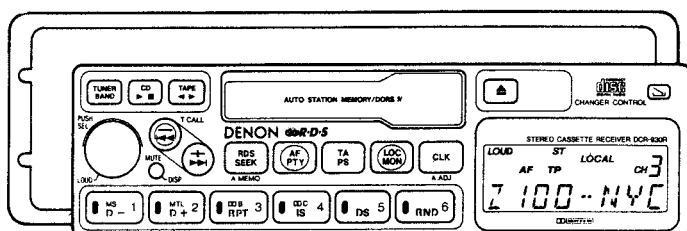


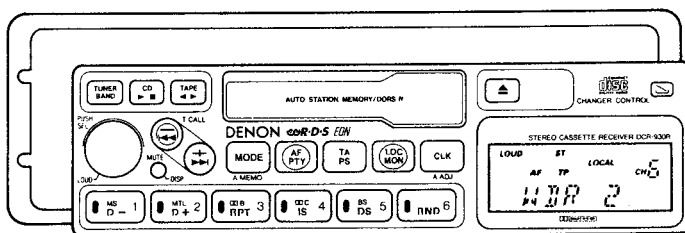
DENON

Hi-Fi Stereo Cassette Receiver

SERVICE MANUAL MODEL DCR-930R STEREO CASSETTE RECEIVER



(U.S.A. Version)



(Europe Version)

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NIPPON COLUMBIA CO., LTD.

(U.S.A Version)

Please carefully read all safety and operating instructions before installation and use. It will help you to obtain the best performances from your new Cassette Receiver.

FEATURES


Power: (Both Channels Driven)

- 20 W x 4 ch 1 kHz/4 ohms (MAX)
- 14 W x 4 ch 1 kHz/4 ohms 10% THD
- 10 W x 4 ch 40 Hz - 20 kHz/4 ohms 1% THD

- Detachable Front Panel.
- RDS (PS, PTY, AF, PI, TA, TP, CT).
- 30 Station-presets (18 FM - 12 AM).
- Denon Optimum Reception System IV (FM circuitry-Auto high blend and FM pulse noise canceller).
- Feather touch Full-Logic control deck.
- Dual azimuth tape head.
- Dolby B&C NR**.
- Automatic Memory System.
- Radio on during FF & REW.
- Super hard permalloy head.
- Flexible fader-internal front amp to rear amp and/or internal front amp to internal rear amp.
- Auto reverse cassette mechanism.
- Up/Down manual & seek tuning.
- Music sensor (1).
- Stereo/mono (FM), local switches.
- Metal tape switch.
- Preset scan.
- Night illumination with dash light dimmer lead.
- Power antenna control lead.
- DIN "E" with Easy Installation Lock in sleeve.
- DIN "E" & ISO mount.

2

- CD changer control.
Disc/Intro Scan
Repeat play (Disc & Track)
2-Mode random play
Automatic/Manual search
- Wireless Remote Control (Option)
- Quartz Clock
- Muting Switch

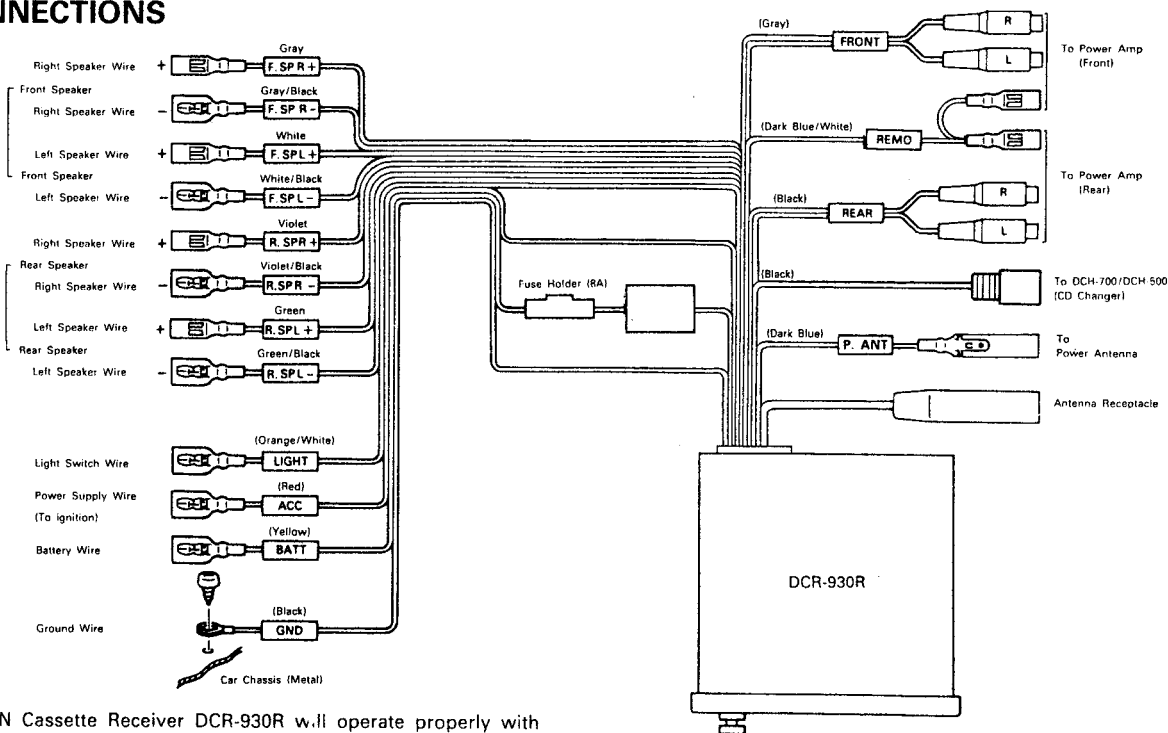
** Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

FOR YOUR RECORDS

Please record the serial number of your unit in the space provided below and keep it as a permanent record. The serial number is indicated on the top of the unit. You will need the serial number, if the need for service should arise.

Model DCR-930R
Serial Number _____

CONNECTIONS



DENON Cassette Receiver DCR-930R will operate properly with 14.4 V (11-16 V) car batteries. You cannot use it for 24 V or other types or car batteries.

Maximum rated current capacity from Remote output and the Power antenna output is 500 mA.

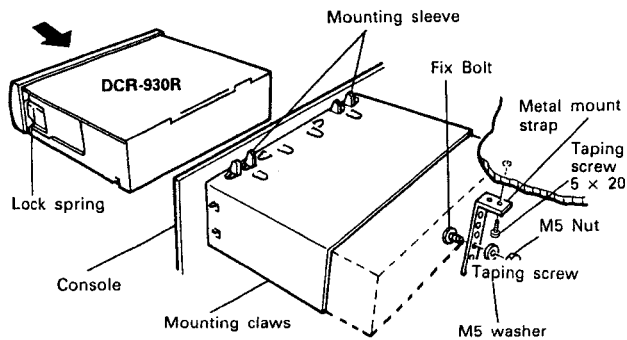
* Do not use the remote output as the power supply for other sets (for example, power amplifiers, RF modulators, etc.). Connect the remote output to the power amplifier's control terminal (remote).

CAUTION! - To prevent damage to the unit. DO NOT connect the (-) (negative) loudspeaker lead to the ground (chassis) or to any other (-) loudspeaker lead from this unit.
* Only connect the set after connecting all the connector wires.

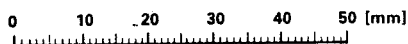
3

**(U.S.A Version)
INSTALLATION**

- Use screws supplied as accessories when installing the unit.



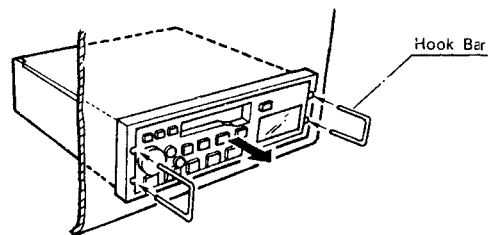
1. Insert the mounting sleeve in the console or dashboard then fasten it to the console with the mounting claws.
2. Insert the unit into the mounting sleeve then check that it is fastened to the mounting sleeve with the lock springs on either side.
3. Fasten the back of the unit to part of the vehicle using the metal mounting strap.



ACCESSORIES

No.	Part name	Q'ty
①	Hook Bar	2
②	M5 Washer	1
③	Tapping Screw 5×20	1
④	M5 Nut	1
⑤	Fix. Bolt	1
⑥	Metal Mount Strap	1
⑦	16P-Wire Ass'y	1
⑧	Carry Case	1

- To remove the unit



1. Remove the metal mounting strap fastening the back of the unit from the unit.
2. Insert the Hook Bar into the hole in the panel and pull the unit out.

4

For safety, heed the following cautions. Failure to do so can lead to accidents and damage to the unit:

<p>Do not disassemble.</p>	<p>Do not subject to strong shocks.</p>	<p>Do not let the unit get wet.</p>	<p>Keep away from strong magnetic forces.</p>
<p>Replace the fuse with a fuse of the same amperage.</p>	<p>Do not use C-120 type tapes.</p>	<p>Do not wipe with benzene or thinner.</p>	

Precautions


- The entire preset memory is cleared if the battery cord is disconnected when replacing the battery, etc. The time is also reset to 12:00.

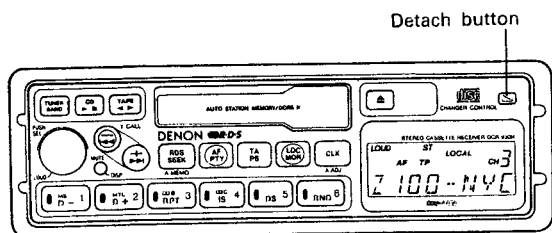
(U.S.A Version)

Using the Removable Front Panel

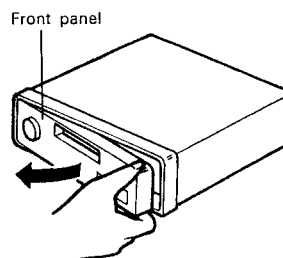
The front panel of this unit can be removed to prevent theft.

Detaching the Front Panel

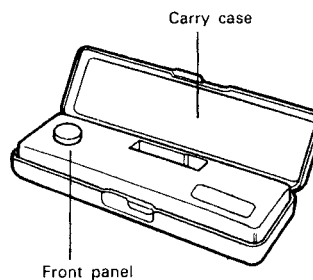
1. Press button , and the right-hand side of the panel will eject.



2. To remove the front panel, pull its right-hand side toward you.



- Take care not to put pressure on the display or drop the front panel.
3. Enclose the front panel in the supplied carry case for safekeeping.

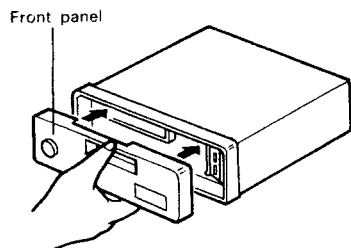



6

Replacing the Front Panel

Push the front panel into the main body.

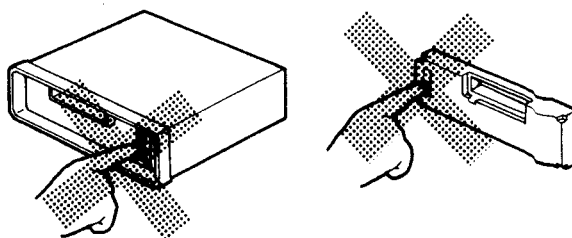
- When replacing the front panel, do not put pressure on the display or control buttons.



- Note that if the front panel is not attached correctly, pushing button  may not release the panel, and the other control buttons may not function.

Precautions

- Do not touch the contacts on the front panel or on the unit body, since this may result in poor electrical contact. If dirt or other foreign substances get on the contacts, wipe them with a clean, dry cloth.

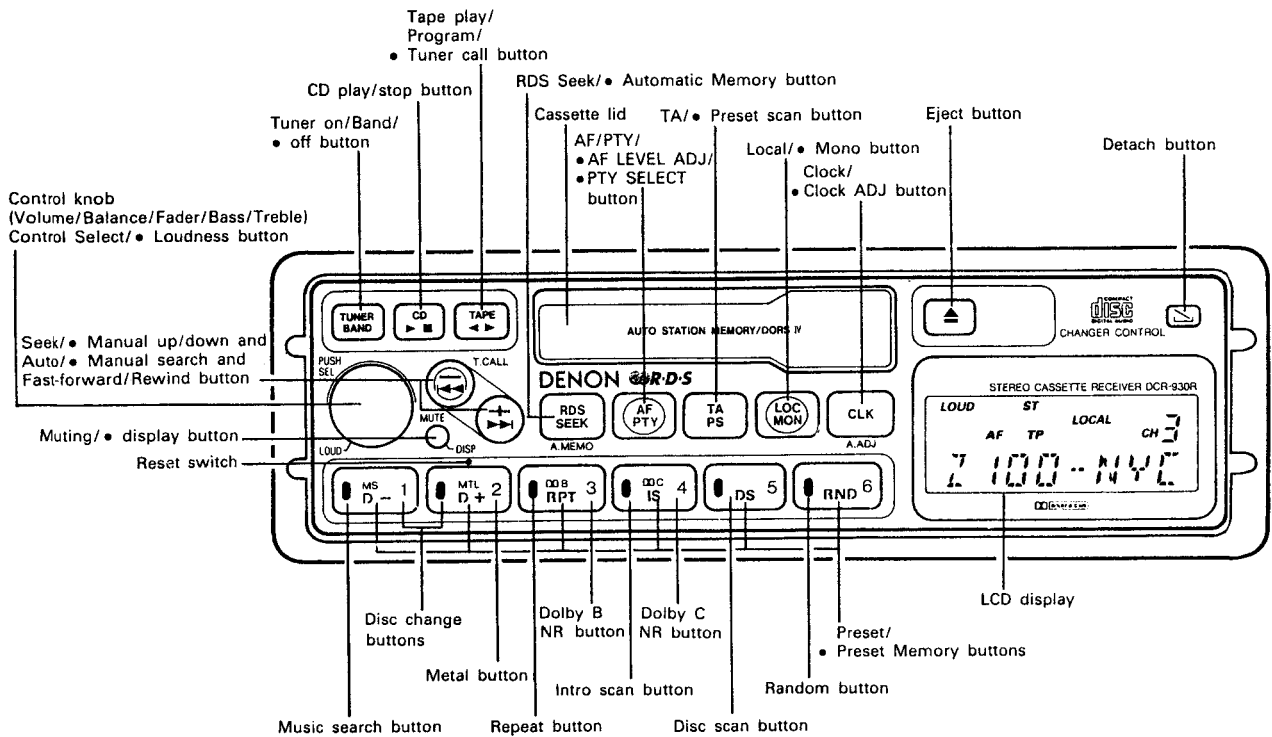


Precautions When Handling the Front Panel

- Do not leave the front panel in any area exposed to high temperatures or direct sunlight.
- Do not drop the front panel or otherwise subject it to strong impact.
- Do not allow such volatile agents as benzene, thinner, or insecticides to come into contact with the surface of the front panel.
- Never try to disassemble the front panel.

(U.S.A Version)

CONTROLS & INDICATORS

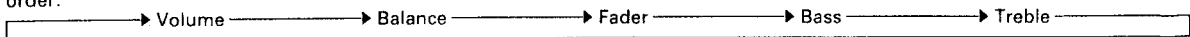


To use the functions marked "•", press the button for over two seconds.

8

Control knob operation

- The control knob normally adjusts the volume when turned. Press the control knob to switch the adjustment mode in the following order:



- The control knob returns to the volume adjust mode five seconds after the last adjustment has been made.

Turn.	Example of LCD display	Mode	Operation
		Volume	• Turn the knob clockwise to increase the volume, counterclockwise to decrease the volume.
		Balance	• Turn the knob clockwise to shift the balance to the right side, counterclockwise to shift the balance to the left side.
		Fader	• Turn the knob clockwise to shift the balance to the front side, counterclockwise to shift the balance to the rear side.
		Bass	• Turn the knob clockwise to increase the bass, counterclockwise to decrease the bass.
		Treble	• Turn the knob clockwise to increase the treble, counterclockwise to decrease the treble.

Press (for at least two seconds).

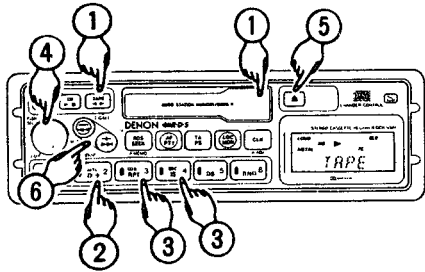


- Loudness**
 - When this button is pressed for more than 2 seconds, the bass and treble are emphasized, making for a more powerful sound. This can be used to make the sound more listenable at low volume levels.

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(U.S.A Version)

Listening to Cassette Tapes

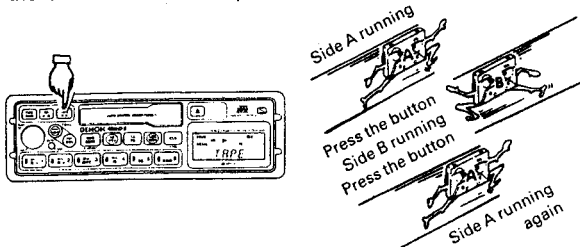


- 1 Insert the cassette tape. (If a cassette tape is loaded, press the [EJECT] button.) "TAPE" will be indicated on the display.
 - 2 When using metal tapes, press the [METAL] button. "METAL" appears on the display.
 - 3 Press the [DOLBY B] button when listening to tapes recorded in Dolby B, the [DOLBY C] button when listening to tapes recorded in Dolby C. "DOLBY B" or "DOLBY C" appears on the display.
 - 4 Adjust the volume knob to the desired volume.
 - 5 Press the eject button to eject the cassette tape.
 - 6 Press the [FF] button to fast-forward the tape, the following will appear on the display. "▷ (flash)" for fast-forward in the forward direction. "◁ (flash)" for fast-forward in the reverse direction. Press the [REW] button to rewind the tape, the following will appear on the display. "(flash) ▷◁" for rewind in the forward direction. "◁▷ (flash)" for rewind in the reverse direction.
- Always remove the cassette tape from the unit when not in use.

Convenient Functions for Cassette Tapes

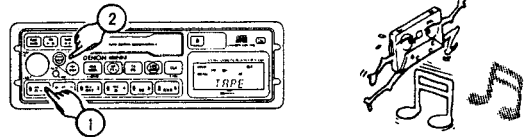
Auto Reverse Function

Press the [AR] button for auto reverse. This lets you to listen to the other side of the tape.



Search Function

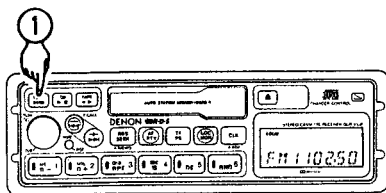
- 1 Press the [MS] button and check that "MS" appears on the LCD.
- 2 (1) Press the rewind ([REW]) button to return to the beginning of the current selection.
(2) Press the fast-forward ([FF]) button to move to the beginning of the following selection.



10

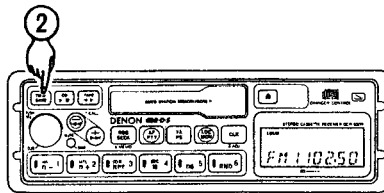
Listening to the Radio

1 Press [TUNER] button to turn the tuner on.



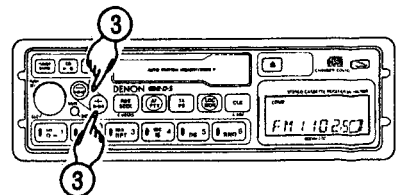
- Press the [TUNER] button for at least two seconds to turn the tuner off.

2 Press the [BAND] button to select one of the FM or AM bands.



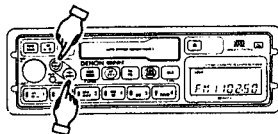
→ FM1 → FM2 → FM3 → AM1 → AM2

3 Use the seek buttons to set the desired frequency. There are two ways to adjust the frequency, as explained below.

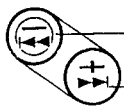


"ST" appears on the display when a stereo broadcast is received.

(1) Seek Tuning



Press the [SEEK-] or [SEEK+] button to begin auto seek tuning.

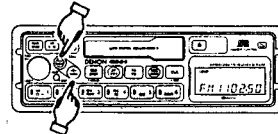


Press this button to move to lower frequencies. Tuning stops automatically when a station is found.

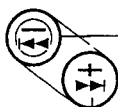
Press this button to move to higher frequencies. Tuning stops automatically when a station is found.

Tuning will not stop at stations whose signals are weak. To tune in such stations, use manual tuning.

(2) Manual Tuning



Press the [SEEK-] or [SEEK+] button for at least two seconds to begin manual tuning.



The frequency decreases in steps of 200 kHz for FM and 10 kHz for AM each time this button is pressed.

The frequency increases in steps of 200 kHz for FM and 10 kHz for AM each time this button is pressed.


(U.S.A Version)

Convenient Functions for the Tuner

Presetting of 18 FM Stations and 12 AM Station

18 FM stations, and 12 AM stations can be preset at buttons 1 to 6 then tuned in directly.

Example: Preset 102.5MHz at preset button 1 for FM1:

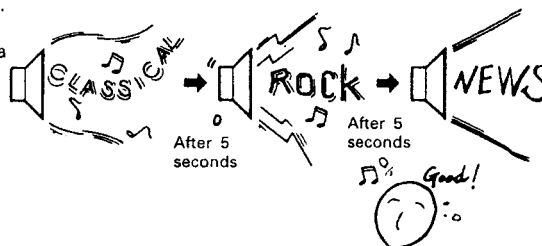
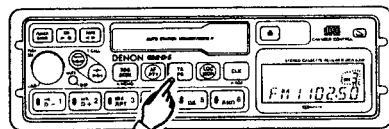
- 1 Tune in FM1 102.5MHz using the seek tuning or manual tuning method.
- 2 Press preset button 1 () and hold it in for at least two seconds.
- 3 After about two seconds, a "beep" is heard.
- 4 "CH1" appears on the display. The station is now preset in the memory.

(Use this procedure to store other stations. To tune in preset stations directly, simply press the button at which the station was stored.)

Presetting Scanning

This function lets you check the stations stored at preset buttons 1 to 6.

Example: When you have preset a classical music station, a rock station and a news station but have forgotten:



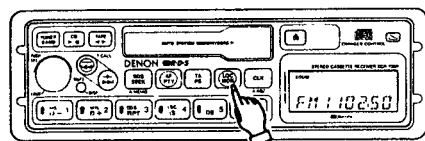
What did I store at preset buttons 1 to 6? Press the  button for at least two seconds.

The stations are received in order for 5 seconds each.

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Local Function

Use this to search for only stations with strong signals when tuning in the seek mode.



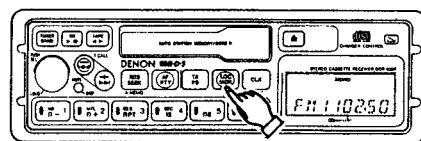
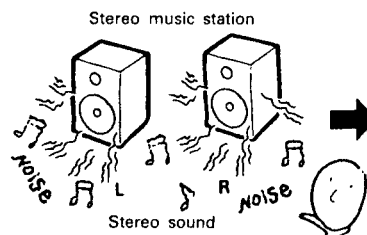
Your DENON Car Tuner is equipped with the most advanced mobile tuning circuitry available. You may also find using the LOCAL button under very high signal strength situations desirable when turning by SEEK mode.


"LOCAL" will be indicated on the display.

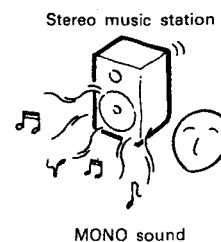
- Press the  button.

Mono Function (Auto/Mono Selection)

This function is used at the time of FM reception when the stereo broadcast is hard to hear or when there is noise interference. It changes the stereo reception to monaural.



Press the  button for more than 2 seconds.



- Even when the MONO button is used, there are occasions when the sound is not improved, depending on the reception conditions.





13

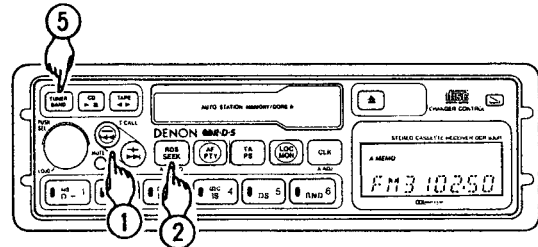
(U.S.A Version)

Using the Automatic Memory System

Use this function in areas where you do not know the frequencies of stations to automatically find stations and store them at the preset buttons.

The stations are automatically stored at the FM3 and AM2 bands, so if you store the stations you normally listen to at the FM1, FM2 and AM1 bands, this function lets you quickly find stations in different areas without clearing the stations you normally listen to.

- 1 Use the  and  buttons to select the frequency from which you want to start searching.
- 2 Press the  button and hold it in for at least 2 seconds.
- 3 "A.MEMO" appears on the display. The band automatically switches to FM3 for FM, AM2 for AM, and the stations with the best reception are stored in order at preset buttons 1 to 6.
- 4 Once the stations with the best reception are stored for the FM3 (AM2) band, the "A.MEMO" indicator turns off.
- 5 Use the  button to switch back to the FM1, FM2 or AM1 band.







NOTE:

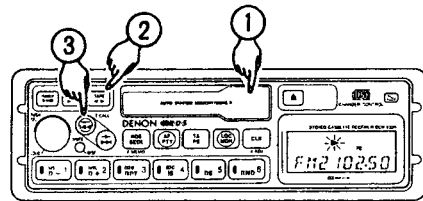
- Stations can also be stored manually for the FM3 and AM2 bands. However, when the automatic memory function is used, these stations are replaced by the new stations with the best reception.
- If there are fewer than six stations with good reception, the number of the fast preset button at which a station was stored is indicated on the display.
- In rare cases, it may happen that no stations are stored when the automatic memory function is used, due to poor reception conditions, etc.

Using the Radio on during FF & REW (Tuner call)



Using the Radio-on Function During the Fast Forward or Rewind Operation.

This function allows you to receive FM/AM broadcasts when you are listening to a tape and you fast forward or rewind the tape. Music will continue (from the radio) when you fast forward or rewind the tape.

- 1 Load the cassette tape.
- 2 Press the  button for more than 2 seconds. "TC" appears on the display.
- 3 Press the fast forward or rewind button.
- 4 Select your desired broadcast station with the  button and the  or  buttons.
- 5 When finished fast forwarding or rewinding, the unit will play back the tape.



NOTE:

- When the radio is operating during fast forwarding or rewinding, pressing the  button for more than 2 seconds will cancel the function which switches to the radio during fast forwarding or rewinding the tape.
- When "MS" is selected with the  button (which means during the cueing operation), fast forwarding or rewinding will not cause a switch to the radio.

(U.S.A Version)

Radio Data System (RDS)

RDS is a new FM broadcasting system promoted by the National Radio System Committee. Inaudible control signals are transmitted with the subcarrier to automate FM reception and maximize operating ease. With RDS, the tuner can display the call name of the currently received station or search automatically for the strongest transmitter signal with the same or any specified program. These features are highly useful also for receiving traffic information or ensuring optimum reception in a car.

At present radio stations in many markets have already started to broadcast with RDS signals, and many more stations are expected to start broadcasting soon.

RDS Services

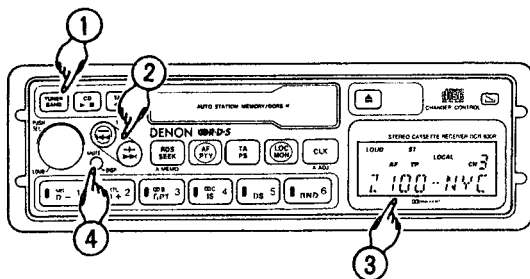
The DENON cassette receivers DCR-930R are equipped for RDS broadcast reception and offer the following features:

- **Program Service Name (PS)**
The name of the RDS station currently received is shown on an 8-character display.
- **Program Type Identification (PTY)**
The DCR-930R includes a PTY function that lets you select a station by specifying the type of program you want to listen to: Country, Jazz, Top 40, etc. PTY then automatically tunes in to a station broadcasting the type of program specified. As many as 22 different user selectable program identifications are provided.
- **Alternative Frequencies (AF)**
Some RDS stations broadcast the same radio program on different frequencies. When the AF function is activated, the DCR-930R will automatically seek out the stronger signal of a station whenever the signal strength changes. This feature ensures stable reception at all times.
- **Program Identification (PI)**
The PI function permits broadcast station identification. When storing stations in the preset memory, the DCR-930R stores the PI code along with the station's frequency. When a station is then selected and its field strength is insufficient, the unit automatically selects a station with a higher field strength (and the same PI code).
- **Traffic Announcement Identification (TA)**
The TA function automatically selects a station which broadcasts traffic information. Even during CD or cassette playback, the DCR-930R will automatically switch to this station whenever a traffic announcement is broadcast.
- **Traffic Program Identification (TP)**
If the station currently received is one which carries traffic information, the TP indicator on the display lights up.
- **Clock Time (CT)**
RDS stations usually broadcasts the current time for added convenience. The CT function also lets you easily make adjustments between daylight savings time and standard time.

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Using the RDS (Radio Data System)

- The RDS functions are for the FM band only, and will only work on stations that are broadcasting with the RDS service.
- Not all RDS stations offer all the RDS services listed on the previous page. Some RDS stations may only provide some of the RDS services.
- The RDS functions may not work properly when the reception is poor.

PS (Program Service Name) Function**Displaying the PS (Program Service Name) on the LCD**

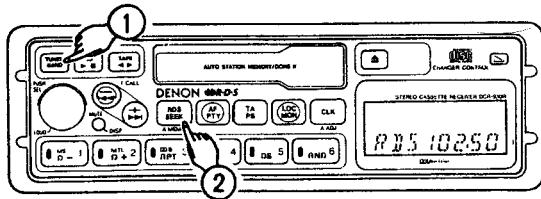
- 1 Press the **RDS** button and select FM1, FM2 or FM3.
- 2 Use the seek/manual up/down buttons to tune in the desired station.
- 3 After the frequency of the station being received appears on the display, the display switches to the PS (Program Service Name), if the station being received is an RDS station.
- 4 To check the frequency of the station being received, press the **Q** button and hold it in for two seconds. The display changes to the frequency. Three seconds later, the PS (Program Service Name) reappears. When in the PTY mode, however, the PTY code appears after the frequency is displayed before the PS reappears.

<Notes on Using the PS Function>

- 1) The PS (Program Service Name) is not displayed if the station being received is not an RDS station or if its signals are weak.
- 2) The PS (Program Service Name) is only displayed for the FM1, FM2 and FM3 bands, not for the AM1 and AM2 bands.
- 3) The PS (Program Service Name) is always displayed for the FM1, FM2 and FM3 bands.

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(U.S.A Version)

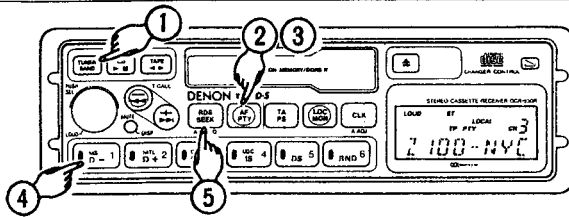
RDS Search

Use this function to automatically tune in stations with RDS broadcasts.

- 1 Press the **FM BAND** button and select the FM1, FM2 or FM3 band.
- 2 Press the **RDS SEARCH** button to automatically search for stations with RDS broadcasts. When an RDS station is tuned in, the station's name appears on the display.

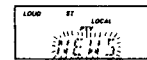
<Notes on RDS Search Function>

This button has a slightly different function if the PTY or TA function is switched on.

PTY (Program Type) Function

Use this function to automatically tune an RDS station broadcasting a certain type of program.

- 1 Press the **FM BAND** button and select the FM1, FM2 or FM3.
- 2 Press the **PTY** button twice, and check that the "PTY" indicator has appeared on the display.
- 3 Press the **PTY** button for at least two seconds and check that the indicator on the display has started to flash. (The program type mode is selected.)



- 4 Press the **PTYP-1** or **PTYP-2** button to select the type of program.
 - The program type changes each time the **PTYP-1** or **PTYP-2** button is pressed.
 - See the following page for a list of the program types which can be selected.
- 5 Press the **RDS SEARCH** button.
- 6 An RDS station of the type you have selected is automatically tuned in.
 - "PTY SEEK" and the selected program type are displayed alternately while a station is being tuned in.
 - It is not possible to tune in stations broadcasting the type of program you have selected but not offering RDS services, or RDS stations which do not offer the PTY service. At this moment a "beep" sound is heard.

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PTY (Program Type) Function

- Tuning in RDS stations broadcasting a certain type of program using the preset buttons:

- 1 Press the **PTY** button twice, and check that the "PTY" indicator has appeared on the display.
- 2 Use the above procedure to tune in an RDS station playing the desired type of program.
- 3 Press a preset button for at least two seconds to store the RDS station at that button. (Refer to Page 12.)
 - The PTY code is stored in the memory along with the frequency and the station name.
- 4 Press the preset button. The PTY code stored in the preset memory is displayed on the display for five seconds.
 - If the "PTY" indicator is not displayed on the display, the PTY code is not displayed, and the station name or frequency is displayed.
- 5 Press the **RDS SEARCH** button.
- 6 An RDS station broadcasting the type of program you have selected is tuned in.

<Note on tuning in RDS stations using preset PTY codes>

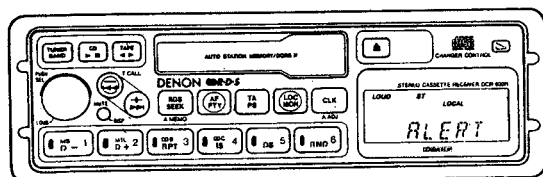
If you have already entered an RDS stations in a preset memory, the unit will remember what the PTY of this station is, and will allow you to tune in another RDS station broadcasting the same PTY code.

Example If you already have a "NEWS" station entered in preset 4, and you want to find another "NEWS" station:

- 1) Push **PRESET 4** button.
- 2) Make sure that PTY mode is selected and shows on the display. (If it is not, push the AF/PTY button until "PTY" is shown on the display)
- 3) Push the **RDS SEARCH** button. The unit will search for another RDS station with the "NEWS" PTY code.

(U.S.A Version)

Emergency Program Reception Function



If the RDS station being received on the FM1, FM2 or FM3 band transmits an Emergency code, "ALERT" appears on the display and a beep tone is heard.

During an emergency broadcast, the volume on the unit will turn up even if the volume knob is set to the minimum. Also, if the unit is in the Cassette, or CD mode, the unit will automatically switch to the radio, indicating an emergency. Follow the instructions being broadcast.

- This function will only work when receiving RDS stations (stations with program service names). In addition, it may not work properly if the signals of the station being received are weak.
- There are no buttons for the Emergency operation.
- This function will only work during actual emergency broadcasts, and will not work during tests of the emergency broadcast system.

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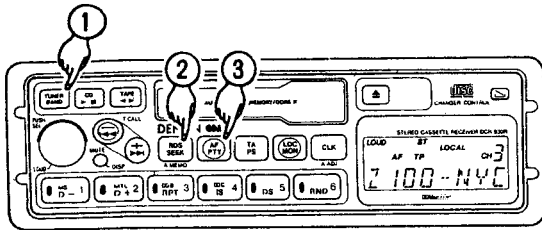
List of PTY Program Types

DISPLAY	PROGRAM TYPE	DISPLAY	PROGRAM TYPE
NO RDS*	(The station being received is not an RDS station or its signals are weak.)	SOFT	Soft (Easy)
NO PTY*	No program type	NOSTALGA	Nostalgia (Standards)
NEWS	News	JAZZ	Jazz
INFORM	Information	CLASSICL	Classical (Fine Arts)
SPORTS	Sports	R+B	R&B (Urban)
TALK	Talk	SOFT R+B	Soft R&B
ROCK	Rock	LANGUAGE	Language (Ethnic)
CLS ROCK	Classic Rock	REL MUSC	Religious Music (Gospel)
ADLT HIT	Adult Hits	REL TALK	Religious Talk (Teaching)
SOFT RCK	Soft Rock	PERSNLTY	Personality (Full Service)
TOP 40	Top 40	PUBLIC	Public (NPR)
COUNTRY	Country	ALERT*	Emergency
OLDIES	Oldies (Gold)		

* Cannot be selected in the program type selection mode.

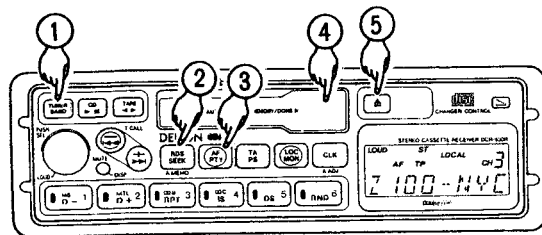
21

AF (Alternative Frequency) Function



To constantly receive RDS stations broadcasting the same program on multiple frequencies

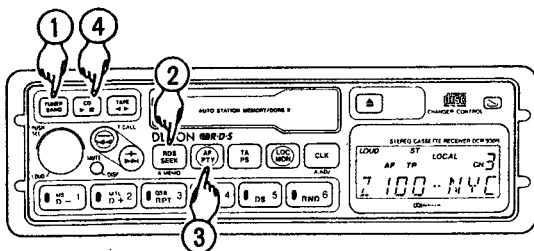
- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button to tune in an RDS station.
- 3 Press the button until "AF" appears on the display.
 - When the signal strength of the station being received becomes weak, "AF" flashes on the display, and the unit searches for another station that is broadcasting the same program based on the AF code list.
 - The frequency changes if another station broadcasting the same program is found.



Automatically tracking stations broadcasting the same program on different frequencies while playing a cassette tape so that reception is optimized when switching back to the tuner

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button to tune in an RDS station.
- 3 Press the button until "AF" appears on the display.
- 4 Insert a cassette tape.
 - When the signal strength of the station being received becomes weak, "AF" flashes on the display, and the unit searches for another station that is broadcasting the same program based on the AF code list.
 - The frequency changes if another station broadcasting the same program is found.
- 5 When the button is pressed, or if the button is pressed, the radio plays the same radio program as before, using the frequency on the AF code list with the best reception.

AF (Alternative Frequency) Function (When using the optional DCH-700/500 CD-Changer)



Automatically tracking stations broadcasting the same program on different frequencies while using the CD-changer so that reception is optimized when switching back to the tuner

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button to tune in an RDS station.
- 3 Press the button until "AF" appears on the display.
- 4 Press the button and start CD playback.
 - When the signal strength of the station being received becomes weak, "AF" flashes on the display, and the unit searches for another station that is broadcasting the same program based on the AF code list.
 - The frequency changes if another station broadcasting the same program is found.
- 5 When the button is pressed, or if the button is pressed, the radio plays the same radio program as before, using the frequency on the AF code list with the best reception.

