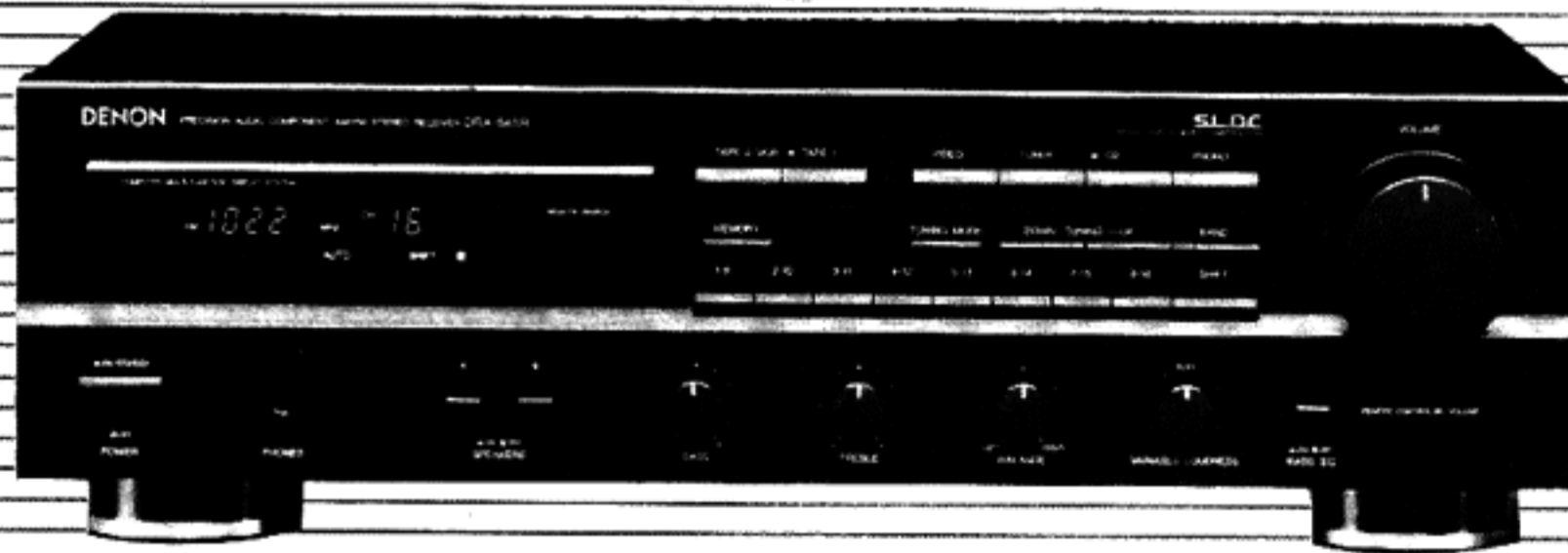


# DENON

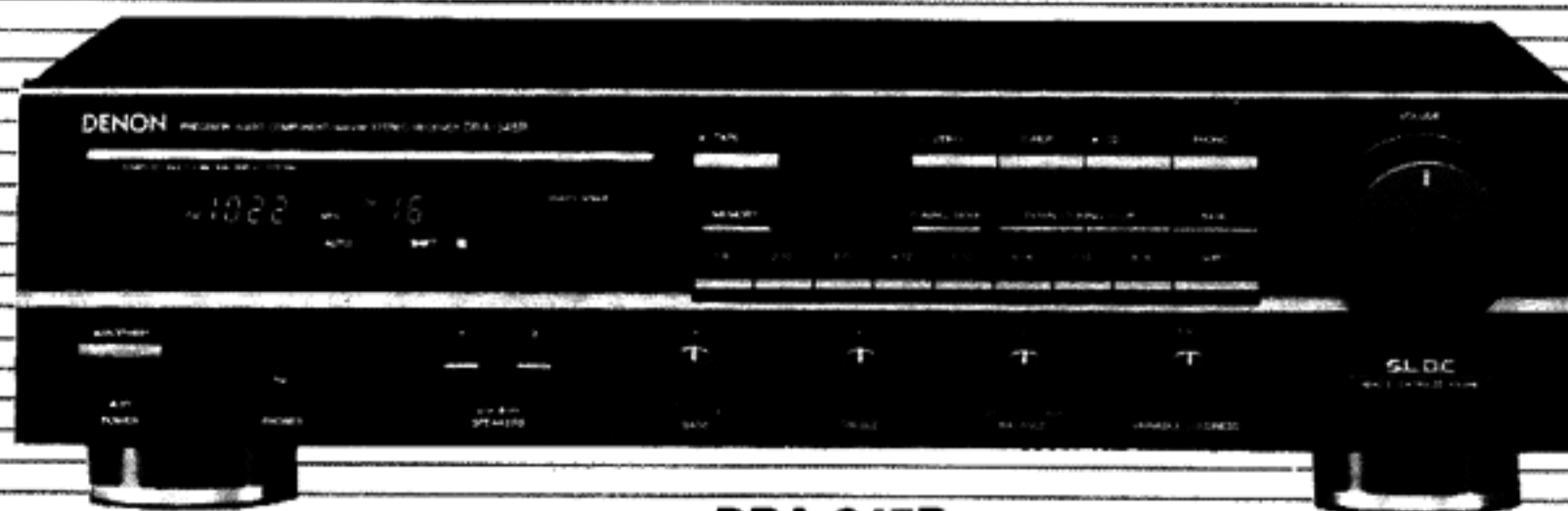
AM-FM STEREO RECEIVER

## DRA-545R / 345R

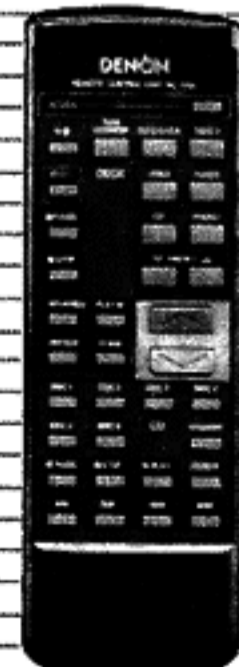
OPERATING INSTRUCTIONS



DRA-545R



DRA-345R



Serial No: \_\_\_\_\_  
PLEASE RECORD UNIT SERIAL NUMBER INDICATED ON THE REAR PANEL  
FOR FUTURE REFERENCE.



**CAUTION**  
**RISK OF ELECTRIC SHOCK**  
**DO NOT OPEN**



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



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



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

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

● **FOR U.S.A. & CANADA MODEL ONLY**

**CAUTION**

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

**ATTENTION**

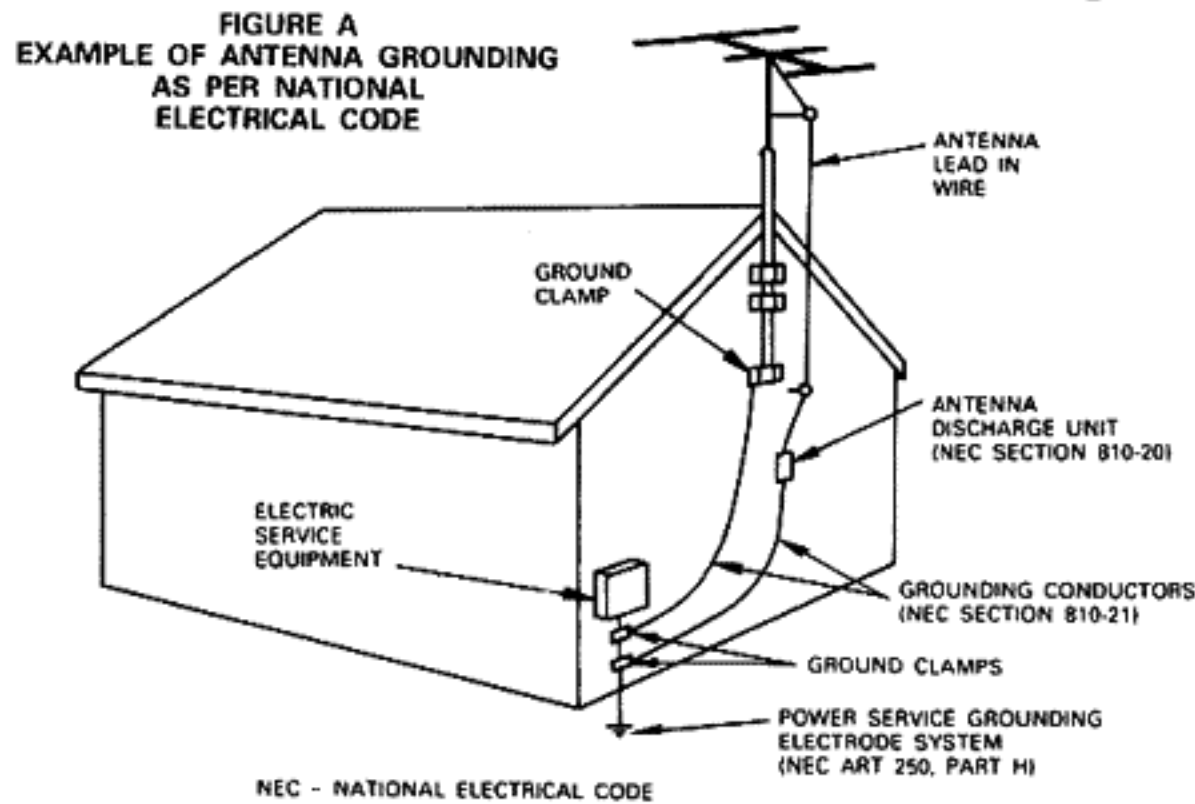
POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

