# **DENON**

**AV SURROUND RECEIVER** 

**AVR-1609** 

**Owner's Manual** 

Manuel de l'Utilisateur

#### **□** SAFETY PRECAUTIONS





#### **CAUTION:**

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



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



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

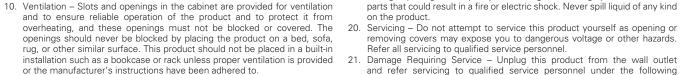
#### WARNING:

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

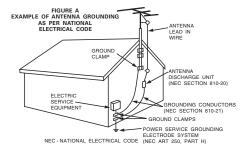
# SAFETY INSTRUCTIONS

- before the product is operated
- 2. Retain Instructions The safety and operating instructions should be retained for future reference.
- Heed Warnings All warnings on the product and in the operating instructions should be adhered to.
- Follow Instructions All operating and use instructions should be followed.
- 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 bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement: or near a swimming pool; and the like.
- 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. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the
- 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.

manufacturer.



- 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 supply 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.



- 1. Read Instructions All the safety and operating instructions should be read 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.
  - 15. 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.
  - 16. 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.
  - 17. 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.
  - 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.
  - 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. 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.
  - 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.
  - 22. 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.
  - 23. 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.
  - 24. Wall or Ceiling Mounting The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
  - Heat The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

# **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

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.

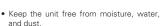
This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

# □ NOTE ON USE / OBSERVATIONS RELATIVES A L'UTILISATION







 Protéger l'appareil contre l'humidité, l'eau et la poussière.



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



- Avoid high temperatures.
   Allow for sufficient heat dispersion when installed in a rack.
- Eviter des températures élevées.
   Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.



· Unplug the power cord when not using the

 Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant

unit for long periods of time.

de longues périodes.

- 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.



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



- \* (For apparatuses with ventilation holes)
- . Do not obstruct the ventilation holes.
- Ne pas obstruer les trous d'aération.



- Never disassemble or modify the unit in any way.
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.

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Specifications

# **Getting Started**

Thank you for purchasing this DENON product. To ensure proper operation, please read this owner's manual carefully before using the product.

After reading them, be sure to keep them for future reference.

# **Accessories**

Check that the following parts are supplied with the product.

Ondok that the for	lovving parto are o	applied with the product.	
<ul> <li>② Getting Starte</li> <li>③ Warranty (for</li> <li>④ Service static</li> <li>⑤ Remote cont</li> <li>⑥ R6/AA batter</li> <li>⑦ FM indoor ant</li> <li>⑧ AM loop ante</li> <li>⑨ Setup microp</li> </ul>	ed	x. 25 ft / 7.6 m)	1 1 1 1 2 1
	5		
	8	9	

# **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.

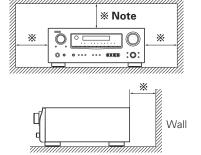
Next, disconnect the connection cables to other system units before moving the unit.

 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.



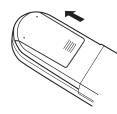
# **About the Remote Control Unit**

In addition to the AVR-1609, the included remote control unit (RC-1098) can also be used to operate the equipment listed below.

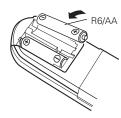
- ① DENON system components
- 2 Non-DENON system components
  - By setting the preset memory (\*\* page 45 ~ 47)

# **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.



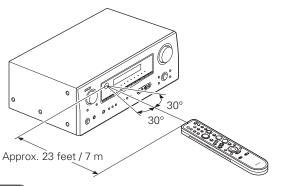
3 Put the rear cover back on.

# 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.



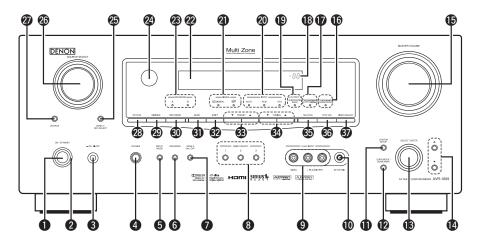
# NOTE

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**



Power operation button	(0.7)
(ON/STANDBY)	(37)
2 Power indicator	(37)
3 Power switch (_ON _OFF)	(37, 44)
4 Headphone jack (PHONES)	(38)
5 INPUT MODE button	(37)
6 SPEAKERS button	(38, 44)
<b>7</b> ZONE2 ON/OFF button	(50)
3 QUICK SELECT buttons	(44)
9 V. AUX INPUT connectors	
Remove the cap covering the con	nectors when
you want to use them.	

<b>1</b> SETUP MIC jack(18)	
SYSTEM SETUP button(21)	
SURR. MODE / SURR. PARA button ···· (29, 31)	

# 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 **ENTER** button when pressed the knob.

<b>1</b> Cursor buttons ( $\triangle \nabla$ )(21)
MASTER VOLUME control knob (38)
<b>16</b> Dynamic Volume indicator(34)
MultEQ indicator(33)
Master volume indicator

(SURROUND BACK indicator

# ② INPUT mode indicators (37) ② SIGNAL indicators (2) Display ② SPEAKERS indicators (38) ② Remote control sensor (3) ② ZONE2/REC SELECT button (43) ② SOURCE SELECT knob (37) ② SOURCE button (37) ② STATUS button (36) ② DIMMER button (38) ③ RESTORER button (35) ⑤ BAND button (38)

**⚠** TUNING buttons (▲▼)......(38)

# DYNAMIC VOLUME button ......(34)

# **\* 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.

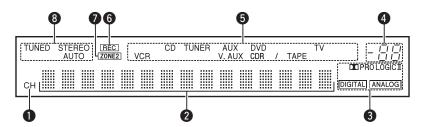
Audyssey Dynamic EQ<sup>TM</sup> is integrated into Dynamic Volume so that as the playback volume is adjusted automatically, the perceived bass response, tonal balance, surround impression, and dialog clarity remain the same.

# **\* 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. Audyssey Dynamic EQ works in tandem with Audyssey MultEQ $^{\textcircled{\tiny 0}}$  to provide well-balanced sound for every listener at any volume level.

VIDEO SELECT button .....(38)

# **Display**



# 1 Signal channel indicator

Lights when the preset channel is displayed at

- 2.
- 2 Information display
- 3 Input signal indicators
- Master volume indicator

This displays the volume level.

The Setup item number is displayed in System Setup.

# 5 ZONE2/REC OUT source indicators

These indicators indicate the input source being output to "ZONE2/REC OUT".

# 6 Recording output source indicator

This lights when the REC OUT mode is selected. (This indicator is off when "SOURCE" is selected.)

#### **7** ZONE2 indicator

This lights when the ZONE2 mode is selected. (This indicator is off when "SOURCE" is selected.)

# **3** 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.

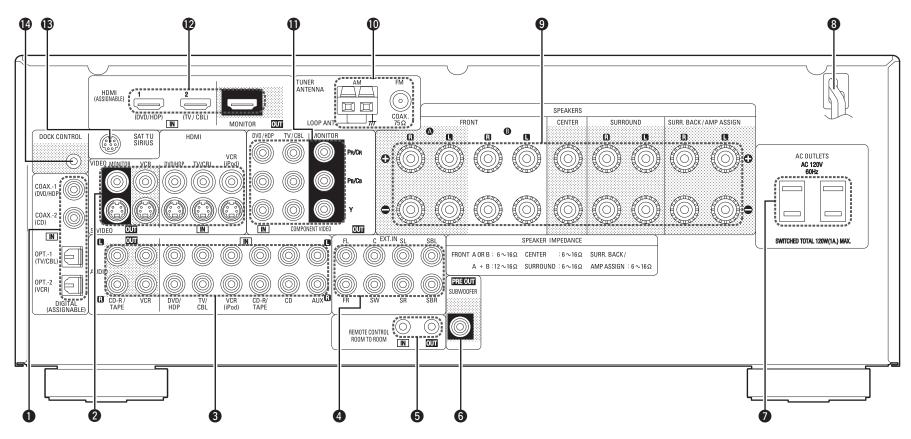
#### • STEREO

In the FM mode, this lights when receiving analog stereo broadcasts.

#### TUNED

This lights when the broadcast is properly tuned in.

# **Rear Panel**



- 3 Power cord
   (16)

   9 Speaker terminals (SPEAKERS)
   (9, 49)

   10 FM/AM antenna terminals (TUNER ANTENNA)
   (15)

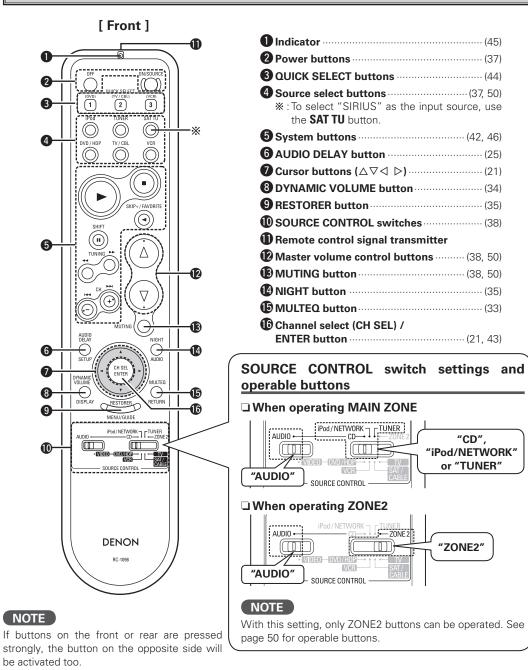
   10 COMPONENT VIDEO connectors
   (11, 13)

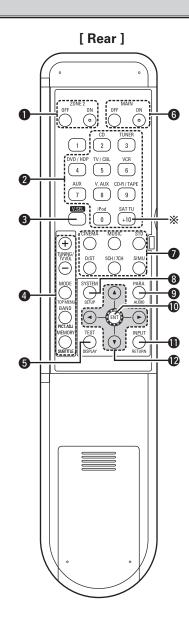
   12 HDMI connectors
   (10, 11, 13)

   13 SIRIUS connector (SATTU)
   (15)

   14 DOCK CONTROL jack
   (12)

# **Remote Control Unit**





<b>1 ZONE2 power buttons</b> (50)
<b>2</b> Source select buttons(37, 50)
* : To select "SIRIUS" as the input source, use the SAT TU button.
3 Video select button (V.SEL)(38)
<b>1</b> Tuner system buttons (38, 39)
<b>5</b> Test tone button (TEST) (24)
6 Main zone power buttons (MAIN)(50)
<b>7</b> Surround mode buttons (29, 30, 32)
System setup button (SYSTEM)(21)
<b>9</b> Surround parameter button (PARA)··· (29, 31)
Enter button (ENT)(21)
Input mode button (INPUT)(37)
<b>②</b> Cursor buttons ( $\triangle \nabla \triangleleft \triangleright$ )(21)

# **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-1609. For details, refer to the instructions for the respective connection items below.

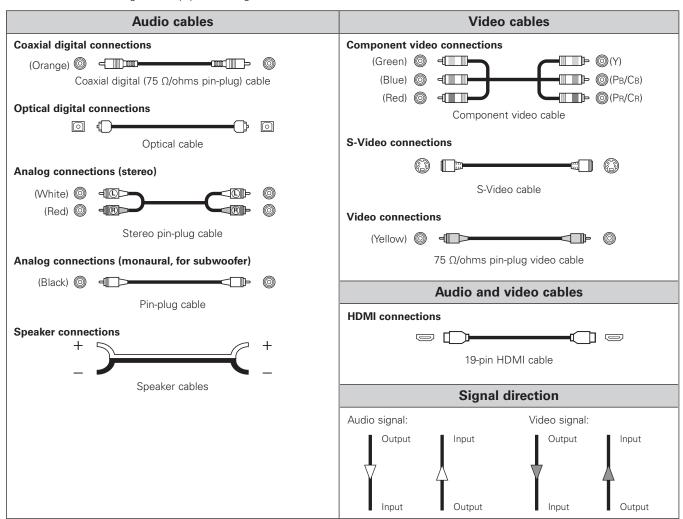
# NOTE

- 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**

# **Cables Used for Connections**

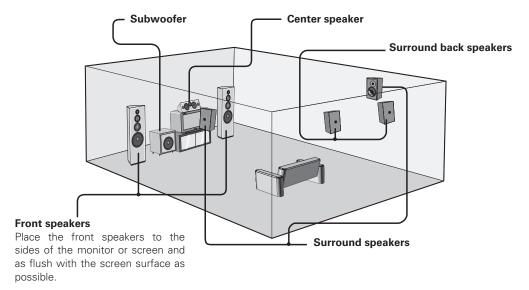
Select the cables according to the equipment being connected.



# **Speaker Connections**

# **Speaker Installation**

The illustration below shows a basic example of installation of the amplifier combined with 8 speakers and



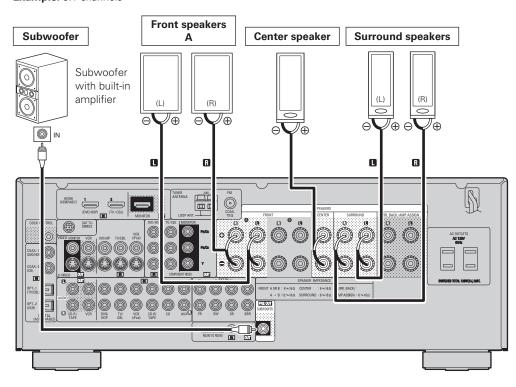


The table below shows a typical speaker configuration for the AVR-1609.