AF (Alternative Frequency) Function

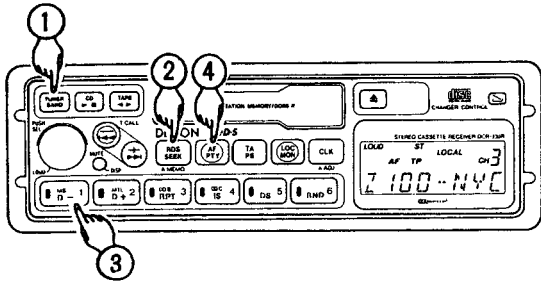
<Notes on Using the AF Function>

- 1) With the AF function, the AF button is pressed and stations broadcasting the same program as the station currently being received are searched for based on the AF list. The AF list includes stations broadcasting the same program. If no receivable station is found when the list is checked through 10 times, stations are searched for using the PI codes (codes for stations broadcasting the same program) and a beep tone is sounded. This operation is then repeated. Thus, in areas far from the broadcasting stations, the alternative frequency function may not work.
- 2) When presetting, both the program name, PI codes, AF list and PTY code are stored along with the station's frequency for buttons M1 to M6 on the FM band.

- 3) The sound may be interrupted once ever 10 seconds after the button is pressed while the station with the best reception is being searched for based on the AF list. This is not a malfunction.
- 4) "AF LEV n" (n = 0 to 7) appears on the display if the button is pressed for over 2 seconds. Now use the and buttons to change the value of "n" and the strength of the signals at which the alternative frequency function will begin operating. The lower the value of "n", the weaker the signals of the station being received must be before the AF function begins operating.
- 5) "AF" flashes on the display if the signals of the station being received become weak and the data cannot be identified.
- 6) The AF function may not work properly for RDS stations which do not transmit AF lists.

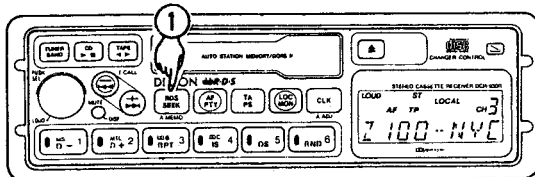
(U.S.A Version)

AF (Alternative Frequency) Function/PI (Program Identification) Function



Storing the AF lists and PI codes in the preset memory

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button to tune in an RDS station.
- 3 Press the preset memory button (M1 to M6) at which you want to store that station and hold it in for at least 2 seconds.
- 4 Press the button until "AF" appears on the display.
- 5 When a preset button at which the AF list or PI codes was stored is pressed, the AF or PI search operation is performed automatically. The stored broadcast stations and broadcast stations carrying the same content are searched for based on the AF list.

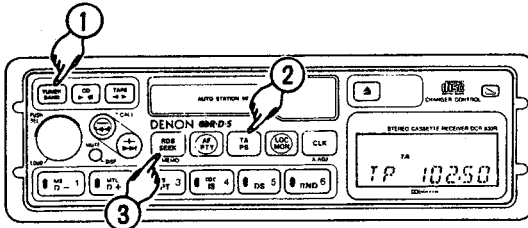


If no new broadcast station with strong signals is found when the button is pressed

- 1 Press the button to seek for a new RDS station.
- 2 Tune in an RDS station.

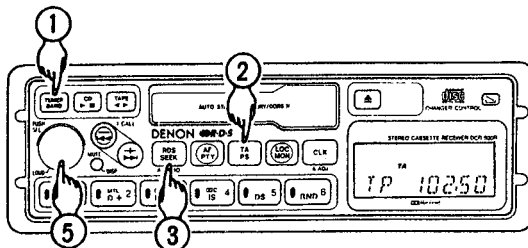
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TA (Traffic Announcement) Function



Searching for TP (Traffic Program) broadcast stations automatically

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button. "TA" appears on the display.
- 3 Press the button.
- 4 Tuning automatically stops at an RDS station broadcasting traffic information. "TP" appears on the display and the TP station is received.



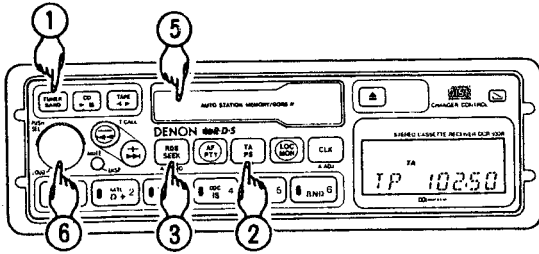
Setting the volume when a TA (traffic information announcement) starts while in standby (on FM1, FM2 or FM3)

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button. "TA" appears on the display.
- 3 Press the button.
- 4 Tuning automatically stops at an RDS station broadcasting traffic information and that station is received.
- 5 When a traffic announcement begins, the volume is set to the level at which it was set the last time a traffic announcement was received (the TA level). "TA VOL" appears on the display if the volume is adjusted at this time.
- 6 The TA level can be changed by changing the volume when traffic information is being broadcast. Also, when the next traffic information is tuned in, it is played at the previously set volume level.
- 7 The volume returns to the original level once the traffic announcement is over.

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(U.S.A Version)

TA (Traffic Announcement) Function



Automatically listening to traffic information announcements while playing cassette tapes

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button. "TA" appears on the display.
- 3 Press the button.
- 4 Tuning automatically stops at an RDS station broadcasting traffic information and "TP" appears on the display.
- 5 Insert a cassette tape.
 - If a traffic information announcement is being broadcast when the cassette tape is inserted, the tape is not played.
 - Use the control knob to adjust the volume of the cassette tape.
 - When the traffic information announcement starts, tape play is set to the pause condition and the set automatically switches to the traffic information.

<Notes on Using the TA Function>

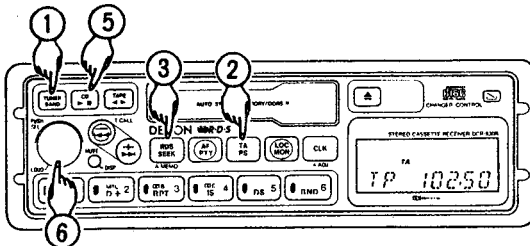
- 1) With the TA function, the TA button is pressed and stations broadcasting the same program as the station currently being received are searched for based on the AF list. The AF list includes stations broadcasting the same program. Thus, in areas far from the broadcasting stations, the alternative frequency function may not work.
- 2) A beep tone is sounded if there is no station broadcasting a Traffic Program or if its signals are weak. If this happens, press the button again so that "TA" disappears from

so that "TA" disappears from the display, then wait until entering an area in which a station broadcasting TPs can be received and press the button again, then press the button to tune in a traffic information station.

- 3) "TA" flashes on the display if the signals of the station being received become weak and the data cannot be identified.
- 4) Some stations broadcast TA (traffic announcement) signals even when they are not broadcasting traffic information announcements. In such cases, the TA function will not work properly.

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TA (Traffic Announcement) Function (When using the optional DCH-700/500 CD-Changer)



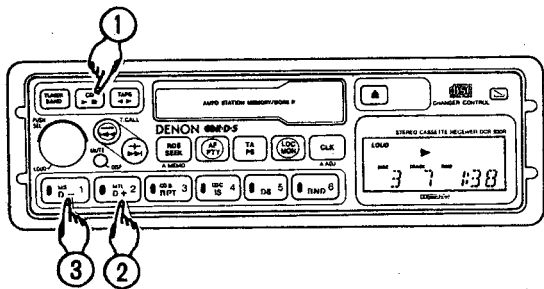
Automatically listening to traffic information announcements while using the CD changer

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button. "TA" appears on the display.
- 3 Press the button.
- 4 Tuning automatically stops at an RDS station broadcasting traffic information and "TP" appears on the display.
- 5 Press the button.
- 6 Use control knob to adjust the volume of the CD changer.
 - When the traffic information announcement starts, CD play is set to the pause condition and the set automatically switches to the traffic information.

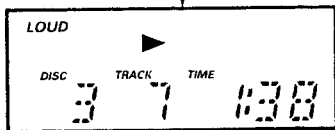
27

(U.S.A Version)

CD Changer Operation (Please connect DCH-700/500)



The display on the LCD reads as follows:



1 [CD PLAY/STOP] CD PLAY/STOP BUTTON

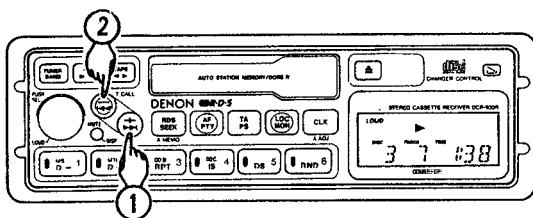
Pushing this button will start the CD play.
The "▶" sign and the currently playing disc number, track number and track time will be displayed on the display.
Pushing this button once again will stop the CD play.

Disc Change

- 2** Pushing the [NEXT] button will advance the unit to the next disc and start the play from the first track.
- 3** Pushing the [PREV] button will return the unit to the previous disc and start the play from the first track. The number of the changed disc is displayed on the display.

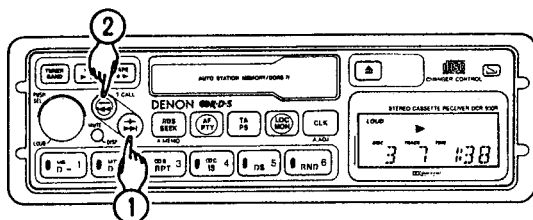
Searching for the Desired Track

(1) Automatic Search



- 1** Pushing the [SEARCH] button will find the beginning of the next song and resume play.
- 2** Pushing the [SEARCH] button will return to the beginning of the song in play, and resume play.
- The track numbers of the songs being searched will be displayed on the display.
- Note that the manual search mode is set if the [SEARCH] or [SEARCH] button is pressed for more than two seconds.

(2) Manual Search

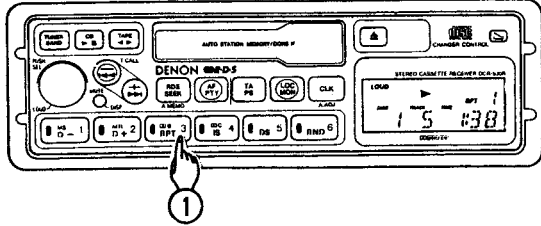


- 1** Continuing to push the [SEARCH] up button for more than 2 seconds, will fast forward the disc.
- 2** Continuing to push the [SEARCH] down button for more than 2 seconds, will fast reverse the disc.
At this time the sound can be heard at a lower volume than during regular playback.

(U.S.A Version)

Repeat Play

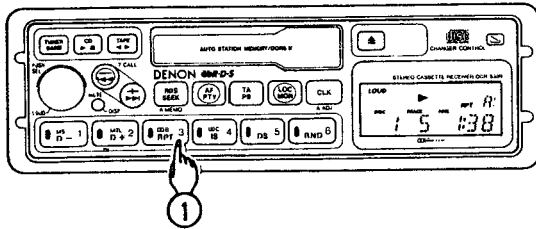
(1) One track



1 Press the **[RPT 3]** button once. "RPT 1" appears on the display, and the track which is currently playing is played repeatedly. Use this to play a single track repeatedly.

- To cancel the repeat function, either press the **[RPT 3]** button twice, or press another CD changer control button.

(2) One disc

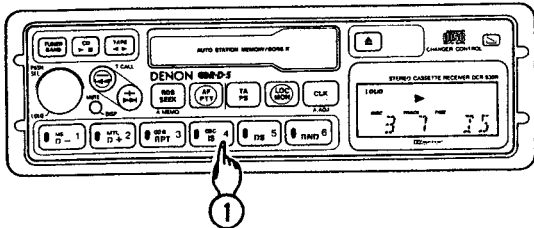


1 Press the **[RPT 3]** button twice. "RPT R" appears on the display, and the entire disc which is currently playing is played repeatedly. Use this to play a single CD repeatedly.

- To cancel the repeat function, either press the **[RPT 3]** button once, or press another CD changer control button.

30

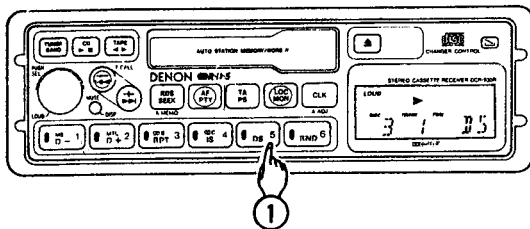
Intro Scan



1 Press the **[IS 4]** button. "IS" appears on the display, and the first 10 seconds of each track is played. Use this to search for a certain track.

- To stop the intro scan function, either press the **[IS 4]** button again, or press another CD changer control button.

Disc Scan



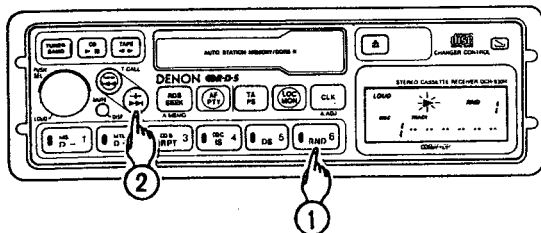
1 Press the **[DS 5]** button. "DS" appears on the display, and the first 10 seconds of each disc (the first track) is played. Use this to search for a certain disc.

- To stop the disc scan function, either press the **[DS 5]** button again, or press another CD changer control button.

(U.S.A Version)

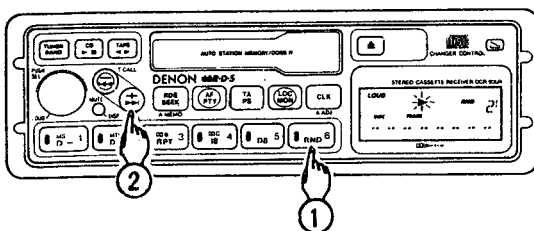
Random Play

(1) One disc



- 1 Press the **RND 1** button once. "RND 1" appears on the display, and the tracks on the disc which is currently playing are played in random order.
 - 2 When the **SKIP** button is pressed, a track selected randomly starts playing.
- To cancel the random play function, either press the **RND 1** button twice, or press another CD changer control button.

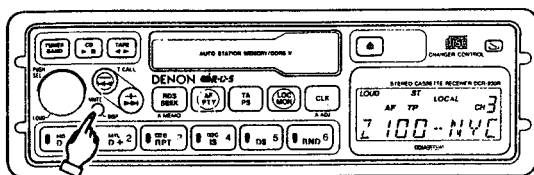
(2) All discs



- 1 Press the **RND 2** button twice. "RND 2" appears on the display, and all the tracks on all the discs are played in random order.
 - 2 When the **SKIP** button is pressed, a randomly selected track on a randomly selected disc starts playing.
- To cancel the random play function, either press the **RND 2** button once, or press another CD changer control button.

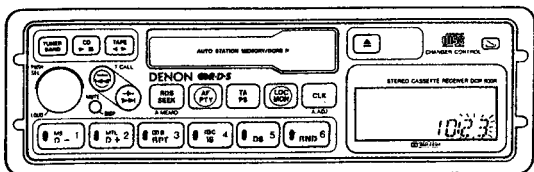
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Mute Function



Press the **MUTE** button causes muting, reducing the sound volume. "MUTE" flashes on the display when the **MUTING** button is pressed. Pressing the button again cancels the display.

Time Adjustment



Time display: Pressing the **CLK** button provides a time display for about 5 seconds.

1. Automatic adjustment

- 1) Press the **CLK** button and select FM1, FM2 or FM3.
 - 2) Press the **CLK** button.
 - 3) Tune in an RDS station.
 - 4) Press the **CLK** button for at least two seconds. The time is automatically adjusted.
- The time can only be adjusted automatically when an RDS station offering the CT service is tuned in. "NO A CLK" is displayed on the LCD if the time cannot be adjusted automatically because no CT code is being received.
 - Some RDS stations do not offer the CT service.
 - Automatic adjustment may not be possible when reception is poor due to the inability to receive the CT code.

- To use the automatic clock adjustment function, the unit has to be tuned to an RDS radio station for an average of 30 seconds before using this feature.
- 2. Manual adjustment**
- 1) Switch off the unit with the **OFF** button to press for more than 2 seconds.
 - 2) Press the **CLK** button for 2 seconds or longer. The Hour display will flash and the time adjustment mode will be set.
 - 3) Adjust the Hour setting with the **SKIP** buttons.
 - 4) Press the **CLK** button. The Minute display will flash and the minute adjustment mode will be set.
 - 5) Adjust the Minute setting with the **SKIP** buttons.
 - 6) Press the **CLK** button again. The time will start advancing from the adjusted time setting.

Note:

- The time is displayed with a 12-hour display; there is no A.M. or P.M. indication.
- The time cannot be adjusted manually when the set is operating.

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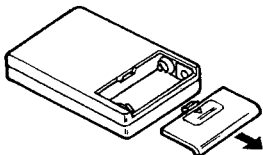
(U.S.A Version)

● WIRELESS REMOTE CONTROL (OPTION)

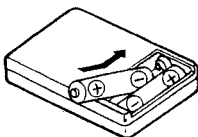
The accessory remote control unit RC-436 is used to control DCR-930R from a distance.

1. Loading the Dry Cell Batteries

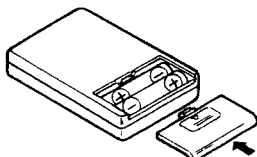
(1) Remove the rear cover on the remote control unit.



(2) Load two R03 (standard size AAA) dry cell batteries as shown in the diagram inside the battery compartment.



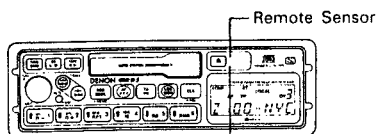
(3) Replace the rear cover.



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2. Directions for use

- Operate the remote control unit while pointing it at the remote sensor on DCR-930R, as shown in the diagram below.



• The remote control unit can be used at a distance up to 6 meters in a straight line from DCR-930R. This distance decreases when the remote control unit is operated at an angle from the remote control sensor.

- Point the remote control unit at the remote control sensor when operating it. DCR-930R may not function if there are obstacles between remote control unit and the remote control sensor, so operate the remote control unit from directly in front of DCR-930R.

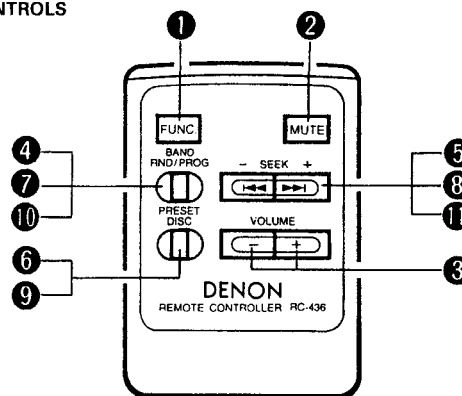
Operation Precautions

- Do not press the operation buttons on DCR-930R and the remote control at the same time. This will cause miss operation.
- Remote control operation may be impaired if the Remote Sensor on DCR-930R player is exposed to strong light (for example, direct sunlight)

Battery Precautions

- The remote control unit uses R03 (standard size AAA) dry cell batteries.
- The batteries will need to be replaced approximately once a year. This will depend upon how often the remote control is used.
- If the remote control will not operate the In-dash player even if held at very close distance, exhausted batteries may be suspected. Replace the batteries with new ones.
- Load the batteries properly according to the illustration inside the battery compartment. Align the battery polarity (+ and -) correctly.
- Batteries are prone to damage and may start to leak. Therefore:
 - Do not combine new batteries with used ones.
 - Do not combine different types of batteries.
 - Do not jumper the opposite poles of the batteries, expose them to heat or break them open.
 - Do not dispose of used batteries in open fire. Obey local regulations on battery disposal.
- When the remote control is not to be used for a long period of time, remove the batteries from the unit.
- If the batteries have leaked, remove any battery fluid from the inside the battery compartment by wiping it out thoroughly. Then load new batteries.

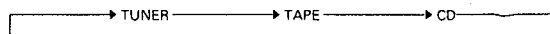
3. CONTROLS



● MAIN CONTROL

① FUNCTION button

This button permits switching between tuner, TAPE and CD.



Pressing this button when DCR-930R is off will switch on the tuner. This switch does not have an off function.

② MUTE button

Pressing this switch causes muting, reducing the sound volume. "MUTE" flashes on the display when the MUTE button is pressed. Pressing the button again cancels the display.

③ VOLUME button



Press the button to increase the volume.

Press the button to decrease the volume.

(U.S.A Version)● **RADIO CONTROL****4 BAND SELECT button**

This button changes the band. (See Page 11.)

5 SEEK TUNING button

 button and  button provide seek tuning in the direction of a higher frequency and a lower frequency, respectively. (See Page 11.)



6 PRESET button

This button changes the channels (CH) of the preset memory. This button changes the channels in the order of CH 1 → CH 2 → CH 3...

● **CD CONTROL****7 RANDOM button**

Pressing this button provides random playback. Each press of this button advances the changer in the sequence of RND 1 → RND 2 → Normal Play (OFF). (See Page 32.)


8 AUTOMATIC SEARCH button

Pressing the  button provides an automatic search to the next track, whereas pressing the  button provides an automatic search to the beginning of the track currently being played.



9 DISC CHANGE button

Pressing this button changes the disc in the direction of a larger disc number.

● **TAPE CONTROL****10 PROGRAM button**

Press the  button for auto reverse. (See Page 10.)

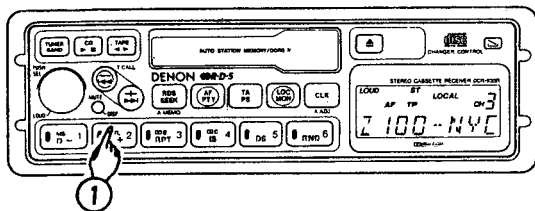
11 FF & Rewind button

- 1) Press the  rewind button to return to the beginning of the current selection.
- 2) Press the  fast-forward button to move to the beginning of the following selection.

Notes:

- The remote control unit will function from a distance of approximately 6 meters directly in front of the remote sensor.
- The distance from which the remote control unit will function will decrease if it is operated from an angle.
- The remote control unit may not function if there is an obstacle between it and the remote sensor.
- The distance from which the remote control unit will function will decrease if the batteries are worn.

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Reset Switch**1 Reset Function**

Press the reset switch using the tip of a ball-point pen, etc., when the power supply is first connected or when the display malfunctions due to external interference.

NOTES:

- Everything stored in the memory, including the stations stored at preset channels M1 to M6, is cleared when the reset switch is pressed. The time is also reset to 12:00.
- Do not press the reset switch with a sharp object, such as a metal pin.
- If the problem persists after the reset switch is pressed, contact your Denon dealer or a local Denon service center.

Error Displays

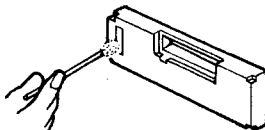
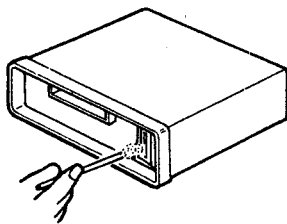
With the DCH-700/500 connected, if any of the following error displays are shown on the display when the unit is operated, carry out the measure indicated in the table.

Error display	Cause of error	Measure
NO MAG.	The disc magazine is not inserted in the changer.	Insert a disc magazine that has been loaded with discs into the changer.
NO DISC	Discs are not loaded in the disc magazine.	Remove the disc magazine and load the discs.
ERROR	The DCH-700/500 does not operate for some reason.	Push the DCR-930R reset switch
HOT	The temperature protection circuit of the DCH-700/500 has operated.	Wait until the temperature drops.
DISC REV	All of the discs in the magazine are upside-down or dirty.	Set the discs properly or wipe off the dirt.

37

(U.S.A Version)

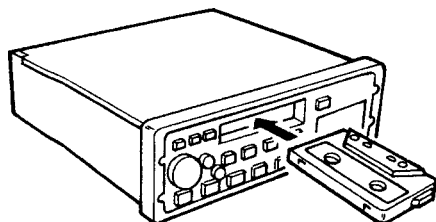
Cleaning



There may be a poor connection at the connector on the panel or on the set if the unit is frequently detached. Periodically wipe the connectors with a cotton swab moistened with alcohol.

* Always turn the car's accessory power supply off when cleaning.

Cleaning the tape head



When playback sound begins to deteriorate, it is time to clean the playback head. Insert a special head cleaning cassette into the tape-loading slot and allow it to run for a few minutes to remove any foreign matter.

For replacement contact your DENON dealer or local DENON service center.

38

SPECIFICATIONS

FM TUNER

- Mono Usable Sensitivity 14.8 dBf 1 μ V (75 ohms)
- 50 dB Quieting Sensitivity 20.3 dBf 2.8 μ V (75 ohms)
- Alternate Channel Selectivity 100 dB
- S/N (Signal to Noise Ratio) 70 dB
- Stereo Separation 40 dB at 1 kHz
- Capture Ratio 2.5 dB
- Image Rejection 70 dB
- IF Rejection 120 dB

AM TUNER

- Sensitivity 30 μ V (S/N 20 dB)

TAPE

- Wow and Flutter 0.09% WRMS
- Stereo Separation 37 dB at 1 kHz
- S/N (Signal to Noise Ratio) 72 dB (Dolby C NR)**
- Frequency Response
 - with METAL/CrO₂/FeCr (70 μ S tape) 30 Hz to 18 kHz \pm 3 dB
 - with NORMAL (120 μ S tape) 30 Hz to 16 kHz \pm 3 dB

GENERAL

- Power Output *1 14 W \times 4 ch at 1 kHz with 10% THD
- Power Output *2 10 W \times 4 ch from 40 Hz to 20 kHz with 1% THD
- Output Voltage - Pre-amp level 1 V/10 k ohms
- Bass \pm 12 dB at 40 Hz
- Treble \pm 12 dB at 15 kHz
- Loudness (Vol. -30 dB) +8 dB at 100 Hz
+8 dB at 10 kHz
- Remote Output 12 V 500 mA max.
- Power Antenna Output 12 V 500 mA max.
- Chassis Size (W \times H \times D) 178 mm \times 50 mm \times 172 mm
(7-1/64" \times 2" \times 6-25/32")
- Panel Size (W \times H \times D) 187 mm \times 59 mm \times 23 mm
(7-23/64" \times 2-21/64" \times 29/32")
- Weight 1.8 kg (4 lbs)

*1 Power Output is per channel minimum continuous average power into 4 ohms, both channels driven, at 1 kHz, with no more than 10% total harmonic distortion.

*2 Power Output is per channel minimum continuous average power into 4 ohms, both channels driven from 40 Hz to 20 kHz, with no more than 1% total harmonic distortion.

Design and specifications are subject to change for improvement without prior notice.

(Europe Version)

Please carefully read all safety and operating instructions before installation and use.

It will help you to obtain the best performances from your new Cassette Receiver.


FEATURES

Power: (Both Channels Driven)

20 W × 4 ch	1 kHz/4 ohms (MAX)	
14 W × 4 ch	1 kHz/4 ohms	10% THD
10 W × 4 ch	20 Hz – 20 kHz/4 ohms	0.8% THD

- Detachable Front Panel.
- RDS (PS, PTY, AF, PI, TA, TP, EON, CT).
- 30 Station-presets (18 FM – 12 MW (LW)).
- Denon Optimum Reception System IV (FM circuitry-Auto high blend and FM pulse noise canceller).
- Feather touch Full-Logic control deck.
- Dual azimuth tape head.
- Dolby B&C NR**.
- Automatic Memory System.
- Radio on during FF & REW.
- Super hard permalloy head.
- Flexible fader-internal front amp to rear amp and/or internal front amp to internal rear amp.
- Auto reverse cassette mechanism.
- Up/Down manual & seek tuning.
- Music sensor (1).
- Stereo/mono (FM), local switches.
- Metal tape switch.
- Preset scan.
- Night illumination with dash light dimmer lead.
- Power antenna control lead.
- DIN "E" with Easy Installation Lock in sleeve.
- DIN "E" & ISO mount.

- CD changer control.
 - Disc/Intro Scan
 - Repeat play (Disc & Track)
 - 2-Mode random play
 - Automatic/Manual search
- Wireless Remote Control (Option)
- Quartz Clock
- Muting Switch

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

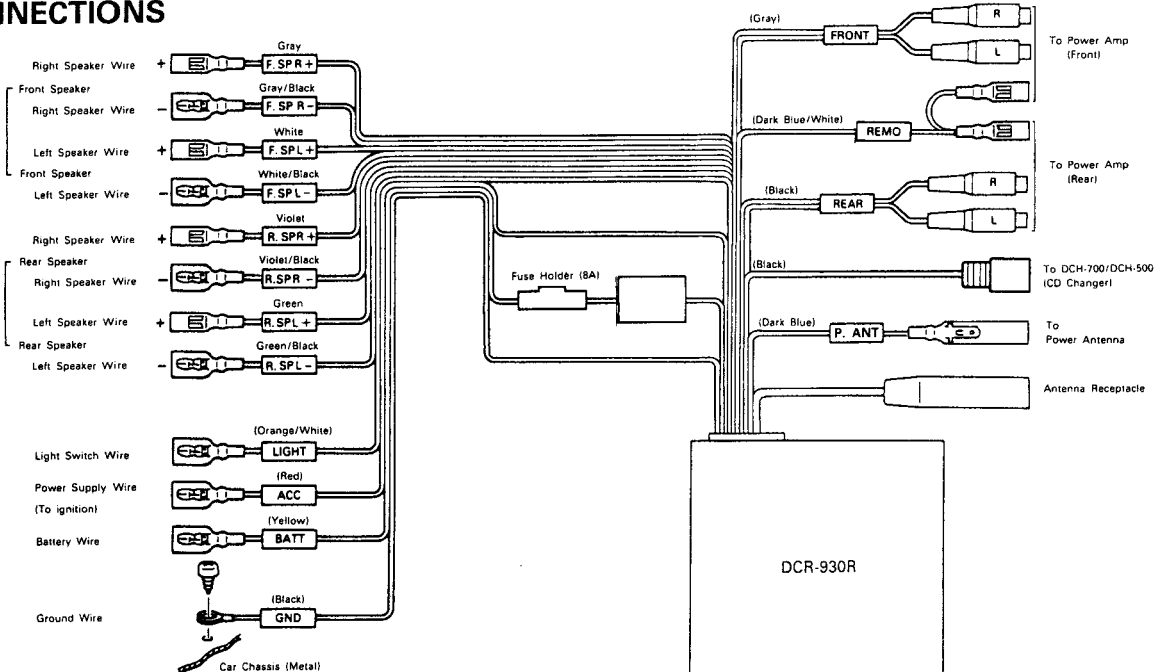
FOR YOUR RECORDS

Please record the serial number of your unit in the space provided below and keep it as a permanent record. The serial number is indicated on the top of the unit. You will need the serial number, if the need for service should arise.

Model DCR-930R
 Serial Number _____

2

CONNECTIONS



DENON Cassette Receiver DCR-930R will operate properly with 14.4 V (11 – 16 V) car batteries. You cannot use it for 24 V or other types or car batteries.

Maximum rated current capacity from Remote output and the Power antenna output is 500 mA.

* Do not use the remote output as the power supply for other sets (for example, power amplifiers, RF modulators, etc.). Connect the remote output to the power amplifier's control terminal (remote).

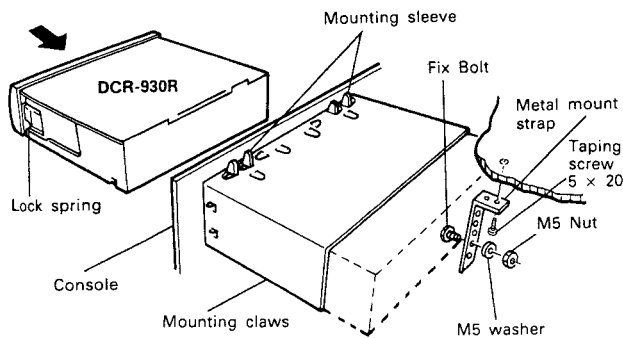
CAUTION! – To prevent damage to the unit. DO NOT connect the (-) (negative) loudspeaker lead to the ground (chassis) or to any other (-) loudspeaker lead from this unit. * Only connect the set after connecting all the connector wires.

3

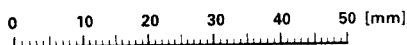
(Europe Version)

INSTALLATION

- Use screws supplied as accessories when installing the unit.

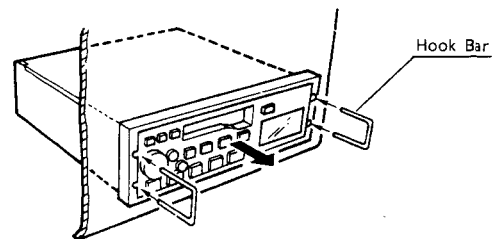


1. Insert the mounting sleeve in the console or dashboard then fasten it to the console with the mounting claws.
2. Insert the unit into the mounting sleeve then check that it is fastened to the mounting sleeve with the lock springs on either side.
3. Fasten the back of the unit to part of the vehicle using the metal mounting strap.

**ACCESSORIES**

No.	Part name	Q'ty
①	Hook Bar	2
②	M5 Washer	1
③	Tapping Screw 5x20	1
④	M5 Nut	1
⑤	Fix. Bolt	1
⑥	Metal Mount Strap	1
⑦	16P-Wire Ass'y	1
⑧	Carry Case	1

- To remove the unit



1. Remove the metal mounting strap fastening the back of the unit from the unit.
2. Insert the Hook Bar into the hole in the panel and pull the unit out.

4

For safety, heed the following cautions. Failure to do so can lead to accidents and damage to the unit:

<p>Do not disassemble.</p>	<p>Do not subject to strong shocks.</p>	<p>Do not let the unit get wet.</p>	<p>Keep away from strong magnetic forces.</p>
<p>Replace the fuse with a fuse of the same amperage.</p>	<p>Do not use C-120 type tapes.</p>	<p>Do not wipe with benzene or thinner.</p>	

Precautions

- The entire preset memory is cleared if the battery cord is disconnected when replacing the battery, etc. The time is also reset to 12:00.


5

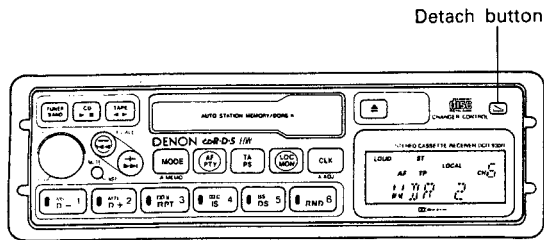
(Europe Version)

Using the Removable Front Panel

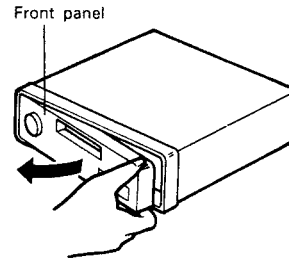
The front panel of this unit can be removed to prevent theft.

Detaching the Front Panel

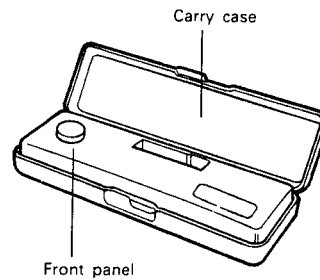
1. Press button , and the right-hand side of the panel will eject.



2. To remove the front panel, pull its right-hand side toward you.



- Take care not to put pressure on the display or drop the front panel.
3. Enclose the front panel in the supplied carry case for safekeeping.

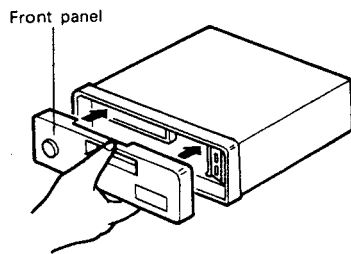



6

Replacing the Front Panel

Push the front panel into the main body.

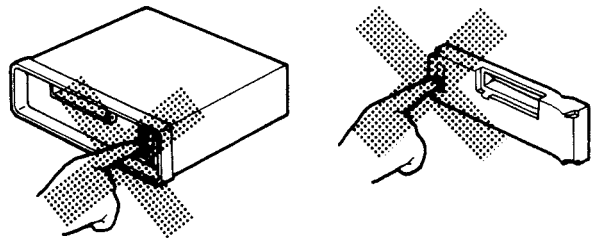
- When replacing the front panel, do not put pressure on the display or control buttons.



- Note that if the front panel is not attached correctly, pushing button  may not release the panel, and the other control buttons may not function.

Precautions

- Do not touch the contacts on the front panel or on the unit body, since this may result in poor electrical contact. If dirt or other foreign substances get on the contacts, wipe them with a clean, dry cloth.

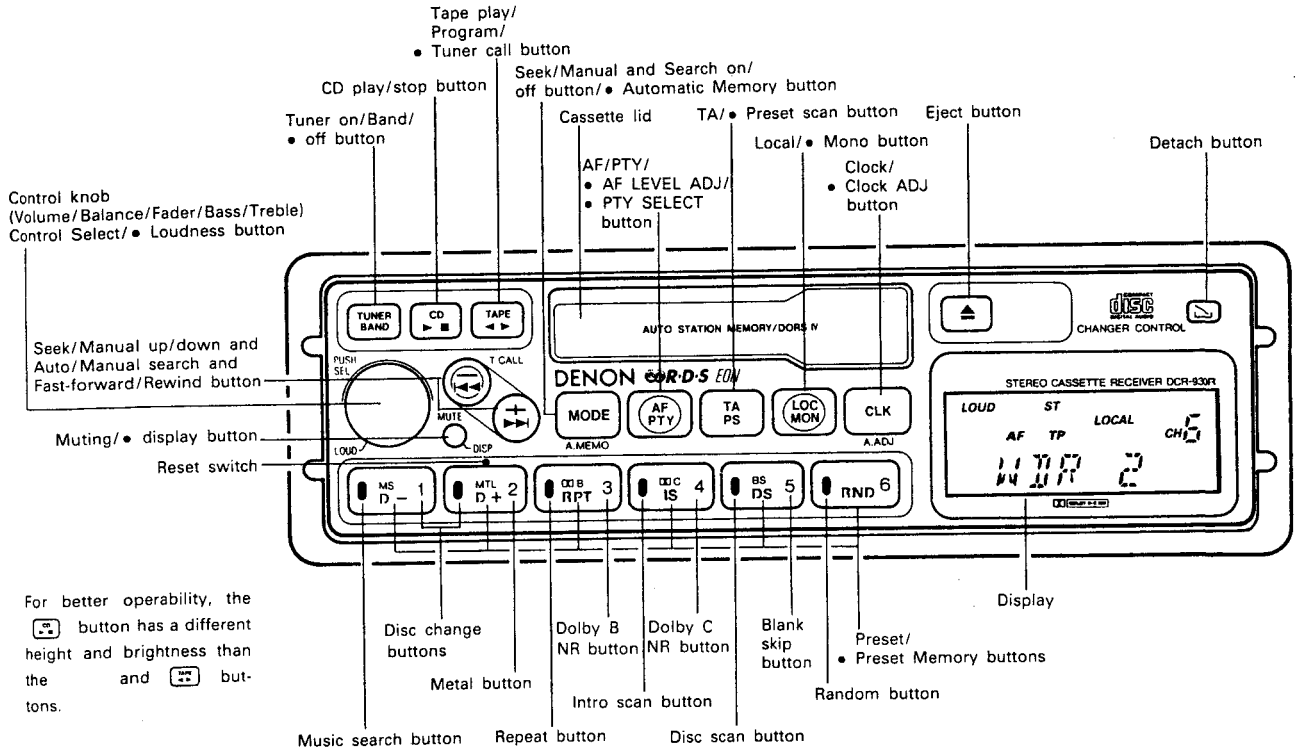


Precautions When Handling the Front Panel

- Do not leave the front panel in any area exposed to high temperatures or direct sunlight.
- Do not drop the front panel or otherwise subject it to strong impact.
- Do not allow such volatile agents as benzene, thinner, or insecticides to come into contact with the surface of the front panel.
- Never try to disassemble the front panel.

