SAFETY PRECAUTIONS

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.

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

SAFETY INSTRUCTIONS

1. Read Instructions – All the safety and operating instructions should be read before the product is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the product and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Cleaning – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.
6. Attachments – Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture – Do not use this product near water – for example, near a bathtub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
8. Accessories – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Any mounting of the product should follow the manufacturer’s instructions, and should use a mounting accessory recommended by the manufacturer.
9. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
10. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to prevent it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a sofa, bed, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer’s instructions have been adhered to.
11. Power Sources – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
12. Grounding or Polarization – This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
13. 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 product.
14. Outdoor Antenna Grounding – If an outside antenna or cable system is connected to the product, be sure the antenna or cable 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.
15. Lightning – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
16. Power Lines – An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
17. Servicing – Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
18. Overloading – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
19. Object and Liquid Entry – Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
20. Damage Requiring Service – Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
   a) When the power-supply cord or plug is damaged,
   b) If liquid has been spilled, or objects have fallen into the product,
   c) If the product has been exposed to rain or water,
   d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
   e) If the product has been dropped or damaged in any way, and
   f) When the product exhibits a distinct change in performance – this indicates a need for service.
21. Replacement Parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
22. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
23. Wall or Ceiling Mounting – The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
24. Heat – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

EXAMPLE OF ANTENNA GROUNDING AT THE SERVICE EQUIPMENT
1. **PRODUCT**
This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this product may not cause harmful interference, and (2) this product must accept any interference received, including interference that may cause undesired operation.

2. **IMPORTANT NOTICE: DO NOT MODIFY THIS PRODUCT**
This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modification not expressly approved by DENON may void your authority, granted by the FCC, to use the product.

3. **NOTE**
This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This product generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the product OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the local retailer authorized to distribute this type of product or an experienced radio/TV technician for help.

**FCC INFORMATION (For US customers)**

1. **PRODUCT**
   This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this product may not cause harmful interference, and (2) this product must accept any interference received, including interference that may cause undesired operation.

2. **IMPORTANT NOTICE: DO NOT MODIFY THIS PRODUCT**
   This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modification not expressly approved by DENON may void your authority, granted by the FCC, to use the product.

3. **NOTE**
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   - Reorient or relocate the receiving antenna.
   - Increase the separation between the equipment and receiver.
   - Connect the product into an outlet on a circuit different from that to which the receiver is connected.
   - Consult the local retailer authorized to distribute this type of product or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

**NOTE ON USE / OBSERVATIONS RELATIVES A L’UTILISATION**

- **Avoid high temperatures.**
  - **Évitez des températures élevées.**
  - Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.

- **Handle the power cord carefully.**
  - **Manipuler le cordon d'alimentation avec précaution.**
  - Tenir la prise lors du débranchement du cordon.

- **Do not obstruct the ventilation holes.**
  - **Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.**

- **Keep the unit free from moisture, water, and dust.**
  - **Protéger l’appareil contre l’humidité, l’eau et la poussière.**

- **Unplug the power cord when not using the unit for long periods of time.**
  - **Débrancher le cordon d'alimentation lorsque l’appareil n’est pas utilisé pendant de longues périodes.**

- **Do not let foreign objects into the unit.**
  - **Ne pas laisser des objets étrangers dans l’appareil.**

- **Do not let insecticides, benzene, and thinner come in contact with the unit.**
  - **Ne pas mettre en contact des insecticides, du benzène et un diluant avec l’appareil.**

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
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2. Getting Started ...................................................... 1
3. Warranty (for North America model only) ................. 1
4. Service station list .................................................. 1
5. Remote control (RC-1104) .................................... 1
6. R6/AA batteries ..................................................... 2
7. FM indoor antenna ............................................... 1
8. AM loop antenna .................................................. 1
9. Setup microphone
   (DM-A409, Cord length: Approx. 25 ft / 7.6 m) .......... 1
Cautions on Handling

• Before turning the power switch on
  Check once again that all connections are correct and that there are no problems with the connection cables.
  Power is supplied to some of the circuitry even when the unit is set to the standby mode. When traveling or leaving home for long periods of time, be sure to unplug the power cord from the power outlet.
• About condensation
  If there is a major difference in temperature between the inside of the unit and the surroundings, condensation (dew) may form on the operating parts inside the unit, causing the unit not to operate properly.
  If this happens, let the unit sit for an hour or two with the power turned off and wait until there is little difference in temperature before using the unit.
• Cautions on using mobile phones
  Using a mobile phone near this unit may result in noise. If so, move the mobile phone away from this unit when it is in use.
• Moving the unit
  Turn off the power and unplug the power cord from the power outlet.
  Next, disconnect the connection cables to other system units before moving the unit.
• Note that the illustrations in these instructions may differ from the actual unit for explanation purposes.

Cautions on Installation

Note:
For proper heat dispersal, do not install this unit in a confined space, such as a bookcase or similar enclosure.

About the Remote Control Unit

In addition to the AVR-589, the included remote control unit (RC-1104) can also be used to operate the equipment listed below.

1. DENON system components
2. Non-DENON system components
   • By setting the preset memory (page 42 – 44)

Inserting the Batteries

1. Lift the clasp and remove the rear cover.
2. Load the two batteries properly as indicated by the marks in the battery compartment.
3. Put the rear cover back on.

NOTE
• Replace the batteries with new ones if the set does not operate even when the remote control unit is operated close to the unit.
• The supplied batteries are only for verifying operation.
• When inserting the batteries, be sure to do so in the proper direction, following the “+” and “-” marks in the battery compartment.
• To prevent damage or leakage of battery fluid:
  • Do not use a new battery together with an old one.
  • Do not use two different types of batteries.
  • Do not attempt to charge dry batteries.
  • Do not short-circuit, disassemble, heat or dispose of batteries in flames.
  • If the battery fluid should leak, carefully wipe the fluid off the inside of the battery compartment and insert new batteries.
  • Remove the batteries from the remote control unit if it will not be in use for long periods.
  • When replacing the batteries, have the new batteries ready and insert them as quickly as possible.

Operating Range of the Remote Control Unit

Point the remote control unit at the remote sensor when operating it.

Approx. 23 feet / 7 m

NOTE
The set may function improperly or the remote control unit may not operate if the remote control sensor is exposed to direct sunlight, strong artificial light from an inverter type fluorescent lamp or infrared light.
Part Names and Functions

For buttons not explained here, see the page indicated in parentheses ( ).

Front Panel

1. Power operation button
   (ON/STANDBY) ............................................ (34)
2. Power indicator ............................................ (34)
3. Power switch (ON ■ OFF) ............................... (34, 41)
4. Headphone jack (PHONES) ......................... (35)
5. INPUT MODE button ................................. (34)
6. SPEAKERS buttons ............................... (35, 41)
7. QUICK SELECT buttons ........................... (41)
8. V. AUX INPUT connectors
   Remove the cap covering the connectors when you want to use them.

Q. SETUP MIC jack ........................................ (17)
10. SYSTEM SETUP button ......................... (20)
11. SURR. MODE / SURR. PARA button ...... (27, 29)

12. SELECT/ENTER knob
   • The SELECT/ENTER knob on the main unit operates in the same way as the cursor < and > buttons on the remote control unit.

• The control functions in the same way as the cursor < button when turned counterclockwise, as the cursor > button when turned clockwise.
• The control functions in the same way as the ENTER button when pressed the knob.

13. Cursor buttons (△ ▽) ............................... (20)
14. MASTER VOLUME control knob ............... (35)
15. Dynamic Volume indicator ................... (32)
16. MultEQ indicator ............................... (31)
17. Master volume indicator

Display

1. Signal channel indicator
   Lights when the preset channel is displayed at 2.
2. Information display
3. Input signal indicators
4. Master volume indicator
   This displays the volume level. The Setup item number is displayed in System Setup.
5. Recording output source indicator
   This lights when the REC OUT mode is selected. (This indicator is off when “SOURCE” is selected.)
6. Tuner reception mode indicators
   These light according to the reception conditions when the input source is set to “TUNER”.
• AUTO
   This lights when in the auto tuning mode.
• STEREO
   In the FM mode, this lights when receiving analog stereo broadcasts.
• TUNED
   This lights when the broadcast is properly tuned in.

1. INPUT mode indicators .............................. (34)
2. SIGNAL indicators
3. Display
4. SPEAKERS indicators .............................. (35)
5. Remote control sensor .............................. (3)
6. REC SELECT button ............................... (40)
7. SOURCE SELECT knob ............................. (34)
8. SOURCE button ....................................... (34)
9. STATUS button ....................................... (33)
10. DIMMER button ...................................... (35)
11. RESTORER button .................................. (32)
12. BAND button ......................................... (36)
13. SHIFT button ......................................... (36)
14. PRESET CHANNEL buttons (▲ ▽) .......... (36)
15. TUNING buttons (▲ ▽) .......................... (36)
16. MULT EQ button .................................... (31)
17. VIDEO SELECT button ............................ (35)

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Playback

Connections

Setup

Getting Started

ENGLISH
Rear Panel

1. Digital audio connectors (OPTICAL / COAXIAL) .................. (10 ~ 12, 14)
2. VIDEO / S-VIDEO connectors .......................... (11 ~ 13)
3. Analog audio connectors (AUDIO) ................................. (10 ~ 13)
4. EXT. IN connectors ............................................. (14)
5. PRE OUT connector ............................................. (9)
6. AC OUTLETS .................................................. (15)
7. Power cord .................................................... (15)
8. Speaker terminals (SPEAKERS) ................................. (9)
9. FM/AM antenna terminals (TUNER ANTENNA) .................. (15)
10. COMPONENT VIDEO connectors (11, 12)
11. HDMI connectors .............................................. (10 ~ 12)
12. SIRIUS connector (SAT TU) .................................. (14)
13. DOCK CONTROL jack .......................................... (12)
NOTE

If buttons on the front or rear are pressed strongly, the button on the opposite side will be activated too.
## Connections

Connections for all compatible audio and video signal formats are described in this owner’s manual. Please select the types of connections suited for the equipment you are connecting. With some types of connections, certain settings must be made on the AVR-589. For details, refer to the instructions for the respective connection items below.

### Preparations

#### Cables Used for Connections

Select the cables according to the equipment being connected.

<table>
<thead>
<tr>
<th>Audio cables</th>
<th>Video cables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coaxial digital connections</strong>&lt;br&gt; (Orange)</td>
<td><strong>Component video connections</strong>&lt;br&gt; (Green) <em>(Y)</em>&lt;br&gt; (Blue) <em>(Pr/Cr)</em>&lt;br&gt; (Red) <em>(Pb/Cb)</em></td>
</tr>
<tr>
<td>Coaxial digital (75 Ω/ohms pin-plug) cable</td>
<td>Component video cable</td>
</tr>
<tr>
<td><strong>Optical digital connections</strong></td>
<td><strong>S-Video connections</strong></td>
</tr>
<tr>
<td>Optical cable</td>
<td>S-Video cable</td>
</tr>
<tr>
<td><strong>Analog connections (stereo)</strong>&lt;br&gt; (White) <em>(L)</em>&lt;br&gt; (Red) <em>(R)</em></td>
<td><strong>Video connections</strong>&lt;br&gt; (Yellow)</td>
</tr>
<tr>
<td>Stereo pin-plug cable</td>
<td>75 Ω/ohms pin-plug video cable</td>
</tr>
<tr>
<td><strong>Analog connections (monaural, for subwoofer)</strong>&lt;br&gt; (Black) <em>(L)</em>&lt;br&gt; (Black) <em>(R)</em></td>
<td><strong>Audio and video cables</strong></td>
</tr>
<tr>
<td>Pin-plug cable</td>
<td><strong>HDMI connections</strong></td>
</tr>
<tr>
<td><strong>Speaker connections</strong></td>
<td>19-pin HDMI cable</td>
</tr>
<tr>
<td>Speaker cables</td>
<td><strong>Signal direction</strong></td>
</tr>
<tr>
<td>Audio signal:</td>
<td>Video signal:</td>
</tr>
<tr>
<td><img src="output.png" alt="Input" /></td>
<td><img src="Input.png" alt="Input" /></td>
</tr>
<tr>
<td><img src="input.png" alt="Output" /></td>
<td><img src="output.png" alt="Output" /></td>
</tr>
</tbody>
</table>

### Notes
- Do not plug in the power cord until all connections have been completed.
- When making connections, also refer to the operating instructions of the other components.
- Be sure to connect the left and right channels properly (left with left, right with right).
- Do not bundle power cords together with connection cables. Doing so can result in humming or noise.

### Preparations

Connections for all compatible audio and video signal formats are described in this owner’s manual. Please select the types of connections suited for the equipment you are connecting. With some types of connections, certain settings must be made on the AVR-589. For details, refer to the instructions for the respective connection items below.

#### Audio cables
- **Coaxial digital connections**
  - (Orange)
  - Coaxial digital (75 Ω/ohms pin-plug) cable
- **Optical digital connections**
  - Optical cable
- **Analog connections (stereo)**
  - (White) *(L)*
  - (Red) *(R)*
  - Stere...
Speaker Installation

The illustration below shows a basic example of installation of the amplifier combined with 6 speakers and a monitor.

Front speakers
Place the front speakers to the sides of the monitor or screen and as flush with the screen surface as possible.

The table below shows a typical speaker configuration for the AVR-589.

<table>
<thead>
<tr>
<th></th>
<th>FRONT A/B</th>
<th>CENTER</th>
<th>SURROUND</th>
<th>SUBWOOFER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L</td>
<td>R</td>
<td>L</td>
<td>R</td>
</tr>
<tr>
<td>5.1-channels</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>3.1-channels</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>–</td>
</tr>
<tr>
<td>2.1-channels</td>
<td>O</td>
<td>O</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>2-channels</td>
<td>O</td>
<td>O</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>
Speaker Connections

Example: 5.1-channels

Connecting the Speaker Cables

Carefully check the left (L) and right (R) channels and + (red) and – (black) polarities on the speakers being connected to the AVR-589, and be sure to interconnect the channels and polarities correctly.

1. Peel off about 0.03 ft/10 mm of sheathing from the tip of the speaker cable, then either twist the core wire tightly or terminate it.

2. Turn the speaker terminal counterclockwise to loosen it.

3. Insert the speaker cable’s core wire to the hilt into the speaker terminal.

4. Turn the speaker terminal clockwise to tighten it.

When using a banana plug

Tighten the speaker terminal firmly before inserting the banana plug.

Protection circuit

If the core wires touch the rear panel and the screws etc., or the ± sides touch each other, the protection circuit will be activated and the power indicator will flash red at intervals of 0.5 secs.

If the protection circuit is activated, the speaker output is isolated, and the power supply goes to the standby state. If the power supply is turned off, after the power supply cord is withdrawn, please confirm that speaker cable and input cable are connected. Also, if replaying large sound levels by using a speaker having an impedance less than that specified (e.g., 4 Ω/ohms), the temperature will rise, and the protection circuit might be activated. The power supply will go into the standby state, and the power indicator will flash red at 2 second intervals.

