

36788

DENON

Hi-Fi AM-FM Stereo Receiver

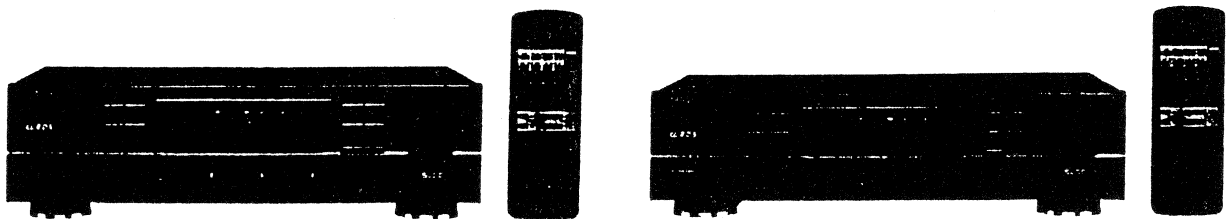
**For EUROPEAN
And U.K Models**

SERVICE MANUAL

MODEL DRA-565RD

MODEL DRA-365RD

AM-FM STEREO RECEIVER




DRA-565RD

DRA-365RD


TABLE OF CONTENTS

| | |
|--|---------|
| OPERATING INSTRUCTIONS | 2 - 9 |
| DISASSEMBLY | 10, 11 |
| METHOD OF ADJUSTMENTS | 12 |
| CONNECTION DIAGRAM OF MEASURING INSTRUMENTS | 13 |
| SEMICONDUCTORS | 13 - 16 |
| BLOCK/LEVEL DIAGRAM (DRA-565RD) | 17 |
| BLOCK/LEVEL DIAGRAM (DRA-365RD) | 17 |
| NOTE ON PARTS LIST | 18 |
| PRINTED WIRING BOARD PARTS LIST (DRA-565RD) | 18, 19 |
| PRINTED WIRING BOARD PARTS LIST (DRA-365RD) | 19, 20 |
| PRINTED WIRING BOARD PATTERNS | 21 - 23 |
| 1U-2731B MAIN UNIT (DRA-565RD) | 21 |
| 1U-2731 MAIN UNIT (DRA-365RD) | 22 |
| 1U-2732B TUNER & DISPLAY UNIT (DRA-565RD) | 23 |
| 1U-2732 TUNE & DISPLAY UNIT (DRA-365RD) | 24 |
| WIRING DIAGRAM | 25 |
| EXPLODED VIEW OF CHASSIS AND CABINET (DRA-565RD) | 26 |
| PARTS LIST OF EXPLODED VIEW (DRA-565RD) | 27 |
| PARTS LIST OF EXPLODED VIEW (DRA-365RD) | 28 |
| EXPLODED VIEW OF CHASSIS AND CABINET (DRA-365RD) | 29 |
| SCHEMATIC DIAGRAM (for DRA-565RD) | 31 |
| SCHEMATIC DIAGRAM (for DRA-365RD) | 32 |

NIPPON COLUMBIA CO., LTD.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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.

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

Konformitätsbestätigung

Die DENON Electronic GmbH
 Hatakestraße 32
 40880 Ratingen

Erklärt als Hersteller/Importeur, daß das in dieser Bedienungsanleitung beschriebene Gerät den Technischen Vorschriften für Ton- und Fernseh-Rundfunkempfänger nach der Anzeigungsverfügung 608/1999 (Amtsblatt des Bundesministers für Post und Telekommunikation vom 31. 8. 1999) entspricht.

PRECAUTIONS FOR INSTALLATION

Install DRA-565/365RD always horizontally. And leave at least 10 cm of space between this unit and other component placed above.

VORKEHRUNGEN FÜR DIE AUFSTELLUNG

Der DRA-565/365RD ist stets waagrecht aufzustellen. Außerdem muß ein Mindestabstand von 10 cm zwischen diesem Gerät und der Komponente gewährleistet werden, die darüber gestellt wird.

PRECAUTIONS D'INSTALLATION

Le DRA-565/365RD doit toujours être installé horizontalement. Et laisser au moins un espace de 10 cm entre cet appareil et l'autre composant placé au-dessus.

PRECAUZIONI PER L'INSTALLAZIONE

Il DRA-565/365RD viene sempre installato in modo orizzontale. Lasciate uno spazio di almeno 10 cm tra quest'unità e un eventuale componente sovrapposto.

PRECAUCIONES PARA LA INSTALACION

Instale siempre el DRA-565/365RD en posición horizontal. Asegúrese también de dejar un espacio de por lo menos 10 cm entre esta unidad y el componente que sea colocado encima.

VOORZORGSMAATREGELEN VOOR INSTALLATIE

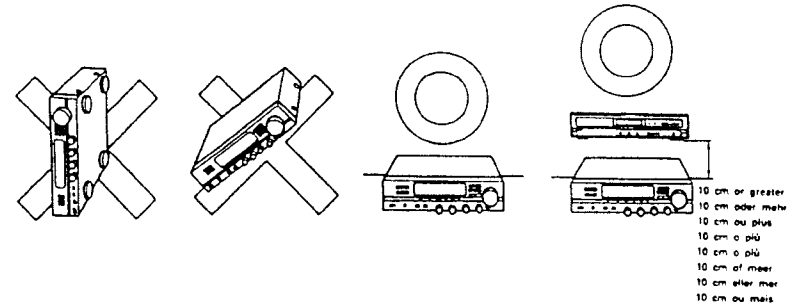
De DRA-565/365RD altijd horizontaal plaatsen. En minstens 10 cm ruimte laten tussen dit toestel en het andere component dat u erboven plaatst.

FÖRBEREDELSE FÖR INSTALLATION

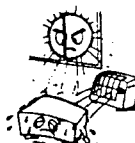


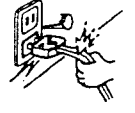
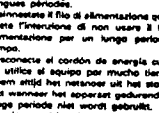
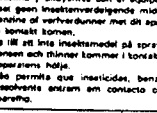
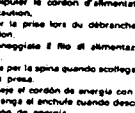
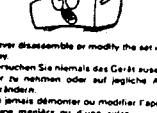
Installera alltid DRA-565/365RD horisontellt. Lämna åtminstone 10 cm mellan denna apparat och en annan komponent som placeras ovanpå.

PRECAUÇÕES PARA A INSTALAÇÃO

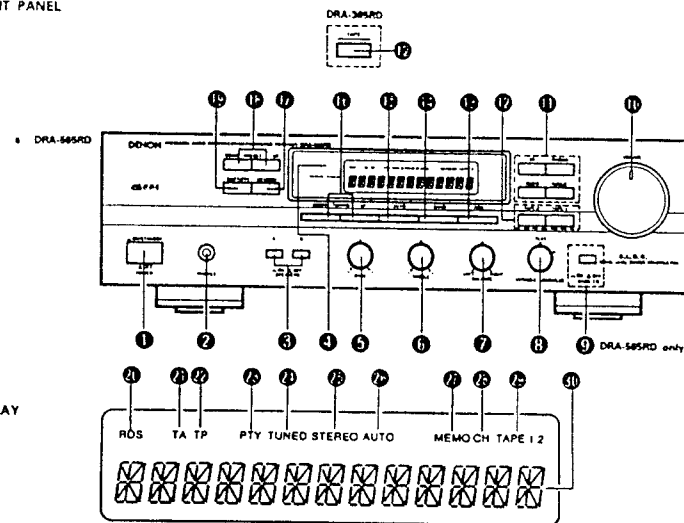
Instale sempre horizontalmente o DRA-565/365RD. E deixe pelo menos 10 cm de espaço entre esta unidade e o outro componente colocado acima.



NOTE ON USE/HINWEISE ZUM GEBRAUCH/OBSERVATIONS RELATIVES A L'UTILISATION
NOTE SULL'USO/NOTAS SOBRE EL USO/ALVORENS TE GEBRUIKEN/OBSERVERA
OBSERVAÇÕES QUANTO AO USO

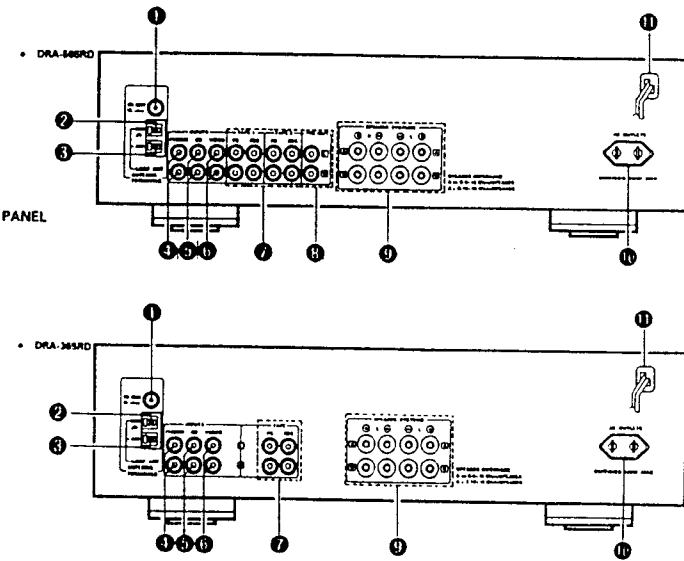
| | | |
|---|---|--|
|  <ul style="list-style-type: none"> • Avoid high temperatures. Allow for sufficient heat dispersion when installed on a rack. • Vermeiden Sie hohe Temperaturen. Beachten Sie, daß eine ausreichende Luftzirkulation gewährleistet wird, wenn das Gerät auf ein Regal gestellt wird. • Éviter des températures élevées. Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère. • Evitare di esporre l'unità a temperature alte. • Assicurarsi che ci sia un'adeguata dispersione del calore quando si installa l'unità in un mobile per componenti audio. • Evite altas temperaturas. Permita la suficiente dispersión del calor cuando está instalado en la consola. • Vermijd hoge temperaturen. Zorg voor een deeglijk hitte-afvoer indien het apparaat op een rek wordt geplaatst. • Undvik höga temperaturer. Se til at der findes tilfredsstillende luft- og varmeveksling ved monteringen i et rack. • Evite temperaturas altas. Condição suficiente dispersão de calor quando o equipamento for instalado numa prateleira. |  <ul style="list-style-type: none"> • Keep the set free from moisture, water, and dust. • Halten Sie das Gerät von Feuchtigkeit, Wasser und Staub fern. • Protéger l'appareil contre l'humidité, l'eau et la poussière. • Tenere l'unità lontana dall'umidità, dall'acqua e dalla polvere. • Mantenga el equipo libre de humedad, agua y polvo. • Laat geen vochtigheid, water of stof in het apparaat binnenvallen. • Utställ inte apparaten för fukt, vatten och damm. • Mantenha o aparelho livre de qualquer umidade, água ou pó. |  <ul style="list-style-type: none"> • Do not let foreign objects in the set. • Keine fremden Gegenstände in das Gerät kommen lassen. • Ne pas laisser des objets étrangers dans l'appareil. • È importante che nessun oggetto è inserito all'interno dell'unità. • No deve objetos estranhos dentro del equipo. • Laat geen vreemde voorwerpen in dit apparaat vallen. • Se il est à l'intérieur l'objet étranger in l'appareil. • Não deixe objetos estranhos no aparelho. |
|  <ul style="list-style-type: none"> • Handle the power cord carefully. Hold the plug when unplugging the cord. • Gehen Sie vorsichtig mit dem Netzkabel um. Halten Sie das Kabel am Stecker, wenn Sie den Stecker herausziehen. • Manipuler le cordon d'alimentation avec précaution. Tenir la prise lors du débranchement du cordon. • Maneggiare il filo di alimentazione con cura. Agire per la spina quando scollegate il cavo dalla presa. • Manjeje el cordón de energía con cuidado. Sostenga el enchufe cuando desconecte el cordón de energía. • Hanteer het netkabel voorzichtig. Houd het snoer bij de steeker vast wanneer deze moet worden aan- of losgeplaatst. • Håndter netkablet forsigtigt. Hold i kablet når den stoplås trækkes ud af stikket. • Manuseie com cuidado o fio condutor de energia. Segure a tomada ao desconectar o fio. |  <ul style="list-style-type: none"> • Unplug the power cord when not using the set for long periods of time. • Wenn das Gerät eine längere Zeit nicht verwendet werden soll, trennen Sie das Netzkabel vom Netzstecker. • Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes. • Disconnetta il filo di alimentazione quando avrete l'intenzione di non usare il filo di alimentazione per un lungo periodo di tempo. • Desconecte el cordón de energía cuando no utilice el equipo por mucho tiempo. • Haem altijd het netkabel uit het stopcontact wanneer het apparaat gedurende een lange periode niet wordt gebruikt. • Rappöls ut nätet när apparaten inte kommer att användas i lång tid. • Desligue o fio condutor de energia quando o aparelho não tiver que ser usado por um longo período. |  <ul style="list-style-type: none"> • Do not let insecticides, benzene, and thinner come in contact with the set. • Lassen Sie das Gerät nicht mit Insektiziden, Benzin oder Verdünnungsmitteln in Berührung kommen. • Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil. • Assicurarsi che l'unità non venga in contatto con insetticidi, benzina o solventi. • No permita el contacto de insecticidas, gasolina y diluyentes con el equipo. • Laat geen insectenverdelgende middelen, benzine of ververdunner met dit apparaat in contact komen. • Se il est en intil insektmiddel på sprayblik, benzin eller thinner kommer i kontakt med apparaten hold. • Não permita que inseticidas, benzina e diluentes entrem em contacto com o aparelho. |
|  <ul style="list-style-type: none"> • Never disassemble or modify the set in any way. • Versuchen Sie niemals das Gerät auseinander zu nehmen oder auf jegliche Art zu verändern. • Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre. • Non smontare mai, né modificare l'unità in nessun modo. • Nunca desarme o modifique el equipo de ninguna manera. • Nooit dit apparaat demonteren of op andere wijze modificeren. • Te ma aldrig apparaten och lösst inte brygg av den. • Nunca desmonte ou modifique o aparelho de alguma forma. |  <p>(For sets with ventilation holes)</p> <ul style="list-style-type: none"> • Do not obstruct the ventilation holes. • Die Belüftungöffnungen dürfen nicht verdeckt werden. • Ne pas obstruer les trous d'aération. • Non coprire i fori di ventilazione. • No obstruya los orificios de ventilación. • De ventilatieopeningen mogen niet worden beblokt. • Tapp inte till ventilationsöppningarna. • Não obstrua os orifícios de ventilação. |  <ul style="list-style-type: none"> • Never disassemble or modify the set in any way. • Versuchen Sie niemals das Gerät auseinander zu nehmen oder auf jegliche Art zu verändern. • Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre. • Non smontare mai, né modificare l'unità in nessun modo. • Nunca desarme o modifique el equipo de ninguna manera. • Nooit dit apparaat demonteren of op andere wijze modificeren. • Te ma aldrig apparaten och lösst inte brygg av den. • Nunca desmonte ou modifique o aparelho de alguma forma. |

FRONT PANEL



DISPLAY

REAR PANEL



Please check the following items are included with the main unit in the carton:

- (1) Operating Instructions 1
- (2) AM Loop Antenna 1
- (3) FM Antenna 1
- (4) Remote Control RC-174 1
- (5) Batteries R6 (AA) 2

Bitte überprüfen Sie, ob die folgenden Teile vollständig in der Verpackung enthalten sind:

- (1) Bedienungsanleitung 1
- (2) AM-Rahmenantenne 1
- (3) UKW-Antenne 1
- (4) Fernbedienungsgerät RC-174 1
- (5) Trockenzelle-Batterie R6 (AA) 2

Veuillez contrôler que les articles suivants sont bien joints à l'appareil principal dans le carton:

- (1) Mode d'emploi 1
- (2) Antenne-cadre AM 1
- (3) Antenne FM 1
- (4) Télécommande RC-174 1
- (5) Piles de format R6 (AA) 2

Controllare che le parti seguenti si trovino imballate con l'apparecchio nella scatola di spedizione.

- (1) Istruzioni per l'uso 1
- (2) Antenna AM a telaio 1
- (3) Antenna FM 1
- (4) Telecomando RC-174 1
- (5) Batterie a secco R6 (AA) 2

Por favor verifique que los siguientes artículos son empacados en la caja pero separados de la unidad principal.

- (1) Instrucciones de operación 1
- (2) Antena AM de cuadro 1
- (3) Antena de FM 1
- (4) Unidad de control remoto RC-174 1
- (5) Pilas secas R6 (AA) 2

Kontroller de de volgende accessoires bij het hoofd toestel in de doos zijn verpakt:

- (1) Gebruiksaanwijzing 1
- (2) AM-raamantenne 1
- (3) FM-antenne 1
- (4) Afstandsbediening RC-174 1
- (5) R6 (AA) droge cel batterij 2

Kontrollera att följande tillbehör har packats ner i kartongen tillsammans med huvudenheten.

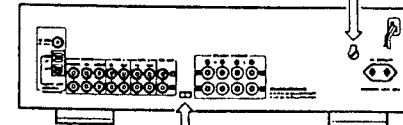
- (1) Bruksanvisning 1
- (2) Ramantenn för AM-bruk 1
- (3) FM-antenn 1
- (4) Fjärrkontroll RC-174 1
- (5) R6 (AA) torr batteri 2

Cartifique-se de que as seguintes peças estão incluídas na embalagem fora de unidade principal:

- (1) Instruções de operação 1
- (2) Antena de quadro AM 1
- (3) Antena FM 1
- (4) Controle remoto RC-174 1
- (5) Pilhas R6 (AA) 2

For multi-voltage models only:

- The desired voltage may be set with the VOLTAGE SELECTOR KNOB on the rear panel, using a screwdriver.
- Do not twist the VOLTAGE SELECTOR KNOB with excessive force as this may cause damage.
- If the VOLTAGE SELECTOR KNOB does not turn smoothly, please contact a qualified serviceman.



(The voltage is set to 220 V upon shipment from the factory.)

- FREQUENCY STEP (Frequency step switch)**
Set the FREQUENCY STEP switch as described below.
- In the U.S.A. and Canada - set the switch to 100 kHz / 10 kHz side. With this setting, the frequency varies in 100 kHz steps in the range of 87.5 to 108.0 MHz (FM) and in 10 kHz steps in 520 to 1710 kHz (AM).
 - Elsewhere - set the switch to 50 kHz / 9 kHz side. With this setting, the frequency varies in 50 kHz steps in the range of 87.50 to 108.0 MHz (FM) and in 9 kHz steps in 522 to 1811 kHz (AM).

DESIGNATIONS AND FUNCTIONS OF PANEL CONTROLS (Refer to Page 5.)

FRONT PANEL

- 1 **POWER (Power ON-STANDBY/OFF Switch)**
This switch turns the unit ON or OFF. There is a delay of approximately 3 seconds before the unit will operate after this power switch is turned ON. If the unit is turned OFF from the remote control, the unit will be in the STANDBY mode. When in the STANDBY mode, the unit can be turned ON with the power button on the remote control. If the unit will not be used for extended period, be sure to turn the unit OFF from the front panel power switch.
NOTE: This unit includes a STANDBY protection feature. This feature is designed to prevent accidental turn-on from the STANDBY mode in the event of a power failure. Should AC power be disconnected and then reconnected when the unit is in STANDBY mode, the unit will return to the STANDBY mode.
To turn the unit ON from the STANDBY mode without the remote control, operate the front panel power switch four times. The unit will then operate normally.
- 2 **PHONES (Headphones Jack)**
Connect a pair of headphones (sold separately) to this jack for private listening.
- 3 **SPEAKERS (Speaker selector switches)**
These switches are used to select speaker system A and B. No sound is heard through the speakers when both switches are reset to the [A] position.
- 4 **REMOTE SENSOR (Remote control sensor)**
This sensor receives the infra-red light transmitted from the wireless remote control unit. For remote control, point the wireless remote control unit towards the sensor.
- 5 **BASS (Bass control)**
Use this control to adjust the low-range response. When the control is set to the center position, the frequency characteristic curve (below 1,000 Hz) is flat. Turn the control clockwise to increase the bass response and counter-clockwise to decrease it.
- 6 **TREBLE (Treble control)**
Use this control to adjust the high-range response. When the control is set to the center position, the frequency characteristic curve (above 1,000 Hz) is flat. Turn the control clockwise to increase the treble response and counter-clockwise to decrease it.
- 7 **BALANCE (Balance control)**
Use this control to balance the volume levels between left and right channels. The volume levels in both channels are equal when the control is set to the center position.
- 8 **VARIABLE LOUDNESS (Loudness control)**
At low volumes, the human ear is less sensitive to low (BASS) and high (TREBLE) frequencies. Use this control to compensate for this deficiency when listening at low volume levels. Turn this control counter-clockwise until a natural balance of bass and treble sound has been restored.
- 9 **BASS EQ (DRA-565RD only)**
Press this button to switch the BASS EQ ON () for emphasis of bass sounds.
Use in conjunction with the bass adjustment of the tone control will provide further emphasis of bass sounds. Set this switch to OFF () when you wish to listen with a normal setting condition.
- 10 **VOLUME (Volume control)**
This knob is used to adjust the volume level of both channels.
Turn the knob clockwise to raise the volume and counter-clockwise to lower it.

- 11 **Input selector (Input selector buttons)**
These buttons are used to select the audio input source.
 - PHONO: Press to play a record on a record player connected to the PHONO input jacks.
 - CD: Press to listen to a compact disc player or another component connected to the CD input jacks.
 - TUNER: Press to listen to FM or AM programs.
 - VIDEO: Use when playing back the audio from a Hi-Fi video, video disc player or other component connected to the VIDEO terminal.
- 12 **Tape selector (Tape selector/monitor buttons) (DRA-565RD)**
TAPE-1: Press this button once, TAPE-1 indicator will light up and then you can play tape source on TAPE-1 terminal.
In this state you can copy TAPE-1 source to TAPE-2 terminal.
TAPE-2: Press this button once, TAPE-2 indicator will light up and then you can play tape or video source of TAPE-2 terminal.
Press again the button currently accessed, to play sources selected by input selector 11, indicator goes out.
• TAPE (Tape monitor button) (DRA-365RD)
Press this button once, TAPE indicator will light up and then you can play tape source on the TAPE terminal.
Press again the button currently accessed, to play sources selected by input selector 11, indicator goes out.
- 13 **RDS button**
This button is used for the RDS search (refer to page 12) and PTY search (refer to page 12), and TP search (refer to page 12, 13) operations, and to input the station name (refer to page 12, 13).
- 14 **BAND (Band selector switch)**
Press this switch to select the FM or AM (MW) band.
- 15 **AUTO (Tuning mode button)**
This switches between auto and manual tuning.
Auto tuning: When the UP button is pressed, the radio is tuned automatically to a higher frequency. Press the DOWN button to tune to a lower frequency. Use this position to eliminate noise when no signals or weak signals are being received.
Manual tuning: In this position, the radio can be tuned manually. Reception is automatically manual when in the manual mode.
- 16 **TUNING (Tuning buttons)**
Use these to change the received frequency to a higher frequency (UP) or a lower frequency (DOWN).
When writing station names, use these buttons to select the letters. (Refer to Page 13).
- 17 **MEMORY (Memory button)**
This switch is used to store the desired radio station to a memory.
 - Presetting stations
After pressing the MEMORY button, press the SHIFT/PTY button to select the memory block, A to E. Now use the PRESET UP and DOWN buttons to specify the preset channel number. Press the MEMORY button again to store the station at the specified preset channel.

- 18 **Preset (Preset station buttons)**
These buttons are used for storing stations or recalling stations which have been preset. Using the SHIFT button you can preset a total of 40 FM or AM stations into preset channels.
Once a radio has been memorized, the same station can later be tuned in instantly simply by recalling the corresponding preset channel with PRESET UP or DOWN button.