	FRON	TA/B	CENTER	SURROUND		SURROUND BACK			SUBWOOFER
	L	R	CENTER	L	R	L	R	1 speaker	SUBVVOOFEN
7.1-channels	0	0	0	0	0	0	0	-	0
6.1-channels	0	0	0	0	0	_	_	0	0
5.1-channels	0	0	0	0	0	-	-	-	0
3.1-channels	0	0	0	_	_	_	_	_	0
2.1-channels	0	0	_	_	_	_	_	-	0
2-channels	0	0	_	_	_	_	_	_	_

# **Speaker Connections**

#### **Example:** 5.1-channels



L: Left
 R: Right

# NOTE

#### For surround back speakers:

- By default, the AVR-1609's "Amp Assign" setting is set to "ZONE2". To use as the surround back speaker for the main zone, change the "Amp Assign" setting (12) page 27).
- When using just one surround back speaker, connect it to the left channel (SBL).

#### For ZONE2 speakers:

• For multi-zone connection and operation, see "Amp Assign / Multi-zone Connections and Operations" ((2) page 49).

# **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-1609, and be sure to interconnect the channels and polarities correctly.

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.



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



Turn the speaker terminal clockwise to tighten it.



# When using a banana plug

Tighten the speaker terminal firmly before inserting the banana plug.



# NOTE

- Use speakers with an impedance of 6 to 16  $\Omega$ /ohms. When using front A and B speakers simultaneously, use speakers with an impedance of 12 to 16  $\Omega$ /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 (1287 "Protection circuit").
- Never touch the speaker terminals while the power supply is connected. Doing so could result in electric shock.

# **Protection circuit**

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

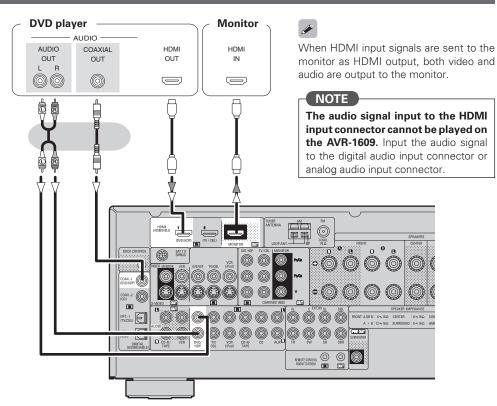
If the protection circuit is activated, the speaker output is isolated, and the power supply goes to the standby state. If the power supply is turned off, after the power supply cord is withdrawn, please confirm that speaker cable and input cable are connected.

Also, if replaying large sound levels by using a speaker having an impedance less than that specified (eg, 4  $\Omega$ /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-1609 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-1609 has failed, please contact DENON Service center after switching off.

# **Connecting Equipment with HDMI connectors**



- \*\* The AVR-1609 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-1609 is compatible with 30- and 36-bit Deep Color.
- \* The AVR-1609 can be connected to a device equipped with an HDMI output connector using an HDMI cable.
- \* The AVR-1609 is compatible with HDMI Ver. 1.3a Deep Color and xvYCC.

#### NOTE

- The AVR-1609 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.



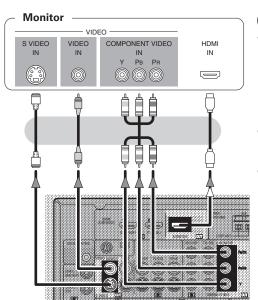
- The audio and video signals input to the AVR-1609's HDMI input connector are output unchanged from the HDMI output connector. Because of this, the sound is output from the monitor connected using the HDMI connectors, but in order to take full advantage of the AVR-1609's playback sound, turn the TV's 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**

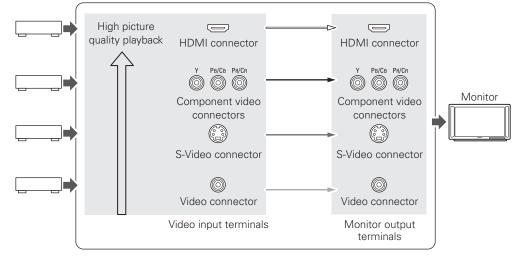
Select the terminal to use and connect the device.



# NOTE

- The AVR-1609 supports four video input formats: HDMI, component video, S-video and video. Because video signals are output from the AVR-1609'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-1609, make analog or digital audio output connections to AVR-1609's audio input connectors.

# [Flow of video signals inside the AVR-1609]

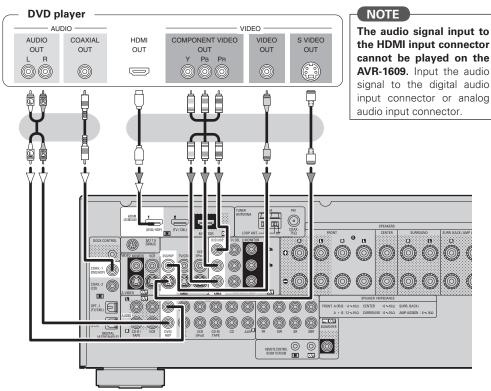


# **Connecting the Playback Components**

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.





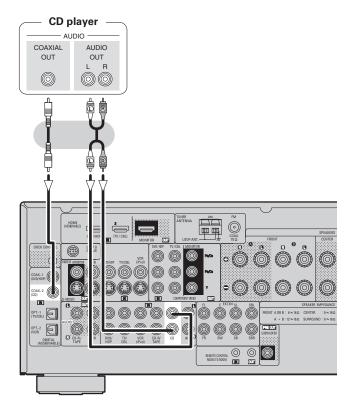
- The same method can be used to connect an HDP (High-Definition Player) such as a Blu-ray Disc player
- When using an optical cable for the digital audio connection, make the settings at "System Setup" "Input Setup" "Digital In Assign" (\*\* page 25).

# NOTE

Because video signals are output from the AVR-1609'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.

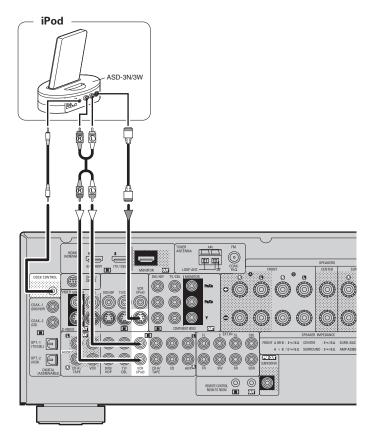




When using an optical cable for the digital audio connection, make the settings at "System Setup" - "Input Setup" - "Digital In Assign" ( page 25).

# 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-1609. For instructions on the control dock for iPod settings, refer to the control dock for iPod's operating instructions.





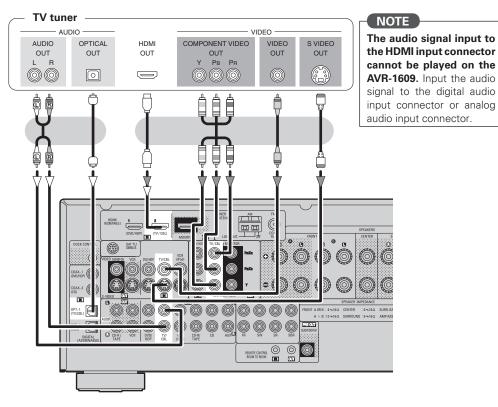
- With the default settings, the iPod can be used connected to the VCR (iPod) connector.
- To assign the iPod to a connector other than VCR (iPod), make the settings at "System Setup" "Input Setup" - "iPod Assign" (F) page 25).

# NOTE

To playback iPod Video or Photos on a TV monitor, connect the TV to the S-Video Out terminal of AVR-1609.

# **TV/CABLE Tuner**

Select the terminal to use and connect the device.





When using a coaxial cable for the digital audio connection, make the settings at "System Setup" – "Input Setup" – "Digital In Assign" (Propage 25).

# NOTE

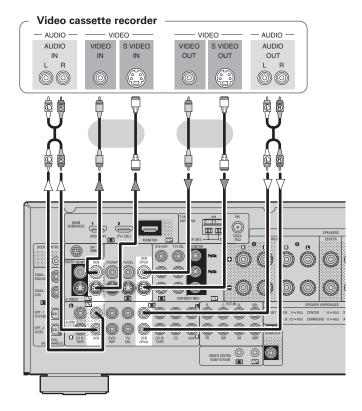
Because video signals are output from the AVR-1609's monitor output terminal in the same format as the video input signals, the monitor output terminal should be of the same type as the terminal used for input.

# **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.



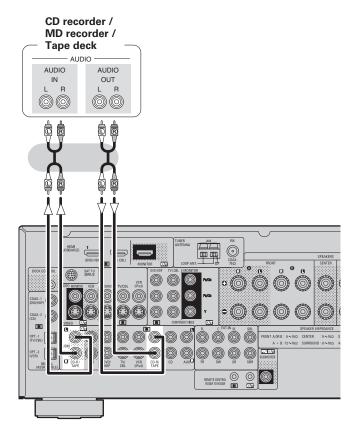


When recording via the AVR-1609, the playback device's cable must be of the same type as the cable used to connect the AVR-1609's VCR OUT connector.

**Example:** TV IN  $\rightarrow$  S-Video cable : VCR OUT  $\rightarrow$  S-Video cable TV IN  $\rightarrow$  Video cable : VCR OUT  $\rightarrow$  Video cable

# **CD Recorder / MD Recorder / Tape Deck**

Select the terminal to use and connect the device.

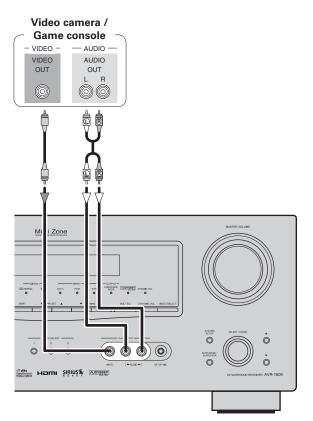


# **Connections to Other Devices**

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

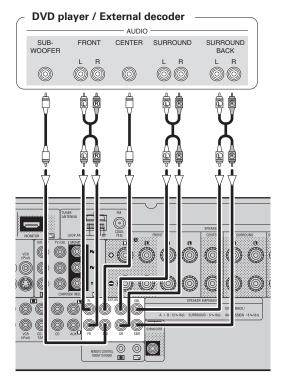
# Video Camera / Game Console

Select the terminal to use and connect the device.



# **Component with Multi-channel Output** connectors

Select the terminal to use and connect the device.





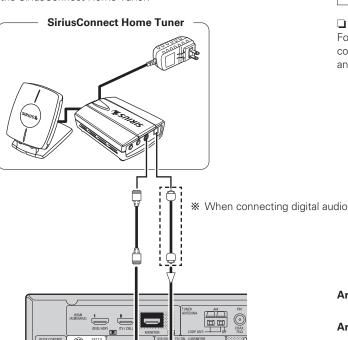
- To play the analog input signals input to the EXT. IN connectors, press the **INPUT MODE** button on the main unit or the **INPUT** button on the remote control unit and select "EXT. IN" ( page 37).
- The video signal can be connected in the same way as a DVD player (**©** page 11).
- To play copyright-protected discs, connect the AVR-1609's EXT. IN connector with the DVD player's analog multi-channel output connector.

# **SIRIUS** connector

- The AVR-1609 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" (P page 40).

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





When connecting the Optical terminal, set the input Optical terminal allocations for "System Setup" – "Input Setup" – "Digital In Assign", in "SIRIUS".

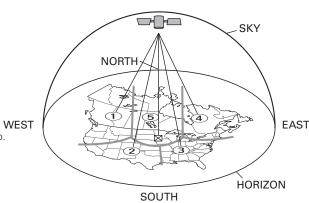
# NOTE

Keep the power cord unplugged until the SiriusConnect Home Tuner connection have been completed.

©2006 SIRIUS Satellite Radio Inc. "SIRIUS", the SIRIUS dog logo, and channel names and logos are trademarks of SIRIUS Satellite Radio Inc.

#### ☐ 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**

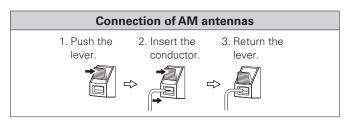
An F-type FM antenna cable plug can be connected directly.

AM loop antenna (supplied)

FM indoor antenna (supplied)

AM outdoor antenna

Ground



#### 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.

# ■ AM loop antenna assembly



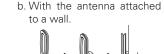
Connect to the AM antenna terminals.



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.





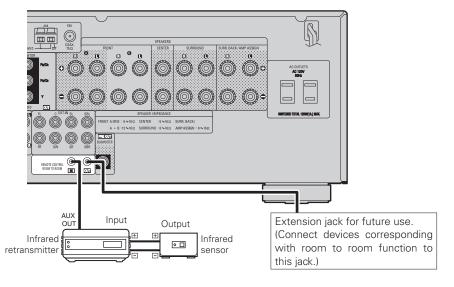
Installation hole Mount on wall, etc.