In this case, please switch off the power supply, and wait until the AVR-589 has cooled down, and the surrounding ventilation is good. Even if there are no problems with the surrounding ventilation and connections, in the event of the protection circuit becoming activated, due to thinking that the AVR-589 has failed, please contact DENON Service center after switching off.

NOTE

- Use speakers with an impedance of 6 to 16 Ω/ohms. When using front A and B speakers simultaneously, use speakers with an impedance of 12 to 16 Ω/ohms.
- Connect the speaker cables in such a way that they do not stick out of the speaker terminals. The protection circuit may be activated if the core wires touch the rear panel or if the + and – sides touch each other (see “Protection circuit”).
- Never touch the speaker terminals while the power supply is connected. Doing so could result in electric shock.

※ L : Left
R : Right
Connecting Equipment with HDMI connectors

The AVR-589 is equipped for HDMI version 1.3a. This version is compatible with other versions, allowing connection to all components equipped with an HDMI connector.

The AVR-589 is compatible with 30- and 36-bit Deep Color.

The AVR-589 can be connected to a device equipped with an HDMI output connector using an HDMI cable.

The AVR-589 is compatible with HDMI Ver. 1.3a Deep Color and xvYCC.

When HDMI input signals are sent to the monitor as HDMI output, both video and audio are output to the monitor.

NOTE

- The AVR-589 cannot be controlled from another device via the HDMI cable.
- Video signals are not output if the input video signals do not match the monitor’s resolution. In this case, switch the DVD player’s resolution to a resolution with which the monitor is compatible.
- Use a cable on which the HDMI logo is indicated (a certified HDMI product) for connection to the HDMI connector. Normal playback may not be possible when using a cable other than one on which the HDMI logo is indicated (a non-HDMI-certified product).
- If the monitor or DVD player does not support Deep Color, deep color signal transfer is not possible.
- If the monitor or DVD player does not support xvYCC, xvYCC signal transfer is not possible.

- The audio and video signals input to the AVR-589’s HDMI input connector are output unchanged from the HDMI output connector. Because of this, the sound is output from the monitor connected using the HDMI connectors, but in order to take full advantage of the AVR-589’s playback sound, turn the TV’s volume down.
- If the connected monitor or DVD player only has a DVI-D connector, use an HDMI/DVI converter cable.

When using a DVI cable, no audio signals are transmitted.

- Use a Deep Color compatible cable for connection to Deep Color compatible devices.

When connecting with an HDMI/DVI converter cable (adapter)

- HDMI video signals are theoretically compatible with the DVI format. When connecting to a monitor, etc., equipped with a DVI-D connector, connection is possible using an HDMI/DVI converter cable, but depending on the combination of components in some cases the video signals will not be output.
- When connecting using an HDMI/DVI converter adapter, the video signals may not be output properly due to poor connections with the connected cable, etc.
Connecting the Monitor

Select the terminal to use and connect the device.

NOTE

- The AVR-589 supports four video input formats: HDMI, component video, S-video, and video. Because video signals are output from the AVR-589’s monitor output terminal in the same format as the video input signals, the monitor output terminal should be of the same type as the terminal used for input.
- The component video connectors may be indicated differently on your monitor. For details, see the monitor’s operating instructions.
- To play the sound by AVR-589, make analog or digital audio output connections to AVR-589’s audio input connectors.

[Flow of video signals inside the AVR-589]

- High picture quality playback
- HDMI connector
- Component video connectors
- S-Video connector
- Video connector
- Video input terminals
- HDMI connector
- Component video connectors
- S-Video connector
- Video connector
- Monitor output terminals

Connecting the Playback Components

Carefully check the left (L) and right (R) channels and the inputs and outputs, and be sure to interconnect correctly.

DVD Player

Select the terminal to use and connect the device.

NOTE

- The audio signal input to the HDMI input connector cannot be played on the AVR-589. Input the audio signal to the digital audio input connector or analog audio input connector.
- The same method can be used to connect an HDP (High-Definition Player) such as a Blu-ray Disc player.

NOTE

Because video signals are output from the AVR-589’s monitor output terminal in the same format as the video input signals, the monitor output terminal should be of the same type as the terminal used for input.
**CD Player**

Select the terminal to use and connect the device.

When using an optical cable for the digital audio connection, make the settings at "System Setup" – "Input Setup" – "Digital In Assign" (page 24).

**iPod®**

Use a DENON control dock for iPod (ASD-1R, ASD-11R, ASD-3N or ASD-3W, sold separately) to connect the iPod to the AVR-589. For instructions on the control dock for iPod settings, refer to the control dock for iPod’s operating instructions.

- With the default settings, the iPod can be used connected to the VCR (iPod) connector.
- To assign the iPod to a connector other than VCR (iPod), make the settings at "System Setup" – "Input Setup" – "iPod Assign" (page 24).

**TV/CABLE Tuner**

Select the terminal to use and connect the device.

- With the default settings, the iPod can be used connected to the VCR (iPod) connector.
- To assign the iPod to a connector other than VCR (iPod), make the settings at "System Setup" – "Input Setup" – "iPod Assign" (page 24).

**NOTE**

The audio signal input to the HDMI input connector cannot be played on the AVR-589. Input the audio signal to the digital audio input connector or analog audio input connector.

**NOTE**

Because video signals are output from the AVR-589’s monitor output terminal in the same format as the video input signals, the monitor output terminal should be of the same type as the terminal used for input.
Connecting the Recording Components

Carefully check the left (L) and right (R) channels and the inputs and outputs, and be sure to interconnect correctly.

Video Cassette Recorder
Select the terminal to use and connect the device.

Select the terminal to use and connect the device.

CD Recorder / MD Recorder / Tape Deck

Video Camera / Game Console
Select the terminal to use and connect the device.

Carefully check the left (L) and right (R) channels and the inputs and outputs, and be sure to interconnect correctly.

When recording via the AVR-589, the playback device’s cable must be of the same type as the cable used to connect the AVR-589’s VCR OUT connector.

Example: TV IN → S-Video cable : VCR OUT → S-Video cable
TV IN → Video cable : VCR OUT → Video cable
Component with Multi-channel Output connectors

Select the terminal to use and connect the device.

**DVD player / External decoder**

- **AUDIO**
  - **SUB-WOOFER**
  - **FRONT**
  - **CENTER**
  - **SURROUND**

**SIRIUS connector**

- The AVR-589 is a SIRIUS Satellite Radio Ready® receiver. You can receive SIRIUS® Satellite Radio by connecting to the SiriusConnect Home Tuner and subscribing to the SIRIUS service.
- Plug the SIRIUS connector on the rear panel.
- Position the Home Tuner antenna near a south-facing window to receive the best signal.

For details, see “Listening to SIRIUS Satellite Radio Programs” (page 37).

When making connections, also refer to the operating instructions of the SiriusConnect Home Tuner.

- **DVD player / External decoder**
  - **INPUT MODE** button on the main unit or the **INPUT** button on the remote control unit and select “EXT. IN” (page 34).
- The video signal can be connected in the same way as a DVD player (page 11).
- To play copyright-protected discs, connect the AVR-589’s EXT. IN connector with the DVD player’s analog multi-channel output connector.

**NOTE**

- When connecting the Optical terminal, set the input Optical terminal allocations for “System Setup” – “Input Setup” – “Digital In Assign”, in “SIRIUS”.
- Keep the power cord unplugged until the SiriusConnect Home Tuner connection have been completed.

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### Positioning the Antenna

For a consistent satellite signal, the antenna must be positioned correctly. Use the following map to determine which area you are in and position the antenna accordingly.

- **Area 1**: Point the antenna toward the sky in the east, northeast, or southeast, either through a window or outside.
- **Area 2**: Point the antenna toward the sky in the north or northeast, either through a window or outside.
- **Area 3**: Point the antenna toward the sky in the north or northwest, either through a window or outside.
- **Area 4**: Point the antenna toward the sky in the west, northwest, or southwest, either through a window or outside.
- **Area 5**: Put the antenna outside and point it straight up. The antenna cannot be used indoors.
Antenna terminals

An F-type FM antenna cable plug can be connected directly.

Direction of broadcasting station

FM antenna

75 Ω/ohms Coaxial cable

AM loop antenna (supplied)

FM indoor antenna (supplied)

AM outdoor antenna

Ground

Connecting the Power Cord

Wait until all connections have been completed before connecting the power cord.

Connecting the Power Cord

Power cord

To household power outlet

(AC 120 V, 60 Hz)

Connection to the AC outlets

- These outlets supply power to external audio equipment.
- The power supplied from these outlets turns on and off together with the set's power switch.
- Audio equipment with a total power consumption of 120 W (1 A) can be connected.

Connection of AM antennas

1. Push the lever.
2. Insert the conductor.
3. Return the lever.

AM loop antenna assembly

Remove the vinyl tie and take out the connection line.

Bend in the reverse direction.

a. With the antenna on top of any stable surface.

b. With the antenna attached to a wall.

Installation hole Mount on wall, etc.

AM loop antenna assembly

Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 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.

Once Connections are Completed

Turning the Power On (page 34)
### Menu Map

**Auto Setup** ([page 17 – 19])
- Start Menu
  - Step 1: Speaker Detection
  - Step 2: Measurement
  - Step 3: Calculation
  - Step 4: Check
  - Step 5: Store

**System Setup** ([page 20 – 26])
- Speaker Setup ([page 21 – 23])
  - Speaker Configuration
  - Subwoofer Mode Setup
  - Distance
  - Crossover Frequency
  - Test Tone
  - Restore
- Input Setup ([page 23 – 25])
  - HDMI In Assign
  - Digital In Assign
  - iPod Assign
  - Audio Delay
  - EXT. IN Subwoofer Level
  - Auto Preset Memory
  - Parental Lock
  - Edit Lock Code
- Option Setup ([page 26])
  - Volume Control
  - Volume Limit
  - Power On Level
  - Mute Level
  - Auto Surround Mode
  - Direct Mode Setup
  - Remote ID Setup

**Parameter** ([page 29 – 33])
- Surround Parameter
  - Mode
  - Cinema EQ
  - D. Comp
  - LFE
  - Center Image
  - Panorama
  - Dimension
  - Center Width
  - Delay Time
  - Effect Level
  - Room Size
  - SW ATT
  - Subwoofer
  - Tone Control
  - Bass
  - Treble
  - MultEQ
  - Dynamic EQ
  - Dynamic Volume
  - DV Setting
  - RESTORER
  - Night Mode
  - Default

**Information** ([page 33])
- Status
- Audio Input Signal

### Examples of Front Display

Some typical examples are described below.

<table>
<thead>
<tr>
<th>Item number</th>
<th>Currently selected line</th>
<th>Menu number</th>
<th>Current setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 HDMI1:DVD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the setup microphone is connected.

Press the << button to select.

Currently selected line

Press the < button to select.

Currently selected line
Auto Setup

Preparations

1. Press <SPEAKERS> to select the front speakers Front A, Front B or Front A+B.

2. Connect the included calibrated setup microphone to the SETUP MIC jack on the main unit.
   “Auto Set<Start” is displayed.

3. Place the microphone at ear height on a tripod or stand with the microphone pointing directly up towards the ceiling.

   Do not hold the microphone in your hand during measurements. Be sure that the path from microphone to the speakers is not blocked by objects. Avoid placing the microphone close to a seat back or wall as sound reflections may give inaccurate results.

About the main listening position (*M)

The main listening position refers to the most central position where one would normally sit within the listening environment. MultEQ uses the measurements from this position to calculate speaker distance, level, polarity, and the optimum crossover value for the subwoofer.

To make manual adjustments to the settings, see pages 21 – 23.

When using a subwoofer, make the following settings before starting the auto setup procedure:

- Defeat the volume and crossover controls if possible
- If this is not possible then set
  - Volume: “12 o’clock” position
  - Crossover frequency: “Maximum/Highest Frequency”
  - Low pass filter: “Off”
  - Standby mode: “Off”
Do not disconnect the setup microphone until the auto setup procedure is completed.

When using headphones, unplug the headphones before starting the auto setup procedure.

About the Auto Setup

The Audyssey MultEQ auto setup function detects the presence of each speaker and automatically calculates the speaker size, channel level, distance, and optimal crossover frequency setting. Audyssey MultEQ corrects acoustical distortions within the listening area.

Before starting, connect and position all of your speakers.

Once started, MultEQ will play a series of test tones through each speaker.

If an error message appears during the measurements, check “Error Messages”, take the advised action, then start the measurements again (page 19).

NOTE

• Do not disconnect the setup microphone until the auto setup procedure is completed.
• When using headphones, unplug the headphones before starting the auto setup procedure.

Auto Setup

Optimize settings for speakers in use.

1 Auto Setup

The settings found at this stage are applied automatically.

[Auto setup flow]

Step 1: Speaker Detection

Step 2: Measurement

Step 3: Calculation

Step 4: Check

Step 5: Store

NOTE

• Loud test sounds may be played during Audyssey MultEQ automatic speaker setup. This is part of normal operation. If there is background noise in room, these test signals will increase in volume.
• Do not stand between the speakers and setup microphone or allow obstacles in the path while the measurements are being made. This will cause inaccurate readings.
• Make the room as quiet as possible. Background noise can disrupt the room measurements. Close windows, silence cell phones, televisions, radios, air conditioners, fluorescent lights, home appliances, light dimmers, or other devices as measurements may be affected by these sounds.
• Cell phones should be placed away from all audio electronics during the measurement process as Radio Frequency Interference (RFI) may cause measurement disruptions (even if the cell phone is not in use).
• Operating MASTER VOLUME during the measurements will cancel the measurements.

Step 1 : Speaker Detection

The speaker connection and polarity are detected at the first measurement position (main listening position). The following attributes are also determined at this time. “Speaker Size”, “Speaker Distance”, “Channel Level”, “Crossover Frequency”.

① Press ◀ while “Auto Set<Start” is displayed.

• While the measurements are being conducted “Measure:FL <Ccl” (“FL” indicates the speaker being measured) is displayed.

② When the measurements are completed, the number of detected speakers is displayed.

Example : For a 5.1 channel speaker configuration

Step 2 : Measurement

Perform the measurements in 6 positions.

Measure at 6 positions: the main listening position and 5 other surrounding positions. Although it is allowable to measure less than 6 positions, it is recommended to measure 6 for best results.

Step 3 : Calculation

The values obtained from the measurements are automatically analyzed and the attributes for each of the speakers in the listening area are determined.

① Press ◀ while “Calculate=” is displayed.

• “Calculating” is displayed and analysis begins.

② Analysis takes several minutes to complete.

• The time required for this analysis depends on the number of speakers connected. The greater the number of speakers connected, the longer the analysis will take.