DISPLAY

- 19 **RDS Indicator**
This lights when receiving RDS broadcasts, and flashes during the RDS search operations.
- 21 **TA Indicator**
This lights when receiving traffic announcements.
- 22 **TP indicator**
This flashes during the TP search operation and lights when TP stations are tuned in.
- 23 **PTY Indicator**
This flashes during the PTY (Programme type) search operation.
- 24 **TUNED indicator**
This lights when a station is properly tuned in.
- 25 **STEREO indicator**
This lights when receiving stereo broadcasts. It remains off when receiving AM broadcasts.
- 26 **AUTO indicator**
This indicates the tuning mode. It lights in the auto mode, and remains off in the manual mode.
NOTE:
 - TP (Traffic Programme)
 - Stations scheduled to broadcast traffic programmes
 - TA (Traffic Announcement)
 - Traffic information broadcasts

REAR PANEL

- 1 **FM ANT (FM antenna terminals)**
75-ohm coaxial cable can be connected to this terminal. For antenna connecting procedure, see the ANTENNA INSTALLATION.
- 2 **GND (Grounding terminal)**
The grounding wire of the turntable is connected here.
 - Hum or noise may be generated if the grounding wire is not connected.
- 3 **AM ANT (AM antenna terminals)**
Connect the attached AM loop antenna. (Refer to page 10 for connections).
Connect to this terminal when a medium wave outdoor antenna is used.
- 4 **PHONO (Phono input terminals)**
The output cord of the turntable is connected here. Since the input sensitivity of "PHONO" is extremely high, do not use the unit without the input pin cord. If used without this cord, the speakers may generate hum.
- 5 **CD**
The output cord of the CD player is connected here.
- 6 **VIDEO**
A VIDEO, such as a VCR or Video Disc may be connected here.
- 7 **TAPE-1, TAPE-2 (Tape deck playback/recording terminal) (DRA-565RD)**
Two tape decks or tape deck can be connected to these jacks for full-fledged playback, recording and tape dubbing operation.
 - TAPE (DRA-365RD)
Tape decks can be connected for full use including playing or copying.

- 19 **SHIFT/PTY button**
Use this button to select the memory blocks, A (1 to 8), B (1 to 8), C (1 to 8), D (1 to 8) or E (1 to 8).
For PTY search, use this button to select the program type.
When writing station names, use this button to set the writing position.

- 27 **MEMO indicator**
This indicator lights for approximately 10 seconds when the MEMORY button has been pressed and a station can be stored on a PRESET CHANNEL button.
This flashes continuously during the auto memory operation.
- 28 **CH indicator**
This lights when the preset channel number and shift mode (A, B, C, D or E) are displayed.
- 29 **TAPE-1/TAPE-2 indicator (DRA-565RD)**
The TAPE-1 indicator lights when the TAPE-1 source is selected with the tape selector buttons. The TAPE-2 indicator lights when the TAPE-2 source is selected.
• TAPE indicator (DRA-365RD)
The TAPE indicator lights when the TAPE source is selected with the tape selector buttons.
- 30 **Multi function display**
This displays the frequency, station name, programme type, etc.

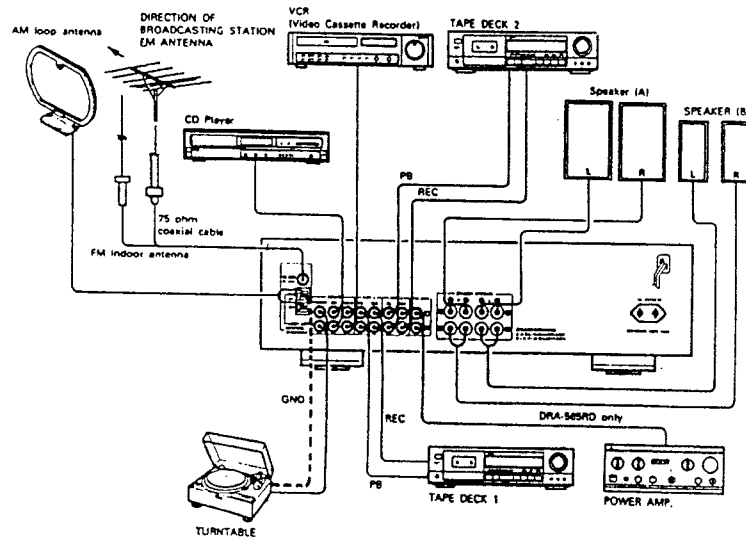
- 31 **PRE-OUT (DRA-565RD only)**
Output signals for power amplifiers are sent from these jacks.
The rated output is 2 volts.
- 32 **SPEAKER SYSTEMS (Speaker terminals)**
Two pairs of speakers A and B can be connected to these terminals.
- 33 **AC OUTLET (AC power outlets)**
This AC outlet is controlled by the power switch and Remote control unit (DRA-565RD), controlled by the power switch (DRA-365RD).
- 34 **AC CORD (Power cord)**
Connect this cord into the wall outlet.

NOTES

- This receiver has a full back-up system. When the power is turned on, the INPUT SELECTOR buttons are set to the last mode set before the power was turned off.
- When using this receiver in close proximity to video equipment (TV, VCR, VDP, etc.), noise may be generated in AM broadcasts. To

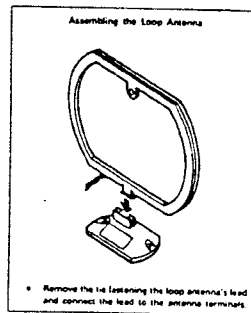
avoid this, keep the receiver as far away from other video components as possible, or place the AM loop antenna where noise is reduced. If the noise is not reduced, turn off the power of the video components when listening to AM broadcasts.

CONNECTIONS



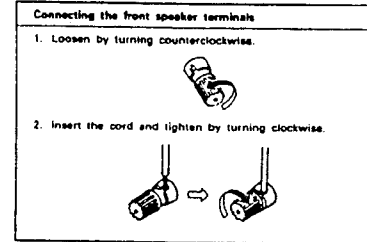
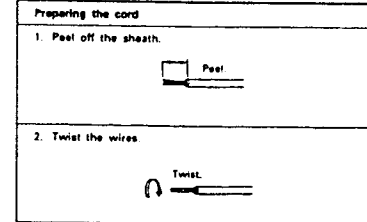
ANTENNA INSTALLATION

- **FM ANTENNA**
The supplied indoor FM antenna can be used inside wooden houses for receiving local FM stations and other strong FM signals. Stretch out the ends of the antenna and mount the antenna on the wall or ceiling where optimum reception is achieved. A indoor FM antenna may not consistently ensure stable reception, due to environment changes. In such cases, the indoor FM antenna should only be used temporarily until an outdoor FM antenna has been installed.
When connecting an outdoor FM antenna, the use of 75 ohm coaxial cable (DC-2V, 5C-2V) is strongly recommended.
- **AM ANTENNA**
Attach the supplied AM loop antenna even when using an outdoor AM antenna.
Connect the leads to the AM and GND terminals.
Also use the AM terminals for connecting an outdoor AM antenna (when making such a connection do not disconnect the AM loop antenna.)
Adjust the loop antenna to obtain optimum reception. Where broadcast stations are distant and only weak signals are received, or where signals are blocked, it is best to install an outdoor AM antenna.



SPEAKER CONNECTION

Confirm polarity (+, -) and left and right channels (L, R). Connect the speaker pairs to the SPEAKER terminals A or B on the back panel. Connections must be made with power cord disconnected.



- Notes on Connection**
- Do not plug the power cord into the AC wall outlet until all connections have been completed.
 - Make sure channels are correctly connected. Connect Left channels to Left channels and Right channels to Right channels. Follow the color markings of plugs and terminals to make sure mistakes are not made.
 - Connect all pin-plugs securely, pushing them completely into the jacks. Incomplete connections will cause noise generation.
 - Binding the connection cables to power cords, or running such cables close to power supply transformers will cause humming or noise, and should thus be avoided.

- Notes:**
- Do not connect two FM antennas simultaneously.
 - Even if an external AM antenna is used, do not disconnect the AM loop antenna.
 - Make sure AM loop antenna lead terminals do not touch metal parts of the panel.

CAUTION

Protective Circuit
This set is equipped with a high speed protective circuit. This circuit protects the internal circuitry from damage due to large currents flowing when the speaker jacks are not completely connected or when an output is generated by a short circuit.
This protective circuit's operation cuts off the output to the speakers. In such a case, be sure to turn the power to the set off and check the connections to the speakers. Then turn the power on again. After muting for several seconds, the set will operate normally.

Using the Various Functions

1. Presetting stations in the memory

The frequency and the name of the radio station (including names which you have input yourself), are also stored in the memory.

In particular, the various RDS functions can be used effectively when RDS stations are stored in the memory.

How to preset the memory

Press the MEMORY button M . The "MEMO" indicator on the display M lights. Next, use SHIFT/PTY button S to select the memory block A, B, C, D or E. Now press the PRESET UP or DOWN button P to specify the preset channel number, and then press the MEMORY button M to store the station in the memory.

The preset channel numbers for the different memory blocks are as follows.

| | |
|----------------|----------|
| Memory block A | : 1 to 8 |
| Memory block B | : 1 to 8 |
| Memory block C | : 1 to 8 |
| Memory block D | : 1 to 8 |
| Memory block E | : 1 to 8 |

2. Auto Memory (FM only)

The DRA-565RD/DRA-365RD is equipped with an auto memory function.

Connect the antenna, set it so that stations can be received, then hold in the MEMORY button and press the POWER button to turn the power on. Stations for which the auto stop function operates are stored in the preset memory in the order A1 to A8, B1 to B8, and so on, through E8.

Channel A1 is tuned in after the auto memory operation is completed.

Using this function makes it possible to find out the overall reception conditions of the receivable stations. The memory can be used effectively by recalling the channels in the preset memory and replacing stations whose reception is poor with stations whose reception is good, using the procedure described in 1 above.

3. Recalling preset stations

Use the SHIFT/PTY button S to select memory block A, B, C, D or E, then press the PRESET UP or DOWN button P to recall the station stored in the memory.

If the PRESET UP or DOWN buttons are pressed without pressing the SHIFT/PTY button S , the stations are recalled in the order A1 to A8, B1 to B8, and so on, through E8.

4. RDS search (for FM only)

Use this function to automatically tune to stations offering Radio Data Service.

This operation is also possible by pressing the TUNER button on the remote control unit once when the function is set to the TUNER mode.

| | |
|--|--------------------------------------|
| Operation | Display |
| 1. Press the RDS button R once. | RDS SEARCH |
| 2. Press the PRESET UP or DOWN button P . | "RDS SEARCH" flashes on the display. |

(Preset memory channels A1 to E8 are being searched.)
If no RDS station is found with the above operation, all the reception bands are searched.
The station name is displayed after searching stops.

| | |
|---|--------------------------|
| 3. Press the PRESET UP or DOWN button again while the RDS mark is flashing. | RDS search starts again. |
|---|--------------------------|

If no other RDS station is found when all the frequencies are searched, "NO RDS" is displayed.)

5. PTY search (for FM only)

Use this function to find stations broadcasting a designated type of programme type (PTY).

This operation is also possible by pressing the TUNER button on the remote control unit twice when the function is set to the TUNER mode. Next, press the PANEL button on the remote control unit, select the PTY, then press the PRESET UP or DOWN buttons to start the PTY search function in the specified direction.

| | |
|--|---|
| Operation | Display |
| 1. Press the RDS button twice. | PTY SEARCH |
| 2. Press the SHIFT/PTY button S . | Programme type or PTY Designated programme type |

(Always do this to designate the programme type if "PTY" is displayed in step 1.)

| | |
|--|--------------------------------------|
| 3. Press the PRESET UP or DOWN button P . | "PTY SEARCH" flashes on the display. |
|--|--------------------------------------|

(Preset memory channels A1 to E8 are being searched.)
If there is no station broadcasting the designated programme type with the above operation, all the reception bands are searched.
The station name is displayed after searching stops.

| | |
|---|--------------------------|
| 4. Press the PRESET UP or DOWN button again while the PTY mark is flashing. | PTY search starts again. |
|---|--------------------------|

If no other station broadcasting the designated programme type is found when all the frequencies are searched, "NO PROGRAMME" is displayed.)

The programme types which can be displayed are listed on Page 13.

6. TP Search (for FM only)

This function is used to find stations scheduled to broadcast traffic programmes (TP stations).

This operation is also possible by pressing the TUNER button on the remote control unit three times when the function is set to the TUNER mode.

| | |
|--|-------------------------------------|
| Operation | Display |
| 1. Press the RDS button R 3 times. | TP SEARCH |
| 2. Press the PRESET UP or DOWN button P . | "TP SEARCH" flashes on the display. |

(Preset memory channels A1 to E8 are being searched.)
If no TP station is found with the above operation, all the reception bands are searched.
The station name is displayed after searching stops.

| | |
|--|-------------------------|
| 3. Press the PRESET UP or DOWN button again while the TP mark is flashing. | TP search starts again. |
|--|-------------------------|

If no other TP station is found when all the frequencies are searched, "NO PROGRAMME" is displayed.)

7. Writing station names
You can write in station names yourself.
(Up to 8 characters)
(Refer to the table of characters on page 13.)

| | |
|---|--------------------------|
| Operation | Display |
| 1. Press the RDS button R 4 times. | First character flashes. |
| 2. Use the TUNING and DOWN buttons T to select the desired characters. | First letter flashes. |
| 3. Use the SHF/PTY button S to move to the next place. | Specified place flashes. |
| 4. After writing the entire station name, store it in the memory. (Refer to page 8.) | |

RDS Emergency Alarm
"ALARM" will flash on the display when the unit receives the Emergency Programme Type Code (PTY31) from an RDS station.
This feature may not operate properly if the signal from the RDS station is too weak or is subjected to interference.
It is not possible to select the "ALARM" display from the PTY search mode.

8. Clearing station names

- Recall the station name you want to clear.
- Press the RDS button 4 times until the character at the first place flashes.
- Then press the SHIFT/PTY button for at least 2 seconds. The current station name will then be cleared.

Note: Station names must be stored in a preset memory to be retained. If the power is turned off, or if the band (AM/FM) is changed, the station name will be lost. Be sure to store the entered station name in a Preset Memory before changing the band or turning the power switch OFF.

The following programme types can be designated:

| | | | |
|-------------|-------------|--------------|------------------|
| NEWS | NEWS | M.O.R. MUSIC | M.O.R. MUSIC |
| AFFAIRS | AFFAIRS | L-CLASSICS | LIGHT CLASSICS |
| INFORMATION | INFORMATION | S-CLASSICS | SERIOUS CLASSICS |
| SPORT | SPORT | OTHER MUSIC | OTHER MUSIC |
| EDUCATION | EDUCATION | | |
| DRAMA | DRAMA | | |
| CULTURE | CULTURE | | |
| SCIENCE | SCIENCE | | |
| VARIED | VARIED | | |
| POP MUSIC | POP MUSIC | | |
| ROCK MUSIC | ROCK MUSIC | | |

Table of characters

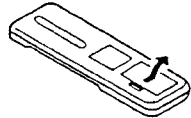
The characters are input in the order shown to the right. Use the TUNING buttons T to select the desired characters.

| |
|-------------------------------------|
| → ABCDEFGHIJKLMNOPQRSTUVWXYZ → |
| → 01234567890-@#%&'()*+,-./:;<=>? → |

PLAYBACK USING THE REMOTE CONTROL

The accessory RC-174 remote control unit is used to control the RECEIVER from a distance.

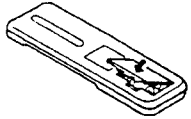
- (1) **Inserting the dry cell batteries**
 1. Remove the rear cover on the remote control unit.



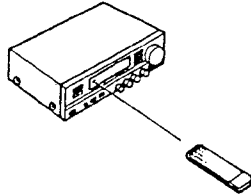
2. Insert two size "AA" (R6) dry cell batteries as shown in the diagram on the battery supply unit.



3. Replace the rear cover.



- (2) **Directions for use**



Note on Operation

- Do not press the operating buttons on the receiver and the remote control unit at the same time. This will cause misoperation.
- Operation of the remote control unit will become less effective or erratic if the infrared remote control sensor on the receiver is exposed to strong light or if there are obstructions between the remote control unit and the sensor.
- In case you operate your VCR, TV or other components by remote control, do not operate buttons on two different remote control units at the same time. This will cause mis-operation.

Notes on Use of the Batteries

- The remote control unit uses size "AA" (R6) dry cell batteries.
- The batteries will need to be replaced approximately once a year. This will depend upon how often the remote control is used.
- If, in less than a year from the time new batteries were inserted, the remote control fails to operate the receiver from a near-by position, it is time to replace the batteries.
- Insert the batteries properly, following the diagram on the remote control battery supply unit, and making sure to align the plus and minus sides of each battery.
- Batteries are prone to damage and leakage. Therefore:
 - Do not combine new batteries with used ones.
 - Do not combine different types of batteries.
 - Do not jumper the opposite poles of the batteries, expose them to heat or break them open, or put them into open fire.
- When the remote control is not to be used for a long period of time, remove the batteries from the unit.
- If the batteries have leaked, remove any battery fluid from the inside of the battery supply unit by wiping it out thoroughly, and insert new batteries.

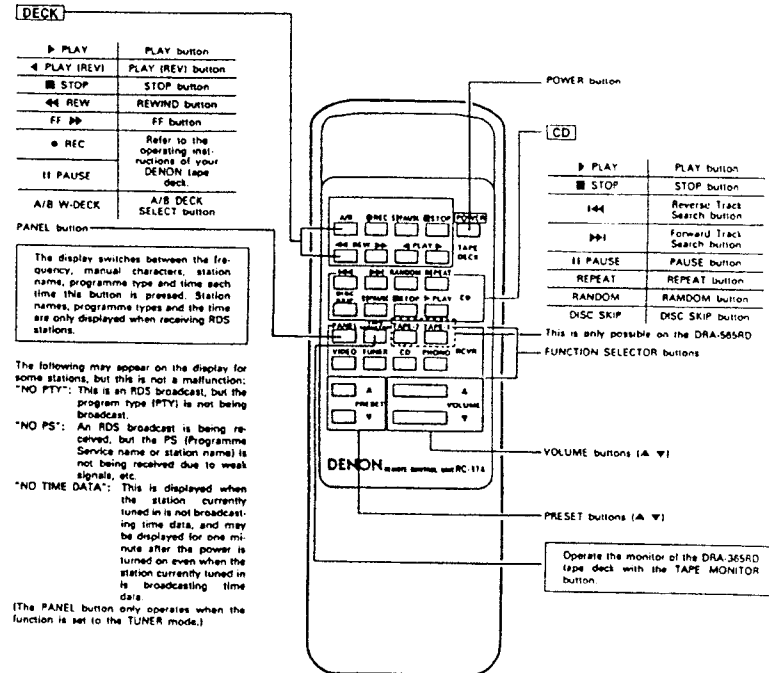
Besides being able to operate the DRA-565RD/365RD receiver with this remote control unit, you can also operate a DENON cassette deck and CD player from this handy full-system remote control unit.

Remote Control Section

Full-system Remote Control Unit

The full-system remote control unit operates all major functions of the receiver such as function switching, volume control, and preset station selection. But that's not all! The same control pad can also control the major functions of a DENON CD player and cassette deck to create a remarkably ergonomic and versatile DENON system with all the quality sound reproduction that the devoted audiophile expects.

Remote Control Unit RC-174 supplied with DRA-565RD/365RD



- The RC-174 Remote Control Unit can control CD players and cassette decks made by DENON.
- Note that operation may not be possible for some models.
- Buttons are conveniently separated into groups, each group controlling one specific component. The groups are RECEIVER, CD and DECK.

For details on operating other components, refer to the instruction manuals for the CD player and/or cassette deck.

CAUTION:

- If the power is turned off with the remote control unit, the receiver is switched to the power stand-by state. If you are to be absent for a long period of time, be sure to turn the power off using the POWER switch on the receiver.
- A part of the digit of fluorescent display light while the receiver is in the power stand-by state.
- You may experience erratic operation of the remote control unit if it is operated in fluorescent light and direct sunlight, in particular if this light strikes the remote control sensor on the receiver. However, this is not a malfunction, and if this should happen, protect the sensor against such light.

TROUBLESHOOTING

1. Have all connections been made PROPERLY?
2. Have you followed all operational instructions correctly?
3. Check speaker and the turntable systems for proper operation.

When your unit does not seem to be operating correctly, first check the items in the following table. If the symptom does not correspond to any of the problems as shown below, turn off the power sources immediately and contact your DENON dealer.

| Problem | Cause | Remedy |
|---|---|---|
| FM AND AM RECEPTION | | |
| Radio program can not be received. | <ul style="list-style-type: none"> • Antenna connection is wrong. • A signal strength is weak. | <ul style="list-style-type: none"> • Check the connection. • Check the antenna installation. |
| Noise is reproduced. | <ul style="list-style-type: none"> • A signal strength is weak. • Automobile ignition noise interferes with reception. • Other electrical equipment interferes with reception. | <ul style="list-style-type: none"> • Install an outdoor antenna. • Keep the antenna away from the street. • Keep the equipment away from this set, or turn off the power of the other equipment. |
| The preset frequencies are erased. | <ul style="list-style-type: none"> • The memory back-up term (about 1 month) passed. | <ul style="list-style-type: none"> • Preset again. |
| In automatic tuning, the frequency doesn't stop at the radio station. | <ul style="list-style-type: none"> • A signal strength is weak. | <ul style="list-style-type: none"> • Use manual tuning. |
| In automatic tuning, it stops at the one step lower or higher frequency than the radio station. | <ul style="list-style-type: none"> • Noise or strong signal strength is received. | <ul style="list-style-type: none"> • Use manual tuning for optimum reception. |
| PLAYBACK OF THE AUDIO EQUIPMENTS | | |
| No sound is produced with power on. | <ul style="list-style-type: none"> • Input and speaker cords connection are wrong. • Speaker switch is off. • The INPUT SELECTOR buttons are in wrong position. • The protective circuit is operating. • The fuse has blown out. | <ul style="list-style-type: none"> • Check the connection. • Turn on speaker switch. • Check these position. • Turn the power off once, check the connections to the speakers, then turn the power on again. • Ask your dealer, or the nearest DENON representative. |
| Audible hum when playing records. | <ul style="list-style-type: none"> • The input and grounding cords connection of the turntable are wrong. • The cords connection of the cartridge are wrong. • The interference from the nearby TV or radio transmission antenna. | <ul style="list-style-type: none"> • Check the connection. • Check the connection. • Ask your dealer, or the nearest DENON representative. |
| Howling is produced when the volume control is turned up too high while playing records. | <ul style="list-style-type: none"> • The vibrations and sounds transmit from the speakers to the turntable. | <ul style="list-style-type: none"> • Insulate the vibrations, or keep the speakers away from the turntable. |
| Cracking noise is produced when playing records. | <ul style="list-style-type: none"> • The record is stained with the dust. • The stylus tip of the cartridge is stained with the dust. • The cartridge is defective. | <ul style="list-style-type: none"> • Clean the record. • Clean the stylus tip. • Try the other cartridge. |

SPECIFICATIONS

AMPLIFIER SECTION

Continuous Power Output: **DRA-565RD:** 80 W + 80 W (4 ohms, 1 kHz)
DRA-365RD: 62 W + 62 W (4 ohms, 1 kHz)
Power Bandwidth (BW): 10 Hz ~ 40 kHz (T.H.D. 0.1%, both channels driven into 8 ohms)

Total Harmonic Distortion: 0.03% (-3 dB at rated output, 8 ohms)
Frequency Response: PHONO RIAA Standard Curve (Recording Output)
 MM 20 Hz ~ 20 kHz ±0.5 dB
 CD, VIDEO, 20 Hz ~ 60 kHz ±1.5 dB (at 1W)
 TAPE-1, TAPE-2 (DRA-565RD)
 TAPE (DRA-365RD)

Input Sensitivity and Impedance:
 PHONO MM 2.5 mV 47 k ohms
 CD, VIDEO, 150 mV 25 k ohms
 TAPE-1, TAPE-2 (DRA-565RD)
 TAPE (DRA-365RD)

Maximum Input Level (at 1 kHz):
Signal to Noise Ratio (SNR):
 PHONO MM 78 dB (at 5.0 mV input)
 CD, VIDEO, 95 dB
 TAPE-1, TAPE-2 (DRA-565RD)
 TAPE (DRA-365RD)

Tone Controls:
 BASS ±10 dB at 100 Hz
 TREBLE ±10 dB at 10 kHz
Loudness Control Effect: VARIABLE LOUDNESS at maximum position
 50 Hz/10 kHz, +10 dB/+8 dB

PRE-OUT terminals (DRA-565RD only)
 Rated output:
 2 V (at 100 kohm load)

TUNER SECTION

(FM) (note: μV at 75 ohms, 0 dB/ -1 + 10⁻¹⁶ W)
Receiving Range: 87.5 ~ 108 MHz
Usable Sensitivity: 0.9 μV (10.3 dB)

Signal to Noise Ratio (SNR): MONO 82 dB
 STEREO 78 dB
 85 dB
Image Rejection: 55 dB
Selectivity (± 300 kHz): 55 dB
Frequency Response: 30 Hz ~ 15 kHz ^{+0.2} -1.5 dB
Stereo Separation (at 1 kHz): 40 dB
[AM]
Receiving Range: 522 ~ 1611 kHz

Usable Sensitivity: 18 μV
Signal to Noise Ratio: 55 dB

General

Power Supply: AC 230V 50 Hz
Power Consumption: 145 W (DRA-565RD)
 120 W (DRA-365RD)

Power Outlets: SWITCHED 100 W
Dimensions: 434 mm (W) x 130 mm (H) x 312 mm (D) (DRA-565RD)
 434 mm (W) x 120 mm (H) x 312 mm (D) (DRA-365RD)
 7.2 kg (DRA-565RD)
 6.0 kg (DRA-365RD)

REMOTE CONTROL UNIT

RC-174
Remote control system: Infrared pulse system
Power supply: 3V DC two size "AA" (RS) dry cell batteries
External dimensions: 80 mm W x 175 mm H x 18 mm D
Weight: 120 g (includes batteries)

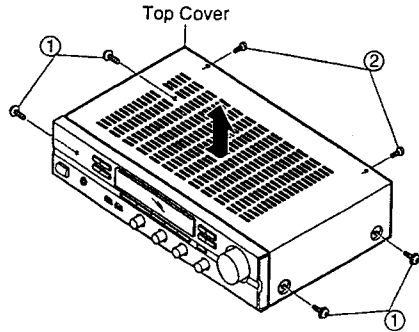
Design and specifications are subject to change without prior notice.