# NOTE

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

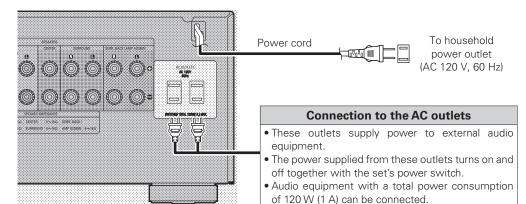
# **External Controller**

# Connecting a Room-to-Room Remote Control Unit



# **Connecting the Power Cord**

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



#### NOTE

- Insert the AC plugs securely. Incomplete connections could cause noise.
- Only use the AC outlets to plug in audio equipment. Do not use them as power supplies for hairdryers or anything other than audio equipment.

# **Once Connections are Completed**

Turning the Power On @page 37)

# **Operations**

# Menu Map

# Auto Setup (@page 18 ~ 20)

\* When the setup microphone is connected.

#### ☐ Start Menu

- Step 1: Speaker Detection
- Step 2: Measurement
- Step 3: Calculation
- Step 4: Check
- Step 5: Store

# System Setup (@page 21 ~ 28)

- ☐ Speaker Setup (☐ page 22 ~ 24)
- Speaker Configuration
- Subwoofer Mode Setup
- Distance
- Crossover Frequency
- Test Tone
- Restore

- ☐ Input Setup (@ page 24 ~ 26)
- 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 27, 28)

- Amp Assign
- Volume Control
- · Volume Limit
- · Power On Level
- · Mute Level
- ZONE2 Volume Control
- · ZONE2 Volume Limit
- · ZONE2 Power On Level
- · ZONE2 Mute Level
- Auto Surround Mode
- Direct Mode Setup
- Remote ID Setup

# Parameter (@page 31 ~ 35)

#### ☐ Surround Parameter

- Mode
- Cinema EQ
- D. Comp
- LFE
- Center Image
- Panorama
- Dimension
- Center Width

- Delay Time
- Effect Level
- Room Size
- SB CH OUT
- SUBWOOFER ATT.
- Subwoofer
- Tone Control
- Bass

- Treble
- MultEQ
- Dynamic EQ
- Dynamic Volume
- DV Setting
- RESTORER
- Night Mode
- Default

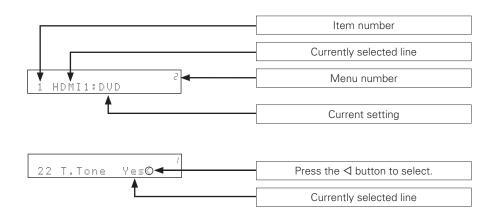
# Information ( page 36)

☐ Status

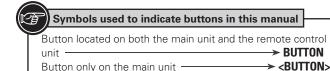
☐ Audio Input Signal

# **Examples of Front Display**

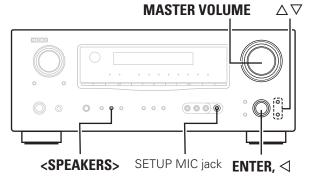
Some typical examples are described below.



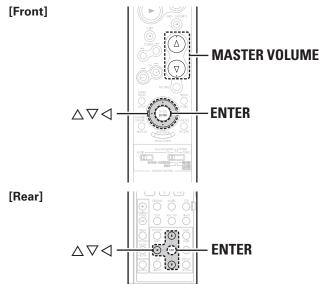
# **Auto Setup**



Button only on the remote control unit -



➤ [BUTTON]



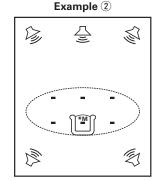
- Audyssey MultEQ automatically measures the acoustical problems in the listening environment to create the best audio experience for your home theater.
- Audyssey MultEQ optimizes a large listening area where one or more listeners are seated.

Measurements are performed by placing the calibrated microphone (DM-A409) successively at multiple positions throughout the listening area as shown in **Example** ①. For best results, it is strongly recommended to measure 6 positions so that the measurements have the proper spatial weighting.

Even if the listening environment is small as shown in **Example** ②, measuring at multiple points throughout the listening environment results in more effective correction.

# (■:Measuring positions)

Example (1)



# 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.

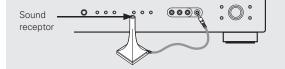


To make manual adjustments to the settings, see pages 22  $\sim$  24.

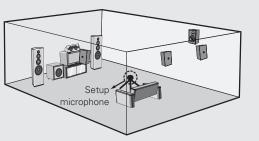
# **Preparations**

- Press **SPEAKERS**> to select the front speakers Front A, Front B or Front A+B.
- **2** Set "Amp Assign" to define how the amplifier for the surround back speaker channels is used ( page 27).
- **3** Connect the included calibrated setup microphone to the SETUP MIC jack on the main unit.

"Auto Set<Start" is displayed.



4 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.



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

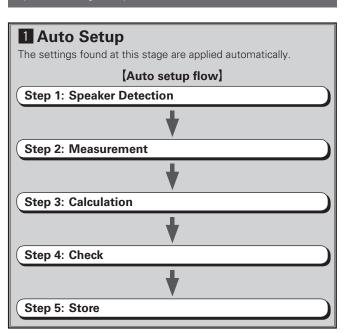
- Defeat the volume and crossover controls if possible
- If this is not possible then set
- · Volume: "12 o'clock" position
- Crossover frequency: "Maximum/Highest Frequency"
- Low pass filter: "Off"
- Standby mode: "Off"

# 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.



# 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.

# **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.



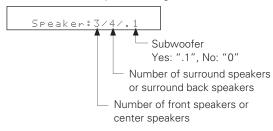
If an error message appears during the measurements, check "Error Messages", take the advised action, then start the measurements again (12) page 20).

# **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 4 while "Auto Set<Start" is displayed.
  - While the measurements are being conducted "Measure:FL <Ccl" ("FL" indicates the speaker being measured) is displayed.
  - When the measurements are completed, the number of detected speakers is displayed.

**Example:** For a 7.1 channel speaker configuration





- If the result differs from the actual connection status or an error message appears, use  $\nabla$  to display "Retry<" and then press  $\triangleleft$  to repeat the measurement.
- If the result still differs from the actual connection status after re-measurement or the error message still appears, it is possible that the speakers are not connected properly. Turn the AVR-1609 off, check the speaker connections and repeat the measurement process from the beginning.

# NOTE

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

# Step 2 : Measurement

- ① Press ∇ to select "2nd Start<", then press <.
  - The measurement of the 2nd position starts.
- ② Move the microphone to the 3rd position and press  $\triangleleft$ .
  - The measurement of the 3rd position starts.
- 3 Perform 2 repeatedly.
  - "Calculate<" is displayed when you have completed measurements in 6 positions.
  - $\bullet$  If you want to stop after measuring just five or fewer positions, use  $\nabla$  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 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.



- 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 analysis will take.

# NOTE

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 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  $\Delta \nabla$  and press  $\triangleleft$ .
  - 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  $\triangle$  or  $\nabla$  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  $\Delta \nabla$  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-1609.

- - "Storing" blinks on the display panel while the results are being stored.
  - When storing is complete, "Completed" is displayed followed by "Disconnect Mic".
- 2 Disconnect the setup microphone from the AVR-1609.

#### ☐ To cancel storing

Use  $\triangle$  or  $\nabla$  to display "Cancel<" while "Store<" is displayed and press  $\triangleleft$ 

• All the measured auto setup data will be erased.

# NOTE

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

# 2 Error Messages

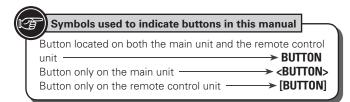
If the auto setup procedure could not be completed due to speaker installation, the measuring environment, etc. an error message is displayed. Check the relevant items and be sure to take the necessary measures. After addressing any issues, perform the auto setup procedure over again.

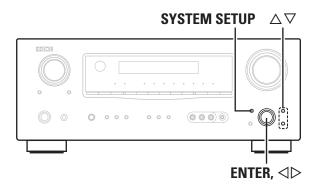
Error messages (examples)	Cause	Measures
Mic or Sp:None	<ul><li>The included setup microphone is not connected.</li><li>Not all speakers could be detected.</li></ul>	Connect the included setup microphone to SETUP MIC jack. Check the speaker connections.
Ambient Noise	accurate measurements to be made.	<ul> <li>Either turn off any device generating noise or move it away.</li> <li>Try again when the surroundings are quieter.</li> <li>Check the speaker installation and the direction in which the speakers are facing.</li> <li>Adjust the subwoofer's volume.</li> </ul>
Caution: Sp. None  The messages alternate  FR	<ul> <li>Displayed speaker could not be detected.</li> <li>The front L and front R speakers were not properly detected.</li> <li>Only one channel of the surround speakers was detected.</li> <li>Sound was output from the R channel when only one surround back speaker was connected.</li> <li>The surround back speaker was detected, but the surrounds were not detected.</li> </ul>	displayed speaker.
Caution: Phase  The messages alternate  SBL	Displayed speaker connected with the polarities reversed.	<ul> <li>Check the polarities of the displayed speaker.</li> <li>For some speakers, this error message may be displayed even if the speaker is properly connected. If the connection is correct, use the △ or ∇ buttons to display "Skip&lt;" and then press ◄.</li> </ul>

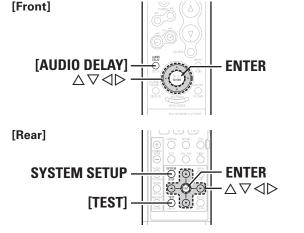
Select "Retry" to make the measurements again.

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.

# **◄** Press **SYSTEM SETUP**.

"System Setup" is displayed.

# • 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" (@page 17).

# **3** Press $\triangleleft \triangleright$ to select the item you want to set, then press ENTER.

The detailed setup menu for each item is displayed.

Press  $\triangle \nabla$  to select the item you want to change, then press  $\triangleleft \triangleright$  to change the setting.

**5** Press ENTER or  $\nabla$  to confirm the next settings.

# ☐ To move to a setup item of another category Press SYSTEM SETUP.

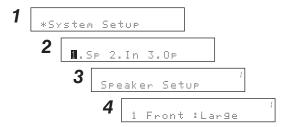
FIESS STSTEW SETUE.

- 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.



# **Example of Display of Default Values**

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





Use this procedure to set the speakers manually or if you wish to change the settings made with the auto setup procedure.

~ 6 Speaker Configuration 7 Subwoofer Mode Setup

III Distance

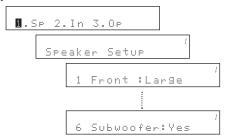
16 21 Crossover Frequency

22 **Test Tone** 23 Restore

# 1 ~ 6 Speaker Configuration

Select speaker configuration and size. (bass reproduction capability)

# [Display]



# 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, 5 Surround Back Speaker

Select surround back speaker use and size.



# NOTE

By default, the AVR-1609's "Amp Assign" setting is set to "ZONE2". To use as the surround back speaker for the main zone, change the "Amp Assign" setting (P page 27).

# 6 Subwoofer

Select subwoofer use.

[Selectable items] Yes No

Large :Select this when using large speakers with ample low frequency reproduction capabilities.

**Small**: Select this when using small speakers without ample low frequency reproduction capabilities.

None :Select this when no speaker is connected.

:Select this when a subwoofer is connected.

:Select this when no subwoofer is connected.

# 2spkrs 1spkr

Select the number of surround back speakers.

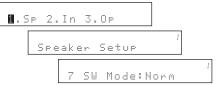
Even when the Surround Back Speaker setting is other than "None", sound may not be emitted from the surround back speaker, depending on the playback source. In this case, make a "Surround Parameter" - "SB CH OUT" setting other than "OFF". (@page 33)

- 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" (Frage 23).
- When "Front Speaker" is set to "Small", "Subwoofer" is automatically set to "Yes"
- If "Subwoofer" is set to "No", "Front Speaker" is automatically set
- If "Surround Speaker" is set to "None", "Surround Back Speaker" are automatically set to "None".
- When "Front Speaker" is set to "Small", "Center Speaker" can not be set to "Large".
- When using just one surround back speaker, connect it to the left channel (SBL).

# 7 Subwoofer Mode Setup

Select low range signal to be reproduced by subwoofer.

# [Display]



# [Selectable items]

Norm : Play low range and LFE signal of channels set to "Small".

+Main : Play low range and LFE signal of all channels.

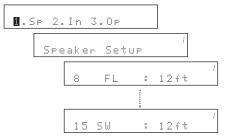


- This can be set when "System Setup" "Speaker Setup" -"Subwoofer" is set to "Yes".
- Play music or a movie source and select the mode offering the
- Select "+Main" if you want the bass signals to always be produced from the subwoofer.

# 8 ~ 15 Distance

Set distance from listening position to speakers. Before making the settings, measure the distance from the listening position to the different speakers.

# [Display]



#### **Distance measurement**

Select the speaker you want to set, then set the distance. Set the value closest to the measured distance.

# [Variable range]

Oft ~ 60ft : Settable in units of 1 foot.