NOTE

1. Do not change the speaker connections or subwoofer volume after “Step 1”.

2. Do not disconnect the setup microphone until the auto setup procedure is completed.

3. Move the microphone to the 3rd position and press ◀.

4. “Calculate=” is displayed when you have completed measurements in 6 positions.

5. If you want to stop after measuring just five or fewer positions, use ◀ to display “Calculate=”.

After completing a measurement position, move the microphone to the next position.

Measure at 6 positions: the main listening position and 5 other surrounding positions. Although it is allowable to measure less than 6 positions, it is recommended to measure 6 for best results.

Step 4 : Check

Do not change the speaker connections or subwoofer volume, or speaker locations after making measurements. If changes are necessary, make the changes and use the Audyssey MultEQ auto setup once again for an updated EQ solution.

Step 5 : Store

The settings found at this stage are applied automatically.
Step 4 : Check

When analysis is complete, “Parameter Check<” is displayed. Press < and check the analysis results for the following four items.

1. Make your selection using Δ or Δ and press <.
   - Presence and size of speaker
     “SpConfig. Check<”
   - Distance of speaker from listening position
     “Distance Check<”
   - Speaker channel level
     “Ch Level Check<”
   - Crossover Frequency
     “Crossover Check<”

2. Use Δ or Δ to change which speaker is displayed.

To switch to another analysis result item
Press ENTER.
This returns you to analysis results items, so repeat operation 1.

To proceed to “Step 5 : Store”
During display of crossover frequency result or analysis results item, press ENTER.
- “Store<” is displayed.

- To proceed to “Step 5” without checking the analysis result, use Δ or Δ to select “Store<” while “Parameter Check<” is displayed.
- Values that are different from the actual distance may be set for speakers with built-in filters (subwoofers, etc.). This is because filters add electrical delay to the signal that should be compensated.

Step 5 : Store

The auto setup measurement results are stored in the AVR-589.

1. Press < while “Store<” is displayed.
2. When storing is complete, “Completed” is displayed followed by “Disconnect Mic”.
3. Disconnect the setup microphone from the AVR-589.

To cancel storing
Use Δ or Δ to display “Cancel<” while “Store<” is displayed and press <.
- All the measured auto setup data will be erased.

NOTE
Do not turn the power off while the settings are being stored.

Error Messages

If the auto setup procedure could not be completed due to speaker installation, the measuring environment, etc. an error message is displayed. Check the relevant items and be sure to take the necessary measures. After addressing any issues, perform the auto setup procedure over again.

<table>
<thead>
<tr>
<th>Error messages (examples)</th>
<th>Cause</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mic or Sp:None</td>
<td>The included setup microphone is not connected.</td>
<td>Connect the included setup microphone to the SETUP MIC jack on the main unit.</td>
</tr>
<tr>
<td>Ambient Noise</td>
<td>Too much noise in the room for accurate measurements to be made.</td>
<td>Either turn off any device generating noise or move it away.</td>
</tr>
<tr>
<td>Caution:Sp:None</td>
<td>Not all speakers could be detected.</td>
<td>Check the speaker connections.</td>
</tr>
<tr>
<td>Caution:Phase</td>
<td>Speaker or subwoofer sound is too low for accurate measurements to be made.</td>
<td>Either turn off any device generating noise or move it away.</td>
</tr>
<tr>
<td>Caution:Phase</td>
<td>Displayed speaker connected with the polarities reversed.</td>
<td>Check the polarities of the displayed speaker.</td>
</tr>
<tr>
<td>Caution:Phase</td>
<td>Displayed speaker could not be detected. - The front L and front R speakers were not properly detected. - Only one channel of the surround speakers was detected.</td>
<td>Check the connections of the displayed speaker.</td>
</tr>
<tr>
<td>Caution:Phase</td>
<td>Displayed speaker connected with the polarities reversed.</td>
<td>Check the polarities of the displayed speaker.</td>
</tr>
<tr>
<td>Caution:Phase</td>
<td>Displayed speaker connected with the polarities reversed.</td>
<td>Check the polarities of the displayed speaker.</td>
</tr>
</tbody>
</table>

NOTE: Be sure to turn the power off before checking speaker connections.
System Setup

Make detail settings for various parameters.

System Setup Operation

The same operation is possible on the main unit or remote control unit.

1. Press SYSTEM SETUP.
   "System Setup" is displayed.

2. Press ENTER.
   Three setup menu categories are displayed.
   "1. Sp" : Speaker Setup
   "2. In" : Input Setup
   "3. Op" : Option Setup
   • The cursor of the item number selected blinks.
   • For details of the items to be set in each item, see “Menu Map” (p. 16).

3. Press ▲▼ to select the item you want to set, then press ENTER.
   The detailed setup menu for each item is displayed.

4. Press ▲▼ to select the item you want to change, then press ▲▼ to change the setting.

5. Press ENTER or ▼ to confirm the next settings.

Example of Display of Default Values

In lists of selectable items or adjustable ranges, the item surrounded by a border is the default value.

[Selectable items]  Large  Small

To move to a setup item of another category
Press SYSTEM SETUP.
• Returns to the setup menu.
• Perform steps 3 and 4.

To exit setup
Press SYSTEM SETUP while the setup menu is displayed.
• The display returns to normal.
1. Speaker Setup
Use this procedure to set the speakers manually or if you wish to change the settings made with the auto setup procedure.

1 ~ 4 Speaker Configuration
Select speaker configuration and size. (bass reproduction capability)

[Display]
1 Sp 2.In 3.Op
Q Speaker Setup
Q 1 Front :Large
Q 4 Subwoofer:Yes

1 Front Speaker
Select front speaker size.
[Selectable items] Large Small

2 Center Speaker
Select center speaker use and size.
[Selectable items] Large Small None

3 Surround Speaker
Select surround speakers use and size.
[Selectable items] Large Small None

4 Subwoofer
Select subwoofer use.
[Selectable items] Yes No

- Select “Large” or “Small” not according to the physical size of the speaker but according to the low frequency reproduction capabilities based on the frequency set at “Crossover Frequency” (page 22).
- When “Front Speaker” is set to “Small”, “Subwoofer” is automatically set to “Yes”.
- If “Subwoofer” is set to “No”, “Front Speaker” is automatically set to “Large”.
- When “Front Speaker” is set to “Small”, “Center Speaker” can not be set to “Large”.

5 Subwoofer Mode Setup
Select low range signal to be reproduced by subwoofer.

[Selectable items]
- Norm: Play low range and LFE signal of channels set to “Small”.
- +Main: Play low range and LFE signal of all channels.

• This can be set when “System Setup” – “Speaker Setup” – “Subwoofer” is set to “Yes”.
• Play music or a movie source and select the mode offering the strongest bass.
• Select “+Main” if you want the bass signals to always be produced from the subwoofer.
**Distance**
Set distance from listening position to speakers. Before making the settings, measure the distance from the listening position to the different speakers.

**Variable range**
0ft ~ 60ft: Settable in units of 1 foot.

Default setting:
- FL / FR / C / SW: 12 ft
- SL / SR: 10 ft

**NOTE**
Set the distance between the listening position and the various speakers to no more than 20 ft.

**Crossover Frequency**
Select crossover frequency from which subwoofer handles low range signal.

**Variable range**
0ft ~ 60ft: Settable in units of 1 foot.

Default setting:
- FL / FR / C / SW: 12 ft
- SL / SR: 10 ft

**NOTE**
- Set the Crossover Frequency of all speakers as one.
- Set the Crossover Frequency separately for the different speakers.
- In the case of “LFE”, there are 8 modes: 80Hz, 90Hz, 100Hz, 110Hz, 120Hz, 150Hz, 200Hz, 250Hz.

**Test Tone**
Adjust channel levels to obtain equal volume from all speakers.

**Variable range**

**Select Test Tone method.**
Auto: Automatically switch speaker from which test tone is output.
Manual: Manually switch speaker from which test tone is output.

---

For details on how to select, set and cancel settings for each menu, see “System Setup Operation” (page 20).
2. Input Setup
Use this procedure to select the input source and make the settings related to playing input sources.

- HDMI In Assign
- Digital In Assign
- iPod Assign
- Audio Delay
- EXT. IN Subwoofer Level
- Auto Preset Memory
- Parental Lock
- Edit Lock Code

Select HDMI connector to assign to this source.

- [Display]

- Test Tone Start
Press < to select “Yes”, then press < or > to select “Auto” or “Manual”.
Then press ∨. Output the test tone.
- Auto: Press < or > to adjust the volume.
- Manual: Press ▲ or ▼ to select the speaker, then press < or > to adjust the volume.

When the adjustments are completed, press ENTER to finish the test tone.

- Operating from the remote control unit
Adjusting with the remote control unit using the test tones is only possible in the “Auto” mode and only effective in the STANDARD mode. The adjusted levels for the different modes are automatically stored in the memory.

- [Adjusting using test tones]
1. Press [TEST].
2. Test tones are output from the various speakers.
3. Use < or > to adjust so that the volume is equal for all speakers.
4. When the adjustments are completed, press [TEST].

Fortakeset
• Speakers set to “None” in the Speaker Configuration settings are not displayed.
• When “Channel Level” is adjusted, the adjusted values are set for all the surround modes.

- [Variable range] -12dB ~ 0dB ~ +12dB

- [Display] 18 Restore
After the Auto Setup measurements, it is possible to return those settings to the Auto Setup measurement results after changing the speaker settings (speaker configuration, distance, channel level and crossover frequency) with “System Setup” – “Speaker Setup”.

Press < to start.

- [Input terminals] HDMI1 HDMI2
- [Assignable input sources]

- [Input terminals] HDMI1 HDMI2
- [Default setting] DVD/HDR TV/CBL

For details on how to select, set and cancel settings for each menu, see “System Setup Operation” (page 20).
3 ~ 6 Digital In Assign
Select digital input connector to assign to this source.

[Display]

[Input terminals]
COAX1 COAX2 OPT1 OPT2

[Assignable input sources]
CD AUX CDR DVD/HDP*1 TV/CBL*2 VCR V.AUX SIRIUS OFF

*1: “DVD” is displayed.
*2: “TV” is displayed.

Input terminals
1. COAXIAL1 2. COAXIAL2 3. OPTICAL1 4. OPTICAL2

Default setting
DVD/HDP CD TV/CBL VCR

7 iPod Assign
Assign control dock for iPod to this source.

[Display]

[Assignable input sources]
CD AUX CDR DVD/HDP*1 TV/CBL*2 VCR V.AUX OFF

*1: “DVD” is displayed.
*2: “TV” is displayed.

With the default settings, the control dock for iPod can be used connected to the VCR (iPod) connector.

8 Audio Delay
Compensate for mismatched timing between video and audio.

[Display]

Delay audio.
This sets the delay time for audio signals.

[Variable range] 0 ms ~ 200 ms
With a movie source, for example, adjust so that the movement of the actors’ lips is synchronized with the sound.

Operating from the remote control unit
Press [AUDIO DELAY].

• This cannot be adjusted when playing in the EXT. IN, DIRECT or STEREO mode (with “Front Speaker” set to “Large”, “Tone Control” to “OFF” and “MultEQ” to “OFF”).
• Store each input source.

9 EXT. IN Subwoofer Level
Set the subwoofer level for playback.
Select according to the player in use.

[Display]

[Selectable items]
0dB +5dB +10dB +15dB
Select according to the player in use.

This is the recommended level.

10 Auto Preset Memory
Use the auto preset function to program radio stations.

[Display]

Press to start.
• “CH” blinks on the display and searching begins.
• “Completed” appears once searching is completed.

If an FM station cannot be preset automatically, select the desired station by tuning it in manually, then preset it manually.

NOTE
“Auto Preset Memory” is displayed when the input source is “FM” and “AM”.

For details on how to select, set and cancel settings for each menu, see “System Setup Operation” (page 20).
### 11 Parental Lock
For any channel, set the radio reception limits.

1. Press <q>.
2. Using Δ ν ▼ <d>, input the password (4 digits number) and press ENTER.
3. Set the lock by pressing <d>.

#### [Display]
```
Input Setup
1. Parental Lock<
2. Code:[0000]
3. SR001:<Unlock>
4. SR001:<Lock>
```

#### Selectable items
- **Unlock**: Do not lock selected channel(s).
- **Lock**: Lock selected channel(s).

* When a Parental Locked channel is tuned, “Code : [   ]” is displayed, then input the password.

- The default password is “0000”. If you wish to change this password, set the new password with “Edit Lock Code”.
- If the password is incorrectly input, “Incorrect Code” is displayed, and proceed again from step 1.
- If the password input is 3 digits or less, “Enter 4-digit” is displayed, and input again with a 4 digit password.
- While listening to the channel being played, you can also set parental lock (参见第38页).

#### NOTE
“Parental Lock” is displayed when input source is “SIRIUS”, and connected to SIRIUS Tuner.

### 12 Edit Lock Code
Change the password (See “Parental Lock”).

1. Press <q>.
2. Input old password (4 digits) using Δ ν ▼ <d>, and press ENTER.
3. Input new password (4 digits) using Δ ν ▼ <d>, and press ENTER.
4. Input new password (4 digits) again using Δ ν ▼ <d>, and press ENTER. If the correct password is input, “Complete” is displayed, and the new password is modified.

#### [Display]
```
Input Setup
1. Edit Lock Code<
2. Current:[0000]
3. New:[0123]
4. Repeat:[0123]
```

#### Selectable items
- **Unlock**: Do not lock selected channel(s).
- **Lock**: Lock selected channel(s).

* If the old password is incorrectly input, “Incorrect Code” is displayed, and proceed again from step 1.
* If the password input is 3 digits or less, “Enter 4-digit” is displayed, and input again with a 4 digit password.
* If the new password is not correctly input, “Disagreement” is displayed and the password does not change.

#### NOTE
“Edit Lock Code” is displayed when the input source is “SIRIUS”.

For details on how to select, set and cancel settings for each menu, see “System Setup Operation” (参见第20页).
3. Option Setup
Make various other settings.

1 ~ 3 Volume Control
Set the main zone volume setting.

[Selectable items]
- Last: Use the memorized setting from the last session.
- Full: Always use the muting condition when power is turned on.

[Variable range]
- Set the volume level when the power is turned on in units of 1 dB.

-80dB ~ +18dB: Set the volume limit to –80 dB – the set volume level.

3 Mute Level
This sets the amount of attenuation of the volume when the mute mode is set in the main zone.

[Selectable items]
- Full: The sound is cut off entirely.
- –40dB: The sound is attenuated by 40 dB.
- –20dB: The sound is attenuated by 20 dB.

4 Auto Surround Mode
Make setting for memorizing surround mode setting for each input signal type.

[Selectable items]
- ON: Use MultEQ.
- OFF: Do not use MultEQ.

5 Direct Mode Setup
Select MultEQ use for DIRECT mode playback.

[Selectable items]
- ON: Use MultEQ.
- OFF: Do not use MultEQ.

