 $\blacktriangleright$  PLAY鍵鈕，設定TAPE模式。(不能讓鍵鈕被鎖死。)

③ 應需設定TAPE POSITION (DECK A及B)鍵鈕。

④ 按壓 $\parallel$  PAUSE鍵鈕。

⑤ 同時按壓OREC鍵鈕與 $\blacktriangleright$  PLAY鍵鈕。(錄音暫停模式。)

⑥ 按壓 $\blacktriangleright$  PLAY鍵鈕。(同步複製即開始進行。)

#### 註：

- 錄音帶A處於錄音暫停模式時，如果錄音帶B進入停止狀態， $\parallel$  PAUSE鍵鈕便自動被解除。

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### Recording from the radio or an external source connected to the AUX terminals

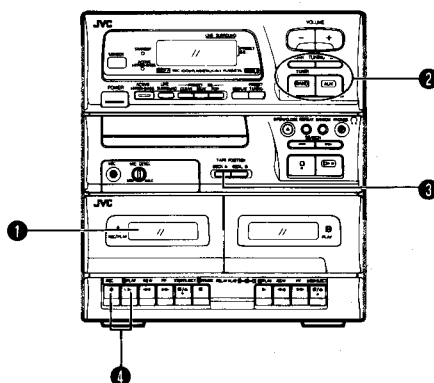
Operate in the order shown

### Grabación desde la radio o desde una fuente externa conectada a los terminales AUX

Proceda en el orden indicado

### 無線電廣播或連接於AUX端子上的外部聲源的錄音

按照下列順序操作



- 1 Load a cassette (Deck A).
- 2 Select the source to be recorded.  
TUNER: Press the TUNER/BAND button. Tune to the required station.  
AUX: Press the AUX button.
- 3 Set the TAPE POSITION (DECK A) button as required. (See page 12.)
- 4 Press the ○ REC button with the ► PLAY button.

- To stop recording temporarily, press the ■ PAUSE button. To resume recording press the ■ PAUSE button again.

- 1 Coloque un cassette (platina A).
- 2 Seleccione la fuente a ser grabada.  
TUNER: Presione el botón TUNER/BAND. Sintone la estación deseada.  
AUX: Presione el botón AUX.
- 3 Coloque el botón TAPE POSITION (DECK A) como sea necesario. (Ver página 12).
- 4 Presione el botón ○ REC conjuntamente con el botón ► PLAY.

- Para detener temporariamente la grabación, presione el botón ■ PAUSE. Para reiniciar la grabación presione otra vez el botón ■ PAUSE.

- ① 裝入一盤卡式錄音帶（錄音帶A）。
- ② 選擇要錄音的聲源。  
TUNER: 按壓TUNER/BAND鍵鈕。調諧至所要的電臺。  
AUX: 按壓AUX鍵鈕。
- ③ 應需設定TAPE POSITION (DECK A) 鍵鈕。（請參考第12頁。）
- ④ 同時按壓○ REC鍵鈕與► PLAY鍵鈕。

- 要暫時停止錄音，按壓■ PAUSE鍵鈕。要恢復錄音，再按壓一次■ PAUSE鍵鈕即可。

### Erasing

When recording on a pre-recorded tape, the previous recording is automatically erased and only the new material can be heard when the tape is played.

#### To erase a tape without making a new recording...

Press the ► PLAY button of the deck to set to the TAPE mode and press the ○ REC and ► PLAY buttons together after pressing the stop button.

### Borrado

Cuando grabe una cinta pregrabada, la grabación previa se borrará automáticamente y sólo podrá escucharse el nuevo material grabado al reproducir la cinta.

#### Para borrar una cinta sin efectuar una nueva grabación...

Presione el botón ► PLAY de la platina para establecer el modo TAPE y presione los botones ○ REC y ► PLAY juntos luego de pulsar el botón de parada.

### 消音

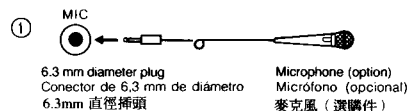
如果在有錄音的錄音帶上進行錄音，原來的錄音將自動被抹消，放音時祇能聽到新的錄音內容。

#### 要不進行新的錄音而抹消錄音帶上的錄音時...

按壓錄音帶上的► PLAY鍵鈕，設定TAPE模式，並在按壓停止鍵鈕後同時按壓○ REC與► PLAY鍵鈕。

### MICROPHONE MIXING

Microphone sound can be mixed with the source sound.



- Example of microphone mixing with CD sound

#### Operations

- ① Connect a microphone to the MIC jack. (If there is a switch on the microphone, switch it on.)
- ② Select the source sound (CD/TAPE/TUNER/AUX).  
• Play back the source sound selected.
- ③ Adjust the MIC LEVEL control and main VOLUME controls.

#### To record the mixed sound

In order to record this mixed sound onto a tape in the Deck A, press the ○ REC button with the ► PLAY button.

### MEZCLADO DE MICROFONO

El sonido del micrófono puede ser mezclado con la fuente de sonido.



- Ejemplo de mezclado de micrófono con el sonido del CD

#### Operaciones

- ① Conecte el micrófono con el jack MIC. (Si el micrófono tiene un interruptor, colóquelo en ON).
- ② Seleccione la fuente de sonido (CD/TAPE/TUNER/AUX).  
• Reproduzca la fuente de sonido seleccionada.
- ③ Ajuste el control MIC LEVEL y el control principal VOLUME.

#### Grabación de un sonido mezclado

Para grabar el sonido mezclado en una cinta de la platina A, presione el botón ○ REC con el botón ► PLAY.

### 麥克風混聲功能

您可以混合麥克風音響和聲源音響。



- 麥克風與CD音響混聲之例

#### 操作

- ① 將帶有插頭的麥克風接至MIC插孔。（如果麥克風上有開關，請打開開關。）
- ② 選擇聲源（CD/TAPE/TUNER/AUX）。  
• 播放所選的聲源。
- ③ 調節MIC LEVEL控制和主VOLUME控制鍵鈕。

#### 要錄製混合音響

要將這種混聲錄於錄音帶A內的錄音帶上，請同時按壓○ REC鍵鈕與► PLAY鍵鈕。

**Notes:**

- Use the microphone as far away from the set as possible. When the microphone is too near the speakers, howling may occur.
- Disconnect the microphone from the MIC jack after use.

**Notas:**

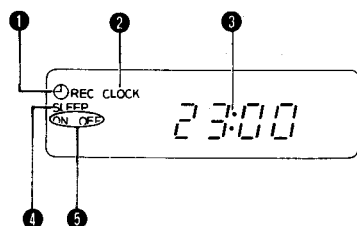
- Utilice el micrófono lo más lejos posible de la unidad. Cuando el micrófono está cerca de los altavoces pueden producirse aullidos.
- Después de utilizarlo, desconecte el micrófono del jack MIC.

**註:**

- 儘可能遠離本機使用麥克風。麥克風太靠近揚聲器有可能引起嘯叫聲。
- 使用後從MIC插孔上取下麥克風。

**CLOCK/TIMER ADJUSTMENT****AJUSTE DEL RELOJ/TEMPORIZADOR****時鐘／定時器的調節****(Using the remote control unit)**

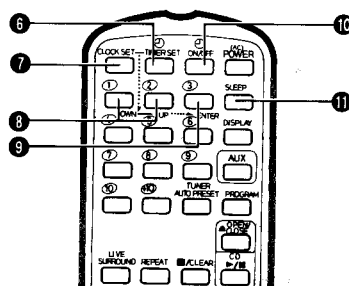
Names of parts in the clock/time section, and their functions:



- 1 Timer mode indicator
- 2 CLOCK indicator
- 3 Time display
- 4 SLEEP indicator
- 5 Timer indicator (ON/OFF)
- 6 (C) TIMER SET button
- 7 CLOCK SET button
- 8 UP/DOWN buttons
- 9 ENTER button
- 10 Timer (C) ON/OFF button
- 11 SLEEP button

**(Utilizado la unidad de controlador remoto)**

Nombre de las parte de la sección del reloj/ temporizador y sus funciones:



- 1 Indicador de modo de temporizador
- 2 Indicador CLOCK
- 3 Indicador de tiempo
- 4 Indicador SLEEP
- 5 Indicador de temporizador (ON/OFF)
- 6 Botón (C) TIMER SET
- 7 Botón CLOCK SET
- 8 Botones UP/DOWN
- 9 Botón ENTER
- 10 Botón (C) ON/OFF del temporizador
- 11 Botón SLEEP

**(使用遙控器)**

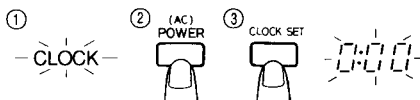
時鐘／定時器部分的各部件名稱及其功能

- 1 定時模式指示燈
- 2 時鐘指示燈 (CLOCK)
- 3 時間顯示
- 4 睡眠指示燈 (SLEEP)
- 5 定時器鍵鈕 (ON/OFF)
- 6 (C) 定時設定鍵鈕 (TIMER SET)
- 7 時鐘設定鍵鈕 (CLOCK SET)
- 8 高／低鍵鈕 (UP/DOWN)
- 9 輸入鍵鈕 (ENTER)
- 10 定時器 (C) 開關鍵鈕 (ON/OFF)
- 11 睡眠鍵鈕 (SLEEP)

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**Setting the current time (when the unit is used for the first time)**

(Example: to set the clock to 13:15.)



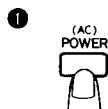
- 1 Connect the AC power cord; "CLOCK" will blink in the display.
  - 2 Set the POWER button to ON.
    - The display indication changes from the time to function.
  - 3 Press the CLOCK SET button.
  - 4 Set to 13:15 by pressing the UP/DOWN buttons. (When the button is kept pressed, the minute/hour indication changes continuously.)
  - 5 Press the ENTER button; the display returns to the previous mode.
- To set to the nearest second... Press the ENTER button while when you hear the time signal from a TV or radio.

**Notes:**

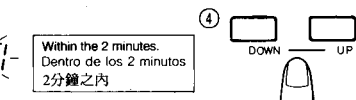
- Before performing timer recording or playback, it is necessary to set the current time.
- When power is restored after a power failure of more than 1 minute or the power cord is plugged in again after being unplugged more than 1 minute, "CLOCK" will blink in the display. Reset the current time.

**Setting the timer**

- The current time must be set before the timer can be used.
- 1 Set the POWER button to ON.
- 2 Press the (C) TIMER SET button.

**Fijación de la hora (cuando se utilice por primera vez la unidad)**

(Ejemplo: Para fijar 13:15.)



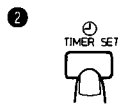
- 1 Conecte el cordón de CA; "CLOCK" parpadeará en el visor.
  - 2 Coloque el botón POWER en ON.
    - La indicación del visor cambia de hora a función.
  - 3 Presione el botón CLOCK SET.
  - 4 Ajuste en 13:15 presionando los botones UP/DOWN. (Si se mantiene el botón presionado, la indicación de horas/minutos cambia continuamente.)
  - 5 Presione el botón ENTER; la indicación regresará al modo anterior.
- Para fijar los segundos en forma más exacta... Presione el botón ENTER al escuchar la señal horaria de la televisión o la radio.

**Notas:**

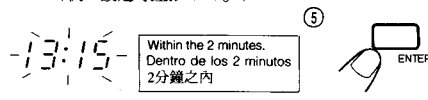
- Antes de realizar una grabación o reproducción con temporizador, es necesario ajustar la hora actual.
- Cuando se restaura la energía después de un corte de más de 1 minuto, o cuando se conecta el cordón de alimentación otra vez después de haberlo desconectado por más de 1 minuto, "CLOCK" parpadeará en el indicador. Ajústelo a la hora correcta.

**Ajuste del temporizador**

- Es necesario ajustar la hora actual antes de utilizar el temporizador.
- 1 Coloque el botón POWER en ON.
- 2 Presione el botón (C) TIMER SET.

**設定現在的時間 (第一次使用本機時)**

(例：設定時鐘於13:15。)



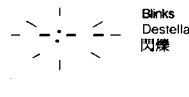
- 1 連接交流電源線；"CLOCK" 將在顯示窗上閃爍。
  - 2 按壓POWER鍵鈕接通電源。
    - 顯示窗的指示從時間變為功能。
  - 3 按壓CLOCK SET鍵鈕。
  - 4 按壓UP/DOWN鍵鈕設定13:15。(按著鍵鈕不放時，分鐘／小時顯示將連續變化。)
  - 5 按壓ENTER鍵鈕，顯示回到原模態。
- 要盡可能精確地設定時間... 聽到電視或者無線電廣播報時音時，按壓 ENTER 鍵鈕。

**註:**

- 在進行定時錄音或定時收音之前，必須先設定現在的時間。
- 電源線脫落1分鐘後再插上或停電超過1分鐘後恢復供電時，"CLOCK" 將閃爍在顯示屏上。請重新設定現在的時間。

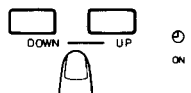
**設定定時器**

- 要使用定時器，必須先設定現在的時間。
- 1 按壓POWER鍵鈕接通電源。
- 2 按壓 (C) TIMER SET 鍵鈕。

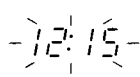


Within the 30 sec.  
Dentro de 30 seg.  
30秒鐘之內

- ③ Set the timer start time.  
(Example: when the timer start time is set to 12:15.)

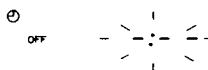


- ③ Ajuste la hora de inicio.  
(Ejemplo: si la hora de inicio del temporizador es ajustada en 12:15.)



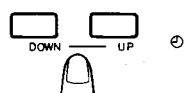
- Press to set the start time.
- Presione activar la hora de inicio.
- 按壓鍵設定開始時間。

- ③ 設定定時器開始時間  
(例：定時器開始時間設定為12:15時。)



Within the 30 sec.  
Dentro de 30 seg.  
30秒鐘之內

- ④ Set the stop time  
(Example: when the timer stop time is set to 13:15.)

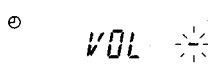


- ④ Ajuste el tiempo de parada.  
(Ejemplo: cuando el tiempo de parada del temporizador es ajustado a las 13:15.)



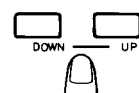
- Press to set the timer off time.
- Presione para ajustar la hora de desconexión del temporizador.
- 按壓鍵設定定時器關閉時間。

- ④ 設定停止時間。  
(例：定時器停止時間設為13:15時。)

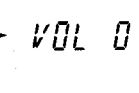


Within the 30 sec.  
Dentro de 30 seg.  
30秒鐘之內

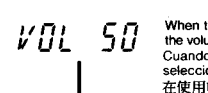
- ⑤ Set the volume.



- ⑤ Ajuste el volumen.



- ⑤ 設定音量。



When the UP button is used to select the volume.  
Cuando se use el botón UP para seleccionar el volumen.  
在使用UP鍵選擇音量時。

⑤ This shows when volume level 1 is selected.  
Esto aparece cuando se selecciona el nivel 1 de volumen.  
此圖表示選擇音量級1時的情形。



- The selected volume is set.
- El volumen seleccionado queda programado.
- 設定所需的音量。

- The unit enters the previously engaged mode and timer setting has been completed.
- La unidad ingresa en el modo anterior activado y el ajuste del temporizador queda completado.
- 本機進入原來的模式，定時設定完畢。

- When the volume setting is set to "VOL -" (volume level is not specified), the timer playback volume is at the level used before setting the timer.
- The volume decreases to zero at the timer start time, and the sound fades in.

- Cuando se coloca el ajuste del volumen en "VOL -" (no se especifica el nivel de volumen), el volumen de la reproducción por temporizador queda en el nivel que fue usado antes del ajuste del temporizador.
- El volumen se reduce a cero en el momento de activación del temporizador, y el sonido se intensifica gradualmente.

- 當音量設定為 "VOL -" (音量級未指定) 時，定時放音音量處於定時設定前使用的音量級上。
- 音量在定時器開始時間減低至零，然後音響漸強起來。

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#### To confirm the timer setting

1. Press the (⊙) TIMER SET button.
2. Each time the ENTER button is pressed, the timer setting can be confirmed.
3. When the previous engaged mode is displayed, the timer setting is completed.

#### Notes:

- When the timer is set incorrectly, perform "Setting the timer" from the beginning.
- When the timer is set, ":-:" in the display is replaced by the input digits.
- When the timer stop time is not set, the timer operates for 2 hours and then the unit is switched off.

#### Para verificar el ajuste del temporizador

1. Presione el botón (⊙) TIMER SET.
2. Para confirmar el modo de temporizador presione el botón ENTER.
3. Cuando aparezca la indicación del modo anteriormente activado, el ajuste del temporizador queda completada.

#### Notes:

- Cuando se ajuste el temporizador incorrectamente realice el "ajuste del temporizador" desde el principio.
- Cuando el temporizador esté ajustado, la visualización ":-:" será reemplazada por los dígitos ingresados.
- Cuando no se fije la hora de finalización del temporizador, éste funcionará por 2 horas y luego la unidad se desconectará.

#### 確認定時設定

1. 按壓 (⊙) TIMER SET 鍵鈕。
2. 每次按壓 ENTER 鍵鈕，可確認定時設定。
3. 當原來的模式顯示出來時，定時設定即完畢。

#### 註：

- 如果定時器設定不正確，請從頭開始進行 "設定定時器"。
- 定時器設定後，顯示窗上的 ":-:" 便被輸入的數字代替。
- 當沒有設定定時器的停止時間時，定時器工作2小時後，關閉本機電源。

### TIMER OPERATIONS

#### Timer recording

- The current time must be set correctly before you set timer recording.
- Make sure that the erase protection tabs of the cassette have not been broken off.

#### Operations

1. Set the POWER button to ON.
2. Load a cassette in Deck A.
  - Insert the cassette with the side to be recorded facing out.
  - Set the TAPE POSITION (DECK A) button as required.
3. Set the timer start and stop times, then set the required volume in this order. (Refer to "Setting the timer" on page 41.)
  - Set the timer about a minute before the broadcast to be recorded is scheduled to start.

### FUNCIONAMIENTO DEL TEMPORIZADOR

#### Grabación programada

- La hora actual deberá estar correctamente fijada antes de efectuar una grabación programada.
- Asegúrese de que el cassette tenga las lengüetas de protección contra borrados.

#### Procedimiento

1. Coloque el botón POWER en ON.
2. Coloque un cassette en la platina A.
  - Inserte el cassette con el lado a ser grabado apuntando hacia afuera.
  - Coloque el botón TAPE POSITION (DECK A) como sea necesario.
3. Ajuste la hora de activación y desactivación del temporizador, luego ajuste el volumen deseado en este orden. (Refiérase al "Ajuste del temporizador" en la página 41.)
  - Ajuste el temporizador aproximadamente un minuto antes de que empiece el programa que va a grabar.

### 定時器的使用

#### 定時錄音

- 在設定定時錄音之前，必須先設定現在的時間。
- 請確認一下錄音帶上的防誤消的錄音保險片是否存在。

#### 操作

1. 按壓 POWER 鍵鈕接通電源。
2. 在錄音帶A內裝入一盤卡式錄音帶。
  - 要錄音的面朝外裝入。
  - 應需設定 TAPE POSITION (DECK A) 鍵鈕。
3. 設定定時器的開始及停止時間，再設定所需的音量 (按照此順序)。(請參照第41頁上的 "設定定時器"。)
- 按比要錄的廣播節目的預定開始時間早1分鐘左右來設定定時器。

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4. Tune to the station to be recorded. (Refer to page 31.)
5. Set the POWER button to STANDBY.
6. Press the REC and PLAY buttons of deck simultaneously.
  - The REC is shown in the timer display.

• **TIMER RECORDING WILL START AT THE PRESET START TIME, AND THE RECORDING WILL STOP AT THE END OF THE TAPE, NO MATTER WHAT STOP TIME YOU PRESET. IF THE PRESET TIMER PERIOD IS LONGER THAN THE TAPE REMAINING TIME, THE RECORDING WILL STOP AT THE END OF THE TAPE AND THE TUNER WILL REMAIN ON UNTIL THE PRESET STOP TIME.**

- **To cancel timer operation**  
Set the POWER button to ON, then press the timer ON/OFF button, so that the timer mode indicator goes out.

If you do this, timer recording will not start at the timer start time.

#### Notes:

Once the timer has been set, the start and stop times, etc., are stored in memory. When timer recording or playback is required at different times, the timer must be set again.

- After setting the timer start and stop times, check that the unit is tuned to the required frequency.

4. Sintonice la estación a ser grabada. (Refiérase a la página 31).
5. Coloque el botón POWER en STANDBY.
6. Presione simultáneamente los botones REC y PLAY de la platina.
  - Aparecerá REC en la indicación del temporizador.

• **LA GRABACIÓN POR TEMPORIZADOR SE INICIARÁ A LA HORA PROGRAMADA, Y SE DETENDRÁ AL FIN DE LA CINTA INDEPENDIENTEMENTE DE LA HORA DE PARADA QUE HAYA PROGRAMADO. SI EL PERÍODO PREAJUSTADO EN EL TEMPORIZADOR ES MÁS LARGO QUE LA CINTA RESTANTE, LA GRABACIÓN SE DETENDRÁ AL FIN DE LA CINTA Y EL SINTONIZADOR PERMANECERÁ ACTIVADO HASTA LA HORA PROGRAMADA DE TERMINACIÓN.**

- **Cancelación de la operación por temporizador**  
Coloque el botón POWER en ON, luego presione el botón ON/OFF, de tal manera que el indicador de modo de temporización se apague.

Si usted hace esto, la grabación por temporizador no se iniciará hasta la hora de activación del temporizador.

#### Notas:

Una vez que ajusta el temporizador, la hora de activación y desactivación, etc., son almacenadas en memoria. Cuando la grabación o reproducción por temporizador sean necesarias a diferentes horas, es necesario ajustar el temporizador otra vez.

- Después de ajustar las horas de activación y desactivación del temporizador, verifique que la unidad esté sintonizada en la frecuencia deseada.

4. 調諧到要錄音的電臺。(請參照第31頁。)
5. 按壓POWER鍵鈕設為STANDBY。
6. 同時按壓OREC鍵鈕與PLAY鍵鈕。
  - REC 出現在定時器顯示上。

• 定時錄音將在預定的開始時間開始，錄音在磁帶的結尾結束，而不管設定了什麼結束時間。如果預設的定時期間長於磁帶的剩餘時間，錄音就在磁帶的結尾處停止，而調諧器要到預設的停止時間才關閉。

- **要取消定時操作**  
按壓POWER鍵鈕接通電源後，按壓定時器ON/OFF鍵鈕，使定時模態指示燈熄滅。

如果進行了此項操作，定時錄音將不會在定時器開始時間開始進行。

#### 註：

一旦設定了定時器，開始時間及停止時間等即被存儲在記憶體內。如果要在不同時間進行定時錄音或定時收音，則必須重新設定定時器。

- 在設定定時器的開始時間與停止時間後，請確認本機是否調諧到所需的頻率。

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### Timer playback

- Timer playback of tapes, broadcasts and CDs is possible.

#### Operations

- ① Set the POWER button to ON.
- ② Set the timer start and stop times, then set the volume, in this order. (Refer to "Setting the timer" on page 41.)
- ③ Select the source sound.

| Source sound    | Timer mode | Operations                                                                               |
|-----------------|------------|------------------------------------------------------------------------------------------|
| CD play         | CD         | Load a disc and press the  /CLEAR button to set the CD mode.                             |
| Tape playback   | TAPE       | Load a cassette tape.                                                                    |
| Radio broadcast | TUNER      | Press the TUNER/BAND button to set to the tuner mode and tune to the required frequency. |

- Timer playback of a CD is possible in programmed order. (See page 26.)

- ① Set the POWER button to STANDBY.
  - The timer mode indicator and current time is displayed. (When performing the timer playback of tape, press the PLAY button of the deck.)

- Timer playback will start at the timer start time and the power will be switched off at the timer stop time. (Tuner or CD)  
The power will not be switched off at the specified time during tape operation and will switched off at the tape end.  
The unit remains in the same timer mode even after the power is switched off and the same timer function will be repeated at the same time on the following day.

### Reproducción con programada

- Es posible la reproducción de cintas, audición de radioemisiones y CD utilizando el temporizador.

#### Operaciones

- ① Coloque el botón POWER en ON.
- ② Primero fije la hora de puesta en marcha y parada del temporizador y luego ajuste el volumen. (Refiérase a "Ajuste del temporizador" de la página 41.)
- ③ Seleccione la fuente.

| Fuente                    | Modo de temporizador | Operaciones                                                                                             |
|---------------------------|----------------------|---------------------------------------------------------------------------------------------------------|
| Reproducción de CD        | CD                   | Coloque un disco y presione el botón  /CLEAR para establecer el modo CD.                                |
| Reproducción de una cinta | TAPE                 | Coloque un cassette.                                                                                    |
| Radioemisión              | TUNER                | Presione el botón TUNER/BAND para establecer el modo de sintonizador y sintonice la frecuencia deseada. |

- Es posible la reproducción de un CD con temporizador en el orden programado. (Véase la página 26.)

- ① Coloque el botón POWER en STANDBY.
  - Aparecen el indicador del modo de temporización y la hora actual. (Cuando realice la reproducción de un cassette con el temporizador, presione el botón PLAY de la platina.)

- La reproducción comenzará a la hora de puesta en marcha del temporizador y la unidad se desconectará a la hora de parada del temporizador. (Sintonizador o CD)  
La alimentación no se desconectará a la hora fijada durante el funcionamiento de una cinta sino al final de la cinta.  
La unidad permanecerá en el mismo modo de temporizador incluso después de desconectarse la unidad y se repetirá la misma función del temporizador a la misma hora del siguiente día.

### 定時收音

- 您可以進行錄音帶、無線電廣播以及CD唱片的定時收音。

#### 操作

- ① 按壓POWER鍵鈕接通電源。
- ② 先設定定時器的開始時間，再設定定時器的停止時間。(請參看第41頁上的“設定定時器”。)
- ③ 選擇聲源。

| 聲源    | 定時模態           | 操作                               |
|-------|----------------|----------------------------------|
| CD 收音 | CD<br>(雷射唱機)   | 裝入一張唱片並按壓 /CLEAR鍵鈕以設定CD模態。       |
| 錄音帶收音 | TAPE (錄音機)     | 裝入一盤卡式錄音帶。                       |
| 無線電廣播 | TUNER<br>(調諧器) | 按壓TUNER/BAND鍵鈕以設定調諧器模態並調諧到所需的頻率。 |

- CD唱片的定時收音可以按編序順序進行。(請參看第26頁。)

- ① 設定POWER鍵鈕於STANDBY (待機)。

- 定時模態指示燈及現在時間顯示出來。(進行錄音帶的定時收音時，請按壓錄音帶上的PLAY鍵鈕。)

- 定時收音將於預設的開始時間開始，並且電源將於預設的停止時間被切斷。(調諧器或者CD唱機) 電源不在錄音帶使用中的指定時間被切斷，而在錄音帶走到頭時被切斷。即使電源切斷，本機仍處於同樣的定時模態，第二天將於同樣的時間重複進行相同的定時功能。

- When the power is switched on, it is possible to fade in the sound from volume level 0 (zero) to the preset volume.

- To cancel timer operation**  
Set the POWER button to ON, then press the timer (ⓐ) ON/OFF button, so that the timer mode indicator (ⓑ) goes out.

**Notes:**

- To stop during timer playback, press the POWER button to switch the unit off.
- In the fade-in mode, the volume gradually increases from zero.

- Cuando se enciende el aparato, es posible aumentar gradualmente el sonido desde el volumen cero (0) hasta el volumen preajustado.

- Para cancelar el funcionamiento del temporizador**  
Coloque el botón POWER en ON, luego presione el botón (ⓐ) ON/OFF, de tal manera que se apague el indicador (ⓑ) del modo de temporización.

**Notes:**

- Para detener la reproducción con temporizador durante su funcionamiento, presione el botón POWER para apagar la unidad.
- En el modo de aumento gradual del sonido, el volumen aumentará gradualmente desde cero.

- 電源接通之後，音量會從音量級0（零）逐漸增大至預設音量。

- 要取消定時設定**  
按壓POWER鍵鈕接通電源後，按壓定時器(ⓐ)ON/OFF鍵鈕，使定時模式指示燈(ⓑ)熄滅。

**註：**

- 要在定時收音中停止收音，按壓POWER鍵鈕，關掉本機電源即可。
- 在漸強模式下，音量將從零開始逐漸增大。

## SLEEP OPERATIONS

(Using the remote control unit)

**A. Use this when you want to fall asleep while listening to a tape, broadcast or CD**

- Set the required source and tune (tuner) or play back (CD or tape).
- Press the SLEEP button to set to the sleep time.



SLEEP is shown in the display.  
Se visualiza SLEEP en el display.  
SLEEP 出現在顯示窗上

- Sleep times of 30, 60, 90 or 120 minutes can be set. When you release the SLEEP button, the source is displayed after 5 sec.

## FUNCIONAMIENTO DEL TEMPORIZADOR DE DESCONEXION

(Utilizando la unidad de control remoto)

**A. Utilice esta función cuando desee dormir mientras escucha una cinta, radioemisión o CD**

- Establezca la fuente deseada y sintonice (sintonizador) o reproduzca (CD o cinta).
- Presione el botón SLEEP para fijar la hora de desconexión.



Source mode display (Releasing the sleep mode)  
Visualización del modo de fuente (Cancelación del modo de desconexión)  
聲源模式顯示（解除睡眠模式）

- Pueden ajustarse tiempos de desconexión de 30, 60, 90 ó 120 minutos. Cuando suelte el botón SLEEP, se visualizará la fuente en 5 seg.

## 睡眠定時

(使用遙控器)

**A. 如果要邊聽錄音帶、無線電廣播或CD唱片邊入睡時，使用此功能**

- 設定所需的聲源並進行調諧（調諧器）或者播放（CD唱片或者錄音帶）。
- 按壓SLEEP鍵鈕，設定睡眠時間。

- 睡眠時間可以設為30分、60分、90分或120分。當按壓SLEEP鍵解除此模式時，5秒鐘後便顯示出聲源。

- The sleep operation will start and the power will be switched off after the specified time. (Tuner & CD modes)  
The power will not be switched off at the specified time during tape operation and will switched off at the tape end.

- Checking the sleep time**  
When the SLEEP button is pressed, the remaining sleep time is displayed. If it is pressed again, a new sleep time can be set.

- To cancel the sleep operation**  
Press the POWER button to switch the power off or press the SLEEP button until the sleep time indicator disappears.

**B. To fall asleep while listening to a broadcast or compact disc and to perform timer playback the following morning**

- Set the timer playback start and stop times and volume. (See the "Setting the timer" on page 41.)
- Set to the required source.

| When falling asleep | When waking up |
|---------------------|----------------|
| CD play →           | CD play        |
| Broadcast →         | Broadcast      |

- During tape playback, the power is switched off when the tape ends, so only "When falling asleep" or "When waking up" operation is possible.

- Press the SLEEP button to set the sleep time.

- Comenzará a funcionar el temporizador de desconexión y se apagará la unidad una vez que haya transcurrido el tiempo especificado. (Modos de sintonizador y CD)  
La alimentación no se desconectará a la hora fijada durante el funcionamiento de una cinta sino al final de la cinta.

- Verificación de la hora de desconexión**  
Cuando se presiona el botón SLEEP, se visualizará el tiempo restante de desconexión. Si se lo presiona nuevamente, se fijará un nuevo tiempo de desconexión.

- Para cancelar el temporizador de desconexión**  
Presione el botón POWER para apagar la unidad o presione el botón SLEEP hasta que desaparezca la indicación de desconexión.

**B. Para dormirse mientras escucha una radioemisión o CD y realizar una reproducción con temporizador a la mañana siguiente**

- Programa la hora de activación, parada y el volumen de la reproducción por temporizador (Ver "Ajuste del temporizador" en la página 41).
- Establezca la fuente deseada.

| Cuando vaya a dormir | Cuando despierta   |
|----------------------|--------------------|
| Reproducción de CD → | Reproducción de CD |
| Radiodifusión →      | Radiodifusión      |

- Al reproducir una cinta la alimentación se desconecta cuando la cinta termina, por eso la operación es posible sólo "cuando vaya a dormir" o "cuando despierta".

- Presione el botón SLEEP para fijar la hora de desconexión.

- 指定時間一過，睡眠定時便開始工作而切斷電源。（調諧器以及CD模式）  
電源不在錄音帶使用中的指定時間被切斷，而在錄音帶走到頭時被切斷。

- 睡眠時間的確認**  
按壓SLEEP鍵鈕，剩餘的睡眠時間顯示出來。如果再按壓一次此鍵鈕，即可設定新的睡眠時間。

- 要取消睡眠定時**  
按壓POWER鍵鈕，切斷電源或按著SLEEP鍵鈕，直至睡眠時間指示消失。

**B. 如果要邊聽無線電廣播或CD唱片邊入睡，並且在第二天進行定時收音**

- 設定定時收音的開始時間、停止時間以及音量。（請參看第41頁上的“設定定時器”。）
- 設定所需的聲源。

| 入睡時     | 起床時   |
|---------|-------|
| CD收音 →  | CD收音  |
| 無線電廣播 → | 無線電廣播 |

- 在錄音帶收音中，錄音帶走到頭時，電源自動切斷，因此僅能進行“入睡時”或者“起床時”。

- 按壓SLEEP鍵鈕設定睡眠時間。

## MAINTENANCE

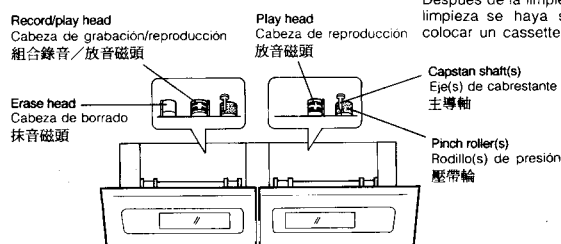
**Cleaning is important!**

When the tape is running, magnetic powder and dust naturally accumulate on the heads, capstan and pinch roller. When they become too dirty ...

- sound quality deteriorates
  - the output sound level drops
  - the previous sound is not completely erased
  - recording is not performed satisfactorily.
- Because of this, you should clean the heads, etc. every 10 hours of use, so that perfect recording is possible.

**Cleaning the heads, capstan and pinch roller**

Open the cassette holder.  
Clean the heads, pinch roller and capstan.  
For effective cleaning, use a cleaning kit available from an audio store.  
After cleaning, be sure that the cleaning fluid has dried completely before loading a cassette.

**Cautions:**

1. Keep magnets and metallic objects away from the head. If the head becomes magnetized, noise will increase and the tone will deteriorate. Demagnetize the head every 20 - 30 hours of use with a head eraser (available from an audio store). (When demagnetizing the head, the POWER button should be set to STANDBY).
2. Do not use anything other than alcohol for cleaning. Thinner and benzene will damage the rubber pinch roller.

## MANTENIMIENTO

**¡La limpieza es importante!**

Cuando la cinta se mueve, el polvo magnético y suciedad se acumulan naturalmente en las cabezas, cabrestante y rodillo de presión. Cuando éstos se ensucian demasiado ...

- Se deteriora la calidad del sonido
  - Disminuye el nivel de sonido de salida
  - El sonido previo no se borra completamente
  - No se logran grabaciones satisfactorias
- Por ello, deberá limpiar las cabezas, etc., cada 10 horas de uso, para obtener una grabación perfecta.

**Limpieza de cabezas, cabrestante y rodillo de presión**

Abra el portacassette.  
Limpie las cabezas, el rodillo de presión y el cabrestante.  
Para una limpieza efectiva, utilice los juegos de limpieza disponibles en cualquier comercio de audio.  
Después de la limpieza, asegúrese de que el líquido de limpieza se haya secado completamente antes de colocar un cassette.

**Precauciones:**

1. Mantenga imanes y objetos metálicos lejos de la cabeza. Si se magnetiza la cabeza, aumentará el ruido y se deteriorará el tono. Desmagnetice la cabeza cada 20 - 30 horas de uso con un desmagnetizador de cabezas (disponible en cualquier comercio de audio). (Cuando desmagnetice la cabeza, asegúrese que el botón POWER esté en STANDBY).
2. Utilice únicamente alcohol para la limpieza. La bencina y el diluyente dañarán el rodillo de presión de goma.

## 保養

**清潔工作是極為重要的!**

當錄音帶走帶的時候，磁粉、灰塵自然會積著在磁頭、主導軸以及壓帶輪上。當這些部件太污穢時...

- 音質低劣
- 音量下降
- 先前所錄的錄音無法完全抹消
- 錄音不理想

因此，每使用10個小時您就該清洗磁頭等，這樣，您的錄音就會完美無憾。

**清洗磁頭、主導軸以及壓帶輪**

打開錄音帶艙。  
清洗磁頭、主導軸以及壓帶輪。  
音響設備商店有整套清洗工具出售，使用這種清洗工具便能清洗得乾淨。清洗以後，須待清洗液完全乾了才可裝入錄音帶。

**注意事項:**

1. 切勿讓磁體、金屬物接近磁頭。如果磁頭磁化了，噪音將會變甚，聲音將會失真。每使用 20 至 30 小時以後，請用磁頭消磁器（於音響設備商店有售）給磁頭消磁（給磁頭消磁的時候，必須按壓 POWER 鍵將其設於 STANDBY（待機）的位置）。
2. 清洗劑僅限於酒精，其它一概不可使用。如果使用溶劑、揮發性汽油，將會損壞橡膠的壓帶輪。

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## TROUBLESHOOTING



What appears to be trouble is not always serious. Make sure first ....

- Power cannot be turned on.
- Is the power cord unplugged?
- No sound from the speakers.
- Are headphones connected?

**CD Player Section**

- The CD player does not play.
- Is the disc upside down?
- Is the disc dirty?
- A certain portion of the disc does not play correctly.
- Is the disc scratched?

**Cassette Deck Section**

- Playback sound is at a very low level.
- Is the head dirty?
- The REC button does not function.
- Have the safety tabs of the cassette been broken off?

**Tuner Section**

- Reception is noisy.
- Try adjusting the antenna.

**Timer Section**

- Timer operation does not start.
- Is the current time set correctly?
- Is the timer mode (Ⓢ) displayed?

**Remote Control**

- Remote control is impossible.
- Are the batteries in the remote control exhausted?
- Is the REMOTE SENSOR section exposed to bright light (direct sunlight, etc.)?

**Note:**

Before making an important recording, be sure to make a test recording first to check that the deck, etc. is working correctly.

## DETECCION DE PROBLEMAS

Aquello que parece ser una falla no siempre es algo serio. Asegúrese primero ...

- No se puede encender la unidad.
- ¿Está desenchufado el cable de alimentación?
- No sale sonido por los altavoces.
- ¿Están conectados los auriculares?

**Sección del reproductor de CD**

- El reproductor no funciona.
- ¿Está el disco invertido?
- ¿Está el disco sucio?
- No se puede reproducir correctamente una cierta sección del disco.
- ¿Está el disco rayado?

**Sección de la platina de cassette**

- El sonido de reproducción es muy bajo.
- ¿Está la cabeza sucia?
- No funciona el botón REC.
- ¿Se han extraído las lengüetas de seguridad del cassette?

**Sección del sintonizador**

- La recepción es ruidosa.
- Trate de ajustar la antena.

**Sección del temporizador**

- No funciona el temporizador.
- ¿Está fijada la hora actual correctamente?
- ¿Se visualiza el modo de temporizador (Ⓢ)?

**Control remoto**

- No funciona el control remoto.
- ¿Están agotadas las pilas del control remoto?
- ¿Está expuesta la sección REMOTE SENSOR a luces fuertes (directamente a la luz solar, etc.)?

**Nota:**

Antes de efectuar una grabación importante, realice una grabación de prueba para verificar que la platina, etc., funcione correctamente.

## 故障的檢查與排除

並非所有問題都是嚴重的。首先檢查一下...

- 電源無法接通。
- 電源線是否脫落了？
- 揚聲器沒有聲音。
- 是否接著耳機？

**CD唱機部分**

- CD唱機不收音。
- 唱片的面是否裝反了？
- 唱片是否污穢了？
- 某些地方的收音有異常。
- 唱片是否有劃傷？

**卡式座部分**

- 收音的音響極低。
- 磁頭是否污穢了？
- OREC鍵鈕失靈。
- 卡式錄音帶上的防護消錄音保險片是否被去掉了？

**調諧器部分**

- 收音有噪音。
- 調試天線。

**定時器部分**

- 定時器不啟動。
- 現在的時分是否設定正確？
- 定時器狀態是否顯示出來？

**遙控器**

- 遙控器失靈。
- 遙控器的電池是否消耗了？
- 遙控感應器 (REMOTE SENSOR) 部分是否受到強光 (直射陽光等) 照射？

**註:**

在進行重要錄音之前，務請先作試錄，以確認卡式座等的工作狀態是否良好。

## SPECIFICATIONS

|                                    |                                                    |
|------------------------------------|----------------------------------------------------|
| <b>Compact disc player section</b> |                                                    |
| Type                               | : Compact disc player                              |
| Signal detection system            | : Non-contact optical pickup (semiconductor laser) |
| Number of channels                 | : 2 channels (stereo)                              |
| Frequency response                 | : 20 Hz - 20,000 Hz                                |
| Signal-to-noise ratio              | : 90 dB                                            |
| Wow & flutter                      | : Less than measurable limit                       |

|                      |                                                                                                                                                                                 |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Radio section</b> |                                                                                                                                                                                 |
| Frequency range      | : FM: 87.5 - 108 MHz<br>AM: 531 - 1,602 kHz (with channel space mode set to AM 9 kHz)<br>AM: 530 - 1,710 kHz (with channel space mode set to AM 10 kHz)<br>SW: 5.75 - 17.95 MHz |
| Antennas             | : Loop antenna for AM<br>External antenna terminal for FM/SW (75 Ω)                                                                                                             |

|                          |                                                                                                                                    |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tape deck section</b> |                                                                                                                                    |
| Track system             | : 4-track 2-channel stereo                                                                                                         |
| Motor                    | : Electronic governor DC motor for capstan                                                                                         |
| Heads                    | : Deck A: Hard permalloy head for recording/playback, 2 gap permalloy head for erasure<br>Deck B: Hard permalloy head for playback |
| Frequency response       | : 50 - 15,000 Hz (with CrO <sub>2</sub> tape)                                                                                      |
| Wow & flutter            | : 0.15% (WRMS)                                                                                                                     |
| Fast wind time           | : Approx. 120 sec. (C-60 cassette)                                                                                                 |

|                |                                                                                      |
|----------------|--------------------------------------------------------------------------------------|
| <b>General</b> |                                                                                      |
| Power output   | : Max. 60 W (30 W + 30 W) at 4 Ω                                                     |
| Input jack     | : MIC (6.3 mm dia. plug) (Matching impedance: 200 Ω - 2 kΩ)<br>AUX IN (310 mV/68 kΩ) |

|                      |                                                                                                                                                                                                 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output terminals     | : Speaker x 2 (Matching impedance: 4 Ω - 16 Ω)<br>PHONES x 1 (Output level: 0 - 15 mW/32 Ω, Matching impedance: 16 Ω - 1 kΩ)                                                                    |
| Power supply         | : AC 240 V, 50 Hz (DX-50A)<br>AC 110/127/230 V, 50/60 Hz (DX-50U/UB/US)                                                                                                                         |
| Power consumption    | : 48 W (with POWER SW ON)<br>5.0 W (with POWER SW STANDBY)                                                                                                                                      |
| Dimensions           | : 625(W) x 296(H) x 278(D) mm including knobs                                                                                                                                                   |
| Weight               | : 9.9 kg                                                                                                                                                                                        |
| Accessories provided | : AC power cord x 1<br>Remote control unit (RM-RXH5K) x 1<br>Battery "R6" x 2 (for the remote control)<br>FM/SW feeder antenna x 1<br>Loop antenna stand x 1<br>AC plug adapter x 1 (DX-50U/US) |

|                                    |                                   |
|------------------------------------|-----------------------------------|
| <b>Speaker Section (each unit)</b> |                                   |
| Speakers                           | : 12 cm x 1 (4 Ω), 5 cm x 1 (6 Ω) |
| Dimensions                         | : 180 (W) x 296 (H) x 216 (D) mm  |
| Weight                             | : Approx. 2.2 kg                  |

Design and specifications are subject to change without notice.

## ESPECIFICACIONES

|                                                |                                                           |
|------------------------------------------------|-----------------------------------------------------------|
| <b>Sección del reproductor de compact disc</b> |                                                           |
| Tipo                                           | : Reproductor de compact disc                             |
| Sistema de detección de señales                | : Fonocaptor óptico sin contacto (laser de semiconductor) |
| Número de canales                              | : 2 canales (estéreo)                                     |
| Respuesta de frecuencia                        | : 20 Hz - 20,000 Hz                                       |
| Relación señal-ruido                           | : 90 dB                                                   |
| Fluctuación y tremolación                      | : Inferior al límite medible                              |

|                            |                                                                                                                                                                                                                   |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sección de la radio</b> |                                                                                                                                                                                                                   |
| Gamas de frecuencias       | : FM: 87.5 - 108 MHz<br>AM: 531 - 1,602 kHz (con modo de espaciamento de canales ajustado en AM 9 kHz)<br>AM: 530 - 1,710 kHz (con modo de espaciamento de canales ajustado en AM 10 kHz)<br>SW: 5.75 - 17.95 MHz |
| Antenas                    | : Antena de cuadro para AM<br>Terminal de la antena exterior para FM/SW (75 Ω)                                                                                                                                    |

|                              |                                                                                                                                                                                                           |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sección de la platina</b> |                                                                                                                                                                                                           |
| Sistema de pistas            | : 4 pistas y 2 canales estéreo                                                                                                                                                                            |
| Motor                        | : Motor de CC controlado electrónicamente para el cabrestante                                                                                                                                             |
| Cabezas                      | : Platina A: cabeza de aleación dura "Permalloy" para grabación/reproducción, cabeza de "Permalloy" de doble entrehierro para borrado<br>Platina B: cabeza de aleación dura "Permalloy" para reproducción |
| Respuesta de frecuencia      | : 50 - 15,000 Hz (con cinta de CrO <sub>2</sub> )                                                                                                                                                         |
| Fluctuación y tremolación    | : 0.15% (WRMS)                                                                                                                                                                                            |
| Tiempo de bobinado rápido    | : Aprox. 120 segundos (cassette C-60)                                                                                                                                                                     |

|                      |                                                                                             |
|----------------------|---------------------------------------------------------------------------------------------|
| <b>Generalidades</b> |                                                                                             |
| Salida de potencia   | : Máx. 60 W (30 W + 30 W) a 4 Ω                                                             |
| Jacks de entrada     | : MIC (6.3 mm ø conector) (Impedancia de adaptación: 200 Ω - 2 kΩ)<br>AUX IN (310 mV/68 kΩ) |

|                          |                                                                                                                                                                                                                                       |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Terminales de salida     | : Altavoz x 2 (Impedancia de adaptación: 4 Ω - 16 Ω ohmios)<br>PHONES x 1 (Nivel de salida: 0 - 15 mW/32 Ω, Impedancia de adaptación: 16 Ω - 1 kΩ)                                                                                    |
| Alimentación             | : AC 240 V, 50 Hz (DX-50A)<br>AC 110/127/230 V, 50/60 Hz (DX-50U/UB/US)                                                                                                                                                               |
| Consumo                  | : 48 W (con el interruptor de alimentación activado)<br>5.0 W (con el interruptor de alimentación en STANDBY)                                                                                                                         |
| Dimensiones              | : 625 (An) x 296 (Al) x 278 (Pr) mm incluyendo perillas                                                                                                                                                                               |
| Peso                     | : 9.9 kg                                                                                                                                                                                                                              |
| Accesorios suministrados | : Cordon de CA x 1<br>Unidad de control remoto (RM-RXH5K) x 1<br>Pilas "R6" x 2 (para el control remoto)<br>Antena de alimentación de FM/SW x 1<br>Soporte de la antena de cuadro x 1<br>Adaptador para enchufe de CA x 1 (DX-50U/US) |

|                                           |                                     |
|-------------------------------------------|-------------------------------------|
| <b>Sección de altavoces (cada unidad)</b> |                                     |
| Altavoces                                 | : 12 cm x 1 (4 Ω), 5 cm x 1 (6 Ω)   |
| Dimensiones                               | : 180 (An) x 296 (Al) x 216 (Pr) mm |
| Peso                                      | : Aprox. 2.2 kg                     |

Diseño y especificaciones sujetos a cambio sin aviso.