Default setting:

- FL / FR / C / SW .....12 ft
- SL / SR / SBL / SBR ..... 10 ft

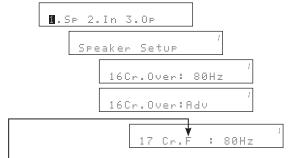
# NOTE

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

# 16 ~ 21 Crossover Frequency

Select crossover frequency from which subwoofer handles low range signal.

# [Display]



 ${\sf F}:{\sf Front},\,{\sf C}:{\sf Center},\,{\sf S}:{\sf Surround},\,{\sf SB}:{\sf Surround}$  Back, LFE : LFE are displayed.

Only the portion of the bass sound of the various speakers output from the subwoofer that has a frequency below the frequency set here is output.

Set this according to the low frequency reproduction capabilities of the speakers you are using.

# [Selectable items]

40Hz	60Hz	80Hz	90Hz	100Hz	110Hz	120Hz	150Hz
200Hz	250Hz	:					

Set the Crossover Frequency of all speakers as one.

# Advanced

Set the Crossover Frequency separately for the different speakers.

- ① When "Cr.Over:Adv" is displayed, press **ENTER** or  $\nabla$ .

# [Selectable items]



\*\* In the case of "LFE", there are 8 modes: 80Hz, 90Hz, 100Hz, 110Hz, 120Hz, 150Hz, 200Hz, 250Hz.

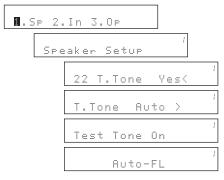


- If in the "Advanced" settings, "Subwoofer Mode Setup" (Prage 22) in the "System Setup" is set to "Norm", it is possible to make this setting for speakers set to "Small" at "Speaker Configuration".
   If set to "+Main", this setting can be made regardless of the speaker size
- For speakers set to "Small", sound below the crossover frequency is cut from the sound output. The cut bass sound is output from the subwoofer or front speakers.
- Always set the crossover frequency to "80Hz". When using small speakers, however, we recommend setting the crossover frequency to a higher frequency.

# **22** Test Tone

Adjust channel levels to obtain equal volume from all speakers.

# [Display]



# **Test Tone**

Select test tone playback method.

#### [Selectable items]

:Auto :Automatically switch speaker from which test tone is output.

**Manual**: Manually switch speaker from which test tone is output.

# **Test Tone Start**

"Manual".

Then press  $\nabla$ . Out put the test tone.

**Auto** : Press  $\triangleleft \triangleright$  to adjust the volume.

**Manual**: Press  $\triangle \nabla$  to select the speaker, then press  $\triangleleft \triangleright$  to adjust

the volume.

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

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



# 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].

Test tones are output from the various speakers.

- ② Use 
   Use 
   □ to adjust so that the volume is equal for all speakers.
- 3 When the adjustments are completed, press [TEST].



- When "System Setup" "Speaker Setup" "Surround Back Speaker" setting (rapage 22) is set to "1spkr", the surround back speaker display is "SB".
- 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

# 23 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".

# [Display]





It is not possible to return to Amp Assign settings with Restore. After running Auto Setup, if the Amp Assign setting has changed. return to the setting when Auto Setup was run.

# 2. Input Setup

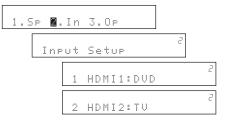
Use this procedure to select the input source and make the settings related to playing input sources.

- 1, 2 HDMI In Assign
- 3 ~ 6 Digital In Assign
- 7 iPod Assign
- 8 **Audio Delay**
- 9 **EXT. IN Subwoofer Level**
- 10 **Auto Preset Memory**
- 11 **Parental Lock**
- 12 **Edit Lock Code**

# 1, 2 HDMI In Assign

Select HDMI connector to assign to this source.

# [Display]



[Input terminals] HDMI1 HDMI2

#### [Assignable input sources]

\*1: "DVD" is displayed.

\*2: "TV" is displayed.

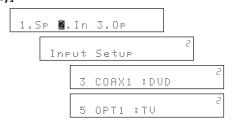
Input terminals	HDMI1	2 HDMI2	
Default setting	DVD/HDP	TV/CBL	



- With HDMI, the video and audio signals are transferred simultaneously. (The HDMI audio signal is output from the monitor.) At this time, set the input mode to "Auto".
- The audio signals input from the analog, digital and EXT. IN connectors are not output to the monitor.

# 3 ~ 6 Digital In Assign Select digital input connector to assign to this source.

[Display]



[Input terminals] COAX1 COAX2 OPT1 OPT2

# [Assignable input sources]



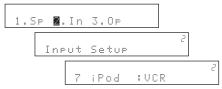
- \*1: "DVD" is displayed.
- \*2: "TV" is displayed.

Input terminals	3	4	5	6
	COAXIAL1	COAXIAL2	OPTICAL1	OPTICAL2
Default setting	DVD/HDP	CD	TV/CBL	VCR

# 7 iPod Assign

Assign control dock for iPod to this source.

# [Display]



# [Assignable input sources]



- \*1: "DVD" is displayed.
- \*2: "TV" is displayed.

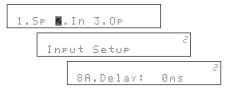


With the default settings, the control dock for iPod can be used connected to the VCR (iPod) connector.

# **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].

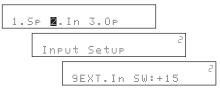


- This cannot be adjusted when playing in the EXT. IN, DIRECT or STEREO mode (with "Front Speaker" set to "Large", "Tone Control" to "OFF" and "MultEQ" to "OFF").
- Store each input source.

# 9 EXT. IN Subwoofer Level

Set the subwoofer level for playback. Select according to the player in use.

# [Display]



# [Selectable items]

0dB +5dB +10dB :

Select according to the player in use.

+15dB

This is the recommended level.

# 10 Auto Preset Memory

Use the auto preset function to program radio stations.

- "CH" blinks on the display and searching begins.
- "Completed" appears once searching is completed.

# [Display]





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

# NOTE

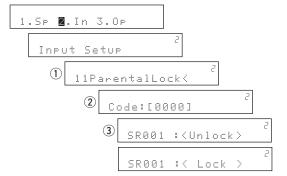
"Auto Preset Memory" is displayed when the input source is "FM" and "AM".

# 111 Parental Lock

For any channel, set the radio reception limits.

- 1 Press 4.
- ② Using  $\Delta \nabla \triangleleft \triangleright$ , input the password (4 digits number) and press
- 3 Set the lock by pressing  $\triangleleft \triangleright$ .

# [Display]



# [Selectable items]

Unlock : Do not lock selected channel(s).

Lock : Lock selected channel(s).

l" is \* When a Parental Locked channel is tuned, "Code: [ 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 (r page 40).

# NOTE

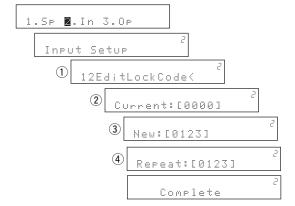
"Parental Lock" is displayed when input source is "SIRIUS", and connected to SIRIUS Tuner.

# 12 Edit Lock Code

Change the password (See "Parental Lock").

- 1 Press 4.
- 2 Input old password (4 digits) using  $\Delta \nabla \triangleleft \triangleright$ , and press **ENTER**.
- 3 Input new password (4 digits) using  $\Delta \nabla \triangleleft \triangleright$ , and press **ENTER**. Be sure to memorize the password you have entered.
- 4 Input new password (4 digits) again using  $\Delta \nabla \triangleleft \triangleright$ , and press ENTER. If the correct password is input, "Complete" is displayed, and the new password is modified.

# [Display]

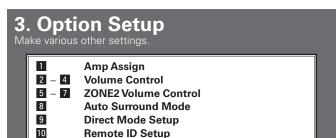




- If the old password is incorrectly input, "Incorrect Code" is displayed, and proceed again from step 1.
- If the password input is 3 digits or less, "Enter 4-digit" is displayed. and input again with a 4 digit password.
- If the new password is not correctly input, "Disagreement" is displayed and the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

# NOTE

"Edit Lock Code" is displayed when the input source is "SIRIUS".



# 1 Amp Assign

The places where the surround back amplifier are used can be set freely according to the usage environment. This makes it possible to output sound to rooms other than the room (the main zone) where surround playback is performed (multi-zone playback).

# [Display]



# [Selectable items]

7.1ch : 7.1-channel playback

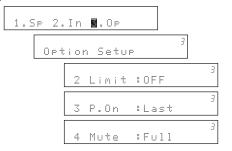
ZONE2 : 5.1-channel playback + ZONE2 stereo playback



For details, see "Amp Assign / Multi-zone Connections and Operations" (Page 49).



# [Display]



# 2 Volume Limit

Make a setting for maximum volume.

# [Selectable items]

OFF : Do not set a maximum volume.
-20dB : Set the maximum volume to -20 dB.
-10dB : Set the maximum volume to -10 dB.
OdB : Set the maximum volume to 0 dB.

# 3 Power On Level

This sets the volume set when the main zone's power is turned on.

# [Selectable items]

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

# [Variable range]

**-80dB ~ +18dB** : Set the volume level when the power is turned on in units of 1 dB.

\*\* The variable level when upper limit has been set with "Volume Limit" is "-80 dB ~ the set volume level".

# 4 Mute Level

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

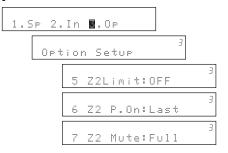
# [Selectable items]

Full : The sound is cut off entirely.
 -40dB : The sound is attenuated by 40 dB.
 -20dB : The sound is attenuated by 20 dB.

# 5 ~ 7 ZONE2 Volume Control

Set the ZONE2 volume setting.

# [Display]



# **5** ZONE2 Volume Limit

Make a setting for maximum volume.

# [Selectable items]

OFF : Do not set a maximum volume.
-20dB : Set the maximum volume to -20 dB.
-10dB : Set the maximum volume to -10 dB.
OdB : Set the maximum volume to 0 dB.

# 6 ZONE2 Power On Level

This sets the volume set when the ZONE2's power is turned on.

# [Selectable items]

Last

Use the memorized setting from the last session.

Always use the muting on condition when power is turned on

# [Variable range]

-70dB ~ +18dB : Set the volume level when the power is turned on in units of 1 dB.

\* The variable level when upper limit has been set with "Volume Limit" is "-70 dB ~ the set volume level".

# 7 ZONE2 Mute Level

This sets the amount of attenuation of the volume when the mute mode is set in the ZONE2.

# [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.



"ZONE2 Volume Control" is displayed when "ZONE2" is selected with "Amp Assign" (F) page 27).

# 8 Auto Surround Mode

Make setting for memorizing surround mode setting for each input signal type.

# [Display]



#### [Selectable items]

Memorize settings. Most recently stored surround mode is automatically selected.

Do not memorize settings. Surround mode does not change according to input signal.



The auto surround mode function lets you store in the memory the surround mode last used for playing the three types of input signals listed below.

- (1) Analog and PCM 2-channel signals (STEREO)
- (2) 2-channel signals of Dolby Digital, DTS or other multi-channel format (DOLBY PLIIx Cinema)
- 3 Multi-channel signals of Dolby Digital, DTS or other multichannel format (DOLBY/DTS SURROUND)
- \* Default settings are indicated in ().

# 9 Direct Mode Setup

Select MultEQ use for DIRECT mode playback.

# [Display]



# [Selectable items]

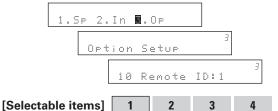
ON · Use MultFO

0FF : Do not use MultEQ.

# 10 Remote ID Setup

Set remote control ID.

# [Display]

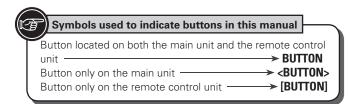


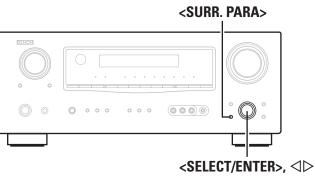
# NOTE

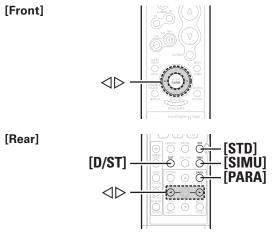
When using the AVR-1609 with only the included remote control unit (RC-1098), there is no need to make settings.

When using a separately sold remote control unit (RC-7000Cl, etc.), this function can be used. Match the ID setting of the remote control unit and the receiver.

# **Surround Modes**







# ① 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]



: The signals are decoded in DOLBY PLIIx or DOLBY PLII for playback.

DTS NEO:6

: The signals are decoded in DTS NEO:6 for playback.

\*: DOLBY PLIIx can be selected when surround back speakers are being used.

 $\ensuremath{\mathsf{DOLBY}}$   $\ensuremath{\mathsf{PLII}}$  can be selected when surround back speakers are not being used.

# Select the mode to suit the source

Press **<SURR. PARA>** or **[PARA]**. Display "Mode" and select your desired mode using  $\triangleleft \triangleright$ .

#### □ DOLBY PLIIx or DOLBY PLII

Cinema: This mode is suited for movie sources.

Music: This mode is suited for music sources.

Game: This mode is suited for games.

:This is the Pro Logic playback mode. This can be selected when playing with a DOLBY PLII decoder. 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.



