

DENON

Hi-Fi AM-FM Stereo Receiver

For U.S.A. & CANADA Models

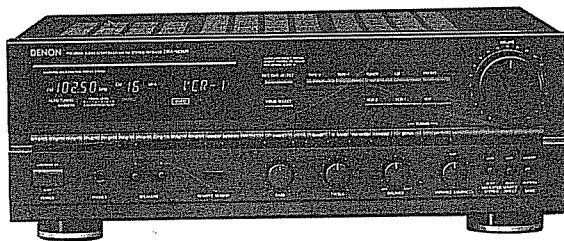
SERVICE MANUAL

MODEL DRA-1035R

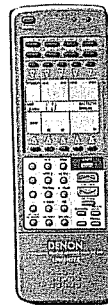
MODEL DRA-835R

MODEL DRA-635R

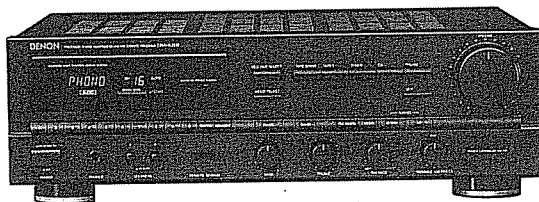
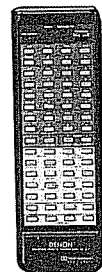
AM-FM STEREO RECEIVER



DRA-1035R



DRA-835R



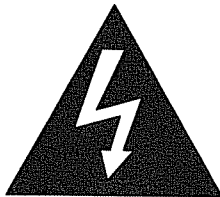
DRA-635R



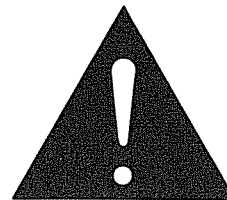
NIPPON COLUMBIA CO., LTD.

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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.

CAUTION

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

ATTENTION

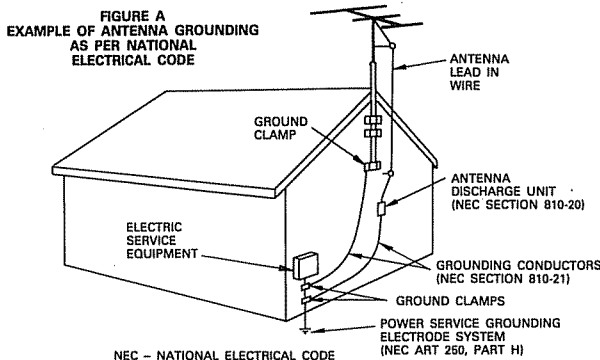
POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

SAFETY INSTRUCTIONS

1. Read Instructions – All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Water and Moisture – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer.

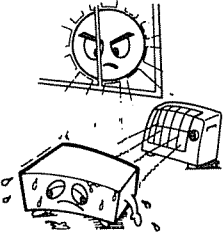
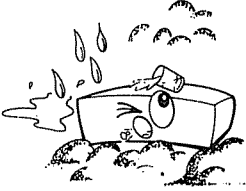
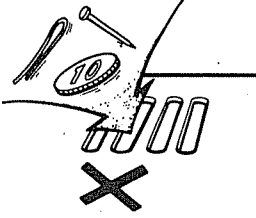
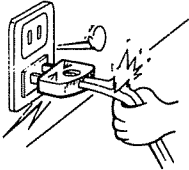
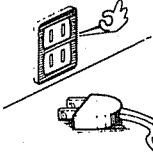
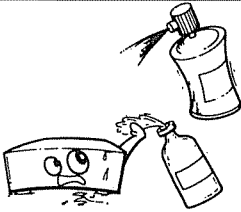
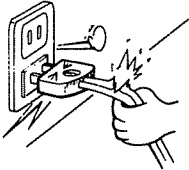
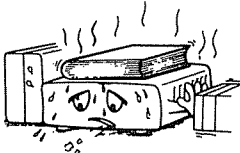
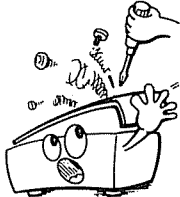


- 6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
7. Wall or Ceiling Mounting – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization – The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.



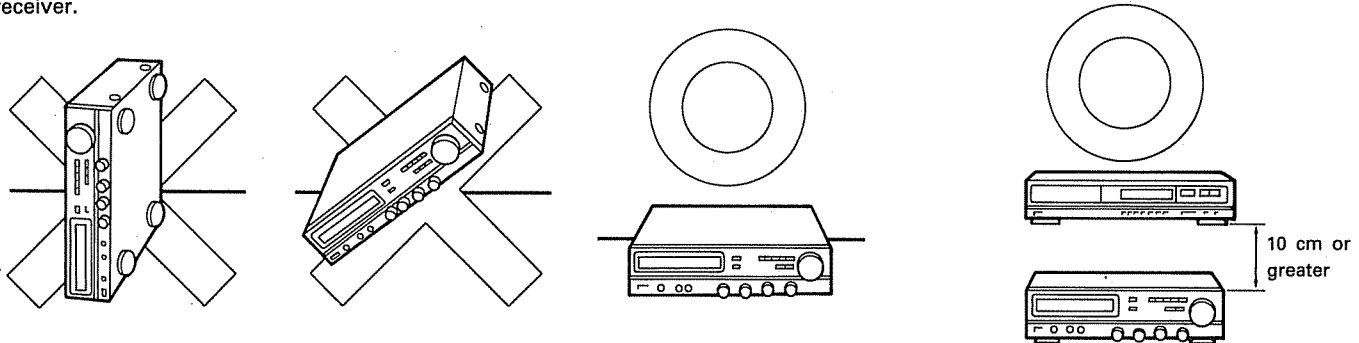
12. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Protective Attachment Plug – The appliance is equipped with an attachment plug having overload protection. This is a safety feature. See Instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.
14. Cleaning – The appliance should be cleaned only as recommended by the manufacturer.
15. Power Lines – An outdoor antenna should be located away from power lines.
16. Outdoor Antenna Grounding – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70–1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.
17. Nonuse Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
18. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
19. Damage Requiring Service – The appliance should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
20. Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

NOTE ON USE/OBSERVATIONS RELATIVES A L'UTILISATION

 <ul style="list-style-type: none"> • Avoid high temperatures Allow for sufficient heat dispersion when installed on a rack. • Eviter des températures élevées Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère. 	 <ul style="list-style-type: none"> • Keep the set free from moisture, water, and dust. • Protéger l'appareil contre l'humidité, l'eau et la poussière. 	 <ul style="list-style-type: none"> • Do not let foreign objects in the set. • Ne pas laisser des objets étrangers dans l'appareil.
 <ul style="list-style-type: none"> • Handle the power cord carefully. Hold the plug when unplugging the cord. • Manipuler le cordon d'alimentation avec précaution. Tenir la prise lors du débranchement du cordon. 	 <ul style="list-style-type: none"> • Unplug the power cord when not using the set for long periods of time. • Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes. 	 <ul style="list-style-type: none"> • Do not let insecticides, benzene, and thinner come in contact with the set. • Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.
 <ul style="list-style-type: none"> • Handle the power cord carefully. Hold the plug when unplugging the cord. • Manipuler le cordon d'alimentation avec précaution. Tenir la prise lors du débranchement du cordon. 	 <p>*(For sets with ventilation holes)</p> <ul style="list-style-type: none"> • Do not obstruct the ventilation holes. • Ne pas obstruer les trous d'aération. 	 <ul style="list-style-type: none"> • Never disassemble or modify the set in any way. • Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.

INSTALLATION PRECAUTIONS

Install the DRA-1035R/835R/635R horizontally. Leave at least 10 cm of space between this unit and other components on top of the receiver.



DRA-1035R

Please check to make sure the following items are included with the receiver in the carton:

- (1) Operating Instructions 1
- (2) AM Loop Antenna 1
- (3) FM Antenna 1
- (4) FM Antenna Adapter 1
- (5) Remote Control Unit RC-770 1
- (6) R03/AAA Dry Cell Battery 4

DRA-835R

Please check to make sure the following items are included with the receiver in the carton:

- (1) Operating Instructions 1
- (2) AM Loop Antenna 1
- (3) FM Antenna 1
- (4) FM Antenna Adapter 1
- (5) Remote Control Unit RC-137 1
- (6) R6P/AA Dry Cell Battery 2

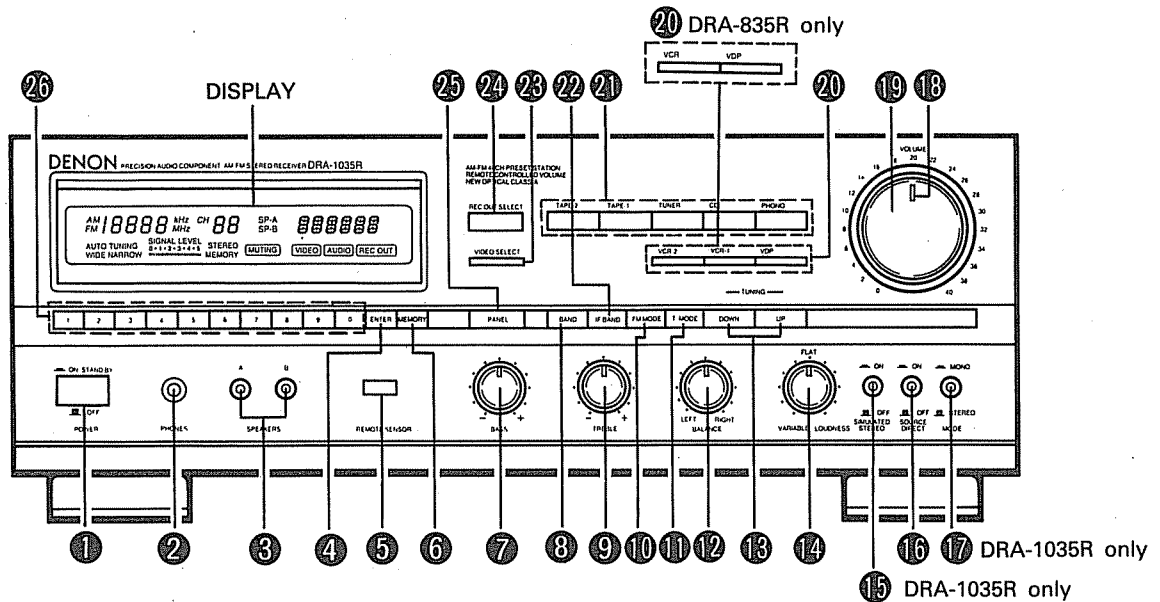
DRA-635R

Please check to make sure the following items are included with the receiver in the carton:

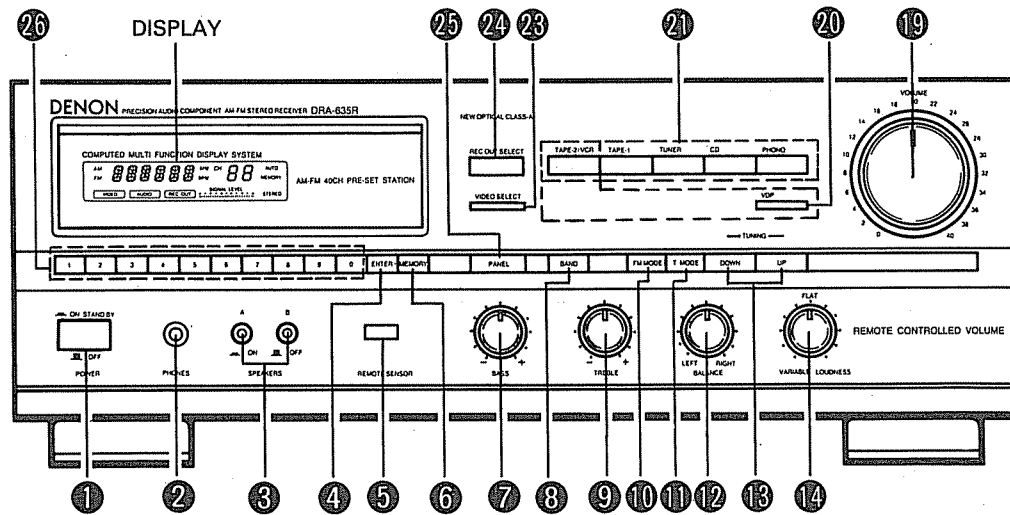
- (1) Operating Instructions 1
- (2) AM Loop Antenna 1
- (3) FM Antenna 1
- (4) FM Antenna Adapter 1
- (5) Remote Control Unit RC-136 1
- (6) R6P/AA Dry Cell Battery 2

NAMES AND FUNCTIONS OF PARTS

FRONT PANEL (DRA-1035R/835R)



FRONT PANEL (DRA-635R)



- 1 POWER (Power Switch)**
 When the power switch is turned ON (—), the power is turned on and the Display lights. It takes a few seconds before sound is output, due to the built-in muting circuit which prevents audio output until the receiver has stabilized.
DRA-1035R/835R
 When the power switch is turned ON (—), the Volume LED 19 also lights.
- 2 PHONES (Headphone Jack)**
 Connect a pair of headphones (sold separately) to this jack for private listening.
- 3 SPEAKERS (Speaker Selector Switches)**
 These switches are used to engage speaker systems A and B.
- 4 ENTER (Enter Button)**
 Used to enter information in the memory and to preset radio stations. Also used to call up stations already memorized.
- 5 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.
- 6 MEMORY (Memory Button)**
 This button is used to store the desired radio station on a PRESET CHANNEL button. When pressing this button, the MEMORY indicator lights for approximately 10 seconds. During this interval, the desired station can be stored in the memory.
 Pressing **MEMORY**, **1**, **2**, **ENTER** in this order stores the desired station in memory on preset no. 12.

7 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 1000 Hz) is flat. Turn the control clockwise to increase the bass response and counter-clockwise to decrease it.

8 BAND (Band Selector Button)

Press this button to select the FM or AM band.

9 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 1000 Hz) is flat. Turn the control clockwise to increase the treble response and counter-clockwise to decrease it.

10 FM MODE (FM Mode Button)

Each time this button is pressed, the FM mode will change between stereo and monaural reception.

When presetting FM stations into the memory, the FM mode is stored simultaneously.

STEREO: FM stereo and mono signals can be received. When this position has been set, interstation noise on the FM band is suppressed.

MONO: All FM programs are received in monaural. AM is not affected. If there is too much noise when a program is received in the STEREO mode, set this switch to MONO.

Note that the STEREO indicator will not light up even when a stereo broadcast is received.

11 T. MODE (Tuning Mode Button)

This button allows selection between Automatic and Manual Tuning.

AUTO TUNING: Pressing the UP button, the tuner will begin tuning to a higher frequency and pressing the DOWN button, it will begin tuning to a lower frequency until a broadcasting station is found.

MANUAL TUNING: Stations are tuned in manually by use of the UP and DOWN buttons.

12 BALANCE (Balance Control)

Use this control to balance the volume levels between the left and right channels. The volume levels in both channels are equal when the control is set to the center position.

13 UP/DOWN (Tuning Buttons)


Press these buttons to tune in a station. In the Manual Tuning mode (AUTO TUNING indicator not lit), each press of the buttons will change the frequency in 100 kHz steps on FM and 10 kHz steps on AM. Keeping one of these buttons pressed, the frequency will change until the button is released.

During the AUTO TUNING mode, pressing one of these buttons will start station search up or down the band.


14 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.


15 SIMULATED STEREO (Simulated Stereo Switch) (DRA-1035R only)



Press this switch to ON () to enjoy simulated stereo playback.


This feature will offer simulated stereo reproduction of any monaural program source (such as AM broadcasts or monophonic video programs).

- Reset the switch to OFF () when listening to normal stereo programs.



16 SOURCE DIRECT (Source direct switch) (DRA-1035R/835R only)

Setting this switch to ON () will cause the input signal to by-pass the BASS 7, TREBLE 9, BALANCE 12, VARIABLE LOUDNESS 14, SIMULATED STEREO 15 and MODE 17 circuits (regardless of the settings of these controls) and be input directly to the VOLUME 19 control circuit to prevent loss of sound quality.

When the switch is ON (), the component connected to the PRE-OUT/MAIN IN jacks on the back panel will not operate. Turn this switch OFF () when you want to operate the component connected to the PRE-OUT/MAIN IN jacks.

Note that signals from the PRE-OUT jacks are output regardless of the ON/OFF position of the SOURCE DIRECT switch. Also, the signals from the PRE OUT jacks can be controlled with the BASS 7, TREBLE 9 and BALANCE 12 controls, even when the SOURCE DIRECT switch is set to the ON position ().

17 MODE (Mode Switch) (DRA-1035R only)

- STEREO () : Use this position for stereo reproduction.
- MONO () : Use this position to listen to monaural programs. When checking the speaker phase, it is convenient to use this position.

18 Volume LED (DRA-1035R/835R only)**19 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.

20 Video Input Selector Buttons

These buttons select the source signal for video and related audio and perform the switching of these signals.

- VDP: Press this button to play back on a Video Disc Player connected to the VDP jacks.

DRA-1035R

- VCR-1: Press this button to play back on a video deck connected to the VCR-1 jacks.
- VCR-2: Press this button to play back on a video deck connected to the VCR-2 jacks.

DRA-835R

- VCR: Press this button to play back on a video deck connected to the VCR jacks.

DRA-635R

- TAPE-2/VCR: Press this button to play back the video deck connected to the VCR jacks or alternatively to play back tapes on a tape deck connected to the TAPE-2/VCR jacks.

21 Audio Input Selector Buttons

These buttons perform the switching of the audio source signals.

- PHONO: Press this button to play a record on a turntable connected to the PHONO jacks.
- CD: Press this button to play back Compact Discs on a CD player connected to the CD jacks.
- TUNER: Press this button to listen to FM or AM programs.
- TAPE-1: Press this button to play back tapes on a tape deck connected to the TAPE-1 jacks.

DRA-1035R/835R

- TAPE-2: Press this button to play back tapes on a tape deck connected to the TAPE-2 jacks.

DRA-635R

- TAPE-2/VCR: Press this button to play back tapes on a tape deck connected to the TAPE-2/VCR jacks or to listen to the audio portion of a video program.

NOTE: The Video Input Selector button 20 and Audio Input Selector buttons 21 function in conjunction. The audio input signal is selected when any of these buttons is pressed, and the selected signal is output from the speakers.

22 IF BAND (IF Bandwidth Selector Button) (DRA-1035R/835R only)

Selects the bandwidth of the intermediate frequency amplifier for FM broadcasts only. Two positions are available, "WIDE" and "NARROW". When presetting FM stations into the memory, the IF bandwidth mode is stored simultaneously.

23 VIDEO SELECT (Video Selector Button)

Independent switching button for the video signal. This button selects a Video Output signal to be fed to the VCR recording output jack (VCR-1 and VCR-2 on DRA-1035R), and a Video Output signal to the Monitor Out jack. Pressing this button will set the VIDEO SELECT standby mode for about 5 seconds. At this time, pressing one of the Video Input Selector buttons 20 (DRA-1035R: VDP, VCR-1, VCR-2; DRA-835R: VDP, VCR; DRA-635R: VDP, TAPE-2/VCR) will switch the receiver to that video signal. The VIDEO select indicator on the display lights. After this, the video output signal to the recording output jack and to the monitor out jack will not be switched even if one of the video input selector buttons 20 is pressed. The operation following this will be as follows:

Indicator	VIDEO signal – (The Video Output signal to the VCR Recording Output jacks and to the Monitor Out jack)
Unlit	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> The signal selected with the Input Selector buttons 20 and 21 is output. </div> Nothing is output if a source with no video input (CD, tuner, etc.) is selected. Use the above operation to change only the video signal.
Lit	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> The signal selected with the VIDEO SELECT Button 23 is output. </div> Use the above operation to change the VIDEO signal. Use one of the following two methods to cancel the VIDEO selection:

- Do not press any of the Video Input Selector buttons 20 within 5 seconds after pressing the VIDEO SELECT button 23.
- Press the VIDEO SELECT button 23 again within 5 seconds.

CAUTION

The video selection is cancelled if the REC OUT SELECT button 24 or PANEL button 25 is pressed within 5 seconds after pressing the VIDEO SELECT button 23.

Note that the selection condition for the video signal is displayed on the display. (For details see pages 8, 9) When the video selection is cancelled; the video output signal selected with the Video Input Selector button 20 is fed to the Video Recording Output jack and to the Monitor Out jack.

24 REC OUT SELECT (Independent Switching Button for Audio Recording Outputs)

This button allows selection of the Audio Recording mode, which is independent of the selection of the Input Selector buttons (20 and 21).

This button selects the Audio Output signal fed to the TAPE-1 and TAPE-2 Recording Output jacks, as well as the VCR jacks (VCR-1 and VCR-2 for DRA-1035R).

Pressing this button will set the REC OUT SELECT standby mode for approximately 5 seconds.

At this time, pressing an Input Selector button (20 and 21) for the desired Recording Output permits selection of the recording signal.

The REC OUT Select indicator on the display lights. After this, the audio recording signal will not be switched even if one of the Input Selector buttons (20 and 21) is pressed.

Indicator	REC OUT signal (AUDIO Recording signal to TAPE-1, TAPE-2 and VCR)
Unlit	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> The signal selected with the Input Selector buttons 20 and 21 is output. </div> Use the above operation to change only the REC OUT signal.
Lit	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> The signal selected with the REC OUT SELECT button 24 is output. </div> Use the above operation to change the REC OUT signal. Use one of the following two methods to cancel the REC OUT selection: <ul style="list-style-type: none"> • Do not press any of the Input Select buttons (20 and 21) within 5 seconds after pressing the REC OUT SELECT button 24. • Press the REC OUT SELECT button 24 again within 5 seconds.

CAUTION

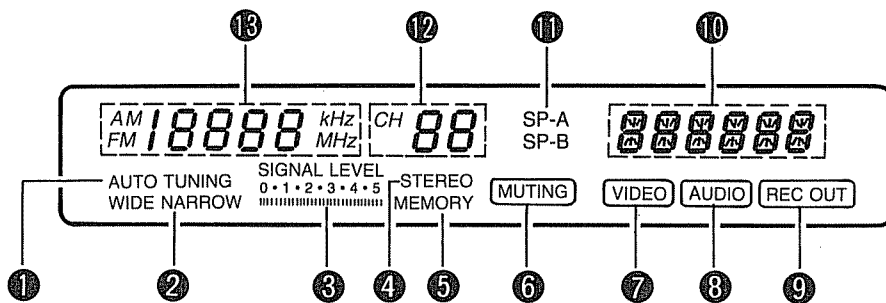
The REC OUT SELECT selection is canceled if the VIDEO SELECT button 23 or PANEL button 25 is pressed within 5 seconds after pressing the REC OUT SELECT button 24.

Note that the selection condition for the audio signal is displayed on the display (For details see pages 8, 9). When the REC OUT SELECT mode is cancelled, the audio output signal selected with the Input Selector buttons (20 and 21) is fed to the Recording Output jacks.

NOTE:

When recording AM broadcasts, if the MUTING button on the remote control unit is pressed, if the SPEAKERS A/B switch 3 is turned on/off on the DRA-1035R/835R, if the SOURCE DIRECT switch 16 is turned on/off or when recording an AM broadcast by selecting TUNER with the REC OUT SELECT button 24 if one of the Input Selector buttons (20 and 21) is pressed, the recording of the AM broadcast is interrupted.

DISPLAY (DRA-1035R/835R)



- 1 **AUTO TUNING (Auto Tuning Indicator)**
This indicator lights when the Automatic Tuning mode is selected with the T. MODE button 11.
- 2 **WIDE/NARROW (IF Band Indicators)**
These indicators show the IF band that has been selected with the IF Band button 22.
- 3 **SIGNAL (Signal Strength Indicators)**
These indicators show the signal strength level of the AM or FM station being received.
- 4 **STEREO (Stereo Indicator)**
The STEREO indicator lights up when an FM stereo broadcast is received.
Note that when the FM MODE button 10 is set to the MONO mode, the indicator will not light up even when a stereo broadcast is received.
- 5 **MEMORY (Memory Indicator)**
This indicator lights when the MEMORY button 6 is pressed.
- 6 **MUTING (Muting Indicator)**
This indicator lights when the MUTING button on the Remote Control Unit is engaged.
The indicator will blink for a few seconds when the power is turned on until the receiver has stabilized.
- 7 **VIDEO (Video Select Indicator)**
 - This indicator lights when the Video Output Signal to the VCR recording output jack (VCR-1 and VCR-2 on DRA-1035R) and the Monitor Out jack has been fixed by using the VIDEO SELECT button 23.
 - The indicator blinks for 5 seconds after the VIDEO SELECT button 23 is pressed, indicating the VIDEO SELECT mode can be set.
- 8 **AUDIO (Audio Select Indicator)**
This indicator remains lit except when in the Video Select mode and the Rec Out Select mode.

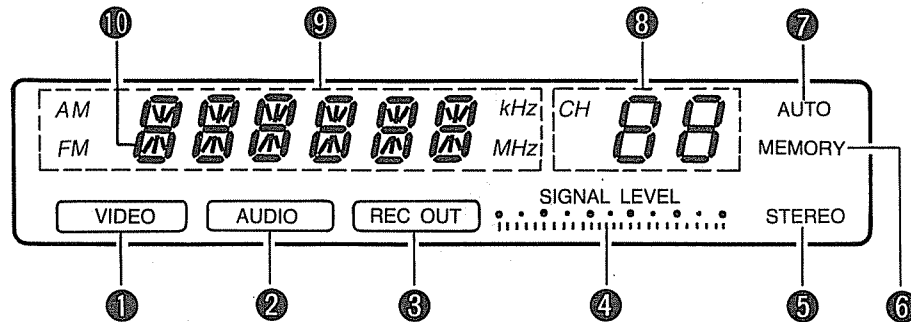
25 **PANEL (Panel Button)**
Pressing this button provides a display of the current operating condition on the display.
Pressing this button will switch the display mode.
For details see 10 Function Display on page 8 or 9 Function Display or page 9.

26 **10-Key Buttons**
Used to specify numbers for the Memory and Preset Station numbers. Channels 1-40 can be specified using these buttons.
Preset Station Setting Method
A station that has already been preset can be called up by entering the station number and then pressing ENTER.
To call up a two-digit station key in the two digits. E.g, to call up station number 12, press 1, 2, ENTER in this order.

- 9 **REC OUT (Rec Out Select Indicator)**
 - This indicator lights when the Audio Output Signal to the TAPE-1 and TAPE-2 Recording Output jacks and the VCR jacks (VCR-1 and VCR-2 on DRA-1035R) has been fixed by using the REC OUT SELECT button 24.
 - The indicator blinks for 5 seconds after the REC OUT SELECT button 24 is pressed, indicating the REC OUT select mode can be set.
- 10 **Function Display**
 - Usually this indicates the audio source output to the speakers.
 - When a video source is selected by pressing the VIDEO SELECT button 23 or when an audio source is selected by pressing the REC OUT SELECT button 24, the name of that source is displayed for 3 seconds, after which the display returns to normal.
 - The display changes each time the PANEL button 25 is pressed, and if the PANEL button 25 is not pressed again within 5 seconds, the audio source being output to the speakers is displayed.
 - When the PANEL button 25 is pressed once, only the REC OUT indicator 9 lights, and the audio source being output to the audio REC OUT jacks (TAPE-1, TAPE-2 and VCR) is displayed.
When the PANEL button is pressed again, only the VIDEO indicator 7 lights, and the video source being output to the VIDEO output jacks (VCR) and MONITOR OUT jacks is displayed.
When the PANEL button 25 is pressed again, the display returns to normal (audio source being output to the speakers).

- 11 **SP-A/SP-B (Speaker Indicators)**
 - These indicators show the speaker system currently selected.
- 12 **Preset Number Indicator**
This displays the preset number onto which a station has been stored.
- 13 **Digital Frequency Indicator**
The received frequency is displayed in digital format. The FM frequency unit is MHz; the AM (MW) frequency unit is kHz.

DISPLAY (DRA-635R)

**1 VIDEO (Video Selector Indicator)**

- This indicator lights when the Video Output Signal to the VCR recording output jack and the Monitor Out jack has been fixed by using the VIDEO SELECT button 23.
- The indicator blinks for 5 seconds after the VIDEO SELECT button 23 is pressed, indicating the VIDEO SELECT mode can be set.

2 AUDIO (Audio Selector Indicator)

This indicator remains lit except when in the Video Select mode and Rec Out Select mode. This indicator blinks when the MUTING button on the Remote Control Unit is pressed.

3 REC OUT (Rec Out Selector Indicator)

- This indicator lights when the Audio Output Signal to the TAPE-1 and TAPE-2/VCR Recording output jacks has been fixed by using the REC OUT SELECT button 24.
- The indicator blinks for 5 seconds after the REC OUT SELECT button 24 is pressed, indicating the REC OUT select mode can be set.

4 SIGNAL (Signal Strength Indicators)

These indicators show the signal strength level of the AM or FM station being received.

5 STEREO (Stereo Indicator)

The STEREO indicator lights up when an FM stereo broadcast is received.

Note that when the FM MODE button 10 is set to the MONO mode, the indicator will not light up even when a stereo broadcast is received.

6 MEMORY (Memory Indicator)

This indicator lights when the MEMORY button 6 is pressed.

7 AUTO TUNING (Auto Tuning Indicator)

This indicator lights when the automatic tuning mode is selected by pressing the TUNING MODE button 11.

8 Preset Number Indicator

This displays the preset number onto which the station has been stored.

9 Function Display

TUNER is displayed for 3 seconds when TUNER is selected with the Input Selector buttons (20 and 21), after which the frequency is displayed. For other functions, the selected source is displayed.

- When a Video source is selected by pressing the VIDEO SELECT button 23 or an audio source is selected by pressing the REC OUT SELECT button 24, the name of that source is displayed for 3 seconds, after which the name of the source selected by the Input Selector buttons 20 and 21 is displayed.
- The display changes each time the PANEL button 25 is pressed, and if the PANEL button 25 is not pressed again within 5 seconds, the audio source being output to the speakers is displayed.
- When the PANEL button 25 is pressed once, only the REC OUT indicator 3 lights, and the audio source being output to the audio REC OUT jacks (TAPE-1, TAPE-2/VCR) is displayed.

When the audio source is set to TUNER, the frequency being received is displayed when the button is pressed again.

When the PANEL button is pressed again, only the VIDEO indicator 1 lights, and the video source being output to the VIDEO output jacks (TAPE-2/VCR) and MONITOR OUT jacks is displayed.

When the PANEL button 25 is pressed again, the display returns to normal (the audio source being output to the speakers).

10 Standby Indicator

When the power is turned off from the remote control unit, part of section 10 lights, indicating the standby mode.

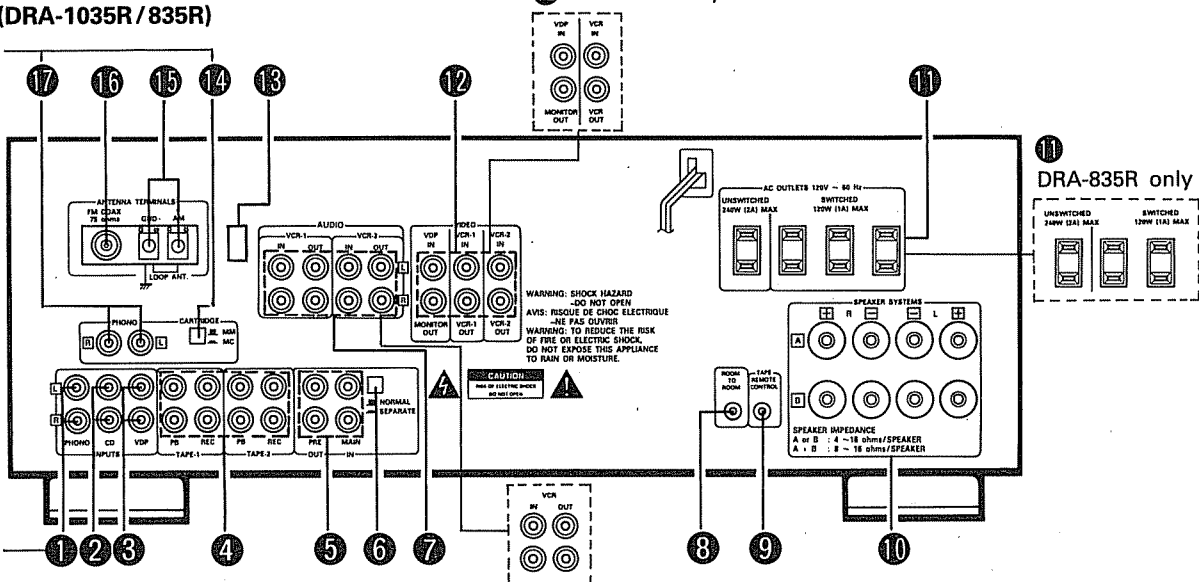
This part lights.



BACK PANEL (DRA-1035R/835R)

DRA-1035R only

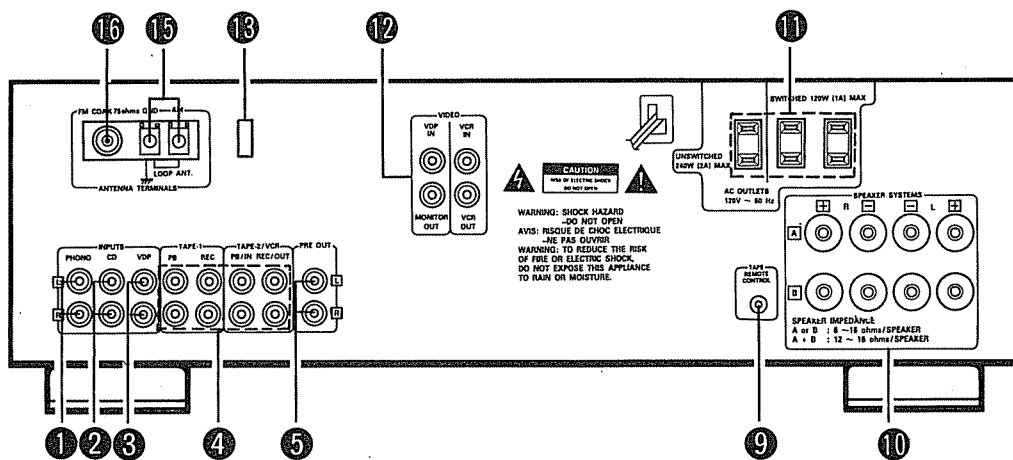
12 DRA-835R only



DRA-835R only

BACK PANEL (DRA-635R)

7 DRA-835R only



1 PHONO (Phono Input Jacks) (DRA-835R/635R only)
Connect the output cord of a record player here. Use connection cables equipped with RCA pin-plugs.

2 CD (CD Input Jacks)
Connect the output cord of a CD player here.

3 VDP (VDP input Jacks)
Connect the audio outputs of video disc player to these terminals.

4 • **TAPE-1, TAPE-2 (Tape Deck Playback/Recording Terminals, DRA-1035R, 835R)**
Two tape decks can be connected to these jacks for playback, recording and tape dubbing operations.
• **TAPE-1, TAPE-2/VCR (Tape Deck or VCR Audio Playback Recording Terminals DRA-635R)**
Two tape decks or one tape deck and the audio outputs of video component can be connected to these jacks.

5 • **PRE-OUT/MAIN IN Jacks (DRA-1035R/835R)**
When using this unit separately as a pre-amplifier or main amplifier, or when you want to connect a graphic equalizer, surround processor or other component between the pre-amplifier and main amplifier stages, make connection to these terminals.

NOTE:

When the SOURCE DIRECT switch **15** is ON (—), the component connected to the PRE-OUT/MAIN IN jacks will not operate. Turn the SOURCE DIRECT switch **15** OFF (—) when you want to operate the component connected to the PRE-OUT jacks are output regardless of the ON/OFF position of the SOURCE DIRECT switch.

• **PRE-OUT jacks (DRA-635R)**
The signal processed in the pre-amplifier section is output from these jacks.

6 **NORMAL-SEPARATE (Pre/Main Separate Switch) (DRA-1035R/835R only)**
When the preamplifier and main amplifier sections are to be separated from each other and used independently, set this switch to the SEPARATE (—) position.

7 **VCR-1/VCR2 (VCR-1/VCR-2 Audio Playback/Recording Terminals for DRA-1035R. VCR only for DRA-835R)**
Connect the audio terminals of a video component in your system to these terminals.

- 8 ROOM TO ROOM (DRA-1035R/835R only)**
Connect the AUX terminal of the DENON ROOM TO ROOM REMOTE CONTROL SYSTEM RC-616 (Infrared Retransmitter) using a mini plug.
When using this system, this unit can be controlled from other rooms.
The ROOM TO ROOM REMOTE CONTROL SYSTEM is sold separately. Consult your dealer for details.
Special cables with 3.5 mm mini plugs are also required to connect the room-to-room system.
NOTE:
- Do not connect headphones or a microphone to this jack.
 - Note that the unit may not operate properly if remote control signals are sent to the Room to Room control system and the unit's remote sensor simultaneously.
- 9 TAPE/REMOTE CONTROL (Tape Deck Remote Control Jack)**
Remote control of a connected DENON cassette deck is enabled by connecting the tape deck remote control lead to this jack. The jack is a mini-jack designed to accept a 3.5 mm plug.
NOTE: Do not connect headphones or a microphone to this jack. Use this jack only to connect a Denon cassette deck with a remote control jack (wired). Remote control of the tape deck using the receiver's Remote Control Unit is not possible unless the deck is equipped with such a jack.
- 10 SPEAKER SYSTEMS (Speaker Terminals)**
Two pairs of speakers, A and B, can be connected to these terminals.
- 11 AC OUTLET (AC Convenience Outlets)**
UNSWITCHED: Power is always supplied to this outlet no matter whether the POWER switch has been turned on or off. The maximum capacity is 240 W.
SWITCHED: Power to these outlets is turned on and off by the POWER switch and POWER button on the Remote control Unit. The total maximum capacity is 120 W.

ANTENNA INSTALLATION

- FM ANTENNA**
The supplied T-type indoor FM antenna (300 ohms) can be used indoors 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.
FM T-type antennas may not offer good reception in concrete buildings and stable reception may not be possible, due to environment changes. In such cases, the FM T-type antenna should only be used temporarily until an outdoor FM antenna has been installed.
When connecting an outdoor FM antenna, the use of 75 ohms coaxial cable (3C-2V, 5C-2V) is strongly recommended. Using a 300-ohms feeder cable will cause noise and you will not be able to achieve the high sound quality the built-in tuner is capable of delivering.

- 12 VIDEO (Video Input/Output Terminals)**
This receiver makes possible connection of a TV monitor, VCRs and/or a video disc player (VDP) using these jacks.
- 13 AM LOOP ANT (AM Loop Antenna)**
The AM loop antenna should be correctly connected to the AM ANT terminals to assure satisfactory reception on the AM band. Adjust the antenna for optimum reception while receiving an AM broadcast. Do not place a pin cord, speaker cords, power cords or other electric cords near the antenna as this may generate noise.
- 14 CARTRIDGE (Cartridge Selector Switch) (DRA-1035R only)**
Use this switch to set the built-in phono equalizer to the type of cartridge (MM or MC) being used on the record player.
MC: Depress the switch to "MC" (—) when a Moving Coil-type cartridge is used.
MM: Release the switch to "MM" (■), when a Moving Magnet-type cartridge is used.
- 15 AM ANT (AM Antenna Terminals)**
Connect the attached AM loop antenna to these terminals. (Refer to page 12~15 for connection details.)
You can also connect an outdoor AM antenna to these terminals.
- GND TERMINAL (Ground Terminal for AM Antenna)**
Connect the grounding wire of the turntable here. Unless the grounding wire is connected, hum or noise may be generated while playing records.
- 16 FM ANT (FM Antenna Terminals)**
Both 75-ohms coaxial cable and 300-ohms feeder cable can be used for connecting FM antennas. For the antenna connecting procedure, see ANTENNA INSTALLATION (page 11~15).
- 17 PHONO (Phono Input Jacks) (DRA-1035R only)**
Connect the output cord of a record player here.
Use connection cables equipped with RCA pin-plugs and set the CARTRIDGE Selector Switch 14 on the rear panel to the correct position when completing the PHONO connections.

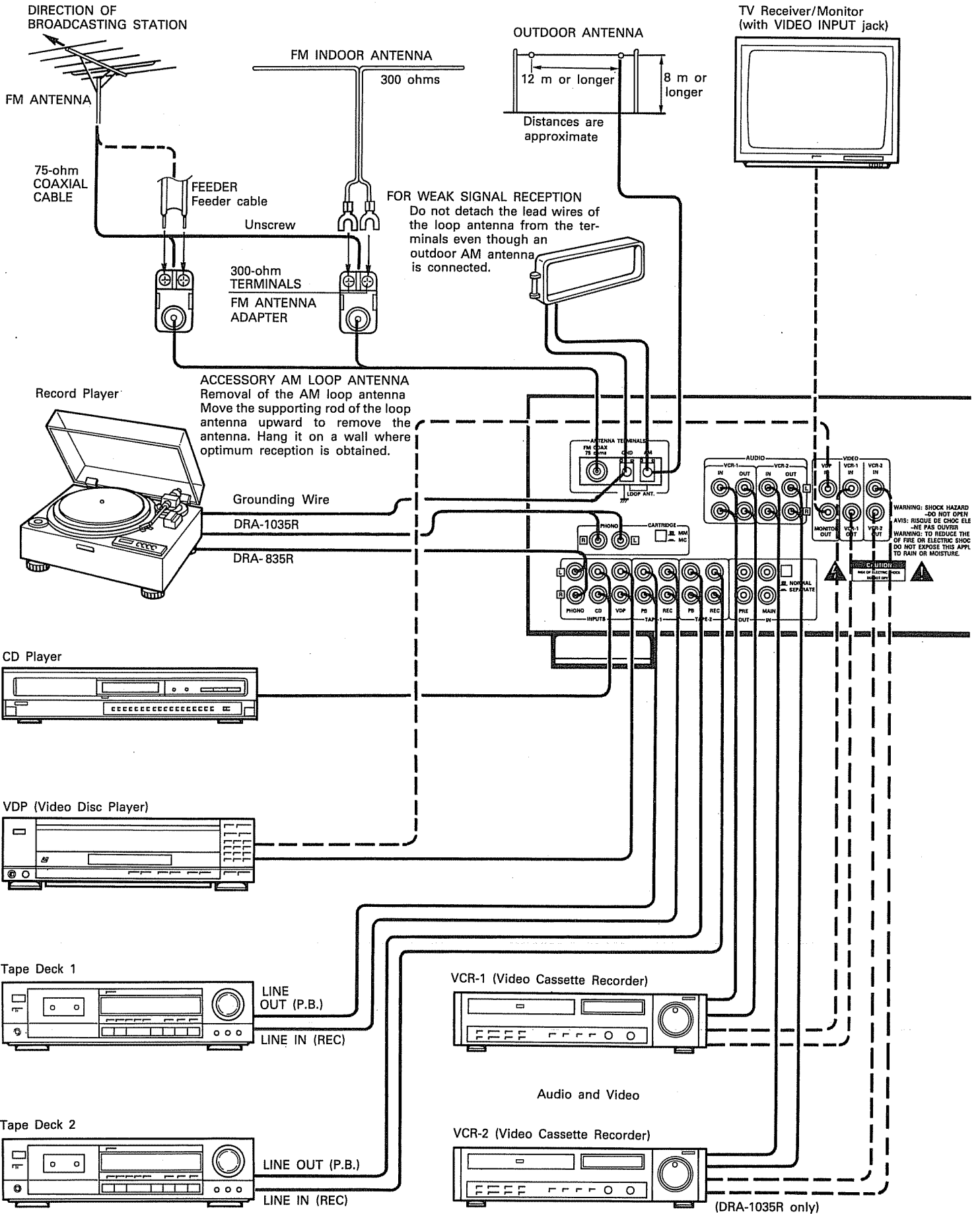
AM ANTENNA

- Attach the supplied AM loop antenna to the antenna holder on the back panel.
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.