## 規格

|               |                   |
|---------------|-------------------|
| <b>CD唱機部分</b> |                   |
| 類型:           | 小型雷射唱機            |
| 信號檢測方式:       | 無接觸光學拾音方式 (半導體雷射) |
| 聲道數:          | 雙聲道 (立體聲)         |
| 頻率響應:         | 20Hz ~ 20,000 Hz  |
| 信噪比:          | 90 dB             |
| 晃抖度:          | 小於可測限度            |

|              |                                                                                                                                     |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>收音機部分</b> |                                                                                                                                     |
| 頻率範圍:        | FM: 87.5 - 108 MHz<br>AM: 531 - 1,602 kHz (頻道間隔方式設定為 AM 9 kHz)<br>AM: 530 - 1,710 kHz (頻道間隔方式設定為 AM 10 kHz)<br>SW: 5.75 - 17.95 MHz |
| 天線:          | AM環形天線<br>FM/SW室外天線端子 (75 Ω)                                                                                                        |

|              |                                                    |
|--------------|----------------------------------------------------|
| <b>卡式座部分</b> |                                                    |
| 聲軌方式:        | 4聲軌、雙聲道立體聲                                         |
| 馬達:          | 轉盤用電調速直流馬達                                         |
| 磁頭:          | 錄音/放音用磁性透磁合金磁頭、抹音用雙間隙透磁合金磁頭<br>錄音帶磁 B: 放音用磁性透磁合金磁頭 |
| 頻率響應:        | 50 ~ 15,000 Hz (CrO <sub>2</sub> 錄音帶時)             |
| 晃抖度:         | 0.15% (WRMS)                                       |
| 快速捲帶時間:      | 約 120 秒鐘 (C-60 卡式錄音帶)                              |

|           |                                                          |
|-----------|----------------------------------------------------------|
| <b>整體</b> |                                                          |
| 輸出功率:     | 最大 60W (30W + 30W), 於 4 Ω 時                              |
| 輸入插孔:     | MIC (6.3mm 直徑插頭) (匹配阻抗: 200Ω ~ 2kΩ)<br>輔助輸入 (310mV/68kΩ) |

|       |                                                                                                     |
|-------|-----------------------------------------------------------------------------------------------------|
| 輸出端子: | 揚聲器×2 (匹配阻抗: 4Ω ~ 16Ω)<br>PHONES×1 (輸出電平: 0 ~ 15mW/32Ω, 匹配阻抗: 16Ω ~ 1kΩ)                            |
| 電源:   | AC 240V, 50Hz (DX-50A)<br>AC 110/127/230V, 50/60 Hz (DX-50U/UB/US)                                  |
| 耗電量:  | 48W (於 POWER SW ON 時)<br>5.0W (於 POWER SW STANDBY 時)                                                |
| 體積:   | 625 (寬) × 296 (高) × 278 (深) mm 包括鍵鈕                                                                 |
| 重量:   | 9.9kg                                                                                               |
| 附件:   | 交流電源線×1<br>遙控器 (RM-RXH5K)×1<br>電池 "R6"×2 (遙控器用)<br>FM/SW饋電天線×1<br>環形天線架×1<br>交流電插頭適配器×1 (DX-50U/US) |

|                    |                                |
|--------------------|--------------------------------|
| <b>揚聲器部分 (各單元)</b> |                                |
| 揚聲器:               | 12cm×1 (4Ω), 5cm×1 (6Ω)        |
| (阻抗)               | 180 (寬) × 296 (高) × 216 (深) mm |
| 體積:                | 約 2.2kg                        |

外形及規格如有變更, 恕不另行通知。

## 4. Location of Main Parts

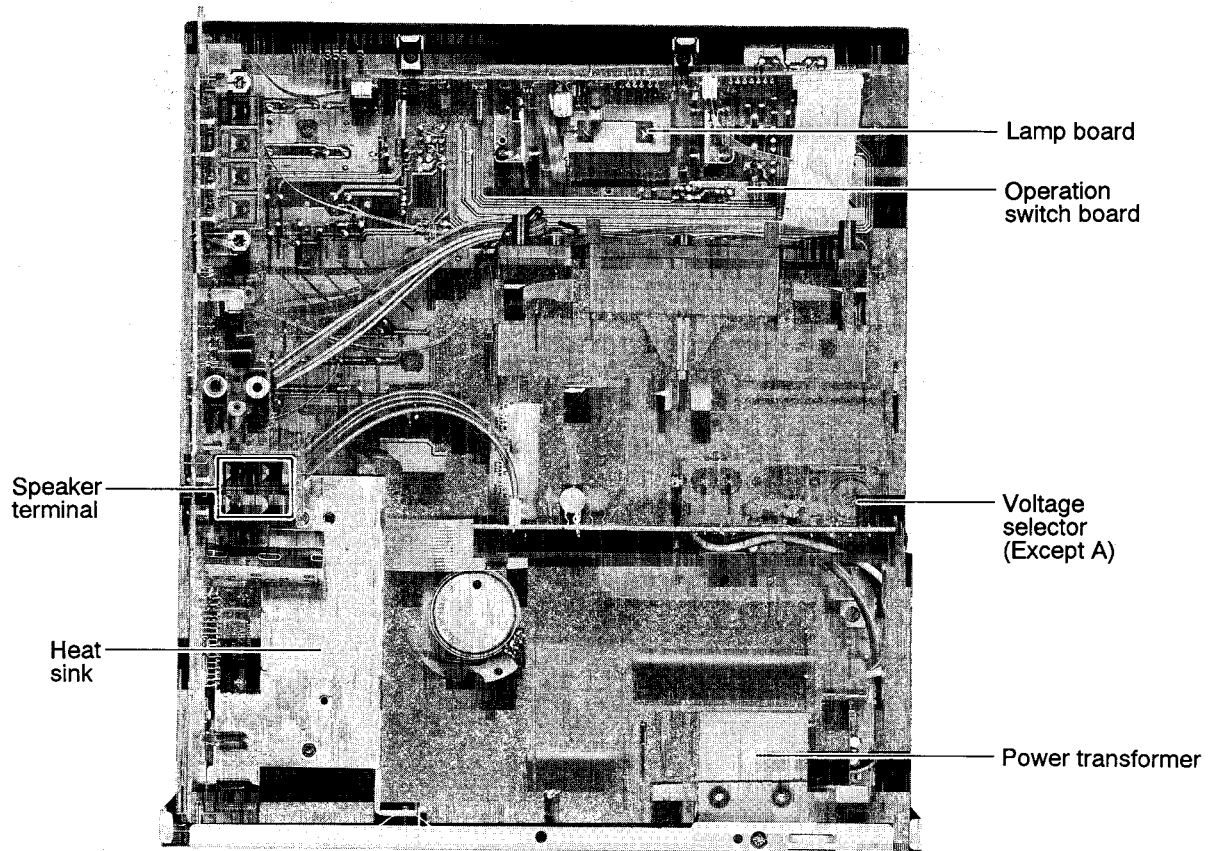


Fig. 4-1

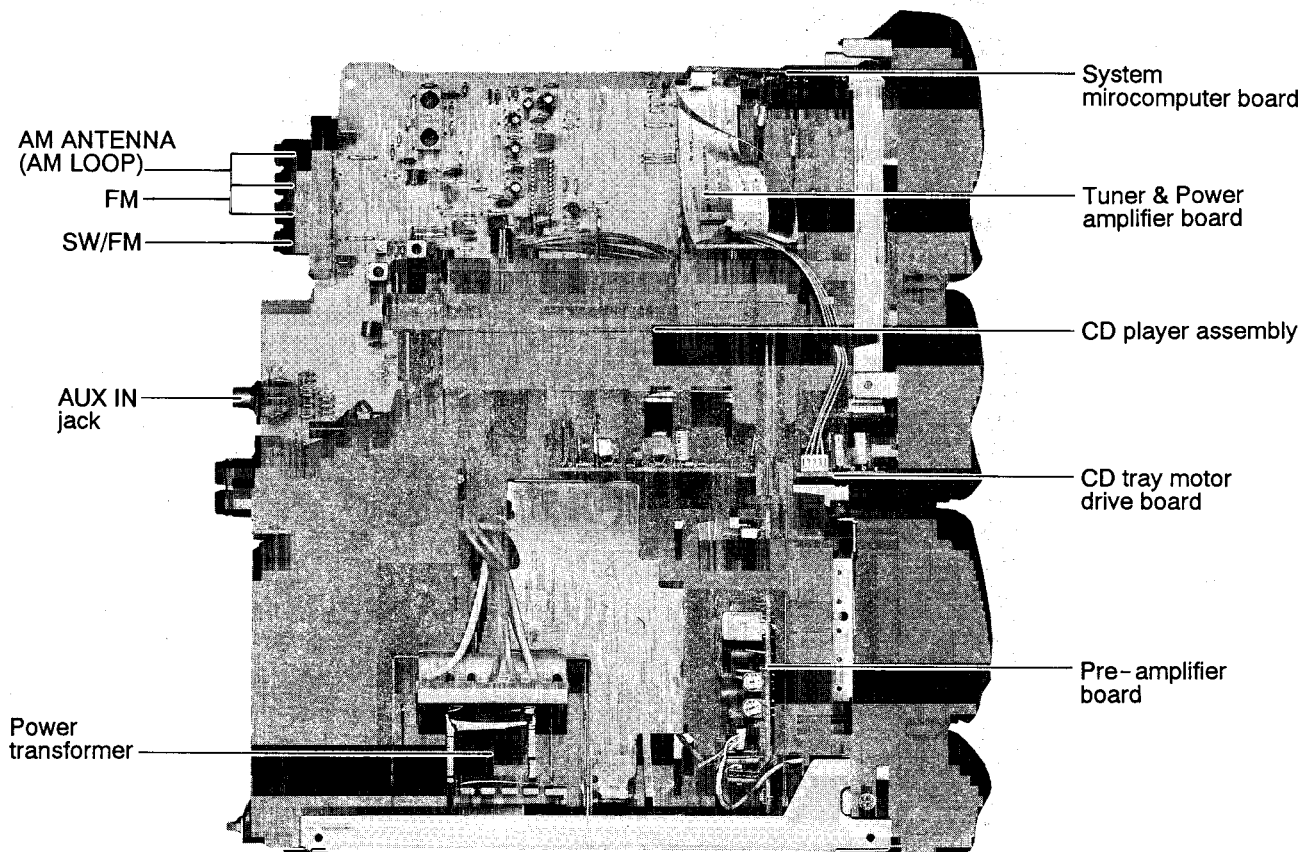


Fig. 4-2

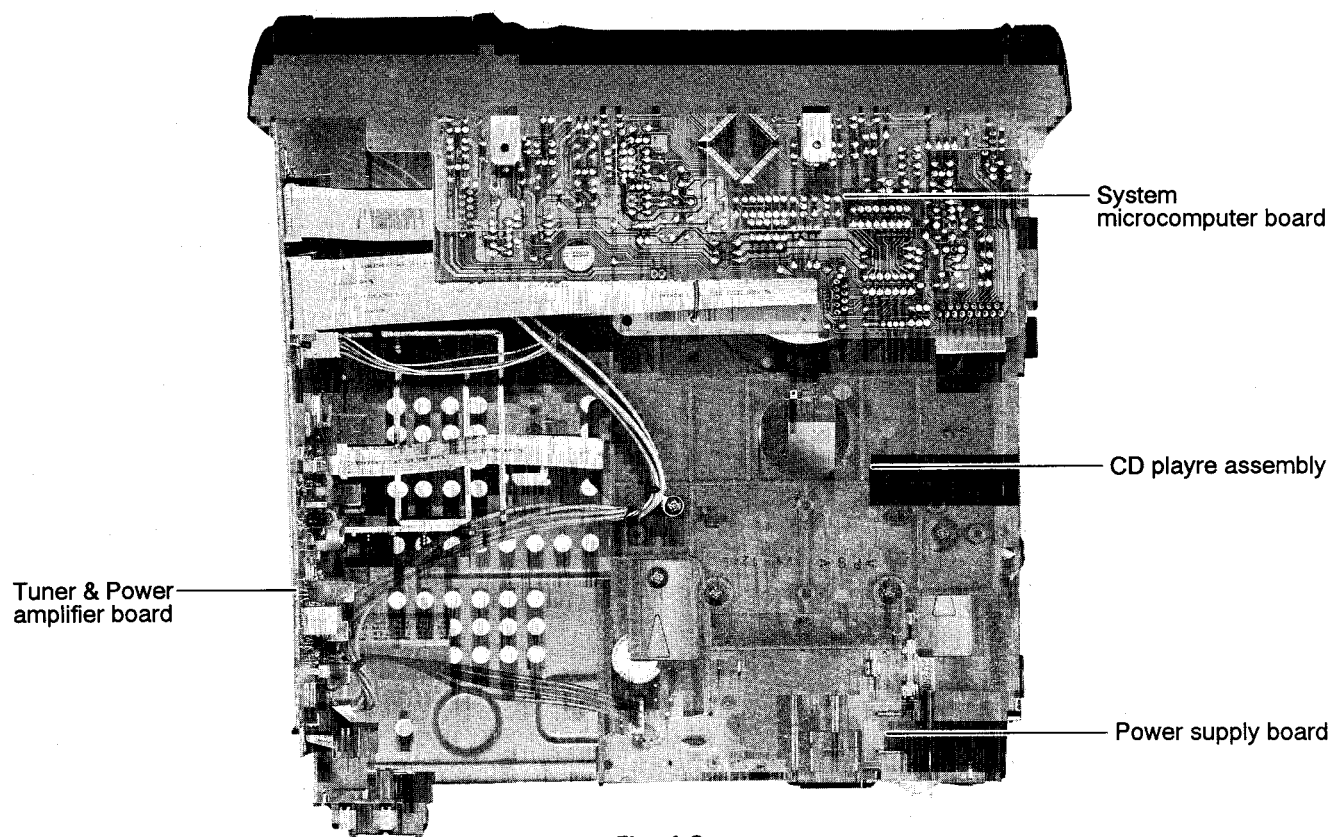


Fig. 4-3

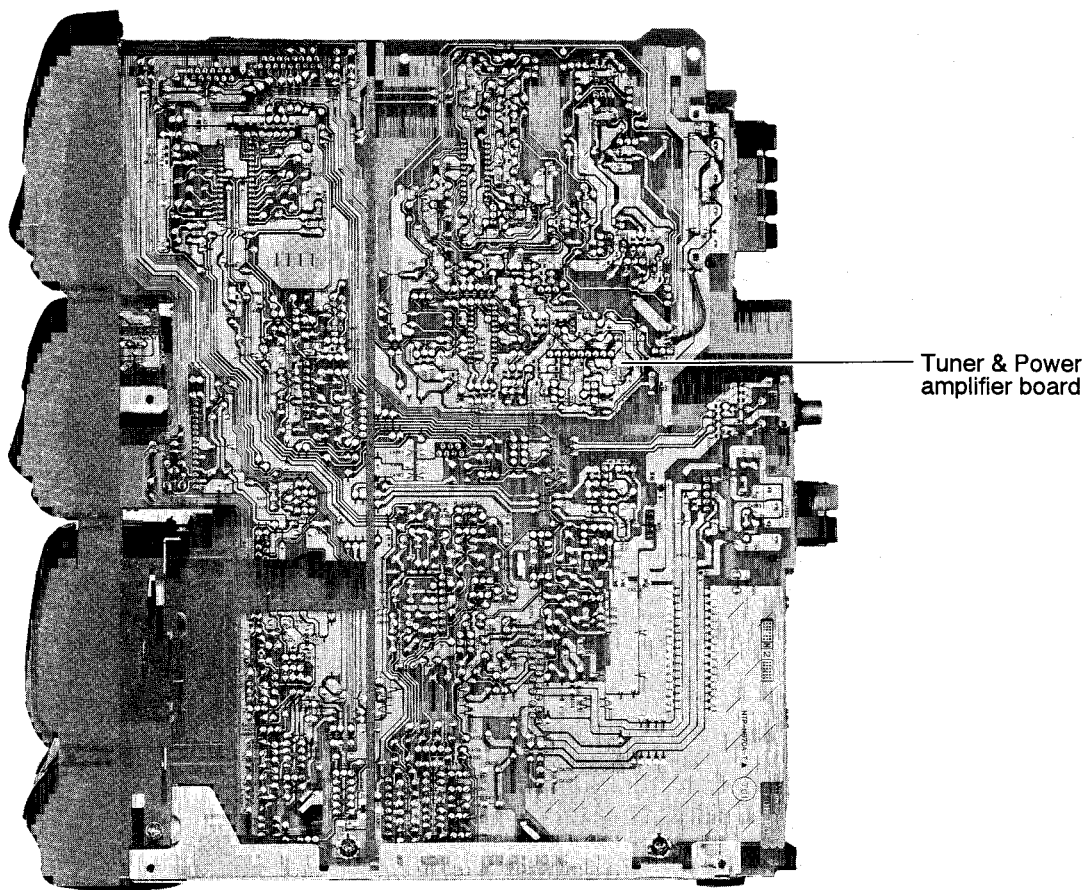
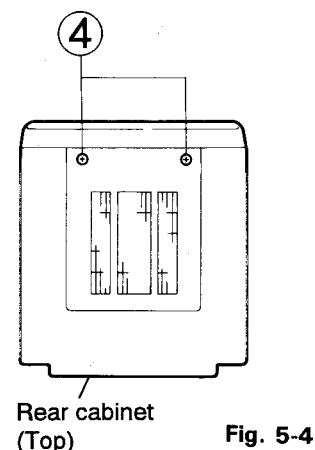
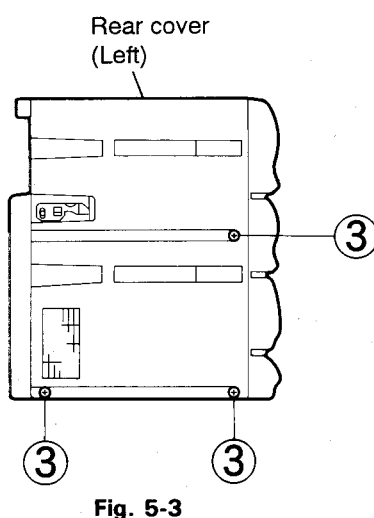
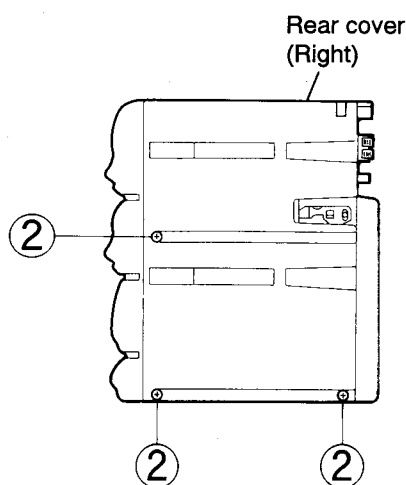
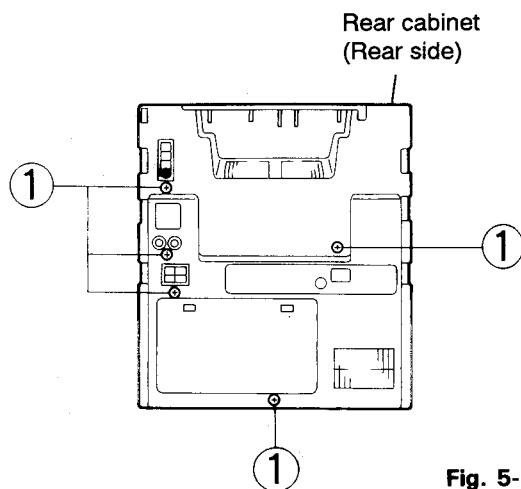


Fig. 4-4

## 5. Removal of Main Parts

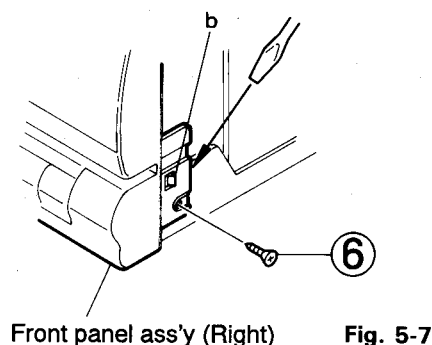
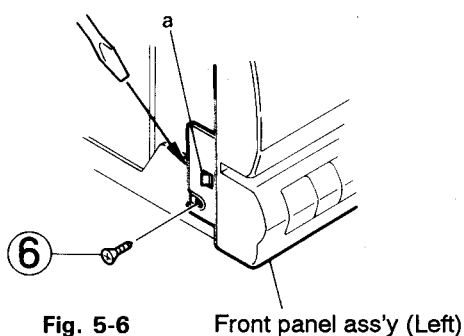
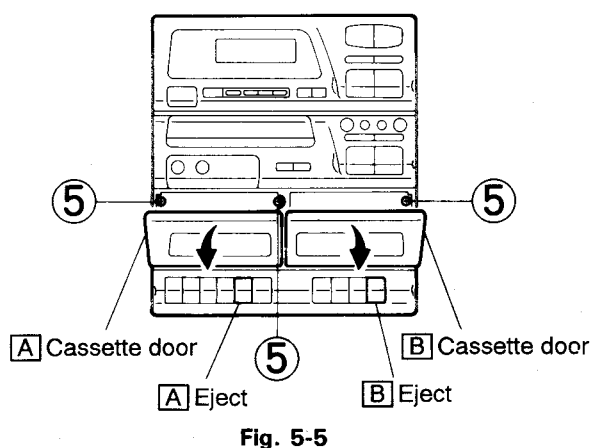
### ■ How to Remove the Rear Cabinet (Refer to Figs. 5-1~5-4)

1. Remove the five screws (1) retaining the rear cabinet from the back of the body (Refer to Fig. 5-1).
2. Remove the three screws (2) retaining the rear cabinet from the right side of the body (Refer to Fig. 5-2).
3. Remove the one screw (30) retaining the rod antenna and take it out.
4. Remove the three screws (3) retaining the rear cabinet from the left side of the body (Refer to Fig. 5-3).
5. Remove the two screws (4) retaining the rear cabinet from just above the body (Refer to Fig. 5-4).



### ■ How to Remove the Front Panel (Refer to Figs. 5-5~5-9)

1. Press the eject button of the cassette decks A and B, and open the cassette door (Refer to Fig. 5-5).
2. Remove the three screws (5) retaining the front panel ass'y as shown in Fig. 5-5.
3. Remove the two screws (6) retaining the right, left and lower sides of the front panel ass'y (Refer to Figs. 5-6 and 5-7).
4. Disengage the four engagements (a, b, c and d) fixing the right, left and lower sides of the front panel ass'y and the bottom of the ass'y (Refer to Figs. 5-6, 5-7 and 5-8).



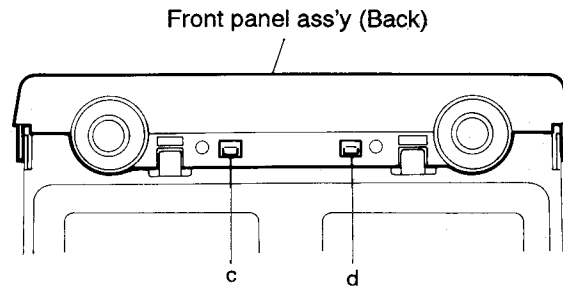


Fig. 5-8

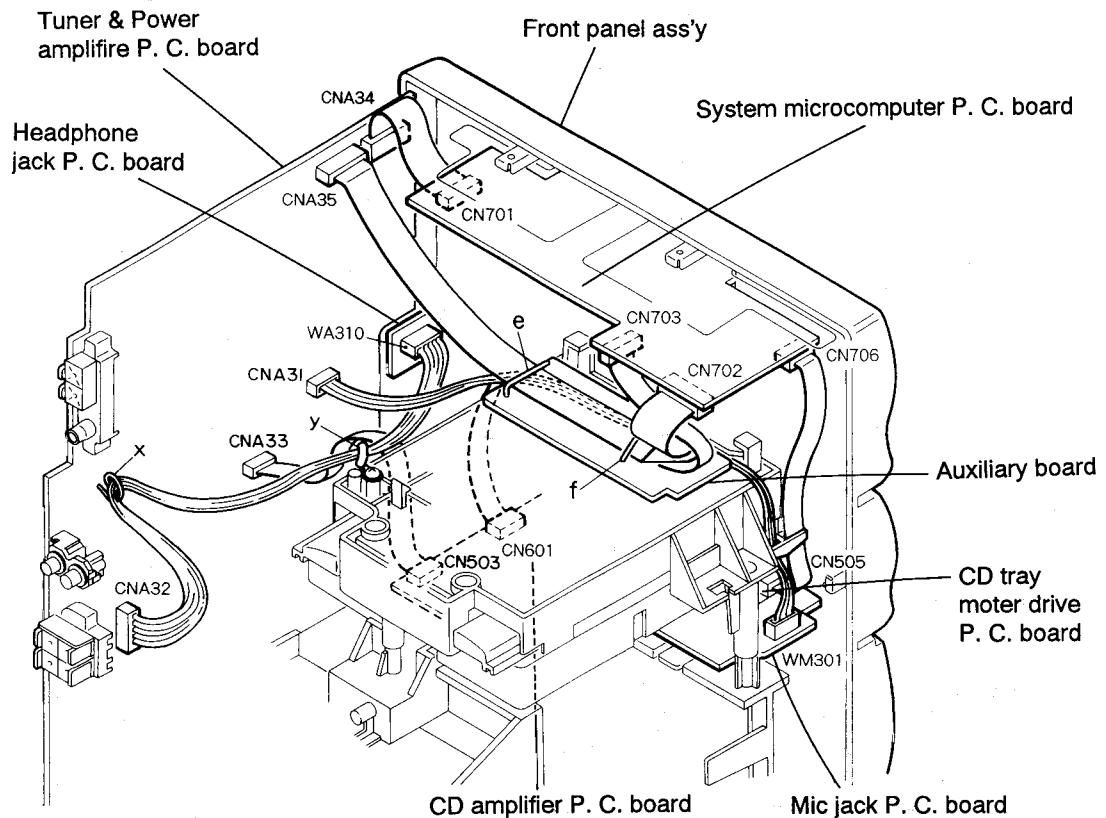


Fig. 5-9

5. From the connector CN703 on the system micro-computer P.C. board, remove the card wire outgoing from the connector CN601 on the CD amplifier P.C. board.
6. From connector CN702 on the LCD and system microcomputer P.C. board, remove the card wire outgoing from the connector CNA35 on the tuner & power amplifier P.C. board (Refer to Fig. 5-9).
7. From the connector CN701 on the LCD and system microcomputer P.C. board, remove the card wire outgoing from the connector CNA34 on the tuner & power amplifier P.C. board (Refer to Fig. 5-9).
8. From the connector CNA32 on the tuner & power amplifier P.C. board, remove the 5 PIN connector outgoing from the connector WA310 on the headphone jack P.C. board. Also remove the 5 PIN connector wire from the two wire clamps (x and y).
9. From the connector CN706 on the system micro-computer P.C. board, remove the card wire outgoing from the connector CN505 on the CD tray motor drive P.C. board (Refer to Fig. 5-9).
10. From the connector CNA31 on the tuner power amplifier P.C. board, remove the 4 PIN connector outgoing from the connector WM301 on the MIC jack P.C. board. Then, remove the 4 PIN connector from the two wire clamps on the auxiliary P.C. board and dismount the front panel ass'y (Refer to Fig. 5-9).

### ■ How to Remove the Front Panel (Refer to Fig. 5-10)

1. Remove the rear cabinet ass'y (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. From the front panel, remove the four screws (7) retaining the system microcomputer P.C. board.
4. From the front panel, remove the twelve screws (8) retaining the Operation switch P.C. board together with the insulation sheet.
5. From the front panel, remove the two screws (9) retaining the brackets (A and B).
6. Remove the system microcomputer P.C. board and Operation switch P.C. board together from the front panel.
7. From the front panel, remove the two screws (10) retaining the headphone jack P.C. board.
8. From the front panel, remove the two screws (11) retaining the MIC jack P.C. board.
9. Remove miscellaneous buttons from the front panel.

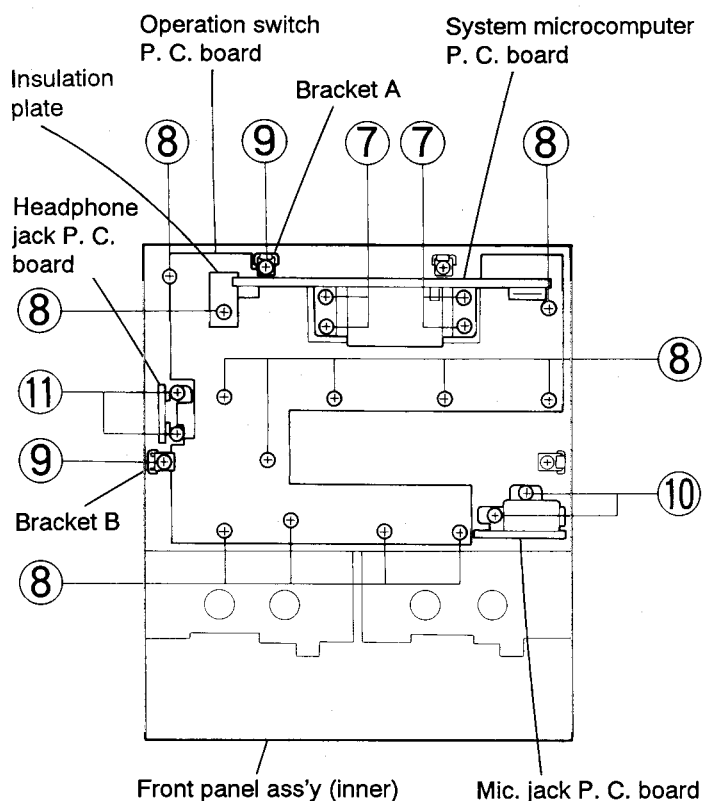


Fig. 5-10

### ■ How to Remove the CD Player Ass'y (Refer to Fig. 5-11)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cover").
2. Remove the front panel ass'y (Refer to "How Remove the Front Panel ass'y").
3. Remove the three screws (12) retaining the CD player ass'y.
4. From the connector CNA33 on the tuner & power amplifier P.C. board, remove the card wire outgoing from the connector CN503 on the CD amplifier P.C. board.

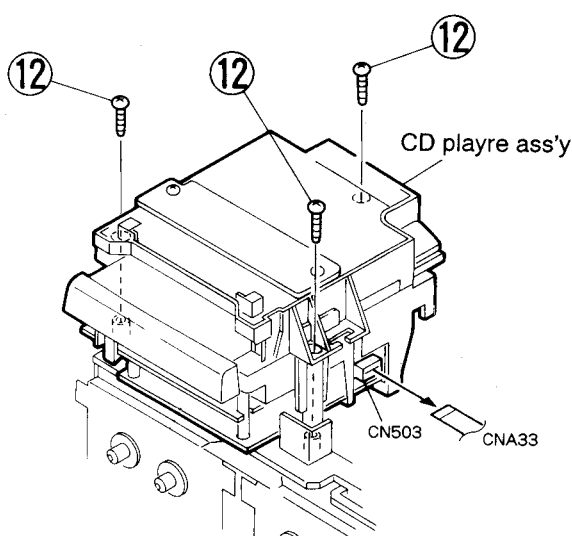


Fig. 5-11

### ■ How to Remove the CD Amplifier P.C. board (Refer to Fig. 5-12)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD player ass'y (Refer to "How to Remove the CD Player Ass'y").
4. Remove the two screws (14) retaining the CD amplifier P.C. board.
5. From the connector CN501 on the CD amplifier P.C. board, remove the card wire outgoing from the connector P001 on the CD pickup P.C. board.
6. From the connector CN502 on the CD amplifier P.C. board, remove the 6 PIN connector outgoing from the connector P001 on the CD motor drive P.C. board.

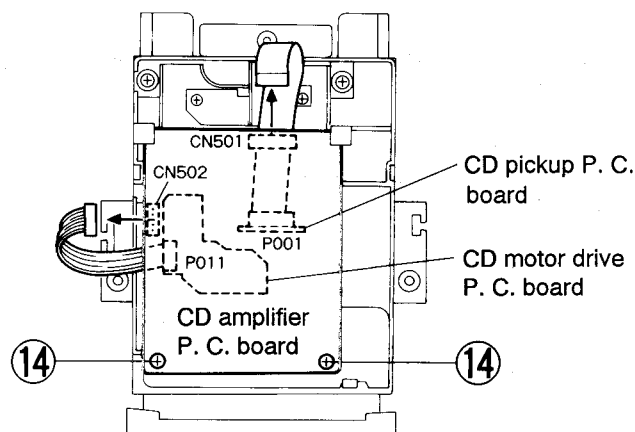


Fig. 5-12

### ■ How to Remove the CD Tray (Refer to Fig. 5-13)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD player ass'y (Refer to "How to Remove the CD Player Ass'y").
4. Remove the CD amplifier P.C. board (Refer to "How to Remove the CD Amplifier P.C. Board").
5. Remove the two screws (15) playing a role of CD tray stopper.
6. Insert the driver into the hole (g) on the CD tray motor drive P.C. board and turn it in the arrow direction as shown in Fig. 5-3. Then, the CD mechanism will be raised in the arrow direction.
7. Pull out the CD tray in the arrow direction.

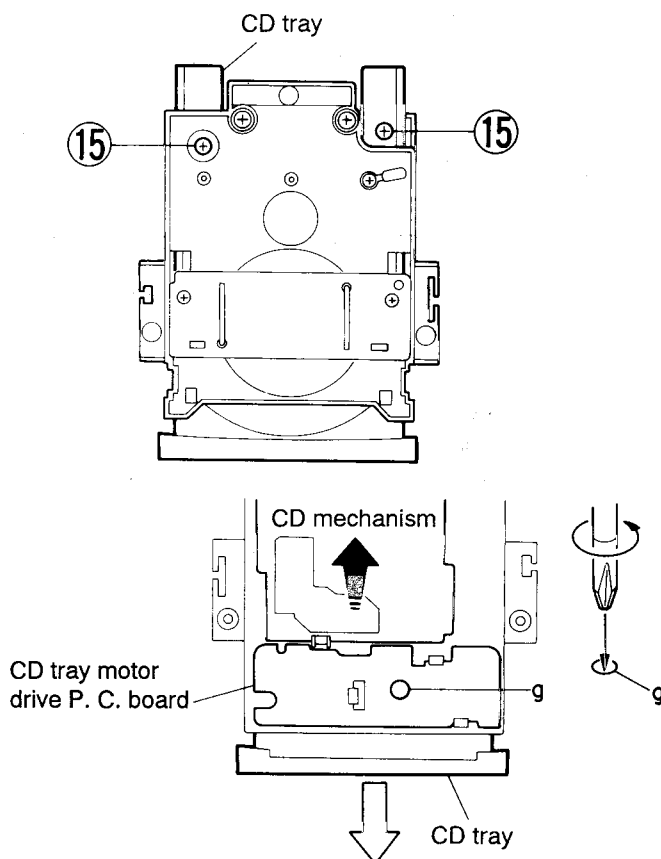


Fig. 5-13

## ■ How to Remove the CD Clamper Base Ass'y (Refer to Fig. 5-14)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD player ass'y (Refer to Items 3 and 4 of "How to Remove the CD Player Ass'y").
4. Remove the CD tray (Refer to "How to Remove the CD Tray").
5. From the loading base ass'y, remove the four screws (16) retaining the CD clamper base.
6. While raising the CD clamper base from the rear part, remove both of the claws (H and I) in front loading base ass'y (Refer to the expansion diagrams C and D).

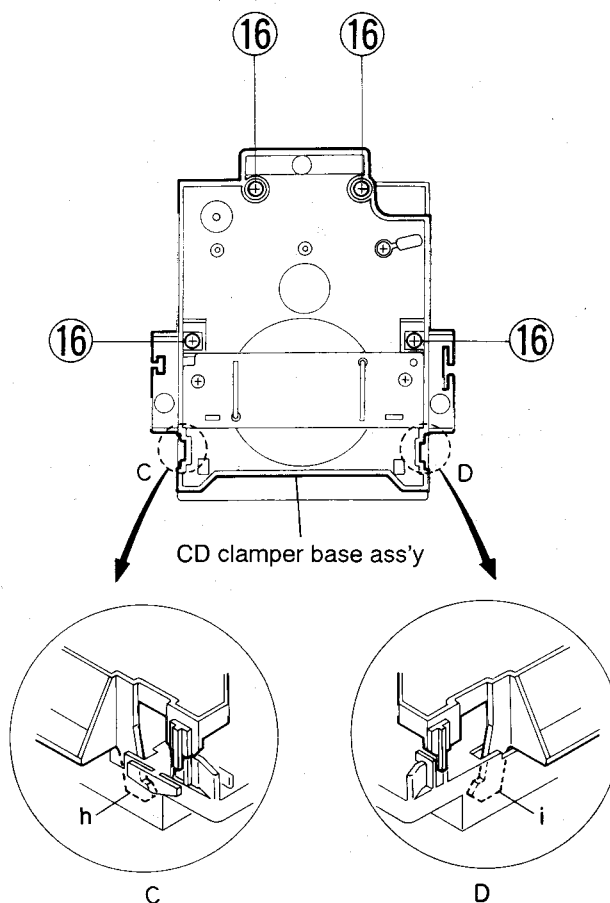


Fig. 5-14

## ■ How to Remove the CD Mechanism Ass'y (Refer to Fig. 5-15)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD player ass'y (Refer to Items 3 and 4 of "How Remove the CD Player Ass'y").
4. Remove the two screws with springs (17) retaining the CD mechanism ass'y. For reassembly, mount the CD mechanism ass'y while inserting the shaft at the upper part of the ass'y into the slide groove (E).

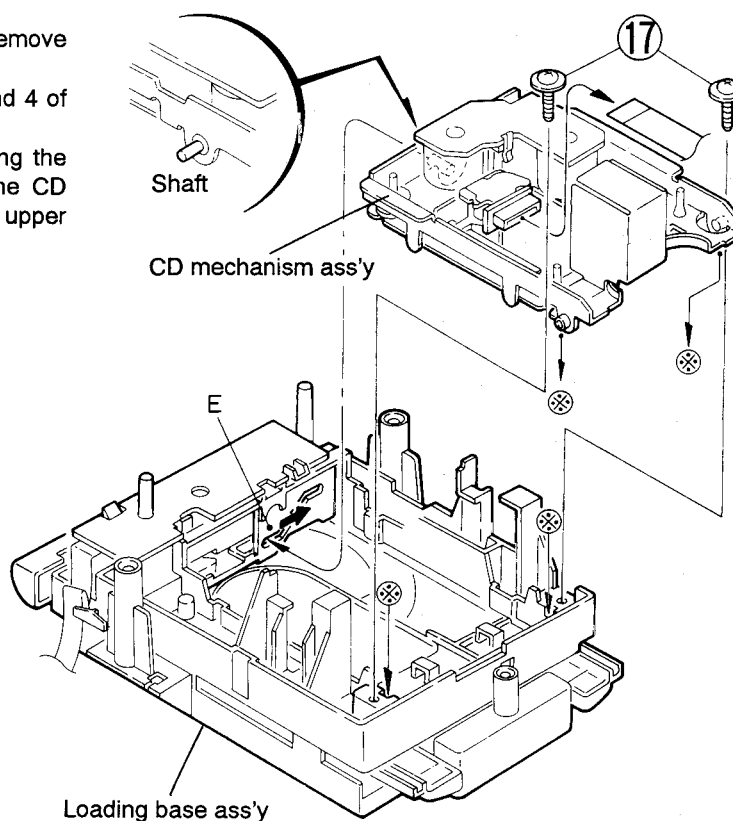


Fig. 5-15

### ■ How to Remove the CD Tray Drive Motor and its P.C.board (Refer to Figs. 5-16 and 5-17)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD player ass'y (Refer to Items 3 - 6 of "How to Remove the CD Player Ass'y").
4. Remove the CD tray (Refer to Items 4 - 6 of "How to Remove the CD Tray").
5. Remove the CD amplifier P.C. board (Refer to Items 4 - 6 of "How to Remove the CD amplifier P.C. board").
6. From the loading base ass'y, remove the two screws (18) retaining the CD drive motor.
7. Remove the belt from the CD tray drive motor.
8. After turning over the loading base ass'y, remove the ass'y while expanding the three claws (J, k and n) retaining the CD tray motor drive P.C. board in the arrow direction.
9. While raising the CD tray motor drive P.C. board, remove the two soldered positions (l and m) of the CD tray drive motor.

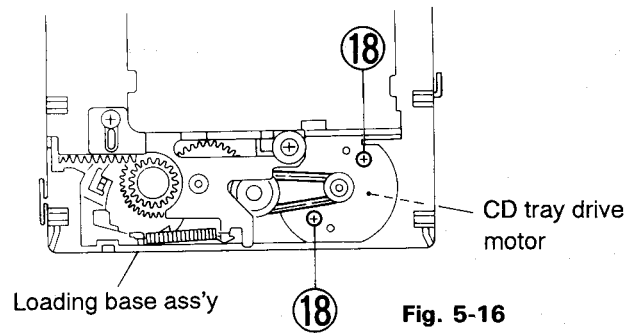


Fig. 5-16

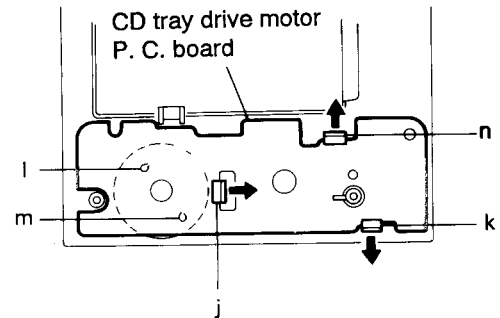


Fig. 5-17

### ■ How to Remove the Tuner & Power Amplifier P.C. board (Refer to Figs. 5-18 and 5-19)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD Player ass'y (Refer to "How to Remove the CD Player Ass'y").
4. Remove the three screws (19) retaining the tuner & power amplifier P.C. board.
5. From the connector CN903 on the power supply P.C. board, remove the 3 PIN connector outgoing from the connector W301 on the tuner & power amplifier P.C. board.
6. From the connector CN303 on the pre-amplifier P.C. board, remove the card wire outgoing from the connector CNA38 on the tuner power amplifier P.C. board.
7. From the connector CNA37 on the tuner & power amplifier P.C. board, remove the 15 PIN connector outgoing from the leaf switch of the cassette mechanism.

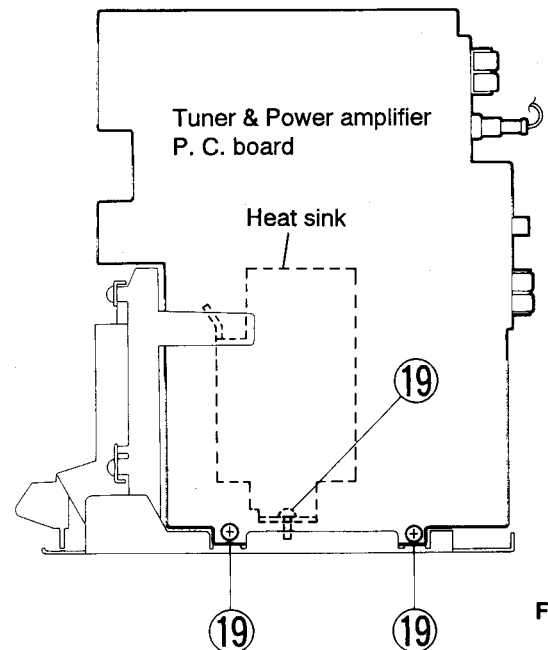


Fig. 5-18

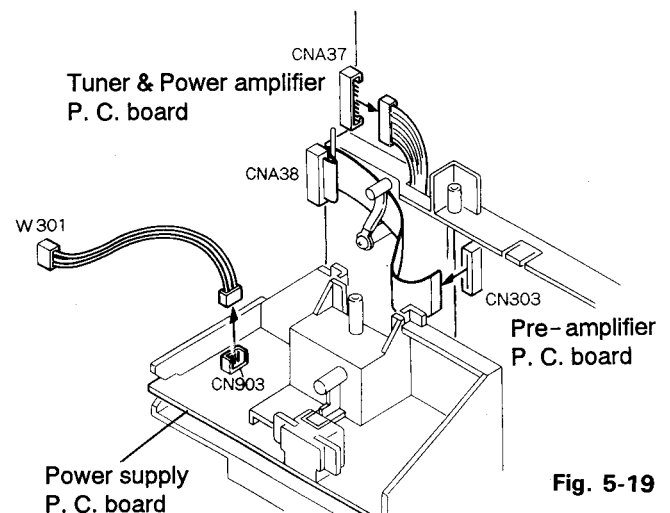


Fig. 5-19

## ■ How to Remove the Cassette Mechanism Ass'y (Refer to Figs. 5-20 and 5-21)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD player ass'y (Refer to "How to Remove the CD Player Ass'y").
4. Remove the tuner & power amplifier P.C. board (Refer to "How to Remove the Tuner & Power Amplifier P.C. board").
5. Remove the three screws (20) retaining the cassette mechanism ass'y together with the shield plate.
6. Disengage the three engagements (o, p and q) retaining the cassette mechanism ass'y from the chassis base while shifting the ass'y in the arrow direction.

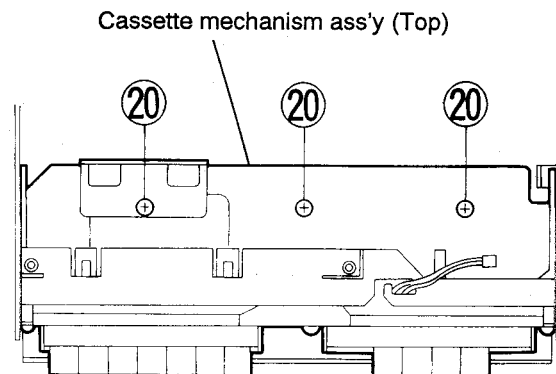


Fig. 5-20

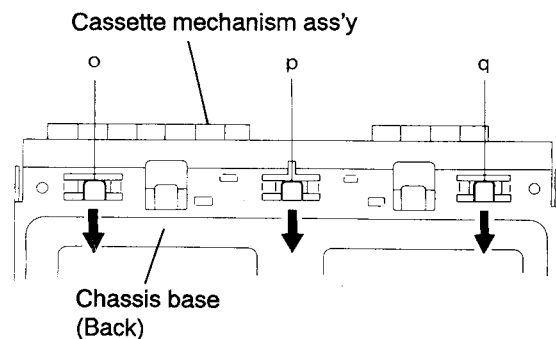


Fig. 5-21

## ■ How to Remove the Cassette Mechanism (Refer to Figs. 5-22 and 5-23)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD player ass'y (Refer to "How to Remove the CD Player Ass'y").
4. Remove the cassette mechanism ass'y (Refer to "How to Remove the Cassette Mechanism Ass'y").
5. Remove the 15 PIN connector from the notch on the mechanism chassis.
6. Remove the four screws (21) retaining the cassette mechanism.
7. From the connector CN302 on the pre-amplifier P.C. board, remove the 7 PIN connector outgoing from the record and play head of the mechanism A.
8. From the connector CN301 on the pre-amplifier P.C. board, remove the 3 PIN connector outgoing from the play head of the mechanism B.

