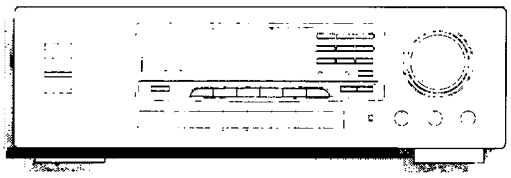
ONKYO

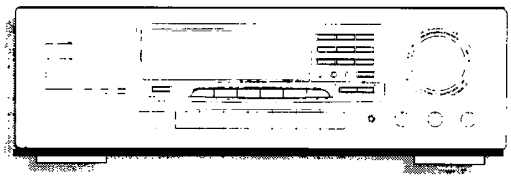
A/V Tuner/Amplifier

Instruction Manual

TX-V940
TX-V940RDS
TX-SV414PRO



TX-V940



TX-V940RDS/TX-SV414PRO

CONTENTS

Thank you for your purchase of the Onkyo A/V Tuner Amplifier.
Please read this manual thoroughly before making connections and turning on the power.
Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new A/V Tuner Amplifier.
Please retain this manual for future reference.

Features

TX-V940/TX-V940RDS

■ **Clean Power with Room to Spare**
The TX-V940/TX-V940RDS delivers generous, low-distortion power with plenty in reserve for the sudden transient peaks common with today's digital sources. Rated output is 100 watts per channel RMS, into 8 ohms, both channels driven, with no more than 0.2% THD (USA & Canadian model).
2 × 100 watts continuous power at 4 ohms DIN (European model)

■ **Two-Mode (Local/DX, Auto/mono) APR (Automatic Precision Reception)**

■ **RDS-Radio Data System (TX-V940RDS only)**
RDS gives you station and programming data for expanded tuner functionality. Your TX-V940RDS includes PS (Programme Service), PTY (Programme Type), TP (Traffic Programme), and RT (Radio Text).

TX-SV414PRO

■ **Plenty of Clean Power**
Powerfull enough for those "difficult" low impedance loads, the TX-SV414PRO delivers 60 watts per channel in stereo mode, into 8 ohms, with no more than 0.08% THD. In surround mode it provides a full 50 watts of power to the left and right front channels, and to the center channel as well. The rear surround speakers each receive 15 watts per channel.

■ **Dolby Pro-Logic Surround Sound**
This advanced Dolby Surround system creates a multi-dimensional soundstage by offering better front-to-rear channel separation and a separate center channel amplifier, so the dialog appears to come directly from the TV screen.

■ **Mono Out (Subwoofer Out)**

■ **Adjustable Digital Delay**

Other Features (TX-V940/TX-V940RDS/TX-SV414PRO)

■ **Disorete Output Stage to Handle Low Impedance Loads**
For impeccable sonic accuracy, Onkyo insisted on discrete circuitry for the output stage, instead of less expensive package ICs. This design provides enhanced cooling, better reliability and superior sonics.

■ **40-Station FM/AM Random Preset Tuning**

■ **RI Compatible Remote Control Supplied**

■ **Loudness Control**

■ **Six-Class Clasified Memory Tuning**

■ **Direct Access Tuning**

■ **Two-Video & Five-audio Inputs**

■ **Audio Muting & Sleep Timer (via remote)**

■ **Battery-Free Backup**

■ **Motor-Driven Volume Control**

■ **Separate A & B Speaker Selectors**

■ **Extra Large Feet with Tri-Point Configuration for Maximum Vibration Damping**

■ **Blushed Aluminum Front Panel**

■ **Easy Tape and Video Copying**

FOR USA MODEL

Note to CATV system installer:

- This reminder is provided to call the CATV system installer's attention to Section 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

FOR CANADIAN MODEL: (POUR LE MODELE CANADIEN)

- For models having a power cord with a polarized plug.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

- Sur les modèles dont la fiche est polarisée.

ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

FOR EUROPEAN MODEL

- This apparatus complies with requirements of EC directive 87/308/EEC.

ATTENTION FOR BRITISH MODEL

- Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel.
- IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:
  Blue: Neutral
  Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

"WARNING"

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

CAUTION:

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

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

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

Important safeguards

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

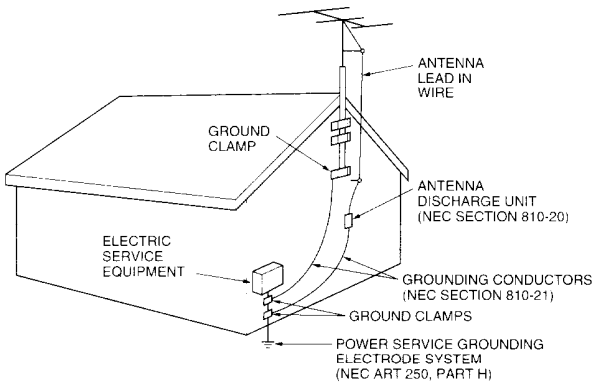
6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

PORTABLE CART WARNING

S3125A

7. **Wall or Ceiling Mounting** – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. **Ventilation** – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. **Heat** – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. **Power Sources** – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. **Polarization** – If the appliance is provided with a polarized plug having one blade wider than the other, please read the following information: The polarization of the plug is a safety feature. The polarized plug will only fit the outlet one way. If the plug does not fit fully into the outlet, try reversing it. If there is still trouble, the user should seek the services of a qualified electrician. Under no circumstances should the user attempt to defeat the polarization of the plug.
12. **Power-Cord Protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, especially near plugs, convenience receptacles, and the point where they exit from the appliance.
13. **Cleaning** – The appliance should be cleaned only as recommended by the manufacturer.
14. **Power Lines** – An outdoor antenna should be located away from power lines.
15. **Nonuse Periods** – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
16. **Object and Liquid Entry** – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
17. **Damage Requiring Service** – The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damaged.
18. **Servicing** – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
19. **Outdoor Antenna Grounding** – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of the antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure 73.1.

FIGURE 73.1:
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE



NEC – NATIONAL ELECTRICAL CODE

S2898A

Precautions

1. Warranty Card
The serial number is written on the rear panel of this unit. Copy the serial number and model number onto your warranty card and keep it in a safe place.

2. Recording Copyright
Recording of copyrighted material for other than personal use is illegal without permission of the copyright holder.

3. AC Fuse
The fuse is located inside the chassis and is not user-serviceable. If power does not come on, contact your Onkyo authorized service station.

4. Care
From time to time you should wipe the front and rear panels and the cabinet with a soft cloth. For heavier dirt, dampen a soft cloth in a weak solution of mild detergent and water, wring it out dry, and wipe off the dirt. Following this, dry immediately with a clean cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since these could damage the finish or remove the panel lettering.

5. Power
WARNING
BEFORE PLUGGING IN THE UNIT FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.

- Some models are designed for use only with the power supply voltage of the region where they are sold.

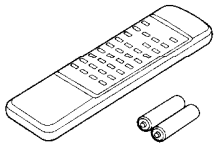
European model (except U.K.):	AC 230V, 50Hz
U.K. and Australian models:	AC 240V, 50Hz
U.S.A. and Canadian models:	AC 120V, 60Hz
Worldwide model:	AC 220V/120V switchable, 50/60Hz

- **Voltage Selector (Rear Panel)**
  Worldwide models are equipped with a voltage selector to conform to local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before plugging in the unit. Models without a voltage selector can only be used in areas where the power supply is the same as that of the unit.

Memory Preservation
This unit does not require memory preservation batteries. A built-in memory power back-up system preserves the contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in order to charge the back-up system.
The memory preservation period after the unit has been unplugged varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of a few weeks after the last time the unit has been unplugged. This period is shorter when the unit is exposed to a highly humid climate.

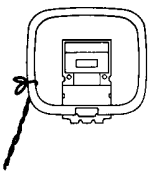
Supplied accessories

Supplied accessories



1 Remote control
2 Battery
(size AA, R6, or UM-3)

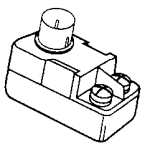
1 Remote control cable



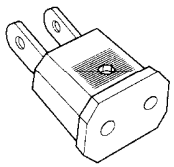
1 AM loop antenna

1 T-shaped FM antenna

(Worldwide models only)



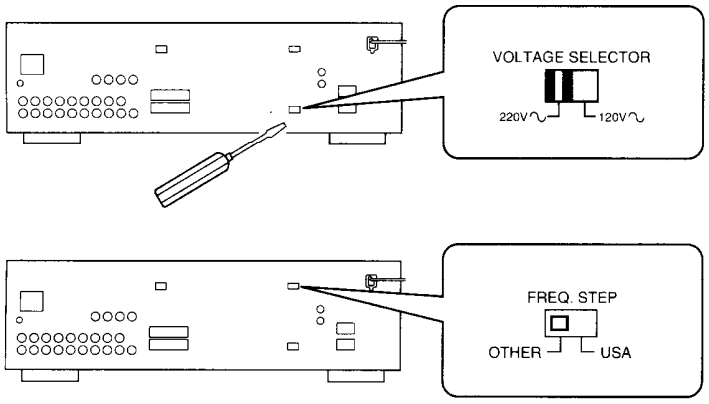
1 75/300 ohm antenna adaptor



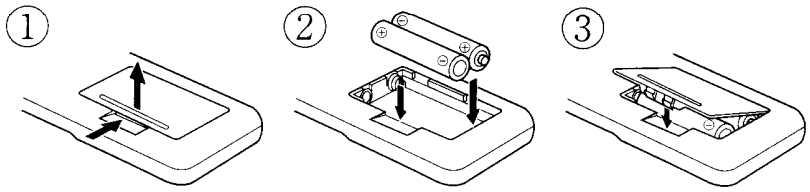
1 CV plug (Shape may vary according to the area where purchased.)

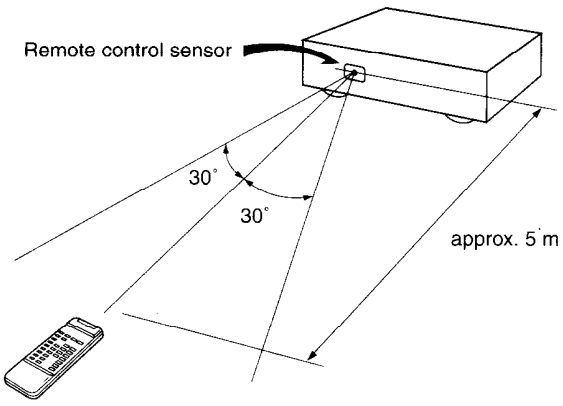
Before using this unit

(Worldwide models only)



Insert the batteries into the remote control according to the illustration.





Setting the Voltage selector

1. Determine the proper voltage for your area: 220V or 120V.
2. If the preset voltage is not correct for your area, insert a screwdriver into the groove in the switch. Slide the switch all the way to the right (120V) or to the left (220V), whichever is appropriate.

Setting the tuning step frequency

Worldwide models are equipped with a switch that controls the AM (9kHz/10kHz) and FM (50kHz/100kHz) bands tuning steps.

Please set this switch to match the tuning step frequency in your area.

U.S.A. : AM 10kHz, FM 100kHz

Other areas : AM 9kHz, FM 50kHz

Regarding the batteries

Average battery life is about one year, depending upon the frequency of use and the environment (temperature and humidity) in which the remote control is used. Only use batteries of the kind specified in the table below.

Type	Voltage	Size
Manganese	1.5V	AA, R6 or UM-3

Warning

- Do not leave an expired battery in the case – it may leak or damage the remote control.
- Do not use nickel cadmium (rechargeable) batteries.
- Replace both batteries at once; do not use one old battery and one new battery.

Using the remote control

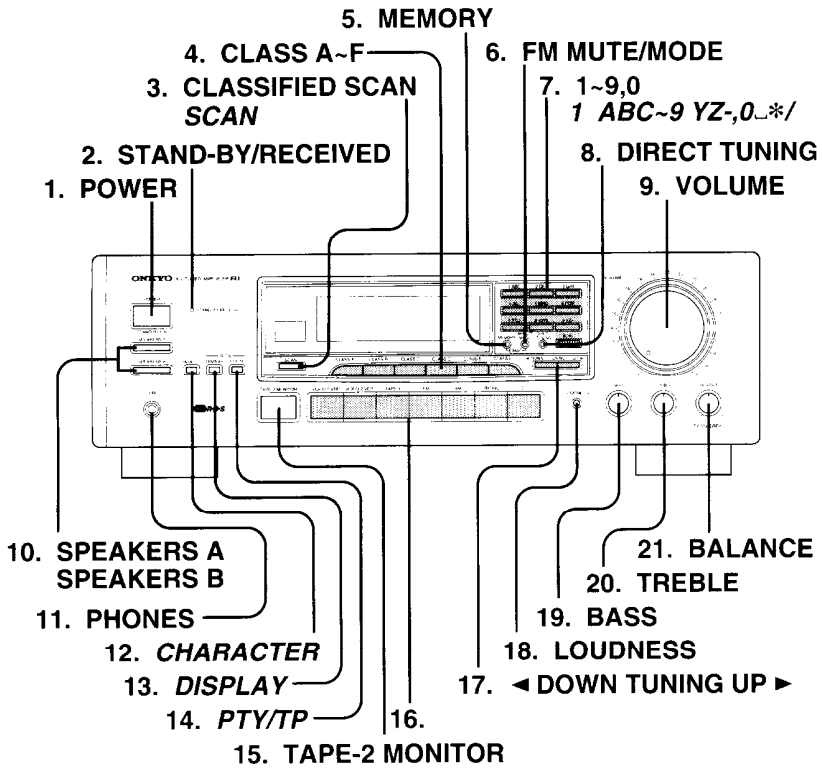
The following information will help you get optimal use from the remote control.

- Place this unit away from direct bright light, which can prevent proper operation of the remote control.
- Make sure audio rack doors do not have tinted glass. If this unit is placed behind such a door, this may prevent proper remote control operation.
- Using other remote controls in the same room as this unit's remote control may cause interference.

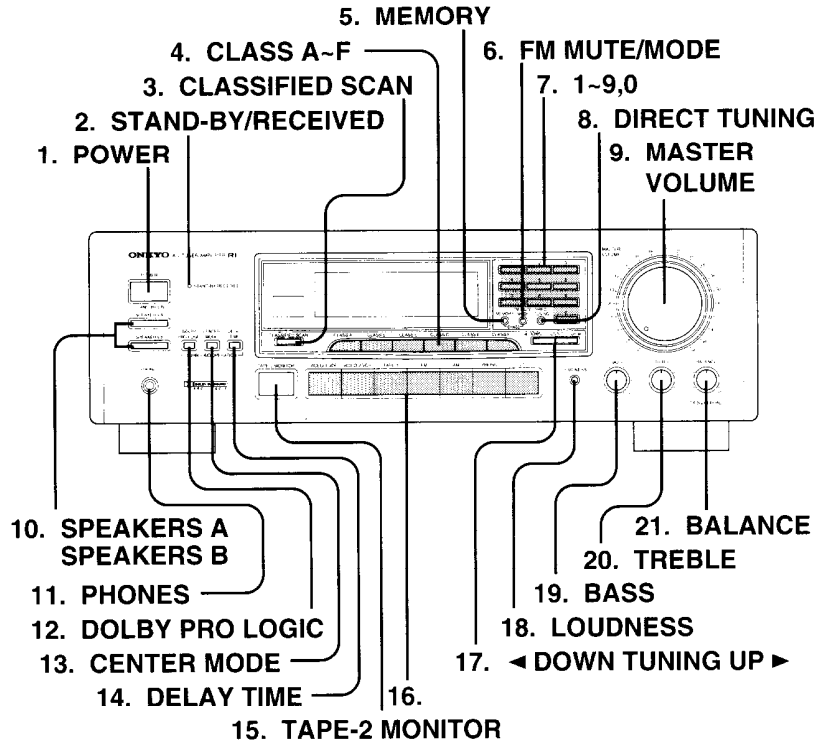
Control positions and names

Front Panel

TX-V940/TX-V940RDS
(Control button names in italics are only for the TX-V940RDS.)



TX-SV414PRO



For more imformation about buttons or knobs, turn to page number listed in the [].

Front panel

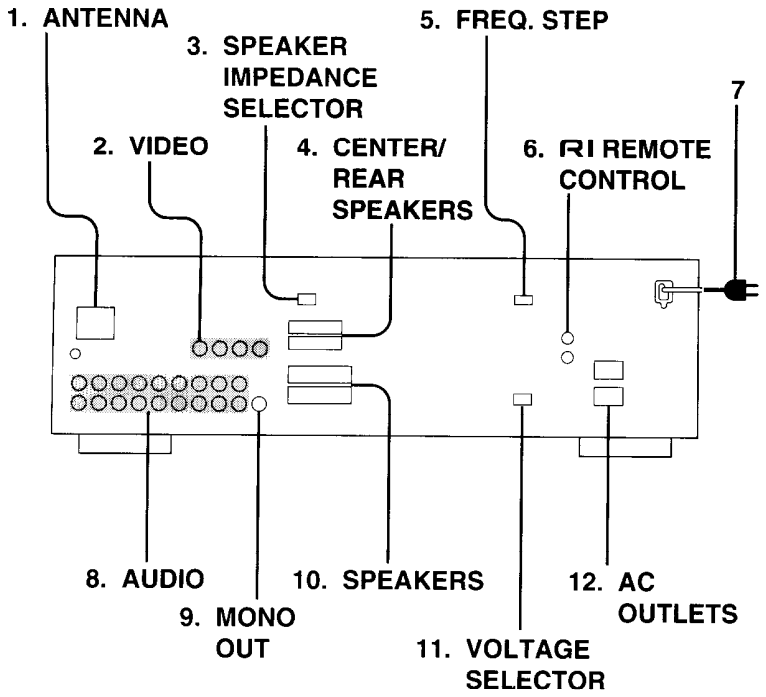
TX-V940/TX-V940RDS

1. Power button [16]
2. Stand-by Received indicator [16]
3. Classified Scan button [19]
   Classified Scan/RDS Scan button [19, 22]
4. Class buttons [19]
5. Memory button [19, 20]
6. FM Mute/Mode button [18, 20]
7. Number buttons [18]
   Number/Character buttons [18, 23]
8. Direct Tuning button [18]
9. Volume knob [16]
10. Speaker buttons [16]
11. Headphone jack [17]
12. *Character button [23]*
13. *Display button [22]*
14. *PTY/TP button [22]*
15. Tape-2 Monitor button [24, 25]
16. Input Selector buttons [16, 24, 25]
17. Tuning Up/Down buttons [18, 22, 23]
18. Loudness button [16]
19. Bass control knob [16]
20. Treble control knob [16]
21. Balance control knob [16]

TX-SV414PRO

1. Power button [16]
2. Stand-by Received indicator [16]
3. Classified Scan button [19]
4. Class buttons [19]
5. Memory button [19, 20]
6. FM Mute/Mode button [18, 20]
7. Number buttons [18]
8. Direct Tuning button [18]
9. Master Volume knob [16, 28]
10. Speaker buttons [16]
11. Headphone jack [17]
12. Dolby Pro Logic button [28]
13. Center Mode button [28]
14. Delay Time button [28]
15. Tape-2 Monitor button [24, 25]
16. Input Selector buttons [16, 24, 25]
17. Tuning Up/Down buttons [18]
18. Loudness button [16]
19. Bass control knob [16]
20. Treble control knob [16]
21. Balance control knob [16]

Rear panel
(The arrangement and number of terminals may differ according to the model and the area where the unit was purchased.)