NOTES

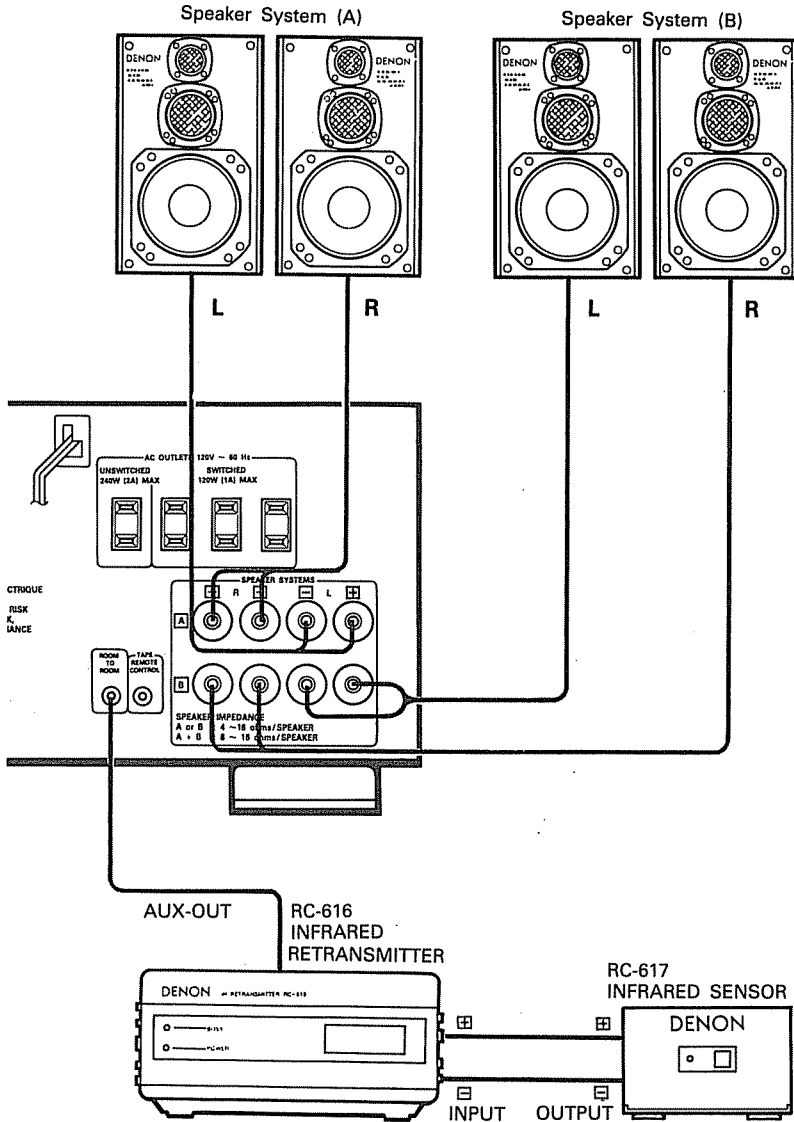
- This receiver has a full memory back-up system. When the power is turned on, the Input Selector 20 21, VIDEO SELECT 23 and REC OUT SELECT 24 buttons are set to the last mode set before the power was turned off.
- When using this receiver in close proximity to video equipment (TV, VCR, VDP, etc.), noise may be generated during AM or FM broadcast reception. To avoid this, keep the receiver as far away from other video components as possible.

CONNECTIONS (DRA-1035R/835R)



Connecting the Speakers

Connect the speaker for the left channel (the left side as viewed facing the front of the receiver) to the L SPEAKER SYSTEM terminals on the back panel, and the speaker for the right channel to the R SPEAKER SYSTEM terminals. Observe the correct polarity of the terminals: connect (-) leads to (-) terminals and (+) leads to (+) terminals. Two pairs of speakers can be connected. If only one speaker system is to be used, connect it to the SYSTEM A terminals.



Note to CATV System Installer:

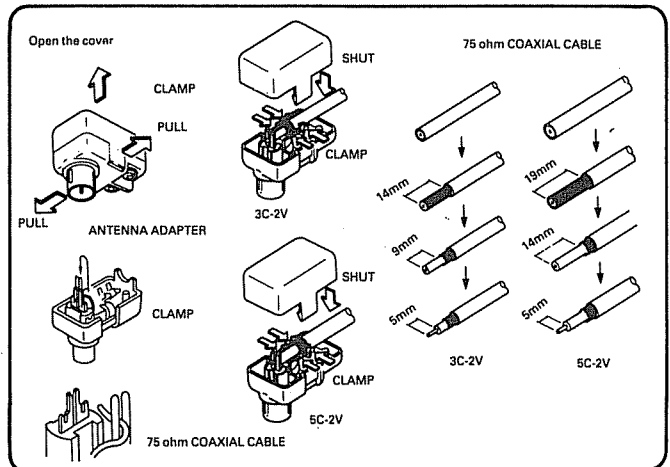
This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

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.

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.



For English Readers

75 ohm Coaxial Terminal

Cut off the shield and remove the core wire insulation.

If the core wire is stranded, solder it.

Fold back the shield with the ring and install the connector.

Cut off excess shield wire.

Cut off excess core wire.

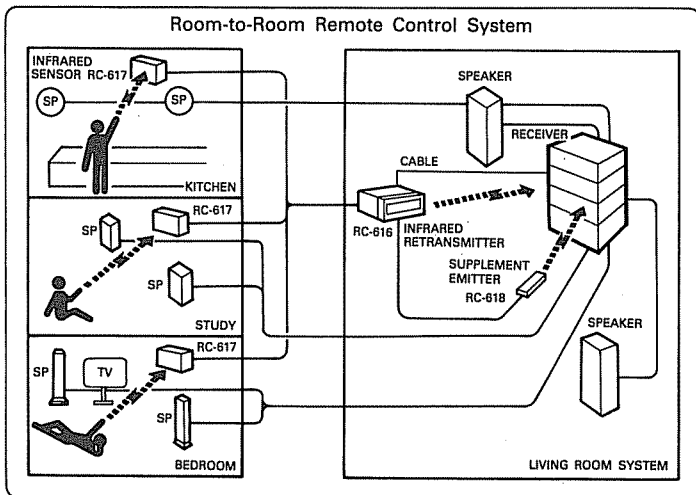
Core Wire Insulation Shield Wire

Cut off excess shield wire.

Ring

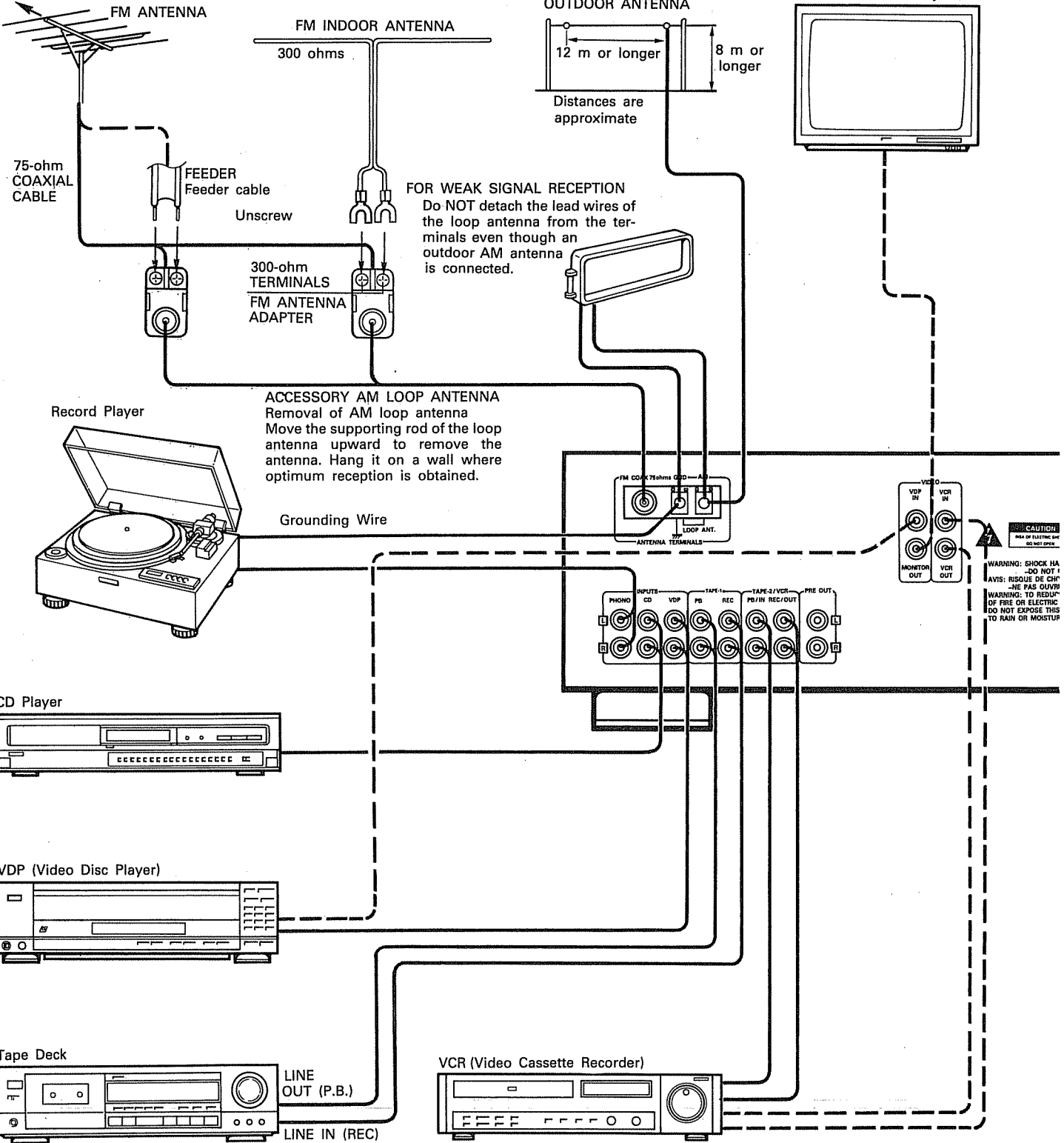
Tighten the ring.

Cut off excess core wire.



CONNECTIONS (DRA-635R)

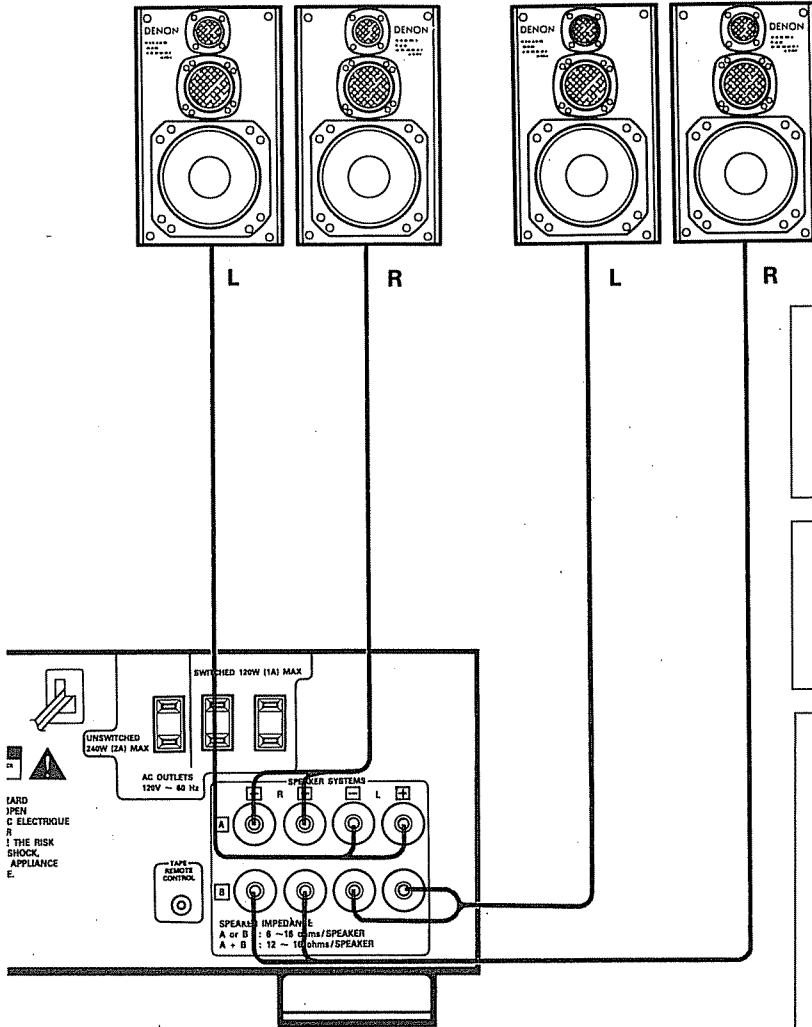
DIRECTION OF BROADCASTING STATION



Audio and Video

Speaker System (A)

Speaker System (B)



Connecting the Speakers

Connect the speaker for the left channel (the left side as viewed facing the front of the receiver) to the L SPEAKER SYSTEM terminals on the back panel, and the speaker for the right channel to the R SPEAKER SYSTEM terminals. Observe the correct polarity of the terminals: connect (-) leads to (-) terminals and (+) leads to (+) terminals. Two pairs of speakers can be connected. If only one speaker system is to be used, connect it to the SYSTEM A terminals.

Note to CATV System Installer:

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Notes:

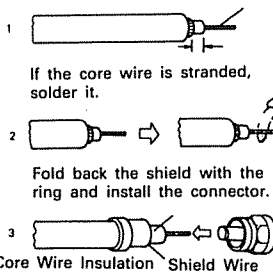
- Do not connect two FM antennas simultaneously.
- Even if an external AM antenna is used, do not disconnect the AM loop antenna.
- Make sure AM loop antenna lead terminals do not touch metal parts of the panel.

Notes on Connection

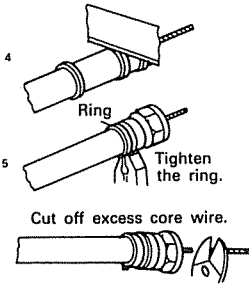
- Do not plug the power cord into the AC wall outlet until all connections have been completed.
- Make sure channels are correctly connected. Connect Left channels to Left channels and Right channels to Right channels. Follow the color marking of plugs and terminals to make sure mistakes are not made.
- 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.

75 ohm Coaxial Terminal

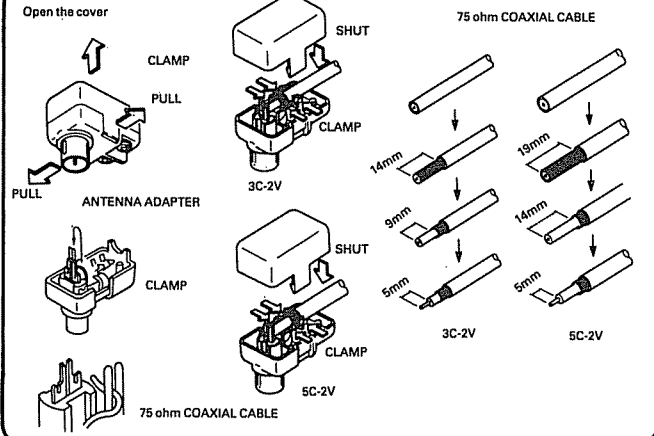
Cut off the shield and remove the core wire insulation.



Cut off excess shield wire.



Open the cover



CAUTION**Protection Circuit**

The receiver is equipped with a high-speed protection circuit. This circuit protects the internal circuitry from damage due to large currents flowing if the speaker jacks are not completely connected or if an output is generated by a short circuit.

In such a case, the protection circuit will operate to cut off the output to the speakers. Should this happen, turn the power off and check the speaker connections. Then turn the power on again. After muting for several seconds, the receiver should be operating normally.

PRESETTING RADIO STATIONS

1. Choose "FM" or "AM" with the BAND Select Switch.
2. Set the T. MODE Switch to the AUTO TUNING or Manual Tuning mode.
AUTO TUNING: Press the UP or DOWN TUNING button. Station search will take place, up or down the band, until a station is found. Press again to search for another station.
MANUAL TUNING: Keep the UP or DOWN TUNING button pressed until the desired station is tuned in. Fine-tune by pressing one of the buttons in small steps.
3. Press the MEMORY button. The MEMORY indicator lights for about 10 seconds. During this time, select the preset station number (up to 40) then the press ENTER button.
4. The preset station number is displayed together with the frequency stored.

NOTE: In case "MEMORY" disappears from the display before you input a Preset Station number, press the MEMORY button once again to make the indicator light.

- The receiver features a "last station" memory, which stores the last station tuned in when the power was turned off. The same station will be heard when power is turned on again.
- Stations stored in the memory will be kept for up to approximately one month in case a power failure occurs or the power cord is disconnected. (Value given considering an ambient temperature of 68°F (20°C) and relative humidity of 65%.)

Should power to the receiver be interrupted for longer periods, the stations will need to be reset.

PREPARATIONS FOR PLAYBACK**1. Checking the connections**

- Referring to the connection diagrams (pages 12 to 15), check to make sure that all connections are made properly.
- Check that the left and right speakers are connected properly and also that the polarities (+ and -) are correct.
- Check that the left and right channels of the pin-plug cords are connected properly.
- Check that each cord is securely connected.
- Check that each cord is of the proper type.

2. Checking the positions of the controls

(See pages 5 to 6 for a reference to the circled numbers.)

- Turn the VOLUME control ⑬ fully counterclockwise to the "0" position.
- Set the BALANCE ⑫, BASS ⑦, and TREBLE ⑨ controls to their center positions.

After making the above checks, press the POWER switch ⑩ to switch on the power.

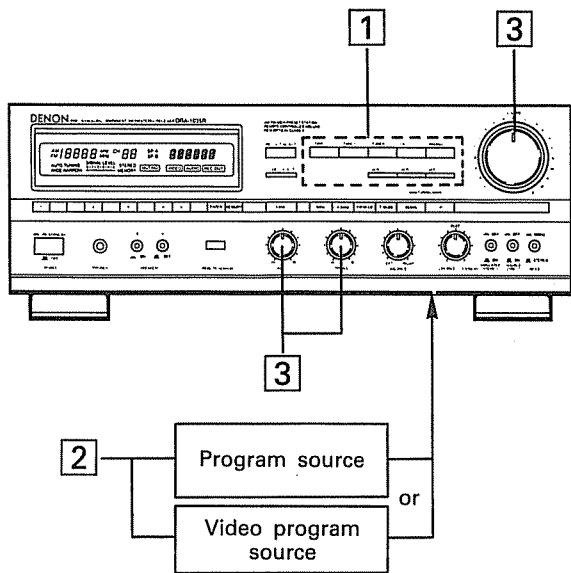
The receiver will be operable after several seconds of muting.

Note on Playback

The sound will be interrupted if one of the Input Selector buttons (⑳ and ㉑) is pressed during playback. This is due to the operation of the muting circuit which prevents noise from being output to the speakers at the time of switching, and is not a malfunction.

- When using the accompanying Remote Control Unit, press the corresponding button. For details, see **REMOTE CONTROL UNIT**, on page 20~24.

● Playback of program sources – 1
(Same sound and picture)



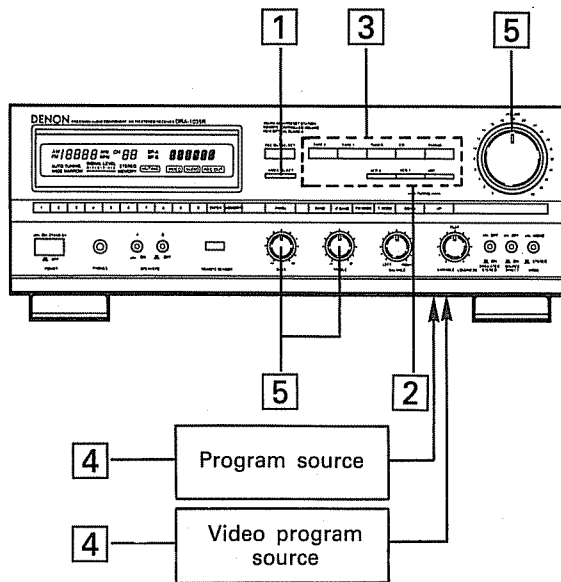
1 Select the desired program source by pressing an Input Selector button ④ ④

Program source	Input Selector buttons ④ ④
To listen to a record	PHONO
To listen to a CD	CD
To listen to FM or AM broadcasts	TUNER
To listen to a tape deck connected to the TAPE-1 jacks	TAPE-1
To listen to a tape deck connected to the TAPE-2 jacks (DRA-1035R/835R only)	TAPE-2
To listen to a tape deck connected to the TAPE-2/VCR decks or to watch and listen to a video deck connected to the TAPE-2/VCR jacks (DRA-635R only)	TAPE-2/VCR
To watch and listen to a video disc player connected to the VDP jacks	VDP
To watch and listen to a Video deck connected to the VCR jacks (DRA-835R only)	VCR
To watch and listen to a video deck connected to the VCR-1 jacks (DRA-1035R only)	VCR-1
To watch and listen to a video deck connected to the VCR-2 jacks (DRA-1035R only)	VCR-2

2 Begin playback of the program source. For operating details, see the operating instructions of the respective component. For the tuner, use the TUNING buttons ⑬ or 10-Key buttons ⑯ to set the desired frequency.

3 Adjust the volume and tone.

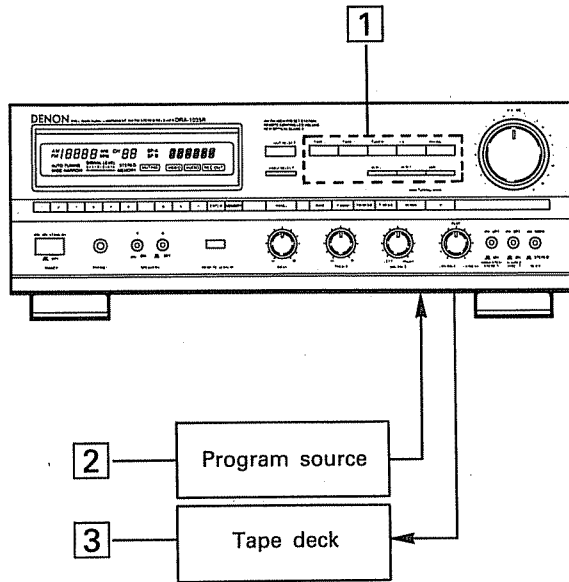
● Playback of program sources – 2
(Picture and sound from different sources – “Simulcast” playback)



- 1 Press the VIDEO SELECT button ④. The VIDEO select indicator blinks.
- 2 Press the Video Input Selector button ④ for the video program source. The VIDEO select indicator lights.
- 3 Press the Input Selector button ④ ④ for the program source you wish to listen to. The video signals will not change while this mode is set.
- 4 Begin playback of the program sources. For operating details, see the operating instructions of the respective component. For the tuner, use the TUNING buttons ⑬ or 10-Key buttons ⑯ to set the desired frequency.
- 5 Adjust the volume and tone.

- The video signal will not change even if the audio signal program source is changed.
- For instructions on cancelling this mode, see the item “④ VIDEO SELECT button” on page 7.

● Recording program sources and copying tapes
(Recording the audio source currently being monitored)

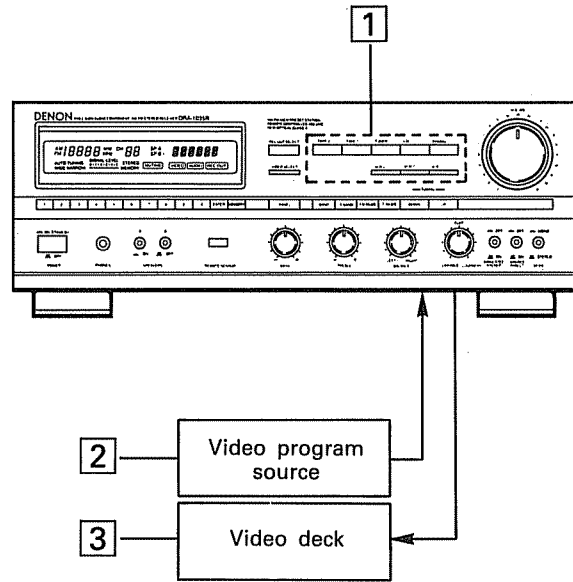


- 1 Press one of Input Selector buttons ⑳㉑ to select the program source you wish to record.
- 2 Begin playback of the program source you wish to record.
- 3 Begin recording on the tape deck.
For operating details, see the operating instructions of the respective component.
For instructions on copying tapes, see Page 12~15.

● Recording output signal

The signals from the sources selected by the Input Selector buttons ⑳㉑ are output simultaneously from the REC OUT jacks of the audio and video systems. If the tape deck and Hi-Fi video deck are connected and all components are set to the recording mode, all components will record the same source simultaneously.

● Recording video program sources and copying videos
(Recording the sound and picture of the video source currently being monitored)



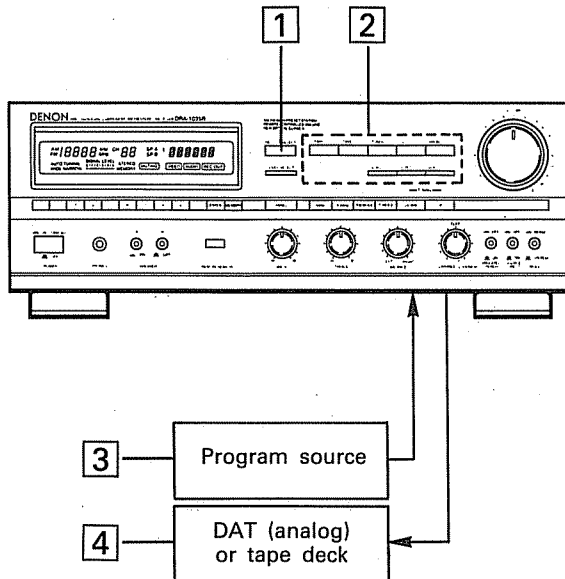
- 1 Press one of the Video Input Selector buttons ㉒ to select the program source you wish to record.

Video program source	Video Input Selector buttons ㉒
To record from a video disc player connected to the VDP jacks	VDP
To record from a video deck connected to the VCR-1 jacks (DRA-1035 only)	VCR-1
To record from a video deck connected to the VCR-2 jacks (DRA-1035 only)	VCR-2

- 2 Begin playback of the video program source you wish to record.
- 3 Begin recording on the video deck.
For operating details, see the manual of the respective component.

● Only the picture currently being monitored can be recorded.

- **Independent recording of program sources and independent tape copying**
(Recording the sound of a source other than the one currently being monitored)



- 1 Press the REC OUT SELECT button (1). The REC OUT select indicator blinks.
- 2 Press one of the Input Selector buttons (2) (3) to select the program source you wish to record. The audio source to be recorded will be displayed for approximately 3 seconds, then the normal display will reappear. The REC OUT select indicator lights. The audio signals for recording will not change while this mode is set, even if one of the Input Selector buttons (2) (3) is pressed. For instructions on cancelling this mode, see (1) REC OUT SELECT on page 7.

- 3 Begin playback of the program source to be recorded.
- 4 Begin recording on the tape deck. For operating details, see the operating instructions of the respective components.

- **Monitoring the recording**

When making a recording using a 3-head tape deck, the sound that has just been recorded on the tape can be checked. When recording on a deck connected to the TAPE-1 jacks, press the TAPE-1 button. This will permit a check of the recording result.

- **Recording output signal**

The signals from the sources selected by the input selector buttons (2) (3) are output simultaneously from the REC OUT jacks of the audio and video systems. If the tape deck and Hi-Fi video deck are connected and all components are set to the recording mode, all components will record the same source.

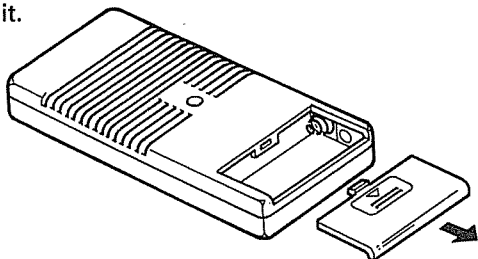
- To record the tuner output, perform the above operation after setting the function to tuner and tuning in the desired frequency.

REMOTE CONTROL OPERATION

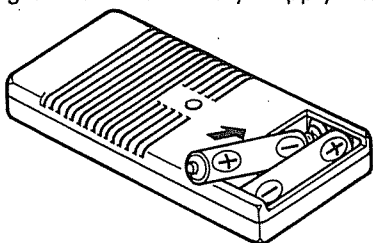
The accessory Remote Control Unit is used to control the receiver from a convenient distance.

(1) Inserting the Dry Cell Batteries (For the RC-770, refer to its operating instructions.)

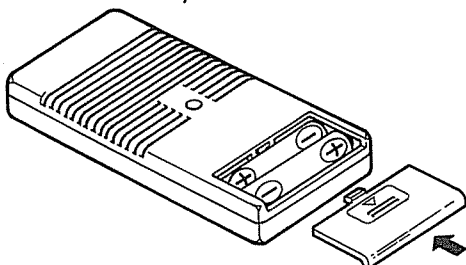
1. Remove the battery cover on the Remote Control Unit.



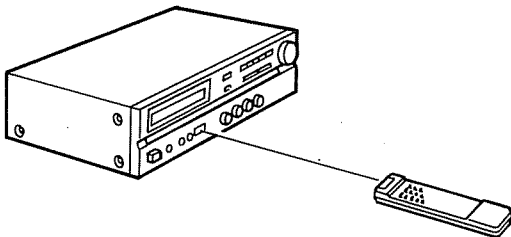
2. Insert two dry cell batteries as shown in the diagram on the battery supply unit.



3. Replace the battery cover.



(2) Directions for use



Notes on Battery Usage

- The Remote Control Unit uses the following batteries:
Size R03 (AAA) dry cell batteries for model RC-770 (DRA-1035R)
Size R6P (AA) dry cell batteries for model RC-137 (DRA-835R) and RC136 (DRA-635R)
 - The batteries will need to be replaced approximately once a year. This will depend upon how often the Remote Control Unit is used.
 - If, in less than a year from the time new batteries were inserted, the Remote Control Unit fails to operate the Receiver from a near-by position, it is time to replace the batteries.
 - Insert the batteries properly, following the polarity diagram inside the battery compartment.
 - Batteries are prone to damage and leakage. Therefore:
 - Do not mix new batteries with used ones.
 - Do not mix different types of batteries.
 - Do not jumper opposite poles of the batteries, expose them to heat, break them open, nor expose them to open fire.
 - If the batteries have leaked, remove any traces of battery fluid from the battery compartment wiping thoroughly with a dry cloth. Then insert new batteries.
-
- Operate the Remote Control Unit while pointing it towards the Remote Control Sensor on the Receiver as shown in the diagram on the left.
 - The Remote Control Unit can be used at distances up to about 8 meters in a straight line from the receiver. This distance will decrease if there are obstructions blocking the infra-red light transmission or if the Remote Control Unit is not directed straight at the receiver.

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 a 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 misoperation.

Besides being able to operate the DRA-1035R/DRA-835R/DRA-635R 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.

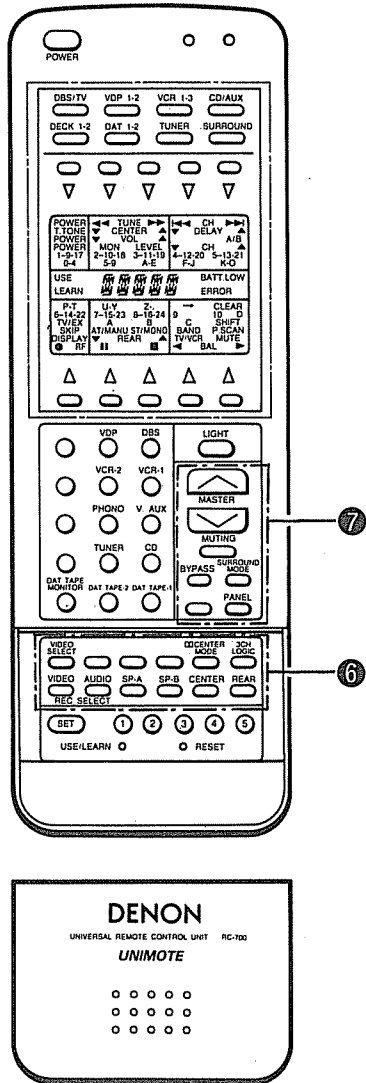
Remote control section

Full-system Remote Control Unit

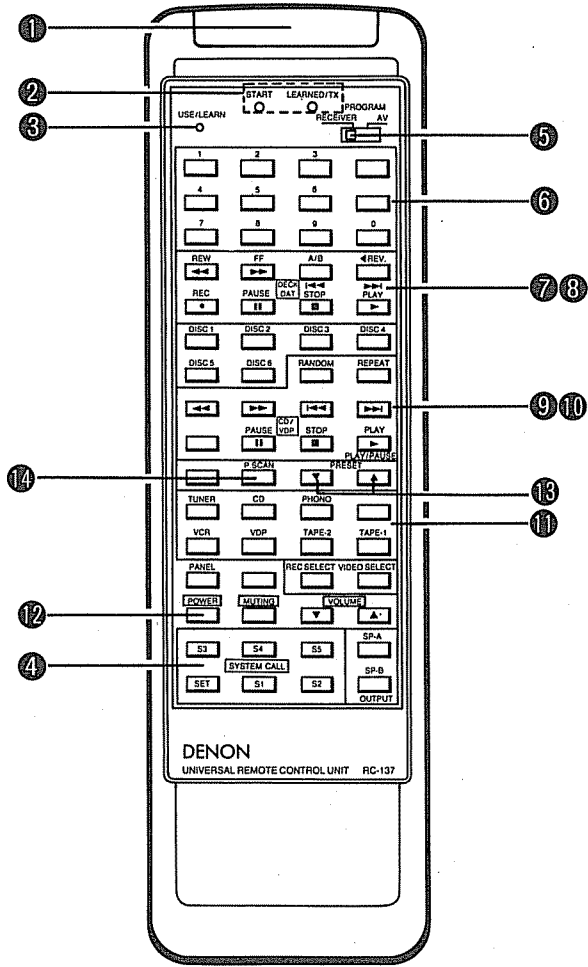
The full-system Remote Control Unit operates all major functions of the Receiver, such as function switching, volume control, and preset station selection. But that's not all! The same control pad can also control the major functions of a DENON CD player and cassette deck when combined with the DRA-1035R/835R/635R to create a remarkably ergonomic and versatile DENON system with all the quality sound reproduction that the devoted audiophile expects.

Remote Control Unit RC-770 supplied with DRA-1035R

Refer to the operating instructions of the RC-770.



Remote Control Unit RC-137 supplied with DRA-835R



- ① **Transmitting window**
The remote control signals (infrared rays) are sent from this window.

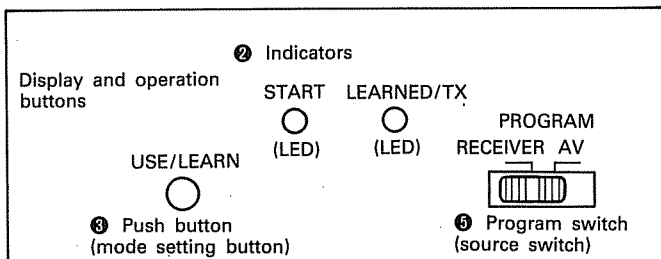
NOTE:
Use the TUNER pattern CH \updownarrow and P.scan to control the tuner.

- CH \updownarrow : Press this button to move up or down among the preset station numbers.
- P.scan: Press this button to receive each preset station for five seconds. Scanning stops when the button is pressed again, and the current station is received.
- To choose recording select with the remote control unit, use the REC SELECT AUDIO button of System button ⑥.
- Pressing system buttons ⑥ and ⑦ of RC-770 will cause "SURROUND" to appear on the LCD display of RC-770, but this is normal and should not be regarded as a fault.

- RC-137 -

② ③ ④ ⑤

Follow the procedure explained below to use the learning function of the Remote Control Unit.

**Operation****1. USE/LEARN Select Button ④**

Use the tip of a pen or similar to press this button and set the unit to the learn mode.

The START and LEARNED/TX LEDs in the indicator section ② will start flashing to indicate that learning is possible.

2. Set the PROGRAM switch ⑤ to the desired position: RECEIVER or AV.

3. Hold your remote control unit and the Remote Control Unit included with the receiver (RC-137) with the tops (transmitting sides) facing each other, about 5 cm apart.

4. Press the button on the RC-137 at which you wish to store the code for 1 to 2 seconds, then release it.

The LEDs will stop flashing, and the START LED will remain lit.

5. Check that the START LED is on, then hold in the button, whose signal you want to transfer, on the other remote control unit.

6. Release the button when the START LED turns off and the LEARNED LED turns on. The code has now been stored. The two LEDs will once again start flashing.

Use this procedure to store other codes at other buttons.

NOTE:

- If the code cannot be stored, the LEARNED LED will not light after the START LED turns off. This may happen for a very limited number of models.
- If the memory is full, both LEDs will start flashing rapidly after the START LED turns on. If this happens, no more codes can be stored. Use the reset procedure to re-learn codes.

7. Repeat steps 4 through 6 above to store codes at other buttons.

8. After the learning operations are completed, press the USE/LEARN switch again. The two LEDs will stop flashing and the unit will be in the operation mode. Check that the stored codes function properly.

Buttons that can be learned

When the Program switch ⑤ is set to the RECEIVER side: All buttons of sections ⑥, ⑦, and ⑨, and buttons without a symbol mark indication in section ⑩, for a combined total of 39 buttons that can be learned.

When the Program switch ⑤ is set to the AV side:

All buttons of sections ⑥, ⑧, ⑩, and ⑪, for a total of 58 buttons that can be learned.

NOTE:

Depending on the type and length of the codes to be learned, it may not be possible to use all buttons for learning.

Reset Procedure

1. Press the USE/LEARN switch with the tip of a pen, etc., to set to the learn mode.
2. Set the PROGRAM switch to the side to be cleared (RECEIVER or AV).
3. Press the DISC 5 button and the REPEAT button for about 5 seconds.
4. The START and LEARNED/TX LEDs will light for about two seconds, then turn off when all learned codes for that source are cleared. The codes are reset to the initial set codes (DENON system codes) for the reset selection (RECEIVER or AV).

Remote Control Operation

1. Check that both LEDs are off. If both LEDs are flashing or if the START LED is lit, press the USE/LEARN switch to turn them off.
2. When a remote control operation button is pressed, the LEARNED/TX LED will light and the remote control code will be transmitted.

Description of the System Call Function

The system call function makes it possible to send continuous signals (i.e. a code set) consisting of up to five remote control commands with a single button.

Operation**• Programming**

1. Press the SET button and check that the START LED on the indicator is flashing.
2. Press in order the buttons for the code set you want to recall with the system call function. Up to five buttons can be pressed. Each time a button is pressed, the LEARNED/TX LED lights. Setting is possible for either the program RECEIVER or program AV codes. (If more than five buttons are pressed, those after the fifth press will not be registered.)
3. Press one of the buttons S1 to S5 to enter the code set in memory.
4. The START LED turns off and the code set is programmed.
5. Code sets can be programmed at buttons S1 to S5. Repeat steps 1 to 4 to register more code sets.

• Resetting

1. Press the SET button and check that the START LED on the indicator is flashing.
2. Press the button to be reset (S1 to S5).
3. The START LED turns off and the button is reset.
4. To reset other buttons, repeat steps 1 to 3.

• Using

1. Press the button (S1 to S5) at which you programmed the code set.
2. The programmed code set is sent at intervals of about 1.5 seconds, during which time the LEARNED/TX LED is lit. (There is no need to hold the button in.)
3. The LEARNED/TX LED turns off and sending is completed. (With the system call function, the same code set is sent for the RECEIVER and AV programs.)

When the PROGRAM button ⑤ is set to RECEIVER, the DENON component system code buttons are set at buttons ⑦ ⑨. When set to AV, the system code buttons are set at buttons ⑧ ⑩.

⑥ Buttons for learning only.

- RC-137 -

Description of DENON System Code Buttons

- 7 DECK system buttons**
These buttons control a DENON cassette deck. The buttons have the same functions as the buttons on the cassette deck.
- ▶ **PLAY button (forward direction)**
Press this button to begin playback in the forward direction.
 - ◀ **PLAY (REV) button (reverse direction)**
Press this button to begin playback in the reverse direction.
 - **STOP button**
Press this button to stop the deck.
 - || **PAUSE button**
Refer to the operating instructions of your DENON tape deck.
 - **REC button**
Refer to the operating instructions of your DENON tape deck.
 - A/B button**
Use this button to select the deck when using a double cassette deck.
 - ◀◀ **REW button**
Press this button to rewind the tape
 - ▶▶ **FF button**
Press this button to fast-forward the tape.
- 8 DAT deck system buttons**
These buttons control a DENON DAT deck. The buttons have the same function as the buttons on the DAT deck.
- ▶ **PLAY button**
Press this button to begin playback.
 - **STOP button**
Press this button to stop playback and recording.
 - || **PAUSE button**
Press this button to pause playback before starting to record.
 - **REC button**
Use this button for recording.
 - ◀◀ **(manual search reverse button) – Rewind button**
 - ▶▶ **(manual search forward button) – Fast forward button**
Press these buttons to rewind or fast-forward the tape.
 - ◀◀ **(auto search reverse button) – to return to the previous start ID**
 - ▶▶ **(auto search forward button) – to skip to the following start ID**
Press these buttons for auto search in the forward or reverse directions.
- 9 CD player system buttons**
These buttons control a DENON CD player. The buttons have the same functions as the buttons on the CD player.
- ▶ **PLAY button**
Press this button to begin playback.
 - **STOP button**
Press this button to stop playback.
 - || **PAUSE button**
Press this button to pause.
 - REPEAT button**
Press this button to repeat playback.
 - ◀◀ **(manual search reverse button)**
 - ▶▶ **(manual search forward button)**
Press these buttons for manual search in the forward or reverse directions.

◀◀ **(auto search reverse button)**

▶▶ **(auto search forward button)**

Press these buttons for auto search in the forward or reverse directions. Use them to find the beginning of tracks.

DISC1 to DISC6

These buttons select the disc to be played in a DENON CD changer, such as the DCM-350.

10 VDP system buttons

These buttons control a DENON video disc player. The buttons have the same functions as the buttons on the video disc player.

▶ **PLAY button**

Press this button to begin playback.

■ **STOP button**

Press this button to stop playback.

|| **PAUSE button**

Press this button to pause.

REPEAT button

Press this button to repeat playback.

◀◀ **(manual search reverse button)**

▶▶ **(manual search forward button)**

Press these buttons for manual search in the forward or reverse directions.

◀◀ **(auto search reverse button)**

▶▶ **(auto search forward button)**

Press these buttons for auto search in the forward or reverse directions. Use them to find the beginning of tracks.

For details, refer to the operating instructions for the various components.

11 Function buttons

Button 11 is exclusively for the DRA-835R, and functions in the same way as the corresponding button on the set Codes can be stored at the buttons without symbols in the same way as other buttons.

12 POWER Button

This button can be used to turn the power on and off when the POWER button on the Receiver is turned on (ON/STANDBY) with the power cord plugged in.

When pressed, the Receiver becomes operative. As the Receiver includes a last function memory, which holds the settings for the various components as they were directly before the power was last turned off, there is no need to perform complicated resettings.

When the power is turned off, the power supply to the switched AC outlets on the rear panel is also turned off.

This button will not function if there is a power failure, if the power cord is not plugged in, or when using an audio timer.

This button can be used when the VOLUME control's LED is lit.