Select the "Cinema", "Music", "Game" and "PL" modes at "Surround Parameter" – "Mode" (1287) page 32).

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

In the case of standard playback of multi channel sources, the AVR-1609 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
- Whether or not surround back speakers are being used.

Input signal		Display	
Dolby Digital Source	DOLBY DIGITAL	DOLBY DIGITAL	
	(other than 2ch) /	DOLBY DIGITAL EX	
	DOLBY DIGITAL	DOLBY DIGITAL+PLIIx CINEMA	
	EX	DOLBY DIGITAL+PLIIx MUSIC	
DTS Surround Source	DTS (5.1ch) / DTS-ES Discrete 6.1 / DTS-ES Matrix 6.1 / DTS 96/24	DTS SURROUND	
		DTS+PLIIx CINEMA	
		DTS+PLIIx MUSIC	
		DTS+NEO:6	
		DTS ES MTRX6.1 (*1)	
		DTS ES DSCRT6.1 (*2)	
		DTS 96/24 (*3)	

- \*1: This is displayed when the input signal is "DTS-ES Matrix 6.1".
- \*2: This is displayed when the input signal is "DTS-ES Discrete 6.1"
- \*3: This is displayed when the input signal is "DTS 96/24".



- For details, see page 56.
- To select these surround modes using **<SELECT/ENTER>** or press **[STD]**.

# ② DSP Simulation Playback

The desired mode according to the program source and viewing situation can be selected from among 7 DENON original surround

The surround parameters can be adjusted (\*\*T page 54, 55) to

# Selecting the surround mode

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

# [Selectable items]

**5CH / 7CH STEREO** \*1: This mode is for enjoying stereo sound from all speakers.

**ROCK ARENA** 

This mode is for enjoying the atmosphere of a live concert in an arena.

**JAZZ CLUB** 

This mode is for enjoying the atmosphere of a live concert in a jazz club.

MONO MOVIE

 $st^2$ :This mode is for playing monaural movie sources with surround sound.

**VIDEO GAME** 

This mode is suited for achieving surround sound with video games.

**MATRIX** 

This mode lets you add a sense of expansion to stereo music sources

**VIRTUAL** 

This mode is for enjoying surround effects using only the front speakers or headphones.

- \*1: "5CH STEREO" is displayed when "Surround Parameter" "SB CH Out" is set to "OFF", and "Amp Assign" is set to "ZONE2" (Page 27, 33).
- \*2: 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.

# **3 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

The sound is output to the same channels as the input signal.

Input signal	Display
Analog signal / PCM (2ch) / Dolby Digital source / DTS source / Other 2-channel digital signals	DIRECT



For details, see page 57.

# 4 Stereo Playback

# Selecting the mode

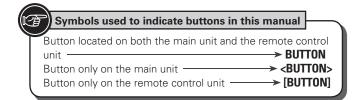
Select by turning **<SELECT/ENTER>** or pressing **[D/ST]**.

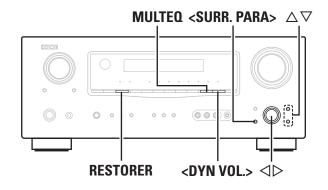
# [Selectable items]

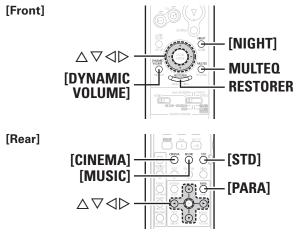
#### **STEREO**

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**







# Adjusting the parameters

Press < SURR. PARA > or [PARA].

Parameter is displayed.

2 Use  $\Delta \nabla$  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 **<SURR. PARA>** or **[PARA]** during adjustment.
- If no adjustment is made for a period of about 5 seconds, the adjustments made up that point are registered and the AVR-1609 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 54, 55).

- 1 Mode
- Cinema EQ
- 3 D. Comp
- 4 LFE
- 5 Center Image
- Panorama
- 7 Dimension
- Center Width
- **Delay Time**
- Effect Level
- III Room Size
- IZ SB CH OUT
- SUBWOOFER ATT.
- Subwoofer
- **Tone Control**
- 16 Bass
- 17 Treble
- 18 MultEQ
- 19 Dynamic EQ
- 20 Dynamic Volume
- 21 DV Setting
- **22** RESTORER
- 23 Night Mode
- 24 Default

# 1 Mode

PL

Select the mode to match the source (cinema source, music source,

# ☐ In the PL∏x or PL∏ 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.

> : Dolby Pro Logic playback mode (PLII mode only). (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]

· "Cinema FO" is used

"Cinema EQ" is not used.

# 3 D. Comp

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

# 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

# 7 Dimension

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

[Variable range] 0

# 8 Center Width

Assign center channel signal to front left and right channels for wider

[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



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

# 111 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 SB CH OUT (for Multi-channel sources)

Select playback mode for surround back channels.

#### [Selectable items]

OFF : No signal is played from the surround back

 $\begin{array}{c} \textbf{MTRX ON} : & \text{The surround channel signals undergo digital matrix} \\ & \text{processing and are output from the surround back} \end{array}$ 

PLIIx C \*1: Decode

\* Decoded in Dolby Pro Logic IIx Cinema mode, surround back signal played.

\*2: Decoded in Dolby Pro Logic IIx Music mode, surround back signal played.

**ES MTRX** \*3: DTS signal played with digital matrix processing.

**ES DSCRT** \*4: Signal included in DTS-ES Discrete 6.1-channel sources played.

- \*1: This can be selected when "Surround Back Speaker" is set to "2spkrs" at the "System Setup" "Speaker Setup" setting (F) page 22).
- \*2: This can be selected when "Surround Back Speaker" is set to "2spkrs" or "1spkr" at the "System Setup" – "Speaker Setup" setting.
- \*3: This can be selected when playing DTS sources.
- \*4: This can be selected when playing DTS sources including a discrete 6.1-channel signal identification signal.



Settings can also be made when [STD] is pressed.

When using surround back speakers, adopt the following settings.

- ① Adopt "7.1CH" for the AMP Assign setting.
- The default setting for the Amp Assign mode of AVR-1609 is "ZONE2".
- ② Adopt a setting other than "OFF" for the "SB CH OUT" setting of "Surround Parameter".

# 12 SB CH OUT (for 2-channel sources)

Determine whether to use surround back speakers.

# [Selectable items]

**ON**: The surround back channel signal is played.

**OFF**: The surround back channel signal is not played.

# 13 SUBWOOFER ATT.

Attenuate subwoofer level when using EXT. IN mode.

#### [Selectable items]

**ON**: The input from the subwoofer channel is attenuated.

: 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.

# 14 Subwoofer

Turn subwoofer output on and off.

# [Selectable items]

ON: The subwoofer is used.

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

# 15 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 when in the DIRECT mode.

# NOTE

When the "Dynamic EQ" setting is "ON", setting is not possible.

# 16 Bass

Adjust low frequency range (bass).

[Variable range] -6dB ~ 0dB ~ +6dE

# 17 Treble

Adjust high frequency range (treble).

[Variable range] -6dB ~ 0dB ~ +6 dB



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

# 18 MultEQ

Flat

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.

: Optimize frequency response of all speakers to flat response.

**OFF**: Turn equalizer off.



# Operating from the main unit or remote control unit

#### Press MULTEO

- 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.



- If the settings of speakers for which "None" has been determined at "Auto Setup" are changed, "Audyssey", "Audyssey Byp. L/R" and "Audyssey Flat" cannot be selected. Either perform Auto Setup again, or return to the setting after running Auto Setup with "System Setup" "Speaker Setup" "Restore".
- When using headphones, "MultEQ" is set to "OFF".

#### 19 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.

#### [Selectable items]

Use Dynamic EQ function.

: Do not use Dynamic EQ function.



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

#### Press <DYN VOL> or [DYNAMIC VOLUME].

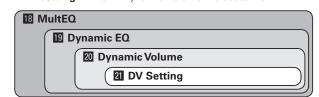




Before running Auto Setup and after running Auto Setup, if the number of speakers has increased or you pressed <DYN VOL> or [DYNAMIC **VOLUME]**, "Run Audyssey" is displayed. In this case, either perform Auto Setup again, or return to the setting after running Auto Setup with "System Setup" - "Speaker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

#### 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"



#### 20 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.

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.

#### 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.

#### [Selectable items]

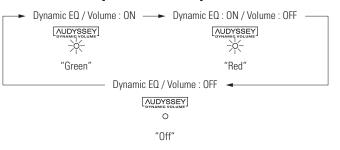
**ON**: Use Dynamic Volume.

The Dynamic Volume effect will be at the level of the "DV Setting".

Do not use Dynamic Volume.

#### 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 **IDYNAMIC** 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".

#### 21 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.

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 "Dynamic Volume" setting is "OFF".

#### **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**

Audyssev 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.

#### 22 RESTORER

This function restores compressed audio signals to how they were before compression and corrects the sense of volume of the bass and treble to obtain richer playback sound.

#### [Selectable items]

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):

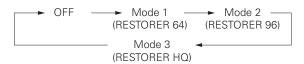
Optimized mode for compressed sources with normal highs.

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



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

Press RESTORER.



#### **About the 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
- 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.

#### 23 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 setting.

: Middle setting.

High: High setting.

#### Operating from the remote control unit

Press [NIGHT].



#### NOTE

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

#### 24 Default

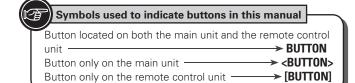
Resets the settings to the default values.

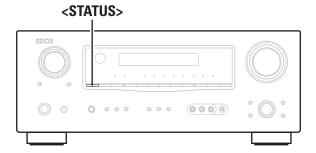
#### [Selectable items]

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

etc.

#### **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>**.

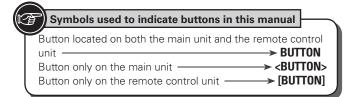


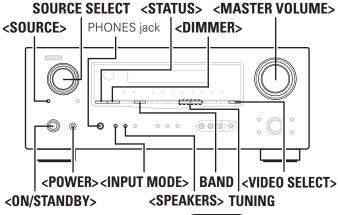
The figure is the correction value when the standard level is corrected.

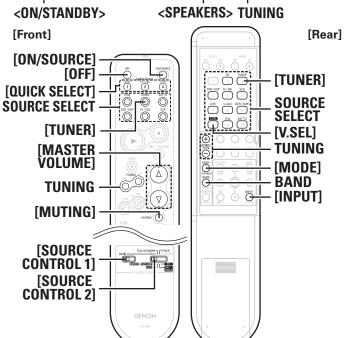


- The items displayed will differ depending upon the current settings, the presence or absence of an input signal or the type of input signal,
- For details of the content of the items displayed, refer to the page containing an explanation of the settings.

# **Playback**







# **Preparations**

#### **Turning the Power On**

#### 

The power indicator lights red and the power is set to the standby mode.

# Press <0N/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 44).

#### **Turning the Power Off**

1) Press <0N/STANDBY> or [OFF].

The power is set to the standby mode.

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.



If "Rec Select" is selected for the input source, press **<SOURCE>** before turning **<SOURCE SELECT>**.

#### **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

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



#### **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" (rapage 36).

#### 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**

# Prepare the equipment.

①Load 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.)

# **O** Use **SOURCE SELECT** to select the input source.

**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" (Pp page 45).

# **Listening to FM/AM Broadcasts**

#### **Basic Operation**

Either turn **<SOURCE SELECT>** or press [TUNER] to select "TUNER".

► Set [SOURCE CONTROL 1] to "AUDIO" and [SOURCE CONTROL 21 to "TUNER".

(摩 page 45 "Remote Control Unit Operations")

♠ Press BAND to select "FM" or "AM".

# Tune in the desired broadcast station.

1) To tune in automatically (Auto Tuning)

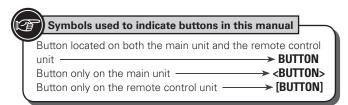
Press [MODE] to light the "AUTO" indicator on the display, then use **TUNING** to select the station you want to hear.

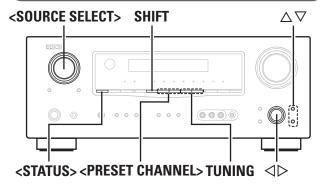
**2** To tune in manually (Manual Tuning)

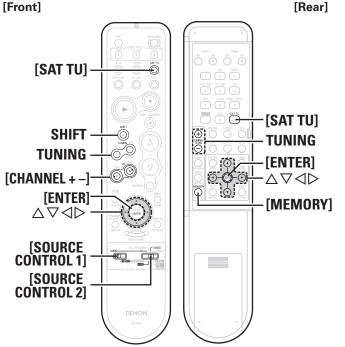
Press [MODE] to turn off the display's "AUTO" indicator, then use **TUNING** to select the station you want to hear.



- If the desired station cannot be tuned in with auto tuning, tune it in
- 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.

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 25).

#### NOTE

Preset stations are erased by overwriting them.

#### **Listening to Preset Stations**

Press SHIFT to select the memory block (A to G).