6 Remote ID Setup
Set remote control ID.

[Selectable items]
- 1 Remote ID:1
- 2 Remote ID:2
- 3 Remote ID:3
- 4 Remote ID:4

NOTE
When using the AVR-589 with only the included remote control unit (RC-1104), there is no need to make settings.
When using a separately sold remote control unit (RC-7000CI, etc.), this function can be used. Match the ID setting of the remote control unit and the receiver.
Surround Modes

Standard Playback
This is the mode for enjoying surround sound according to the program source.

Surround Playback of 2-channel Sources

Selecting the surround mode
Select by turning <SELECT/ENTER> or pressing [STD].

[Selectable items]

- DOLBY PL II: The signals are decoded in DOLBY PL II for playback.
- DTS NEO:6: The signals are decoded in DTS NEO:6 for playback.

Select the mode to suit the source
Press <Surr. Para> or [Para]. Display “Mode” and select your desired mode using <David>.

- DOLBY PL II
  - Cinema: This mode is suited for movie sources.
  - Music: This mode is suited for music sources.
  - Game: This mode is suited for games.
  - PL: This is the Pro Logic playback mode. When this mode is selected, “DOLBY PL” is displayed.

- DTS NEO:6
  - Cinema: This mode is suited for movie sources.
  - Music: This mode is suited for music sources.

Playing Multi-channel Sources (Dolby Digital, DTS, etc.)

In the case of standard playback of multi-channel sources, the AVR-589 recognizes the format of the multi-channel audio input signal and automatically operates the appropriate decoder for surround sound.

[Selectable items]

STANDARD: Any of the surround modes in the “Display” column in the following table. The mode changes depending upon factors such as the input signal being used.

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolby Digital Source</td>
<td>Dolby Digital</td>
</tr>
<tr>
<td>(other than 2ch)</td>
<td>Dolby Digital</td>
</tr>
<tr>
<td>DTS Surround Source</td>
<td>DTS SURROUND</td>
</tr>
<tr>
<td>DTS (5.1ch) / DTS 96/24</td>
<td>DTS 96/24 (※)</td>
</tr>
</tbody>
</table>

※: This is displayed when the input signal is “DTS 96/24”.

- For details, see page 49.
- To select these surround modes using <SELECT/ENTER> or press [STD].

Symbols used to indicate buttons in this manual
Button located on both the main unit and the remote control unit
Button only on the main unit
Button only on the remote control unit

Play Multi-channel Sources
(Dolby Digital, DTS, etc.)

In the case of standard playback of multi-channel sources, the AVR-589 recognizes the format of the multi-channel audio input signal and automatically operates the appropriate decoder for surround sound.

[Selectable items]

STANDARD: Any of the surround modes in the “Display” column in the following table. The mode changes depending upon factors such as the input signal being used.

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolby Digital Source</td>
<td>Dolby Digital</td>
</tr>
<tr>
<td>(other than 2ch)</td>
<td>Dolby Digital</td>
</tr>
<tr>
<td>DTS Surround Source</td>
<td>DTS SURROUND</td>
</tr>
<tr>
<td>DTS (5.1ch) / DTS 96/24</td>
<td>DTS 96/24 (※)</td>
</tr>
</tbody>
</table>

※: This is displayed when the input signal is “DTS 96/24”.

- For details, see page 49.
- To select these surround modes using <SELECT/ENTER> or press [STD].
Selecting the surround mode

Select by turning <SELECT/ENTER> or pressing [SIMU].

[Selectable items]

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5CH STEREO</td>
<td>This mode is for enjoying stereo sound from all speakers.</td>
</tr>
<tr>
<td>ROCK ARENA</td>
<td>This mode is for enjoying the atmosphere of a live concert in an arena.</td>
</tr>
<tr>
<td>JAZZ CLUB</td>
<td>This mode is for enjoying the atmosphere of a live concert in a jazz club.</td>
</tr>
<tr>
<td>MONO MOVIE*</td>
<td>This mode is for playing monaural movie sources with surround sound.</td>
</tr>
<tr>
<td>VIDEO GAME</td>
<td>This mode is suited for achieving surround sound with video games.</td>
</tr>
<tr>
<td>MATRIX</td>
<td>This mode lets you add a sense of expansion to stereo music sources.</td>
</tr>
<tr>
<td>VIRTUAL</td>
<td>This mode is for enjoying surround effects using only the front speakers or headphones.</td>
</tr>
</tbody>
</table>

*: When playing sources recorded in monaural in the MONO MOVIE mode, the sound will be off balance with a single channel (left or right), so input to both channels.

Depending on the program source being played, it may not be possible to achieve a satisfactory surround effect. In this case, try other modes to achieve a sound field suited to your tastes.

Direct Playback

Selecting the mode

Select by turning <SELECT/ENTER> or pressing [D/ST].

[Selectable items]

DIRECT

In this mode, the signals bypass the tone adjustment circuitry for high quality sound. The sound is output to the same channels as the input signal.

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog signal / PCM (2ch) /</td>
<td>DIRECT</td>
</tr>
<tr>
<td>Dolby Digital source / DTS source /</td>
<td></td>
</tr>
<tr>
<td>Other 2-channel digital signals</td>
<td></td>
</tr>
</tbody>
</table>

For details, see page 49.

Stereo Playback

Selecting the mode

Select by turning <SELECT/ENTER> or pressing [D/ST].

[Selectable items]

STEREO

This is the mode for playing in stereo. The tone can be adjusted. Sound is output from the front left and right speakers and subwoofer.
Parameter

Symbols used to indicate buttons in this manual

Button located on both the main unit and the remote control unit
 Button only on the main unit
 Button only on the remote control unit

Adjusting the Parameters

1. **Press <SRR. PARA> or [PARA].**
   Parameter is displayed.

2. **Use ▲▼ to select which parameters to adjust.**
   Only those parameters which can be adjusted under the current playback status are displayed.

3. **Use ▼► to adjust the parameters.**
   Repeat steps 2 and 3 to set each parameter.

   ❑ **To exit adjustment**
   • Press <SRR. PARA> or [PARA] during adjustment.
   • If no adjustment is made for a period of about 5 seconds, the adjustments made up to that point are registered and the AVR-589 returns to the original mode.

Surround Parameter

Adjust surround sound parameters.

The parameters (items) which can be adjusted differ depending upon the following conditions.

• Whether an input signal is present (when playing) or not (when stopped, etc.).
• The type of input signal
• The type of surround mode

For details of which parameters can be adjusted in each surround mode, see “Surround Modes and Parameters” (page 47, 48).

<table>
<thead>
<tr>
<th>1</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Cinema EQ</td>
</tr>
<tr>
<td>3</td>
<td>D. Comp (Dynamic Range Compression)</td>
</tr>
<tr>
<td>4</td>
<td>LFE</td>
</tr>
<tr>
<td>5</td>
<td>Center Image</td>
</tr>
<tr>
<td>6</td>
<td>Panorama</td>
</tr>
<tr>
<td>7</td>
<td>Dimension</td>
</tr>
<tr>
<td>8</td>
<td>Center Width</td>
</tr>
<tr>
<td>9</td>
<td>Delay Time</td>
</tr>
<tr>
<td>10</td>
<td>Effect Level</td>
</tr>
<tr>
<td>11</td>
<td>Room Size</td>
</tr>
<tr>
<td>12</td>
<td>SW ATT (Subwoofer Attenuation)</td>
</tr>
<tr>
<td>13</td>
<td>Subwoofer</td>
</tr>
<tr>
<td>14</td>
<td>Tone Control</td>
</tr>
<tr>
<td>15</td>
<td>Bass</td>
</tr>
<tr>
<td>16</td>
<td>Treble</td>
</tr>
<tr>
<td>17</td>
<td>MultEQ</td>
</tr>
<tr>
<td>18</td>
<td>Dynamic EQ</td>
</tr>
<tr>
<td>19</td>
<td>Dynamic Volume</td>
</tr>
<tr>
<td>20</td>
<td>DV Setting (Dynamic Volume Setting)</td>
</tr>
<tr>
<td>21</td>
<td>RESTORER</td>
</tr>
<tr>
<td>22</td>
<td>Night Mode</td>
</tr>
<tr>
<td>23</td>
<td>Default</td>
</tr>
</tbody>
</table>
1 Mode
Select the mode to match the source (cinema source, music source, etc.).

- In the PLII mode
  [Selectable items]
  - Cinema: This is the mode for cinema source.
  - Music: This is the mode for music source.
  - Game: This is the mode for game source.
  - PL: Dolby Pro Logic playback mode.
    (This is the mode for 4-channel playback (front L, front R, center, surround (MONO)).)

- In the DTS NEO:6 mode
  [Selectable items]
  - Cinema: This is the mode for cinema source.
  - Music: This is the mode for music source.

Operating from the remote control unit
You can operate “Cinema” mode or “Music” mode with the remote control unit.
Press [CINEMA] or [MUSIC).

The “Music” mode is also effective for movie sources including a lot of stereo music.

2 Cinema EQ
Soften the treble range of movie soundtracks for better understanding.

[Selectable items]
- ON: “Cinema EQ” is used.
- OFF: “Cinema EQ” is not used.

3 D. Comp (Dynamic Range Compression)
Compress dynamic range (difference between loud and soft sounds).

[Selectable items]
- OFF: Turn dynamic range compression off.
- Low: Low setting.
- Mid: Middle setting.
- High: High setting.

When playing DTS sources, this is only displayed for compatible software.

4 LFE
Adjust the low-frequency effects level (LFE).

[Variable range] -10dB ~ 0dB

For proper playback of the different program sources, we recommend setting to the values below:
- Dolby Digital sources: “0 dB”
- DTS movie sources: “0 dB”
- DTS music sources: “-10 dB”

5 Center Image
Assign center channel signal to front left and right channels for wider sound.

[Variable range] 0.0 ~ 0.3 ~ 1.0

6 Panorama
Assign front L/R signal also to surround channels, for wider sound. If the surround effect seems weak, set “Panorama” to “ON”.

[Selectable items]
- ON
- OFF

7 Dimension
Shift sound image center to front or rear, to adjust playback balance.

[Variable range] 0 ~ 3 ~ 6

For details on adjusting individual parameters, see “Adjusting the Parameters” (page 29).

8 Center Width
Assign center channel signal to front left and right channels for wider sound.

[Variable range] 0 ~ 3 ~ 7

9 Delay Time
Adjust delay time to control sound stage size.

[Variable range] 0 ms ~ 30 ms ~ 110 ms

10 Effect Level
Adjust the strength of the surround effect.

[Variable range] 1 ~ 10 ~ 15

Set to a lower level if the positioning and sense of phase of the surround signals seems unnatural.

11 Room Size
Determine size of acoustic environment.

[Selectable items]
- Small: Simulate acoustics of a small room.
- Med-S: Simulate acoustics of a medium-small room.
- Med: Simulate acoustics of a medium room.
- Med-L: Simulate acoustics of a medium-large room.
- Large: Simulate acoustics of a large room.

NOTE
“Room Size” does not indicate the size of the room in which sources are played.
12 SW ATT (Subwoofer Attenuation)

Select the type of room correction desired from the following list:

[Selectable items]

ON : The input from the subwoofer channel is attenuated.
OFF : The input from the subwoofer channel is not attenuated. Usually use in this mode.

Set this to “ON” if the subwoofer channel level seems too high when playing audio signal.

13 Subwoofer

Turn subwoofer output on and off.

[Selectable items]

ON : The subwoofer is used.
OFF : The subwoofer is not used.

14 Tone Control

Turn tone adjustments on and off.

[Selectable items]

ON : Allow tone adjustment (treble, bass).
OFF : Playback without tone adjustment.

The tone cannot be adjusted in the DIRECT mode.

NOTE

When the “Dynamic EQ” setting is “ON”, setting is not possible.

15 Bass

Adjust low frequency range (bass).

[Variable range] –6dB – 0dB –+6dB

16 Treble

Adjust high frequency range (treble).

[Variable range] –6dB – 0dB –+6dB

“Bass” and “Treble” can be set when “Tone Control” is set to “ON”.

17 MultEQ

Select the type of room correction desired from the following list:

[Selectable items]

Audyssey : Optimize frequency response of all speakers.
Byp. L/R : Optimize frequency response of speakers except front L and R speakers.
Flat : Optimize frequency response of all speakers to flat response.
OFF : Turn equalizer off.

Operating from the main unit or remote control unit

Press MULTEQ.

• When “Audyssey”, “Audyssey Byp. L/R” or “Audyssey Flat” is selected, the Audyssey MultEQ indicator lights green.
• After running Auto Setup, if the Speaker Configuration, Distance, Channel Level and Crossover Frequency have changed without increasing the number of speakers measured, the Audyssey MultEQ indicator lights red.

NOTE

• “MultEQ” can only be set when Auto Setup has been performed.
• “MultEQ” cannot be set in the following situations.
  • If “Auto Setup” fails to be completed.
  • After running Auto Setup, when the number of used speakers has increased from the number of measured speakers.
  • When “MultEQ” is set to “OFF”, “Dynamic EQ” is automatically set to “OFF”.
  • “Night Mode” and “Tone Control” cannot be used jointly.

Operating from the unit or remote control unit

Press <DYN VOL> or [DYNAMIC VOLUME].

Before running Auto Setup and after running Auto Setup, if the number of speakers has increased or you pressed <DYN VOL> or [DYNAMIC VOLUME], “Run Audyssey” is displayed. In this case, either perform Auto Setup again, or return to the setting after running Auto Setup with “System Setup” – “Speaker Setup” – “Restore”.

18 Dynamic EQ

Audyssey Dynamic EQ solves the problem of deteriorating sound quality as volume is decreased by taking into account human perception and room acoustics. Audyssey Dynamic EQ works in tandem with Audyssey MultEQ to provide well-balanced sound for every listener at any volume level.

NOTE

• “Dynamic EQ” can only be set when auto setup has been performed.
• “Dynamic EQ” cannot be set in the following situations.
  • If “Auto Setup” fails to be completed.
  • After running Auto Setup, when the number of used speakers has increased from the number of measured speakers.
  • When “MultEQ” is set to “OFF”, “Dynamic EQ” is automatically set to “OFF”.
  • “Night Mode” and “Tone Control” cannot be used jointly.

Operating conditions for each function

• Dynamic EQ : When “MultEQ” is set to “ON”
• Dynamic Volume : When “Dynamic EQ” is set to “ON”
• DV setting : When “Dynamic Volume” is set to “ON”

For details on adjusting individual parameters, see “Adjusting the Parameters” (page 29).
### Dynamic Volume

Audyssey Dynamic Volume solves the problem of large variations in volume level between television programs, commercials, and between the soft and loud passages of movies.

When “DV Setting” is set to “OFF”, “Dynamic Volume” is automatically set to “OFF”.