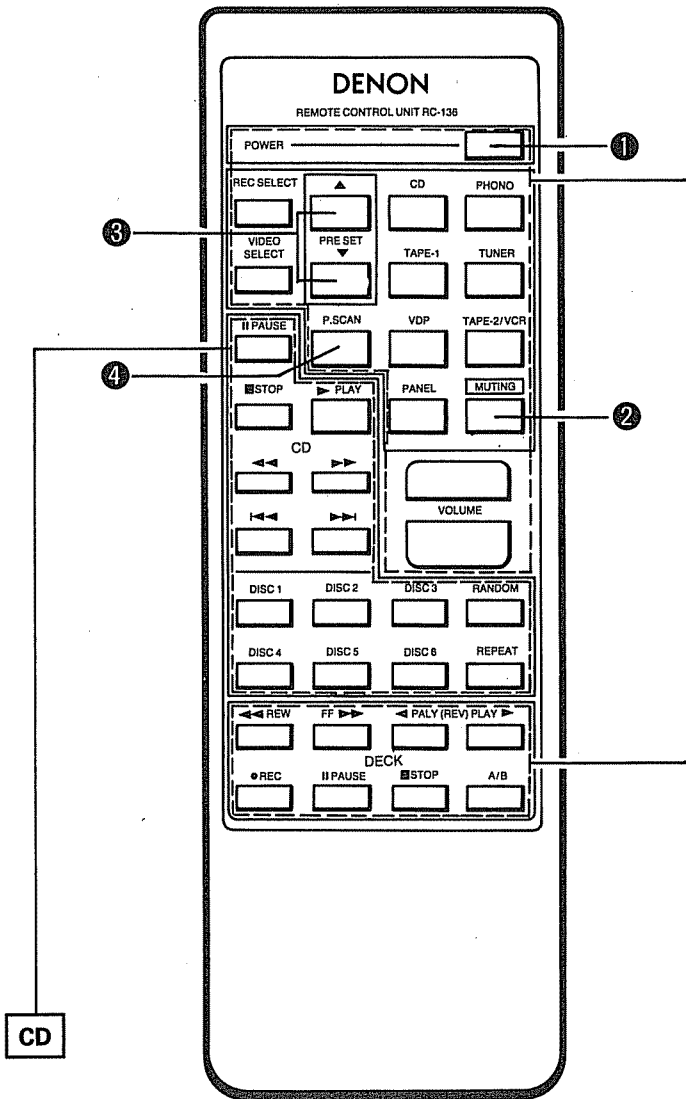
13 PRESET Δ button

Press this button to move up or down among the preset station numbers.

14 P. SCAN button

Press this button to receive each preset station for five seconds. Scanning stops when the button is pressed again, and the current station is received.

Remote Control Unit RC-136 supplied with the DRA-635R



RECEIVER

1 Power button
 This button can be used to turn the power on and off when the POWER button on the Receiver is turned on (ON/STANDBY) with the power cord plugged in. When pressed, the Receiver becomes operative. As the Receiver includes a last function memory, which holds the settings for the various components as they were directly before the power was last turned off, there is no need to perform complicated resettings. When the power is turned off, the power supply to the switched AC outlets on the rear panel is also turned off.

This button will not function if there is a power failure, if the power cord is not plugged in, or when using an audio timer.

This button can be used when STANDBY indicator 10 (on page 9) is lit.

2 MUTING button

- Pressing this switch will activate the muting condition and no signals will be output to the speakers.
- The AUDIO mark in the display 2 blinks.

3 PRESET button
 Press this button to move up or down among the preset station numbers.

4 P. SCAN button
 Press this button to receive each preset station for five seconds. Scanning stops when the button is pressed again, and the current station is received.

Other buttons
 Other buttons are exclusively for the DRA-635R, and function in the same way as the corresponding buttons on the set.

DECK

▶ PLAY	PLAY button
■ STOP	STOP button
◀◀	Reverse Track Search button
▶▶	Forward Track Search button
◀◀	Manual Search Reverse button
▶▶	Manual Search Reverse button
PAUSE	PAUSE button

▶ PLAY	PLAY button
◀ PLAY (REV)	PLAY (REV) button
■ STOP	STOP button
◀◀ REW	REWIND button
FF ▶▶	FF button
● REC	Refer to the operating instructions of your DENON tape deck.
PAUSE	
A/B W-DECK	A/B DECK SELECT button

- The RC-136 Remote Control Unit can control all CD players (excluding the DCD-1800R) and cassette decks manufactured by DENON.
- Buttons are conveniently separated into groups, each group controlling one specific component. The groups are RECEIVER, FUNCTION, CD and DECK.

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

CAUTION: DRA-1035R/835R/635R

- If the power is turned off with the Remote Control Unit, the Receiver is switched to the power stand-by state. If you are absent for a long period of time, be sure to turn the power off using the POWER switch on the receiver.
- On the DRA-1035R/835R, the VOLUME LED 10 lights when in the power stand-by mode. For the DRA-635R, STANDBY indicator 10 lights.
- 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 or the Room to Room system (RC 617). However, this is not a malfunction, and if this should happen, simply protect the sensor against such light.

TROUBLESHOOTING

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

If your unit does not seem to operate 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 immediately and contact your DENON dealer.

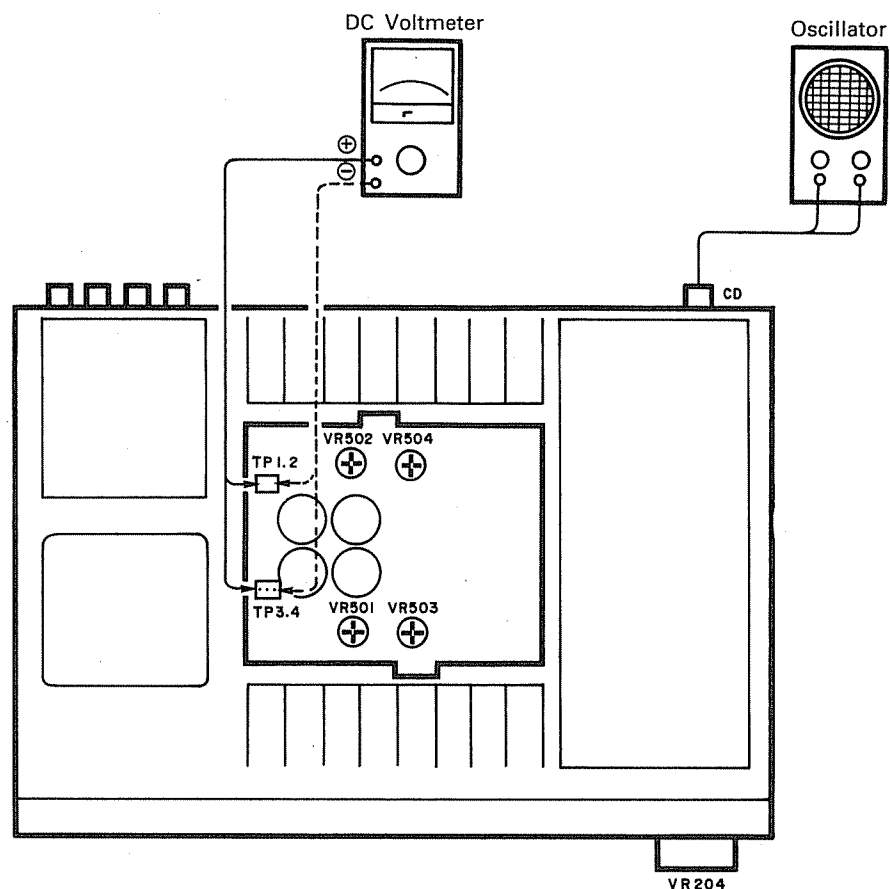
Problem	Cause	Remedy
FM AND AM RECEPTION		
A radio program cannot be received.	<ul style="list-style-type: none"> • Antenna connections incorrect. • Signal strength is weak. 	<ul style="list-style-type: none"> • Check the connections. • Check the antenna installation.
Noise is reproduced.	<ul style="list-style-type: none"> • A signal strength is weak. • Ignition noise from near-by traffic 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 streets. • 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) has passed. 	<ul style="list-style-type: none"> • Preset stations again.
During automatic tuning, tuning doesn't stop at a radio station.	<ul style="list-style-type: none"> • Signal strength is weak. 	<ul style="list-style-type: none"> • Use manual tuning
During automatic tuning, tuning stops one frequency step lower or higher than the radio station.	<ul style="list-style-type: none"> • Noise or strong signal is received. 	<ul style="list-style-type: none"> • Use manual tuning for optimum reception.
PLAYBACK OF CONNECTED EQUIPMENTS		
No sound is produced although power is on.	<ul style="list-style-type: none"> • Incorrect input and speaker cord connections. • The SPEAKERS switches are off. • Incorrect Input Selector button pressed. • The protective circuit is operating. • The fuse has blown. 	<ul style="list-style-type: none"> • Check the connection. • Turn on the SPEAKER A switch. • Press the button corresponding to the desired source. • Turn the power off once, check the speaker connections, then turn the power on again. • Consult your dealer or the nearest DENON representative.
Audible hum when playing records.	<ul style="list-style-type: none"> • Incorrect turntable input and grounding cords connections. • Incorrect connections of cartridge cords. • Interference from a nearby TV or radio broadcast antenna. 	<ul style="list-style-type: none"> • Check the connections. • Check the connection. • Consult 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"> • Vibrations and sounds from the speakers are picked up by the turntable cartridge. 	<ul style="list-style-type: none"> • Insulate against vibrations, and keep the speakers away from the turntable.
Cracking noise produced when playing records.	<ul style="list-style-type: none"> • The record is stained with the dust. • The stylus tip of the cartridge is dirty. • The cartridge is defective. 	<ul style="list-style-type: none"> • Clean the record. • Clean the stylus tip. • Try another cartridge.

SPECIFICATIONS

	DRA-1035R	DRA-835R	DRA-635R
AMPLIFIER SECTION			
Continuous Power Output:	130 watts per channel, minimum RMS, both channels driven into 8 ohms from 20 Hz ~ 20 kHz, no more than 0.015% THD	100 watts per channel minimum RMS, both channels driven into 8 ohms from 20 Hz ~ 20 kHz, no more than 0.015% THD	80 watts per channel minimum RMS, both channels driven into 8 ohms from 20 Hz ~ 20 kHz, no more than 0.05% THD
Power Bandwidth (IHF):	5 Hz ~ 40 kHz (0.05% THD, both channels driven into 8 ohms)	5 Hz ~ 40 kHz (0.05% THD, both channels driven into 8 ohms)	5 Hz ~ 40 kHz (0.05% THD, both channels driven into 8 ohms)
Total Harmonic Distortion:	0.006% (-3 dB at rated output 8 ohms)	0.006% (-3 dB at rated output 8 ohms)	0.009% (-3 dB at rated output 8 ohms)
Frequency Response:	PHONO RIAA Deviation Standard Curve (Recording Output) MM 20 Hz~20 kHz \pm 0.3 dB MC 30 Hz~20 kHz \pm 0.5 dB CD, TAPE-1,2, 20 Hz~50 kHz \pm 1.5 dB VDP, VCR-1,2 (at 1 W)	PHONO RIAA Deviation Standard Curve (Recording Output) MM 20 Hz~20 kHz \pm 0.5 dB CD, TAPE-1,2, 20 Hz~50 kHz \pm 1.5 dB VDP, VCR (at 1 W)	PHONO RIAA Deviation Standard Curve (Recording Output) MM 20 Hz~20 kHz \pm 0.5 dB CD, TAPE-1,2/ 20 Hz~50 kHz \pm 1.5 dB VCR, VDP (at 1 W)
Input Sensitivity / Impedance:	PHONO MM 2.5 mV 47 kohms MC 0.2 mV 100 ohms CD, TAPE-1,2, 150 mV 47 kohms VDP, VCR-1,2 (Source Direct: OFF) 150 mV 23 kohm (Source Direct: ON)	PHONO MM 2.5 mV 47 kohms CD, TAPE-1,2, 150 mV 47 kohms VDP, VCR (Source Direct: OFF) 150 mV 23 kohm (Source Direct: ON)	PHONO MM 2.5 mV 47 kohms CD, TAPE-1,2/ 150 mV 47 kohms VCR, VDP
Maximum Input Level	PHONO MM 150 mV MC 12 mV	PHONO MM 150 mV	PHONO MM 150 mV
Signal-to-Noise Ratio (IHF-A):	PHONO MM 92 dB at 5.0 mV input MC 75 dB at 0.5 mV input CD, TAPE-1,2, 105 dB VDP, VCR-1,2 (Source Direct: ON)	PHONO MM 86 dB at 5.0 mV input CD, TAPE-1,2, 105 dB VDP, VCR (Source Direct: ON)	PHONO MM 86 dB at 5.0 mV input CD, TAPE-1,2/ 100 dB VCR, VDP
Tone Control:	BASS \pm 10 dB at 100 Hz TREBLE \pm 10 dB at 10 kHz	BASS \pm 10 dB at 100 Hz TREBLE \pm 10 dB at 10 kHz	BASS \pm 10 dB at 100 Hz TREBLE \pm 10 dB at 10 kHz
Loudness Control Effect:	VARIABLE LOUDNESS, 10 positions - 50 Hz: +10 dB, 10 kHz: +5 dB	VARIABLE LOUDNESS, 10 positions - 50 Hz: +10 dB, 10 kHz: +5 dB	VARIABLE LOUDNESS, 10 positions - 50 Hz: +10 dB, 10 kHz: +5 dB
MAIN-IN Terminals			
Input Sensitivity / Impedance:	1 V/10 kohms	1 V/10 kohms	
TUNER SECTION			
[FM] (note: μ V at 75 ohms, 0 dBf = 1×10^{-15} W)			
Receiving Range:	87.5 ~ 108 MHz	87.5 ~ 108 MHz	87.5 ~ 108 MHz
Usable Sensitivity:	0.9 μ V (10.3 dBf)	0.9 μ V (10.3 dBf)	0.9 μ V (10.3 dBf)
S/N at 50 dB Sensitivity (μV at 75 ohms):	MONO 1.5 μ V (14.8 dBf) STEREO 20 μ V (37.3 dBf)	MONO 1.5 μ V (14.8 dBf) STEREO 20 μ V (37.3 dBf)	MONO 1.6 μ V (15.3 dBf) STEREO 23 μ V (38.5 dBf)
Signal-to-Noise Ratio (A-weighted)	MONO 86 dB STEREO 82 dB	MONO 86 dB STEREO 82 dB	MONO 82 dB STEREO 78 dB
Total Harmonic Distortion:	MONO 0.06% (WIDE) STEREO 0.09% (WIDE)	MONO 0.06% (WIDE) STEREO 0.09% (WIDE)	MONO 0.1% STEREO 0.15%
Capture Ratio:	1.3 dB	1.3 dB	1.3 dB
Image Rejection:	80 dB	80 dB	42 dB
AM Suppression:	60 dB	60 dB	50 dB
Selectivity (\pm400 kHz):	45 dB (WIDE) 75 dB (NARROW)	45 dB (WIDE) 75 dB (NARROW)	45 dB
Frequency Response:	20 Hz ~ 15 kHz $\begin{matrix} +0.2 \\ -0.5 \end{matrix}$ dB	20 Hz ~ 15 kHz $\begin{matrix} +0.2 \\ -0.5 \end{matrix}$ dB	20 Hz ~ 15 kHz $\begin{matrix} +0.2 \\ -1.5 \end{matrix}$ dB
Stereo Separation (at 1 kHz):	55 dB	55 dB	55 dB
[AM]			
Tuning Frequency Range:	520 ~ 1710 kHz	520 ~ 1710 kHz	520 ~ 1710 kHz
Usable Sensitivity:	18 μ V	18 μ V	18 μ V
Signal-to-Noise Ratio:	55 dB	55 dB	55 dB
GENERAL			
Power Supply:	AC 120V, 60 Hz	AC 120V, 60 Hz	AC 120V, 60 Hz
Power Consumption:	6.6 A	5.7 A	3.3 A
Power Outlets:	SWITCHED 120 W UNSWITCHED 240 W	SWITCHED 120 W UNSWITCHED 240 W	SWITCHED 120 W UNSWITCHED 240 W
Dimensions:	434 mm (17-3/32") W x 160 mm (6-19/64") H x 402 mm (15-53/64") D	434 mm (17-3/32") W x 160 mm (6-19/64") H x 402 mm (15-53/64") D	434 mm (17-3/32") W x 140 mm (5-33/64") H x 402 mm (15-53/64") D
Weight:	12.2 kg (26 lbs 14 oz)	11.0 kg (24 lbs 4 oz)	9.8 kg (21 lbs 9 oz)
REMOTE CONTROL UNIT			
Remote control system:	RC-770 Infrared pulse system	RC-137 Infrared pulse system	RC-136 Infrared pulse system
Power supply:	6V DC, Four size R03 ("AAA") dry cell batteries	3V DC, Two size R6P ("AA") dry cell batteries	3V DC, Two size R6P ("AA") dry cell batteries
External dimensions:	78 mm (3-5/64") W x 25 mm (63/64") H x 235 mm (9-1/4") D	70 mm (2-3/4") W x 18 mm (45/64") H x 215 mm (8-15/32") D	60 mm (2-23/64") W x 18 mm (45/64") H x 175 mm (6-57/64") D
Weight:	285 g (about 10 oz) (including batteries)	160 g (about 5.6 oz) (including batteries)	120 g (about 4.2 oz) (including batteries)

Design and specifications are subject to change without prior notice.

METHOD OF ADJUSTMENTS



IDLING CURRENT

• **Setup**

1. Lay the unit at an ordinary position away from a direct current from a cooler or fan. Do the adjustment at a temperature between 15°C (59°F) and 30°C (86°F).
2. Set control as follows.
 - POWER switch → OFF ()
 - VOLUME control → fully counterclockwise (min.) (main volume [VR204] and semifixed resistors [VR501, 502, 503 and 504])
 - SPEAKER terminals → open: do not connect the speakers, dummy load etc.

• **Adjustment**

1. Remove top cover. And then connect DC voltmeter to test points of POWER AMP UNIT (1U-2226)
2. Connect power cord to AC outlet, and turn POWER switch "ON" (). Within 10 seconds turn VR501 (L ch) and VR502 (R ch) clockwise so that the DC Voltmeter reads, 5±0.5 mV.
3. Then after 2 minutes warmup adjust VR501 and VR502 so that the DC volt meter read, 5±0.5 mV.
4. And after 10 minutes warmup adjust VR501 and VR502 so that the DC volt meter reads, 5±0.5 mV.
5. Apply a 1 kHz, 10 mVrms signal to both channels input and set the main volume at maximum position.
6. Confirm that the indication of Dc voltmeter becomes slightly greater value (approx. 10 mV or less), then adjust the VR503 (L ch), VR504 (R ch) clockwise to obtain 30 mV±3 mV on the meter.
7. After 2 minutes, readjust the VR503, VR504 for 30±3 mV.
8. And after 10 minutes warmup, adjust VR503, VR504 or 30 mV±3 mV.

FM ALIGNMENT

1	Center Adjustment	98 MHz	FMSSG	98 MHz	60 dB μ	Mono 1 kHz 100%	Antenna Terminal	Digital Voltmeter	T.P. 1, 2	T707	± 50 mV	IF BAND: WIDE
2	Distortion	98 MHz	FMSSG	98 MHz	60 dB μ	Mono 1 kHz 100%	Antenna Terminal	Distortion Meter	Rec out Terminal (L)	T701	Minimum Distortion	IF BAND: WIDE
3	Distortion	98 MHz	FMSSG	98 MHz	60 dB μ	Stereo (L) 1 kHz 100%	Antenna Terminal	Distortion Meter	Rec out Terminal (L)	Front End IFT	Minimum Distortion	IF BAND: WIDE
4	Separation	98 MHz	FMSSG	98 MHz	60 dB μ	Stereo (L) 1 kHz 100%	Antenna Terminal	AC Voltmeter	Rec out Terminal (R)	VR701	Maximum Separation	IF BAND: WIDE
5	Separation	98 MHz	FMSSG	98 MHz	60 dB μ	Stereo (L) 1 kHz 100%	Antenna Terminal	AC Voltmeter	Rec out Terminal (R)	VR702	Maximum Separation	IF BAND: NARROW
6	Signal Level	98 MHz	FMSSG	98 MHz	15 dB μ	off	Antenna Terminal			VR703	Light 1st Signal LED	IF BAND: WIDE

AM ALIGNMENT

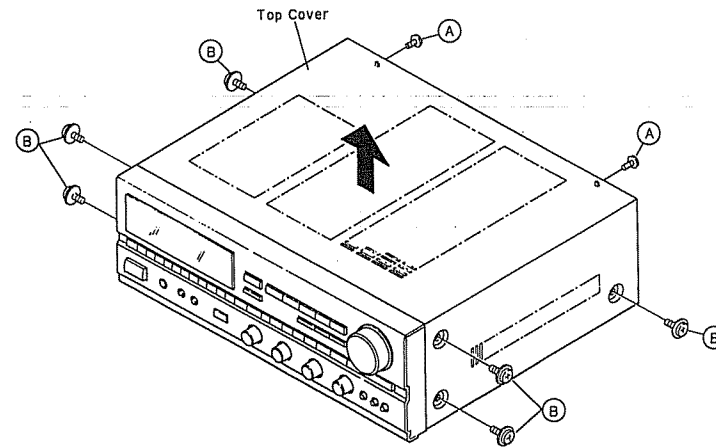
• MW & LW (): U.S.A. and Canada models.

1	IF	-	IF Sweep	-	Input level is not over to work A.G.C.	-	Antenna Terminal	AM IF Sweep	C765	T706	Maximum Height and Best Symmetry Curve	Function: AM Center of Wave Form: 450 kHz
2	Tracking Alignment AM or MW	603 kHz (600)	AM SSG	603 kHz (600)	Input level is not over to work A.G.C.	400 Hz 30%	Loop Antenna	Audio V.T.V.M.	Rec out Terminal (L)	T705	Maximum Output	Function: AM
		1404 kHz (1500)	AM SSG	1404 kHz (1500)	Input level is not over to work A.G.C.	400 Hz 30%	Loop Antenna	Audio V.T.V.M.	Rec out Terminal (L)	TC701	Maximum Output	Function: AM

REMOVAL OF EACH SECTION

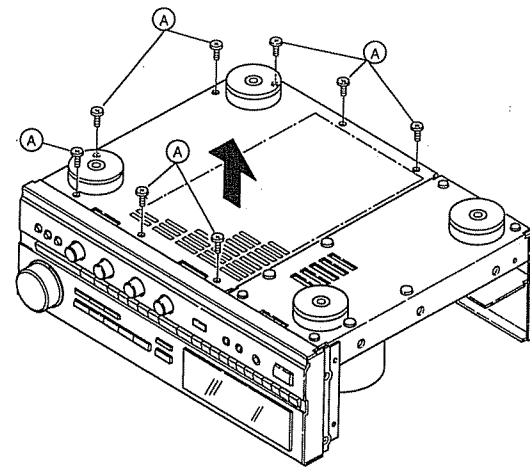
1. Top Cover

Remove ② screws and ⑥ screws, then detach Top Cover as the arrow shows with poening the Cover a littoe laterally.



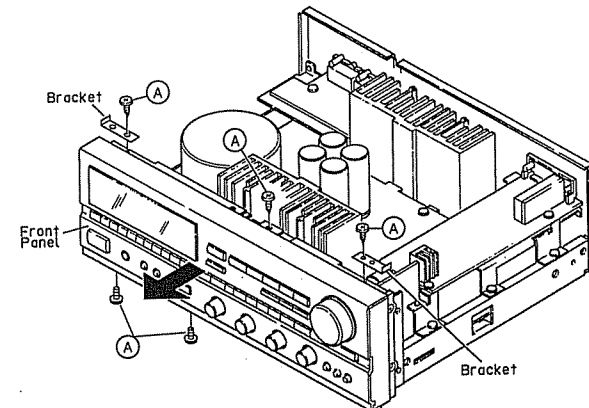
2. Bottom Cover

Remove ⑧ screws, then detach Bottom Cover as the attow shows.



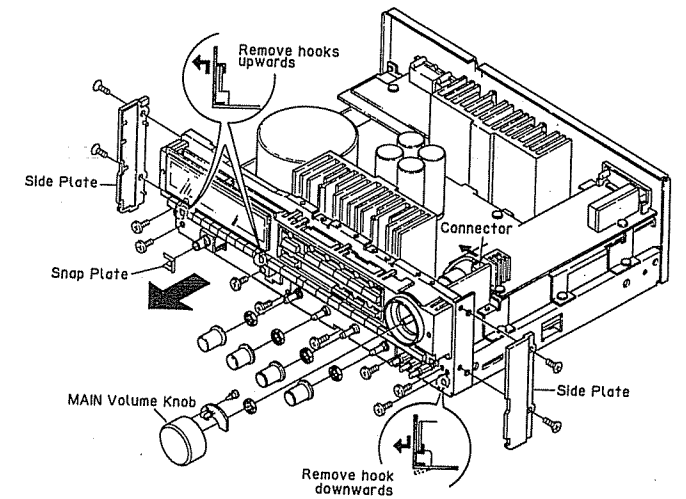
3. Ffont Panel

Remove ⑤ screws and 2 brackets, the Front Panel as arrow shows.



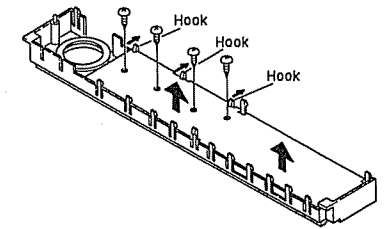
4. Front Chassis and Inner Panel

Remove MAIN Volume knob, 1 connector, 4 knobs, 5 nuts, 1 shapplate, 2 side plates, 12 screws and 3 hooks, then detach the Front Chassis and Inner Bned as arrow shows.



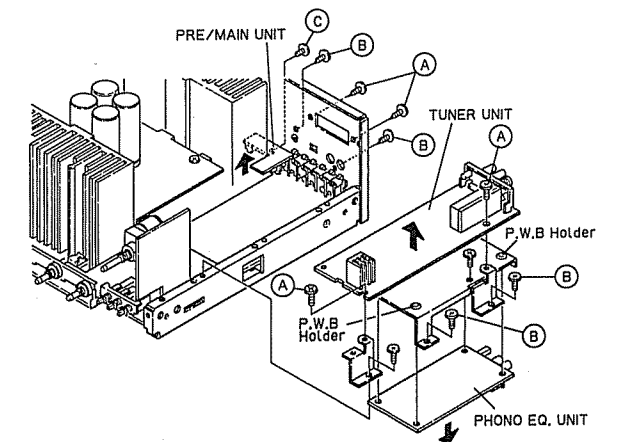
5. DISPLAY UNIT

Remove 4 screws and 3 hooks, then detach the Display Unit as arrow shows.



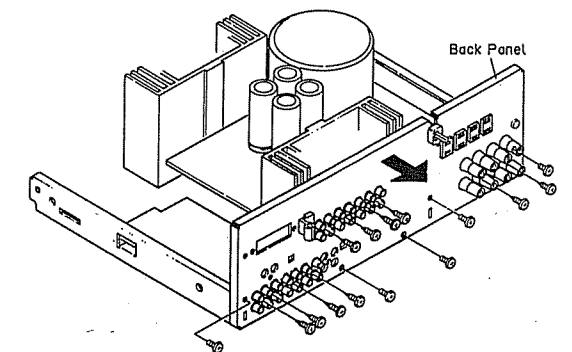
6. Tuner Unit, PHONO EQ. Unit and PRE/MAIN Unit

Remove ④ screws, then detach TUNER UNIT as the attow shows.
Rimove ④ screws and 4 P.W.B. Holders, then detach PHONO EQ. UNIT as the arrow shows.
Remove ① screw, then detach PRE/MAIN UNIT.



7. Back Panel

Remove 14 screws, then detach the Back Panel as the arrow shows.

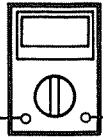
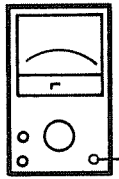


CONNECTION DIAGRAM OF MEASURING INSTRUMENT

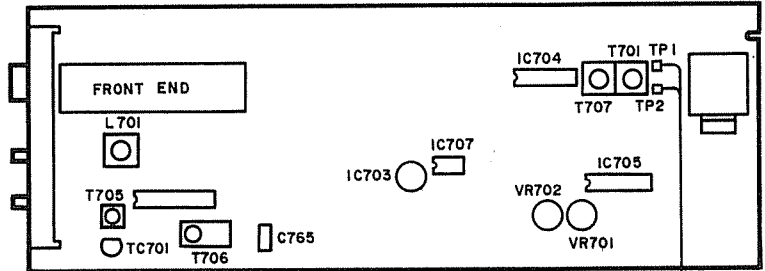
• **FM**

STEREO
MODULATOR

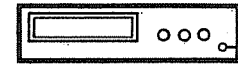
SIGNAL
GENERATOR



Main 90% (67.5 kHz deV)
Pilot 10% (7.5 kHz deV)
Frequency: 1 kHz
Ant input level: 60%



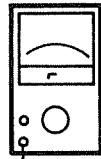
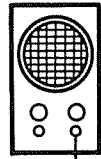
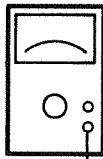
DIGITAL
VOLT METER



DISTORTION METER

OSCILLOSCOPE

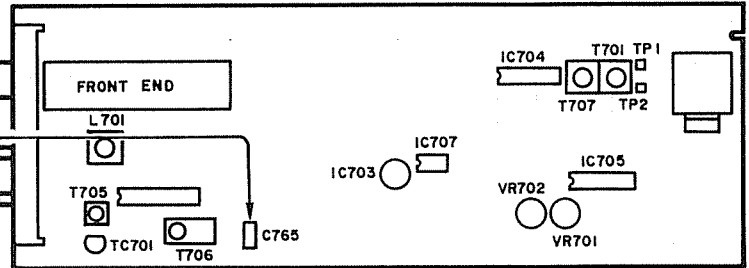
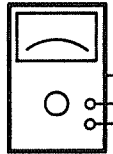
AUDIO VOLT METER



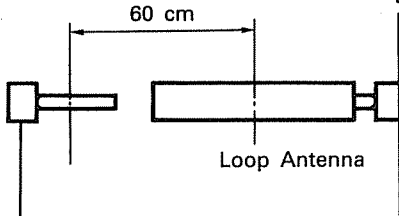
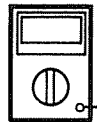
REC OUT TERMINAL

• **AM**

AM IF SWEEP



AM SG

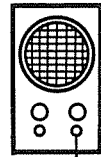
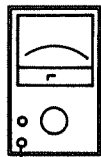


Loop Antenna

Modulation level: 30%
Frequency: 400 Hz

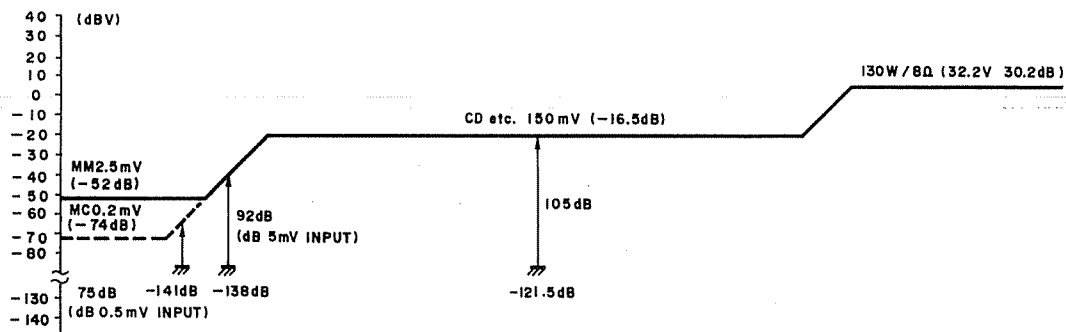
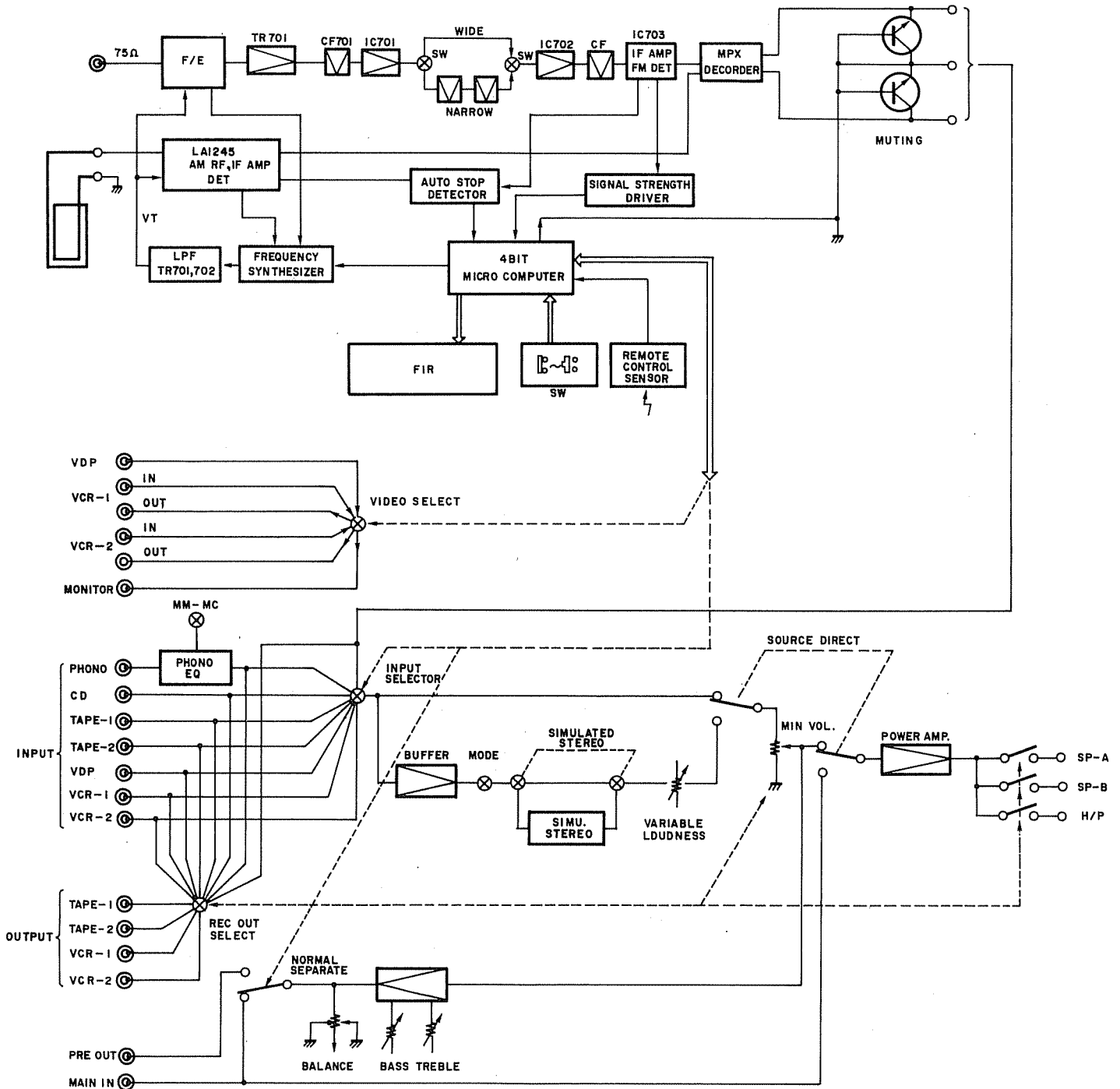
AUDIO VOLT METER

OSCILLOSCOPE

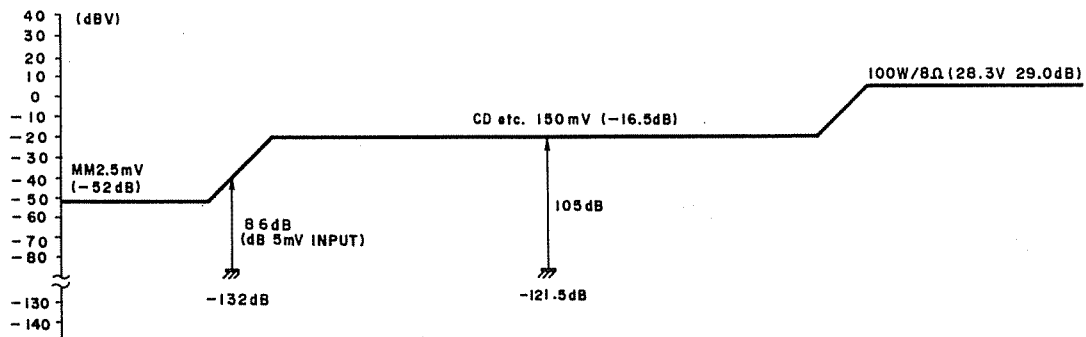
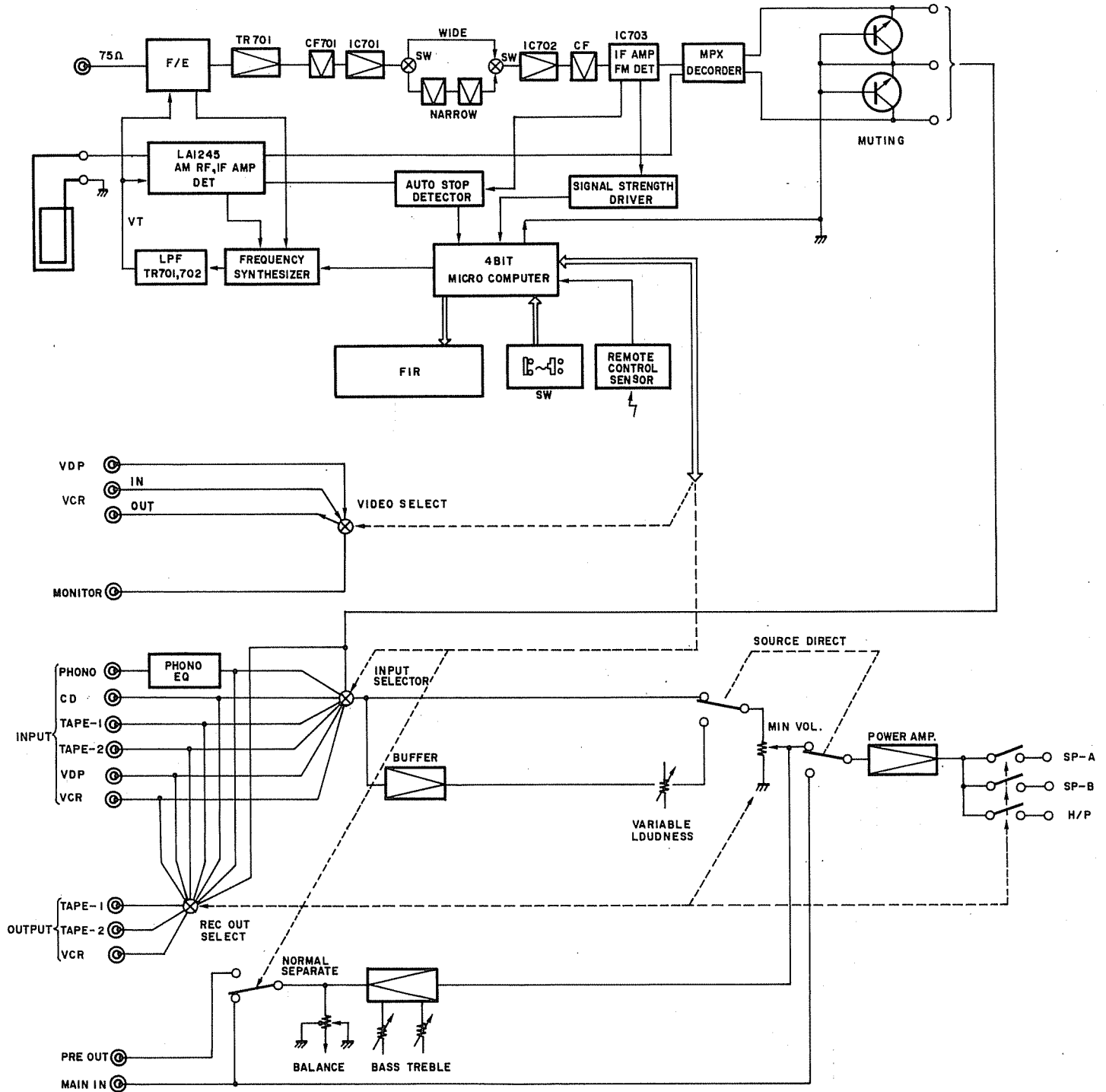


REC OUT TERMINAL

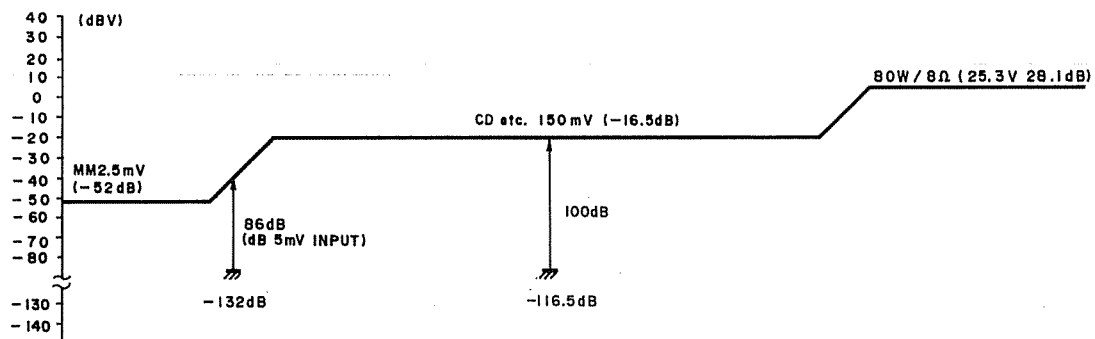
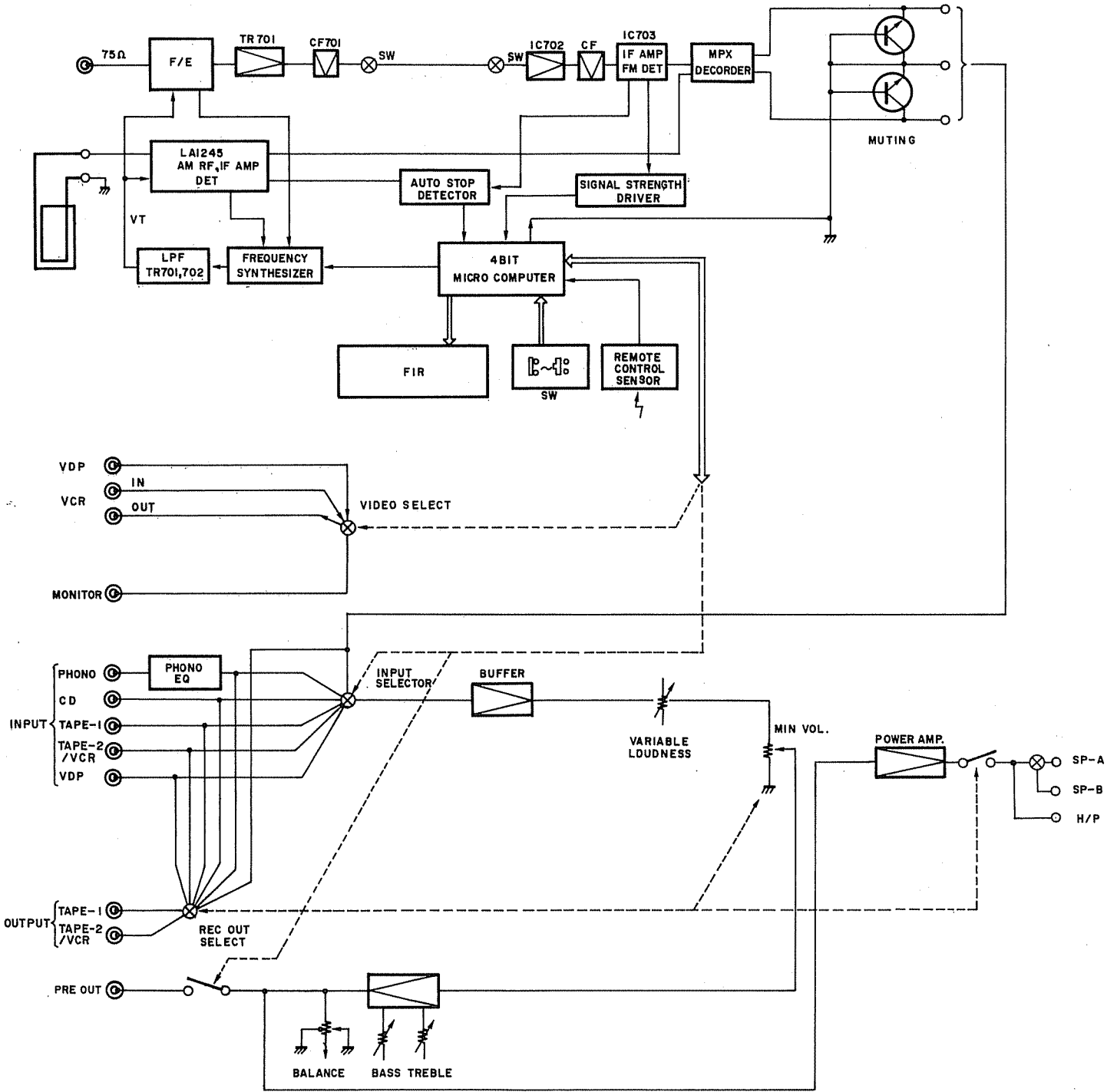
BLOCK / LEVEL DIAGRAM (DRA-1035R)