**Press <PRESET CHANNEL>** or [CHANNEL + -] to select the desired preset channel (1 to 8).

#### ■ Default settings

	Auto tuner presets									
A1 ~ A8	87.5 / 89.1 / 98.1 / 107.9 / 90.1 / 90.1 / 90.1 / 90.1 MHz									
B1 ~ B8	520 / 600 / 1000 / 1400 / 1500 / 1710 kHz, 90.1 / 90.1 MHz									
C1 ~ C8	90.1 MHz									
D1 ~ D8	90.1 MHz									
E1 ~ E8	90.1 MHz									
F1 ~ F8	90.1 MHz									
G1 ~ G8	90.1 MHz									

# **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".

(\*\*Page 45 "Remote Control Unit Operations")

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 39 "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 **<\$TATUS>**.
- 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".

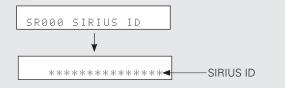
**Press <STATUS> until "SIG." appears on the display.** The display will switch as shown below, depending on the reception conditions.

Display	Status						
EXCELLENT	Signal strength is excellent						
GOOD	Signal strength is good						
WEAK	Signal strength is weak						
NO SIGNAL	No signal						

**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.

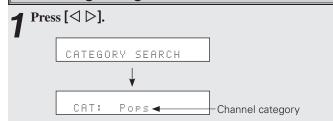


Write your own SIRIUS ID for storage use. SIRIUS ID:

#### NOTE

You can check Satellite and Terrestrial antenna signal strength each time you press **<\$TATU\$>**. (On the display, "S" indicates Satellite, and "T" indicates Terrestrial.)

#### **Searching Categories**



**2** Use  $[\triangleleft \triangleright]$  to select the category, then use  $[\triangle \nabla]$  to select the desired channel.



- "UPDATING" is displayed while the encording code is being updated.
- "SIRIUS UPDATING" is displayed when updating SIRIUS tuner firmware.
- Refer to "Troubleshooting" (\*\* page 60) regarding other messages.

#### **Parental Lock**

Tune to the channel you want to lock.

**Press [ENTER] for at least 3 seconds.** "Code: []" is displayed.

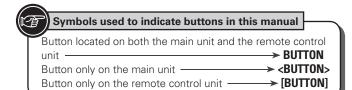
**2** Enter the 4-digit lock code using  $\triangle \nabla \triangleleft \triangleright$ .

When you enter the correct code, the corresponding channel is locked.

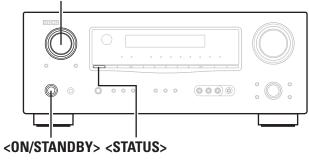
# 4 Press [ENTER].

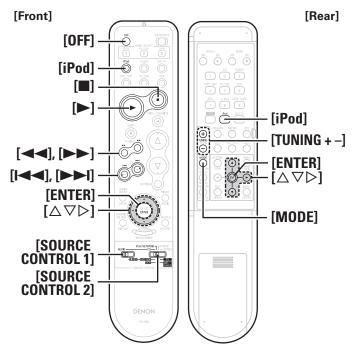


- Channels under Parental Lock cannot be tuned in by performing Tuning Up/Down or by category search.
- Channels stored in preset memory can be tuned in by the preset channel select operation, even if Parental Lock is applied.
- When a channel to which Parental Lock is applied is being played, Parental Lock for that channel is cancelled by performing Step 2.
- See "Edit Lock Cord" (Prage 26) for the method of changing Parental Lock Cord.
- You can also set "Parental Lock" from the system setup (Parage 26).



#### <SOURCE SELECT>





# 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.

Made for iPod

iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

\*\* 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**

# **◀** Make the necessary preparations.

- ①Set the iPod in the DENON control dock for iPod.
  (译字 See the control dock for iPod's operating instructions.)
- ②Assign the control dock for iPod's input. The input for the control dock for iPod is assigned to VCR by default.

"System Setup" – "Input Setup" – "iPod Assign" (@ page 25)

- **2** Either turn **<SOURCE SELECT>** or press [iPod] to select the input source assigned in step 1-② above.
- 3 Set [SOURCE CONTROL 1] to "AUDIO" and [SOURCE CONTROL 2] to "iPod/NETWORK".

  (\*\* page 45 "Remote Control Unit Operations")

4 Press [MODE] and hold it down for a 2 seconds or more to select the display mode.

To switch between modes, press and hold down the button. When remote mode is active, "Remote" is displayed.

[Select	able mode]	Browse mode	Remote mode
Display loca	tion	Main unit display	iPod display
Playable	Audio file	0	0
files	Video file	O *1	→ *2
Active buttons	Remote control unit (AVR-1609)	0	0
	iPod	×	0

- \*1: When using an ASD-3N or ASD-3W control dock for iPod.
- \*2: Video may not be output, depending on the combination of ASD-1R or ASD-11R and iPod.



- 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" (1287 page 35).
- Press <0N/STANDBY> or [0FF] and set the AVR-1609's power to the standby mode before disconnecting the iPod. Also switch the input source to one to which "iPod Assign" is not assigned before disconnecting the iPod.
- When using an ASD-3N or ASD-3W control dock for iPod, refer to the respective manual to operate.

## **Listening to Audio**

Use  $[\triangle \nabla]$  to select the item, then press [ENTER] or [>] to select the music file to be played.

ightharpoonup Press [ENTER] or [
ightharpoonup]. 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 [I◄◄] or [▶►I].

#### ☐ 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)".

#### NOTE

- Depending on the type of iPod and the software version, some functions may not operate.
- DENON will accept no responsibility whatsoever for any loss of iPod data.

#### 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

- Press and hold [MODE] to set the Remote mode.
- Watching the iPod's screen, use  $[\triangle \nabla]$  to select "Photos" or "Videos".
- Press [ENTER] until the image you want to view is **5** 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

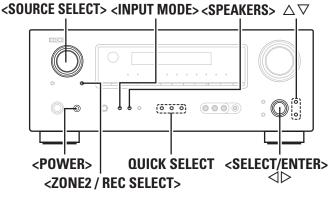
- Press and hold [MODE] to set the Browse mode.
- lack Watching the display, use  $[\triangle \nabla]$  to select "iPod", then  $\square$  press  $[\triangleright]$  or  $[\mathsf{ENTER}]$ .
- **3** Use  $[\triangle \nabla]$  to select "Video", then press  $[\triangleright]$  or [ENTER].
- **4** Use  $[\triangle \nabla]$  to select the video file to be played, then press  $[\triangleright]$  or [ENTER].

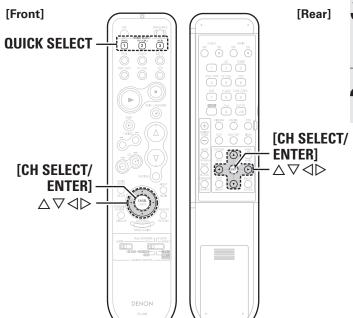


When viewing a still picture, perform the same operation as with ASD-1R or ASD-11R.

# **Other Operations and Functions**

# 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 Button only on the remote control unit Button only on the remote control unit [BUTTON]





## **Other Operations**

# Recording on an External Device (REC OUT mode)

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

**1** Press **<ZONE2/REC SELECT>** until "RECOUT" appears on the display.

ZONE2 → RECOUT

**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

**P**lay the program source.

For operating instructions, refer to the respective equipment's operating instructions.

To record FM or AM broadcasts, select the broadcast ( $\mathfrak{F}$  page 38).

Start recording.

For operating instructions, refer to the respective equipment's operating instructions.



- To cancel, press <ZONE2/REC SELECT>, then turn <SOURCE SELECT> until "RECOUT SOURCE" is displayed.
- · Make a test recording before starting the actual recording.
- Sources selected with the REC OUT mode are output from ZONE2 as well.
- In the REC OUT mode, the remote control unit's ZONE2 mode buttons cannot be operated.

#### NOTE

- Recordings you make are for your personal enjoyment and should not be used for other purposes without permission of the copyright holder
- Digital signals are not output from the REC OUT (CDR/TAPE and VCR) connector.
- Audio and video signals input from the VCR IN connector are not output from the VCR OUT connector. Audio signal input from the CD-R/TAPE IN connector are not output from the CD-R/TAPE OUT connector.

#### **Convenient Functions**

#### **Channel Level**

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

**↑** Press <SELECT/ENTER> or [CH SELECT/ENTER].

FL Vol.+ 1.5dB

**2** Use  $\triangle \nabla$ , **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 sub woofer, 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.

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

Press and hold QUICK SELECT until "Memory" **appears** on the display.

The current settings will be memorized.

#### [Quick Select Defaults]

	Input Source	Volume
Quick Select 1	DVD/HDP	-40 dB
Quick Select 2	TV/CBL	-40 dB
Quick Select 3	VCR	–40 dB



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.

Turn off the power using <POWER>.

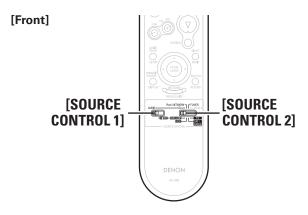
Press <**POWER>** while simultaneously pressing <INPUT MODE> and <SPEAKERS>.

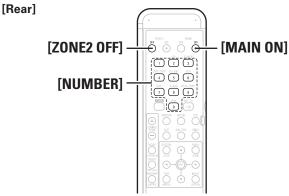
• Once the display starts flashing at intervals of about 1 **5** second, release the two buttons.



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

# **Remote Control Unit Operations**







Depending on the model and year of manufacture of your equipment, some buttons may not operate.

# **Operating DENON Audio Components**

**■** 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.

\*While this remote control unit is compatible with a wide range of infrared controlled components, it may be the case that some component models cannot be operated with this remote control unit.

# **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".

\*\* Set to the AUDIO side for the CD position, and to the VIDEO side for the DVD/HDP, VCR, SAT/CABLE or TV position.

**2** Set [SOURCE CONTROL 2] to the component to be registered.

**3** Press [ZONE2 OFF] and [MAIN ON] at the same time. The indicator starts flashing.

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".

# **Operating Preset Components**

**1** Set [SOURCE CONTROL 1] to "AUDIO" or "VIDEO".

\*\* Set to the AUDIO side for the CD position, and to the VIDEO side for the DVD/HDP, VCR, SAT/CABLE or TV position.

2 Set [SOURCE CONTROL 2] to the component you want to operate.

3 Operate the component.

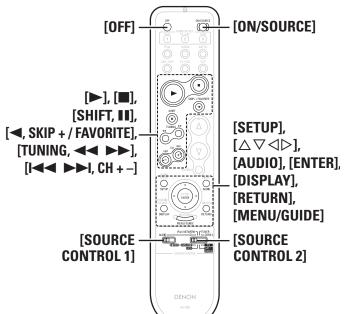
\* For details, refer to the component's operating instructions.

\* Some models cannot be operated with this remote control unit.

Specifications

# **Functions of Buttons by Component**

Fror	١t



Device					Blu-ray	Video Disc		Satellite		TV		
operated	CD Player	iPod	Tuner	DVD Player	Disc Player	Player (VDP)	Video Deck	Receiver	Cable TV	(Monitor)		
SOURCE CONTROL 1		AUDIO					VIDEO					
SOURCE CONTROL 2	CD	iPod/ NETWORK	TUNER	DVD / HDP			VCR	SAT/	CABLE	TV		
OFF	-	-	_	Power off	Power off Power off		-	_	_	-		
ON/SOURCE	-	-	-	Power on	Power on Power on		Power on / Standby	Power on / Standby	Power on / Standby	Power on / Standby		
<b>&gt;</b>	Play	Play / Pause	_	Play	Play	Play	Play					
•	Stop	Stop	_	Stop	Stop	Stop	Stop					
SHIFT, II	Pause	-	Shift	Pause	Pause	Paus e	Pause		Punch through	Punch through		
◀, SKIP + / FAVORITE	Disc skip +	* Favorites Direct	_	Disc skip	-	_	_	Punch				
TUNING,	Manual search (fast-reverse / fast- forward)	Manual search (fast-reverse / fast- forward)	Tuning down / up	Manual search (fast-reverse / fast- forward)	Manual search (fast-reverse / fast- forward)	Manual search (fast-reverse / fast-forward)	Manual search (fast-reverse / fast- forward)	through				
I <b>◄◀ ▶►I</b> , CH+-	Auto search (cue)	Auto search (cue)	Tuner Channel – / +	Auto search (cue)	Auto search (cue)	Auto search (cue)	Switch channels (-, +)					
SETUP	_	-	_	Setup	Setup	_	_	_	_	-		
	_	Cursor	_	Cursor operation	Cursor operation	_	-	Cursor operation	Cursor operation	Cursor operation		
AUDIO	-	-	_	Switching the audio signal	Switching the audio signal	_	-	-	-	-		
ENTER	-	Enter	-	Enter setting	Enter setting	-	-	Enter setting	Enter setting	Enter setting		
DISPLAY	-	_	-	Switching the display	Switching the display	-	-	Switching the display	Switching the display	Switching the display		
RETURN	-	-	-	Return	Return	-	-	Return	Return	Return		
MENU / GUIDE	-	-	_	Calling out the menus	Calling out the menus	_	-	Calling out the menus	Calling out the menus	Calling out the menus		

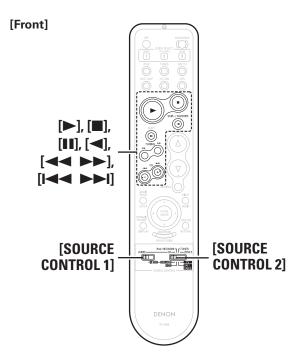
<sup>\*\*</sup> The iPod/NETWORK's **FAVORITE** button can be operated when using a control dock for iPod ASD-3N/3W.