## SAFETY INSTRUCTIONS

1. Read Instructions – All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Water and Moisture – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer.
- 6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
7. Wall or Ceiling Mounting – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization – Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.



12. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
14. Cleaning – The appliance should be cleaned only as recommended by the manufacturer.
15. Power Lines – An outdoor antenna should be located away from power lines.
16. Outdoor Antenna Grounding – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. 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 antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.

17. Nonuse Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
18. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
19. Damage Requiring Service – The appliance should be serviced by qualified service personnel when:
  - A. The power-supply cord or the plug has been damaged; or
  - B. Objects have fallen, or liquid has been spilled into the appliance; or
  - C. The appliance has been exposed to rain; or
  - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
  - E. The appliance has been dropped, or the enclosure damaged.
20. Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

● **FOR UNITED KINGDOM MODEL ONLY**

**CONNECTING THE MAINS PLUG:**

This unit operates from a 240V ac 50 Hz mains supply.

Fit a proper mains plug to the mains lead of this equipment. If a 13 amp (BS1363) plug is used, a 5 amp fuse must be fitted. The 13 amp fuse supplied in a new plug must NOT be used. If any other type of plug is used, a 5 amp fuse must be fitted either in the plug or adaptor or at the distribution board.

**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.

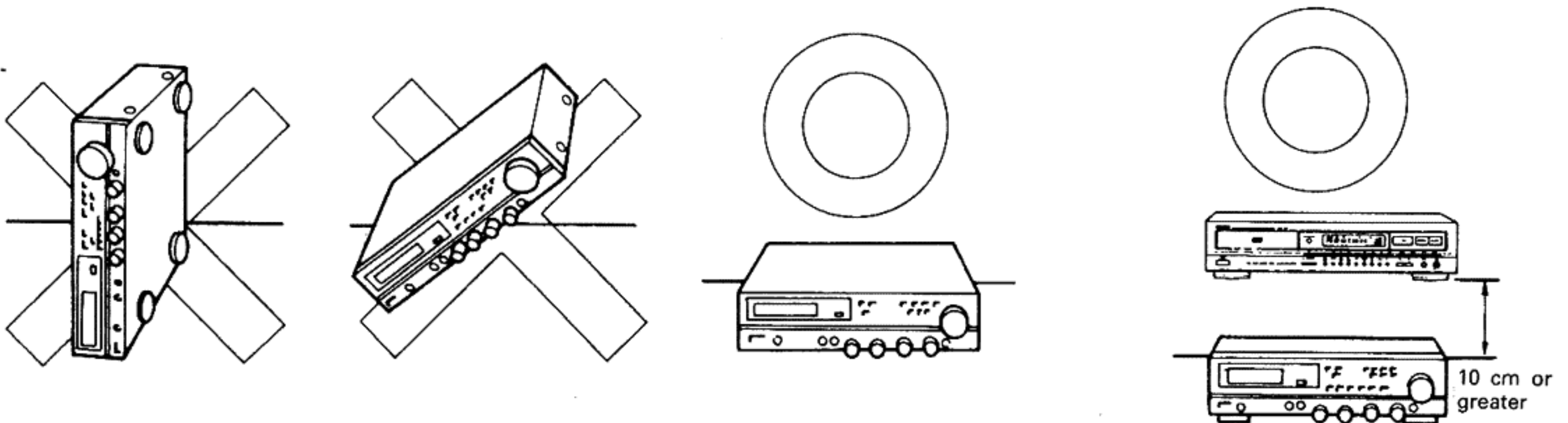
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured red.

DO NOT MAKE ANY CONNECTION TO THE LARGER PIN MARKED WITH THE LETTER E OR BY THE SYMBOL  $\perp$  OR COLOURED GREEN OR GREEN-AND-YELLOW.

Disconnect the mains plug from the supply socket when not in use.

**PRECAUTIONS FOR INSTALLATION**

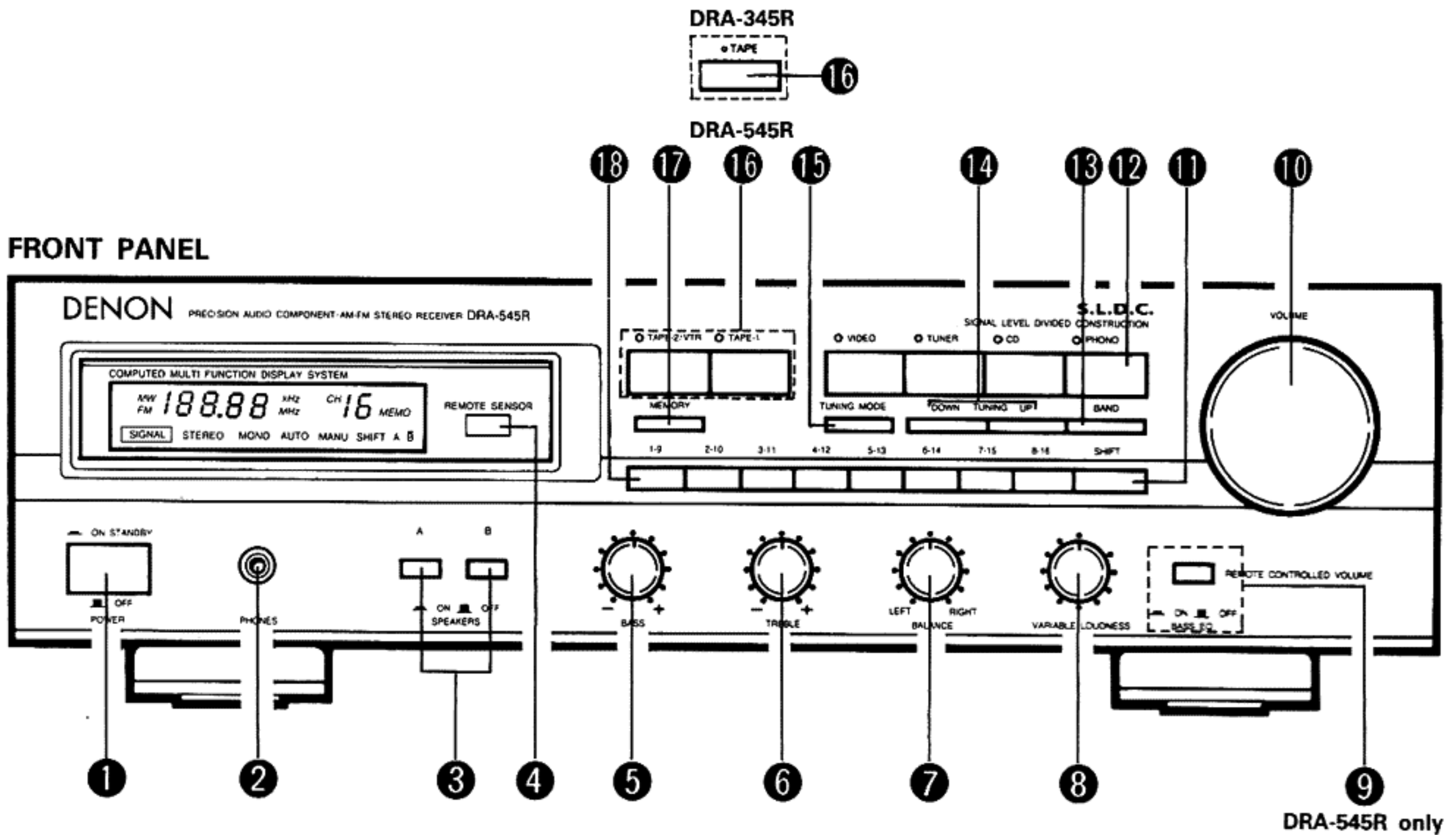
DRA-545R/345R always install horizontally. And leave at least 10 cm of space between this unit and other component placed above.