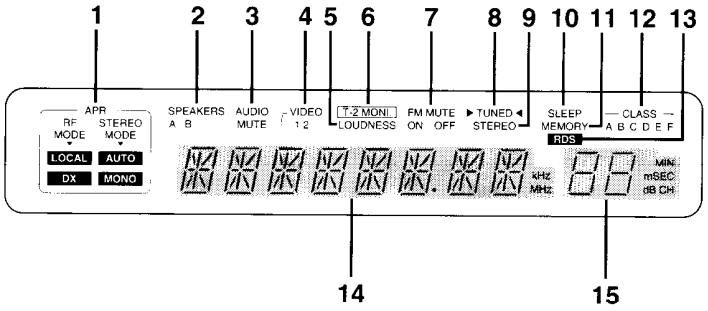


Rear panel

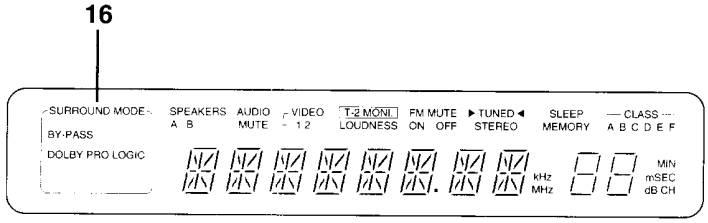
1. Antenna terminals [14, 15]
2. Video Input/Output terminals [10, 11]
3. Speaker Impedance Selector (TX-V940 USA & Canadian models only) [12]
4. Center/Rear Speaker terminals (TX-SV414PRO only) [13]
5. Frequency Step Selector [5] (Worldwide models only)
6. RI remote control jack [29]
7. Power Supply Cord [16]
8. Audio Input/Output terminals [9]
9. Monaural Output jack [10] (TX-SV414PRO only)
10. Speaker terminals [12, 13]
11. Voltage Selector [5] (Worldwide models only)
12. AC Outlets [11]

Display

TX-V940/TX-V940RDS



TX-SV414PRO



Display

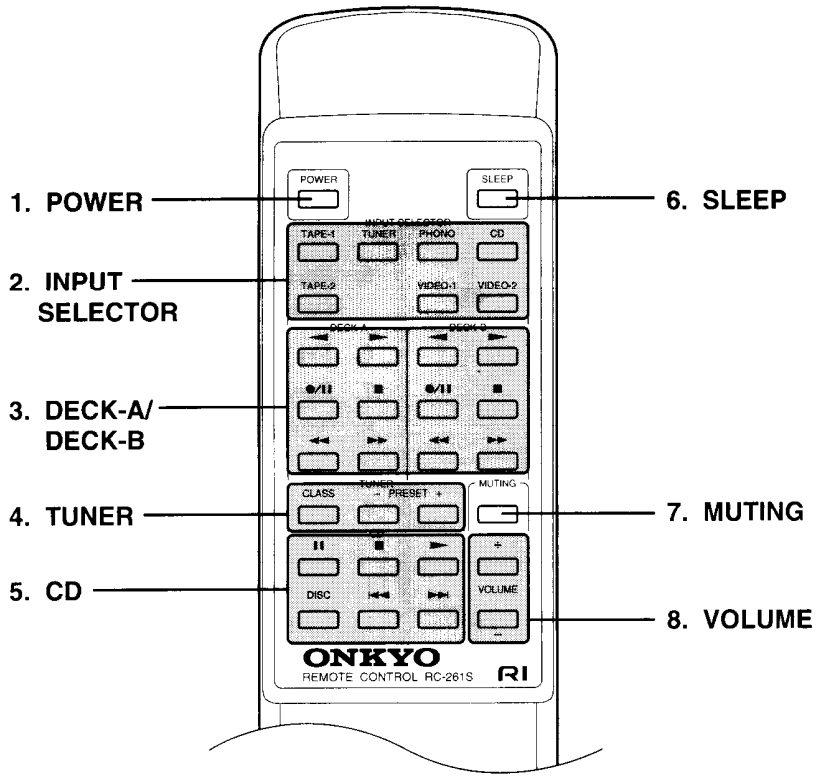
If there is a protective film on the surface of the display, which is making it difficult to read the display, remove it.

1. APR indicators (TX-V940/TX-V940 RDS only) [18]
2. Speaker Selector indicators
3. Audio Muting indicator
4. Video Input Selector indicators
5. Loudness indicator
6. Tape-2 Monitor indicator
7. FM Mute On/Off indicator
8. Tuned indicators
9. FM Stereo indicator
10. Sleep indicator
11. Memory indicator
12. Class indicators
13. RDS indicator (TX-V940RDS only)
14. Multi Function Display Frequency/Input Selector
15. Multi Function Display Preset station/Sleep Timer/Volume Level/Center, rear Volume Level (TX-SV414PRO only)
16. Surround Mode indicators (TX-SV414PRO only)

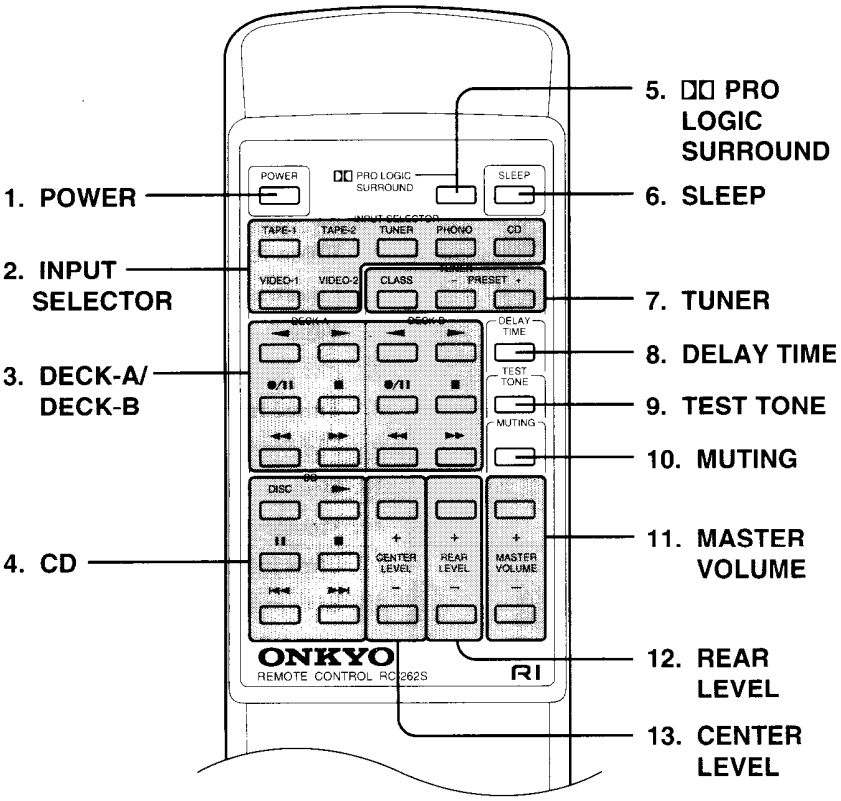
Remote Control

Remote Control

RC-261S (TX-V940/TX-V940RDS)



RC-262S (TX-SV414PRO)



Remote Control

RC-261S

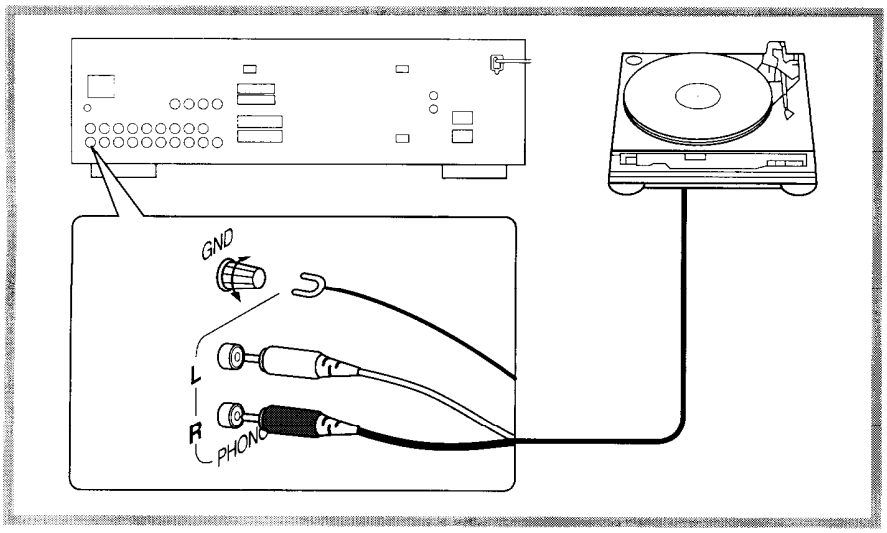
1. Power button [16]
2. Input Selector buttons [16, 24, 25]
3. Tape Deck Operation buttons [29]
4. Tuner Operation buttons [20]
5. CD Operation buttons [29]
6. Sleep button [17]
7. Muting button [17]
8. Volume Up/Down buttons [16]

RC-262S

1. Power button [16]
2. Input Selector buttons [16, 24, 25]
3. Tape Deck Operation buttons [29]
4. CD Operation buttons [29]
5. Dolby Pro Logic Surround button [28]
6. Sleep button [17]
7. Tuner Operation buttons [20]
8. Delay Time button [28]
9. Test Tone button [28]
10. Muting button [17]
11. Master Volume Up/Down buttons [16, 28]
12. Rear Level Up/Down buttons [28]
13. Center Level Up/Down buttons [28]

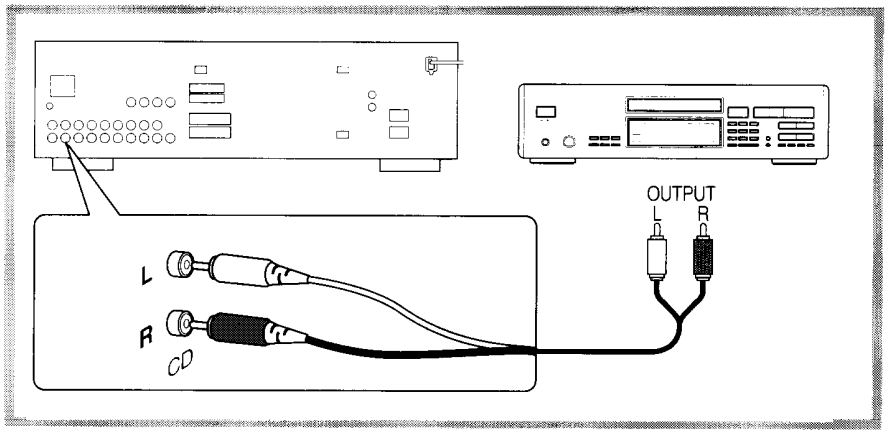
Making system connections

- **Do not plug in the power cord until all connections have been made.**
- **On each pair of input jacks, the lower jack (marked R) corresponds to the right channel, and the upper jack (marked L) to the left channel.**
- **Please refer to the instruction manual of each component when making any connections.**



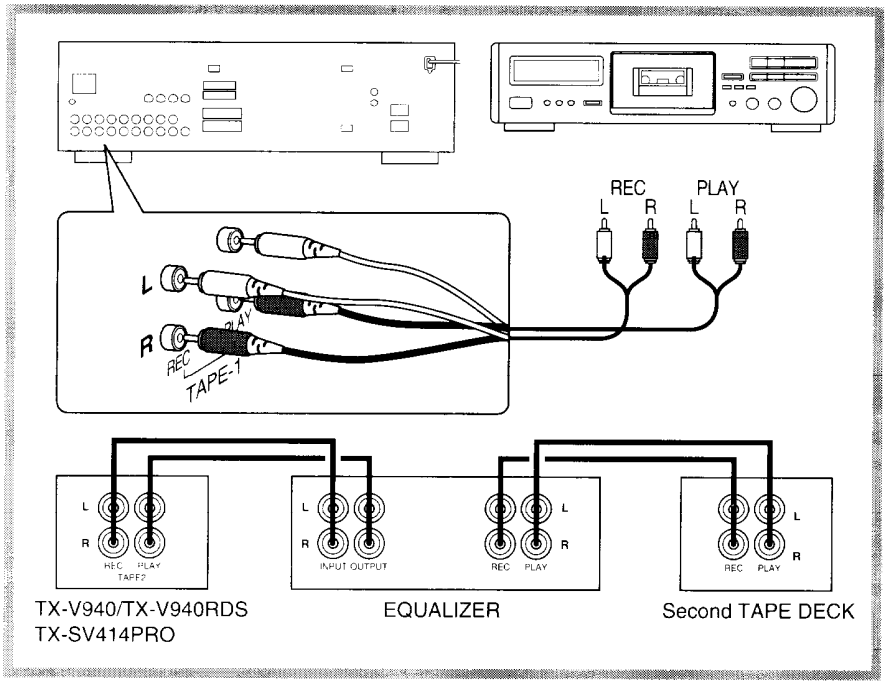
Connecting a turntable (PHONO)

Connect the output leads of the turntable to the PHONO jacks.
Be sure to connect the ground (earth) lead wire from the turntable to the ground terminal (GND). Turntables not provided with GND wires do not need to be connected in this way.
Place the turntable on a firm shelf or deck free from vibrations (especially those generated by the speaker system). If the turntable can pick up such unwanted vibrations, not only will the performance of the unit drop, but distortion in the bass frequencies and howling in the speakers may also occur.



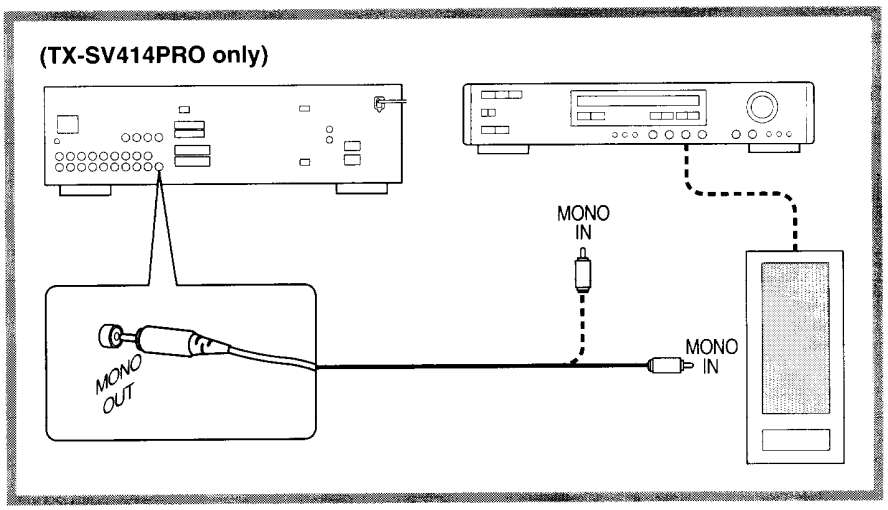
Connecting a CD player (CD)

Connect a compact disc player to the CD input jacks.



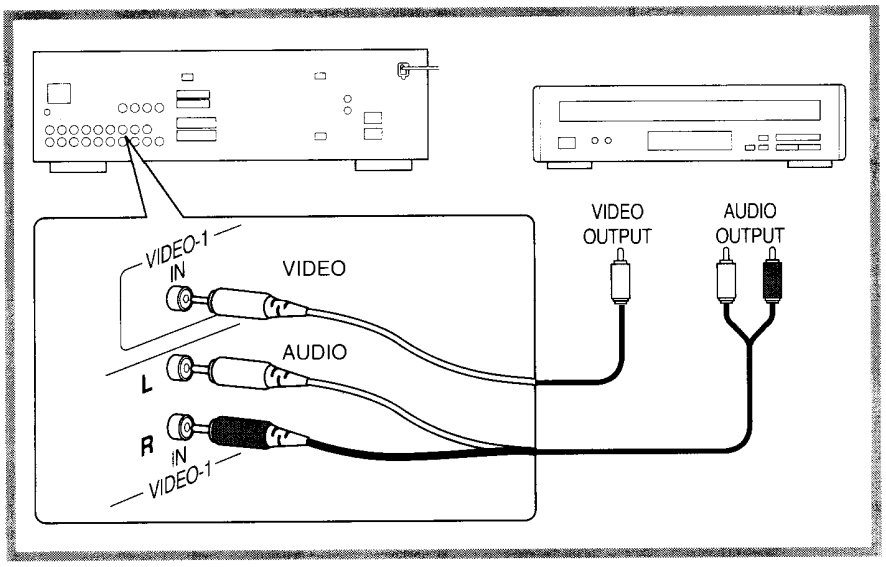
Connecting a tape deck (TAPE-1, TAPE-2)

This unit has facilities for two tape decks.
If you are using only one tape deck, connect it to the TAPE-1 jacks. If you have two tape decks, connect one to the TAPE-1 jacks and the other to the TAPE-2 jacks.
If you wish to use a graphic equalizer as well as two tape decks, connect the graphic equalizer to the TAPE-2 jacks, and connect the second tape deck to the TAPE jacks on the graphic equalizer. (See the diagram.)
Connect the OUTPUT jacks on the graphic equalizer to the TAPE-2 PLAY jacks on the A/V Tuner Amplifier, and the INPUT jacks to the TAPE-2 REC jacks as shown.)
See page 25 on how to use a graphic equalizer.