7

(Europe Version)
CONTROLS & INDICATORS



For better operability, the button has a different height and brightness than the and buttons.

To use the functions marked "•", press the button for over two seconds.

8

Control knob operation

- The control knob normally adjusts the volume when turned. Press the control knob to switch the adjustment mode in the following order:

Volume	Balance	Fader	Bass	Treble
--------	---------	-------	------	--------
- The control knob returns to the volume adjust mode five seconds after the last adjustment has been made.

Turn.	Display examples	Mode	Operation
		Volume	• Turn the knob clockwise to increase the volume, counterclockwise to decrease the volume.
		Balance	• Turn the knob clockwise to shift the balance to the right side, counterclockwise to shift the balance to the left side.
		Fader	• Turn the knob clockwise to shift the balance to the front side, counterclockwise to shift the balance to the rear side.
		Bass	• Turn the knob clockwise to increase the bass, counterclockwise to decrease the bass.
		Treble	• Turn the knob clockwise to increase the treble, counterclockwise to decrease the treble.

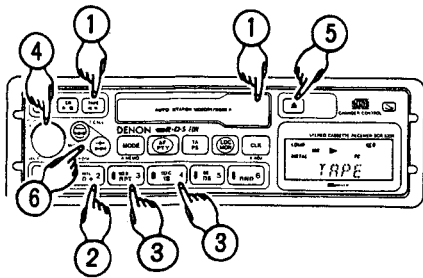
Press (for at least two seconds).

Mode	Operation
Loudness	• When this button is pressed for more than 2 seconds, the bass and treble are emphasized, making for a more powerful sound. This can be used to make the sound more listenable at low volume levels.

9

(Europe Version)

Listening to Cassette Tapes

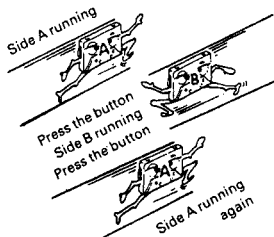
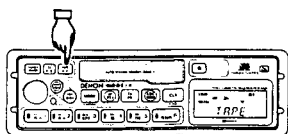


- 1 Insert the cassette tape. (If a cassette tape is loaded, press the button.) "TAPE" will be indicated on the display.
 - 2 When using metal tapes, press the button. "METAL" appears on the display.
 - 3 Press the button when listening to tapes recorded in Dolby B, the button when listening to tapes recorded in Dolby C. "B" or "C" appears on the display.
 - 4 Adjust the volume knob to the desired volume.
 - 5 Press the eject button to eject the cassette tape.
 - 6 Press the button to fast-forward the tape, the following will appear on the display.
 - "▷ (flash)" for fast-forward in the forward direction.
 - "◁ (flash)" for fast-forward in the reverse direction.
 Press the button to rewind the tape, the following will appear on the display.
 - "(flash) ◁ ▷" for rewind in the forward direction.
 - "◁ ▷ (flash)" for rewind in the reverse direction.
- Always remove the cassette tape from the unit when not in use.

Convenient Functions for Cassette Tapes

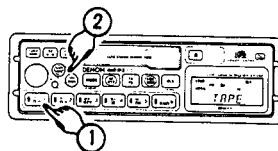
Auto Reverse Function

Press the button for auto reverse. This lets you to listen to the other side of the tape.



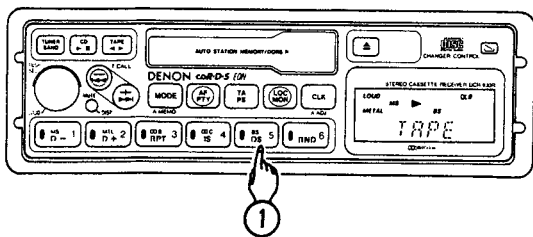
Search Function

- 1 Press the button and check that "MS" appears on the display.
- 2 (1) Press the rewind () button to return to the beginning of the current selection.
 (2) Press the fast-forward () button to move to the beginning of the following selection.



10

BS (Blank Skip) Function

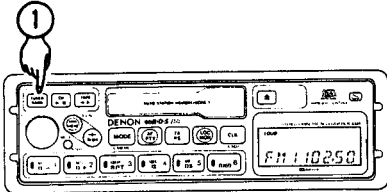


- 1 Press the button and check that "BS" appears on the display.
 - 2 When a soundless segment of the tape lasts for more than 15 seconds, it will be advanced at high speed to the next track.
 - 3 To stop the BS function, press the button again.
- Blank skip may not operate if there is excessive background noise recorded, as this will not be recognized as "soundless" even when there is more than 15 seconds between tracks.
 - If there is a segment recorded at an extremely low sound level which last for more than 15 seconds. (In this situation, Blank skip should be set to "OFF."), Blank skip may operate even in the middle of a recorded track.

(Europe Version)

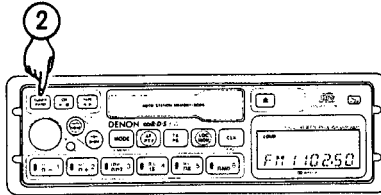
Listening to the Radio

1 Press the button to turn the tuner on.



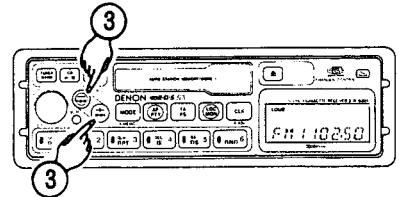
• Press the button for at least two seconds to turn the tuner off.

2 Press the button to select one of the FM or MW (LW) bands.



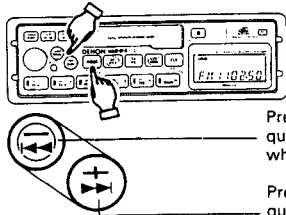
FM1 → FM2 → FM3 → (LW1) → (LW2)

3 Use the seek buttons to set the desired frequency. There are two ways to adjust the frequency, as explained below.



"ST" appears on the display when a stereo broadcast is received.

(1) Seek Tuning



- 1 Press the button and check that "SEEK" has appeared on the display.
- 2 Use the seek buttons to adjust the frequency.

Press this button to move to lower frequencies. Tuning stops automatically when a station is found.

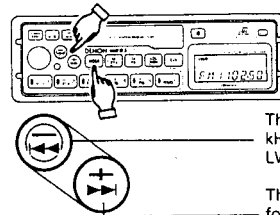
Press this button to move to higher frequencies. Tuning stops automatically when a station is found.

Tuning will not stop at stations whose signals are weak. To tune in such stations, use manual tuning.

Note: In the MW (LW) band, the frequency changes as follows:

531 — 1620 — 153 — 279

(2) Manual Tuning



- 1 If "SEEK" is displayed on the display, press the button to turn it off.
- 2 Use the seek buttons to adjust the frequency.

The frequency decreases in steps of 50 kHz for FM and 9 kHz for MW and 1 kHz for LW each time this button is pressed.

The frequency increases in steps of 50 kHz for FM and 9 kHz for MW and 1 kHz for LW each time this button is pressed.

Note: In the MW (LW) band, the frequency changes as follows:

531 — 1620 — 153 — 279

12

Convenient Functions for the Tuner

Presetting of 18 FM Stations and 12 MW (LW) Station

18 FM stations, and 12 MW (LW) stations can be preset at buttons 1 to 6 then tuned in directly.

Example: Preset 102.5MHz at preset button 1 for FM1:

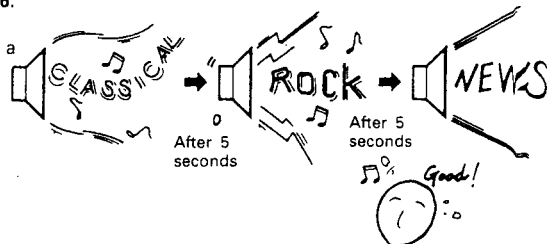
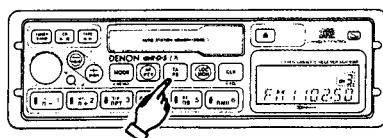
- 1 Tune in FM1 102.5MHz using the seek tuning or manual tuning method.
- 2 Press preset button 1 () and hold it in for at least two seconds.
- 3 After about two seconds, a "beep" is heard.
- 4 "CH1" appears on the display. The station is now preset in the memory.

Use this procedure to store other stations. To tune in preset stations directly, simply press the button at which the station was stored.

Presetting Scanning

This function lets you check the stations stored at preset buttons 1 to 6.

Example: When you have preset a classical music station, a rock station and a news station but have forgotten:



What did I store at preset buttons 1 to 6?

Press the button for at least two seconds.

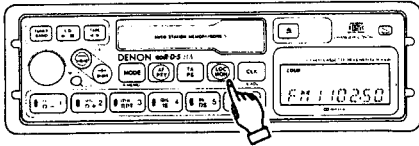
The stations are received in order for 5 seconds each.

13

(Europe Version)

Local Function

Use this to search for only stations with strong signals when tuning in the seek mode.



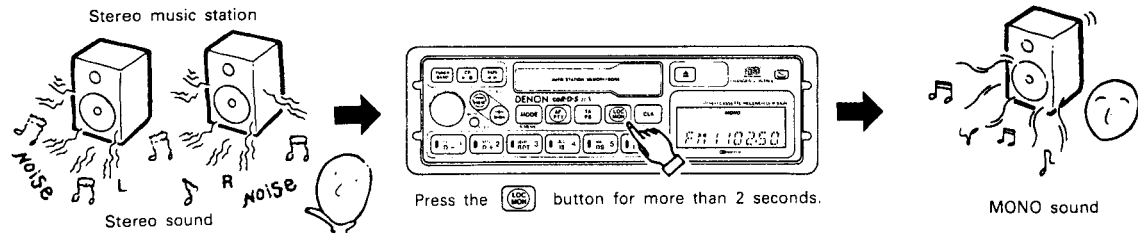
Your DENON Car Tuner is equipped with the most advanced mobile tuning circuitry available. You may also find using the LOCAL button under very high signal strength situations desirable when turning by SEEK mode.

"LOCAL" will be indicated on the display.

- Press the button.

Mono Function (Auto/Mono Selection)

This function is used at the time of FM reception when the stereo broadcast is hard to hear or when there is noise interference. It changes the stereo reception to monaural.



- Even when the MONO button is used, there are occasions when the sound is not improved, depending on the reception conditions.

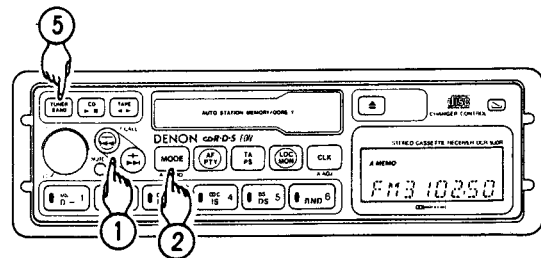
14

Using the Automatic Memory System

Use this function in areas where you do not know the frequencies of stations to automatically find stations and store them at the preset buttons.

The stations are automatically stored at the FM3 and MW2 (LW2) bands, so if you store the stations you normally listen to at the FM1, FM2 and MW1 (LW1) bands, this function lets you quickly find stations in different areas without clearing the stations you normally listen to.

- 1 Use the and buttons to select the frequency from which you want to start searching.
- 2 Press the button and hold it in for at least 2 seconds.
- 3 "A.MEMO" appears on the display. The band automatically switches to FM3 for FM, MW2 (LW2) for MW (LW), and the stations with the best reception are stored in order at preset buttons 1 to 6.
- 4 Once the stations with the best reception are stored for the FM3 (MW2 (LW2)) band, the "A.MEMO" indicator turns off.
- 5 Use the button to switch back to the FM1, FM2 or MW1 (LW1) band.



NOTE:





- Stations can also be stored manually for the FM3 and MW2 (LW2) bands. However, when the automatic memory function is used, these stations are replaced by the new stations with the best reception.
- If there are fewer than six stations with good reception, the number of the last preset button at which a station was stored is indicated on the display.
- In rare cases, it may happen that no stations are stored when the automatic memory function is used, due to poor reception conditions, etc.

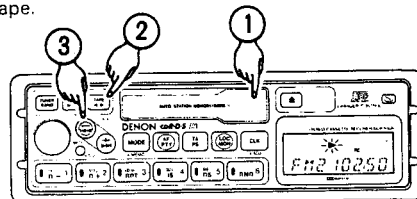
15



(Europe Version)

Using the Radio on during FF & REW (Tuner call)**Using the Radio-on Function During the Fast Forward or Rewind Operation.**

This function allows you to receive FM/MW (LW) broadcasts when you are listening to a tape and you fast forward or rewind the tape. Music will continue (from the radio) when you fast forward or rewind the tape.

- 1 Load the cassette tape.
- 2 Press the  button for more than 2 seconds. "TC" appears on the display.
- 3 Press the fast forward or rewind button.
- 4 Select your desired broadcast station with the  button and the  or  buttons.
- 5 When finished fast forwarding or rewinding, the unit will play back the tape.

**NOTE:**

- When the radio is operating during fast forwarding or rewinding, pressing the  button for more than 2 seconds will cancel the function which switches to the radio during fast forwarding or rewinding the tape.
- When "MS" is selected with the  button (which means during the cueing operation), fast forwarding or rewinding will not cause a switch to the radio.

16

Radio Data System (RDS)

RDS is a new FM broadcasting system promoted by the Europe Broadcast Union. Inaudible control signals are transmitted with the subcarrier to automate FM reception and maximize operating ease. With RDS, the tuner can display the Program Service Name of the currently received station or search automatically for the strongest transmitter signal with the same or any specified program. These features are highly useful also for receiving traffic information or ensuring optimum reception in a car.

RDS Services

The DENON cassette receivers DCR-930R are equipped for RDS broadcast reception and offer the following features:

- **Program Service Name (PS)**
The name of the RDS station currently received is shown on an 8-character display.
- **Program Type Identification (PTY)**
The DCR-930R includes a PTY function that lets you select a station by specifying the type of program you want to listen to: Classics, Rock Music, etc. PTY then automatically tunes in to a station broadcasting the type of program specified. As many as 31 different user selectable program identifications are provided.
- **Alternative Frequencies (AF)**
Some RDS stations broadcast the same radio program on different frequencies. When the AF function is activated, the DCR-930R will automatically seek out the stronger signal of a station whenever the signal strength changes. This feature ensures stable reception at all times.
- **Program Identification (PI)**
The PI function permits broadcast station identification. When storing stations in the preset memory, the DCR-930R stores the PI code along with the station's frequency. When a station is then selected and its field strength is insufficient, the unit automatically selects a station with a higher field strength (and the same PI code).
- **Traffic Announcement Identification (TA)**
The TA function automatically selects a station which broadcasts traffic information. Even during CD or cassette playback, the DCR-930R will automatically switch to this station whenever a traffic announcement is broadcast.
- **Traffic Program Identification (TP)**
If the station currently received is one which carries traffic information, the TP indicator on the display lights up.
- **Clock Time (CT)**
RDS stations usually broadcasts the current time for added convenience. The CT function also lets you easily make adjustments between daylight savings time and standard time.
- **Enhanced Other Network (EON)**
EON is a one of the new RDS services. If the station currently tuned in provides the EON service, traffic announcements broadcast by other stations can be heard while listening to current station in the TA mode. (The EON service is not offered in some areas.)

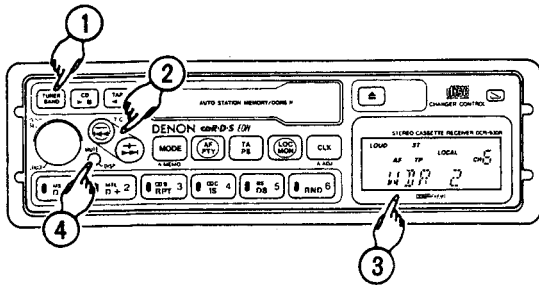
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Using the RDS (Radio Data System)

- The RDS functions are for the FM band only, and will only work on stations that are broadcasting with the RDS service.
- Not all RDS stations offer all the RDS services listed on the previous page. Some RDS stations may only provide some of the RDS services.
- The RDS functions may not work properly when the reception is poor.

PS (Program Service Name) Function



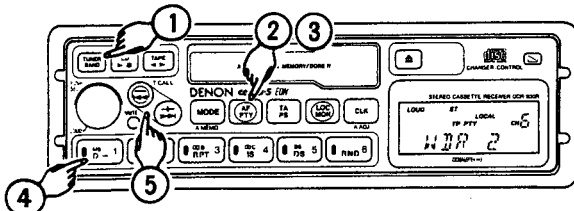
Displaying the PS (Program Service Name) on the display

- 1 Press the **MODE** button and select FM1, FM2 or FM3.
- 2 Use the seek/manual up/down buttons to tune in the desired station.
- 3 After the frequency of the station being received appears on the display, the display switches to the PS (Program Service Name), if the station being received is an RDS station.
- 4 To check the frequency of the station being received, press the **Q** button and hold it in for two seconds. The display changes to the frequency. Three seconds later, the PS (Program Service Name) reappears. When in the PTY mode, however, the PTY code appears after the frequency is displayed before the PS reappears.

<Notes on Using the PS Function>

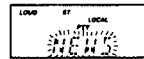
- 1) The PS (Program Service Name) is not displayed if the station being received is not an RDS station or if its signals are weak.
- 2) The PS (Program Service Name) is only displayed for the FM1, FM2 and FM3 bands, not for the MW1 (LW1) and MW2 (LW2) bands.
- 3) The PS (Program Service Name) is always displayed for the FM1, FM2 and FM3 bands.

PTY (Program Type) Function



Use this function to automatically tune an RDS station broadcasting a certain type of program.




- 1 Press the **MODE** button and select the FM1, FM2 or FM3.
- 2 Press the **PTY** button twice, and check that the "PTY" indicator has appeared on the display.
- 3 Press the **PTY** button for at least two seconds and check that the indicator on the display has started to flash. (The program type mode is selected.)



- 4 Press the **FM-1** or **FM-2** button to select the type of program.
 - The program type changes each time the **FM-1** or **FM-2** button is pressed.
 - See the following page for a list of the program types which can be selected.
- 5 Press the **Q** or **Q** buttons.
- 6 An RDS station of the type you have selected is automatically tuned in.
 - "PTY SEEK" and the selected program type are displayed alternately while a station is being tuned in.
 - It is not possible to tune in stations broadcasting the type of program you have selected but not offering RDS services, or RDS stations which do not offer the PTY service. At this moment a "beep" sound is heard.

(Europe Version)




PTY (Program Type) Function

- **Tuning in RDS stations broadcasting a certain type of program using the preset buttons:**
- 1 Press the  button twice, and check that the "PTY" indicator has appeared on the display.
- 2 Use the above procedure to tune in an RDS station playing the desired type of program.
- 3 Press a preset button for at least two seconds to store the RDS station at that button. (Refer to Page 13.)
- The PTY code is stored in the memory along with the frequency and the station name.
- 4 Press the preset button. The PTY code stored in the preset memory is displayed on the display for five seconds.
- If the "PTY" indicator is not displayed on the display, the PTY code is not displayed, and the station name or frequency is displayed.
- 5 Press the  or  buttons.
- 6 An RDS station broadcasting the type of program you have selected is tuned in.

<Note on tuning in RDS stations using preset PTY codes>

If you have already entered an RDS stations in a preset memory, the unit will remember what the PTY of this station is, and will allow you to tune in another RDS station broadcasting the same PTY code.

Example: If you already have a "NEWS" station entered in preset 4, and you want to find another "NEWS" station:

- 1) Push  button.
- 2) Make sure that PTY mode is selected and shows on the display. (If it is not, push the AF/PTY button until "PTY" is shown on the display)
- 3) Push the  or  buttons. The unit will search for another RDS station with the "NEWS" PTY code.

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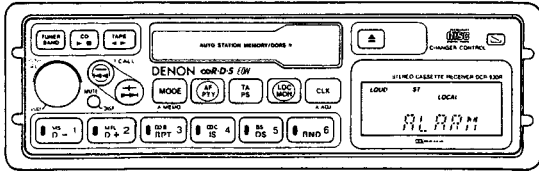
List of PTY Program Types

DISPLAY	PROGRAM TYPE	DISPLAY	PROGRAM TYPE
NO RDS*	(The station being received is not an RDS station or its signals are weak.)	SCIENCE	Science
NO PTY*	No program type	VARIED	Varied
NEWS	News	POP M	Pop Music
AFFAIRS	Current Affairs	ROCK M	Rock Music
INFO	Information	M.O.R. M	M.O.R. Music
SPORT	Sport	LIGHT M	Light Music
EDUCATE	Education	CLASSICS	Serious Classical
DRAMA	Drama	OTHER M	Other Music
CULTURE	Culture	ALARM*	Emergency

* Cannot be selected in the program type selection mode.

(Europe Version)

Emergency Program Reception Function

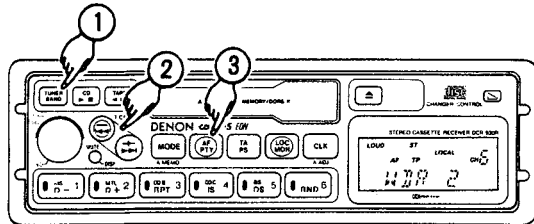


If the RDS station being received on the FM1, FM2 or FM3 band transmits an Emergency code, "ALARM" appears on the display and a beep tone is heard.

During an emergency broadcast, the volume on the unit will turn up even if the volume knob is set to the minimum. Also, if the unit is in the Cassette, or CD mode, the unit will automatically switch to the radio, indicating an emergency. Follow the instructions being broadcast.

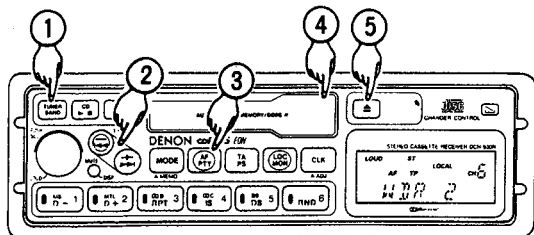
- This function will only work when receiving RDS stations (stations with program service names). In addition, it may not work properly if the signals of the station being received are weak.
- There are no buttons for the Emergency operation.
- This function will only work during actual emergency broadcasts, and will not work during tests of the emergency broadcast system.

AF (Alternative Frequency) Function



To constantly receive RDS stations broadcasting the same program on multiple frequencies

- 1 Press the button and select FM1, FM2 or FM3.
 - 2 Press the or buttons to tune in the desired RDS station.
 - 3 Press the button until "AF" appears on the display.
- When the signal strength of the station being received becomes weak, "AF" flashes on the display, and the unit searches for another station that is broadcasting the same program based on the AF code list.
 - The frequency changes if another station broadcasting the same program is found.

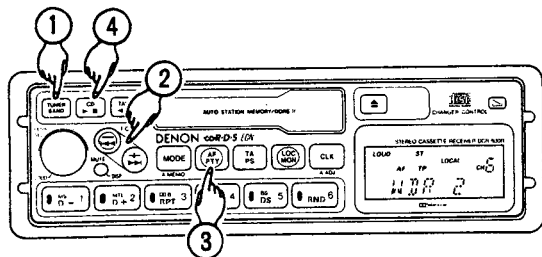


Automatically tracking stations broadcasting the same program on different frequencies while playing a cassette tape so that reception is optimized when switching back to the tuner

- 1 Press the button and select FM1, FM2 or FM3.
 - 2 Press the or buttons to tune in the desired RDS station.
 - 3 Press the button until "AF" appears on the display.
 - 4 Insert a cassette tape.
- When the signal strength of the station being received becomes weak, "AF" flashes on the display, and the unit searches for another station that is broadcasting the same program based on the AF code list.
 - The frequency changes if another station broadcasting the same program is found.
- 5 When the button is pressed, or if the button is pressed, the radio plays the same radio program as before, using the frequency on the AF code list with the best reception.

(Europe Version)

AF (Alternative Frequency) Function (When using the optional DCH-700/500 CD-Changer)



Automatically tracking stations broadcasting the same program on different frequencies while using the CD-changer so that reception is optimized when switching back to the tuner

- 1 Press the button and select FM1, FM2 or FM3.
 - 2 Press the or buttons to tune in the desired RDS station.
 - 3 Press the button until "AF" appears on the display.
 - 4 Press the button and start CD playback.
- When the signal strength of the station being received becomes weak, "AF" flashes on the display, and the unit searches for another station that is broadcasting the same program based on the AF code list.
 - The frequency changes if another station broadcasting the same program is found.
 - When the button is pressed, or if the button is pressed, the radio plays the same radio program as before, using the frequency on the AF code list with the best reception.

Note: The AF function operates in the same way while playing cassettes.

AF (Alternative Frequency) Function

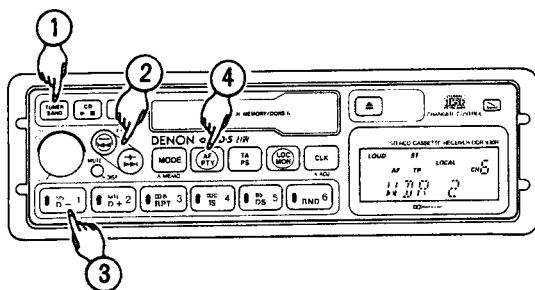
<Notes on Using the AF Function>

- 1) With the AF function, the AF button is pressed and stations broadcasting the same program as the station currently being received are searched for based on the AF list. The AF list includes stations broadcasting the same program. If no receivable station is found when the list is checked through 10 times, stations are searched for using the PI codes (codes for stations broadcasting the same program) and a beep tone is sounded. This operation is then repeated. Thus, in areas far from the broadcasting stations, the alternative frequency function may not work.
- 2) When presetting, both the program name, PI codes, AF list and PTY code are stored along with the station's frequency for buttons M1 to M6 on the FM band.

- 3) The sound may be interrupted once ever 10 seconds after the button is pressed while the station with the best reception is being searched for based on the AF list. This is not a malfunction.
- 4) "AF LEV n" (n = 0 to 7) appears on the display if the button is pressed for over 2 seconds. Now use the and buttons to change the value of "n" and the strength of the signals at which the alternative frequency function will begin operating. The lower the value of "n", the weaker the signals of the station being received must be before the AF function begins operating.
- 5) "AF" flashes on the display if the signals of the station being received become weak and the data cannot be identified.
- 6) The AF function may not work properly for RDS stations which do not transmit AF lists.

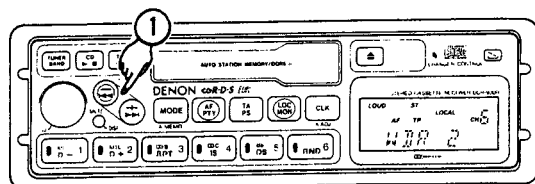
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AF (Alternative Frequency) Function/PI (Program Identification) Function



Storing the AF lists and PI codes in the preset memory

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the or buttons to tune in the desired RDS station.
- 3 Press the preset memory button (M1 to M6) at which you want to store that station and hold it in for at least 2 seconds.
- 4 Press the button until "AF" appears on the display.
- 5 When a preset button at which the AF list or PI codes was stored is pressed, the AF or PI search operation is performed automatically. The stored broadcast stations and broadcast stations carrying the same content are searched for based on the AF list.



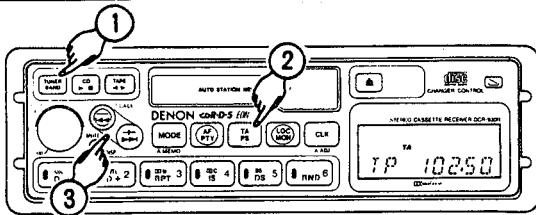
If no new broadcast station with strong signals is found when the button is pressed

- 1 Press the or buttons to seek for a new RDS station.
- 2 Tune in an RDS station.

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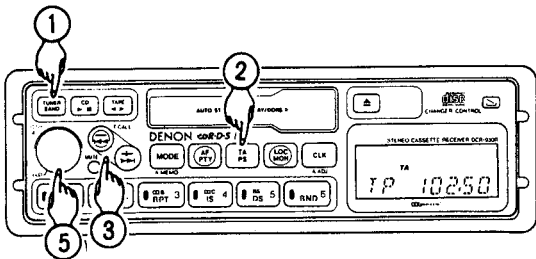
(Europe Version)

TA (Traffic Announcement) Function



Searching for TP (Traffic Program) broadcast stations automatically

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button. "TA" appears on the display.
- 3 Press the or buttons.
- 4 Tuning automatically stops at an RDS station broadcasting traffic information, or a station providing the EON service with which traffic information broadcast on other stations can be heard and "TP" appears on the display and the TP station is received.

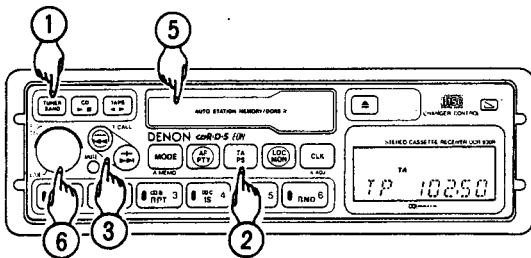


Setting the volume when a TA (traffic information announcement) starts while in standby (on FM1, FM2 or FM3)

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button. "TA" appears on the display.
- 3 Press the or buttons.
- 4 Tuning automatically stops at an RDS station broadcasting traffic information, or a station providing the EON service with which traffic information broadcast on other stations can be heard and that station is received.
- 5 When a traffic announcement begins, the volume is set to the level at which it was set the last time a traffic announcement was received (the TA level). "TA VOL" appears on the display if the volume is adjusted at this time.
- 6 The TA level can be changed by changing the volume when traffic information is being broadcast. Also, when the next traffic information is tuned in, it is played at the previously set volume level.
- 7 The volume returns to the original level once the traffic announcement is over.

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TA (Traffic Announcement) Function



Automatically listening to traffic information announcements while playing cassette tapes

- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button. "TA" appears on the display.
- 3 Press the or buttons.
- 4 Tuning automatically stops at an RDS station broadcasting traffic information, or a station providing the EON service with which traffic information broadcast on other stations can be heard and "TP" appears on the display.
- 5 Insert a cassette tape.
 - If a traffic information announcement is being broadcast when the cassette tape is inserted, the tape is not played.
- 6 Use the control knob to adjust the volume of the cassette tape.
 - When the traffic information announcement starts, tape play is set to the pause condition and the set automatically switches to the traffic information.

<Notes on Using the TA Function>

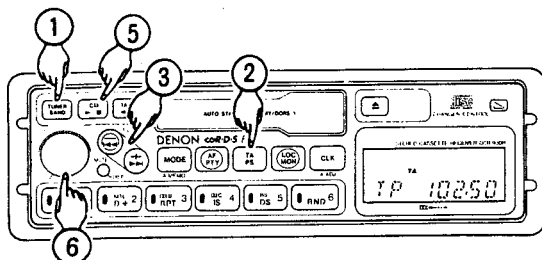
- 1) With the TA function, the TA button is pressed and stations broadcasting the same program as the station currently being received are searched for based on the AF list. The AF list includes stations broadcasting the same program. Thus, in areas far from the broadcasting stations, the alternative frequency function may not work.
- 2) A beep tone is sounded when the or buttons are pressed if there is no station broadcasting a Traffic Program or if its signals are weak. If this happens, press the button again so that "TA" disappears from the display, then wait until entering an area in which a station broadcasting TPs

- can be received and press the button again, then press the or buttons to tune in a traffic information station, or a station providing the EON service with which traffic information broadcast on other stations can be heard.
- 3) "TA" flashes on the display if the signals of the station being received become weak and the data cannot be identified.
 - 4) Some stations broadcast TA (traffic announcement) signals even when they are not broadcasting traffic information announcements. In such cases, the TA function will not work properly.

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(Europe Version)

TA (Traffic Announcement) Function (When using the optional DCH-700/500 CD-Changer)



Automatically listening to traffic information announcements while using the CD changer

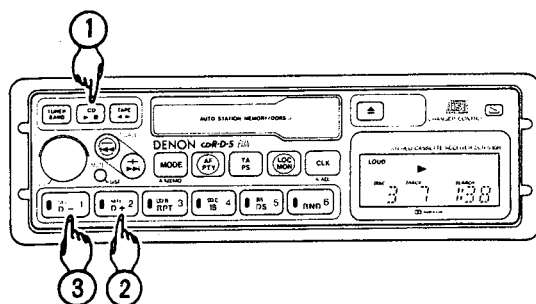
- 1 Press the button and select FM1, FM2 or FM3.
- 2 Press the button. "TA" appears on the display.
- 3 Press the or buttons.
- 4 Tuning automatically stops at an RDS station broadcasting traffic information, or a station providing the EON service with which traffic information broadcast on other stations can be heard and "TP" appears on the display.
- 5 Press the button.
- 6 Use control knob to adjust the volume of the CD changer.

• When the traffic information announcement starts, CD play is set to the pause condition and the set automatically switches to the traffic information.

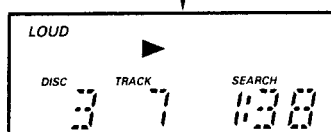
Note: The TA function operates in the same way while playing cassettes.

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CD Changer Operation (Please connect DCH-700/500)



The display reads as follows:



1 CD PLAY/STOP BUTTON

Pushing this button will start the CD play.

The "▶" sign and the currently playing disc number, track number and track time will be displayed on the display.

Pushing this button once again will stop the CD play.

Disc Change

- 2 Pushing the button will advance the unit to the next disc and start the play from the first track.

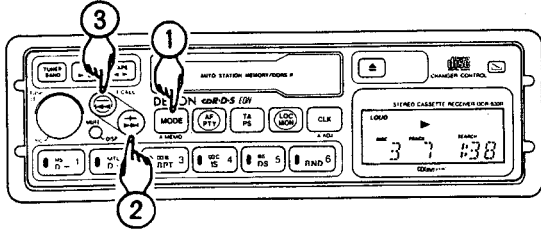
- 3 Pushing the button will return the unit to the previous disc and start the play from the first track. The number of the changed disc is displayed on the display.

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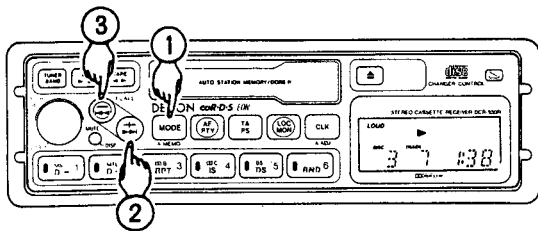
Searching for the Desired Track

(1) Automatic Search



- 1 Pushing the **MODE** button will display "SEARCH" on the display and set the unit to the automatic search mode.
 - 2 Pushing the **⏮** button will find the beginning of the next song and resume play.
 - 3 Pushing the **⏭** button will return to the beginning of the song in play, and resume play.
 - 4 Continuing to push the **⏮** (or **⏭** button) will find the beginning of the next song (or the previous song) and resume play.
- The track numbers of the songs being searched will be displayed on the display.

(2) Manual Search

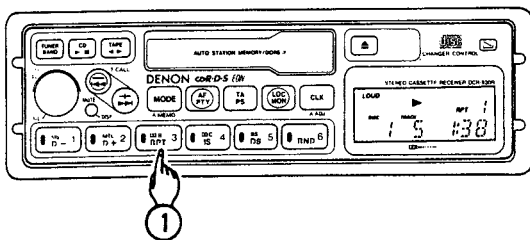


- 1 Pushing the **MODE** button will set the manual search mode and the "SEARCH" display on the display will go out.
 - 2 Continuing to push the **⏮** up button will fast forward the disc.
 - 3 Continuing to push the **⏭** down button will fast reverse the disc.
- At this time the sound can be heard at a lower volume than during regular playback.

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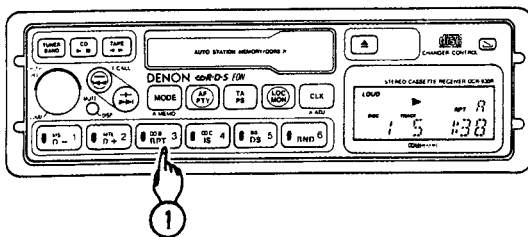
Repeat Play

(1) One track



- 1 Press the **RPT 1** button once. "RPT 1" appears on the display, and the track which is currently playing is played repeatedly. Use this to play a single track repeatedly.
- To cancel the repeat function, either press the **RPT 1** button twice, or press another CD changer control button.

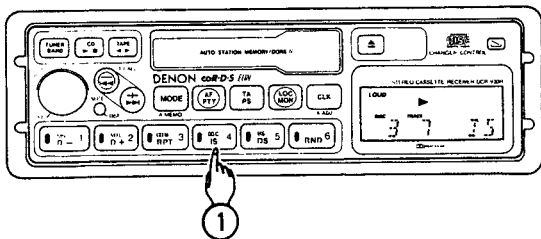
(2) One disc



- 1 Press the **RPT 2** button twice. "RPT 2" appears on the display, and the entire disc which is currently playing is played repeatedly. Use this to play a single CD repeatedly.
- To cancel the repeat function, either press the **RPT 2** button once, or press another CD changer control button.

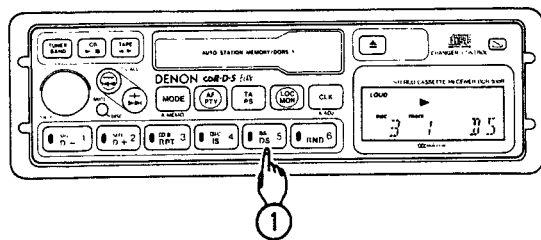
(Europe Version)

Intro Scan



- 1 Press the **IS** button. "IS" appears on the display, and the first 10 seconds of each track is played. Use this to search for a certain track.
- To stop the intro scan function, either press the **IS** button again, or press another CD changer control button.

Disc Scan

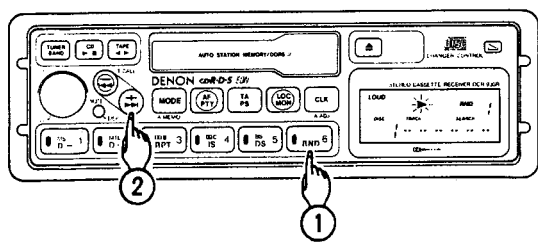


- 1 Press the **DS** button. "DS" appears on the display, and the first 10 seconds of each disc (the first track) is played. Use this to search for a certain disc.
- To stop the disc scan function, either press the **DS** button again, or press another CD changer control button.