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

- (1) Operating Instructions ..... 1
- (2) AM Loop Antenna ..... 1
- (3) FM Antenna ..... 1
- (4) Remote Control RC-129/RC-129A ..... 1
- (5) Batteries R6 (AA) ..... 2

## NAME AND FUNCTION OF PARTS



- 1 POWER (Power switch)**  
When the power cord is plugged into an AC power outlet, pressing this button once, the power is turned on and the DISPLAY lights. It takes a few seconds before sound is output, thanks to the built-in muting circuit, preventing audio output until the receiver has stabilized.
- 2 PHONES (Headphones jack)**  
Connect a pair of headphones (sold separately) to this jack for private listening.
- 3 SPEAKERS (Speaker selector switches)**  
These switches are used to engage speaker system A and B.  
No sound is heard through the speakers when both switches are reset to the (  ) position.
- 4 REMOTE SENSOR (Remote control sensor)**  
This sensor receives the infra-red light transmitted from the wireless remote control unit.  
For remote control, point the wireless remote control unit towards the sensor.
- 5 BASS (Bass control)**  
Use this control to adjust the low-range response.  
When the control is set to the center position, the frequency characteristic curve (below 1,000 Hz) is flat. Turn the control clockwise to increase the bass response and counter-clockwise to decrease it.
- 6 TREBLE (Treble control)**  
Use this control to adjust the high-range response.  
When the control is set to the center position, the frequency characteristic curve (above 1,000 Hz) is flat. Turn the control clockwise to increase the treble response and counter-clockwise to decrease it.
- 7 BALANCE (Balance control)**  
Use this control to balance the volume levels between left and right channels. The volume levels in both channels are equal when the control is set to the center position.
- 8 VARIABLE LOUDNESS (Loudness control)**  
At low volumes, the human ear is less sensitive to low (BASS) and high (TREBLE) frequencies. Use this control to compensate for this deficiency when listening at low volume levels. Turn this control counter-clockwise until a natural balance of bass and treble sound has been restored.
- 9 BASS EQ (DRA-545R only)**  
Press this button to switch the BASS EQ ON (  ) for emphasis of bass sounds.  
Use in conjunction with the bass adjustment of the tone control will provide further emphasis of bass sounds. Set this switch to OFF (  ) when you wish to listen with a normal setting condition.
- 10 VOLUME (Volume control)**  
This knob is used to adjust the volume level of both channels.  
Turn the knob clockwise to raise the volume and counter-clockwise to lower it.
- 11 SHIFT (Shift button)**  
Each time this button is pressed, the preset station range will be shifted between U.S.A., Canada and Multi-Voltage Models: 1~8 (A), 9~16 (B), U.K. and Australia Models: 1~8 (A), 9~16 (B), 17~24 (A, B).
- 12 Input selector (Input selector buttons)**  
These buttons are used to select the audio input source.

  - PHONO: Press to play a record on a record player connected to the PHONO input jacks.
  - CD: Press to listen to a compact disc player or another component connected to the CD input jacks.
  - TUNER: Press to listen to FM or AM programs.
  - VIDEO: Use when playing back the audio from a Hi-Fi video, video disc player or other component connected to the VIDEO terminal.

\* If a function switch is pressed quickly, the function may not actually change and no signal may be heard from the speakers for an instant. To avoid this, be sure to press function switches carefully.

- 13 BAND (Band selector switch)**  
Press this switch to select the FM or AM (MW) band.
- 14 TUNING (Tuning buttons)**  
Press these buttons to tune in a station. In the MANUAL TUNING mode, each press of the buttons will change the frequency in U.S.A. and Canada Models: 100 kHz, U.K., Australia and Multi-Voltage Models: 50 kHz steps on FM and U.S.A. and Canada Models: 10 kHz, U.K., Australia and Multi-Voltage Models: 9 kHz steps on AM. Keeping one of these buttons pressed, the frequency will change until the button is released.  
During the AUTO TUNING mode, pressing one of these buttons will affect station search up or down the band.
- 15 TUNING MODE (Tuning mode switch)**  
This switch allows selection between Auto Tuning and Manual Tuning.  
AUTO TUNING: Pressing the UP button, the tuner will begin tuning to a higher frequency and pressing the DOWN button, it will begin tuning to a lower frequency until a broadcasting station is found.  
MANUAL TUNING: Stations are tuned in manually by use of the UP and DOWN buttons.
- 16 Tape selector (Tape selector/monitor buttons) (DRA-545R)**  
TAPE-1: Press this button once, TAPE-1 indicator LED will light up and then you can play tape source on TAPE-1 terminal.  
In this state you can copy TAPE-1 source to TAPE-2/VCR terminal.

TAPE-2/VCR: Press this button once, TAPE-2/VCR indicator LED will light up and then you can play tape or video source of TAPE-2/VCR terminal.

Press again the button currently accessed, to play sources selected by input selector 12, indicator LED goes out.

- **TAPE (Tape monitor button) (DRA-345R)**  
Press this button once, indicator LED will light up and then you can play tape source on the TAPE terminal. And press this button again to play sources selected by the input selector 12, indicator LED goes out.

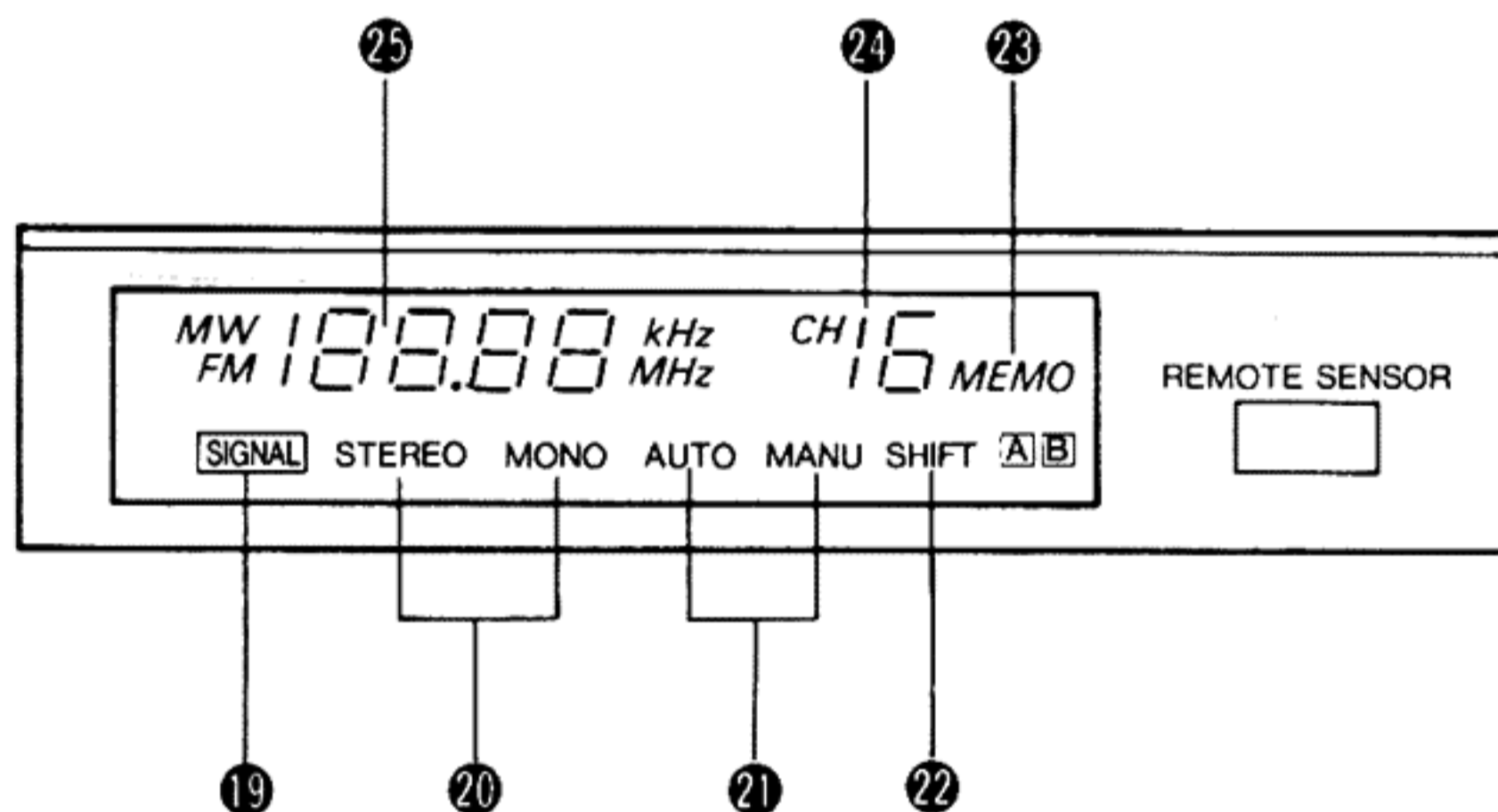
- 17 MEMORY (Memory button)**  
This switch is used to store the desired radio station on a PRESET CHANNEL button. When pressing this button, the MEMORY indicator lights for approximately 5 seconds. During this interval, the desired station can be stored in the memory.