BLOCK/LEVEL DIAGRAM (DRA-835R)



BLOCK LEVEL DIAGRAM (DRA-635R)



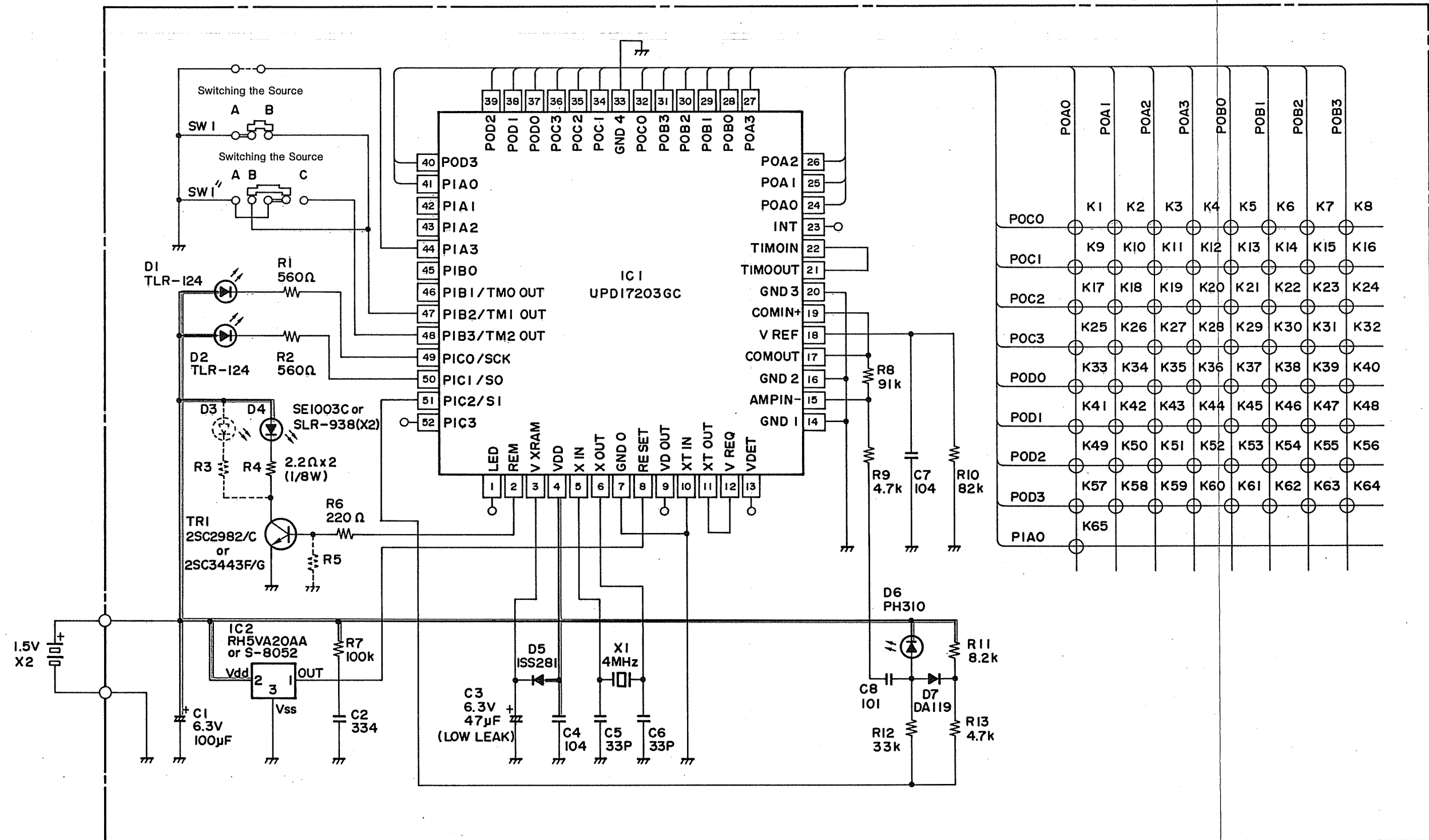
PART LIST OF EXPLODED VIEW (for DRA-1035R)

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	1U-2226A	Power Amp Unit	U.S.A. Only	1	49	-	-		
1	1U-2226B	Power Amp Unit	Canada Only	1	50	206 1039 050	Fuse 1.6A		2
2-1	1U-2223A	Tuner Unit		1	51	206 1046 043	Fuse 10A		1
3	1U-2224A	Mi-Com Unit		1	52	212 9534 002	Power SW (Push) TV8		1
4	1U-2229A	Control Unit		1	53	-	-		
4-1		Control Unit		1	54	204 8354 004	Head Phone Jack		1
4-2		Input Unit		1	55	203 3941 008	AC Outlet (2P)		2
4-3		Video Unit		1	56	205 0497 001	SP Terminal (8P)		1
4-4		Main Volume Unit		1	57	204 8313 003	4P Pin Jack (S-GND)		1
4-5		Remote Sencer Unit		1	58	204 8385 002	2P Pin Jack (C-GND)		1
4-6		VCR-1 Unit		1	59	212 1064 004	1P Push Switch		1
4-7		VCR-2 Unit		1	60	212 5604 910	Tact Switch-TA		3
5	1U-2259A	SP&P. Supply Unit		1	61	204 8260 004	Mini Jack		2
5-1		SP&P. Supply Unit		1	63	204 8383 004	6P Pin Jack (S-GND)		1
5-2		Power SW. Unit		1	64	204 8266 008	4P Pin Jack (S-GND)		1
5-3		Pre/Main Unit		1	65	204 8268 006	4P Pin Jack (S-GND)		2
5-4		AC Outlet Unit		1	66	204 8266 008	4P Pin Jack (S-GND)		2
5-5		H/P Unit		1	67	212 1060 008	3P Push Switch		1
5-6		Tact SW. (SP) Unit		1	68	211 0699 008	Variable		1
5-7		Vol Led Unit		1	69	211 0698 009	Variable 50k ohm	VR204	1
6	1U-2230A	Phono EQ. Unit		1	70	499 0150 008	Remote Sensor (SBX1610-52)		1
6-1		Phono EQ. Unit		1	71	393 4118 007	FLD (FIP16DM8)		1
6-2		S. Stereo Unit		1	72	273 0389 031	2SC 3855 LB (O/P/Y) (Z)	Transistor	4
7	411 9056 352	Trans Chassis		1	73	271 0240 035	2SA 1491 LB (O/P/Y) (Z)	Transistor	4
8	412 9160 209	Trans Bracket		1	74	-	-		
9	412 3102 108	Support Plate		1	75	412 3282 109	Radiator Bracket		2
10	415 9032 006	P.C.B. Holder (T)		4	76	415 0234 007	Insulating Sheet		8
11	411 9057 500	Side Chassis		1	77	477 0096 007	Push Rivet		1
12	105 0951 111	Back Panel		1	79	-	-		
13	206 2060 002	AC Cord (Polarized)		1	80	212 1050 005	1P Push Switch		1
14	411 1078 202	Front Chassis Ass'y.		1	81	254 6164 000	Electrolytic Cap. 1000µF	CE06W==103M (DL)	4
15	445 0056 008	Cord Bush		1	82	214 0127 003	Relay (RY-12W) RL301-303		3
16	146 0925 009	Ant. Holder		1	83	214 0142 004	Relay (TV-5) RL801		1
17	412 2197 046	Card Stand (H=18)		1	84	214 0120 000	Relay (TV-8) RL802		2
18	412 3281 003	Support Bracket		1	85	214 0192 001	Relay (DH2TU) RL601,602		2
19	412 2741 007	P.W.B. Holder (H=8)		7	86	214 0127 003	Relay (RY-12W) RL603		1
20	417 0394 147	Power Radiator		2	SCREWS				
21	412 3280 101	P.W.B. Bracket		2	101	473 8007 009	Cup Screw 3X12		8
22	-	-		2	102	473 7002 018	Tapping Screw 3X8 (S)		16
23	412 3030 102	Support Bracket		2	103	473 7004 003	Tapping Screw 4X8 (S)		12
24	146 1237 027	Inner Panel Ass'y		2	104	473 7003 004	F. Tapping Screw 3X8 (S)		7
25	113 1427 027	Push Button (Function)		1	105	473 7015 018	Tapping Screw 3X8 (S)	Black	40
26	113 1428 000	Push Button (Pre-Set)		1	106	473 7006 027	Tapping Screw 3X10 (S)	Black	1
27	113 1429 106	Push Button (Tuning)		1	107	473 7002 005	Tapping Screw 3X6 (S)		3
28	412 2814 044	Card Specer (L=6)		4	108	473 3806 014	Tapping Screw 3X8 (Z)		1
29	113 1356 004	Push Button (Maru)		3	109	473 7501 001	Tapping Screw 3X10		6
30	112 0632 205	Knob (Maru) S Ass'y		4	110	477 0263 005	3P Swelling Screw	Black	6
31	144 2110 204	Front Panel Ass'y		1	111	477 0064 107	Fixing Screw		17
32	113 1430 108	Push Button (Speaker)		1	PACKING & ACCESSORIES (not included EXPLODED VIEW)				
33	412 2549 021	Blacket (C)		1	201	505 8006 019	Envelope		1
34	412 2549 034	Blacket (D)		1	202	511 2129 007	Inst Manual		1
35	412 2814 028	Card Spacer (L=10)		1	203	515 0418 301	DAI Warranty Hone	U.S.A. Only	1
36	105 0894 207	Bottom Cover		1	203	515 0388 208	DCI Warranty	Canada Only	1
37	104 0194 001	Foot Ass'y		4	204	231 1129 005	Loop Antenna		1
38	146 1239 202	Side Plate (L)		1	205	395 0019 009	FM Ant. Ass'y		1
39	146 1240 204	Side Plate (R)		1	206	529 0079 008	FM Ant. Adaptor		1
40	233 5877 003	Power Trans	U.S.A. Only	1	207	499 0201 009	Remote Control Unit RC-770 EM Ass'y		1
40	233 5903 003	Power Trans	Canada Only	1	208	504 9102 003	Stylen Paper		1
41	113 1054 128	Power Button Ass'y		1	209	505 9102 019	Poly Cover		1
42	112 0569 103	VR. Knob Ass'y		1	210	504 0092 060	Stylen Paper		1
43	-	-		1	211	503 0827 009	Cushion		2
44	461 0501 005	Rubber Sheet		2	212	503 0964 001	Cushion		1
45	461 0573 004	Rubber Sheet		2	213	501 1511 017	Carton Case		1
46	102 9027 102	Top Cover		1	214	513 1389 006	Control Card Base		1
47	205 0433 010	Ant Terminal (F)		1	215	513 1349 004	Thermal Carbon Film		1
48	216 0079 005	FM. Front End (U)		1					

PART LIST OF EXPLODED VIEW (for DRA-835R)

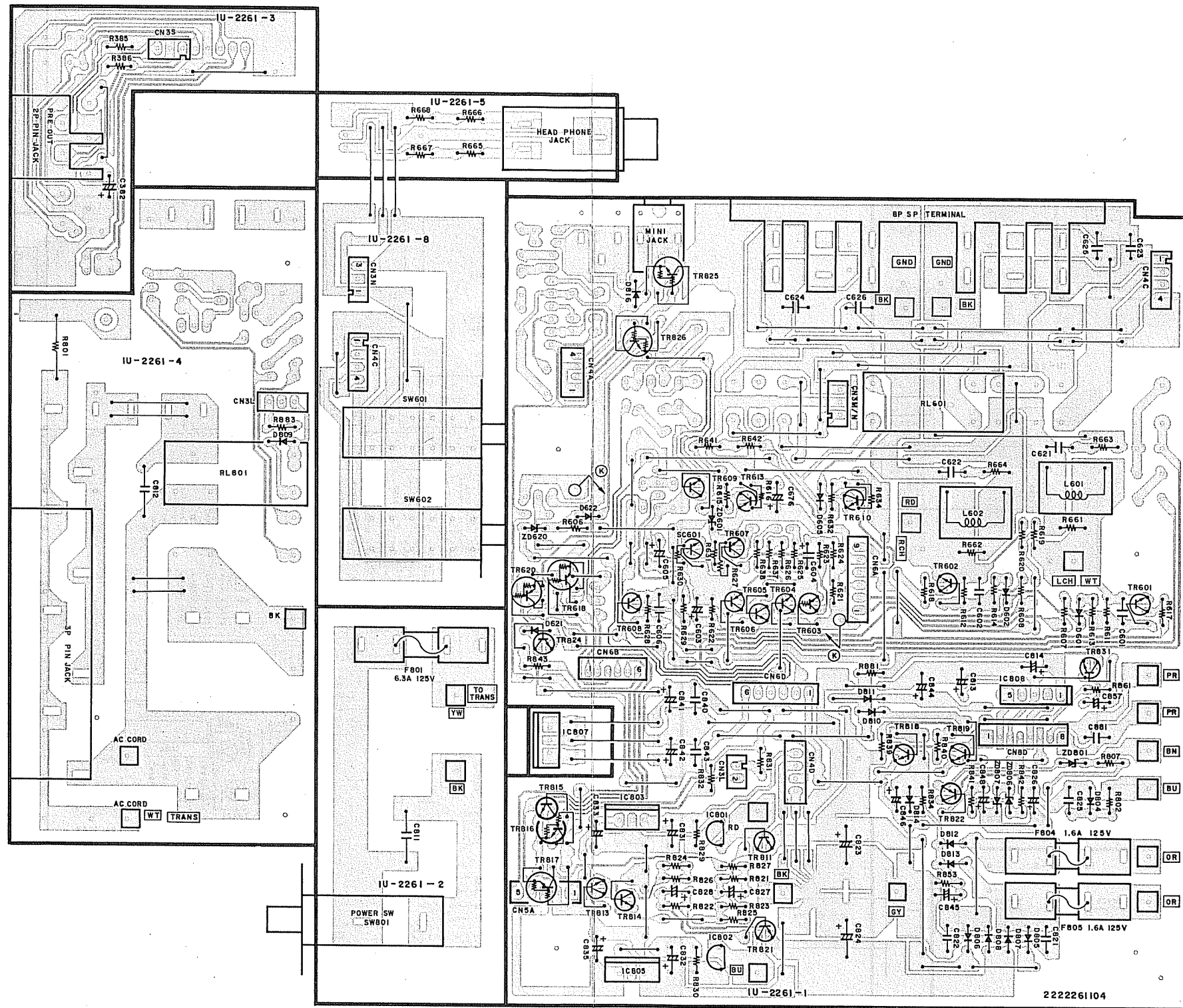
Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	1U-2226G	Power Amp Unit	U.S.A. Only	1	52	212 9534 002	Power SW (Push) TV8		1
	1U-2226H	Power Amp Unit	Canada Only	1	53	-	-		
2-1	1U-2223A	Tuner Unit		1	54	204 8354 004	Head Phone Jack		1
3	1U-2224G	Mi-Com Unit		1	55	203 3946 003	AC Outlet (Polarized)		1
4	1U-2229G	Control Unit		1	56	205 0472 000	8P SP Terminal		1
4-1		Control Unit		1	57	204 8313 003	4P Pin Jack (S-GND)		1
4-2		Input Unit		1	59	212 1064 004	1P Push Switch		1
4-3		Video Unit		1	60	212 5604 910	Tact Switch-TA		30
4-4		Main Volume Unit		1	61	204 8260 004	Mini Jack		2
4-5		Remote Sencer Unit		1	62	-	-		1
4-6		VCR-1 Unit		1	63	204 8382 005	4P Pin Jack (S-GND)		1
5	1U-2260G	SP&P. Supply Unit		1	64	204 8278 009	6P Pin Jack (S-GND)		1
5-1		SP&P. Supply Unit		1	65	204 8268 006	4P Pin Jack (S-GND)		1
5-2		Power SW. Unit		1	66	204 8266 008	4P Pin Jack (S-GND)		2
5-3		Pre/Main Unit		1	67	212 1061 007	1P Push Switch		1
5-4		AC Outlet Unit		1	68	211 0699 008	Variable		1
5-5		H/P Unit		1	69	211 0698 009	Variable 50k ohm		1
5-6		Tact SW. (SP) Unit		1	70	499 0150 008	Remote Sensor (SBX1610-52)		1
5-7		Vol Led Unit		1	71	393 4118 007	FLD (FIP16DM8)		1
6	-	-		1	72	273 0389 031	2SC 3855 LB (O/P/Y) (Z)	Transistor	4
7	411 9056 352	Trans Chassis		1	73	271 0240 035	2SA 1491 LB (O/P/Y) (Z)	Transistor	4
8	412 9160 209	Trans Bracket		1	74	-	-		
9	-	-		1	75	412 3282 109	Radiator Bracket		2
10	415 9032 006	P.C.B. Holder (T)		4	76	415 0234 007	Insulating Sheet		8
11	411 9057 500	Side Chassis		1	77	477 0096 007	Push Rivet		1
12	105 0951 108	Back Panel		1	78	-	-		
13	206 2060 002	AC Cord (Polarized)		1	79	-	-		
14	411 1078 202	Front Chassis Ass'y		1	80	-	-		
15	445 0056 008	Cord Bush		1	81	254 4370 702	Electrolytic Cap. 8200µF/53V	CE04WIJ822MC (DL)	4
16	146 0925 009	Ant. Holder		1	82	214 0127 003	Relay (RY-12W) RL301-303		3
17	412 2197 046	Card Stand (H=18)		1	83	214 0142 004	Relay (TV-5) RL801		1
19	412 2741 007	P.W.B. Holder (H=8)		3	85	214 0129 001	Relay (DH2TU) RL601		2
20	417 0394 134	Power Radiator		2	86	214 0127 003	Relay (RY-12W) RL603		1
21	412 3280 101	P.W.B. Bracket		1	SCREWS				
22	-	-		2	101	473 8007 009	Cup Screw 3X12		8
23	412 3030 102	Support Bracket		2	102	473 7002 018	Tapping Screw 3X8 (S)		16
24	146 1237 301	Inner Panel Ass'y		1	103	473 7004 003	Tapping Screw 4X8 (S)		12
25	113 1427 001	Push Button (Function)		1	104	473 7003 004	F. Tapping Screw 3X8 (S)		4
26	113 1428 000	Push Button (Pre-Set)		1	105	473 7015 018	Tapping Screw 3X8 (S)	Black	40
27	113 1429 106	Push Button (Tuning)		1	106	473 7006 027	Tapping Screw 3X10 (S)	Black	1
28	412 2814 044	Card Specer (L=6)		4	107	473 7002 005	Tapping Screw 3X6 (S)		3
29	146 1356 004	Push Button (Maru)		1	108	473 3806 014	Tapping Screw 3X8 (Z)		1
30	112 0632 205	Knob (Maru) S Ass'y		4	109	473 7501 001	Tapping Screw 3X10		6
31	144 2110 201	Front Panel Ass'y		1	110	477 0263 005	3P Swelling Screw	Black	6
32	113 1430 108	Push Button (Speaker)		1	111	477 0064 107	Fixing Screw		17
33	412 2549 021	Blacket (C)		1	PACKING & ACCESSORIES (not included EXPLODED VIEW)				
34	412 2549 034	Blacket (D)		1	201	505 8006 019	Envelope		1
35	412 2814 028	Card Spacer (L=10)		1	202	511 2129 007	Inst Manual		1
36	105 0894 207	Bottom Cover		1	203	515 0418 408	DAI Warranty Hone	U.S.A. Only	1
37	104 0194 001	Foot Ass'y		4	203	515 0388 208	DCI Warranty	Canada Only	1
38	146 1239 202	Side Plate (L)		1	204	231 1129 005	Loop Antenna		1
39	146 1240 204	Side Plate (R)		1	205	395 0019 009	FM Ant. Ass'y		1
40	233 5877 003	Power Trans	U.S.A. Only	1	206	529 0079 008	FM Ant. Adaptor		1
40	233 5903 003	Power Trans	Canada Only	1	2				

SCHMATIC DIAGRAM (RC-137)

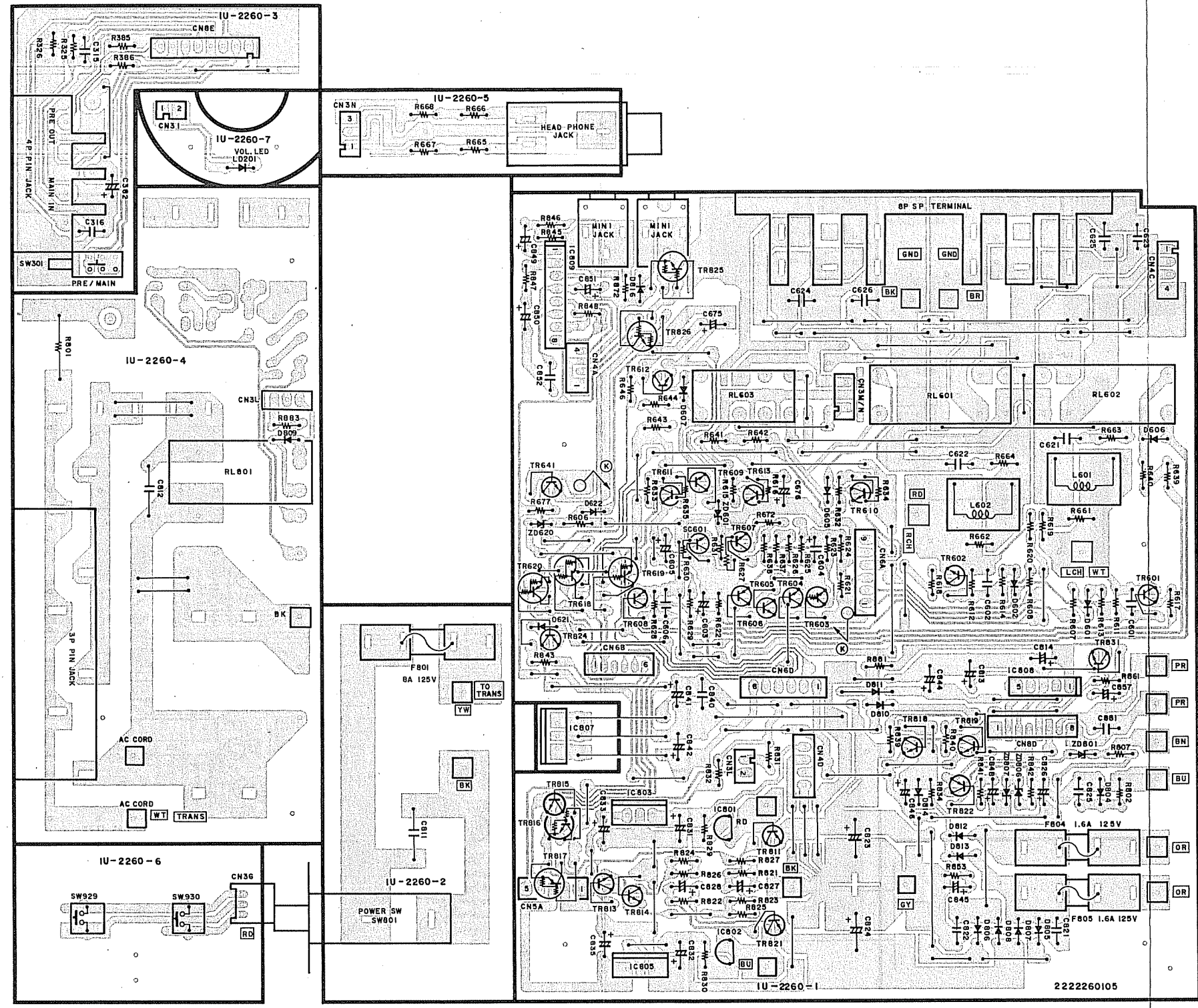


NOTE: Set SW1 and SW1" to the same position and only use one of them.
 ——— +B LINE

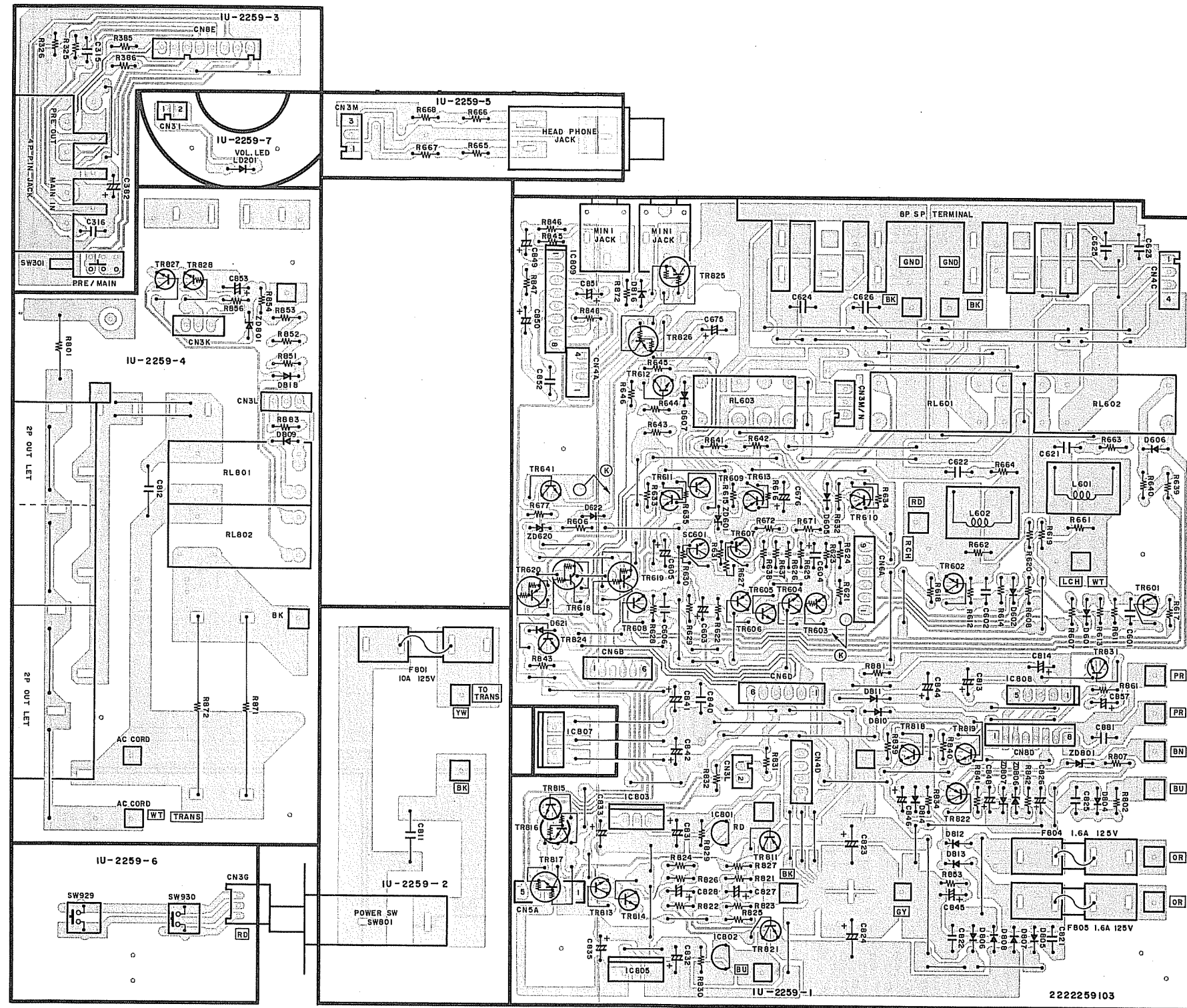
1U-2261 SP & P.SUPPLY UNIT (DRA-635R)



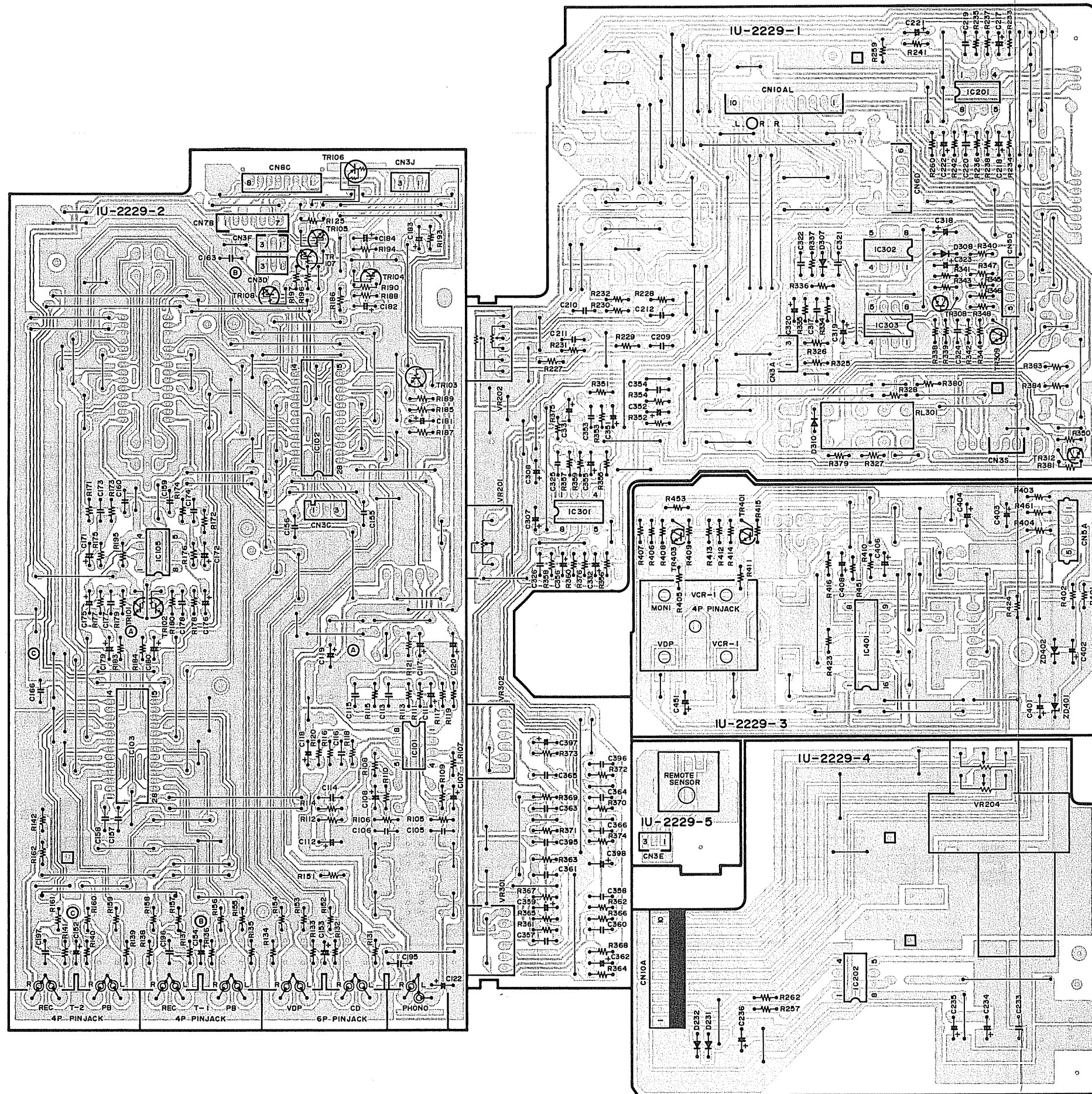
1U-2260 SP & P. SUPPLY UNIT (DRA-835R)



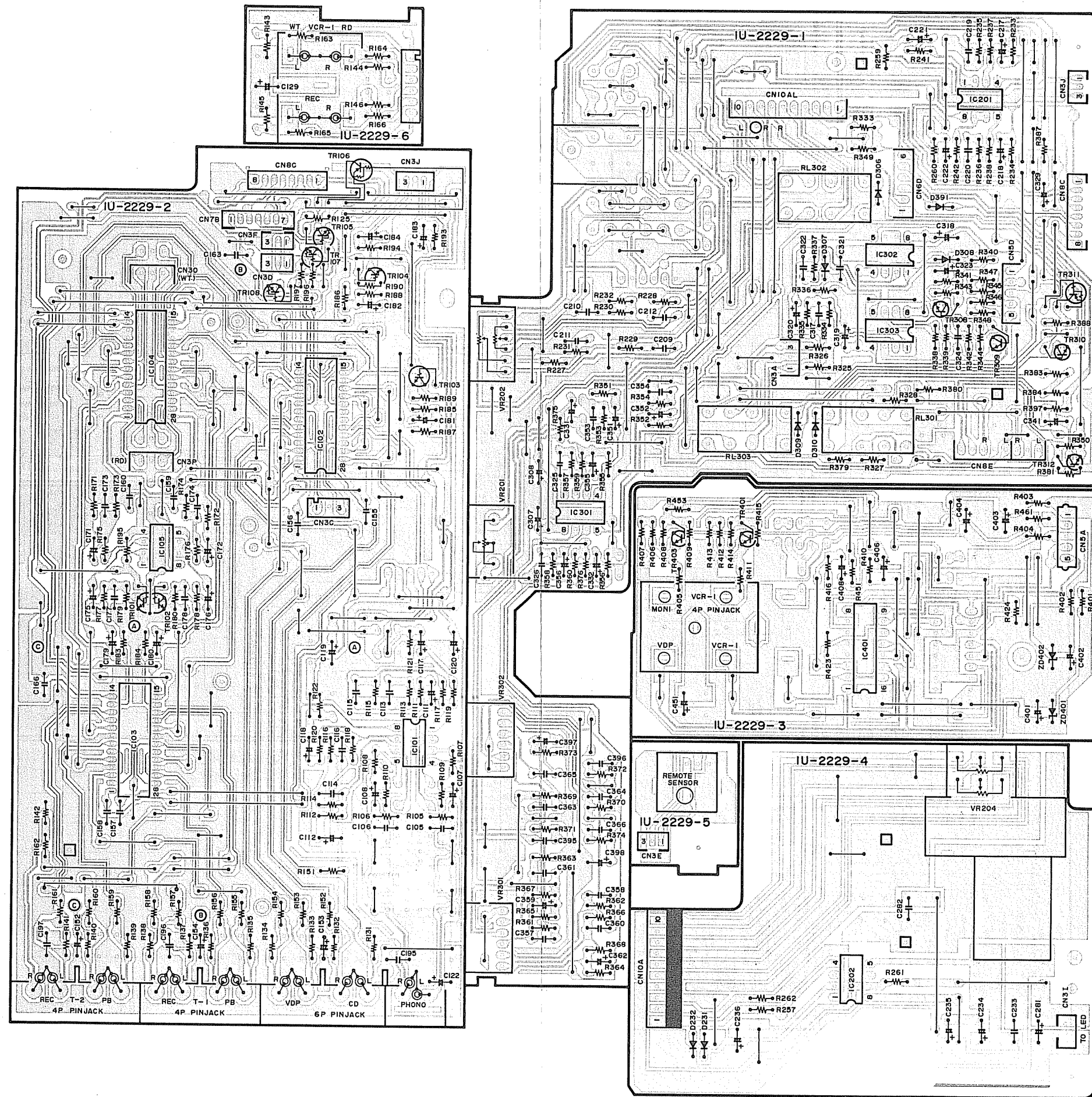
1U-2259 SP & P. SUPPLY UNIT (DRA-1035R)



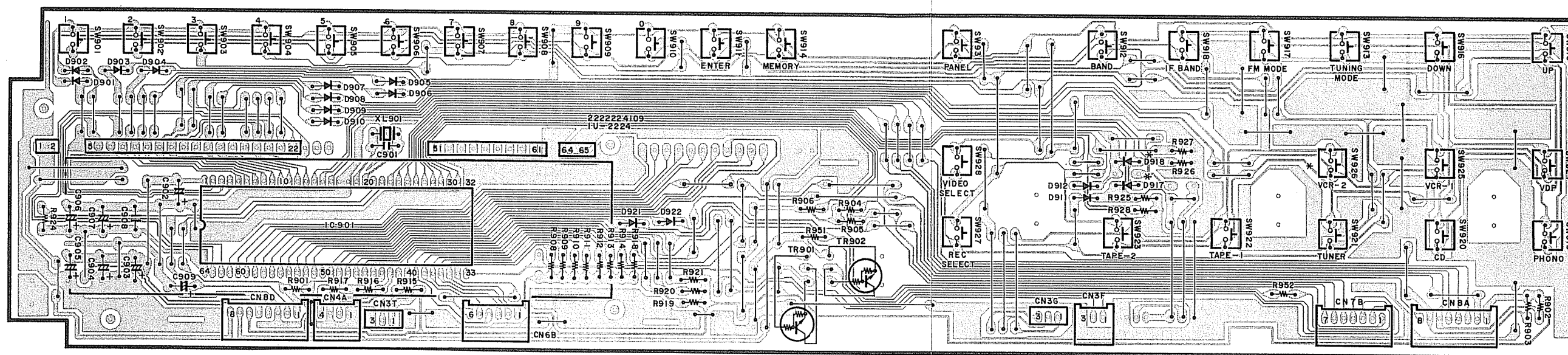
1U-2229 CONTROL UNIT (DRA-635R)



1U-2229 CONTROL UNIT (DRA-835R)

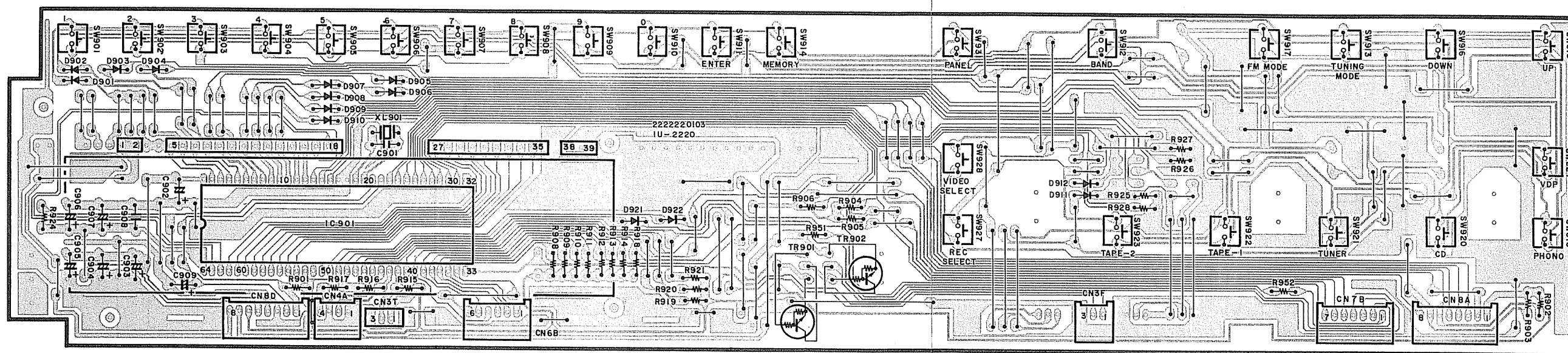


1U-2224 MI-COM UNIT (DRA-1035R/835R)

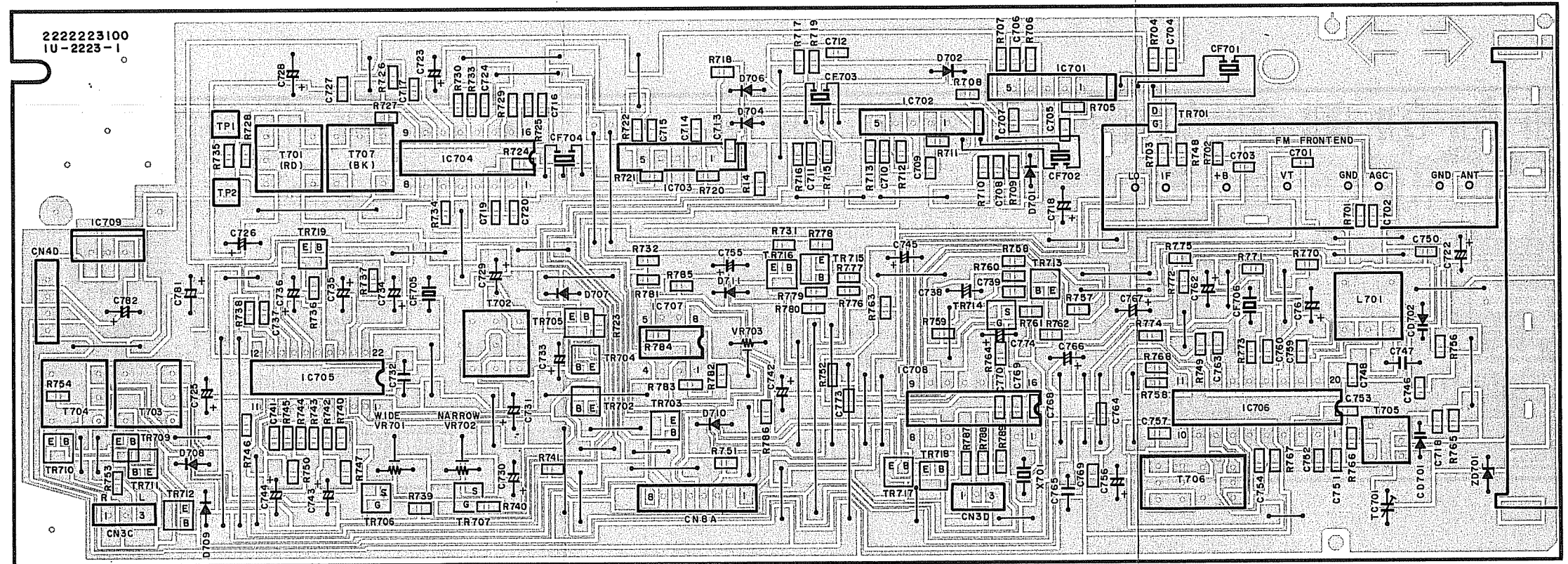


*	D918	D917	SW926
DRA-1035R	USED	NOT USED	USED
DRA-835R	NOT USED	USED	NOT USED

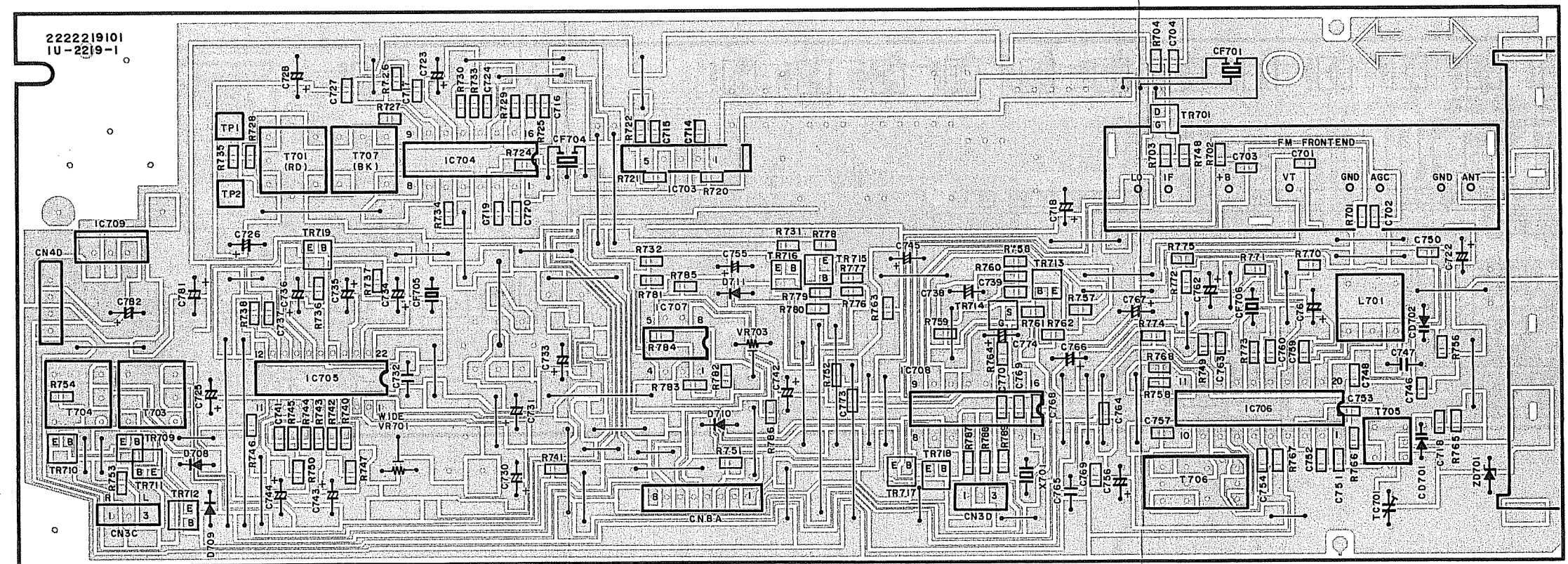
1U-2220 MI-COM UNIT (DRA-635R)