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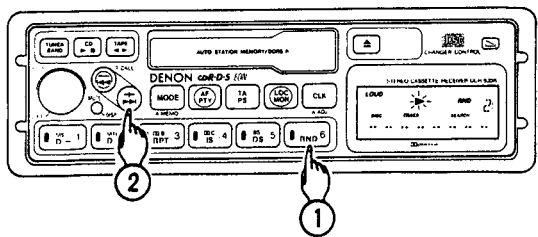
Random Play

(1) One disc



- 1 Press the **RND 1** button once. "RND 1" appears on the display, and the tracks on the disc which is currently playing are played in random order.
- 2 To move to the next track (selected in random order) when in the middle of a track, check that "SEARCH" is displayed on the display, then press the **SKIP** button.
- To cancel the random play function, either press the **RND 1** button twice, or press another CD changer control button.

(2) All discs

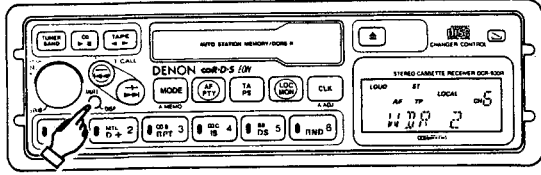


- 1 Press the **RND 2** button twice. "RND 2" appears on the display, and all the tracks on all the discs are played in random order.
- 2 When the **SKIP** button is pressed during the automatic search mode (when "SEARCH" is displayed on the display), a randomly selected track on a randomly selected disc starts playing.
- To cancel the random play function, either press the **RND 2** button once, or press another CD changer control button.

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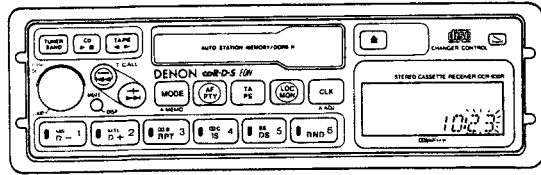
(Europe Version)

Mute Function



Press the button causes muting, reducing the sound volume. "MUTE" flashes on the display when the MUTING button is pressed. Pressing the button again cancels the display.

Time Adjustment



Time display: Pressing the button provides a time display for about 5 seconds.

1. Automatic adjustment

- 1) Press the button and select FM1, FM2 or FM3.
- 2) Press the or buttons.
- 3) Tune in an RDS station.
- 4) Press the button for at least two seconds. The time is automatically adjusted.
 - The time can only be adjusted automatically when an RDS station offering the CT service is tuned in. "NO A CLK" is displayed on the display if the time cannot be adjusted automatically because no CT code is being received.
 - Some RDS stations do not offer the CT service.
 - Automatic adjustment may not be possible when reception is poor due to the inability to receive the CT code.

- To use the automatic clock adjustment function, the unit has to be tuned to an RDS radio station for an average of 30 seconds before using this feature.

2. Manual adjustment

- 1) Switch off the unit with the button to press for more than 2 seconds.
- 2) Press the button for 2 seconds or longer. The Hour display will flash and the time adjustment mode will be set.
- 3) Adjust the Hour setting with the buttons.
- 4) Press the button. The Minute display will flash and the minute adjustment mode will be set.
- 5) Adjust the Minute setting with the buttons.
- 6) Press the button again. The time will start advancing from the adjusted time setting.

Note:

- The time is displayed with a 12-hour display; there is no A.M. or P.M. indication.
- The time cannot be adjusted manually when the set is operating.

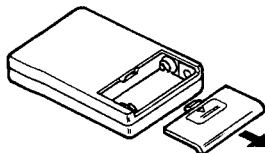
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• WIRELESS REMOTE CONTROL (OPTION)

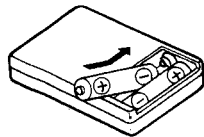
The accessory remote control unit RC-436 is used to control DCR-930R from a distance.

1. Loading the Dry Cell Batteries

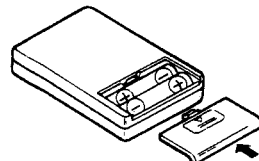
- (1) Remove the rear cover on the remote control unit.



- (2) Load two R03 (standard size AAA) dry cell batteries as shown in the diagram inside the battery compartment.



- (3) Replace the rear cover.

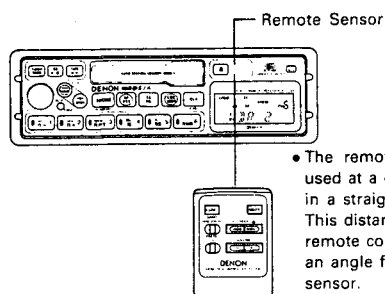


Battery Precautions

- The remote control unit uses R03 (standard size AAA) dry cell batteries.
- The batteries will need to be replaced approximately once a year. This will depend upon how often the remote control is used.
- If the remote control will not operate the In-dash player even if held at very close distance, exhausted batteries may be suspected. Replace the batteries with new ones.
- Load the batteries properly according to the illustration inside the battery compartment. Align the battery polarity (+ and -) correctly.
- Batteries are prone to damage and may start to leak. Therefore:
 - Do not combine new batteries with used ones.
 - Do not combine different types of batteries.
 - Do not jumper the opposite poles of the batteries, expose them to heat or break them open.
 - Do not dispose of used batteries in open fire. Obey local regulations on battery disposal.
- When the remote control is not to be used for a long period of time, remove the batteries from the unit.
- If the batteries have leaked, remove any battery fluid from the inside the battery compartment by wiping it out thoroughly. Then load new batteries.

(Europe Version)**2. Directions for use**

- Operate the remote control unit while pointing it at the remote sensor on DCR-930R, as shown in the diagram below.



- The remote control unit can be used at a distance up to 6 meters in a straight line from DCR-930R. This distance decreases when the remote control unit is operated at an angle from the remote control sensor.

- Point the remote control unit at the remote control sensor when operating it. DCR-930R may not function if there are obstacles between remote control unit and the remote control sensor, so operate the remote control unit from directly in front of DCR-930R.

Operation Precautions

- Do not press the operation buttons on DCR-930R and the remote control at the same time. This will cause miss operation.
- Remote control operation may be impaired if the Remote Sensor on DCR-930R player is exposed to strong light (for example, direct sunlight)

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• RADIO CONTROL**4 BAND SELECT button**

This button changes the band. (See Page 12.)

5 SEEK TUNING button

button and button provide seek tuning in the direction of a higher frequency and a lower frequency, respectively. (See Page 12.)

6 PRESET button

This button changes the channels (CH) of the preset memory. This button changes the channels in the order of CH 1 → CH 2 → CH 3...

• CD CONTROL**7 RANDOM button**

Pressing this button provides random playback.

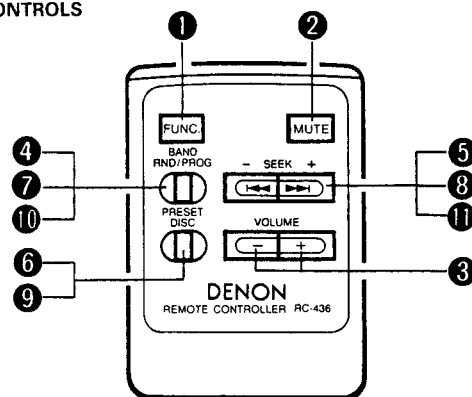
Each press of this button advances the changer in the sequence of RND 1 → RND 2 → Normal Play (OFF). (See Page 33.)

8 AUTOMATIC SEARCH button

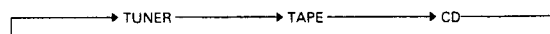
Pressing the button provides an automatic search to the next track, whereas pressing the button provides an automatic search to the beginning of the track currently being played.

9 DISC CHANGE button

Pressing this button changes the disc in the direction of a larger disc number.

3. CONTROLS**• MAIN CONTROL****1 FUNCTION button**

This button permits switching between tuner, TAPE and CD.



Pressing this button when DCR-930R is off will switch on the tuner. This switch does not have an off function.

2 MUTE button

Pressing this switch causes muting, reducing the sound volume. "MUTE" flashes on the display when the MUTE button is pressed. Pressing the button again cancels the display.

3 VOLUME button

Press the button to increase the volume.

Press the button to decrease the volume.

• TAPE CONTROL**10 PROGRAM button**

Press the button for auto reverse. (See Page 10.)

11 FF & Rewind button

1) Press the rewind button to return to the beginning of the current selection.

2) Press the fast-forward button to move to the beginning of the following selection.

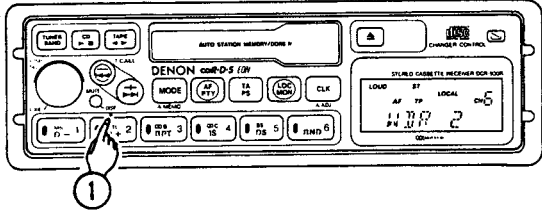
Notes:

- The remote control unit will function from a distance of approximately 6 meters directly in front of the remote sensor.
- The distance from which the remote control unit will function will decrease if it is operated from an angle.
- The remote control unit may not function if there is an obstacle between it and the remote sensor.
- The distance from which the remote control unit will function will decrease if the batteries are worn.

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(Europe Version)

Reset Switch



1 Reset Function

Press the reset switch using the tip of a ball-point pen, etc., when the power supply is first connected or when the display malfunctions due to external interference.

NOTES:

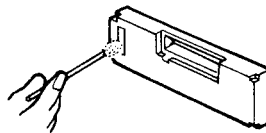
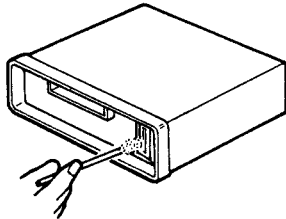
- Everything stored in the memory, including the stations stored at preset channels M1 to M6, is cleared when the reset switch is pressed. The time is also reset to 12:00.
- Do not press the reset switch with a sharp object, such as a metal pin.
- If the problem persists after the reset switch is pressed, contact your Denon dealer or a local Denon service center.

Error Displays

With the DCH-700/500 connected, if any of the following error displays are shown on the display when the unit is operated, carry out the measure indicated in the table.

Error display	Cause of error	Measure
NO MAG.	The disc magazine is not inserted in the changer.	Insert a disc magazine that has been loaded with discs into the changer.
NO DISC	Discs are not loaded in the disc magazine.	Remove the disc magazine and load the discs.
ERROR	The DCH-700/500 does not operate for some reason.	Push the DCR-930R reset switch
HOT	The temperature protection circuit of the DCH-700/500 has operated.	Wait until the temperature drops.
DISC REV	All of the discs in the magazine are upside-down or dirty.	Set the discs properly or wipe off the dirt.

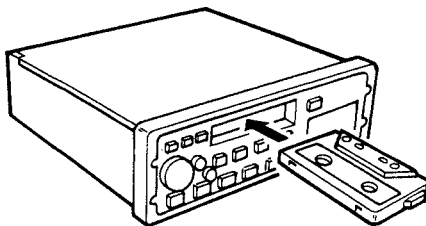
Cleaning



There may be a poor connection at the connector on the panel or on the set if the unit is frequently detached. Periodically wipe the connectors with a cotton swab moistened with alcohol.

* Always turn the car's accessory power supply off when cleaning.

Cleaning the tape head



When playback sound begins to deteriorate, it is time to clean the playback head. Insert a special head cleaning cassette into the tape-loading slot and allow it to run for a few minutes to remove any foreign matter.

For replacement contact your DENON dealer or local DENON service center.

(Europe Version)
SPECIFICATIONS

FM TUNER

- Mono Usable Sensitivity 14.8 dBf 1.5 μ V (75 ohms)
- 50 dB Quieting Sensitivity 20.3 dBf 2.8 μ V (75 ohms)
- Alternate Channel Selectivity 100 dB
- S/N (Signal to Noise Ratio) 70 dB
- Stereo Separation 40 dB at 1 kHz
- Capture Ratio 2.5 dB
- Image Rejection 70 dB
- IF Rejection 120 dB

AM TUNER

- Sensitivity (MW) 30 μ V (S/N 20 dB)
- Sensitivity (LW) 60 μ V (S/N 20 dB)

TAPE

- Wow and Flutter 0.09% WRMS
- Stereo Separation 37 dB at 1 kHz
- S/N (Signal to Noise Ratio) 72 dB (Dolby C NR)
- Frequency Response
 - with METAL/CrO₂/FeCr (70 μ S tape) 30 Hz to 18 kHz \pm 3 dB
 - with NORMAL (120 μ S tape) 30 Hz to 16 kHz \pm 3 dB

GENERAL

- Power Output *1 14 W \times 4 ch at 1 kHz with 10% THD
- Power Output *2 10 W \times 4 ch from 20 Hz to 20 kHz with 0.8% THD
- Output Voltage – Pre-amp level 1 V/10 k ohms
- Bass \pm 12 dB at 40 Hz
- Treble \pm 12 dB at 15 kHz
- Loudness (Vol. –30 dB) +8 dB at 100 Hz
+8 dB at 10 kHz
- Remote Output 12 V 500 mA max.
- Power Antenna Output 12 V 500 mA max.
- Chassis Size (W \times H \times D) 178 mm \times 50 mm \times 172 mm
(7-1/64" \times 2" \times 6-25/32")
- Panel Size (W \times H \times D) 187 mm \times 59 mm \times 23 mm
(7-23/64" \times 2-21/64" \times 29/32")
- Weight 1.8 kg (4 lbs)

*1 Power Output is per channel minimum continuous average power into 4 ohms, both channels driven, at 1 kHz, with no more than 10% total harmonic distortion.

*2 Power Output is per channel minimum continuous average power into 4 ohms, both channels driven from 20 Hz to 20 kHz, with no more than 0.8% total harmonic distortion.

Design and specifications are subject to change for improvement without prior notice.

40

MEMO

CIRCUIT DESCRIPTION

RDS (Radio Data System)

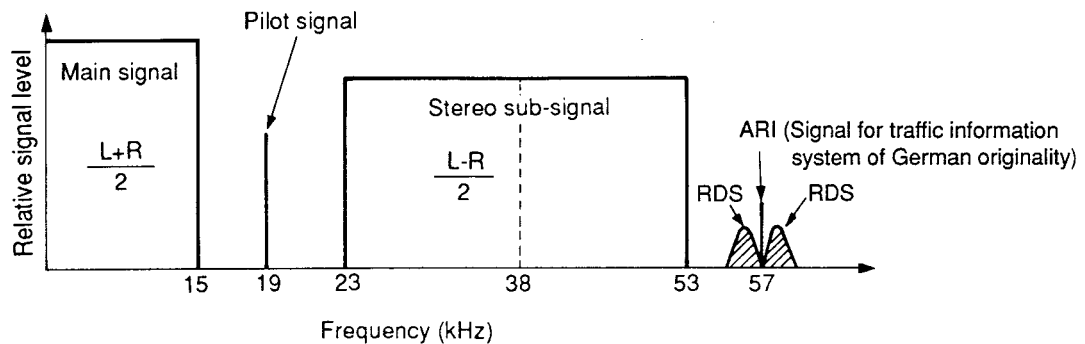
● RDS is a new FM-broadcasting system, which is promoted by European Broadcasting Union (EBU) in Europe and by National Radio System Committee (NRSC) in U.S.A.. Inaudible control signals are transmitted with the subcarrier to automatize FM reception and maximize operating ease. With RDS, the tuner can display the call name of the currently received station or search automatically for the strongest transmitter signal with the same or any specified program. These features are highly useful also for receiving traffic information or ensuring optimum reception in a car.

● Main specifications of RDS

Data rate	1,187.5 bps
Signal format	(26,16) modified shortened cyclic code
Baseband signal format	Differential phase shift keying (DPSK)
Subcarrier frequency	57 kHz
Subcarrier frequency modulation	Double Side Band Suppressed Carrier Amplitude Modulation
Maincarrier frequency deviation	±2 kHz

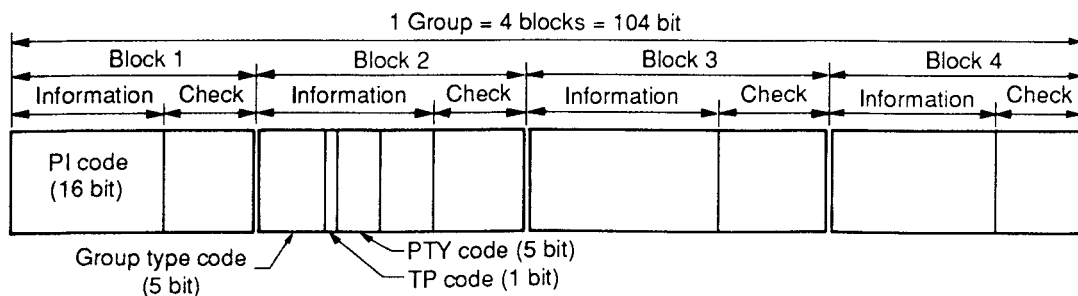
● Data channel

Data channel employs 57 kHz band to minimize interference to programme band. RDS signal is a signal with bit rate of 1,187.5 bps. modulated by differential phase shift keying (DPSK). This signal comprises the composite signal and an additional signal with subcarriers of 57kHz modulated in amplitude by double side band suppressed carriers.



● Data Format

All data are transmitted in a group unit which comprises 104 bit. The 104 bit unit comprises 4 block, which format 26 bit block respectively. Each block comprises 16 bit information words and 10 bit check words. Data in each block are specified depending on the situation: The first 16 bit of the first block is always the program identification (PI) code, the first 5 bit of the second block is a group-type to clarify the group application, the next 1 bit is Traffic Program Identification (TP) code, and the following 5 bit is Program Type (PTY) code. Each contents of data is specified for remainder of the second block, the third and fourth block data respectively. Group type comprises 32 types of 0A~15B, which transmit different contents in each group respectively. Group 0A has a role of basic tuning function, and therefore is transmitted most often.



PI: Program Identification Code (Country identification, Area coverage, Programme reference number)
 TP: Traffic Program Identification Code.
 PTY: Program Type Code (News, Sports, Classical, Rock)

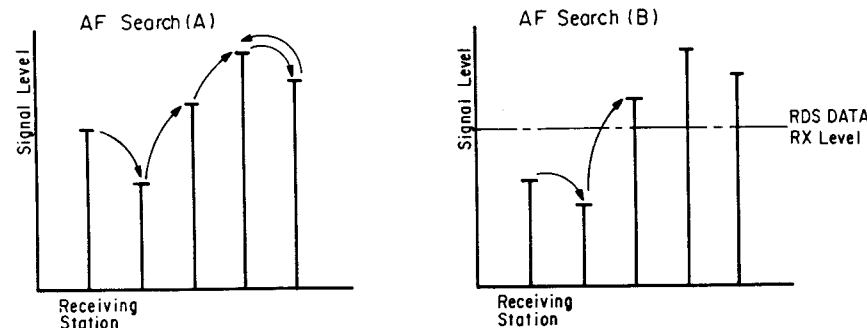
RDS Control

1. **Signal Flow (Refer to Block Diagram)**
Picks up RDS signal from the output of FM IF IC (IC403/LA1862M) through C302 (100P). Inputs this signal to RDS decoder IC301 (SAA6579T) for decoding, further, inputs this signal to synchro correction IC IC302 (LC7070) to demodulate RDS data, thus RDS data will be demodulated.
RDS data as in form of serial data consists of RDS START, RDS CLK, and RDS DATA is emitted from IC302 and applied to system control microcomputer IC901 (μPD7804). This IC901 performs DCR-930R related all controls of LCD indication, control of CD changer, etc. besides control of RDS. RDS data will be memorized in internal RAM of IC901 and in IC903 (LC3517AML) of external RAM.
2. **PS Function: Program Service Name**
A function to indicate a name of broadcast station being received on the LCD by PS code in BLOCK 4 of Group 0A. Also, functions to indicate on the LCD when PS code is received through the continual check of PS code without relying on "AF/PTY" key or "TA" key if it is FM BAND.
3. **AF Function: Alternative Frequencies (frequency list of stations broadcasting the same program)**
An automatic searching function, i.e. when reception condition of RDS station being received becomes poor for some reason, or in case a station being received comes into out of service area and makes no reception as receiving is carried out on the moving vehicle, shifts to a station broadcasting the same program. The automatic searching function only performs at the time "AF/PTY" key ON or "TA" key ON state, on the other hand PI code or AF code is continually checked in FM BAND.
4. **TA Function: Traffic Announcement**
A function at the time TA code of 12th bit in BLOCK 2 of group 0A becomes ON, it automatically shifts the voice to RADIO and listen to traffic announcement even if the voice of cassette or CD changer is in output state. At the same time, sound volume will also be boosted however the volume is set at minimum that can be feasible to listen to the traffic announcement. Note that TA function is only effective in "TA" key ON state.
5. **CT Function (Clock time)**
CT-code is transmitted using Group 4A. CT-code is generally sent from broadcast station one time per one minute. When receiving RDS broadcast transmitting CT-code, clock can be automatically adjusted by pressing "CLK" key for 2 seconds.

6. **Search Function**
 - 1) **AF Search**
AF search performs automatic search as mentioned in "Paragraph 3. AF Function", also performs the optimum reception searching (to select best receiving condition station among the same PI code broadcast stations) at the time RADIO ON, shifting from AM, to FM BAND, or at preset call, etc.
The latter one is called AF Search (A) and the former one is called AF Search (B).
AF search (B) will function when field strength has reached less than certain level (this level is adjustable by VR 404) or RDS data is unable to receive for 10 seconds (*), or the same PI code is unable to receive for 10 seconds. Also, AF search (B) stops searching when RDS code is enable to receive and at the time searches the same PI code station, then shifts the receiving station. The both AF search (A) and (B) return to the receiving station searching has started when an appropriate station which satisfies the conditions is unable to find in one round search.

(*) When RDS signal is unable to receive for 5 seconds, AF indication will blink in "AF" key ON state, PTY indication will blink in "PTY" key ON state and TA indication will blink in "TA" key ON state.

Note:) When performing AF search, time constants of low pass filter of PLL circuit (TR404, 405, IC401 [TC4S66F]) are changed in order to minimize audio interruption. Thus, the time for PLL circuit to lock can be shortened. (2-mode loop filter circuit)



- 2) **PI Search**
When performing AF Search (A) and receives no RDS station, (**) performing AF Search (B) consecutively 10 times, and receives no RDS station, or PI code is detected however, AF code can not be read and that the performing of AF search is unable to do, then, PI Search will be performed 15 seconds later. This PI Search is Auto Seek and to search the same PI code station, and to produce a "BEEP" tone at beginning of search and indicates 'PI' preceding to the frequency display on LCD. And, when searching FM BAND for one round and can not find the same PI code station, produces a BEEP" tone gain to finish searching.

(**) For U.S.A. model, PI search cannot be performed in this case.

- 3) **RDS Search**
When key or key is pressed (only in SEEK mode) (For U.S.A. model, when key is pressed), it becomes AUTO Seek, RDS Search to stop only at RDS station. At this time, preceding to the frequency display on LCD indicates 'RDS' letter. Also, in "AF" key ON state, when wholly has not received PI code or AF code by the station being received (stores no PI code or AF code in the memory of microcomputer) and RDS data (***) can not be received for 2 seconds causes to produce a "BEEP" tone and automatically performs RDS search.

(***) For U.S.A. model, RDS search cannot be performed in this case.

- 4) **TP Search**
When key or key is pressed in "TP" key ON state (only in SEEK mode) (For U.S.A. model, when key is pressed), become AUTO Seek, TP Search to stop only at a station which TP code is ON in BLOCK 2 of all groups. At this time, 'TP' letter will be displayed preceding to the frequency indication on LCD.
Or, when TP code can not be detected for 15 seconds in "TA" key ON state when turning ON the RADIO or becomes FM mode from AM mode and can not detect TP code for 2 seconds, or at the time a receiving station is not TP station and to turn ON "TA" key, produces a "BEEP" tone and performs TP Search automatically (For U.S.A. model, does not shift to TP search automatically). Also, when performs TP Search for 5 rounds in BAND and can not search TP station, continually produces "BEEP" tone. This alarm tone continues until finding TP station or when it becomes "TA" key OFF state, it also continues however shifting to cassette or CD mode if "TA" key ON state remains.

- 5) **PTY Search (Program Type)**
PTY-code is transmitting 7 ~ 11 bit of BLOCK 2 of all groups. PTY-code has 16 different types (For U.S.A. model, only 24 types). Press "AF/PTY" key for more than 2 seconds, press or key to select desired type; then AUTO Seek can be obtained by key or key pressing (For U.S.A. model, when key is pressed) and can stop at the desired typed station only.

7. **EON Function (Enhanced Other Networks information)**
EON data are information data of station other than currently receiving from. Transmitted data are PI, PS, AF, TA, TP, PTY, and etc. of other stations. EON data are sent using Group 14A and Group 14B. By using these EON data, rewriting of contents of preset memory from time to time, and listening to traffic informations other than currently receiving becomes feasible.

8. **MODE**
DCR-930R has 4 modes: RDS OFF, AF, TA, PTY, and the mode will be cyclically shifted with "AF/PTY" key and "TA" key.

Key In	AF/PTY	TA
Present Mode		
RDS OFF	AF	TA
AF	PTY	TA
PTY	OFF	TA
TA	AF	RDS OFF

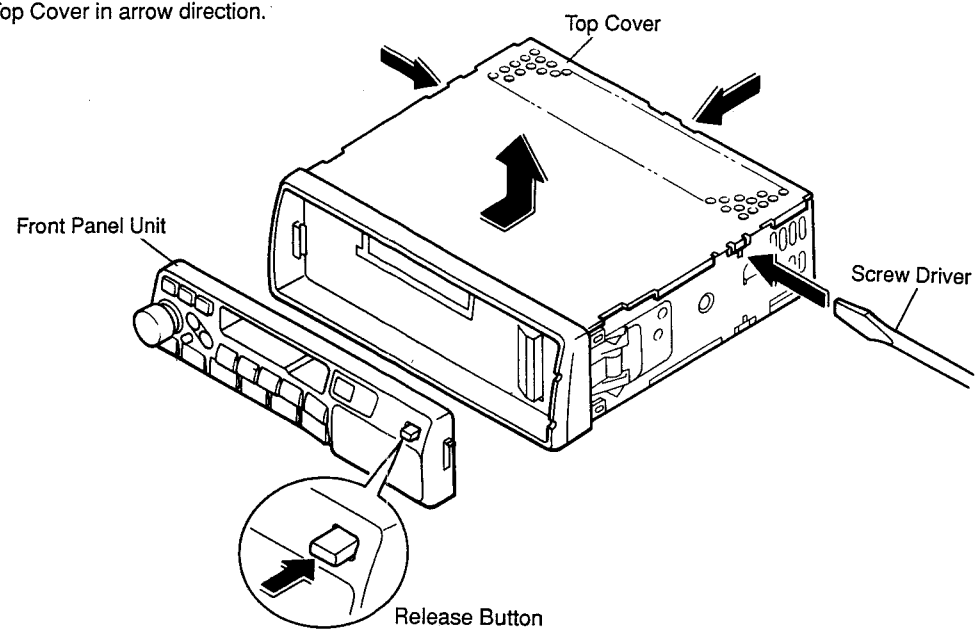
The following is the effective functions for each mode.

	PS	PTY (ONLY 31)	AF Search	PI Search	RDS Search	TP Search	PTY Search
RDS OFF	○	○	×	×	×	×	×
AF	○	○	○	○	○	×	×
TA	○	○	○	×	×	○	×
PTY	○	○	○	×	×	×	○

REMOVAL OF EACH SECTION

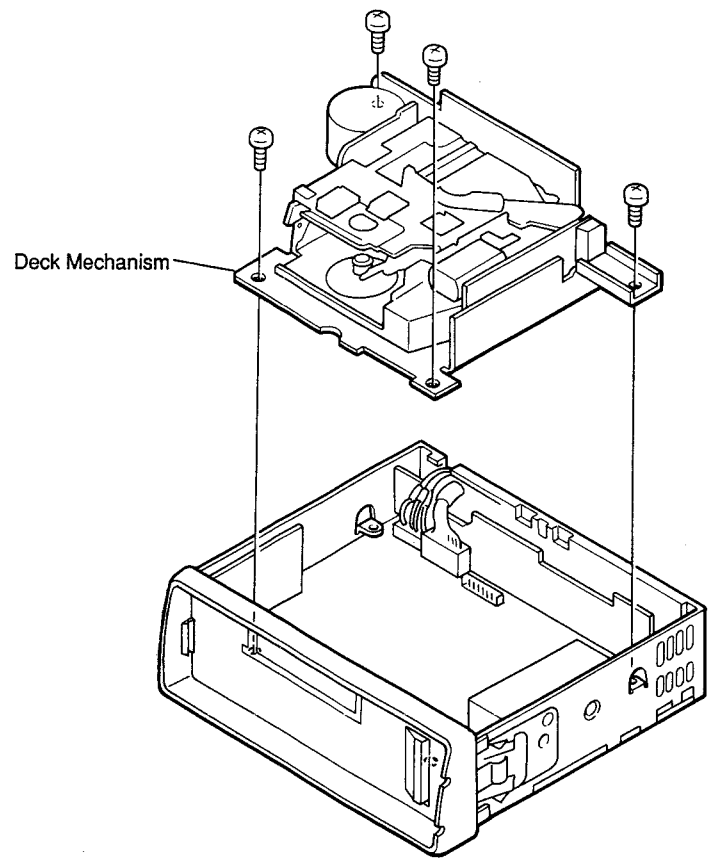
● Front Panel Unit and Top Cover

- 1) Press release button to remove Front Panel Unit.
- 2) Insert a screwdriver into three holes and moving the screwdriver, pull up Top Cover in arrow direction.



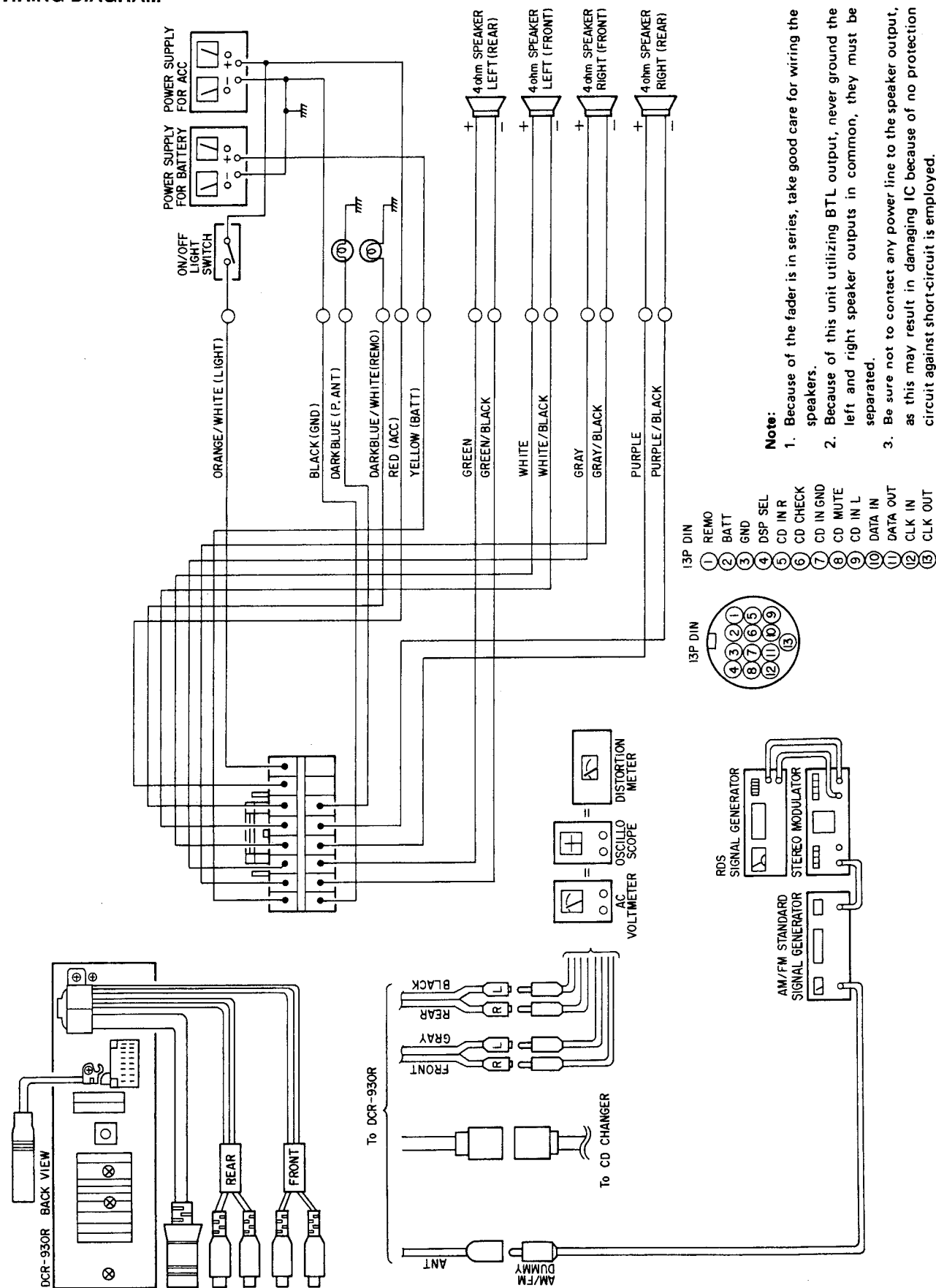
● Deck Mechanism

Disassemble the Deck Mechanism by means of removing 4 screws and pull out the connector from the P.W.B.



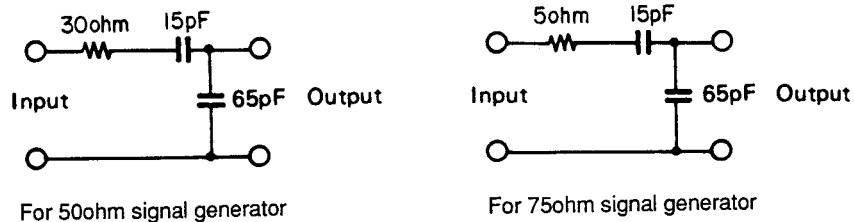
SPECIFICATIONS FOR ADJUSTMENT

● WIRING DIAGRAM



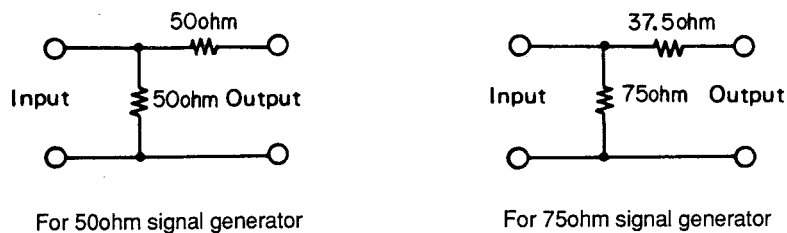
1. Conditions for adjustment (adjustment must be done in the following conditions)
- | | |
|--------------------|----------------------------|
| 1-1 Supply voltage | 14.4V DC |
| 1-2 Temperature | Normal temperature |
| 1-3 Dummy antenna | Use standard dummy antenna |

AM standard dummy



Note: Input level should be read at the SG output.

FM standard dummy



Note: Input level should be read at the unit input (antenna input).

2. Setting of controls before adjustment (controls and switches must be set as follows)

2-1 Controls

- Requires semifixed resistors set at mechanical center position.
- Control knob — Set balance and fader to center, bass and treble to 0.
Set volume at MAX position.

2-2 Switches

- LOUD, MUTE, MONO, AF, LOCAL, and TA, set to OFF position.
- B, C and MTL, set to OFF position.

ADJUSTMENT

There is no change except undermentioned FM ALIGNMENT, FM MPX ALIGNMENT and CONFIRMATION ITEMS (Appendix.)

● FM ALIGNMENT (Confirm that the LOCAL is not indicated.)

Table 1

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Method	Remarks
1	Discriminator (FM Det Coil)	98.1 MHz 1 kHz, 75 kHz dev 60 dB μ (Ant input)	98.1 MHz	CN2A 0-center meter	Adjust T401 and obtain 0-center meter indication at 0V.	Indication should be within $0 \pm 0.05V$.
2	FM IF (Tuner Pack)	98.1 MHz 1 kHz, 75 kHz dev Low level without limiter effect	98.1 MHz	LINE Amp output to AC Voltmeter	(Adjust IFT1 for) maximum output.	Preset by the factory. Adjust only as necessary.
3	Muting	98.1 MHz 1 kHz, 75 kHz dev 60 dB μ (Ant input)	98.1 MHz	LINE Amp output to AC Voltmeter	None	Set the Line output at 0dB. -25dB (Europe Version, -35dB) over noise output by moving the SG frequency from 98.1 to 99.1 MHz.
4	Output level	98.1 MHz 1 kHz, 75 kHz dev 60 dB μ (Ant input)	98.1 MHz	LINE Amp output to AC Voltmeter	None	Set the Volume control at maximum. Confirm that LINE Amp output is within $1.25V \pm 0.25V$ (center 1.25V).
5	Auto-stop level	98.1 MHz 1 kHz 75 kHz dev 17 dB μ (Ant input)	98.1 MHz	None	Adjust VR403 and set to the range.	Select appropriate frequency point and search. Confirm that auto stop functions at $17 \pm 5dB\mu$ ANT input.

● FM MPX ALIGNMENT (Confirm that the MONO is not indicated.)

Table 2

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Method	Remarks
6	Separation	98.1 MHz 1 kHz, 67.5 kHz dev Pilot 7.5kHz dev 60 dB μ (Ant input)	98.1 MHz	L and R LINE Amp output to AC Voltmeter	Adjust VR401 and set to the range.	L and R separation becomes 25 dB over.
7	D.O.R.S. IV (Auto-blend and Auto high filter)	98.1 MHz 1 kHz, 67.5 kHz dev Pilot 7.5kHz dev 40 dB μ (Ant input)	98.1 MHz	L and R LINE Amp output to AC Voltmeter	Adjust VR402 so that the L and R separation becomes $10 \pm 3dB$.	As input 60dB μ separation occasionally changes for worse when performing adjustment, repeat adjustment Separation and Autoblend for any number of times.
8	AF start level	98.1 MHz 1 kHz, 60.0 kHz dev Pilot 7.5kHz dev 20dB (Ant input)	98.1 MHz	TP (VSM) to DC Voltmeter	Adjust VR404 to obtain 1.5V on the DC Voltmeter	

● AM (MW/LW) ALIGNMENT

Table 3

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Point	Adjusting Method	Remarks
9	AM IF	999 kHz 400 Hz 30% Level at no AGC effect	999 kHz	L and R Line Amp output to AC Voltmeter	IFT2 IFT3	Preset by the factory. Adjust only as necessary.	
10	Tuning Voltage		531 kHz 1602 kHz			Preset by the factory. Adjust only as necessary.	
11	Tracking	603 kHz 400 Hz 30% Low level without limiter effect 1404 kHz 400 Hz 30% Low level without limiter effect		L and R Line Amp output to AC Voltmeter	None	Preset by the factory. Adjust only as necessary.	
12	Auto-stop level	999 kHz 400 Hz 30%	Select appropriate frequency point and search.		None	None	Indication should be within $35 \pm 6\text{dB}\mu$.
13	Output level	999 kHz 400 Hz 90% 74 dB μ (Ant input)	999 kHz	L and R Line Amp output to AC Voltmeter	None	None	Set the Volume control at maximum. Confirm that LINE Amp output is within $1.25\text{V} \pm 0.25\text{V}$ (center 1.25V).