- 18 Preset channel U.S.A., Canada and Multi-Voltage Models: 1~16, U.K. and Australia Models: 1~24 (Preset station buttons)**

These buttons are used for storing stations or recalling stations which have been preset. Using the SHIFT button you can preset a total of 16 FM or AM stations into preset channels U.S.A., Canada and Multi-Voltage Models 1~16, U.K., and Australia Models: 1~24.

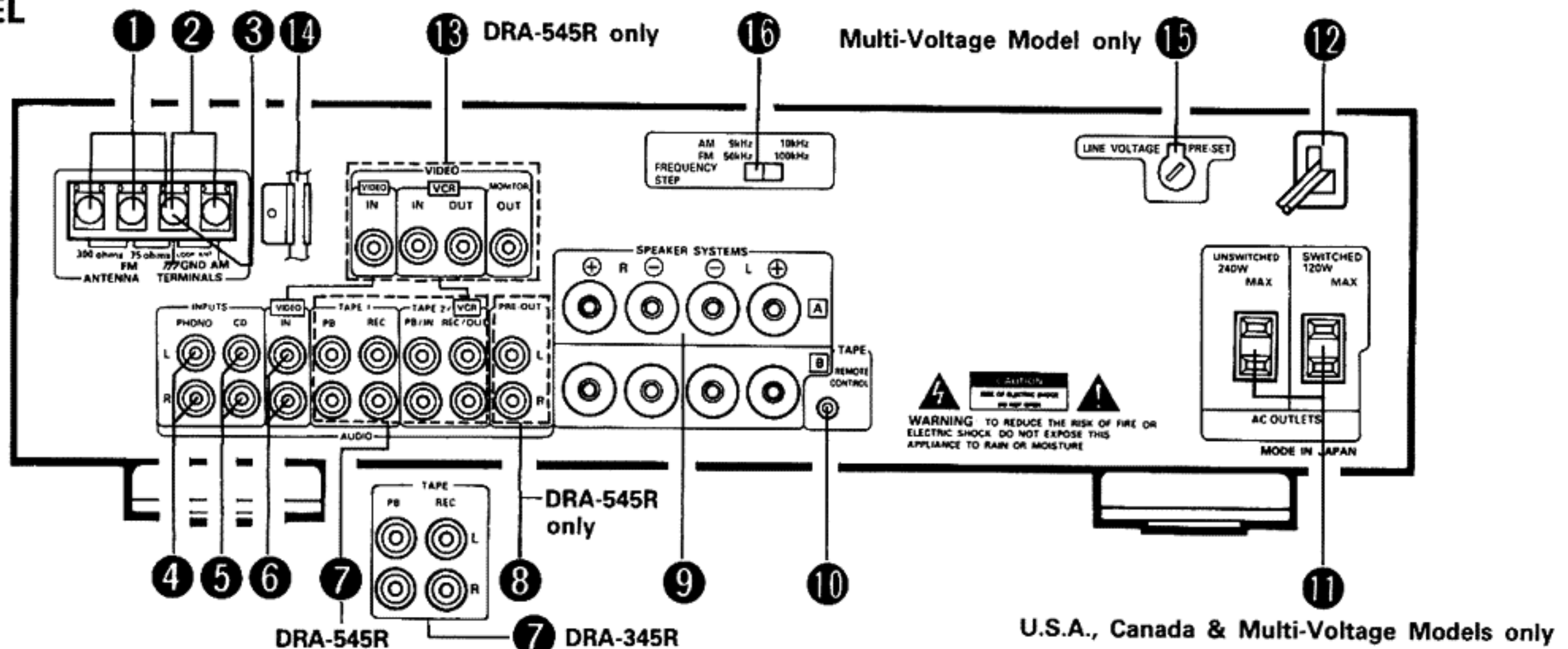
Once a radio has been memorized on a PRESET CHANNEL button, the same station can later be tuned in instantly simply by pressing the corresponding PRESET CHANNEL button.

## DISPLAY



- 19 SIGNAL (Signal indicator)**  
This lights when a station is received.
- 20 STEREO/MONO (Stereo/Mono indicator)**  
The STEREO indicator will automatically light up when a stereo broadcast is received. The MONO indicator will light up when a broadcast is not being received or at the time of a monaural broadcast.
- 21 TUNING MODE (AUTO/MANUAL)**  
Pressing TUNING MODE 15 causes AUTO and MANU to light up alternately.
- 22 SHIFT (Shift indicator)**  
The preset channel which is selected with the Shift Button 11 is displayed by the SHIFT U.S.A., Canada and Multi-Voltage Models: A or B, U.K. and Australia Models: A or B or A B.
- 23 MEMORY (Memory indicator)**  
This indicator lights for approximately 5 seconds when the MEMORY button has been pressed and a station can be stored on a PRESET CHANNEL button.
- 24 CHANNEL (Preset channel display)**  
When using the channel preset button 18, the channel is displayed and the frequency for that channel stored in memory is displayed in 25.
- 25 Frequency display (Frequency indicator)**  
The frequency is displayed in numerals. It is displayed in MHz for FM and in kHz for AM (MW).

## REAR PANEL



- 1 FM ANT (FM antenna terminals)**  
Both 75-ohm coaxial cable and 300-ohm feeder can be connected to this terminal. For antenna connecting procedure, see the ANTENNA INSTALLATION.
- 2 AM ANT (AM antenna terminals)**  
Connect the attached AM loop antenna. (Refer to page 7 for connections).  
Connect to this terminal when a medium wave outdoor antenna is used.
- 3 GND (Grounding terminal)**  
The grounding wire of the turntable is connected here.
  - Hum or noise may be generated if the grounding wire is not connected.
- 4 PHONO (Phono input terminals)**  
The output cord of the turntable is connected here.  
Since the input sensitivity of "PHONO" is extremely high, do not use the unit without the input pin cord. If used without this cord, the speakers may generate hum.
- 5 CD**  
The output cord of the CD player is connected here.
- 6 VIDEO**  
A VIDEO, such as a VCR or Video Disk may be connected here.
- 7**
  - **TAPE-1, TAPE-2/VCR (Tape deck and/or VCR playback/recording terminal) (DRA-545R)**  
Two tape decks or tape deck and VCR can be connected to these jacks for full-fledged playback, recording and tape dubbing operation.
  - **TAPE (DRA-345R)**  
Tape decks can be connected for full use including playing or copying.
- 8 PRE-OUT (DRA-545R only)**  
Output signals for power amplifiers are sent from these jacks. The rated output is 2 volts.  
The signals do not pass through the bass and treble circuits.
- 9 SPEAKER SYSTEMS (Speaker terminals)**  
Two pairs of speakers A and B can be connected to these terminals.
- 10 TAPE/REMOTE CONTROL**  
This terminal is exclusively used for sending the remote control signals to the tape deck. Connect it with a 3.5mm mini-jack cord.