DISASSEMBLY

(To reassemble reverse disassembly)

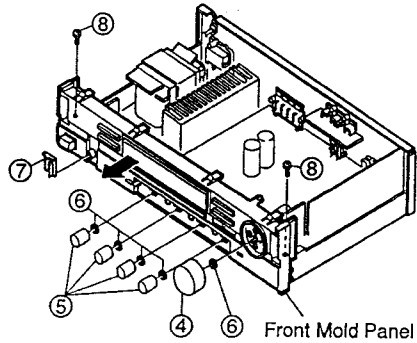
● Top Cover

Remove 4 screws ① and 2 screws ② .



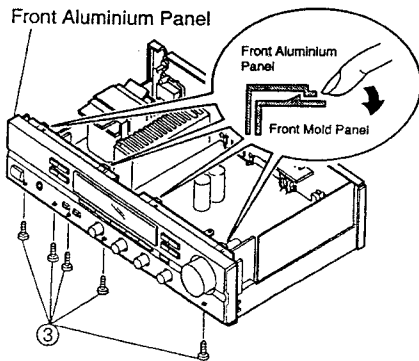
● Front Mold Panel

- (1) Pull out Volume knob ④ and 4 round knobs ⑤ .
- (2) Remove 5 nuts ⑥ and Speed Nut ⑦ .
- (3) Remove 2 screws ⑧ .



● Front Aluminium Panel

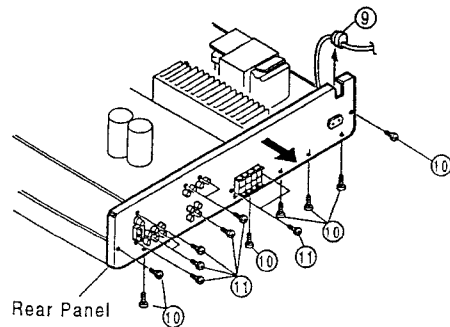
Remove 4 screws (365RD) 5 screws (565RD) ③ and undo hooks at 4 places.



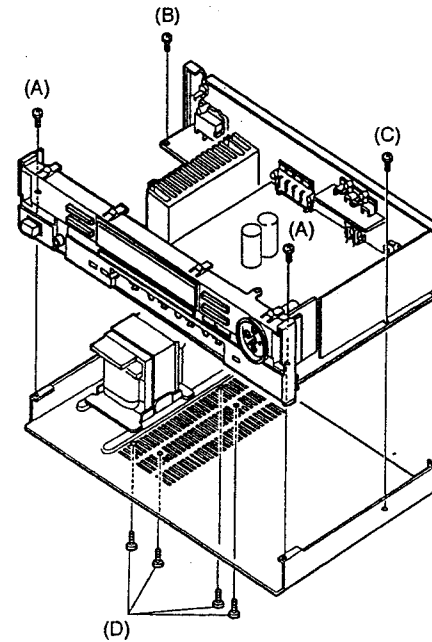
● Rear Panel

- (1) Disconnect cord bush ⑨ .
- (2) Remove 7 screws ⑩ , and 8 screws (365RD) 9 screws (565RD) ⑪ .

*Screws 11 is tighten.

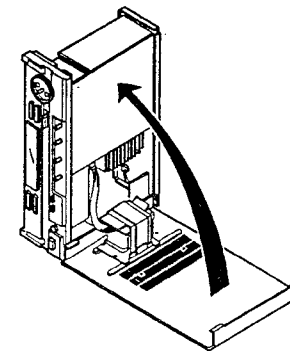


● Despite the transformer and PWB are connected with the wire, an arrangement clumper is relatively easy to remove at a time of service.

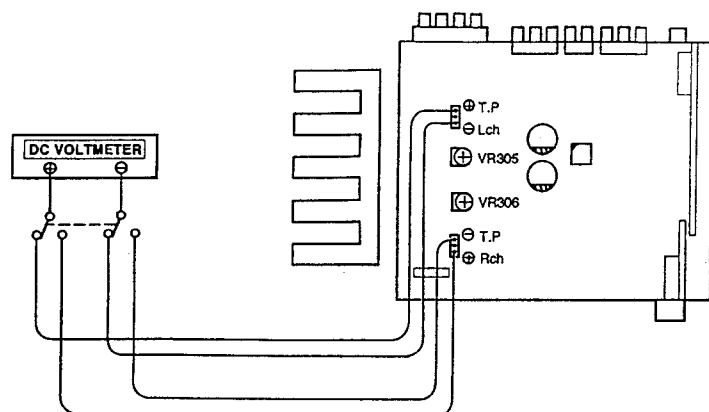


- (1) Disassemble Front Aluminium Panel (refer to previous Item 2).
- (2) Remove 4 screws (D) securing the Radiator to the Bottom Cover.
- (3) Unfasten 2 screws on the surface and 5 screws on the bottom of Rear Panel (refer to previous Item 4).
- (4) Remove 2 screws (A) securing the Inner Panel.
- (5) Untighten a screw (C) and detach Main PWB, remove a screw (B) and detach Power Supply PWB.
- (6) Remove arrangement clumper for the wire of Transformer.
- (7) Hold and lift the Back Panel and Inner Panel.

Checking is feasible by positioning the PWB upright.



METHOD OF ADJUSTMENTS

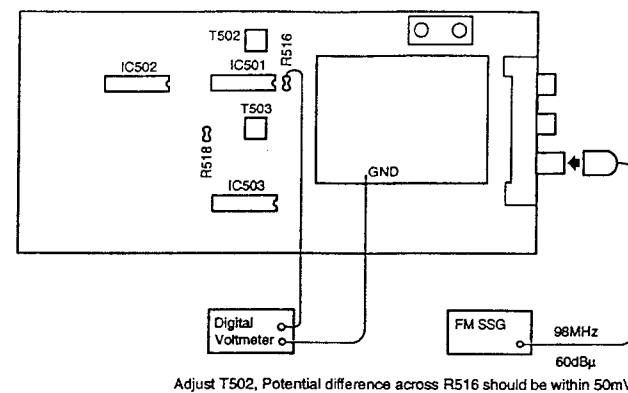


IDLING CURRENT

- (1) Set controls as follows.
 - POWER Switch → off ()
 - VOLUME Control → 0 (min.)
 - SPEAKERS → off ()
 - Temperature → 15°C ~ 30°C (59°F ~ 86°F)
 - VR305 and VR306 of the 1U-2718-1 (Main Unit) → MIN. ()
- (2) Connect DC Voltmeter to the T.P. Lch and T.P. Rch of the 1U-2718.
- (3) Turn the Power Switch on and rotate VR305 clockwise so that the DC Voltmeter reads 2.5 mV ±0.2 mV DC at the T.P. Lch. Follow the same procedure to VR306 for T.P. Rch.
- (4) Warm up for three minutes, then readjust VR305 and VR306 so that the DC Voltmeter reads 2.5 mV ±0.5 mV DC.
- (5) Warm up for 10 minutes, then readjust VR305 and VR306 so that the DC Voltmeter reads 2.5 mV ±0.5 mV DC.

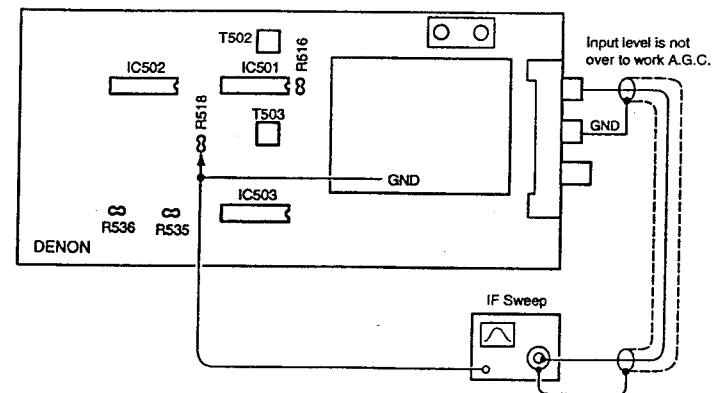
CONNECTINON DIAGRAM OF MEASURING INSTRUMENTS

● FM SECTION



Adjust T502, Potential difference across R516 should be within 50mV.

● AM SECTION

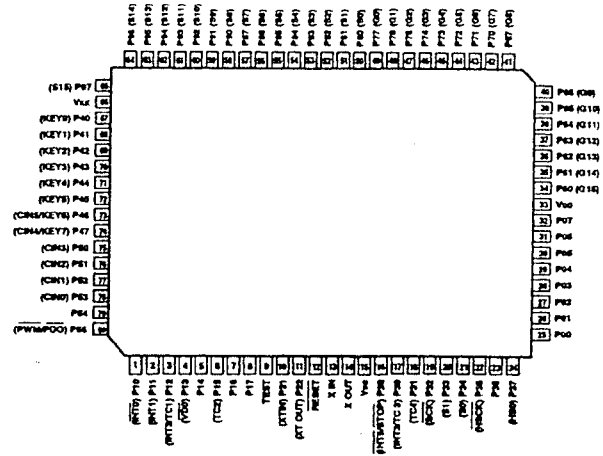
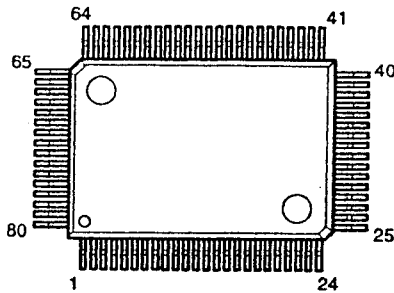


Adjust T503 for maximum height and best symmetry curve.

SEMICONDUCTORS

● IC's

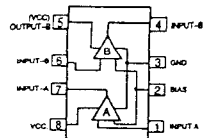
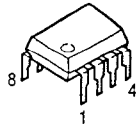
TMP87CM71F (IC601)



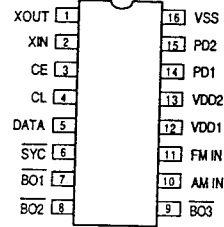
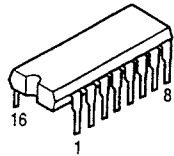
TMP87CM71F Port Allocation Table

| Pin No. | Symbol | IO | Logic | Initial Setting | Function | Pin No. | Symbol | IO | Logic | Initial Setting | Function |
|---------|----------|----|--------|-----------------|---|---------|----------|----|-------|-----------------|---|
| 1 | STOP | I | L | — | Power down detection ("L" = at power down). | 40 | 5G | O | — | — | FL tube control output for 5G. |
| 2 | MUTE (A) | I | — | — | MUTE (A) output ("H" = MUTE) | 41 | 6G | O | — | — | FL Tube control output for 6G. |
| 3 | RDS | I | Serial | — | RDS data (start) input. | 42 | 7G | O | — | — | FL Tube control output for 7G. |
| 4 | RES | O | L | H | LC7074 reset output. | 43 | 8G | O | — | — | FL Tube control output for 8G. |
| 5 | GND | I | Serial | — | Not used. | 44 | 9G | O | — | — | FL Tube control output for 9G. |
| 6 | FCK | O | Serial | L | Function control output (LC7821) for F-CK. | 45 | 10G | O | — | — | FL Tube control output for 10G. |
| 7 | FDA | O | Serial | L | Function control output (LC7821) for F-DATA. | 46 | 11G | O | — | — | FL Tube control output for 11G. |
| 8 | FSTB | O | H | L | Function control output (LC7821) for F-STB. | 47 | 12G | O | — | — | FL Tube control output for 12G. |
| 9 | GND | I | — | — | Connect to GND. | 48 | 13G | O | — | — | FL Tube control output for 13G. |
| 10 | SD | I | L | — | Tuned signal input ("L" = at tuned in). | 49 | 14G | O | — | — | FL Tube control output for 14G. |
| 11 | GND | I | — | — | Not used. | 50 | S0 (a) | O | — | — | FL Tube control output for P(a). |
| 12 | RESET | I | L | — | Reset input. | 51 | S1 (b) | O | — | — | FL Tube control output for P(b). |
| 13 | XIN | I | — | — | Oscillation circuit (4MHz). | 52 | S2 (c) | O | — | — | FL Tube control output for P(c). |
| 14 | XOUT | I | — | — | Oscillation circuit (4MHz). | 53 | S3 (d) | O | — | — | FL Tube control output for P(d). |
| 15 | Vss | PW | — | — | GND | 54 | S4 (e) | O | — | — | FL Tube control output for P(e). |
| 16 | GND | I | — | — | GND | 55 | S5 (f) | O | — | — | FL Tube control output for P(f). |
| 17 | REM | I | L | — | Remote control signal input. | 56 | S6 (g) | O | — | — | FL Tube control output for P(g). |
| 18 | ST | I | L | — | Stereo signal input ("L" = at stereo). | 57 | S7 (h) | O | — | — | FL Tube control output for P(h). |
| 19 | RCK | I | Serial | — | RDS data (clock) input. | 58 | S8 (i) | O | — | — | FL Tube control output for P(i). |
| 20 | RDA | I | Serial | — | RDS data (data) input. | 59 | S9 (k) | O | — | — | FL Tube control output for P(k). |
| 21 | GND | I | — | — | Not used. | 60 | S10 (m) | O | — | — | FL Tube control output for P(m). |
| 22 | PCK | O | Serial | L | LM7001 control output for PLL-CK (CL). | 61 | S11 (n) | O | — | — | FL Tube control output for P(n). |
| 23 | PDA | O | Serial | L | LM7001 control output for PLL-DATA (DATA). | 62 | S12 (p) | O | — | — | FL Tube control output for P(p). |
| 24 | PSTB | O | H | L | LM7001 control output for PLL-STB (CE). | 63 | S13 (q) | O | — | — | FL Tube control output for P(q). |
| 25 | GND | O | — | L | GND | 64 | S14 (r) | O | — | — | FL Tube control output for P(r). |
| 26 | GND | O | — | L | GND | 65 | S15 (s) | O | — | — | FL Tube control output for P(s). |
| 27 | A/M | O | L | L | AUTO/MANUAL control. | 66 | Vhk | PW | — | — | -15V |
| 28 | GND | I | — | — | Not used. | 67 | | | | | |
| 29 | P.OF | O | H | L | Power control output ("H" = ON). | 68 | GND | I | — | — | GND |
| 30 | VR-UP | O | H | L | Power volume control output (LB1639 ON = at "H"). | 69 | | | | | |
| 31 | VR-D | O | H | L | Power volume control output (LB1639 ON = at "H"). | 70 | | | | | |
| 32 | SP-R | O | H | L | Speaker relay control output (ON = at "H"). | 71 | VA | O | L | H | Video In/Out control ("L" = at selection) BV4066. |
| 33 | Vcc | PW | — | — | +5V | 72 | VB | O | L | H | Video In/Out control ("L" = at selection) BV4066. |
| 34 | GND | I | — | — | GND | 73 | K1 | I | — | — | Key input (A/D conversion input). |
| 35 | GND | I | — | — | GND | 74 | K2 | I | — | — | Key input (A/D conversion input). |
| 36 | 1G | O | — | — | FL tube control output for 1G. | 75 | K3 | I | — | — | Key input (A/D conversion input). |
| 37 | 2G | O | — | — | FL tube control output for 2G. | 76 | K4 | I | — | — | Key input (A/D conversion input). |
| 38 | 3G | O | — | — | FL tube control output for 3G. | 77 | VER | I | — | — | Forwarding country setting. |
| 39 | 4G | O | — | — | FL tube control output for 4G. | 78 | VER | I | — | — | Specification setting. |
| | | | | | | 79 | MUTE (T) | O | H | H | MUTE output ("H" = MUTE). |
| | | | | | | 80 | GND | I | — | — | GND |

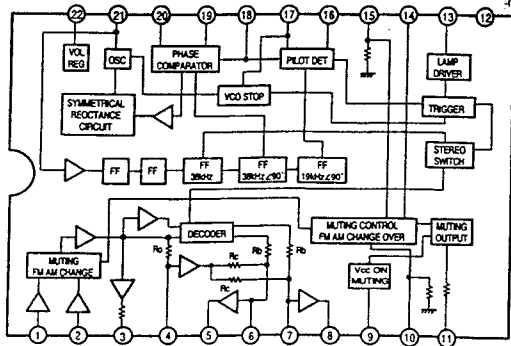
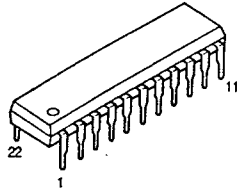
BA4558 (IC101)



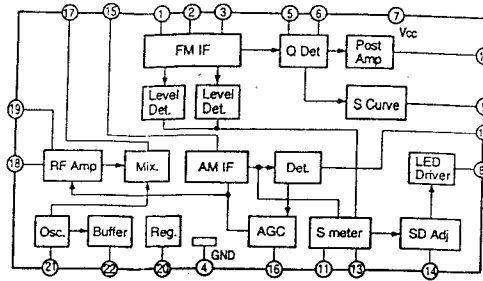
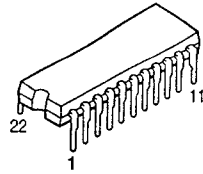
LM7001 (IC503)



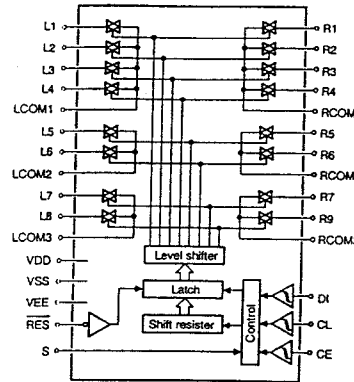
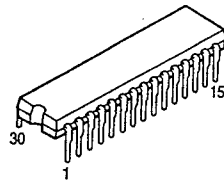
LA3401 (IC502)



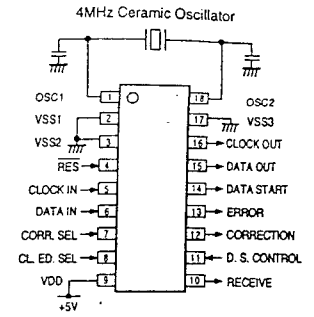
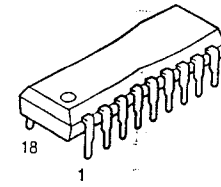
LA1265 (S) (IC501)



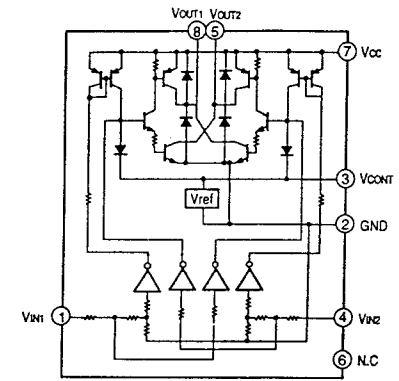
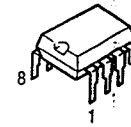
LC7821 (IC102)



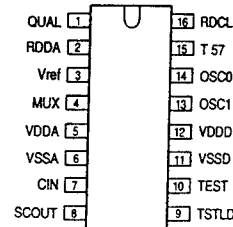
LC7074 (IC602)



LB1639 (IC201)

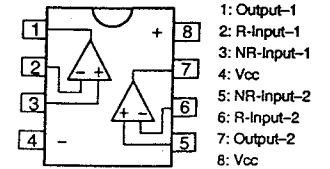
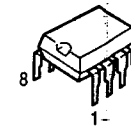


SAA6579T (IC601)

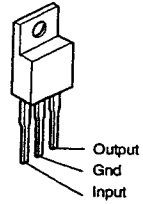


| Pin No. | Symbol | Description |
|---------|------------------|---|
| 1 | QUAL | Quality indication output. |
| 2 | RDDA | RDS data output. |
| 3 | V _{ref} | Reference voltage output (0.5 V _{DDA}). |
| 4 | MUX | Multiplex signal input. |
| 5 | V _{DDA} | +5 V supply voltage for analog part. |
| 6 | V _{SSA} | Ground for analog part (0 V). |
| 7 | CIN | Subcarrier input to comparator. |
| 8 | SCOUT | Subcarrier output of reconstruction filter. |
| 9 | TSTLD | Test control. |
| 10 | TEST | Test enable. |
| 11 | V _{SSD} | Ground for digital part (0 V). |
| 12 | V _{DDD} | +5 V supply voltage for digital part. |
| 13 | OSCI | Oscillator input. |
| 14 | OSCO | Oscillator output. |
| 15 | T 57 | 57 kHz clock signal output. |
| 16 | RDCL | RDS clock output. |

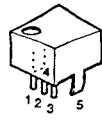
BA15218 (IC301)