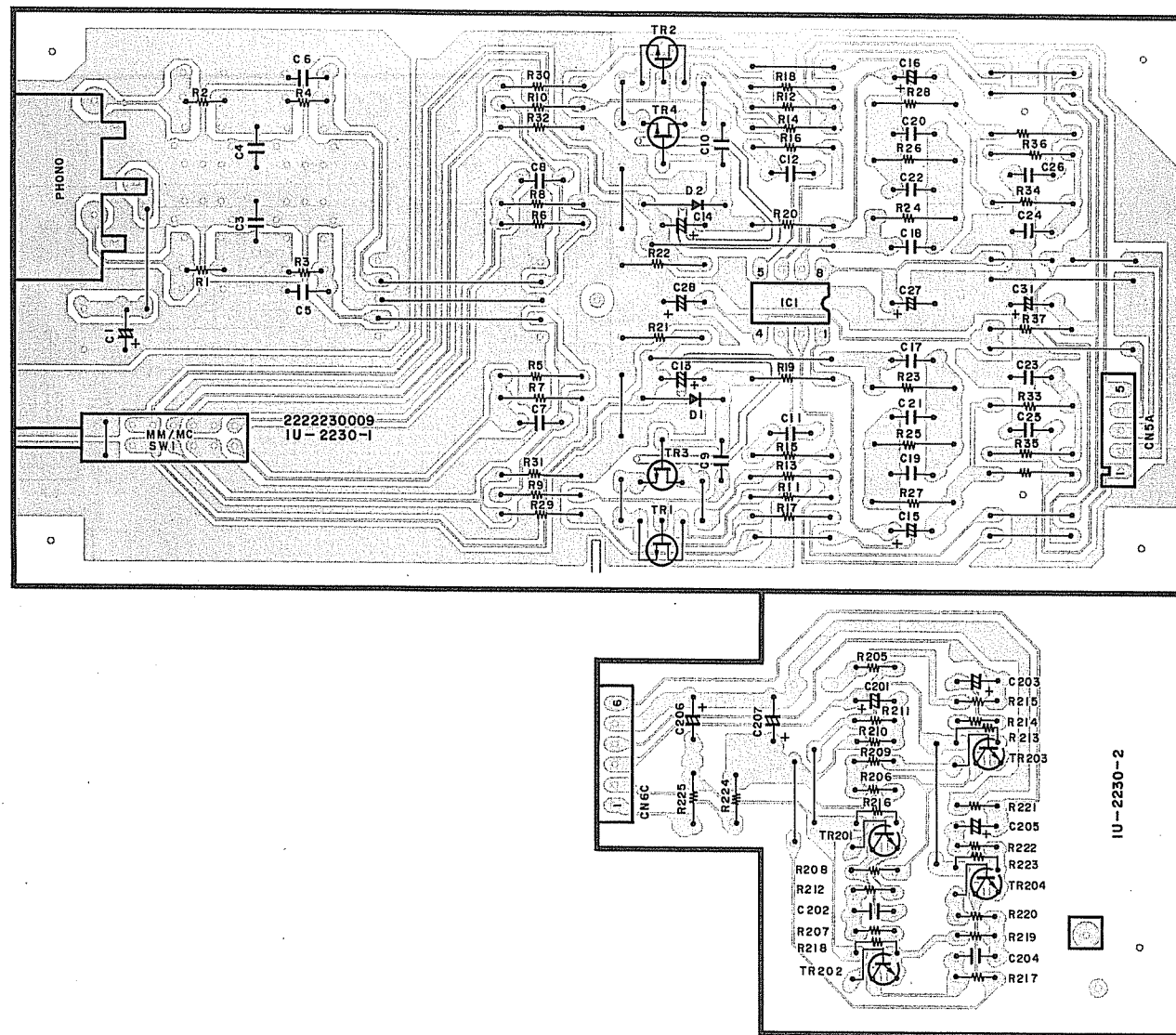
1U-2223 TURNER UNIT (DRA-1035R/835R)



1U-2219 TURNER UNIT (DRA-635R)

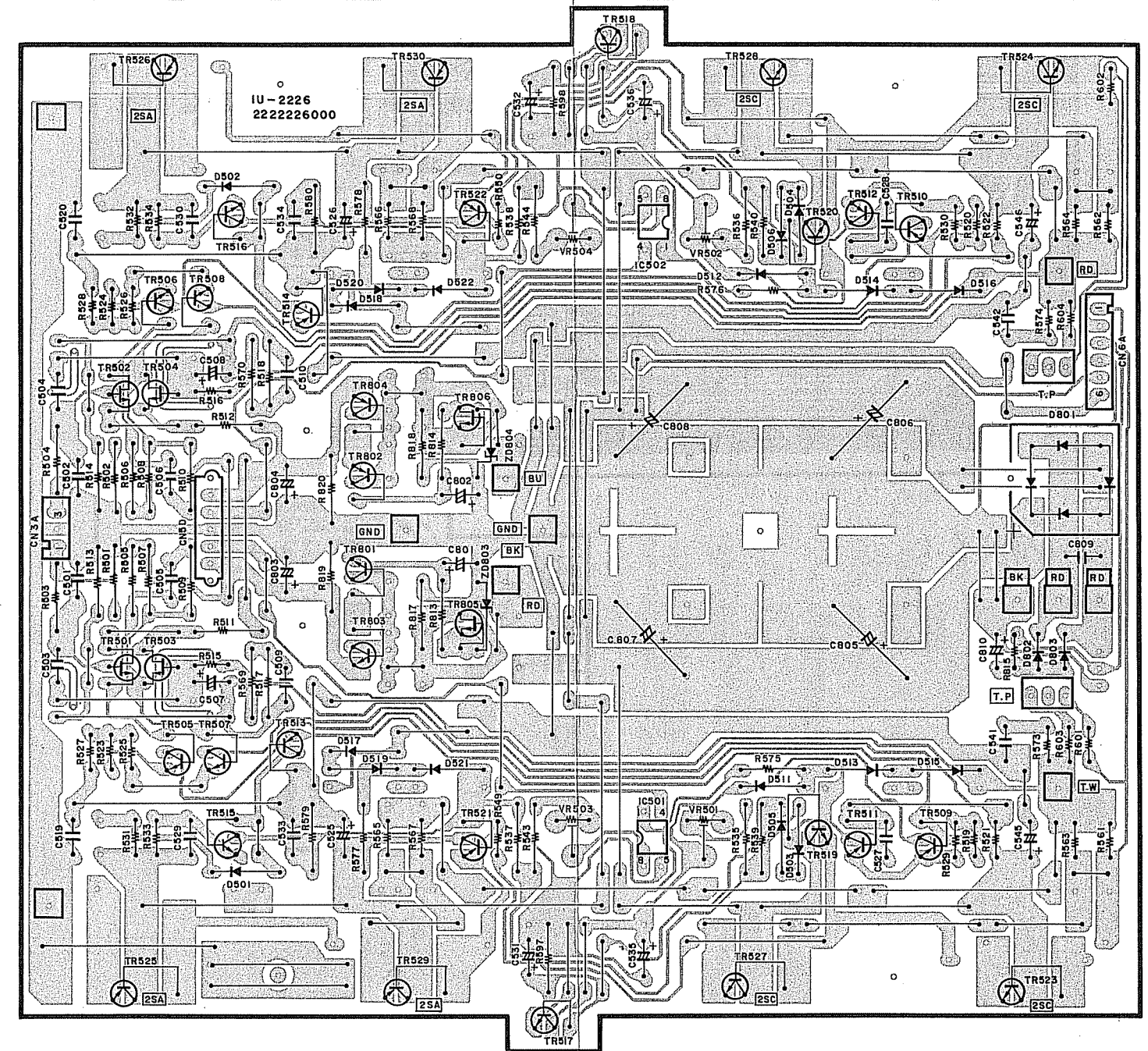
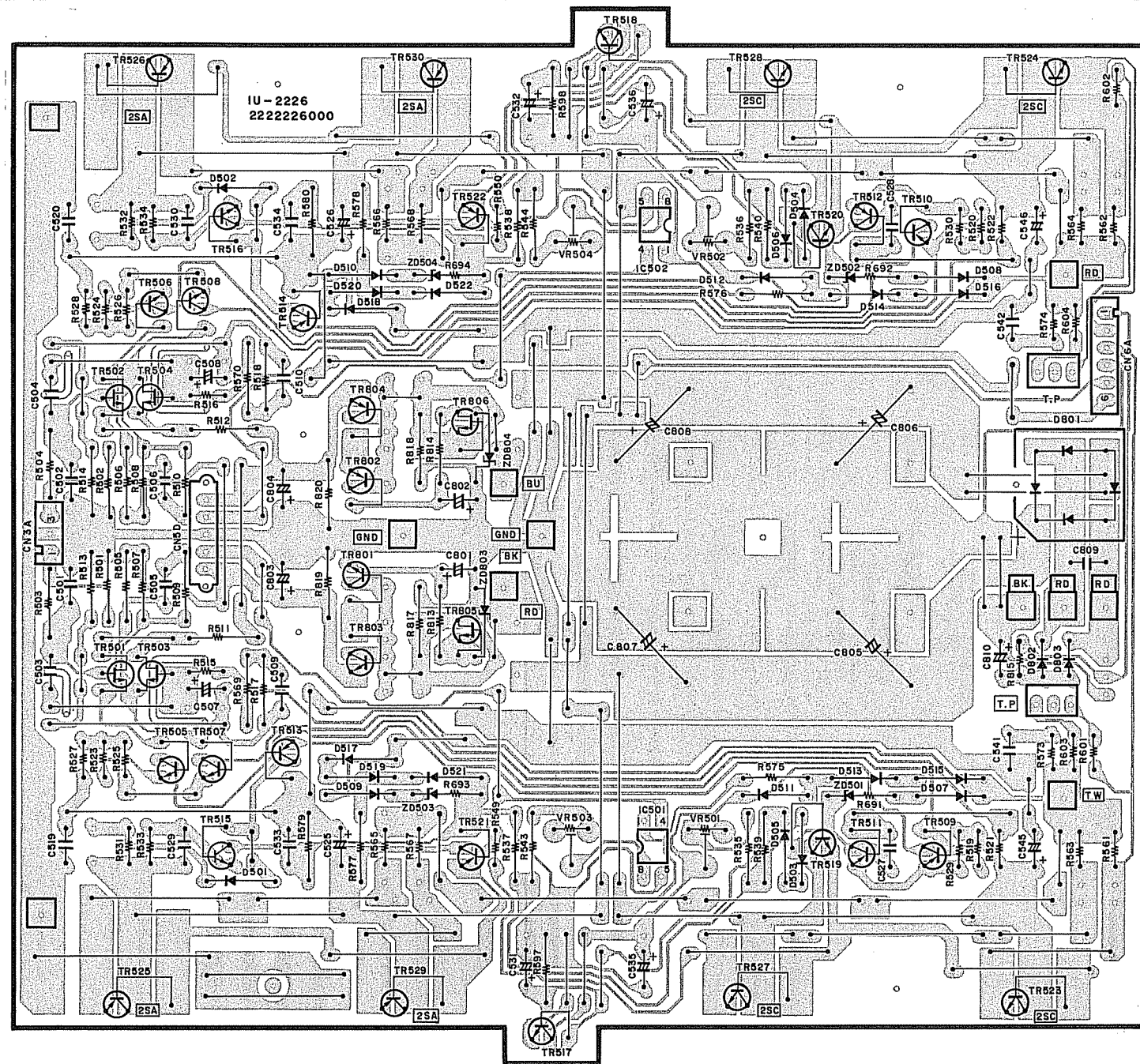


1U-2230 PHONO EQ. UNIT (DRA-1035R)



PRINTED WIRING BOARD PATTERNS
1U-2226 POWER AMP UNIT (DRA-1035R/835R)

1U-2226 POWER AMP UNIT (DRA-635R)



1U-2261 SP & P. SUPPLY UNIT (DRA-635R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC801,802	268 0072 906	IC ICP-N10	
IC803	263 0560 002	IC NJM7815FA	
IC805	263 0561 001	IC NJM7915FA	
IC807	263 0793 002	IC NJM7806FA (S)	
IC808	263 0423 000	IC M51953B	
TR527,528	273 0389 031	Transistor 2SC3855 LB (O/P/Y) (Z)	
TR529,530	271 0240 035	Transistor 2SA1491 LB (O/P/Y) (Z)	
TR601,602	273 0235 923	Transistor 2SC1841 (E/F)	
TR603	269 0107 900	Transistor RN1241 (A/B)	
TR604,605	273 0317 906	Transistor 2SC2458 (BL)	
TR606	271 0191 906	Transistor 2SA1048 (GR)	
TR607	273 0235 923	Transistor 2SC1841 (E/F)	
TR608	271 0131 924	Transistor 2SA988 (E/F)	
TR609,610	273 0235 923	Transistor 2SC1841 (E/F)	
TR613	271 0131 924	Transistor 2SA988 (E/F)	
TR618	269 0026 900	Transistor RN2202 (10K-10K)	
TR620	269 0026 900	Transistor RN2202 (10K-10K)	
TR811	272 0093 010	Transistor 2SB1274 (R/S)	
TR812	274 0136 012	Transistor 2SD1913 (R/S)	
TR813	273 0317 906	Transistor 2SC2458 (BL)	
TR814	271 0191 906	Transistor 2SA1048 (GR)	
TR815	273 0317 906	Transistor 2SC2458 (BL)	
TR816,817	269 0025 901	Transistor RN1202 (10K-10K)	
TR818,819	273 0317 906	Transistor 2SC2458 (BL)	
TR822	271 0131 924	Transistor 2SA988 (E/F)	
TR824	273 0235 923	Transistor 2SC1841 (E/F)	
TR825	269 0025 901	Transistor RN1202 (10K-10K)	
TR826	269 0026 900	Transistor RN2202 (10K-10K)	
TR831	273 0317 906	Transistor 2SC2458 (BL)	
D601,602	276 0432 903	Diode 1SS270A	
D605	276 0432 903	Diode 1SS270A	
D621,622	276 0432 903	Diode 1SS270A	
D804~808	276 0553 905	Diode 1SR35-200A (T93X)	Rect. (Video)
D809,810	276 0432 903	Diode 1SS270A	
D811	276 0049 011	Diode 1S2076A	
D812,813	276 0553 905	Diode 1SR35-200A (T93X)	
D814	276 0432 903	Diode 1SS270A	
D816	276 0432 903	Diode 1SS270A	
ZD601	276 0465 925	Zener Diode HZS7B-3TD	
ZD620	276 0477 913	Zener Diode HZS16-2TD	
ZD801	276 0467 910	Zener Diode HZS9A-2TD	
ZD806,807	276 0477 913	Zener Diode HZS16-2TD	
RESISTORS GROUP			
△R607,608	241 2380 950	Carbon 2k ohm, 1/4W	RD14B2E202JNBS
△R611,612	241 2380 950	Carbon 2k ohm, 1/4W	RD14B2E202JNBS
△R641,642	244 2043 908	Metallic 680 ohm, 1W	RS14B3A681JST (S)
△R661,662	241 2387 940	Carbon 4.7 ohm, 1/4W	RD14B2E4R7JNBS
△R663,664	244 2043 937	Metallic 10 ohm, 1W	RS14B3A100JST (S)
△R665~668	244 2052 960	Metallic 220 ohm, 1W	RS14B3A221JST (S)
△R801	242 0073 000	Fixed 2.2M ohm 1/2W	RC05GF2H225K
△R802	241 2387 940	Carbon 4.7 ohm, 1/4W	RD14B2E4R7JNBS
△R829,830	241 2387 940	Carbon 4.7 ohm, 1/4W	RD14B2E4R7JNBS
△R831	244 2055 954	Metallic 150 ohm, 1W	RS14B3A151JST (S)
△R883	244 2055 954	Metallic 150 ohm, 1W	RS14B3A151JST (S)
CAPACITORS GROUP			
C382	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C601,602	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103ZT (DD-3)
C603	254 4250 945	Electrolytic 330μF/6.3V	CE04W0J331MT (SME)
C604	254 4252 930	Electrolytic 100μF/10V	CE04W1A101MT (SME)

Ref. No.	Part No.	Part Name	Remarks
C605	254 4252 901	Electrolytic 22μF/10V	CE04W1A220MT (SME)
C606	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223ZT (DD-3)
C621,622	255 1216 901	Film 0.022μF/50V	CQ93M1H223JT
C623~626	255 1208 906	Film 0.0047μF/50V	CQ93M1H472JT
C676	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C811,812	253 8014 702	Ceramic 0.01μF/400V/V AC	CK45F2GAC103MC
C813,814	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C821,822	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223ZT (DD-3)
C823,824	254 4259 014	Electrolytic 3300μF/35V	CE04W1V332M (SME)
C825	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103ZT (DD-3)
C826~828	254 4261 921	Electrolytic 100μF/50V	CE04W1H101MT (SME)
C831,832	254 4260 980	Electrolytic 10μF/50V	CE04W1H100MT (SME)
C833	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)
C835	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)
C840	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223ZT (DD-3)
C841	254 4260 980	Electrolytic 10μF/50V	CE04W1H100MT (SME)
C842	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)
C843	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223ZT (DD-3)
C844	259 0007 702	0.00=8 μ F/V	SB CAP==822-C
C845,846	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C848	254 4261 918	Electrolytic 47μF/50V	CE04W1H470MT (SME)
C857	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)
C881	256 1034 979	Metallized 0.1μF/50V	CF93A1H104JT
OTHERS PARTS GROUP			
△F801	206 1046 001	FUSE 6.3AUL 20MM	
△F804,805	206 1039 050	FUSE 1.6A T	
L601,602	235 0068 004	INDUCTOR (1MH)	
RL601	214 0129 001	RELAY (DH2TU)	
△RL801	214 0142 004	RELAY (TV-5)	
△S801	212 9534 002	POWER SW (PUSH) TV-8	
SC601	279 0016 904	SFOR1A42 (TPE2)	
	202 0022 008	FUSE HOLDER	
	203 0482 007	1P SIN CON CORD	
	203 0482 010	1P SIN CON CORD	
	203 0482 023	1P SIN CON CORD	
	203 0483 006	1P SIN CON ASS'Y	
△	203 3946 003	AC OUTLET (POLARIZED)	
	203 4778 021	3P EH-SCN CORD	
	203 4791 008	3P EH-SCN CON CORD	
	203 4793 006	3P SCN-SCN CON CORD	
	203 4794 005	3P PH-PH CON CORD	
	203 6356 001	4P SCN-SCN CON CORD	
	203 6357 000	4P PH-PH CON CORD	
	203 6359 011	4P EH-EH CON CORD	
	204 0307 033	6P KR-KR CON CORD	
	204 0344 009	6P EH-EH CON CORD	
	204 0343 006	6P EH-EH CON CORD (RD)	
	204 2370 042	8P KR-KR CON CORD	
	204 2426 019	7P KR-KR CON CORD	
	204 2480 000	8P KR-KR CON CORD	
	204 8260 004	MINI JACK	
	204 8354 004	HEAD PHONE JACK	
	204 8386 001	2P PIN JACK (S-GND)	
	205 0233 032	3P EH CONNECTOR BASE	
	205 0233 045	4P EH CONNECTOR BASE	
	205 0233 058	5P EH CONNECTOR BASE	
	205 0233 061	6P EH CONNECTOR BASE	
	205 0277 069	6P EH CON BASE (RD)	
	205 0343 045	4P CONN. BASE (KR-PH)	
	205 0343 061	6P CONN. BASE (KR-PH)	
	205 0343 087	8P CONN. BASE (KR-PH)	
	205 0472 000	8P SP TERMINAL (EU)	
△	206 2060 002	AC CORD (POLARIZED)	

Ref. No.	Part No.	Part Name	Remarks	Q'ty
	212 4689 004	2P PUSH SWITCH		
	231 1129 005	LOOP ANTENNA		
△	233 5904 002	POWER TRANS	U.S.A. only	
△	233 5901 005	POWER TRANS	Canada only	

1U-2230 PHONO EQ. UNIT (DRA-1035R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC001	263 0774 005	IC RC4558D-D (RAY)	
TR001~004	275 0038 045	Transistor 2SK369 (BL)/(GR)-C	
TR201~204	273 0325 901	Transistor 2SC1815L (GR/B)	
TR523,524	273 0389 031	Transistor 2SC3855 LB (O/P/Y) (Z)	
TR525,526	271 0240 035	Transistor 2SA1491 LB (O/P/Y) (Z)	
TR527,528	273 0389 031	Transistor 2SC3855 LB (O/P/Y) (Z)	
TR529,530	271 0240 035	Transistor 2SA1491 LB (O/P/Y) (Z)	
D001,002	276 0049 914	Diode 1S2076A	
RESISTORS GROUP			
△R005,006	245 2044 900	Metal film 100 ohm, 1/4W	RN14K2E101G
△R007,008	245 2108 901	Metal film 47k ohm, 1/4W	RN14K2E473G
△R009,010	245 2020 908	Metal film 10 ohm, 1/4W	RN14K2E100G
△R011~014	245 2079 904	Metal film 3k ohm, 1/4W	RN14K2E302G
△R015,016	245 2051 906	Metal film 200 ohm, 1/4W	RN14K2E201G
△R017,018	245 2075 908	Metal film 2k ohm, 1/4W	RN14K2E202G
△R021,022	245 2042 902	Metal film 82 ohm, 1/4W	RN14K2E820G
△R023,024	245 2108 901	Metal film 47k ohm, 1/4W	RN14K2E473G
△R025,026	245 2082 904	Metal film 3.9k ohm, 1/4W	RN14K2E392G
△R027,028	245 2028 900	Metal film 22 ohm, 1/4W	RN14K2E220G
△R033,034	245 2052 905	Metal film 220 ohm, 1/4W	RN14K2E221G
△R035,036	245 2060 900	Metal film 470 ohm, 1/4W	RN14K2E471G
△R037	245 2066 904	Metal film 820 ohm, 1/4W	RN14K2E821G
△R224,225	241 2379 903	Carbon 470ohm, 1/4W	RD14B2E471JNBS
CAPACITORS GROUP			
C001	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C005,006	255 6177 964	Film 150pF/50V	CQ09S1H151JT (SMT)
C011,012	255 1251 937	Film 0.0033μF/50V	CQ92M1H332JT (MRZ)
C013,014	254 4252 930	Electrolytic 100μF/10V	CE04W1A101MT (SME)
C015,016	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)
C017,018	256 1034 953	Metallized 0.068μF/50V	CF93A1H683JT
C019,020	255 1251 953	Film 0.0012μF/50V	CQ92M1H122JT (MRZ)
C021,022	255 4199 957	Film 0.018μF/50V	CQ92M1H183JT (MRZ)
C023,024	255 4199 986	Film 0.001μF/50V	CQ92M1H102JT (MRZ)
C027,028	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C031	254 4252 930	Electrolytic 100μF/10V	CE04W1A101MT (SME)
C201	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C202	255 1209 905	Film 0.0056μF/50V	CQ93M1H562JT
C203	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C204	255 1204 900	Film 0.0022μF/50V	CQ93M1H222JT
C205	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C206,207	254 4261 921	Electrolytic 100μF/50V	CE04W1H101MT (SME)
OTHERS PARTS GROUP			
SW101	212 1050 005	1P PUSH SWITCH	
	203 4794 005	3P PH-PH CON CORD	
	203 6357 000	4P PH-PH CON CORD	
	203 6359 011	4P EH-EH CON CORD	
	203 8310 016	5P EH-SCN CON CORD	
	204 0307 033	6P KR-KR CON CORD	
	204 0344 009	6P EH-EH CON CORD	
	204 0347 006	6P EH-EH CON CORD (RD)	
	204 2370 055	8P KR-KR CON CORD	
	204 2426 019	7P KR-KR CON CORD	
	204 2480 000	8P KR-KR CON CORD	
	204 8385 002	2P PIN JACK (C-GND)	
	205 0667 064	6P CONN BASE-L (9130)	
△	206 2060 002	AC CORD (POLARIZED)	
△	233 5877 003	POWER TRANS	U.S.A. only
△	233 5903 003	POWER TRANS	Canada only

1U-2260 SP & P.SUPPLY UNIT (DRA-835R)

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Qty
SEMICONDUCTORS GROUP				C382	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)		205 0233 058	5P EH CONNECTOR BASE		
IC801,802	268 0072 906	IC ICP-N10		C601,602	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103ZT (DD-3)		205 0233 061	6P EH CONNECTOR BASE		
IC803	263 0560 002	IC NJM7815FA		C603	254 4250 945	Electrolytic 330μF/6.3V	CE04W0J331MT (SME)		205 0277 069	6P EH CON BASE (RD)		
IC805	263 0561 001	IC NJM7915FA		C604	254 4252 930	Electrolytic 100μF/10V	CE04W1A101MT (SME)		205 0343 045	4P CONN. BASE (KR-PH)		
IC807	263 0793 002	IC NJM7806FA (S)		C605	254 4252 901	Electrolytic 22μF/10V	CE04W1A220MT (SME)		205 0343 061	6P CONN. BASE (KR-PH)		
IC808	263 0423 000	IC M51953B		C606	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223ZT (DD-3)		205 0343 087	8P CONN. BASE (KR-PH)		
IC809	263 0755 008	IC CX20106A		C621,622	255 1216 901	Film 0.022μF/50V	CQ93M1H223JT		205 0395 035	3P KR CON BASE (L) RED		
TR523,524	273 0389 031	Transistor 2SC3855 LB (O/P/Y) (Z)		C623~626	255 1208 906	Film 0.0047μF/50V	CQ93M1H472JT		205 0472 000	8P SP TERMINAL (EU)		
TR525,526	271 0240 035	Transistor 2SA1491 LB (O/P/Y) (Z)		C675,676	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)		206 2060 002	AC CORD (POLARIZED)		
TR527,528	273 0389 031	Transistor 2SC3855 LB (O/P/Y) (Z)		C811,812	253 8014 702	Ceramic 0.01μF/400V/V AC	CK45F2GAC103MC		231 1129 005	LOOP ANTENNA		
TR529,530	271 0240 035	Transistor 2SA1491 LB (O/P/Y) (Z)		C813,814	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)	Δ	233 5873 007	POWER TRANS	U.S.A. only	
TR601,602	273 0235 923	Transistor 2SC1841 (E/F)		C821,822	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223ZT (DD-3)	Δ	233 5902 004	POWER TRANS	Canada only	
TR603	269 0107 900	Transistor RN1241 (A/B)		C823,824	254 4259 014	Electrolytic 3300μF/35V	CE04W1V332M (SME)					
TR604,605	273 0317 906	Transistor 2SC2458 (BL)		C825	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103ZT (DD-3)					
TR606	271 0191 906	Transistor 2SA1048 (GR)		C826~828	254 4261 921	Electrolytic 100μF/50V	CE04W1H101MT (SME)					
TR607	273 0235 923	Transistor 2SC1841 (E/F)		C831,832	254 4260 980	Electrolytic 10μF/50V	CE04W1H100MT (SME)					
TR608	271 0131 924	Transistor 2SA988 (E/F)		C833	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)					
TR609~612	273 0235 923	Transistor 2SC1841 (E/F)		C835	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)					
TR613	272 0107 906	Transistor 2SB1328 (P) T105		C840	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223ZT (DD-3)					
TR618~620	269 0026 900	Transistor RN2202 (10k-10k)		C841	254 4260 980	Electrolytic 10μF/50V	CE04W1H100MT (SME)					
TR641	269 0107 900	Transistor RN1241 (A/B)		C842	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)					
TR811	272 0093 010	Transistor 2SB1274 (R/S)		C844	259 0007 702	0.00=8μF/V SB	CAP=822=C					
TR812	274 0136 012	Transistor 2SD1913 (R/S)		C845,846	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)					
TR813	273 0317 906	Transistor 2SC2458 (BL)		C848	254 4261 918	Electrolytic 47μF/50V	CE04W1H470MT (SME)					
TR814	271 0191 906	Transistor 2SA1048 (GR)		C849,850	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)					
TR815	273 0317 906	Transistor 2SC2458 (BL)		C851	254 4260 964	Electrolytic 3.3μF/50V	CE04W1H3R3MT (SME)					
TR816,817	269 0025 901	Transistor RN1202 (10k-10k)		C852	253 1179 961	Ceramic 330pF/50V	CK45B1H331KT (DD-3)					
TR818,819	273 0317 906	Transistor 2SC2458 (BL)		C857	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)					
TR822	271 0131 924	Transistor 2SA988 (E/F)		C881	256 1034 979	Metallized 0.1μF/50V	CF93A1H104JT					
TR824	273 0235 923	Transistor 2SC1841 (E/F)		OTHERS PARTS GROUP				Qty				
TR825	269 0025 901	Transistor RN1202 (10k-10k)		ΔF801	206 1046 014	FUSE 8A						
TR826	269 0026 900	Transistor RN2202 (10k-10k)		ΔF804,805	206 1039 050	FUSE 1.6A T						
TR831	273 0317 906	Transistor 2SC2458 (BL)		L601,602	235 0068 004	INDUCTOR (1MH)						
D601,602	276 0432 903	Diode 1SS270A		LD201	393 9434 906	SEL1210S (TP2)						
D605~607	276 0432 903	Diode 1SS270A		RL601,602	214 0129 001	RELAY (DH2TU)						
D621,622	276 0432 903	Diode 1SS270A		RL603	214 0127 003	RELAY (RY-12W)						
D804~808	276 0553 905	Diode 1SR35-200A (T93X)		RL801	214 0142 004	RELAY (TV-5)						
D809,810	276 0432 903	Diode 1SS270A		S801	212 9534 002	POWER SW (PUSH) TV-8						
D811	276 0049 011	Diode 1S2076A		SC601	279 0016 904	SFOR1A42 (TPE2)						
D812,813	276 0553 905	Diode 1SR35-200A (T93X)		SW301	212 1064 004	1P PUSH SW						
D816	276 0432 903	Diode 1SS270A		SW929,930	212 5604 910	TACT SWITCH-TA (ALPS)						
ZD601	276 0465 925	Zener Diode HZS7B-3TD		202 0022 008	FUSE HOLDER							
ZD620	276 0477 913	Zener Diode HZS16-2TD		203 0482 007	1P SIN CON CORD							
ZD801	276 0467 910	Zener Diode HZS9A-2TD		203 0482 010	1P SIN CON CORD							
ZD806,807	276 0478 909	Zener Diode HZS18-1TD		203 0482 023	1P SIN CON CORD							
				203 0483 006	1P SIN CON ASS'Y							
				203 3946 003	AC OUTLET (POLARIZED)							
				203 4791 008	3P EH-SCN CON CORD							
				203 4792 007	3P PH-SAN CON CORD							
				203 4793 006	3P SCN-SCN CON CORD							
				203 4794 005	3P PH-PH CON CORD							
				203 6357 000	4P PH-PH CON CORD							
				203 6359 011	4P EH-EH CON CORD							
				204 0307 033	6P KR-KR CON CORD							
				204 0344 009	6P EH-EH CON CORD							
				204 0347 006	6P EH-EH CON CORD (RD)							
				204 2370 055	8P KR-KR CON CORD							
				204 2426 019	7P KR-KR CON CORD							
				204 2478 009	8P EH-SCN CON CORD							
				204 2480 000	8P KR-KR CON CORD							
				204 8260 004	MINI JACK							
				204 8313 003	4P PIN JACK (S-GND)							
				204 8354 004	HEAD PHONE JACK							
				205 0233 088	8P EH CONNECTOR BASE							
RESISTORS GROUP												
ΔR607,608	241 2380 950	Carbon 2k ohm, 1/4W	RD14B2E202JNBS									
ΔR611,612	241 2380 950	Carbon 2k ohm, 1/4W	RD14B2E202JNBS									
ΔR639~642	244 2051 929	Metallic 820 ohm, 1W	RS14B3A821JST (S)									
ΔR643,644	244 2043 940	Metallic 2.2k ohm, 1W	RS14B3A222JST (S)									
ΔR661,662	241 2387 940	Carbon 4.7 ohm, 1/4W	RD14B2E4R7JNBS									
ΔR663,664	244 2043 937	Metallic 10 ohm, 1W	RS14B3A100JST (S)									
ΔR665~668	244 2052 960	Metallic 220 ohm, 1W	RS14B3A221JST (S)									
ΔR801	242 0073 000	Fixed 2.2M ohm 1/2W	RC05GF2H225K									
ΔR802	241 2387 940	Carbon 4.7 ohm, 1/4W	RD14B2E4R7JNBS									
ΔR829,830	241 2387 940	Carbon 4.7 ohm, 1/4W	RD14B2E4R7JNBS									
ΔR831	244 2055 954	Metallic 150 ohm, 1W	RS14B3A151JST (S)									
ΔR883	244 2055 954	Metallic 150 ohm, 1W	RS14B3A151JST (S)									
CAPACITORS GROUP												
C315,316	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)									

1U-2259 SP & P.SUPPLY UNIT (DRA-1035R)

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Qty
SEMICONDUCTORS GROUP				CAPACITORS GROUP								
IC801,802	268 0072 906	IC ICP-N10		C315,316	253 4538 949	Ceramic 100pF/50V	CQ45SL1H101JT (DD-3)		205 0343 061	6P CONN.BASE (KR-PH)		
IC803	263 0560 002	IC NJM7815FA		C382	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)		205 0343 087	8P CONN.BASE (KR-PH)		
IC805	263 0561 001	IC NJM7915FA		C601,602	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103ZT (DD-3)		205 0395 035	3P KR CON BASE (L) RED		
IC807	263 0793 002	IC NJM7806FA (S)		C603	254 4250 945	Electrolytic 330μF/6.3V	CE04W0J331MT (SME)		205 0497 001	SP TERMINAL (8P)		
IC808	263 0423 000	IC M51953B		C604	254 4252 930	Electrolytic 100μF/10V	CE04W1A101MT (SME)					
IC809	263 0755 008	IC CX20106A		C605	254 4252 901	Electrolytic 22μF/10V	CE04W1A220MT (SME)					
				C606	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223ZT (DD-3)					
TR601,602	273 0235 923	Transistor 2SC1841 (E/F)		C621,622	255 1216 901	Film 0.022μF/50V	CQ93M1H223JT					
TR603	269 0107 900	Transistor RN1241 (A/B)		C623~626	255 1208 906	Film 0.0047μF/50V	CQ93M1H472JT					
TR604,605	273 0317 906	Transistor 2SC2458 (BL)		C675,676	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)					
TR606	271 0191 906	Transistor 2SA1048 (GR)		C811,812	253 8014 702	Ceramic 0.01μF/400V/-V AC	CK45F2GAC103MC					
TR607	273 0235 923	Transistor 2SC1841 (E/F)		C813,814	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)					
TR608	271 0131 924	Transistor 2SA988 (E/F)		C821,822	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223ZT (DD-3)					
TR609~612	273 0235 923	Transistor 2SC1841 (E/F)		C823,824	254 4259 014	Electrolytic 3300μF/35V	CE04W1V332M (SME)					
TR613	272 0107 906	Transistor 2SB1328 (P)		C825	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103ZT (DD-3)					
TR618~620	269 0026 900	Transistor RN2202 (10k-10k)		C826~828	254 4261 921	Electrolytic 100μF/50V	CE04W1H101MT (SME)					
TR641	269 0107 900	Transistor RN1241 (A/B)		C831,832	254 4260 980	Electrolytic 10μF/50V	CE04W1H100MT (SME)					
TR811	272 0093 010	Transistor 2SB1274 (R/S)		C833	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)					
TR812	274 0136 012	Transistor 2SD1913 (R/S)		C835	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)					
TR813	273 0317 906	Transistor 2SC2458 (BL)		C840	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223ZT (DD-3)					
TR814	271 0191 906	Transistor 2SA1048 (GR)		C841	254 4260 980	Electrolytic 10μF/50V	CE04W1H100MT (SME)					
TR815	273 0317 906	Transistor 2SC2458 (BL)		C842	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)					
TR816,817	269 0025 901	Transistor RN1202 (10k-10k)		C844	259 0007 702	0.00=8μF/-V	SB CAP=822=C					
TR818,819	273 0317 906	Transistor 2SC2458 (BL)		C845,846	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)					
TR822	271 0131 924	Transistor 2SA988 (E/F)		C848	254 4261 918	Electrolytic 47μF/50V	CE04W1H470MT (SME)					
TR824	273 0235 923	Transistor 2SC1841 (E/F)		C849,850	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)					
TR825	269 0025 901	Transistor RN1202 (10k-10k)		C851	254 4260 964	Electrolytic 3.3μF/50V	CE04W1H3R3MT (SME)					
TR826	269 0026 900	Transistor RN2202 (10k-10k)		C852	253 1179 961	Ceramic 330pF/50V	CK45B1H331KT (DD-3)					
TR827	273 0317 906	Transistor 2SC2458 (BL)		C853	254 4252 969	Electrolytic 470μF/10V	CE04W1A471MT (SME)					
TR828	269 0107 900	Transistor RN1241 (A/B)		C857	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)					
TR831	273 0317 906	Transistor 2SC2458 (BL)		C881	256 1034 979	Metallized 0.1μF/50V	CF93A1H104JT					
				OTHERS PARTS GROUP								
D601,602	276 0432 903	Diode 1SS270A		△F801	206 1046 043	FUSE (10A)						
D605~607	276 0432 903	Diode 1SS270A		△F804,805	206 1039 050	FUSE 1.6A T						
D621,622	276 0432 903	Diode 1SS270A		L601,602	235 0068 004	INDUCTOR (1MH)						
D804~808	276 0553 905	Diode 1SR35-200A (T93X)		LD201	393 9434 906	SEL1210S (TP2)						
D809,810	276 0432 903	Diode 1SS270A		RL601,602	214 0129 001	RELAY (DH2TU)						
D811	276 0049 011	Diode 1S2076A		RL603	214 0127 003	RELAY (RY-12W)						
D812,813	276 0553 905	Diode 1SR35-200A (T93X)		△RL801	214 0142 004	RELAY (TV-5)						
D814	276 0432 903	Diode 1SS270A		RL802	214 0120 000	RELAY (TV-8)						
D816	276 0432 903	Diode 1SS270A		△S801	212 9534 002	POWER SW (PUSH) TV-8						
D818	276 0432 903	Diode 1SS270A		SC601	279 0016 904	SF0R1A42 (TPE2)						
ZD601	276 0465 925	Zener Diode HZS7B-3TD		SW301	212 1064 004	1P PUSH SW						
ZD620	276 0477 913	Zener Diode HZS16-2TD		SW929,930	212 5604 910	TACT SWITCH-TA (ALPS)						
ZD801	276 0467 910	Zener Diode HZS9A-2TD			001 0112 043	VINYL WIRE						
ZD806,807	276 0478 909	Zener Diode HZS18-1TD			202 0022 008	FUSE HOLDER						
ZD831	276 0465 925	Zener Diode HZS7B-3TD			203 0482 007	1P SIN CON CORD						
					203 0482 010	1P SIN CON CORD						
					203 0482 023	1P SIN CON CORD						
					203 0483 006	1P SIN CON ASS'Y						
RESISTORS GROUP				△	203 3941 008	AC OUTLET (2P)						
△R607,608	241 2380 950	Carbon 2k ohm, 1/4W	RD14B2E202JNBS		203 4791 008	3P EH-SCN CON CORD						
△R611,612	241 2380 950	Carbon 2kohm, 1/4W	RD14B2E202JNBS		203 4792 007	3P PH-SAN CON CORD						
△R639~642	244 2051 974	Metallc 1k ohm, 1W	RS14B3A102JST (S)		203 4793 006	3P SCN-SCN CON CORD						
△R643,644	244 2043 940	Metallc 2.2k ohm, 1W	RS14B3A222JST (S)		204 2478 009	8P EH-SCN CON CORD						
△R661,622	241 2387 940	Carbon 4.7 ohm, 1/4W	RD14B2E4R7JNBS		204 8260 004	MINI JACK						
△R663,664	244 2043 937	Metallc 10 ohm, 1W	RS14B3A100JST (S)		204 8313 003	4P PIN JACK (S-GND)						
△R665~668	244 2052 960	Metallc 220 ohm, 1W	RS14B3A221JST (S)		204 8354 004	HEAD PHONE JACK						
△R801	242 0073 000	Fixed 2.2M ohm, 1/2W	RC05GF2H225K		205 0233 032	3P EH CONNECTOR BASE						
△R802	241 2387 940	Carbon 4.7 ohm, 1/4W	RD14B2E4R7JNBS		205 0233 045	4P EH CONNECTOR BASE						
△R829,830	241 2387 940	Carbon 4.7 ohm, 1/4W	RD14B2E4R7JNBS		205 0233 058	5P EH CONNECTOR BASE						
△R831	244 2055 954	Metallc 150 ohm, 1W	RS14B3A151JST (S)		205 0233 061	6P EH CONNECTOR BASE						
△R851,852	244 2050 920	Metallc 120 ohm, 1W	RS14B3A121JST (S)		205 0277 069	6P EH CON BASE (RD)						
R871,872	243 2079 021	Winding 33 ohm, 10W	RW78A4A330K=(UL)		205 0343 045	4P CONN.BASE (KR-PH)						
△R883	244 2055 954	Metallc 150 ohm, 1W	RS14B3A151JST (S)									

1U-2229 CONTROL UNIT (DRA-835R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC101	263 0775 004	IC RC2068DDC (RAY)	
IC102	262 0699 006	IC TC9164N	
IC103	262 0698 007	IC TC9163N	
IC104	262 1107 005	IC TC9162N	
IC105	263 0711 000	IC M5218AP	
IC201	263 0775 004	IC RC2068DDC (RAY)	
IC202	263 0476 002	IC LB1639	
IC301	263 0775 004	IC RC2068DDC (RAY)	
IC302	263 0711 000	IC M5218AP	
IC303	263 0772 007	IC RC2082DD (RAY)	
IC401	262 0628 006	IC HD14052BP	
TR101~104	269 0107 900	Transistor RN1241 (A/B)	
TR105	269 0025 901	Transistor RN1202 (10K-10K)	
TR106	269 0026 900	Transistor RN2202 (10K-10K)	
TR107,108	269 0025 901	Transistor RN1202 (10K-10K)	
TR308,309	273 0317 906	Transistor 2SC2458 (BL)	
TR310	273 0235 923	Transistor 2SC1841 (E/F)	
TR311	269 0026 900	Transistor RN2202 (10K-10K)	
TR312	274 0151 903	Transistor 2SD2004 (P) T105	
TR401	273 0198 918	Transistor 2SC1815 (BL)	
TR403	273 0198 918	Transistor 2SC1815 (BL)	
D231,232	276 0432 903	Diode 1SS270A	
D306~310	276 0432 903	Diode 1SS270A	
D391	276 0432 903	Diode 1SS270A	
ZD401,402	276 0460 917	Zener Diode HZSS5C-2TD	
RESISTORS GROUP			
△R333	244 2050 991	Metallic 6.8k ohm, 1W	RS14B3A682JST (S)
△R349	244 2052 957	Metallic 5.6k ohm, 1W	RS14B3A562JST (S)
△R383,384	244 2043 940	Metallic 2.2k ohm, 1W	RS14B3A222JST (S)
△R403,404	244 2052 960	Metallic 220 ohm, 1W	RS14B3A221JST (S)
VR204	211 0698 009	Variable 50k ohm,	V1620V35FA503R
VR201,202 301,302	211 0699 008	Variable	V1604V20F-----
CAPACITORS GROUP			
C105,106	253 1179 929	Ceramic 150pF/50V	CK45B1H151KT (DD-3)
C107,108	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C111,112	254 4250 932	Electrolytic 220µF/6.3V	CE04W0J221MT (SME)
C113,114	255 4199 999	Film 0.024µF/50V	CQ92M1H243JT (MRZ)
C115,116	255 1210 907	Film 0.0068µF/50V	CQ93M1H682JT
C117,118	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C119,120	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C122	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C129	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C152~154	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C155~160	253 1181 904	Ceramic 0.01µF/50V	CK45F1H1032T (DD-3)
C163	253 1179 987	Ceramic 470pF/50V	CK45B1H471KT (DD-3)
C166	253 1180 921	Ceramic 0.001µF/50V	CK45B1H102KT (DD-3)
C171,172	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C173~174	253 4537 966	Ceramic 47pF/50V	CC45SL1H470JT (DD-3)
C175,176	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C177,178	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C179~184	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C195~197	256 1034 979	Metallized 0.1µF/50V	CF93A1H104JT
C209,210	253 4457 907	Ceramic 750pF/50V	CC45SL1H751JT
C211,212	256 1034 911	Metallized 0.033µF/50V	CF93A1H333JT
C217,218	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C219,220	253 4538 907	Ceramic 68pF/50V	CC45SL1H680JT (DD-3)
C221,222	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C233	253 1181 904	Ceramic 0.01µF/50V	CK45F1H1032T (DD-3)