### Note:

Do not hook up a headphones or microphone jack cord. Use this jack to connect a Denon cassette deck with a remote control jack (wired).  
If the cassette deck does not have this jack, wired remote control is not possible.

- 11 AC OUTLET (AC power outlets) (U.S.A., Canada and Multi-Voltage Models only)**  
UNSWITCHED  
This AC outlet is available independently of the power switch. The power capacity is a maximum of 240 W.  
SWITCHED  
This AC outlet is controlled by the power switch. Maximum capacity is 120 W.

- 12 AC CORD (Power cord)**  
Connect this cord into the wall outlet.
- 13 VIDEO (Video input/output terminals) (DRA-545R only)**  
As a full-featured AV center, this receiver makes possible connection of a TV monitor, VCR and/or a video disc player (Video) to these jacks. Use the Video INPUT SELECTOR buttons on the front panel to select the desired source for playback, recording or dubbing.
- 14 AM LOOP ANT (AM loop antenna)**  
Correctly connect the AM loop antenna to the antenna terminal. Broadcasting cannot be received when the connection is incomplete.  
Adjust the antenna for optimum reception while receiving the medium wave broadcasting. Do not place a pin cord, SP cord or electric cord near the antenna. This may cause noise generation.
- 15 LINE VOLTAGE (Voltage select switch) . . . For Multi-Voltage model only.**
  - The desired voltage may be set with the VOLTAGE SELECTOR KNOB on the back panel using a screw driver.
  - Do not twist the VOLTAGE SELECTOR KNOB with excessive force. It may be damaged.
  - If the voltage select switch does not turn smoothly, see qualified serviceman.
- 16 FREQUENCY STEP (Frequency step switch) . . . For Multi-Voltage model only.**  
Set the FREQUENCY STEP switch as described below.
  - In the U.S.A. and Canada – set the switch to 100 kHz/10 kHz side. With this setting, the frequency varies in 100 kHz steps in the range of 87.5 to 108.0 MHz (FM) and in 10 kHz steps in 520 to 1710 kHz (AM).
  - Elsewhere – set the switch to 50 kHz/9 kHz side. With this setting, the frequency varies in 50 kHz steps in the range of 87.5 to 108.0 MHz (FM) and in 9 kHz steps (AM) in 522 to 1611 kHz (AM).

## ANTENNA INSTALLATION

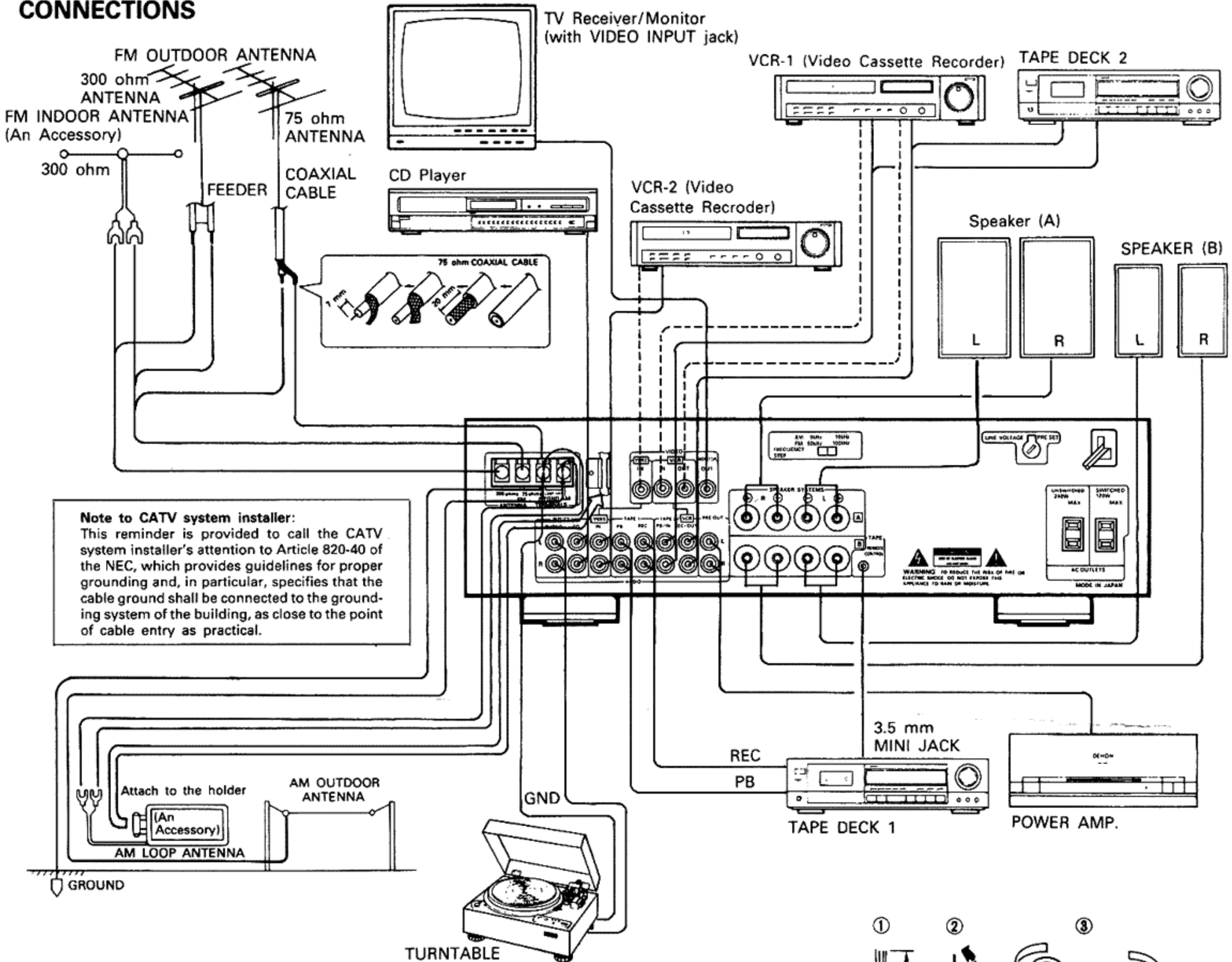
- **FM ANTENNA**  
The supplied T-type indoor FM antenna (300 ohms) can be used inside wooden houses for receiving local FM stations and other strong FM signals. Stretch out the ends of the antenna and mount the antenna on the wall or ceiling where optimum reception is achieved. FM T-type antennas may not consistently ensure stable reception, due to environment changes. In such cases, the FM T-type antenna should only be used temporarily until an outdoor FM antenna has been installed. When connecting an outdoor FM antenna, the use of 75 ohm coaxial cable (3C-2V, 5C-2V) is strongly recommended. Using a 300-ohm feeder cable will cause noise and you will not be able to achieve the high sound quality the built-in tuner is capable of delivering.
- **AM ANTENNA**  
Attach the supplied AM loop antenna to the antenna holder on the back panel.  
Connect the leads to the AM and GND terminals.  
Also use the AM terminals for connecting an outdoor AM antenna (when making such a connection do not disconnect the AM loop antenna.)  
Adjust the loop antenna to obtain optimum reception. Where broadcast stations are distant and only weak signals are received, or where signals are blocked, it is best to install an outdoor AM antenna.

## NOTES

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

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

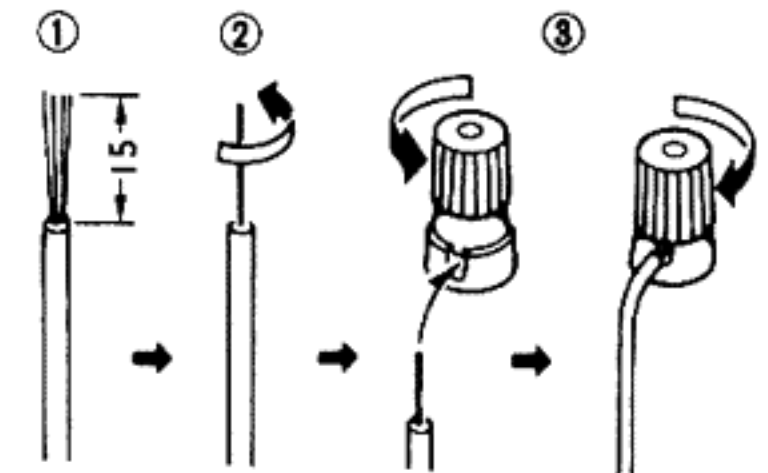
## CONNECTIONS



### SPEAKER CONNECTION

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

1. Peel off the sheathing from the end of the cord.
2. Twist the wire strands.
3. Loosen the speaker terminal, insert the wire lead portion of the cord, and then tighten the terminals.