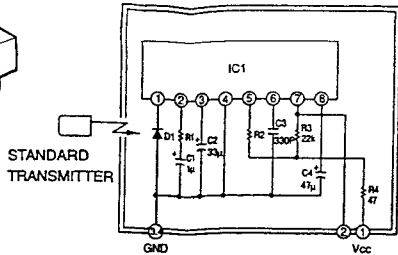
NJM78M12FA
(IC504)
NJM7806FA
(IC401)



SBX1610-52 (REMOTE SENSOR)



1. Vcc
2. Output
3. GND
4. Case Fin
5. Case Fin



IC1 : CX20106A Chip
D1 : PIN Photo Diode Chip
C1, C2, C4 : Aluminum Electrolytic Capacitor
C3 : SL Characteristic ±5%
R1 : Gain Adjuster
R2 : fo Adjust ±1% USE
R3, R4 : ± 5%

● TRANSISTORS

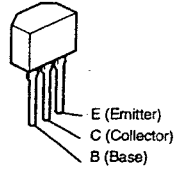
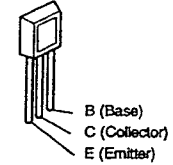
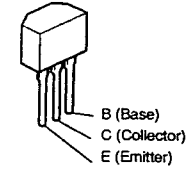
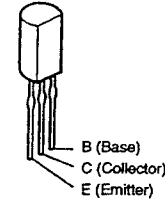
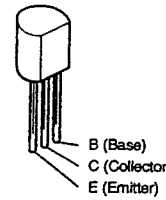
2SA988(E/F)
2SA1515(R)
2SC1815(Y)
2SC1841(E/F)

2SB647A(C)
2SB1041(R)
2SD667A(C)

2SA933S(S)
2SA1038S(S/E)
2SC1740S(E)
2SC1740SLN(E)
2SC2058(Q)
2SC2389S(S/E)

2SB1328(P)
2SD2004(P)

2SK161(GR)



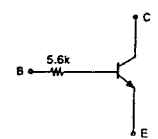
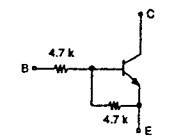
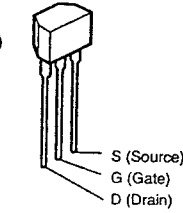
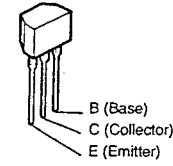
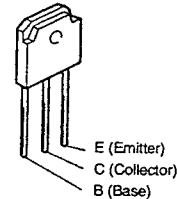
2SA1489(O/P/Y)(Z)
2SA1491(O/P/Y)(Z)
2SC3853(O/P/Y)(Z)
2SC3855(O/P/Y)(Z)

DTA143ES(4.7K-4.7K)
DTA114ES(10K-10K)
DTB123ES
DTC143ES(4.7K-4.7K)
RN-1241(A/B)
DTC144ES(47K-47K)

2SK365 (BL/GR)

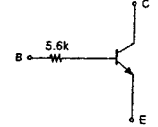
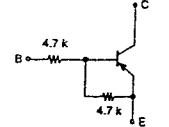
DTC143ES

RN1241



DTA143ES

DTB123ES

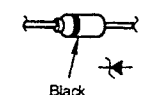
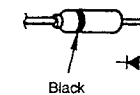
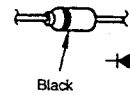


● DIODES & LED

1SS252

1S2471

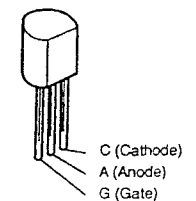
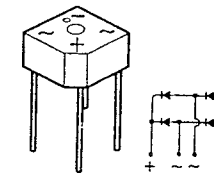
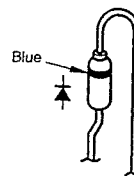
MTZJ3.3A MTZJ7.5C
MTZJ6.2A MTZJ8.2B
MTZJ6.8C MTZJ27D



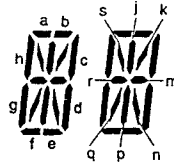
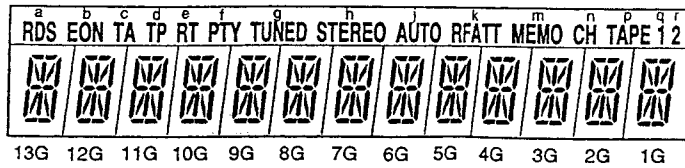
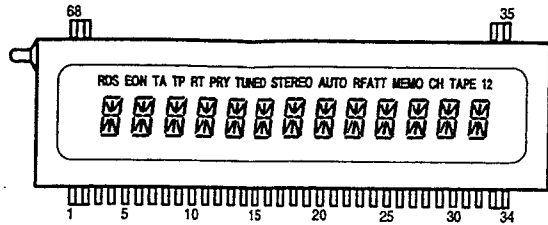
1SR35-200A

S4VB20

SFOR1A42



FLD (FIP14AM7R)



TERMINAL CONNECTION
(UPPER)

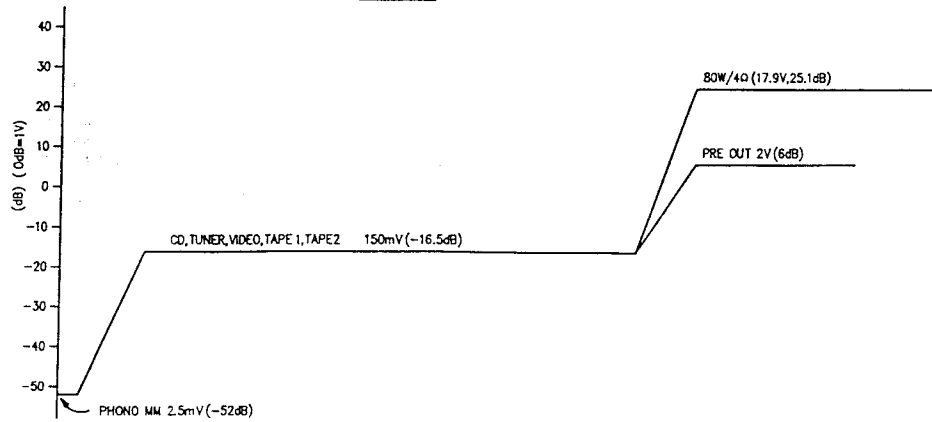
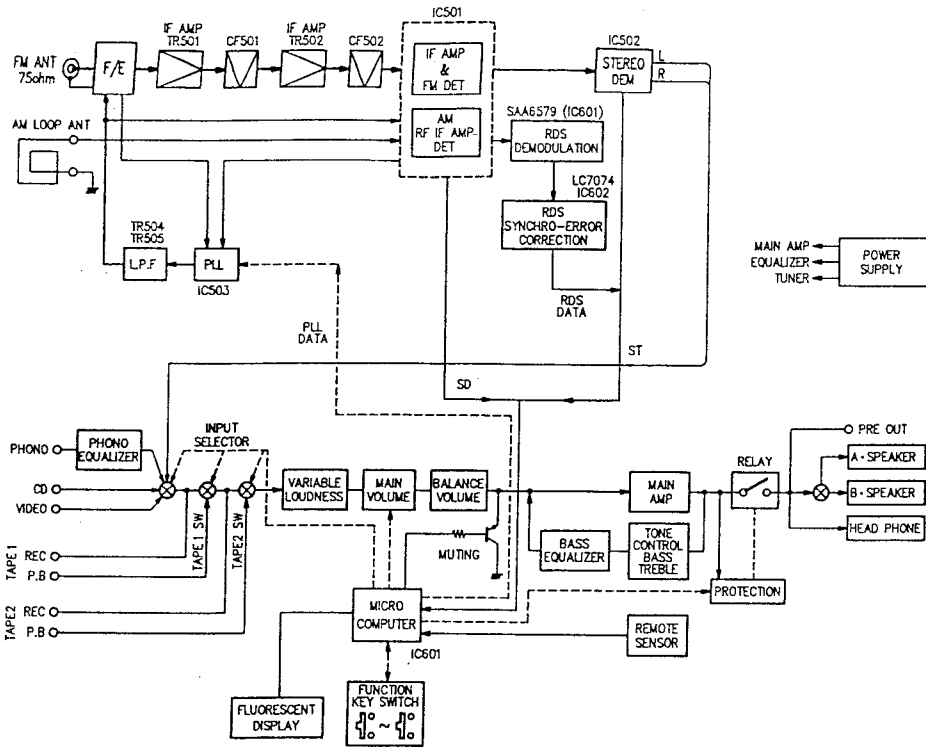
| | | | | | | | | | | | | | | | | | | | | | |
|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| TERMINAL NO. | 68 | 67 | 66 | 65 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | | | | |
| ELECTRODE | F1 | F1 | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | | | | |
| TERMINAL NO. | | | | 51 | 50 | 49 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | |
| ELECTRODE | | | | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | NP | F2 | F2 |

(LOWER)

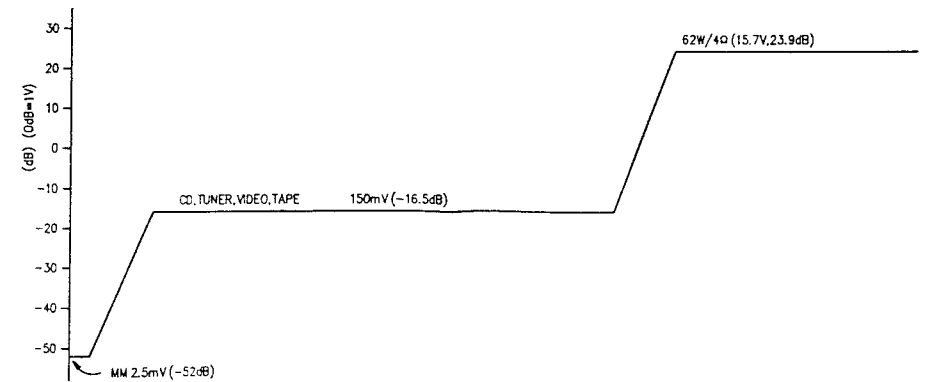
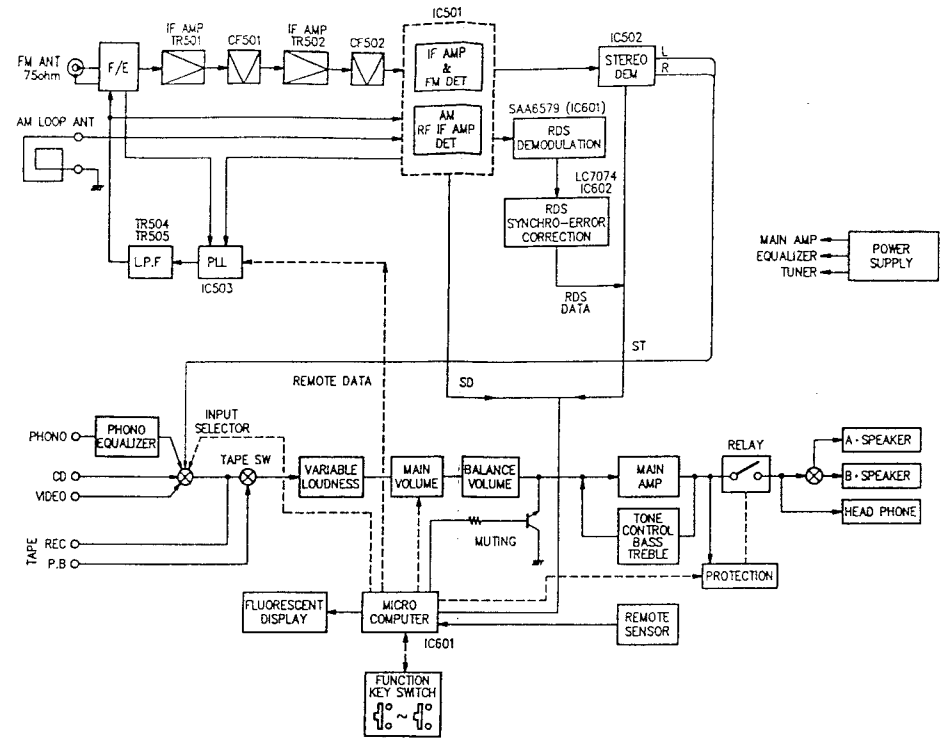
| | | | | | | | | | | | | | | | | | | | | | |
|--------------|----|----|---|---|----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|
| TERMINAL NO. | | | | | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 |
| ELECTRODE | | | | | P | 14G | 13G | 12G | 11G | 10G | 9G | 8G | 7G | 6G | 5G | 4G | 3G | 2G | 1G | F2 | F2 |
| TERMINAL NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | | |
| ELECTRODE | F1 | F1 | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | | | | |

Notes : F : Filament NP : No. Pin
G : Grid
P : Anode

BLOCK/LEVEL DIAGRAM (DRA-565RD)



BLOCK/LEVEL DIAGRAM (DRA-365RD)



1U-2732B TUNER UNIT (DRA-565RD)

| Ref. No. | Part No. | Part Name | Remarks |
|----------|--------------|------------------------------|-----------------|
| C353,354 | 256 1034 979 | Film 0.01 μ F50V | CF93A1H104J |
| C371-374 | 256 1034 979 | Film 0.01 μ F50V | CF93A1H104J |
| C377,378 | 254 4260 948 | Electrolytic 1 μ F50V | CE04W1H010M |
| C401 | 259 0007 702 | For Back up 8200 μ F | S8 CAP-822-C |
| C402 | 254 4254 909 | Electrolytic 10 μ F16V | CE04W1C100M |
| C403 | 254 4257 702 | Electrolytic 3300 μ F25V | CE04W1E330MC |
| C404 | 254 4260 948 | Electrolytic 1 μ F50V | CE04W1H010M |
| C405 | 254 4254 909 | Electrolytic 10 μ F16V | CE04W1C100M |
| C406,407 | 253 1181 904 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C408,409 | 253 1181 904 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C415,416 | 254 4374 708 | Electrolytic 8200 μ F56V | CE04W-822MC(DL) |
| C418 | 254 4260 948 | Electrolytic 1 μ F50V | CE04W1H010M |
| C419 | 256 1042 903 | Film 0.1 μ F250V | CF93A2E104K |
| C451 | 254 4254 905 | Electrolytic 4.7 μ F25V | CE04W1V4R7M |
| C452 | 253 1181 904 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C458 | 254 4260 948 | Electrolytic 1 μ F50V | CE04W1H010M |
| C471 | 254 4260 980 | Electrolytic 10 μ F50V | CE04W1H100M |
| C472 | 254 4260 993 | Electrolytic 22 μ F50V | CE04W1H220M |
| C473 | 254 4250 945 | Electrolytic 330 μ F6.3V | CE04W0J331M |
| C480 | 253 1146 907 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C601,602 | 253 3131 907 | Ceramic 27pF50V | CC45CH1H270J |
| C603-605 | 254 4250 916 | Electrolytic 47 μ F6.3V | CE04W0J470M |
| C607,608 | 253 4537 911 | Ceramic 30pF50V | CC45SL1H300J |
| C609 | 253 1181 904 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C610 | 254 4250 916 | Electrolytic 47 μ F6.3V | CE04W0J470M |
| C611 | 253 1179 990 | Ceramic 560pF50V | CK45B1H561K |

OTHERS PARTS GROUP

| | | | |
|--------------|--------------|---------------------------|---|
| L101,102 | 235 9003 002 | FTZ Choke Coil | 1 μ H |
| L391,392 | 235 0068 004 | Inductor | |
| RL471 | 214 9003 005 | Relay | |
| TP301,302 | 205 0190 036 | 3P NH Connector Base | TEST POINT |
| XL601 | 399 0178 007 | Crystal | 4.332MHz |
| XL602 | 399 0041 901 | Ceramic Filter | CSA 4.00MHz |
| 204 8354 004 | | Head Phone Jack | |
| 204 8486 002 | | 4P Pin Jack(S-GND) | |
| 204 8467 001 | | 6P Pin Jack(S-GND) | |
| 212 4778 009 | | 2P Push Switch | |
| 212 1074 007 | | 1P Push Switch | |
| 205 0484 001 | | 8P SP Terminal | Europe Model |
| 205 0472 013 | | 8P SP Terminal | U.K. Model |
| CN2A-2A | 205 0185 025 | 2P Wire Holder | CR3F Europe Model Only (Except for U.K.) |
| CN3B,3F | 205 0343 032 | 3P Connector Base (KR-PH) | |
| CNSA-5A | 205 0185 054 | 5P Wire Holder | |
| CN7A | 205 0696 077 | J.L Connector(BT-E) | |
| CN8A | 205 0535 002 | 8P Connector Base | |
| CN9B | 205 0696 093 | J.L Connector(BT-E) | |
| CN9B | 205 0746 093 | 9P J.L Connector(R) | |
| CN27A | 205 0680 016 | 27P FFC Connector Base | |
| 203 0539 060 | | 1P SIN Cord Assy | |
| 203 0539 073 | | 1P SIN Cord Assy | |
| 203 0539 086 | | 1P SIN Cord Assy | |
| 203 0539 090 | | 1P SIN Cord Assy | |
| 203 0475 043 | | 1P Contact Assy | |
| 002 0012 081 | | 2C Ribbon Cable | |
| 002 0041 010 | | 5C Ribbon Cable | |
| 415 0309 013 | | P.V.C. Tube(L=10) | |

| Ref. No. | Part No. | Part Name | Remarks |
|----------------------|--------------|------------------------------|--|
| SEMICONDUCTORS GROUP | | | |
| IC501 | 263 0891 001 | IC LA1265(S) | |
| IC502 | 263 0439 007 | IC LA3401 | |
| IC503 | 262 0719 009 | IC LM7001 | |
| IC504 | 263 0801 004 | IC NJM7812FA(S) | |
| IC601 | 263 2039 017 | IC TMP67CM71F-8192 | |
| TR501 | 275 0051 909 | Transistor 2SK161(GR) | |
| TR502 | 273 0434 902 | Transistor 2SC2058(SQ) | |
| TR503 | 269 0046 906 | Transistor DTB123ES | |
| TR504 | 273 0435 901 | Transistor 2SC1740SL(N) | |
| TR505 | 275 0053 907 | Transistor 2SK365(BLGR) | |
| TR506 | 269 0046 906 | Transistor DTA114ES(10K-10K) | |
| TR507,508 | 269 0040 902 | Transistor DTC144ES(47K-47K) | |
| TR509 | 271 0279 909 | Transistor 2SA1515(R) | |
| D411 | 276 0616 907 | Diode 1SS252 | Europe Model Only (Except for U.K.) |
| ZD501 | 276 0636 903 | Zener Diode MTZ.B.2B | |
| ZD651 | 276 0636 903 | Zener Diode MTZ.B.2B | |

RESISTORS GROUP (Not included Carbon Film $\pm 5\%$ 1/4W)

| | | | |
|--|--|--|--|
| | | | |
| | | | |

CAPACITORS GROUP

| | | | |
|-----------------|-------------------------|--|---|
| CA10 | 253 1001 702 | Ceramic 0.01μF500VAC | CK45F2GAC100MC Europe Model Only (Except for U.K.) |
| CA13 | 253 1001 702 | Ceramic 0.01μF400VAC | CK45F2GAC103MC |
| C501-505 | 253 1181 904 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C506 | 253 1181 904 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C507 | 253 4536 954 | Ceramic 16pF50V | CC45SL1H160J |
| C508 | 254 4254 909 | Electrolytic 10 μ F16V | CE04W1C100M |
| C509 | 253 1179 903 | Ceramic 100pF50V | CK45B1H101K |
| C510-513 | 253 1181 904 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C514 | 254 4256 936 | Electrolytic 47 μ F25V | CE04W1E470M |
| C515 | 254 4260 948 | Electrolytic 1 μ F50V | CE04W1H010M |
| C516 | 254 4260 964 | Electrolytic 3.3 μ F50V | CE04W1H3R3M |
| C517 | 253 1181 917 | Ceramic 0.022 μ F50V | CK45F1H222Z |
| C518 | 254 4260 922 | Electrolytic 0.33 μ F50V | CE04W1HR33M |
| C519 | 253 1179 903 | Ceramic 100pF50V | CK45B1H101K |
| C520 | 256 1034 937 | Film 0.047 μ F50V | CF93A1H47J(B) |
| C521 | 253 9031 904 | Ceramic 0.047 μ F25V | CK45-1E473K |
| C522,523 | 254 4254 912 | Electrolytic 22 μ F16V | CE04W1C220M |
| C525 | 254 4254 909 | Electrolytic 10 μ F16V | CE04W1C100M |
| C526,527 | 253 4448 903 | Ceramic 330pF50V | CC45SL1H331J |
| C529 | 254 4254 938 | Electrolytic 47 μ F16V | CE04W1C470M |
| C530 | 254 4260 948 | Electrolytic 1 μ F50V | CE04W1H010M |
| C531 | 254 4260 919 | Electrolytic 0.22 μ F50V | CE04W1HR22M |
| C532 | 254 4260 948 | Electrolytic 1 μ F50V | CE04W1H010M |
| C533 | 253 1181 904 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C534,535 | 254 4260 951 | Electrolytic 2.2 μ F50V | CE04W1HR22M |
| C536 | 253 1146 907 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C537 | 254 4260 906 | Electrolytic 0.01 μ F50V | CE04W1HOR1M |
| C538 | 254 4254 938 | Electrolytic 47 μ F16V | CE04W1C470M |
| C539 | 254 3056 917 | Electrolytic 1 μ F50V | CE04D1H010MDBP |
| C540 | 253 1181 917 | Ceramic 0.022 μ F50V | CK45F1H222Z |
| C542,543 | 253 4536 954 | Ceramic 16pF50V | CC45SL1H160J |
| C544 | 253 1181 904 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| C545 | 254 4260 948 | Electrolytic 1 μ F50V | CE04W1H010M |
| C546 | 254 4254 938 | Electrolytic 47 μ F16V | CE04W1C470M |
| C547 | 254 4254 909 | Electrolytic 10 μ F16V | CE04W1C100M |
| C548 | 254 4260 980 | Electrolytic 10 μ F50V | CE04W1H100M |
| C551-554 | 253 1146 907 | Ceramic 0.01 μ F50V | CK45F1H103Z |