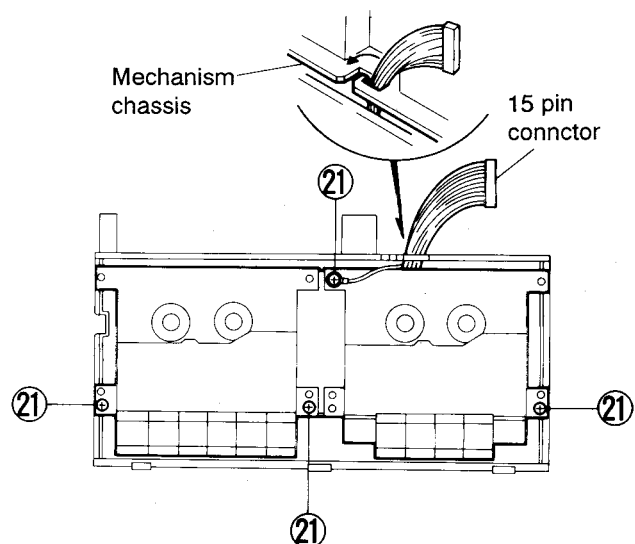


Fig. 5-22

### ■ How to Remove the Pre- amplifier P.C. Board (Refer to Fig. 5-23)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD player ass'y (Refer to "How to Remove the CD Player Ass'y").
4. Remove the cassette mechanism ass'y (Refer to "How to Remove the Cassette Mechanism Ass'y").
5. Remove the one screw (22) retaining the pre- amplifier P.C. board.
6. Remove the claws (r and s) on the mechanism chassis retaining the pre- amplifier P.C. board while moving the claws in the arrow direction.
7. From the notch on the mechanism chassis, disengage the two engagements (t and u) retaining the pre- amplifier P.C. board.

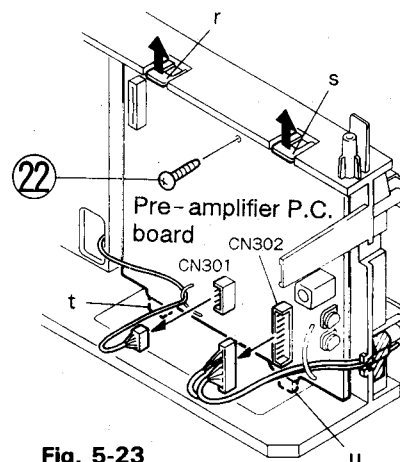


Fig. 5-23

### ■ How to Remove the Power Supply P.C. Board and Power Transformer (Refer to Figs. 5-24 ~5-27)

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD player ass'y (Refer to "How to Remove the CD Player Ass'y").
4. Remove the one screw (23) retaining the power supply P.C. board.
5. From the connector CN902 on the power supply P.C. board, remove the 2 PIN connector (red wire) outgoing from the power transformer. Similarly, remove another 2 PIN connector (brown and white wires) from the connector CN901.
6. After pulling the power supply P.C. board to the front side, remove the board from the engagements (v and w) on both sides of the power source chassis.
7. Remove the screw (24) retaining the power source chassis.
8. While pulling out the power source chassis diagonally to the front side, disengage the engagements (x and y).
9. Remove the four screws (25) retaining the power transformer.

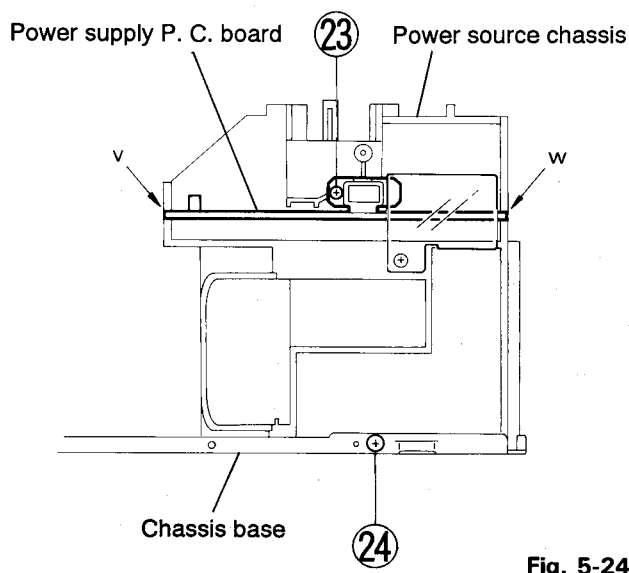


Fig. 5-24

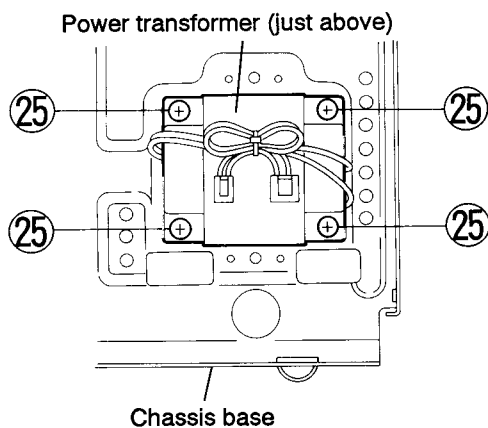


Fig. 5-26

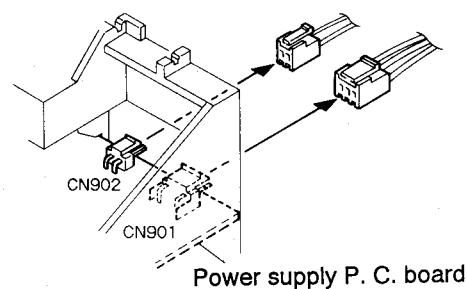


Fig. 5-25

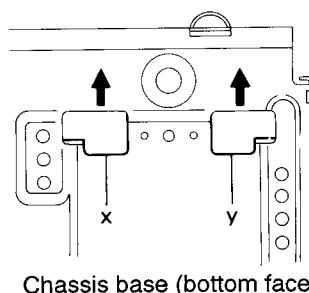


Fig. 5-27

## ■ How to Remove the Motor Pulley Ass'y (Refer to Figs. 5-28 ~ 5-30).

1. Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the front Panel Ass'y").
3. Remove the CD player ass'y (Refer to "How to Remove the CD Player Ass'y").
4. Remove the tuner & power amplifier ass'y (Refer to "How to Remove the Tuner & Power Amplifier Ass'y").
5. Remove the cassette mechanism ass'y (Refer to "How to Remove the cassette Mechanism Ass'y").
6. After turning over the cassette mechanism ass'y, remove the six screws (26) retaining the motor bracket.
7. Insert a minus screw driver between the opening between the two engagements (G and H) retaining the motor bracket and chassis ass'y, and remove the bracket and ass'y.
8. Remove the two belts (a and b) hanged between the motor pulley ass'y and the flywheels of cassette mechanisms A and B (Caution: Remove the belts so carefully that these belts are not contaminated by oil,ase and so forth).
9. Remove the three screws (27) retaining the motor pulley ass'y.

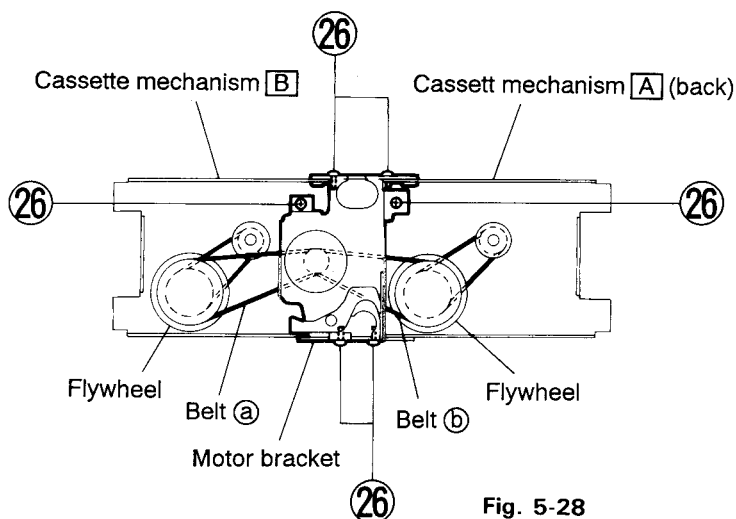


Fig. 5-28

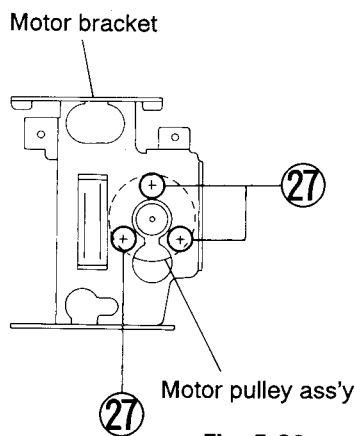


Fig. 5-30

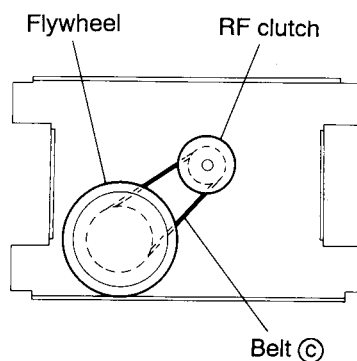


Fig. 5-31

## ■ How to Remove the Flywheel (Refer to Figs. 5-31 and 5-32)

1. Remove the rear cabinet (Refer to "How Remove the Rear Cabinet").
2. Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
3. Remove the CD player ass'y (Refer to "How to Remove the CD Player Ass'y").
4. Remove the tuner & power amplifier ass'y (Refer to "How to Remove the Tuner & Power amplifier Ass'y").
5. Remove the cassette mechanism ass'y (Refer to "How to Remove the Cassette Mechanism Ass'y").
6. Remove the motor pulley ass'y (Refer to "How to Remove the Motor Pulley Ass'y").
7. Remove the belt c hanged between the RF clutch and flywheel.
8. Remove the washer and ring attached to the capstan shaft as shown in Fig. 5-33.

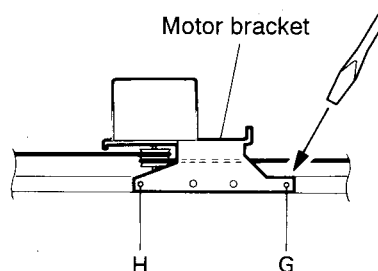


Fig. 5-29

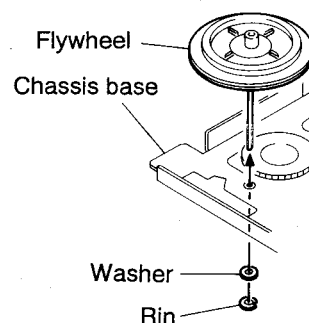


Fig. 5-32

## 6. Main Adjustment

### ■ Test Instruments required for adjustment

1. Low frequency oscillator  
(oscillation frequency: 50Hz to 20kHz)  
( Output : 0 dBs with 600  $\Omega$  terminator)
2. Attenuator( Impedance : 600  $\Omega$  )
3. Test Tapes  
VTT712 ..... For tape speed,wow and  
flutter measurement  
VTT724 ..... For play back output level  
VTT739 ..... For playback frequency  
response check  
VTT703L.....For head azimuth measurement
4. Electronic voltmeter, Distortion meter
5. Resistor...600  $\Omega$  for attenuator matching
6. Torque gauge..... Cassette type for CTG – N  
mechanism adjustment
7. Wow and Flutter meter , Frequency counter
8. Blank tape.....Normal : AC224,Chrome: AC513
9. Extension cable..... EXTH5 – JIG

### ■ Measuring conditions (Amplifier section)

Rating source ..... AC 240 V (50/60 Hz : A)  
AC110~127V/220~240V (50/60Hz : UB/US/U)  
Reference output : Speaker ..... 0 dBs (0.775 V) / 4  $\Omega$   
: Headphone ..... - 23 dBs (0.055 V)/ 32  $\Omega$

### ● Standard position of functionswitches

Active hyper – bass switch ..... OFF  
Sound menu switch ..... OFF  
Live surround switch ..... OFF

### ● Standard position of volume control

Main volume adjust ..... 0 dBs output (Vol. 22)  
Microphone mixing ..... MAXIMUM  
Standard test frequency ..... 1 kHz  
: unless otherwise specified.  
Reference input level ..... AUX : - 8 dBs  
Mixing mic. : - 54 dBs  
Input for REC/PB, Check & measuring ..... - 28 dBs

### ● Test remarks

1. Negative side of the input and output on the testing set, that ought to be separately to each other, and then bear in mind there connection the testing set with 2 channeles Electronic voltmeter, the negative side never connect commonly.
2. Replaced output load with a dummy and that lead wire to be used as big as possible.
3. Attach top cover when measuring and connect filter shown below Fig. 1 to V. meter.

### ■ Measuring condition (Radio section)

AM frequency ..... 400Hz modulation 30%  
FM frequency ..... 400Hz modulation  
frequency deviation 22.5kHz

### ● Careful points for adjustment

1. Connect 30 pF capacitor and 33 k  $\Omega$  resistor to the output side of the IF sweeper in series while 0.082  $\mu$  F capacitor and 100k  $\Omega$  resistor to the input side in series.
2. Set output level of the IF sweeper as minimum as adjustable.
3. RF Alignment order  
Procedure of the steps of tracking should be kept.

## ■ Arrangement of adjust

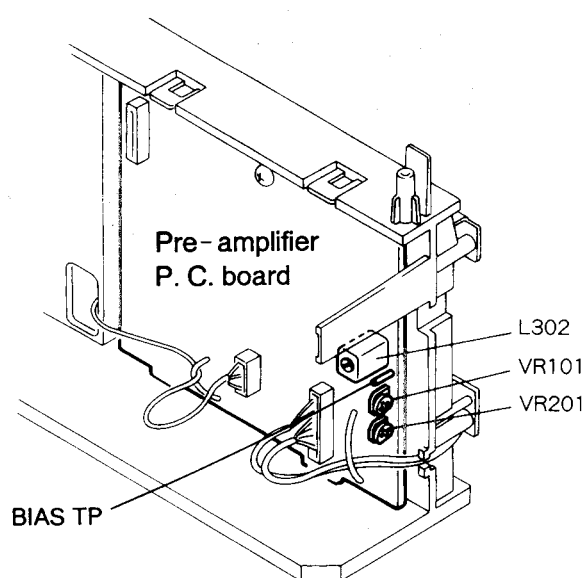
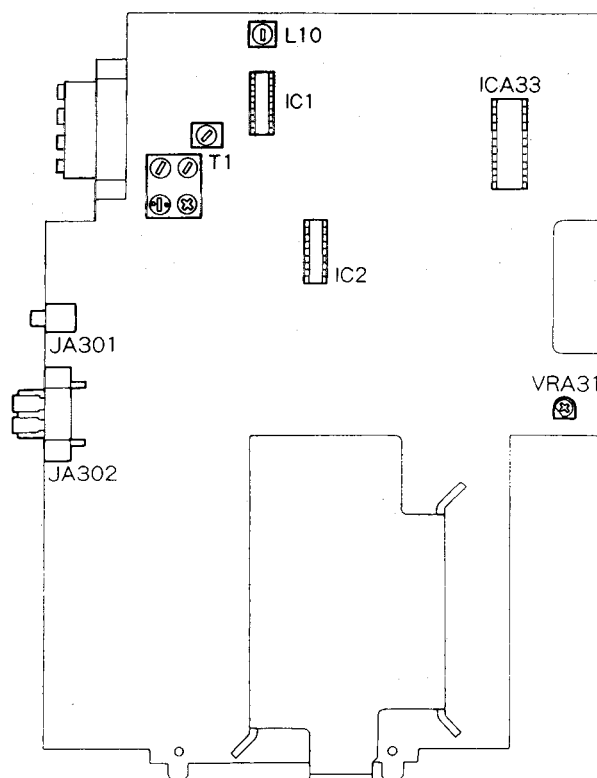


Fig. 6-1



Tuner &amp; Power amplifier P. C. board

Fig. 6-2

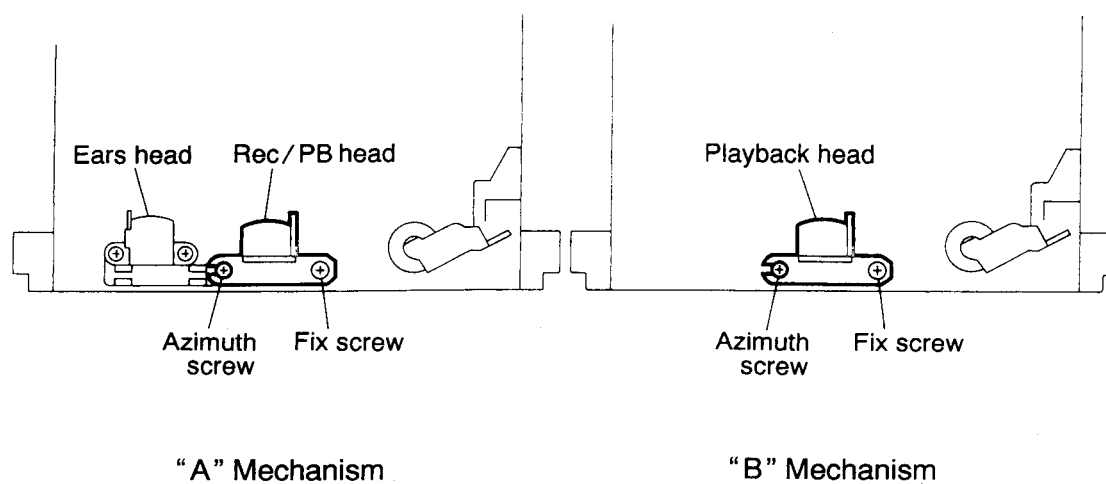


Fig. 6-3

## ■ How to connect the Extension Cable for Adjustment and Confirmation

- Step 1: Remove the rear cabinet (Refer to "How to Remove the Rear Cabinet").
- Step 2: Remove the front panel ass'y (Refer to "How to Remove the Front Panel Ass'y").
- Step 3: Remove the CD player ass'y (Refer to "How to Remove the CD Player Ass'y").
- Step 4: With the extension 4PIN connector, connect the 4PIN connector outgoing from the connector WM301 on MIC jack P.C. board and the connector CNA31 on the tuner & power amplifier P.C. board.
- Step 5: From the connector CN505 on the CD tray motor drive P.C. board, remove the card wire outgoing from the connector WM301 on the MIC jack P.C. board, and connect the extension 7PIN connector instead.

- Step 6: From the connector CNA33 on the tuner & power amplifier P.C. board, remove the 7PIN connector outgoing from the connector CN603 on the CD amplifier P.C. board, and connect the extension 7PIN connector instead.
- Step 7: From the connector CN703 on the system microcomputer P.C. board, remove the card wire outgoing from the connector CN601 on the CD amplifier P.C. board, and connect the extension 9PIN card wire instead.
- Step 8: From the connector CNA34 on the tuner & power amplifier P.C. board, remove the card wire outgoing from the connector CN701 on the system microcomputer P.C. board, and connect the extension 7PIN card wire instead.

## ■ No. and Breakdown of Extension Cable Parts: EXTHX5 – JIG

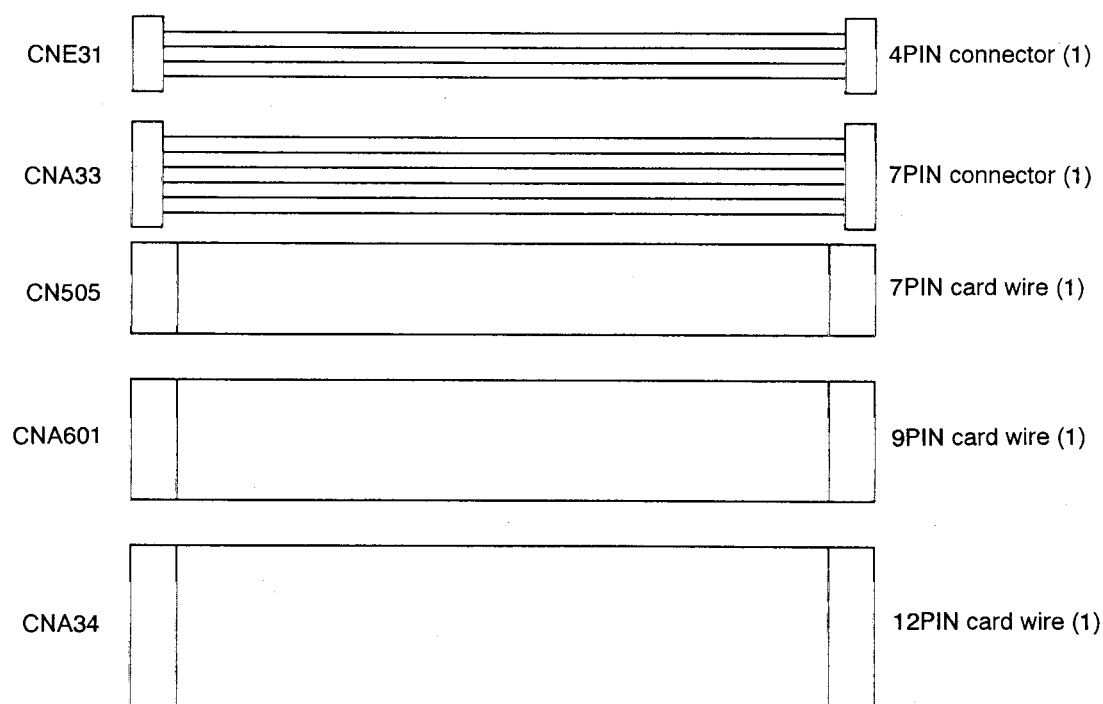


Fig. 6-4

# Mechanism & Amplifier Sections

| Item                                                  | Conditions                                                                       | Adjustment & Confirmation Methods                                                                                                                                                                                                                                                                                                          | Stand. values                                                                                    | Adjust             |
|-------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------|
| Head azimuth adjustment                               | Test tape : VTT703L(10 kHz)<br>Measuring terminal : Headphone                    | ① Play the Test tape VTT703L .<br>② Adjust the head azimuth so that the phase difference between both of the decks A and B becomes minimum within 2dB from the maximum output point. After adjustment, lock the head azimuth screw over more than half its peripheral.<br>※ Whenever the head is changed the azimuth should be readjusted. | Minimum Phase difference within 2dB from maximum output point.                                   | Head azimuth screw |
| Tape speed adjustment<br><br>Wow-Flutter Confirmation | Test tape : VTT712(3kHz)<br>Measuring terminal : Headphone                       | ① Adjust VRA31 so that the frequency counter reading becomes 3010 Hz $\pm$ 10Hz or less when the test tape VTT712 is played in the deck A after the tape has been winded completely. When played in the deck B the frequency counter reading should be 3010 Hz $\pm$ 60 Hz.<br>② The wow-Flutter should be 0.4% within (JIS UNWTD).        | (Deck A)<br>3010 Hz $\pm$ 10Hz<br>(Deck B)<br>3010 Hz $\pm$ 60Hz<br>(Wow&Flutter)<br>0.4% within | VRA31              |
| Playback output level confirmation                    | Test tape : VTT724(1kHz)<br>Measuring terminal : Headphone                       | Confirm that the output deviation between the terminals Lch and Rch is 4dB or less when the test tape VTT724 is played in the deck A.                                                                                                                                                                                                      | 4dB or less                                                                                      | —                  |
| Playback frequency characteristics confirmation       | Test tape : VTT739<br>Measuring terminal : Headphone                             | Confirm that the output from both decks A and B is within -7dB $\pm$ 4dB at 6,3Hz and within 0dB $\pm$ 3dB at 10kHz with reference to 1kHz when the test tape VTT739 is playback.                                                                                                                                                          | Diviation against 1kHz at headphone out<br>(63Hz)<br>: -7 $\pm$ 4dB<br>(10kHz)<br>: 0 $\pm$ 3dB  | —                  |
| Bias oscillation frequency adjustment                 | Test tape : AC513 (Chrome)<br>Test point : BIAS TP ( on the Pre-amplifier board) | ① After setting the test tape AC513 into the deck A, record the tape and keep it at PAUSE.<br>② Put the frequency counter (with 470 $\Omega$ resistor) on the test point BIAS TP and measure the bias oscillation frequency.<br>③ Adjust L302 so that the frequency counter value becomes 100.0kHz $\pm$ 0.15kHz.                          | 100.0kHz $\pm$ 0.15kHz.                                                                          | L302               |

| Item                                        | Conditions                                                                                                   | Adjustment & Confirmation Methods                                                                                                                                                                                                                                                                                                                                                                                                      | Stand. values                                                                                 | Adjust                 |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------|
| Rec/ Playback frequency response adjustment | Adjust at AUX position,A mecha.<br>Test tape : AC224<br>Measuring input : AUX IN<br>Measuring out :Headphone | ① Input the reference frequencies of 1kHz and 10kHz to the AUX IN terminal.<br>② Adjust VR101 of Lch and VR201 of Rch so that the deviation of headphone output becomes $-1\text{dB} \pm 1\text{dB}$ at 1kHz and 10kHz when the test tape (AC224) is recorded and replayed.<br>③ Confirm the deviation of headphone output becomes $-1\text{dB} \pm 4\text{dB}$ at 1kHz and 10kHz when the test tape (AC513) is recorded and replayed. | Normal tape : $-1\text{dB} \pm 1\text{dB}$<br><br>High P. tape : $-1\text{dB} \pm 4\text{dB}$ | Lch:VR101<br>Rch:VR201 |
| Rec/Playback sensitivity confirmation       | Adjust at AUX position,A mecha.<br>Test tape : AC224<br>Measuring input : AUX IN<br>Measuring out :Headphone | Confirm that the deviation between the output level of the test tapes (AC224) and VTT724 is within $0\text{dB} \pm 4\text{dB}$ when the reference frequency of 1kHz is recorded and replayed through the AUX IN terminal.                                                                                                                                                                                                              | Normal tape : $0\text{dB} \pm 4\text{dB}$                                                     | —                      |
|                                             |                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                               |                        |
|                                             |                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                               |                        |
|                                             |                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                               |                        |

■ Arrangement of Adjusting Position  
:CD Amplifier P. C. Board

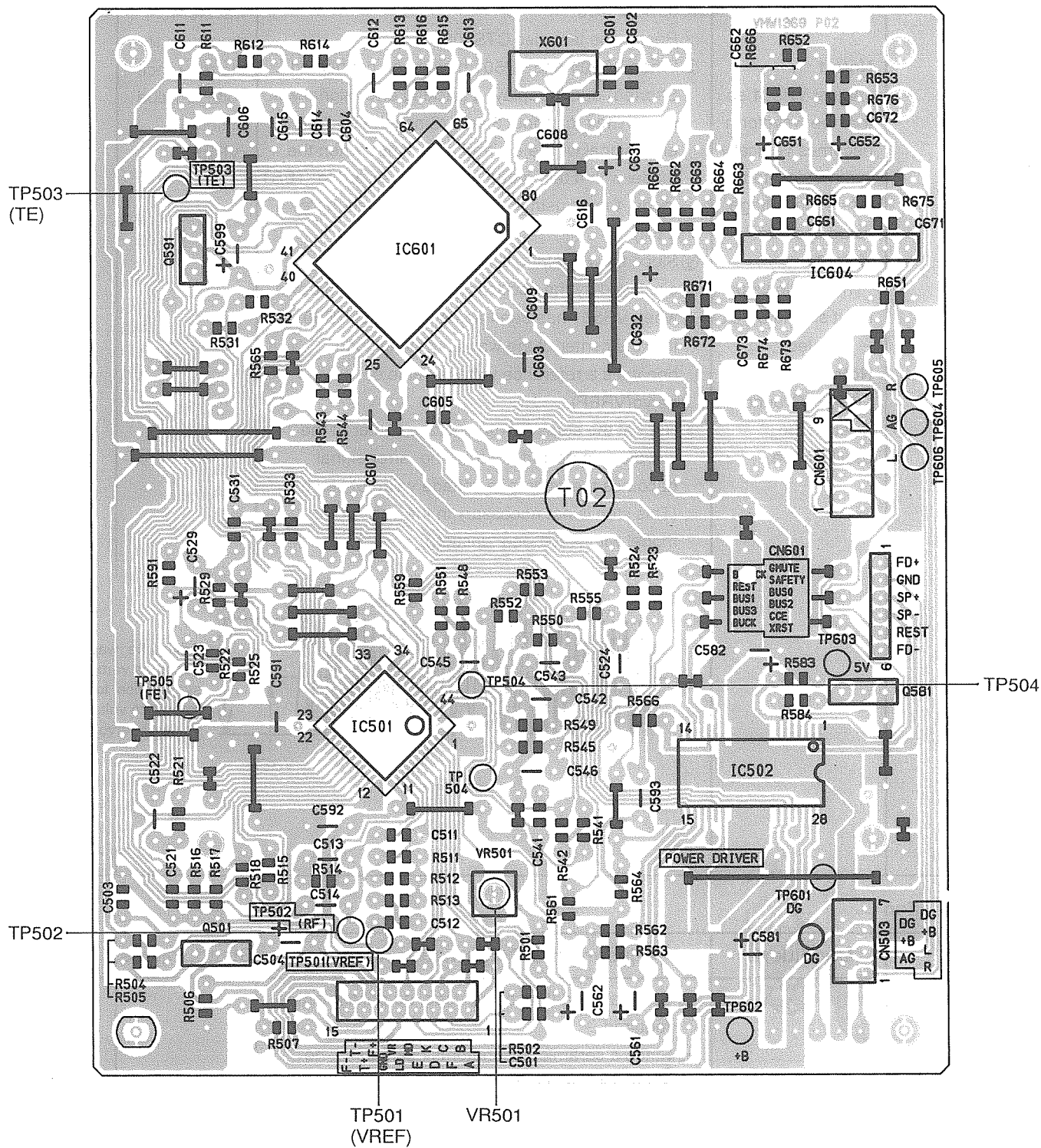


Fig. 6-5

## ■ CD player Section

| Item                       | Conditions                                                                                                                                                                                                                                                                                                  | Adjustment & Confirmation Methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Stand. values                                                                           | Adjust |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------|
| Tracking offset adjustment | Test disc :CTS1000<br>Oscilloscope<br><br><b>Note 1</b><br>Adjust VR501 so that the waveform becomes vertically symmetrical to the reference voltage value of servo.<br><br><b>Note 2</b><br>The oscilloscope input should be DC – coupled.<br><br><b>Note 3</b><br>VREF: Ground level on the oscilloscope. | ① Connect TP503 (TE) and TP501 (VREF) respectively to the hot and ground sides of the oscilloscope.<br>② Replay the test disc CTS1000.<br>③ When TP504 and TP501 have been connected (Shorted) during replay, a tracking error signal will be emitted for about 3 sec. (Since the tracking error signal will be emitted at all times when the model with a test mode function is shifted to TEST mode, the adjustment can be performed more easily).<br>④ Since the waveform of tracking error signal displayed by the oscilloscope goes up and down when VR501 has been adjusted, adjust VR501 so that the center of the waveform amplitude becomes a reference voltage value of servo(VREF).<br>⑤ Repeat the steps ② ~ ④ until the center of the waveform amplitude of tracking error signal becomes the reference voltage value of servo (This step is not necessary in the case of the model with test mode function). | Adjust the center of waveform amplitude to the reference voltage value of servo (VREF). | VR501  |

Tracking error signal

VREF

Adjust the waveform becomes vertically symmetrical to the reference voltage value of servo.

Fig. 6-6

## ■ Tuner Section

| Item                                   | Conditions | Adjustment & Confirmation Methods                                                                                                     | Stand. values | Adjust |
|----------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------|--------|
| FM, AM IF adjustment<br>MPX adjustment |            | ☆ Since a solid IF is being used, no adjustment is required.<br>☆ Since a ceramic resonator is being used, no adjustment is required. |               |        |
| FM tracking adjustment                 |            | ☆ Since a fixed coil is being used, no adjustment is required.                                                                        |               |        |

## ■ Self - Diagnosis Function of CD

### 1. Purpose

This function is designed to display an error to readily clarify the cause of such an error should any trouble occur in CD.

### 2. How to Use the Function

- (1) Turn the microcomputer action of the set to [TEST] mode.
- (2) Press **POWER** + **+10** + **[ ]/CLEAR** on the remote controller at the same time. Confirm that all of the LCDs have been turned on when set to the [TEST] mode subsequent to the step in Item (2).
- (3) When the CD trouble has occurred after starting CD, an error code will be displayed on the display section of LCD, etc.

### 3. Error code and location in trouble

(See Figs. 6 - 7 ~ 6 - 11)