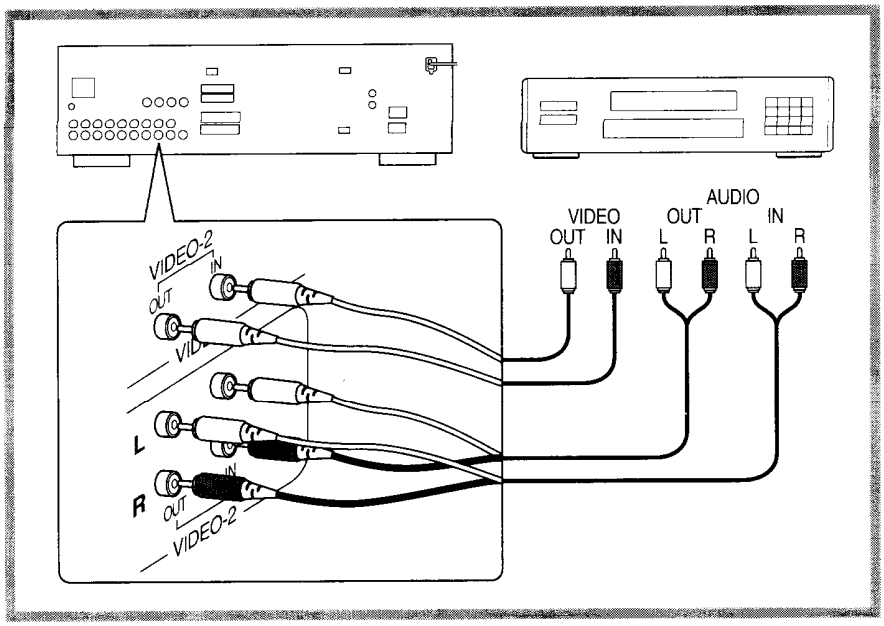
Using the MONO OUT jack

The MONO OUT jack can be connected to a subwoofer amplifier, or to a subwoofer with a built-in amplifier.
When using any unit connected to the MONO OUT jack, set the SPEAKERS A button on the front panel to ON.



Connecting a Video Disc Player or Video Cassette Player (VIDEO-1)

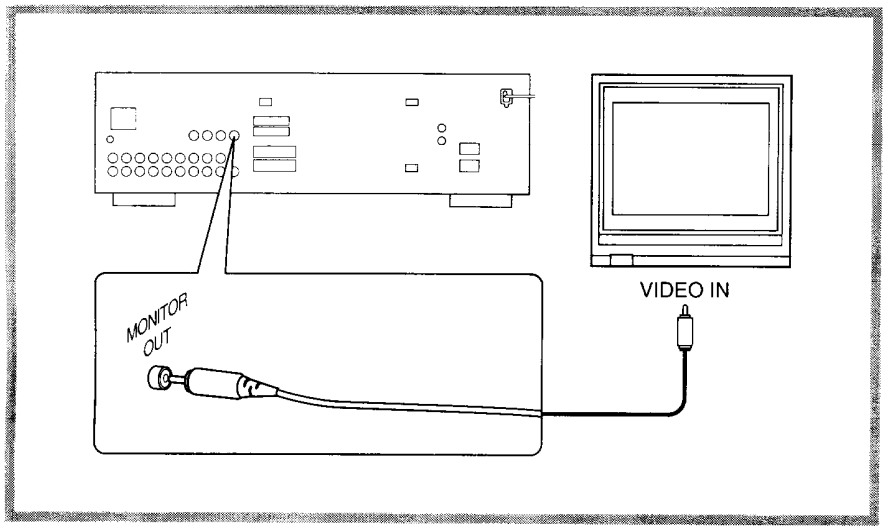
Connect the VIDEO output of the video disc player to this unit (VIDEO) VIDEO-1 "IN" jack and the AUDIO output to the (AUDIO) VIDEO-1 "IN" jack. The VIDEO-1 jack is only for playback, there is no OUT jack. For more details, refer to the video disc player instruction manual.



Connecting a Video Cassette Recorder (VIDEO-2)

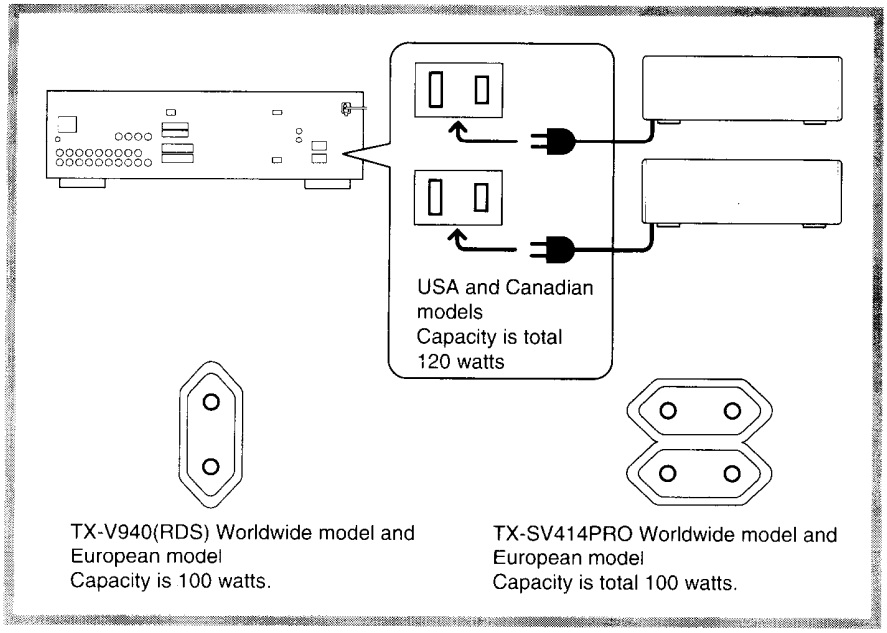
Connect the VIDEO output of the VCR to the rear panel (VIDEO) VIDEO-2 "IN" jack and the VIDEO input of the VCR to the rear panel (VIDEO) VIDEO-2 "OUT" jack. Then connect the AUDIO output of the VCR to the (AUDIO) VIDEO-2 L and R "IN" jacks. Finally, connect the AUDIO input of the VCR to the (AUDIO) VIDEO-2 L and R "OUT" jacks.

- When using a playback-only VCR, you only need to make the output connections.
- For more details, refer to the VCR instruction manual.



Connecting a monitor (MONITOR OUT)

1. Connect the TV VIDEO input to this unit MONITOR "OUT". jack. There is no need to perform an audio connection since sound will be sent directly from this unit to the speaker systems.
2. This unit does not have an RF converter. Therefore, it can be used with only a monitor TV equipped with a video input jack.
3. Interference may be caused between the TV and this unit.
   If this interference occurs place this unit and the TV as for apart as possible. We do not recommend the use of a common TV/FM antenna (see antenna section).



AC outlets

The SWITCHED outlet is switched on and off by the power buttons on the front panel and remote control.
The shape, number and total capacity of the AC outlets may differ according to the model and the area where the unit is purchased. Be careful that other components connected to this unit do not exceed the capacity that is printed on the rear panel above the AC outlets.

Making speaker connections

Speaker Impedance

This unit is designed to produce optimum sound quality when speakers with impedances within the set ranges are connected. Please check the table below and choose speakers with the necessary impedances for the connections.
With the USA and Canadian model (TX-V940), use the Impedance Selector switch . Refer to the "SPEAKER IMPEDANCE SELECTOR SETTINGS" below.

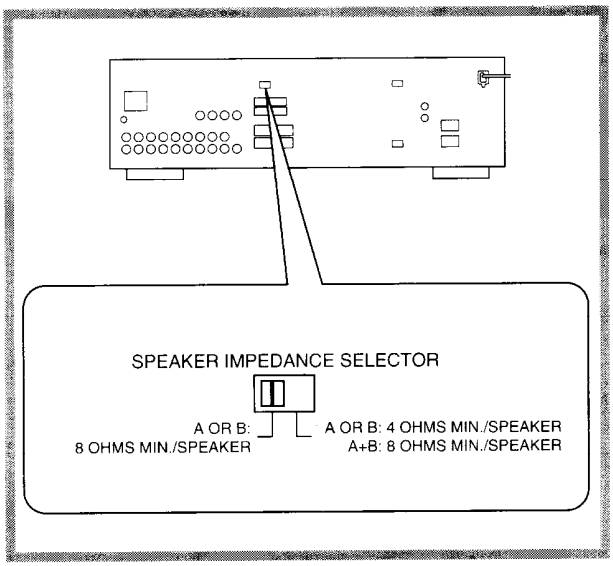
Front speaker

Product	Area Purchased	A or B (When using either speaker A or B)	A and B (When using both speakers A and B at the same time)
TX-V940RDS	European models	4 ohms ~ 6 ohms/speaker	8 ohms min./speaker
TX-V940	Worldwide models	4 ohms ~ 6 ohms/speaker	8 ohms min./speaker
TX-SV414PRO	USA models	6 ohms min./speaker	12 ohms min./speaker
	Canadian models European models Worldwide models	6 ohms min./speaker	The models for these areas are designed so that A and B can not be used at the same time.

Center and rear speaker

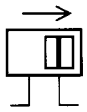
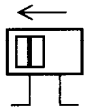
Product	Area Purchased	Center	Rear
TX-SV414PRO	All models	8 ohms min.	8 ohms min./speaker

TX-V940 (USA and Canadian models) SPEAKER IMPEDANCE SELECTOR SETTINGS

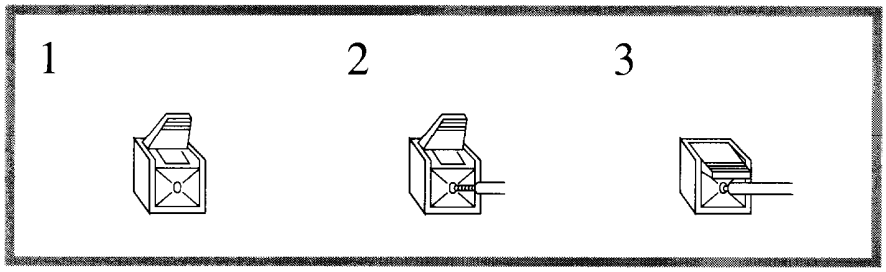


According to the impedance of the speakers used, set the SPEAKER INPEDANCE SELECTOR on the rear panel as shown in the table.

- Do not plug in the power cord during speaker system connection and operation of the SPEAKER IMPEDANCE SELECTOR.

Usable speaker impedance	Selector position
A or B speaker 4 ohms ~ 6 ohms	
A and B speakers 8 ohms or above	
A or B speaker 8 ohms or above	

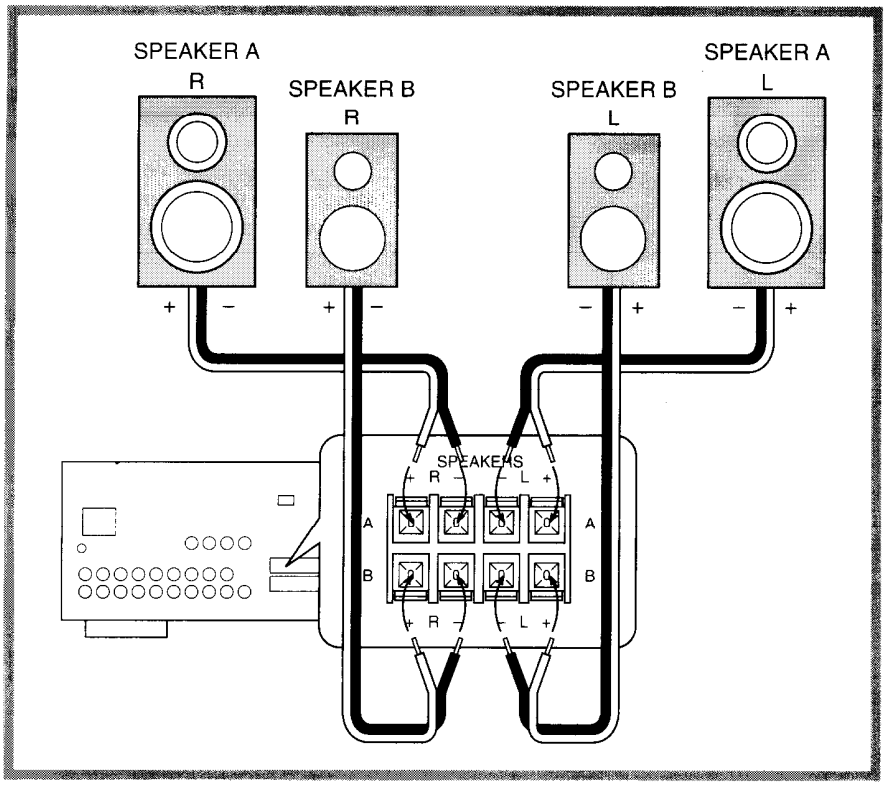
Making speaker connections



Connecting the speaker cables

1. Press down the lever.
2. Insert wire.
3. Return the lever.

Before making any connections, please read the explanation of speaker impedance on page 12.

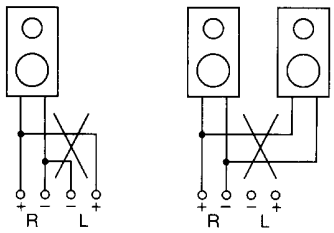


Connecting the front speaker

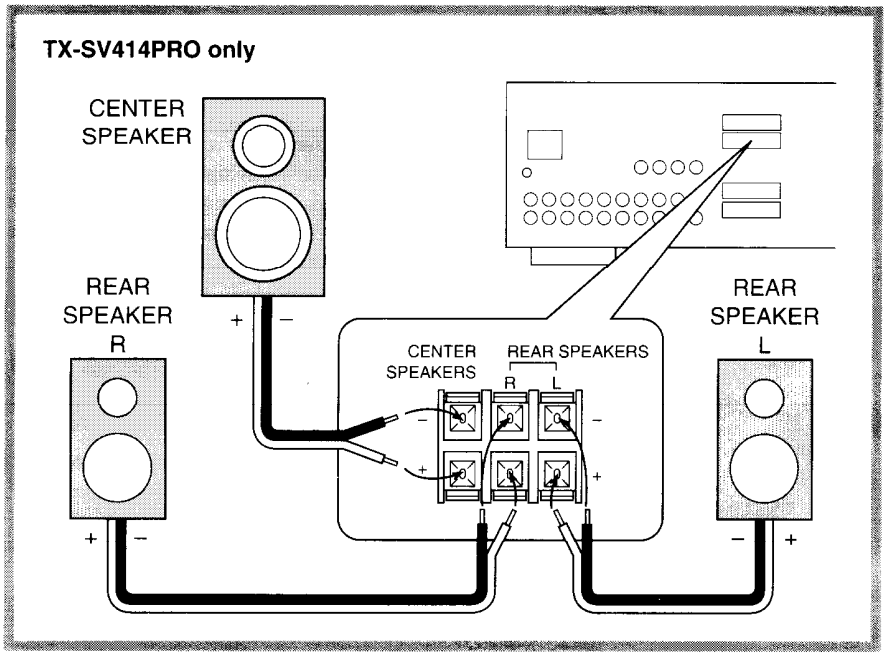
You can connect two separate pairs of speaker systems.

Please connect each speaker according to the illustration, observing the correct connections for R, L, + and –.

- Do not use unnecessarily long or extremely thin speaker leads. If the DC resistance of the speaker leads is too high, the damping factor will decrease, adversely affecting the sound quality.
- When using only one speaker or when you wish to listen to monaural (mono), the single speaker should never be connected in parallel to both the right and left channel terminals at once.



TX-SV414PRO only

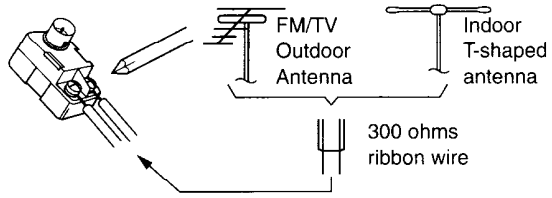


Connecting the center and rear speakers

Connect the center speaker and rear speakers (R) (L) to the TX-SV414PRO.

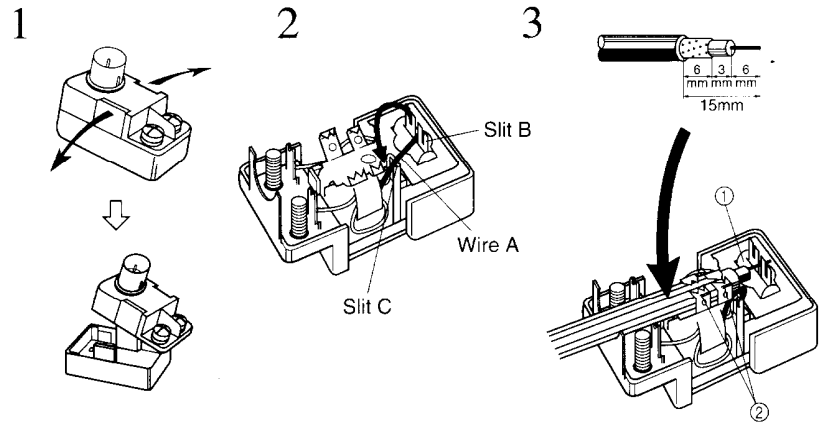
Making antenna connections

The antenna adaptor is only included with worldwide models.



Connecting the T-shaped antenna and 300 ohm ribbon wire to the 75/300 ohm adaptor

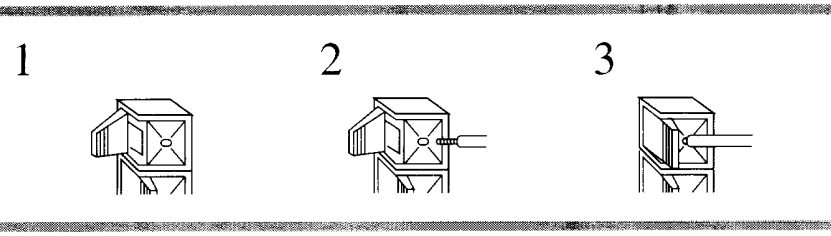
Loosen the screws and wrap the wire around these screws. Then tighten the screws with a screwdriver.



Connecting the coaxial cable to the 75/300 ohm adaptor

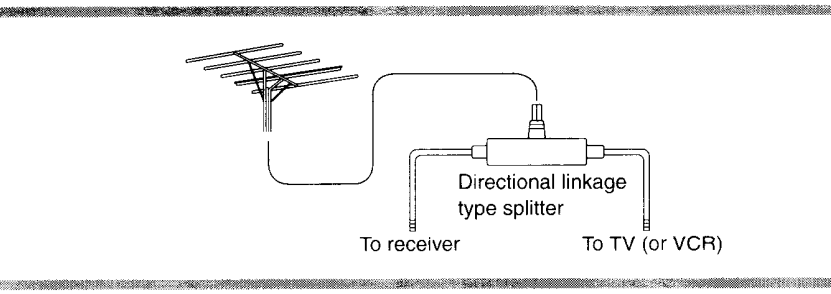
1. With your fingernail or a small screwdriver, press the stoppers outwards and remove the cover.
2. Remove the transformer wire A from slit B and insert it into slit C.
3. Prepare the coaxial cable as shown in the diagram. Connect the 75/300 ohm antenna adapter to the coaxial cable

① Insert the end of the cable.
② Clamp it in place with pliers.