### Notes on Connection

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

### Notes:

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

## CAUTION

### Protective Circuit

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

This protective circuit's operation cuts off the output to the speakers. In such a case, be sure to turn the power to the set off and check the connections to the speakers. Then turn the power on again. After muting for several seconds, the set will operate normally.

## HOW TO PRESET THE STATION

1. Set the BAND SELECT button to "AM" or "FM", and press the TUNING button to tune the desired station.
2. Specify the preset buttons U.S.A., Canada and Multi-Voltage Models: 1~8 or 9~16, U.K. and Australia Models: 1~8 or 9~16 or 17~24 by the SHIFT button.
3. Press the MEMORY buttons and MEMORY indicator lights for about 5 seconds. During this time, press one of the eight PRESET channel buttons.
4. The channel corresponding to the pressed button is displayed and the indicated frequency is stored in memory for that channel.

**NOTE:** If preset button is inoperative with MEMORY illuminated, press MEMORY and preset buttons again.

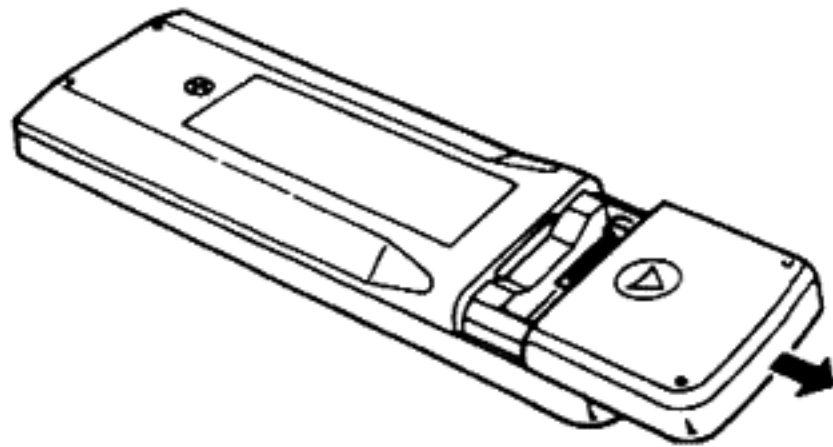
- This model has a last channel memory system. It stores the last channel used power off.
- This model is designed to store and retain the stations that have been previously registered in the memory, even if the tuner is deenergized temporarily. The memory can hold registered data for approximately about a month [Temperature: 68°F (20°C), relative humidity: 65%]. If the memory is erased reset the preset data.

## PLAYBACK USING THE REMOTE CONTROL

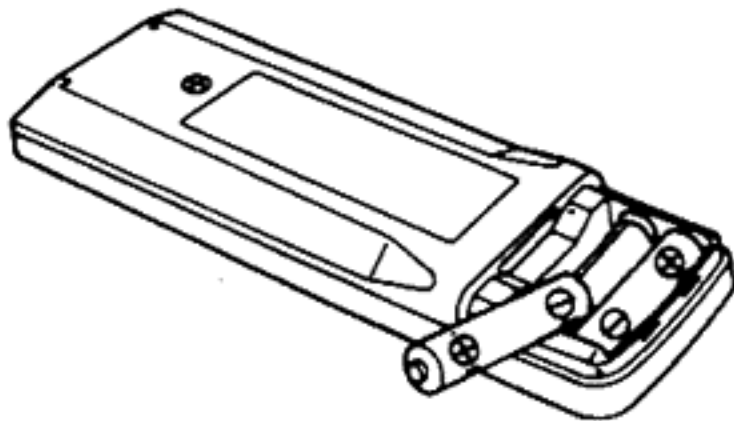
The accessory RC-129/RC-129A remote control unit is used to control the RECEIVER from a distance.

### (1) Inserting the dry cell batteries

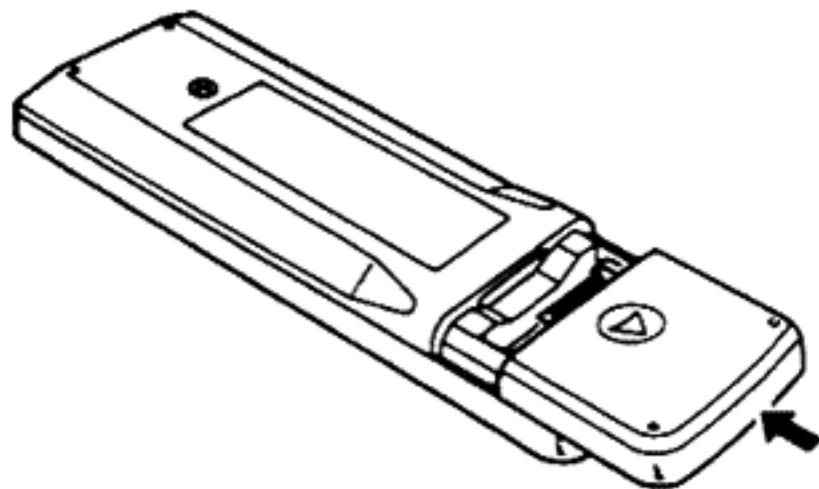
- 1 Remove the rear cover on the remote control unit.



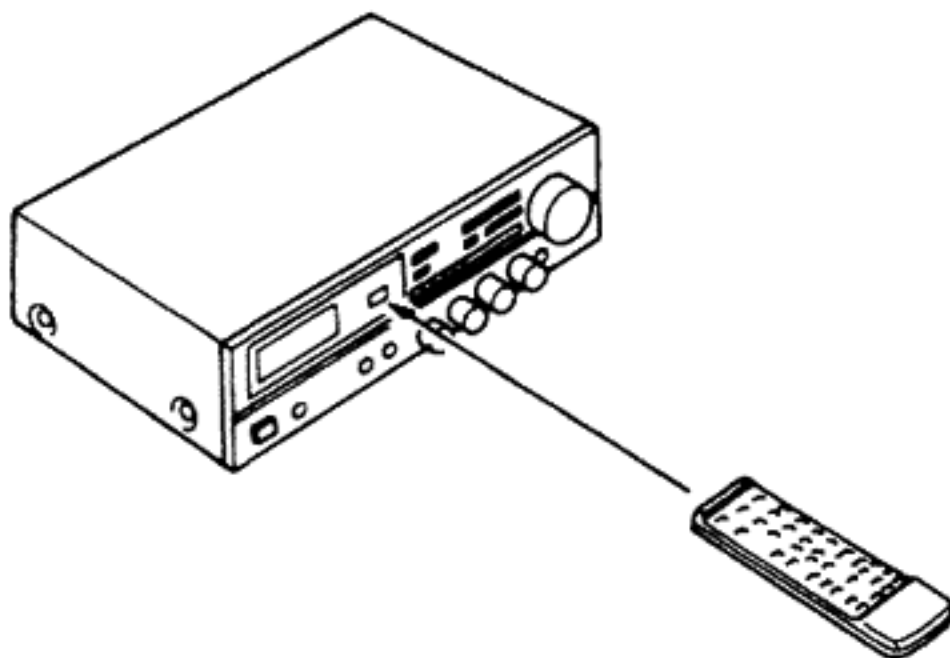
- 2 Insert two size "AA" (R6) dry cell batteries as shown in the diagram on the battery supply unit.



- 3 Replace the rear cover.



### (2) Directions for use



### Notes on Use of the Batteries

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

- Operate the remote control unit while pointing it towards the remote control sensor on the receiver as shown in the diagram left.
- The remote control unit can be used at distances up to about 8 meters in a straight line from the receiver. This distance will decrease if there are obstructions blocking the infra-red light transmission or if the remote control unit is not directed straight at the receiver.