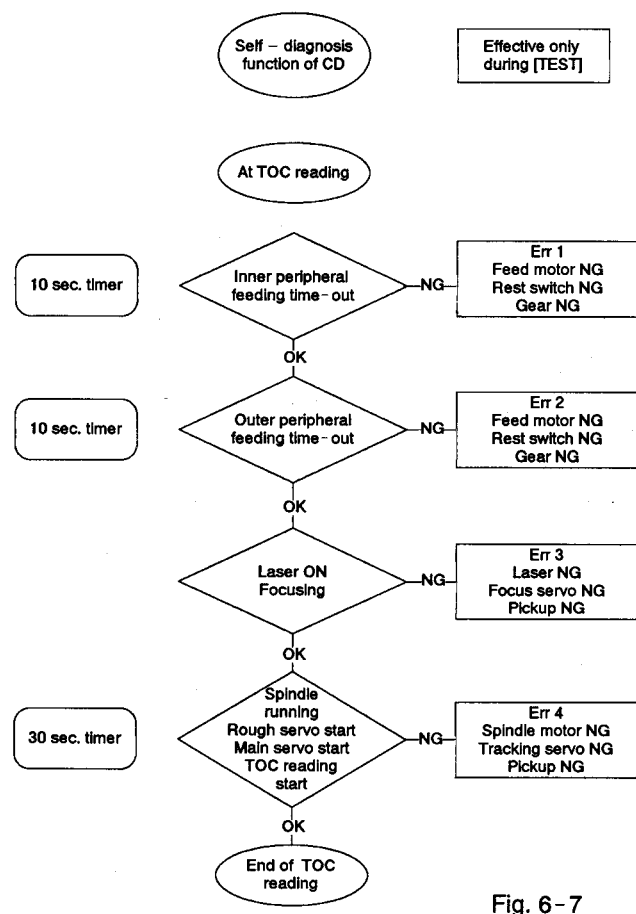


Fig. 6 - 7

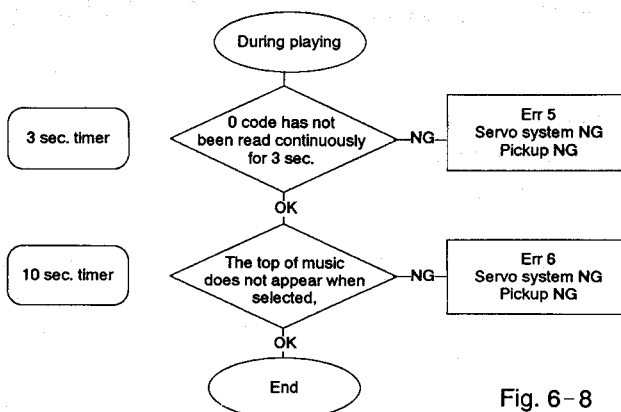


Fig. 6 - 8

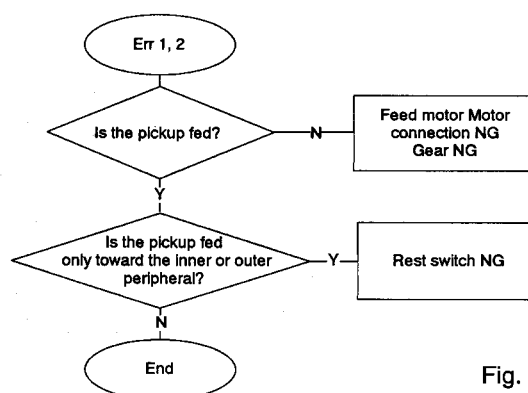


Fig. 6 - 9

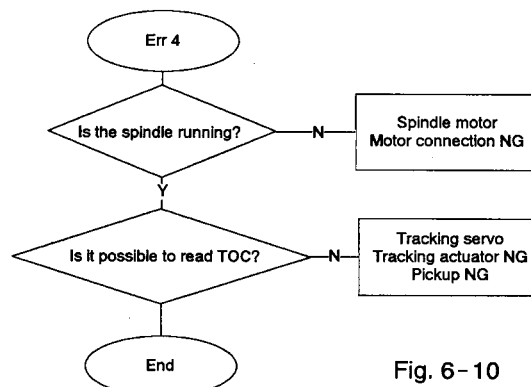


Fig. 6 - 10

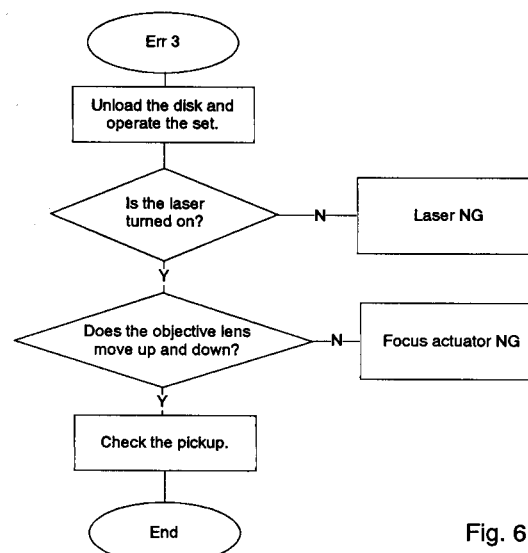


Fig. 6 - 11

# 7. Troubleshooting of CD Part

## General descriptions of TOC (Table of Contents) readings

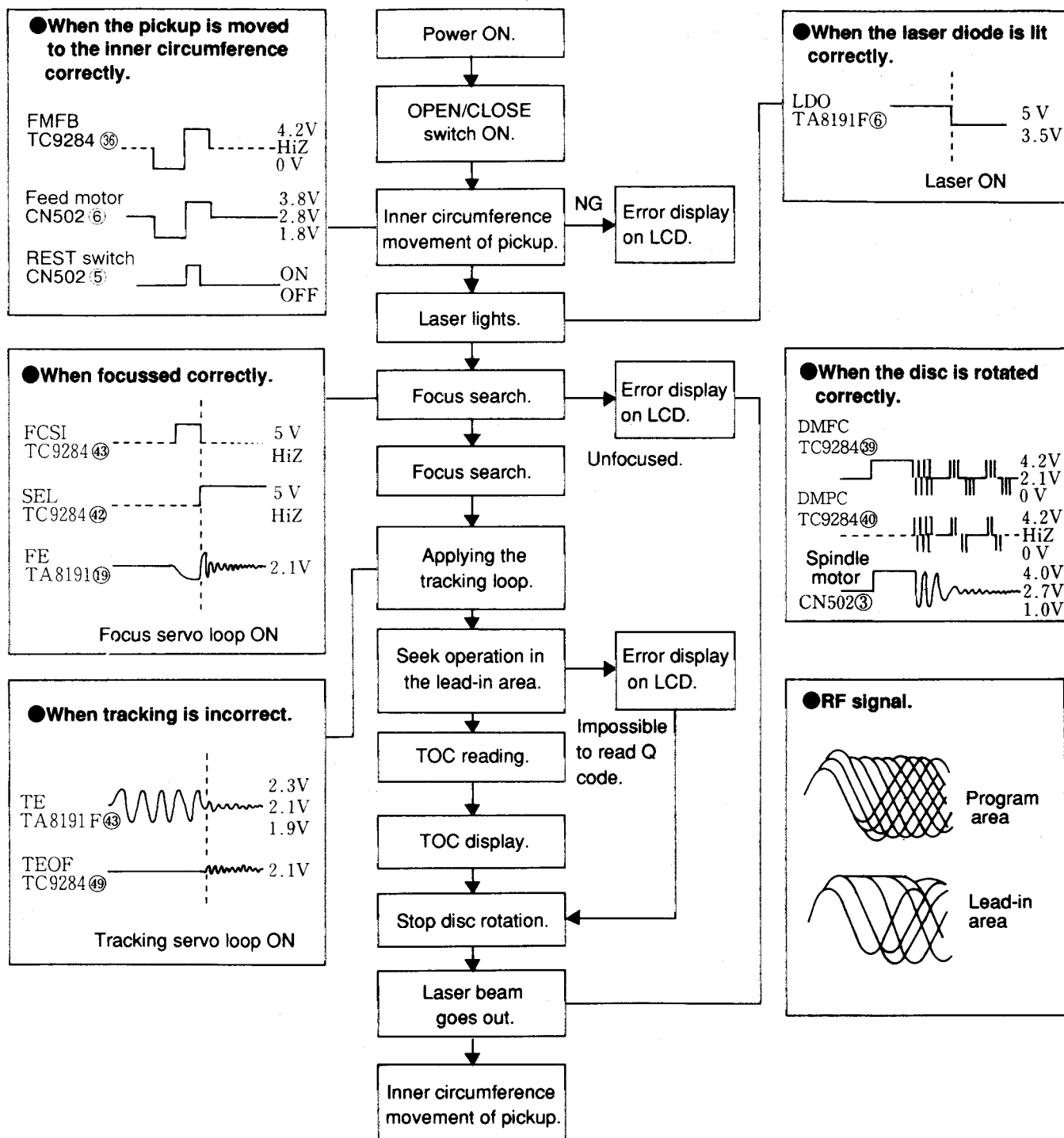


Fig. 7-1

# General section

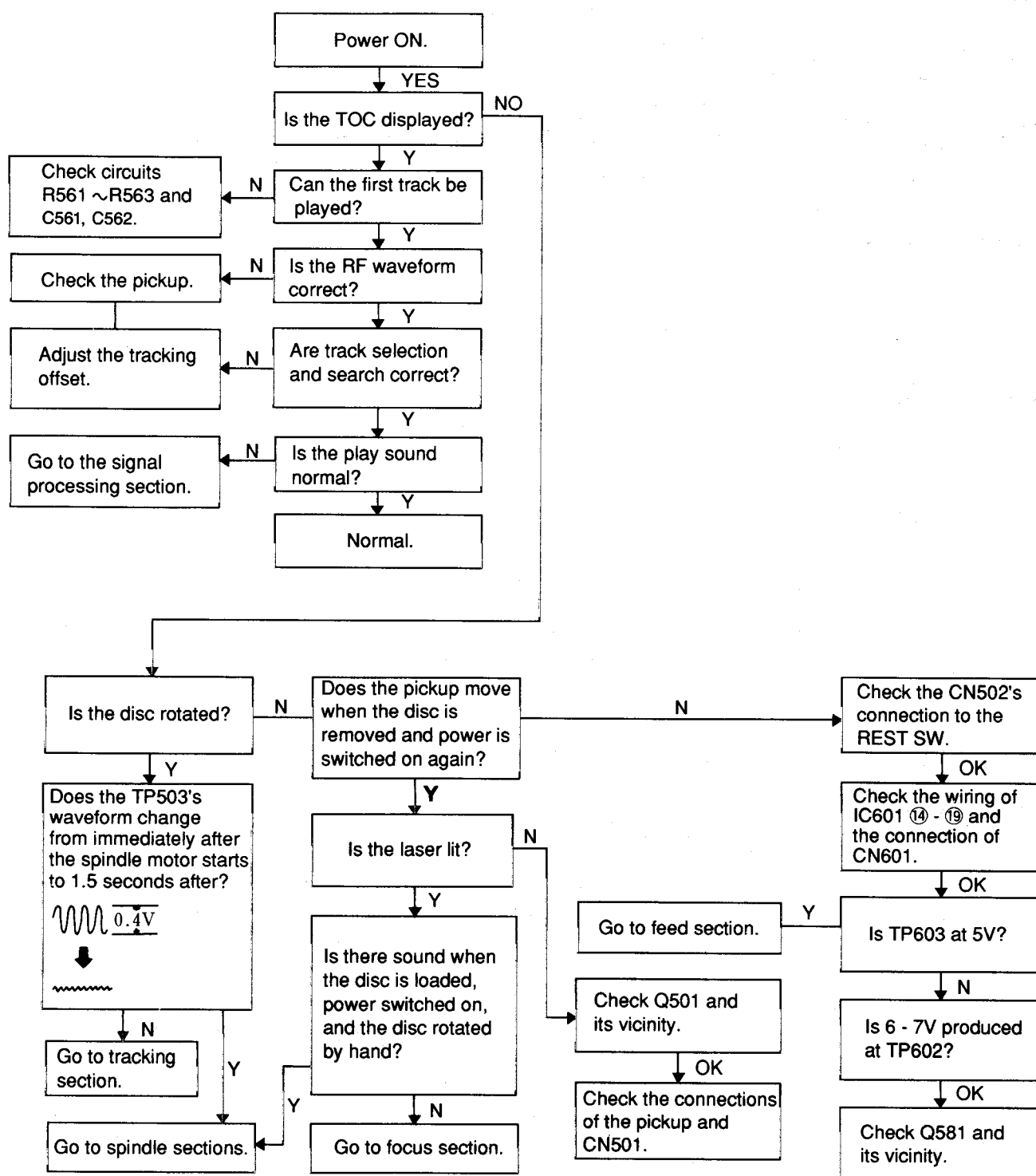


Fig. 7-2

### ■ Feed section

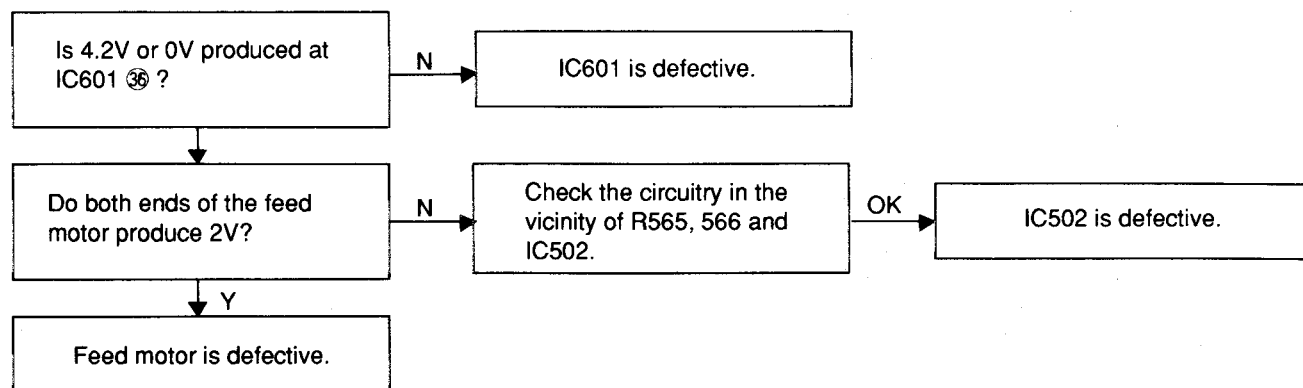


Fig. 7-3

### ■ Focus section

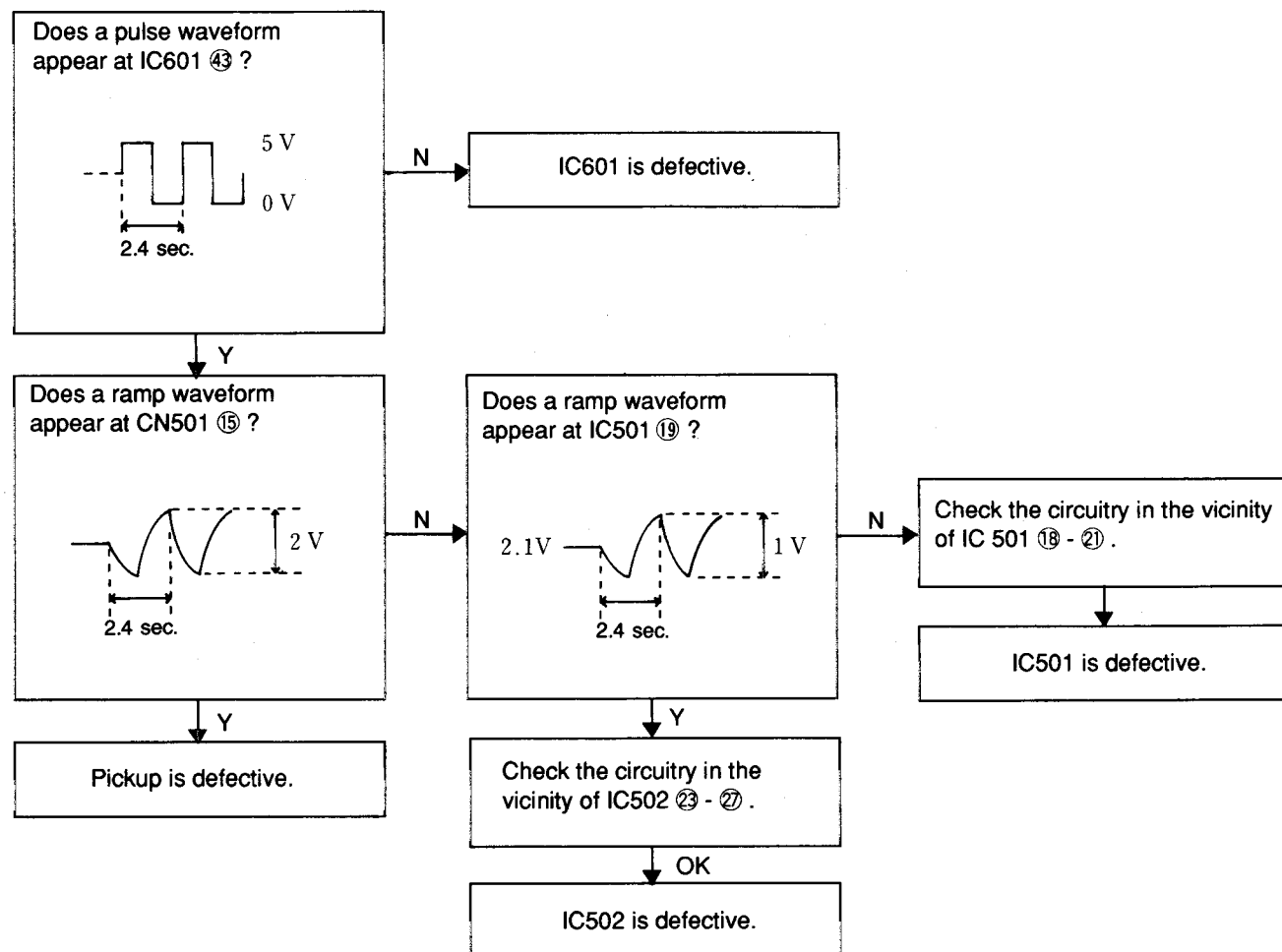


Fig. 7-4

## ■ Spindle motor section

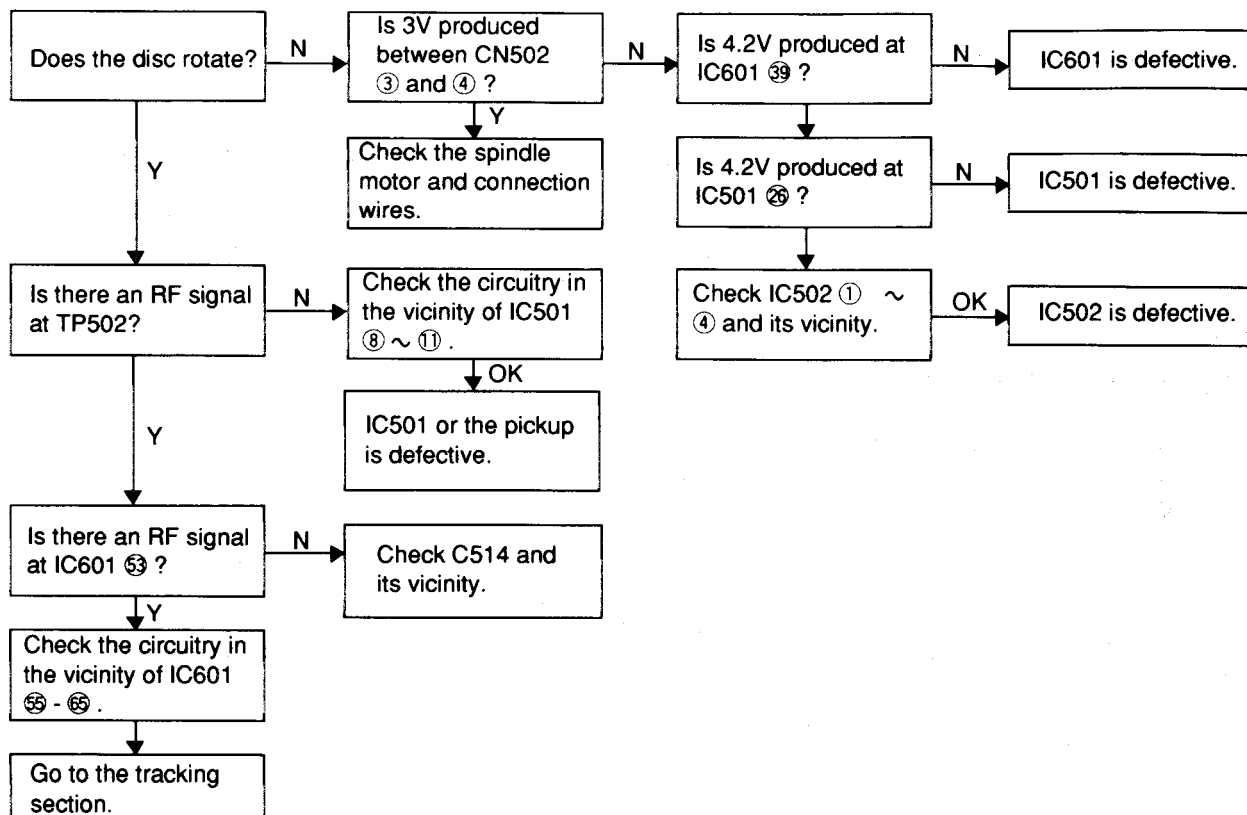


Fig. 7-5

## ■ Signal processing section

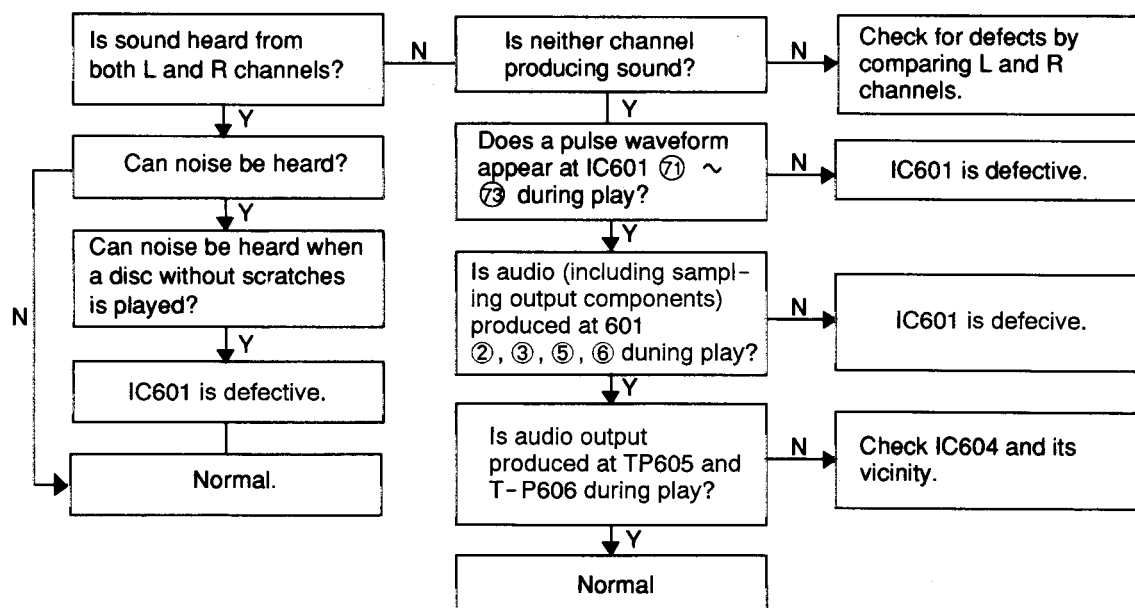


Fig. 7-6

## ■ Tracking section

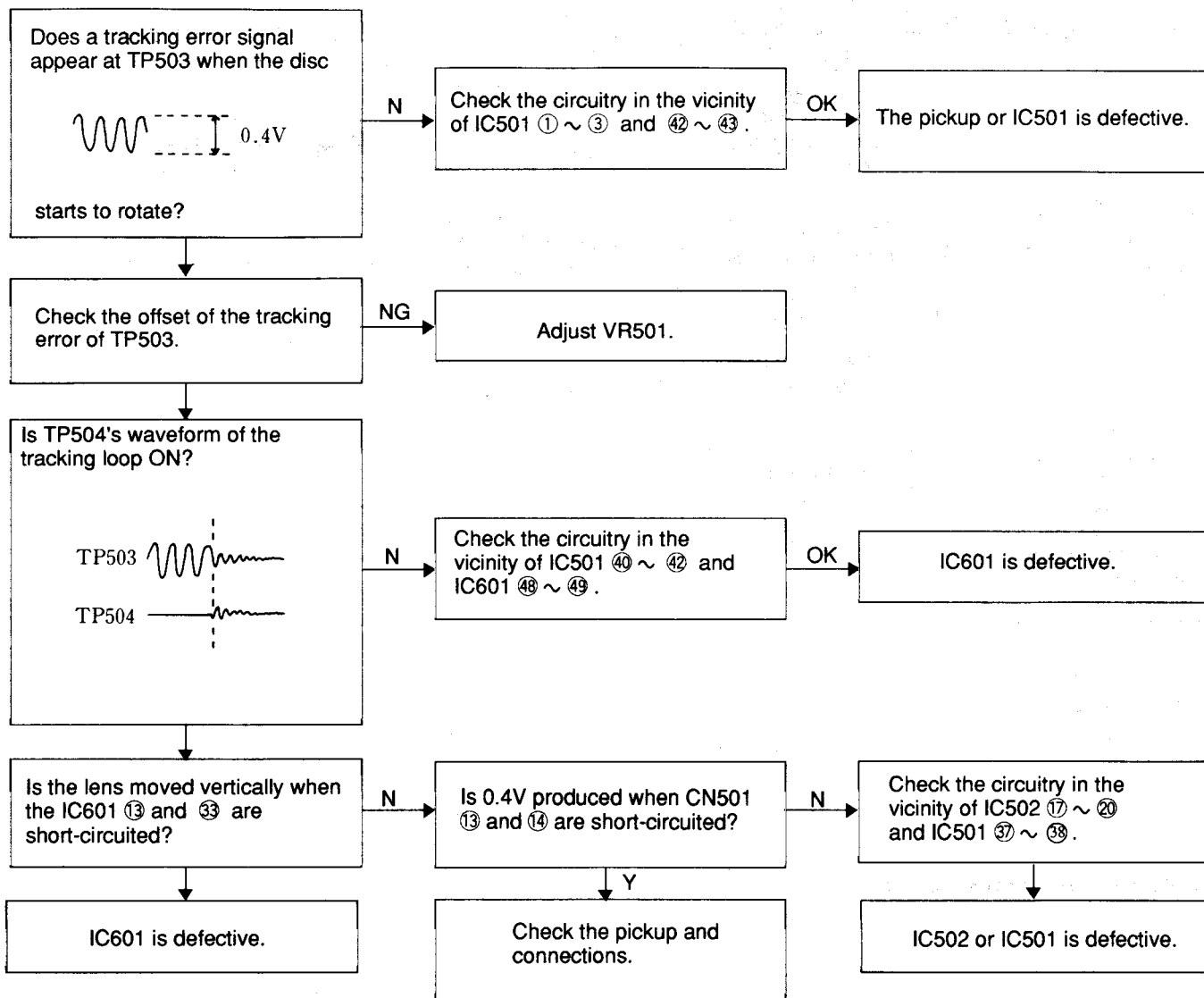


Fig. 7-7

# 8. Analytic Drawing and Parts List

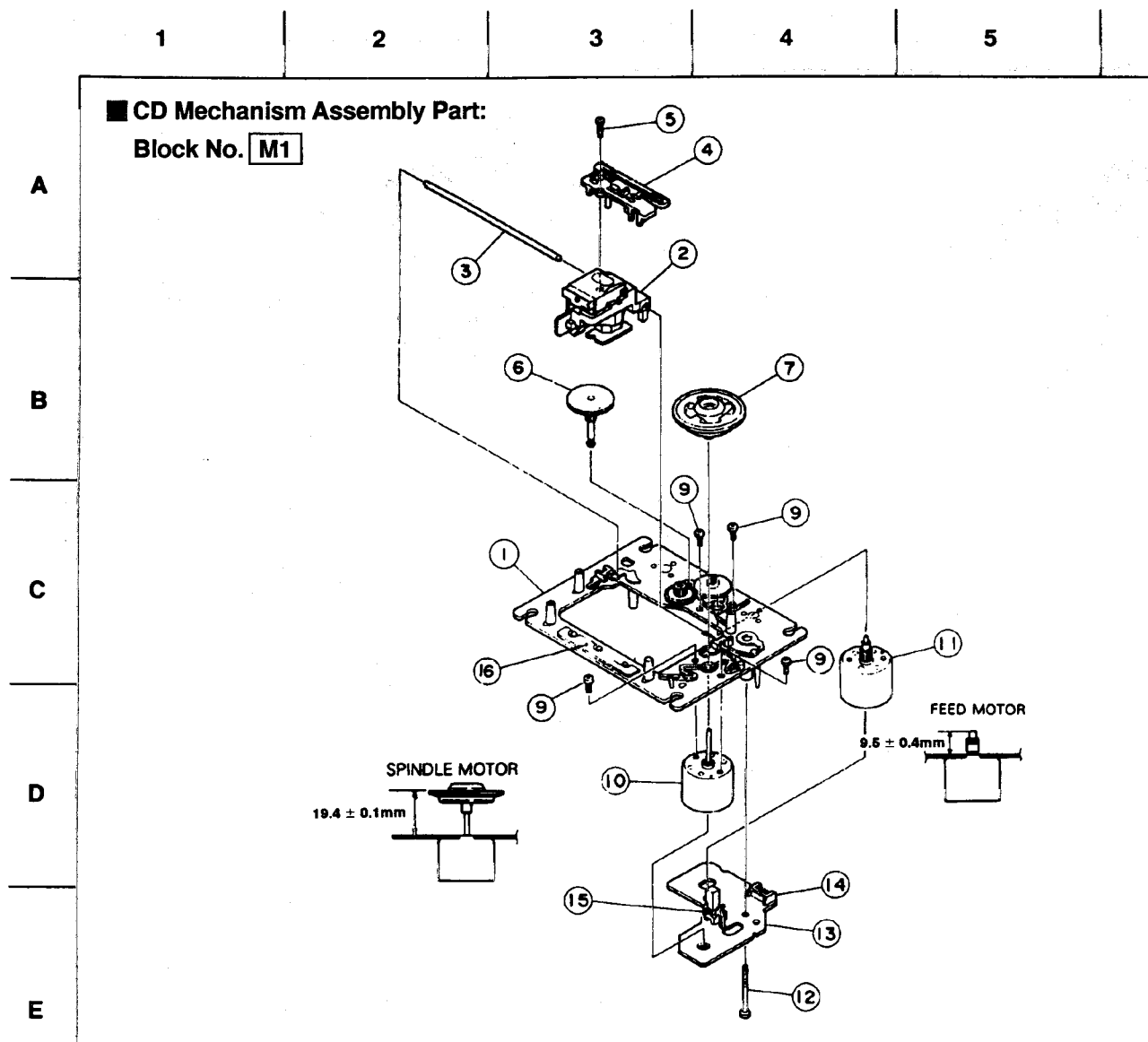


Fig. 8-1

## CD Mechanism Assembly Parts List

BLOCK NO. **M1MM**

| REF. | PARTS NO.     | PARTS NAME      | REMARKS | QTY | SUFFIX | CLR |
|------|---------------|-----------------|---------|-----|--------|-----|
| 1    | EPB-002A      | MECHA BASE ASSY |         | 1   |        |     |
| 2    | OPTIMA-6S     | OPTICAL PICK-UP |         | 1   |        |     |
| 3    | E406777-001   | GUIDE SHAFT     |         | 1   |        |     |
| 4    | E307746-001   | CD RACK         |         | 1   |        |     |
| 5    | SDSF2006Z     | SCREW           |         | 1   |        |     |
| 6    | EPB-003A      | MECHA GEAR      |         | 1   |        |     |
| 7    | E75807-301    | TURN TABLE      |         | 1   |        |     |
| 9    | SDSP2003N     | SCREW           |         | 3   |        |     |
| 10   | E406783-001   | DC MOTOR        |         | 1   |        |     |
| 11   | E406784-001SA | DC MOTOR ASSY   |         | 1   |        |     |
| 12   | E75832-001    | SPECIAL SCREW   |         | 1   |        |     |
| 13   | EMW10190-001  | PRINTED BOARD   |         | 1   |        |     |
| 14   | EMV5109-006B  | CONN. TERMINAL  |         | 1   |        |     |
| 15   | ESB1100-005   | LEAF SWITCH     |         | 1   |        |     |
| 16   | E407212-001   | DAMPER          |         | 1   |        |     |

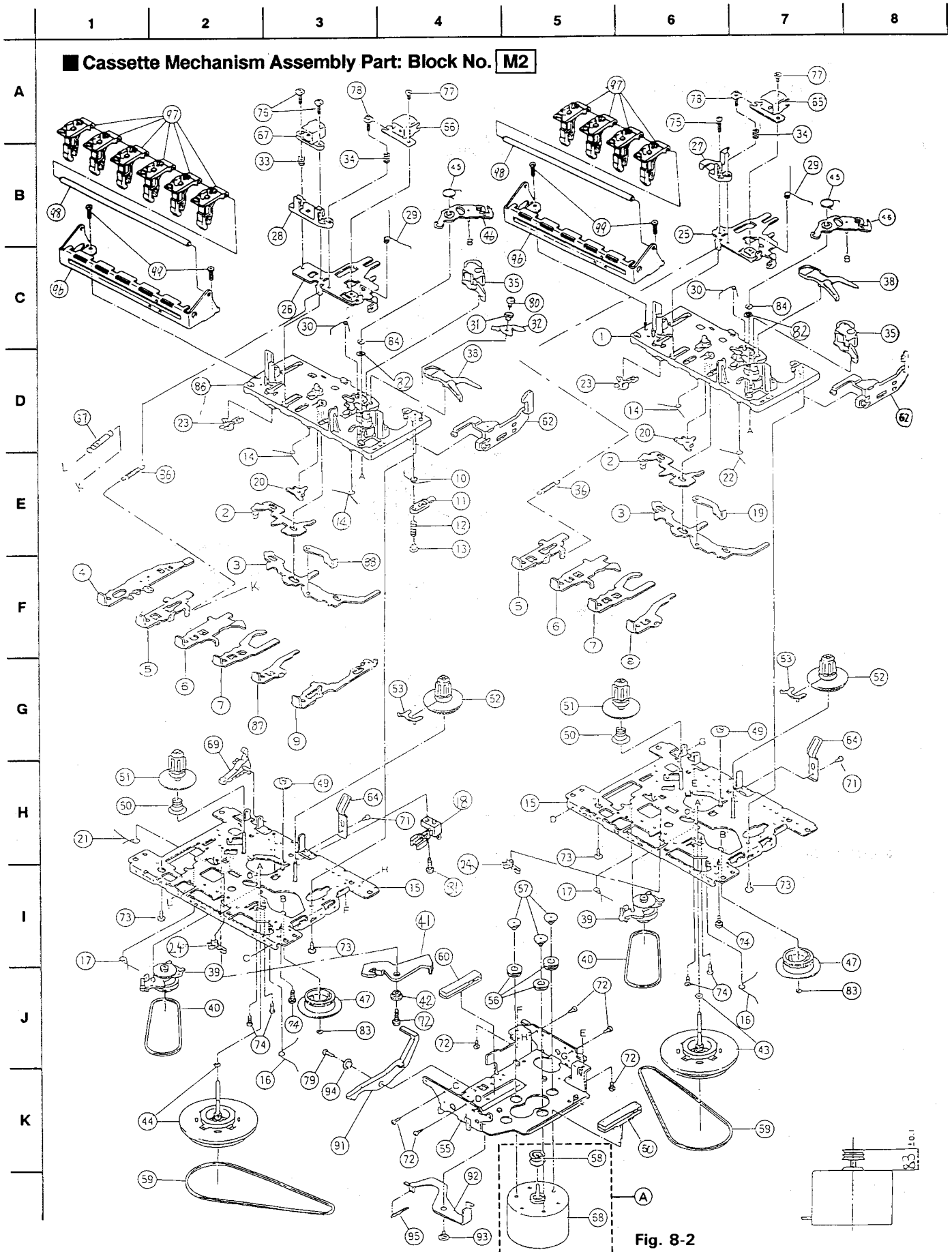


Fig. 8-2



# Cassette Mechanism Assembly Parts List

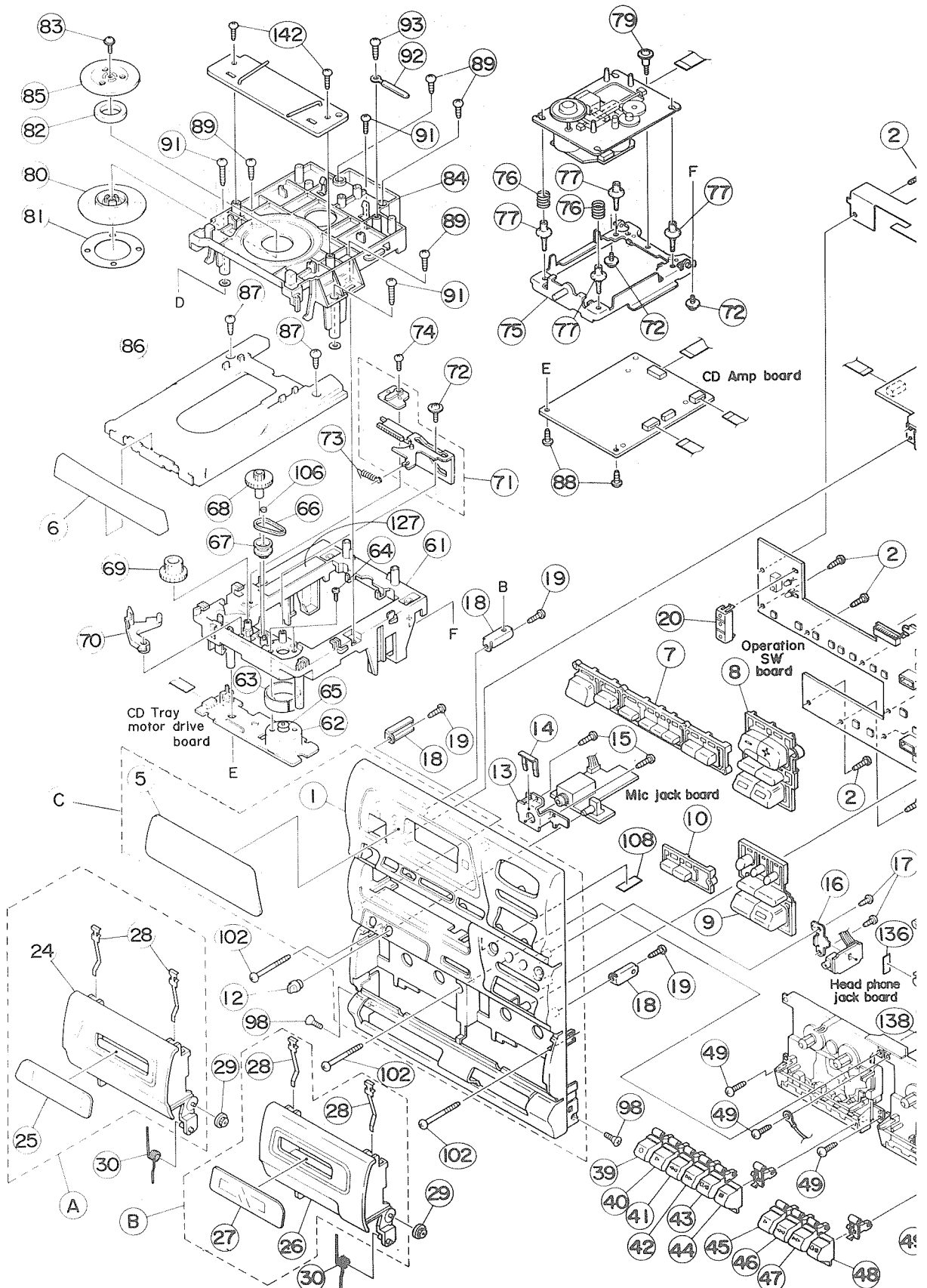
BLOCK NO. M2MM

| REF. | PARTS NO.   | PARTS NAME      | REMARKS          | QTY | SUFFIX | CLR |
|------|-------------|-----------------|------------------|-----|--------|-----|
| A    | 1921123187T | CAPSTAN MOTOR   | REF.NO.58,68     | 1   |        |     |
| 1    | 192114301ZT | BASE ASS'Y      |                  | 1   |        |     |
| 2    | 19211409T   | SWITCH ACTUATOR |                  | 2   |        |     |
| 3    | 19211438T   | PUSH B.ACTUATOR |                  | 2   |        |     |
| 4    | 19211422T   | BUTTON LEVER    | REC BUTTON       | 1   |        |     |
| 5    | 19211484T   | BUTTON LEVER    | PLAY BUTTON      | 2   |        |     |
| 6    | 19211424T   | BUTTON LEVER    | REW BUTTON       | 2   |        |     |
| 7    | 19211425T   | BUTTON LEVER    | FF BUTTON        | 2   |        |     |
| 8    | 19211426T   | BUTTON LEVER    | STOP BUTTON      | 1   |        |     |
| 9    | 19211461T   | BUTTON LEVER    | PAUSE BUTTON     | 1   |        |     |
| 10   | 19211413T   | P CONT. SPRING  |                  | 1   |        |     |
| 11   | 19211455T   | PAUSE LEVER (E) |                  | 1   |        |     |
| 12   | 19211412T   | SPRING          | PAUSE LEVER      | 1   |        |     |
| 13   | 19211411T   | PAUSE STOPPER   |                  | 1   |        |     |
| 14   | 19211414T   | TORSION SPRING  | BUTTON LEVER     | 3   |        |     |
| 15   | 192101501ZT | CHASSIS ASS'Y   |                  | 2   |        |     |
| 16   | 19211416T   | TORSION SPRING  | E.ACTUATER       | 2   |        |     |
| 17   | 19211417T   | TORSION SPRING  | P.S.LEVER        | 2   |        |     |
| 18   | 64010138T   | LEAF SWITCH     | MSW-1275         | 1   |        |     |
| 19   | 182101159T  | E.KICK LEVER    |                  | 1   |        |     |
| 20   | 19211420T   | STOPPER         |                  | 2   |        |     |
| 21   | 19211449T   | LEVER SPRING    | REC BUTTON       | 1   |        |     |
| 22   | 19211433T   | TORSION SPRING  | BUTTON LEVER(C)  | 1   |        |     |
| 23   | MSW-1541T   | LEAF SWITCH     | MSW-1541T        | 2   |        |     |
| 24   | 640101161T  | LEAF SWITCH     | MSW-17820MVDO    | 2   |        |     |
| 25   | 19210311T   | HEAD PANEL      |                  | 1   |        |     |
| 26   | 19210314T   | HEAD PANEL      |                  | 1   |        |     |
| 27   | 19210304AT  | HEAD BASE       |                  | 1   |        |     |
| 28   | 19210306T   | HEAD BASE       |                  | 1   |        |     |
| 29   | 19210309T   | PANEL P SPRING  |                  | 2   |        |     |
| 30   | 19211418AT  | SPRING          | M CONTROL        | 2   |        |     |
| 31   | 19211437T   | P ARM COLLAR    |                  | 1   |        |     |
| 32   | 19211434T   | P.ROLLER ARM    |                  | 1   |        |     |
| 33   | 18210308T   | SPRING          |                  | 1   |        |     |
| 34   | 18210307T   | AZIMUTH SPRING  |                  | 2   |        |     |
| 35   | 192104309T  | P.ROLL.ARM ASSY |                  | 2   |        |     |
| 36   | 18210150T   | PLAY BUTTON LEV | PLAY BUTTON LEV  | 2   |        |     |
| 37   | 18211311T   | TENSION SPRING  | E.SLIDE LEVER    | 1   |        |     |
| 38   | 19212604TT  | SENSING LEVER   |                  | 2   |        |     |
| 39   | 192107308T  | RF CLUTCH ASS'Y |                  | 2   |        |     |
| 40   | 18210711T   | RF.BELT         |                  | 2   |        |     |
| 41   | 19210201T   | REC ARM         |                  | 1   |        |     |
| 42   | 19211437T   | P ARM COLLAR    |                  | 1   |        |     |
| 43   | 192109304ZT | FLYWHEEL ASS'Y  | PB MECHA.(B)     | 1   |        |     |
| 44   | 192109303ZT | FLYWHEEL ASS'Y  | REC/PB MECHA.(A) | 1   |        |     |
| 45   | 19212605T   | TORSION SPRING  | GEAR PLATE       | 2   |        |     |
| 46   | 192126502ZT | GEAR PLATE ASSY |                  | 2   |        |     |
| 47   | 19212602T   | CAM GEAR        |                  | 2   |        |     |
| 49   | 18211070T   | F.FORWARD GEAR  |                  | 2   |        |     |
| 50   | 18291010T   | BACK T. SPRING  |                  | 2   |        |     |
| 51   | 192105304T  | S. REEL ASS'Y   | SUPPLY           | 2   |        |     |
| 52   | 192105303T  | T. REEL ASS'Y   | TAKE-UP          | 2   |        |     |
| 53   | 19210506T   | SENSOR          |                  | 2   |        |     |
| 55   | 19211211T   | MOTOR BRACKET   |                  | 1   |        |     |

BLOCK NO. M2MM

| REF. | PARTS NO.   | PARTS NAME      | REMARKS        | QTY | SUFFIX | CLR |
|------|-------------|-----------------|----------------|-----|--------|-----|
| 56   | 18211266T   | MOTOR RUBBER    |                | 3   |        |     |
| 57   | 18511418T   | COLLAR SCREW    |                | 3   |        |     |
| 58   | 19211213T   | MOTOR PULLEY    |                | 1   |        |     |
| 59   | 19210923T   | MAIN BELT       |                | 2   |        |     |
| 60   | 19211212T   | MAT             |                | 2   |        |     |
| 62   | 19211302T   | EJ. SLIDE LEVER | EJECT          | 2   |        |     |
| 64   | 18291001T   | PACK SPRING     |                | 2   |        |     |
| 65   | MS15R-AA2N1 | R/P HEAD        | DECK B         | 2   |        |     |
| 67   | LE15A-C1    | E. HEAD         | DECK A         | 1   |        |     |
| 68   | 60020222T   | MOTOR           | EG530YD-9BH    | 1   |        |     |
| 69   | 18211069T   | REC.SAF.LEVER   |                | 1   |        |     |
| 71   | 91790000T   | TAPPING SCREW   | M2 X 3         | 2   |        |     |
| 72   | 91800000T   | SCREW           | M2 X 4         | 7   |        |     |
| 73   | 96790000T   | TAPPING SCREW   | M2 X 5         | 4   |        |     |
| 74   | 99991809T   | SPECIAL SCREW   | M2 X 4.5       | 6   |        |     |
| 75   | 90040000T   | SCREW(M2 X 6)   | M2 X 6         | 1   |        |     |
| 76   | 92230000T   | SCREW           | M2 X 7.5       | 2   |        |     |
| 77   | 91150000T   | SCREW(M2 X 3)   | M2 X 3         | 2   |        |     |
| 78   | 99220000T   | SCREW(M2 X 7)   | M2 X 7         | 2   |        |     |
| 79   | 9P0420061T  | SCREW           | M2 X 6         | 1   |        |     |
| 80   | 99992041T   | SPECIAL SCREW   | M2 X 3         | 1   |        |     |
| 81   | 91810000T   | SCREW           | M2 X 5         | 1   |        |     |
| 82   | 99990003T   | POLYSLIDER WAS. | 2.1X4X 0.13    | 2   |        |     |
| 83   | 94220000T   | P.WASHER        | 1.2X3.8X0.3    | 2   |        |     |
| 84   | 99990313T   | POLY.CUT WASHER | 1.4X3.8X0.5    | 2   |        |     |
| 86   | 192114316T  | BASE ASS'Y      |                | 1   |        |     |
| 87   | 19211466T   | BUTTON LEVER    | STOP           | 1   |        |     |
| 88   | 19211464T   | E KICK LEVER    |                | 1   |        |     |
| 91   | 19211209T   | P.KICK LEVER(B) |                | 1   |        |     |
| 92   | 18211268T   | P.KICK LEVER    |                | 1   |        |     |
| 93   | 18211223T   | COLLAR SCREW    |                | 1   |        |     |
| 94   | 18211265T   | COLLAR (B)      |                | 1   |        |     |
| 95   | 18211312T   | SPRING          | E. SLIDE LEVER | 1   |        |     |
|      |             |                 |                |     |        |     |
|      |             |                 |                |     |        |     |
|      |             |                 |                |     |        |     |
|      |             |                 |                |     |        |     |
|      |             |                 |                |     |        |     |

## ■ Enclosure Assembly Part: Block No. M3



|  |   |   |   |   |    |
|--|---|---|---|---|----|
|  | 6 | 7 | 8 | 9 | 10 |
|--|---|---|---|---|----|

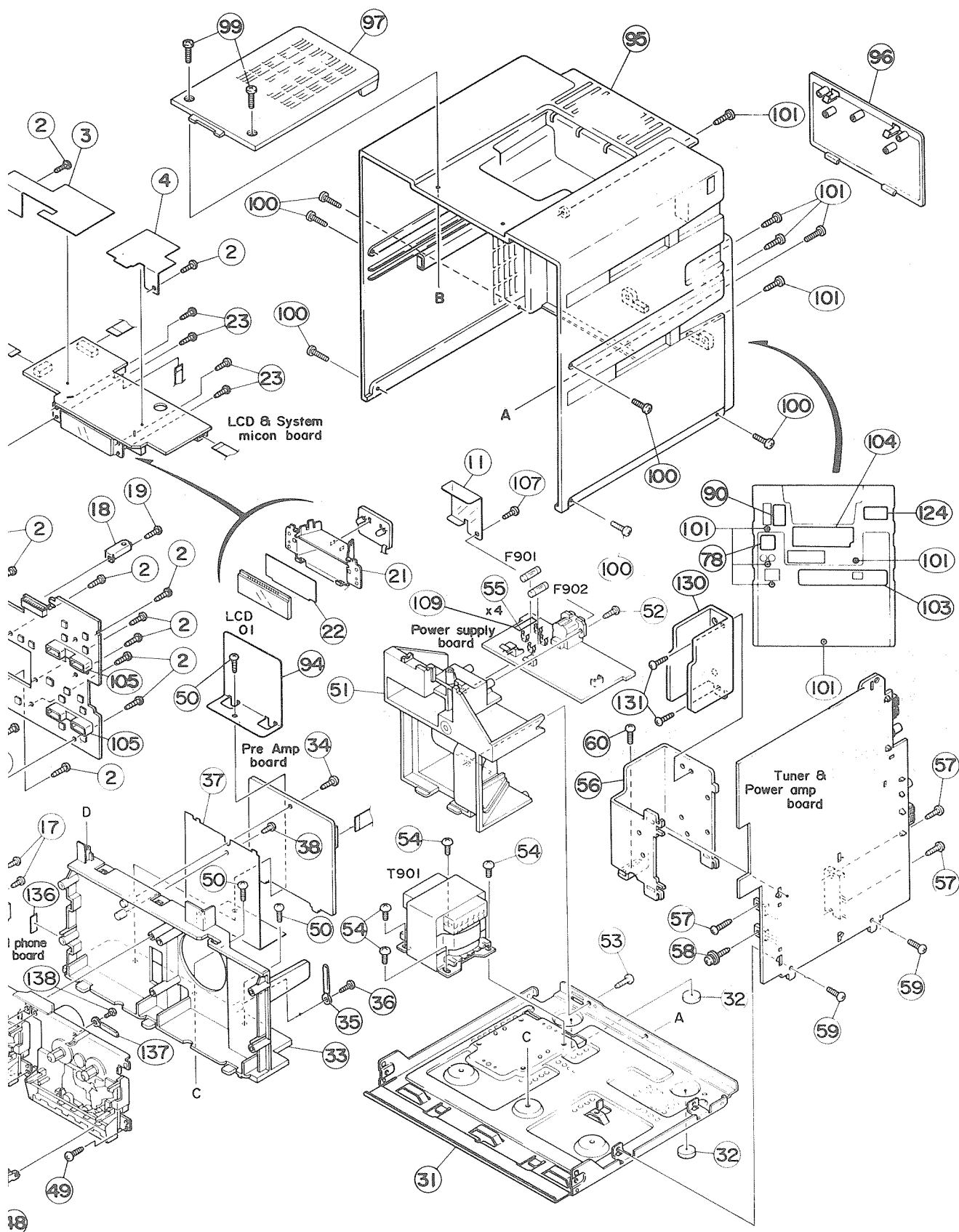


Fig. 8-3



## ■ Enclosure Assembly Parts List

BLOCK NO. M3MM [ ] [ ] [ ]

| REF. | PARTS NO. | PARTS NAME  | REMARKS         | QTY             | SUFFIX | CLR |
|------|-----------|-------------|-----------------|-----------------|--------|-----|
| A    |           |             |                 |                 |        |     |
|      | A         | ZCDX50K-CBA | CASSETTE CASE   | REF.24,25,28    | 1      |     |
|      | B         | ZCDX50K-CBB | CASSETTE CASE   | REF.26-28       | 1      |     |
|      | C         | ZCDX50K-FB  | FRONT PANEL     | REF.1,5         | 1      |     |
|      | 1         | VJG1310-004 | FRONT PANEL     |                 | 1      |     |
|      | 2         | SBSF2608Z   | SCREW           | FOR TUNER BUT   | 3      |     |
|      |           | SBSF2608Z   | SCREW           | FOR POWER BUT   | 2      |     |
|      |           | SBSF2608Z   | SCREW           | FOR SELECT BUT  | 2      |     |
|      |           | SBSF2608Z   | SCREW           | FOR KARAOKE BUT | 1      |     |
|      |           | SBSF2608Z   | SCREW           | FRONT+PWB       | 2      |     |
|      |           | SBSF2608Z   | SCREW           | FOR CD BUTTON   | 2      |     |
|      | 3         | VMA4641-001 | FR.BARRIER (L)  |                 | 1      |     |
|      | 4         | VMA4642-001 | FR.BARRIER (R)  |                 | 1      |     |
|      | 5         | VJK3648-004 | LCD LENS        |                 | 1      |     |
|      | 6         | VJT3364-003 | CD FITTING      |                 | 1      |     |
|      | 7         | VXP3671-001 | POWER BUTTON    |                 | 1      |     |
|      | 8         | VXP5266-00B | TUNER BUTTON AS |                 | 1      |     |
|      | 9         | VXP5267-00A | CD BUTTON ASSY  |                 | 1      |     |
|      | 10        | VXP5268-001 | SELECT BUTTON   |                 | 1      |     |
|      | 11        | VMA4637-001 | SHIELD PLATE    |                 | 1      | A   |
|      | 12        | VXL4439-001 | VOL.KNOB        |                 | 1      |     |
|      | 13        | VYH7916-001 | MIC BKT.        |                 | 1      |     |
|      | 14        | VKL6752-001 | SNAP PLATE      |                 | 1      |     |
|      | 15        | SBSF2608Z   | SCREW           | FOR MIC BKT.    | 2      |     |
|      | 16        | VYH7917-001 | HEDPHON BKT.    |                 | 1      |     |
|      | 17        | SBSF2608Z   | SCREW           | FOR H.P.BKT.    | 2      |     |
|      | 18        | VYH7918-001 | JOINT BKT       |                 | 4      |     |
|      | 19        | SBSF2608Z   | SCREW           | FOR JOINT BKT.  | 4      |     |
|      | 20        | VYH7919-001 | L.E.D.HOLDER    | OPERATION PCB   | 1      |     |
|      | 21        | VYH3837-001 | LAMP CASE       |                 | 1      |     |
|      | 22        | VYTT651-001 | FELT SPACER     |                 | 1      |     |
|      | 23        | SBSF2608Z   | SCREW           | FOR LAMP CASE   | 4      |     |
|      | 24        | VJT2346-007 | CASSETTE DOOR(L |                 | 1      |     |
|      | 25        | VJT4219-103 | DOOR LENS(L)    |                 | 1      |     |
|      | 26        | VJT2346-008 | CASSETTE DOOR(R |                 | 1      |     |
|      | 27        | VJT4219-104 | DOOR LENS(R)    |                 | 1      |     |
|      | 28        | VKY4180-001 | CASSETTE SPRING |                 | 4      |     |
|      | 29        | VYH5601-001 | GEAR            |                 | 2      |     |
|      | 30        | VKW5151-003 | DOOR SPRING     |                 | 2      |     |
|      | 31        | VKL1427-001 | BOTTOM CHASSIS  |                 | 1      |     |
|      | 32        | VJF4003-001 | FOOT            | TO BOTTOM CHASS | 2      |     |
|      | 33        | VYH1248-002 | MECHA BASE      |                 | 1      |     |
|      | 34        | SBSF3010Z   | SCREW           |                 | 1      |     |
|      | 35        | VKZ4001-110 | WIRE CLAMP      |                 | 1      |     |
|      | 36        | SBSF3010Z   | SCREW           |                 | 1      |     |
|      | 37        | VMA4635-001 | SHIELD (CASSETT |                 | 1      |     |
|      | 38        | SBSF3010Z   | SCREW           |                 | 1      |     |
|      | 39        | VXP3670-001 | MECHA BUTTON    | A:REC           | 1      |     |
|      | 40        | VXP3670-002 | MECHA BUTTON    | A:PLAY          | 1      |     |
|      | 41        | VXP3670-003 | MECHA BUTTON    | A:REW           | 1      |     |
|      | 42        | VXP3670-004 | MECHA BUTTON    | A:FF            | 1      |     |
|      | 43        | VXP3670-005 | MECHA BUTTON    | A:STOP/EJECT    | 1      |     |
|      | 44        | VXP3670-006 | MECHA BUTTON    | A:PAUSE         | 1      |     |
|      | 45        | VXP3670-007 | MECHA BUTTON    | B:PLAY          | 1      |     |
|      | 46        | VXP3670-008 | MECHA BUTTON    | B:REW           | 1      |     |
|      | 47        | VXP3670-009 | MECHA BUTTON    | B:FF            | 1      |     |

BLOCK NO. M3MM

| REF. | PARTS NO.      | PARTS NAME    | REMARKS         | QTY | SUFFIX | CLR |
|------|----------------|---------------|-----------------|-----|--------|-----|
| 48   | VXP3670-010    | MECHA BUTTON  | B:STOP/EJECT    | 1   |        |     |
| 49   | SBSF3010Z      | SCREW         | M.BASE+C.MECHA  | 4   |        |     |
| 50   | SBST3008Z      | SCREW         | BOTTOM+M.BASE   | 3   |        |     |
| 51   | VYH1250-001    | AC HOLDER     |                 | 1   |        |     |
| 52   | SBSF3010Z      | SCREW         | POWER PWB+AC HO | 1   |        |     |
| 53   | SBSF3010Z      | SCREW         | AC HOLDER+BOTTO | 1   |        |     |
| 54   | SBST4006Z      | SCREW         | FOR TRANS       | 4   |        |     |
| 55   | VMZ0125-001Z   | FUSE CLIP     |                 | 4   |        |     |
| 56   | VYH3895-001    | HEAT SINK     |                 | 1   |        |     |
| 57   | SBSF3010Z      | SCREW         | HEAT SINK+ IC   | 3   |        |     |
| 58   | DPSP3010Z      | SCREW         | HEAT SINK+IC    | 1   |        |     |
| 59   | SBST3008Z      | SCREW         | AMP PWB+BOTTOM  | 2   |        |     |
| 60   | SBST3008Z      | SCREW         | HEAT SINK+BOTTO | 1   |        |     |
| 61   | VYH1238-001    | LOADING BASE  |                 | 1   |        |     |
| 62   | RF-500TB-12560 | MOTOR         |                 | 1   |        |     |
| 63   | 53-192         | MOTOR SHIELD  |                 | 1   |        |     |
| 64   | SPSK2640Z      | MINI SCREW    |                 | 2   |        |     |
| 65   | E75984-001     | MOTOR PULLEY  |                 | 1   |        |     |
| 66   | E75950-002     | BELT          |                 | 1   |        |     |
| 67   | E75985-001     | GEAR(1)       |                 | 1   |        |     |
| 68   | E75986-002     | GEAR(2)       |                 | 1   |        |     |
| 69   | E75987-331     | GEAR(3)       |                 | 1   |        |     |
| 70   | E307162-221    | LEVER         |                 | 1   |        |     |
| 71   | E307252-221    | CAM-PLATE     |                 | 1   |        |     |
| 72   | E65923-003     | TAPPING SCREW |                 | 3   |        |     |
| 73   | VYH7787-001    | SPRING        |                 | 1   |        |     |
| 74   | SBSF3008Z      | SCREW         |                 | 1   |        |     |
| 75   | E307179-222    | E.BASE ASS'Y  |                 | 1   |        |     |
| 76   | E406871-001    | SPRING        |                 | 2   |        |     |
| 77   | E406294-002    | INSULATOR     |                 | 4   |        |     |
| 78   | VJD5461-001    | BLIND PLATE   |                 | 1   |        |     |
| 79   | E406293-001    | SPECIAL SCREW |                 | 1   |        |     |
| 80   | VYH3680-001    | CLAMPER       |                 | 1   |        |     |
| 81   | VYH7315-005    | PAD           |                 | 1   |        |     |
| 82   | VYH7313-001    | MAGNET        |                 | 1   |        |     |
| 83   | GBSF2606Z      | SCREW         | FOR CLAMPER     | 1   |        |     |
| 84   | VYH1249-001    | CLAMPER BASE  |                 | 1   |        |     |
| 85   | VYH3764-201    | CLAMPER PLATE |                 | 1   |        |     |
| 86   | VYH1240-001    | TRAY          |                 | 1   |        |     |
| 87   | SBSF3008Z      | SCREW         | FOR TRAY STOPPE | 2   |        |     |
| 88   | SBSF3008Z      | SCREW         | CD AMPPWB+L.BAS | 2   |        |     |
| 89   | SBSF3008Z      | SCREW         | CLP.BASE+L.BASE | 4   |        |     |
| 90   | VJD5462-003    | ANT PLATE     |                 | 1   |        |     |
| 91   | SBSF3010Z      | SCREW         | CD ASS'Y+AC HOL | 1   |        |     |
|      | SBSF3010Z      | SCREW         | CD ASS'Y+M.BASE | 2   |        |     |
| 92   | VKZ4001-111    | WIRE HOLDER   |                 | 1   |        |     |
| 93   | SBSF3010Z      | SCREW         |                 | 1   |        |     |
| 94   | VMA4640-001    | TRANS SHIELD  |                 | 1   |        |     |
| 95   | VJG1311-003    | REAR CABINET  |                 | 1   |        |     |
| 96   | VJC3265-001    | REAR COVER    |                 | 1   |        |     |
| 97   | VJC2531-001    | TOP COVER     |                 | 1   |        |     |
| 98   | SSST3006Z      | SCREW         | FRONT+BOTTOM CH | 2   |        |     |
| 99   | SDST3008M      | SCREW         | REAR+FRONT TO   | 2   |        |     |
| 100  | SDST3008M      | SCREW         | REAR+FRONT SID  | 6   |        |     |