**NOTE**
- “Dynamic Volume” can only be set when auto setup has been performed.
- “Dynamic Volume” cannot be set in the following situations.
  - If “Auto Setup” fails to be completed.
  - After running Auto Setup, when the number of used speakers has increased from the number of measured speakers.
- When “MultEQ” is set to “OFF”, “Dynamic Volume” is automatically set to “OFF”.
- “Night Mode” and “Tone Control” cannot be used jointly.

#### Operating from the unit or remote control unit

Press <DYN VOL> or [DYNAMIC VOLUME]

- **ON**: Use Dynamic Volume. The Dynamic Volume effect will be at the level of the “DV Setting”.
- **OFF**: Do not use Dynamic Volume.

#### About Dynamic EQ

Audyssey Dynamic EQ™ solves the problem of deteriorating sound quality as volume is decreased by taking into account human perception and room acoustics. Dynamic EQ selects the correct frequency response and surround levels moment-by-moment at any user-selected volume setting. The result is bass response, tonal balance, and surround impression that remain constant despite changes in volume. Dynamic EQ combines information from incoming source levels with actual output sound levels in the room, a prerequisite for delivering a loudness correction solution. Audyssey Dynamic EQ works in tandem with Audyssey MultEQ to provide well-balanced sound for every listener at any volume level.

#### About Dynamic Volume

Audyssey Dynamic Volume™ solves the problem of large variations in volume level between television programs, commercials, and between the soft and loud passages of movies. Dynamic Volume looks at the preferred volume setting by the user and then monitors how the volume of program material is being perceived by listeners in real time to decide whether an adjustment is needed. Whenever necessary, Dynamic Volume makes the necessary rapid or gradual adjustments to maintain the desired playback volume level while optimizing the dynamic range. Audyssey Dynamic EQ is integrated into Dynamic Volume so that as the playback volume is adjusted automatically, the perceived bass response, tonal balance, surround impression, and dialog clarity remain the same whether watching movies, flipping between television channels, or changing from stereo to surround sound content.

For details on adjusting individual parameters, see “Adjusting the Parameters” (page 29).

### DV Setting (Dynamic Volume Setting)

Set Dynamic Volume effect.

#### [Selectable items]

- **Midnight**: High setting affects volume the most, causing all sounds to be of equal loudness.
- **Evening**: Middle setting prevents loud and soft sounds from being much louder and softer respectively than average sounds.
- **Day**: Low setting provides the least adjustments to the loudest and softest of sounds.

**NOTE**
- “DV Setting” can only be set when auto setup has been performed.
- “DV Setting” cannot be set in the following situations.
  - If “Auto Setup” fails to be completed.
  - After running Auto Setup, when the number of used speakers has increased from the number of measured speakers.
  - If “DV Setting” is set to “OFF”.

Operating from the main unit or remote control unit

Press RESTORER.

- OFF: Do not use RESTORER.
- Mode1 (RESTORER 64): Optimized mode for compressed sources with very weak highs.
- Mode2 (RESTORER 96): Apply suitable bass and treble boost for all compressed sources.
- Mode3 (RESTORER HQ): Optimized mode for compressed sources with normal highs.

The default setting for “iPod” is “Mode3”. All others are set to “OFF”.

#### RESTORER function

- Such compressed audio formats as MP3, WMA (Windows Media Audio) and MPEG-4 AAC reduce the amount of data by eliminating signal components that are hard for the human ear to hear. The RESTORER function generates the signals eliminated upon compression, restoring the sound to conditions near those of the original sound before compression. It also corrects the sense of volume of the bass to obtain richer sound with compressed audio signals.
- This is displayed on the “Surround Parameter” and can be set when the input source is selected to “SIRIUS” or analog signals (including FM/AM signals) or PCM signals (fs = 44.1/48 kHz) are input.
**Night Mode**

Optimized setting for late-night listening. Set the dynamic range compression of the output audio.

### Selectable items

- **OFF**: Turn night mode off.
- **Low**: Low setting.
- **Mid**: Middle setting.
- **High**: High setting.

**Operating from the remote control unit**

Press **[NIGHT]**.

```
OFF    Low    Mid    High
```

**NOTE**

When the “Dynamic EQ” setting is “ON”, setting is not possible. When the “Dynamic Volume” setting is “ON”, setting is not possible.

**Default**

Resets the settings to the default values.

### Selectable items

- **Yes**: Reset.
- **No**: Do not reset.

---

**Information**

Information on the main unit’s various settings (Status) and on input signals (Audio Input Signal) is shown on the display. The information displayed changes each time you press **<STATUS>**. The information is displayed for several seconds before the display returns to its original condition.

#### Items to be checked

- Surround Mode
- Input signal
- Dialogue normalization
- Input function
- Input digital terminal
- Audio Delay
- Tone Control
- Channel level of each speaker
- Cinema EQ
- Night Mode

#### Dialogue normalization function

This is automatically activated when playing Dolby Digital sources. This function automatically corrects the standard signal level for individual program sources.

The correction value can be checked using **<STATUS>**.

```
OFFSET -4 dB
```

The figure is the correction value when the standard level is corrected.

- The items displayed will differ depending upon the current settings, the presence or absence of an input signal or the type of input signal, etc.
- For details of the content of the items displayed, refer to the page containing an explanation of the settings.
Preparations

Turning the Power On

1. Press <POWER>.
   The power indicator lights red and the power is set to the standby mode.

2. Press <ON/STANDBY> or [ON/SOURCE].
   The power indicator flashes green and the power turns on.
   * Also press [SOURCE SELECT] when in standby mode, the power turns on. In this case the input source is selected by remote control unit.
   * Also press [QUICK SELECT] when in standby mode, the power turns on. In this case Quick Select is selected by remote control unit (page 41).

Turning the Power Off

1. Press <ON/STANDBY> or [OFF].
   The power is set to the standby mode.

2. Press <POWER>.
   The power indicator turns off, and so does the power.

NOTE
Power continues to be supplied to some of the circuitry even when the power is in the standby mode. When leaving home for long periods of time or when traveling, either press <POWER> to turn off the power, or unplug the power cord from the power outlet.

Selecting the Input Source

Select the source using SOURCE SELECT.
Turn <SOURCE SELECT> or press [SOURCE SELECT] to switch between input sources.

Setting the Input Mode
Set the input mode for this source.

Press <INPUT MODE> or [INPUT].
Each time you press the button, the input mode display will change.

[Selectable items]
- Auto: Detect type of digital input signal and decode and play automatically.
- PCM: Decode and play only PCM input signals.
- DTS: Decode and play only DTS input signals.
- Analog: Play only signals from analog input.
- EXT. IN: Play only signals from EXT. IN input.

- When a digital signal is properly input, the "Digital" indicator lights on the display. If the "Digital" indicator does not light, check the digital input connector assignment and the connections.
- The surround mode cannot be set if the input mode is set to "EXT. IN".
- Only set "PCM" and "DTS" when playing the respective signals.
Operations During Playback

Adjusting the Master Volume

Either turn <MASTER VOLUME> or press [MASTER VOLUME].

[Variable range] -80.0dB ~ +18.0dB

NOTE

The adjustable range will differ depending upon factors such as the type of input signal and the channel level setting.

Turning Off the Sound Temporarily (Muting)

Press [MUTING].

To cancel, press [MUTING] again. Muting can also be canceled by adjusting the master volume.

Listening with Headphones

Plug the headphones into the PHONES jack on the main unit. The sound from the speakers and pre-out connectors is automatically cut.

NOTE

Be careful not to set the volume too high when using headphones.

Switching the front speakers

Press <SPEAKERS>.

Video Select Function

Switch video input source while listening to audio signal.

Press <VIDEO SELECT> or [V.SEL] until the desired picture appears.

* To cancel, press <VIDEO SELECT> to select "SOURCE".

Checking the currently playing program source, etc.

Press <STATUS>.

The current program source and various settings are indicated on the display.

For details, refer to “Information” (page 33).

Switching the brightness of the display

Press <DIMMER>.

When setting to "OFF", the display brightness of the menu setting in operation changes to "Dark".

Playing Video and Audio Equipment

Basic Operation

1 Prepare the equipment.

① Load the DVD, CD or other software in the player.
(See the operating instructions of the respective devices.)

② To play a video device, switch the monitor input.
(See the monitor’s operating instructions.)

2 Use SOURCE SELECT to select the input source.

3 Start playback.
(See the operating instructions of the respective devices.)

The remote control unit can be used to operate external devices. See “Remote Control Unit Operations” (page 42).
**Listening to FM/AM Broadcasts**

### Basic Operation

1. Either turn <SOURCE SELECT> or press [TUNER] to select “TUNER”.
2. Set [SOURCE CONTROL 1] to “AUDIO” and [SOURCE CONTROL 2] to “TUNER”. ([page 42 “Remote Control Unit Operations”)
3. Press BAND to select “FM” or “AM”.
4. Tune in the desired broadcast station.
   
   **To tune in automatically (Auto Tuning)**
   - Press [MODE] to light the “AUTO” indicator on the display, then use TUNING to select the station you want to hear.

   **To tune in manually (Manual Tuning)**
   - Press [MODE] to turn off the display’s “AUTO” indicator, then use TUNING to select the station you want to hear.

   - If the desired station cannot be tuned in with auto tuning, tune it in manually.
   - When tuning in stations manually, press and hold TUNING to change frequencies continuously.

### Presetting Radio Stations (Preset Memory)

Your favorite broadcast stations can be preset so that you can tune them in easily. Up to 56 stations can be preset.

1. Tune in the broadcast station you want to preset.
2. Press [MEMORY].
3. Press SHIFT to select the block (A to G) in which the station is to be preset.
4. Press <PRESET CHANNEL> or [CHANNEL + –] to select the preset number (1 to 8).
5. Press [MEMORY] again to complete the setting.

- To preset other stations, repeat steps 1 to 5.
- Stations can be preset automatically at “System Setup” – “Input Setup” – “Auto Preset Memory” ([page 24).]

### Listening to Preset Stations

1. Press SHIFT to select the memory block (A to G).
2. Press <PRESET CHANNEL> or [CHANNEL + –] to select the desired preset channel (1 to 8).

#### Default settings

<table>
<thead>
<tr>
<th>Auto tuner presets</th>
<th>A1 – A8</th>
<th>87.5 / 89.1 / 98.1 / 107.9 / 90.1 / 90.1 / 90.1 / 90.1 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B1 – B8</td>
<td>520 / 600 / 1000 / 1400 / 1500 / 1710 kHz, 90.1 / 90.1 MHz</td>
</tr>
<tr>
<td></td>
<td>C1 – C8</td>
<td>90.1 MHz</td>
</tr>
<tr>
<td></td>
<td>D1 – D8</td>
<td>90.1 MHz</td>
</tr>
<tr>
<td></td>
<td>E1 – E8</td>
<td>90.1 MHz</td>
</tr>
<tr>
<td></td>
<td>F1 – F8</td>
<td>90.1 MHz</td>
</tr>
<tr>
<td></td>
<td>G1 – G8</td>
<td>90.1 MHz</td>
</tr>
</tbody>
</table>

**NOTE**

Preset stations are erased by overwriting them.
Listening to SIRIUS Satellite Radio Programs

What is SIRIUS Satellite Radio?

Simply The Best Radio on RadioTM with all your favorite entertainment including 100% commercial-free music, plus superior sports coverage, uncensored talk and comedy, world-class entertainment, news, weather and more for your car, home or office. For more information visit sirius.com or siriuscanada.ca

SIRIUS is available in the US for subscribers with addresses in the continental US and is available in Canada for subscribers with a Canadian address. Required subscription plus compatible SIRIUS tuner and antenna are required and sold separately. SIRIUS Programming is subject to change. Visit sirius.com for the most complete and up-to-date channel lineup and product information. “SIRIUS” and the SIRIUS dog logo and related marks are trademarks of Sirius Satellite Radio Inc. All rights reserved.

Basic Operation

1. Either turn <SOURCE SELECT> or press [SAT TU] to select “SIRIUS”.

2. Set [SOURCE CONTROL 1] to “AUDIO” and [SOURCE CONTROL 2] to “TUNER”.

3. Use TUNING to search the channel.

   When selecting channel, the Channel No. and Channel name are displayed.

   • The channel switches continuously when TUNING is pressed and held.
   • SIRIUS Radio channels can be preset using the same procedure as for FM/AM stations (page 36 “Presetting Radio Stations [Preset Memory]” and “Listening to Preset Stations”).
   • You cannot perform “Auto Preset”.
   • The song title, artist name, composer name, category and reception level can be checked by pressing <STATUS>.
   • When tuning a channel to which “Parental Lock” is applied, “Code: [  ]” is displayed, so enter the password.

Checking the SIRIUS Signal Strength and Radio ID

1. Either turn <SOURCE SELECT> or press [SAT TU] to select “SIRIUS”.

2. Press <STATUS> until “SIG.” appears on the display.

   The display will switch as shown below, depending on the reception conditions.

<table>
<thead>
<tr>
<th>Display</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCELLENT</td>
<td>Signal strength is excellent</td>
</tr>
<tr>
<td>GOOD</td>
<td>Signal strength is good</td>
</tr>
<tr>
<td>WEAK</td>
<td>Signal strength is weak</td>
</tr>
<tr>
<td>NO SIGNAL</td>
<td>No signal</td>
</tr>
</tbody>
</table>

3. Adjust the position of the antenna until “SIG.: EXCELLENT” is shown on the display.

4. Press <STATUS> until the channel you want to check (example: “SR001”) is displayed.

5. Press TUNING and select channel 0 (SR000). Channel No. and SIRIUS ID are alternately shown on the display.

   SR000 SIRIUS ID

   SIRIUS ID: **************

   Write your own SIRIUS ID for storage use.

   SIRIUS ID: 

   *NOTE:

   You can check Satellite and Terrestrial antenna signal strength each time you press <STATUS>. (On the display, “S” indicates Satellite, and “T” indicates Terrestrial.)
### iPod® Playback

The music on an iPod can be played by using the control dock for iPod (ASD-1R, ASD-11R, ASD-3N or ASD-3W, sold separately). The operation can also be performed using the buttons on the remote control unit.

The iPod may only be used to copy or play contents that are not copyrighted or contents for which copying or playback is legally permitted for your private use as an individual. Be sure to comply with applicable copyright legislation.

#### Preparations

1. **Make the necessary preparations.**
   - Set the iPod in the DENON control dock for iPod.
   - Assign the control dock for iPod’s input. The input for the control dock for iPod is assigned to VCR by default.