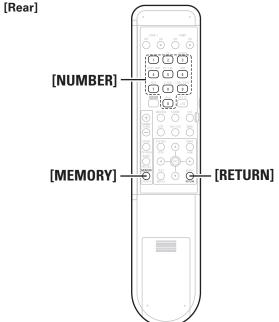
□ Rear [NUMBER]  $(0\sim 9, +10)$ B 9 0 00 [TUNING + -/ [SETUP], TV VOL + -],  $[\triangle \nabla \triangleleft \triangleright]$ , [MODE, TOP MENU], [AUDIO], [BAND, TO SERVE STOP AND ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS PICTURE ADJUSTI. [ENTER], [DISPLAY], [MEMORY, SUBTITLE] [RETURN]

Device operated	CD Player	iPod	Tuner	DVD Player	Blu-ray Disc Player	Video Disc Player (VDP)	Video Deck	Satellite Receiver	Cable TV	TV (Monitor)
SOURCE CONTROL 1		AUDI0					VIDEO			
SOURCE CONTROL 2	CD	iPod/ NETWORK	TUNER		DVD / HDP		VCR	SAT/	TV	
NUMBER (0 ~ 9, +10)	_	-	-	Number input / Track selection	Number input / Track selection	Number input / Track selection	_	Channels	Channels	Channels
TUNING (+, -) / TV VOL (+, -)	⊕ CD Random ⊖ CD Repeat	⊕ iPod Random ⊝ iPod Repeat	⊕ Tuning up ⊖ Tuning down	⊕ DVD Random ⊖ DVD Repeat	<ul><li>⊕ Blu-ray Disc Random</li><li>⊖ Blu-ray Disc Repeat</li></ul>	⊕ TV Volume ▲ ⊖ TV Volume ▼	⊕ TV Volume ▲ ⊖ TV Volume ▼	⊕ DBS Volume ▲ ⊖ DBS Volume ▼	⊕ Cable Volume ▲ ⊖ Cable Volume ▼	⊕ TV Volume ▲ ⊖ TV Volume ▼
MODE, TOP MENU	-	Page search mode (once) and Browse/ Remote mode switching (Press and hold)	Switch search modes	Calling out the menus	alling out Calling out the		-	Calling out the menus	Calling out the menus	Calling out the menus
SETUP	_	_	_	Setup	Setup	_	_	_	_	-
△∇⊲⊳	-	-	-	Cursor operation	Cursor operation	-	-	Cursor operation	Cursor operation	Cursor operation
AUDIO	_	_	-	Audio	Audio	_	_	_	_	-
BAND, PICTURE ADJUST	_	<b>※</b> 1 Top menu	FM / AM switching	Picture adjust	Picture adjust	-	_	_	_	_
ENTER	-	_	-	Enter setting	Enter setting	_	_	Enter setting	Enter setting	Enter setting
MEMORY, SUBTITLE	-	★1 Favorite memory	Preset memory	Subtitle	Subtitle	-	_	_	_	-
DISPLAY	-	-	-	Switching the display	Switching the display	-	-	Switching the display	Switching the display	Switching the display
RETURN	_	_	_	Return	Return	-	_	Return	Return	Return
Default setting (Preset code)	DENON (111)	_	-	DENON (111)	<b>※</b> 2 DENON (121)	-	HITACHI (108)	_	ABC (007)	HITACHI (134)
Special Remarks	1)	-	-		1), 2		1)	1),	3	1),3

#### [Special 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 48 "Punch Through Function").
- X1: 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".





# **Punch Through Function**

"Punch Through" is a function allowing you to operate ▶, ■, II, ◄, ◄◄, ►►, I◄◄ and ►►I on CD, iPod/NETWORK, TUNER, DVD/ HDP or VCR components when in the SAT/CABLE or TV mode. By default, nothing is set.

- 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.
- Input the number of the component you want to set.

	No.	İ
D	1	İ
Pod/NETWORK	2	
UNER	3	İ
DVD/HDP	4	
/CR	5	
No setting	0	

# **Amp Assign / Multi-zone Connections and Operations**

The AVR-1609 is compatible with the following types of playback:

• Multi-zone playback (ZONE2)

# **Multi-zone Settings with the Amp Assign Function**

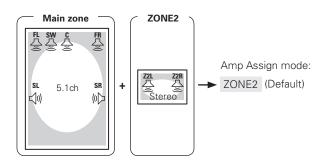
The amp assign function lets you assign the amplifiers for the different channels built into the AVR-1609 to the speaker outputs for the different zones.

Select the desired playback environment from among "Setting 1" and "Setting 2", then set the corresponding "Amp Assign" mode at "System Setup" - "Option Setup" - "Amp Assign" (@page 27). Connect the speakers as described at "Speaker connections and channels outputting to the various speaker terminals".

#### Setting 1:

Multi-zone playback

5.1-channel playback + ZONE2 stereo playback

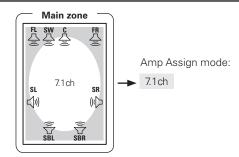


#### ☐ Speaker connections and channels outputting to the various speaker terminals

Speaker terminal	FRONT		CENTER	SURR	OUND	SURROUND BACK/ AMP ASSIGN	
Assign mode	R	L		R	L	R	L
ZONE2	FR	FL	С	SR	SL	Z2R	Z2L

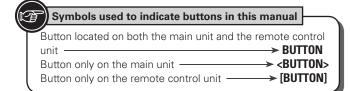
#### Setting 2:

● 7.1-channel playback

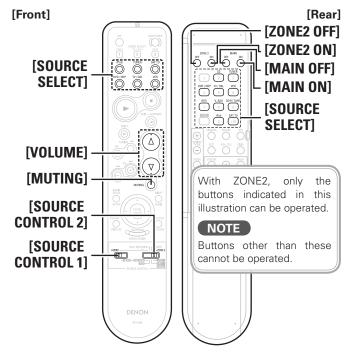


#### ☐ Speaker connections and channels outputting to the various speaker terminals

Speaker terminal		DNT	CENTER	SURR	OUND	SURROUND BACK/ AMP ASSIGN	
Assign mode	R	L		R	L	R	L
7.1ch	FR	FL	С	SR	SL	SBR	SBL



# **<SOURCE SELECT>** 0000 <ZONE2 ON/OFF> <ZONE2 / REC SELECT>



# **Multi-zone Operations**

#### **Turning the Power On and Off**

#### (Operation on the main unit)

Press **<ZONE2 ON/OFF>** for the zone to be operated.

#### [Operation on the remote control unit] Press [ZONE2 ON] or [ZONE2 OFF].

When using ZONE2, it is possible to turn the power for the MAIN ZONE only on or off by pressing [MAIN ON] or [MAIN OFF].

#### **Selecting the Input Source**

#### (Operation on the main unit)

Press <ZONE2 / REC SELECT>, then turn <SOURCE SELECT>.

#### (Operation on the remote control unit)

Set [SOURCE CONTROL 1] to "AUDIO" and [SOURCE CONTROL 2] to "ZONE2".

Press [SOURCE SELECT].

### Adjusting the Volume

Set [SOURCE CONTROL 1] to "AUDIO" and [SOURCE CONTROL 2] to "ZONE2".

Press [VOLUME].

[Variable range] --- -70dB -40dB +18dB



The ZONE2 volume can be adjusted only when "ZONE2" is selected at "System Setup" - "Option Setup" - "Amp Assign" (@page 27).

### **Turning off the Sound Temporarily**

Set [SOURCE CONTROL 1] to "AUDIO" and [SOURCE CONTROL 2] to "ZONE2".

Press [MUTING].

\* To cancel, either adjust the volume or press [MUTING] again. The setting is canceled when the zone's power is turned off.



The source selected for ZONE2 is also output from the recording output connectors.

#### NOTE

Digital audio signals input from the COAXIAL or OPTICAL connectors cannot be played in multi-zone.

# **Other Information**

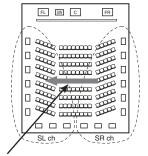
# **About Speaker Installation**

#### **Surround back speakers**

Sound positioning directly to the rear can be achieved easily by adding a surround back speaker to a 5.1-channel system.

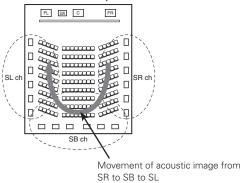
In addition, the acoustic image extending between the sides and the rear is narrowed, thus greatly improving the expression of the surround signals for sounds moving from the sides to the back and from the front to the point directly behind the listening position.

#### Change of positioning and acoustic image with 5.1-channel systems



Movement of acoustic image from SR to SL

#### Change of positioning and acoustic image with 6.1-channel systems



In addition to sources recorded in 6.1-channels, the surround effect of conventional 2- to 5.1-channel sources can also be enhanced.

#### Number of surround back speakers

We recommend using 2 speakers.

When using dipolar speakers in particular, be sure to use 2 speakers.

#### Placement of the surround left and right channels when using surround back speakers

We recommend installing the speakers for the surround "L" and "R" channels a bit forward.

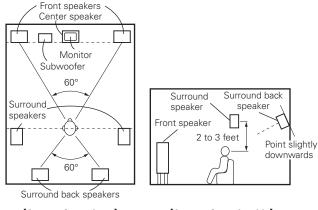
#### **Examples of speaker layouts**

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.

#### [1] Using surround back speaker(s)

#### 1) When mainly playing movies

Recommended when your surround speakers are single or 2-way speakers.

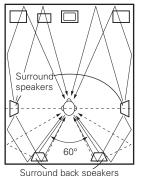


[As seen from above] [As seen from the side]

#### 2 Setting for primarily watching movies using diffusion type speakers for the surround speakers

For the greatest sense of surround sound envelopment, diffuse radiation speakers such as bipolar types, or dipolar types, provide a wider dispersion than is possible to obtain from a direct radiating speaker (monopolar). Place these speakers at either side of the prime listening position, mounted above ear level.

#### Path of the surround sound from the speakers to the listening position

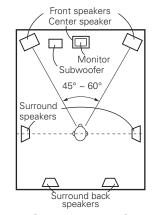


[As seen from above]

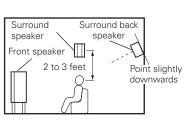
Surround Surround back speaker Front speaker 2 to 3 feet Point slightly downwards

[As seen from the side]

#### 3 When playing movies and music

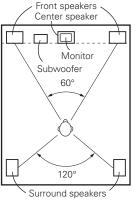


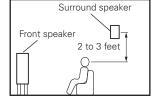
[As seen from above]



[As seen from the side]

#### [2] When not using surround back speakers





[As seen from above]

[As seen from the side]

#### Surround

The AVR-1609 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 Surround**

#### **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.

#### **Dolby Pro Logic IIx**

Dolby Pro Logic IIx is a further improved version of the Dolby Pro Logic II matrix decoding technology.

Audio signals recorded in 2-channels are decoded to achieve a natural sound with up to 7.1-channels.

There are 3 modes: "Music" suited for playing music, "Cinema" suited for playing movies, and "Game" which is optimized for playing games.

#### **Dolby Digital EX**

Dolby Digital EX is a 6.1-channel surround format proposed by Dolby Laboratories that allows users to enjoy in their homes the "DOLBY DIGITAL SURROUND EX" audio format jointly developed by Dolby Laboratories and Lucas Films.

The 6.1 channels of sound, including surround back channels, provide improved sound positioning and expression of space.

Manufactured under license from Dolby Laboratories.

"Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

#### **DTS Surround**

#### **DTS Digital 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-ES™ Discrete 6.1

DTS-ES™ Discrete 6.1 is a 6.1-channel discrete digital audio format adding a surround back (SB) channel to the DTS digital surround sound. Decoding of conventional 5.1-channel audio signals is also possible according to the decoder.

#### DTS-ES™ Matrix 6.1

DTS-ES™ Matrix 6.1 is a 6.1-channel discrete digital audio format inserting a surround back (SB) channel to the DTS digital surround sound through matrix encoding. Decoding of conventional 5.1-channel audio signals is also possible according to the decoder.

#### **DTS NEO:6™ Surround**

DTS NEO:6<sup>TM</sup> is a matrix decoding technology for achieving 6.1channel 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; 6,226,616; 6,487,535; 7,003,467, 7,212,872 & other U.S. and worldwide patents issued & pending. DTS, DTS Digital Surround, ES, 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.

#### **Audyssey**

#### Audyssey MultEQ®

Audyssey MultEQ is a room equalization solution that calibrates any audio system so that it can achieve optimum performance for every listener in a large listening area. Based on several room measurements, MultEQ calculates an equalization solution that corrects for both time and frequency response problems in the listening area and also performs a fully automated surround system setup.

#### Audyssey 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.

#### Audyssey 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.

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.