1U-2731 MAIN UNIT (DRA-365RD)

| Ref. No. | Part No. | Part Name | Remarks |
|-------------------------|-------------------------|----------------------------------|--|
| C651 | 255 1265 949 | Film 0.01 μ F50V | C093M1H123J(B) |
| C652 | 254 4300 963 | Electrolytic 100 μ F6.3V | CE04W0J101M |
| C653 | 253 1181 904 | Ceramic 0.01 μ F50V | CK45F1H103Z |
| OTHERS PARTS GROUP | | | |
| CF501,502 | 261 0064 007 | Ceramic Filter | SFT10.7M32 |
| CF503 | 261 0116 007 | Ceramic Filter | SFL450E3 |
| CF504 | 261 0101 009 | Ceramic Filter | BRJ450C4N |
| F401 | 226 1015 061 | Fuse 2A | |
| F402 | 226 1015 023 | Fuse 1A, 2.5 | Europe Model Only (Except for U.K.) |
| RL401 | 214 0176 009 | Relay (G5P-1) | Europe Model Only (Except for U.K.) |
| RM601 | 499 0150 008 | Remote Sensor | SBX1610-52 |
| SW601-615 | 212 5604 910 | Tact Switch | |
| SW401 | 212 3090 009 | Power Switch | TV-5 |
| T501 | 231 1913 004 | MW Antenna Oscillator Coil | |
| T502 | 231 2098 009 | FM IF DET Trans | |
| T503 | 231 1444 006 | AM IFT | |
| T504 | 232 9010 009 | Anticible Filter | |
| T505,506 | 232 0085 004 | LFP | |
| XL502 | 261 0103 007 | Ceramic Oscillator | CSB456F11 |
| XL503 | 399 0075 003 | Crystal | 7.2MHz |
| XL601 | 399 0191 903 | Ceramic Oscillator | CST4.00MGW-TF01 |
| | | | |
| | 393 4155 002 | FLD | FIP14AM7R |
| | 205 0847 004 | 3P Antenna Terminal (PAL/F) | |
| | 216 0065 006 | Front End | |
| | 205 0624 007 | 2P AC Connector Base | |
| CN3D | 205 0581 001 | 2P VH Connector Base | Europe Model Only (Except for U.K.) |
| CN3E | 205 0581 056 | 2P VH Connector Base | |
| CN7A | 205 0748 077 | J.L Connector(F) | |
| CN8A | 205 0536 001 | 8P Connector Socket | |
| CN27A | 205 0680 016 | 27P FFC Connector Base | |
| CN3B | 203 2361 003 | 2P SAN-3P PH Connector Cord | |
| 203 0543 051 | | 1P Contact Assy | |
| 203 0543 054 | | 1P Contact Assy | |
| 203 0543 001 | | 3P SAN Connector Cord | |
| 203 0516 909 | | 2P VH Connector Cord | Europe Model Only (Except for U.K.) |
| 202 0040 909 | | Fuse Clip | Europe Model Only (Except for U.K.) |

| Ref. No. | Part No. | Part Name | Remarks |
|----------------------|--------------|--------------------------------|---------|
| SEMICONDUCTORS GROUP | | | |
| IC101 | 263 0609 002 | IC NJM2068DOC | |
| IC102 | 262 1227 008 | IC LC7821 | |
| IC201 | 263 0476 002 | IC LB1539 | |
| IC301 | 263 0665 007 | IC BA1521B | |
| IC401 | 263 0793 002 | IC NJM7806FA(S) | |
| IC601 | 262 1701 906 | IC SAA6597R | |
| IC602 | 262 1929 908 | IC LC7074M-TE-R | |
| TR201 | 269 0022 904 | Transistor DTA143ES(4.7K-4.7K) | |
| TR251 | 274 0151 903 | Transistor 2SD2004(P) | |
| TR252 | 272 0017 906 | Transistor 2SB1328(P) | |
| TR253 | 273 0388 906 | Transistor 2SC1740S(S) | |
| TR254 | 271 0192 905 | Transistor 2SA333S(S) | |
| TR255 | 273 0432 904 | Transistor 2SC2385(S/E) | |
| TR256 | 271 0280 901 | Transistor 2SA1038S(S/E) | |
| TR257 | 273 0388 906 | Transistor 2SC1740S(S) | |
| TR301,302 | 269 0107 900 | Transistor RN1241 (AF) | |
| TR303,304 | 273 0235 923 | Transistor 2SC1841 (E/B) | |
| TR305-308 | 271 0131 924 | Transistor 2SA988(E/F) | |
| TR309,310 | 273 0235 923 | Transistor 2SC1841 (E/F) | |
| TR315,316 | 273 0198 002 | Transistor 2SC1818S(Y) | |
| TR317,318 | 274 0060 900 | Transistor 2SD667A(C)TZ | |
| TR319,320 | 272 0053 908 | Transistor 2SB647A(C) | |
| TR325,326 | 273 0235 923 | Transistor 2SC1841 (E/F) | |
| TR327 | 271 0131 924 | Transistor 2SA988(E/F) | |
| TR401 | 272 0131 901 | Transistor 2SB1041(F) | |
| TR451 | 273 0388 906 | Transistor 2SC1740S(E) | |
| TR452 | 269 0018 905 | Transistor DTC143ES(4.7K-4.7K) | |
| TR453 | 273 0388 906 | Transistor 2SC1740S(E) | |
| TR472,473 | 273 0388 906 | Transistor 2SC1740S(E) | |
| TR474 | 271 0192 905 | Transistor 2SA933S(S) | |
| TR475 | 273 0388 906 | Transistor 2SC1740S(E) | |
| TR478,479 | 269 0040 902 | Transistor DTC144ES(47K-47K) | |

RESISTORS GROUP

| | | | |
|---------------------|-------------------------|----------------------------------|-------------------------------|
| D202-204 | 276 0616 907 | Diode 1SS252 | |
| D303-306 | 276 0619 904 | Diode 1SS2471 | |
| D307-310 | 276 0616 907 | Diode 1SS252 | |
| D311,312 | 276 0616 907 | Diode 1SS252 | |
| D401 | 276 0616 907 | Diode 1SS252 | |
| D402-404 | 276 0553 905 | Diode 1SR35-200A | |
| D405 | 276 0338 007 | Diode 54VB20F | |
| D406 | 276 0616 907 | Diode 1SS252 | |
| D407-410 | 276 0553 905 | Diode 1SR35-200A | |
| D451 | 276 0616 907 | Diode 1SS252 | |
| D452 | 276 0616 907 | Diode 1SS252 | |
| D471 | 276 0616 907 | Diode 1SS252 | |
| ZD251,252 | 276 0637 902 | Zener Diode MTZ.B.2A | |
| ZD401 | 276 0632 907 | Zener Diode MTZ.B.2D | |
| ZD451 | 276 0634 903 | Zener Diode MTZ.B.3A | |
| ZD452 | 276 0633 906 | Zener Diode MTZ.B.8C | |
| ZD471 | 276 0635 904 | Zener Diode MTZ.B.7C | |
| SC471 | 279 0016 904 | Thyristor SF0R1A42 | |
| FC01,208 | 344 2052 931 | Metallic 350ohm 1/4W | RS1483A391J.NBS(S) |
| R235,236 | 241 2387 940 | Carbon 4.7ohm 1/4W | RD1482E40J.NBS |
| R311,312 | 241 2379 932 | Carbon 520ohm 1/4W | RD1482E621J.NBS |
| R329,330 | 241 2378 820 | Carbon 220ohm 1/4W | RD1482E221J.NBS |
| R331-334 | 244 2043 982 | Metallic 0.22ohm 1/4W | RS1483AR22J.NBS(S) |
| R343,344 | 241 2379 987 | Carbon 1ohm 1/4W | RD1482E10J.NBS |
| R045,346 | 241 2378 962 | Carbon 330ohm 1/4W | RD1482E331J.NBS |

1U-2732 TUNER UNIT (DRA365RD)

| Ref. No. | Part No. | Part Name | Remarks |
|-----------|--------------|-----------------------------|--------------------|
| R385,386 | 241 2379 932 | Carbon 620ohm 1/4W | RDI4B2E51JNES |
| R387,389 | 241 2377 989 | Carbon 150ohm 1/4W | SDI4B2E151JNES |
| R383,394 | 244 2051 087 | Metalic 47ohm 1/4W | RSI4B3A47JNES(S) |
| R401 | 244 2051 987 | Metalic 47ohm 1/4W | RSI4B3A47JNES(S) |
| R408 | 241 2387 908 | Carbon 10ohm 1/4W | RD4B2E10JNES |
| R411 | 241 2377 947 | Carbon 10ohm 1/4W | RD4B2E10JNES |
| R471 | 244 2051 974 | Metalic 1kohm 1/4W | RSI4B3A102JNES(S) |
| R474 | 244 2051 950 | Metalic 1kohm 1/4W | RSI4B3A102JNES(S) |
| VR102 | 211 0831 002 | Variable 100kohm | V1620V25F=104R(MG) |
| VR201 | 211 0830 003 | Variable 100kohm | V14V20FB104K |
| VR251 | 211 0827 003 | Variable 250kohm | V11V20PW254K |
| VR301 | 211 0828 002 | Variable 250kohm | V14V20FC254K |
| VR303 | 211 0829 001 | Variable 50kohm | V14V20FC503K |
| VR305,306 | 211 6053 912 | Semi Fixed Resistor 4.7Kohm | W06PB472 |

| CAPACITORS GROUP | | | |
|------------------|--------------|------------------------|----------------|
| C101,102 | 253 1179 945 | Ceramic 220pF50V | CK45B1H221K |
| C103,104 | 254 4254 909 | Electrolytic 10µF16V | CE04W1C100M |
| C105,106 | 254 4254 925 | Electrolytic 33µF16V | CE04W1C330M |
| C107,108 | 253 4537 966 | Ceramic 47pF50V | CC45SL1H470J |
| C109,110 | 255 1264 995 | Film 560pF50V | CQ93M1H562J(B) |
| C111,112 | 255 1264 924 | Film 1500pF50V | CQ93M1H152J(B) |
| C113,114 | 254 4254 909 | Electrolytic 10µF16V | CE04W1C100M |
| C115,116 | 253 1181 917 | Ceramic 0.022µF50V | CK45F1H223Z |
| C121-124 | 253 4537 982 | Ceramic 56pF50V | CC45SL1H560J |
| C127,128 | 253 4537 982 | Ceramic 56pF50V | CC45SL1H560J |
| C129 | 253 1181 917 | Ceramic 0.022µF50V | CK45F1H223Z |
| C131 | 253 1181 917 | Ceramic 0.022µF50V | CK45F1H223Z |
| C133 | 253 1181 917 | Ceramic 0.022µF50V | CK45F1H223Z |
| C135 | 253 1181 917 | Ceramic 0.022µF50V | CK45F1H223Z |
| C136 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C141,142 | 255 1264 908 | Film 1000pF50V | CQ93M1H103J(B) |
| C151 | 253 1146 907 | Ceramic 0.01µF50V | CK45F1H103Z |
| C201-204 | 255 1264 982 | Film 2200pF50V | CQ93M1H472J(B) |
| C213,214 | 255 1265 978 | Film 0.022µF50V | CQ93M1H223J(B) |
| C215,216 | 253 1179 903 | Ceramic 560pF50V | CK45B1H561K |
| C217 | 253 1181 917 | Ceramic 0.022µF50V | CK45F1H223Z |
| C218,219 | 254 4254 909 | Electrolytic 10µF16V | CE04W1C100M |
| C220 | 254 4252 927 | Electrolytic 47µF10V | CE04W1A470M |
| C221 | 245 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C225,226 | 253 1146 907 | Ceramic 0.01µF50V | CK45F1H103Z |
| C251 | 254 4256 952 | Electrolytic 220µF25V | CE04W1E221M |
| C252-254 | 254 4258 918 | Electrolytic 10µF35V | CE04W1V100M |
| C301,302 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C303,304 | 254 4260 922 | Electrolytic 0.33µF50V | CE04W1HR33M |
| C305,306 | 253 1179 903 | Ceramic 100pF50V | CK45B1H101K |
| C307,308 | 253 4537 982 | Ceramic 56pF50V | CC45SL1H560J |
| C311-316 | 253 4536 909 | Ceramic 10pF50V | CC45SL1H100D |
| C323,324 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C325,326 | 255 1265 978 | Film 0.022µF50V | CQ93M1H223J(B) |
| C327-330 | 254 4262 904 | Electrolytic 4.7µF63V | CE04W1H477M |
| C333,334 | 254 4254 925 | Electrolytic 33µF16V | CE04W1C330M |
| C335,336 | 253 1179 903 | Ceramic 100pF50V | CK45B1H101K |
| C337,338 | 255 1265 981 | Film 0.027µF50V | CQ93M1H273J(B) |
| C339,340 | 256 1034 982 | Film 0.12µF50V | CF83A1H124J |
| C341,342 | 255 1264 924 | Film 1500pF50V | CQ93M1H152J(B) |
| C343,344 | 255 1265 936 | Film 0.01µF50V | CQ93M1H103J(B) |
| C345,346 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C347 | 255 1265 936 | Film 0.01µF50V | CQ93M1H103J(B) |
| C348 | 254 4263 945 | Electrolytic 1µF100V | CE04W2A010M |
| C353,354 | 256 1034 979 | Film 0.1µF50V | CF83A1H104J |
| C371-374 | 256 1034 979 | Film 0.1µF50V | CF83A1H104J |

| Ref. No. | Part No. | Part Name | Remarks |
|----------|--------------|------------------------|----------------|
| C377,378 | 245 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C401 | 259 0007 702 | For Back up 8200µF | SB CAP--822=C |
| C402 | 254 4254 909 | Electrolytic 10µF16V | CE04W1C100M |
| C403 | 254 4256 790 | Electrolytic 220µF25V | CE04W1E222M |
| C404 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C406,407 | 253 1181 904 | Ceramic 0.01µF50V | CK45F1H103Z |
| C408,409 | 253 1181 905 | Ceramic 470µF6.3V | CC45SL1H470J |
| C415,416 | 254 4355 002 | Electrolytic 800µF50V | CE04W1H822M(L) |
| C418 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C419 | 253 1181 905 | Film 0.1µF50V | CF83A2E104K |
| C451 | 254 4258 905 | Electrolytic 4.7µF35V | CE04W1V1477M |
| C452 | 253 1181 904 | Ceramic 0.01µF50V | CK45F1H103Z |
| C458 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C471 | 254 4260 980 | Electrolytic 10µF50V | CE04W1H100M |
| C472 | 254 4254 909 | Electrolytic 10µF16V | CE04W1C100M |
| C473 | 254 4250 945 | Electrolytic 330µF6.3V | CE04WJ0331M |
| C480 | 253 1146 907 | Ceramic 0.01µF50V | CK45F1H103Z |
| C601,602 | 253 3131 907 | Ceramic 27pF50V | CC45CH1H270J |
| C603-605 | 254 4260 916 | Electrolytic 470µF6.3V | CE04WJ0470M |
| C607,608 | 253 4537 911 | Ceramic 30pF50V | CC45SL1H300J |
| C609 | 253 1181 904 | Ceramic 0.01µF50V | CK45F1H103Z |
| C610 | 254 4250 916 | Electrolytic 470µF6.3V | CE04WJ0470M |
| C611 | 253 1179 990 | Ceramic 560pF50V | CK45B1H561K |

| OTHERS PARTS GROUP | | | |
|--------------------|--------------|------------------------|--------------|
| L101,102 | 235 9003 002 | FTZ Choke Coil | |
| L391,392 | 235 0068 004 | Inductor | 1µH |
| RL471 | 214 0167 005 | Relay | GSZ-2A |
| XL601 | 399 0178 007 | Crystal | 4.332MHz |
| XL602 | 399 0041 901 | Ceramic Filter | CSA4.00MG |
| | 204 8354 004 | Head Phone Jack | SP, A-B |
| | 212 4778 009 | 2P Push Switch | TEST POINT |
| | 205 0190 036 | 3P NH Connector base | |
| | 204 8466 002 | 4P Pin Jack(S-GND) | |
| | 204 8467 001 | 6P Pin Jack(S-GND) | |
| | 205 0484 001 | 8P SP Terminal | Europe Model |
| | 205 0472 013 | 8P SP Terminal | U.K. Model |
| CN2A | 002 0012 065 | 2C Ribbon Cable | |
| CN3B | 205 0343 032 | 3P Connector Base | |
| CN5A | 002 0041 010 | 5C Ribbon Cable | |
| CN7A | 205 0696 077 | J.L Connector(BT-E) | |
| CN8A | 205 0535 002 | 8P Connector Base | |
| CN9B | 205 0696 093 | J.L Connector(BT-E) | |
| CN9B | 205 0748 093 | 8P J.L Connector(R) | |
| CN27A | 205 0880 016 | 27P FFC Connector Base | |
| | 203 0538 060 | 1P SIN Cord Assy | |
| | 203 0538 073 | 1P SIN Cord Assy | |
| | 203 0538 086 | 1P SIN Cord Assy | |
| | 203 0539 099 | 1P SIN Cord Assy | |
| | 203 0475 043 | 1P Contact Assy | |
| | 205 0185 025 | 2P Wire Holder | |
| | 205 0185 054 | 5P Wire Holder | |
| | 415 0309 013 | P.V.C. Tube(L=10) | |

| Ref. No. | Part No. | Part Name | Remarks |
|----------------------|--------------|------------------------------|---------|
| SEMICONDUCTORS GROUP | | | |
| IC501 | 263 0881 001 | IC LA1265(S) | |
| IC502 | 263 0439 007 | IC LA3401 | |
| IC503 | 262 0719 009 | IC LM7001 | |
| IC504 | 263 0881 004 | IC NM7812FA(S) | |
| IC601 | 263 2039 017 | IC TMP67CM71F-6192 | |
| TR501 | 275 0051 909 | Transistor 2SK161(GR) | |
| TR502 | 273 0434 902 | Transistor 2SC2058(S,Q) | |
| TR503 | 269 0150 902 | Transistor D1B123ES | |
| TR504 | 273 0435 901 | Transistor 2SC1740(SLN,E) | |
| TR505 | 275 0053 907 | Transistor 2SK365(BLGR) | |
| TR506 | 269 0046 906 | Transistor DTA114ES(10K-10K) | |
| TR507,508 | 269 0040 902 | Transistor DTC114ES(47K-47K) | |
| TR509 | 271 0279 909 | Transistor 2SA1515(R) | |
| ZD501 | 276 0636 903 | Zener Diode MTZ.B.2B | |
| ZD651 | 276 0636 903 | Zener Diode MTZ.B.2B | |

| RESISTORS GROUP (Not Included Carbon Film ±5% 1/4W) | | | |
|---|--|--|--|
| | | | |
| | | | |

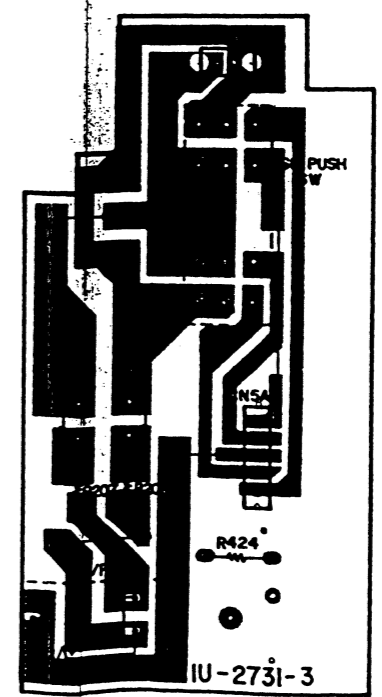
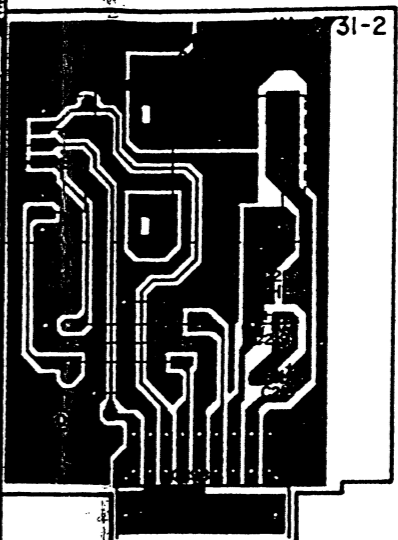
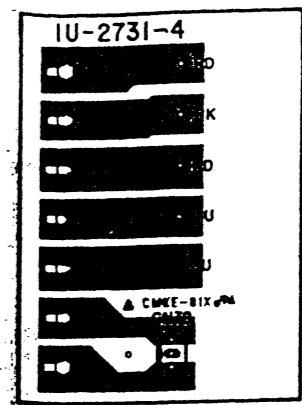
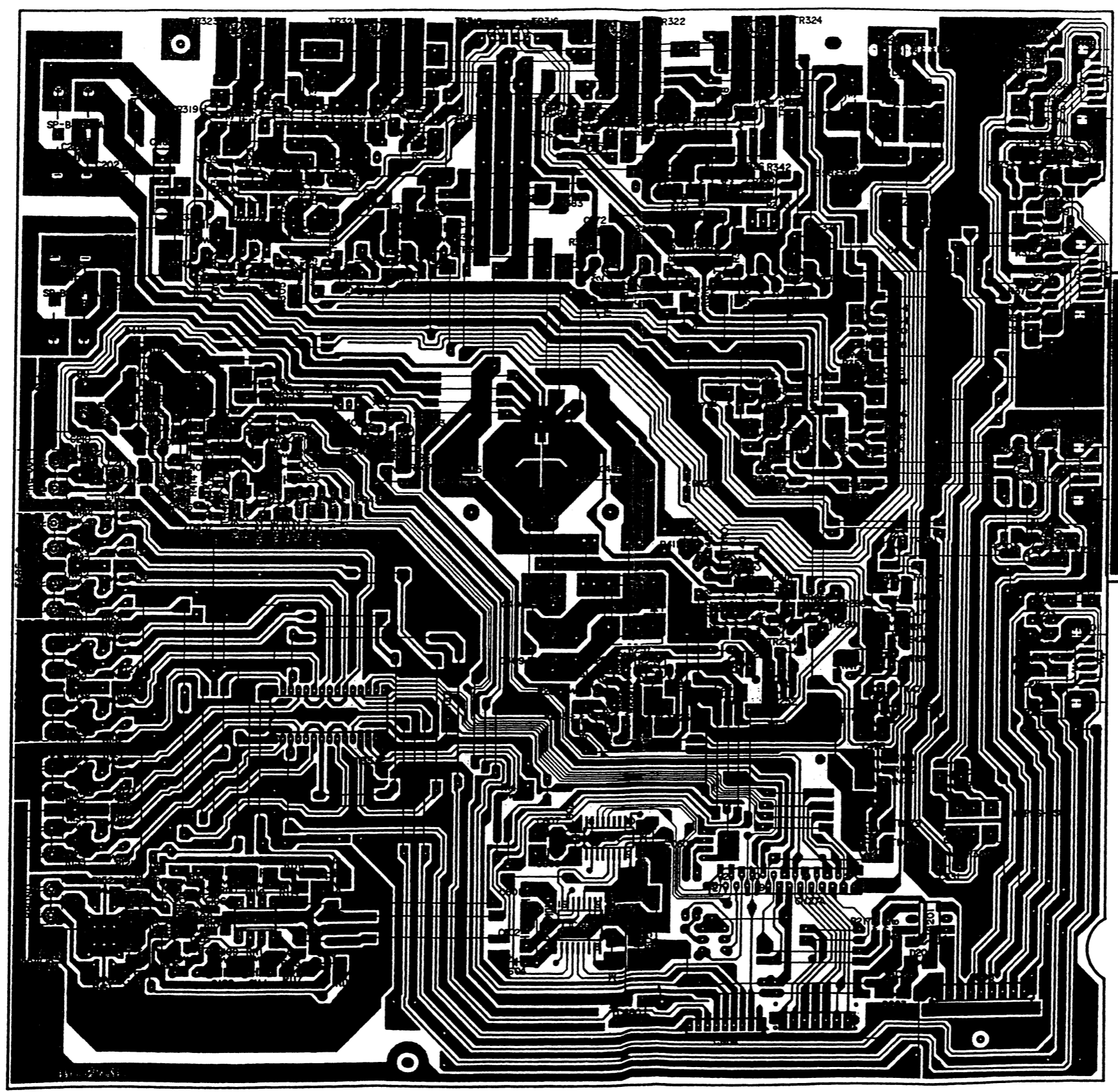
| CAPACITORS GROUP | | | |
|------------------|--------------|------------------------|----------------|
| C419 | 253 8014 702 | Ceramic 0.01µF500VAC | CK45F2GAC103MC |
| C501-506 | 253 1181 904 | Ceramic 0.01µF50V | CK45F1H103Z |
| C507 | 253 4536 954 | Ceramic 16pF50V | CC45SL1H160J |
| C508 | 254 4254 909 | Electrolytic 10µF16V | CE04W1C100M |
| C509 | 253 1179 903 | Ceramic 100pF50V | CK45B1H101K |
| C510-513 | 253 1181 904 | Ceramic 0.01µF50V | CK45F1H103Z |
| C514 | 254 4256 936 | Electrolytic 47µF25V | CE04W1E470M |
| C515 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C516 | 254 4260 964 | Electrolytic 3.3µF50V | CE04W1H3R3M |
| C517 | 253 1181 917 | Ceramic 0.022µF50V | CK45F1H223Z |
| C518 | 254 4260 922 | Electrolytic 0.33µF50V | CE04W1HR33M |
| C519 | 253 1179 903 | Ceramic 100pF50V | CK45B1H101K |
| C520 | 256 1034 937 | Film 0.047µF50V | CF83A1H473J |
| C521 | 253 9031 904 | Ceramic 0.047µF25V | CK45-1E473K |
| C522,523 | 254 4254 912 | Electrolytic 22µF16V | CE04W1C220M |
| C525 | 254 4254 909 | Electrolytic 10µF16V | CE04W1C100M |
| C526,527 | 253 4448 903 | Ceramic 330pF50V | CC45SL1H331J |
| C529 | 254 4254 938 | Electrolytic 47µF16V | CE04W1C470M |
| C530 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C531 | 254 4260 919 | Electrolytic 0.22µF50V | CE04W1HR22M |
| C532 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C533 | 253 1181 904 | Ceramic 0.01µF50V | CK45F1H103Z |
| C534,535 | 254 4260 951 | Electrolytic 2.2µF50V | CE04W1HR22M |
| C536 | 253 1146 907 | Ceramic 0.01µF50V | CK45F1H103Z |
| C537 | 254 4260 906 | Electrolytic 0.01µF50V | CE04W1H01M(BP) |
| C538 | 254 4254 938 | Electrolytic 47µF16V | CE04W1C470M |
| C539 | 254 3056 917 | Electrolytic 1µF50V | CE04H010M(BP) |
| C540 | 253 1181 917 | Ceramic 0.022µF50V | CK45F1H223Z |
| C542,543 | 253 4536 954 | Ceramic 16pF50V | CC45SL1H160J |
| C544 | 253 1181 904 | Ceramic 0.01µF50V | CK45F1H103Z |
| C545 | 254 4260 948 | Electrolytic 1µF50V | CE04W1H101M |
| C546 | 254 4254 938 | Electrolytic 47µF16V | CE04W1C470M |
| C547 | 254 4254 909 | Electrolytic 10µF16V | CE04W1C100M |
| C548 | 254 4260 980 | Electrolytic 10µF50V | CE04W1H100M |
| C551-554 | 253 1146 907 | Ceramic 0.01µF50V | CK45F1H103Z |
| C651 | 255 1265 949 | Film 0.01µF50V | CQ93M1H123J(B) |
| C652 | 254 4300 963 | Electrolytic 100µF6.3V | CE04WJ0101M |
| C653 | 253 1181 904 | Ceramic 0.01µF50V | CK45F1H103Z |