#### iPod® Playback

- **System Setup** – “Input Setup” – “iPod Assign”
- **Display location**
  - Main unit display
  - iPod display
- **Playable files**
  - Audio file
  - Video file
- **Active buttons**
  - Remote control unit (AVR-589)
  - iPod

<table>
<thead>
<tr>
<th>Selectable mode</th>
<th>Browse mode</th>
<th>Remote mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display location</td>
<td>Main unit display</td>
<td>iPod display</td>
</tr>
<tr>
<td>Playable files</td>
<td>Audio file</td>
<td>O</td>
</tr>
<tr>
<td></td>
<td>Video file</td>
<td>O*1</td>
</tr>
<tr>
<td>Active buttons</td>
<td>Remote control unit (AVR-589)</td>
<td>O</td>
</tr>
<tr>
<td></td>
<td>iPod</td>
<td>X</td>
</tr>
</tbody>
</table>

*1: Video may not be output, depending on the combination of ASD-1R or ASD-11R and iPod.

#### Parental Lock

1. **Tune to the channel you want to lock.**
2. **Press [ENTER] for at least 3 seconds.**
   - “Code: [ ]” is displayed.
3. **Enter the 4-digit lock code using △ ▽,< ▲.**
   - When you enter the correct code, the corresponding channel is locked.
4. **Press [ENTER].**

- Channels under Parental Lock cannot be tuned in by performing Tuning Up/Down or by category search.
- Channels stored in preset memory can be tuned in by the preset channel select operation, even if Parental Lock is applied.
- When a channel to which Parental Lock is applied is being played, Parental Lock for that channel is cancelled by performing Step 2.
- You can also set “Parental Lock” from the system setup (page 25).

- With the default settings, the iPod can be used connected to the VCR (iPod) connector.
- Use the RESTORER mode to expand the low and high frequency components of compressed audio files and achieve a richer sound. The default setting is “Mode3” (page 32).
- Press <ON/STANDBY> or [OFF] and set the AVR-589’s power to the standby mode before disconnecting the iPod.
- When using an ASD-3N or ASD-3W control dock for iPod, refer to the respective manual to operate.
To check the name of the title, the artist or the album when playing in browse mode, press <STATUS>.

The folder name and the file name can be displayed in browse mode. Only alphanumeric characters and certain symbols can be displayed. Any characters that cannot be displayed are replaced with “.” (period).

### Listening to Audio

1. Use [△ ▼] to select the item, then press [ENTER] or [►] to select the music file to be played.

2. Press [ENTER] or [►].
   Playback starts.

- **Stopping playback temporarily**  
  During playback, press [ENTER] or [►].  
  Press again to resume playback.

- **Fast-forwarding or fast-reversing**  
  During playback, press and hold [◄◄] (to fast-reverse) or [►►] (to fast-forward).

- **To cue to the beginning of a track**  
  During playback, press [◄◄] or [►►].

- **To stop**  
  During playback, either press and hold [ENTER] or press [■].

- **Playing repeatedly**  
  Press [TUNING –].

  [Selectable items]  
  All  One  OFF

- **Shuffling playback**  
  Press [TUNING +].

  [Selectable items]  
  Albums  Songs  OFF

- **To check the name of the title, the artist or the album when playing in browse mode, press <STATUS>**.
- **The folder name and the file name can be displayed in browse mode. Only alphanumeric characters and certain symbols can be displayed. Any characters that cannot be displayed are replaced with “.” (period)**.

### Viewing Still Pictures or Videos on the iPod

Photo and video data on the iPod can be viewed on the monitor. Only for iPod equipped with slideshow or video functions.

#### When using an ASD-1R or ASD-11R

1. Press and hold [MODE] to set the Remote mode.

2. Watching the iPod’s screen, use [△ ▼] to select “Photos” or “Videos”.

3. Press [ENTER] until the image you want to view is displayed.

“TV Out” at the iPod’s “Slideshow Settings” or “Video Settings” must be set to “On” in order to display the iPod’s photo data or videos on the monitor. For details, see the iPod’s operating instructions.

#### When using an ASD-3N or ASD-3W

1. Press and hold [MODE] to set the Browse mode.

2. Watching the display, use [△ ▼] to select “iPod”, then press [►] or [ENTER].

3. Use [△ ▼] to select “Video”, then press [►] or [ENTER].

4. Use [△ ▼] to select the video file to be played, then press [►] or [ENTER].

When viewing a still picture, perform the same operation as with ASD-1R or ASD-11R.
### Recording on an External Device (REC OUT mode)

You can listen to one program source while recording a different program source.

1. Press `<REC SELECT>` until “RECOUT” appears on the display.
2. Turn `<SOURCE SELECT>` to choose the input source to be recorded.
   The “REC” indicator and the indicator for the selected source light.

   - RECOUT SOURCE
   - RECOUT TUNER
   - RECOUT SIRIUS

3. Play the program source.
   For operating instructions, refer to the respective equipment’s operating instructions.

4. Start recording.
   For operating instructions, refer to the respective equipment’s operating instructions.

### Convenient Functions

#### Channel Level

You can adjust the channel level either according to the playback sources or to suit your taste, as described below.

1. Press `<SELECT/ENTER>` or `[CH SELECT/ENTER]`.

2. Use `△ ▽`, `<SELECT/ENTER>` or `[CH SELECT/ENTER]` to select the speaker.
   The speaker that can be set switches each time one of the buttons is pressed.

3. Use ◄ ► to adjust the volume.

   ※ In the case of a subwoofer, reducing the volume when it is at “~12 dB” will change the setting to OFF (none).
Quick Select Function

With this function, the currently playing input source, volume level, surround mode, MultEQ, Dynamic Volume, DV setting and front speaker can be stored in the memory.

1. Set the input source, input mode, surround mode, MultEQ settings and volume to the conditions you want to store.

2. Press and hold QUICK SELECT until “Memory” appears on the display. The current settings will be memorized.

<table>
<thead>
<tr>
<th>Quick Select Defaults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Source</td>
</tr>
<tr>
<td>Quick Select 1</td>
</tr>
<tr>
<td>Quick Select 2</td>
</tr>
<tr>
<td>Quick Select 3</td>
</tr>
</tbody>
</table>

To call out the settings, press QUICK SELECT at which the desired settings were stored.

Personal Memory Plus Function

This function sets the settings (input mode, surround mode, MultEQ, Dynamic EQ, Dynamic Volume, audio delay etc.) last selected for the individual input sources. When you switch to an input source, the settings are automatically set to the ones that were set the last time that input source was used.

The surround parameters, tone control, MultEQ settings and the volumes of the different speakers are stored for the individual surround modes.

Last Function Memory

This stores the settings as they were directly before the standby mode was set. When the power is turned back on, the settings are restored to as they were directly before the standby mode was set.

Backup Memory

The various settings are backed up for about 1 week, even if the power is turned off or the power cord is disconnected.

Resetting the Microprocessor

Perform this procedure if the display is abnormal or if operations cannot be performed. When the microprocessor is reset, all the settings are reset to their default values.

1. Turn off the power using <POWER>.

2. Press <POWER> while simultaneously pressing <INPUT MODE> and <SPEAKERS A>.

3. Once the display starts flashing at intervals of about 1 second, release the two buttons.

If in step 3 the display does not flash at intervals of about 1 second, start over from step 1.
Remote Control Unit Operations

Operating DENON Audio Components

1. Set [SOURCE CONTROL 1] to “AUDIO”.
2. Set [SOURCE CONTROL 2] to the position for the component to be operated (CD, iPod/NETWORK or TUNER).
3. Operate the audio component.

For details, refer to the component’s operating instructions.

Operating Preset Components

1. Set [SOURCE CONTROL 1] to “AUDIO” or “VIDEO”.
2. Set [SOURCE CONTROL 2] to the component you want to operate.
3. Operate the component.

Presetting

- DENON and other makes of components can be operated by setting the preset memory.
- Operation is not possible for some models.

1. Set [SOURCE CONTROL 1] to “AUDIO” or “VIDEO”.
2. Set [SOURCE CONTROL 2] to the component to be registered.
3. Press [DVD/HDP POWER] and [TV POWER] at the same time.
4. Press [NUMBER] and input the 3-digit number of the brand of the component to be preset. The numbers are shown in the Preset Code Table (End of this manual).
5. To store the codes of another component in the memory, repeat steps 1 to 4.

- The signals for the pressed buttons are emitted while setting the preset memory. To avoid accidental operation, cover the remote control unit’s transmitting window while setting the preset memory.
- Depending on the model and year of manufacture, this function cannot be used for some models, even if they are of makes listed in the list of preset codes.
- Some manufacturers use more than one type of remote control code. Refer to the included list of preset codes to change the number and verify correct operation.
- The preset memory can be set for one component only among the following: DVD/HDP and SAT/CABLE.
- VDP (Video Disc Player) can be preset when [SOURCE CONTROL 2] is set to “DVD/HDP”.

Depending on the model and year of manufacture of your equipment, some buttons may not operate.
### Functions of Buttons by Component

**Front**

<table>
<thead>
<tr>
<th>Device operated</th>
<th>CD Player</th>
<th>iPod</th>
<th>Tuner</th>
<th>DVD Player</th>
<th>Blu-ray</th>
<th>Disc Player</th>
<th>Video Disc Player (VDP)</th>
<th>Video Deck</th>
<th>Satellite Receiver</th>
<th>Cable TV</th>
<th>TV (Monitor)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOURCE CONTROL 1</strong></td>
<td><strong>AUDIO</strong></td>
<td><strong>VIDEOD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SOURCE CONTROL 2</strong></td>
<td>CD</td>
<td>iPod/NETWORK</td>
<td>TUNER</td>
<td>DVD / HDP</td>
<td>VCR</td>
<td>SAT / CABLE</td>
<td>TV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Power off</td>
<td>Power off</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>ON/SOURCE</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Power on</td>
<td>Power on</td>
<td>Power on / Standby</td>
<td>Power on / Standby</td>
<td>Power on / Standby</td>
<td>Power on / Standby</td>
<td>Power on / Standby</td>
<td>Power on / Standby</td>
</tr>
<tr>
<td>Play</td>
<td>Stop</td>
<td>–</td>
<td>Stop</td>
<td>–</td>
<td>Stop</td>
<td>Stop</td>
<td>Stop</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Play / Pause</td>
<td>Play</td>
<td>Pause</td>
<td>Pause</td>
<td>Pause</td>
<td>Pause</td>
<td>Pause</td>
<td>Pause</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disc skip</td>
<td>Disc skip</td>
<td>Disc skip</td>
<td>Disc skip</td>
<td>Disc skip</td>
<td>Disc skip</td>
<td>Disc skip</td>
<td>Disc skip</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuning down / up</td>
<td>Tuning down / up</td>
<td>Tuning down / up</td>
<td>Tuning down / up</td>
<td>Tuning down / up</td>
<td>Tuning down / up</td>
<td>Tuning down / up</td>
<td>Tuning down / up</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto search (cue)</td>
<td>Auto search (cue)</td>
<td>Auto search (cue)</td>
<td>Auto search (cue)</td>
<td>Auto search (cue)</td>
<td>Auto search (cue)</td>
<td>Switch channels (↑, ↓)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TUNING, (–, +)</td>
<td>TUNING, (–, +)</td>
<td>TUNING, (–, +)</td>
<td>TUNING, (–, +)</td>
<td>TUNING, (–, +)</td>
<td>TUNING, (–, +)</td>
<td>TUNING, (–, +)</td>
<td>TUNING, (–, +)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SETUP</td>
<td>SETUP</td>
<td>SETUP</td>
<td>SETUP</td>
<td>SETUP</td>
<td>SETUP</td>
<td>SETUP</td>
<td>SETUP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cursor operation</td>
<td>Cursor operation</td>
<td>Cursor operation</td>
<td>Cursor operation</td>
<td>Cursor operation</td>
<td>Cursor operation</td>
<td>Cursor operation</td>
<td>Cursor operation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switching the audio signal</td>
<td>Switching the audio signal</td>
<td>Switching the audio signal</td>
<td>Switching the audio signal</td>
<td>Switching the audio signal</td>
<td>Switching the audio signal</td>
<td>Switching the audio signal</td>
<td>Switching the audio signal</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ENTER</td>
<td>Enter</td>
<td>Enter</td>
<td>Enter</td>
<td>Enter</td>
<td>Enter</td>
<td>Enter</td>
<td>Enter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calling out the menus</td>
<td>Calling out the menus</td>
<td>Calling out the menus</td>
<td>Calling out the menus</td>
<td>Calling out the menus</td>
<td>Calling out the menus</td>
<td>Calling out the menus</td>
<td>Calling out the menus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Rear**

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>0~9, +10</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO search (cue)</td>
<td>Auto search (cue)</td>
</tr>
<tr>
<td>TUNER Channel –/+</td>
<td>Tuner Channel –/+</td>
</tr>
<tr>
<td>SETUP</td>
<td>SETUP</td>
</tr>
<tr>
<td>CURSOR operation</td>
<td>CURSOR operation</td>
</tr>
<tr>
<td>Switching the audio signal</td>
<td>Switching the audio signal</td>
</tr>
<tr>
<td>ENTER</td>
<td>ENTER</td>
</tr>
<tr>
<td>Calling out the menus</td>
<td>Calling out the menus</td>
</tr>
</tbody>
</table>

### Notes

- The iPod/NETWORK’s **FAVORITE** button can be operated when using a control dock for iPod ASD-3N/3W.

---

**Source Control 1**

- **AUDIO**
  - ON/SOURCE
- **VIDEOD**
  - OFF

**Source Control 2**

- **AUDIO**
  - Play
  - Play / Pause
  - Stop
  - Stop
  - Pause
  - Pause
  - Stop

- **VIDEOD**
  - Manual search (fast-reverse / fast-forward)
  - Tuning down / up
  - Auto search (cue)
  - Auto search (cue)
  - Auto search (cue)
  - Switch channels (↑, ↓)

- **SETUP**
  - Auto search (cue)
  - Auto search (cue)
  - Auto search (cue)
  - Switch channels (↑, ↓)

- **DISPLAY**
  - On / Standby
  - Power on / Standby

- **RETURN**
  - Power on / Standby
  - Power on / Standby
### Punch Through Function

“Punch Through” is a function allowing you to operate the buttons of different function names. Check beforehand.

1. Set [SOURCE CONTROL 1] to “VIDEO”.
2. Set [SOURCE CONTROL 2] to the component to be registered (SAT/CABLE or TV).
3. Press [MEMORY] and [RETURN] at the same time. The indicator starts flashing.
4. Input the number of the component you want to set.

<table>
<thead>
<tr>
<th>Default setting (Preset code)</th>
<th>No.</th>
<th>CD</th>
<th>iPod/NETWORK</th>
<th>TUNER</th>
<th>DVD/HDP</th>
<th>VCR</th>
<th>SAT/CABLE</th>
<th>TV</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENON (111)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#2 DENON (121)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HITACHI (108)</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABC (007)</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HITACHI (134)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Remarks

1. Only one device can be set in the preset memory for each mode. When a new preset code is registered, the existing code is automatically erased.
2. For some brands, the DVD remote control buttons may have different function names. Check beforehand.
3. One of the following buttons can be assigned to the TV and satellite receiver or cable TV, CD, iPod/NETWORK, TUNER, DVD/HDP, VCR (page 44 “Punch Through Function”).
   - **#1**: This button can be operated when using a control dock for iPod ASD-3N/3W.
   - **#2**: The initial setting of Preset code is 111 (DVD Player).