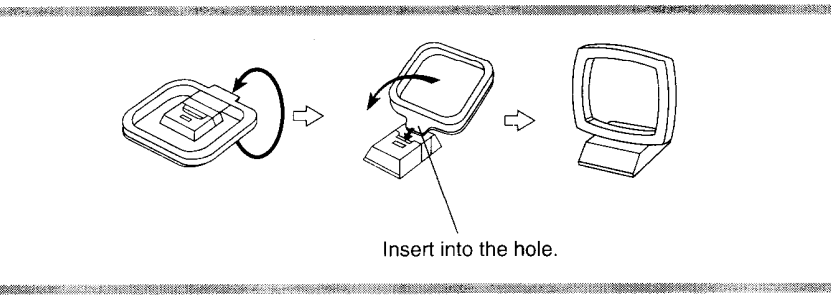
Connecting the antenna cable

1. Press down the lever.
2. Insert wire.
3. Return the lever.



Directional linkage

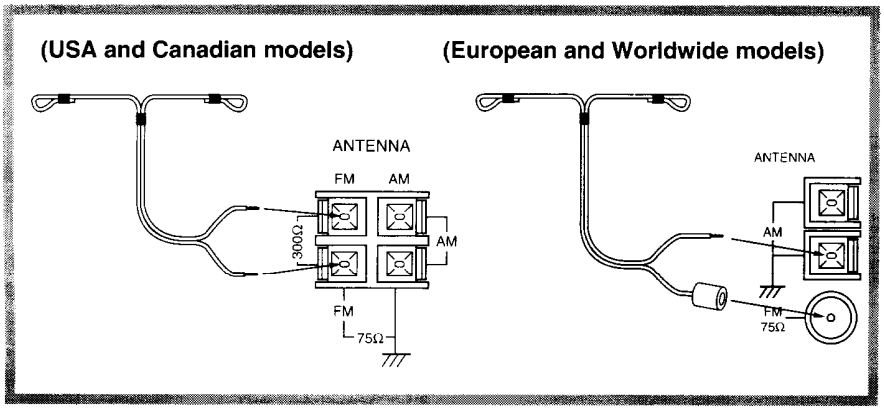
Do not use the same antenna for both FM and TV (or VCR) reception since the FM and TV (or VCR) signals can interfere with each other. If you must use a common FM/TV (or VCR) antenna, use a directional linkage type splitter.



Assembling the antenna cable

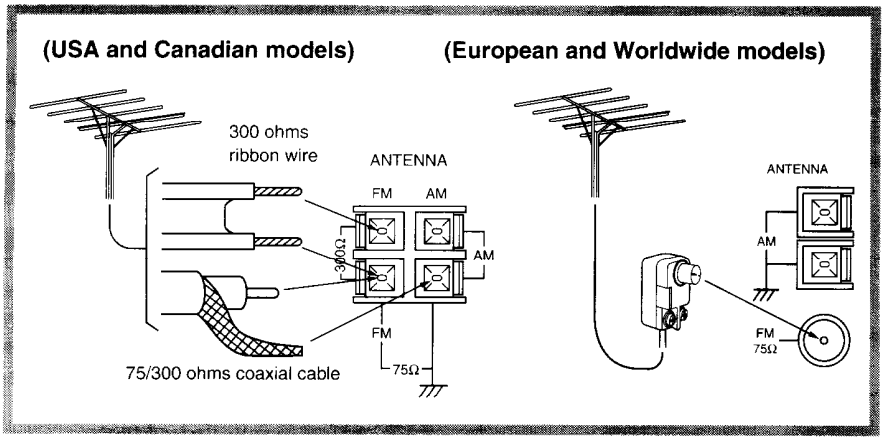
Assemble the loop antenna as shown in the illustration.

Making antenna connections



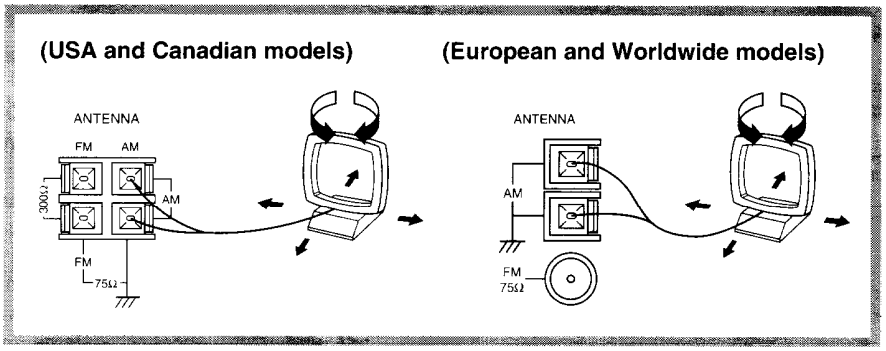
Making FM antenna connections

Connecting the T-shaped FM antenna
The T-shaped FM antenna is for indoor use only. Extend the antenna and move it in various directions until the clearest signal is received. Fix it with push pins or similar in the position giving the least amount of distortion.



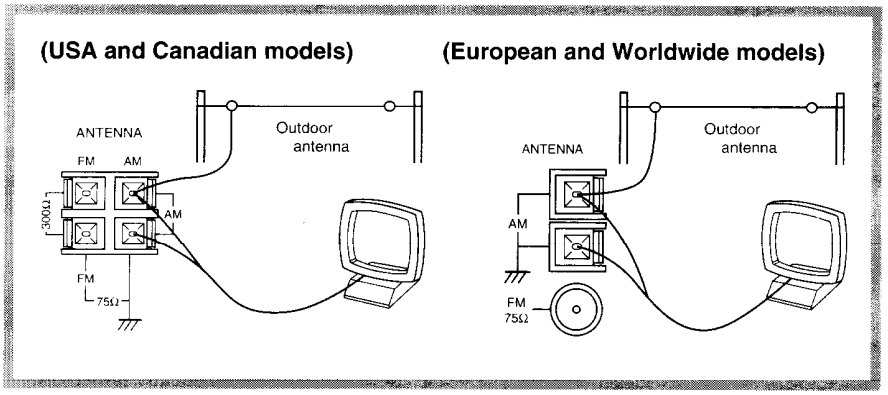
Connecting an FM outdoor antenna

If the reception is not very clear with the attached T-shaped FM antenna, the use of an external antenna is recommended.
Please make sure that you comply with the following considerations regarding the location.
Keep the antenna away from noise sources (neon signs, busy roads etc.)
It is dangerous to put it close to power lines, so keep it well away from power lines, etc.



Connecting the AM loop antenna

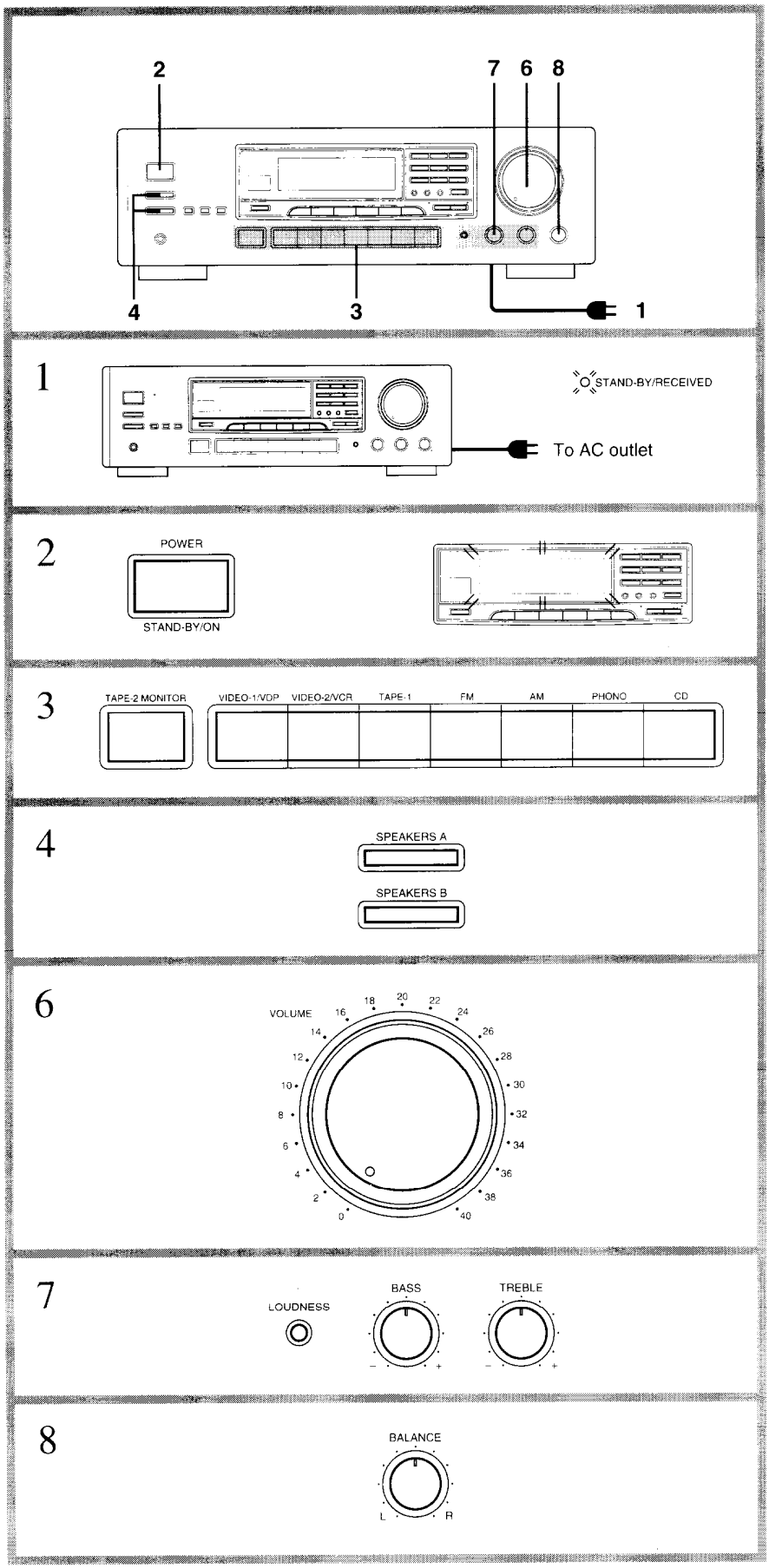
The AM loop antenna is for indoor use only. Set it in the direction and position where you receive the clearest sound. Put it as far as possible away from the main unit, TV set, speaker cords and power cord.



Connecting an AM outdoor antenna

When reception is not satisfactory using the attached AM loop antenna alone, connection of an external antenna is recommended. (Do not remove the AM loop antenna)
The external antenna will be more effective if you stretch it horizontally in a high place above a window or outside.

Basic operations



Selecting and listening to source

Before plugging in the unit, confirm that all connections have been made properly.

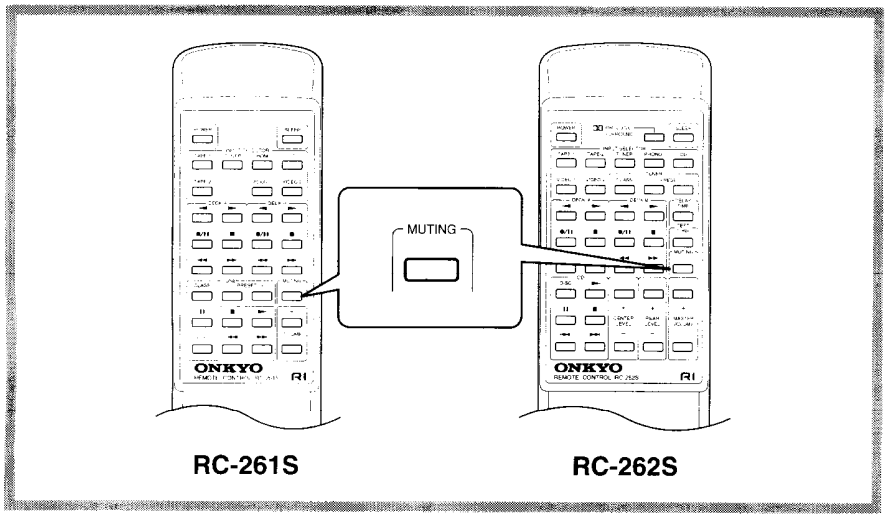
1. **Insert the AC power supply cord into the wall outlet.**
2. **Press the POWER button.**
3. **Select the source you wish to listen to using the input selector (e.g. PHONO).**
4. **Select the speakers.**
   Select and press the button for the speakers that you want to listen to (SPEAKERS A and/or SPEAKERS B). You will hear from the speakers any sound going through this unit. If both SPEAKERS (A and B) are set to OFF, no sound will come from the speakers.
5. **Start play the selected input source.**
   Follow the operating instructions for that unit.
6. **Adjust the level.**
   Turn the VOLUME knob clockwise or press the UP button on the remote control to increase the volume level. Turn counterclockwise or press the DOWN button on the remote control to decrease the volume level.
7. **Adjust to your desired tone.**
   BASS: Turn right to boost or left to attenuate the bass.
   TREBLE: Turn right to boost or left to attenuate the treble.
   LOUDNESS: By pressing the LOUDNESS button, both treble and bass are reinforced even when the volume is turned down low. Use this button according to the music source, the listening area and the listening level.
8. **The BALANCE knob is used to control the relative volume level of the left and right speaker systems or headphones.**

The speaker switches

TX-V940/TX-V940RDS/TX-SV414PRO (USA models): Press the button of the speaker system you would like to use (Speaker A and/or Speaker B). Speakers A and B can be used at the same time.

TX-SV414PRO (European, Canadian, Worldwide models): With these models, Speakers A and B cannot be used at the same time. When one button is pressed, the other button is automatically turned off.

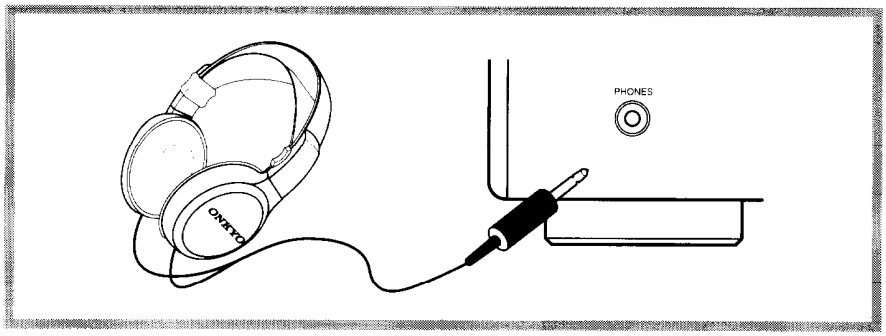
NOTE:
When connecting speakers, read page 12, 13 and check whether your speakers have the designated impedance



Temporary Muting

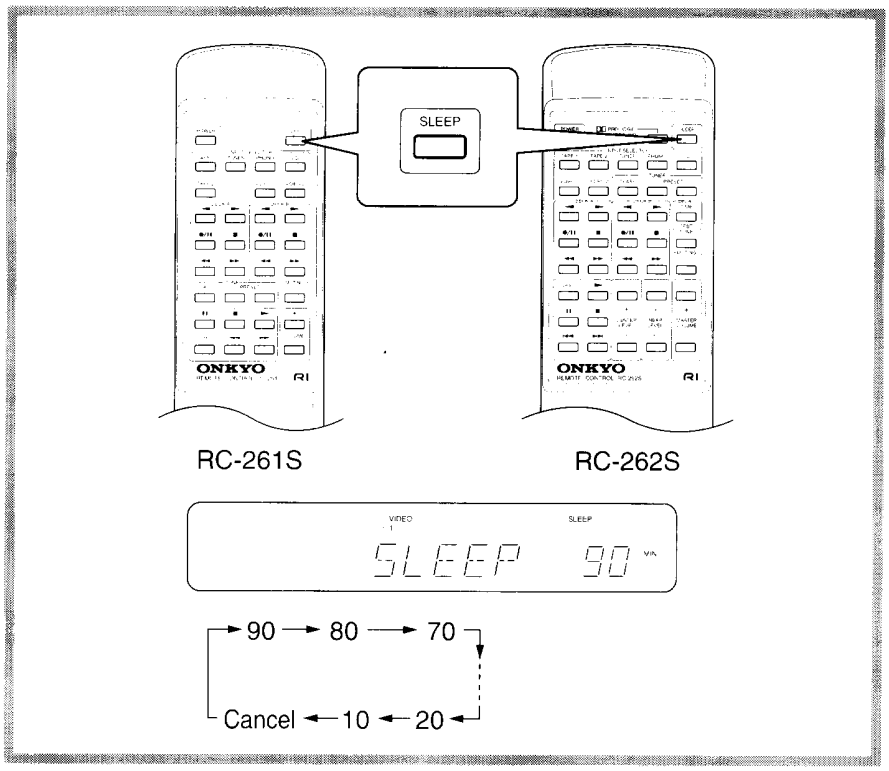
Press the MUTING button on the remote control.
This button temporarily switches off the sound from the speakers or headphones.
The AUDIO MUTE indicator will flash.
The muting function will be cancelled if you:

- press the MUTING button again, *or*
- turn the power off then on.



Listening using the headphones

Stereo headphones with a standard binaural (stereo) plug can be connected here.
When the headphone plug is inserted, the speakers are not automatically muted but can be controlled with the SPEAKERS A/B buttons.



Sleep facility

The sleep timer can power off the system after a specified time period.
To operate this function, use the remote control supplied with your amplifier.