● TAPE DECK ALIGNMENT

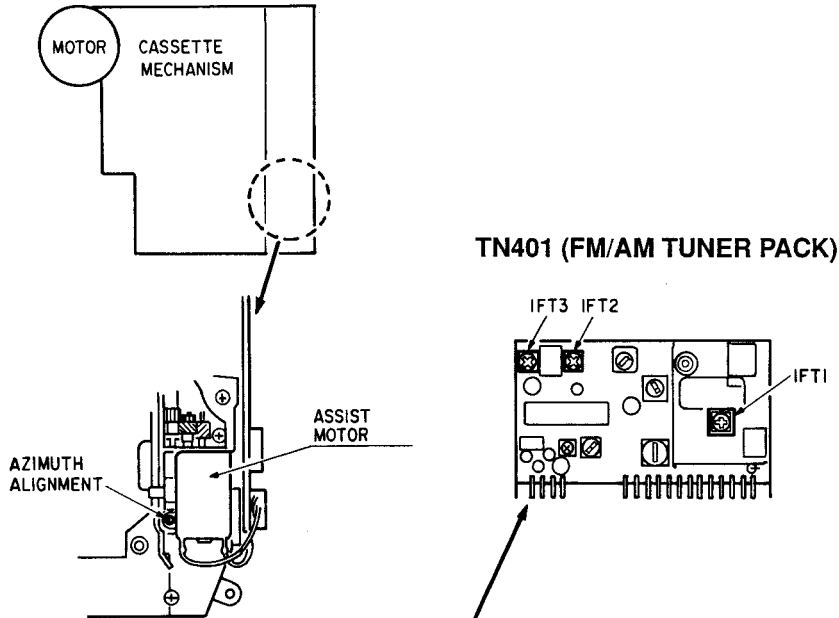
Table 4

Step	Aligning	Test Tape	Output Connection	Adjustment Method	Remarks
14	Tape level	MTT-150 (TCC-130)	IC601⑥ pin, ③7 pin	Adjust VR601, 602 to obtain 450mVrms on the AC voltmeter.	Set the Volume control at maximum. Set the Fader control at fully counter-clockwise. Balance, Treble and Bass Control at center position. Confirm that LINE Amp output is within $1.25\text{V} \pm 0.25\text{V}$ (center 1.25V).
15	Azimuth angle	MTT-144 (TCC-153)	LINE Amp output to AC voltmeter	Adjust azimuth adjustment screw so that the L and R output level become same and maximum.	Adjust both forward and reverse modes. (Preset by the factory. Adjust only as necessary.)
16	Wow and Flutter	MTT-111 (TCC-111)	LINE Amp output to AC voltmeter		Confirm that wow and flutter is within 0.25%.

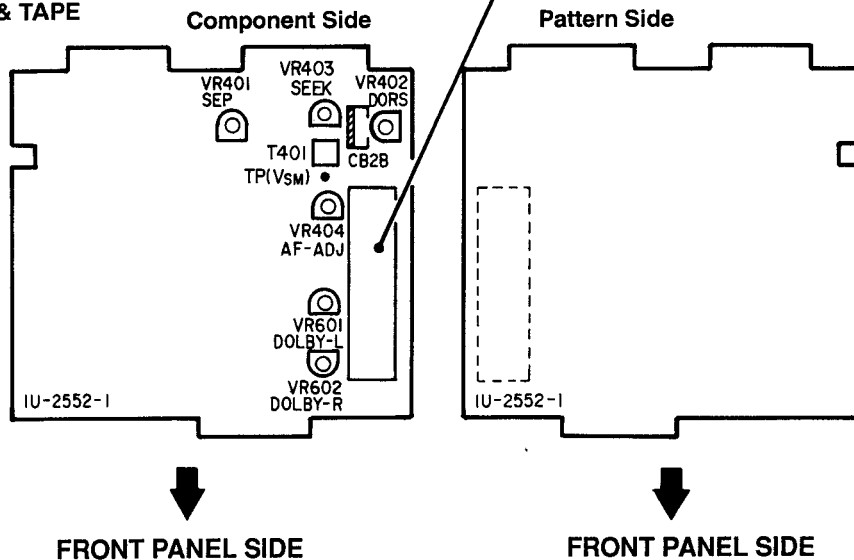
Step	Aligning	Test Tape	Output Connection	Adjustment Method	Remarks
17	Tape Speed	MTT-111 (TCC-111)	LINE Amp output to Frequency Meter.	Adjust volume through hole of motor with a screwdriver.	3000 Hz +3%, -1% (2970-3090 Hz)
18	Play torque (FWD/REV)	TW-2111A (FWD) TW-2121A (REW)	None	None	25-55 g · cm
19	FF/REW torque	TW-2231	None	None	60-200 g · cm
20	Back Tension	TW-2111A (FWD) TW-2121A (REW)	None	None	1.0-5.0 g · cm
21	FF/REW time	C-60 type	None	None	100 s ± 20 s

ADJUSTMENT POINT

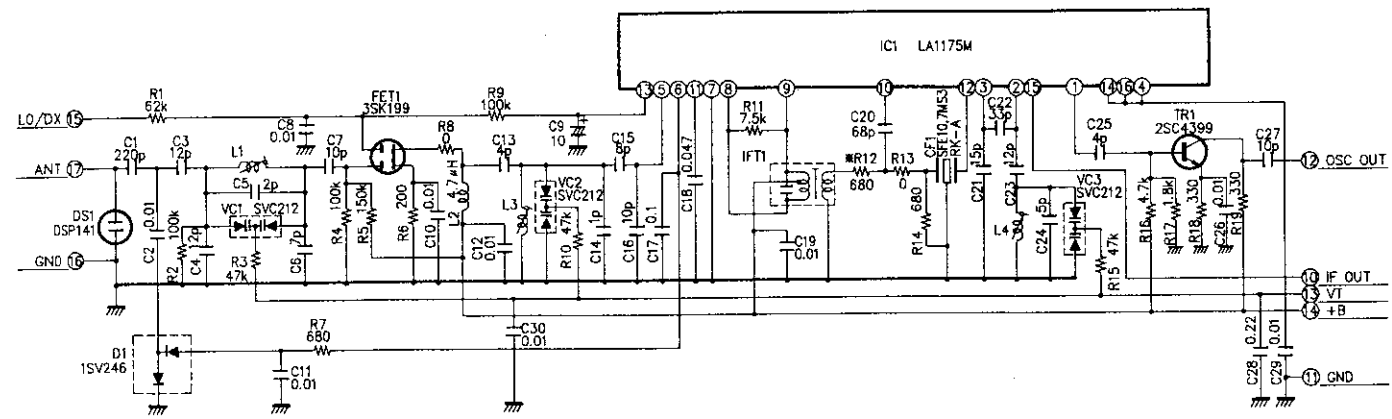
● TAPE



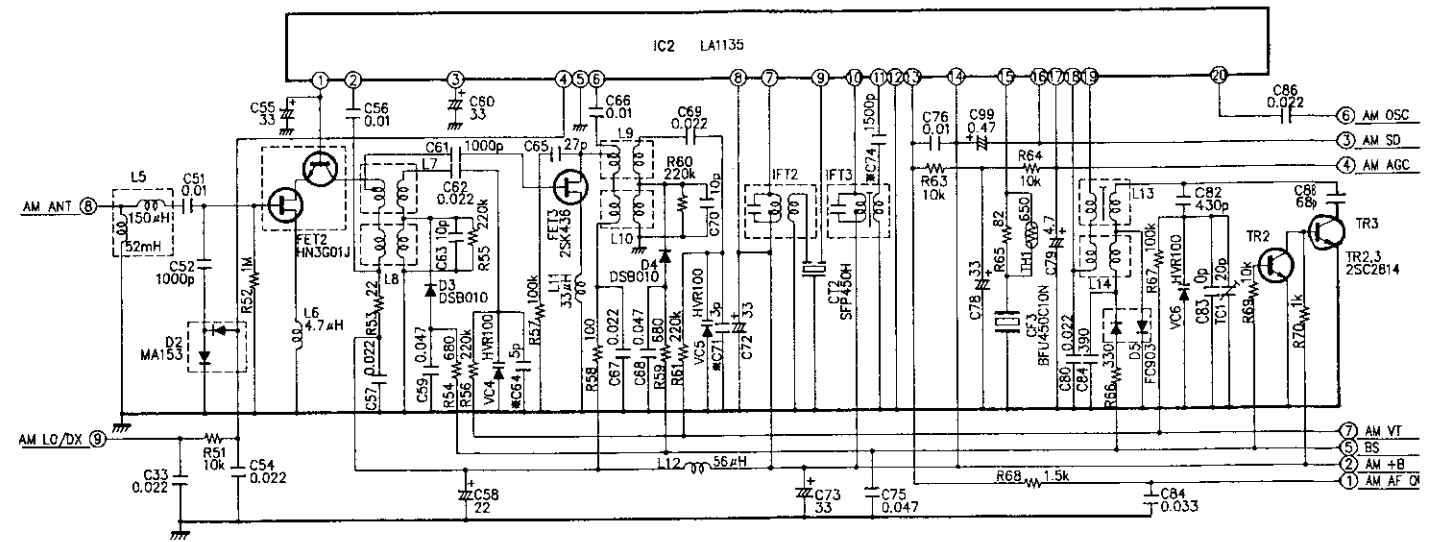
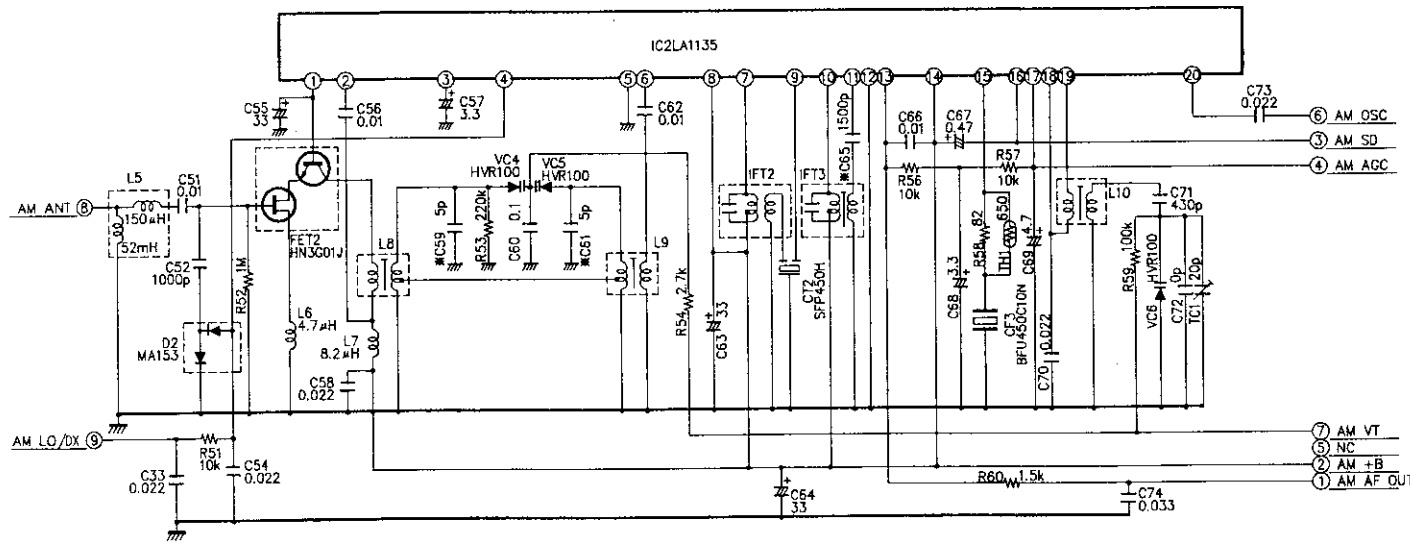
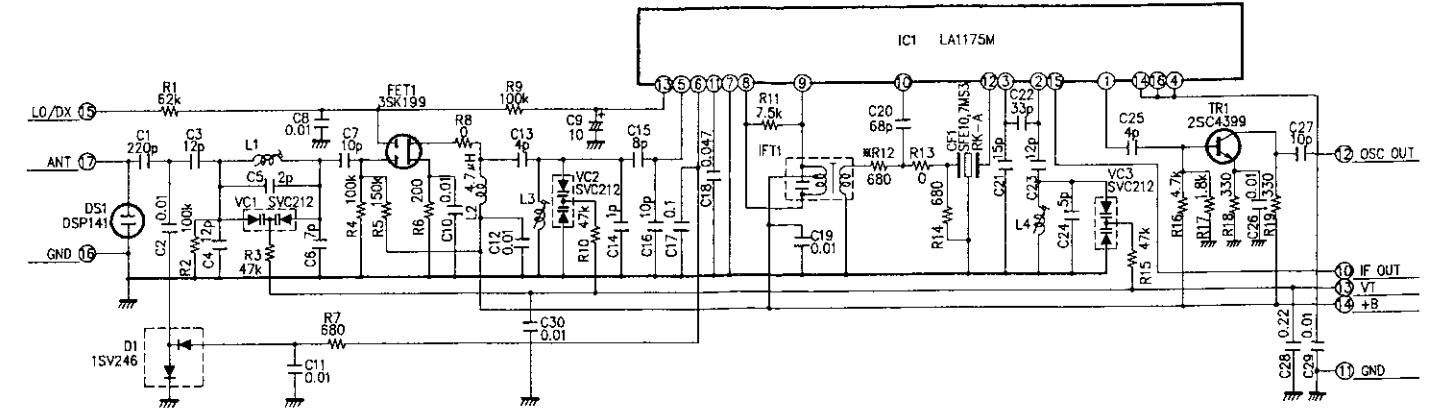
● RADIO & TAPE



FM/AM TUNER PACK Part No. 216 0091 009
(for U.S.A. and Canada models)

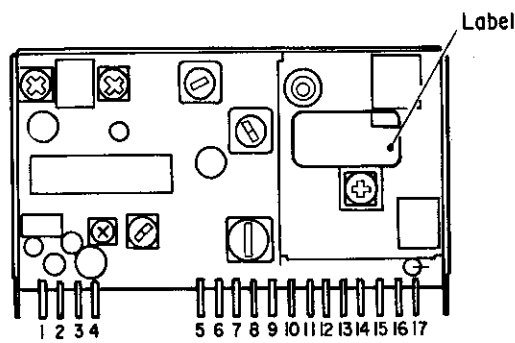


FM/AM TUNER PACK Part No. 216 0090 000
(for Europe model)

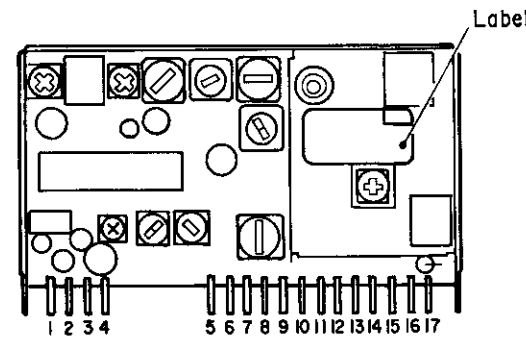


- Note:
1. CV1, 2, 3 SVC-212 (or Equivalent)
2. Parts with * are adjustable and may be changed.

- Note:
1. CV1, 2, 3 SVC-212 (or Equivalent)
2. Parts with * are adjustable and may be changed.

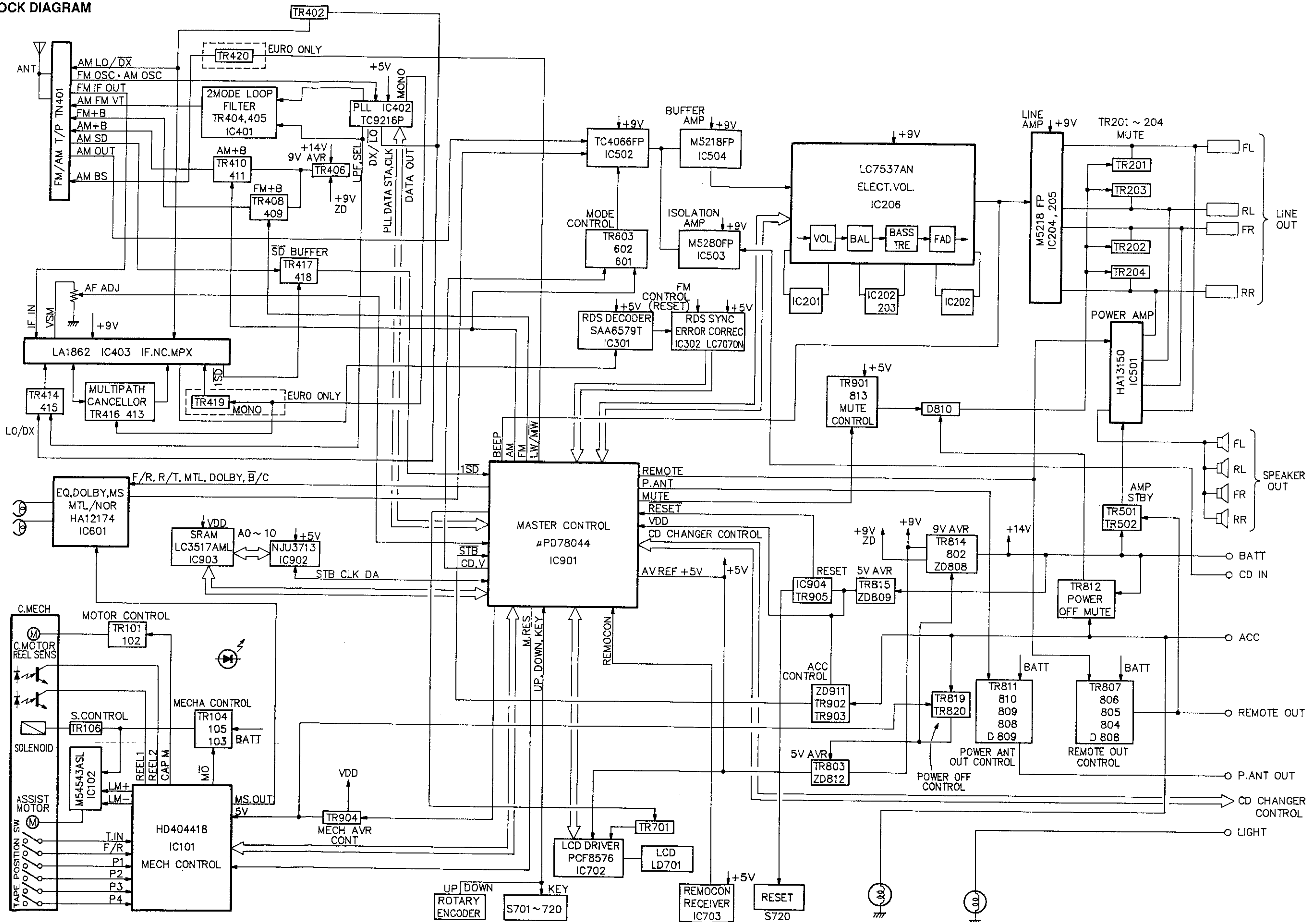


- | | |
|---------------|----------------|
| Terminal No. | 10. FM IF OUT |
| 1. AM DET OUT | 11. FM GND |
| 2. AM + B | 12. FM OSC OUT |
| 3. AM SD | 13. FM TV |
| 4. AM AGC | 14. FM + B |
| 5. NC | 15. FM LO/DX |
| 6. AM OSC OUT | 16. FM GND |
| 7. AM VT | 17. FM ANT |
| 8. AM. ANT | |
| 9. AM LO/DX | |



- | | |
|---------------|----------------|
| Terminal No. | 10. FM IF OUT |
| 1. AM DET OUT | 11. FM GND |
| 2. AM + B | 12. FM OSC OUT |
| 3. AM SD | 13. FM TV |
| 4. AM AGC | 14. FM + B |
| 5. AM BS | 15. FM LO/DX |
| 6. AM OSC OUT | 16. FM GND |
| 7. AM VT | 17. FM ANT |
| 8. AM. ANT | |
| 9. AM LO/DX | |

BLOCK DIAGRAM

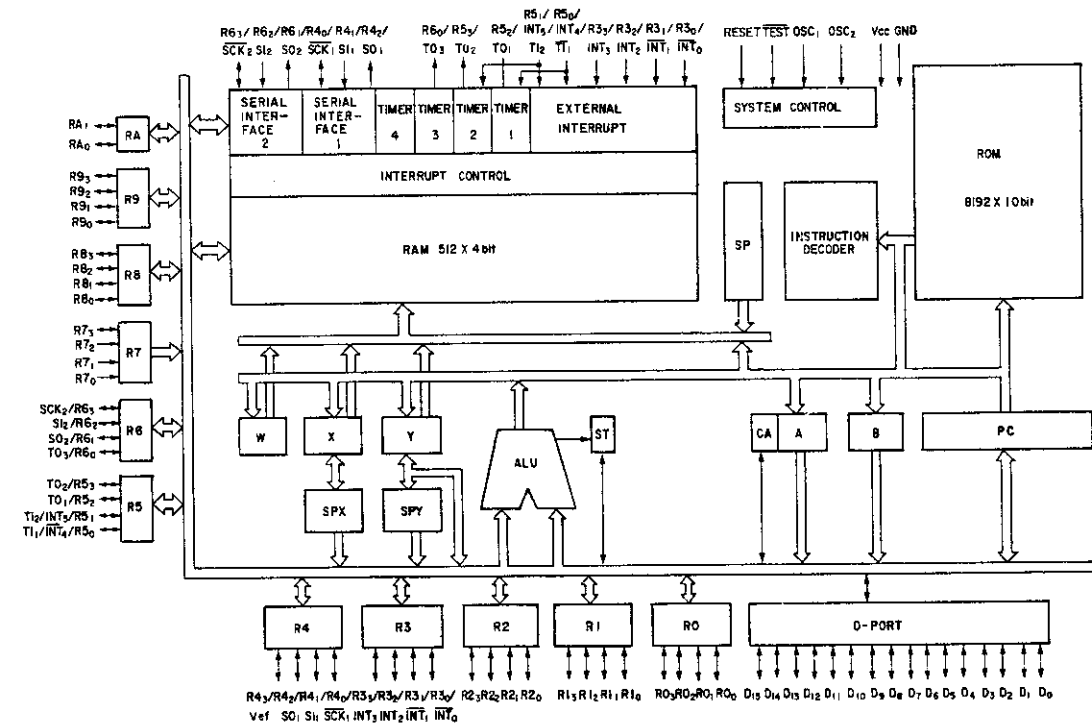
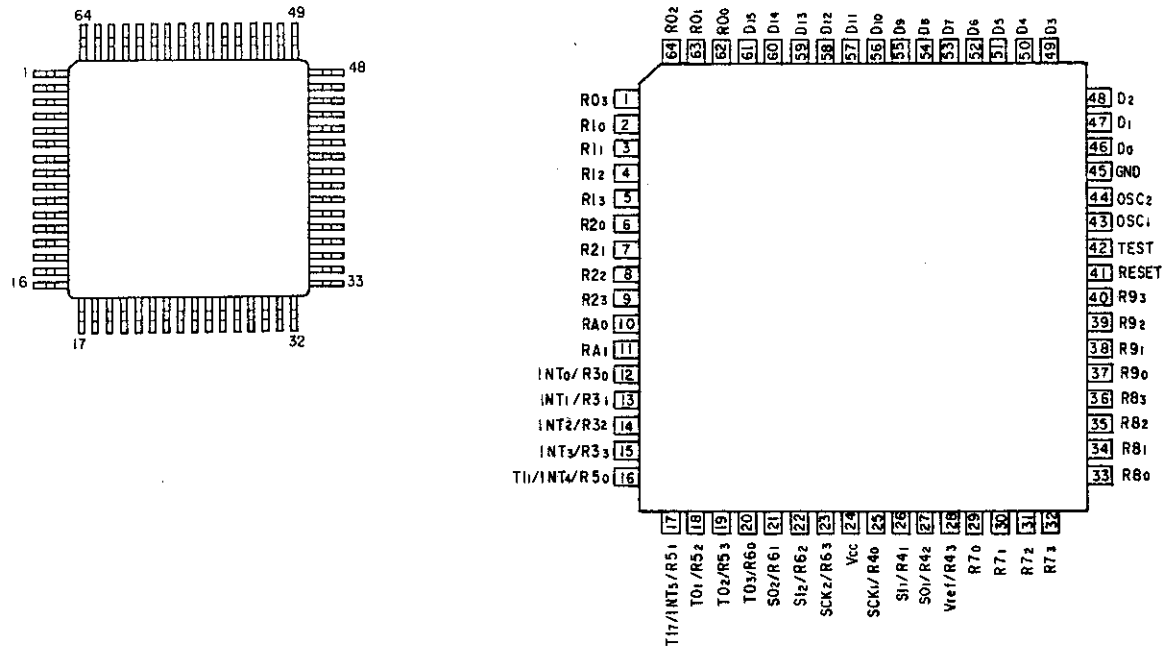


SEMICONDUCTORS

● IC's

HD404418 (IC101)

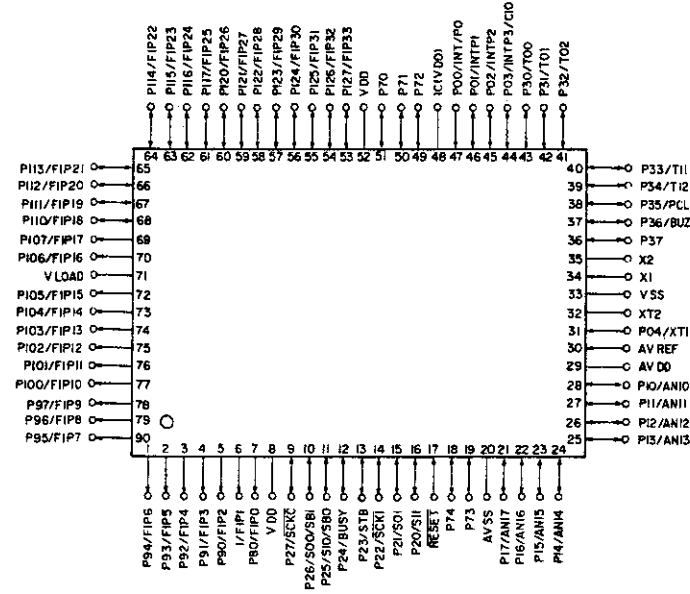
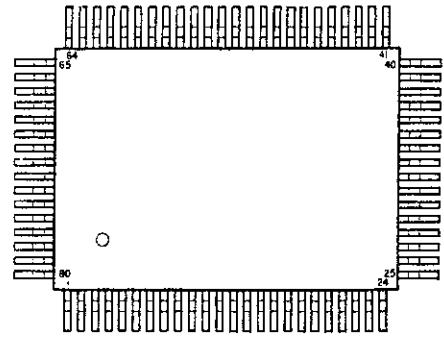
(Top view)



HD404418 TERMINAL FUNCTION

Pin No.	Symbol	I/O	Function
1	P4	I	Position data input port from cassette mechanism
2-12	NC		
13	AMSH	I	Detect input for sound existence. (Exists at high input)
14	AMSL	I	Detect input for sound existence. (Exists at high input)
15	REEL2	I	Detect input for reel board operation of takeup side in FWD play mode and at FF position.
16	NC		
17	REEL1	I	Detect input for reel board operation of takeup side in REV play mode and at REW position.
18	LM-	O	Output terminal for loading motor drive.
19	LM+	O	Output terminal for loading motor drive.
20 - 23	NC		
24	Vcc		Power supply (5V)
25	ME_SCK	I	Input terminal for serial clock from master μ-COM.
26	ME_SO	I	Input terminal for serial data from master μ-COM.
27	ME_SI	O	Output terminal for serial clock to master μ-COM.
28 - 40	NC		
41	RESET	I	Becomes reset state at high and from the time point of becoming lower level nextly, starts from program address \$0000.
42	TEST	—	Connect to Vcc.
43	OSC1	—	Connecting terminal for system clock oscillation circuit.
44	OSC2	—	Connecting terminal for system clock oscillation circuit.
45	GND	—	GND
46 - 53	NC		
54	CE	I	Latch signal of data receipt from master μ-COM.
55	N/M	O	METAL output terminal. METAL at High; NORMAL at Low.
56	F/R OUT	O	When tape travel direction is; FWD → High output; REV → Low output.
57	CAP. M	O	Output terminal for Capstan motor drive. (Capstan motor ON at high output).
58	M. ON	O	Power control terminal for detection of loading motor, capstan motor, plunger, reel board operation and METAL (on at high).
59	PLUNGER	O	Output terminal for plunger drive. (Plunger ON at high output, plunger released at low output).
60	T. IN	I	Low at tape inserted and high at tape ejected.
61	F/R IN	I	When tape travel direction is; FWD → High input; REV → Low input;
62	P1	I	Position data input port from cassette mechanism.
63	P2	I	Position data input port from cassette mechanism.
64	P3	I	Position data input port from cassette mechanism.

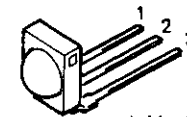
μPD78044 TERMINAL FUNCTION (IC901)



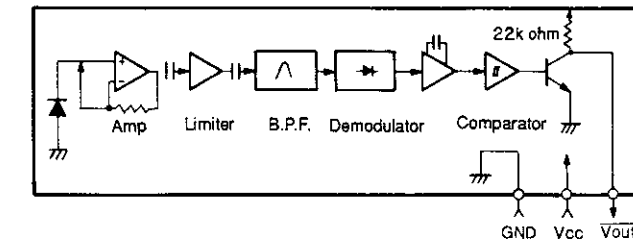
Pin No.	Name of Port	Name	Active	I/O	Description
1	P94	M.RESET	H	O	Mecha control μ-COM reset output
2	P93	MUTE	H	O	MUTE output
3	P92	FM	H	O	FM+B control output
4	P91	AM	H	O	AM+B control output
5	P90	MW/LW	H	O	LW control output
6	P81	P.ANT	H	O	P.ANT control output
7	P80	REMO	H	O	Remote 14V control output
8	V _{DD}	VDD	—	—	
9	P27/SCK0	CDCI	—	I	CD-changer serial clock input
10	P26/SO0	CDSI	—	I	CD-changer serial data input
11	P25/SI0	CDSO	—	O	CD-changer serial data output
12	P24	DSPSEL	—	O	CD-changer communication timing signal output
13	P23	CDCO	—	O	CD-changer serial clock output
14	P22	RDSCLK	—	I	Serial clock input from LC7070
15	P21	NC	—	—	
16	P20	RDSDATA	—	I	Serial data input from LC7070
17	RESET	RESET	L	I	RESET
18	P74	CDCHK	H	I/O	CD changer reset/existence detect
19	P73	CDMUTE	H	I	Mute signal input from CD changer
20	AV _{SS}	GND	—	—	
21	P17/ANI7	ENCODEUP	—	I	Input from pulse encoder
22	P16/ANI6	ENCODEDN	—	I	Input from pulse encoder
23	P15/ANI5	MECH-FULL	—	I	Selection of cassette mechanism
24	P14/ANI4	AREA	—	I	Selection of destination
25	P13/ANI3	KEY1	—	I	Key input terminal (A/D)
26	P12/ANI2	KEY2	—	I	Key input terminal (A/D)
27	P11/ANI1	KEY3	—	I	Key input terminal (A/D)
28	P10/ANI0	VSM	—	I	VSM input terminal
29	AV _{DD}	VDD (A/D)	—	—	
30	AV _{REF}	AV _{REF}	—	—	
31	P04/XT1	SUB X'TAL	—	—	
32	XT2	SUB X'TAL	—	—	
33	V _{SS}	GND	—	—	
34	X1	X'TAL	—	—	
35	X2	X'TAL	—	—	

Pin No.	Port Name	Name	Active	I/O	Description
36	P37	PLLDS	L	O	PLL communication timing signal output
37	P36/BUZ	BEEP	—	O	BEEP output terminal
38	P35	PLLCLK	—	O	PLL serial clock output
39	P34	PLLDATA	—	I/O	PLL serial data output
40	P33	MECHCLK	—	O	Serial clock output to mecha μ-COM
41	P32	MECHDI	—	I	Serial clock input from mecha μ-COM
42	P31	MECHDO	—	O	Serial data output to mecha μ-COM
43	P30	MECHCE	—	O	Mecha μ-COM communication timing output
44	P03/INTP3	RDSSTART	L	I	Communication timing signal input from LC7070
45	P02/INTP2	LCDREMC	H	O	LCD display control output
46	P01/INTP1	STBY	L	I	ACC detect input
47	P00/INTP0	REMOCON	—	I	Remote control input terminal
48	IC (V _{FF})	GND	—	—	
49	P72	VCC CONT	—	O	Mecha μ-COM+B control
50	P71	LCSDA	—	I/O	Serial data input/output with PCF 8576
51	P70	LCDCCLK	—	O	Serial clock output to PCF 8576
52	VDD	VDD	—	—	
53	P127	NC	—	—	
54	P126	NC	—	—	
55	P125	SD	L	I	SD detect input
56	P124	ST	L	I	ST detect input
57	P123	SRAMCE	L	O	Communication timing signal output with SRAM
58	P122	SSP_STBR	—	O	Strobe signal output to NJU3713
59	P121	SSP_CLK	—	O	Serial clock output to NJU3713
60	P120	SSP_DATA	—	O	Serial data output to NJU3713
61	P117	SRAMI08	—	I/O	SRAM data input/output
62	P116	SRAMI07	—	I/O	SRAM data input/output
63	P115	SRAMI06	—	I/O	SRAM data input/output
64	P114	SRAMI05	—	I/O	SRAM data input/output
65	P113	SRAMI04	—	I/O	SRAM data input/output
66	P112	SRAMI03	—	I/O	SRAM data input/output
67	P111	SRAMI02	—	I/O	SRAM data input/output
68	P110	SRAMI01	—	I/O	SRAM data input/output
69	P107	SRAMWE	L	O	SRAM control signal output
70	P106	SRAMOE	L	O	SRAM control signal output
71	V _{LOAD}	GND	—	—	
72	P105	NC	—	O	
73	P104	FF	L	O	Detect output for tape forwarding state
74	P103	B/C	L	O	DOLBY control signal output (B:L, C:H)
75	P102	DOLBY	H	O	DOLBY control signal output (ON:H, OFF:L)
76	P101	R/T	H	O	Audio output control signal output (RADIO:H, TAPE:L)
77	P100	CD	H	O	Audio output control signal output (CD:H, ELSE:L)
78	P97	VRDI	—	O	Serial data output to LC7537
79	P96	VRCLK	—	O	Serial clock output to LC7537
80	P95	VRCE	—	O	Communication timing signal output with LC7537

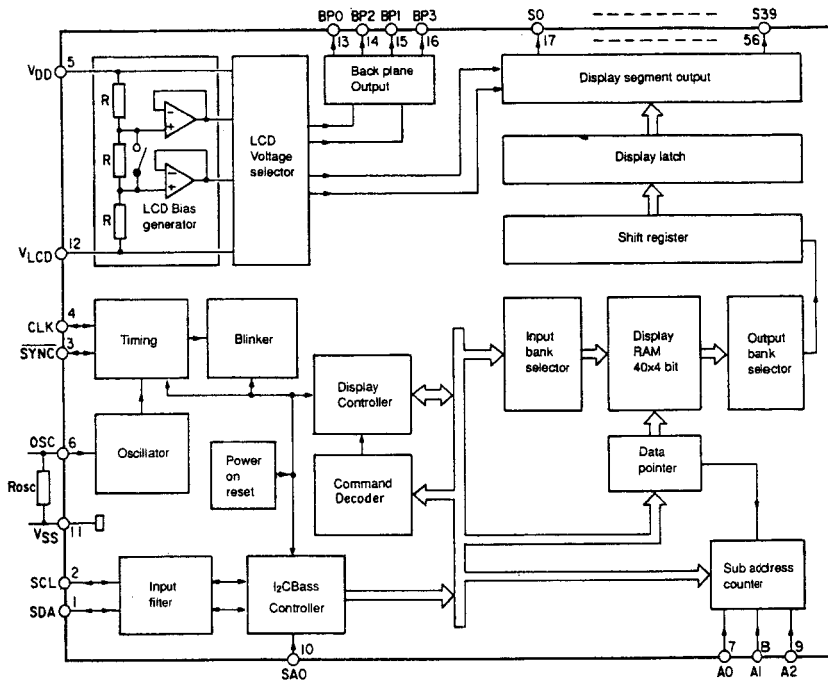
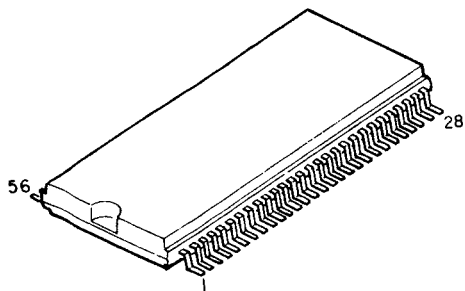
ISU60L (Remocon Receiver) (IC703)



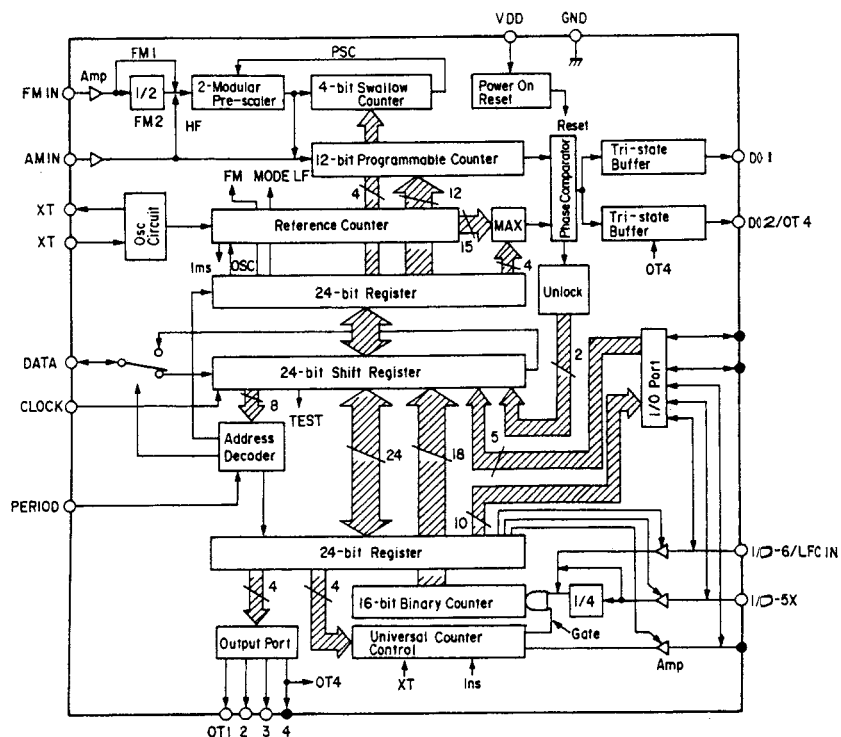
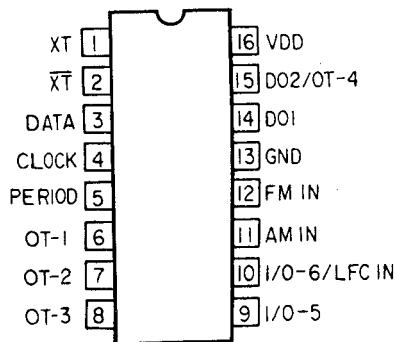
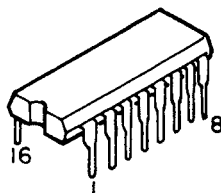
- 1: Vout
- 2: GND
- 3: Vcc