With the Blu-ray Disc Player setting, when you have set the remote controller code to “DENON2”, use the Blu-ray Disc Player preset code “121”.

#### Table

<table>
<thead>
<tr>
<th>Device operated</th>
<th>CD Player</th>
<th>iPod</th>
<th>Tuner</th>
<th>DVD Player</th>
<th>Blu-ray Disc Player</th>
<th>Video Disc Player (VDP)</th>
<th>Video Deck</th>
<th>Satellite Receiver</th>
<th>Cable TV</th>
<th>TV (Monitor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOURCE CONTROL 1</td>
<td>AUDIO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOURCE CONTROL 2</td>
<td>CD</td>
<td>iPod</td>
<td>NETWORK</td>
<td>TUNER</td>
<td>DVD / HDP</td>
<td>VCR</td>
<td>SAT / CABLE</td>
<td>TV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POWER</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>–</td>
</tr>
<tr>
<td>NUMBER (0 – 9, +10)</td>
<td>–</td>
<td>–</td>
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<td>–</td>
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<td>–</td>
</tr>
<tr>
<td>TUNING (+, –)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
<td></td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>MODE, TOP MENU</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>–</td>
</tr>
<tr>
<td>SETUP</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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</tr>
<tr>
<td>AUDIO</td>
<td>–</td>
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<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>BAND, PICTURE ADJUST</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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</tr>
<tr>
<td>ENTER</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>MEMORY, SUBTITLE</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>–</td>
</tr>
<tr>
<td>DISPLAY</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>RETURN</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

**Remarks**

- With the Blu-ray Disc Player setting, when you have set the remote controller code to “DENON2”, use the Blu-ray Disc Player preset code “121”.

The indicator starts flashing.
About Speaker Installation

Examples of speaker layouts

Below we introduce examples of speaker layouts. Refer to these to arrange your speakers according to their type and how you want to use them.

Basic setting

DTS 96/24 is a digital audio format enabling high sound quality playback in 5.1-channels with a sampling frequency of 96 kHz and 24 bit quantization on DVD-Video.

![Speaker layout diagram]

Dolby Surround

The AVR-589 is equipped with a digital signal processing circuit that lets you play program sources in the surround mode to achieve the same sense of presence as in a movie theater.

Dolby Digital

Dolby Digital is a multichannel digital signal format developed by Dolby Laboratories.

A total of 5.1-channels are played: 3 front channels ("FL", "FR" and "C"), 2 surround channels ("SL" and "SR") and the "LFE" channel for low frequencies.

Because of this, there is no crosstalk between channels and a realistic sound field with a “three-dimensional” feeling (sense of distance, movement and positioning) is achieved.

A real, overpowering sense of presence is achieved when playing movie sources in AV rooms as well.

Dolby Pro Logic II

Dolby Pro Logic II is a matrix decoding technology developed by Dolby Laboratories.

Regular music such as that on CDs is encoded into 5-channels to achieve an excellent surround effect.

The surround channel signals are converted into stereo and full band signals (with a frequency response of 20 Hz to 20 kHz or greater) to create a “three-dimensional” sound image offering a rich sense of presence for all stereo sources.

DTS Surround

DTS Digital Surround is the standard digital surround format of DTS, Inc., compatible with a sampling frequency of 44.1 or 48 kHz and up to 5.1-channels of digital discrete surround sound.

DTS NEO:6™ Surround

DTS NEO:6™ is a matrix decoding technology for achieving 5.1-channel surround playback with 2-channel sources. It includes “DTS NEO:6 Cinema” suited for playing movies and “DTS NEO:6 Music” suited for playing music.

DTS 96/24

DTS 96/24 is a digital audio format enabling high sound quality playback in 5.1-channels with a sampling frequency of 96 kHz and 24 bit quantization on DVD-Video.

Manufactured under license under U.S. Patent #’s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,487,535; 7,003,467 & other U.S. and worldwide patents issued & pending. DTS, DTS Digital Surround, and Neo:6 are registered trademarks and the DTS logos, Symbol and DTS 96/24 are trademarks of DTS, Inc. ©1996-2007 DTS, Inc. All Rights Reserved.
HDMI (High-Definition Multimedia Interface)

HDMI is a digital interface standard for next generation TVs based on DVI (Digital Visual Interface) standards and optimized for use in consumer equipment. Non-compressed digital video and multi-channel audio signals are transmitted with a single connection. HDMI is also compatible with HDCP (High-bandwidth Digital Contents Protection), a technology for protecting copyrights that encrypts digital video signals in the same way as with DVI.

Deep Color
Eliminates on-screen color banding, for smooth tonal transitions and subtle gradations between colors. Enables increased contrast ratio. Can represent many times more shades of gray between black and white. At 30-bit pixel depth, a four times improvement would be the minimum, and the typical improvement would be eight times or more.

xvYCC
Next-generation “xvYCC” color space supports 1.8 times as many colors as existing HDTV signals. Lets HDTVs display colors more accurately. Enables displays with natural, vivid colors.
### Surround Modes and Parameters

<table>
<thead>
<tr>
<th>Surround mode</th>
<th>Front L/R</th>
<th>Center</th>
<th>Surround L/R</th>
<th>Subwoofer</th>
<th>D. Comp</th>
<th>LFE</th>
<th>Cinema EQ.</th>
<th>Mode</th>
<th>Room Size</th>
<th>Effect Level</th>
<th>Delay Time</th>
<th>Subwoofer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIRECT</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>○</td>
<td>○ (OFF)</td>
<td>0 dB</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>○</td>
</tr>
<tr>
<td>STEREO</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>○</td>
<td>○ (OFF)</td>
<td>0 dB</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>EXT. IN</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>DOLBY PRO LOGIC II</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○ (OFF)</td>
<td>×</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>DTS NEO:6</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○ (OFF)</td>
<td>×</td>
<td>○</td>
<td>(OFF, NOTE2)</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>DOLBY DIGITAL</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○ (OFF)</td>
<td>0 dB</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>DTS SURROUND</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>S/D STEREO</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>ROCK ARENA</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>JAZZ CLUB</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>MONO MOVIE</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>VIDEO GAME</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>MATRIX</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>VIRTUAL</td>
<td>○</td>
<td>×</td>
<td>×</td>
<td>○</td>
<td>○ (OFF)</td>
<td>0 dB</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
</tbody>
</table>

**S**: Signal / Adjustable  
**X**: No signal / Not adjustable  
**○**: Turned on or off by speaker configuration setting  

**NOTE1**: This parameter is available when “Surround Parameter” – “Mode” is set to “Cinema” (page 30).  
**NOTE2**: This parameter is available when “Surround Parameter” – “Mode” is set to “Cinema” or “PL” (page 30).  
**NOTE**:  
*1*: When playing Dolby Digital and DTS signals.
### Surround mode

<table>
<thead>
<tr>
<th>Parameter (default values are shown in parentheses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRO LOGIC II MUSIC mode only</td>
</tr>
<tr>
<td>Panorama</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>DIRECT</td>
</tr>
<tr>
<td>STEREO</td>
</tr>
<tr>
<td>EXT. IN</td>
</tr>
<tr>
<td>DOLBY PRO LOGIC II</td>
</tr>
<tr>
<td>DTS NEO:6</td>
</tr>
<tr>
<td>DOLBY DIGITAL</td>
</tr>
<tr>
<td>DTS SURROUND</td>
</tr>
<tr>
<td>ROCK ARENA</td>
</tr>
<tr>
<td>JAZZ CLUB</td>
</tr>
<tr>
<td>MONO MOVIE</td>
</tr>
<tr>
<td>VIDEO GAME</td>
</tr>
<tr>
<td>MATRIX</td>
</tr>
<tr>
<td>VIRTUAL</td>
</tr>
</tbody>
</table>

- : Adjustable
- : Not adjustable

**NOTE3:** BASS +6 dB, TREBLE +4 dB

**NOTE4:** When "System Setup" – "Option Setup" – "Direct Mode Setup" are turned "ON", also after implementing "Auto Setup".

**NOTE5:** This parameter is not available when "Surround Parameter" – "Dynamic EQ" is set to "ON" (page 31).

**NOTE6:** This parameter is not available when "Surround Parameter" – "MultEQ" is set to "OFF" (page 31).

**NOTE7:** This parameter is not available when "Surround Parameter" – "Dynamic EQ" is set to "ON" (page 31). This parameter is not available when "Surround Parameter" – "Dynamic EQ" is set to "OFF" (page 31).

**NOTE8:** Displayed when "Dynamic Volume" setting is "ON".

**NOTE9:** Displays after implementing Auto Setup.

**NOTE10:** Displayed when input signal is "Analog" or "PCM 44.1/48 kHz".
### Differences in Surround Mode Names Depending on the Input Signals

<table>
<thead>
<tr>
<th>Surround mode</th>
<th>ANALOG</th>
<th>LINEAR PCM</th>
<th>LINEAR PCM (Multi ch)</th>
<th>Input signals</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANDARD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTS SURROUND</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTS SURROUND</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>DTS 96/24</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>DTS NEO:6 CINEMA</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>DTS NEO:6 MUSIC</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>DOLBY Surround</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOLBY DIGITAL</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>DOLBY PLII CINEMA</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>DOLBY PLII MUSIC</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>DOLBY PLII GAME</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>DOLBY PRO LOGIC</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>DIRECT</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>DSP SIMULATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5CH STEREO</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>ROCK ARENA</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>JAZZ CLUB</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>MONO MOVIE</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>VIDEO GAME</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>MATRIX</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>VIRTUAL</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
<tr>
<td>STEREO</td>
<td>○</td>
<td>○</td>
<td>x</td>
<td>○</td>
</tr>
</tbody>
</table>

○: Mode selectable in initial status
○: Selectable mode
×: Non-selectable mode
**Troubleshooting**

If a problem should arise, first check the following:

1. Are the connections correct?
2. Is the set being operated as described in the owner's manual?
3. Are the other components operating properly?

If this unit does not operate properly, check the items listed in the table below. Should the problem persist, there may be a malfunction.

In this case, disconnect the power immediately and contact your store of purchase.

### [General]

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set does not operate properly.</td>
<td>• External noise or interference is causing the set to malfunction.</td>
<td>• Reset the microprocessor.</td>
<td>41</td>
</tr>
<tr>
<td>Power does not turn on, or turns off directly after it was turned on.</td>
<td>• Connection of the power cord is faulty.</td>
<td>• Check the insertion of the power cord plug.</td>
<td>15</td>
</tr>
<tr>
<td>No sound is produced from speakers.</td>
<td>• Connection with the input devices or connection of the speaker cables is faulty.</td>
<td>• Check the connections.</td>
<td>9–15</td>
</tr>
<tr>
<td></td>
<td>• Device you want to play and set input source do not match.</td>
<td>• Select an appropriate input source.</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>• Master volume is turned too low.</td>
<td>• Adjust the master volume to an appropriate level.</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>• Mute mode is set.</td>
<td>• Cancel the mute mode.</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>• Headphones are connected.</td>
<td>• Disconnect the headphones.</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>• No digital signals are being input.</td>
<td>• Select an input source for which the digital input setting has been made.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The connectors to which the digital inputs are assigned and the settable input modes do not match.</td>
<td>• Set the input mode.</td>
<td>34</td>
</tr>
<tr>
<td>Display is off.</td>
<td>• The Dimmer setting is set to “OFF”.</td>
<td>• Set to something other than “OFF”.</td>
<td>35</td>
</tr>
<tr>
<td>“DOLBY DIGITAL” indicator does not appear on display.</td>
<td>• DVD player’s digital audio output setting is not proper.</td>
<td>• Check the DVD player’s audio output setting. For details, read the DVD player’s operating instructions.</td>
<td>–</td>
</tr>
<tr>
<td>Power switches off suddenly while you are using the AVR-589, the power indicator will flash in red at intervals of approximately 2 seconds.</td>
<td>• The protection circuit will be activated depending upon the temperature rise in the internal parts of the unit.</td>
<td>• Please switch off power at once, and re-apply the power after the body temperature has fallen sufficiently. Please re-install AVR-589 in a place having good ventilation.</td>
<td>9</td>
</tr>
</tbody>
</table>

### [Remote Control Unit]

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set does not work properly when remote control unit operated.</td>
<td>• Batteries are worn.</td>
<td>• Replace with new batteries.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>• You are operating outside of the specified range.</td>
<td>• Operate within the specified range.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>• Obstacle between main unit and remote control unit.</td>
<td>• Remove the obstacle.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>• The batteries are not inserted in the proper direction, as indicated by the polarity marks in the battery compartment.</td>
<td>• Insert the batteries in the proper direction, following the polarity marks in the battery compartment.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>• The set’s remote control sensor is exposed to strong light (direct sunlight, inverter type fluorescent bulb light, etc.).</td>
<td>• Move the set to a place in which the remote control sensor will not be exposed to strong light.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>• The remote ID of the main unit and remote control unit do not match.</td>
<td>• Set “Remote ID” for the main unit to “1”.</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>• The SOURCE CONTROL switches are not set in the correct positions.</td>
<td>• Set the SOURCE CONTROL switches to the correct positions according the operation you are applying.</td>
<td>36–38, 42–44</td>
</tr>
</tbody>
</table>
### [Audio]

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sound is produced from center speaker.</td>
<td>• You are playing a monaural source (TV, AM radio broadcast, etc.) in the “STANDARD” (Dolby/DTS Surround) mode.</td>
<td>• The mode is set to something other than “STANDARD” (Dolby/DTS Surround).</td>
<td>27</td>
</tr>
<tr>
<td>No sound is produced from surround speakers.</td>
<td>• The surround mode is set to “STEREO” or “DIRECT”.</td>
<td>• Set to a surround playback mode.</td>
<td>28</td>
</tr>
<tr>
<td>No sound is produced from subwoofer.</td>
<td>• Subwoofer’s power not turned on.</td>
<td>• Turn on the subwoofer’s power.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>• “Subwoofer” setting at “Speaker Setup” is set to “No”.</td>
<td>• Set to “Yes”.</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>• The subwoofer is not properly connected.</td>
<td>• Check the connections.</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>• The subwoofer’s volume is turned off.</td>
<td>• Adjust the subwoofer’s volume to an appropriate level.</td>
<td>40</td>
</tr>
<tr>
<td>No test tones are produced when remote control unit’s TEST button is pressed.</td>
<td>• Surround mode not set to “STANDARD” (Dolby/DTS Surround).</td>
<td>• Set to the “STANDARD” (Dolby/DTS Surround) mode.</td>
<td>27</td>
</tr>
<tr>
<td>DTS sound is not output.</td>
<td>• DVD player’s audio output setting is not set to bitstream.</td>
<td>• Set the DVD player. For details, refer to the DVD player’s operating instructions.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>• DVD player is not compatible with DTS sound playback.</td>
<td>• Use a DTS-compatible player.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>• The AVR-589’s “Input Mode” setting is set to other than “DTS”.</td>
<td>• Set to the “Auto” or “DTS” mode.</td>
<td>34</td>
</tr>
</tbody>
</table>