Ref. No.	Part No.	Part Name	Remarks
C234,235	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C236	254 4252 927	Electrolytic 47µF/10V	CE04W1A470MT (SME)
C281	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C282	253 1148 905	Ceramic 0.022µF/50V	CK45F1H2232T
C307,308	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C317	253 4536 909	Ceramic 10pF/50V	CC45SL1H100DT (DD-3)
C318,319	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C320	254 4260 980	Electrolytic 10µF/50V	CE04W1H100MT (SME)
C321	253 1181 904	Ceramic 0.01µF/50V	CK45F1H1032T (DD-3)
C322	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C323	254 4260 993	Electrolytic 22µF/50V	CE04W1H220MT (SME)
C324	253 1181 904	Ceramic 0.01µF/50V	CK45F1H1032T (DD-3)
C325,326	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C329	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C331,332	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C341	254 4180 950	Electrolytic 2.2µF/63V	CE04W1J2R2MT (SM)
C351,352	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C353,354	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C355,356	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C357,358	255 1200 904	Film 0.001µF/50V	CQ93M1H102JT
C359,360	256 1034 995	Metallized 0.15µF/50V	CF93A1H154JT
C361,362	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C363,364	255 1203 901	Film 0.0018µF/50V	CQ93M1H182JT
C365,366	255 1213 904	Film 0.012µF/50V	CQ93M1H123JT
C395,396	256 1034 953	Metallized 0.068µF/50V	CF93A1H683JT
C397,398	254 4260 935	Electrolytic 0.47µF/50V	CE04W1HR47MT (SME)
C401,402	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C403,404	254 4252 969	Electrolytic 470µF/10V	CE04W1A471MT (SME)
C406	254 4254 941	Electrolytic 100µF/16V	CE04W1C101MT (SME)
C408	254 4254 941	Electrolytic 100µF/16V	CE04W1C101MT (SME)
C451	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
	253 1025 002	Ceramic 0.022µF/50V	CK45F1H223Z

Ref. No.	Part No.	Part Name	Remarks
OTHERS PARTS GROUP			
RL301~303	214 0127 003	RELAY (RY-12W)	
SW203	212 1061 007	1P PUSH SWITCH	
	203 0386 022	1P SIN CON ASS'Y	
	203 0475 001	1P CONTACT ASS	
	203 0475 014	1P CONTACT ASS	
	203 4632 086	3P KR-DA CON CORD	
	203 4799 000	3P EH-SCN CON CORD	
	203 4800 009	3P KR-DS CON CORD	
	203 8310 003	5P EH-SCN CON CORD	
	204 0343 000	6P EH-SCN CON CORD	
	204 2481 009	8P KR-DS CON CORD	
	204 8266 008	4P PIN JACK (S GND)	
	204 8278 009	6P PIN JACK (S-GND)	
	204 8382 005	4P PIN JACK (S-GND)	
	205 0233 032	3P EH CONNECTOR BASE	
	205 0233 058	5P EH CONNECTOR BASE	
	205 0233 087	8P EH CON BASE	
	205 0277 030	3P EH CON BASE (RD)	
	205 0277 069	6P EH CON BASE (RD)	
	205 0343 032	3P CONN. BASE (KR-PH)	
	205 0343 074	7P CONN. BASE (KR-PH)	
	205 0343 087	8P CONN. BASE (KR-PH)	
	205 0666 007	10P CONN BASE (9130)	
	205 0667 006	10P CONN BASE-L (9130)	
	499 0150 008	SBX1610-52	

1U-2229 CONTROL UNIT (DRA-653R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC101	263 0775 004	IC RC2068DDC (RAY)	
IC102	262 0699 006	IC TC9164N	
IC103	262 0698 007	IC TC9163N	
IC105	263 0711 000	IC M5218AP	
IC201	263 0775 004	IC RC2068DDC (RAY)	
IC202	263 0476 002	IC LB1639	
IC301	263 0775 004	IC RC2068DDC (RAY)	
IC302	263 0711 000	IC M5218AP	
IC303	263 0772 007	IC RC2082DD (RAY)	
IC401	262 0628 006	IC HD14052BP	
TR101~104	269 0107 900	Transistor RN1241 (A/B)	
TR105	269 0025 901	Transistor RN1202 (10K-10K)	
TR106	269 0026 900	Transistor RN2202 (10K-10K)	
TR107,108	269 0025 901	Transistor RN1202 (10K-10K)	
TR308,309	273 0317 906	Transistor 2SC2458 (BL)	
TR312	273 0235 923	Transistor 2SC1841 (E/F)	
TR401	273 0198 918	Transistor 2SC1815 (BL)	
TR403	273 0198 918	Transistor 2SC1815 (BL)	
D231,232	276 0432 903	Diode 1SS270A	
D307,308	276 0432 903	Diode 1SS270A	
D310	276 0432 903	Diode 1SS270A	
ZD401,402	276 0460 917	Zener Diode HZSS5C-2TD	
RESISTORS GROUP			
△R383,384	244 2052 915	Metallic 1.8kohm, 1W	RS14B3A182JST (S)
△R403,404	244 2052 960	Metallic 220ohm, 1W	RS14B3A221JST (S)
VR204	211 0698 009	Variable 50k ohm,	V1620V35FA503R
VR201,202 301,302	211 0699 008	Variable	V1604V20F-----
CAPACITORS GROUP			
C105,106	253 1179 929	Ceramic 150pF/50V	CK45B1H151KT (DD-3)
C107,108	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT(SME)
C111,112	254 4250 932	Electrolytic 220µF/6.3V	CE04W0J221MT (SME)
C113,114	255 4199 999	Film 0.024µF/50V	CQ92M1H243JT (MRZ)
C115,116	255 1210 907	Film 0.0068µF/50V	CQ93M1H682JT
C117,118	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C119,120	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C122	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C152~154	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C155~160	253 1181 904	Ceramic 0.01µF/50V	CK45F1H1032T (DD-3)
C163	253 1179 987	Ceramic 470pF/50V	CK45B1H471KT (DD-3)
C166	253 1180 921	Ceramic 0.001µF/50V	CK45B1H102KT (DD-3)
C171,172	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C173,174	253 4537 966	Ceramic 47pF/50V	CC45SL1H470JT (DD-3)
C175,176	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C177,178	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C179~184	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C195~197	256 1034 979	Metallized 0.1µF/50V	CF93A1H104JT
C209,210	253 4457 907	Ceramic 750pF/50V	CC45SL1H751JT
C211,212	256 1034 911	Metallized 0.033µF/50V	CF93A1H333JT
C217,218	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C219,220	253 4538 907	Ceramic 68pF/50V	CC45SL1H680JT (DD-3)
C221,222	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C233	253 1181 904	Ceramic 0.01µF/50V	CK45F1H1032T (DD-3)
C234,235	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C236	254 4252 927	Electrolytic 47µF/10V	CE04W1A470MT (SME)
C307,308	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C317	253 4536 909	Ceramic 10pF/50V	CC45SL1H100DT (DD-3)
C318,319	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C320	254 4260 980	Electrolytic 10µF/50V	CE04W1H100MT (SME)

Ref. No.	Part No.	Part Name	Remarks
C321	253 1181 904	Ceramic 0.01µF/50V	CK45F1H1032T (DD-3)
C322	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C323	254 4260 993	Electrolytic 22µF/50V	CE04W1H220MT (SME)
C324	253 1181 904	Ceramic 0.01µF/50V	CK45F1H1032T (DD-3)
C325,326	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C331,332	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C351,352	254 4260 948	Electrolytic 1	

1U-2224 MI-COM UNIT (DRA-835R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC901	262 1467 004	IC TMP47C870N-4345	
TR901	269 0026 900	Transistor RN2202 (10k-10k)	
TR902	269 0029 907	Transistor RN1204 (47k-47k)	
D901~912	276 0432 903	Diode 1SS270A	
D917	276 0432 903	Diode 1SS270A	
D921~922	276 0432 903	Diode 1SS270A	
CAPACITORS GROUP			
C901	253 4412 900	Ceramic 10pF/50V	CC45SL1H100DT
C902~905	254 4195 932	Electrolytic 22µF/35V	CE04W1V220MT (SRA)
C906,907	254 4213 937	Electrolytic 100µF/6.3V	CE04W0J101MT (SRA)
C908	253 1146 907	Ceramic 0.01µF/50V	CK45F1H103ZT
C909	254 4196 944	Electrolytic 1µF/50V	CE04W1H010MT (SRA)
OTHERS PARTS GROUP Qty			
SW901~925	212 5604 910	TACT SWITCH-TA (ALPS)	
SW927,928	212 5604 910	TACT SWITCH-TA (ALPS)	
SW931	212 5604 910	TACT SWITCH-TA (ALPS)	
XL901	399 0034 002	CST 4.00 MG	
	203 4632 073	3P KR-DA CORD	
	203 4789 010	3P KR-DA CON CORD	
	205 0355 033	3P KR CON BASE (L)	
	205 0355 046	4P KR CON BASE (L)	
	205 0355 062	6P KR CON BASE (L)	
	205 0355 075	7P KR CON BASE (L)	
	205 0355 088	8P KR CON BASE (L)	
	205 0395 080	8P KR CON BASE (RD) L	
	393 4118 007	FIP16DM8	

1U-2220 MI-COM UNIT (DRA-635R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC901	262 1467 004	IC TMP47C870N-4345	
TR901	269 0026 900	Transistor RN2202 (10k-10k)	
TR902	269 0029 907	Transistor RN1204 (47k-47k)	
D901~908	276 0432 903	Diode 1SS270A	
D921,922	276 0432 903	Diode 1SS270A	
CAPACITORS GROUP			
C901	253 4412 900	Ceramic 10pF/50V	CC45SL1H100DT
C902~905	254 4195 932	Electrolytic 22µF/35V	CE04W1V220MT (SRA)
C906~907	254 4213 937	Electrolytic 100µF/6.3V	CE04W0J101MT (SRA)
C908	253 1146 907	Ceramic 0.01µF/50V	CK45F1H103ZT
C909	254 4196 944	Electrolytic 1µF/50V	CE04W1H010MT (SRA)
OTHERS PARTS GROUP Qty			
SW901~917	212 5604 910	TACT SWITCH-TA (ALPS)	
SW919~924	212 5604 910	TACT SWITCH-TA (ALPS)	
SW927~928	212 5604 910	TACT SWITCH-TA (ALPS)	
SW931	212 5604 910	TACT SWITCH-TA (ALPS)	
XL901	399 0034 002	CST 4.00 MG	
	203 4632 073	3P KR-DA CORD	
	205 0355 033	3P KR CON BASE (L)	
	205 0355 046	4P KR CON BASE (L)	
	205 0355 062	6P KR CON BASE (L)	
	205 0355 075	7P KR CON BASE (L)	
	205 0355 088	8P KR CON BASE (L)	
	205 0395 080	8P KR CON BASE (RD) L	
	393 4117 008	FIP11BSM7	

1U-2229 CONTROL UNIT (DRA-1035R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC102	262 0699 006	IC TC9164N	
IC103	262 0698 007	IC TC9163N	
IC104	262 1107 005	IC TC9162N	
IC105	263 0711 000	IC M5218AP	
IC201	263 0775 004	IC RC2068DDC (RAY)	
IC202	263 0476 002	IC LB1639	
IC301	263 0775 004	IC RC2068DDC (RAY)	
IC302	263 0711 000	IC M5218AP	
IC303	263 0772 007	IC RC2082DD (RAY)	
IC401,402	262 0628 006	IC HD14052BP	
TR101~104	269 0107 900	Transistor RN1241 (A/B)	
TR105	269 0025 901	Transistor RN1202 (10k-10k)	
TR106	269 0026 900	Transistor RN2202 (10k-10k)	
TR107,108	269 0025 901	Transistor RN1202 (10k-10k)	
TR308,309	273 0317 906	Transistor 2SC2458 (BL)	
TR310	273 0235 923	Transistor 2SC1841 (E/F)	
TR311	269 0026 900	Transistor RN2202 (10k-10k)	
TR312	274 0151 903	Transistor 2SD2004 (P) T105	
TR401~403	273 0198 918	Transistor 2SC1815 (BL)	
D231,232	276 0432 903	Diode 1SS270A	
D306~310	276 0432 903	Diode 1SS270A	
D391	276 0432 903	Diode 1SS270A	
ZD401,402	276 0460 917	Zener Diode HZS5C-2TD	
RESISTORS GROUP			
△R333	244 2050 991	Metallic 6.8k ohm, 1W	RS14B3A682JST (S)
△R349	244 2052 957	Metallic 5.6k ohm, 1W	RS14B3A562JST (S)
△R383,384	244 2043 940	Metallic 2.2k ohm, 1W	RS14B3A222JST (S)
△R403,404	244 2061 016	Metallic 150 ohm, 2W	RS14B3D151JNBS
VR204	211 0698 009	Variable 50k ohm	V1620V35FA503R
VR201,202,301,302	211 0699 008	Variable	V1604V20F----
CAPACITORS GROUP			
C129,130	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C152~154	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C155~160	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103ZT (DD-3)
C163	253 1179 987	Ceramic 470pF/50V	CK45B1H471KT (DD-3)
C166	253 1180 921	Ceramic 0.001µF/50V	CK45B1H102KT (DD-3)
C171,172	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C173,174	253 4537 966	Ceramic 47pF/50V	CC45SL1H470JT (DD-3)
C175,176	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C177,178	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C179~184	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C195~197	256 1034 979	Metallized 0.1µF/50V	CF93A1H104JT
C209,210	253 4457 907	Ceramic 750pF/50V	CC45SL1H751JT
C211,212	256 1034 911	Metallized 0.033µF/50V	GF93A1H333JT
C217,218	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C219,220	253 4538 907	Ceramic 68pF/50V	CC45SL1H680JT (DD-3)
C221,222	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C233	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103ZT (DD-3)
C234,235	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C236	254 4252 927	Electrolytic 47µF/10V	CE04W1A470MT (SME)
C281	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C282	253 1148 905	Ceramic 0.022µF/50V	CK45F1H223ZT
C307,308	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C317	253 4536 909	Ceramic 10pF/50V	CC45SL1H100DT (DD-3)
C318,319	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C320	254 4260 980	Electrolytic 10µF/50V	CE04W1H100MT (SME)
C321	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103ZT (DD-3)
C322	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C323	254 4260 993	Electrolytic 22µF/50V	CE04W1H220MT (SME)
C324	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103ZT (DD-3)
OTHERS PARTS GROUP Qty			
RL301~303	214 0127 003	RELAY (RY-12W)	
	203 0386 022	1P SIN CON ASS'Y	
	203 0475 001	1P CONTACT ASS	
	203 0475 014	1P CONTACT ASS	
	203 4632 086	3P KR-DA CON CORD	
	203 4799 000	3P EH-SCN CON CORD	
	203 4800 009	3P KR-DS CON CORD	
	203 8310 003	5P EH-SCN CON CORD	
	204 0342 001	6P EH-SCN CON CORD	
	204 0343 000	6P EH-SCN CON CORD	
	204 2481 009	8PKR-DS CON CORD	
	204 8266 008	4P PIN JACK (S GND)	
	204 8268 006	4P PIN JACK (S-GND)	
	204 8383 004	6P PIN JACK (S-GND)	
	205 0233 032	3P EH CONNECTOR BASE	
	205 0233 058	5P EH CONNECTOR BASE	
	205 0233 087	8P EH CON BASE	
	205 0276 031	3P EH CON BASE (BU)	
	205 0277 030	3P EH CON BASE (RD)	
	205 0277 069	6P EH CON BASE (RD)	
	205 0278 039	3P EH CON BASE (BK)	
	205 0343 032	3P CONN.BASE (KR-PH)	
	205 0343 074	7P CONN.BASE (KR-PH)	
	205 0343 087	8P CONN.BASE (KR-PH)	
	205 0666 007	10P CONN BASE (9130)	
	205 0666 065	6P CONN BASE (9130)	
	205 0667 006	10P CONN BASE-L (9130)	
	212 1060 008	3P PUSH SWITCH	
	499 0150 008	SBX1610-52	

1U-2219 TUNER UNIT (DRA-635R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC703	263 0099 007	IC TA-7060AP	
IC704	263 0520 000	IC LA1235	
IC705	263 0439 007	IC LA3401	
IC706	263 0145 003	IC LA1245	
IC707	263 0237 005	IC LA6358	
IC708	262 0719 009	IC LM7001	
IC709	263 0571 004	IC NJM78M12FA	
000	261 0025 004	IC CERAMIC FILTER	
TR701	275 0074 902	Transistor 2SK211-Y/GR (TE85L)	
TR709,710	269 0066 902	Transistor DTC323TKT96	
TR711	269 0114 906	Transistor RN2402 (TE85L)	
TR712	269 0088 906	Transistor DTC114TKT96	
TR713	273 0403 904	Transistor 2SC2712-Y/GR (TE85L)	
TR714	275 0075 901	Transistor 2SK209-Y/GR (TE85L)	
TR715,716	273 0403 904	Transistor 2SC2712-Y/GR (TE85L)	
TR717,718	269 0114 906	Transistor RN2402 (TE85L)	
TR719	269 0054 901	Transistor DTC144EKT96	
D708,711	276 0432 903	Diode 1SS270A	
ZD701	276 0467 910	Zener Diode HZS9A-2TD	

Ref. No.	Part No.	Part Name	Remarks
RESISTORS GROUP			
R701	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R702	247 0010 929	Chip 15k ohm, 1/10W	RM73B--153J
R703	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R704	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
R720,721	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
R722	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R724	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
R725	247 0011 960	Chip 56k ohm, 1/10W	RM73B--563J
R726	247 0004 922	Chip 47 ohm, 1/10W	RM73B--470J
R727	247 0010 945	Chip 18k ohm, 1/10W	RM73B--183J
R728	247 0008 928	Chip 2.2k ohm, 1/10W	RM73B--222J
R729	247 0009 927	Chip 5.6k ohm, 1/10W	RM73B--562J
R730	247 0010 961	Chip 22k ohm, 1/10W	RM73B--223J
R731	247 0013 900	Chip 220k ohm, 1/10W	RM73B--224J
R732	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R733	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R734	247 0007 945	Chip 1k ohm, 1/10W	RM73B--102J
R735	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R736	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R737	247 0008 960	Chip 3.3k ohm, 1/10W	RM73B--332J
R738	247 0007 945	Chip 1k ohm, 1/10W	RM73B--102J
R741	247 0011 915	Chip 36k ohm, 1/10W	RM73B--363J
R742	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R743,744	247 0012 943	Chip 120k ohm, 1/10W	RM73B--124J
R745,746	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R747	247 0008 960	Chip 3.3k ohm, 1/10W	RM73B--332J
R748	247 0007 945	Chip 1k ohm, 1/10W	RM73B--102J
R750	247 0008 960	Chip 3.3k ohm, 1/10W	RM73B--332J
R751	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R752	247 0004 948	Chip 56 ohm, 1/10W	RM73B--560J
R753,754	247 0008 960	Chip 3.3k ohm, 1/10W	RM73B--332J
R756	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R757	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R758	247 0010 961	Chip 22k ohm, 1/10W	RM73B--223J
R759	247 0018 905	Chip 0.0 ohm, 1/10W	RM73B--OR0K
R760	247 0008 928	Chip 2.2k ohm, 1/10W	RM73B--222J
R761	247 0005 989	Chip 220 ohm, 1/10W	RM73B--221J
R762	247 0005 947	Chip 150 ohm, 1/10W	RM73B--151J
R763	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J

Ref. No.	Part No.	Part Name	Remarks
R764	247 0009 927	Chip 5.6k ohm, 1/10W	RM73B--562J
R765	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R766	247 0005 989	Chip 220 ohm, 1/10W	RM73B--221J
R767	247 0007 987	Chip 1.5k ohm, 1/10W	RM73B--152J
R768	247 0007 903	Chip 680 ohm, 1/10W	RM73B--681J
R769	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R770	247 0010 929	Chip 15k ohm, 1/10W	RM73B--153J
R771,772	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R773	247 0004 980	Chip 82 ohm, 1/10W	RM73B--820J
R774	247 0008 960	Chip 3.3k ohm, 1/10W	RM73B--332J
R775	247 0009 969	Chip 8.2k ohm, 1/10W	RM73B--822J
R776	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R777	247 0011 944	Chip 47k ohm, 1/10W	RM73B--473J
R778	247 0013 900	Chip 220k ohm, 1/10W	RM73B--224J
R779	247 0014 967	Chip 1m ohm, 1/10W	RM73B--105J
R780	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R781,782	247 0011 944	Chip 47k ohm, 1/10W	RM73B--473J
R783	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R784	247 0011 902	Chip 33k ohm, 1/10W	RM73B--333J
R785,786	247 0007 945	Chip 1k ohm, 1/10W	RM73B--102J
R787~789	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
VR701	211 6077 938	Variable 100k ohm,	V06PB104 (IM)
VR703	211 6082 907	Variable 200k ohm,	V06PB204 (IM)

Ref. No.	Part No.	Part Name	Remarks
CAPACITORS GROUP			
C701~704	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C714~717	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C718	254 4254 789	Electrolytic 1000µF/16V	CE04W1C102MC (SME)
C718~720	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C722~723	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C724	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C725	254 4260 951	Electrolytic 2.2µF/50V	CE04W1H2R2MT (SME)
C726	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C727	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C728	254 4254 954	Electrolytic 220µF/16V	CE04W1C221MT (SME)
C729	254 4254 912	Electrolytic 22µF/16V	CE04W1C220MT (SME)
C730	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C731	254 4254 912	Electrolytic 22µF/16V	CE04W1C220MT (SME)
C732	256 1034 937	Metallized 0.047µF/50V	CF93A1H473JT
C733	254 4254 941	Electrolytic 100µF/16V	CE04W1C101MT (SME)
C734	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C735	254 4260 919	Electrolytic 0.22µF/50V	CE04W1HR22MT (SME)
C736	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C737	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C738	254 3056 917	Electrolytic 1µF/50V	CE04D1H010MBPT (SME)
C739	257 0012 982	Ceramic-chip 0.022µF/50V	CK73F1H223ZT
C740,741	257 0006 972	Ceramic-chip 750pF/50V	CC73SL1H751JT
C742	254 4260 045	Electrolytic 1µF/50V	CE04W1H010M (SME)
C743,744	254 4258 905	Electrolytic 4.7µF/35V	CE04W1V4R7MT (SME)
C745	254 4254 941	Electrolytic 100µF/16V	CE04W1C101MT (SME)
C746	257 0002 992	Ceramic-chip 20pF/50V	CC73SL1H200JT
C747	255 4201 942	Film 390pF/50V	CQ93P1H391JT
C748	257 0004 961	Ceramic-chip 100pF/50V	CC73SL1H101JT
C750	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C751	257 0007 900	Ceramic-chip 0.001µF/50V	CC73SL1H102JT
C752,753	257 0012 982	Ceramic-chip 0.022µF/50V	CK73F1H223ZT
C754	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C755	254 4260 935	Electrolytic 0.47µF/50V	CE04W1HR47MT (SME)
C756	254 4254 909	Electrolytic 10µF/50V	CE04W1C100MT (SME)
C757	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C758	257 0007 900	Ceramic-chip 0.001µF/50V	CC73SL1H102JT
C759,760	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C761	254 4260 951	Electrolytic 2.2µF/50V	CE04W1H2R2MT (SME)
C762	254 4258 905	Electrolytic 4.7µF/35V	CE04W1V4R7MT (SME)

Ref. No.	Part No.	Part Name	Remarks
C763	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C764	257 0009 937	Ceramic-chip 0.0027µF/50V	CK73B1H272KT
C765	256 1034 979	Metallized 0.1µF/50V	CF93A1H104JT
C766	254 4254 938	Electrolytic 47µF/16V	CE04W1C470MT (SME)
C767	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C768,769	257 0002 976	Ceramic-chip 16pF/50V	CC73SL1H160JT
C770~772	257 0005 986	Ceramic-chip 330pF/50V	CC73SL1H331JT
C773	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C774	254 4250 929	Electrolytic 100µF/6.3V	CE04W0J101MT (SME)
C781	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C782	254 4256 907	Electrolytic 10µF/25V	CE04W1E100MT (SME)

Ref. No.	Part No.	Part Name	Remarks
OTHERS PARTS GROUP			
CD701,702	276 0302 004	SVC321SPA-D-2	
CF705	261 0079 005	CSB456F11	
CF706	261 0031 001	BFU450C4 (C.F)	
L701	231 4901 000	MW OSC COIL	
T701	231 2073 008	IF DET TRANS (S)	
T703,704	232 0085 004	LPF	
T705	231 1127 007	MW ANT TRANS	
T706	231 1132 005	AM IFT (SFL450J3)	
T707	231 2072 009	IF DET TRANS (P)	
TC701	213 0041 034	TRIMMER CONDENCER	
X701	399 0075 003	X-TAL (7.2MHZ)	
	205 0233 045	4P EH CONNECTOR BASE	
	205 0278 039	3P EH CON BASE (BK)	
	205 0321 083	8P CONNE. BASE (RED)	
	205 0343 032	3P CONN. BASE (KR-PH)	
	205 0433 010	ANT TERMINAL (F)	
	216 0079 005	FM FRONT END (U)	

Ref. No.	Part No.	Part Name	Remarks
C763	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C764	257 0009 937	Ceramic-chip 0.0027µF/50V	CK73B1H272KT
C765	256 1034 979	Metallized 0.1µF/50V	CF93A1H104JT
C766	254 4254 938	Electrolytic 47µF/16V	CE04W1C470MT (SME)
C767	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT (SME)
C768,769	257 0002 976	Ceramic-chip 16pF/50V	CC73SL1H160JT
C770~772	257 0005 986	Ceramic-chip 330pF/50V	CC73SL1H331JT
C773	257 0012 966	Ceramic-chip 0.01µF/50V	CK73F1H103ZT
C774	254 4250 929	Electrolytic 100µF/6.3V	CE04W0J101MT (SME)
C781	254 4254 909	Electrolytic 10µF/16V	CE04W1C100MT (SME)
C782	254 4256 907	Electrolytic 10µF/25V	CE04W1E100MT (SME)

1U-2224 MI-COM UNIT (DRA-1035R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC901	262 1467 004	IC TMP47C870N-4345	
TR901	269 0026 900	Transistor RN2202 (10K-10K)	
TR902	269 0029 907	Transistor RN1204 (47K-47K)	
D901~912	276 0432 903	Diode 1SS270A	
D918	276 0432 903	Diode 1SS270A	
D921,922	276 0432 903	Diode 1SS270A	
CAPACITORS GROUP			
C901	253 4412 900	Ceramic 10pF/50V	CC45SL1H100DT
C902~905	254 4195 932	Electrolytic 22µF/35V	CE04W1V220MT (SRA)
C906,907	254 4213 937	Electrolytic 100µF/6.3V	CE04W0J101MT (SRA)
C908	253 1146 907	Ceramic 0.01µF/50V	CK45F1H103ZT
C90			

1U-2226 POWER AMP UNIT (DRA-635R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC501,502	262 0874 009	IC TLP521-1(BL)	
TR501~504	275 0055 015	Transistor 2SK184C (GR)/(BL)	
TR505~508	273 0235 923	Transistor 2SC1841 (E/F)	
TR509~514	271 0131 924	Transistor 2SA988 (E/F)	
TR515,516	273 0235 923	Transistor 2SC1841 (E/F)	
TR517,518	273 0198 002	Transistor 2SC1815 (Y)	
TR519,520	274 0151 000	Transistor 2SD2004 (P)	
TR521,522	272 0107 906	Transistor 2SB1328 (P) T105	
TR801	273 0198 918	Transistor 2SC1815 (BL)	
TR802	271 0102 908	Transistor 2SA1015 (Y)	
TR803	274 0136 012	Transistor 2SD1913 (R/S)	
TR804	272 0093 010	Transistor 2SB1274 (R/S)	
TR805,806	275 0043 946	Transistor 2SK381 (C)	
D501~506	276 0049 914	Diode 1S2076A	
D511~514	276 0432 903	Diode 1SS270A	
D515,516	276 0049 914	Diode 1S2076A	
D517~522	276 0432 903	Diode 1SS270A	
D801	276 0424 005	Diode 4D4B42 (LC1)	
D802,803	276 0553 905	Diode 1SR35-200A (T93X)	
D803,804	276 0256 901	Zener Diode HZ16-2	
RESISTORS GROUP			
ΔR523~526	241 2376 922	Carbon 33 ohm, 1/4W	RD14B2E330JNBS
ΔR527,528	241 2380 918	Carbon 1.3k ohm, 1/4W	RD14B2E132JNBS
ΔR529,530	241 2377 921	Carbon 82 ohm, 1/4W	RD14B2E820JNBS
ΔR549,550	241 2378 904	Carbon 180 ohm, 1/4W	RD14B2E181JNBS
ΔR561~568	244 2043 982	Metallic 0.22 ohm, 1W	RS14B3AR22JST (S)
ΔR573,574	244 2050 904	Metallic 2.2 ohm, 1W Z25	RS14B3A220JST (S)
R533	241 2371 930	160Ω 1/4W	
VR501,502	211 6077 941	Variable 5k ohm,	V06PB502 (IM)
VR503,504	211 6077 983	Variable 47k ohm,	V06PB473 (IM)
CAPACITORS GROUP			
C501~504	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C505,506	255 4199 986	Film 0.001μF/50V	CQ92M1H102JT (MRZ)
C507,508	254 4260 977	Electrolytic 4.7μF/50V	CE04W1H4R7MT (SME)
C509,510	253 4537 908	Ceramic 27pF/50V	CC45SL1H270JT (DD-3)
C519,520	253 1179 945	Ceramic 220pF/50V	CK45B1H221KT (DD-3)
C525,526	253 1151 905	Ceramic 0.0047μF/500V	CK45E2H472PT
C527,528	253 4474 906	Ceramic 15pF/500V	CC45SL2H150JT
C529,530	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C531,532	255 4199 960	Film 0.022μF/50V	CQ92M1H223JT (MRZ)
C533,534	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C535,536	254 4261 921	Electrolytic 100pF/50V	CE04W1H010MT (SME)
C541,542	255 4199 973	Film 0.01μF/50V	CQ92M1H103JT (MRZ)
C545,546	253 1151 905	Ceramic 0.0047μF/500V	CK45E2H472PT
C585	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C801,802	254 4260 980	Electrolytic 10μF/50V	CE04W1H100MT (SME)
C803,804	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C805~808	254 4398 700	Electrolytic 5600μF/63V	CE04W1J562MC (DL)
C809	253 1151 905	Ceramic 0.0047μF/500V	CK45E2H472PT
C810	254 4263 958	Electrolytic 2.2μF/100V	CE04W2A2R2MT (SEM)
OTHERS PARTS GROUP			
TP001,002	205 0190 036	3P NH CONNECTOR BASE	
	203 4778 018	3P EH-SCN CORD	U.S.A. only
	203 8287 000	5P EH-SCN CON CORD	Canada only
	204 0333 010	6P EH-SCN CON CORD	
	203 8218 066	5P EH CON CORD	U.S.A. only
	204 0310 017	6P EH-SCN CON CORD	Canada only

1U-2223 TUNER UNIT (DRA-1035R/835R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC701~703	263 0099 007	IC TA-7060AP	
IC704	263 0520 000	IC LA1235	
IC705	263 0439 007	IC LA3401	
IC706	263 0145 003	IC LA1245	
IC707	263 0237 005	IC LA6358	
IC708	262 0719 009	IC LM7001	
IC709	263 0571 004	IC NJM78M12FA	
TR701	275 0074 902	Transistor 2SK211-Y/GR (TE85L)	
TR702	269 0114 906	Transistor RN2402 (TE85L)	
TR703	269 0054 901	Transistor DTC144EKT96	
TR704	269 0114 906	Transistor RN2402 (TE85L)	
TR705	269 0054 901	Transistor DTC144EKT96	
TR706,707	275 0075 901	Transistor 2SK209-Y/GR (TE85L)	
TR709,710	269 0066 902	Transistor DTC323TKT96	
TR711	269 0114 906	Transistor RN2402 (TE85L)	
TR712	269 0088 906	Transistor DTC114TKT96	
TR713	273 0403 904	Transistor 2SC2712-Y/GR (TE85L)	
TR714	275 0075 901	Transistor 2SK209-Y/GR (TE85L)	
TR715,716	273 0403 904	Transistor 2SC2712-Y/GR (TE85L)	
TR717,718	269 0114 906	Transistor RN2402 (TE85L)	
TR719	269 0054 901	Transistor DTC144EKT96	
D701,702	276 0432 903	Diode 1SS270A	
D704	276 0432 903	Diode 1SS270A	
D706~711	276 0432 903	Diode 1SS270A	
ZD701	276 0467 910	Zener Diode HZS9A-2TD	
RESISTORS GROUP			
R701	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R702	247 0010 929	Chip 15k ohm, 1/10W	RM73B--153J
R703	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R704~706	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
R707	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R708	247 0009 927	Chip 5.6k ohm, 1/10W	RM73B--562J
R709	247 0007 945	Chip 1k ohm, 1/10W	RM73B--102J
R710	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R711,712	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
R713	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R715	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
R716,717	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R718,719	247 0009 927	Chip 5.6k ohm, 1/10W	RM73B--562J
R720,721	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
R722	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R723	247 0010 961	Chip 22k ohm, 1/10W	RM73B--223J
R724	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
R725	247 0011 960	Chip 56k ohm, 1/10W	RM73B--563J
R726	247 0004 922	Chip 47 ohm, 1/10W	RM73B--470J
R727	247 0010 945	Chip 18k ohm, 1/10W	RM73B--183J
R728	247 0008 928	Chip 2.2k ohm, 1/10W	RM73B--222J
R729	247 0009 927	Chip 5.6k ohm, 1/10W	RM73B--562J
R730	247 0010 961	Chip 22k ohm, 1/10W	RM73B--223J
R731	247 0013 900	Chip 220k ohm, 1/10W	RM73B--224J
R732	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R733	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R734	247 0007 945	Chip 1k ohm, 1/10W	RM73B--102J
R735	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R736	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R737	247 0008 960	Chip 3.3k ohm, 1/10W	RM73B--332J
R738	247 0007 945	Chip 1k ohm, 1/10W	RM73B--102J
R739,740	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R741	247 0011 915	Chip 36k ohm, 1/10W	RM73B--363J
R742	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R743,744	247 0012 943	Chip 120k ohm, 1/10W	RM73B--124J
R745,746	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J

Ref. No.	Part No.	Part Name	Remarks
R747	247 0008 960	Chip 3.3k ohm, 1/10W	RM73B--332J
R748	247 0007 945	Chip 1k ohm, 1/10W	RM73B--102J
R749	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R750	247 0008 960	Chip 3.3k ohm, 1/10W	RM73B--332J
R751	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R752	247 0004 948	Chip 56 ohm, 1/10W	RM73B--560J
R753,754	247 0008 960	Chip 3.3k ohm, 1/10W	RM73B--332J
R757	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R758	247 0010 961	Chip 22k ohm, 1/10W	RM73B--223J
R759	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R759	247 0018 905	Chip 0.0 ohm, 1/10W	RM73B--0R0K
R760	247 0008 928	Chip 2.2k ohm, 1/10W	RM73B--222J
R761	247 0005 989	Chip 220 ohm, 1/10W	RM73B--221J
R762	247 0005 947	Chip 150 ohm, 1/10W	RM73B--151J
R763	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R764	247 0009 927	Chip 5.6k ohm, 1/10W	RM73B--562J
R765	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R766	247 0005 989	Chip 220 ohm, 1/10W	RM73B--221J
R767	247 0007 987	Chip 1.5k ohm, 1/10W	RM73B--152J
R768	247 0007 903	Chip 680 ohm, 1/10W	RM73B--681J
R769	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R770	247 0010 929	Chip 15k ohm, 1/10W	RM73B--153J
R771,772	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R773	247 0004 980	Chip 82 ohm, 1/10W	RM73B--820J
R774	247 0008 960	Chip 3.3k ohm, 1/10W	RM73B--332J
R775	247 0009 969	Chip 8.2k ohm, 1/10W	RM73B--822J
R776	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R777	247 0011 944	Chip 47k ohm, 1/10W	RM73B--473J
R778	247 0013 900	Chip 220k ohm, 1/10W	RM73B--224J
R779	247 0014 967	Chip 1m ohm, 1/10W	RM73B--105J
R780	247 0009 985	Chip 10k ohm, 1/10W	RM73B--103J
R781,782	247 0011 944	Chip 47k ohm, 1/10W	RM73B--473J
R783	247 0012 927	Chip 100k ohm, 1/10W	RM73B--104J
R784	247 0011 902	Chip 33k ohm, 1/10W	RM73B--333J
R785,786	247 0007 945	Chip 1k ohm, 1/10W	RM73B--102J
R787~789	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
VR701,702	211 6077 938	Variable 100k ohm	V06PB104 (IM)
VR703	211 6082 907	Variable 200k ohm	V06PB204 (IM)
CAPACITORS GROUP			
C701~717	257 0012 966	Ceramic-chip 0.01μF/50V	CK73F1H103ZT
C718	254 4254 789	Electrolytic 1000μF/16V	CE04W1C102MC (SME)
C718~720	257 0012 966	Ceramic-chip 0.01μF/50V	CK73F1H103ZT
C722,723	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C724	257 0012 966	Ceramic-chip 0.01μF/50V	CK73F1H103ZT
C725	254 4260 951	Electrolytic 2.2μF/50V	CE04W1H2R2MT (SME)
C726	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C727	257 0012 966	Ceramic-chip 0.01μF/50V	CK73F1H103ZT
C728	254 4254 954	Electrolytic 220μF/16V	CE04W1C221MT (SME)
C729	254 4254 912	Electrolytic 22μF/16V	CE04W1C220MT (SME)
C730	254 4254 909	Electrolytic 10μF/16V	CE04W1C100MT (SME)
C731	254 4254 912	Electrolytic 22μF/16V	CE04W1C220MT (SME)
C732	256 1034 937	Metallized 0.047μF/50V	CF93A1H473JT
C733	254 4254 941	Electrolytic 100μF/16V	CE04W1C101MT (SME)
C734	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C735	254 4260 919	Electrolytic 0.22μF/50V	CE04W1HR22MT (SME)
C736	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C737	257 0012 966	Ceramic-chip 0.01μF/50V	CK73F1H103ZT
C738	254 3056 917	Electrolytic 1μF/50V	CE04W1H010MBPT (SME)
C739	257 0012 982	Ceramic-chip 0.022μF/50V	CK73F1H223ZT
C740,741	257 0006 972	Ceramic-chip 750pF/50V	CC73SL1H751JT
C742	254 4260 045	Electroly	

NOTE ON PARTS LIST

- Part indicated with the mark "⊙" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "1" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.