1. **Start the source playing that you would like to listen to. (CD, Tape or radio broadcast)**
2. **Set the amount of time after which you want the system to turn off.**

The sleep timer works for up to 90 minutes. You can shorten the timer by 10 minutes increments by pressing the SLEEP button until the desired time has been reached.
When the set time comes, the power will be switched off automatically

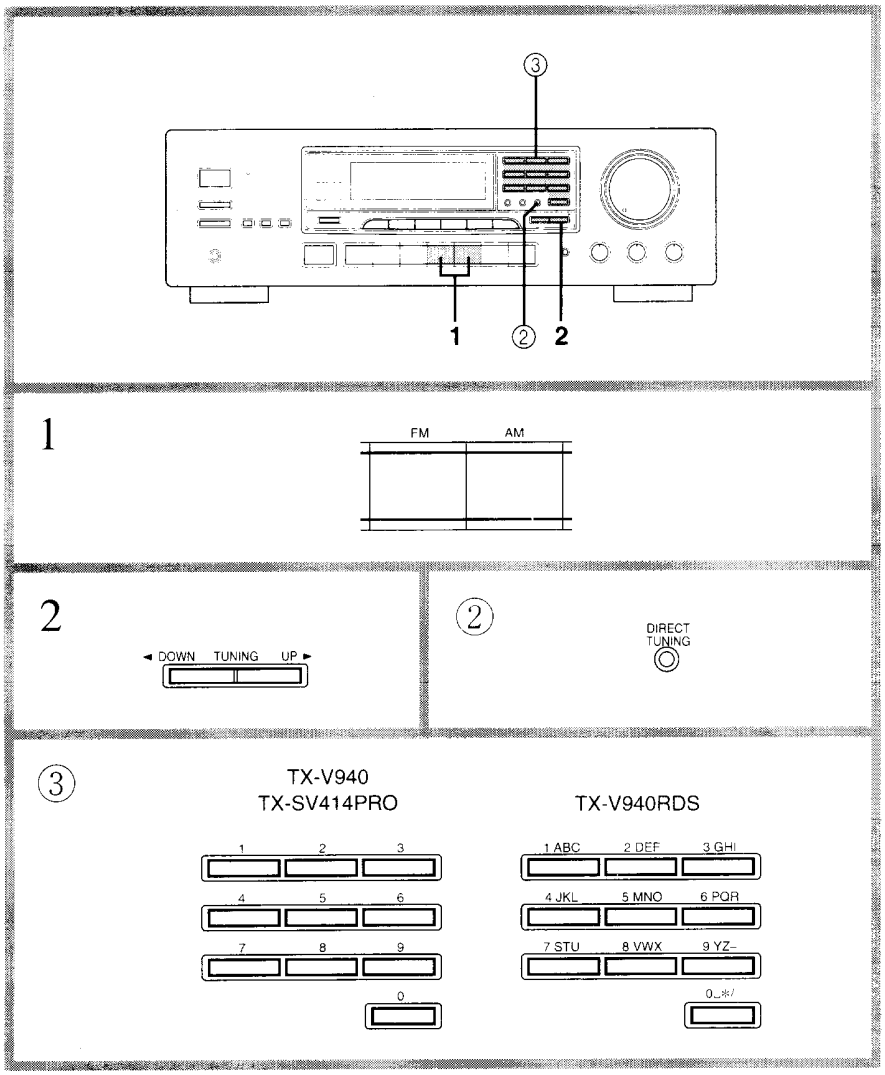
Cancelling the SLEEP setting

Press the SLEEP button until it changes to the source display you are listening to.
or
The timer can also be cancelled while it is in operation, by turning off the power

The direct function feature

When a compact disc player, and tape deck with the RI mark are connected together, you can use the direct function feature.
Simply by directly operating the desired component (compact disc player or tape deck), this unit's Input Selector automatically switches to that component.
It is not necessary to switch this unit's Input Selector when changing listening sources.

Receiving stations



Tuning the radio (Manual tuning and Direct tuning)

When the frequency is not known

-Manual tuning

1. **Press the FM or AM button.**
2. **Use the ◄ DOWN TUNING UP ► buttons to change the frequency.**

If you hold one of them down longer than 0.5 seconds, the display changes quickly. Press the button once again to stop the display changing.

When the frequency is known

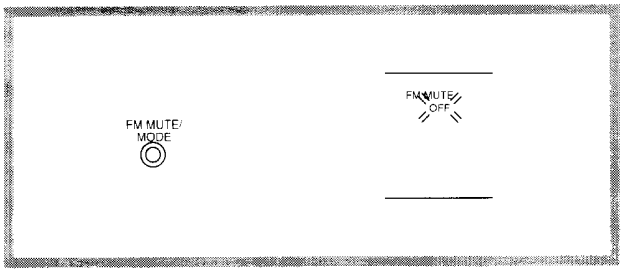
-Direct tuning

1. **Press the FM or AM botton.**
2. **Press the DIRECT TUNING button. (the "– –" will flash on the display).**
3. **Enter the frequency with the number buttons.**

- If you enter a frequency that is out of range, this unit will return to the previous frequency. If this happens, repeat the procedure.
- When receiving AM, if you enter a frequency that does not have a station, this unit will automatically tune to the next station immediately below that frequency.

Place the AM loop antenna or T-shaped FM antenna on a wall or other surface in the position which gives the best reception.

When receiving an FM station, follow the procedures for the RDS and APR functions as described hereafter.



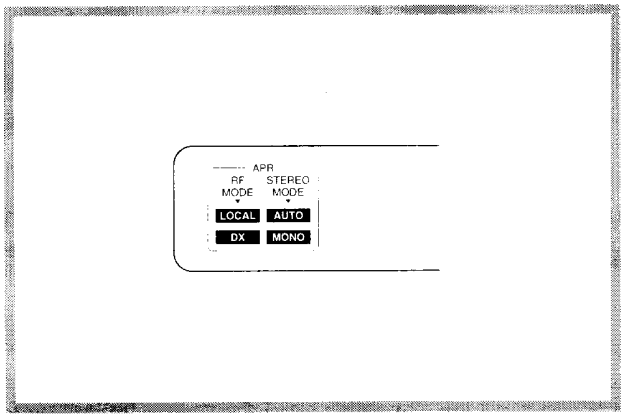
Listening to a stereo radio stations (FM only)

If you tune in a stereo FM station, the STEREO display will be illuminated if the signal is sufficiently strong.

If the signal is weak, it may be impossible to tune into your desired station. In this case, tune in as follows.

Press the FM MUTE/MODE button and FM MUTE "OFF" lights. At this time, the station will be in mono and static will be heard.

Select the station you want to listen to.



The APR system (FM only) (TX-V940/TX-V940RDS only)

This unit is equipped with an APR system to help tune in FM stations.

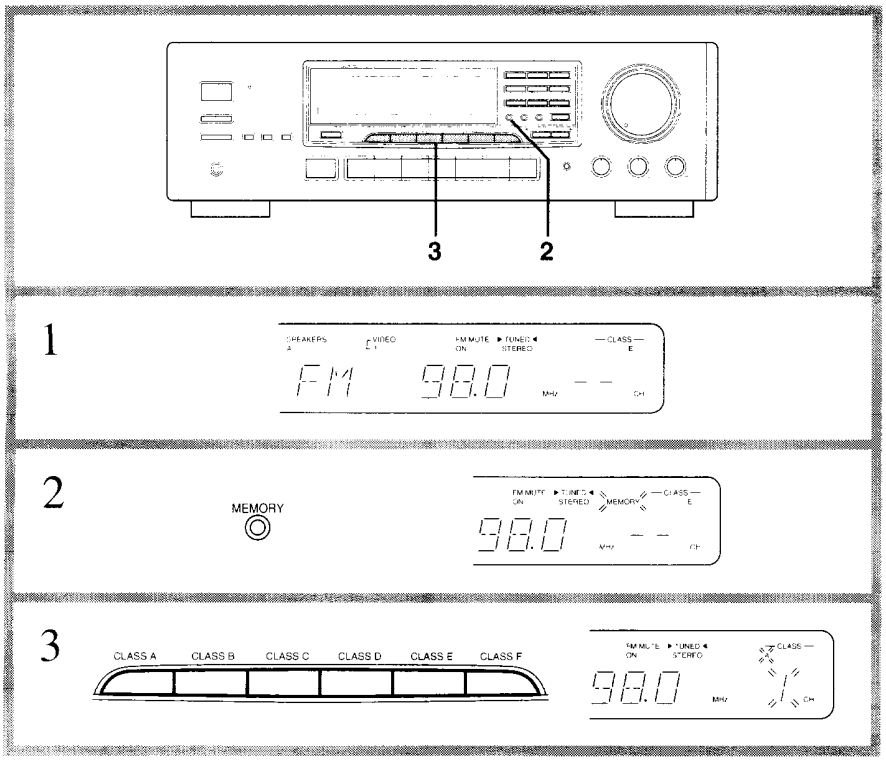
When receiving an FM station using manual or direct tuning, RF MODE LOCAL/DX and STEREO MODE AUTO/MONO settings are made automatically, according to the station being received.

The APR system automatically sets the gain of the RF section to DX or LOCAL according to the quality of the signal being received. The RF MODE will indicate LOCAL when sufficient signal is received.

If the MONO indicator lights up while a station is tuned in, the station will be received in mono even if it is a stereo station.

The STEREO MODE AUTO/MONO settings that the APR system makes can be changed by pressing the FM MUTE/MODE button.

Using preset stations

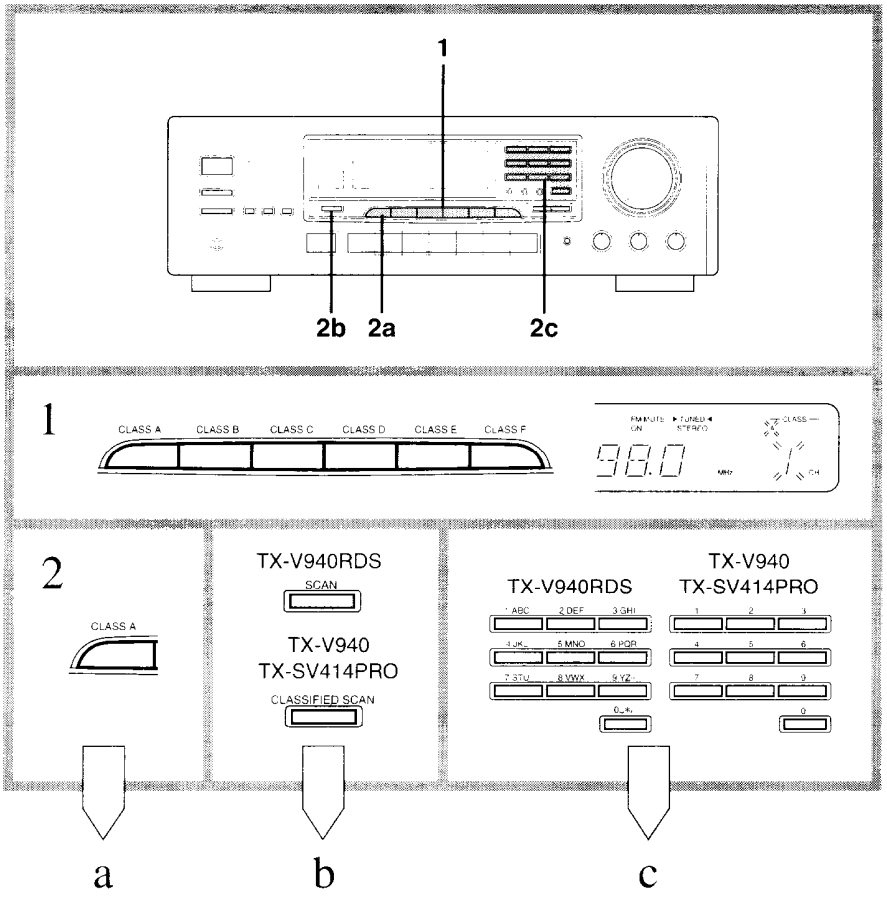


Programming radio stations

1. **Select the frequency that you want to store in the memory.**
   (See Receiving Stations on page 18.)
2. **Press the MEMORY button.** The MEMORY indicator will flash for 8 seconds.
3. While it is flashing, **press the button of the class (A-F)** in which you want the frequency memorized.

NOTES:

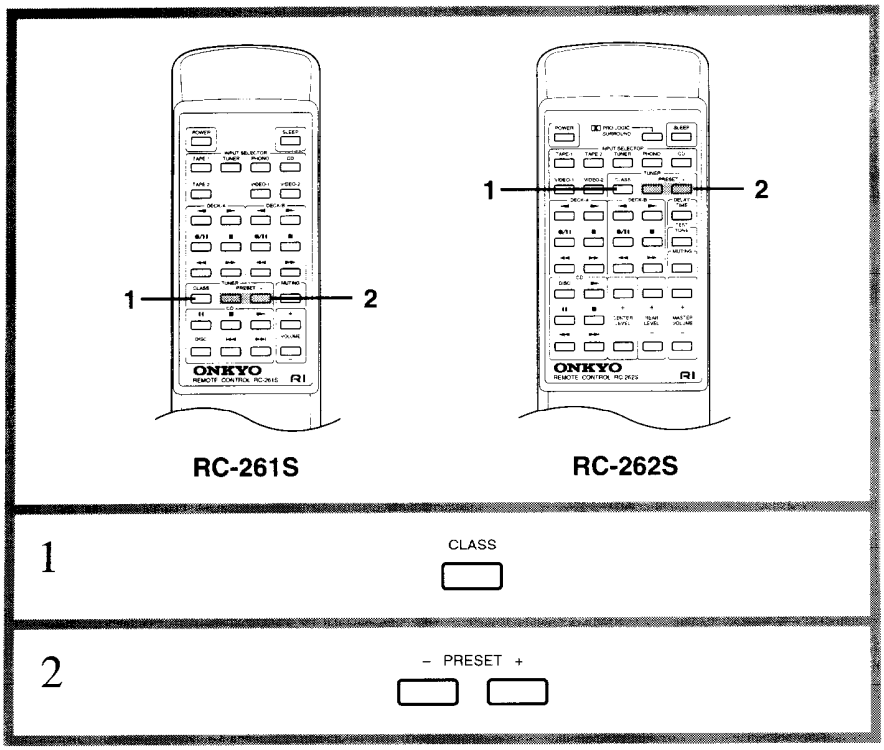
- AM stations can be stored in the memory using the same procedure.
- Up to 40 FM and AM stations can be stored in the preset memory in total.
- If the FM station received is an RDS station with a PS (Program Service Name), the frequency display will change to the PS display.
  If there is no PS, the frequency display will not change. (TX-V940RDS) (Refer to page 21 and 22 for the RDS function.)



Selecting preset stations (When using this unit)

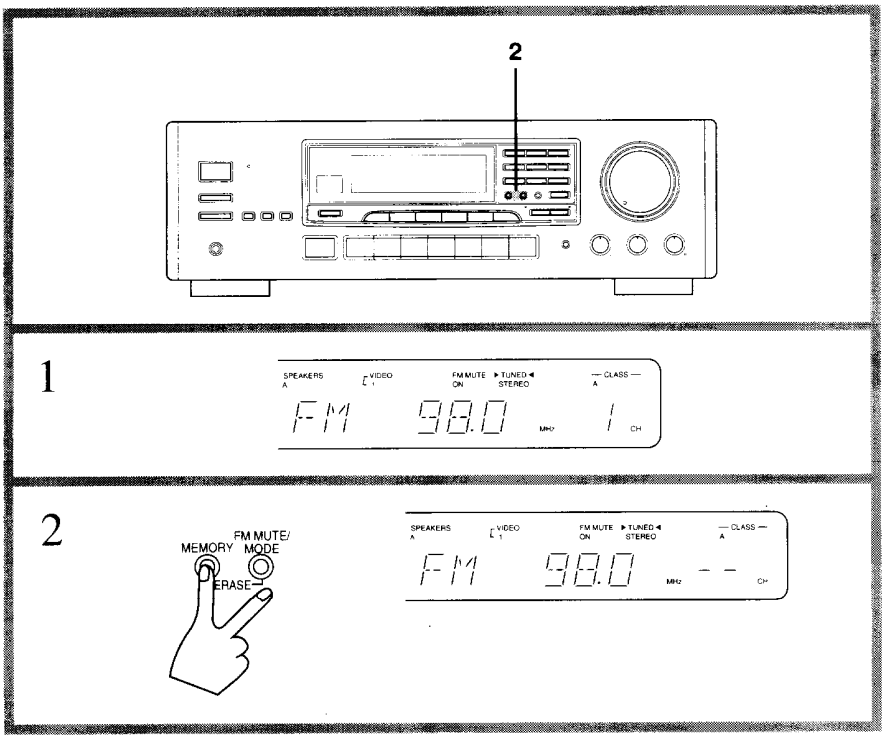
1. **Press one of the Class buttons (A - F).**
2. **a. Press the same Class button that was pressed in 1.**
   Each station stored in this class will be recalled in order.
   b. Press the CLASSIFIED SCAN (for TX-V940 and TX-SV414PRO) or SCAN (for TX-V940RDS).
   Each station stored in the class chosen in step 1 will be received for 5 seconds (for each station). When the station that you want is found, press the CLASSIFIED SCAN (or SCAN) button again and scanning will stop.
   c. Press the number buttons.
   When you know the preset number of station in the class chosen in step 1, press that number directly and that station will be received.

Using preset stations



Selecting preset stations (Using the remote control)

1. **Press the CLASS button and choose the class.**
   When it is pressed, the class will change.
2. **Press the PRESET (+ or -) button.**
   Whenever it is pressed, the preset stations in the class chosen in step 1 will be received.



Cancelling preset stations

1. **Select the station that you want to cancel as explained in the previous section.**
2. **Press and hold the MEMORY button and within a second of doing this, press the MUTE/MODE button.**
   "--" will be shown on the MEMORY channel display.

- Once the preset station has been cancelled, the memory location can be used to store another station.

Receiving RDS (TX-V940RDS only)

RDS reception is only available on the TX-V940RDS model, and only in areas where RDS broadcasts are available.

What is RDS?

Many FM stations now transmit RDS signals which give additional information. RDS provides you with various services so that (for example) you can choose a station broadcasting your favorite categories of music, or other information. The information on the right side is available on this unit.

PS: Program Service Name
When an RDS station broadcasting PS information is received, the name of the station will be displayed instead of the frequency.

PTY: Program Type
When an RDS station broadcasting PTY information is received, the type (category) of the broadcast will be displayed.

TP: Traffic Program
When an RDS station broadcasting TP information is received, the traffic information will be displayed.

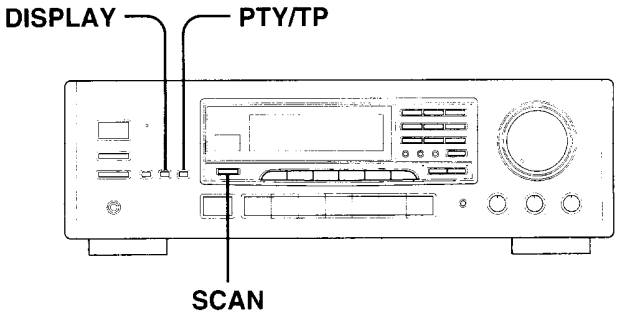
RT: Radio Text
When an RDS station broadcasting RT information is received, the information received from the station will be shown on the tuner's display.

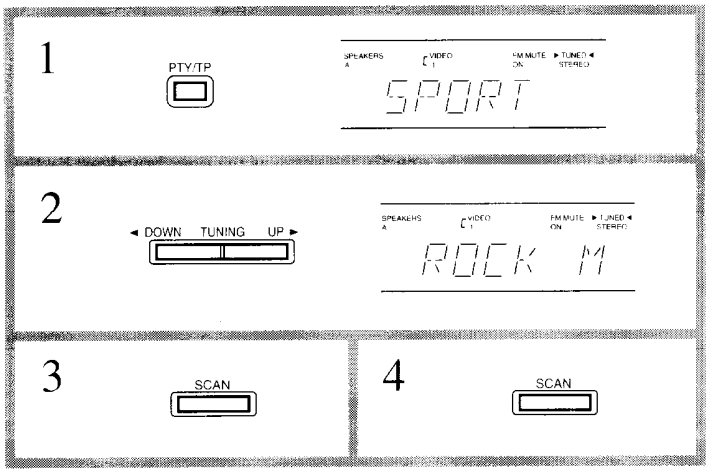
NOTE:
In some cases, the characters displayed on the screen of the TX-V940RDS may not be exactly the same as the ones broadcast by the radio station. The TX-V940RDS cannot display lower case letters, and will change them to upper case. If strange characters appear in the display, it is because characters are being received that cannot be correctly displayed by the TX-V940RDS. They do not indicate a malfunction of the unit.