| Ref. No. | Part No. | Part Name | Remarks |
|--------------------|--------------|----------------------------|-------------------------------------|
| OTHERS PARTS GROUP | | | |
| CF501,502 | 261 0064 007 | Ceramic Filter | SFT10.7MS2 |
| CF503 | 261 0116 007 | Ceramic Filter | SFU450B3 |
| CF504 | 261 0101 009 | Ceramic Filter | BFU450CAN |
| F401 | 206 1015 916 | Fuse 1.25A | |
| F402 | 206 1015 929 | Fuse 1A | Europe Model Only (Except for U.K.) |
| RM601 | 499 0150 008 | Remote Sensor | SBX1610-52 |
| SW401 | 212 6030 009 | Power Switch | TV-6 |
| SW601-603 | 212 5604 910 | Tact Switch | |
| SW405-615 | 212 5604 910 | Tact Switch | |
| T501 | 231 1913 004 | MW Antenna Oscillator Coil | |
| T502 | 231 2098 009 | FIM IF DET Trans | |
| T503 | 231 1144 006 | AM IF T | |
| T504 | 232 9010 009 | Anti birdie Filter | |
| T505,506 | 232 0085 004 | LFF | |
| XL502 | 261 0103 007 | Ceramic Oscillator | CBS458F11 |
| XL503 | 399 0075 003 | Crystal | 7.2Mhz |
| XL601 | 399 0191 903 | Ceramic Oscillator | CST4.00MGW-TF01 |
| | | | |

PRINTED WIRING BOARD PATTERNS

1 2 3 4 5 6 7 8

1U-2731B MAIN UNIT (DRA-565RD)



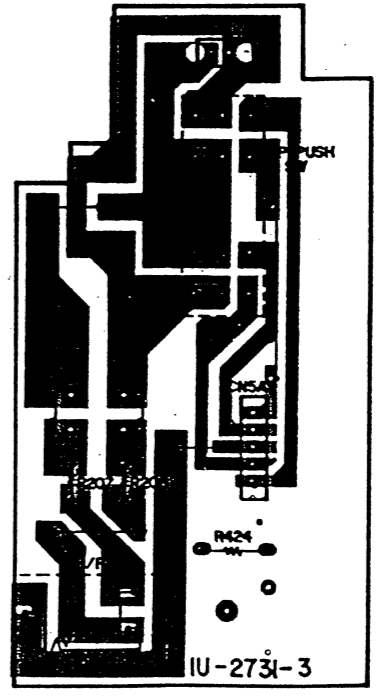
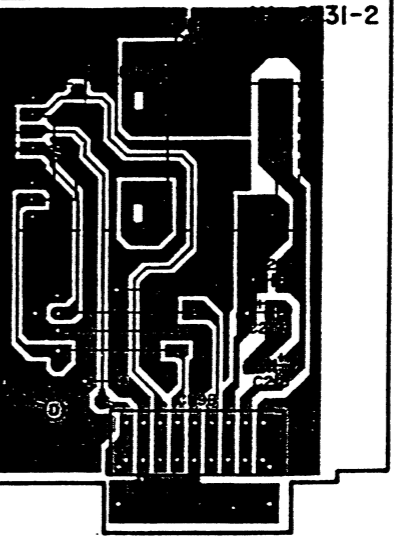
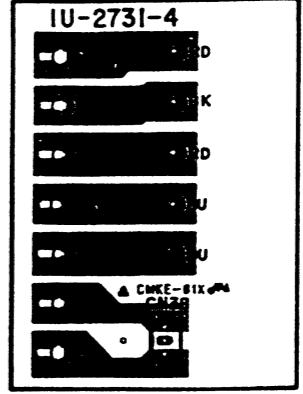
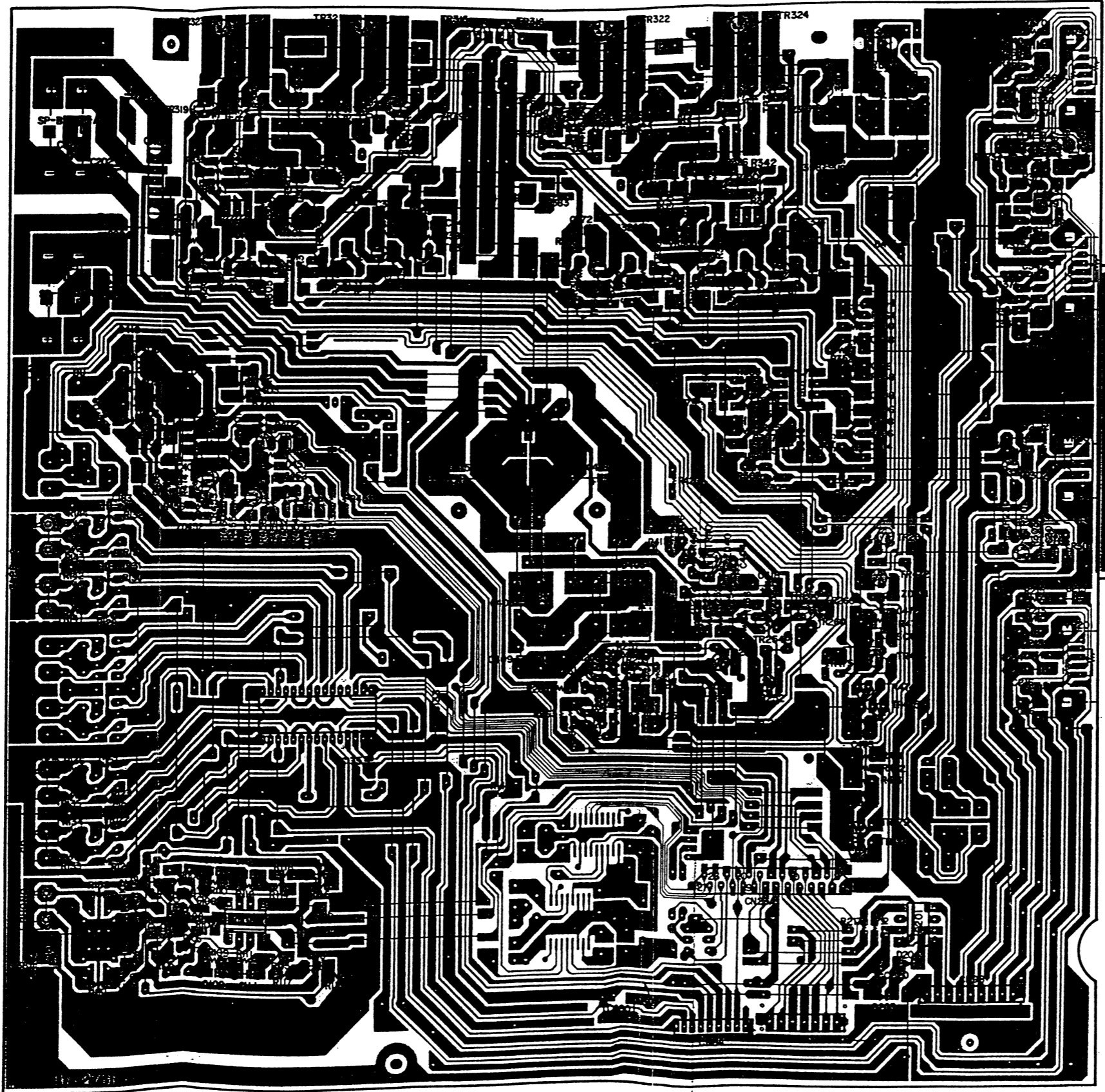
*
 CN3F
 TR402
 TR403
 C405
 R402
 R403
 R406
 R407
 Europe Model Only
 (Except For U.K.)

A
B
C
D
E

1 2 3 4 5 6 7 8

1U-2731 MAIN UNIT (DRA-365RD)

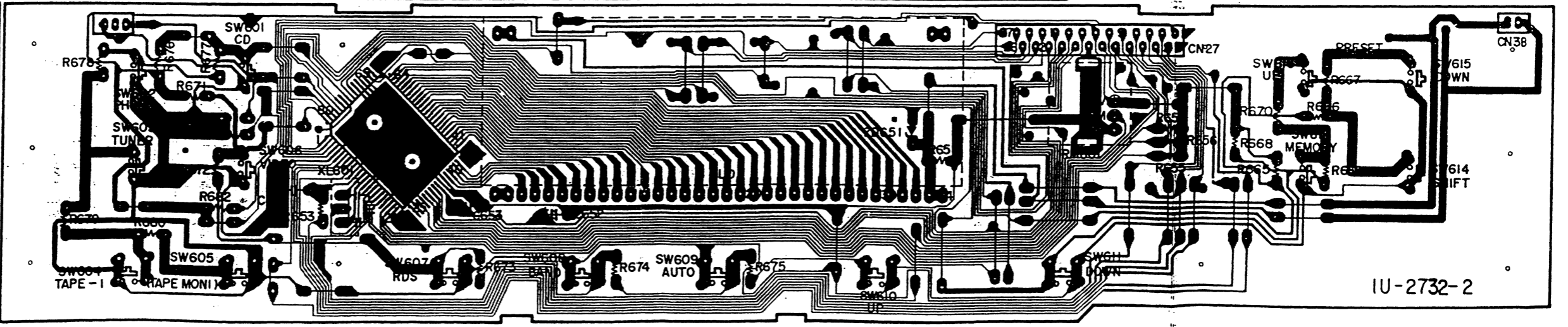
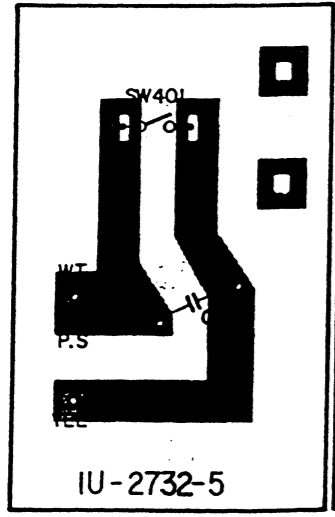
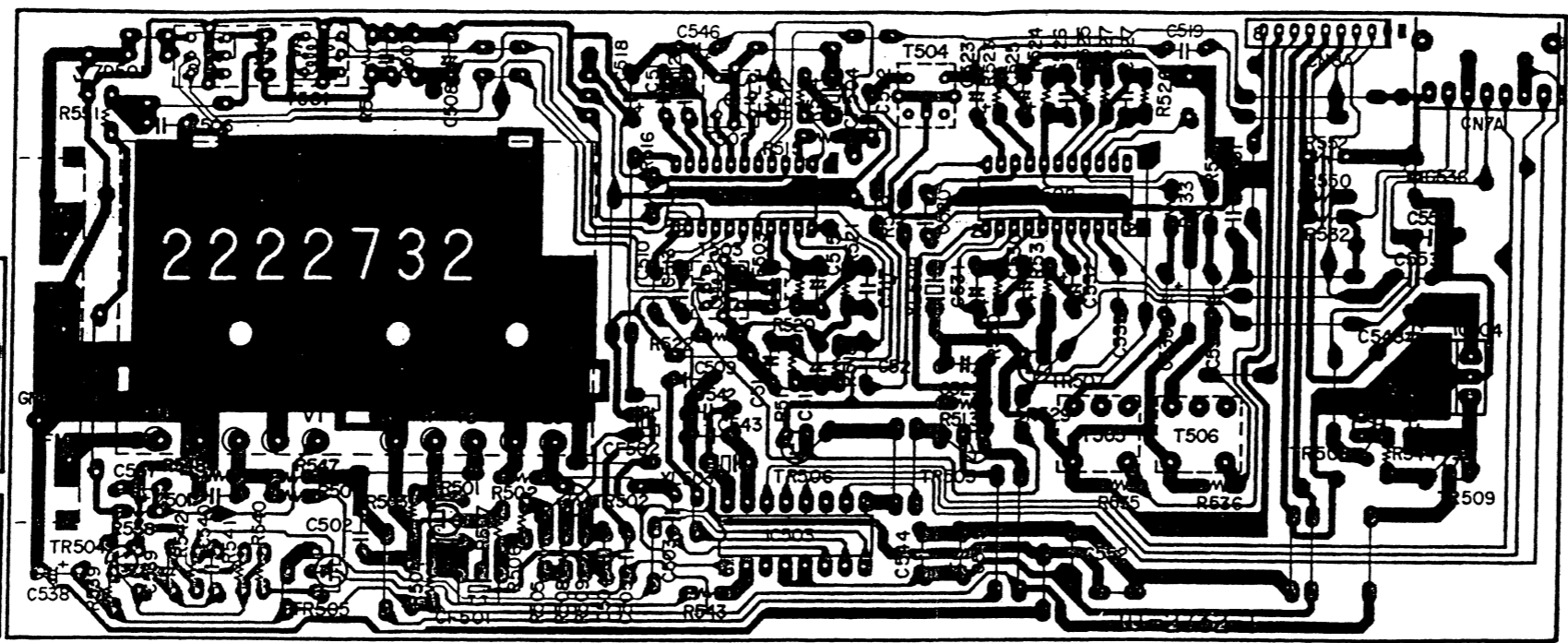
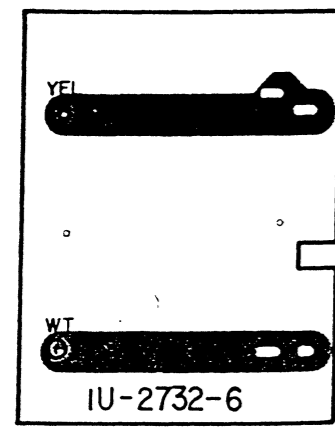
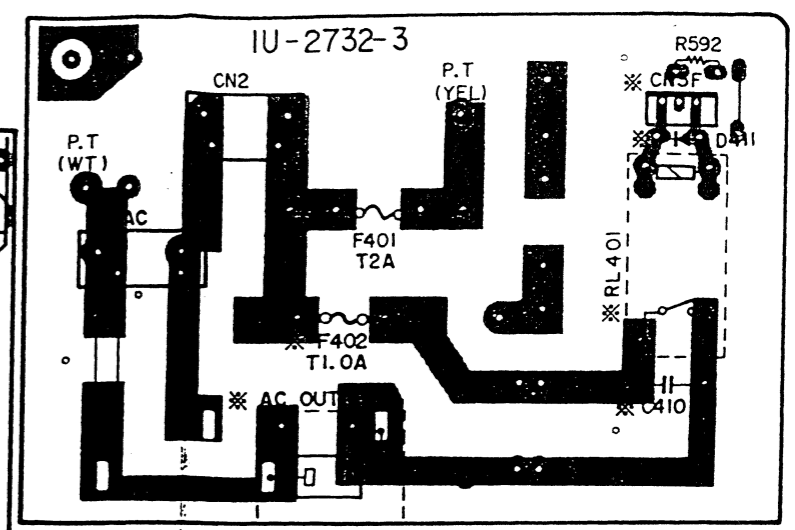
A
B
C
D
E



1U-2732B TUNER & DISPLAY (DRA-565RD)

CN3F
F402
D411
RL401
C410
AC OUTLET

※
Europe Model Only
(Except For U.K.)



A
B
C
D
E

1 2 3 4 5 6 7 8

1U-2732 TUNER & DISPLAY UNIT (DRA-365RD)

* F402 } Europe Model Only
AC OUTLET } (Except For U.K.)

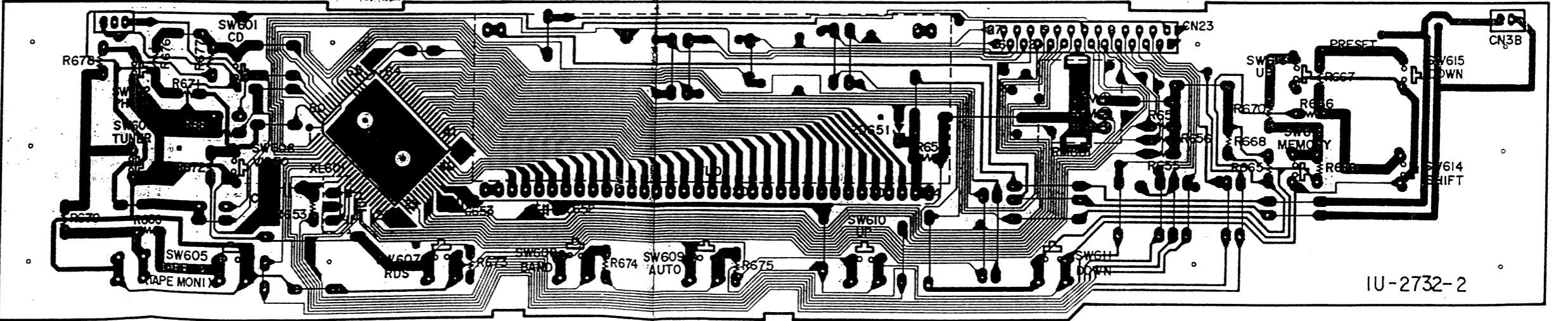
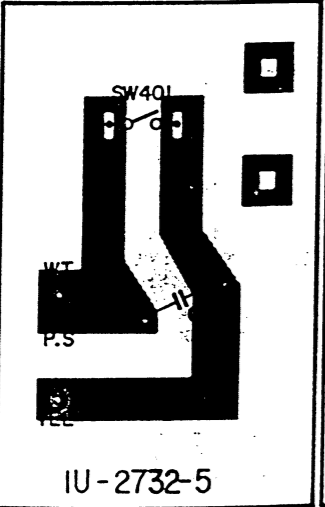
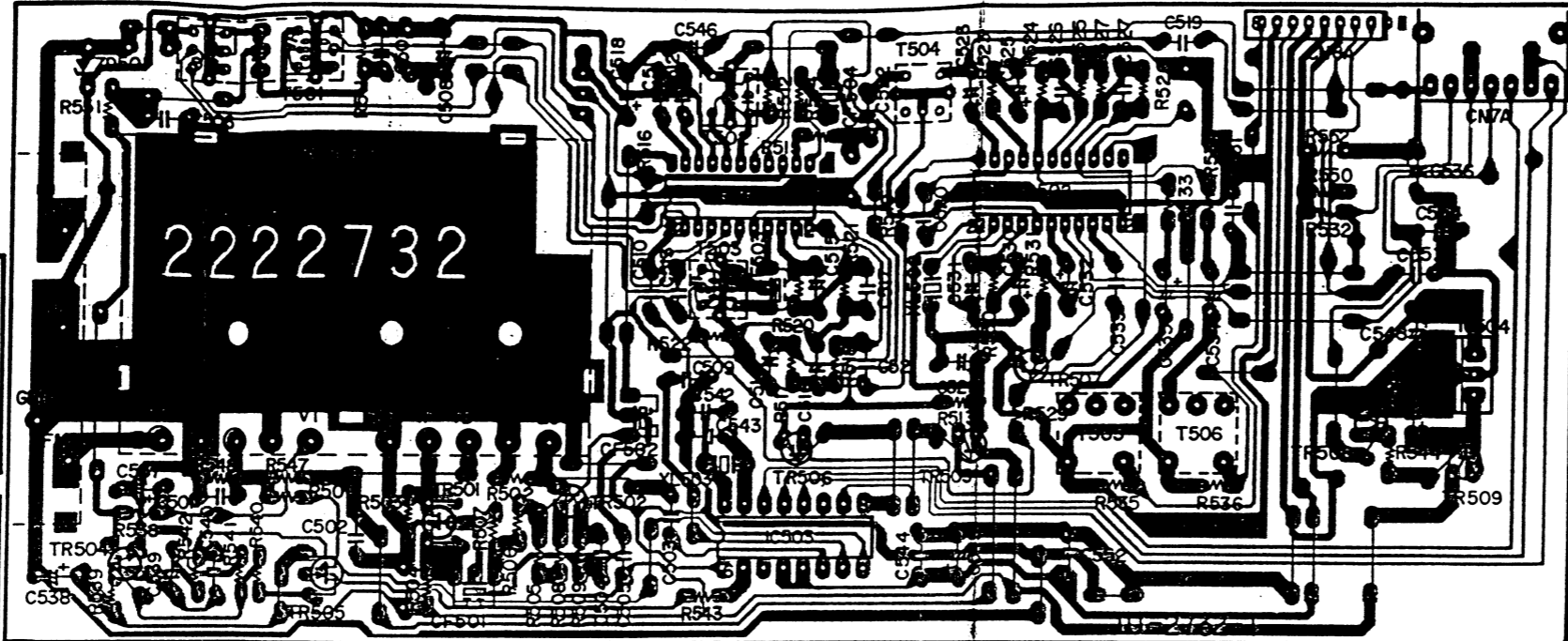
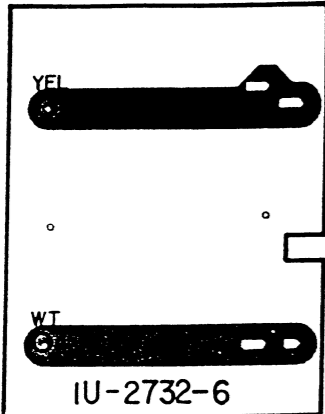
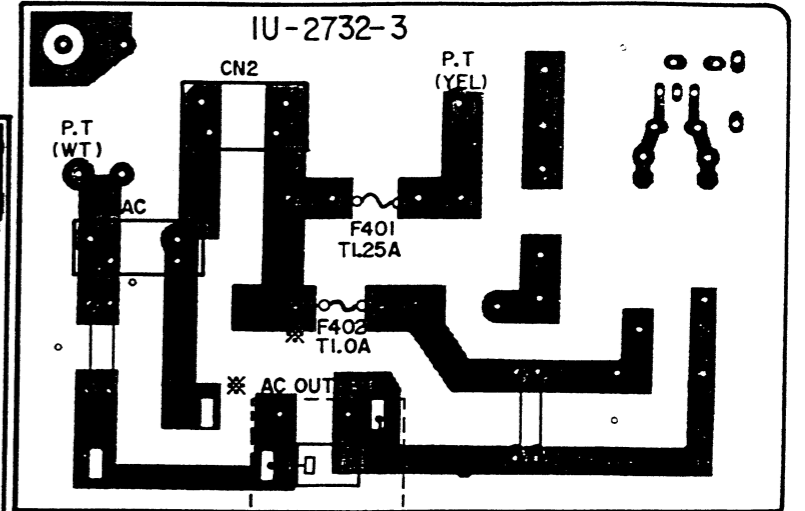
A