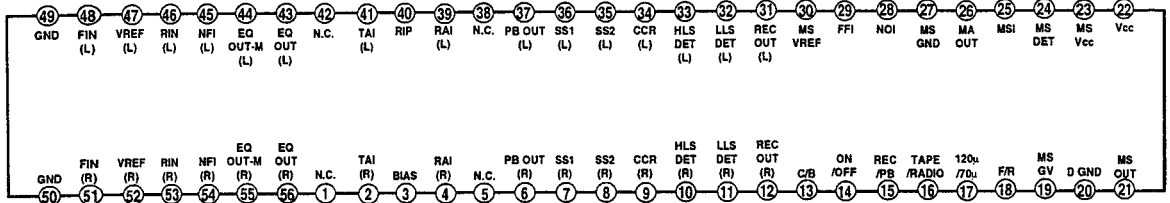
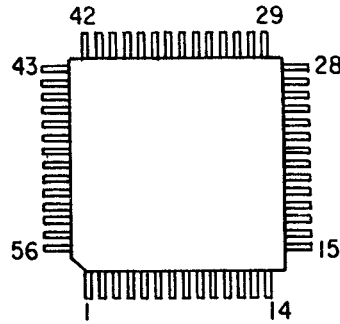
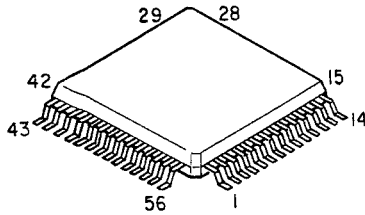
PCF8576T
(IC702)



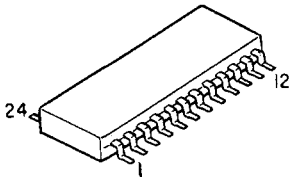
TC9216P
(IC402)



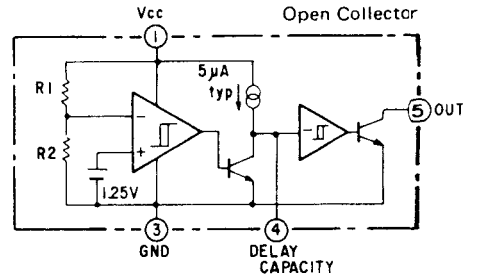
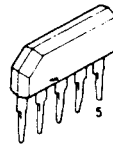
HA12174 (IC601)



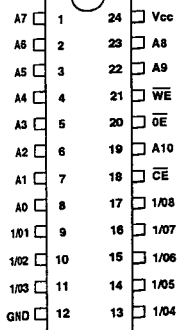
LC3517 (IC903)



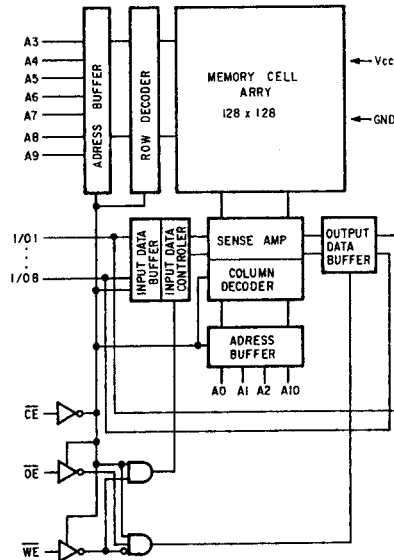
M51953B (IC904)



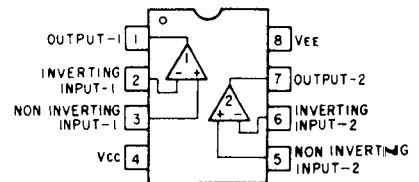
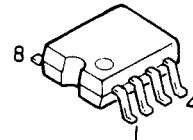
TOP VIEW



- A0 - A10 Address input
- WE Read/Write control input
- OE Output enable input
- CE Chip enable input
- I/O 1 - I/O 8 Data input/output
- Vcc/GND Power terminal



M5218AFP (IC201-205, 604)

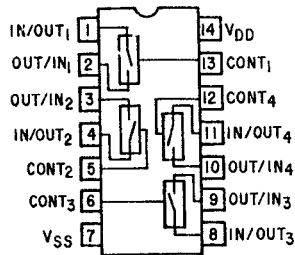
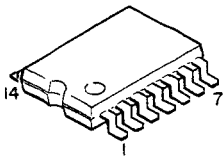


FUNCTION TABLE

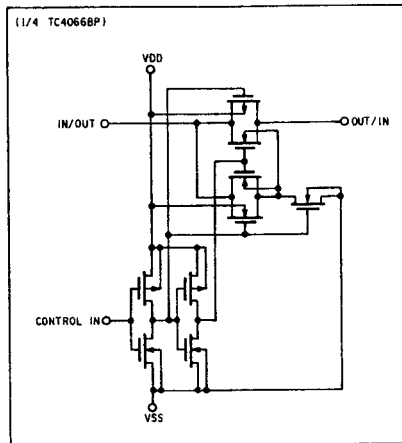
Mode	CE	OE	WE	I/O	Power current
Read cycle	L	L	H	Data output	I _{CCA}
Write cycle	L	X	L	Data input	I _{CCA}
Output disable	L	H	X	High impedance	I _{CCA}
Non-selection	H	X	X	High impedance	I _{CCS}

X: H or L

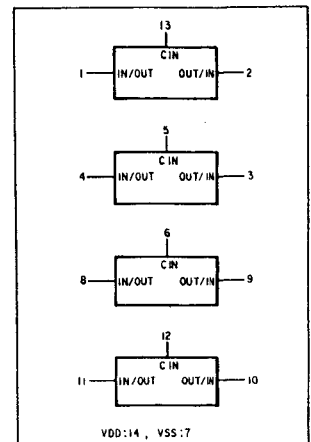
**TC4066BP
(IC602)**



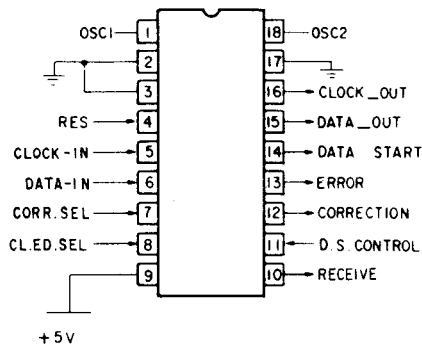
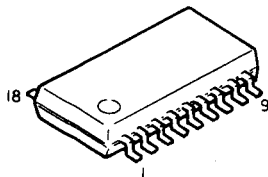
SCHEMATIC DIAGRAM



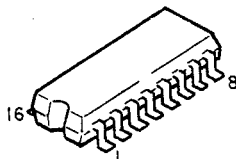
BLOCK DIAGRAM



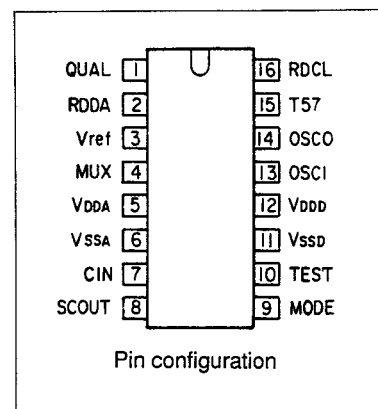
**LC7070NM
(IC302)**



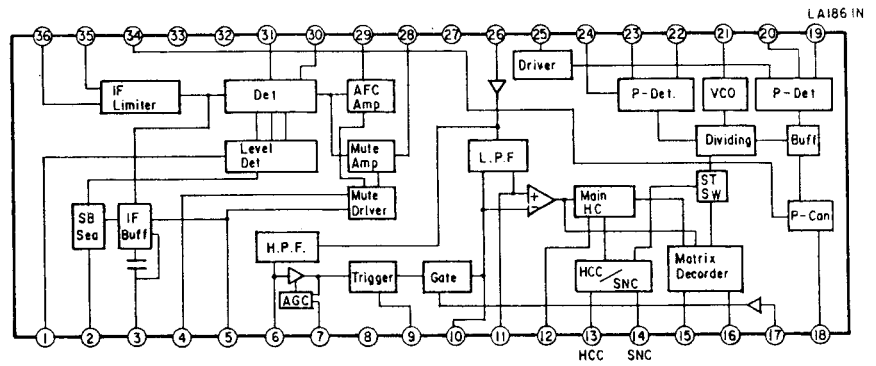
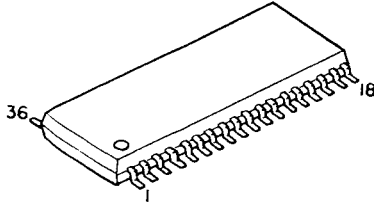
**SAA6579T
(IC301)**



SYMBOL	PIN	DESCRIPTION
QUAL	1	Quality indication output
RDDA	2	RDS data output
Vref	3	Reference voltage output (0.5 V _{DDA})
MUX	4	Multiplex signal input
V _{DDA}	5	+5V supply voltage for analog part
V _{SSA}	6	Ground for analog part (0V)
CIN	7	Subcarrier input to comparator
SCOUT	8	Subcarrier output of reconstruction filter
MODE	9	Oscillation mode/test control input
TEST	10	Test enable input
V _{SSD}	11	Ground for digital part (0V)
V _{DDD}	12	+5V supply voltage for digital part
OSCI	13	Oscillator input
OSCO	14	Oscillator output
T57	15	57kHz clock signal output
RDCL	16	RDS clock output



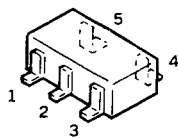
LA1862M
(IC403)



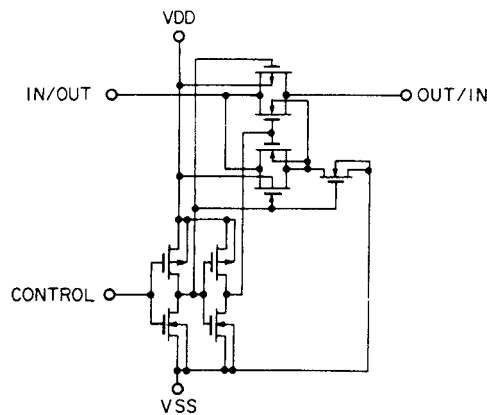
LM1862M Terminal Function

Pin No.	Function	Pin No.	Function
1	S-Meter output terminal.	19	Pilot detector.
2	IF buffer sensitivity control.	20	Pilot detector.
3	IF buffer output terminal.	21	VCO
4	Mute starting point control.	22	Phase detector.
5	Mute drive control terminal.	23	Phase detector.
6	Noise sensitivity control.	24	PLL input terminal.
7	Noise AGC sensitivity control.	25	Stereo indicator lamp terminal.
8	Vcc	26	Noise canceller input.
9	Gate time control terminal.	27	GND.
10	Memory circuit.	28	Muting amp output terminal. (AF output)
11	LFP output.	29	AFC output terminal.
12	High-cut attenuator control.	30	Peak detector input.
13	HCC control input.	31	IF output.
14	SNC control input.	32	Muting attenuator control.
15	MPX left output.	33	Regulator output.
16	MPX right output.	34	Pilot cancel signal detector.
17	Pilot cancel signal input.	35	IF bias.
18	Pilot cancel signal output.	36	IF input.

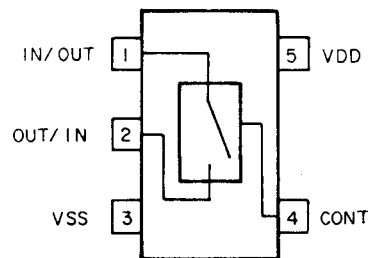
TC4S66F
(IC401)



- 1: IN/OUT
- 2: OUT/IN
- 3: VSS
- 4: CONT
- 5: VDD



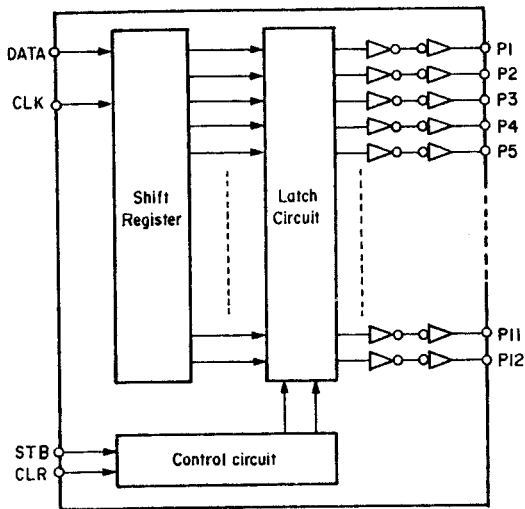
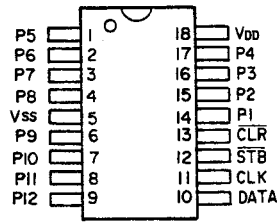
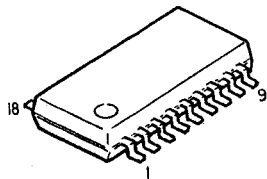
PIN ASSIGNMENT (TOP VIEW)



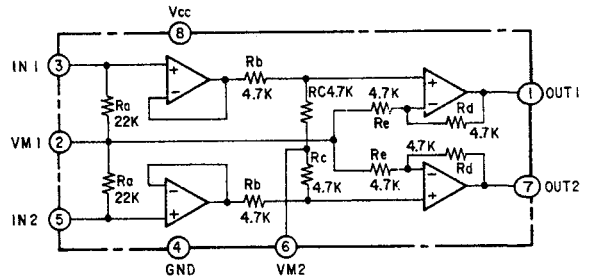
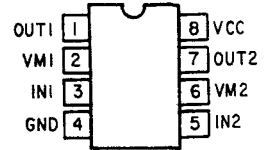
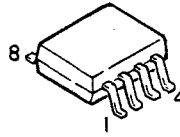
TRUTH VALUE TABLE

CONTROL	Impedance Between IN/OUT-OUT/IN
H	$0.5 - 5 \times 10^2 \text{ ohm}$
L	$>10^9 \text{ ohm}$

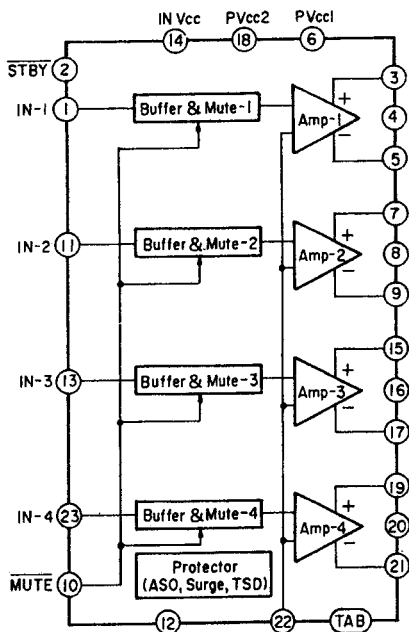
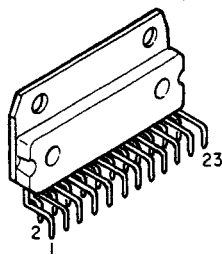
NJU3713G
(IC902)



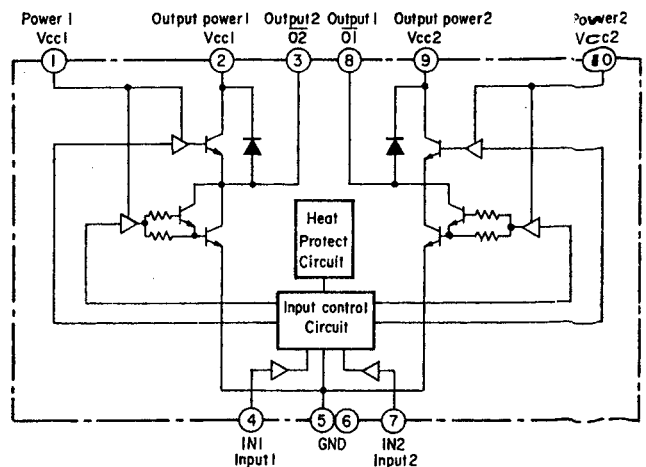
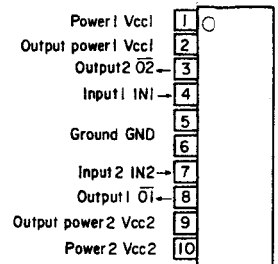
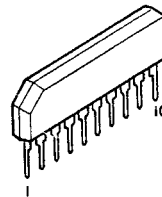
M5280FP
(IC603)



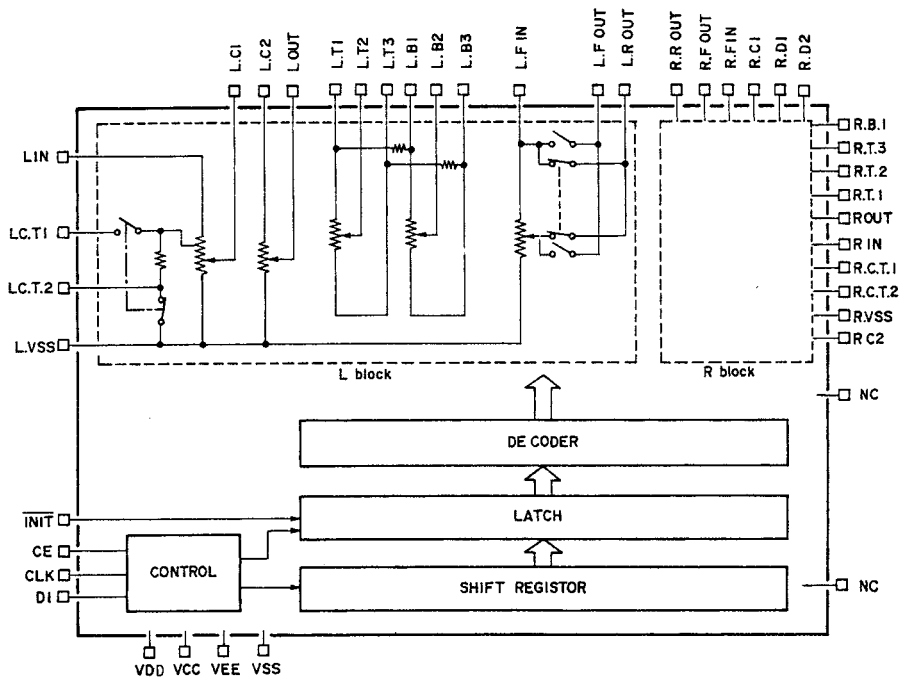
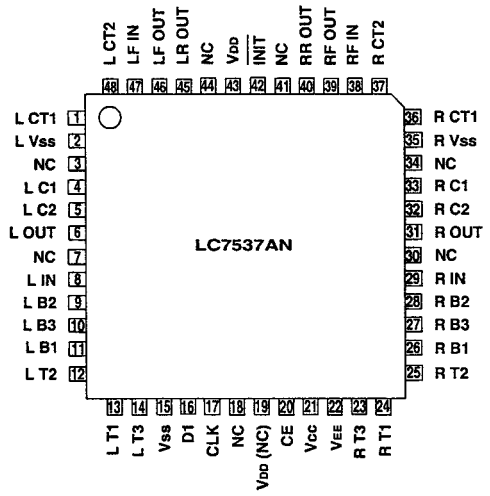
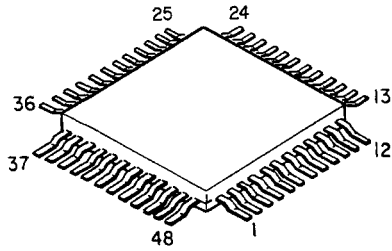
HA13150
(IC501)



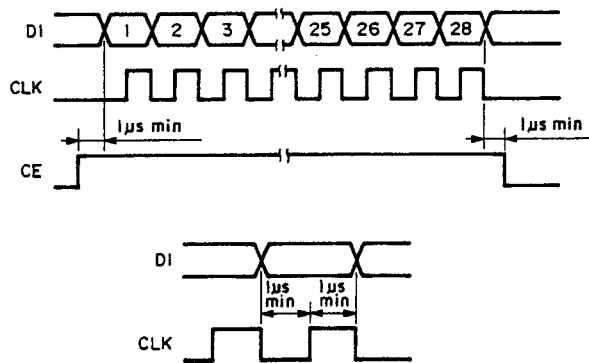
M54543ASL
(IC102)



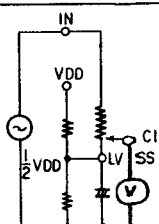
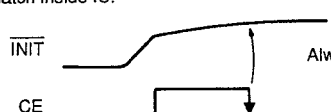
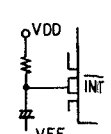
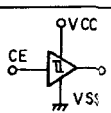
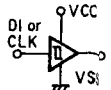
LC7537AN
(IC206)



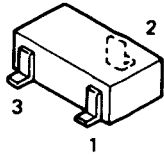
Timing of Control System



TERMINAL FUNCTION

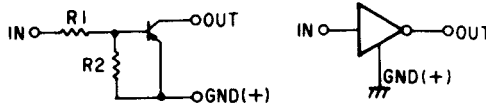
Pin No.	Symbol	Function	Remarks
8 29	L. IN R. IN	Input terminal of 5dB step attenuator of main volume section. Drive at low impedance.	
4 33	L. C1 R. C1	Output terminal of 5dB step attenuator of main volume section. As the step position is designed as open position, step errors may be occurred when receiving impedance is too low. Receive at higher impedance as much as possible.	Total resistance 20kohm
5 32	L. C2 R. C2	Input terminal of 1dB step attenuator of main volume section. Drive at low impedance.	
6 31	L. OUT R. OUT	Output terminal of 1dB step attenuator of main volume section. As the step position is designed as open position, receive at high impedance as much as possible as in cases of LC1, RC1.	Total resistance 20kohm
47 38	L. FIN R. FIN	Input terminal when using fader function. Drive at low impedance.	
46 45 39 40	L. FOUT L. ROUT R. FOUT R. ROUT	Output terminal of fader section. Able to attenuate front side and rear side respectively. The attenuation volume is same as to R/L. As the step position is designed as open position, receive at high impedance as much as possible as in cases of LC1, RC1.	Total resistance 20kohm
11 9 10 26 28 27	L. B1 L. B2 L. B3 R. B1 R. B2 R. B3	Terminal of tone bass section. 2dB step attenuator, 15 positions.	Total resistance 20kohm
13 12 14 24 25 23	L. T1 L. T2 L. T3 R. T1 R. T2 R. T3	Terminal of tone treble section. 2dB step attenuator, 15 positions.	Total resistance 20kohm
1 48 36 37	LCT1 LCT2 RCT1 RCT2	Terminal for loudness. Connect capacitor for high frequency compensation across CT1 ~ IN, and connect capacitor for low frequency compensation across CT2 ~ LVSS (RVSS).	
2 35	L. VSS R. VSS	Common terminal for fader volume in main volume section. Avoid impedance of connection pattern as shown in this figure, as much as possible. As L. VSS, R. VSS, VSS are not internally connected, connect externally in conformity with each specification. Especially in case of one-sided power source, the capacitor between VSS (RVSS) ~ VSS becomes residual resistant component; pay full attention to the capacitor capacity.	
42	INIT	Reset terminal for latch inside IC.  When power is ON, VR set data of internal latch is undetermined; if this terminal is turned to "L" at power on, fader volume position of main volume is set to $-\infty$ and operates muting (Note: $V_{DD} \sim VEE$ level).	
20	CE	Chip enable terminal. Following to turning of "H" \rightarrow "L" shift, data will be written in internal latch and each analog switch moves. At "H" level, data transfer becomes enable.	
16 17	DI CLK	Input terminal of serial data and clock for control.	
43 21 15 22	VDD VCC VSS VEE	Terminal connecting each power source. Beware that VCC should not rise prior to VDD.	
3, 7, 18, 30, 34, 41, 44	NC	No connection pin. Do not connect anything.	
19	VDD (NC)	VDD-subterminal. Connect to VDD or use opened.	

● TRANSISTORS
Digital Transistor
(Including Resistors)



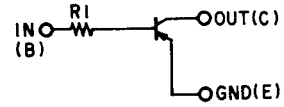
1: GND/Emitter
2: Out/Collector
3: In/Base

DTA EK Series



	R1	R2
DTA114EK	10Kohm	10Kohm
DTA115EK	100Kohm	100Kohm
DTA143EK	4.7Kohm	4.7Kohm

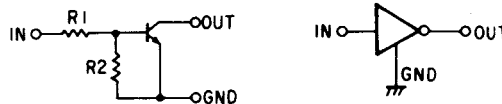
DTA TK Series



	R1
DTA144TK	10Kohm

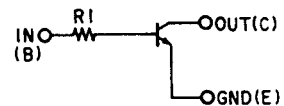
DTA114EK
DTA115EK
DTA143EK
DTA144TK
DTC114EK
DTC143EK
DTC144EK
DTC144TK
DTC314TK

DTC EK Series



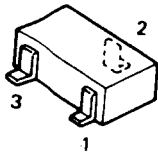
	R1	R2
DTC114EK	10Kohm	10Kohm
DTC143EK	4.7Kohm	4.7Kohm
DTC144EK	47Kohm	47Kohm

DTC TK Series



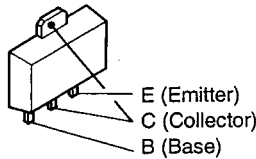
	R1
DTC144TK	47Kohm
DTC314TK	10Kohm

2SA1037K (S/R)
2SC2412K (S)
2SA1036K (S/R)

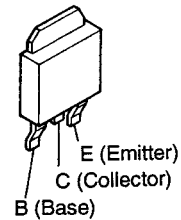


1: Emitter/GND
2: Collector/OUT
3: Base/IN

2SB956 (R)
2SD874 (R)

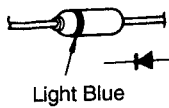


2SB968 (R)
2SB1182 (R)
2SD1758 (R)

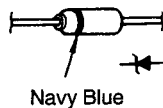


● DIODES (including LED)

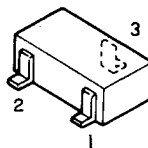
1SS270A



HZS4C-1 HZS7C-1
HZS3C-1 HZS6B-1
HZS5B-1 HZS9C-1
HZS11B-1

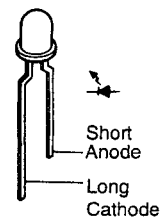


MA151WK

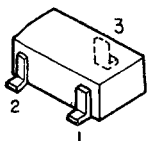


1: Anode
2: Anode
3: Cathode

SEL2210R
(Red)

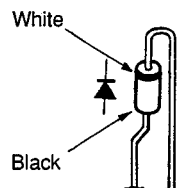


02CZ7.5Y

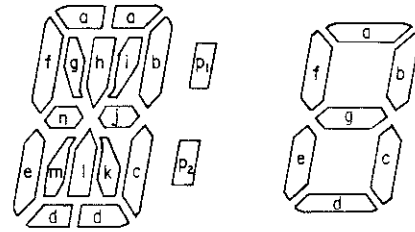
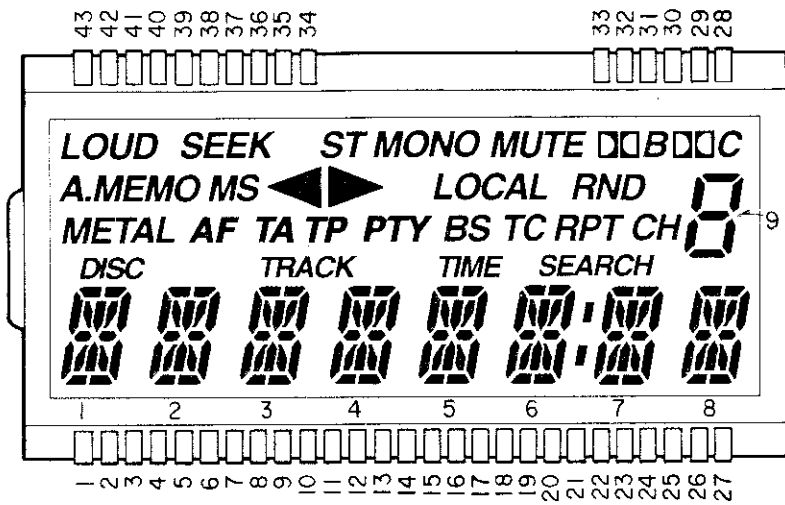


1: Open
2: Anode
3: Cathode

DSM1D2 (Type 3)



● LCD ASS'Y (SLU1875) LD701
 Parts No. 393 6003 107



WIRING TABLE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
com1	LOUD	SEEK	1d	1c	DISK	METAL	2d	2c	A.MEMO	AF	3d	3c	MS	TRACK	4d	4c	TA	TP
com2	1e	1m	1l	1k	2e	2m	2l	2k	3e	3m	3l	3k	4e	4m	4l	4k	5e	5m
com3	1n	1g	1h	1j	2n	2g	2h	2j	3n	3g	3h	3j	4n	4g	4h	4j	5n	5g
com4	1f	1a	1i	1b	2f	2a	2i	2b	3f	3a	3i	3b	4f	4a	4i	4b	5f	5a

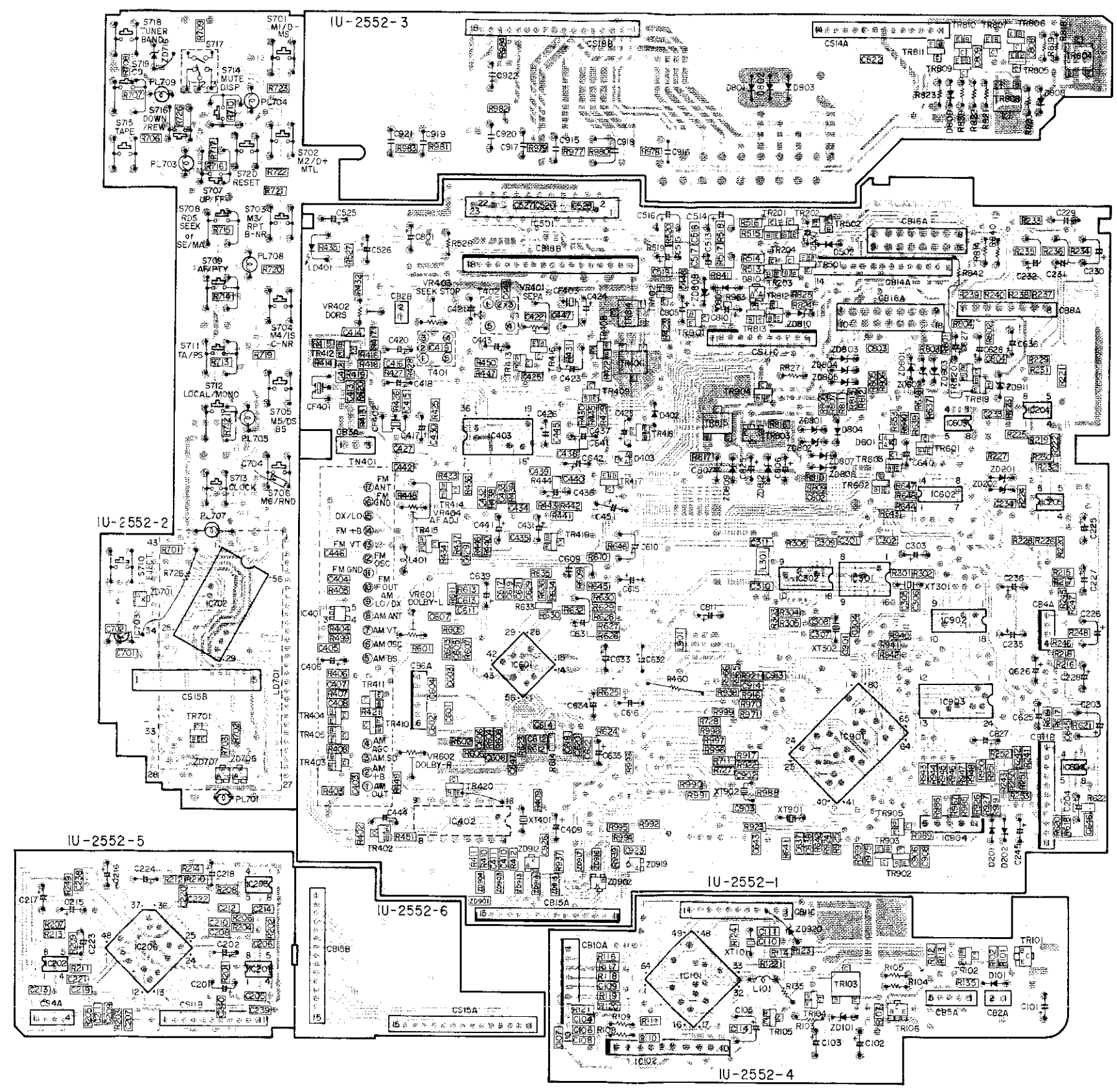
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
com1	5d	5c	TIME	PTY	6d	6c	P2	—	7d	7c	—	—	8d	8c	9a	□ C	□ B	MUTE
com2	5l	5k	6e	6m	6l	6k	7e	7m	7l	7k	8e	8m	8l	8k	9b	9f	RND	LOCAL
com3	5h	5j	6n	6g	6h	6j	7n	7g	7h	7j	8n	8g	8h	8j	9c	9g	CH	RPT
com4	5i	5b	6f	6a	6i	6b	7f	7a	7i	7b	8f	8a	8i	8b	9d	9e	SEARCH	P1

	37	38	39	40	41	42	43
com1	ST	▶	◀	—	—	—	com1
com2	MONO	—	—	—	—	com2	—
com3	TC	—	—	—	com3	—	—
com4	BS	—	—	com4	—	—	—