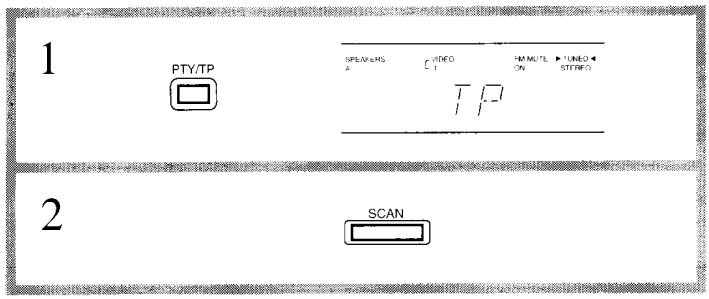
PTY Classifications in Europe

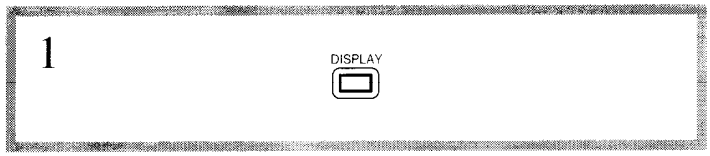
1	NEWS	**News reports**	Reports on current events and happenings.
2	AFFAIRS	**Current affairs**	Topical reporting of current affairs, often with a wider range of topics than news reports.
3	INFO	**Information**	General information such as weather forecasts, consumer affairs , medical help etc.
4	SPORT	**Sport**	Live sports action, sports news and interviews.
5	EDUCATE	**Education**	Formal educational programs.
6	DRAMA	**Drama**	Radio plays and serials
7	CULTURE	**Culture**	Cultural programs (including religious affairs)
8	SCIENCE	**Science and technology**	Programs about the natural sciences and technology.
9	VARIED	**Varied**	Speech based programs not covered by the above categories eg. quizzes, panel games, comedy, etc.
10	POP M	**Pop music**	Popular commercial music, usually included in past or present sales charts.
11	ROCK M	**Rock music**	Popular music with a more specialist appeal, often not included in sales charts.
12	M.O.R.M	**Middle of the road music**	Easy listening music as opposed to Pop, Rock or Classical.
13	LIGHT M	**Light classics**	Classical music for general rather than specialist appreciation.
14	CLASSICS	**Serious classics**	Performances of major orchestral works, symphonies, chamber music etc. and including Grand Opera.
15	OTHER M	**Other music**	Music styles not covered by the above categories, eg. Jazz, Rhythm & Blues, Folk, Country, Reggae.

Receiving RDS (TX-V940RDS only)









How to search for a station which broadcasts your favorite category (PTY scan)

1. **Press the PTY/TP button, to select "PTY".**
   If the station you are receiving is not broadcasting RDS, "NOT RDS" (this is not an RDS station) will be shown on the display.
2. **Use the ◄ DOWN TUNING UP ► buttons to select the programme type (PTY) (for example, "ROCK M").**
   See the PTY description above.
3. **Press the SCAN button to start searching for the chosen PTY.** When a station is received with the desired PTY, the scanning stops for approximately 5 seconds, before the unit starts scanning again.
4. **When the desired station is reached, press SCAN again to stop scanning.**

Receiving RDS traffic information

1. **Press the PTY/TP button to select "TP".**
   If "TP" is shown on the display, it indicates that the current station is broadcasting traffic information.
2. **Press the SCAN button to start searching for a TP station.**
   When the unit receives a TP station, it stops scanning. If the unit cannot receive any signal, "NOT FIND" (cannot find the station) is shown on the display.

Displaying Radio Text (RT)

If the station you are listening to is not an RDS station, this function cannot be used.

1. **Each time you press the DISPLAY button, the display changes as follows.**

Frequency → Character or Programme Service Name → Radio Text → Frequency

If the current station you are listening to is not an RDS station, only the frequency of the station and the characters (see pages 23) appears. (If there have been no characters entered, only the frequency is shown.)

When RT is received, it can sometimes take up to 15 seconds (more or less) to show RT on the display.

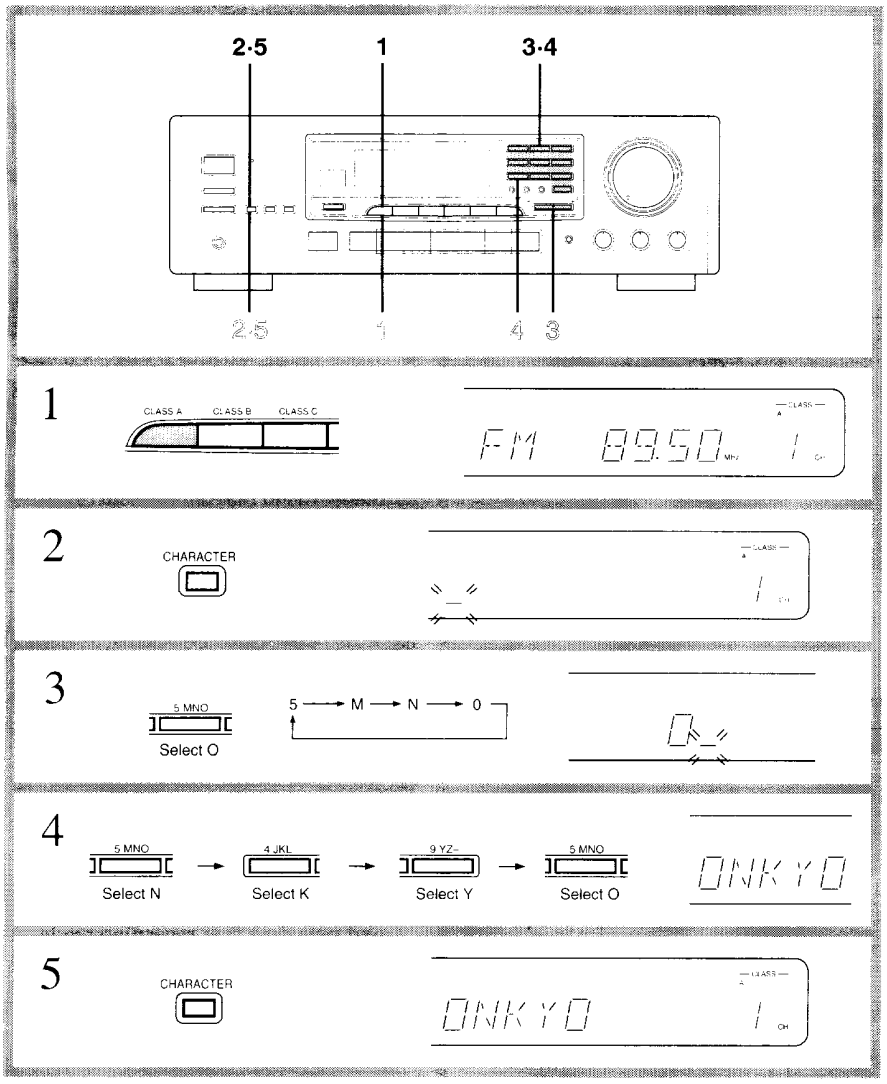
Sometimes the following messages will be shown on the display.

WAIT: indicates that it requires more time to receive the RT information. When the information is received, the characters will scroll across the display.

NO TEXT: this appears for 3 seconds and indicates that even though an RDS station is being received, there is no RT information included.

Entering station names (TX-V940RDS only)

Characters can be entered during reception of an AM or FM broadcast station.
This function enables you to memorize a maximum of 8 characters consisting of alphabetics, some symbols and numbers, for instance, representing broadcasting names, for each preset station.
If you attempt to enter characters while receiving an FM broadcast RDS station, "RDS...PS" is displayed and characters cannot be entered.



Characters which can be input

A B C D E F G H I J K L M N O
P Q R S T U V W X Y Z 1 2 3 4
5 6 7 8 9 0 ␣ * /

Note: ␣ indicates a space.

Entering new characters

To name 1CH of CLASS A as "ONKYO", for example, operate as follows. (Example: FM broadcast at 89.50 MHz has been memorized into 1CH of CLASS A).

1. **Press the CLASS A button.**
   The memorized broadcast station is received.
2. **Press the CHARACTER button.**
   The frequency in the display goes off and "_" flashes.
3. **To enter O from "ONKYO", press the 5MNO button.**
   Pressing the button each time changes the character from 5 to M, N, and O, one at a time. Select O.
   - "_" will move to the next character. (If you do not press the number button for one second or more, "_" will automatically move to the next character.)
4. **Repeat step 3.**
   To enter N from "ONKYO", press the 5MNO button and select N.
   To enter K from "ONKYO" press the 4JKL button and select K.
5. **Press the CHARACTER button.**
   If you have not pressed a button for 16 seconds, the operation will complete automatically.

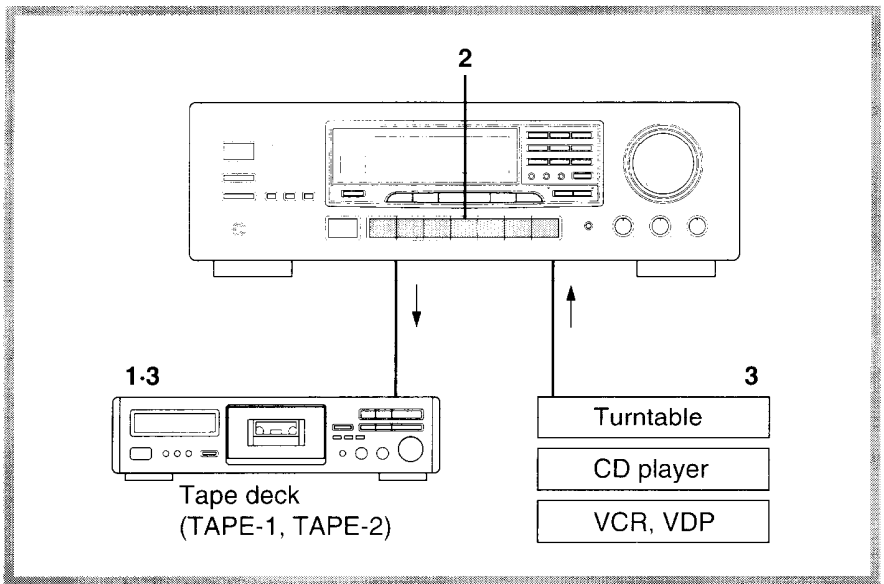
Clearing all of the characters stored in memory

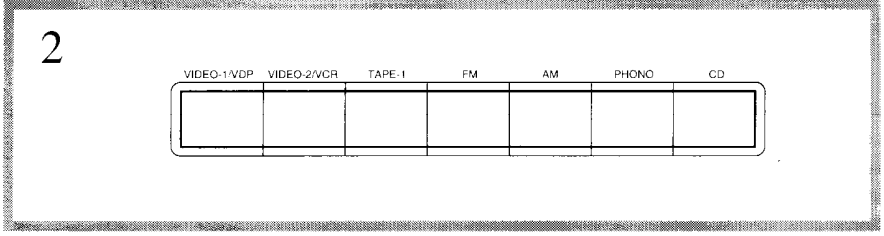
1. **Press the CHARACTER button.**
2. **While pressing the MEMORY button, press the FM MUTE/MODE button.**
   All the characters entered for this station will be cleared. However, take care, since the preset station will be cleared when this is done, even if no characters were stored in the memory.

Changing existing characters

1. **Press CLASS A~F buttons to recall the desired preset number.**
2. **Press the CHARACTER button.**
   "_" appears at the first character and it flashes alternately with the character.
3. **Press the ◄ DOWN TUNING UP ► button and move "_" to the character you want to change.**
   "_" moves to the right when pressing the UP ► button and moves to the left when pressing the ◄ DOWN button.
4. **Enter the desired character.**
   The previous character is replaced with a new character.
   - When you want to delete a character, press the DIRECT TUNING button. The character is deleted, and the characters on the right move to the left by one space.
5. **Press the CHARACTER button.**

Recording a source





Recording an audio source

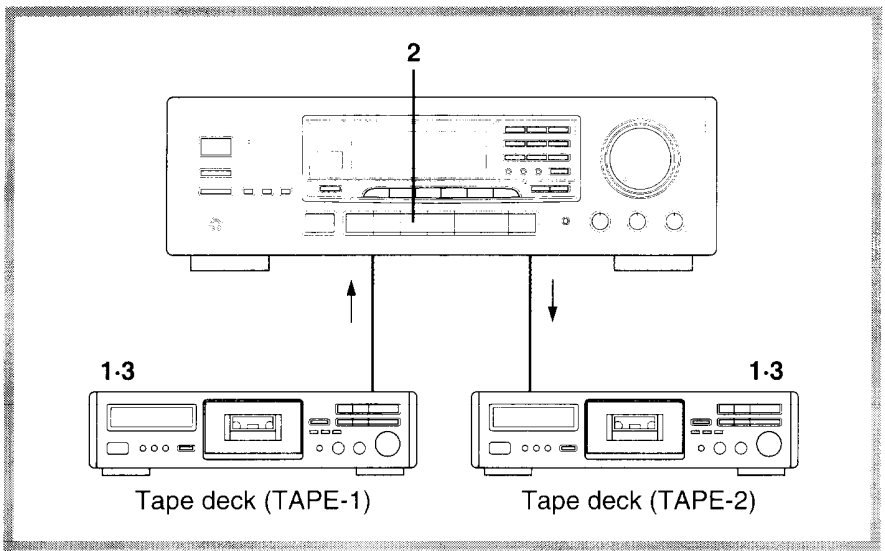
Please read the instruction manuals concerning the operation of each unit.

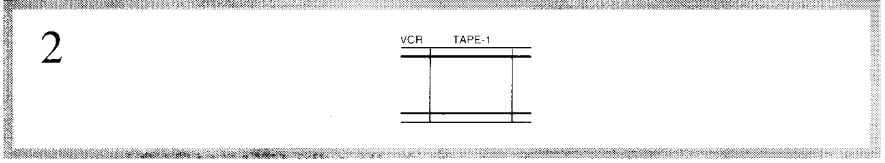
1. **Insert a blank tape into the tape deck.**
2. **Press the button of the source from which you want to record.**

- When VIDEO-1/VDP or VIDEO-2/VCR is selected, it will (naturally) only record the audio.
- When FM or AM is selected, set the tuner to the station you want to record from.
- When TAPE-1 is selected, it will record to the TAPE-2 REC jacks.
- When either VIDEO-1/VDP, VIDEO-2/VCR, FM, AM, PHONO or CD is selected, you are able to record to both the TAPE-1 and TAPE-2 REC jacks.

3. **Put the tape deck in the recording mode. Begin playing the source.**

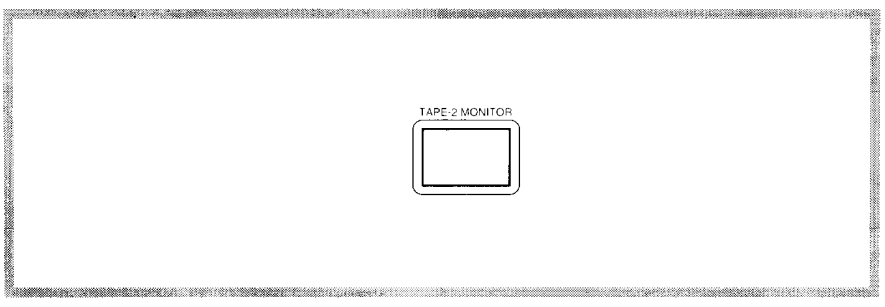
Set the proper recording level using the controls on the tape deck used for recording. Also, during recording and dubbing operations, if any controls (bass, treble etc.) on this unit are changed during recording and dubbing operations, the tone effects will not change.





Tape-to Tape Dubbing

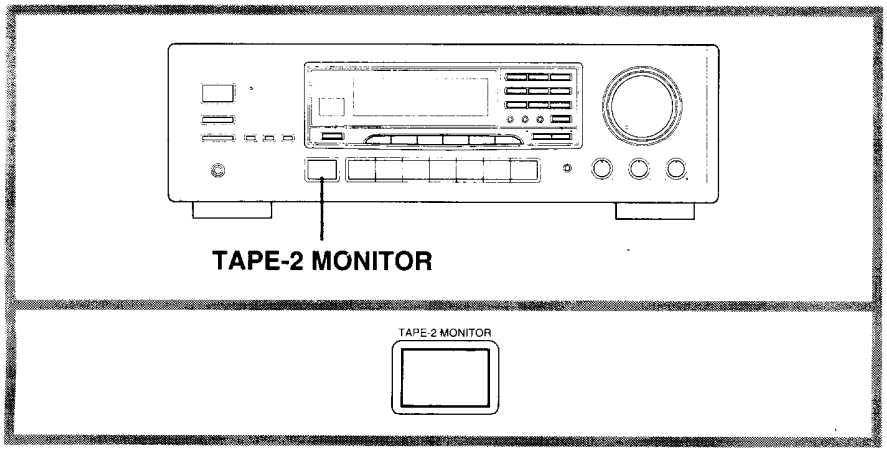
1. **Load the original tape in deck 1 and the blank tape in deck 2.**
2. **Press the TAPE-1 button.**
3. **Put tape deck 1 in the playback mode and tape deck 2 in recording mode.**



Monitoring

The source signal can be monitored through the speakers or headphones when TAPE-2 MONITOR is turned off.

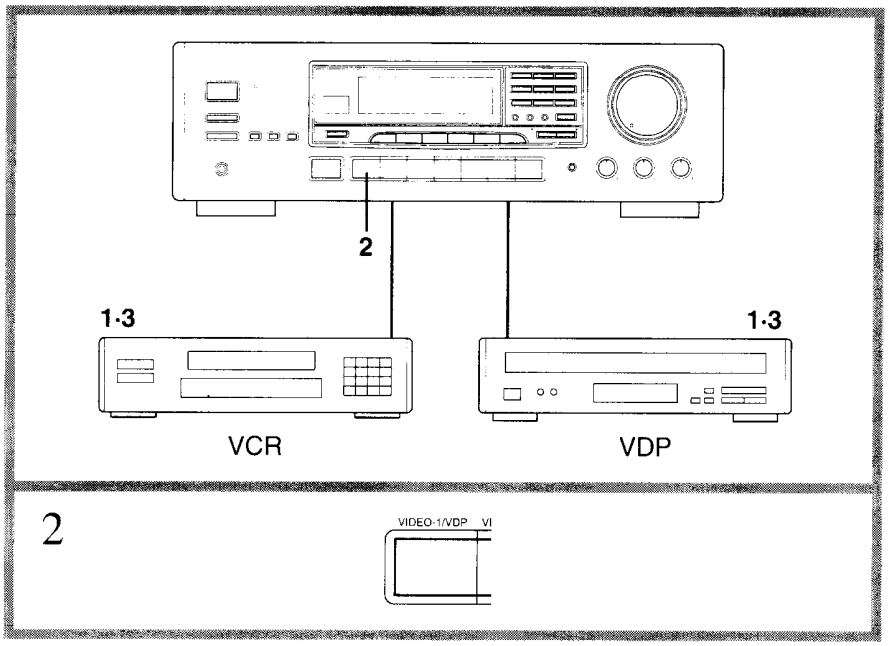
If tape deck 2 has three heads, the just-recorded signal can be monitored (when the TAPE-2 MONITOR is turned on). Refer to the tape deck instruction manual for more details.