### [Video]

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>No picture appears.</td>
<td>• The connections between the AVR-589 and monitor are faulty.</td>
<td>• The connection terminal of the AVR-589 and the connection terminal of the monitor are not of the same type.</td>
<td>10 – 13</td>
</tr>
<tr>
<td></td>
<td>• Because video signals are output from the AVR-589’s monitor output terminal in the same format as the video input signals, the monitor output terminal should be of the same type as the terminal used for input.</td>
<td>• Check the connections.</td>
<td>–</td>
</tr>
<tr>
<td>DVDs cannot be copied on a VCR.</td>
<td>–</td>
<td>• This is not a malfunction. Most movie software includes copy prevention signals and cannot be copied.</td>
<td>–</td>
</tr>
</tbody>
</table>

### [HDMI]

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDMI audio signals are not output from speakers.</td>
<td>–</td>
<td>• The audio signal input to the HDMI input connector cannot be played on the AVR-589. Input the audio signal to the digital audio input connector or analog audio input connector.</td>
<td>10</td>
</tr>
<tr>
<td>No picture appears with HDMI connections.</td>
<td>• The connections to the HDMI connectors are faulty.</td>
<td>• Check the connections.</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>• HDMI input setting is improper.</td>
<td>• Check the HDMI input setting.</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>• The HDMI format of the player and monitor do not match.</td>
<td>• Match the HDMI format of the player and monitor.</td>
<td>23</td>
</tr>
<tr>
<td>No sound is output from the monitor connected with HDMI connections.</td>
<td>• HDMI input setting is improper.</td>
<td>• Check the HDMI input setting.</td>
<td>23</td>
</tr>
</tbody>
</table>

### [iPod]

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPod cannot be played.</td>
<td>• The input source assigned to control dock for iPod is not selected.</td>
<td>• Switch to the input source assigned at control dock for iPod.</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>• Cable is not properly connected.</td>
<td>• Reconnect.</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>• Control dock for iPod’s AC adapter is not connected to power outlet.</td>
<td>• Plug the control dock for iPod’s AC adapter into a power outlet.</td>
<td>–</td>
</tr>
</tbody>
</table>
### Specifications

**Audio section**
- **Power amplifier**
  - Rated output:
    - Front (A, B): 75 W + 75 W (8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08 % T.H.D.)
    - 110 W + 110 W (6 Ω/ohms, 1 kHz with 0.7 % T.H.D.)
    - Center: 75 W (8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08 % T.H.D.)
    - 110 W (6 Ω/ohms, 1 kHz with 0.7 % T.H.D.)
  - Surround: 75 W + 75 W (8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08 % T.H.D.)
  - Output connectors:
    - A or B: 6 ~ 16 Ω/ohms
    - Center, Surround: 6 ~ 16 Ω/ohms
- **Analog**
  - Input sensitivity / Input impedance:
    - 200 mV / 47 kΩ/kohms
  - Frequency response:
    - 10 Hz ~ 100 kHz — +1, –3 dB (DIRECT mode)
    - 98 dB (IHF-A weighted, DIRECT mode)
- **S/N**
  - 98 dB (IHF-A weighted, DIRECT mode)

**Video section**
- **Standard video connectors**
  - Input / output level and impedance:
    - 1 Vp-p, 75 Ω/ohms
  - Frequency response:
    - 5 Hz ~ 10 MHz — +1, –3 dB
- **S-Video connectors**
  - Input / output level and impedance:
    - Y (brightness) signal — 1 Vp-p, 75 Ω/ohms
    - C (color) signal — 0.286 Vp-p, 75 Ω/ohms
  - Frequency response:
    - 5 Hz ~ 10 MHz — +1, –3 dB
- **Color component video connectors**
  - Input / output level and impedance:
    - Y (brightness) signal — 1 Vp-p, 75 Ω/ohms
    - Pr / Cr signal — 0.7 Vp-p, 75 Ω/ohms
    - Pb / Cb signal — 0.7 Vp-p, 75 Ω/ohms
  - Frequency response:
    - 5 Hz ~ 30 MHz — +0, –3 dB

**Tuner section**
- **FM**
  - Receiving Range: 87.5 MHz ~ 107.9 MHz
  - Usable Sensitivity: 1.0 µV (11.2 dBf)
  - 50 dB Quieting Sensitivity: MONO 1.6 µV (15.3 dBf)
- **AM**
  - Receiving Range: 520 kHz ~ 1710 kHz
  - Usable Sensitivity: MONO 77 dB
  - 50 dB Quieting Sensitivity: STEREO 72 dB

**General**
- **Power supply:** AC 120 V, 60 Hz
- **Power consumption:** 3.9 A
- **Maximum external dimensions:** 434 (W) x 171 (H) x 377 (D) mm (17-3/32” x 6-47/64” x 14-27/32”)
- **Weight:** 10.8 kg (23 lbs 13 oz)

**Remote control unit (RC-1104)**
- **Batteries:** R6/AA Type (two batteries)
- **Maximum external dimensions:** 52 (W) x 243 (H) x 21 (D) mm (2-3/64” x 9-9/16” x 53/64”)
- **Weight:** 184 g (Approx. 6.5 oz) (including batteries)

For purposes of improvement, specifications and design are subject to change without notice.
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<th>Blu-ray Disc Player / DVD Player</th>
<th>VCR</th>
<th>Television</th>
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</thead>
<tbody>
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<td><strong>A</strong></td>
<td><strong>A</strong></td>
<td><strong>A</strong></td>
</tr>
<tr>
<td>Aiwa</td>
<td>Denon</td>
<td>Admiral</td>
</tr>
<tr>
<td>Omega</td>
<td>Hi-Fi</td>
<td>Adventura</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td><strong>B</strong></td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>Daewoo</td>
<td>Mitsubishi</td>
<td>Bell &amp; Howell</td>
</tr>
<tr>
<td><strong>J</strong></td>
<td><strong>C</strong></td>
<td><strong>C</strong></td>
</tr>
<tr>
<td>JVC</td>
<td>Sony</td>
<td>Bradford</td>
</tr>
<tr>
<td><strong>K</strong></td>
<td><strong>D</strong></td>
<td><strong>D</strong></td>
</tr>
<tr>
<td>Konka</td>
<td>Panasonic</td>
<td>Brockwood</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td><strong>E</strong></td>
<td><strong>E</strong></td>
</tr>
<tr>
<td>Magnavox</td>
<td>Pioneer</td>
<td>Candle</td>
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<tr>
<td><strong>P</strong></td>
<td><strong>F</strong></td>
<td><strong>F</strong></td>
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<tr>
<td>Panasonic</td>
<td>RCA</td>
<td>Candle</td>
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<tr>
<td><strong>S</strong></td>
<td><strong>G</strong></td>
<td><strong>G</strong></td>
</tr>
<tr>
<td>Sanyo</td>
<td>Samsung</td>
<td>Circuit City</td>
</tr>
<tr>
<td><strong>T</strong></td>
<td><strong>H</strong></td>
<td><strong>H</strong></td>
</tr>
<tr>
<td>Toshiba</td>
<td>Sharp</td>
<td>Citizen</td>
</tr>
<tr>
<td><strong>Z</strong></td>
<td><strong>I</strong></td>
<td><strong>I</strong></td>
</tr>
<tr>
<td>Zenith</td>
<td>Sony</td>
<td>Citizen</td>
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**VDP**

<table>
<thead>
<tr>
<th><strong>D</strong></th>
<th><strong>M</strong></th>
<th><strong>P</strong></th>
<th><strong>R</strong></th>
<th><strong>S</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Denon</td>
<td>Mitsubishi</td>
<td>Panasonic</td>
<td>RCA</td>
<td>Sony</td>
</tr>
</tbody>
</table>

**VCR**

<table>
<thead>
<tr>
<th><strong>A</strong></th>
<th><strong>B</strong></th>
<th><strong>C</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Admiral</td>
<td>Akio</td>
<td>Calix</td>
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**Television**

<table>
<thead>
<tr>
<th><strong>A</strong></th>
<th><strong>B</strong></th>
<th><strong>C</strong></th>
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</thead>
<tbody>
<tr>
<td>Teac</td>
<td>Toshiba</td>
<td>Technics</td>
</tr>
</tbody>
</table>

**Code List**

- **List of preset codes / Liste de codes préréglés**

<table>
<thead>
<tr>
<th>Aiwa</th>
<th>Denon</th>
<th>Omega</th>
<th>Magnavox</th>
<th>Panasonic</th>
<th>Philips</th>
<th>Pioneer</th>
<th>RCA</th>
<th>Sanyo</th>
<th>Sony</th>
<th>Toshiba</th>
<th>Zenith</th>
</tr>
</thead>
<tbody>
<tr>
<td>009</td>
<td>014</td>
<td>009</td>
<td>005</td>
<td>014</td>
<td>005, 015, 016, 017</td>
<td>002, 003, 008</td>
<td>018</td>
<td>002, 019, 020</td>
<td>001, 021, 022</td>
<td>023</td>
<td>026</td>
</tr>
<tr>
<td>026</td>
<td>026</td>
<td>025, 026</td>
<td>007</td>
<td>005, 006, 087, 090, 092</td>
<td>007</td>
<td>005, 006, 087, 090, 092</td>
<td>006</td>
<td>005, 006, 087, 090, 092</td>
<td>001, 007, 008, 091, 095</td>
<td>007, 008, 091, 095</td>
<td>007, 008, 091, 095</td>
</tr>
</tbody>
</table>

**List of Brands**

- Aiwa
- Denon
- Omega
- Magnavox
- Panasonic
- Philips
- Pioneer
- RCA
- Sanyo
- Sony
- Toshiba
- Zenith

**List of Codes**

- Aiwa
- Denon
- Omega
- Magnavox
- Panasonic
- Philips
- Pioneer
- RCA
- Sanyo
- Sony
- Toshiba
- Zenith

**Note:** The list includes various preset codes for different brands and models of Blu-ray Disc players, DVD players, VCRs, and television sets. Each brand is followed by a list of codes specific to that brand. The codes are presented in a tabular format, with each brand's codes listed in a separate row. The list is comprehensive and covers a wide range of manufacturers, including popular brands like Sony, Panasonic, and Toshiba. The codes are organized to facilitate easy reference for users who need to program their remotes or accessories. The presence of codes like “009,” “014,” etc., indicates the diversity in model numbers and product versions available. This list serves as a valuable resource for anyone looking to understand or troubleshoot compatibility issues with their electronic devices.
MGA 001, 006, 048, 056, 057, 058, 065, 081, 083
Midland 125
Minuz 066
Mitsubishi 001, 016, 039, 048, 056, 058, 065, 081, 082, 083, 105
Montgomery Ward 011, 020, 144, 145, 146
Motorola 121, 147
MTC 001, 034, 039, 048, 095
NAD 008, 075, 076, 128
National 002, 036, 061, 147
National Quantities 002
NEC 031, 038, 039, 048, 057, 084, 086, 135, 147
Nikko 064
NRC 054
Optimus 128
Optonica 011, 012, 093, 121
Grion 004, 139
Panasonic 002, 009, 017, 038, 037, 071, 141, 143, 147
Philco 005, 010, 030, 050, 051, 056, 079, 085, 127, 131, 132, 145, 147
Philips 005, 015, 017, 050, 051, 056, 078, 087, 089, 093, 131, 132, 147
Pioneer 124, 128, 142
Portland 054
Price Club 095
Proscan 040, 044, 125
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SBB 015
Schneider 015
Scott 062
Sears 008, 014, 021, 022, 023, 024, 025, 040, 052, 057, 062, 063, 064, 065, 073, 075, 076, 078, 125, 159
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Squaresine 004
Supra-Macy 032, 122
Supreme 046
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Zonda 007

S T

V Cable

ABC 009, [007]* 008, 009
Archery 010, 011
Century 011
Citizen 011
Colour Voice 012, 013
Contouric 014
Eastern 011
Gemini 030, 033, 034
General Instrument 030, 031, 032
Hytex 006
Jasco 011
Jerrold 009, 016, 017, 026, 032
Magnavox 018
Movie Time 019
NISC 019
Oak 000, 006, 20
Panasonic 011, 005
Philips 011, 012, 013, 018, 021
Pioneer 002, 003, 022
RCA 029
Regency 015
Samsung 014, 023
Scientific Atlanta 004, 023, 025
Signal 014
SL Marx 014
Starcom 009

T Stargate 014
Telenov 014
TVBS 019
Unika 011
Universal Artists 006
Universal 010, 011
Viewstar 018, 019
Zenith 027, 028

Satellite Receiver

A Alphastar 004
B Chippamali 035, 036
D Dishnet 053
Drake 037, 038
E Echostar Dish 062, 066
GE 048, 056, 055, 056
General Instruments 039, 040, 041
Grundig 070, 071, 072, 073
Hitachi 038, 059
Hughes Network 063, 084, 085, 086
JVC 057
K Kathleen 074, 075, 076, 083
Magnavox 060
Nokia 070, 080, 084, 085, 086
Philips 060
Primestar 051
Proscan 048, 055, 056
R RCA 048, 055, 056, 056
Realistic 042
S Sierra I 036
Sierra II 036
Sierra III 036
Sony 049, 067
ST1 043
ST2 044
ST3 045
SR34 046
T Technisat 077, 078, 081, 082
Toshiba 047, 050
Uniden 061

JVC 018, 019

CD Player

A Ativa 001, 035, 043
B Burmester 002
C Carvery 003, 035
D Denon [111]*, 044
E Emerson 004, 005, 006, 007
F Fisher 003, 008, 009, 010
J

DENON Model No. / Modèle numéro

111 (default / défaut) 014

DVD preset codes / Codes préréglés DVD

DVD-555 DVD-2910
DVD-556 DVD-2930CI
DVD-557 DVD-3800
DVD-558 DVD-3910
DVD-755 DVD-3930CI
DVD-756 DVD-5900
DVD-757 DVD-5910CI DVD-758 DVD-3000
DVD-900 DVD-2500BT
DVD-910 DVD-3800BD DVD-965 DVD-715
DVD-1000 DVD-735
DVD-1200 DVD-745
DVD-1500 DVD-1800
DVD-1710 DVD-1805
DVD-1720 DVD-1815
DVD-1730 DVD-1835
DVD-1910 DVD-1845
DVD-1920 DVD-2815
DVD-1930CI DVD-2845
DVD-1940CI DVD-4800
DVD-2200 DVD-2800
DVD-2800II DVD-2900

* : Preset codes set upon shipment from the factory.
* Les codes préréglés différent en fonction des livraison de l'usine.