### Note on Operation

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



**Besides being able to operate the DRA-545R/345R receiver with this remote control unit, you can also operate a DENON cassette deck and CD player from this handy full-system remote control unit.**

Remote Control Section  
Full-system Remote Control Unit

The full-system remote control unit operates all major functions of the receiver such as function switching, volume control, and preset station selection. But that's not all! The same control pad can also control the major functions of a DENON CD player and cassette deck when combined with the DRA-545R/345R to create a remarkably ergonomic and versatile DENON system with all the quality sound reproduction that the devoted audiophile expects.

**Remote Control Unit RC-129 supplied with DRA-545R**

**Remote Control Unit RC-129A supplied with DRA-345R**

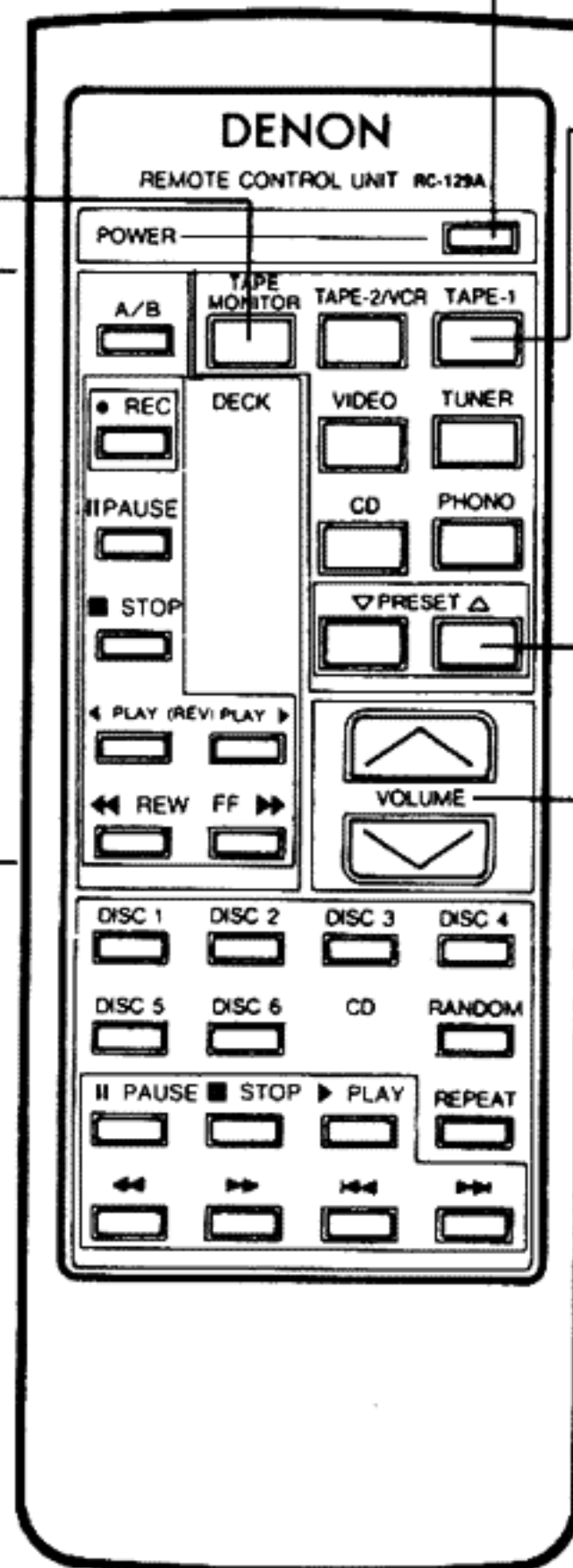
**RECEIVER**

Remote Power ON/STANDBY

Operate the monitor of the DRA-345R tape deck with the TAPE MONITOR button.

**DECK**

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



TAPE DECK SELECTOR button

FUNCTION SELECTOR buttons

PRESET CHANNEL buttons

VOLUME buttons

**CD**

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

- RC-129A differs from RC-129 with respect to the TAPE MONITOR button only.
- The RC-129/RC-129A Remote Control Unit can control all CD players (excluding the DCD-1800R) and cassette decks made by DENON.
- Buttons are conveniently separated into groups, each group controlling one specific component. The groups are RECEIVER, FUNCTION, CD and DECK.

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

**CAUTION:**

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

## TROUBLESHOOTING

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

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

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

# SPECIFICATIONS

## AMPLIFIER SECTION

**Continuous Power Output:** **DRA-545R:** 60 watts per channel minimum RMS, both channels driven at 8 ohms from 20 Hz ~ 20 kHz no more than 0.05% total harmonic distortion.

**DRA-345R:** 45 watts per channel minimum RMS, both channels driven at 8 ohms from 20 Hz ~ 20 kHz no more than 0.05% total harmonic distortion.

**Power Bandwidth (IHF):** 10 Hz ~ 40 kHz (T.H.D. 0.15% both channels driven into 8 ohms)

**Total Harmonic Distortion:** 0.03% (-3 dB at rated output, 8 ohms)  
**Frequency Response:** PHONO RIAA Standard Curve (Recording Output)  
 MM 20 Hz ~ 20 kHz  $\pm 0.5$  dB  
 CD, VIDEO, 20 Hz ~ 50 kHz  $\pm 1.5$  dB (at 1W)  
 TAPE-1, TAPE-2/VCR (DRA-545R)  
 TAPE (DRA-345R)

**Input Sensitivity and Impedance:**  
 PHONO MM 2.5 mV 47 k ohms  
 CD, VIDEO, 150 mV 29 k ohms  
 TAPE-1, TAPE-2/VCR (DRA-545R)  
 TAPE (DRA-345R)

**Maximum Input Level (at 1 kHz):** PHONO MM 120 mV

**Signal to Noise Ratio (IHF-A):** PHONO MM 78 dB (at 5.0 mV input)  
 CD, VIDEO, 95 dB  
 TAPE-1, TAPE-2/VCR (DRA-545R)  
 TAPE (DRA-345R)

**Tone Controls:** BASS  $\pm 10$  dB at 100 Hz  
 TREBLE  $\pm 10$  dB at 10 kHz

**Loudness, Control Effect:** VARIABLE LOUDNESS at 10 positions, 50 Hz/10 kHz, +10 dB/+5 dB

**PRE-OUT terminals**  
**Rated output:** 2 V (at 100 kohm load)  
 (DRA-545R only)

## VIDEO SECTION

**Input terminal:** VCR-IN, VIDEO 1 Vp-p/75ohms  
**Output terminal:** VCR-OUT, MONITOR 1 Vp-p/75ohms  
**Frequency response:** 5 Hz ~ 6 MHz  $\pm 1.5$  dB  
 (DRA-545R only)

## TUNER SECTION

[FM] (note:  $\mu\text{V}$  at 75 ohms, 0 dBf =  $1 \times 10^{-15}$  W)

**Receiving Range:** 87.5 ~ 108 MHz  
**Usable Sensitivity:** 0.9  $\mu\text{V}$  (10.3 dBf)  
**50 dB Quieting Sensitivity:** MONO 1.6  $\mu\text{V}$  (15.3 dBf)  
 STEREO 23  $\mu\text{V}$  (38.5 dBf)

**Signal to Noise Ratio (IHF-A):** MONO 82 dB  
 STEREO 78 dB

**Total Harmonic Distortion (at 1 kHz):** MONO  
 0.1% (U.S.A., Canada and Multi-Voltage Models)  
 0.4% (U.K. and Australia Models)  
 STEREO  
 0.15% (U.S.A., Canada and Multi-Voltage Models)  
 0.5% (U.K. and Australia Models)

**Capture Ratio:** 1.5 dB  
**Image Rejection:** 42 dB (U.S.A., Canada and Multi-Voltage Models)  
 65 dB (U.K. and Australia Models)

**AM Suppression:** 50 dB  
**Selectivity ( $\pm 400$  kHz):** 55 dB (U.S.A., Canada and Multi-Voltage Models)  
 ( $\pm 300$  kHz): 55 dB (U.K. and Australia Models)

**Frequency Response:** 30 Hz ~ 15 kHz  $+0.2$  dB  
 $-1.5$  dB

**Stereo Separation (at 1 kHz):** 40 dB

[AM]  
**Receiving Range:** 520 ~ 1710 kHz: U.S.A. and Canada Models  
 522 ~ 1611 kHz: Multi-Voltage, U.K. and Australia Models