Using a graphic equalizer

Connect the graphic equalizer to the TAPE-2 jacks on the rear panel.
If a second tape deck is used, connect it to the tape jacks on the graphic equalizer. Also see "Connecting a tape deck" on page 9 when making connections.

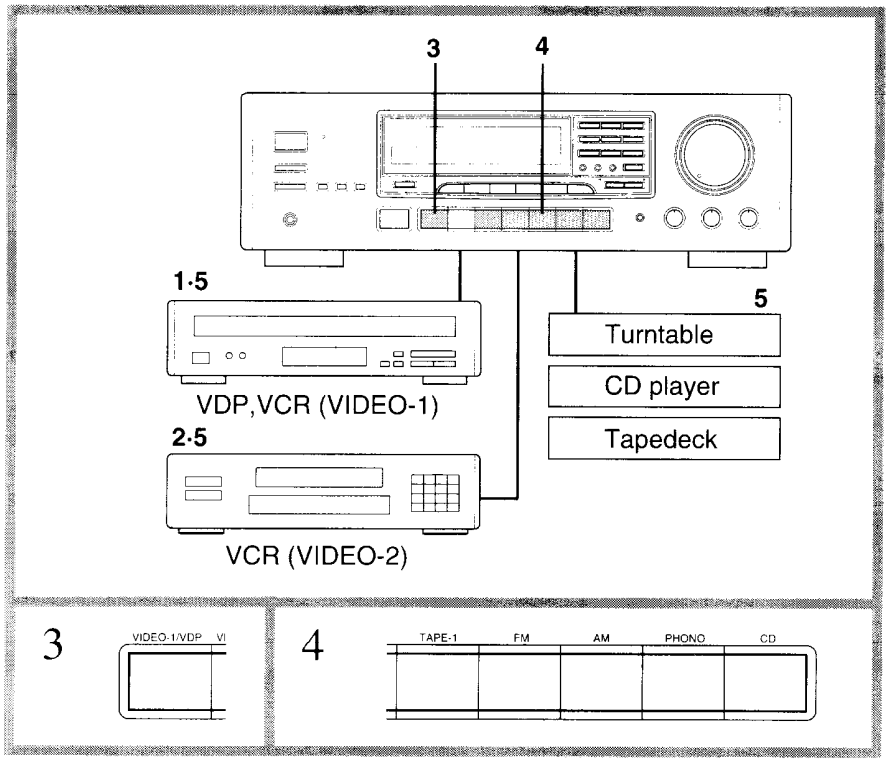
Press the TAPE-2 MONITOR button.
Follow the graphic equalizer operating instructions.
To record an equalized signal, use tape deck 2 (connected to the equalizer) for recording.



Video disc player (or video camcorder) to VCR recording

Video disc programs can be recorded onto a VCR (VIDEO-2).

1. **Load a disc in the video disc player, and a blank tape in the VCR (VIDEO-2).**
2. **Press the VIDEO-1/VDP button.**
3. **Begin playback on the video disc player and recording on the VCR.**



Adding new sound to a video tape during video editing

During video tape editing, you can add the desired sound on the recording VCR from various audio program sources.

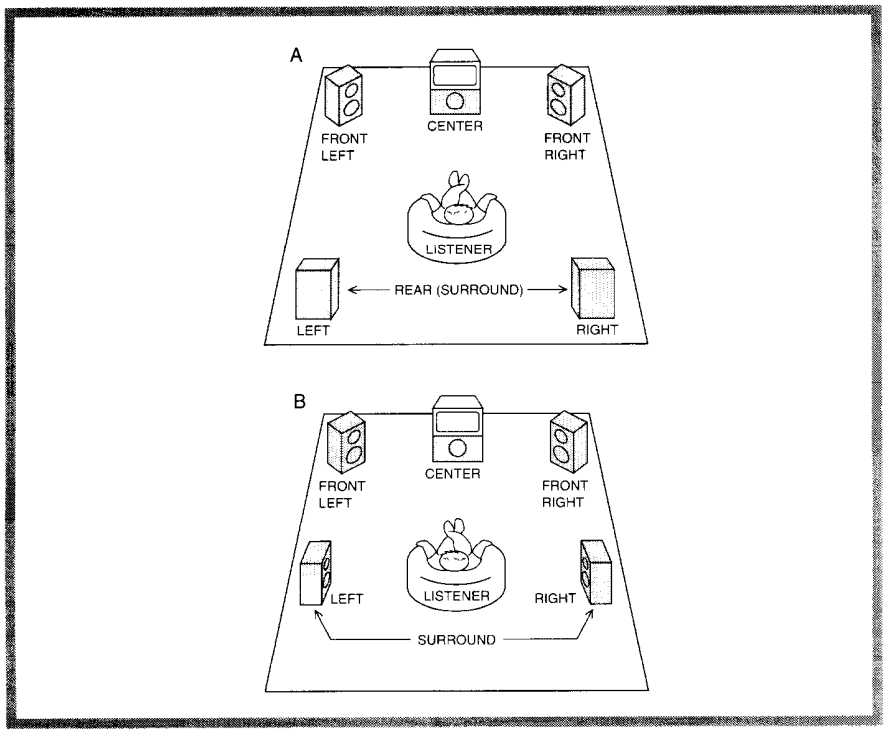
1. **Insert the LD or tape that you want to record into the VDP or VCR connected to VIDEO-1.**
2. **Insert a blank video tape in the VCR connected to VIDEO-2.**
3. **Press the VIDEO-1/VDP button.**
4. **Select the audio program source (TAPE-1, FM, AM, PHONO, CD)**
5. **Begin playback of the video connected to the VIDEO-1 and also start the sound source, then start recording on the VIDEO-2 VCR.**

Refer to the video disc player, video camcorder or VCR instruction manuals for additional information.

Dolby Pro Logic Surround (TX-SV414PRO only)

Surround system

Since the TX-SV414PRO is equipped with a front amplifier, center amplifier and a rear (surround) amplifier, Dolby Pro Logic Surround effects can all be produced. When you using video cassette tapes or video discs that have the DOLBY STEREO or DOLBY SURROUND trade mark, you can enjoy the feeling of a movie theater in your own room. To reproduce these effects, rear (surround) speakers and the best placement for optimum sound quality in your room.



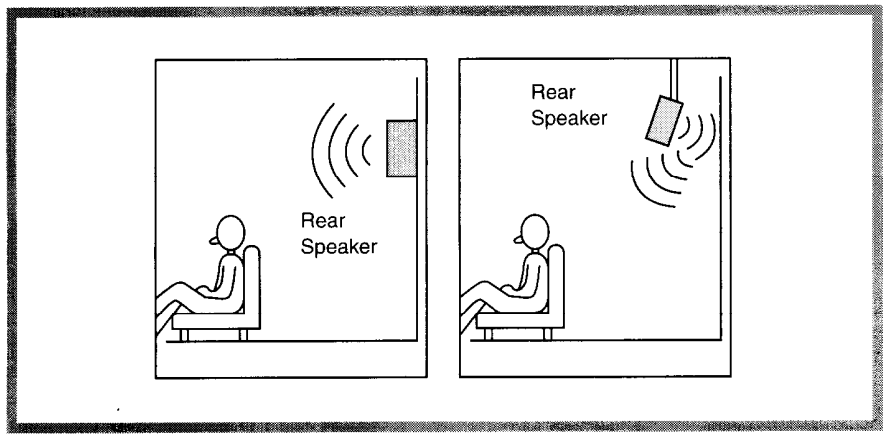
Placing the speakers for Surround effects

Speaker placement plays an important role in the reproduction of sound using Surround. The manner in which the speakers are placed varies depending on the size of the room and the wall coverings used in the room. The following shows an example of a layout for standard speaker placement. Refer to the example for placing the speakers appropriately in order to experience the best Surround sound.

In principle, for Surround sound reproduction, two Front speakers and two Surround (Rear) speakers are required. Refer to the illustration on the left.

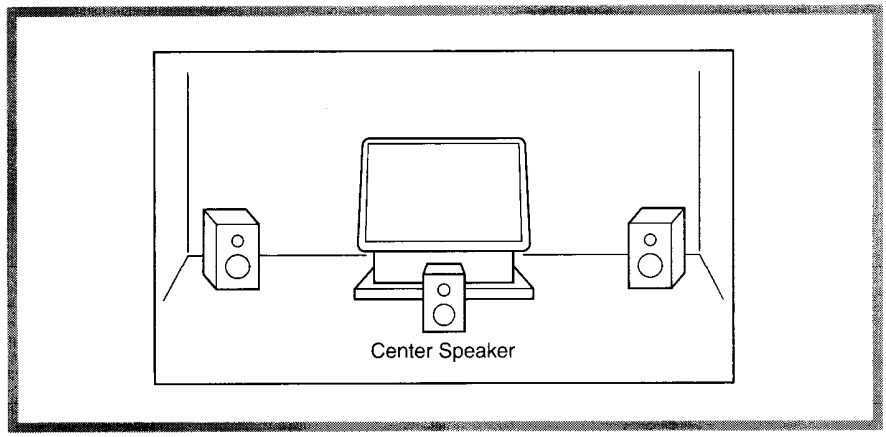
Placing the front speakes

If the Front L and R speakers are placed too far away from each other, sound spreads out too much and is dispersed resulting in diminished sound quality.



Placing the rear speakers

To bring out the feeling of shifting sound, the rear speakers should not be placed on the floor, but would be most effective placed above ear position. They can also be placed facing the ceiling or walls to reflect the sound.



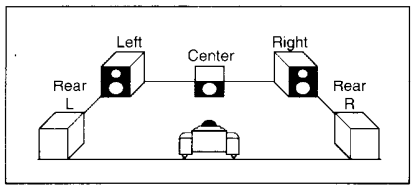
Placing the center speakers

To enjoy Dolby Pro Logic Surround reproduction, a center speaker is required in addition to the four basic speakers.

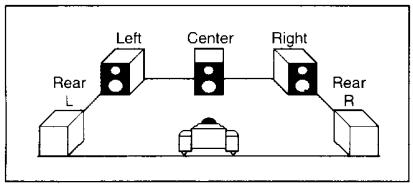
If a screen with a projector is used, place the center speaker under the screen. If a Monitor TV is used, it is recommended that the center speaker be placed on top of or under the Monitor.

Dolby Pro Logic Surround (TX-SV414PRO only)

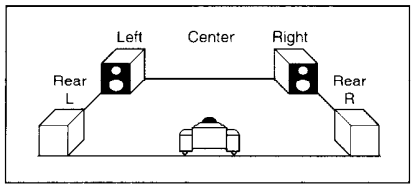
NORMAL:



WIDEBAND:



PHANTOM:



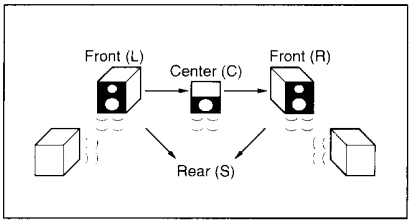
Center Mode

NORMAL: Use this setting when using a Center speaker smaller than the L and R stereo speakers. The center speaker will not be sent any signals containing frequencies below 100 Hz, and these low-frequency signals will be split between the Front L and R speakers.

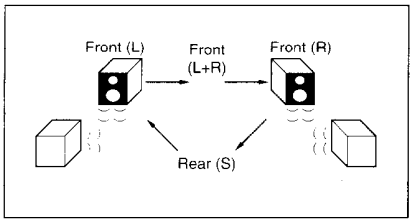
WIDE BAND: Use this setting when using a Center speaker similar to the L and R stereo speakers in size and power. The center speaker will receive the full frequency range.

PHANTOM: Use this setting when a Center speaker is not present. The sound that would have been sent to the Center speaker will be split between the Front L and R speakers, producing a similar result.

NORMAL or WIDEBAND



PHANTOM



Test Tone

Use the test tone to adjust the volume level of each of the speakers before enjoying Dolby Pro Logic Surround.

Pink noise is produced by each speaker in turn so you can match the volume levels of the front, center and rear speakers.

The test tone sequence

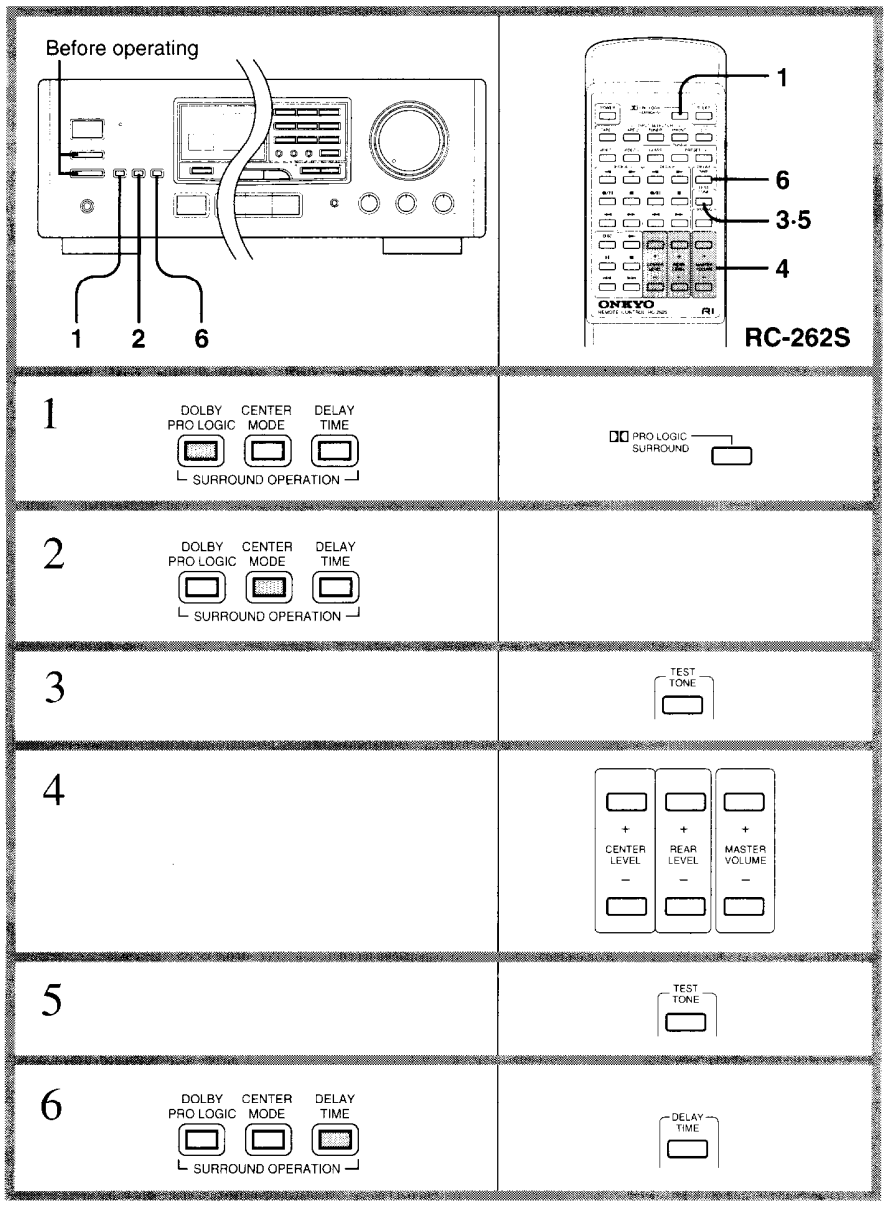
1. **When the center mode is set to NORMAL or WIDEBAND**
   The test tone will be output automatically from the Front (L), Center, Front (R), and the rear speakers in succession.
2. **When the center mode is set to PHANTOM**
   The test tone will be output automatically from the front (L), Front (L and R), Front (R) and the rear speakers alternately.

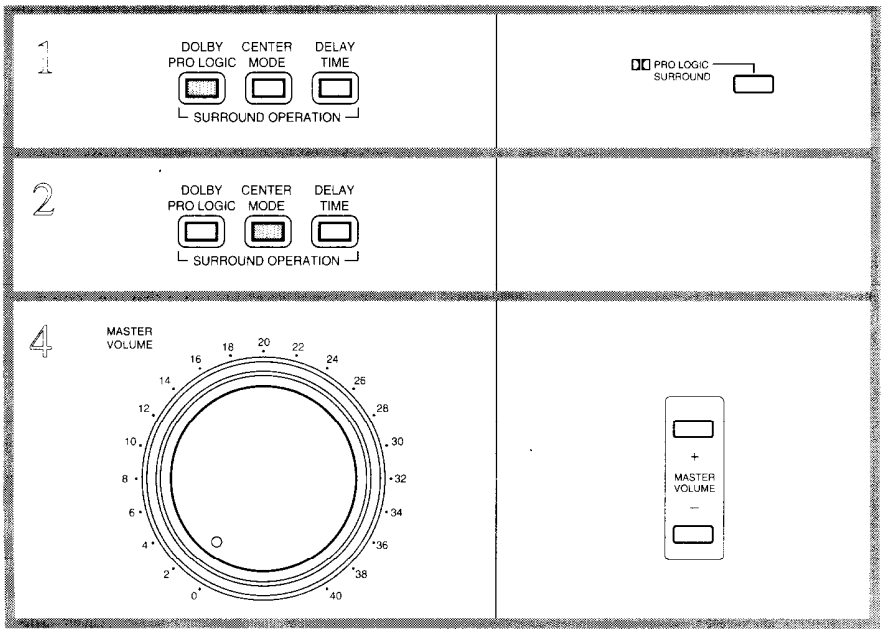
Delay Time

Adjustable delay time allows you to tailor the acoustic size of your listening environment to the sonic characteristics of the audio program, because a short delay in the audio signal coming from the rear speakers gives the impression that it had to travel a longer distance to reach the listener, hence a larger room or hall.

Dolby Surround delay time is specified at 20 msec. It is recommended that initial Dolby Surround delay be set at 20 msec, but adjustment from 15 to 30 msec is possible.

Dolby Pro Logic Surround (TX-SV414PRO only)





If there are differences in the volume levels of the speakers when enjoying Dolby Pro Logic Surround, you will not be able to get the best effect. You should use the test tone to adjust all the speakers to the same volume level.