WARNING:

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

Resistors

Ex.: **RN** **14K** **2E** **182** **G** **FR**

Type Shape and performance Power Resistance Allowable error Others

RD : Carbon	2B : 1/4W	F : ±1%	P : Pulse-resistant type
RC : Fixed	2E : 1/2W	G : ±2%	NL : Low noise type
RS : Metallic film	2H : 3/4W	J : ±5%	NB : Non-burning type
RW : Winding	3A : 1W	K : ±10%	FR : Fuse resistor
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

Resistance
 1 8 2 ⇒ 1800Ω = 1.8kΩ
 Indicates number of zeros after effective number
 2-digit effective number, decimal point indicated by R.
 • Units: Ω

Capacitors

Ex.: **CE** **04W** **1H** **2R2** **M** **BP**

Type Shape and performance Dielectric strength Capacity Allowable error Others

CE : Aluminum foil electrolyte	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolyte	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolyte	1C : 16V	J : ±5%	HR : Ripple-resistant type
CQ : Film	1E : 25V	K : ±10%	DL : For charge and discharge
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high frequency
CC : Ceramic	1H : 50V	Z : +80%	U : UL part
CP : Oil	2A : 100V	20%	C : CSA part
CM : Mica	2B : 125V	P : +100%	W : UL-CSA type
CF : Metallized	2C : 160V	0%	F : Lead wire forming
CH : Metallized	2D : 200V	C : ±0.25pF	
	2E : 250V	D : ±0.5pF	
	2H : 500V	= : Others	
	2J : 630V		

Capacity
 2 R 2 ⇒ 2.2 μF
 1-digit effective number, decimal point indicated by R.
 2-digit effective number, decimal point indicated by R.
 • Units: μF, (for P, pF (μF))
 • When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

PRINTED WIRING BOARD PARTS LIST

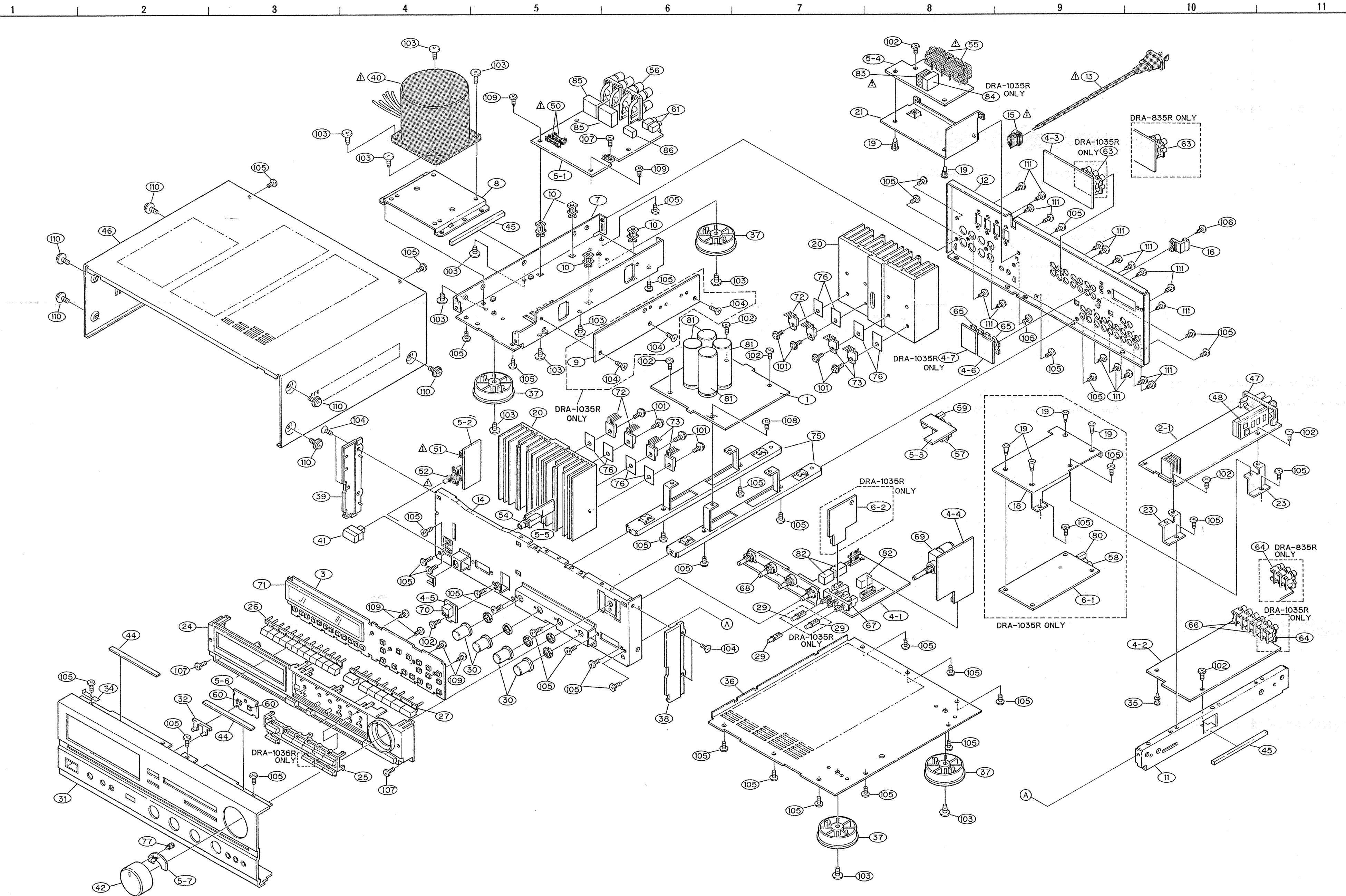
1U-2226 POWER AMP UNIT (DRA-1035R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC501,502	262 0874 009	IC TLP521-1 (BL)	
TR501~504	275 0055 015	Transistor 2SK184C (GR)/(BL)	
TR505~508	273 0235 923	Transistor 2SC1841 (E/F)	
TR509~514	271 0168 900	Transistor 2SA1145 (O)/(Y)	
TR515,516	273 0281 906	Transistor 2SC2705 (O)/(Y)	
TR517,518	273 0198 002	Transistor 2SC1815 (Y)	
TR519,520	274 0158 003	Transistor 2SD1763A (D)	
TR521,522	272 0115 008	Transistor 2SB1186A (D)	
TR801	273 0198 918	Transistor 2SC1815 (BL)	
TR802	271 0102 908	Transistor 2SA1015 (Y)	
TR803	274 0136 012	Transistor 2SD1913 (R/S)	
TR804	272 0093 010	Transistor 2SB1274 (R/S)	
TR805,806	275 0043 946	Transistor 2SK381 (C)	
D501~510	276 0049 914	Diode 1S2076A	
D511~514	276 0432 903	Diode 1SS270A	
D515,516	276 0049 914	Diode 1S2076A	
D517~522	276 0432 903	Diode 1SS270A	
D801	276 0586 008	Diode S10VB20	
D802,803	276 0553 905	Diode 1SR35-200A (T93X)	
ZD501~504	276 0236 934	Zener Diode HZ5C-1	
ZD803~804	276 0256 901	Zener Diode HZ16-2	
RESISTORS GROUP			
ΔR523~526	241 2376 922	Carbon 33 ohm, 1/4W	RD14B2E330JNBS
ΔR527~528	241 2380 918	Carbon 1.3k ohm, 1/4W	RD14B2E132JNBS
ΔR529,530	241 2377 921	Carbon 82 ohm, 1/4W	RD14B2E820JNBS
ΔR549,550	241 2378 904	Carbon 180 ohm, 1/4W	RD14B2E181JNBS
ΔR561~568	243 2039 029	Winding 0.22 ohm, 5W	RW99-3HR22K
ΔR573,574	244 2050 904	Metallic 22 ohm, 1W	RS14B3A220JST (S)
ΔR691~694	241 2375 907	Carbon 10 ohm, 1/4W	RD14B2E100JNBS
VR501~502	211 6077 941	Variable 5k ohm	V06PB502 (IM)
VR503~504	211 6077 983	Variable 47k ohm	V06PB473 (IM)
CAPACITORS GROUP			
C501~504	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C505,506	255 4199 986	Film 0.001μF/50V	CQ92M1H102JT (MRZ)
C507,508	254 4260 977	Electrolytic 4.7μF/50V	CE04W1H4R7MT (SME)
C509,510	253 4537 908	Ceramic 27pF/50V	CC45SL1H270JT (DD-3)
C519,520	253 1179 945	Ceramic 220pF/50V	CK45B1H221KT (DD-3)
C525,526	253 1151 905	Ceramic 0.0047μF/500V	CK45E2H472PT
C527,528	253 4470 900	Ceramic 10pF/500V	CC45SL2H100DT
C529,530	253 1179 961	Ceramic 330pF/50V	CK45B1H331KT (DD-3)
C531,532	255 4199 960	Film 0.022μF/50V	CQ92M1H223JT (MRZ)
C533,534	253 4537 982	Ceramic 56pF/50V	CC45SL1H560JT (DD-3)
C535,536	254 4261 921	Electrolytic 100μF/50V	CE04W1H101MT (SME)
C541,542	255 4199 973	Film 0.01μF/50V	CQ92M1H103JT (MRZ)
C545,546	253 1151 905	Ceramic 0.0047μF/500V	CK45E2H472PT
C585	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C801,802	254 4260 980	Electrolytic 10μF/50V	CE04W1H100MT (SME)
C803,804	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C805~808	254 6164 000	Electrolytic 10000μF/V	CE68W==103M (DL)
C809	253 1151 905	Ceramic 0.0047μF/500V	CK45E2H472PT
C810	254 4263 945	Electrolytic 1μF/100V	CE04W2A010MT (SME)
OTHERS PARTS GROUP			
TP001,002	205 0190 036	3P NH CONNECTOR BASE	
	203 4778 018	3P EH-SCN CORD	
	203 4798 001	3P EH-SCN CON CORD	
	203 8218 066	5P EH CON CORD	U.S.A. only
	204 0333 010	6P EH-SCN CON CORD	U.S.A. only
	204 0310 017	6P EH-SCN CON CORD	Canada only
	204 8287 000	5P EH-SCN CON CORD	Canada only

1U-2226 POWER AMP UNIT (DRA-835R)

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC501,502	262 0874 009	IC TLP521-1(BL)	
TR501~504	275 0055 015	Transistor 2SK184C (GR)/(BL)	
TR505~508	273 0235 923	Transistor 2SC1841 (E/F)	
TR509~514	271 0168 900	Transistor 2SA1145 (O)/(Y)	
TR515,516	273 0281 906	Transistor 2SC2705 (O)/(Y)	
TR517,518	273 0198 002	Transistor 2SC1815 (Y)	
TR519,520	274 0158 003	Transistor 2SD1763A (D)	
TR521,522	272 0115 008	Transistor 2SB1186A (D)	
TR801	273 0198 918	Transistor 2SC1815 (BL)	
TR802	271 0102 908	Transistor 2SA1015 (Y)	
TR803	274 0136 012	Transistor 2SD1913 (R/S)	
TR804	272 0093 010	Transistor 2SB1274 (R/S)	
TR805,806	275 0043 946	Transistor 2SK381 (C)	
D501~510	276 0049 914	Diode 1S2076A	
D511~514	276 0432 903	Diode 1SS270A	
D515,516	276 0049 914	Diode 1S2076A	
D517~522	276 0432 903	Diode 1SS270A	
D801	276 0424 005	Diode 4D4B42 (LC1)	
D802,803	276 0553 905	Diode 1SR35-200A (T93X)	
ZD501~504	276 0236 934	Zener Diode HZ5C-1	
ZD803,804	276 0256 901	Zener Diode HZ16-2	
RESISTORS GROUP			
ΔR523~526	241 2376 922	Carbon 33 ohm, 1/4W	RD14B2E330JNBS
ΔR527~528	241 2380 918	Carbon 1.3k ohm, 1/4W	RD14B2E132JNBS
ΔR529,530	241 2377 921	Carbon 82 ohm, 1/4W	RD14B2E820JNBS
ΔR549,550	241 2378 904	Carbon 180 ohm, 1/4W	RD14B2E181JNBS
ΔR561~568	244 2061 003	Metallic 0.22 ohm, 2W	RS14B3DR22JNBS
ΔR573,574	244 2050 904	Metallic 22 ohm, 1W	RS14B3A220JST(S)
ΔR691,694	241 2375 907	Carbon 10 ohm, 1/4W	RD14B2E100JNBS
VR501,502	211 6077 941	Variable 5k ohm,	V06PB502 (IM)
VR503,504	211 6077 983	Variable 47k ohm,	V06PB473 (IM)
CAPACITORS GROUP			
C501~504	253 4538 949	Ceramic 100pF/50V	CC45SL1H101JT (DD-3)
C505,506	255 4199 986	Film 0.001μF/50V	CQ92M1H102JT (MRZ)
C507,508	254 4260 977	Electrolytic 4.7μF/50V	CE04W1H4R7MT (SME)
C509,510	253 4537 908	Ceramic 27pF/50V	CC45SL1H270JT (DD-3)
C519,520	253 1179 945	Ceramic 220pF/50V	CK45B1H221KT (DD-3)
C525,526	253 1151 905	Ceramic 0.0047μF/500V	CK45E2H472PT
C527,528	253 4470 900	Ceramic 10pF/500V	CC45SL2H100DT
C529,530	253 1179 961	Ceramic 330pF/50V	CK45B1H331KT(DD-3)
C531,532	255 4199 960	Film 0.022μF/50V	CQ92M1H223JT (MRZ)
C533,534	253 4537 982	Ceramic 56pF/50V	CC45SL1H560JT (DD-3)
C535,536	254 4261 921	Electrolytic 100μF/50V	CE04W1H101MT (SME)
C541,542	255 4199 973	Film 0.01μF/50V	CQ92M1H103JT (MRZ)
C545,546	253 1151 905	Ceramic 0.0047μF/500V	CK45E2H472PT
C585	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C801,802	254 4260 980	Electrolytic 10μF/50V	CE04W1H100MT (SME)
C803,804	254 4260 948	Electrolytic 1μF/50V	CE04W1H010MT (SME)
C805~808	254 4370 702	Electrolytic 8200μF/63V	CE04W1J822MC (DL)
C809	253 1151 905	Ceramic 0.0047μF/500V	CK45E2H472PT
C810	254 4263 945	Electrolytic 1μF/100V	CE04W2A010MT (SME)
OTHERS PARTS GROUP			
TP001,002	205 0190 036	3P EH CONNECTOR BASE	
	203 4778 018	3P EH-SCN CORD	
	203 8218 066	5P EH-SCN CON CORD	U.S.A. only
	204 0310 017	6P EH-SCN CON CORD	U.S.A. only
	203 8287 000	5P EH-SCN CON CORD	Canada only


EXPLODED VIEW OF CHASSIS AND CABINET (for DRA-1035R/835R)




NOTE ON PARTS LIST

- Part indicated with the mark "Ⓢ" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "1" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.

WARNING:

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

WARNING:

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

NOTE ON PARTS LIST

- Part indicated with the mark "⊙" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "1" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.

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

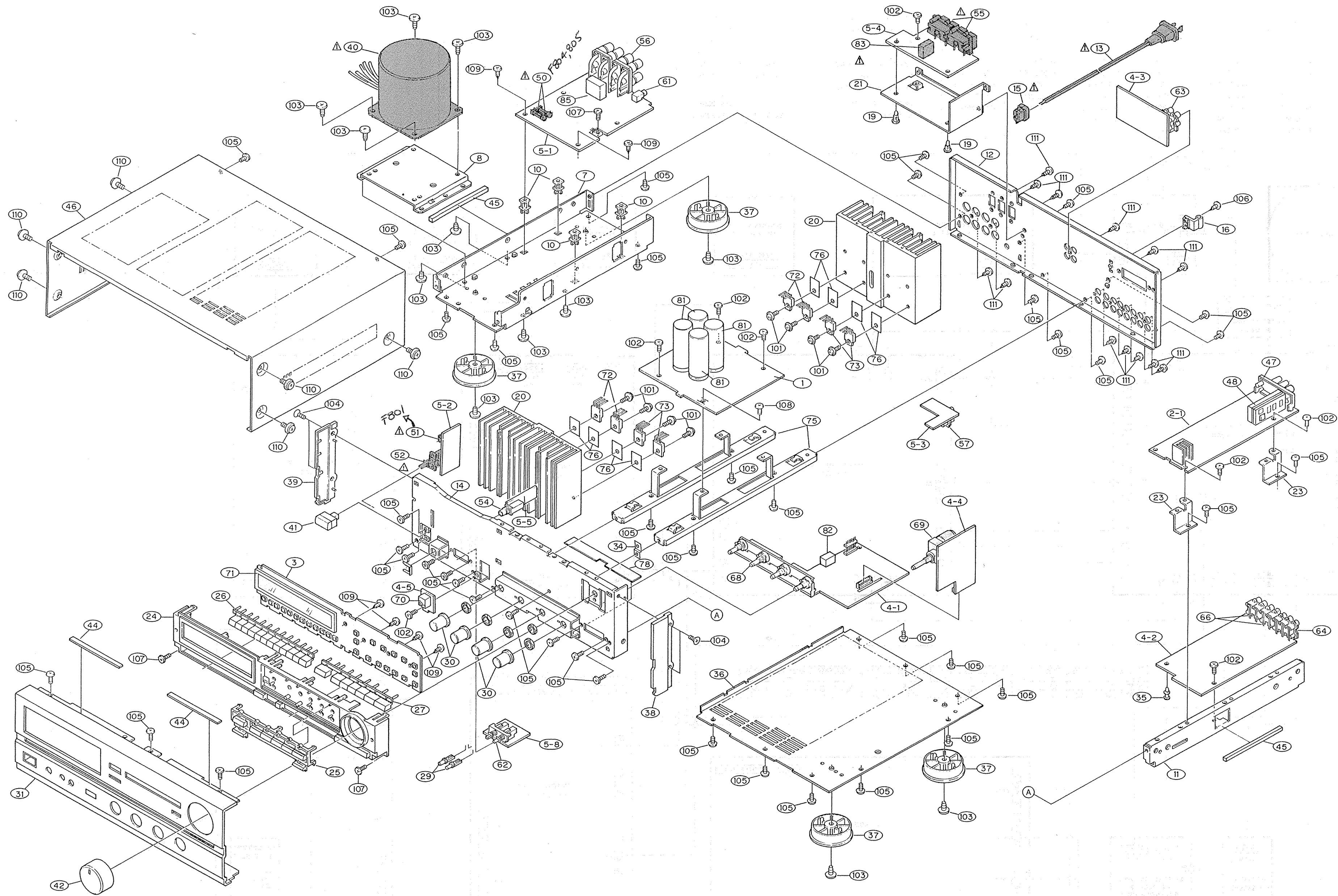
PART LIST OF EXPLODED VIEW (for DRA-653R)

Ref. No.	Part No.	Part Name	Remarks	Qty	Ref. No.	Part No.	Part Name	Remarks	Qty
⊙ 1	1U-2226N	Power Amp Unit	U.S.A. Only	1	Δ 51	206 1046 001	Fuse 6.3A UL20MM		1
⊙ 1	1U-2226P	Power Amp Unit	Canada Only	1	Δ 52	212 9534 002	Power SW (Push) TV8		1
⊙ 2-1	1U-2219N	Tuner Unit		1	53	—			1
⊙ 3	1U-2220N	Mi-Com Unit		1	54	204 8354 004	Head Phone Jack		1
⊙ 4	1U-2229N	Control Unit		1	Δ 55	208 3946 003	AC Outlet (Polarized)		1
4-1		Control Unit		1	56	205 0472 000	8P SP Terminal		1
4-2		Input Unit		1	57	204 8386 001	2P Pin Jack (S-GND)		1
4-3		Video Unit		1	58	—			1
4-4		Main Volume Unit		1	59	—			1
4-5		Remote Sencer Unit		1	60	—			1
⊙ 5	1U-2261N	SP&P. Supply Unit		1	61	204 8260 004	Mini Jack		1
5-1		SP&P. Supply Unit		1	62	212 4689 004	2P Push Switch		1
5-2		Power SW. Unit		1	63	204 8382 005	4P Pin Jack (S-GND)		1
5-3		Pre/Main Unit		1	64	204 8278 009	6P Pin Jack (S-GND)		1
5-4		AC Outlet Unit		2	66	204 8266 008	4P Pin Jack (S-GND)		2
5-5		H/P Unit		1	67	—			1
5-6		—		1	68	211 0699 008	Variable		1
5-8		SP Push SW. Unit		1	69	211 0698 009	Variable 50k ohm	MAIN VR ω	MOTOR
6		—		1	70	499 0150 008	Remote Sencer (63X1610-52)		1
⊙ 7	411 9056 352	Trans Chassis		1	71	393 4117 008	FLD (FIP11BSM7)		1
8	412 9160 209	Trans Bracket		1	72	273 0389 031	2SC 3854 LB (O/P/Y) (Z)	Transistor	4 → 2SC3955 → TR 523, 524, 527, 528
9		—		1	73	271 0240 035	2SA 1491 LB (O/P/Y) (Z)	Transistor	4 → TR 525, 526, 529, 530
10	415 9032 006	P.C.B. Holder (T)		4	74	—			2
⊙ 11	411 9057 607	Side Chassis		1	75	412 3282 109	Radiator Bracket		8
⊙ 12	105 0952 107	Back Panel	U.S.A. Only	1	76	415 0234 007	Insulating Sheet		1
⊙ 12	105 0952 110	Back Panel	Canada Only	1	78	415 0603 007	Insulating Sheet		1
Δ 13	206 2060 002	AC Cord (Polarized)		1	79	—			1
⊙ 14	411 1081 202	Front Chassis Ass'y		1	80	—			4
Δ 15	445 0056 008	Cord Bush		1	81	254 4398 700	Electrolytic Cap. 5600μF/63V	GE04W1J562MC (DL)	1
16	146 0925 009	Ant. Holder		1	82	214 0127 003	Relay (RY-12W) RL301		1
★ 17	412 2197 046	Card Stand (H=18)		1	Δ 83	214 0142 004	Relay (TV-5) RL801		1
19	412 2741 007	P.W.B. Holder (H=8)		3	85	214 0129 001	Relay (DH2TU) RL601		1
⊙ 20	417 0393 150	Power Radiator		2	SCREWS				
⊙ 21	412 3280 101	P.W.B. Bracket		1	101	473 8007 009	Cup Screw 3X12		8
22		—		1	102	473 7002 018	Tapping Screw 3X8 (S)		16
⊙ 23	412 3030 102	Support Bracket		2	103	473 7004 003	Tapping Screw 4X8 (S)		12
⊙ 24	146 1237 314	Inner Panel Ass'y		1	104	473 7003 004	F. Tapping Screw 3X8 (S)		7
25	113 1427 014	Push Button (Function)		1	105	473 7015 018	Tapping Screw 3X8 (S)	Black	40
26	113 1428 000	Push Button (Pre-Set)		1	106	473 7006 027	Tapping Screw 3X10 (S)	Black	1
27	113 1429 119	Push Button (Tuning)		1	107	473 7002 005	Tapping Screw 3X6 (S)		3
★ 28	412 2814 044	Card Spacer (L=6)		4	108	473 3806 014	Tapping Screw 3X8 (S)		1
29	146 1356 004	Push Button (Maru)		2	109	473 7501 001	Tapping Screw 3X10 (S)		6
30	112 0646 000	Knob (Maru) S		1	110	477 0263 005	3P Swelling Screw	Black	6
⊙ 31	144 2112 102	Front Panel Ass'y		4	111	477 0064 107	Fixing Screw		17
32		—		1	PACKING & ACCESSORIES (not included EXPLODED VIEW)				
33		—		1	201	505 8006 019	Envelope		1
★ 34	412 3333 003	Blacket		1	202	511 2129 007	Inst Manual		1
⊙ 35	412 2814 028	Card Spacer (L=10)		1	203	511 0418 301	DAI Warranty Hone	U.S.A. Only	1
⊙ 36	105 0894 207	Bottom Cover		1	203	515 0388 208	DCI Warranty	Canada Only	1
37	104 0194 001	Foot Ass'y		4	204	231 1129 005	Loop Antenna		1
⊙ 38	146 1241 106	Side Plate (L)		1	205	395 0019 009	FM Ant. Ass'y		1
⊙ 39	146 1242 105	Side Plate (R)		1	206	529 0079 008	FM Ant. Adaptor		1
Δ 40	233 5904 002	Power Trans	U.S.A. Only	1	207	499 0199 001	Remote Control Unit RC-136		1
Δ 40	233 5901 005	Power Trans	Canada Only	1	208	504 9102 003	Stylen Paper		1
41	113 1054 128	Power Button Ass'y		1	209	505 9102 019	Poly Cover		1
42	112 0569 145	VR. Knob Ass'y		1	210	504 0092 060	Stylen Paper		1
43		—		1	211	503 0927 103	Cushion		2
44	461 0501 005	Rubber Sheet		2	213	501 1512 003	Carton Case		1
45	461 0573 004	Rubber Sheet		2	214	513 1389 006	Control Card Base		1
46	102 0460 108	Top Cover		1	215	513 1349 004	Thermal Carbon Film		1
47	205 0433 010	Ant Terminal (F)		1					
48	216 0079 005	FM. Front End (U)		1					
49		—		1					
Δ 50	206 1039 050	Fuse 1.6A		2					

→ F804, 805

EXPLODED VIEW OF CHASSIS AND CABINET (for DRA-635R)

1 2 3 4 5 6 7 8 9 10 11

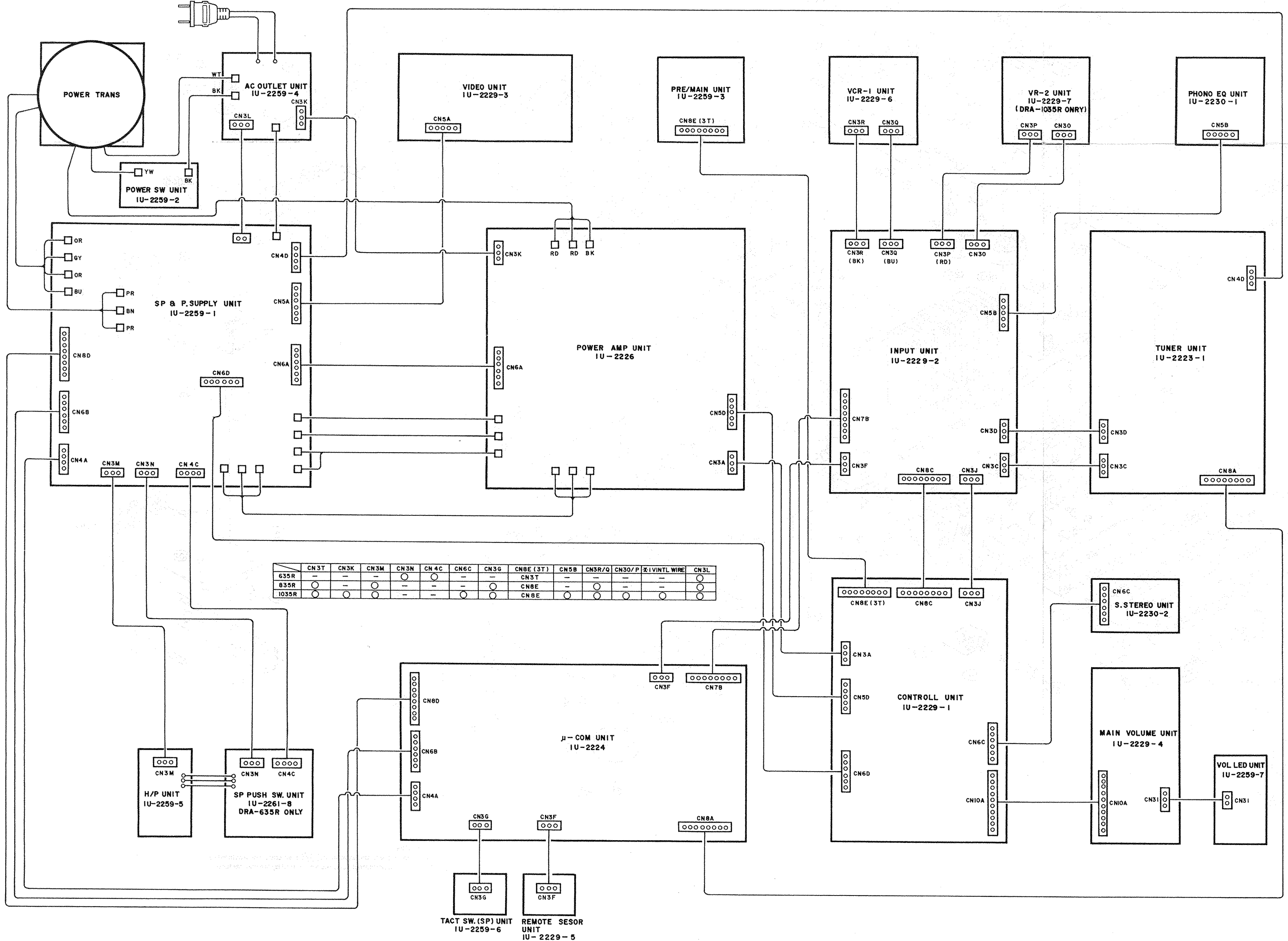


WARNING:
 Parts marked with this symbol ▲ ■ have critical characteristics.
 Use ONLY replacement parts recommended by the manufacturer.

WIRING DIAGRAM

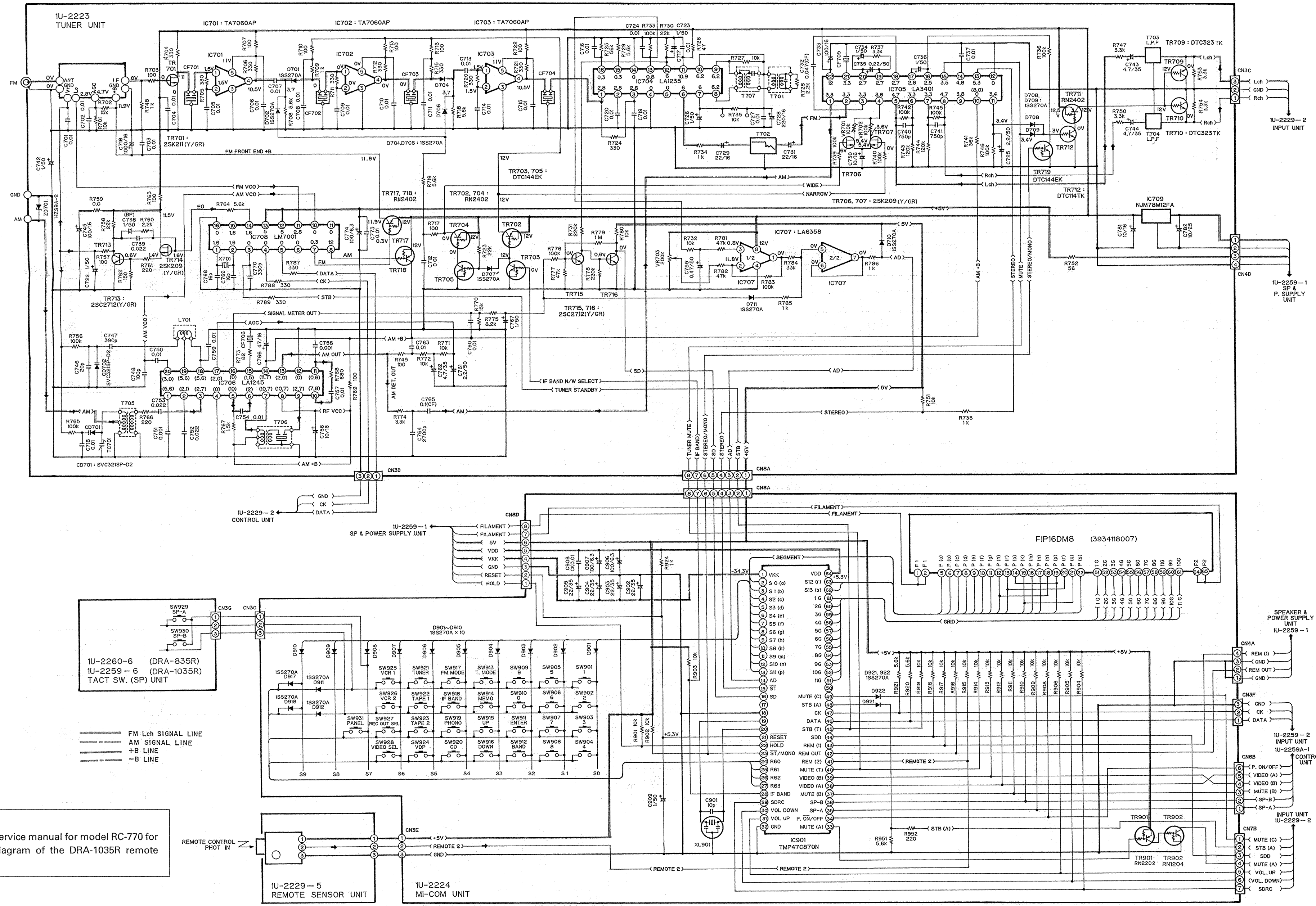
	DRA-1035R		DRA-835R		DRA-635R	
	U.S.A	Canada	U.S.A	Canada	U.S.A	Canada
POWER AMP UNIT	1U-2226A	1U-2226B	1U-2226G	1U-2226H	1U-2226N	1U-2226P
TUNER UNIT	1U-2223A-1	1U-2223A-1	1U-2223A-1	1U-2223A-1	1U-2219N-1	1U-2219N-1
MI-COM UNIT	1U-2224A	1U-2224A	1U-2224G	1U-2224G	1U-2220N	1U-2220N
CONTROL UNIT	1U-2229A-1	1U-2229A-1	1U-2229G-1	1U-2229G-1	1U-2229N-1	1U-2229N-1
INPUT UNIT	1U-2229A-2	1U-2229A-2	1U-2229G-2	1U-2229G-2	1U-2229N-2	1U-2229N-2
VIDEO UNIT	1U-2229A-3	1U-2229A-3	1U-2229G-3	1U-2229G-3	1U-2229N-3	1U-2229N-3
MAIN VOLUME UNIT	1U-2229A-4	1U-2229A-4	1U-2229G-4	1U-2229G-4	1U-2229N-4	1U-2229N-4
REMOTO SENSOR UNIT	1U-2229A-5	1U-2229A-5	1U-2229G-5	1U-2229G-5	1U-2229N-5	1U-2229N-5
VCR-1 UNIT	1U-2229A-6	1U-2229A-6	1U-2229G-6	1U-2229G-6	—	—
VCR-2 UNIT	1U-2229A-7	1U-2229A-7	—	—	—	—

	DRA-1035R		DRA-835R		DRA-635R	
	U.S.A	Canada	U.S.A	Canada	U.S.A	Canada
SP & P. SUPPLY UNIT	1U-2259A-1	1U-2259A-1	1U-2260G-1	1U-2260G-1	1U-2261N-1	1U-2261N-1
POWER SW. UNIT	1U-2259A-2	1U-2259A-2	1U-2260G-2	1U-2260G-2	1U-2261N-2	1U-2261N-2
PRE/MAIN UNIT	1U-2259A-3	1U-2259A-3	1U-2260G-3	1U-2260G-3	1U-2261N-3	1U-2261N-3
AC OUTLET UNIT	1U-2259A-4	1U-2259A-4	1U-2260G-4	1U-2260G-4	1U-2261N-4	1U-2261N-4
H/P UNIT	1U-2259A-5	1U-2259A-5	1U-2260G-5	1U-2260G-5	1U-2261N-5	1U-2261N-5
TACT SW. (SP) UNIT	1U-2259A-6	1U-2259A-6	1U-2260G-6	1U-2260G-6	—	—
VOL LED UNIT	1U-2259A-7	1U-2259A-7	1U-2260G-7	1U-2260G-7	—	—
SP PUSH SW. UNIT	—	—	—	—	1U-2261N-8	1U-2261N-8
PHONO EQ. UNIT	1U-2230A-1	1U-2230A-1	—	—	—	—
S. STEREO UNIT	1U-2230A-2	1U-2230A-2	—	—	—	—



SCHEMATIC DIAGRAM (for DRA-1035R/835R) 1/3

1 2 3 4 5 6 7 8 9 10 11



NOTE:
Refer to the service manual for model RC-770 for the wiring diagram of the DRA-1035R remote control unit.

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 Δ have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamperes, or if the resistance from chassis to either side of the power cord is less than 240 Kohms, the unit is defective.

WARNING
- DO NOT return the unit to the customer until the problem is located and corrected.

11 10 9 8 7 6 5 4 3 2 1

A

B

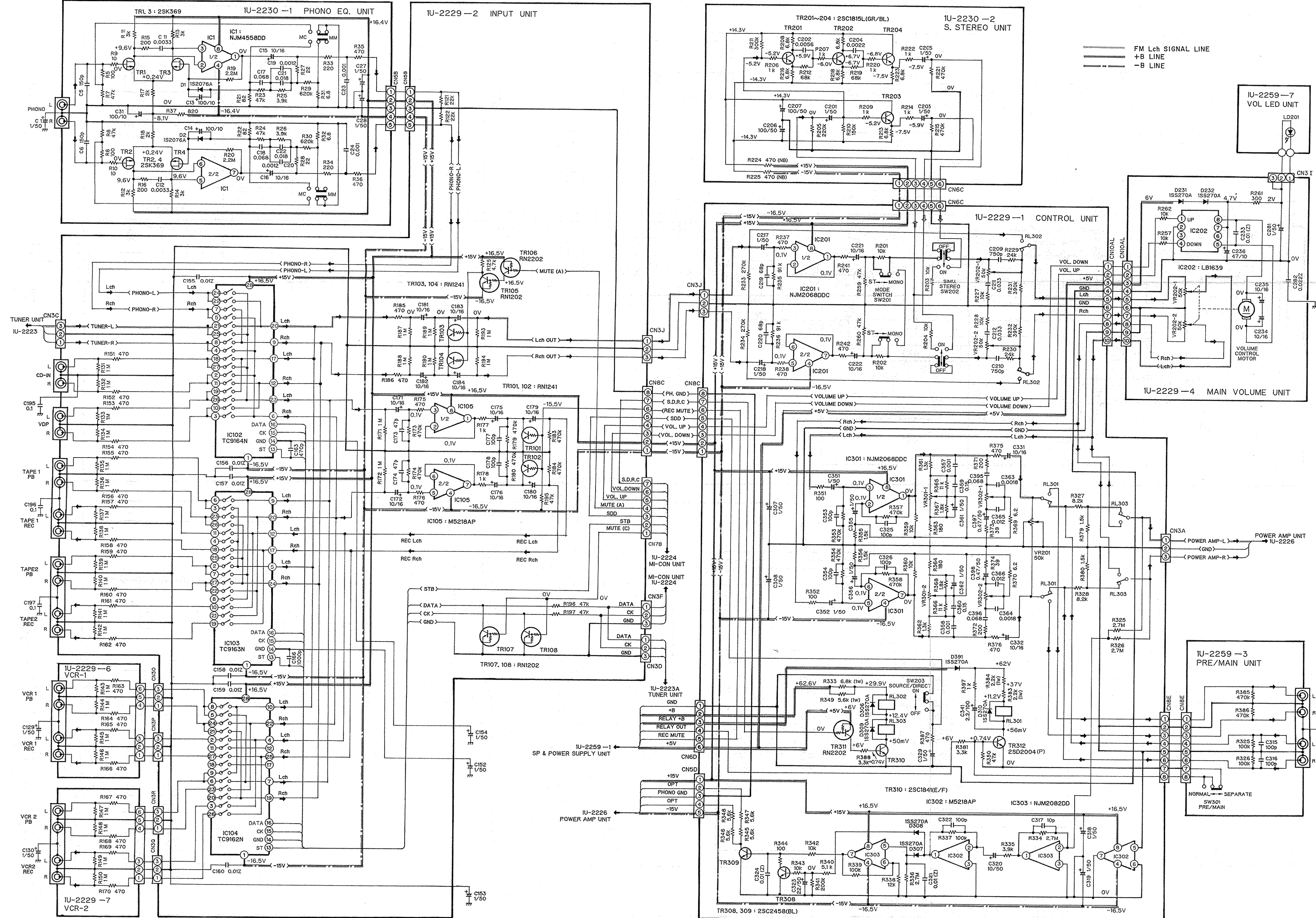
C

D

E

F

G



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.

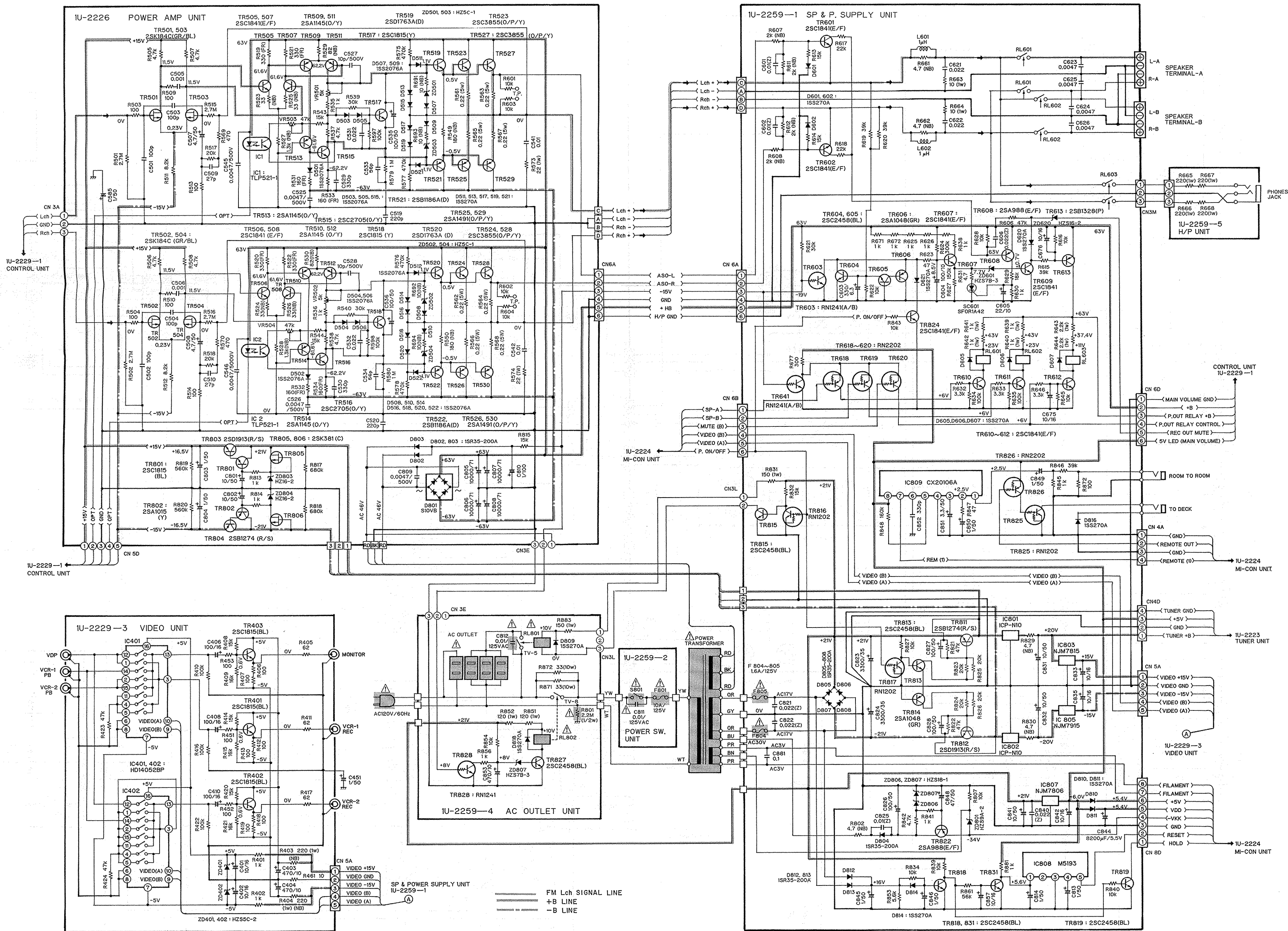
WARNING:
 Parts marked with this symbol Δ have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 Kohms, the unit is defective.

WARNING:
 - DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAM (for DRA-1035R) 3/3

1 2 3 4 5 6 7 8 9 10 11



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 Δ have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamperes, or if the resistance from chassis to either side of the power cord is less than 240 Kohms, the unit is defective.