## 9. Block Diagram

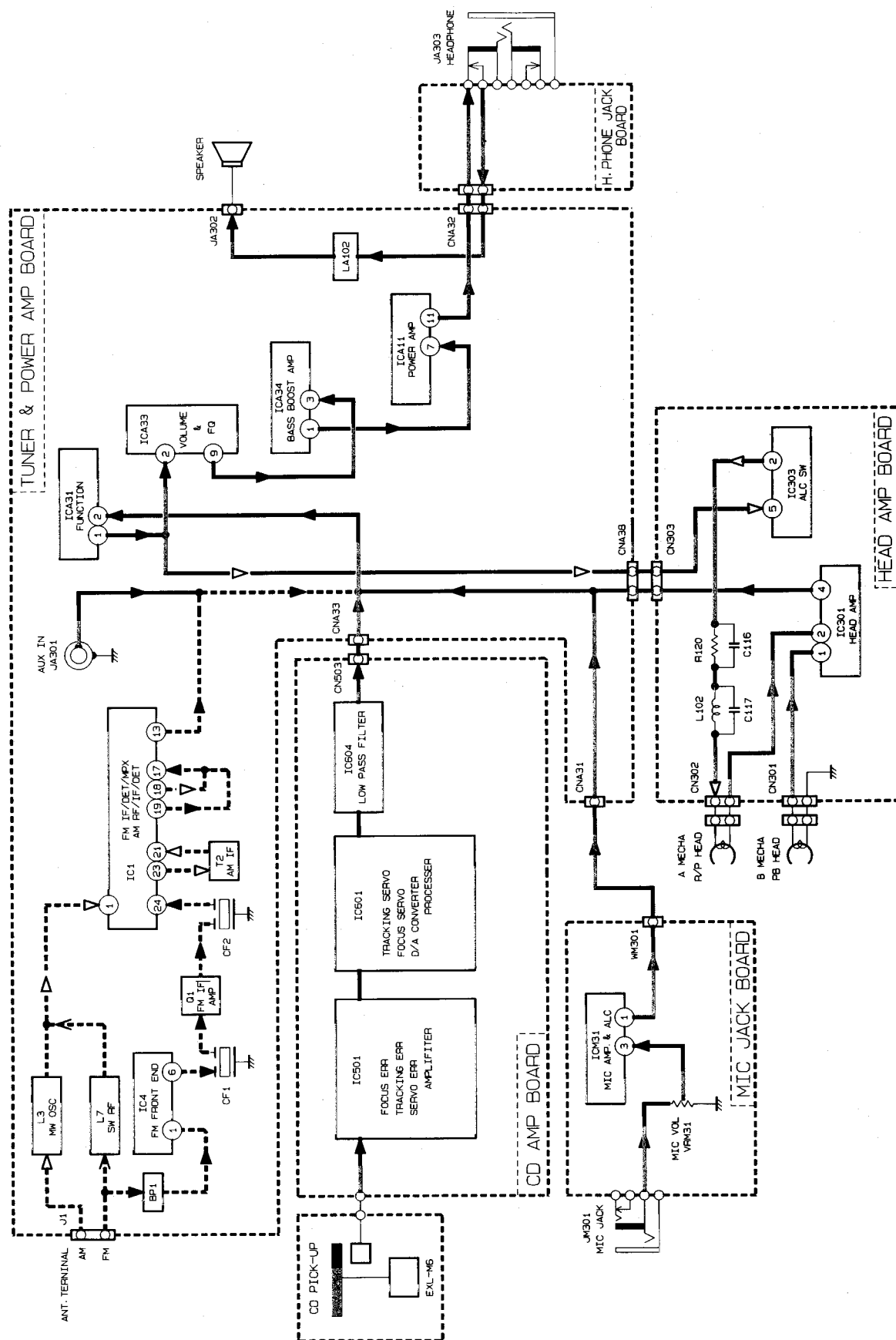


Fig. 8-1

# CD Player Part

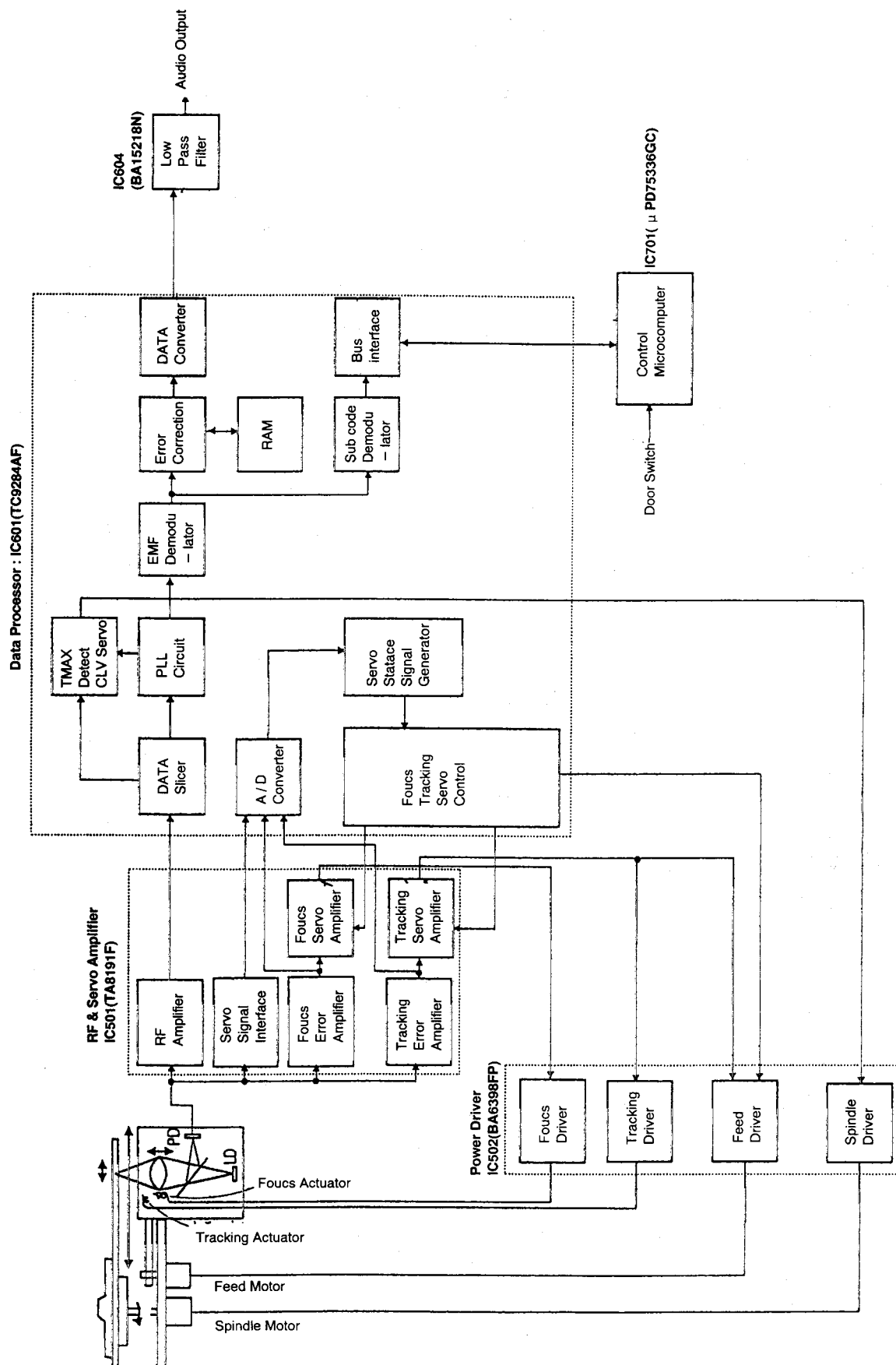
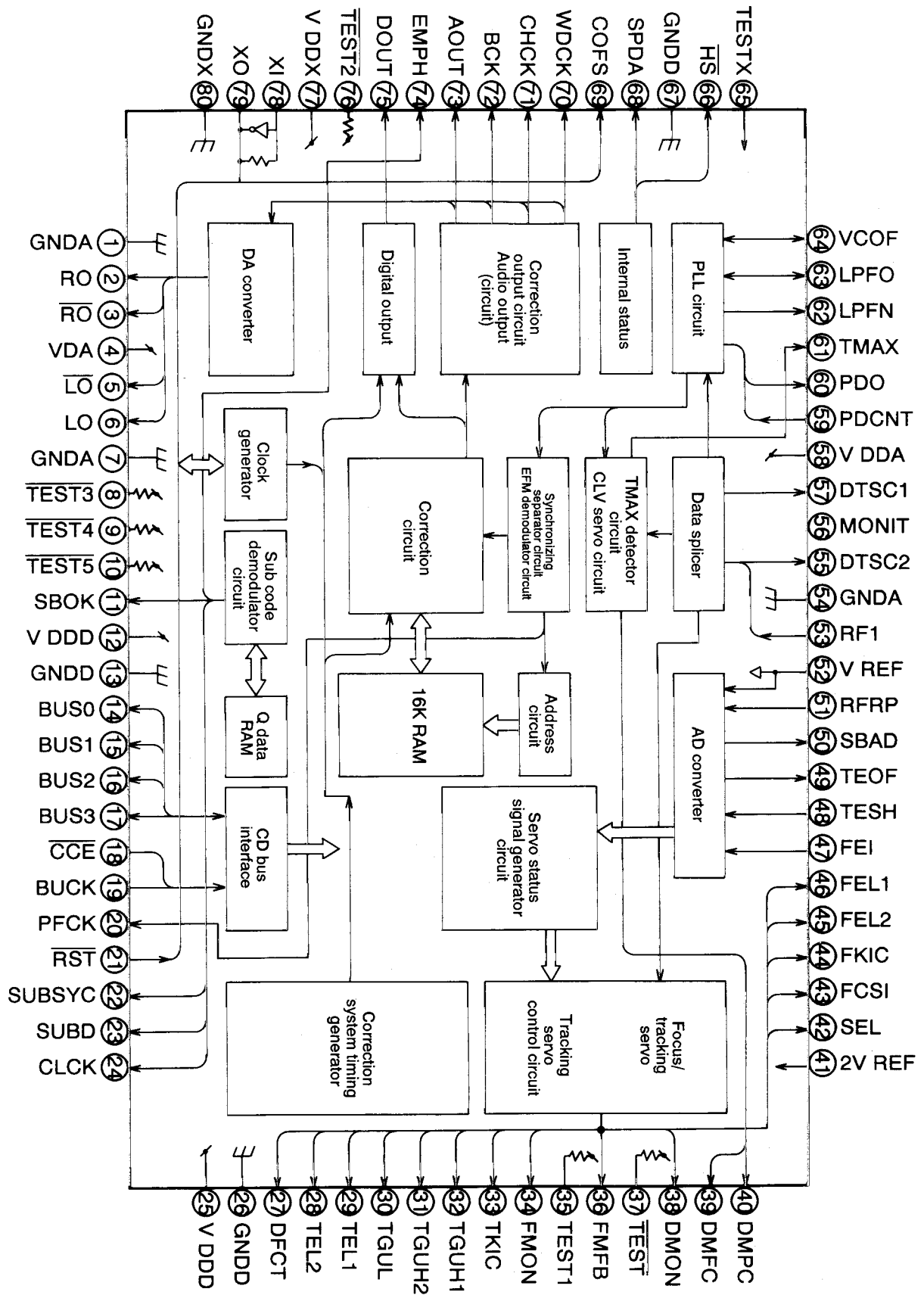


Fig. 10-2

## 11. Main IC Block Diagram

### ■ IC601: TC9284AF (1chip Processor)



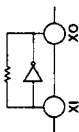
**Fig. 11-1**

## ■ IC601: TC9284AF

| Terminal No.       | Designation of Terminal | I/O                  | Description of Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
|--------------------|-------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-------------|--------------------|------|----------------------|--------------|--------|------------------|----------------|------|--------------|---------------|-------|---------------------|------------------------------|
| 31                 | TGUH2                   | O                    | Tracking servo gain amplifier analog switch output terminal. It is at "V <sub>ref</sub> " at gain amplifier, but at "HiZ" under normal conditions. Although TGUH1 is used during normal playback, TGUH2 is used during double speed playback.                                                                                                                                                                                                                                                    |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 32                 | TGUH1                   |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 33                 | TKIC                    | O                    | Tracking actuator kick signal output terminal. It is used as a kick signal output terminal during adjustment of NKIC, and CKIC, tracking gains. Kicking is in outer peripheral direction at "2V <sub>ref</sub> " and inner peripheral direction at "L". Normally, this terminal is at "HiZ". Three values are output (2V <sub>ref</sub> , HiZ and GNDA).                                                                                                                                         |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 34                 | FMON                    | O                    | Feed servo ON/OFF analog switch output terminal. It is at "HiZ" when servo is on, but at "V <sub>ref</sub> " when servo is off.                                                                                                                                                                                                                                                                                                                                                                  |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 35                 | TEST1                   | I                    | Test terminal. It is normally at "H" or open (with pull-up resistor).                                                                                                                                                                                                                                                                                                                                                                                                                            |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 36                 | FMFB                    | O                    | Feed motor FWD/BWD feed control signal output terminal. Feeding is in outer peripheral direction at "2V <sub>ref</sub> " and inner peripheral direction at "L". Normally, this terminal is at "HiZ". Three values are output (2V <sub>ref</sub> , HiZ and GNDA).                                                                                                                                                                                                                                 |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 37                 | TEST                    | I                    | Test terminal. It is normally at "H" or open (with pull-up resistor).                                                                                                                                                                                                                                                                                                                                                                                                                            |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 38                 | DMON                    | O                    | Gain selector analog switch output terminal of disc motor drive circuit. By command, it is possible to select "HiZ" when CLV servo is off and "HiZ/V <sub>ref</sub> " when the servo is off.                                                                                                                                                                                                                                                                                                     |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 39                 | DMFC                    | O                    | Disc motor CLV servo AFC signal output terminal. Three values are output (2V <sub>ref</sub> , V <sub>ref</sub> and GNDA). <table border="1"><tr><td>action</td><td>Command</td><td>DMFC output</td></tr><tr><td>Motor acceleration</td><td>DMFK</td><td>"2V<sub>ref</sub>"</td></tr><tr><td>CLV servo ON</td><td>DMSV</td><td>AFC signal (PWM)</td></tr><tr><td>Motor brake ON</td><td>DMBK</td><td>"L"</td></tr><tr><td>CLV servo OFF</td><td>DMOFF</td><td>"V<sub>ref</sub>"</td></tr></table> | action     | Command | DMFC output | Motor acceleration | DMFK | "2V <sub>ref</sub> " | CLV servo ON | DMSV   | AFC signal (PWM) | Motor brake ON | DMBK | "L"          | CLV servo OFF | DMOFF | "V <sub>ref</sub> " |                              |
| action             | Command                 | DMFC output          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| Motor acceleration | DMFK                    | "2V <sub>ref</sub> " |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| CLV servo ON       | DMSV                    | AFC signal (PWM)     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| Motor brake ON     | DMBK                    | "L"                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| CLV servo OFF      | DMOFF                   | "V <sub>ref</sub> "  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 40                 | DMPC                    | O                    | Disc motor CLV servo APC signal output terminal. Three values are output (2V <sub>ref</sub> , HiZ and GNDA).                                                                                                                                                                                                                                                                                                                                                                                     |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 41                 | 2V <sub>ref</sub>       | —                    | Analog reference power supply terminal (Twice the "V <sub>ref</sub> " voltage)                                                                                                                                                                                                                                                                                                                                                                                                                   |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| 42                 | SEL                     | O                    | Servo mode indicator signal output terminal for ON/OFF control of laser diode (LD) and focus servo. Three values are output (V <sub>DD</sub> , HiZ and GNDA). <table border="1"><tr><td>SEL output</td><td>LD</td><td>Focus servo</td><td>Action mode</td></tr><tr><td>"L"</td><td>OFF</td><td>OFF</td><td>LD OFF</td></tr><tr><td>"HiZ"</td><td>ON</td><td>OFF</td><td>Focus search</td></tr><tr><td>"H"</td><td>ON</td><td>ON</td><td>Focus ON (normal play, etc.)</td></tr></table>           | SEL output | LD      | Focus servo | Action mode        | "L"  | OFF                  | OFF          | LD OFF | "HiZ"            | ON             | OFF  | Focus search | "H"           | ON    | ON                  | Focus ON (normal play, etc.) |
| SEL output         | LD                      | Focus servo          | Action mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| "L"                | OFF                     | OFF                  | LD OFF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| "HiZ"              | ON                      | OFF                  | Focus search                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |
| "H"                | ON                      | ON                   | Focus ON (normal play, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |         |             |                    |      |                      |              |        |                  |                |      |              |               |       |                     |                              |

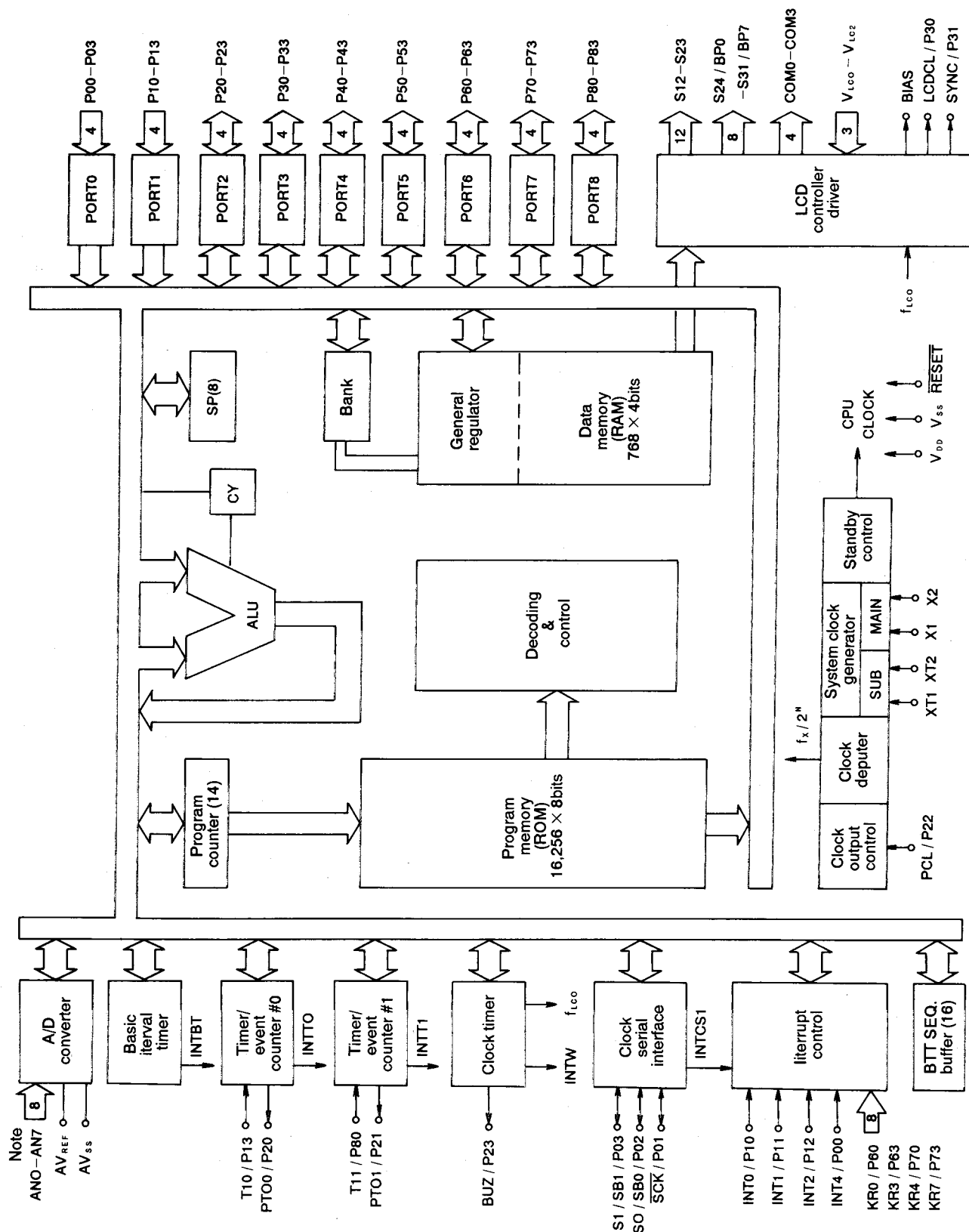
| Terminal No. | Designation of Terminal | I/O | Description of Function                                                                                                                              |
|--------------|-------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1            | GNDA                    | —   | R channel analog gland terminal of D/A converter                                                                                                     |
| 2            | RO                      | O   | Forward output terminal of R channel data                                                                                                            |
| 3            | RO                      | O   | Reverse output terminal of R channel data                                                                                                            |
| 4            | VDA                     | —   | Power supply terminal to D/A converter                                                                                                               |
| 5            | LO                      | O   | Reverse output terminal of L channel data                                                                                                            |
| 6            | LO                      | O   | Forward output terminal of L channel data                                                                                                            |
| 7            | GNDA                    | —   | L channel analog gland terminal of D/A converter                                                                                                     |
| 8            | TEST3                   | I   | Test terminal. Normally at "H" or open (with pullup resistor)                                                                                        |
| 9            | TEST4                   | I   | Test terminal. Normally, it is a "H" or open (with pullup resistor).                                                                                 |
| 10           | TEST5                   | I   | Test terminal. Normally, it is a "H" or open (with pullup resistor).                                                                                 |
| 11           | SBOK                    | O   | CRCC decision result output terminal of sub code Q data. It is at "H" when the result is OK.                                                         |
| 12           | V <sub>DD</sub>         | —   | Digital power supply voltage terminal (+5V)                                                                                                          |
| 13           | GNDD                    | —   | Digital gland terminal                                                                                                                               |
| 14           | BUS0                    | I/O | Microcomputer interface data Input/output terminal. (With Schmidt input, open drain output and pull-up resistor)                                     |
| 15           | BUS1                    |     |                                                                                                                                                      |
| 16           | BUS2                    |     |                                                                                                                                                      |
| 17           | BUS3                    |     |                                                                                                                                                      |
| 18           | CE                      | I   | Microcomputer interface chip enable signal input terminal. BUS 3-0 is active when the terminal is at "H" (Schmidt input)                             |
| 19           | BUCK                    | I   | Microcomputer interface clock input terminal (Schmidt input)                                                                                         |
| 20           | PFCK                    | O   | Playback system frame sink signal output terminal                                                                                                    |
| 21           | RST                     | I   | Reset signal input terminal. It is at "L" during resetting (with pull-up resistor)                                                                   |
| 22           | SUBSYN                  | O   | Sub code block sink output terminal. It is at "H" at S1 position when the sub code sink is detected.                                                 |
| 23           | SUBD                    | O   | Sub code P-W output terminals                                                                                                                        |
| 24           | CLK                     | I   | Sub code P-W data reading clock input terminal                                                                                                       |
| 25           | V <sub>DD</sub>         | —   | Digital power supply voltage terminal (+5V)                                                                                                          |
| 26           | GNDD                    | —   | Digital gland terminal                                                                                                                               |
| 27           | DFCT                    | O   | Defect detector signal output terminal. It is at "V <sub>ref</sub> " during detection of defect, but at "HiZ" under normal conditions.               |
| 28           | TEL2                    | O   | Tracking gain adjusting analog switch output terminal. It is at "V <sub>ref</sub> " during gain adjustment, but at "HiZ" under normal conditions.    |
| 29           | TEL1                    |     |                                                                                                                                                      |
| 30           | TGUL                    | O   | Tracking servo gain amplifier analog switch output terminal. It is possible to select the polarity at gain amplifier and normal playback by command. |

| Terminal No. | Designation of Terminal | I/O | Description of Function                                                                                                       |
|--------------|-------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------|
| 64           | VCOF                    | O   | VCO filter terminal                                                                                                           |
| 65           | TESTX                   | I   | Test terminal. It is normally at "H" or "L".                                                                                  |
| 66           | HS                      | O   | Double speed mode pulpit terminal. Although "H" is output during normal playback, "L" is output during double speed playback. |
| 67           | GNDD                    | —   | Digital gland terminal                                                                                                        |
| 68           | SPDA                    | O   | Processor status signal output terminal                                                                                       |
| 69           | COFS                    | O   | Correction system frame clock (7.35kHz) output terminal                                                                       |
| 70           | WDCK                    | O   | Word clock (88.2kHz) output terminal. By microcomputer command, it is possible to select SUBQ, BUFOV and IPF signals.         |
| 71           | CHCK                    | O   | Channel clock (44.1kHz) output terminal. "L" at L channel and "H" at R channel.                                               |
| 72           | BCK                     | O   | Bit clock (1.4112MHz) output terminal                                                                                         |
| 73           | AOUT                    | O   | Audio data output terminal                                                                                                    |
| 74           | EMPH                    | O   | Emphasis ON/OFF indicator signal output terminal. "H" at emphasis ON, but "L" at emphasis OFF.                                |
| 75           | DOUT                    | O   | Digital output terminal                                                                                                       |
| 76           | TEST2                   | I   | Test terminal. It is normally "H" or open (with pull-up resistor).                                                            |
| 77           | V <sub>osc</sub>        | —   | Crystal oscillator power supply terminal                                                                                      |
| 78           | XI                      | I   | Crystal oscillator connection terminal<br>(Crystal oscillator frequency: 16.9344MHz)                                          |
| 79           | XO                      | O   |                                                                                                                               |
| 80           | GNDX                    | —   | Crystal oscillator section gland terminal                                                                                     |



| Terminal No.                  | Designation of Terminal | I/O | Description of Function                                                                                                                                                                                                                                                                                                                                                      |                       |             |                              |     |                               |                      |                         |       |
|-------------------------------|-------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|------------------------------|-----|-------------------------------|----------------------|-------------------------|-------|
| 43                            | FCSI                    | O   | Focus actuator drive signal terminal at [FOCUS SEARCH] mode. The lens is driven in distant direction from disc at "V <sub>osc</sub> " but in approaching direction to the lens at "L". Normally, this terminal is at "HIZ". Three values are output (V <sub>osc</sub> , HIZ and GNDA).                                                                                       |                       |             |                              |     |                               |                      |                         |       |
| 44                            | FKIC                    | O   | Focus actuator drive signal output terminal at [FOCUS GAIN ADJUST] mode. The lens is driven in distant direction from disc at "V <sub>osc</sub> " but in approaching direction to the lens at "L". Normally, this terminal is at "HIZ". Three values are output (V <sub>osc</sub> , HIZ and GNDA).                                                                           |                       |             |                              |     |                               |                      |                         |       |
| 45                            | FEL2                    | O   | Focus gain adjusting analog switch output terminal.                                                                                                                                                                                                                                                                                                                          |                       |             |                              |     |                               |                      |                         |       |
| 46                            | FEL1                    | O   | These terminals are at "V <sub>osc</sub> " or "HIZ".                                                                                                                                                                                                                                                                                                                         |                       |             |                              |     |                               |                      |                         |       |
| 47                            | FEI                     | I   | Focus error signal input terminal (Analog input)                                                                                                                                                                                                                                                                                                                             |                       |             |                              |     |                               |                      |                         |       |
| 48                            | TESH                    | I   | Tracking error signal sample hole analog switch input terminal (Analog input)                                                                                                                                                                                                                                                                                                |                       |             |                              |     |                               |                      |                         |       |
| 49                            | TEOF                    | O   | Tracking servo action(actuator) ON/OFF analog switch input terminal (Analog input)                                                                                                                                                                                                                                                                                           |                       |             |                              |     |                               |                      |                         |       |
| 50                            | SBAD                    | I   | Sub beam address signal input terminal (Analog input)                                                                                                                                                                                                                                                                                                                        |                       |             |                              |     |                               |                      |                         |       |
| 51                            | RFRP                    | I   | RF ripple signal input terminal (Analog input)                                                                                                                                                                                                                                                                                                                               |                       |             |                              |     |                               |                      |                         |       |
| 52                            | V <sub>ref</sub>        | —   | Analog reference power supply terminal                                                                                                                                                                                                                                                                                                                                       |                       |             |                              |     |                               |                      |                         |       |
| 53                            | RFI                     | I   | RF signal input terminal (Analog input)                                                                                                                                                                                                                                                                                                                                      |                       |             |                              |     |                               |                      |                         |       |
| 54                            | GNDA                    | —   | Analog gland terminal                                                                                                                                                                                                                                                                                                                                                        |                       |             |                              |     |                               |                      |                         |       |
| 55                            | DTSC2                   | O   | Data slicer control EFM signal reversion output terminal                                                                                                                                                                                                                                                                                                                     |                       |             |                              |     |                               |                      |                         |       |
| 56                            | MONIT                   | O   | Internal signal monitor output terminal. It is possible to select EFMO, PLCK and LOCK signals. Muting is also possible.                                                                                                                                                                                                                                                      |                       |             |                              |     |                               |                      |                         |       |
| 57                            | DTSC1                   | O   | Data slicer control EFM signal forward output terminal                                                                                                                                                                                                                                                                                                                       |                       |             |                              |     |                               |                      |                         |       |
| 58                            | VDDA                    | —   | Analog power supply terminal                                                                                                                                                                                                                                                                                                                                                 |                       |             |                              |     |                               |                      |                         |       |
| 59                            | PDCNT                   | I   | PDO output control terminal. The PDO terminal is forcedly fixed to "HIZ" at "L", but normal output at "H".                                                                                                                                                                                                                                                                   |                       |             |                              |     |                               |                      |                         |       |
| 60                            | PDO                     | O   | Phase difference output terminal between EFM and PLCK signals. Three values are output (2V <sub>ref</sub> , HIZ and GNDA).                                                                                                                                                                                                                                                   |                       |             |                              |     |                               |                      |                         |       |
| 61                            | TMAX                    | O   | TMAX detection result output terminal.<br>Three values are output (2V <sub>ref</sub> , HIZ and GNDA) . <table><tr><td>TMAX detection result</td><td>TMAX output</td></tr><tr><td>Longer than specified period</td><td>"L"</td></tr><tr><td>Shorter than specified period</td><td>"2V<sub>ref</sub>"</td></tr><tr><td>Within specified period</td><td>"HIZ"</td></tr></table> | TMAX detection result | TMAX output | Longer than specified period | "L" | Shorter than specified period | "2V <sub>ref</sub> " | Within specified period | "HIZ" |
| TMAX detection result         | TMAX output             |     |                                                                                                                                                                                                                                                                                                                                                                              |                       |             |                              |     |                               |                      |                         |       |
| Longer than specified period  | "L"                     |     |                                                                                                                                                                                                                                                                                                                                                                              |                       |             |                              |     |                               |                      |                         |       |
| Shorter than specified period | "2V <sub>ref</sub> "    |     |                                                                                                                                                                                                                                                                                                                                                                              |                       |             |                              |     |                               |                      |                         |       |
| Within specified period       | "HIZ"                   |     |                                                                                                                                                                                                                                                                                                                                                                              |                       |             |                              |     |                               |                      |                         |       |
| 62                            | LPFN                    | I   | Low pass filter amplifier reverse input terminal (Analog input)                                                                                                                                                                                                                                                                                                              |                       |             |                              |     |                               |                      |                         |       |
| 63                            | LPFO                    | O   | Low pass filter amplifier output terminal (Analog input)                                                                                                                                                                                                                                                                                                                     |                       |             |                              |     |                               |                      |                         |       |

■ IC701  $\mu$  PD75336GC (System Controller)



Note AN6/P82, AN7/P83

Fig. 11-2

● IC701(SYSTEM CONTROLLER):  $\mu$  PD75336GC – 120

| Pin No. | Terminal Name | Abbreviation | I/O | Description of Function         |
|---------|---------------|--------------|-----|---------------------------------|
| 1       | S31           | SEG0         | O   | LCD segment 0                   |
| 2       | S30           | SEG1         | O   | LCD segment 1                   |
| 3       | S29           | SEG2         | O   | LCD segment 2                   |
| 4       | S28           | SEG3         | O   | LCD segment 3                   |
| 5       | S27           | SEG4         | O   | LCD segment 4                   |
| 6       | S26           | SEG5         | O   | LCD segment 5                   |
| 7       | S25           | SEG6         | O   | LCD segment 6                   |
| 8       | S24           | SEG7         | O   | LCD segment 7                   |
| 9       | S23           | SEG8         | O   | LCD segment 8                   |
| 10      | S22           | SEG9         | O   | LCD segment 9                   |
| 11      | S21           | SEG10        | O   | LCD segment 10                  |
| 12      | S20           | SEG11        | O   | LCD segment 11                  |
| 13      | S19           | SEG12        | O   | LCD segment 12                  |
| 14      | S18           | SEG13        | O   | LCD segment 13                  |
| 15      | S17           | SEG14        | O   | LCD segment 14                  |
| 16      | S16           | SEG15        | O   | LCD segment 15                  |
| 17      | S15           | SEG16        | O   | LCD segment 16                  |
| 18      | S14           | SEG17        | O   | LCD segment 17                  |
| 19      | S13           | SEG18        | O   | LCD segment 18                  |
| 20      | S12           | SEG19        | O   | LCD segment 19                  |
| 21      | COM0          | COM0         | O   | LCD common                      |
| 22      | COM1          | COM1         | O   | LCD common                      |
| 23      | COM2          | COM2         | O   | LCD common                      |
| 24      | COM3          | COM3         | O   | LCD common                      |
| 25      | BIAS          | LCDB         | O   | LCD drive power source          |
| 26      | VLC0          | VLC0         | I   | LCD drive power source          |
| 27      | VLC1          | VLC1         | I   | LCD drive power source          |
| 28      | VLC2          | VLC2         | I   | LCD drive power source          |
| 29      | P40           | MT0          | O   | CD tray motor voltage control 0 |

| Pin No. | Terminal Name | Abbreviation      | I/O | Description of Function1               |
|---------|---------------|-------------------|-----|----------------------------------------|
| 30      | P41           | MT1               | O   | CD tray motor voltage control 1        |
| 31      | P42           | SMUTE             | O   | System mute output                     |
| 32      | P43           | PBMUTE            | O   | Tape play mute                         |
| 33      | VSS           | VSS               | –   | Microcomputer GND                      |
| 34      | P50           | BIAS              | O   | REC. bias auto – beat cutting          |
| 35      | P51           | NC                | O   | Not used                               |
| 36      | P52           | VOLST             | O   | Serial volume control latch output     |
| 37      | P53           | TUST              | O   | Tuner PLL strobe output                |
| 38      | P00           | PIN               | I   | Power switch input                     |
| 39      | SCK           | CK                | O   | Serial clock                           |
| 40      | CB0           | DATA              | I/O | Serial data                            |
| 41      | P03           | RECSW             | I   | Record switch input                    |
| 42      | INT0          | REM               | I   | Remote control input                   |
| 43      | P11           | NC                | I   | Not used                               |
| 44      | P12           | BUP               | I   | Backup detector                        |
| 45      | P13           | AC/DC             | I   | AC/DC decision                         |
| 46      | P20           | RECH              | O   | Recorder amplifier power control       |
| 47      | P21           | RCrO <sub>2</sub> | O   | Chromium tape recorder control         |
| 48      | P22           | RECB              | O   | Recorder bias control                  |
| 49      | P23           | SENSOR            | O   | Remote control cord output             |
| 50      | P30           | PB70              | O   | Play equalizer control                 |
| 51      | P31           | XRST              | O   | CD LSI reset                           |
| 52      | P32           | BUCK              | O   | CD communication bus clock             |
| 53      | P33           | CCE               | O   | CD communication chip nail             |
| 54      | P80           | BUS0              | I/O | CD communication data bus 0            |
| 55      | P81           | BUS1              | I/O | CD communication data bus 1            |
| 56      | P82           | BUS2              | I/O | CD communication data bus 2            |
| 57      | P83           | BUS3              | I/O | CD communication data bus 3            |
| 58      | AN0           | JACK/MPX          | I   | MIC jack switch/stereo indicator input |



[illegible]

# 11. Wiring Connections

Color codes are shown below.

|   |              |   |                  |
|---|--------------|---|------------------|
| 1 | ..... Brown  | 7 | ..... Violet     |
| 2 | ..... Red    | 8 | ..... Gray       |
| 3 | ..... Orange | 9 | ..... White      |
| 4 | ..... Yellow | 0 | ..... Black      |
| 5 | ..... Green  | D | ..... Pink       |
| 6 | ..... Blue   | C | ..... Light Blue |

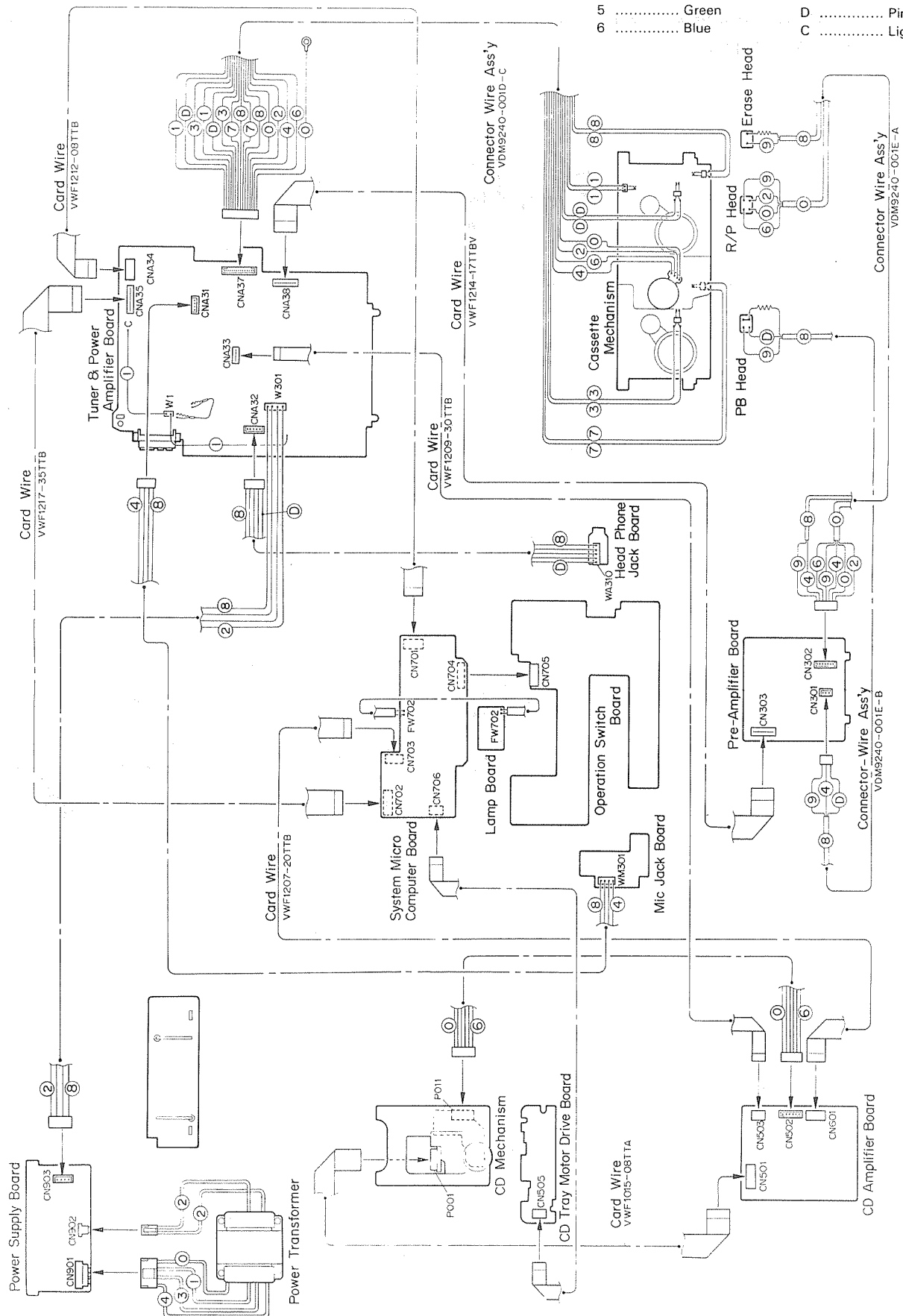


Fig. 11-1

# 12. Standard Schematic Diagram

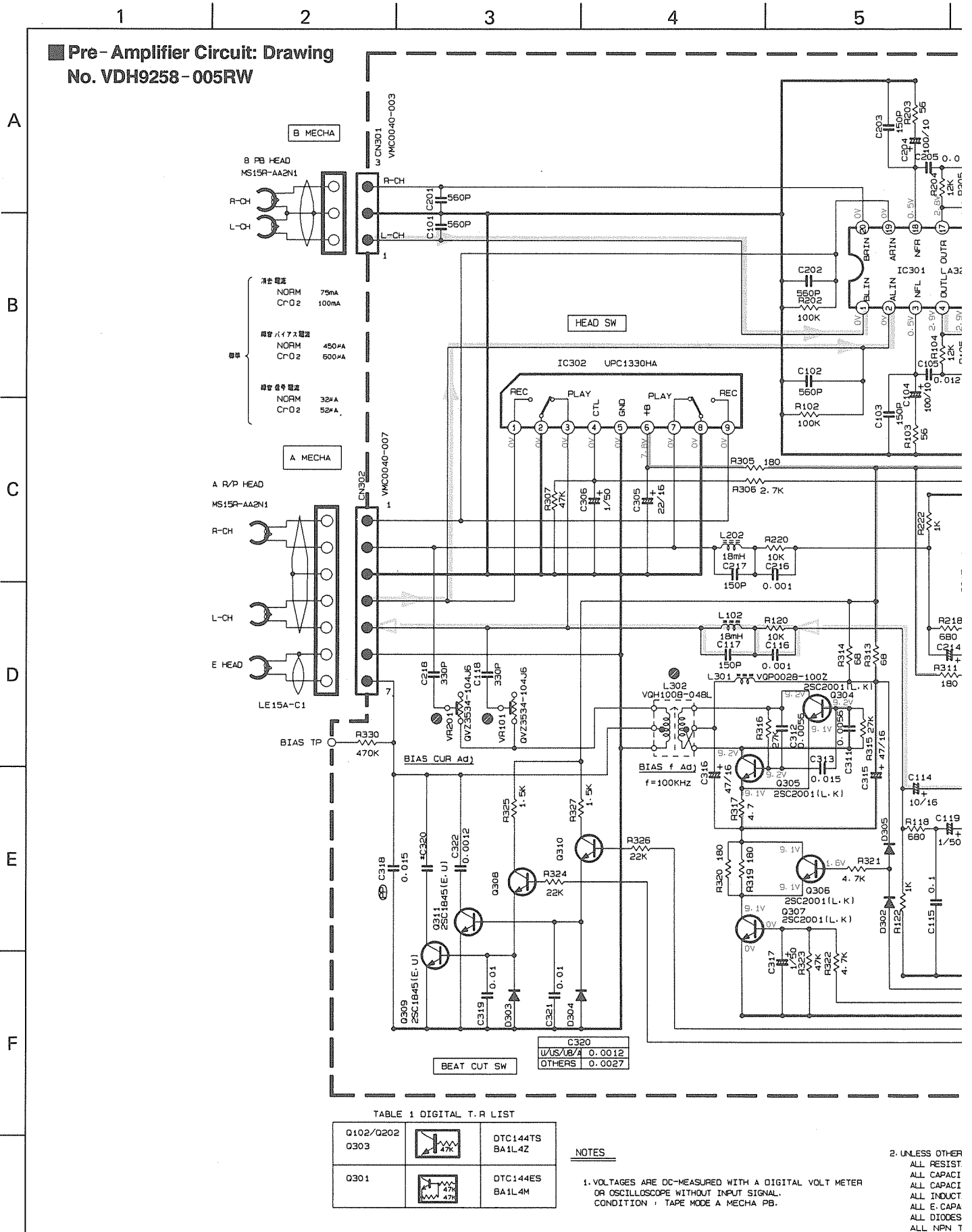
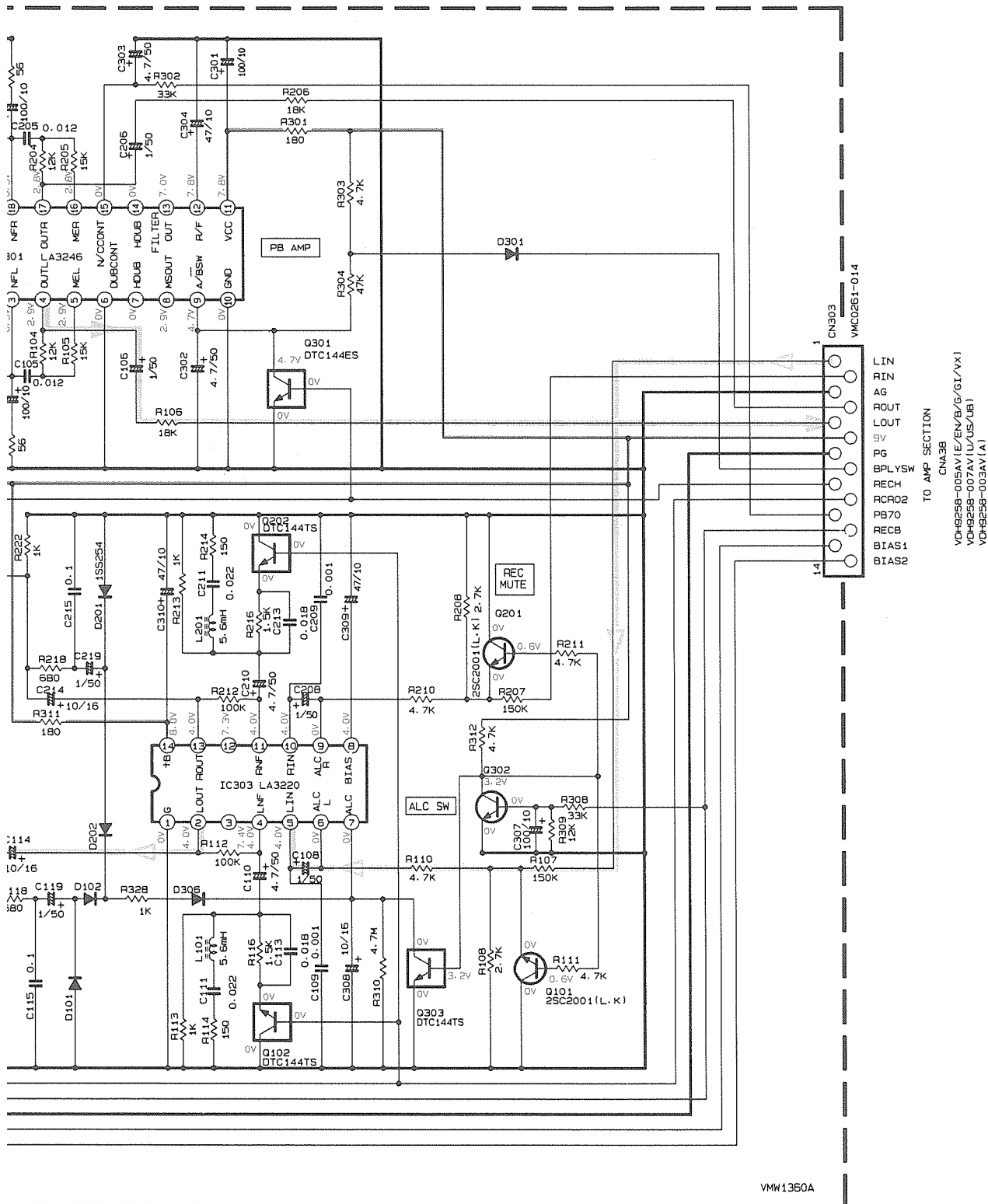


Fig. 12-1

(No. 1950) 70

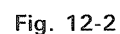
6 7 8 9 10



LESS OTHERWISE SPECIFIED, RESISTORS ARE 1/8W  $\pm$ 5% CARBON RESISTOR.  
 ALL RESISTANCE VALUES ARE IN OHM( $\Omega$ ).  
 ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
 ALL CAPACITANCE VALUES ARE IN  $\mu$ F(P $\mu$ F).  
 ALL INDUCTANCE VALUES ARE IN  $\mu$ H(m $\mu$ H).  
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE ( $\mu$ F)/RATED VOLTAGE (V).  
 ALL DIODES ARE 1SS254T OR HSS104T  
 ALL NPN TRANSISTORS ARE 2SC3330(S, T) OR 2SC2785(E, F).