Before operating: Be sure to turn off SPEAKERS B and turn on SPEAKERS A when enjoying Dolby Pro Logic Surround.

Adjusting the speaker volume

1. **Turn on Dolby Pro Logic.**
2. **Choose the Center mode.**
   When the button is pressed, the mode will change as shown below.

   →NORMAL → WIDEBAND → PHANTOM→

   Please refer to the 27 page for details of these modes.
3. **Press the TEST TONE button on the remote control.**
   Please refer to the 27 page for details.
4. **From your listening position, adjust the relative volume level of the test tone from the different speakers, on the remote control.**
   - Adjust the volume levels of all of the speakers with the + and – MASTER VOLUME buttons.
   - Adjust the volume levels of the center speakers with the + and – CENTER LEVEL buttons.
   - Adjust the volume levels of the rear speakers with the + and – REAR LEVEL buttons.
5. **Press the TEST TONE button and stop the pink noise.**
6. **Set the delay time.**
   Please refer to the 27 page for details.

Enjoying Dolby Pro Logic

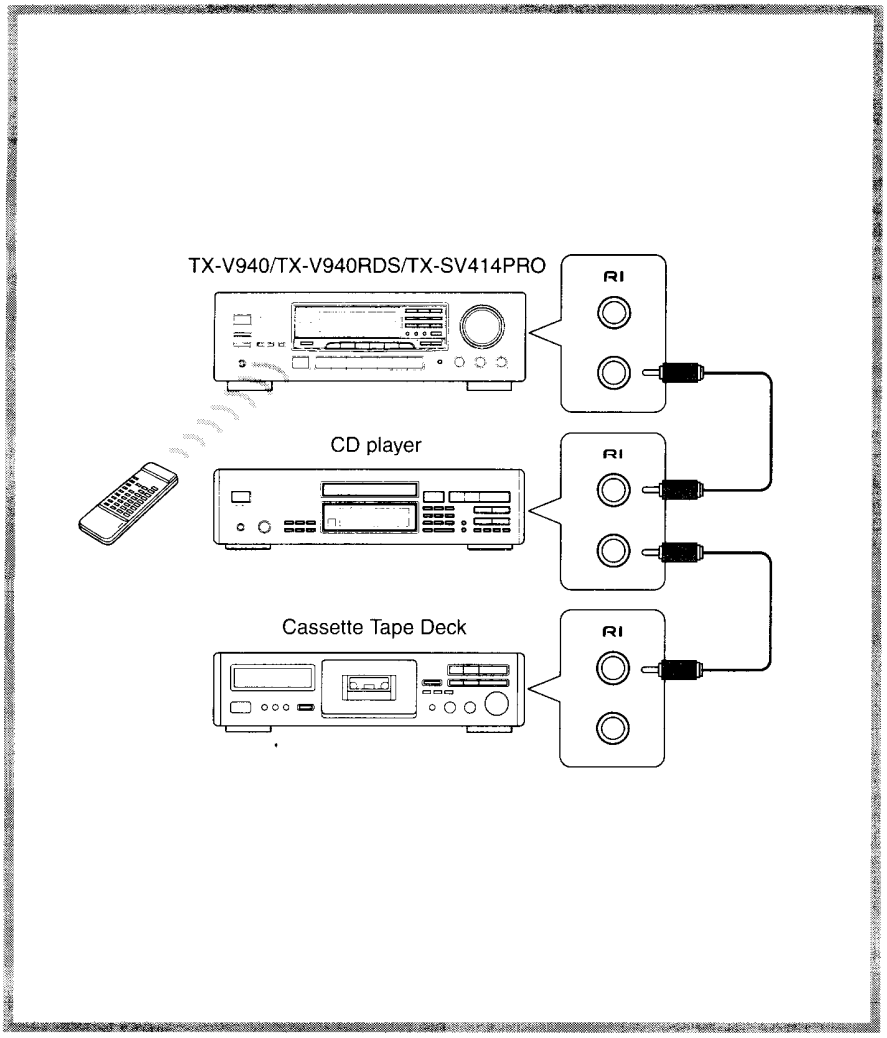
1. **Set the Dolby Pro Logic Surround mode.**
2. **Select the center mode.**
3. **Play a sourse encoded with Dolby Surround.**
4. **Adjust the master volume.**

NOTE:

- TREBLE and BASS are effective for the L and R of the front speakers. The best effect from DOLBY PRO LOGIC SURROUND can be obtained when equal settings are used for the sound from the L/R front speakers and the sound from the center speaker for the middle and treble ranges.
- LOUDNESS is not effective for the Dolby Pro Logic Surround mode.

Connecting Onkyo components for RI operation

When Onkyo products with the RI mark are connected to the main component, you are able to operate each component with the remote control of the main component. This means you can control your whole system with just one remote control.
(The RI mark is an Onkyo mark.)



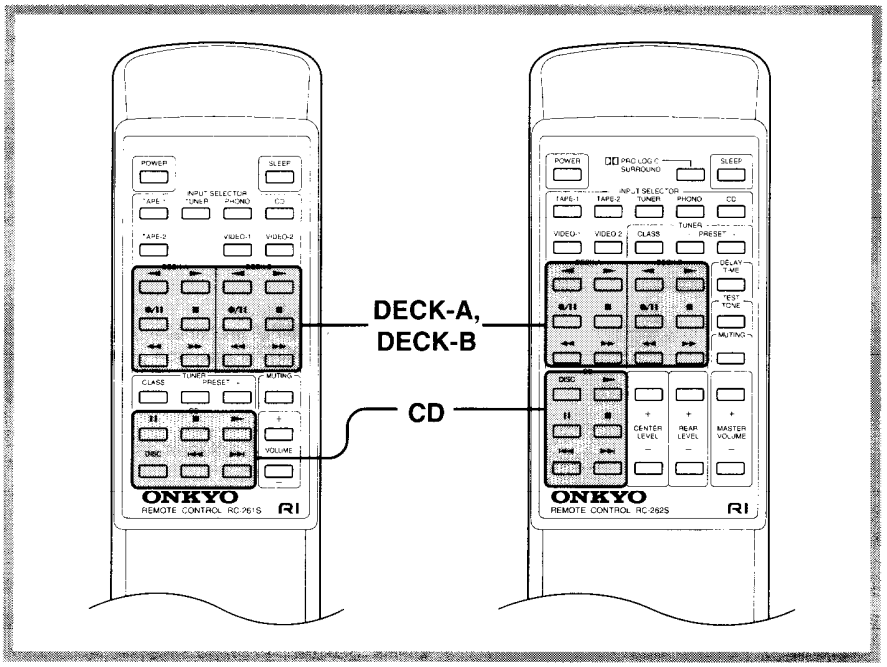
Connections for remote control (RI)

When connecting Onkyo products, it is necessary to attach an RI cable to be able to use the remote control of the main component to control the entire system.

1. To use an Onkyo compact disc player and cassette tape deck with the RI mark with this Tuner Amplifier, insert the remote control cable plugs into the REMOTE CONTROL jacks as shown.
2. As the exact connection sequence of the RI cable is unimportant, you can connect from this unit to either the cassette tape deck or to the compact disc player.
3. To operate this system, the remote control must face towards the remote control sensor of this unit.

NOTES:

- The upper and lower RI remote control jacks have the same function.
- A cassette tape deck, and compact disc player that have the Onkyo RI mark can be operated using the accessory remote control.
- Remote control operation is not possible when only the remote control cable is connected – the audio cables must also be connected.
- An RI remote control cable equipped with a 1/8" (3.5mm) diameter miniature two-conductor phone plug is included with compact disc player with the RI mark.



When you have made the connections mentioned above, you will be able to the use the following buttons.

1. **Tape deck operation buttons (DECK-A, DECK-B)**
   - ◄ : Reverse play button
   - ► : Forward play button
   - ◄◄ : Fast rewind button
   - ►► : Fast forward button
   - ■ : Stop button
   - ●/II : Rec/pause button

   ✻ When only a single deck is used, operate DECK-B.
2. **CD player operation buttons (CD)**
   - ■ : Stop button
   - II : Pause button
   - ► : Play button
   - ⏮ : Down button
   - ⏭ : Up button
   - DISC : Disc button for CD changer

Trouble shooting guide

If a problem occurs, first operate the unit using the front panel controls to confirm that it is not due to a malfunction (or expired batteries) of the remote control.

Trouble	Cause	Remedy
No power.	• Power cord is disconnected. • There is external noise in the computer circuits of this unit. • AC fuse blown.	• Connect power cord. • Turn the power button off and then on again or remove the AC plug from the outlet. • Contact your Onkyo Service Center.
Power but no sound.	• TAPE-2 MONITOR button is on. • MUTING button is on. • Bad/incorrect connections. • Amplifier protection circuitry has been activated. ('PROTECT' will be displayed.)	• Switch to off. • Switch to off with the remote control. • Check input leads, speaker leads, pin plugs, etc. • Contact your Onkyo Service Center.
No sound from the Center speaker, or very minimal sound. (TX-SV414PRO only)	• Speaker cord is not corrected. • DOLBY PRO LOGIC is not on. • Center level is set to minimum. • Center Mode is set to PHANTOM.	• Check the connection between the amplifier and the speaker. • Turn it on. • Set the Center level to the appropriate volume. • Set Center Mode to NORMAL or WIDEBAND.
Hum, low-frequency noise.	• Poor or no input ground. • Poor or no phono motor ground. • The placement of the input/output cables on the rear panel is incorrect.	• Check outer conductor of input plugs. • Check for proper ground connection. • Adjust the placement of the cable to reduce hum.
Howling when the volume is turned up.	• Turntable and speakers are too close together.	• Move them farther apart.
Rough or scratchy sound. High range is not clear.	• Stylus of turntable pick-up is worn. • Turntable stylus tip is dirty. • Treble control too high.	• Replace. • Clean. • Turn treble control down.
AM stations cannot be received.	• AM loop antenna is not attached.	• Connect the included AM loop antenna to the AM antenna terminals.
Buzzing noise on AM (particularly conspicuous at night or with weak stations).	• Noise from electrical apparatus such as fluorescent lamp.	• Move the AM loop antenna to different position. • Set up an outdoor AM antenna.
High-pitched noise or buzzing noise on AM.	• Noise from TV set.	• Place the AM loop antenna as far as possible from the TV. • Move unit away from TV set.
Crackling noise on AM, FM.	• Noise caused by turning fluorescent lamp on and off. • Noise from automobile ignition.	• Move antenna as far as possible from the fluorescent lamp. • Install an FM outdoor antenna as far as possible from the road. • Change the position or direction of the outdoor antenna.
FM tuned and stereo indicators light but sound is distorted and stereo separation is bad.	• Station is too strong. • Multiple reflection of the radio waves because of tall buildings or mountains.	• Change to T-shaped antenna. • Use antenna which has better directivity and select a point where the distortion is least.
FM tuned Indicator and stereo indicator flicker and hiss is heard on FM	• Station is too weak. • Stereo FM broadcasts cover only about half the distance of an ordinary broadcast.	• Install an outdoor FM antenna. • Change the position or direction of the outdoor antenna.
No station is recalled when a preset button is pressed.	• The power cord has been unplugged for a long time.	• The memory contents are lost. Store all stations again.
The RDS function does not work.	• It is not RDS station. • The reception station signal is too weak. • Too much interference.	• Receive an RDS station. • Install an outdoor FM antenna. • Change the position or direction of the outdoor antenna. • Move the antenna as far away as possible from the fluorescent lamp. • Install an outdoor FM antenna as far away as possible from the road.
Front panel controls function but remote control does not.	• No batteries in remote control. • Batteries have worn out.	• Insert batteries. • Replace batteries

- Also refer to the respective instruction manuals of the Video Disc Player, video cassette recorder, TV monitor, etc., being used.
- The tuning steps by which the tuned frequency increases/decreases have been set at the factory to the proper value for the area where each unit is to be sold. If you use the unit in a country where a different tuning step is required or if the broadcast frequencies in your country change so that you can not tune in radio stations precisely, contact your Onkyo authorized service center.

Specifications

Specifications and features are subject to change without notice.

AMPLIFIER SECTION

	TX-V940/TX-V940RDS	TX-SV414PRO
Power Output:	USA & Canadian models: 100 watts per channel, min. RMS, at 8 ohms, both channels driven, from 40 Hz to 20 kHz with no more than 0.2% THD. Other than USA & Canadian models: Continuous output 2 × 100 watts at 4 ohms 1 kHz (DIN) 2 × 75 watts at 8 ohms 1 kHz (DIN)	Stereo mode Front L/R channels 60 watts per channel min. RMS. at 8 ohms, both channels driven, from 20 Hz to 20,000 Hz, with no more than 0.08% total harmonic distortion. Continuous Power output: 2 × 90 watts 4 ohms 1 kHz (DIN) 2 × 70 watts 8 ohms 1 kHz (DIN) Surround mode Front L/R and center channels 50 watts per channel min. RMS at 8 ohms, with no more than 0.08% total harmonic distortion at 1,000 Hz Rear channels 15 watts per channel min. RMS at 8 ohms with no more than 0.3% total harmonic distortion at 1,000 Hz
Total Harmonic Distortion:	0.08% at power 30 watts	0.08% at rated power (FRONT)
IM Distortion:	0.08% at power 30 watts	0.08% at rated power (FRONT)
Damping Factor:	50 at 8 ohms	50 at 8 ohms (FRONT)
Sensitivity and Impedance:	Phono: 2.5 mV/50 kohms CD/Tape Play: 150 mV/50 kohms Tape Rec: 150 mV/2.2 kohms	Phono: 2.5 mV/50 kohms CD/Tape Play: 150 mV/50 kohms Tape Rec: 150 mV/2.2 kohms Mono out (SUBWOOFER): 1V 2.2 kohms
Phono Overload:	120 mV RMS. at 1,000 Hz, 0.5% THD.	120 mV RMS. at 1,000 Hz, 0.5% THD.
Frequency Response:	20 to 30,000 Hz, +/–1 dB	20 to 30,000 Hz, +/–1 dB
RIAA Deviation:	20 to 20,000 Hz, +/–0.8 dB	20 to 20,000 Hz, +/–0.8 dB
Tone Control:	BASS: +/–10 dB at 100 Hz TREBLE: +/–10 dB at 10,000 Hz	BASS: +/–10 dB at 100 Hz TREBLE: +/–10 dB at 10,000 Hz
Signal to Noise Ratio:	PHONO: 80 dB (IHF A, 5 mV input) CD/TAPE: 100 dB (IHF A)	PHONO: 80 dB (IHF A, 5 mV input) CD/TAPE: 100 dB (IHF A)

VIDEO SECTION

Signal sensitivity and impedance:	VDP/VCR input, output: 1 Vp-p, 75 ohms	VDP/VCR input, output: 1 Vp-p, 75 ohms

TUNER SECTION

FM:

Tuning Range:	87.5 — 108.0 MHz	87.5 — 108.0 MHz
Usable Sensitivity:	Mono: 11.2 dBf, 1.0 µV (75 ohms) Stereo: 17.2 dBf, 2.0 µV (75 ohms)	Mono: 11.2 dBf, 1.0 µV (75 ohms) Stereo: 17.2 dBf, 2.0 µV (75 ohms)
50dB Quieting Sensitivity:	Mono: 18.2 dBf, 2.2 µV (75 ohms) Stereo: 38.2 dBf, 22 µV (75 ohms)	Mono: 18.2 dBf, 2.2 µV (75 ohms) Stereo: 38.2 dBf, 22 µV (75 ohms)
Capture Ratio:	1.5 dB	1.5 dB
Image Rejection Ratio:	USA & Canadian models: 40 dB Other area models: 85 dB	USA & Canadian models: 40dB Other area models: 85 dB
IF Rejection Ratio:	90 dB	90 dB
Signal-to-Noise Ratio:	Mono: 73 dB Stereo: 67 dB	Mono: 73 dB Stereo: 67 dB
Alternate Channel Attenuation:	55 dB	55 dB
Selectivity:	50 dB (DIN)	50 dB (DIN)
AM Suppression Ratio:	50 dB	50 dB
Total Harmonic Distortion:	Mono: 0.15% Stereo: 0.25%	Mono: 0.15% Stereo: 0.25%
Frequency Response:	30 — 15,000 Hz +/-1.5 dB	30 — 15,000 Hz +/-1.5 dB
Stereo Separation:	45 dB at 1 kHz/30 dB at 100 — 10,000 Hz	45 dB at 1 kHz/30 dB at 100 — 10,000 Hz

AM:

Tuning Range:	USA & Canadian models: 530 — 1710 kHz (10 kHz steps) European models: 522 — 1611 kHz (9kHz steps) Worldwide models 531 — 1602 kHz (9 kHz steps), 530 — 1710 kHz (10 kHz steps)	USA & Canadian models: 530 — 1710 kHz (10 kHz steps) European models: 522 — 1611 kHz (9kHz steps) Worldwide models 531 — 1602 kHz (9 kHz steps), 530 — 1710 kHz (10 kHz steps)
Usable Sensitivity:	30 µV	30 µV
Image Rejection Ratio:	40 dB	40 dB
IF Rejection Ratio:	40 dB	40 dB
Signal-to-Noise Ratio:	40 dB	40 dB
Total Harmonic Distortion:	0.7%	0.7%

GENERAL

Power Supply:	USA & Canadian models: AC120 V, 60 Hz European models: AC 230V, 50 Hz UK & Australian models: AC 240 V, 50 Hz Woldwide models: 220 V and 120 V switchable 50/60 Hz	USA & Canadian models: AC120 V, 60 Hz European models: AC 230V, 50 Hz UK & Australian models: AC 240 V, 50 Hz Woldwide models: 220 V and 120 V switchable 50/60 Hz
Dimensions (W × H × D):	455 × 150 × 331 mm 17-15/16" × 5-7/8" × 13-1/16"	455 × 150 × 331 mm 17-15/16" × 5-7/8" × 13-1/16"
Weight:	9.5 kg (20.9 lbs)	10.2 kg (22.5 lbs)

ONKYO CORPORATION

ONKYO CORPORATION
Sales Planning & Promotion Dept.: 2-1, Nisshin-cho, Neyagawa-shi, OSAKA 572, JAPAN
Tel: 0720-31-8111 Fax: 0720-31-2262

ONKYO U.S.A CORPORATION
200 Williams Drive, Ramsey, N.J. 07446, U.S.A.
Tel: 201-825-7950 Fax: 201-825-8150

ONKYO DEUTSCHLAND GMBH ELECTRONICS
Industriestrasse 18-20, 82110 Germering, GERMANY
Tel: 089 84 93 20 Fax: 089 84 93 226

ONKYO FRANCE
Immeuble Le Diamant, Domaine Technologique de Saclay, 4 Rue René Razel,
91892 SACLAY, FRANCE Tel: (1) 69 33 14 00 Fax: (1) 69 41 35 84

SN 29341901Y

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