WARNING
 -DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAM (for DRA-835R) 2/3

1 2 3 4 5 6 7 8 9 10 11

A

B

C

D

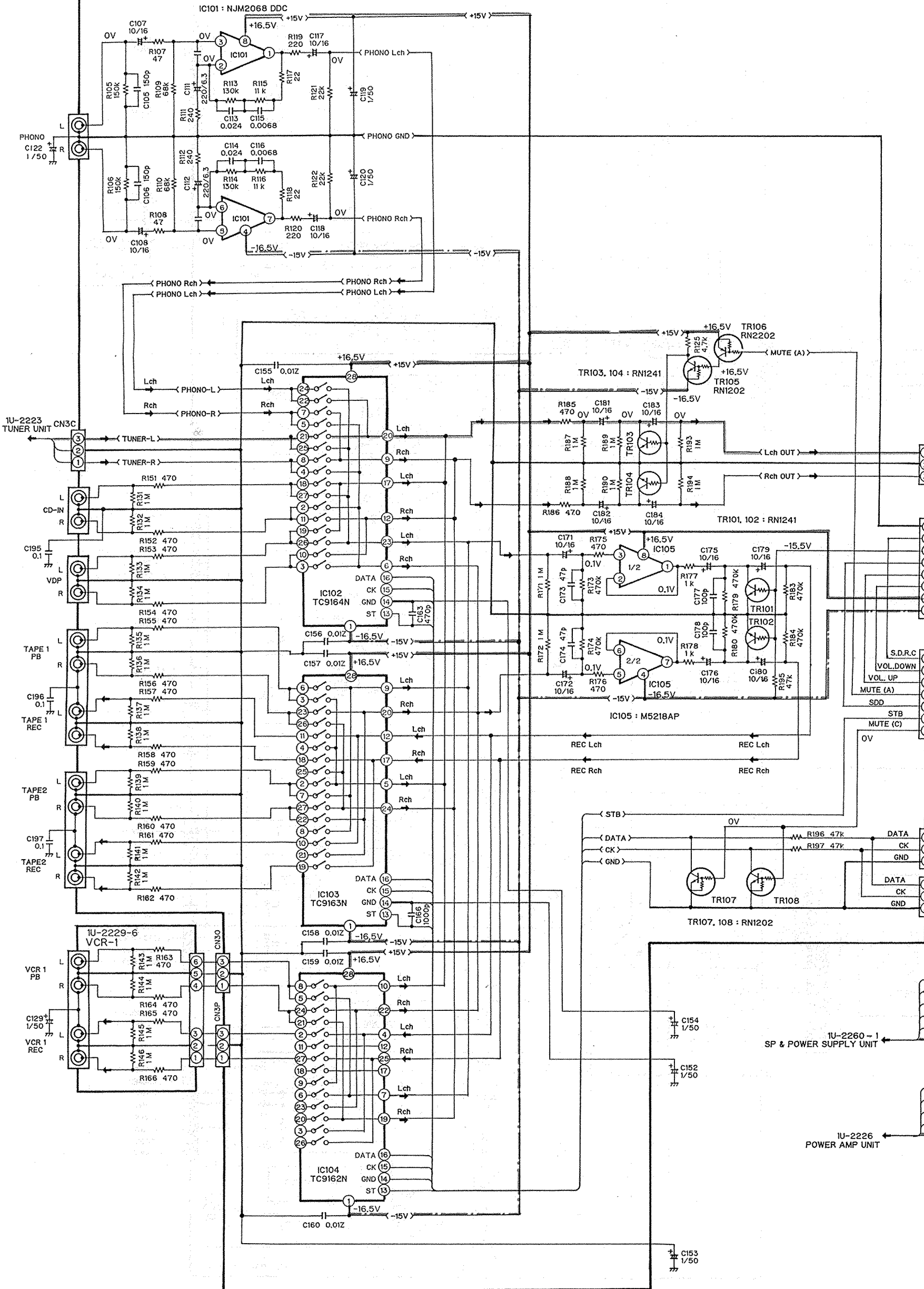
E

F

G

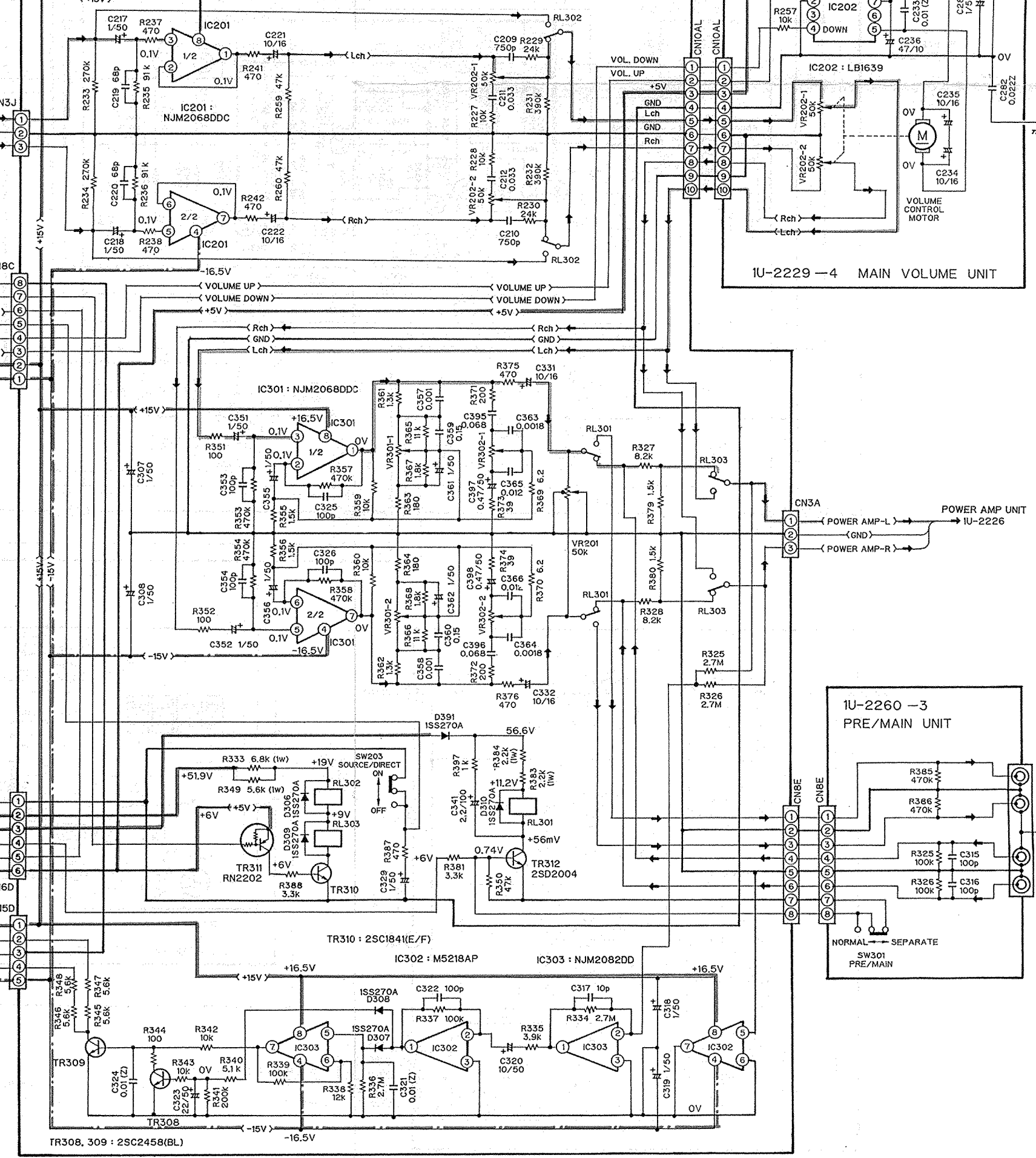
H

1U-2229-2 INPUT UNIT

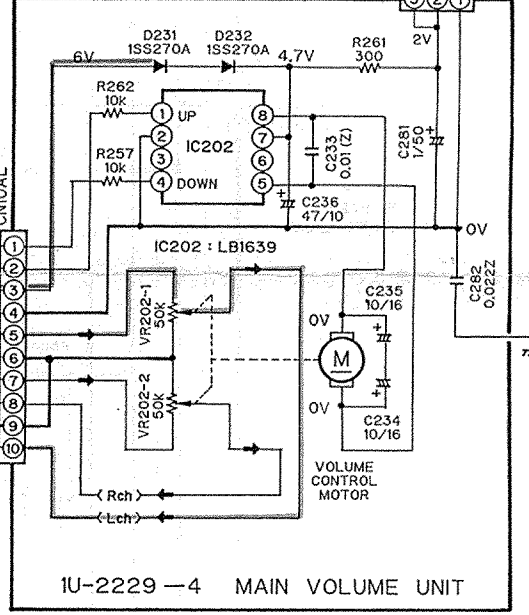


FM Lch SIGNAL LINE
 +B LINE
 -B LINE

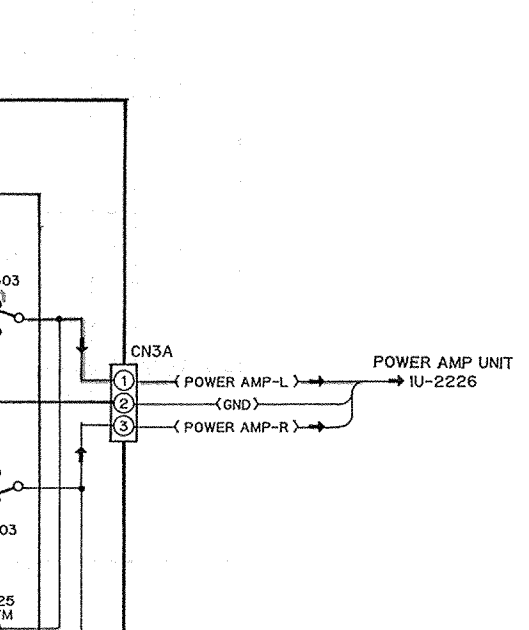
1U-2229-1 CONTROL UNIT



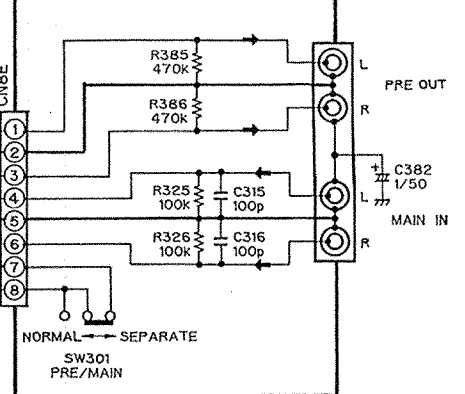
1U-2260-7 VOL LED UNIT



1U-2229-4 MAIN VOLUME UNIT



1U-2260-3 PRE/MAIN UNIT



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.

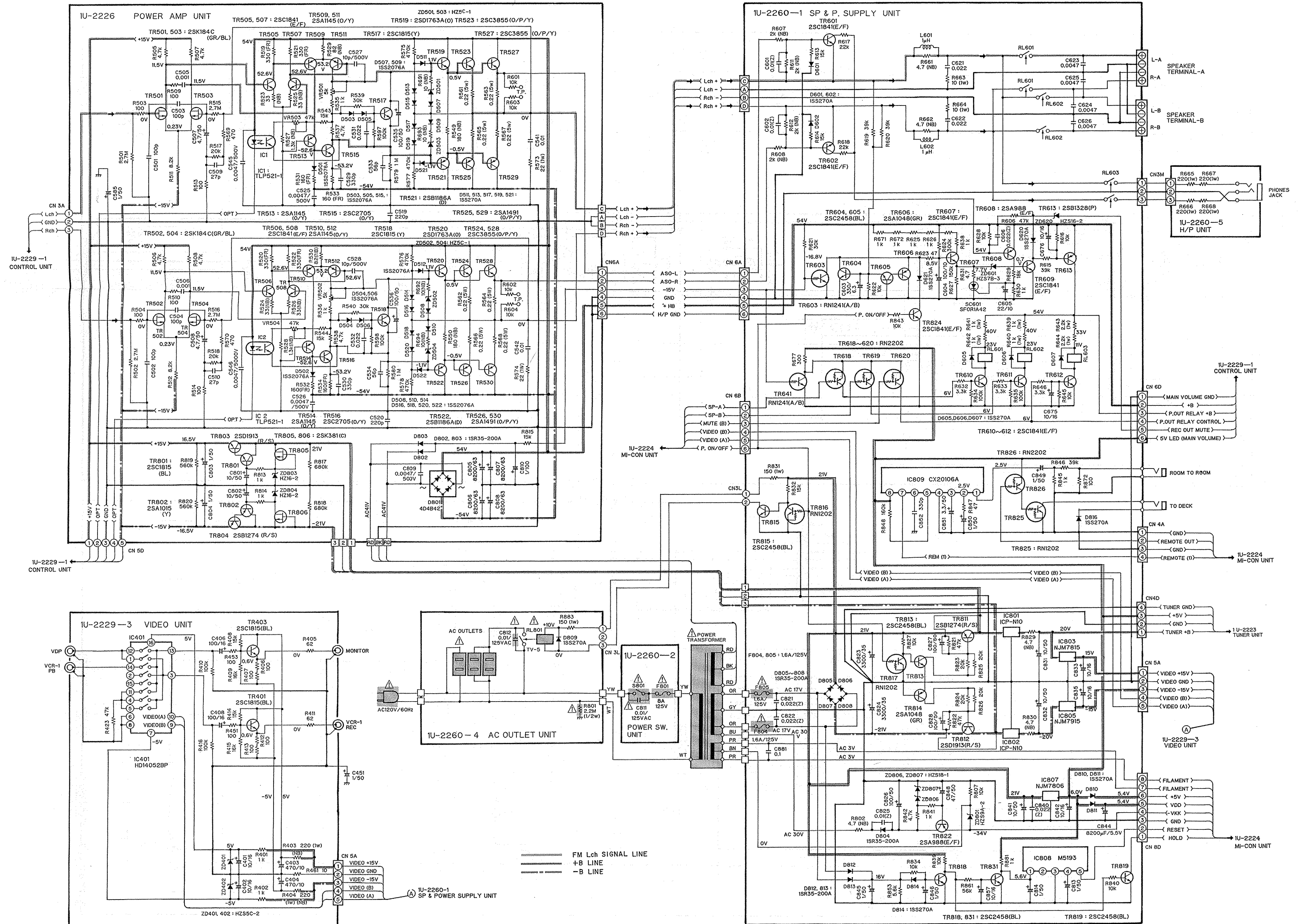
WARNING:
 Parts marked with this symbol Δ have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power cord is less than 240 Kohms, the unit is defective.

WARNING:
 - DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAM (for DRA-835R) 3/3

1 2 3 4 5 6 7 8 9 10 11



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:
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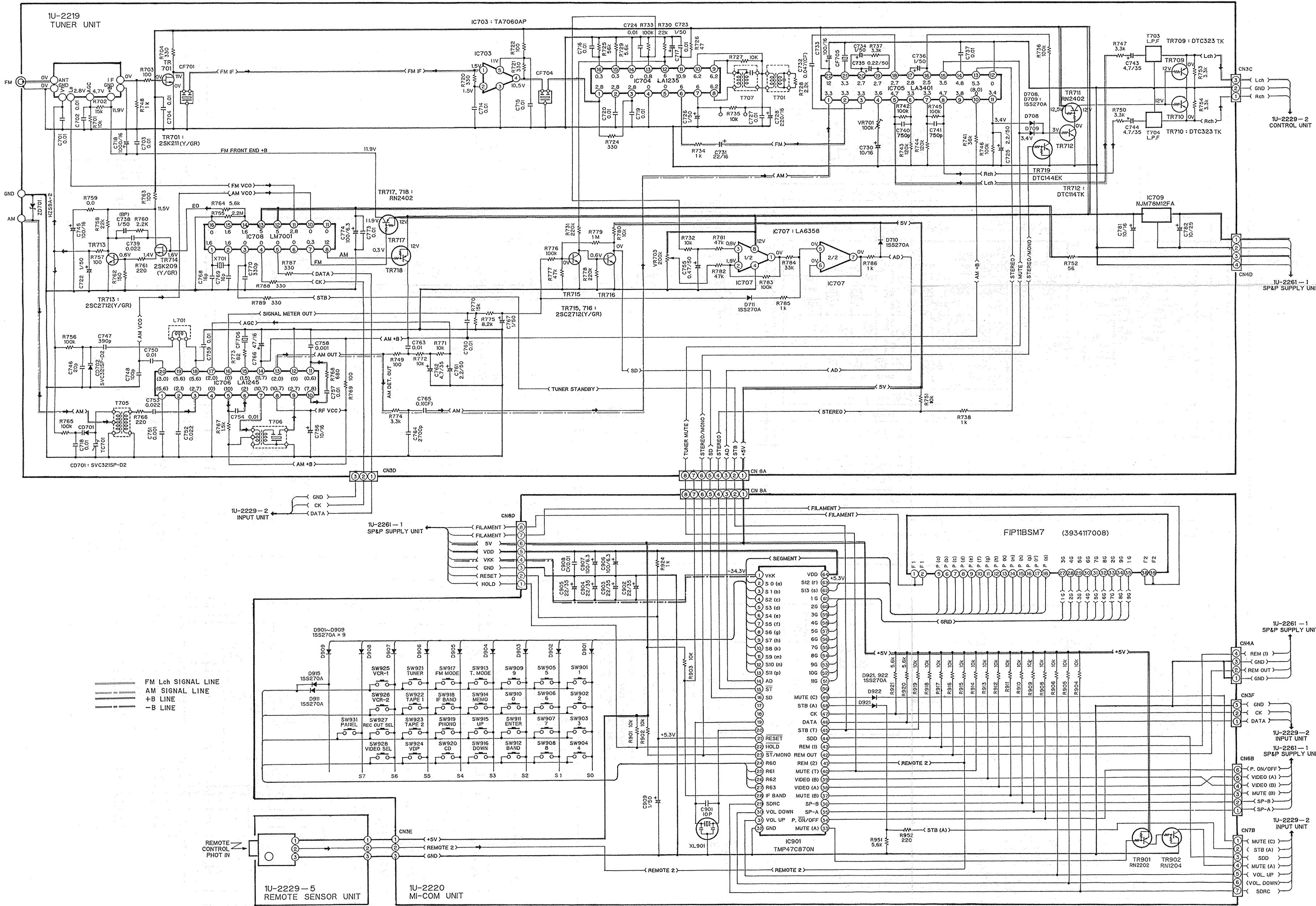
CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 Kohms, the unit is defective.

WARNING
 - DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAM (for DRA-635R) 1/3

1 2 3 4 5 6 7 8 9 10 11

A
B
C
D
E
F
G



FM Lch SIGNAL LINE
 AM SIGNAL LINE
 +B LINE
 -B LINE

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.

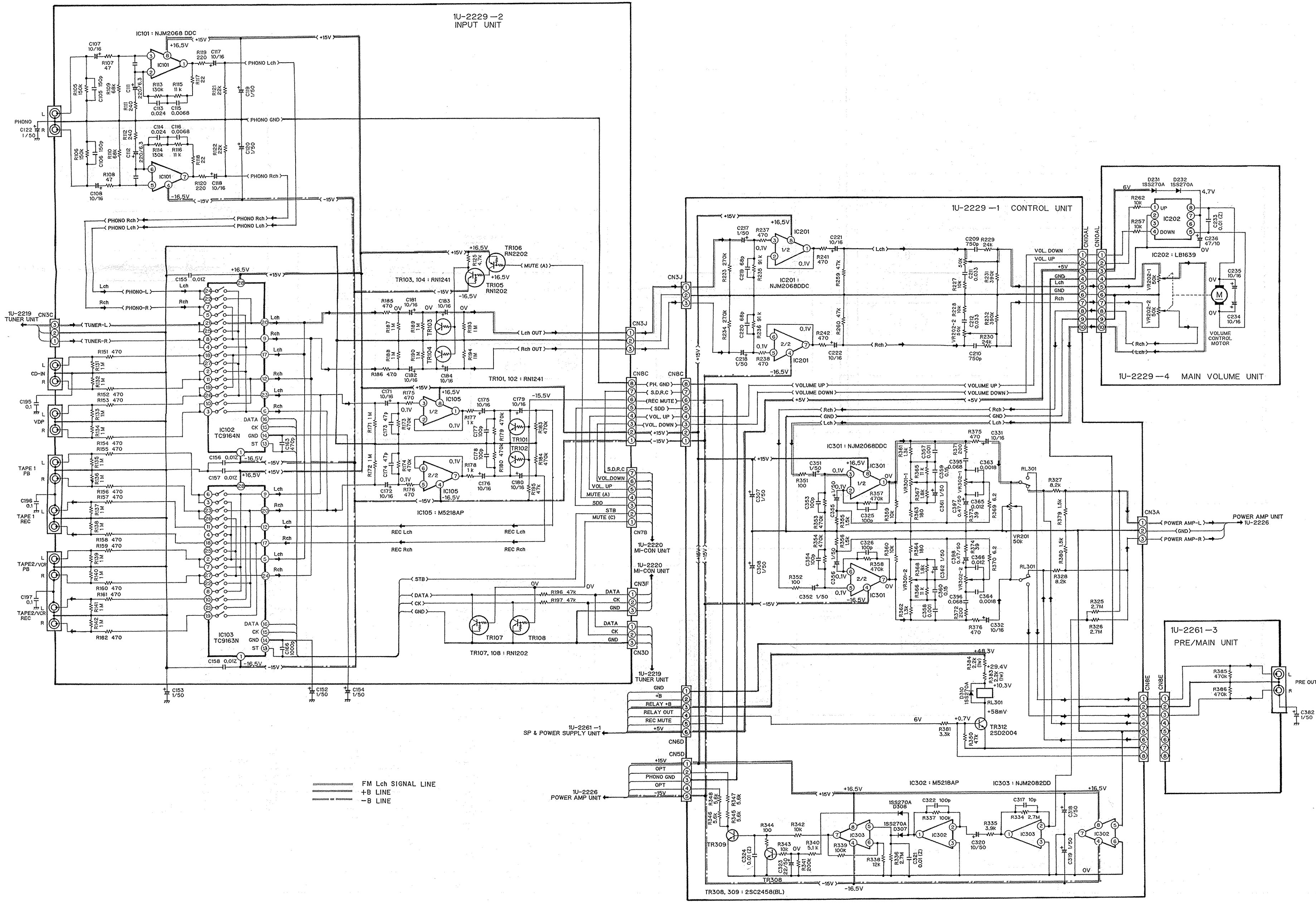
WARNING:
 Parts marked with this symbol Δ have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 Kohms, the unit is defective.

WARNING
 -DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAM (for DRA-635R) 2/3

1 2 3 4 5 6 7 8 9 10 11



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 Δ have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

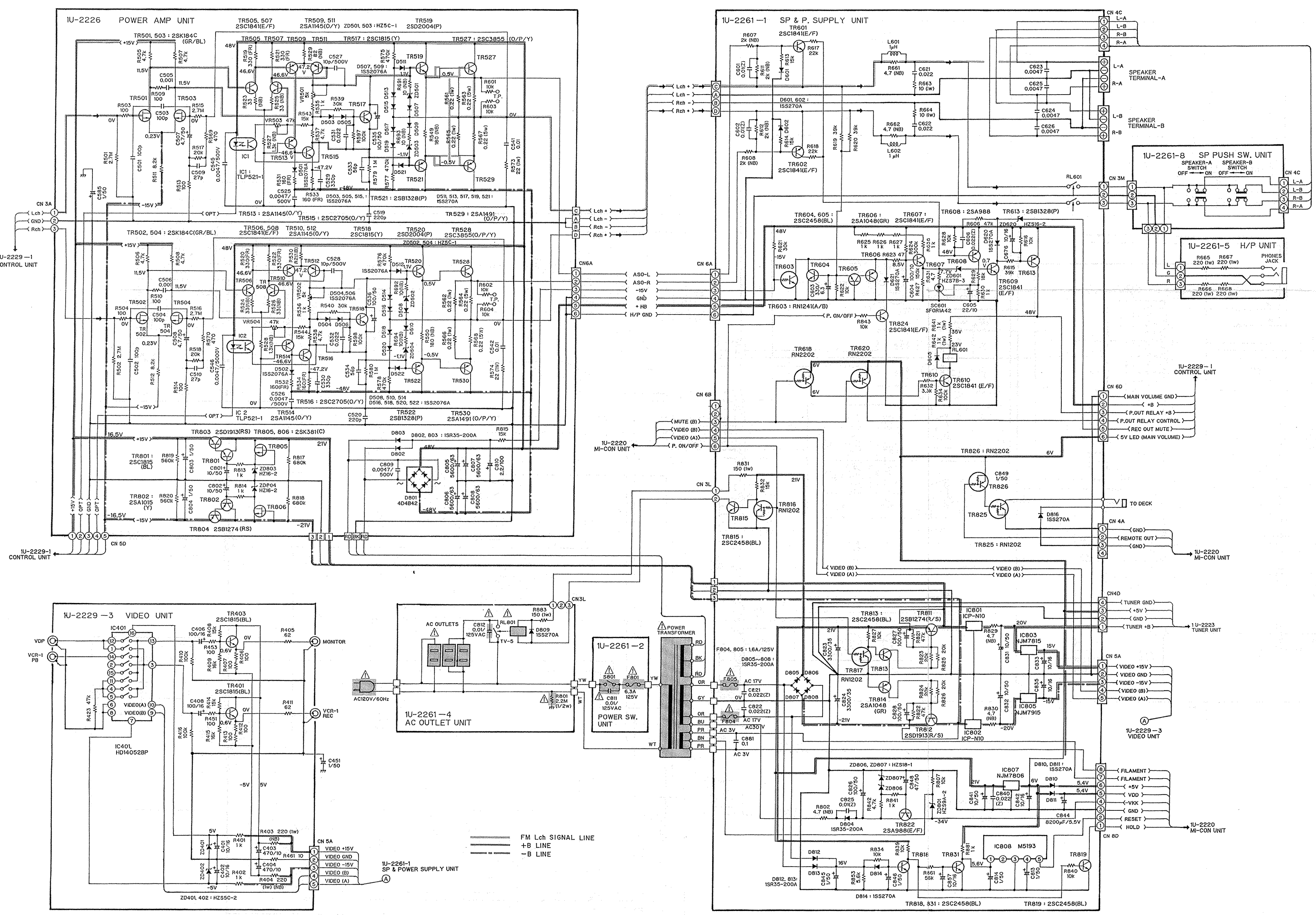
CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamperes, or if the resistance from chassis to either side of the power cord is less than 240 Kohms, the unit is defective.

WARNING
 -DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAM (for DRA-635R) 3/3

1 2 3 4 5 6 7 8 9 10 11

A
B
C
D
E
F
G



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:
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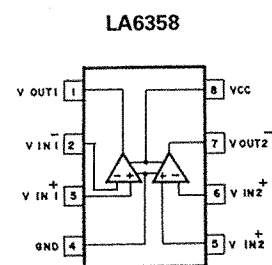
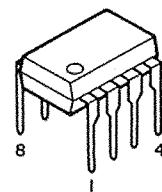
CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power cord is less than 240 Kohms, the unit is defective.

WARNING
 -DO NOT return the unit to the customer until the problem is located and corrected.

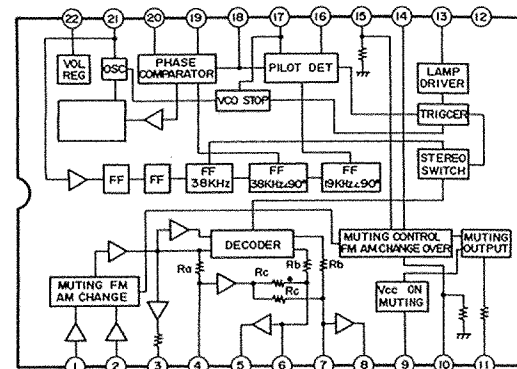
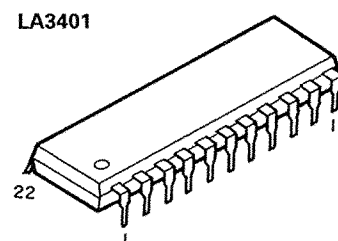
SEMICONDUCTORS

IC'S

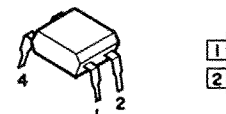
LA1222
NJM2068DO
LA6358
NJM4558D-D
M5238P



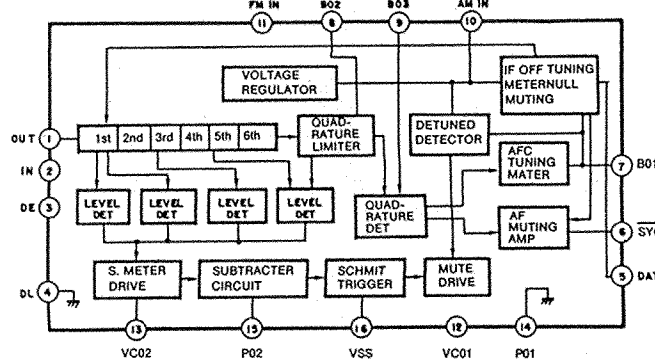
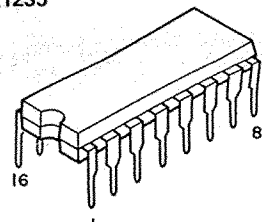
LA3401



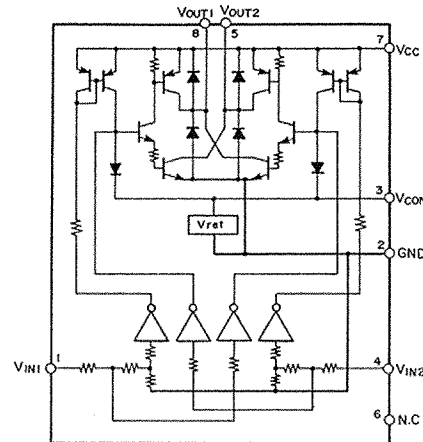
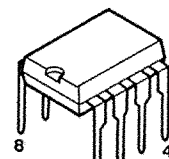
TLP521-1 (BL)(Toshiba)



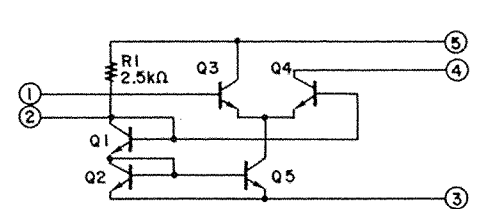
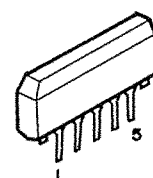
LA1235



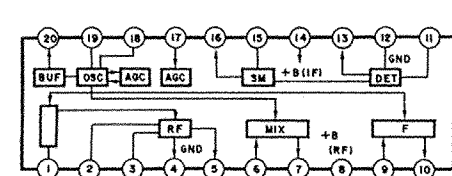
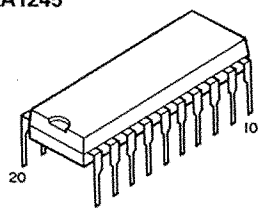
LB1639



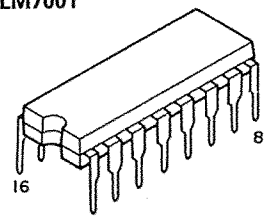
TA-7060AP



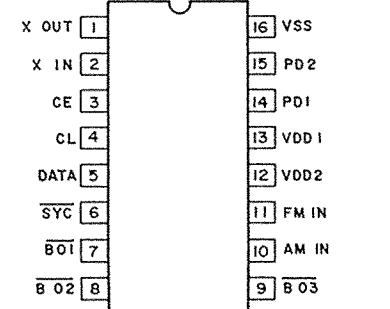
LA1245



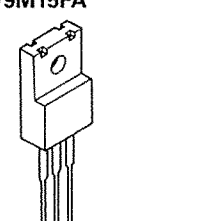
LM7001



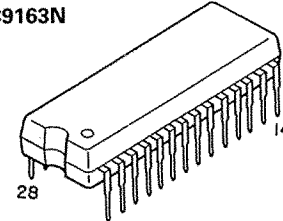
TA7411AP



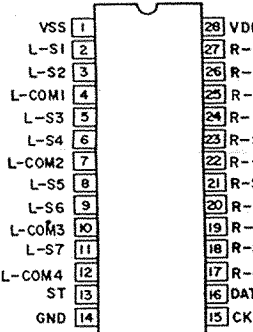
NJM79M15FA



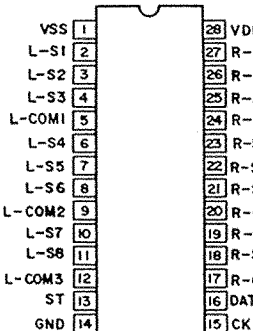
TC9162N
TC9163N



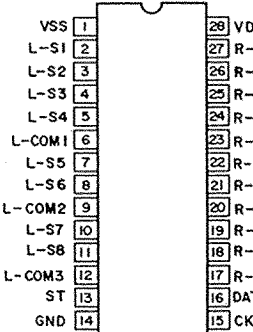
TC9162N



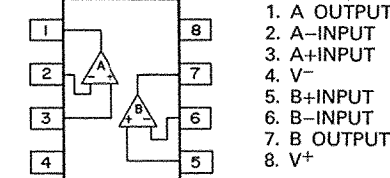
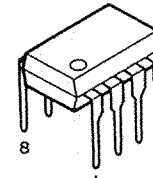
TC9163N



TC9164N

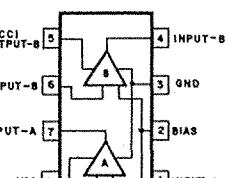
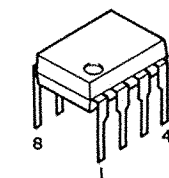


NJM2082D

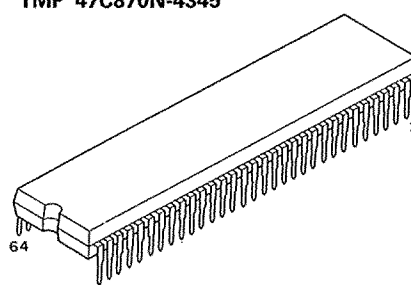


- 1. A OUTPUT
2. A-INP/UT
3. A-INP/UT
4. V-
5. B-INP/UT
6. B-INP/UT
7. B OUTPUT
8. V+

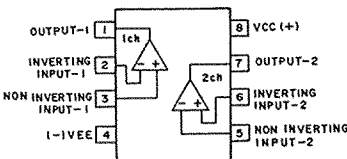
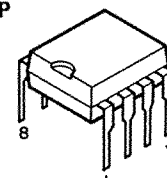
NJM2068DDC



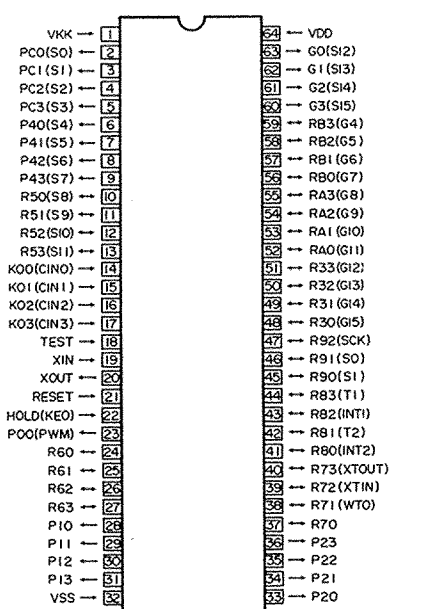
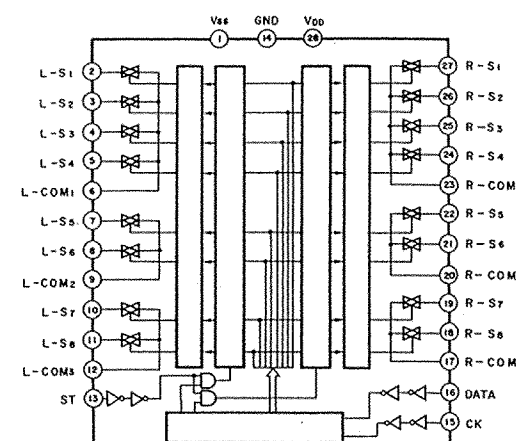
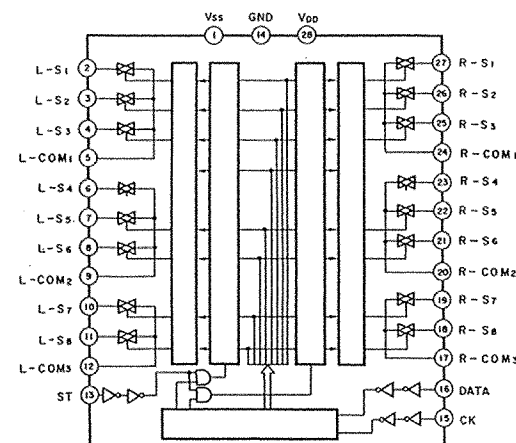
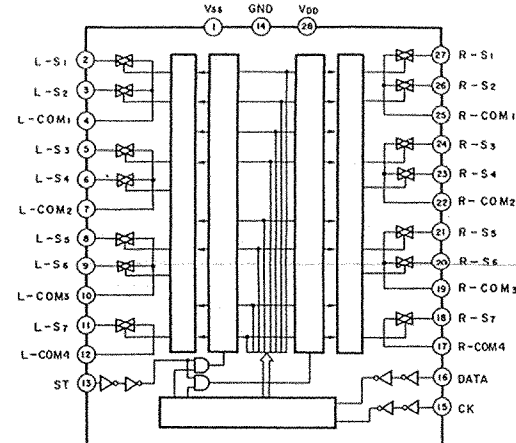
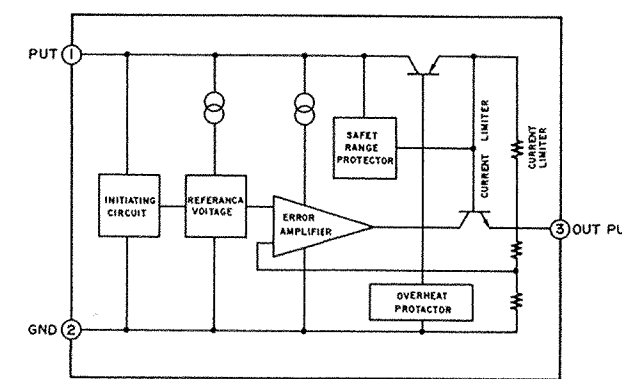
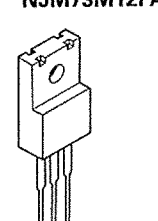
TMP 47C870N-4345



M5218AP

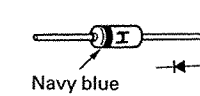


NJM73M12FA

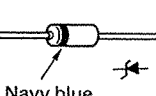


DIODES

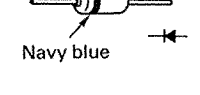
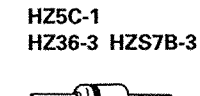
1S2076A



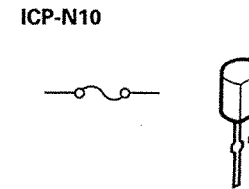
1S270A



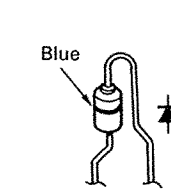
HZ16-2 HZS9A2L



IC PROTECTOR ICP-N10

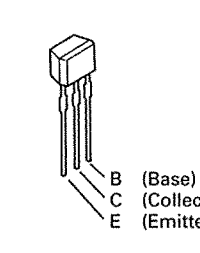


1SR35-200A

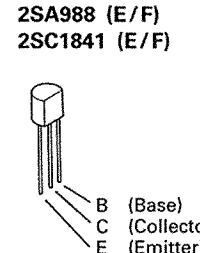


TRANSISTORS

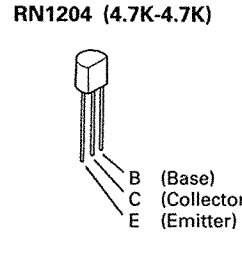
2SC2458 (BL)
2SA1048 (GR)



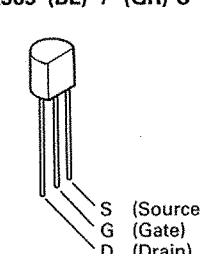
2SA-1015 (Y/GR)
2SC1815 (Y)
2SA988 (E/F)
2SC1841 (E/F)



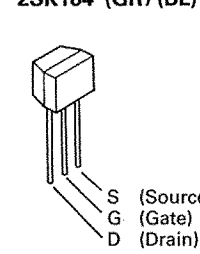
RN1202 (10K-10K) NPN
RN2202 (1CK-10K) PNP
RN1204 (4.7K-4.7K)



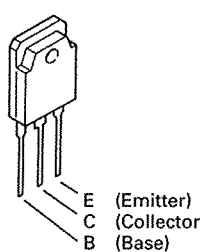
2SK369 (BL) / (GR)-C



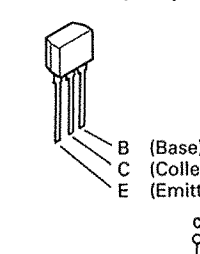
2SK184 (GR)/(BL)



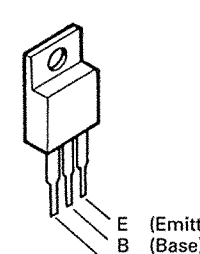
2SA1491 (O/P/Y)(Z)
2SC3855 (O/P/Y) (Z)



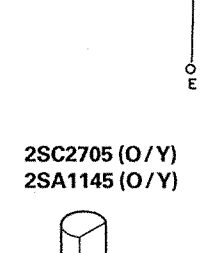
RN1241 (A/B)



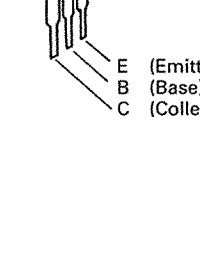
2SB1274 (R/S)-LA
2SD1913 (R/S)-LA



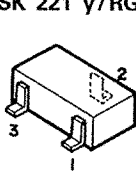
2SB1274 (R/S)
2SD1913 (R/S)
2SD1763A (D)
2SB1186A (D)



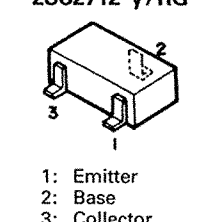
2SC2705 (O/Y)
2SA1145 (O/Y)



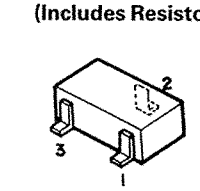
2SK 221 y/RG



RN-2402
2SC2712 y/RG



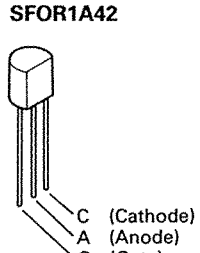
Digital Transistor



- 1: GND/Emitter
2: Out/Collector
3: In/Base

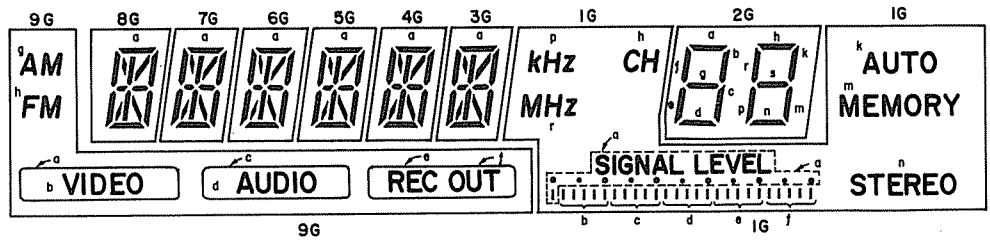
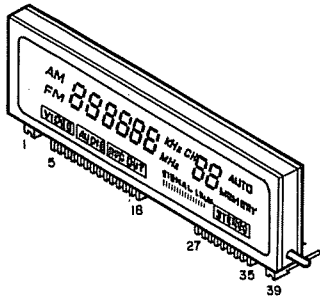
DTC323TK
DTA144EK
DTC114TK (Chip)

Thyristor



SFOR1A42

FLD [FIP11BSM7] DRA-638R



TERMINAL NO. ELECTRODE	1 F1	2 F1	3 NP	4 NP	5 P (a)	6 P (b)	7 P (c)	8 P (d)	9 P (e)	10 P (f)	11 P (g)	12 P (h)	13 P (k)	14 P (m)	15 P (n)	16 P (p)	17 P (r)	18 P (s)	19 NP	20 NP
TERMINAL NO. ELECTRODE		21 NP	22 NP	23 NP	24 NP	25 NP	26 NP	27 3G	28 4G	29 5G	30 6G	31 7G	32 8G	33 2G	34 9G	35 1G	36 NP	37 NP	38 F2	39 F2

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

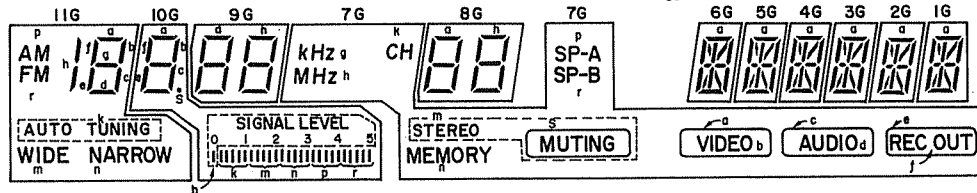
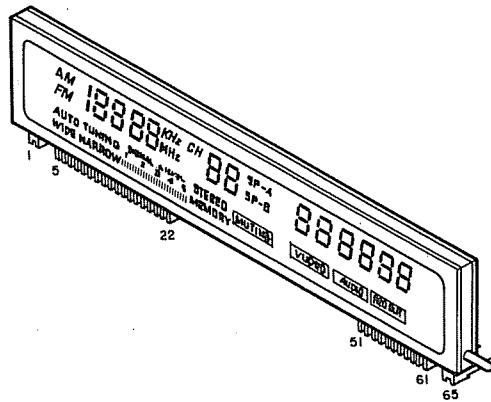
NOTE:

- The display pattern details are according to the block copy you provide. (5x dimensions)
- Color specification: orange is used for "STEREO", MUTING, and green is used for the locations which are not orange.

Precautions in Use

- An AC power supply should be used for the filament heating power supply. Use of a DC power supply might lead to an imbalance of the intensity depending on the [number]
- The panel is completely made of glass and should be handled very carefully.
- Avoid extreme pulling or bending of the section from which the leads are drawn.
- When the panel is to be fixed to the device, avoid the exhaust tube section and use another surface.

[FIP160M8] DRA-1035R/835R



TERMINAL CONNECTION

TERMINAL NO. ELECTRODE	1 F1	2 F1	3 NP	4 NP	5 P (a)	6 P (b)	7 P (c)	8 P (d)	9 P (e)	10 P (f)	11 P (g)	12 P (h)	13 P (r)							
TERMINAL NO. ELECTRODE	14 P (o)	15 P (k)	16 P (m)	17 P (n)	18 P (h)	19 P (o)	20 P (r)	21 P (k)	22 P (s)	23 NP	24 NP	25 NP	26 NP	27 NP	28 NP	29 NP	30 NP	31 NP	32 NP	33 NP
TERMINAL NO. ELECTRODE	34 NP	35 NP	36 NP	37 NP	38 NP	39 NP	40 NP	41 NP	42 NP	43 NP	44 NP	45 NP	46 NP	47 NP	48 NP	49 NP	50 NP	51 1G	52 2G	53 3G
TERMINAL NO. ELECTRODE									54 4G	55 5G	56 6G	57 7G	58 8G	59 11G	60 9G	61 10G	62 NP	63 NP	64 F2	65 F2

Notes F: Filament G: Grid P: Anode NP: No Pin IC: Internally Connected Pin

NOTE:

- The display pattern details are according to the block copy you provide. (5x dimensions)
However, since the spacing of 9G a and b, c and d, e and f is a narrow 0.26 mm, the area above and below the frame is widened and set to 0.5 mm.
- Color specification: only "STEREO" is orange, everything else is green.

DENON

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