REC Signal  
 Tape/Playback signal  
 +B Line

## F



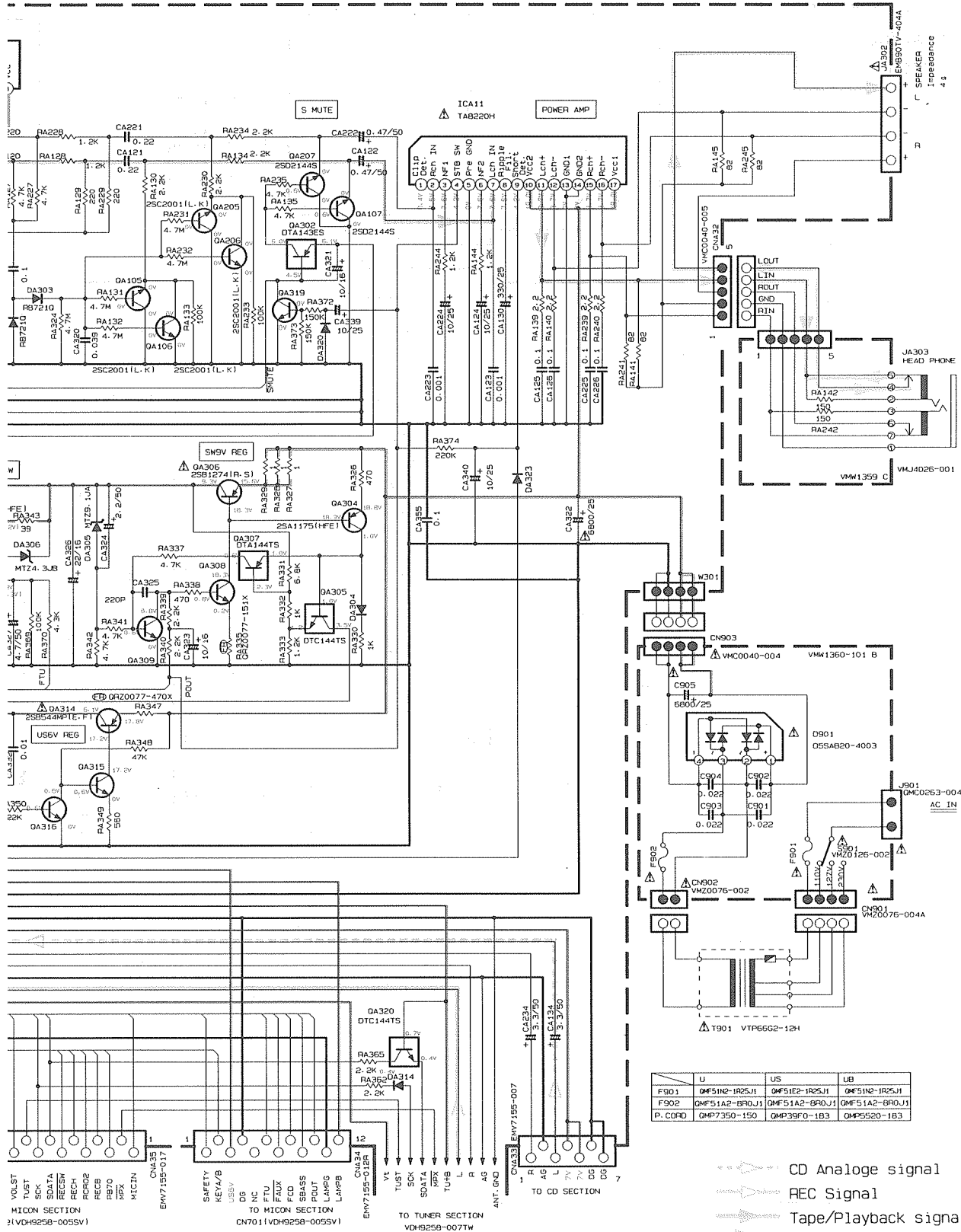
6

7

8

9

10



| U       | US             | UB             |
|---------|----------------|----------------|
| F901    | QMF51N2-1R25J1 | QMF51N2-1R25J1 |
| F902    | QMF51A2-BR0J1  | QMF51A2-BR0J1  |
| P. COND | QMP7350-150    | QMP39F0-1B3    |

MEASURED WITH A DIGITAL VOLT METER  
OUT INPUT SIGNAL  
VDE  
RED # 1S IN TUNER POSITION

2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/8W ±5% CARBON RESISTOR.  
ALL RESISTANCE VALUES ARE IN OHMS (Ω).  
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN pF (pF).  
ALL INDUCTANCE VALUES ARE IN mH (mH).  
ALL E. CAPACITORS ARE IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).  
ALL DIODES ARE 1SS254T OR H5S104T.  
ALL NPN TRANSISTORS ARE 2SC3330 (S-11) OR 2SC785 (E-1).

## A

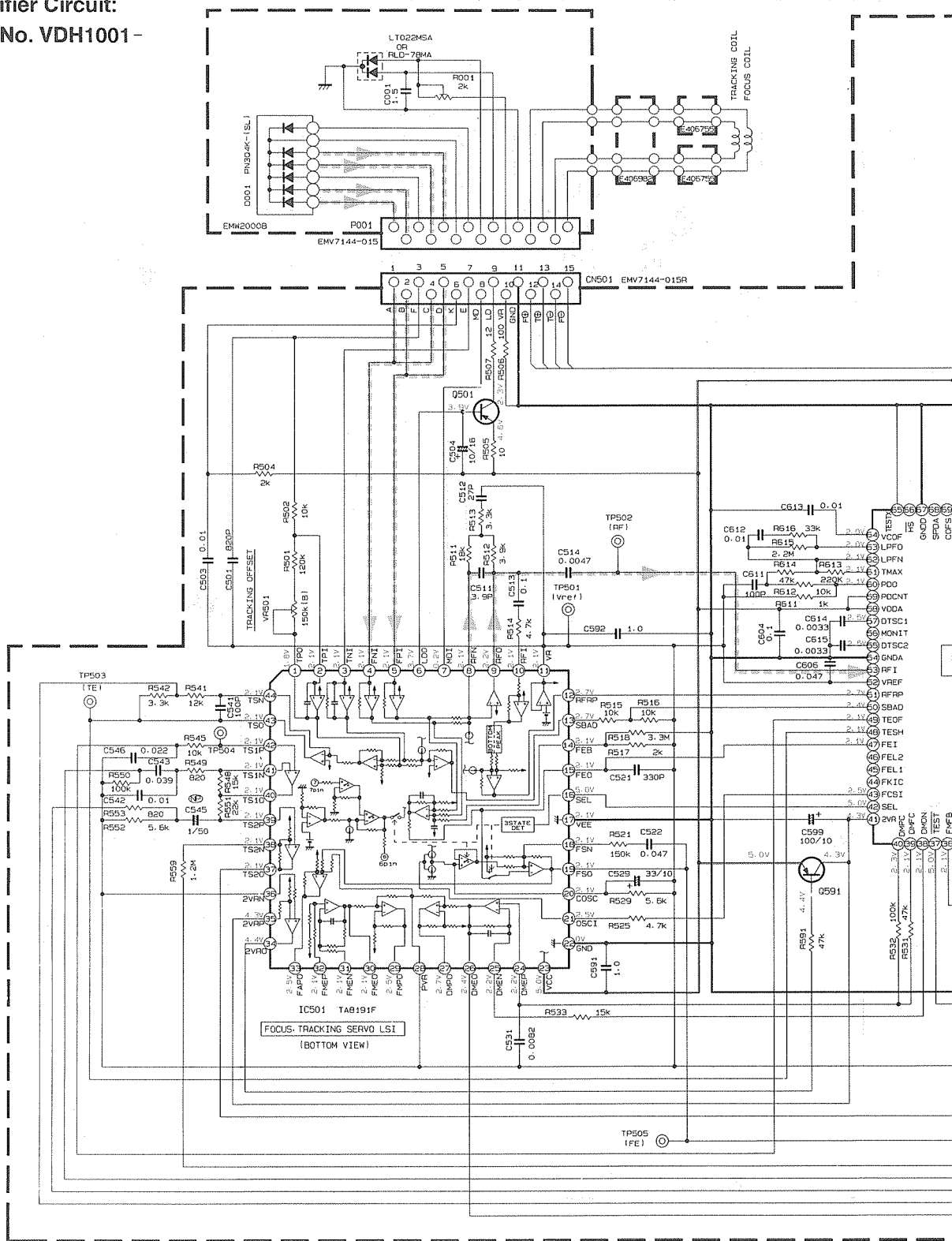
B

C

D

E

F



- NOTES**
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER IN PLAYBACK
  2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W ±5% CARBON RESISTOR.  
ALL RESISTANCE VALUES ARE IN OHM(Ω).  
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN μF(μpF).  
ALL INDUCTANCE VALUES ARE IN mH(mH).  
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).

|      |                                             |
|------|---------------------------------------------|
| Q501 | 2SA952(L,K)                                 |
| Q581 |                                             |
| Q591 | 2SA1309(R,S) OR 2SA1175(HFE) OR 2SA933S(RS) |

- ☐ UNFLAMMABLE CARBON RESISTOR  
☐ METAL FILM RESISTOR  
☐ OXIDE METAL FILM RESISTOR  
☐  $\pm 20\%$  LOW LEAK CURRENT ELECTROLYTIC CAPACITOR  
☐ NON-POLARISED ELECTROLYTIC CAPACITOR  
☐ POLYPROPYLENE CAPACITOR  
☐ POLYSTYROL CAPACITOR

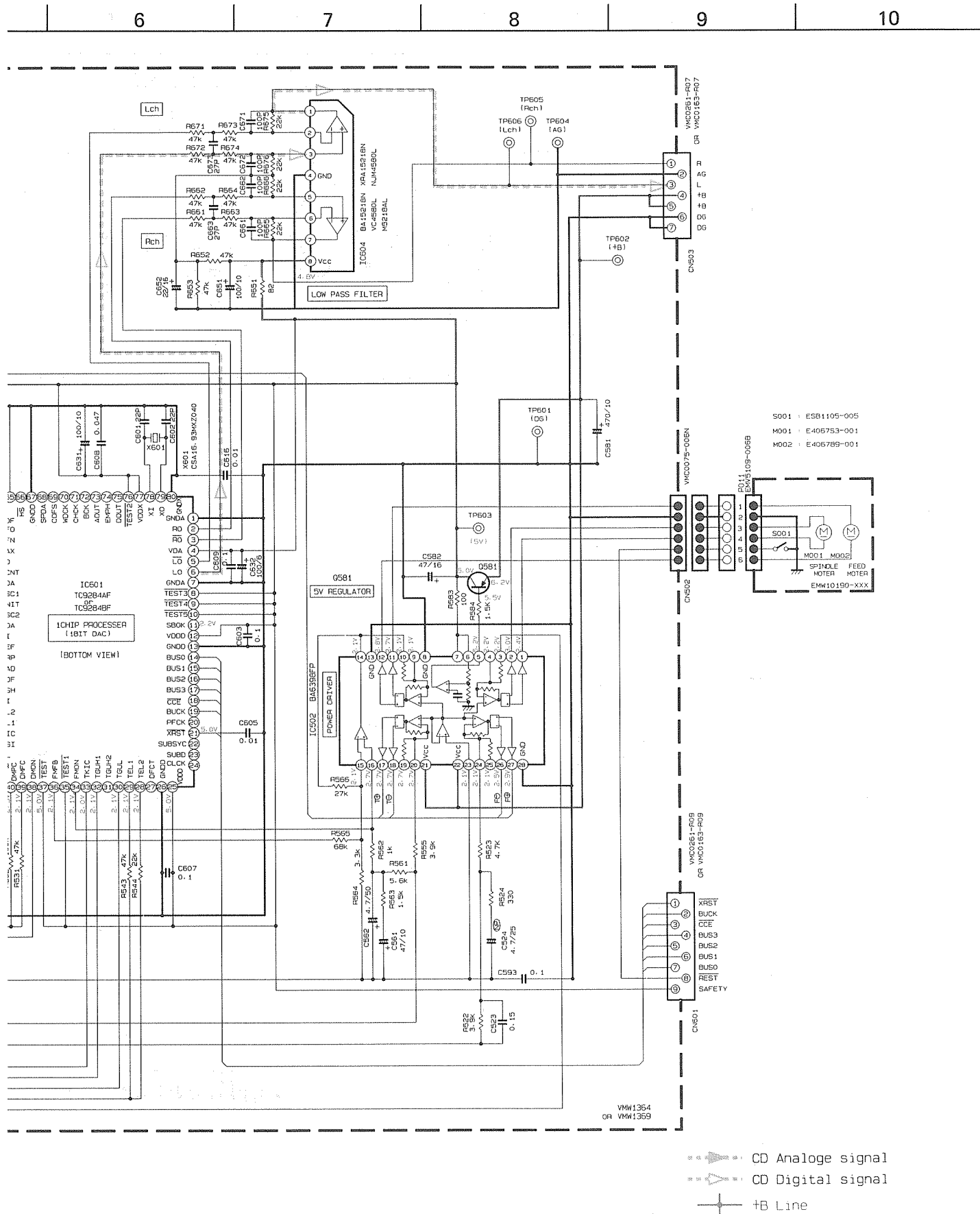
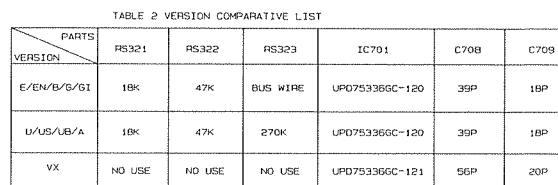
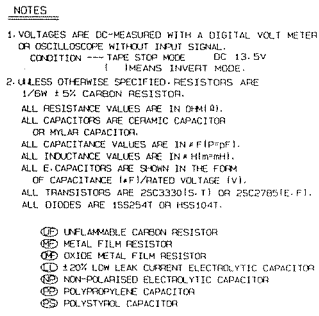


Fig. 12-3

## F





(No. 1950) 73

# **Tuner Circuit: Drawing** **No. VDH9258-007TW**

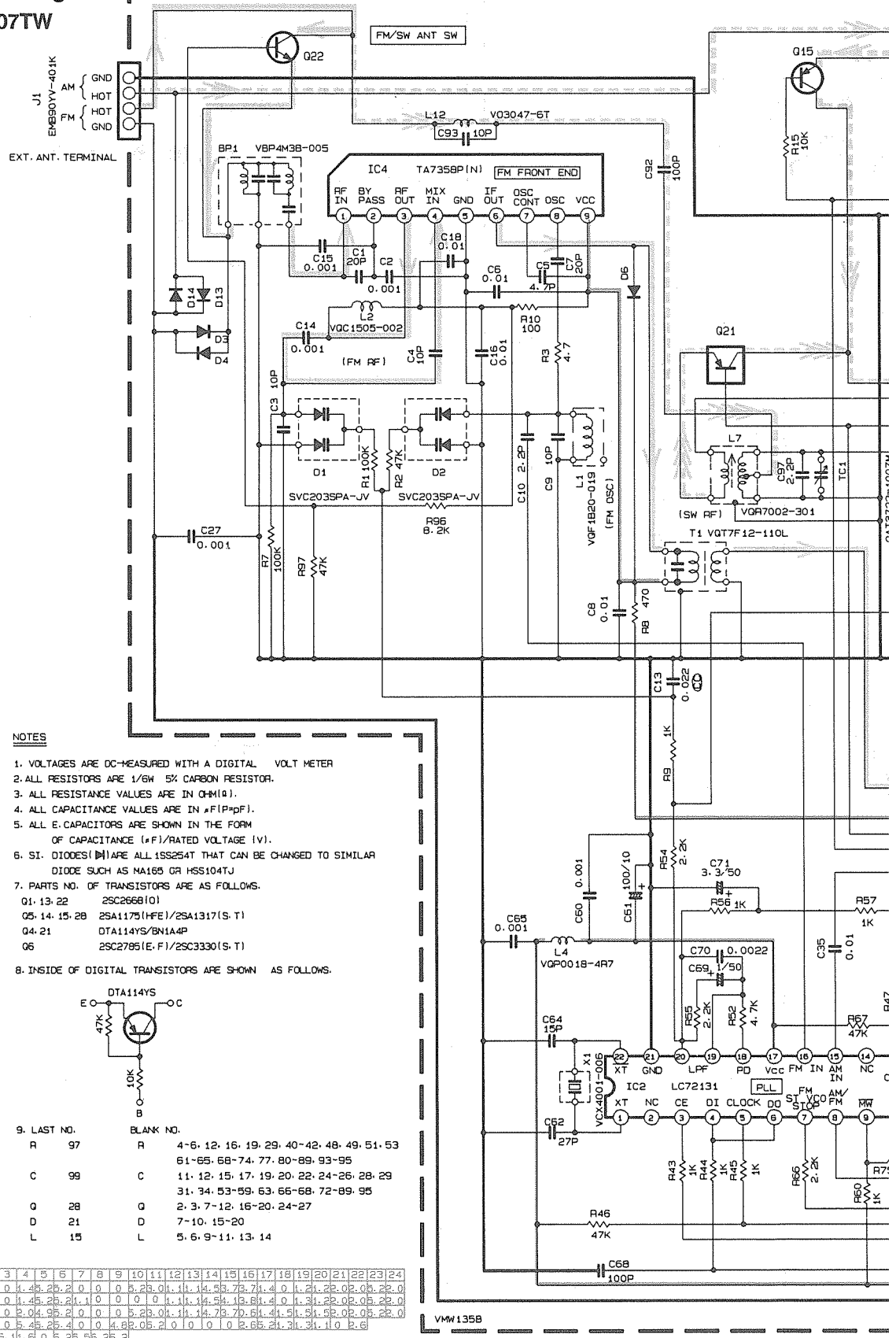
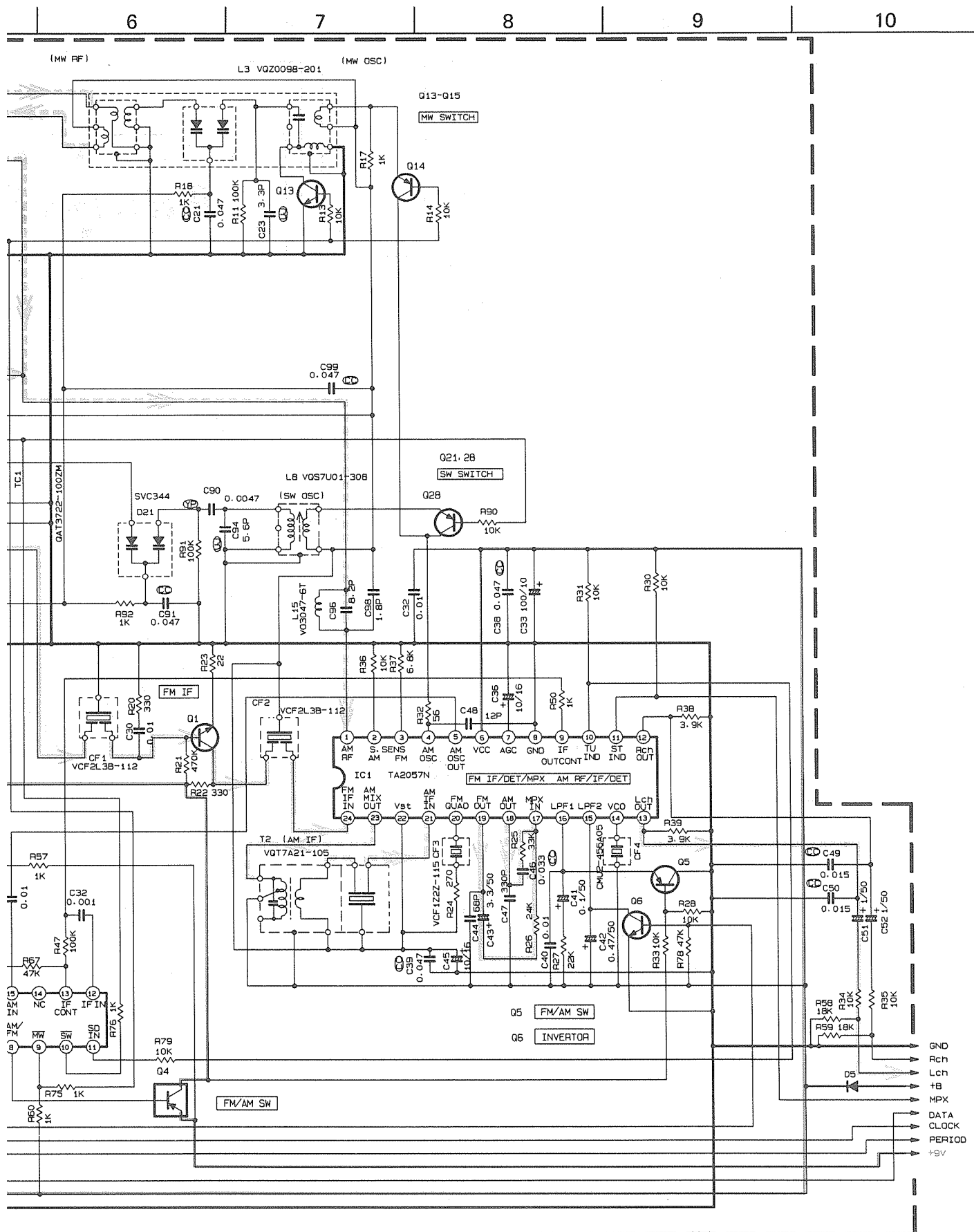


Fig. 12-5



# ■ Mic Amplifier Circuit: Drawing No. VDH9258 - 005AX

A

B

C

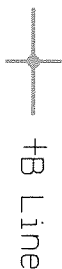
D

E

F

## NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.  
CONDITION --- TAPE STOP MODE.  
I MEANS INVERT MODE.
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W ± 5% CARBON RESISTOR.  
ALL RESISTANCE VALUES ARE IN OHM (Ω).  
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN pF (pF).  
ALL INDUCTANCE VALUES ARE IN mH (mH).  
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).  
ALL DIODES ARE 1SS254T OR HSS104T.
3. \*MARK ARE FOR USE B/E/EN/G/GI VERSION



MIC IN Signal

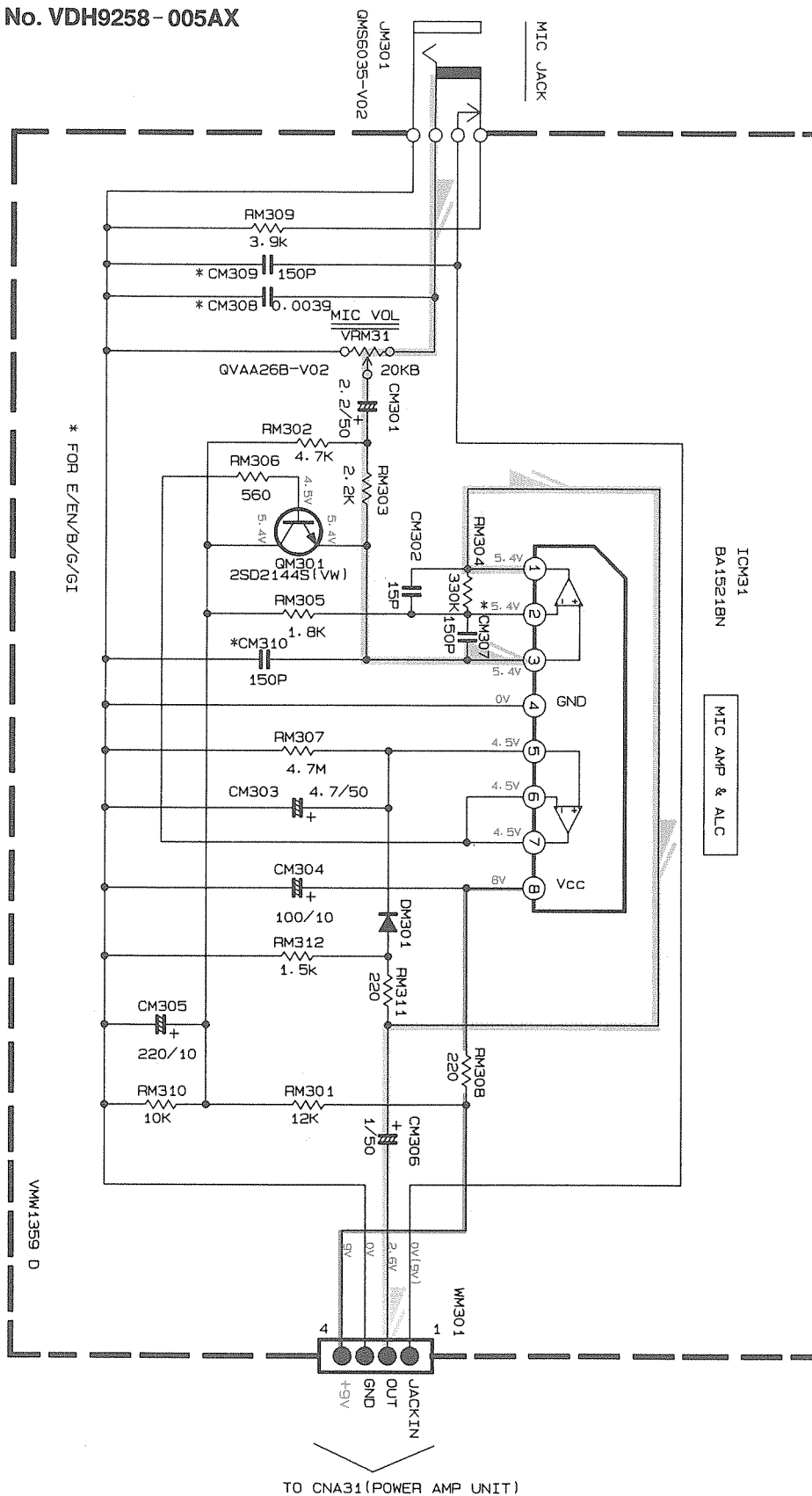


Fig. 12-6

# 13. Location of P. C. Board Parts

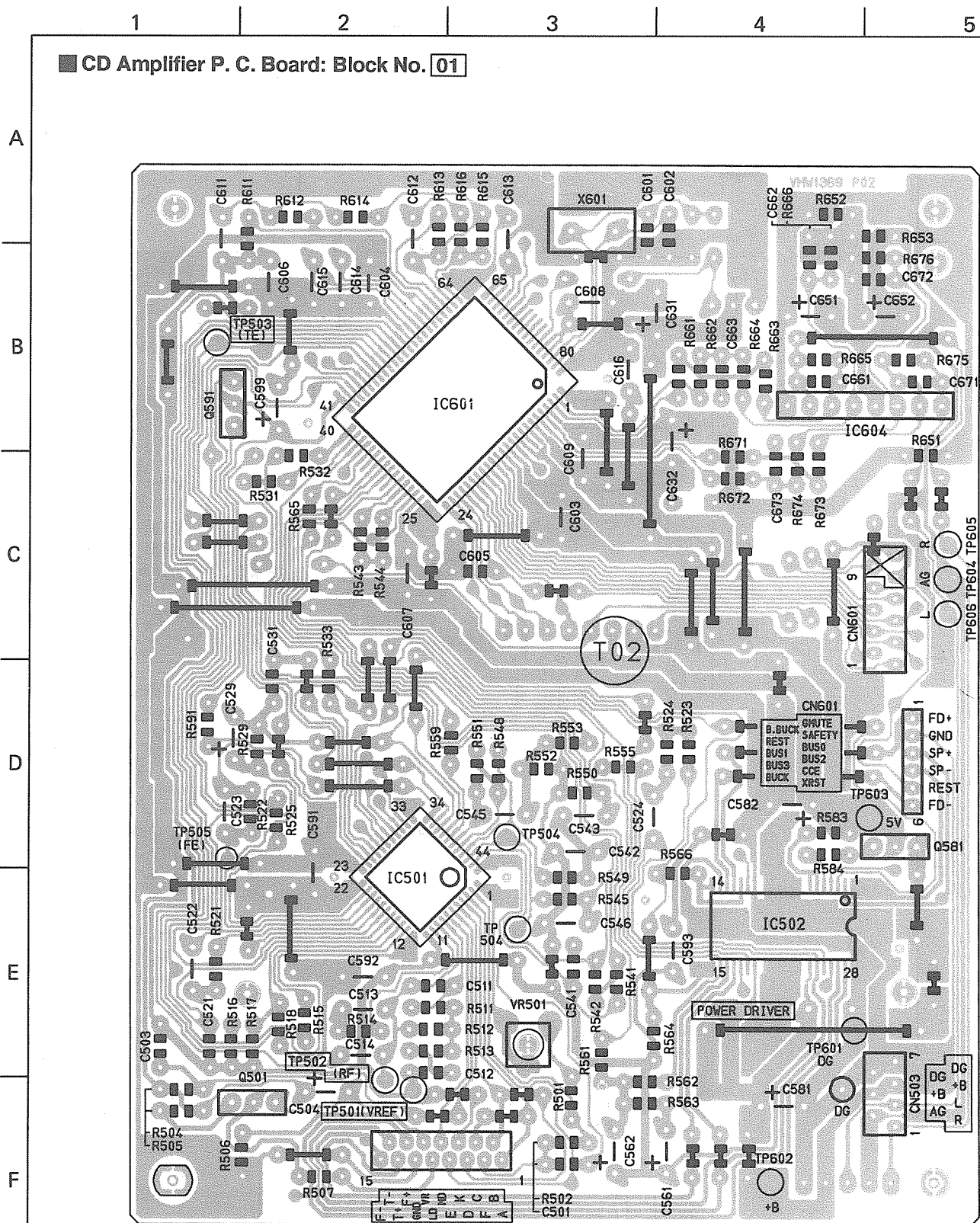
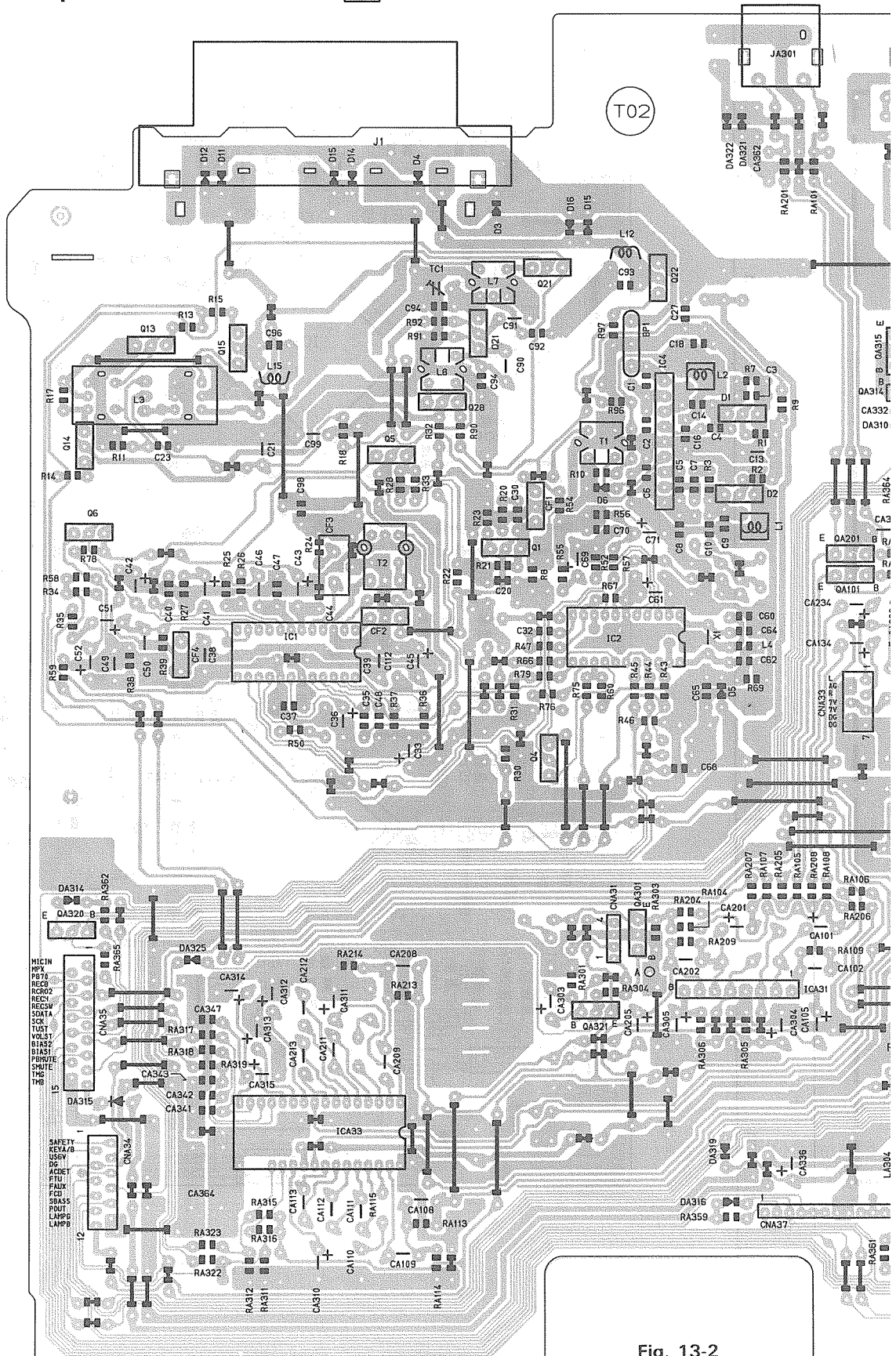


Fig. 13-1

5

## E



(No. 1950) 76

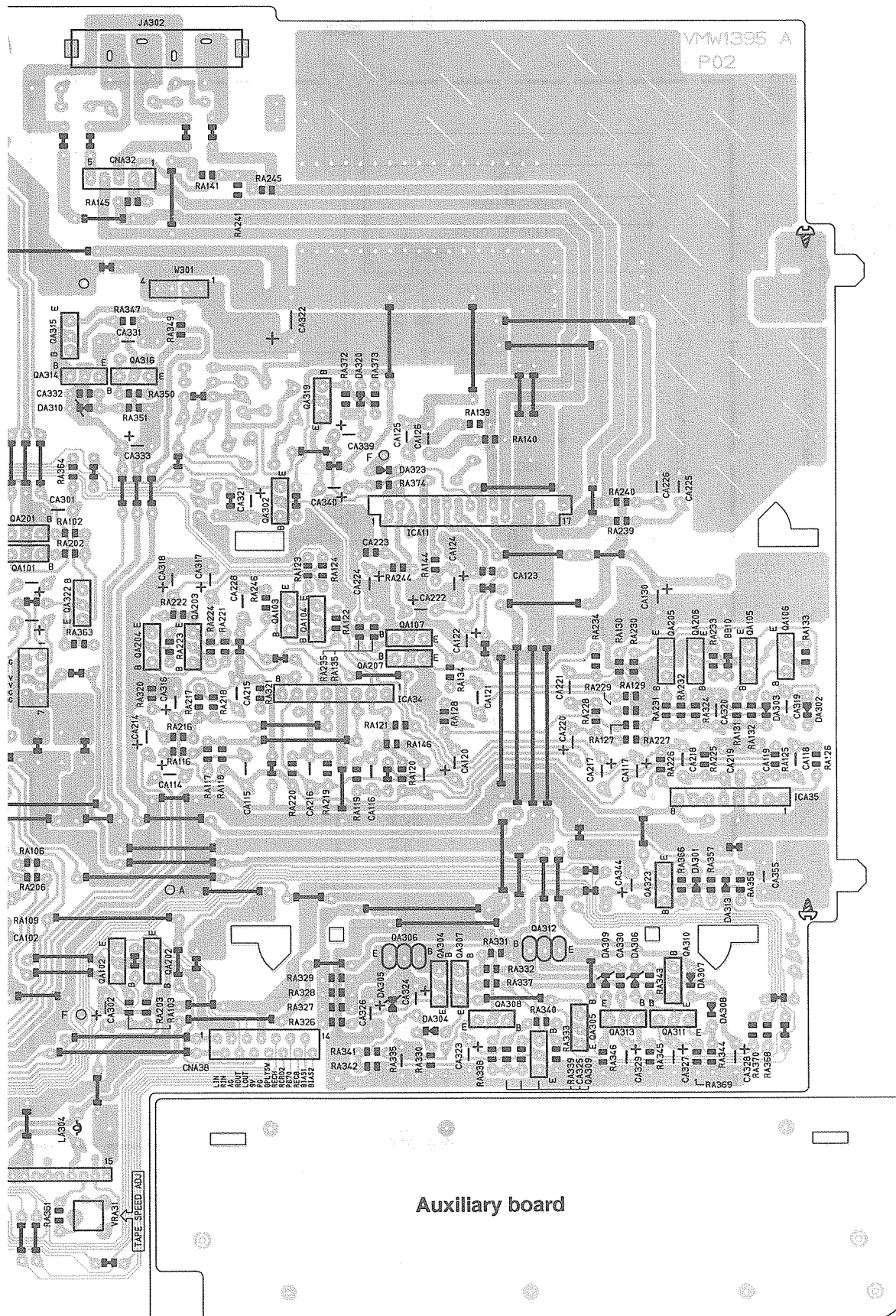
6

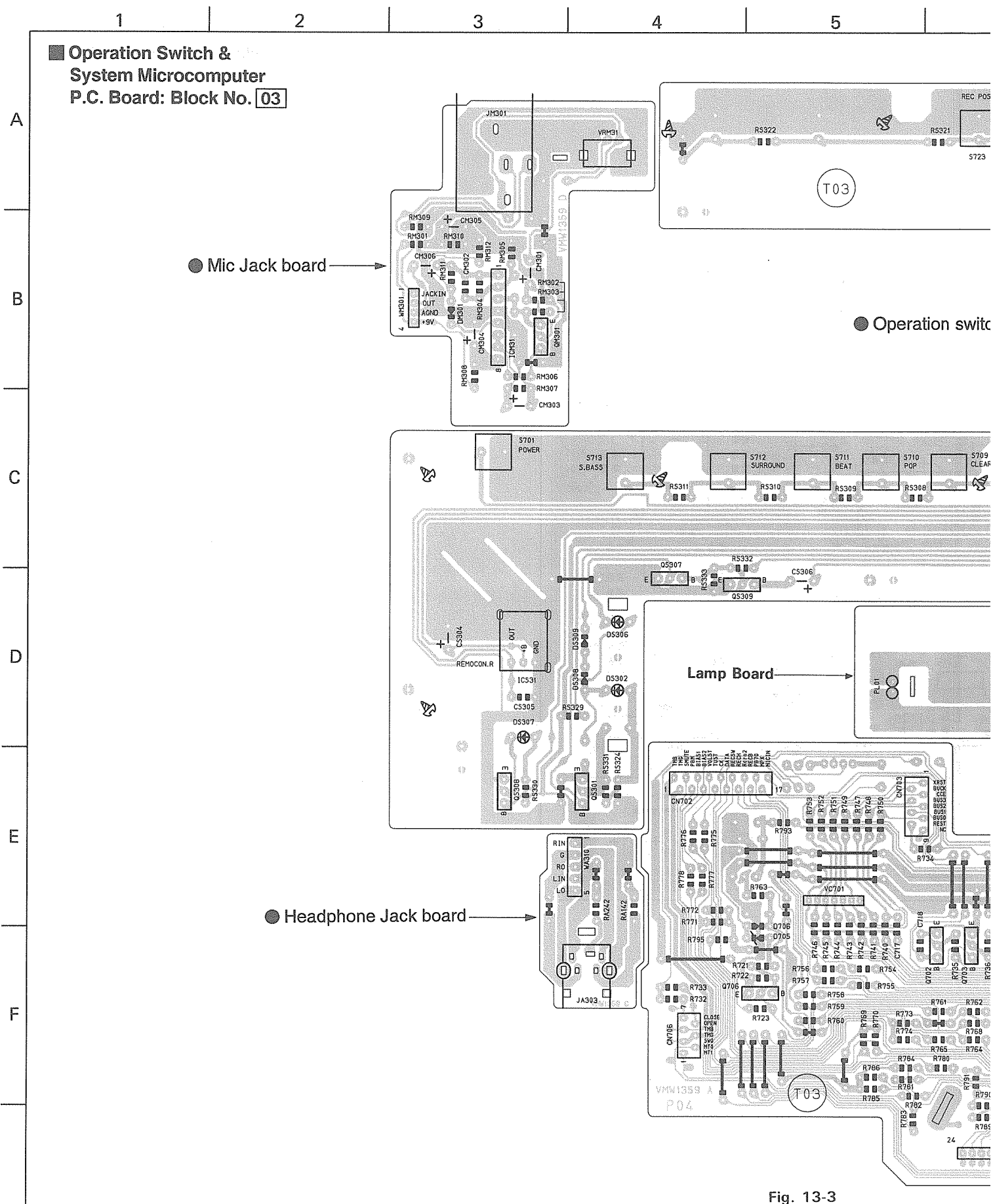
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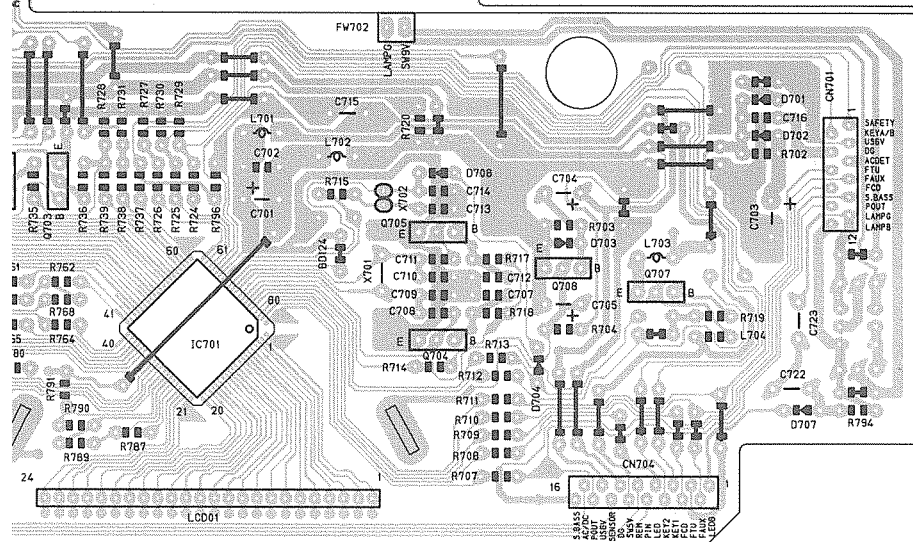
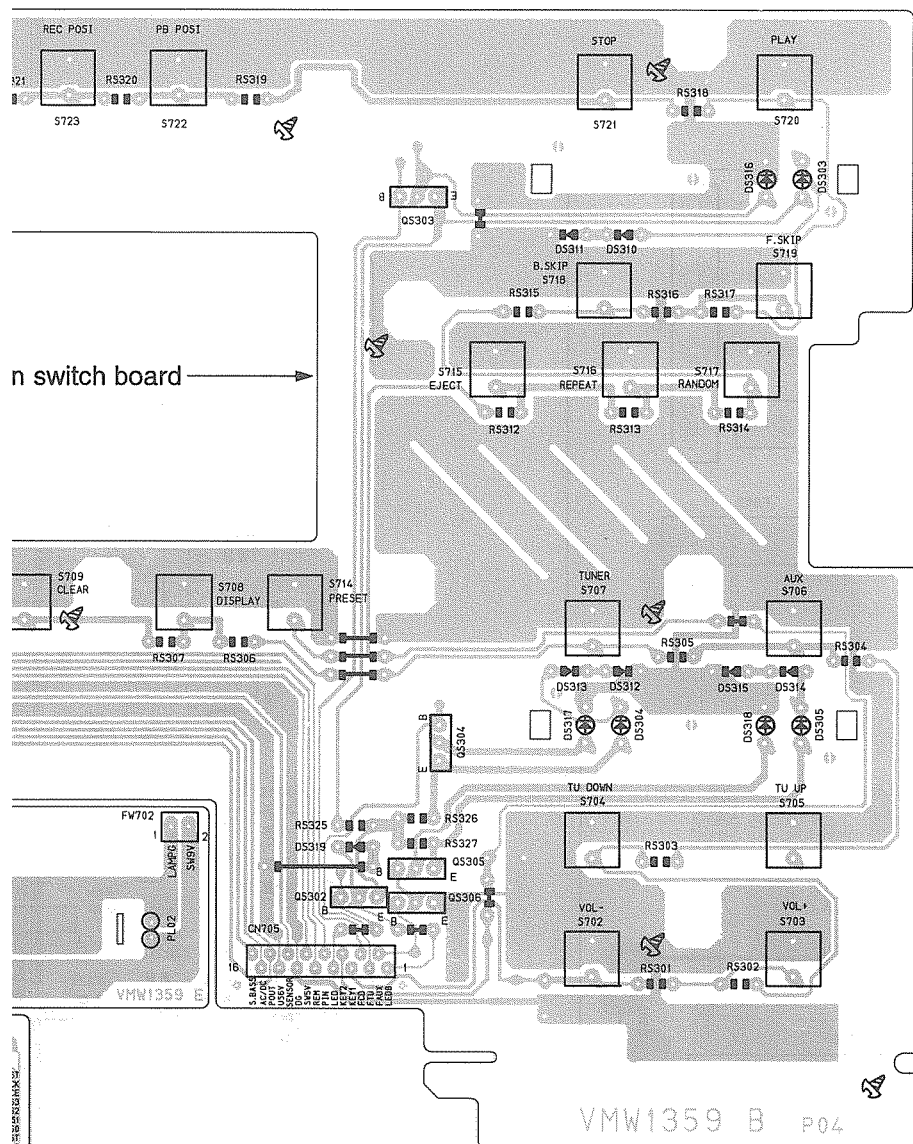
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7