B

C

D

E



WIRING DIAGRAM

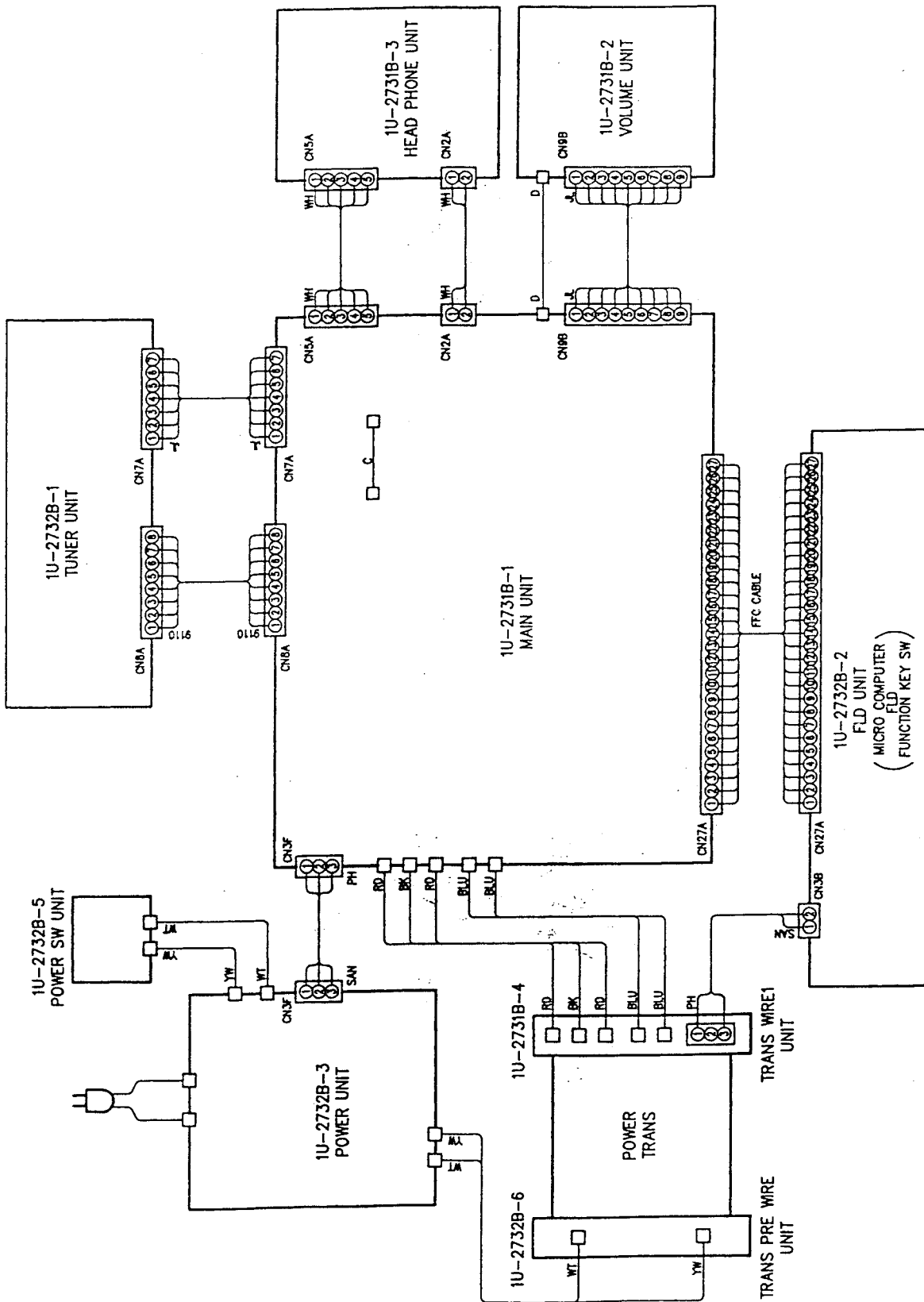
1

2

3

4

DRA-565RD



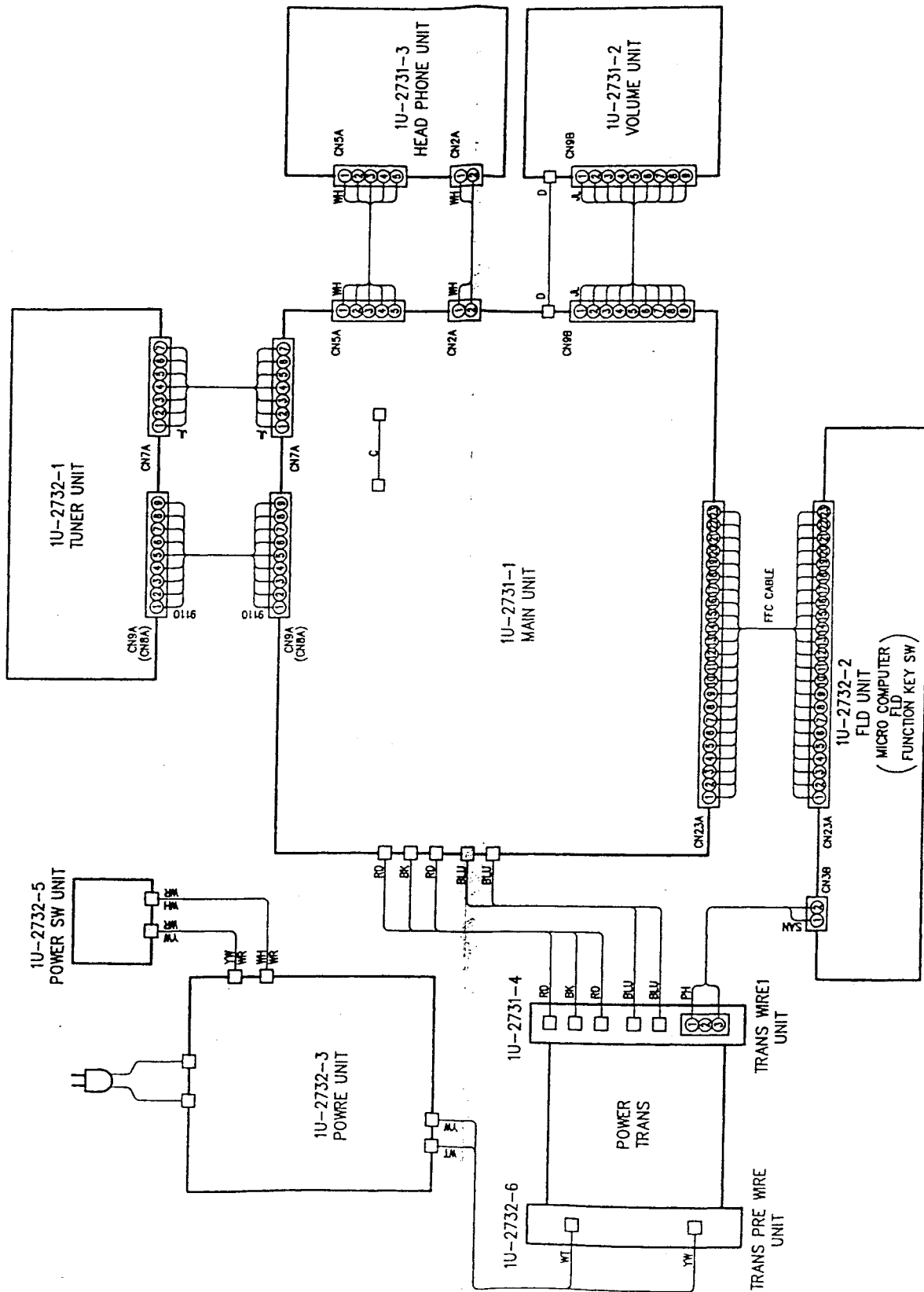
5

6

7

8

DRA-365RD



A

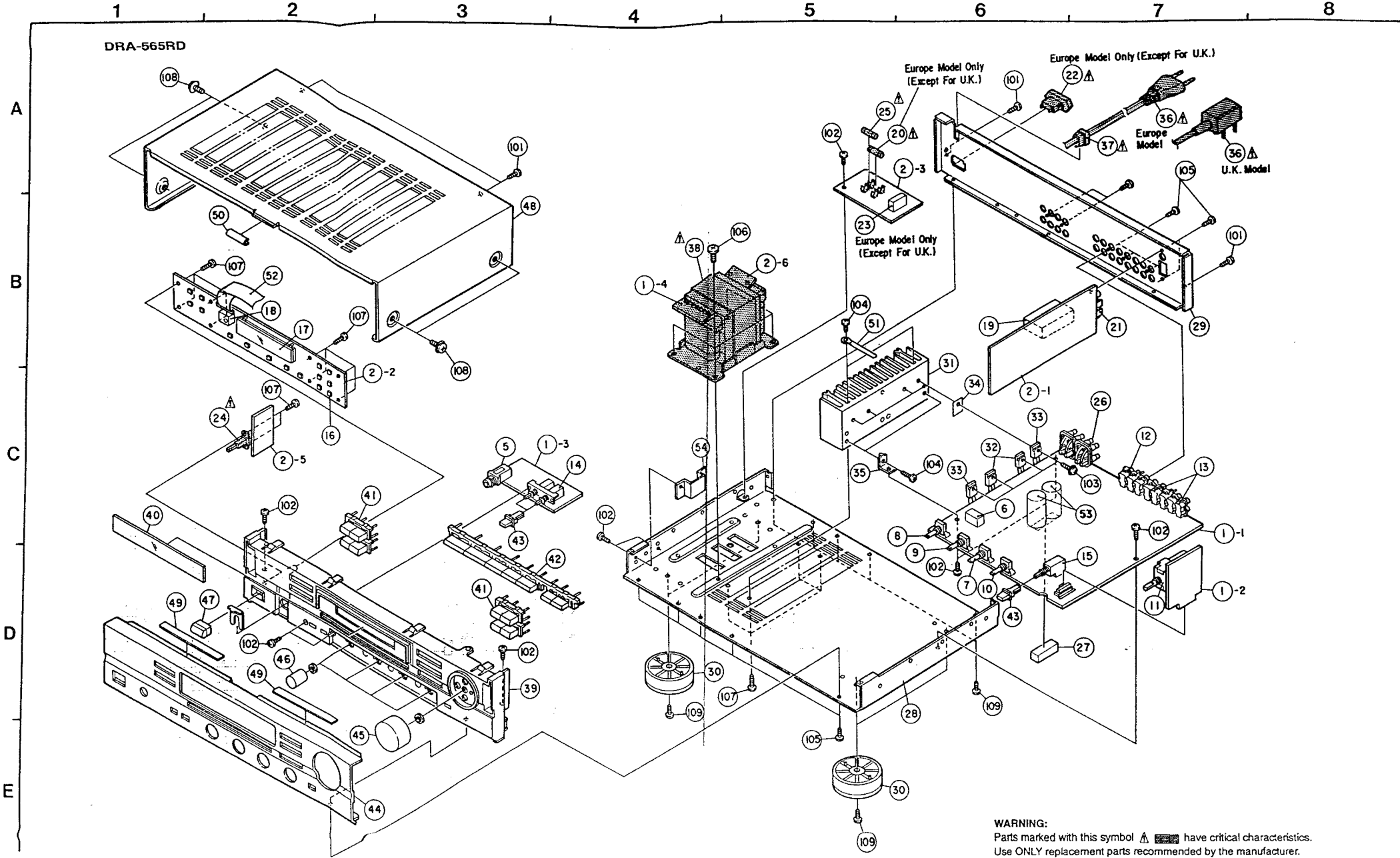
B

C

D

E

EXPLODED VIEW OF CHASSIS AND CABINET



WARNING:
 Parts marked with this symbol  have critical characteristics.
 Use **ONLY** replacement parts recommended by the manufacturer.

PARTS LIST EXPLODED VIEW (DRA-565RD)

| Ref. No. | Part No. | Part Name | Remarks | Q'ty | Ref. No. | Part No. | Part Name | Remarks | Q'ty |
|----------|--------------|-------------------------|--|------|---|-----------------------|------------------------|---------|------|
| 1 | 1U-2731 B | MAIN UNIT ASSY | | 1 | 48 | 102 0520 129 | TOP COVER | | 1 |
| 1-1 | --- | MAIN UNIT | | | 49 | 461 0769 009 | RUBBER SHEET | | 2 |
| 1-2 | --- | VOLUME UNIT | | | 50 | 122 0146 015 | HIMERON SHEET | | 1 |
| 1-3 | --- | HEAD PHONE UNIT | | | 51 | 445 0048 003 | CORD HOLDER (L=76) | | 2 |
| 1-4 | --- | TRANS WIRE 1 UNIT | | | 52 | 009 0112 005 | Z7P FFC CORD | | 1 |
| 2 | 1U-2732 B | TUNER/DISPLAY UNIT ASSY | | 1 | 53 | 254 4374 708 | ELECTROLYTIC 8200µF56V | | 1 |
| 2-1 | --- | TUNER UNIT | | | 54 | 412 2955 107 | SIDE BRACKET | | 1 |
| 2-2 | --- | DISPLAY UNIT | | | SCREWS | | | | |
| 2-3 | --- | POWER UNIT | | | 101 | 473 7015 018 | TAPING SCREW 3x8 (S) | Black | 4 |
| 2-5 | --- | POWER SW UNIT | | | 102 | 473 7002 018 | TAPING SCREW 3x8 (S) | | 10 |
| 2-6 | --- | TRANS PRE WIRE UNIT | | | 103 | 473 8007 009 | CUP SCREW 3x12 | | 4 |
| 5 | 204 8354 004 | HEAD PHONE JACK | | 1 | 104 | 473 7501 001 | TAPING SCREW 3x10 (P) | | 3 |
| 6 | 214 9003 005 | RELAY | RL471 | 1 | 105 | 477 0064 107 | FDING SCREW 3x10 | Black | 12 |
| 7 | 211 0827 003 | VARIABLE | VR251 | 2 | 106 | 473 7004 016 | TAPING SCREW 4x6 (S) | | 4 |
| 8 | 211 0828 002 | VARIABLE | VR301 | 1 | 107 | 473 7508 017 | TAPING SCREW 3x10 (P) | Black | 14 |
| 9 | 211 0829 001 | VARIABLE | VR303 | 1 | 108 | 477 0263 005 | 3P SWELLING SCREW | | 4 |
| 10 | 211 0830 003 | VARIABLE | VR201 | 1 | 109 | 473 7002 005 | TAPING SCREW 3x8 (S) | | 9 |
| 11 | 211 0831 002 | VARIABLE | VR102 | 1 | PACKING AND ACCESSORIES (not included EXPLODED view) | | | | |
| 12 | 204 8466 002 | 4 PIN JACK | | 1 | 505 9125 009 | POLY COVER | | 1 | |
| 13 | 204 8467 001 | 6P PIN JACK | | 2 | 511 2637 007 | OPERATING INSTRUCTION | | 1 | |
| 14 | 212 4778 009 | 2P PUSH SWITCH | | 1 | 231 1314 003 | AM LOOP ANTENNA | | 1 | |
| 15 | 212 1074 007 | 1P PUSH SWITCH | SW601-615 | 1 | 395 0023 008 | FM ANTENNA ASSY | | 1 | |
| 16 | 212 5604 910 | TACT SWITCH | | 15 | 399 0242 001 | REMOTE CONTROL UNIT | RC-174 | 1 | |
| 17 | 303 4155 002 | FLD | PIP14AM7R | 1 | 505 0131 050 | CABINET COVER | | 1 | |
| 18 | 499 0150 008 | REMOTE SENSOR | SBX1610-52 | 1 | 504 0125 005 | STYRENE PAPER | For AC CORD | 1 | |
| 19 | 218 0065 006 | FRONT END | | 1 | 503 1140 002 | CUSHION | | 2 | |
| 20 | 206 1015 029 | FUSE 1A | F402 | 1 | 502 0741 056 | PAD | U.K. Model Only | 1 | |
| 21 | 205 0847 004 | 3P ANTENNA TERMINAL | Europe Model Only (Except for U.K.) | 1 | 501 1783 010 | CARTON CASE | Europe Model | 1 | |
| 22 | 213 3942 007 | AC OUTLET | Europe Model Only (Except for U.K.) | 1 | 501 1783 023 | CARTON CASE | U.K. Model | 1 | |
| 23 | 214 0176 009 | RELAY(GSP-1) | RL401 | 1 | | | | | |
| 24 | 212 1030 009 | POWER SWITCH(IV-5) | Europe Model (Except for U.K.) | 1 | | | | | |
| 25 | 206 1015 081 | FUSE 2A | F401 | 1 | | | | | |
| 26 | 205 0484 001 | 8P SPEAKER TERMINAL | Europe Model | 1 | | | | | |
| 27 | 461 0539 022 | RUBBER SHEET | U.K. Model | 1 | | | | | |
| 28 | 411 1285 006 | MAIN CHASSIS | | 1 | | | | | |
| 29 | 105 1136 029 | REAR PANEL | Europe Model | 1 | | | | | |
| 30 | 104 0194 108 | FOOT ASSY | U.K. Model | 1 | | | | | |
| 31 | 417 0498 205 | POWER RADIATOR | | 1 | | | | | |
| 32 | 273 0389 002 | TRANSISTOR | TR321,322 | 2 | | | | | |
| 33 | 271 0240 006 | TRANSISTOR | TR323,324 | 2 | | | | | |
| 34 | 415 0234 007 | INSULATING SHEET | | 4 | | | | | |
| 35 | 412 3767 006 | P.W.B. BRACKET | | 2 | | | | | |
| 36 | 208 2091 000 | AC CORD WITH CONNECTOR | Europe Model | 1 | | | | | |
| 37 | 445 0056 009 | CORD BUSH | U.K. Model | 1 | | | | | |
| 38 | 229 6116 006 | POWER TRANS | | 1 | | | | | |
| 39 | 146 1495 127 | INNER PANEL | | 1 | | | | | |
| 40 | 143 0880 006 | WINDOW | | 1 | | | | | |
| 41 | 113 1679 008 | BUTTON(4KEY) | | 2 | | | | | |
| 42 | 113 1680 107 | BUTTON(7KEY) | | 1 | | | | | |
| 43 | 113 1558 006 | PUSH BUTTON(KAKU) | | 3 | | | | | |
| 44 | 144 2370 119 | FRONT PANEL | | 1 | | | | | |
| 45 | 112 0647 009 | VOLUME KNOB | | 1 | | | | | |
| 46 | 112 0739 001 | KNOB(MARU) | | 4 | | | | | |
| 47 | 113 9213 000 | POWER BUTTON ASSY | | 1 | | | | | |

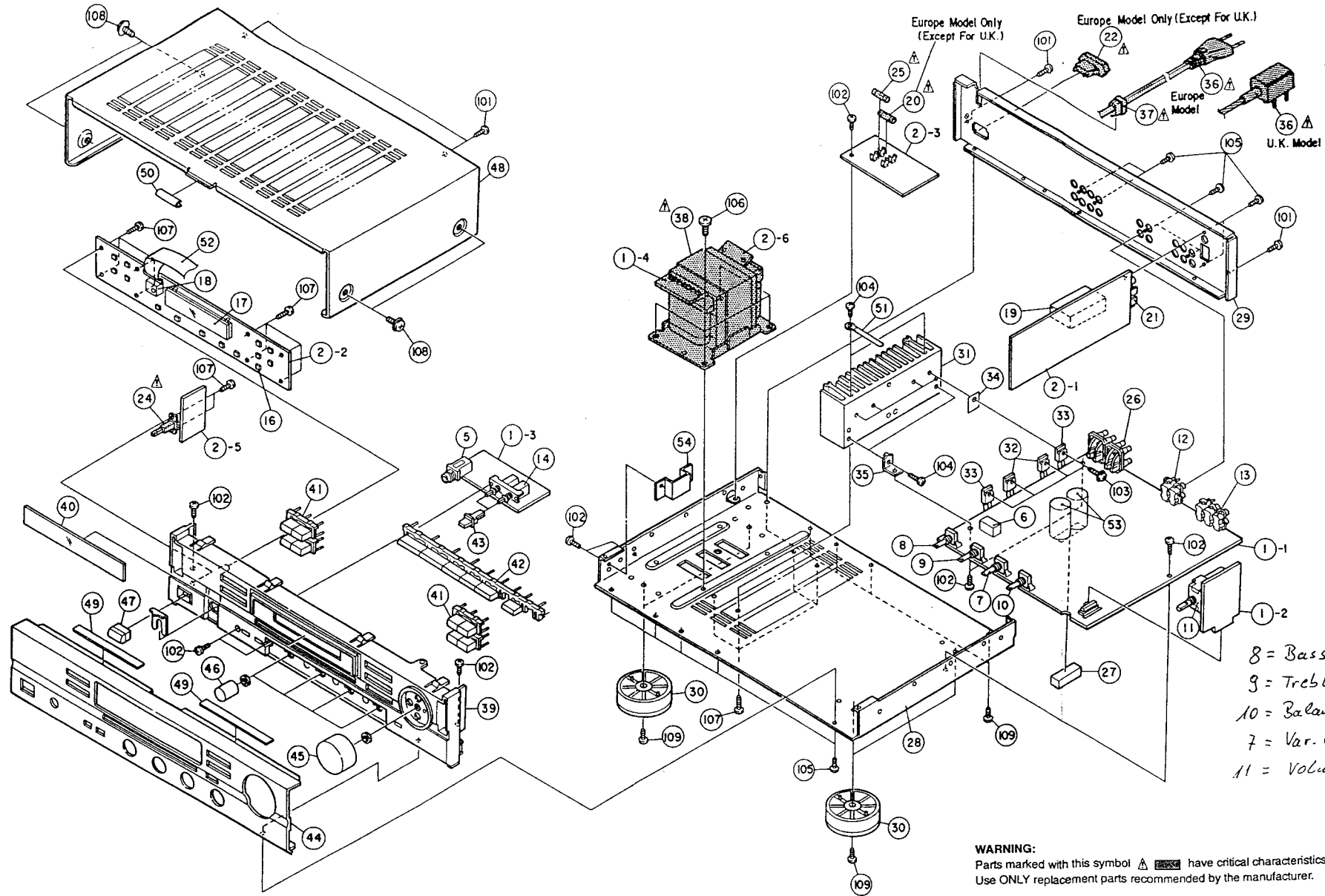
PARTS LIST EXPLODED VIEW (DRA-365RD)