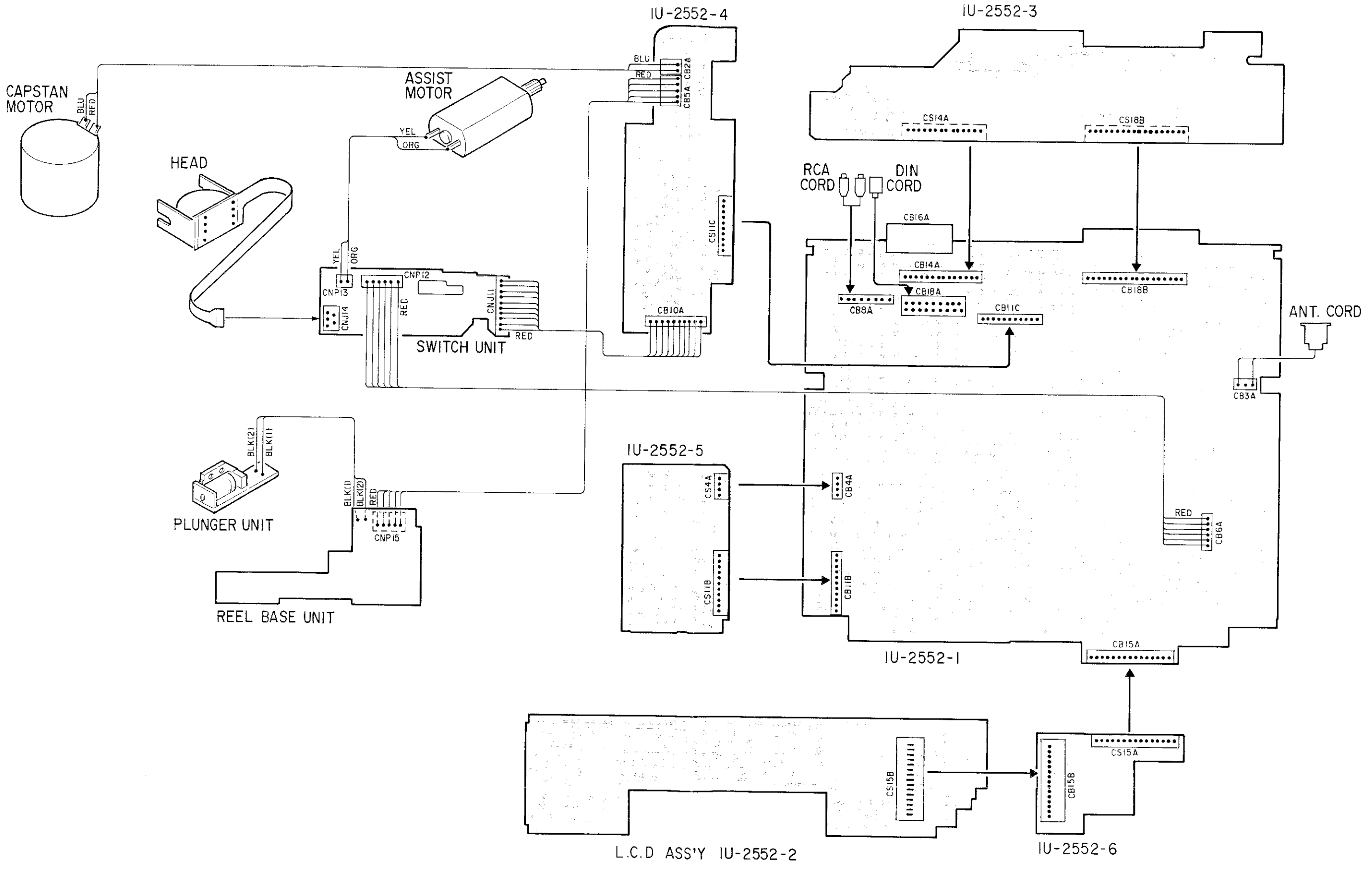
PRINTED WIRING BOARD

1U-2552 MAIN UNIT ASS'Y

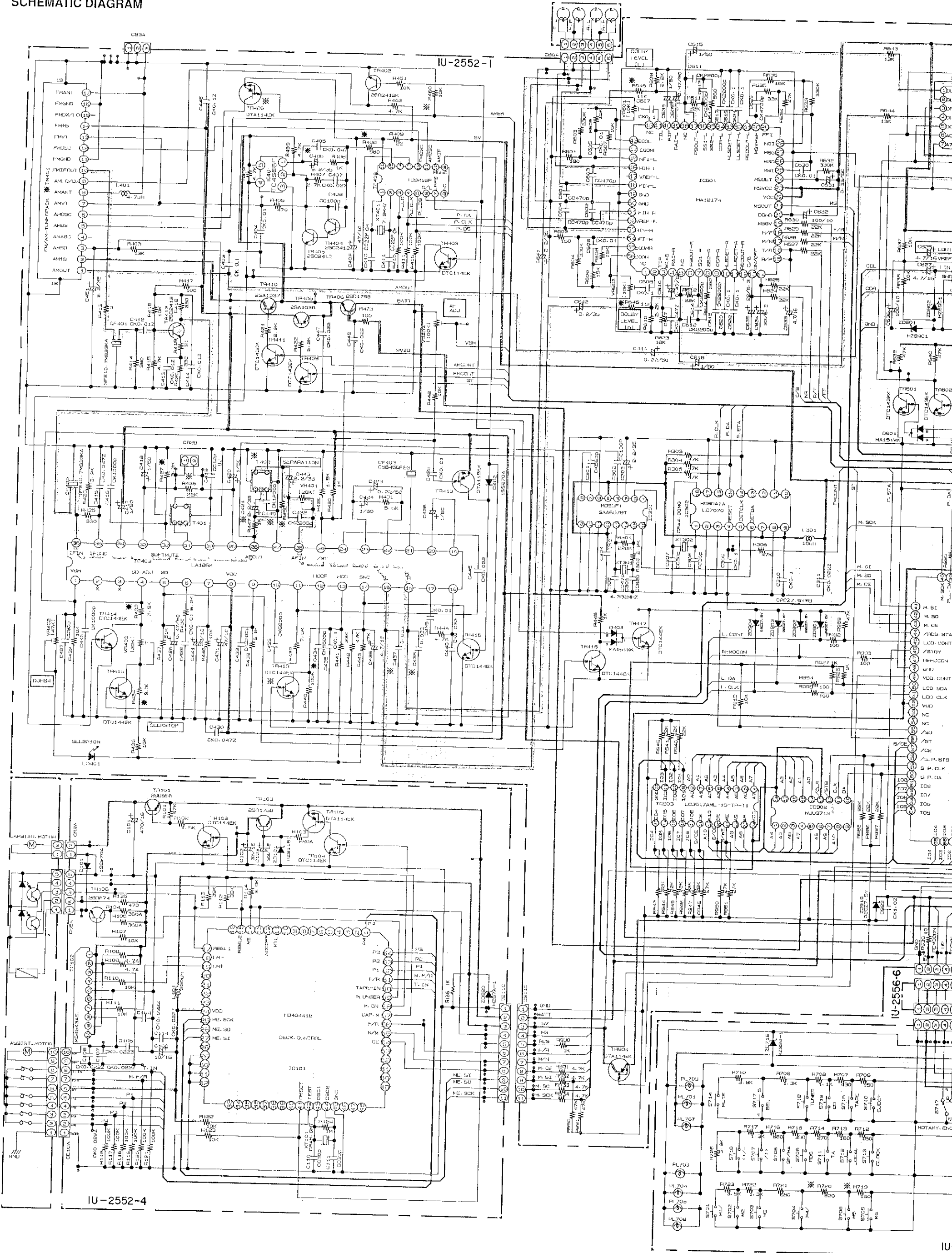
Pattern Side

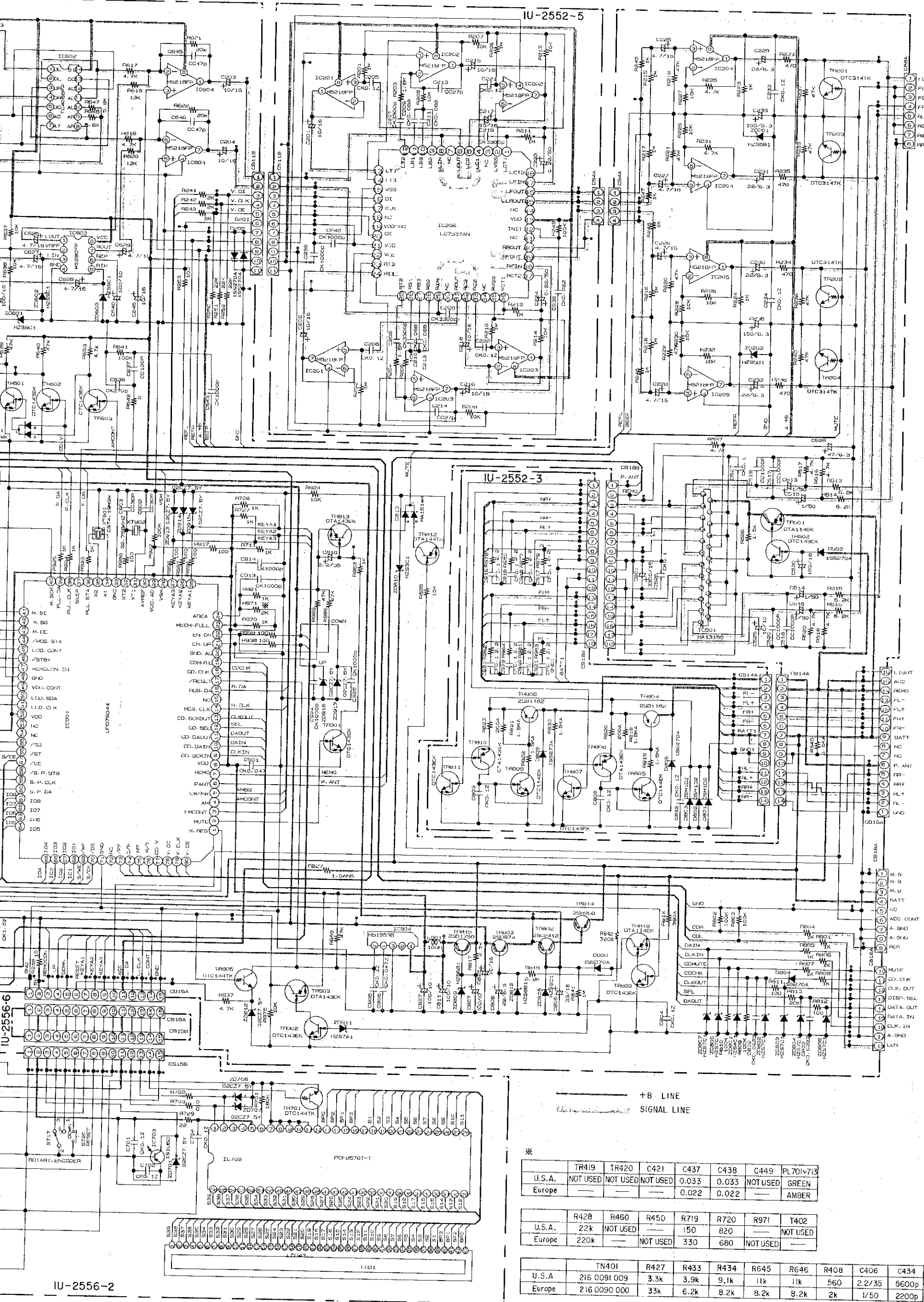


WIRING DIAGRAM



SCHEMATIC DIAGRAM





* U.S.A. Europe

TR419	TR420	C421	C437	C438	C449	PL701-713
NOT USED	NOT USED	NOT USED	0.033	0.033	NOT USED	GREEN
			0.022	0.022		AMBER

* U.S.A. Europe

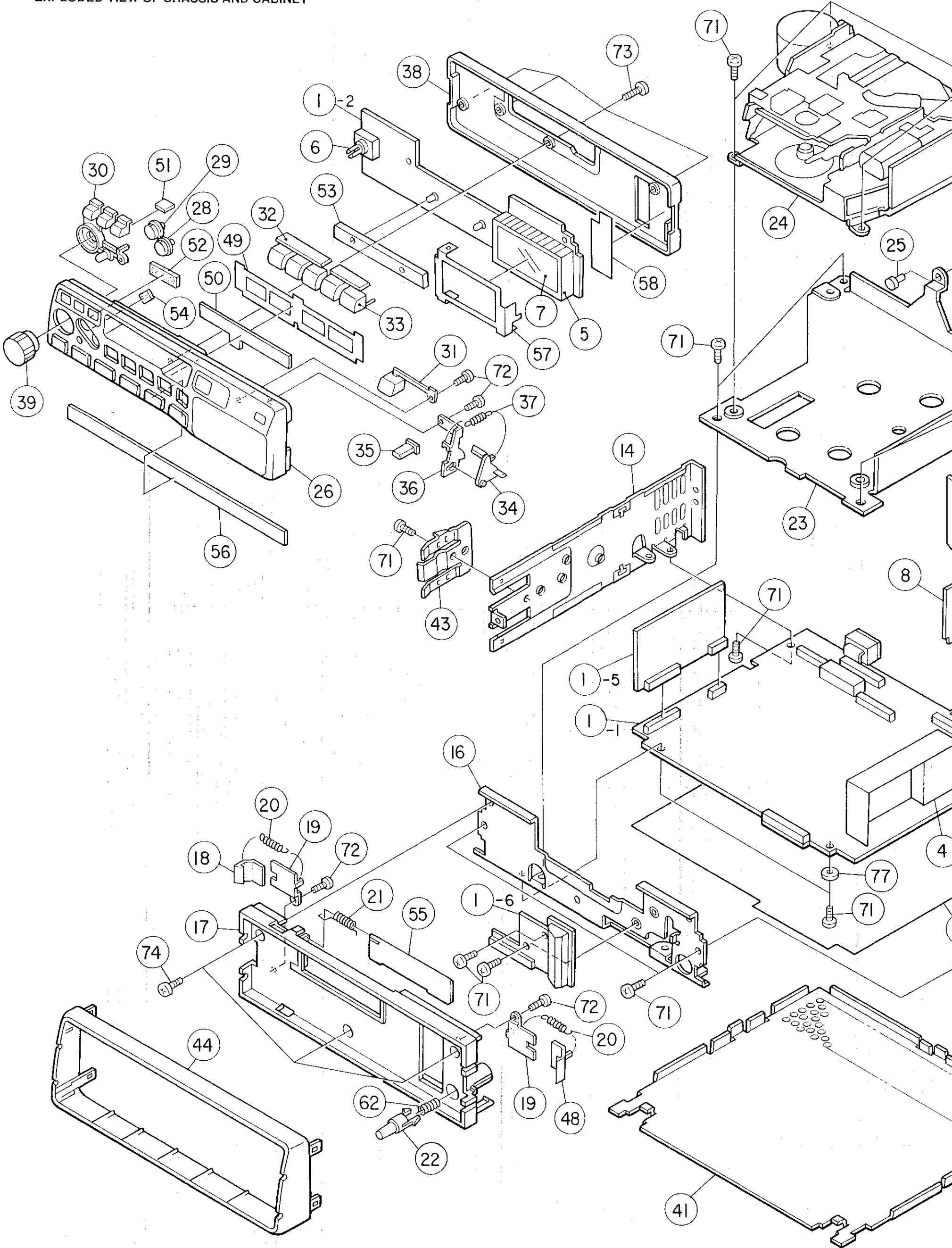
R428	R460	R450	R719	R720	R971	T402
22k	NOT USED		150	820		NOT USED
220k		NOT USED	330	680	NOT USED	

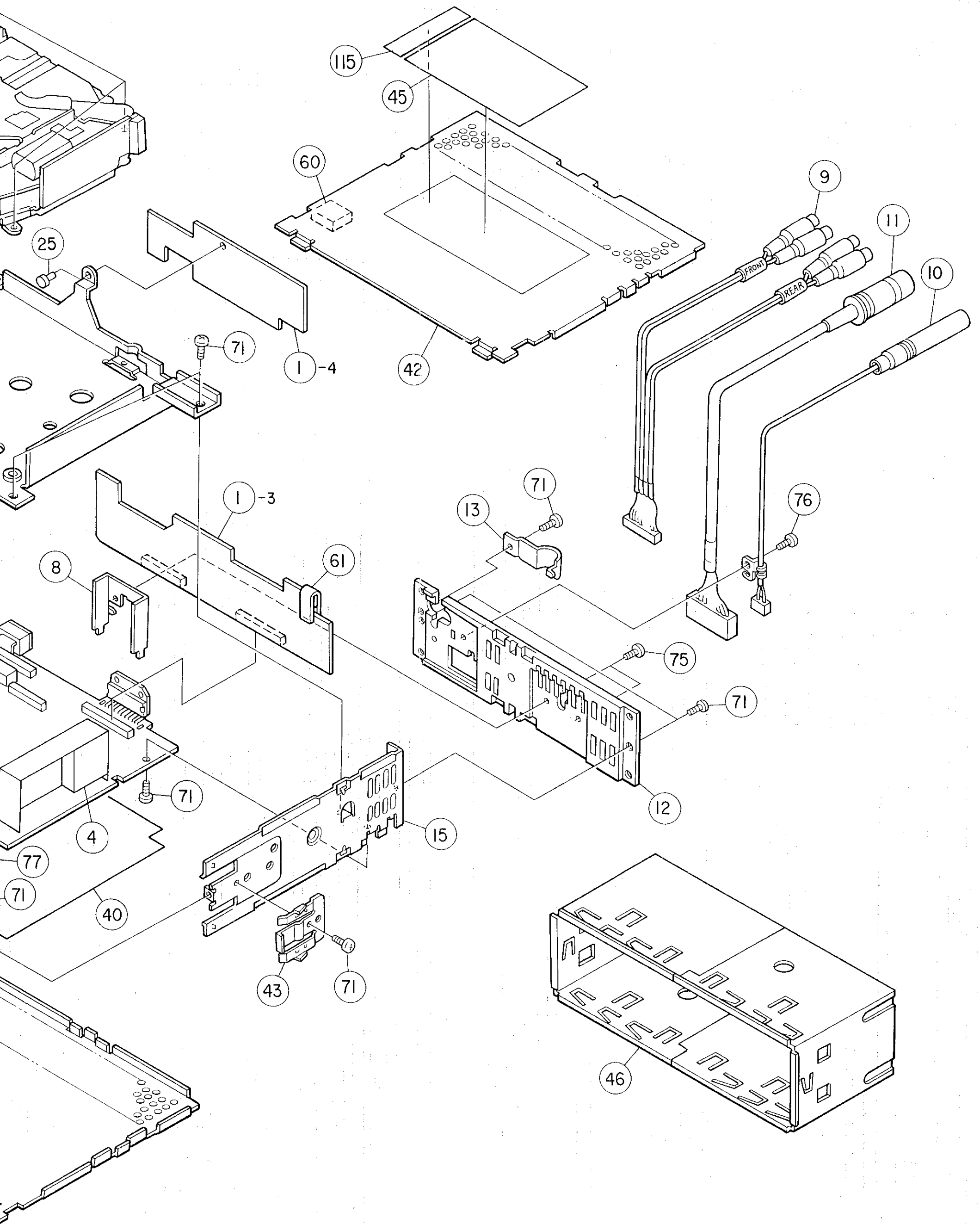
* U.S.A. Europe

TN401	R427	R433	R434	R645	R646	R408	C406	C434
216 0091 009	3.3k	3.9k	9.1k	11k	11k	560	2.2/35	5600p
216 0090 000	33k	6.2k	8.2k	8.2k	8.2k	2k	1/50	2200p

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.

EXPLODED VIEW OF CHASSIS AND CABINET



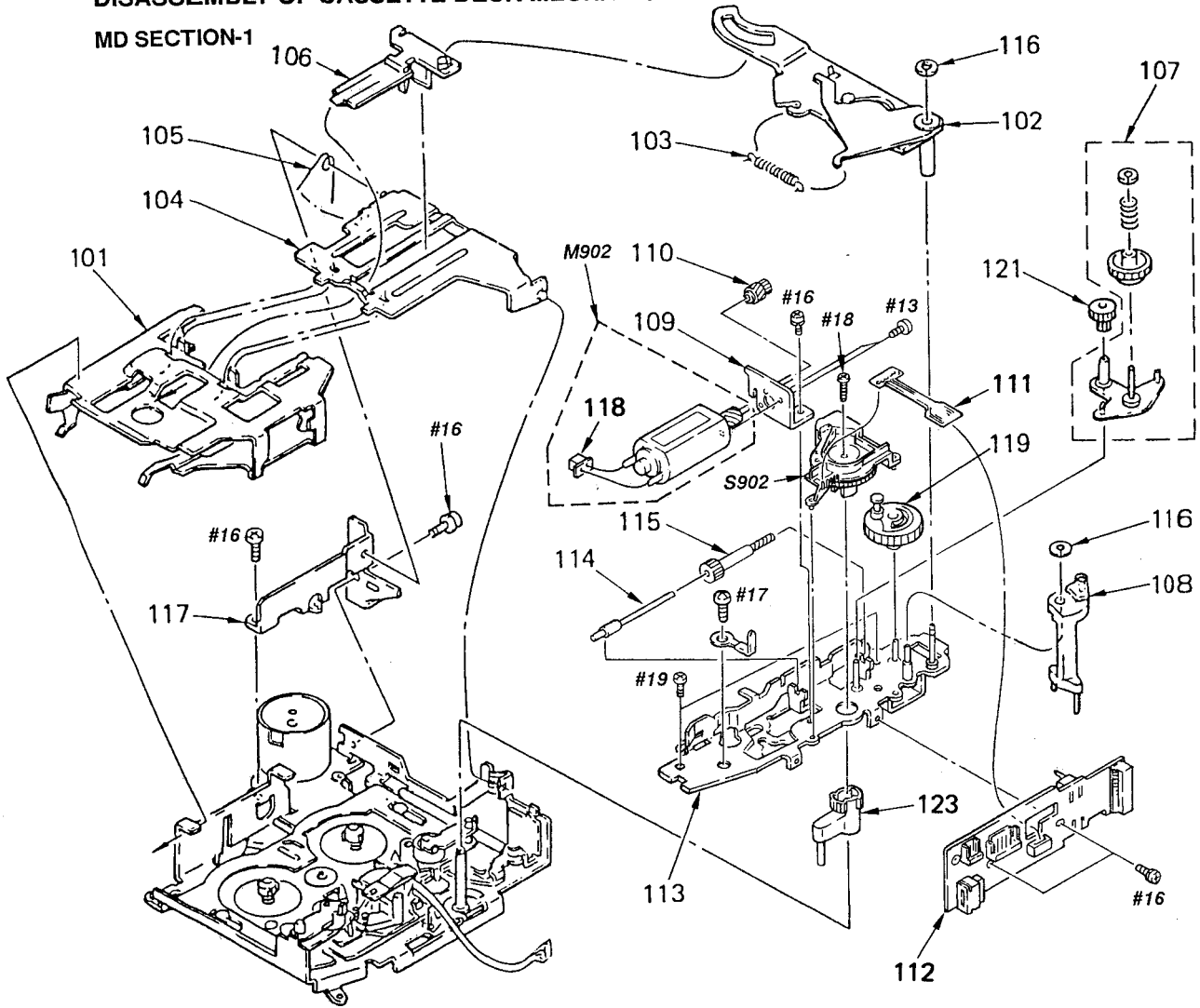


PARTS LIST OF EXPLODED VIEW

Ref. No.	Add.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Add.	Part No.	Part Name	Remarks	Q'ty
1		1U-2552	Main Unit Ass'y	U.S.A.model	1 ^S	49	2-C	116 0024 006	Blind Sheet (C)		1
1		1U-2552 D	Main Unit Ass'y	Europe model	1 ^S	50	2-C	143 0861 009	Knob Filter		1
1-1	5-E	—	Main Unit		(1)	51	2-B	415 0712 008	Illumi Sheet		1
1-2	3-B	—	Front Panel Unit		(1)	52	2-C	415 0714 006	Reflection Sheet		1
1-3	7-D	—	14 - 18P Conn. Unit		(1)	53	3-B	143 0858 106	Knob Lens		1
1-4	7-C	—	Mecha. Conn. Unit		(1)	54	1-C	461 0541 007	Cushion		1
1-5	4-E	—	VR Unit		(1)	55	3-F	143 0851 006	Cassette Lid		1
1-6	4-F	—	15P Conn. Unit		(1)	56	2-D	403 0055 005	Support Plate		1
★ 2		254 6177 709	Chemicon 3300μF/16 V	C801	1	57	3-C	414 0702 002	LCD Frame		1
★ 3		393 0105 014	Lamp Ass'y	U.S.A.model	2	58	4-C	415 0709 008	Insulating Sheet		1
★ 3		393 0105 027	Lamp Ass'y	Europe model	2	★ 59		393 0102 020	Lamp Ass'y	U.S.A. model	5
4	6-E	216 0091 009	FM/AM Tuner Pack	U.S.A.model	1	★ 59		393 0102 017	Lamp Ass'y	Europe model	5
4	6-E	216 0090 000	FM/AM Tuner Pack	Europe model	1	60	7-B	461 0330 069	Rubber Cushion		1
5	4-C	393 6003 107	LCD(SLU1875) Ass'y		1	61	7-D	461 0822 001	Cushion		1
6	3-B	212 0347 007	Rotary Encoder		1	62	3-G	463 0631 007	Spring		1
7	4-C	143 0846 202	LCD Lens		1	SCREWS					
8	6-D	412 3680 002	IC Holder		1	71	5-A	473 7001 006	Tapping Screw(S)2.6x5		22
9	10-B	203 6410 002	4 P Jack Cord Ass'y		1	72	3-C	473 7506 006	Tapping Screw(S)2x5		5
10	11-C	203 4938 007	Ant. Cord Ass'y		1	73	4-B	473 7507 005	Tapping Screw(S)2x8	Black	4
11	10-C	204 6418 007	13-18 P DIN Cord Ass'y		1	74	2-G	473 7016 020	Tapping Screw(S)2.6x5	Black	3
12	9-E	417 0481 102	Radiator		1	75	9-E	471 3204 018	Bind Screw 2x8		2
13	8-D	412 3684 008	Conn. Bracket		1	76	10-D	473 7505 010	Tapping Screw (P) 2.6x6		1
14	4-D	411 1238 000	Side Chassis(R)		1	77	5-F	475 1003 006	Washer φ3		1
15	7-F	411 1239 009	Side Chassis(L)		1	78					
16	4-F	411 1237 001	Front Chassis		1	PACKING & ACCESSORIES					
17	2-F	146 1458 300	Front Plate Ass'y		1	101		GEN 2410	Envelope Sub Ass'y	U.S.A. model	1 ^S
18	2-F	431 0348 102	Panel Holder		1	101		GEN 2491	Envelope Sub Ass'y	Europe model	1 ^S
19	2-F	412 3682 204	Lock Bracket		2	101-1		505 0061 007	Envelope		1
20	2-F	463 0747 001	Spring A		2	101-2		511 2489 103	Inst. Manual	U.S.A. model	1
21	3-F	463 0765 009	Spring		1	101-2-1		511 2514 007	Inst. Manual	Europe model	1
22	3-G	146 1084 114	Door Push Knob		1	101-2-2		511 2530 007	Inst. Manual	Europe model	1
23	5-C	412 3681 108	Deck Bracket		1	101-3		515 0333 305	DAI Warranty Car	U.S.A. model only	1
24	5-B	338 0167 000	MG-55L2-31 Mecha.Ass'y		1	101-4		515 0337 204	Custom Card	U.S.A. model only	1
25	6-C	477 0210 003	Push Rivet		2	101-5		505 0240 006	Envelope Ass'y		1
26	2-C	146 1457 301	Front Panel Ass'y	U.S.A.model	1	101-5-1		505 0099 082	Poly Cover		1
26	2-C	146 1457 327	Front Panel Ass'y	Europe model	1	101-5-2		475 6010 007	Nut M5		2
27		113 1603 304	Preset Button	U.S.A. model	1	101-5-3		475 1006 003	Washer 5		2
27		113 1627 005	Preset Button	Europe model	1	101-5-4		477 0271 006	Special Bolt		1
28	2-B	113 1604 002	Up Button		1	101-5-5		477 0291 006	Hex.Hole T. Screw 5x20		1
29	2-B	113 1605 001	Down Button		1	101-6		443 1186 007	Hook Bar		2
30	1-B	113 1608 202	Function Button		1	102		204 6419 103	16 P Wire Ass'y		1
31	3-C	113 1607 106	EJ Button		1	103		505 0099 024	Poly Cover	for let	1
32	2-C	113 1609 007	Mode Button	U.S.A.model	1	104		503 108	1 006	Cushion Ass'y	1
32	2-C	113 1609 023	Mode Button	Europe model	1	105		412 2036 000	Metal Mount Strap		1
33	3-C	113 1610 009	CLK Button		1	106		505 0061 007	Envelope	for carry Case	1
34	3-D	431 0349 305	Release Lever		1	107		522 0007 008	Carry Case		1
35	3-D	113 1606 000	Release Button		1	108		501 1699 007	Ind.Carton	U.S.A. model	1
36	3-D	412 3683 009	Release Bracket		1	108		501 1699 023	Ind.Carton	Europe model	1
37	3-C	463 0748 000	Spring B		1	109		501 1388 062	Master Carton	U.S.A. model	1/4
38	3-B	146 1471 002	Front Cover Ass'y		1	109		501 1388 088	Master Carton	Europe model	1/4
39	1-C	112 0730 000	Volume Knob		1	110		—	—		
40	6-F	415 0701 006	Insulating Sheet		1	111		—	—		
41	6-G	412 3288 116	Cover		1	112		515 0480 009	DENON Card	Europe model only	1
42	8-C	412 3288 103	Cover		1	113		505 0027 009	Poly Cover	Europe model only	1
43	3-D	461 0704 006	Snap Plate		2	114		513 1542 005	Serial No. Sheet	Europe model only	1
44	2-G	146 1455 109	Frame		1	115		513 1908 050	License Label	Europe model only	1
45	8-A	513 2112 007	Rating Sheet		1	115		513 2174 003	Patent Label	U.S.A. model only	1
46	9-G	412 2870 004	Sleeve Ass'y		1	116		513 2159 002	Green Point Label	Europe model only	1
★ 47		415 0453 008	RCA Cap		4	117					
48	4-G	431 0355 108	Panel Holder (R)		1						

DISASSEMBLY OF CASSETTE DECK MECHANISM

MD SECTION-1



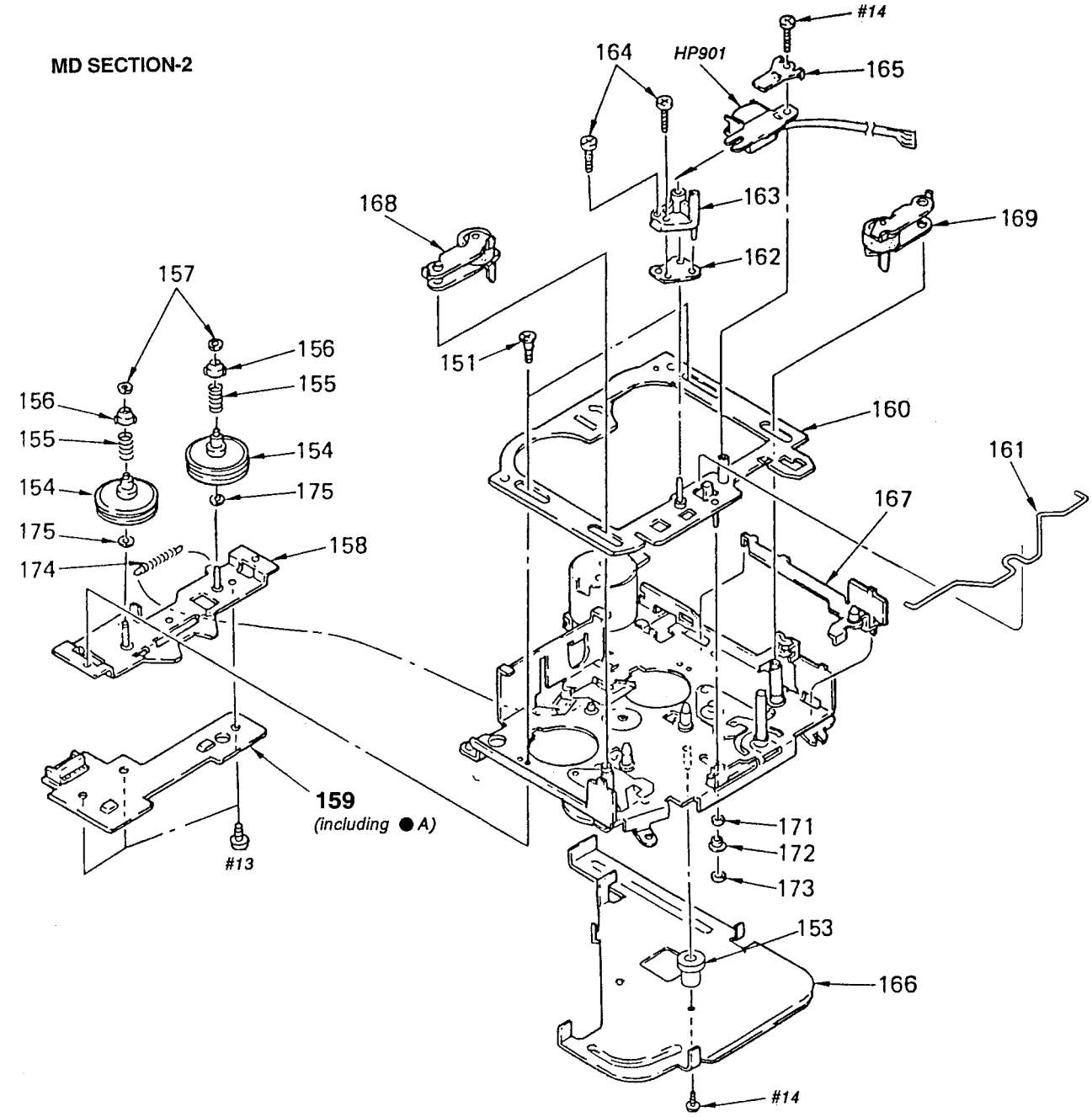
Ref. No.	Add.	Part No.	Part Name	Remarks
12		S76 2410 404	Stop Ring 2.0 Type-E	
13	3-B	S76 2755 407	Screw, precision +P 2x2.2	
14		S76 2785 018	Screw, precision +P 1.4x2.5	
15		S76 2785 067	Screw, precision +P 1.4x4	
16	1-C	S76 2825 305	Screw +PS 2x4	

Ref. No.	Add.	Part No.	Part Name	Remarks
17	3-C	S76 2125 925	Screw +P 2.6x4	
18	3-B	S76 2125 565	Screw +P 2.6x10	
19	3-C	S37 0350 221	Screw +PWH 1.4x2.5	
20		S76 2410 204	E Ring 1.5	
		S15 7095 311	Push Switch (2-1-1)	

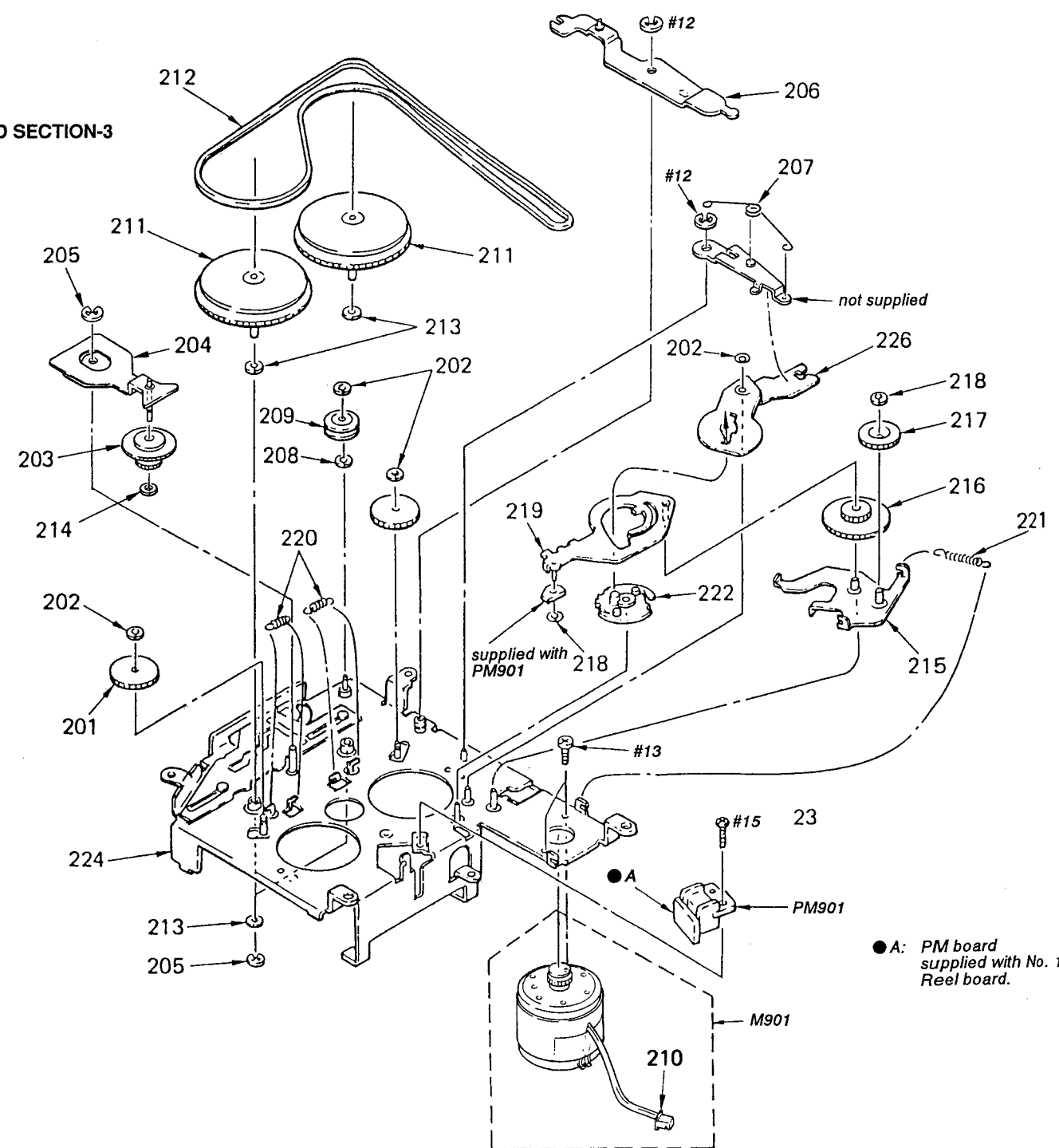
Ref. No.	Add.	Part No.	Part Name	Remarks
101	1-B	S33 4410 321	Housing Cassette	
102	3-B	SX3 3441 211	Arm Ass'y Suction	
103	3-B	S33 4421 601	Spring(Suction Arm) Tension	
104	1-B	SX3 3622 621	Hanger(F) Ass'y Housing	
105	1-B	S33 4411 303	Spring	
106	1-A	S33 4411 801	Catcher	
107	4-B	SA3 2399 54A	Gear Ass'y Drive Arm	
107-1		SX3 3441 094	Drive Arm Ass'y	
107-2		S33 4416 502	Friction Gear	
107-3		S33 4413 701	Coil Spring	
107-4		S33 6205 800	Slit Washer	
108	4-C	S33 4426 002	Arm Reverse	
109	3-B	S33 3441 422	Bracket Ass'y Motor	
110	3-B	S33 4428 101	Gear (A) Driving	
111	3-B	S16 3856 311	Switch Flexible Board	

Ref. No.	Add.	Part No.	Part Name	Remarks
112	3-D	S16 3856 211	Switch Board	
113	3-D	SX3 3622 603	Chassis (F) Ass'y MCU	
114	2-C	S33 4415 703	Shaft Driving Gear (B)	
115	2-C	S33 4415 601	Gear (B) Driving	
116	3-A	S33 4422 201	Washer	
117	1-C	S33 6823 913	Bracket Hanger	
118	2-B	S15 6347 011	Housing Connector 2 P	
119	3-C	SX3 3441 191	Gear Ass'y Loading Cam	
120		—	—	
121	4-B	S33 4410 801	Gear (A) Friction	
122		—	—	
123	3-D	SX3 3441 171	Arm Ass'y Mode	
M902	3-C	SA3 2399 56B	Motor Sub Ass'y L	
S902	3-C	S15 7239 711	Switch Rotary Slide	

MD SECTION-2



MD SECTION-3



Ref. No.	Add.	Part No.	Part Name	Remarks
151	3-B	S33 4411 001	Screw (HB) Step	
152				
153	3-D	S33 4425 101	Retainer Mode Lever	
154	1-C	SX3 3622 135	Table(L) Ass'y Reel	
155	1-C	S33 4414 301	Spring (BT) Compression	
156	1-C	S33 6572 501	Cap (F) Reel	
157	1-B	S33 6415 101	Washer	
158	2-C	SX3 3633 421	Bracket Ass'y Reel Table	
159	2-D	S16 2441 211	Reel Board	
160	3-C	SX3 3622 611	Base Ass'y(R) Head	
161	4-C	S33 6390 901	Spring(Rattle) Pinch Press	
162	3-B	S33 4412 801	Seam DAH	
163	3-B	S33 4412 702	Arm DAH	

Ref. No.	Add.	Part No.	Part Name	Remarks
164	3-B	S33 6412 201	Screw (M 1.4x5.5) Adj.	
165	3-A	S33 4413 001	Retainer Head	
166	3-D	S33 4422 001	Cover MD	
167	3-C	SX3 3441 181	Lever Ass'y RVS Conversion	
168	2-B	SX3 3441 161	Arm(F) Ass'y Pinch	
169	4-B	SX3 3441 151	Arm(R) Ass'y Pinch	
170				
171	3-D	S33 4411 701	Roller(B) H/B	
172	3-D	S33 4411 601	Roller(A) H/B	
173	3-D	S33 4422 201	Washer	
174	1-C	S33 4421 701	Spring(Cam Lock Lever) Tension	
175	1-C	S37 0143 701	Poly-Washer φ1.2	
HP901	3-B	S15 4372 611	Head Magnetic(Playback)	

Ref. No.	Add.	Part No.	Part Name	Remarks
201	5-C	S33 4410 401	Gear Play	
202	5-C	S33 4422 201	Washer	
203	5-B	SX3 3441 021	Gear Ass'y FR	
204	5-B	SX3 3441 016	Arm Ass'y FR	
205	6-D	S33 6415 101	Ring(A) E	
206	7-A	SX3 3441 393	Arm Ass'y Power	
207	7-B	S33 4427 901	Spring Buffer	
208	6-C	S37 0143 601	Washer 1.6	
209	6-B	S33 4426 301	Pully(Ass'y) Midway	
210	7-E	S15 6347 011	Housing Connector 2 P	
211	6-B	S33 4426 111	Flywheel(M)	
212	6-A	S33 4411 501	Belt	
213	6-D	S37 0143 701	Poly-Slider	
214	5-C	S33 4422 401	Washer	
215	8-C	SX3 3441 061	Lever Ass'y RVS Gear(B)	

Ref. No.	Add.	Part No.	Part Name	Remarks
216	8-C	S33 3414 601	Gear(B) RVS	
217	8-B	S33 4414 701	Gear(A) RVS	
218	7-C	S33 4422 301	Washer	
219	7-C	SX3 3441 071	Lever Ass'y Cam Lock	
220	6-C	S33 4421 802	Spring(Play Arm) Tension	
221	8-C	S33 3421 501	Spring Tension	
222	7-C	S33 4411 901	Gear RVS Cam	
223				
224	6-D	SX3 3622 156	Chassis(L2) Ass'y Mechanical	
225				
226	7-B	SX3 3441 141	Lever Ass'y RVS	
M901	7-D	SX3 3441 361	Motor Sub Ass'y Capstan	
PM901	7-D	1-454-461-11	Solenoid Plunger	

NOTE FOR 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 "I" (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.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

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

Resistors

Ex.: $\frac{RN}{Type} \frac{14K}{Shape \text{ and performance}} \frac{2E}{Power} \frac{182}{Resist-ance} \frac{G}{Allowable error} \frac{FR}{Others}$

RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	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

$\frac{1}{1} \frac{8}{2} \frac{2}{2} \Rightarrow 1800 \text{ ohm} = 1.8 \text{ kohm}$
Indicates number of zeros after effective number.
2-digit effective number.
• Units: ohm

$\frac{1}{1} \frac{R}{2} \frac{2}{2} \Rightarrow 1.2 \text{ ohm}$
1-digit effective number.
2-digit effective number, decimal point indicated by R.
• Units: ohm

Capacity (electrolyte only)

$\frac{2}{2} \frac{2}{2} \frac{2}{2} \Rightarrow 2200\mu\text{F}$
Indicates number of zeros after effective number.
2-digit effective number.