8

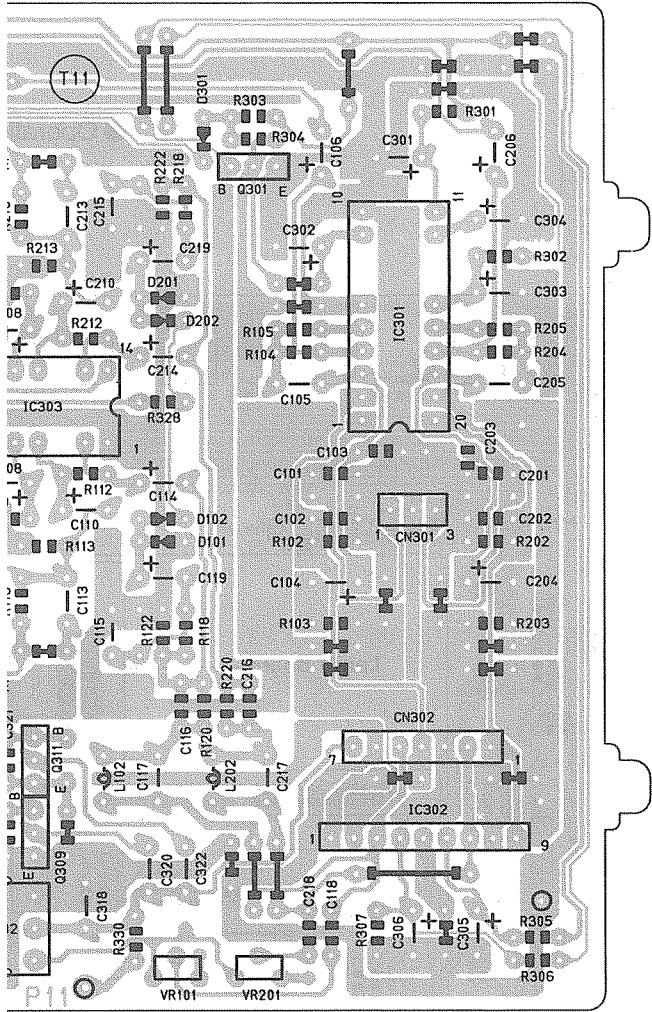
9

10





■ CD Tray motor Drive P.C.Board: Block No. 05



● Pre amplifier board

**Fig. 13-5**

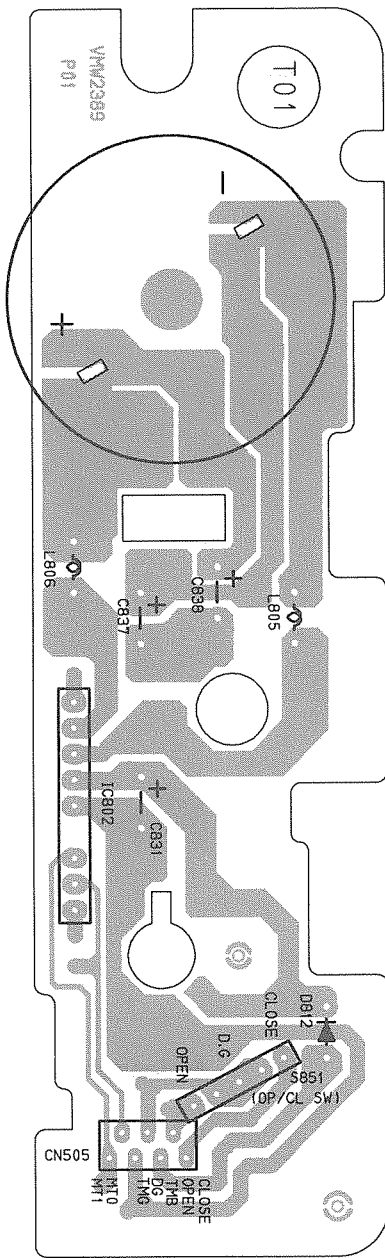


Fig. 13-6



# 14. Electrical Parts List

## CD Amplifier Board

| BLOCK NO. 01 |      |                |                  |                |        | BLOCK NO. 01 |       |               |                 |               |        |
|--------------|------|----------------|------------------|----------------|--------|--------------|-------|---------------|-----------------|---------------|--------|
| A            | REF. | PARTS NO.      | PARTS NAME       | REMARKS        | SUFFIX | A            | REF.  | PARTS NO.     | PARTS NAME      | REMARKS       | SUFFIX |
| C            | 501  | QCB81HK-821Y   | C. CAPACITOR     | 820PF 10% 50V  |        | IC           | IC501 | TAB191F       | IC              | SERVO LSI     |        |
| C            | 503  | QCVB1CN-103Y   | C. CAPACITOR     | .010MF 30% 16V |        | IC           | IC502 | BA6398FP      | IC              | POWER DRIVER  |        |
| C            | 504  | QET41CM-106    | E. CAPACITOR     | 10MF 20% 16V   |        | IC           | IC601 | TC9284BF      | IC              | PROCESSOR/DAC |        |
| C            | 511  | QCSB1HJ-3R9    | C. CAPACITOR     | 3.9PF 10% 50V  |        | Q            | 501   | 2SA952(L-K)   | TRANSISTOR      | 5V REGULATOR  |        |
| C            | 512  | QCS11HJ-270    | C. CAPACITOR     | 27PF 5% 50V    |        | Q            | 581   | 2SA952(L-K)   | TRANSISTOR      |               |        |
| C            | 513  | QFN41HJ-104    | M. CAPACITOR     | .10MF 5% 50V   |        | Q            | 591   | 2SA1309(RS)   | TRANSISTOR      |               |        |
| C            | 514  | QFN41HJ-472    | M. CAPACITOR     | 4700PF 5% 50V  |        | R            | 501   | QRD161J-124   | CARBON RESISTOR | 120K 5% 1/6W  |        |
| C            | 521  | QCB81HK-331Y   | C. CAPACITOR     | 330PF 10% 50V  |        | R            | 502   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W   |        |
| C            | 522  | QFN41HJ-473    | M. CAPACITOR     | .047MF 5% 50V  |        | R            | 504   | QRD161J-202   | CARBON RESISTOR | 2.0K 5% 1/6W  |        |
| C            | 523  | QFN41HJ-154    | M. CAPACITOR     | 1.5MF 5% 50V   |        | R            | 505   | QRD161J-100   | CARBON RESISTOR | 10 5% 1/6W    |        |
| C            | 524  | QEPCE1EM-4752M | NP. E. CAPACITOR | 4.7MF 20% 25V  |        | R            | 506   | QRD161J-101   | CARBON RESISTOR | 100 5% 1/6W   |        |
| C            | 529  | QETC1AM-3362N  | E. CAPACITOR     | 33MF 20% 10V   |        | R            | 507   | QRD161J-120   | CARBON RESISTOR | 12 5% 1/6W    |        |
| C            | 531  | QCVB1CM-822Y   | C. CAPACITOR     | 8200PF 20% 16V |        | R            | 511   | QRD161J-183   | CARBON RESISTOR | 18K 5% 1/6W   |        |
| C            | 541  | QCB81HK-101Y   | C. CAPACITOR     | 100PF 10% 50V  |        | R            | 512   | QRD161J-392   | CARBON RESISTOR | 3.9K 5% 1/6W  |        |
| C            | 542  | QFN81HJ-103    | M. CAPACITOR     | .010MF 5% 50V  |        | R            | 513   | QRD161J-332   | CARBON RESISTOR | 3.3K 5% 1/6W  |        |
| C            | 543  | QFN81HJ-393    | M. CAPACITOR     | .039MF 5% 50V  |        | R            | 514   | QRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W  |        |
| C            | 545  | QEN61HM-105Z   | NP. E. CAPACITOR | 1.0MF 20% 50V  |        | R            | 515   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W   |        |
| C            | 546  | QFN81HJ-223    | M. CAPACITOR     | .022MF 5% 50V  |        | R            | 516   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W   |        |
| C            | 561  | QET41AM-476    | E. CAPACITOR     | 4.7MF 20% 10V  |        | R            | 517   | QRD161J-202   | CARBON RESISTOR | 2.0K 5% 1/6W  |        |
| C            | 562  | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V  |        | R            | 518   | QRD161J-335YT | CARBON RESISTOR | 3.3M 5% 1/6W  |        |
| C            | 581  | QET41AM-477    | E. CAPACITOR     | 470MF 20% 10V  |        | R            | 521   | QRD161J-154   | CARBON RESISTOR | 150K 5% 1/6W  |        |
| C            | 582  | QEK41CM-476    | E. CAPACITOR     | 47MF 20% 16V   |        | R            | 522   | QRD161J-392   | CARBON RESISTOR | 3.9K 5% 1/6W  |        |
| C            | 591  | VCP0012-105Z   | C. CAPACITOR     | 47MF 20% 16V   |        | R            | 523   | QRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W  |        |
| C            | 592  | VCP0012-105Z   | C. CAPACITOR     |                |        | R            | 524   | QRD161J-331   | CARBON RESISTOR | 330 5% 1/6W   |        |
| C            | 593  | QCC11EM-104Y   | C. CAPACITOR     | .10MF 20% 25V  |        | R            | 525   | QRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W  |        |
| C            | 599  | QEK61AM-1072M  | E. CAPACITOR     | 100MF 20% 10V  |        | R            | 529   | QRD161J-562   | CARBON RESISTOR | 5.6K 5% 1/6W  |        |
| C            | 601  | QCS11HJ-220    | C. CAPACITOR     | FDR CRYSTAL    |        | R            | 531   | QRD161J-473   | CARBON RESISTOR | 47K 5% 1/6W   |        |
| C            | 602  | QCS11HJ-220    | C. CAPACITOR     | FDR CRYSTAL    |        | R            | 532   | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W  |        |
| C            | 603  | QFV41HJ-1042M  | FILM CAPACITOR   | .10MF 5% 50V   |        | R            | 533   | QRD161J-153   | CARBON RESISTOR | 15K 5% 1/6W   |        |
| C            | 604  | QCC11EM-104Y   | C. CAPACITOR     | .10MF 20% 25V  |        | R            | 541   | QRD161J-123   | CARBON RESISTOR | 12K 5% 1/6W   |        |
| C            | 605  | QCVB1CN-103Y   | C. CAPACITOR     | .010MF 30% 16V |        | R            | 542   | QRD161J-332   | CARBON RESISTOR | 3.3K 5% 1/6W  |        |
| C            | 606  | QCC11EM-473V   | C. CAPACITOR     | .047MF 20% 25V |        | R            | 543   | QRD161J-473   | CARBON RESISTOR | 47K 5% 1/6W   |        |
| C            | 607  | QFV41HJ-1042M  | FILM CAPACITOR   | .10MF 5% 50V   |        | R            | 544   | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W   |        |
| C            | 608  | QCC11EM-473V   | C. CAPACITOR     | .047MF 20% 25V |        | R            | 545   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W   |        |
| C            | 609  | QFV41HJ-1042M  | FILM CAPACITOR   | .10MF 5% 50V   |        | R            | 548   | QRD161J-153   | CARBON RESISTOR | 15K 5% 1/6W   |        |
| C            | 611  | QCS11HJ-101    | C. CAPACITOR     | 100PF 5% 50V   |        | R            | 549   | QRD161J-821   | CARBON RESISTOR | 820 5% 1/6W   |        |
| C            | 612  | QFN81HJ-103    | M. CAPACITOR     | .010MF 5% 50V  |        | R            | 550   | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W  |        |
| C            | 613  | QFN81HJ-103    | M. CAPACITOR     | .010MF 5% 50V  |        | R            | 551   | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W   |        |
| C            | 614  | QFN41HJ-332    | M. CAPACITOR     | 3300PF 5% 50V  |        | R            | 552   | QRD161J-562   | CARBON RESISTOR | 5.6K 5% 1/6W  |        |
| C            | 615  | QFN41HJ-332    | M. CAPACITOR     | 3300PF 5% 50V  |        | R            | 553   | QRD161J-821   | CARBON RESISTOR | 820 5% 1/6W   |        |
| C            | 616  | QCC11EM-103V   | C. CAPACITOR     | .010MF 20% 25V |        | R            | 555   | QRD161J-392   | CARBON RESISTOR | 3.9K 5% 1/6W  |        |
| C            | 631  | QEK61AM-1072M  | E. CAPACITOR     | 100MF 20% 10V  |        | R            | 559   | QRD161J-125   | CARBON RESISTOR | 1.2M 5% 1/6W  |        |
| C            | 632  | QER40JM-107    | E. CAPACITOR     | 100MF 20% 6.3V |        | R            | 561   | QRD161J-562   | CARBON RESISTOR | 5.6K 5% 1/6W  |        |
| C            | 651  | QEK61AM-1072M  | E. CAPACITOR     | 100MF 20% 10V  |        | R            | 562   | QRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W  |        |
| C            | 652  | QEK41CM-226    | E. CAPACITOR     | 22MF 20% 16V   |        | R            | 563   | QRD161J-152   | CARBON RESISTOR | 1.5K 5% 1/6W  |        |
| C            | 661  | QCB81HK-101Y   | C. CAPACITOR     | 100PF 10% 50V  |        | R            | 564   | QRD161J-332   | CARBON RESISTOR | 3.3K 5% 1/6W  |        |
| C            | 662  | QCB81HK-101Y   | C. CAPACITOR     | 100PF 10% 50V  |        | R            | 565   | QRD161J-683   | CARBON RESISTOR | 68K 5% 1/6W   |        |
| C            | 671  | QCS11HJ-270    | C. CAPACITOR     | 27PF 5% 50V    |        | R            | 566   | QRD161J-273   | CARBON RESISTOR | 27K 5% 1/6W   |        |
| C            | 671  | QCB81HK-101Y   | C. CAPACITOR     | 100PF 10% 50V  |        | R            | 583   | QRD161J-101   | CARBON RESISTOR | 100 5% 1/6W   |        |
| C            | 672  | QCB81HK-101Y   | C. CAPACITOR     | 100PF 10% 50V  |        | R            | 584   | QRD161J-331   | CARBON RESISTOR | 330 5% 1/6W   |        |
| C            | 673  | QCS11HJ-270    | C. CAPACITOR     | 27PF 5% 50V    |        | R            | 591   | QRD161J-473   | CARBON RESISTOR | 47K 5% 1/6W   |        |
| CN           | 501  | EMV7144-015R   | 15PIN CONNECTOR  | TO PICK UP     |        | R            | 611   | QRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W  |        |
| CN           | 502  | VMC0075-006    | CONNECTOR        |                |        | R            | 612   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W   |        |
| CN           | 503  | EMV7155-007    | CONNECTOR        |                |        | R            | 613   | QRD161J-224   | CARBON RESISTOR | 220K 5% 1/6W  |        |
| CN           | 601  | EMV7155-009    | CONNECTOR        | TO CPU         |        | R            | 614   | QRD161J-473   | CARBON RESISTOR | 47K 5% 1/6W   |        |

## ■ Tuner & Power Amplifier Board

BLOCK NO. 02

| REF. | PARTS NO.     | PARTS NAME    | REMARKS        | SUPPLX |
|------|---------------|---------------|----------------|--------|
| BP   | 1             | B-PASS FILTER |                |        |
| C 1  | QCS11HJ-200   | C-CAPACITOR   | 20PF 5% 50V    |        |
| C 2  | QCSB1HK-102Y  | C-CAPACITOR   | 1000PF 10% 50V |        |
| C 3  | QCS11HJ-100   | C-CAPACITOR   | 10PF 5% 50V    |        |
| C 4  | QCS11HJ-100   | C-CAPACITOR   | 10PF 5% 50V    |        |
| C 5  | QCSB1HK-4R7Y  | C-CAPACITOR   | 4.7PF 10% 50V  |        |
| C 6  | QCVB1CN-103Y  | C-CAPACITOR   | .010MF 30% 16V |        |
| C 7  | QCS11HJ-200   | C-CAPACITOR   | 20PF 5% 50V    |        |
| C 8  | QCVB1CN-103Y  | C-CAPACITOR   | .010MF 30% 16V |        |
| C 9  | QCS11HJ-100   | C-CAPACITOR   | 10PF 5% 50V    |        |
| C 10 | QCSB1HK-2R2Y  | C-CAPACITOR   | 2.2PF 10% 50V  |        |
| C 13 | QCC11EM-223V  | C-CAPACITOR   | .022MF 20% 25V |        |
| C 14 | QCSB1HK-102Y  | C-CAPACITOR   | 1000PF 10% 50V |        |
| C 16 | QCVB1CN-103Y  | C-CAPACITOR   | .010MF 30% 16V |        |
| C 18 | QCVB1CN-103Y  | C-CAPACITOR   | .010MF 30% 16V |        |
| C 21 | QCC11EM-473V  | C-CAPACITOR   | .047MF 20% 25V |        |
| C 23 | QCSB1HK-4R7Y  | C-CAPACITOR   | 4.7PF 10% 50V  |        |
| C 27 | QCSB1HK-102Y  | C-CAPACITOR   | 1000PF 10% 50V |        |
| C 30 | QCVB1CN-103Y  | C-CAPACITOR   | .010MF 30% 16V |        |
| C 32 | QCSB1HK-102Y  | C-CAPACITOR   | 1000PF 10% 50V |        |
| C 33 | QK61AM-1072M  | E-CAPACITOR   | 100MF 20% 10V  |        |
| C 35 | QCVB1CN-103Y  | C-CAPACITOR   | .010MF 30% 16V |        |
| C 36 | QK41CM-106    | E-CAPACITOR   | 10MF 20% 16V   |        |
| C 37 | QCVB1CN-103Y  | C-CAPACITOR   | .010MF 30% 16V |        |
| C 38 | QCC11EM-473V  | C-CAPACITOR   | .047MF 20% 25V |        |
| C 39 | QCC11EM-473V  | C-CAPACITOR   | .047MF 20% 25V |        |
| C 40 | QCVB1CN-103Y  | C-CAPACITOR   | .010MF 30% 16V |        |
| C 41 | QK41HM-104    | E-CAPACITOR   | .10MF 20% 50V  |        |
| C 42 | QK41HM-474    | E-CAPACITOR   | .47MF 20% 50V  |        |
| C 43 | QK61HM-3352N  | E-CAPACITOR   | 3.3MF 20% 50V  |        |
| C 44 | QCS11HJ-680   | C-CAPACITOR   | 68PF 5% 50V    |        |
| C 45 | QK41CM-106    | E-CAPACITOR   | 10MF 20% 16V   |        |
| C 46 | QCC31EM-3332V | C-CAPACITOR   | .033MF 20% 25V |        |
| C 47 | QCSB1HK-331Y  | C-CAPACITOR   | 330PF 10% 50V  |        |
| C 48 | QCS11HJ-120   | C-CAPACITOR   | 12PF 5% 50V    |        |
| C 49 | QCC31EM-1532V | C-CAPACITOR   | .015MF 20% 25V |        |
| C 50 | QCC31EM-1532V | C-CAPACITOR   | .015MF 20% 25V |        |
| C 51 | QK41HM-105    | E-CAPACITOR   | 1.0MF 20% 50V  |        |
| C 52 | QK41HM-105    | E-CAPACITOR   | 1.0MF 20% 50V  |        |
| C 60 | QCSB1HK-102Y  | C-CAPACITOR   | 1000PF 10% 50V |        |
| C 61 | QK61AM-1072M  | E-CAPACITOR   | 100MF 20% 10V  |        |
| C 62 | QCS11HJ-270   | C-CAPACITOR   | 27PF 5% 50V    |        |
| C 64 | QCS11HJ-150   | C-CAPACITOR   | 15PF 5% 50V    |        |
| C 65 | QCSB1HK-102Y  | C-CAPACITOR   | 1000PF 10% 50V |        |
| C 68 | QCSB1HK-101Y  | C-CAPACITOR   | 100PF 10% 50V  |        |
| C 69 | QK41HM-105    | E-CAPACITOR   | 1.0MF 20% 50V  |        |
| C 70 | QCVB1CN-222Y  | C-CAPACITOR   | 2200PF 20% 16V |        |
| C 71 | QK61HM-3352N  | E-CAPACITOR   | 3.3MF 20% 50V  |        |
| C 90 | QCV31HK-472Z  | C-CAPACITOR   | 4700PF 10% 50V |        |
| C 91 | QCC11EM-473V  | C-CAPACITOR   | .047MF 20% 25V |        |
| C 92 | QCSB1HK-101Y  | C-CAPACITOR   | 100PF 10% 50V  |        |
| C 93 | QCS11HJ-100   | C-CAPACITOR   | 10PF 5% 50V    |        |
| C 94 | QCT30UJ-5R6Y  | C-CAPACITOR   | 5.6PF 5% 50V   |        |
| C 96 | QCSB1HK-8R2Y  | C-CAPACITOR   | 8.2PF 10% 50V  |        |
| C 97 | QCSB1HK-5R6Y  | C-CAPACITOR   | 5.6PF 10% 50V  |        |

| BLOCK NO. 01 |                 |                 |              |        |
|--------------|-----------------|-----------------|--------------|--------|
| REF.         | PARTS NO.       | PARTS NAME      | REMARKS      | SUFFIX |
| R 615        | GRD161J-225     | CARBON RESISTOR | 2.2M 5% 1/6W |        |
| R 616        | GRD161J-333     | CARBON RESISTOR | 33K 5% 1/6W  |        |
| R 651        | GRD161J-820     | CARBON RESISTOR | 82 5% 1/6W   |        |
| R 652        | GRD161J-473     | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 653        | GRD161J-473     | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 661        | GRD161J-473     | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 662        | GRD161J-473     | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 663        | GRD161J-473     | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 664        | GRD161J-473     | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 665        | GRD161J-223     | CARBON RESISTOR | 22K 5% 1/6W  |        |
| R 666        | GRD161J-223     | CARBON RESISTOR | 22K 5% 1/6W  |        |
| R 671        | GRD161J-473     | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 672        | GRD161J-473     | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 673        | GRD161J-473     | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 674        | GRD161J-473     | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 675        | GRD161J-223     | CARBON RESISTOR | 22K 5% 1/6W  |        |
| R 676        | GRD161J-223     | CARBON RESISTOR | 22K 5% 1/6W  |        |
| VR501        | QVPA601-154A    | V RESISTOR      |              |        |
| X 601        | CSA16.93MXZ040T | CERA LOCK       |              |        |

BLOCK NO. 02

| REF.  | PARTS NO.     | PARTS NAME   | REMARKS        | SUFFIX |
|-------|---------------|--------------|----------------|--------|
| C 98  | QCSB1HM-188Y  | C. CAPACITOR | 1.8PF 20% 50V  |        |
| C 99  | QCC11EM-473V  | C. CAPACITOR | .047MF 20% 25V |        |
| CA101 | QETC1HM-335ZM | E. CAPACITOR | 3.3MF 20% 50V  |        |
| CA102 | QCS11HJ-330   | C. CAPACITOR | 33PF 5% 50V    |        |
| CA105 | QETC1HM-335ZM | E. CAPACITOR | 3.3MF 20% 50V  |        |
| CA108 | QFN81HJ-683   | M. CAPACITOR | .068MF 5% 50V  |        |
| CA109 | QFN41HJ-333   | M. CAPACITOR | .033MF 5% 50V  |        |
| CA111 | QFN41HJ-333   | M. CAPACITOR | .033MF 5% 50V  |        |
| CA112 | QFN41HJ-333   | M. CAPACITOR | .033MF 5% 50V  |        |
| CA113 | QCB1HK-821Y   | C. CAPACITOR | 820PF 10% 50V  |        |
| CA114 | QET41CM-106   | E. CAPACITOR | 10MF 20% 16V   |        |
| CA115 | QFN81HJ-683   | M. CAPACITOR | .068MF 5% 50V  |        |
| CA116 | QFN41HJ-682   | M. CAPACITOR | 6800PF 5% 50V  |        |
| CA117 | QETC1HM-225ZM | E. CAPACITOR | 2.2MF 20% 50V  |        |
| CA118 | QFN81HJ-223   | M. CAPACITOR | .022MF 5% 50V  |        |
| CA120 | QET41CM-226   | E. CAPACITOR | 22MF 20% 16V   |        |
| CA121 | QFN81HJ-224   | M. CAPACITOR | .22MF 5% 50V   |        |
| CA122 | QET41HM-474   | E. CAPACITOR | .47MF 20% 50V  |        |
| CA123 | QCB1HK-102Y   | C. CAPACITOR | 1000PF 10% 50V |        |
| CA124 | QET41EM-106   | E. CAPACITOR | 10MF 20% 25V   |        |
| CA125 | QCC11EM-104V  | C. CAPACITOR | .10MF 20% 25V  |        |
| CA126 | QCC11EM-104V  | C. CAPACITOR | .10MF 20% 25V  |        |
| CA128 | QFN81HJ-683   | M. CAPACITOR | .068MF 5% 50V  |        |
| CA130 | QETC1EM-337ZM | E. CAPACITOR | 330MF 20% 25V  |        |
| CA134 | QETC1HM-335ZM | E. CAPACITOR | 3.3MF 20% 50V  |        |
| CA201 | QETC1HM-335ZM | E. CAPACITOR | 3.3MF 20% 50V  |        |
| CA202 | QCS11HJ-330   | C. CAPACITOR | 33PF 5% 50V    |        |
| CA205 | QETC1HM-335ZM | E. CAPACITOR | 3.3MF 20% 50V  |        |
| CA208 | QFN81HJ-683   | M. CAPACITOR | .068MF 5% 50V  |        |
| CA209 | QFN41HJ-333   | M. CAPACITOR | .033MF 5% 50V  |        |
| CA211 | QFN41HJ-333   | M. CAPACITOR | .033MF 5% 50V  |        |
| CA212 | QFN41HJ-333   | M. CAPACITOR | .033MF 5% 50V  |        |
| CA213 | QCB1HK-821Y   | C. CAPACITOR | 820PF 10% 50V  |        |
| CA214 | QET41CM-106   | E. CAPACITOR | 10MF 20% 16V   |        |
| CA215 | QFN81HJ-683   | M. CAPACITOR | .068MF 5% 50V  |        |
| CA216 | QFN41HJ-682   | M. CAPACITOR | 6800PF 5% 50V  |        |
| CA217 | QETC1HM-225ZM | E. CAPACITOR | 2.2MF 20% 50V  |        |
| CA218 | QFN81HJ-223   | M. CAPACITOR | .022MF 5% 50V  |        |
| CA220 | QET41CM-226   | E. CAPACITOR | 22MF 20% 16V   |        |
| CA221 | QFN81HJ-224   | M. CAPACITOR | .22MF 5% 50V   |        |
| CA222 | QET41HM-474   | E. CAPACITOR | .47MF 20% 50V  |        |
| CA223 | QCB1HK-102Y   | C. CAPACITOR | 1000PF 10% 50V |        |
| CA224 | QET41EM-106   | E. CAPACITOR | 10MF 20% 25V   |        |
| CA225 | QCC11EM-104V  | C. CAPACITOR | .10MF 20% 25V  |        |
| CA226 | QCC11EM-104V  | C. CAPACITOR | .10MF 20% 25V  |        |
| CA228 | QFN81HJ-683   | M. CAPACITOR | .068MF 5% 50V  |        |
| CA234 | QETC1HM-335ZM | E. CAPACITOR | 3.3MF 20% 50V  |        |
| CA301 | QCC31EM-333ZV | C. CAPACITOR | .033MF 20% 25V |        |
| CA302 | QET41HM-475   | E. CAPACITOR | 4.7MF 20% 50V  |        |
| CA303 | QETC1HM-225ZM | E. CAPACITOR | 2.2MF 20% 50V  |        |
| CA304 | QET41CM-226   | E. CAPACITOR | 22MF 20% 16V   |        |
| CA305 | QET41CM-226   | E. CAPACITOR | 22MF 20% 16V   |        |
| CA310 | QETC1HM-224ZM | E. CAPACITOR | .22MF 20% 50V  |        |
| CA311 | QET41EM-106   | E. CAPACITOR | 10MF 20% 25V   |        |
| CA312 | QET41HM-475   | E. CAPACITOR | 4.7MF 20% 50V  |        |

BLOCK NO. 02

| REF.  | PARTS NO.       | PARTS NAME     | REMARKS        | SUFFIX |
|-------|-----------------|----------------|----------------|--------|
| CA313 | QET41HM-475     | E. CAPACITOR   | 4.7MF 20% 50V  |        |
| CA314 | QET41CM-226     | E. CAPACITOR   | 22MF 20% 16V   |        |
| CA315 | QET41AM-107     | E. CAPACITOR   | 100MF 20% 10V  |        |
| CA316 | QET41CM-226     | E. CAPACITOR   | 22MF 20% 16V   |        |
| CA317 | QET41HM-105     | E. CAPACITOR   | 1.0MF 20% 50V  |        |
| CA318 | QET41HM-105     | E. CAPACITOR   | 1.0MF 20% 50V  |        |
| CA319 | QFN41HJ-104     | M. CAPACITOR   | .10MF 5% 50V   |        |
| CA320 | QFN81HJ-393     | M. CAPACITOR   | .039MF 5% 50V  |        |
| CA321 | QET41CM-106     | E. CAPACITOR   | 10MF 20% 16V   |        |
| CA322 | QETB1EM-688N    | E. CAPACITOR   | 6800MF 20% 25V |        |
| CA323 | QET41CM-106     | E. CAPACITOR   | 10MF 20% 16V   |        |
| CA324 | QETC1HM-225ZM   | E. CAPACITOR   | 2.2MF 20% 50V  |        |
| CA325 | QCB1HK-221Y     | C. CAPACITOR   | 220PF 10% 50V  |        |
| CA326 | QET41CM-226     | E. CAPACITOR   | 22MF 20% 16V   |        |
| CA327 | QET41HM-475     | E. CAPACITOR   | 4.7MF 20% 50V  |        |
| CA328 | QET41CM-226     | E. CAPACITOR   | 22MF 20% 16V   |        |
| CA329 | QET41CM-106     | E. CAPACITOR   | 10MF 20% 16V   |        |
| CA330 | QCVB1CM-103Y    | C. CAPACITOR   | .010MF 30% 16V |        |
| CA332 | QCVB1CM-103Y    | C. CAPACITOR   | .010MF 30% 16V |        |
| CA333 | QET41AM-107     | E. CAPACITOR   | 100MF 20% 10V  |        |
| CA336 | QET41AM-227     | E. CAPACITOR   | 220MF 20% 10V  |        |
| CA339 | QET41EM-106     | E. CAPACITOR   | 10MF 20% 25V   |        |
| CA340 | QET41EM-106     | E. CAPACITOR   | 10MF 20% 25V   |        |
| CA341 | QCB1HK-151Y     | C. CAPACITOR   | 150PF 10% 50V  |        |
| CA342 | QCB1HK-151Y     | C. CAPACITOR   | 150PF 10% 50V  |        |
| CA343 | QCB1HK-151Y     | C. CAPACITOR   | 150PF 10% 50V  |        |
| CA344 | QET41AM-107     | E. CAPACITOR   | 100MF 20% 10V  |        |
| CA355 | QCC11EM-104V    | C. CAPACITOR   | .10MF 20% 25V  |        |
| CF 1  | VCF2M3B-106     | C. FILTER      |                |        |
| CF 2  | VCF2M3B-106     | C. FILTER      |                |        |
| CF 3  | VCF12ZT-115Z    | CERAMIC FILTER |                |        |
| CF 4  | CMU2-456A05     | CERA LOCK      |                |        |
| CNA31 | VMC0075-004     | CONNECTOR      | TO MIC AMP     |        |
| CNA32 | VMC0040-005     | CONNECTOR      | TO HEAD PHONE  |        |
| CNA33 | EMV7155-007     | CONNECTOR      | TO CD AMP      |        |
| CNA34 | EMV7155-012R    | CONNECTOR      | TO MICOM       |        |
| CNA35 | EMV7155-017     | CONNECTOR      | TO MICOM       |        |
| CNA37 | VMC0075-015N    | CONNECTOR      | TO C MECHA     |        |
| CNA38 | EMV7155-014     | CONNECTOR      | TO PRE AMP     |        |
| D 1   | SVC203SPA-AB-AL | VARI CAP       |                |        |
| D 2   | SVC203SPA-AB-AL | VARI CAP       |                |        |
| D 3   | 1SS133          | SI DIODE       |                |        |
| D 4   | 1SS133          | SI DIODE       |                |        |
| D 5   | 1SS133          | SI DIODE       |                |        |
| D 6   | 1SS133          | SI DIODE       |                |        |
| D 11  | 1SS133          | SI DIODE       |                |        |
| D 12  | 1SS133          | SI DIODE       |                |        |
| D 13  | 1SS133          | SI DIODE       |                |        |
| D 14  | 1SS133          | SI DIODE       |                |        |
| D 15  | 1SS133          | SI DIODE       |                |        |
| D 16  | HSS1041J        | SI DIODE       |                |        |
| D 21  | 1SS133          | SI DIODE       |                |        |
| DA301 | SVC344-AA       | VARI CAP       |                |        |
| DA302 | RB721Q          | SI DIODE       |                |        |
| DA303 | RB721Q          | DIODE          |                |        |

BLOCK NO. 02

| A REF. | PARTS NO.     | PARTS NAME      | REMARKS    | SUFFIX |
|--------|---------------|-----------------|------------|--------|
| DA304  | 1SS133        | SI DIODE        |            |        |
| DA305  | MT79.1JA      | ZENER DIODE     |            |        |
| DA306  | MT74.3JB      | ZENER DIODE     |            |        |
| DA307  | 1SS133        | SI DIODE        |            |        |
| DA308  | 1SS133        | SI DIODE        |            |        |
| DA309  | MT73.9JB      | ZENER DIODE     |            |        |
| DA310  | RD5.6JSAB1    | ZENER DIODE     |            |        |
| DA313  | 1SS133        | SI DIODE        |            |        |
| DA314  | 1SS133        | SI DIODE        |            |        |
| DA315  | 1SR35-100     | SI DIODE        |            |        |
| DA316  | 1SS133        | SI DIODE        |            |        |
| DA319  | 1SS133        | SI DIODE        |            |        |
| DA320  | 1SS133        | SI DIODE        |            |        |
| DA321  | 1SS133        | SI DIODE        |            |        |
| DA322  | 1SS133        | SI DIODE        |            |        |
| DA323  | 1SS133        | SI DIODE        |            |        |
| DA325  | 1SS133        | SI DIODE        |            |        |
| IC 1   | TA2057N       | IC              |            |        |
| IC 2   | LC72431       | IC              |            |        |
| IC 4   | TA7358P       | IC              |            |        |
| IC111  | TA8220H       | IC              | POWER AMP  |        |
| IC131  | VC4580L       | IC              | ADDER      |        |
| IC133  | BH3854S       | IC              | E VOL      |        |
| IC134  | XRA15218N     | IC              | B-BOOST    |        |
| IC135  | VC4580L       | IC              | S-INDUCTOR |        |
| J 1    | EMB10YV-401K  | ANT TERMINAL    | ANT/FM ANT |        |
| JA301  | VMJ3021-001   | PIN JACK        | AUX IN     |        |
| JA302  | EMB90TV-404A  | SPK TERMINAL    | SPK OUT    |        |
| L 1    | VBF1B20-019   | OSC COIL        | FM OSC     |        |
| L 2    | VQC1505-002   | RF COIL         | FM RF      |        |
| L 3    | VQZ0098-201   | COIL BLOCK      | MW RF      |        |
| L 4    | VGP0018-4R7   | INDUCTOR        | SW RF      |        |
| L 7    | VGR7002-301   | RF COIL         | SW RF      |        |
| L 8    | VQS7U01-308   | OSC COIL        | SW OSC     |        |
| L 9    | VGP0018-4R7   | INDUCTOR        |            |        |
| L 12   | VQ3047-6      | COIL            |            |        |
| L 15   | VQ3047-6      | COIL            |            |        |
| LA304  | VGP0028-100Z  | INDUCTOR        |            |        |
| Q 1    | 2SC2668(O)    | TRANSISTOR      |            |        |
| Q 4    | DTA114YS      | TRANSISTOR      |            |        |
| Q 5    | 2SA1175       | TRANSISTOR      |            |        |
| Q 6    | 2SC2785       | TRANSISTOR      |            |        |
| Q 13   | 2SC2668(O)    | TRANSISTOR      |            |        |
| Q 14   | 2SA1175       | TRANSISTOR      |            |        |
| Q 15   | 2SA1175       | TRANSISTOR      |            |        |
| Q 21   | DTA114YS      | TRANSISTOR      |            |        |
| Q 22   | 2SC2668(O)    | TRANSISTOR      |            |        |
| Q 28   | 2SA1175       | TRANSISTOR      |            |        |
| QA101  | 2SD2144S(VW)  | TRANSISTOR      |            |        |
| QA102  | 2SD2144S(VW)  | TRANSISTOR      |            |        |
| QA103  | 2SK105(E,F,H) | TRANSISTOR(FET) |            |        |
| QA104  | 2SK105(E,F,H) | TRANSISTOR      |            |        |
| QA105  | 2SC2001(L,K)  | TRANSISTOR      |            |        |
| QA106  | 2SC2001(L,K)  | TRANSISTOR      |            |        |
| QA107  | 2SD2144S(VW)  | TRANSISTOR      |            |        |

BLOCK NO. 02

| A REF. | PARTS NO.     | PARTS NAME      | REMARKS      | SUFFIX |
|--------|---------------|-----------------|--------------|--------|
| QA201  | 2SD2144S(VW)  | TRANSISTOR      |              |        |
| QA202  | 2SD2144S(VW)  | TRANSISTOR      |              |        |
| QA203  | 2SK105(E,F,H) | TRANSISTOR(FET) |              |        |
| QA204  | 2SK105(E,F,H) | TRANSISTOR(FET) |              |        |
| QA205  | 2SC2001(L,K)  | TRANSISTOR      |              |        |
| QA206  | 2SC2001(L,K)  | TRANSISTOR      |              |        |
| QA207  | 2SD2144S(VW)  | TRANSISTOR      |              |        |
| QA301  | 2SC2785       | TRANSISTOR      |              |        |
| QA302  | DTA143ES      | TRANSISTOR      |              |        |
| QA304  | 2SA1175       | TRANSISTOR      |              |        |
| QA305  | DTA144TS      | TRANSISTOR      |              |        |
| QA306  | 2SB1274(R,S)  | TRANSISTOR      |              |        |
| QA307  | UN4110        | TRANSISTOR      |              |        |
| QA308  | 2SC2785       | TRANSISTOR      |              |        |
| QA309  | 2SC2785       | TRANSISTOR      |              |        |
| QA310  | 2SA1175       | TRANSISTOR      |              |        |
| QA311  | 2SC2785       | TRANSISTOR      |              |        |
| QA312  | 2SB772(Q,P)   | TRANSISTOR      |              |        |
| QA313  | 2SC2785       | TRANSISTOR      |              |        |
| QA314  | 2SB544MP(E,F) | TRANSISTOR      |              |        |
| QA315  | 2SC2785       | TRANSISTOR      |              |        |
| QA316  | 2SC2785       | TRANSISTOR      |              |        |
| QA319  | 2SC2785       | TRANSISTOR      |              |        |
| QA320  | DTA144TS      | TRANSISTOR      |              |        |
| QA321  | DTA115EK      | TRANSISTOR      |              |        |
| QA322  | 2SC2785       | TRANSISTOR      |              |        |
| QA323  | 2SC2785       | TRANSISTOR      |              |        |
| R 1    | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W |        |
| R 2    | QRD161J-473   | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 3    | QRD161J-473   | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R 7    | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W |        |
| R 8    | QRD161J-471   | CARBON RESISTOR | 470 5% 1/6W  |        |
| R 9    | QRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R 10   | QRD161J-101   | CARBON RESISTOR | 100 5% 1/6W  |        |
| R 11   | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W |        |
| R 13   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 14   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 15   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 17   | QRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R 18   | QRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R 20   | QRD161J-331   | CARBON RESISTOR | 330 5% 1/6W  |        |
| R 21   | QRD161J-474   | CARBON RESISTOR | 470K 5% 1/6W |        |
| R 22   | QRD161J-331   | CARBON RESISTOR | 330 5% 1/6W  |        |
| R 23   | QRD161J-100   | CARBON RESISTOR | 10 5% 1/6W   |        |
| R 24   | QRD161J-271   | CARBON RESISTOR | 270 5% 1/6W  |        |
| R 25   | QRD161J-333   | CARBON RESISTOR | 33K 5% 1/6W  |        |
| R 26   | QRD161J-243   | CARBON RESISTOR | 24K 5% 1/6W  |        |
| R 27   | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
| R 28   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 30   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 31   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 32   | QRD161J-560   | CARBON RESISTOR | 56 5% 1/6W   |        |
| R 33   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 34   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 35   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |

BLOCK NO. 02

| A  | REF. | PARTS NO.   | PARTS NAME      | REMARKS      | SUFFIX |
|----|------|-------------|-----------------|--------------|--------|
| R  | 36   | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R  | 37   | QRD161J-682 | CARBON RESISTOR | 6.8K 5% 1/6W |        |
| R  | 38   | QRD161J-392 | CARBON RESISTOR | 3.9K 5% 1/6W |        |
| R  | 39   | QRD161J-392 | CARBON RESISTOR | 3.9K 5% 1/6W |        |
| R  | 43   | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R  | 44   | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R  | 45   | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R  | 46   | QRD161J-473 | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R  | 47   | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |
| R  | 50   | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R  | 52   | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| R  | 54   | QRD161J-222 | CARBON RESISTOR | 2.2K 5% 1/6W |        |
| R  | 55   | QRD161J-222 | CARBON RESISTOR | 2.2K 5% 1/6W |        |
| R  | 56   | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R  | 57   | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R  | 58   | QRD161J-183 | CARBON RESISTOR | 18K 5% 1/6W  |        |
| R  | 59   | QRD161J-183 | CARBON RESISTOR | 18K 5% 1/6W  |        |
| R  | 60   | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R  | 66   | QRD161J-222 | CARBON RESISTOR | 2.2K 5% 1/6W |        |
| R  | 67   | QRD161J-473 | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R  | 69   | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R  | 76   | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R  | 78   | QRD161J-473 | CARBON RESISTOR | 47K 5% 1/6W  |        |
| R  | 79   | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R  | 90   | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R  | 91   | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |
| R  | 92   | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R  | 96   | QRD161J-822 | CARBON RESISTOR | 8.2K 5% 1/6W |        |
| R  | 97   | QRD161J-473 | CARBON RESISTOR | 47K 5% 1/6W  |        |
| RA | 101  | QRD161J-683 | CARBON RESISTOR | 68K 5% 1/6W  |        |
| RA | 102  | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| RA | 103  | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 104  | QRD161J-683 | CARBON RESISTOR | 68K 5% 1/6W  |        |
| RA | 105  | QRD161J-562 | CARBON RESISTOR | 5.6K 5% 1/6W |        |
| RA | 106  | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 107  | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |
| RA | 108  | QRD161J-333 | CARBON RESISTOR | 33K 5% 1/6W  |        |
| RA | 109  | QRD161J-563 | CARBON RESISTOR | 56K 5% 1/6W  |        |
| RA | 113  | QRD161J-123 | CARBON RESISTOR | 12K 5% 1/6W  |        |
| RA | 114  | QRD161J-562 | CARBON RESISTOR | 5.6K 5% 1/6W |        |
| RA | 116  | QRD161J-822 | CARBON RESISTOR | 8.2K 5% 1/6W |        |
| RA | 117  | QRD161J-332 | CARBON RESISTOR | 3.3K 5% 1/6W |        |
| RA | 118  | QRD161J-334 | CARBON RESISTOR | 33K 5% 1/6W  |        |
| RA | 119  | QRD161J-333 | CARBON RESISTOR | 33K 5% 1/6W  |        |
| RA | 120  | QRD161J-332 | CARBON RESISTOR | 3.3K 5% 1/6W |        |
| RA | 121  | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |
| RA | 122  | QRD161J-152 | CARBON RESISTOR | 1.5K 5% 1/6W |        |
| RA | 123  | QRD161J-105 | CARBON RESISTOR | 1.0M 5% 1/6W |        |
| RA | 124  | QRD161J-105 | CARBON RESISTOR | 1.0M 5% 1/6W |        |
| RA | 125  | QRD161J-334 | CARBON RESISTOR | 33K 5% 1/6W  |        |
| RA | 126  | QRD161J-681 | CARBON RESISTOR | 680 5% 1/6W  |        |
| RA | 127  | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 128  | QRD161J-122 | CARBON RESISTOR | 1.2K 5% 1/6W |        |
| RA | 129  | QRD161J-221 | CARBON RESISTOR | 220 5% 1/6W  |        |
| RA | 130  | QRD161J-222 | CARBON RESISTOR | 2.2K 5% 1/6W |        |

BLOCK NO. 02

| A  | REF. | PARTS NO.   | PARTS NAME      | REMARKS      | SUFFIX |
|----|------|-------------|-----------------|--------------|--------|
| RA | 131  | QRD161J-475 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 132  | QRD161J-475 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 133  | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |
| RA | 134  | QRD161J-222 | CARBON RESISTOR | 2.2K 5% 1/6W |        |
| RA | 135  | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 139  | QRD161J-282 | CARBON RESISTOR | 2.2 5% 1/6W  |        |
| RA | 140  | QRD161J-282 | CARBON RESISTOR | 2.2 5% 1/6W  |        |
| RA | 141  | QRD161J-820 | CARBON RESISTOR | 82 5% 1/6W   |        |
| RA | 144  | QRD161J-122 | CARBON RESISTOR | 1.2K 5% 1/6W |        |
| RA | 145  | QRD161J-820 | CARBON RESISTOR | 82 5% 1/6W   |        |
| RA | 146  | QRD161J-470 | CARBON RESISTOR | 47 5% 1/6W   |        |
| RA | 201  | QRD161J-683 | CARBON RESISTOR | 68K 5% 1/6W  |        |
| RA | 202  | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| RA | 203  | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 204  | QRD161J-683 | CARBON RESISTOR | 68K 5% 1/6W  |        |
| RA | 205  | QRD161J-562 | CARBON RESISTOR | 5.6K 5% 1/6W |        |
| RA | 206  | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 207  | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |
| RA | 208  | QRD161J-333 | CARBON RESISTOR | 33K 5% 1/6W  |        |
| RA | 209  | QRD161J-563 | CARBON RESISTOR | 56K 5% 1/6W  |        |
| RA | 213  | QRD161J-123 | CARBON RESISTOR | 12K 5% 1/6W  |        |
| RA | 214  | QRD161J-562 | CARBON RESISTOR | 5.6K 5% 1/6W |        |
| RA | 216  | QRD161J-822 | CARBON RESISTOR | 8.2K 5% 1/6W |        |
| RA | 217  | QRD161J-332 | CARBON RESISTOR | 3.3K 5% 1/6W |        |
| RA | 218  | QRD161J-334 | CARBON RESISTOR | 33K 5% 1/6W  |        |
| RA | 219  | QRD161J-333 | CARBON RESISTOR | 33K 5% 1/6W  |        |
| RA | 220  | QRD161J-332 | CARBON RESISTOR | 3.3K 5% 1/6W |        |
| RA | 221  | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |
| RA | 222  | QRD161J-152 | CARBON RESISTOR | 1.5K 5% 1/6W |        |
| RA | 223  | QRD161J-105 | CARBON RESISTOR | 1.0M 5% 1/6W |        |
| RA | 224  | QRD161J-105 | CARBON RESISTOR | 1.0M 5% 1/6W |        |
| RA | 225  | QRD161J-334 | CARBON RESISTOR | 33K 5% 1/6W  |        |
| RA | 226  | QRD161J-681 | CARBON RESISTOR | 680 5% 1/6W  |        |
| RA | 227  | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 228  | QRD161J-122 | CARBON RESISTOR | 1.2K 5% 1/6W |        |
| RA | 229  | QRD161J-221 | CARBON RESISTOR | 220 5% 1/6W  |        |
| RA | 230  | QRD161J-222 | CARBON RESISTOR | 2.2K 5% 1/6W |        |
| RA | 231  | QRD161J-475 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 232  | QRD161J-475 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 233  | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |
| RA | 234  | QRD161J-222 | CARBON RESISTOR | 2.2K 5% 1/6W |        |
| RA | 235  | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RA | 239  | QRD161J-282 | CARBON RESISTOR | 2.2 5% 1/6W  |        |
| RA | 240  | QRD161J-282 | CARBON RESISTOR | 2.2 5% 1/6W  |        |
| RA | 241  | QRD161J-820 | CARBON RESISTOR | 82 5% 1/6W   |        |
| RA | 244  | QRD161J-122 | CARBON RESISTOR | 1.2K 5% 1/6W |        |
| RA | 245  | QRD161J-820 | CARBON RESISTOR | 82 5% 1/6W   |        |
| RA | 246  | QRD161J-470 | CARBON RESISTOR | 47 5% 1/6W   |        |
| RA | 301  | QRD161J-333 | CARBON RESISTOR | 33K 5% 1/6W  |        |
| RA | 303  | QRD161J-222 | CARBON RESISTOR | 2.2K 5% 1/6W |        |
| RA | 304  | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |
| RA | 305  | QRD161J-333 | CARBON RESISTOR | 39K 5% 1/6W  |        |
| RA | 306  | QRD161J-393 | CARBON RESISTOR | 39K 5% 1/6W  |        |
| RA | 311  | QRD161J-123 | CARBON RESISTOR | 12K 5% 1/6W  |        |
| RA | 312  | QRD161J-183 | CARBON RESISTOR | 18K 5% 1/6W  |        |