| Ref. No. | Part No. | Part Name | Remarks | Q'ty | Ref. No. | Part No. | Part Name | Remarks | Q'ty |
|----------|--------------|----------------------------|--|------|---|-----------------------|-------------------------|---------|------|
| 1 | 1U-2731 | MAIN UNIT ASSY | | 1 | 50 | 122 0146 015 | HIMERON SHEET | | 1 |
| 1-1 | --- | MAIN UNIT | | | 51 | 445 0048 003 | CORD HOLDER (L=76) | | 1 |
| 1-2 | --- | VOLUME UNIT | | | 52 | 009 0112 005 | 27P PFC CORD | | 1 |
| 1-3 | --- | HEAD PHONE UNIT | | | 53 | 254 4355 002 | ELECTROLYTIC 6800µF/50V | | 2 |
| 1-4 | --- | TRANS WIRE 1 UNIT | | | 54 | 412 2855 107 | SIDE BRACKET | | 1 |
| 2 | 1U-2732 | TUNER/DISPLAY UNIT ASSY | | 1 | SCREWS | | | | |
| 2-1 | --- | TUNER UNIT | | | 101 | 473 7015 018 | TAPING SCREW 3x8 (S) | Black | 4 |
| 2-2 | --- | DISPLAY UNIT | | | 102 | 473 7002 018 | TAPING SCREW 3x8 (S) | | 10 |
| 2-3 | --- | POWER UNIT | | | 103 | 473 8007 009 | CUP SCREW 3x12 | | 4 |
| 2-5 | --- | POWER SW UNIT | | | 104 | 473 7501 001 | TAPING SCREW 3x10 (P) | | 2 |
| 2-6 | --- | TRANS PRE WIRE UNIT | | | 105 | 477 0064 107 | FIXING SCREW 3x10 | Black | 10 |
| 5 | 204 8354 004 | HEAD PHONE JACK | | 1 | 106 | 473 7004 016 | TAPING SCREW 4x8 (S) | | 4 |
| 6 | 214 9003 005 | RELAY | FL471 | 1 | 107 | 473 7508 017 | TAPING SCREW 3x10 (P) | Black | 14 |
| 7 | 211 0627 003 | VARIABLE <i>Var. Loud.</i> | VR251 | 2 | 108 | 477 0263 005 | 3P SWELLING SCREW | | 4 |
| 8 | 211 0628 002 | VARIABLE <i>Bass</i> | VR301 | 1 | 109 | 473 7002 005 | TAPING SCREW 3x8 (S) | | 9 |
| 9 | 211 0629 001 | VARIABLE <i>Treble</i> | VR303 | 1 | PACKING AND ACCESSORIES (not included EXPLODED view) | | | | |
| 10 | 211 0830 003 | VARIABLE <i>Bal.Loud</i> | VR201 | 1 | 505 9125 009 | POLY COVER | | | 1 |
| 11 | 211 0831 002 | VARIABLE <i>Volume</i> | VR102 | 1 | 511 2637 007 | OPERATING INSTRUCTION | | | 1 |
| 12 | 204 8466 002 | 4P PIN JACK | | 1 | 231 1914 003 | AM LOOP ANTENNA | | | 1 |
| 13 | 204 8467 001 | 6P PIN JACK | | 2 | 395 0023 008 | FM ANTENNA ASSY | | | 1 |
| 14 | 212 4778 009 | 2P PUSH SWITCH | | 1 | 399 0242 001 | REMOTE CONTROL UNIT | RC-174 | | 1 |
| 15 | --- | --- | | 1 | 505 0131 050 | CABINET COVER | | | 1 |
| 16 | 212 5604 910 | TACT SWITCH | | 14 | 504 0125 005 | STYRENE PAPER | For AC CORD | | 1 |
| 17 | 393 4155 002 | FLD | FB14AM7R | 1 | 503 0939 007 | CUSHION | | | 2 |
| 18 | 499 0150 008 | REMOTE SENSOR | SBX1610-52 | 1 | 502 0741 056 | PAD | U.K. Model Only | | 1 |
| 19 | 216 0065 006 | FRONT END | | 1 | 501 1782 011 | CARTON CASE | Europe Model | | 1 |
| 20 | 206 3015 022 | PHASE 1A | Europe Model Only (Except for U.K.) | 1 | 501 1782 024 | CARTON CASE | U.K. Model | | 1 |
| 21 | 205 0647 004 | 3P ANTENNA TERMINAL | | 1 | | | | | |
| 22 | 223 3942 007 | AC OUTLET | Europe Model Only (Except for U.K.) | 1 | | | | | |
| 23 | --- | --- | | 1 | | | | | |
| 24 | 212 3030 009 | POWER SWITCH (TV-5) | | 1 | | | | | |
| 25 | 206 3015 016 | ELISE 1 2SA | ES01 | 1 | | | | | |
| 26 | 205 0484 001 | 8P SPEAKER TERMINAL | Europe Model | 1 | | | | | |
| | 205 0472 013 | 8P SPEAKER TERMINAL | U.K. Model | 1 | | | | | |
| 27 | 461 0539 022 | RUBBER SHEET | | 1 | | | | | |
| 28 | 411 1285 006 | MAIN CHASSIS | | 1 | | | | | |
| 29 | 105 1135 020 | REAR PANEL | Europe Model | 1 | | | | | |
| | 105 1136 033 | REAR PANEL | U.K. Model | 1 | | | | | |
| 30 | 104 0194 108 | FOOT ASSY | | 4 | | | | | |
| 31 | 417 0498 218 | POWER RADIATOR | | 2 | | | | | |
| 32 | 273 0396 005 | TRANSISTOR | TR321,322 | 2 | | | | | |
| 33 | 271 0237 006 | TRANSISTOR | TR323,324 | 2 | | | | | |
| | | 2SA1490(OP/YX/Z) | | 2 | | | | | |
| | | 2SA1490(OP/YX/Z) | | 2 | | | | | |
| 34 | 415 0234 007 | INSULATING SHEET | | 4 | | | | | |
| 35 | 412 3767 006 | P.W.B. BRACKET | | 2 | | | | | |
| 36 | 206 2061 000 | AC CORD WITH CONNECTOR | Europe Model | 1 | | | | | |
| 37 | 206 2109 002 | AC CORD WITH CONNECTOR | U.K. Model | 1 | | | | | |
| 38 | 445 0056 006 | CORD BUSH | | 1 | | | | | |
| 39 | 233 6115 007 | POWER TRANS | | 1 | | | | | |
| 40 | 146 1493 129 | INNER PANEL | | 1 | | | | | |
| 41 | 143 0880 006 | WINDOW | | 1 | | | | | |
| 42 | 113 1679 008 | BUTTON(4KEY) | | 2 | | | | | |
| 43 | --- | --- | | 3 | | | | | |
| 44 | 144 2369 010 | FRONT PANEL | | 1 | | | | | |
| 45 | 112 0647 009 | VOLUME KNOB | | 1 | | | | | |
| 46 | 112 0739 001 | KNOB(MARU) | | 4 | | | | | |
| 47 | 113 9213 000 | POWER BUTTON ASSY | | 1 | | | | | |
| 48 | 102 0426 223 | TOP COVER | | 1 | | | | | |
| 49 | 461 0769 009 | RUBBER SHEET | | 2 | | | | | |

EXPLODED VIEW OF CHASSIS AND CABINET

1 2 3 4 5 6 7 8

DRA-365RD



Europe Model Only (Except For U.K.)

Europe Model Only (Except For U.K.)

Europe Model

U.K. Model

8 = Bass
 9 = Treble
 10 = Balance
 7 = Var. Loud.
 11 = Volume

WARNING:
 Parts marked with this symbol have critical characteristics.
 Use ONLY replacement parts recommended by the manufacturer.

A
 B
 C
 D
 E

SCHEMATIC DIAGRAM (for DRA-565RD)

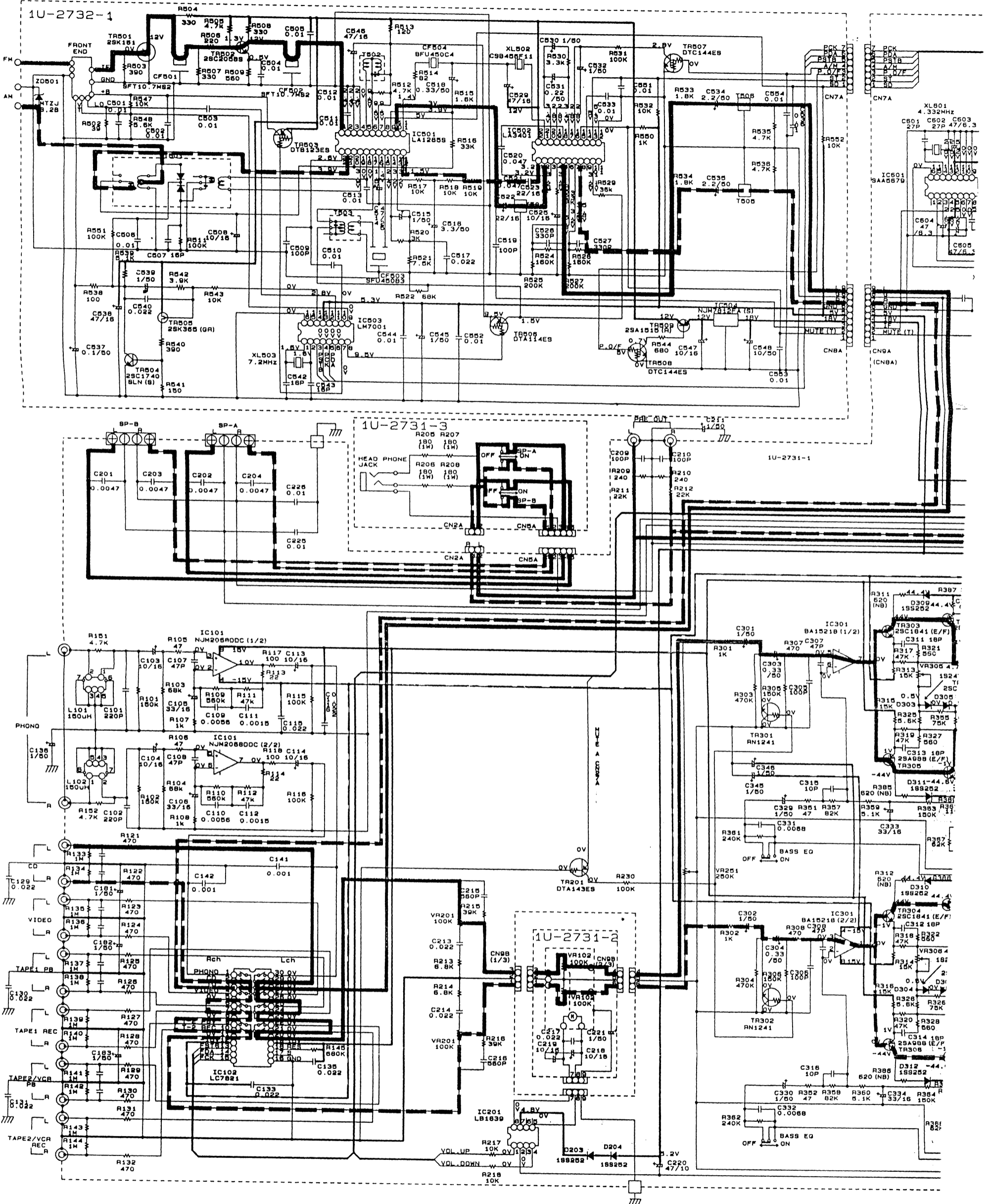
10


9

8

7

6

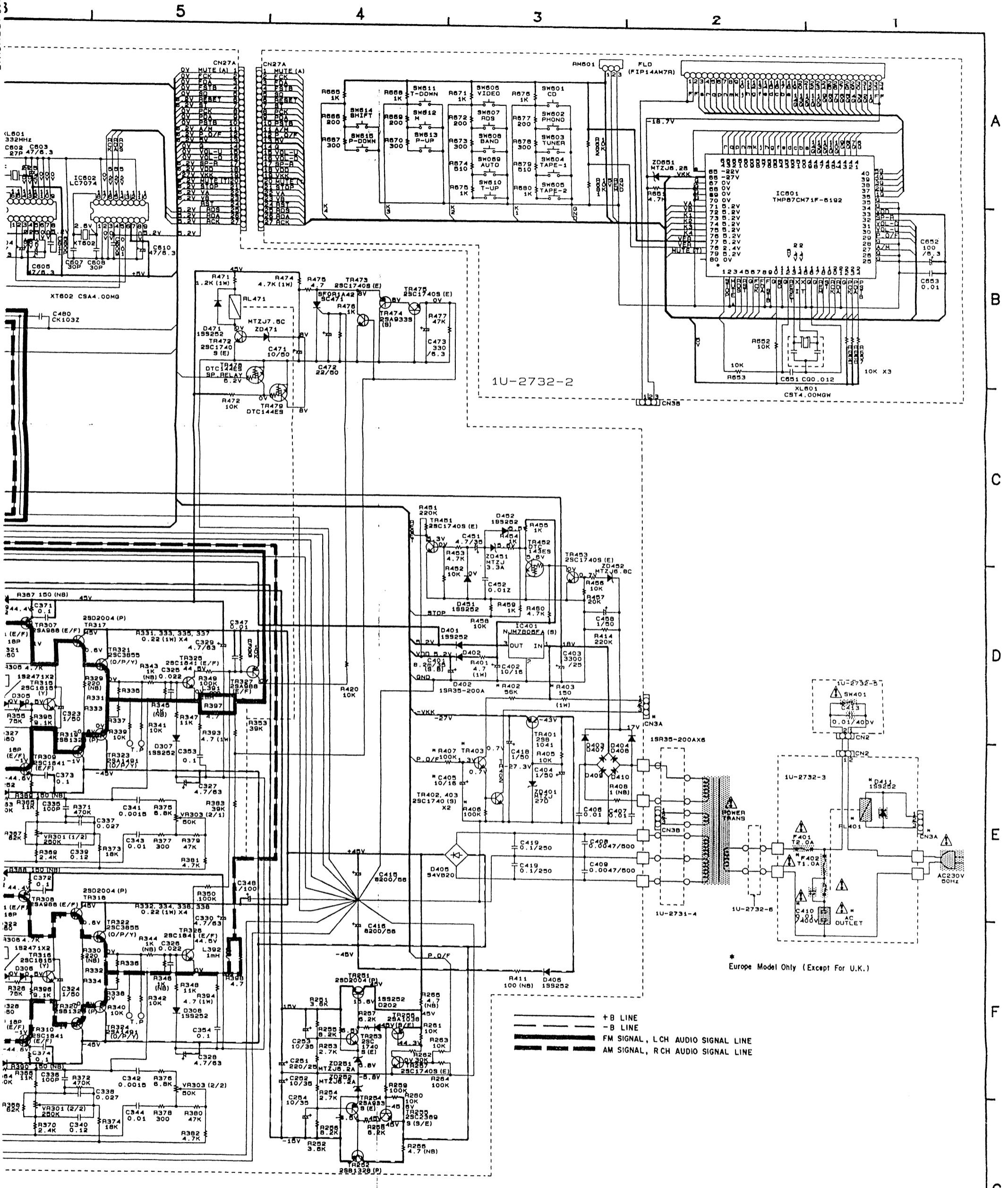


WARNING:
Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (leakage current exceeds 0.5 milliamps, or if the resistance from chassis

WARNING:
DO NOT return the unit to the customer until the problem is located

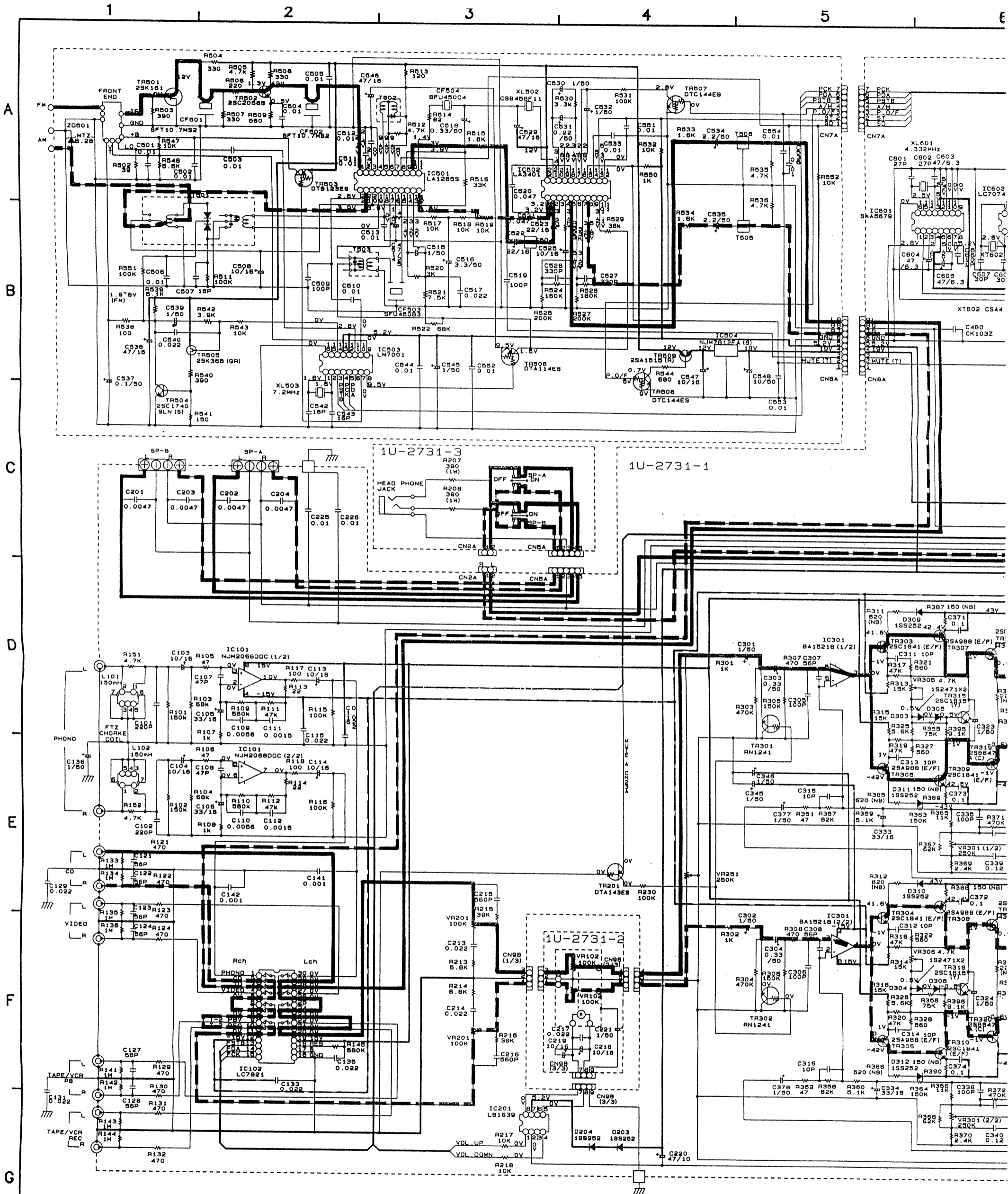
NOTES:
Circuit and parts are subject to change without prior notice.



or (1) a leakage current check or (2) a line to chassis resistance check. If the chassis resistance to either side of the power cord is less than 240 kohms, the unit is defective and corrected.

NOTES
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SCHEMATIC DIAGRAM (for DRA-365RD)



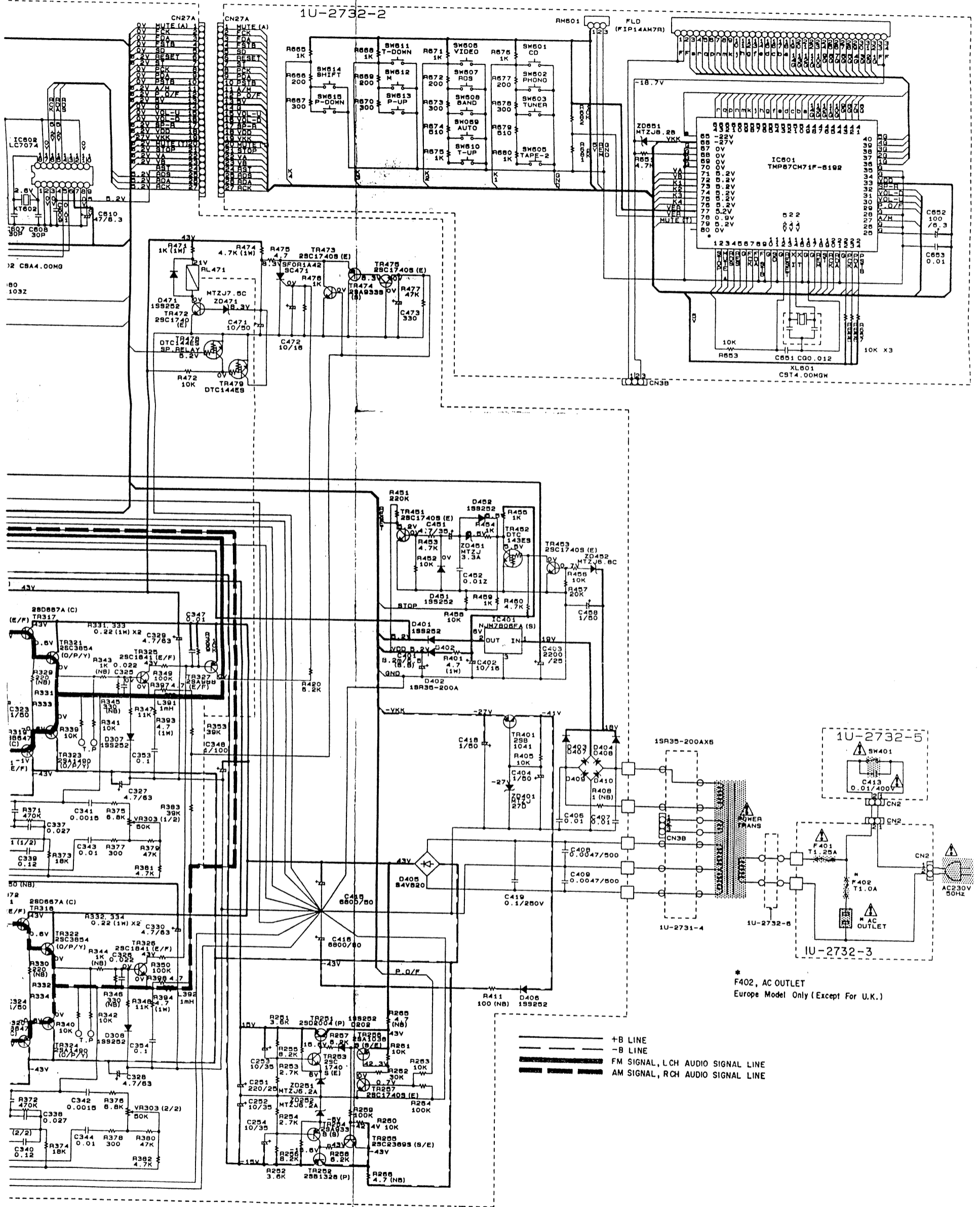
NOTES
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
 Parts marked with this symbol have critical ch
 Use ONLY replacement parts recommended by the mar

CAUTION:
 Before returning the unit to the customer, make sure you
 leakage current exceeds 0.5 milliamps, or if the resistan

WARNING:
 DO NOT return the unit to the customer until the problem

NOTES:
 Circuit and parts are subject to change without pr



tical characteristics.
re manufacturer.

re you make either (1) a leakage current check or (2) a line to chassis resistance check. If the
istance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

roblem is located and corrected.

out prior notice.