• Units: μF .
 $\frac{2}{2} \frac{R}{2} \frac{2}{2} \Rightarrow 2.2\mu\text{F}$
1-digit effective number.
2-digit effective number, decimal point indicated by R.
• Units: μF .

Capacitors

Ex.: $\frac{CE}{Type} \frac{04W}{Shape \text{ and performance}} \frac{1H}{Dielectric strength} \frac{2R2}{Capacity} \frac{M}{Allowable error} \frac{BP}{Others}$

CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type
CO : 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 (except electrolyte)

$\frac{2}{2} \frac{2}{2} \frac{2}{2} \Rightarrow 2200\mu\text{F} = 0.0022\mu\text{F}$
(More than 2) Indicates number of zeros after effective number.
2-digit effective number.

• Units: μF .
 $\frac{2}{2} \frac{2}{2} \frac{1}{1} \Rightarrow 220\text{PF}$
(0 or 1) Indicates number of zeros after effective number.
2-digit effective number.

• Units: PF.
• When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

P.W.BOARD PARTS LIST
1U-2552 (U.S.A.) 1U-2552D (Europe) MAIN UNIT ASS'Y

Ref.No.	Part No.	Part Name	Remarks	Ref.No.	Part No.	Part Name	Remarks
SEMICONDUCTORS							
IC101	262 1826 001	IC HD404418	Mecha. Control	TR819	269 0083 901	Transistor DTA114EK	Built-in Resistor
IC102	263 0881 008	IC M54543ASL	Motor Drive	TR820	269 0048 904	Transistor DTC143EK	Built-in Resistor
IC201-205	263 0889 903	IC M5218AFP	OP Amp	TR901,902	269 0048 904	Transistor DTC143EK	Built-in Resistor
IC206	263 0884 005	IC LC7537AN	Volume	TR903	269 0047 905	Transistor DTA143EK	Built-in Resistor
IC301	262 1701 906	IC SAA6579T	RDS	TR904	269 0083 901	Transistor DTA114EK	Built-in Resistor
IC302	263 0614 903	IC LC7070NM	RDS	TR905	269 0085 909	Transistor DTC144TK	Built-in Resistor
IC401	263 0616 901	IC TC4S66F	2 Mode Loop	D101	276 0432 903	Diode 1SS270A	
IC402	263 0796 009	IC TC9216P		D201,202	276 0432 903	Diode 1SS270A	
IC403	263 0829 905	IC LA1862M	IF-NC-MPX	D402	276 0432 903	Diode 1SS270A	
IC501	263 0883 006	IC HA13150		D403	276 0438 949	Diode MA151WK	
IC601	263 0882 007	IC HA12174	Dolby	D502	276 0432 903	Diode 1SS270A	
IC602	262 0714 907	IC TC4066BF	Audio Changeable	D601	276 0438 949	Diode MA151WK	
IC603	263 0660 902	IC M5280FP		D801-803	276 0548 910	Diode DSM1D2(Type-3)	
IC604	263 0889 903	IC M5218AFP	OP Amp	D804,805	276 0432 903	Diode 1SS270A	
IC702	262 1605 905	IC PCF8576T	LCD	D808,809	276 0432 903	Diode 1SS270A	
IC703	499 0198 002	IC IS1U60L	Remocon Receiver	D810	276 0438 949	Diode MA151WK	
IC901	262 1825 109	IC μ PD78044-037-3B9	Main Control	ZD101	276 0471 906	Zener Diode HZS11B-1	11V
			(U.S.A. model)	ZD201,202	276 0459 902	Zener Diode HZS5B-1	5V
IC901	262 1855 001	IC μ PD78044-041-3B9	Main Control	ZD601-603	276 0469 905	Zener Diode HZS9C-1	9V
			(Europe model)	ZD706,707	276 0615 908	Zener Diode 02CZ7.5Y	7.5V
IC902	262 1816 901	IC NJU3713G	SRAM	ZD716	276 0481 909	Zener Diode HZS24-1	24V
IC903	262 1703 904	IC LC3517AML-15	Reset	ZD801	276 0457 904	Zener Diode HZS4C-1	4V
IC904	263 0423 000	IC M51953B		ZD802-807	276 0466 908	Zener Diode HZS7C-1	7V
TR101	272 0080 900	Transistor 2SB956(R)		ZD808	276 0469 905	Zener Diode HZS9C-1	9V
TR102	269 0082 902	Transistor DTC114EK	Built-in Resistor	ZD809	276 0462 902	Zener Diode HZS6B-1	6V
TR103	274 0165 902	Transistor 2SD1758(R)		ZD810	276 0454 907	Zener Diode HZS3C-1	3V
TR104	269 0083 901	Transistor DTA114EK	Built-in Resistor	ZD812	276 0462 902	Zener Diode HZS6B-1	6V
TR105	269 0082 902	Transistor DTC114EK	Built-in Resistor	ZD901-904	276 0615 908	Zener Diode 02CZ7.5Y	7.5V
TR106	274 0114 908	Transistor 2SD874(R)		ZD911	276 0464 900	Zener Diode HZS7A-1	7V
TR201-204	269 0103 904	Transistor DTC314TK	Built-in Resistor	ZD912-917	276 0615 908	Zener Diode 02CZ7.5Y	7.5V
TR402	273 0384 900	Transistor 2SC2412K(S)		ZD919	276 0615 908	Zener Diode 02CZ7.5Y	7.5V
TR403	269 0082 902	Transistor DTC114EK	Built-in Resistor	ZD920	276 0464 900	Zener Diode HZS7A-1	7V
TR404,405	273 0384 900	Transistor 2SC2412K(S)		LD401	393 9401 900	LED SEL2210R	Red
TR406	274 0165 902	Transistor 2SD1758(R)		LD701	393 6003 107	LCD (SLU1875)	
TR408	271 0260 905	Transistor 2SA1036K(S/R)		RESISTORS GROUP			
TR409	269 0048 904	Transistor DTC143EK	Built-in Resistor	R001,002	241 2398 997	Carbon Film 1.5kohm 1/4W	RD14B2E152J(5)
TR410	271 0238 908	Transistor 2SA1037K(S/R)		R101	247 0011 944	Chip Carbon 47kohm 1/10W	RM73B--473J
TR411	269 0048 904	Transistor DTC143EK	Built-in Resistor	R102/	247 0008 928	Chip Carbon 2.2kohm 1/10W	RM73B--222J
TR412	273 0384 900	Transistor 2SC2412K(S)		R103-105	241 2397 956	Carbon Film 360ohm 1/4W	RD14B2E361J(5)
TR413	269 0115 905	Transistor DTA115EK	Built-in Resistor	R107	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J
TR414-418	269 0054 901	Transistor DTC144EK	Built-in Resistor	R108,109	241 2393 905	Carbon Film 4.7ohm 1/4W	RD14B2E47J(5)
TR419	269 0054 901	Transistor DTC144EK	Built-in Resistor	R110,111	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J
			(Europe model only)	R112,113	247 0011 928	Chip Carbon 39kohm 1/10W	RM73B--393J
TR420	269 0048 904	Transistor DTA114EK	Built-in Resistor	R114	247 0008 986	Chip Carbon 3.9kohm 1/10W	RM73B--392J
			(Europe model only)	R116-121	247 0012 927	Chip Carbon 100kohm 1/10W	RM73B--104J
TR501	269 0083 901	Transistor DTA114EK	Built-in Resistor	R122,123	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J
TR502	269 0048 904	Transistor DTC143EK	Built-in Resistor	R124	247 0014 967	Chip Carbon 1Mohm 1/10W	RM73B--105J
TR601-603	269 0048 904	Transistor DTC143EK	Built-in Resistor	R135	241 2398 955	Carbon Film 1kohm 1/4W	RD14B2E102J(5)
TR701	269 0085 909	Transistor DTC144TK	Built-in Resistor	R201,202	247 0014 967	Chip Carbon 1Mohm 1/10W	RM73B--105J
TR802	273 0384 900	Transistor 2SC2412K(S)		R203,204	247 0007 990	Chip Carbon 1.6kohm 1/10W	RM73B--162J
TR803	274 0114 908	Transistor 2SD874R		R205-208	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J
TR804	272 0127 902	Transistor 2SB1182(R)		R209-212	247 0014 967	Chip Carbon 1Mohm 1/10W	RM73B--105J
TR805	269 0082 902	Transistor DTC114EK	Built-in Resistor	R213,214	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J
TR806	269 0047 905	Transistor DTA143EK	Built-in Resistor	R215-218	247 0014 967	Chip Carbon 1Mohm 1/10W	RM73B--105J
TR807	269 0048 904	Transistor DTC143EK	Built-in Resistor	R219-222	247 0011 944	Chip Carbon 47kohm 1/10W	RM73B--473J
TR808	272 0127 902	Transistor 2SB1182(R)		R223,224	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J
TR809	269 0082 902	Transistor DTC114EK	Built-in Resistor	R225,226	247 0010 945	Chip Carbon 18kohm 1/10W	RM73B--183J
TR810	269 0047 905	Transistor DTA143EK	Built-in Resistor	R227-230	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J
TR811	269 0048 904	Transistor DTC143EK	Built-in Resistor	R231,232	247 0010 945	Chip Carbon 18kohm 1/10W	RM73B--183J
TR812	269 0106 901	Transistor DTA144TK	Built-in Resistor	R233-236	247 0006 962	Chip Carbon 470ohm 1/10W	RM73B--471J
TR813	269 0047 905	Transistor DTA143EK	Built-in Resistor				
TR814	272 0082 005	Transistor 2SB968(R)					
TR815	274 0165 902	Transistor 2SD1758(R)					

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R237-240	247 0011 944	Chip Carbon 47kohm 1/10W	RM73B--473J	R448	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J
R241-243	247 0008 915	Chip Carbon 2kohm 1/10W	RM73B--202J	R450	241 2400 995	Carbon Film 10kohm 1/4W	RD14B2E103J(5)
R245-248	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J	R451	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J
R249	247 0012 927	Chip Carbon 100kohm 1/10W	RM73B--104J	R460	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J
R250-252	247 0010 961	Chip Carbon 22kohm 1/10W	RM73B--223J	R499	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J
R253	247 0005 905	Chip Carbon 100ohm 1/10W	RM73B--101J	R513-516	247 0009 930	Chip Carbon 6.2kohm 1/10W	RM73B--622J
R301	247 0013 900	Chip Carbon 220kohm 1/10W	RM73B--224J	R517-520	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J
R302	247 0008 928	Chip Carbon 2.2kohm 1/10W	RM73B--222J	R527	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J
R303-306	247 0011 944	Chip Carbon 47kohm 1/10W	RM73B--473J	R528	241 2398 997	Carbon Film 1.5kohm 1/4W	RD14B2E152J(5)
R402	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J	R601,602	247 0005 963	Chip Carbon 180ohm 1/10W	RM73B--181J
R403	247 0010 916	Chip Carbon 13kohm 1/10W	RM73B--133J	R603,604	247 0013 942	Chip Carbon 330kohm 1/10W	RM73B--334J
R404	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J	R605-608	247 0010 929	Chip Carbon 15kohm 1/10W	RM73B--153J
R405	247 0006 962	Chip Carbon 470ohm 1/10W	RM73B--471J	R609,610	247 0008 928	Chip Carbon 2.2kohm 1/10W	RM73B--222J
R406	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J	R611,612	247 0010 961	Chip Carbon 22kohm 1/10W	RM73B--223J
R407	247 0008 944	Chip Carbon 2.7kohm 1/10W	RM73B--272J	R613,614	247 0006 988	Chip Carbon 560ohm 1/10W	RM73B--561J
R408	247 0006 988	Chip Carbon 560ohm 1/10W	RM73B--561J (U.S.A. model)	R617,618	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J
R408	247 0008 915	Chip Carbon 2kohm 1/10W	RM73B--202J (Europe model)	R619,620	247 0010 916	Chip Carbon 13kohm 1/10W	RM73B--133J
R409	247 0003 949	Chip Carbon 22ohm 1/10W	RM73B--220J	R621,622	247 0010 958	Chip Carbon 20kohm 1/10W	RM73B--203J
R410-412	247 0012 927	Chip Carbon 100kohm 1/10W	RM73B--104J	R623	247 0010 945	Chip Carbon 18kohm 1/10W	RM73B--183J
R413	247 0018 905	Chip Carbon 0ohm 1/10W	RM73B--0R0K	R624-630	247 0010 961	Chip Carbon 22kohm 1/10W	RM73B--223J
R414	247 0006 946	Chip Carbon 390ohm 1/10W	RM73B--391J	R632,633	247 0013 942	Chip Carbon 330kohm 1/10W	RM73B--334J
R415	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J	R634	247 0011 944	Chip Carbon 47kohm 1/10W	RM73B--473J
R416	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J	R635	247 0011 902	Chip Carbon 33kohm 1/10W	RM73B--333J
R417	247 0005 905	Chip Carbon 100ohm 1/10W	RM73B--101J	R636	247 0010 945	Chip Carbon 18kohm 1/10W	RM73B--183J
R418	247 0006 920	Chip Carbon 330ohm 1/10W	RM73B--331J	R637,638	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J
R419	247 0004 993	Chip Carbon 91ohm 1/10W	RM73B--910J	R639,640	247 0011 944	Chip Carbon 47kohm 1/10W	RM73B--473J
R420	247 0006 920	Chip Carbon 330ohm 1/10W	RM73B--331J	R641	247 0012 927	Chip Carbon 100kohm 1/10W	RM73B--104J
R421,422	247 0008 928	Chip Carbon 2.2kohm 1/10W	RM73B--222J	R642	247 0018 905	Chip Carbon 0ohm 1/10W	RM73B--0R0K
R423	247 0005 905	Chip Carbon 100ohm 1/10W	RM73B--101J	R643,644	247 0010 916	Chip Carbon 13kohm 1/10W	RM73B--133J
R425	247 0006 920	Chip Carbon 330ohm 1/10W	RM73B--331J	R645,646	247 0009 998	Chip Carbon 11kohm 1/10W	RM73B--113J (U.S.A. model)
R426	247 0008 986	Chip Carbon 3.9kohm 1/10W	RM73B--392J	R645,646	247 0009 969	Chip Carbon 8.2kohm 1/10W	RM73B--822J (Europe model)
R427	247 0008 960	Chip Carbon 3.3kohm 1/10W	RM73B--332J (U.S.A. model)	R647,648	247 0009 927	Chip Carbon 5.6kohm 1/10W	RM73B--562J
R427	247 0011 902	Chip Carbon 33kohm 1/10W	RM73B--333J (Europe model)	R653	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J
R428	247 0010 961	Chip Carbon 22kohm 1/10W	RM73B--223J (U.S.A. model)	R701	247 0012 985	Chip Carbon 180kohm 1/10W	RM73B--184J
R428	247 0012 927	Chip Carbon 100kohm 1/10W	RM73B--104J (Europe model)	R702,703	247 0018 905	Chip Carbon 0ohm 1/10W	RM73B--0R0K
R429	247 0007 987	Chip Carbon 1.5kohm 1/10W	RM73B--152J	R706	247 0005 947	Chip Carbon 150ohm 1/10W	RM73B--151J
R430	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J	R707	247 0006 959	Chip Carbon 430ohm 1/10W	RM73B--431J
R431	247 0009 927	Chip Carbon 5.6kohm 1/10W	RM73B--562J	R708	247 0007 958	Chip Carbon 1.1kohm 1/10W	RM73B--112J
R432	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J	R709	247 0007 974	Chip Carbon 1.3kohm 1/10W	RM73B--132J
R433	247 0008 986	Chip Carbon 3.9kohm 1/10W	RM73B--392J (U.S.A. model)	R710	247 0008 986	Chip Carbon 3.9kohm 1/10W	RM73B--392J
R433	247 0009 930	Chip Carbon 6.2kohm 1/10W	RM73B--622J (Europe model)	R711	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J
R434	247 0009 972	Chip Carbon 9.1kohm 1/10W	RM73B--912J (U.S.A. model)	R712	247 0005 947	Chip Carbon 150ohm 1/10W	RM73B--151J
R434	247 0009 969	Chip Carbon 8.2kohm 1/10W	RM73B--822J (Europe model)	R713	247 0005 963	Chip Carbon 180ohm 1/10W	RM73B--181J
R435	247 0010 932	Chip Carbon 16kohm 1/10W	RM73B--163J	R714	247 0006 904	Chip Carbon 270ohm 1/10W	RM73B--271J
R436	247 0009 969	Chip Carbon 8.2kohm 1/10W	RM73B--822J	R715	247 0006 946	Chip Carbon 390ohm 1/10W	RM73B--391J
R437	247 0011 957	Chip Carbon 51kohm 1/10W	RM73B--513J	R716	247 0007 903	Chip Carbon 680ohm 1/10W	RM73B--681J
R438	247 0009 943	Chip Carbon 6.8kohm 1/10W	RM73B--682J	R717	247 0007 974	Chip Carbon 1.3kohm 1/10W	RM73B--132J
R439	247 0009 956	Chip Carbon 7.5kohm 1/10W	RM73B--752J	R719	247 0005 947	Chip Carbon 150ohm 1/10W	RM73B--151J (U.S.A. model)
R440	247 0012 927	Chip Carbon 100kohm 1/10W	RM73B--104J	R719	247 0006 920	Chip Carbon 330ohm 1/10W	RM73B--331J (Europe model)
R441	247 0011 902	Chip Carbon 33kohm 1/10W	RM73B--333J	R720	247 0007 929	Chip Carbon 820ohm 1/10W	RM73B--821J (U.S.A. model)
R442,443	247 0011 944	Chip Carbon 47kohm 1/10W	RM73B--473J	R720	247 0007 903	Chip Carbon 680ohm 1/10W	RM73B--681J (Europe model)
R444	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J	R721	247 0007 903	Chip Carbon 680ohm 1/10W	RM73B--681J
R445	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J	R722	247 0007 974	Chip Carbon 1.3kohm 1/10W	RM73B--132J
R446	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J	R723	247 0008 986	Chip Carbon 3.9kohm 1/10W	RM73B--392J
R447	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J	R726	241 2394 962	Carbon Film 22ohm 1/4W	RD14B2E220J
				R727,728	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J
				R801	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J
				R802,803	247 0012 927	Chip Carbon 100kohm 1/10W	RM73B--104J
				R804-808	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R809,810	247 0012 927	Chip Carbon 100kohm 1/10W	RM73B--104J	C233,234	257 0014 935	C.Ceramic 0.1µF/25V	CK73F1E104Z
R811,812	247 0005 905	Chip Carbon 100ohm 1/10W	RM73B--101J	C235,236	254 4300 963	Electrolytic 100µF/6.3V	CE04W0J101M(SRE)
R813	247 0010 958	Chip Carbon 20kohm 1/10W	RM73B--203J	C238	257 0012 982	C.Ceramic 0.022µF/50V	CK73F1H223Z
R814	241 2397 969	Carbon Film 390ohm 1/4W	RD14B2E391J(5)	C239,240	257 0008 983	C.Ceramic 1000pF/50V	CK73B1H102K
R816	247 0008 928	Chip Carbon 2.2kohm 1/10W	RM73B--222J	C245	254 4299 906	Electrolytic 10µF/16V	CE04W1C100M(SRE)
R817	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J	C301	257 0008 954	C.Ceramic 560pF/50V	CK73B1H561K
R818,819	241 2398 997	Carbon Film 1.5kohm 1/4W	RD14B2E152J(5)	C302	257 0004 961	C.Ceramic 100pF/50V	CC73SL1H101J
R820	241 2396 999	Carbon Film 200ohm 1/4W	RD14B2E201J(5)	C303	254 4304 901	Electrolytic 2.2µF/35V	CE04W1V2R2M(SRE)
R821,822	241 2398 997	Carbon Film 1.5kohm 1/4W	RD14B2E152J(5)	C304	257 0014 935	C.Ceramic 0.1µF/25V	CK73F1E104Z
R823	241 2396 999	Carbon Film 200ohm 1/4W	RD14B2E201J(5)	C305	257 0003 988	C.Ceramic 47pF/50V	CC73SL1H470J
R824,825	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J	C306	257 0004 945	C.Ceramic 82pF/50V	CC73SL1H820J
R827	241 2387 908	Carbon Film 1ohm 1/4W (N.B)	RD14B2E010JNBS	C307,308	257 0003 933	C.Ceramic 30pF/50V	CC73SL1H300J
R839,840	241 2398 997	Carbon Film 1.5kohm 1/4W	RD14B2E152J(5)	C309,310	257 0014 935	C.Ceramic 0.1µF/25V	CK73F1E104Z
R842	241 2397 969	Carbon Film 390ohm 1/4W	RD14B2E391J(5)	C311	257 0012 982	C.Ceramic 0.022µF/50V	CK73F1H223Z
R817	247 0005 905	Chip Carbon 100ohm 1/10W	RM73B--101J	C403	257 1013 993	C.Ceramic 0.1µF/25V	CK73B1E104K
R919	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J	C404	257 0010 900	C.Ceramic 0.01µF/50V	CK73B1H103K
R921	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J	C405	257 1011 982	C.Ceramic 0.047µF/50V	CK73B1H473K
R922	247 0012 927	Chip Carbon 100kohm 1/10W	RM73B--104J	C406	254 4304 901	Electrolytic 2.2µF/35V	CE04W1V2R2M(SRE)
R923--925	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J	C406	254 4305 968	Electrolytic 1µF/50V	(U.S.A. model) CE04W1H010M(SRE)
R926,927	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J	C407	257 0010 955	C.Ceramic 0.027µF/50V	(Europe model) CK73B1H273K
R937	247 0009 901	Chip Carbon 4.7kohm 1/10W	RM73B--472J	C408	257 0004 961	C.Ceramic 100pF/50V	CC73SL1H101J
R938	247 0005 905	Chip Carbon 100ohm 1/10W	RM73B--101J	C409	254 4302 958	Electrolytic 47µF/10V	CE04W1A470M(SRE)
R939	247 0002 966	Chip Carbon 10ohm 1/10W	RM73B--100J	C410,411	257 0016 917	C.Ceramic 22pF/50V	CC73CH1H220J
R940--947	247 0010 961	Chip Carbon 22kohm 1/10W	RM73B--223J	C412--414	257 0012 966	C.Ceramic 0.01µF/50V	CK73F1H103Z
R948	247 0010 987	Chip Carbon 27kohm 1/10W	RM73B--273J	C415	257 0013 907	C.Ceramic 0.047µF/50V	CK73F1H473Z
R950,951	247 0010 987	Chip Carbon 27kohm 1/10W	RM73B--273J	C416	257 0008 983	C.Ceramic 100pF/50V	CK73B1H102K
R963	247 0007 945	Chip Carbon 10kohm 1/10W	RM73B--103J	C417,418	254 4305 968	Electrolytic 1µF/50V	CE04W1H010M(SRE)
R965,966	247 0011 944	Chip Carbon 47kohm 1/10W	RM73B--473J	C419	257 0017 903	C.Ceramic 12pF/50V	CC73RH1H120J
R967	247 0010 961	Chip Carbon 22kohm 1/10W	RM73B--223J	C420	254 4305 968	Electrolytic 1µF/50V	CE04W1H010M(SRE)
R969	247 0011 944	Chip Carbon 47kohm 1/10W	RM73B--473J	C421	254 4304 901	Electrolytic 2.2µF/35V	CE04W1V2R2M(SRE)
R970	247 0007 945	Chip Carbon 1kohm 1/10W	RM73B--102J	C422	257 0009 924	C.Ceramic 2200pF/50V	(Europe model only) CK73B1H222K
R971	247 0008 915	Chip Carbon 2kohm 1/10W	RM73B--202J	C423	254 4305 926	Electrolytic 0.22µF/50V	CE04W1HR2M(SRE)
R975	247 0009 985	Chip Carbon 10kohm 1/10W	RM73B--103J	C424	254 4305 968	Electrolytic 1µF/50V	CE04W1H010M(SRE)
R977--984	247 0001 909	Chip Carbon 2.2ohm 1/10W	RM73B--2R2K	C425	257 0010 900	C.Ceramic 0.01µF/50V	CK73B1H103K
R985,986	247 0010 961	Chip Carbon 22kohm 1/10W	RM73B--223J	C426	254 4305 968	Electrolytic 1µF/50V	CE04W1H010M(SRE)
R988	247 0013 942	Chip Carbon 330kohm 1/10W	RM73B--334J	C427	257 0003 933	C.Ceramic 30pF/50V	CC73SL1H300J
R989--991	247 0011 944	Chip Carbon 47kohm 1/10W	RM73B--473J	C428	254 4305 942	Electrolytic 0.47µF/50V	CE04W1HR4M(SRE)
R992--999	247 0005 905	Chip Carbon 100ohm 1/10W	RM73B--101J	C429	257 0010 900	C.Ceramic 0.01µF/50V	CK73B1H103K
VR401	211 6077 912	Semi Fixed VR 20kohm	V06PB203	C430	257 0013 907	C.Ceramic 0.047µF/50V	CK73F1H473K
VR402	211 6077 983	Semi Fixed VR 47kohm	V06PB473	C431	254 4302 958	Electrolytic 47µF/10V	CE04W1A470M(SRE)
VR403	211 6077 954	Semi Fixed VR 22kohm	V06PB223	C432	257 0009 940	C.Ceramic 3300pF/50V	CK73B1H332K
VR404	211 6077 938	Semi Fixed VR 100kohm	V06PB104	C433	257 0009 982	C.Ceramic 6800pF/50V	CK73B1H682K
VR601,602	211 6077 925	Semi Fixed VR 10kohm	V06PB103	C434	257 0009 979	C.Ceramic 5600pF/50V	CK73B1H562K
CAPACITORS GROUP				C435	257 1013 993	C.Ceramic 0.1µF/25V	CK73B1E104K
C101	254 4254 077	Electrolytic 470µF/16V	CE04W1C471M(SME)	C436	254 4299 922	Electrolytic 4.7µF/16V	CE04W1C47M(SRE)
C102,103	254 4299 951	Electrolytic 33µF/16V	CE04W1C330M(SRE)	C437,438	257 0011 967	C.Ceramic 0.033µF/25V	CK73B1E333K
C104	257 0012 982	C.Ceramic 0.022µF/50V	CK73F1H223Z	C437,438	257 0010 942	C.Ceramic 0.022µF/50V	CK73B1H223K
C105	254 4299 906	Electrolytic 10µF/16V	CE04W1C100M(SRE)	C439	257 0010 900	C.Ceramic 0.01µF/50V	CK73B1H103K
C106--109	257 0012 982	C.Ceramic 0.022µF/50V	CK73F1H223Z	C440	257 0010 942	C.Ceramic 0.022µF/50V	CK73B1H223K
C110,111	257 0003 933	C.Ceramic 30pF/50V	CC73SL1H300J	C441	254 4302 932	Electrolytic 22µF/10V	CE04W1A22M(SRE)
C114	257 0012 982	C.Ceramic 0.022µF/50V	CK73F1H223Z	C442	257 0008 983	C.Ceramic 1000pF/50V	CK73B1H102K
C201--204	254 4299 906	Electrolytic 10µF/16V	CE04W1C100M(SRE)	C443	254 4304 901	Electrolytic 2.2µF/35V	CE04W1V2R2M(SRE)
C205,206	257 0014 935	C.Ceramic 0.1µF/25V	CK73F1E104Z	C444	254 4305 926	Electrolytic 0.22µF/50V	CE04W1HR2M(SRE)
C207,208	257 0009 940	C.Ceramic 3300pF/50V	CK73B1H332K	C445	257 0010 942	C.Ceramic 0.022µF/50V	CK73B1H223K
C209--212	257 1012 907	C.Ceramic 0.068µF/50V	CK73B1H683K	C446	257 0014 935	C.Ceramic 0.1µF/25V	CK73F1E104K
C213,214	257 0003 920	C.Ceramic 27pF/50V	CC73SL1H270J	C447,448	257 0012 982	C.Ceramic 0.022µF/50V	CK73F1H223K
C215--218	254 4299 906	Electrolytic 10µF/16V	CE04W1C100M(SRE)	C449	257 0008 966	C.Ceramic 1200pF/50V	CK73B1H122K
C219,220	257 0009 940	C.Ceramic 3300pF/50V	CK73B1H332K	C450	254 4304 008	Electrolytic 2.2µF/35V	CE04W1V2R2M(SRE)
C221,222	257 0014 935	C.Ceramic 0.1µF/25V	CK73F1E104Z	C451	254 4304 901	Electrolytic 2.2µF/35V	CE04W1V2R2M(SRE)
C223,224	254 4305 926	Electrolytic 0.22µF/50V	CE04W1HR22M(SRE)				(Europe model only)
C225--228	254 4299 922	Electrolytic 4.7µF/16V	CE04W1C47M(SRE)				CE04W1V2R2M(SRE)
C229--232	254 4300 934	Electrolytic 22µF/6.3V	CE04W0J220M(SRE)				CE04W1V2R2M(SRE)

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Q'ty
C513-516	254 4402 900	Electrolytic 1μF/50V	CE04W1H010M(KRE)	XT401	399 0065 000	Crystal(7.2 MHz)		1
C517-520	257 0008 983	C.Ceramic 1000pF/50V	CK73B1H102K	XT901	399 0107 007	Ceramic Resonator	CST4.19MGW	1
C525	254 4456 707	Electrolytic 10μF/16V	CE04W1C100M(KRE)	XT902	399 0217 007	Crystal(32.768 kHz)		1
C526	254 4455 915	Electrolytic 47μF/6.3V	CE04W0J470M(KRE)					
C527,528	257 0014 935	C.Ceramic 0.1μF/25V	CK73F1E104Z	CF401	261 0120 006	Ceramic Filter	SFE10.7MS3GK-A	1
C530	254 4440 904	Electrolytic 100μF/16V	CE04W1C101M(KME)	CF402	261 0120 006	Ceramic Filter	SFE10.7MS3GK-A	1
C601-604	257 0006 927	C.Ceramic 470pF/50V	CC73SL1H471J	CF403	261 0122 004	Ceramic Filter	CSB456F23C	1
C605,606	257 0010 900	C.Ceramic 0.01μF/50V	CK73B1H103K					
C607,608	257 0014 935	C.Ceramic 0.1μF/25V	CK73F1E104Z	T401	231 2088 006	FM Det. Trans		1
C609,610	254 4305 942	Electrolytic 0.47μF/50V	CE04W1HR47M(SRE)	TN401	216 0091 009	FM/AM Tuner Pack	U.S.A. model	1
C611-614	257 0009 924	C.Ceramic 2200pF/50V	CK73B1H222K	TN401	216 0090 000	FM/AM Tuner Pack	Europe model	1
C615,616	254 4305 968	Electrolytic 1μF/50V	CE04W1H010M(SRE)	PL701	393 0102 020	Lamp Ass'y	U.S.A. model	1
C617,618	257 0009 924	C.Ceramic 2200pF/50V	CK73B1H222K	PL701	393 0102 017	Lamp Ass'y	Europe model	1
C619-622	257 0014 935	C.Ceramic 0.1μF/25V	CK73F1E104Z	PL703	393 0102 020	Lamp Ass'y	U.S.A. model	1
C625-628	254 4299 922	Electrolytic 4.7μF/16V	CE04W1C4R7M(SRE)	PL703	393 0102 017	Lamp Ass'y	Europe model	1
C629	257 0009 966	C.Ceramic 4700pF/50V	CK73B1H472K	PL704	393 0105 014	Lamp Ass'y	U.S.A. model	1
C630	257 0010 900	C.Ceramic 0.01μF/50V	CK73B1H103K	PL704	393 0105 027	Lamp Ass'y	Europe model	1
C631	254 4305 939	Electrolytic 0.33μF/50V	CE04W1HR33M(SRE)	PL705	393 0102 020	Lamp Ass'y	U.S.A. model	1
C632	254 4302 974	Electrolytic 100μF/10V	CE04W1A101M(SRE)	PL705	393 0102 017	Lamp Ass'y	Europe model	1
C633-635	254 4300 934	Electrolytic 22μF/6.3V	CE04W0J220M(SRE)	PL707,708	393 0102 020	Lamp Ass'y	U.S.A. model	2
C636	254 4302 974	Electrolytic 100μF/10V	CE04W1A101M(SRE)	PL707,708	393 0102 017	Lamp Ass'y	Europe model	2
C637	257 0004 961	C.Ceramic 100pF/50V	CC73SL1H101J	PL709	393 0105 014	Lamp Ass'y	U.S.A. model	1
C638	257 0008 912	C.Ceramic 270pF/50V	CK73B1H271K	PL709	393 0105 027	Lamp Ass'y	Europe model	1
C639	254 4305 968	Electrolytic 1μF/50V	CE04W1H010M(SRE)		232 0178 005	Anti Birdie Filter	Europe model only	1
C640	254 4302 974	Electrolytic 100μF/10V	CE04W1A101M(SRE)					
C641,642	254 4304 901	Electrolytic 2.2μF/35V	CE04W1V2R2M(SRE)	CB2A	205 0571 024	2P M15 Conn. Base(L)		1
C643	257 0008 983	C.Ceramic 1000pF/50V	CK73B1H102K	CB2B	205 0343 029	2P Conn. Base(KR-PH)		1
C645,646	257 0003 988	C.Ceramic 47pF/50V	CC73SL1H470J	CB3A	205 0233 032	3P EH Conn. Base		1
C647	257 0013 907	C.Ceramic 0.047μF/50V	CK73F1H473Z	CB4A	205 0535 060	4P Conn. Base		1
C701,702	257 0014 935	C.Ceramic 0.1μF/25V	CK73F1E104Z	CS4A	205 0536 069	4P Conn. Socket		1
C704	257 1013 993	C.Ceramic 0.1μF/25V	CK73B1E104K	CB5A	205 0355 059	5P KR Conn. Base(L)		1
C801	254 6177 709	Electrolytic 3300μF/16V	CE04W1C332M(KMG)	CB5A	203 8365 003	5P PH-M04 Conn. Cord		1
C802,803	257 0012 982	C.Ceramic 0.022μF/50V	CK73F1H223Z	CB6A	205 0406 063	6P Conn. Base(KR-PH)		1
C804	257 0014 935	C.Ceramic 0.1μF/25V	CK73F1E104Z	CB6A	204 0405 003	6P PH-M04 Conn. Cord		1
C805	254 4299 951	Electrolytic 33μF/16V	CE04W1C330M(SRE)	CB8A	205 0233 087	8P EH Conn. Base		1
C806	254 4300 934	Electrolytic 22μF/6.3V	CE04W0J220M(SRE)	CB10A	205 0406 005	10P Conn. Base(KR-PH)		1
C807	254 4302 974	Electrolytic 100μF/10V	CE04W1A101M(SRE)	CB10A	204 2592 008	10P PH-M04 Conn. Cord		1
C808,809	257 0014 935	C.Ceramic 0.1μF/25V	CK73F1E104Z	CB11B	205 0535 099	11P Conn. Base		1
C810	254 4304 901	Electrolytic 2.2μF/35V	CE04W1V2R2M(SRE)	CB11C	205 0535 099	11P Conn. Base		1
C811	254 4302 974	Electrolytic 100μF/10V	CE04W1A101M(SRE)	CS11B	205 0536 098	11P Conn. Socket		1
C822	257 0014 935	C.Ceramic 0.1μF/25V	CK73F1E104Z	CS11C	205 0536 098	11P Conn. Socket		1
C825	254 4299 906	Electrolytic 10μF/16V	CE04W1C100M(SRE)	CB14A	205 0707 034	14P Conn. Base		1
C827	254 4302 974	Electrolytic 100μF/10V	CE04W1A101M(SRE)	CS14A	205 0708 033	14P Conn. Socket		1
C901	257 0013 907	C.Ceramic 0.047μF/50V	CK73F1H473Z	CB15A	205 0707 018	15P Conn. Base		1
C902	257 0016 975	C.Ceramic 33pF/50V	CC73CH1H330J	CS15A	205 0708 017	15P Conn. Socket		1
C903	257 0016 933	C.Ceramic 15pF/50V	CC73CH1H150J	CB15B	204 6416 009	15P Conn. Plug		1
C906	257 0014 935	C.Ceramic 0.1μF/25V	CK73F1E104Z	CS15B	204 6417 008	15P Conn. Socket		1
C908	257 0013 907	C.Ceramic 0.047μF/50V	CK73F1H473Z	CB16A	205 0819 003	16P Conn. Base		1
C913,914	257 0008 983	C.Ceramic 1000pF/50V	CK73B1H102K	CB18A	205 0820 005	18P Conn. Plug		1
C915-922	256 1034 979	Metalized 0.1μF/50V	CF93A1H104J	CB18B	205 0707 021	18P Conn. Base		1
C923	257 0014 935	C.Ceramic 0.1μF/25V	CK73F1E104Z	CS18B	205 0708 020	18P Conn. Socket		1
OTHER GROUP								
		(P.W.B Board)			143 0860 000	LCD Filter		1
					461 0810 000	Rubber Sheet		1
					414 0702 002	LCD Frame		1
					143 0846 202	LCD Lens		1
L101	235 0060 947	Inductor 220μH			412 3680 002	IC Holder		1
L301	235 0088 929	Chip Inductor 10μH			414 0701 003	Reflection Sheet		2
L401	235 0060 918	Inductor 4.7μH			461 0435 058	Sheet		2
L901	235 0088 929	Chip Inductor 10μH			461 0415 007	Rubber Sheet		2
					415 0712 008	Illumi. Sheet		4
S701-716	212 4388 910	Tact Switch			415 0710 000	Insulating Sheet (B)		1
S717	212 0347 007	Rotary Encoder						
S718-720	212 4388 910	Tact Switch						
XT101	399 0063 002	Ceramic Resonator	CSA8.00MT		415 0309 068	P.V.C. Tube (L=5)		2
XT301	399 0151 008	Crystal(4.332 MHz)			415 0309 071	P.V.C. Tube (L=10)		4
XT302	399 0041 008	Ceramic Resonator	CSA4.00MG		415 0578 006	P.V.C. Tube (L=20)		1

DENON

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