# Operation Switch & System Microcomputer Board

| BLOCK NO. 02 |       |              |                 |              |        |
|--------------|-------|--------------|-----------------|--------------|--------|
| A            | REF.  | PARTS NO.    | PARTS NAME      | REMARKS      | SUFFIX |
|              | RA315 | GRD161J-223  | CARBON RESISTOR | 22K 5% 1/6W  |        |
|              | RA316 | GRD161J-482  | CARBON RESISTOR | 6.8K 5% 1/6W |        |
|              | RA317 | GRD161J-222  | CARBON RESISTOR | 2.2K 5% 1/6W |        |
|              | RA318 | GRD161J-222  | CARBON RESISTOR | 2.2K 5% 1/6W |        |
|              | RA319 | GRD161J-222  | CARBON RESISTOR | 2.2K 5% 1/6W |        |
|              | RA320 | GRD161J-393  | CARBON RESISTOR | 39K 5% 1/6W  |        |
|              | RA321 | GRD161J-473  | CARBON RESISTOR | 47K 5% 1/6W  |        |
|              | RA322 | GRD161J-223  | CARBON RESISTOR | 22K 5% 1/6W  |        |
|              | RA323 | GRD161J-223  | CARBON RESISTOR | 22K 5% 1/6W  |        |
|              | RA324 | GRD161J-475  | CARBON RESISTOR | 4.7M 5% 1/6W |        |
|              | RA326 | GRD161J-471  | CARBON RESISTOR | 470 5% 1/6W  |        |
|              | RA327 | GRD161J-1R0  | CARBON RESISTOR | 1.0 5% 1/6W  |        |
|              | RA328 | GRD161J-1R0  | CARBON RESISTOR | 1.0 5% 1/6W  |        |
|              | RA329 | GRD161J-1R0  | CARBON RESISTOR | 1.0 5% 1/6W  |        |
|              | RA330 | GRD161J-102  | CARBON RESISTOR | 1.0K 5% 1/6W |        |
|              | RA331 | GRD161J-682  | CARBON RESISTOR | 6.8K 5% 1/6W |        |
|              | RA332 | GRD161J-102  | CARBON RESISTOR | 1.0K 5% 1/6W |        |
|              | RA333 | GRD161J-122  | CARBON RESISTOR | 1.2K 5% 1/6W |        |
|              | RA335 | GRZ0077-151X | F. RESISTOR     | 150 1/6W     |        |
|              | RA337 | GRD161J-472  | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|              | RA338 | GRD161J-471  | CARBON RESISTOR | 470 5% 1/6W  |        |
|              | RA339 | GRD161J-222  | CARBON RESISTOR | 2.2K 5% 1/6W |        |
|              | RA340 | GRD161J-222  | CARBON RESISTOR | 2.2K 5% 1/6W |        |
|              | RA341 | GRD161J-472  | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|              | RA342 | GRD161J-472  | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|              | RA343 | GRD161J-390  | CARBON RESISTOR | 39 5% 1/6W   |        |
|              | RA344 | GRD161J-102  | CARBON RESISTOR | 1.0K 5% 1/6W |        |
|              | RA345 | GRD161J-562  | CARBON RESISTOR | 5.6K 5% 1/6W |        |
|              | RA346 | GRD161J-151  | CARBON RESISTOR | 150 5% 1/6W  |        |
|              | RA347 | GRZ0077-470  | F. RESISTOR     | 47 1/6W      |        |
|              | RA348 | GRD161J-473  | CARBON RESISTOR | 47K 5% 1/6W  |        |
|              | RA349 | GRD161J-561  | CARBON RESISTOR | 560 5% 1/6W  |        |
|              | RA350 | GRD161J-223  | CARBON RESISTOR | 22K 5% 1/6W  |        |
|              | RA351 | GRD161J-682  | CARBON RESISTOR | 6.8K 5% 1/6W |        |
|              | RA357 | GRD161J-682  | CARBON RESISTOR | 6.8K 5% 1/6W |        |
|              | RA358 | GRD161J-332  | CARBON RESISTOR | 3.3K 5% 1/6W |        |
|              | RA359 | GRD161J-103  | CARBON RESISTOR | 10K 5% 1/6W  |        |
|              | RA361 | GRD161J-101  | CARBON RESISTOR | 100 5% 1/6W  |        |
|              | RA362 | GRD161J-222  | CARBON RESISTOR | 2.2K 5% 1/6W |        |
|              | RA363 | GRD161J-102  | CARBON RESISTOR | 1.0K 5% 1/6W |        |
|              | RA364 | GRD161J-223  | CARBON RESISTOR | 22K 5% 1/6W  |        |
|              | RA365 | GRD161J-222  | CARBON RESISTOR | 2.2K 5% 1/6W |        |
|              | RA366 | GRD161J-471  | CARBON RESISTOR | 470 5% 1/6W  |        |
|              | RA368 | GRD161J-472  | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|              | RA369 | GRD161J-104  | CARBON RESISTOR | 100K 5% 1/6W |        |
|              | RA370 | GRD161J-432  | CARBON RESISTOR | 4.3K 5% 1/6W |        |
|              | RA372 | GRD161J-134  | CARBON RESISTOR | 150K 5% 1/6W |        |
|              | RA373 | GRD161J-134  | CARBON RESISTOR | 150K 5% 1/6W |        |
|              | RA374 | GRD161J-224  | CARBON RESISTOR | 220K 5% 1/6W |        |
|              | T 1   | VO17F12-110  | IFT             | FM IF        |        |
|              | T 2   | VO17A21-105  | IFT             |              |        |
|              | TC 1  | QAT3722-100M | T-CAPACITOR     | KOA          |        |
|              | VR31  | QVPA601-102A | V RESISTOR      |              |        |
|              | X 1   | VCK4001-006  | CRYSTAL         |              |        |

| BLOCK NO. 03 |       |               |             |                 |        |
|--------------|-------|---------------|-------------|-----------------|--------|
| A            | REF.  | PARTS NO.     | PARTS NAME  | REMARKS         | SUFFIX |
|              | BD951 | VH7900-002    | BUS WIRE    | GND WIRE        |        |
|              | C 701 | QET41AM-227   | E-CAPACITOR | 220MF 20% 10V   |        |
|              | C 702 | QCVB1CN-103Y  | C-CAPACITOR | .010MF 30% 16V  |        |
|              | C 703 | QETB0JM-338M  | E-CAPACITOR | 3300MF 20% 6.3V |        |
|              | C 704 | QET41CM-106   | E-CAPACITOR | 10MF 20% 16V    |        |
|              | C 705 | QET41HM-475   | E-CAPACITOR | 4.7MF 20% 50V   |        |
|              | C 707 | QGBB1HK-102Y  | C-CAPACITOR | 1000PF 10% 50V  |        |
|              | C 708 | QCS31HJ-390Z  | C-CAPACITOR | 39PF 5% 50V     |        |
|              | C 709 | QCT05CH-180V  | C-CAPACITOR | 18PF 5% 50V     |        |
|              | C 710 | QCT30CH-200Y  | C-CAPACITOR | 20PF 5% 50V     |        |
|              | C 711 | QCS31HJ-390Z  | C-CAPACITOR | 39PF 5% 50V     |        |
|              | C 712 | QGBB1HK-102Y  | C-CAPACITOR | 1000PF 10% 50V  |        |
|              | C 713 | QCT30CH-200Y  | C-CAPACITOR | 20PF 5% 50V     |        |
|              | C 714 | QCT30CH-200Y  | C-CAPACITOR | 20PF 5% 50V     |        |
|              | C 715 | QFN41HJ-104   | M-CAPACITOR | AVDD            |        |
|              | C 716 | QGBB1HK-151Y  | C-CAPACITOR | NOISE           |        |
|              | C 717 | QGBB1HK-471Y  | C-CAPACITOR | 470PF 10% 50V   |        |
|              | C 718 | QCVB1CN-103Y  | C-CAPACITOR | NOISE           |        |
|              | C 722 | QCC11EM-104V  | C-CAPACITOR | NOISE           |        |
|              | C 723 | QCC11EM-104V  | C-CAPACITOR | -10MF 20% 25V   |        |
|              | CM301 | QETC1HM-255ZM | E-CAPACITOR | 2.2MF 20% 50V   |        |
|              | CM302 | QCS11HJ-150   | C-CAPACITOR | HI-CUT          |        |
|              | CM303 | QET41HM-475   | E-CAPACITOR | ALC             |        |
|              | CM304 | QET41AM-107   | E-CAPACITOR | VCC             |        |
|              | CM305 | QET41AM-227   | E-CAPACITOR | 220MF 20% 10V   |        |
|              | CM306 | QET41HM-105   | E-CAPACITOR | 1.0MF 20% 50V   |        |
|              | CN701 | EMV7155-012R  | CONNECTOR   | MICOM/MAIN      |        |
|              | CN702 | EMV7155-017   | CONNECTOR   | MICOM/MAIN      |        |
|              | CN703 | EMV7155-009   | CONNECTOR   | TO CD           |        |
|              | CN704 | VMC0314-S16   | CONNECTOR   | TO KEY SW       |        |
|              | CN705 | VMC0314-P16   | CONNECTOR   | TO UCOM         |        |
|              | CN706 | EMV7155-007   | CONNECTOR   | MOTOR/CD SW     |        |
|              | CS304 | QET41AM-476   | E-CAPACITOR | REM DECUP       |        |
|              | CS305 | QGBB1HK-681Y  | C-CAPACITOR | REM OUT         |        |
|              | CS306 | QEK41CM-226   | E-CAPACITOR | 22MF 20% 16V    |        |
|              | D 701 | RB721Q        | DIODE       | DVDD            |        |
|              | D 702 | 1SS133        | SI DIODE    |                 |        |
|              | D 703 | 1SS133        | SI DIODE    |                 |        |
|              | D 704 | 1SS133        | SI DIODE    |                 |        |
|              | D 705 | M1Z5.1JAT-77  | ZENER DIODE |                 |        |
|              | D 706 | 1SS133        | SI DIODE    | SW              |        |
|              | D 707 | 1SS133        | SI DIODE    | LED             |        |
|              | D 708 | 1SS133        | SI DIODE    |                 |        |
|              | DM301 | 1SS133        | SI DIODE    |                 |        |
|              | DS303 | SLZ-981C13-T2 | LED I M     | ST-BY           |        |
|              | DS304 | SLZ-981A09-T6 | LED         | COMPU PLAY      |        |
|              | DS305 | SLZ-981A09-T6 | LED         | COMPU PLAY      |        |
|              | DS306 | SLZ-981C13-T2 | LED I M     | COMPU PLAY      |        |
|              | DS307 | SRZ-932C22-T1 | LED I M     | S-BASS          |        |
|              | DS308 | 1SS133        | SI DIODE    | INFRARED        |        |
|              | DS309 | 1SS133        | SI DIODE    | ST-BY           |        |
|              | DS310 | 1SS133        | SI DIODE    | ST-BY           |        |
|              | DS311 | 1SS133        | SI DIODE    | COMPU           |        |
|              | DS312 | 1SS133        | SI DIODE    | COMPU           |        |

BLOCK NO. 03

| A | REF.  | PARTS NO.      | PARTS NAME      | REMARKS      | SUFFIX |
|---|-------|----------------|-----------------|--------------|--------|
|   | DS313 | 1SS133         | SI DIODE        | COMPU        |        |
|   | DS314 | 1SS133         | SI DIODE        | COMPU        |        |
|   | DS315 | 1SS133         | SI DIODE        | COMPU        |        |
|   | DS316 | SLZ-381F09-T6  | LED             | CD           |        |
|   | DS317 | SLZ-381F09-T6  | LED             | TUNER        |        |
|   | DS318 | SLZ-381F09-T6  | LED             | AUX          |        |
|   | DS319 | 1SS133         | SI DIODE        | LED          |        |
|   | ICM31 | BA15218N       | IC              | MIC AMP      |        |
|   | IC331 | S8X1785-52A    | RM RECIVER      |              |        |
|   | IC701 | UPD75336GC-120 | IC              | SYSTEM MICOM |        |
|   | JA303 | VMJ4026-001    | HEADPHONE JACK  |              |        |
|   | JW301 | QMS6035-V01    | JACK            | MIC JACK     |        |
|   | L 701 | VQP0028-100Z   | INDUCTOR        | DVDD         |        |
|   | L 702 | VQZ0048-009    | INDUCTOR        | DGND         |        |
|   | L 703 | VQP0028-100Z   | INDUCTOR        | AVDD         |        |
|   | L 704 | VQP0018-4R7    | INDUCTOR        |              |        |
|   | LC001 | VGL1164-001    | LCD             |              |        |
|   | PLD 1 | VGZ0001-057    | LAMP            |              |        |
|   | Q 702 | DTC114ESTP     | TRANSISTOR      | JACK MPX     |        |
|   | Q 703 | DTC114ESTP     | TRANSISTOR      | JACK MPX     |        |
|   | Q 704 | 2SA1317        | TRANSISTOR      | CLK SHIFT    |        |
|   | Q 705 | 2SA1317        | TRANSISTOR      | CLK SHIFT    |        |
|   | Q 706 | 2SC3330        | TRANSISTOR      | BUP SW       |        |
|   | Q 707 | 2SA1317        | TRANSISTOR      | A/D SW       |        |
|   | Q 708 | DTC114TSTP     | TRANSISTOR      | RESET        |        |
|   | QW301 | 2SD2144SKVM    | TRANSISTOR      | ATT          |        |
|   | QS301 | DTC114TSTP     | TRANSISTOR      | P LED SW     |        |
|   | QS302 | 2SC3330        | TRANSISTOR      | I LED SW     |        |
|   | QS303 | DTA114TS       | TRANSISTOR      | C LED SW     |        |
|   | QS304 | DTA114TS       | TRANSISTOR      | C LED SW     |        |
|   | QS305 | DTA114TS       | TRANSISTOR      | C LED SW     |        |
|   | QS306 | DTA114TS       | TRANSISTOR      | C LED SW     |        |
|   | QS307 | 2SC2785        | TRANSISTOR      | S-BASS       |        |
|   | QS308 | DTC114TSTP     | TRANSISTOR      | SENSOR       |        |
|   | QS309 | DTC114ESTP     | TRANSISTOR      | LED KILL     |        |
|   | R 702 | QRD161J-231    | CARBON RESISTOR | 330 5% 1/6W  |        |
|   | R 703 | QRD161J-103    | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R 704 | QRD161J-472    | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|   | R 707 | QRD161J-102    | CARBON RESISTOR | POUT         |        |
|   | R 708 | QRD161J-222    | CARBON RESISTOR | S-LED        |        |
|   | R 709 | QRD161J-102    | CARBON RESISTOR | FCD          |        |
|   | R 710 | QRD161J-222    | CARBON RESISTOR | FAUX         |        |
|   | R 711 | QRD161J-102    | CARBON RESISTOR | FTU          |        |
|   | R 712 | QRD161J-222    | CARBON RESISTOR | ECHO         |        |
|   | R 713 | QRD161J-101    | CARBON RESISTOR | XTSTOP       |        |
|   | R 714 | QRD161J-222    | CARBON RESISTOR | BEAT         |        |
|   | R 715 | QRD161J-223    | CARBON RESISTOR | XT2          |        |
|   | R 717 | QRD161J-681    | CARBON RESISTOR | CLK          |        |
|   | R 718 | QRD161J-681    | CARBON RESISTOR | CLK          |        |
|   | R 719 | QRD161J-103    | CARBON RESISTOR | A/D SW       |        |
|   | R 720 | QRD161J-101    | CARBON RESISTOR | AGND         |        |
|   | R 721 | QRD161J-223    | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R 722 | QRD161J-223    | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R 723 | QRD161J-104    | CARBON RESISTOR | 100K 5% 1/6W |        |

BLOCK NO. 03

| A | REF.  | PARTS NO.     | PARTS NAME      | REMARKS      | SUFFIX |
|---|-------|---------------|-----------------|--------------|--------|
|   | R 724 | QRD161J-222   | CARBON RESISTOR | KEY2         |        |
|   | R 725 | QRD161J-222   | CARBON RESISTOR | KEY1         |        |
|   | R 726 | QRD161J-222   | CARBON RESISTOR | KEYA/B       |        |
|   | R 727 | QRD161J-103   | CARBON RESISTOR | KEYA/B       |        |
|   | R 728 | QRD161J-103   | CARBON RESISTOR | JACK         |        |
|   | R 729 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R 730 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R 731 | QRD161J-473   | CARBON RESISTOR | 47K 5% 1/6W  |        |
|   | R 732 | QRD161J-434YT | CARBON RESISTOR | CLOSE        |        |
|   | R 733 | QRD161J-823   | CARBON RESISTOR | OPEN         |        |
|   | R 734 | QRD161J-224   | CARBON RESISTOR | REST         |        |
|   | R 735 | QRD161J-473   | CARBON RESISTOR | MPX          |        |
|   | R 736 | QRD161J-104   | CARBON RESISTOR | JACK         |        |
|   | R 737 | QRD161J-222   | CARBON RESISTOR | SAFETY       |        |
|   | R 738 | QRD161J-222   | CARBON RESISTOR | DOOR SW      |        |
|   | R 739 | QRD161J-222   | CARBON RESISTOR | JACK/MPX     |        |
|   | R 740 | QRD161J-102   | CARBON RESISTOR | CD           |        |
|   | R 741 | QRD161J-102   | CARBON RESISTOR | CD           |        |
|   | R 742 | QRD161J-102   | CARBON RESISTOR | CD           |        |
|   | R 743 | QRD161J-102   | CARBON RESISTOR | CD           |        |
|   | R 744 | QRD161J-102   | CARBON RESISTOR | I            |        |
|   | R 745 | QRD161J-102   | CARBON RESISTOR | I            |        |
|   | R 746 | QRD161J-102   | CARBON RESISTOR | I            |        |
|   | R 747 | QRD161J-102   | CARBON RESISTOR | I            |        |
|   | R 748 | QRD161J-102   | CARBON RESISTOR | I            |        |
|   | R 749 | QRD161J-102   | CARBON RESISTOR | I            |        |
|   | R 750 | QRD161J-102   | CARBON RESISTOR | I            |        |
|   | R 751 | QRD161J-102   | CARBON RESISTOR | I            |        |
|   | R 752 | QRD161J-102   | CARBON RESISTOR | I            |        |
|   | R 753 | QRD161J-102   | CARBON RESISTOR | CD           |        |
|   | R 754 | QRD161J-222   | CARBON RESISTOR | PB70         |        |
|   | R 755 | QRD161J-222   | CARBON RESISTOR | SENSOR       |        |
|   | R 756 | QRD161J-222   | CARBON RESISTOR | RECB         |        |
|   | R 757 | QRD161J-222   | CARBON RESISTOR | RCR02        |        |
|   | R 758 | QRD161J-222   | CARBON RESISTOR | RECH         |        |
|   | R 759 | QRD161J-472   | CARBON RESISTOR | AC/DC        |        |
|   | R 760 | QRD161J-103   | CARBON RESISTOR | BUP          |        |
|   | R 761 | QRD161J-222   | CARBON RESISTOR | REM IN       |        |
|   | R 762 | QRD161J-222   | CARBON RESISTOR | REC          |        |
|   | R 763 | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W |        |
|   | R 764 | QRD161J-102   | CARBON RESISTOR | DATA         |        |
|   | R 765 | QRD161J-222   | CARBON RESISTOR | CK           |        |
|   | R 768 | QRD161J-474   | CARBON RESISTOR | PUR          |        |
|   | R 769 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R 770 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R 771 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R 772 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R 773 | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W |        |
|   | R 774 | QRD161J-222   | CARBON RESISTOR | PIN          |        |
|   | R 775 | QRD161J-472   | CARBON RESISTOR | STTU         |        |
|   | R 776 | QRD161J-472   | CARBON RESISTOR | STVOL        |        |
|   | R 777 | QRD161J-472   | CARBON RESISTOR | BIAS 2       |        |
|   | R 778 | QRD161J-472   | CARBON RESISTOR | BIAS 1       |        |
|   | R 780 | QRD161J-102   | CARBON RESISTOR | PBM          |        |
|   | R 781 | QRD161J-223   | CARBON RESISTOR | SMUTE        |        |

BLOCK NO. 03

| A REF. | PARTS NO.   | PARTS NAME      | REMARKS      | SUFFIX |
|--------|-------------|-----------------|--------------|--------|
| R 782  | QRD161J-472 | CARBON RESISTOR | MT1          |        |
| R 783  | QRD161J-472 | CARBON RESISTOR | MT0          |        |
| R 784  | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| R 785  | QRD161J-103 | CARBON RESISTOR | MT0          |        |
| R 786  | QRD161J-103 | CARBON RESISTOR | MT1          |        |
| R 787  | QRD161J-333 | CARBON RESISTOR | LCDB         |        |
| R 789  | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |
| R 790  | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |
| R 791  | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |
| R 794  | QRD161J-330 | CARBON RESISTOR | 33 5% 1/6W   |        |
| R 795  | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 796  | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |
| RA142  | QRD161J-151 | CARBON RESISTOR | 150 5% 1/6W  |        |
| RA242  | QRD161J-151 | CARBON RESISTOR | 150 5% 1/6W  |        |
| RM301  | QRD161J-123 | CARBON RESISTOR | 12K 5% 1/6W  |        |
| RM302  | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| RM303  | QRD161J-222 | CARBON RESISTOR | 2.2K 5% 1/6W |        |
| RM304  | QRD161J-334 | CARBON RESISTOR | 330K 5% 1/6W |        |
| RM305  | QRD161J-182 | CARBON RESISTOR | 1.8K 5% 1/6W |        |
| RM306  | QRD161J-561 | CARBON RESISTOR | 560 5% 1/6W  |        |
| RM307  | QRD161J-475 | CARBON RESISTOR | 4.7M 5% 1/6W |        |
| RM308  | QRD161J-221 | CARBON RESISTOR | 220 5% 1/6W  |        |
| RM309  | QRD161J-222 | CARBON RESISTOR | 2.2K 5% 1/6W |        |
| RM310  | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |
| RM311  | QRD161J-221 | CARBON RESISTOR | 220 5% 1/6W  |        |
| RM312  | QRD161J-152 | CARBON RESISTOR | 1.5K 5% 1/6W |        |
| RS301  | QRD161J-102 | CARBON RESISTOR | RUDDER       |        |
| RS302  | QRD161J-102 | CARBON RESISTOR |              |        |
| RS303  | QRD161J-122 | CARBON RESISTOR |              |        |
| RS304  | QRD161J-152 | CARBON RESISTOR |              |        |
| RS305  | QRD161J-222 | CARBON RESISTOR |              |        |
| RS306  | QRD161J-272 | CARBON RESISTOR |              |        |
| RS307  | QRD161J-392 | CARBON RESISTOR |              |        |
| RS308  | QRD161J-562 | CARBON RESISTOR |              |        |
| RS309  | QRD161J-103 | CARBON RESISTOR |              |        |
| RS310  | QRD161J-183 | CARBON RESISTOR |              |        |
| RS311  | QRD161J-473 | CARBON RESISTOR |              |        |
| RS312  | QRD161J-102 | CARBON RESISTOR |              |        |
| RS313  | QRD161J-102 | CARBON RESISTOR |              |        |
| RS314  | QRD161J-122 | CARBON RESISTOR |              |        |
| RS315  | QRD161J-152 | CARBON RESISTOR |              |        |
| RS316  | QRD161J-222 | CARBON RESISTOR |              |        |
| RS317  | QRD161J-272 | CARBON RESISTOR |              |        |
| RS318  | QRD161J-392 | CARBON RESISTOR |              |        |
| RS319  | QRD161J-562 | CARBON RESISTOR |              |        |
| RS320  | QRD161J-103 | CARBON RESISTOR |              |        |
| RS321  | QRD161J-183 | CARBON RESISTOR |              |        |
| RS322  | QRD161J-473 | CARBON RESISTOR | VERSION      |        |
| RS323  | QRD161J-274 | CARBON RESISTOR | "BD109       |        |
| RS324  | QRD161J-471 | CARBON RESISTOR | P LED+B      |        |
| RS325  | QRD161J-820 | CARBON RESISTOR | COM +B       |        |
| RS326  | QRD161J-820 | CARBON RESISTOR | COM +B       |        |
| RS327  | QRD161J-820 | CARBON RESISTOR | COM +B       |        |
| RS329  | QRD161J-391 | CARBON RESISTOR | S-BASS       |        |
| RS330  | QRD161J-391 | CARBON RESISTOR | INFRARED     |        |

BLOCK NO. 03

| A REF. | PARTS NO.    | PARTS NAME      | REMARKS      | SUFFIX |
|--------|--------------|-----------------|--------------|--------|
| RS331  | QRD161J-821  | CARBON RESISTOR | STBY KILL    |        |
| RS332  | QRD161J-272  | CARBON RESISTOR | 8.2K 5% 1/6W |        |
| RS333  | QRD161J-272  | CARBON RESISTOR | 2.7K 5% 1/6W |        |
| S 701  | QS01A11-V04Z | TACT SWITCH     | POWER        |        |
| S 702  | QS01A11-V04Z | TACT SWITCH     | VOL-         |        |
| S 703  | QS01A11-V04Z | TACT SWITCH     | VOL+         |        |
| S 704  | QS01A11-V04Z | TACT SWITCH     | TU-DOWN      |        |
| S 705  | QS01A11-V04Z | TACT SWITCH     | TU-UP        |        |
| S 706  | QS01A11-V04Z | TACT SWITCH     | AUX          |        |
| S 707  | QS01A11-V04Z | TACT SWITCH     | TUNER        |        |
| S 708  | QS01A11-V04Z | TACT SWITCH     | DISPLAY      |        |
| S 709  | QS01A11-V04Z | TACT SWITCH     | CLEAR        |        |
| S 710  | QS01A11-V04Z | TACT SWITCH     | POP          |        |
| S 711  | QS01A11-V04Z | TACT SWITCH     | BEAT         |        |
| S 712  | QS01A11-V04Z | TACT SWITCH     | SURROUND     |        |
| S 713  | QS01A11-V04Z | TACT SWITCH     | S-BASS       |        |
| S 714  | QS01A11-V04Z | TACT SWITCH     | PRESET       |        |
| S 715  | QS01A11-V04Z | TACT SWITCH     | EJECT        |        |
| S 716  | QS01A11-V04Z | TACT SWITCH     | REPEAT       |        |
| S 717  | QS01A11-V04Z | TACT SWITCH     | RANDOM       |        |
| S 718  | QS01A11-V04Z | TACT SWITCH     | B.SKIP       |        |
| S 719  | QS01A11-V04Z | TACT SWITCH     | F.SKIP       |        |
| S 720  | QS01A11-V04Z | TACT SWITCH     | PLAY         |        |
| S 721  | QS01A11-V04Z | TACT SWITCH     | STOP         |        |
| S 722  | QS01A11-V04Z | TACT SWITCH     | PB.POSI      |        |
| VC701  | VCRO020-002  | C NETWORK       | R/P.POSI     |        |
| VRM31  | QVAA26B-V02  | V RESISTOR      | CD BUS       |        |
| X 701  | M1ZCRHF4.19  | CERA LOCK       | 20KB         |        |
| X 702  | VCX5000-002  | CRYSTAL         | MAIN SUB     |        |

# Pre-Amplifier & Power Supply Board

BLOCK NO. 04

| A REF. | PARTS NO.      | PARTS NAME   | REMARKS        | SUFFIX |
|--------|----------------|--------------|----------------|--------|
| C 101  | Q6B1HK-561Y    | C-CAPACITOR  | 560PF 10% 50V  |        |
| C 102  | Q6B1HK-561Y    | C-CAPACITOR  | 560PF 10% 50V  |        |
| C 103  | Q6B1HK-561Y    | C-CAPACITOR  | 560PF 10% 50V  |        |
| C 104  | Q6S1AM-107     | E-CAPACITOR  | 100MF 20% 10V  |        |
| C 105  | Q6N41HM-123    | M-CAPACITOR  | .012MF 5% 50V  |        |
| C 106  | Q6T41HM-105    | E-CAPACITOR  | 1.0MF 20% 50V  |        |
| C 108  | Q6T41HM-105    | E-CAPACITOR  | 1.0MF 20% 50V  |        |
| C 109  | Q6B1HK-102Y    | E-CAPACITOR  | 1000PF 10% 50V |        |
| C 110  | Q6T41HM-475    | E-CAPACITOR  | 4.7MF 20% 50V  |        |
| C 111  | Q6N81HJ-223    | M-CAPACITOR  | .022MF 5% 50V  |        |
| C 113  | Q6N81HJ-183    | M-CAPACITOR  | .018MF 5% 50V  |        |
| C 114  | Q6T41CM-106    | E-CAPACITOR  | 10MF 20% 16V   |        |
| C 115  | Q6C11EM-104V   | C-CAPACITOR  | .10MF 20% 25V  |        |
| C 116  | Q6B1HK-102Y    | C-CAPACITOR  | 1000PF 10% 50V |        |
| C 117  | Q6S32HJ-151ZV  | C-CAPACITOR  | 150PF 5% 500V  |        |
| C 118  | Q6B1HK-331Y    | C-CAPACITOR  | 330PF 10% 50V  |        |
| C 119  | Q6T41HM-105    | E-CAPACITOR  | 1.0MF 20% 50V  |        |
| C 201  | Q6B1HK-561Y    | C-CAPACITOR  | 560PF 10% 50V  |        |
| C 202  | Q6B1HK-561Y    | C-CAPACITOR  | 560PF 10% 50V  |        |
| C 203  | Q6B1HK-151Y    | C-CAPACITOR  | 150PF 10% 50V  |        |
| C 204  | Q6S1AM-107     | E-CAPACITOR  | 100MF 20% 10V  |        |
| C 205  | Q6N41HJ-123    | M-CAPACITOR  | .012MF 5% 50V  |        |
| C 206  | Q6T41HM-105    | E-CAPACITOR  | 1.0MF 20% 50V  |        |
| C 208  | Q6T41HM-105    | E-CAPACITOR  | 1.0MF 20% 50V  |        |
| C 209  | Q6B1HK-102Y    | C-CAPACITOR  | 1000PF 10% 50V |        |
| C 210  | Q6T41HM-475    | E-CAPACITOR  | 4.7MF 20% 50V  |        |
| C 211  | Q6N81HJ-223    | M-CAPACITOR  | .022MF 5% 50V  |        |
| C 213  | Q6N81HJ-183    | M-CAPACITOR  | .018MF 5% 50V  |        |
| C 214  | Q6T41CM-106    | E-CAPACITOR  | 10MF 20% 16V   |        |
| C 215  | Q6C11EM-104V   | C-CAPACITOR  | .10MF 20% 25V  |        |
| C 216  | Q6B1HK-102Y    | C-CAPACITOR  | 1000PF 10% 50V |        |
| C 217  | Q6S32HJ-151ZV  | C-CAPACITOR  | 150PF 5% 500V  |        |
| C 218  | Q6B1HK-331Y    | C-CAPACITOR  | 330PF 10% 50V  |        |
| C 219  | Q6T41HM-105    | E-CAPACITOR  | 1.0MF 20% 50V  |        |
| C 301  | Q6T41AM-107    | E-CAPACITOR  | 100MF 20% 10V  |        |
| C 302  | Q6T41HM-475    | E-CAPACITOR  | 4.7MF 20% 50V  |        |
| C 303  | Q6T41HM-475    | E-CAPACITOR  | 4.7MF 20% 50V  |        |
| C 304  | Q6T41AM-476    | E-CAPACITOR  | 47MF 20% 10V   |        |
| C 305  | Q6T41CM-226    | E-CAPACITOR  | 22MF 20% 16V   |        |
| C 306  | Q6T41HM-105    | E-CAPACITOR  | 1.0MF 20% 50V  |        |
| C 307  | Q6T41AM-107    | E-CAPACITOR  | 100MF 20% 10V  |        |
| C 308  | Q6T41CM-106    | E-CAPACITOR  | 10MF 20% 16V   |        |
| C 309  | Q6T41AM-476    | E-CAPACITOR  | 47MF 20% 10V   |        |
| C 310  | Q6T41AM-476    | E-CAPACITOR  | 47MF 20% 10V   |        |
| C 311  | Q6N81HJ-562    | M-CAPACITOR  | 5600PF 5% 50V  |        |
| C 312  | Q6N81HJ-562    | M-CAPACITOR  | 5600PF 5% 50V  |        |
| C 313  | Q6N41HJ-153    | M-CAPACITOR  | .015MF 5% 50V  |        |
| C 315  | Q6T41CM-476    | E-CAPACITOR  | 47MF 20% 16V   |        |
| C 316  | Q6T41CM-476    | E-CAPACITOR  | 47MF 20% 16V   |        |
| C 317  | Q6T41HM-105    | E-CAPACITOR  | 1.0MF 20% 50V  |        |
| C 318  | Q6G32AJ-153ZN  | PP-CAPACITOR | .015MF 5% 100V |        |
| C 319  | Q6V81CN-103Y   | C-CAPACITOR  | .010MF 30% 16V |        |
| C 320  | C1-PARTS848694 | M-CAPACITOR  | 1200PF 5% 50V  |        |
| C 321  | Q6V81CN-103Y   | C-CAPACITOR  | .010MF 30% 16V |        |
| C 322  | C1-PARTS848694 | M-CAPACITOR  | 1200PF 5% 50V  |        |

BLOCK NO. 04

| A REF. | PARTS NO.     | PARTS NAME      | REMARKS         | SUFFIX |
|--------|---------------|-----------------|-----------------|--------|
| C 901  | Q6F11HP-223   | C-CAPACITOR     | .022MF +100%-0% |        |
| C 902  | Q6F11HP-223   | C-CAPACITOR     | .022MF +100%-0% |        |
| C 903  | Q6F11HP-223   | C-CAPACITOR     | .022MF +100%-0% |        |
| C 904  | Q6F11HP-223   | C-CAPACITOR     | .022MF +100%-0% |        |
| C 905  | Q6T81EM-688N  | E-CAPACITOR     | 6800MF 20% 25V  |        |
| CN301  | VMC0040-003   | CONNECTOR       | TO PB HEAD      |        |
| CN302  | VMC0040-007   | CONNECTOR       | TO R/P HEAD     |        |
| CN303  | EMV7155-014   | CONNECTOR       | TO MAIN AMP     |        |
| CN901  | VMZ0076-004A  | CONNECTOR       | TO TRANS        |        |
| CN902  | VMZ0076-002   | CONNECTOR       | TO TRANS        |        |
| CN903  | VMC0040-004   | CONNECTOR       | TO MAIN         |        |
| D 101  | 1SS133        | SI DIODE        |                 |        |
| D 201  | 1SS133        | SI DIODE        |                 |        |
| D 202  | 1SS133        | SI DIODE        |                 |        |
| D 301  | 1SS133        | SI DIODE        |                 |        |
| D 302  | 1SS133        | SI DIODE        |                 |        |
| D 303  | 1SS133        | SI DIODE        |                 |        |
| D 304  | 1SS133        | SI DIODE        |                 |        |
| D 305  | 1SS133        | SI DIODE        |                 |        |
| D 306  | 1SS133        | SI DIODE        |                 |        |
| D 901  | D5SBA20-4003  | SI DIODE        | PB AMP          |        |
| IC301  | LA3246        | IC              | HEAD SW         |        |
| IC302  | UPC1330HA     | IC              | REC AMP         |        |
| IC303  | LA3220        | IC              |                 |        |
| J 901  | QMC0263-004BS | AC SOCKET       |                 |        |
| L 101  | VQP0001-562ZS | INDUCTOR        |                 |        |
| L 102  | VQP0001-183   | INDUCTOR        |                 |        |
| L 201  | VQP0001-562ZS | INDUCTOR        |                 |        |
| L 202  | VQP0001-183   | INDUCTOR        |                 |        |
| L 301  | VQP0028-100Z  | INDUCTOR        |                 |        |
| L 302  | VQH1008-048   | OSC COIL(BIAS)  |                 |        |
| Q 101  | 2SC2001(L,K)  | TRANSISTOR      |                 |        |
| Q 102  | DTC144TS      | TRANSISTOR      |                 |        |
| Q 201  | 2SC2001(L,K)  | TRANSISTOR      |                 |        |
| Q 202  | DTC144TS      | TRANSISTOR      |                 |        |
| Q 301  | DTC144ES      | TRANSISTOR      |                 |        |
| Q 302  | 2SC2785       | TRANSISTOR      |                 |        |
| Q 303  | DTC144TS      | TRANSISTOR      |                 |        |
| Q 304  | 2SC2001(L,K)  | TRANSISTOR      |                 |        |
| Q 305  | 2SC2001(L,K)  | TRANSISTOR      |                 |        |
| Q 306  | 2SC2001(L,K)  | TRANSISTOR      |                 |        |
| Q 307  | 2SC2001(L,K)  | TRANSISTOR      |                 |        |
| Q 308  | 2SC2785       | TRANSISTOR      |                 |        |
| Q 309  | 2SC1845       | TRANSISTOR      |                 |        |
| Q 310  | 2SC2785       | TRANSISTOR      |                 |        |
| Q 311  | 2SC1845       | TRANSISTOR      |                 |        |
| R 102  | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W    |        |
| R 103  | QRD161J-560   | CARBON RESISTOR | 56 5% 1/6W      |        |
| R 104  | QRD161J-123   | CARBON RESISTOR | 12K 5% 1/6W     |        |
| R 105  | QRD161J-153   | CARBON RESISTOR | 15K 5% 1/6W     |        |
| R 106  | QRD161J-183   | CARBON RESISTOR | 18K 5% 1/6W     |        |
| R 107  | QRD161J-154   | CARBON RESISTOR | 150K 5% 1/6W    |        |
| R 108  | QRD161J-272   | CARBON RESISTOR | 2.7K 5% 1/6W    |        |
| R 110  | QRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W    |        |

| BLOCK NO. 04 |             |                 |              |        | BLOCK NO. 04 |              |                  |         |        |
|--------------|-------------|-----------------|--------------|--------|--------------|--------------|------------------|---------|--------|
| REF.         | PARTS NO.   | PARTS NAME      | REMARKS      | SUFFIX | REF.         | PARTS NO.    | PARTS NAME       | REMARKS | SUFFIX |
| R 111        | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        | A 901        | VMZ0126-002  | VOLTAGE SELECTOR |         |        |
| R 112        | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        | VR101        | QVPA603-104A | V RESISTOR       |         |        |
| R 113        | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        | VR201        | QVPA603-104A | V RESISTOR       |         |        |
| R 114        | QRD161J-151 | CARBON RESISTOR | 150.5K 1/6W  |        |              |              |                  |         |        |
| R 116        | QRD161J-152 | CARBON RESISTOR | 1.5K 5% 1/6W |        |              |              |                  |         |        |
| R 118        | QRD161J-681 | CARBON RESISTOR | 680 5% 1/6W  |        |              |              |                  |         |        |
| R 120        | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |              |              |                  |         |        |
| R 122        | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |              |              |                  |         |        |
| R 202        | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |              |              |                  |         |        |
| R 203        | QRD161J-560 | CARBON RESISTOR | 56 5% 1/6W   |        |              |              |                  |         |        |
| R 204        | QRD161J-123 | CARBON RESISTOR | 12K 5% 1/6W  |        |              |              |                  |         |        |
| R 205        | QRD161J-153 | CARBON RESISTOR | 15K 5% 1/6W  |        |              |              |                  |         |        |
| R 206        | QRD161J-183 | CARBON RESISTOR | 18K 5% 1/6W  |        |              |              |                  |         |        |
| R 207        | QRD161J-154 | CARBON RESISTOR | 150K 5% 1/6W |        |              |              |                  |         |        |
| R 208        | QRD161J-272 | CARBON RESISTOR | 2.7K 5% 1/6W |        |              |              |                  |         |        |
| R 210        | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |              |              |                  |         |        |
| R 211        | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |              |              |                  |         |        |
| R 212        | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |        |              |              |                  |         |        |
| R 213        | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |              |              |                  |         |        |
| R 214        | QRD161J-151 | CARBON RESISTOR | 150.5K 1/6W  |        |              |              |                  |         |        |
| R 216        | QRD161J-152 | CARBON RESISTOR | 1.5K 5% 1/6W |        |              |              |                  |         |        |
| R 218        | QRD161J-681 | CARBON RESISTOR | 680 5% 1/6W  |        |              |              |                  |         |        |
| R 220        | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |        |              |              |                  |         |        |
| R 222        | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |              |              |                  |         |        |
| R 301        | QRD161J-181 | CARBON RESISTOR | 180 5% 1/6W  |        |              |              |                  |         |        |
| R 302        | QRD161J-333 | CARBON RESISTOR | 33K 5% 1/6W  |        |              |              |                  |         |        |
| R 303        | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |              |              |                  |         |        |
| R 304        | QRD161J-473 | CARBON RESISTOR | 47K 5% 1/6W  |        |              |              |                  |         |        |
| R 305        | QRD161J-181 | CARBON RESISTOR | 180 5% 1/6W  |        |              |              |                  |         |        |
| R 306        | QRD161J-272 | CARBON RESISTOR | 2.7K 5% 1/6W |        |              |              |                  |         |        |
| R 307        | QRD161J-473 | CARBON RESISTOR | 47K 5% 1/6W  |        |              |              |                  |         |        |
| R 308        | QRD161J-333 | CARBON RESISTOR | 33K 5% 1/6W  |        |              |              |                  |         |        |
| R 309        | QRD161J-123 | CARBON RESISTOR | 12K 5% 1/6W  |        |              |              |                  |         |        |
| R 310        | QRD161J-475 | CARBON RESISTOR | 4.7M 5% 1/6W |        |              |              |                  |         |        |
| R 311        | QRD161J-181 | CARBON RESISTOR | 180 5% 1/6W  |        |              |              |                  |         |        |
| R 312        | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |              |              |                  |         |        |
| R 313        | QRD161J-680 | CARBON RESISTOR | 68 5% 1/6W   |        |              |              |                  |         |        |
| R 314        | QRD161J-680 | CARBON RESISTOR | 68 5% 1/6W   |        |              |              |                  |         |        |
| R 315        | QRD161J-273 | CARBON RESISTOR | 27K 5% 1/6W  |        |              |              |                  |         |        |
| R 316        | QRD161J-273 | CARBON RESISTOR | 27K 5% 1/6W  |        |              |              |                  |         |        |
| R 317        | QRD167J-4R7 | CARBON RESISTOR | 4.7 5% 1/6W  |        |              |              |                  |         |        |
| R 319        | QRD161J-181 | CARBON RESISTOR | 180 5% 1/6W  |        |              |              |                  |         |        |
| R 320        | QRD161J-181 | CARBON RESISTOR | 180 5% 1/6W  |        |              |              |                  |         |        |
| R 321        | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |              |              |                  |         |        |
| R 322        | QRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W |        |              |              |                  |         |        |
| R 323        | QRD161J-473 | CARBON RESISTOR | 47K 5% 1/6W  |        |              |              |                  |         |        |
| R 324        | QRD161J-223 | CARBON RESISTOR | 22K 5% 1/6W  |        |              |              |                  |         |        |
| R 325        | QRD161J-152 | CARBON RESISTOR | 1.5K 5% 1/6W |        |              |              |                  |         |        |
| R 326        | QRD161J-223 | CARBON RESISTOR | 22K 5% 1/6W  |        |              |              |                  |         |        |
| R 327        | QRD161J-152 | CARBON RESISTOR | 1.5K 5% 1/6W |        |              |              |                  |         |        |
| R 328        | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |        |              |              |                  |         |        |
| R 330        | QRD161J-474 | CARBON RESISTOR | BIAS TP      |        |              |              |                  |         |        |
| R 395        | QRD161J-473 | CARBON RESISTOR | 47K 5% 1/6W  |        |              |              |                  |         |        |
| R 397        | QRD161J-473 | CARBON RESISTOR | 47K 5% 1/6W  |        |              |              |                  |         |        |
| R 399        | QRD161J-473 | CARBON RESISTOR | 47K 5% 1/6W  |        |              |              |                  |         |        |

[illegible]

# 15. Packing

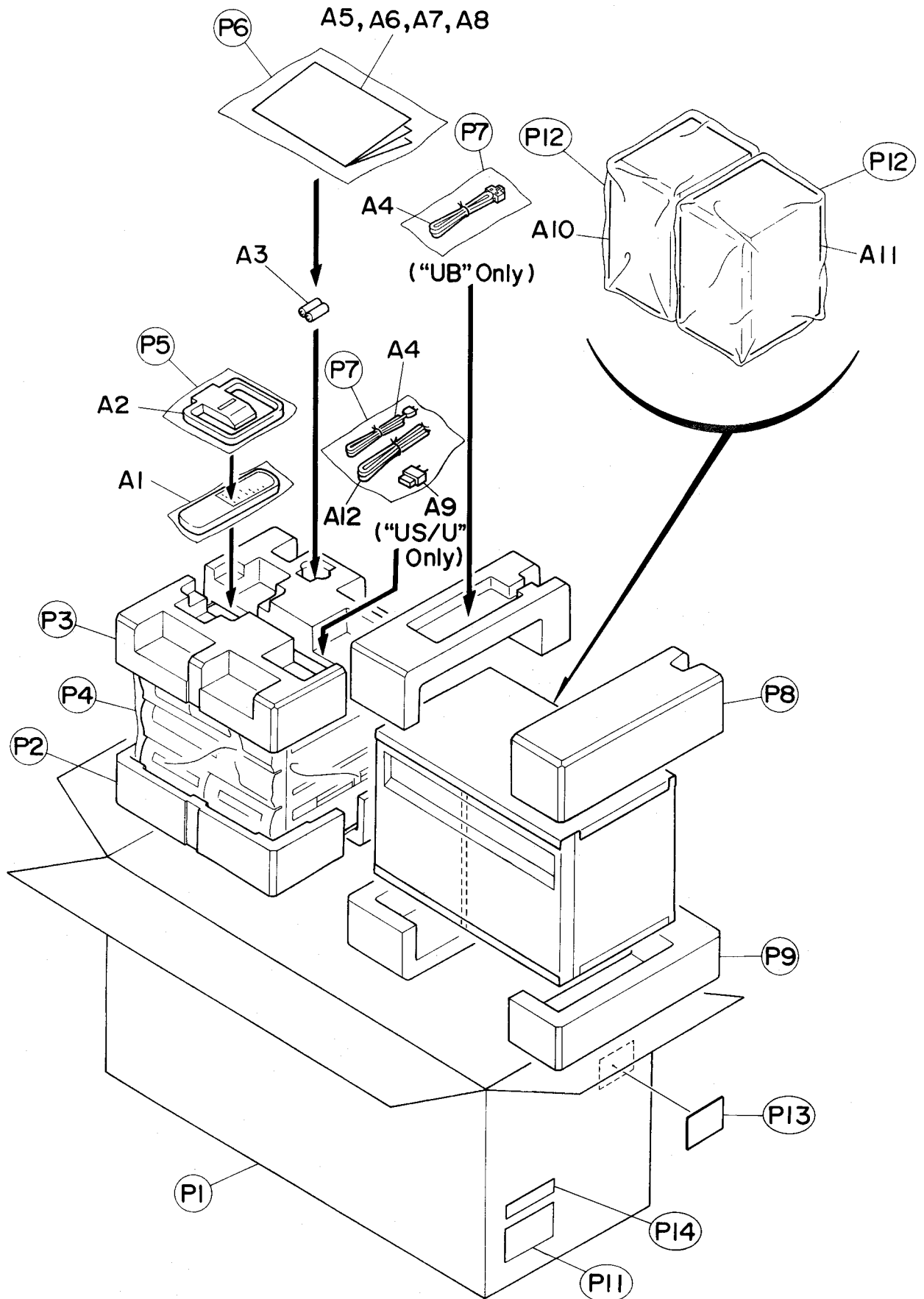


Fig. 15-1

## ■ Packing Parts List

BLOCK NO. M4MM

| REF. | PARTS NO.       | PARTS NAME      | REMARKS         | QTY | SUFFIX | CLR |
|------|-----------------|-----------------|-----------------|-----|--------|-----|
| P 1  | VPC9258-C002    | CARTON          |                 | 1   |        |     |
| P 2  | VPH1657-002     | CUSHION(BOTTOM) |                 | 1   |        |     |
| P 3  | VPH1657-001     | CUSHION(UPPER)  |                 | 1   |        |     |
| P 4  | VPE3020-070     | POLY BAG        | FOR RECEIVER    | 1   |        |     |
| P 5  | VPE3005-042     | POLY BAG        | FOR AM ANT      | 1   |        |     |
| P 6  | VPE3005-007     | POLY BAG        | FOR INST/WARRAN | 1   |        |     |
| P 7  | QPGA015-03503   | POLY BAG        | POWER CORD      | 1   |        |     |
|      | QPGA015-03503   | POLY BAG        | POWER CORD      | 1   | UB     |     |
| P 8  | VPH1661-001     | CUSHION(UPPER)  | FOR SPEAKER     | 1   |        |     |
| P 9  | VPH1661-002     | CUSHION(BOTTOM) | FOR SPEAKER     | 1   |        |     |
| P 11 | VND3044-001     | SIRIAL TICKET   |                 | 1   |        |     |
| P 12 | MIRRORBAG-SK015 | MIRROR BAG      | FOR SPEAKER     | 2   |        |     |
| P 13 | VND3025-250     | BAR CODE LABEL  |                 | 1   |        |     |
| P 14 | VND4247-005     | VOLTAGE LABEL   | EXCEPT A,UB     | 1   | US,U   |     |

## ■ Accessories

BLOCK NO. M5MM

| REF. | PARTS NO.      | PARTS NAME      | REMARKS       | QTY | SUFFIX    | CLR |
|------|----------------|-----------------|---------------|-----|-----------|-----|
| A 1  | VGR0036-101    | REMOCON         |               | 1   |           |     |
| A 2  | EQB4001-015    | AM LOOP ANT     | FOR AM        | 1   |           |     |
| A 3  | UM-3(DJ)-2PSA  | BATTERY         | FOR REMOCON   | 1   |           |     |
| A 4  | QMP39F0-183    | POWER CORD      |               | 1   | US        |     |
|      | QMP5520-183BS  | POWER CORD      |               | 1   | UB        |     |
|      | QMP7530-183    | POWER CORD      |               | 1   | U         |     |
|      | QMP25D0-183    | POWER CORD      |               | 1   | A         |     |
| A 5  | VNN9258-111C   | INSTRUCTIONS    | A/U EN.SP.CHA | 1   | A,UB,US,U |     |
| A 6  | VNN9258-141    | INSTRUCTIONS    | U ARABIC      | 1   | U         |     |
| A 7  | BT-56001-1     | WARRANTY CARD   |               | 1   | A         |     |
| A 8  | BT-56002-1     | SERVICE NETWORK |               | 1   | A         |     |
| A 9  | ENZ2203-001    | SIEMENS PLUG    | EXCEPT A,UB   | 1   | US,U      |     |
| A 10 | DXB50K-SPBOX-L | SPEAKER         | LEFT          | 1   |           |     |
| A 11 | DXB50K-SPBOX-R | SPEAKER         | RIGHT         | 1   |           |     |
| A 12 | VMZ0136-001    | B.IN ANT        | FOR FM        | 1   |           |     |

DX — 50BK A/UB/US/U

**JVC**

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