**Usable Sensitivity:** 18  $\mu\text{V}$   
**Signal to Noise Ratio:** 55 dB

## General

**Power Supply:** AC 120V 60 Hz: U.S.A. and Canada Models  
 110/120/220/240 V 50/60 Hz: Multi-Voltage Model  
 AC 240V/50 Hz: U.K. Australia Models  
**Power Consumption:** 2.6 A (DRA-545R): U.S.A. and Canada Models  
 180 W (DRA-345R): U.S.A. Model  
 220 W (DRA-345R): Canada Model  
 120 W (DRA-545R): Multi-Voltage Model  
 95 W (DRA-345R): Multi-Voltage Model  
 150 W (DRA-545R): U.K. and Australia Models  
 120 W (DRA-345R): U.K. and Australia Models

**Power Outlets:** SWITCHED 120 W  
 U.S.A., Canada and Multi-Voltage Models only  
 UNSWITCHED 240 W  
 U.S.A., Canada and Multi-Voltage Models only

**Dimensions:** 434 mm (17-3/32")W  $\times$  130 mm (5-1/8")H  
 $\times$  312 mm (12-9/32")D (DRA-545R)  
 434 mm (17-3/32")W  $\times$  120 mm (4-23/32")H  
 $\times$  312 mm (12-9/32")D (DRA-345R)

**Weight:** 6.8 kg (15 lbs) (DRA-545R)  
 6.2 kg (13 lbs 11 oz) (DRA-345R)

## REMOTE CONTROL UNIT

**Remote control system:** Infrared pulse system  
**Power supply:** 3V DC Two size "AA" (R6) dry cell batteries

**External dimensions:** 60 mm (2-23/64")W  $\times$  175 mm (6-57/64")H  
 $\times$  18 mm (45/64")D

**Weight:** 120 g (4 oz) (Includes batteries)

## DENON SERVICE NETWORK

- Please contact one of our overseas service centers, listed below, for follow-up service consultation.
- Wenden Sie sich für anfallende Wartungs- bzw. Reparaturarbeiten bitte an eine der folgend aufgeführten Kundendienststellen.
- Adressez-vous à nos centres de service d'outre-mer indiqués ci-dessous, pour le service après-vente.
- Per il servizio dopo vendita rivolgete Vi al nostro centro di servizio estero appropriato della lista seguente.
- Para consultas de servicio porfavor diríjirse a cualquiera de nuestros centros de servicio en el extranjero, enlistados abajo.
- Neem kontakt op met één van onze reparatie-inrichtingen in het buitenland, waarvan hier een lijst volgt, voor na-service.
- Ta kontakt med nedan angivna servicecentraler för rådfrågning om servicearbeten efter försäljningen.
- Favor contactar um de nossos centros de serviços internacionais, abaixo listados, para consulta de serviços de acompanhamento.

<b>Australia</b>	AWA Limited. 112-118 Talavera Road, North Ryde NSW 2113, Australia, Postal Locked Bag No. 12, North Ryde. Tel: (02) 888-9000, Fax: (02) 888-9310, Telex: AA 22692
<b>Austria</b>	Boyd U, Haas Electronic-Bauelemente Vertriebsges, mbH & Co., KG Rupertusplatz 3 A-1170 Wien Tel: 0222-460288
<b>Belgium</b>	Transtel-Sabima P.V.B.A. Harmoniestraat 13, 2018 Antwerpen 1, België Tel: 03-237-3607
<b>Canada</b>	Denon Canada Inc. 17 Denison Street, Markham Ontario, Canada L3R 1B5 Tel: 416-475-4085
<b>Denmark</b>	Audionord Danmark A/S. Vester Alle 7, 8000 Århus C. Tel: 86-128811
<b>Finland</b>	Oy Nepcon AB Myyrmäentie 2C, SF-01600 Vantaa Tel: 90-5664844
<b>France</b>	Denon France S.A. 3 Boulevard Ney, 75018 Paris Tel: (1) 40 35 14 14
<b>F.R. Germany</b>	Denon Electronic GmbH Halskestraße 32, 4030 Ratingen 1 Tel: 02102-4985-0
<b>Greece</b>	Kinotechniki Ass. 47 Stournara Str., Athens Tel: 3606 998
<b>Hong Kong</b>	Tai Lin Radio Service Ltd. 310 Nathan Road, Kowloon, Hong Kong Tel: K-855005-8
<b>Iceland</b>	Japis Ltd. Brautarholt 2, Box 396, 101 Reykjavik, Iceland Tel: 27133
<b>Indonesia</b>	PT Autoaccindo Jaya. Cideng Barat No. 7 Jakarta, Indonesia Tel: 6016599
<b>Italy</b>	Melchioni S.P.A. Via P. Colletta 37-20135 Milano Tel: 02-57941
<b>Malaysia</b>	Pertama Audio Sdn. Bhd. 44-46 Jalan SS 22/21 Damansara Jaya, 47400 Selangor, Malaysia Tel: 719 3957
<b>Mexico</b>	Labrador, S.A. de C.V. Zamora No. 154 Col. Condesa 06140 Mexico, D.F. Tel: 286 55 09 Fax: 286 34 62
<b>Netherlands</b>	Penhold B.V. Isarweg 6, 1043 AK Amsterdam Tel: 020-611-4957
<b>New Zealand</b>	Avalon Audio Corpn. Limited 119 Wellesley Street, Auckland 1, New Zealand Tel: 09-779-351, 09-775-370
<b>Norway</b>	Hi-Fi Klubben Box 70 Ankertorget, 0133 Oslo 1 Tel: 02-112218
<b>Portugal</b>	Videoacustica Qta. Do Paizinho-Armazém 5-Estrada De Circunvalação-Apart. 3127 1303 Lisboa Codex Tel: 2187004/2187096
<b>Singapore</b>	Pertama Audio Pte. Ltd. Alexandra Distripark Blk 4, No. 03-39 Pasir Panjang Road, Singapore 0511 Tel: 278-4411
<b>Spain</b>	Gaplasa S.A. Conde de Torroja, 24, 28022 Madrid Tel: 747-7777
<b>Sweden</b>	Sveriges Hi-Fi Klubb Box 5116, S-402 23 Göteborg, Tel: 031-200040
<b>Switzerland</b>	Diethelm & Co., AG. Eggbühlstrasse 28, 8052 Zürich Tel: 01-3013030
<b>Taiwan R.O.C.</b>	Taiwan Kolin Co., Ltd. 8th Fl., 83, Sec. 1, Chung-king S. Rd., Taipei, Taiwan R.O.C. Tel: (02) 314-3151 (20 Lines), Fax: (886) 02-3614037 Telex: 11102 TKOLIN
<b>Thailand</b>	Mahajak Development Co., Ltd. 6th FL., Mahajak Building, 46 Sukhuvit 3 (Nananua), Klongteoy, Prakranong, Bangkok 10110 Tel: 256-0000
<b>United Kingdom &amp; Eire</b>	Hayden Laboratories Ltd. Hayden House, Chiltern Hill, Chalfont St. Peter Gerrards Cross, Bucks. SL9 9UG Tel: 0753-888447
<b>U.S.A.</b>	Denon America Inc. 222 New Road Parsippany, NJ07054, U.S.A., Tel: 201-882-7490, Fax: 201-575-1213

- \* If there is no service center in your local area, consult the outlet where the equipment was purchased.
- \* Falls sich in Ihrer Nähe keine Kundendienststelle befindet, wenden Sie sich an das Geschäft, wo das Gerät gekauft wurde.
- \* S'il n'y a aucun centre de service dans votre région, consultez votre revendeur.
- \* Se nella Vostra zona non c'è il centro di servizio, rivolgete Vi al negozio dove avete acquistato l'apparecchio.
- \* Si no hay centros de servicio en su área local, consulte en donde haya comprado su equipo.
- \* Als er in uw streek geen reparatie-inrichting is, neemt u kontakt op met de vestiging waar u de apparatuur gekocht heeft.
- \* Saknas servicecentral i närheten där du bor, bör kontakt tas med återförsäljaren för apparaten.
- \* Se não existir um centro de serviços em sua área local, consulte o estabelecimento onde o equipamento foi adquirido.

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