#### AUDYSSEY

#### [AUDYSSEY]

Manufactured under license from Audyssey Laboratories. U.S. and foreign patents pending. Audyssey MultEQ $^{\circledR}$  is a registered trademark of Audyssey Laboratories. Audyssey Dynamic EQ $^{\intercal M}$  is a trademark of Audyssey Laboratories. Audyssey Dynamic Volume $^{\intercal M}$  is a trademark of Audyssey Laboratories.

# **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 was 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.

"HDMI," "HDMI logo" and "High-Definition Multimedia Interface" are trademarks or registered trademarks of HDMI Licensing LLC.

#### **Surround Modes and Parameters**

						Signals	and adjustabilit	y in the differen	t modes						
Surround mode			Channel output	t			Parameter (default values are shown in parentheses)								
Surround mode	Front L/R	Center	Surround L/R	Surround Back L/R	Subwoofer	D. Comp *1	LFE *1	SB CH OUT	Cinema EQ.	Mode	Room Size	Effect Level	Delay Time	Subwoofer	
DIRECT	0	×	×	×	0	O (OFF)	(0 dB)	×	×	×	×	×	×	0	
STEREO	0	×	×	×	0	O (OFF)	(0 dB)	×	×	×	×	×	×	×	
EXT. IN	0	0	0	0	0	×	×	×	×	×	×	×	×	×	
DOLBY PRO LOGIC IIx	0	0	0	0	0	O (OFF)	×	O (NOTE3)	(OFF, NOTE1)	0	×	×	×	×	
DOLBY PRO LOGIC II	0	0	0	×	0	O (OFF)	×	×	(OFF, NOTE2)	0	×	×	×	×	
DTS NEO:6	0	0	0	0	0	O (OFF)	×	O (NOTE3)	(OFF, NOTE1)	0	×	×	×	×	
DOLBY DIGITAL	0	0	0	0	0	O (OFF)	(0 dB)	O (NOTE3)	O (OFF)	×	×	×	×	×	
DTS SURROUND	0	0	0	0	0	×	(0 dB)	O (NOTE3)	O (OFF)	×	×	×	×	×	
5CH / 7CH STEREO	0	0	0	0	0	O (OFF)	(0 dB)	O (NOTE3)	×	×	×	×	×	×	
ROCK ARENA	0	0	0	0	0	O (OFF)	(0 dB)	O (NOTE3)	×	×	(Medium)	O (10)	×	×	
JAZZ CLUB	0	0	0	0	0	O (OFF)	(0 dB)	O (NOTE3)	×	×	(Medium)	O (10)	×	×	
MONO MOVIE	0	0	0	0	0	O (OFF)	(0 dB)	O (NOTE3)	×	×	(Medium)	O (10)	×	×	
VIDEO GAME	0	0	0	0	0	O (OFF)	(0 dB)	○ (NOTE3)	×	×	(Medium)	O (10)	×	×	
MATRIX	0	0	0	0	0	O (OFF)	(0 dB)	O (NOTE3)	×	×	×	×	(30 ms)	×	
VIRTURL	0	×	×	×	0	O (OFF)	(0 dB)	× (NOTE3)	×	×	×	×	×	×	

○: Signal / Adjustable

× : No signal / Not adjustable

©: Turned on or off by speaker configuration setting

○: Enable

× : Unable

NOTE1 : This parameter is available when "Surround Parameter" – "Mode" is set to "Cinema" (@page 32).

NOTE2 : This parameter is available when "Surround Parameter" – "Mode" is set to "Cinema" or "PL" (@page 32).

NOTE3: "System Setup" - "Speaker Setup" - "Speaker Configuration" - "Surround Back Speaker" are only displayed when "Small" or "Large".

#### NOTE:

\*1: When playing Dolby Digital and DTS signals.

						Signals and	adjustability in th	e different modes				
						Parameter (de	fault values are sh	nown in parentheses	ı			
Surround mode	PRO LOGIC II/IIx MUSIC mode only			NEO:6 MUSIC mode only	EXT. IN only	Tone Control	Night Mode	MultEQ	Dynamic EQ	Dynamic Volume	DV Cotting	RESTORER
	Panorama	Dimension	Center Width	Center Image	SUBWOOFER ATT.	(NOTE5)	(NOTE5)	(5)	(NOTE6)	(NOTE7)	DV Setting	NESTONEN
DIRECT	×	×	×	×	×	×	O (OFF)	O (OFF, NOTE4)	O (ON, NOTE4)	O (OFF, NOTE4)	(Midnight, NOTE8)	×
STEREO	×	×	×	×	×	○ (0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)
EXT. IN	×	×	×	×	0	×	×	×	×	×	×	×
DOLBY PRO LOGIC IIx	O (OFF)	(3)	O (3)	×	×	○ (0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)
DOLBY PRO LOGIC II	O (OFF)	(3)	(3)	×	×	○ (0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)
DTS NEO:6	×	×	×	O (0.3)	×	○ (0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)
DOLBY DIGITAL	×	×	×	×	×	○ (0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	×
DTS SURROUND	×	×	×	×	×	○ (0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	×
5CH / 7CH STEREO	×	×	×	×	×	○ (0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)
ROCK ARENA	×	×	×	×	×	○ (NOTE3)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)
JAZZ CLUB	×	×	×	×	×	○ (0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	(OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)
MONO MOVIE	×	×	×	×	×	O (0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)
VIDEO GAME	×	×	×	×	×	(0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)
MATRIX	×	×	×	×	×	○ (0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)
VIRTURL	×	×	×	×	×	(0 dB)	O (OFF)	O (OFF, NOTE9)	O (ON, NOTE9)	O (OFF, NOTE9)	(Midnight, NOTE8)	O (OFF, NOTE10)

| ○ : Adjustable

× : Not adjustable

NOTE3: BÁSS +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 availabe when "Surround Parameter" - "Dynamic EQ" is set to "ON" (@ page 34).

NOTE6: This parameter is not availabe when "Surround Parameter" - "MultEQ" is set to "OFF" (Page 33). NOTE7 : This parameter is not availabe when "Surround Parameter" – "Dynamic EQ" is set to "OFF" (12 page 34).

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**

Button							Input	signals					
				DTS						DOLBY DIGITAL			
Surround mode	Note	te ANALOG	LINEAR PCM	LINEAR PCM (Multi ch)	DTS ES DSCRT (With Flag)	DTS ES MTRX (With Flag)	DTS (5.1ch)	DTS 96/24	DOLBY DIGITAL EX (With Flag)	DOLBY DIGITAL EX (With no Flag)	DOLBY DIGITAL (5.1/5/4ch)	DOLBY DIGITAL (4/3ch)	DOLBY DIGITAL (2ch
TANDARD													
DTS SURROUND													
DTS ES DSCRT6.1	*1	×	×	×	•	×	×	×	×	×	×	×	×
DTS ES MTRX6.1	*1	×	×	×	×	•	×	×	×	×	×	×	×
DTS SURROUND		×	×	×	0	0	• ©	×	×	×	×	×	×
DTS 96/24		×	×	×	×	×	×	• 0	×	×	×	×	×
DTS + PLIIx CINEMA	*2	×	×	×	×	×	0	0	×	×	×	×	×
DTS + PLIIx MUSIC	*1	×	×	×	×	×	0	0	×	×	×	×	×
DTS + NEO:6	*1	×	×	×	×	×	0	0	×	×	×	×	×
DTS NEO:6 CINEMA		0	0	×	×	×	×	×	×	×	×	×	0
DTS NEO:6 MUSIC		0	0	×	×	×	×	×	×	×	×	×	0
DOLBY Surround													
DOLBY DIGITAL EX	*1	×	×	×	×	×	×	×	●*1	0	0	0	×
DOLBY DIGITAL		×	×	×	×	×	×	×	0	0	O •	0	×
DOLBY DIGITAL + PLIIx CINEMA	*2	×	×	×	×	×	×	×	●*2	0	0	0	×
DOLBY DIGITAL + PLIIx MUSIC	*1	×	×	×	×	×	×	×	×	0	0	0	×
DOLBY PRO LOGIC IIx CINEMA		0	0	×	×	×	×	×	×	×	×	×	•
DOLBY PLIIx MUSIC		0	0	×	×	×	×	×	×	×	×	×	0
DOLBY PLIIx GAME		0	0	×	×	×	×	×	×	×	×	×	0
DOLBY PLII CINEMA		0	0	×	×	×	×	×	×	×	×	×	0
DOLBY PLII MUSIC		0	0	×	×	×	×	×	×	×	×	×	0
DOLBY PLII GAME		0	0	×	×	×	×	×	×	×	×	×	0
DOLBY PRO LOGIC			0	×	×	×	×	×	×	×	×	×	

#### NOTE:

- \*1: This mode is not available when the surround back speaker setup is set to "None".
- \*2: This mode is not available when the surround back speaker setup is set to "1spkr" or "None".
- ①: Mode selectable in initial status (Amp Assign: ZONE2 \* The default setting is "ZONE2".)
- : Mode selectable in initial status (Amp Assign: 7.1ch)
- : Selectable mode
- ×: Non-selectable mode
- \*1: When using just one surround back speaker.
- \*2: When using two surround back speakers.

Button							Input :	signals					
						D.	ΓS		DOLBY DIGITAL				
Surround mode	Note	ANALOG	LINEAR PCM	LINER PCM (Multi ch)	DTS ES DSCRT (With Flag)	DTS ES MTRX (With Flag)	DTS (5.1ch)	DTS 96/24	DOLBY DIGITAL EX (With Flag)	DOLBY DIGITAL EX (With no Flag)	DOLBY DIGITAL (5.1/5/4ch)	DOLBY DIGITAL (4/3ch)	DOLBY DIGITAL (2ch)
DIRECT													
DIRECT		0	0	×	0	0	0	0	0	0	0	0	0
DSP SIMULATION													
5CH / 7CH STEREO	*3	0	0	×	0	0	0	0	0	0	0	0	0
ROCK ARENA		0	0	×	0	0	0	0	0	0	0	$\circ$	0
JAZZ CLUB		0	0	×	0	0	0	0	0	0	0	0	0
MONO MOVIE		0	0	×	0	0	0	0	0	0	0	$\circ$	0
VIDEO GAME		0	0	×	0	0	0	0	0	0	0	0	0
MATRIX		0	0	×	0	0	$\circ$	0	0	0	0	$\circ$	0
VIRTUAL		0	0	×	0	0	0	0	0	0	0	0	0
STEREO													
STEREO		•	•	×	0	0	0	0	0	0	0	0	0

#### NOTE:

\*3: If the surround back speaker setup is set to "None", then "5CH STEREO" is displayed.

Mode selectable in initial status

O: Selectable mode X: 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]

Symptom	Cause	Countermeasure	Page
Set does not operate properly.	• External noise or interference is causing the set to malfunction.	Reset the microprocessor.	44
Power does not turn on, or turns off directly after it was turned on.	• Connection of the power cord is faulty.	Check the insertion of the power cord plug.	16
No sound is produced from speakers.	Connection with the input devices or connection of the speaker cables is faulty.	Check the connections.	9 ~ 16
	• Device you want to play and set input source do not match.	• Select an appropriate input source.	37
	Master volume is turned too low.	Adjust the master volume to an appropriate level.	38
	Mute mode is set.	Cancel the mute mode.	38
	Headphones are connected.	Disconnect the headphones.	38
	No digital signals are being input.	Select an input source for which the digital input setting has been made.	25
	<ul> <li>The connectors to which the digital inputs are assigned and the settable input modes do not match.</li> </ul>	·	37
Display is off.	• The Dimmer setting is set to "OFF".	• Set to something other than "OFF".	38
"DOLBY DIGITAL" indicator does not appear on display.	DVD player's digital audio output setting is not proper.	Check the DVD player's audio output setting. For details, read the DVD player's operating instructions.	-

Symptom	Cause	Countermeasure	Page
Power switches off suddenly while you are using the	•The protection circuit will be activated depending upon the temperature rise in the internal	and re-apply the power after	9
AVR-1609, the power indicator will flash in red at intervals of approximately 2	parts of the unit.	sufficiently.  • Please re-install AVR-1609 in a place having good ventilation.	-
seconds.			
Power switches off suddenly while	• Use speakers having impedance less than that specified.	Please use speakers which have the specified impedance.	9
you are using the AVR-1609, the power indicator will flash red at intervals of approximately 0.5 seconds.	If speaker cable core wires touch each other or the core wires become disconnected from their terminals, the protection circuit will be activated in the event of core wires coming into contact with the AVR-1609 rear panel.	Unplug the power cord, then after twisting the core wires together tightly again, or effecting termination treatments etc, please reconnect once again.	9
Even applying power, the power display flashes red at intervals of approximately 0.5 seconds.	• The AVR-1609 amplifier circuit has failed.	Switch off the power and please contact the DENON service adviser.	-

#### [Remote Control Unit]

Symptom	Cause	Countermeasure	Page
Set does not work	Batteries are worn.	Replace with new batteries.	3
properly when remote control	• You are operating outside of the specified range.	• Operate within the specified range.	3
unit operated.	Obstacle between main unit and remote control unit.	Remove the obstacle.	3
	<ul> <li>The batteries are not inserted in the proper direction, as indicated by the polarity marks in the battery compartment.</li> </ul>	proper direction, following the	3
	The set's remote control sensor is exposed to strong light (direct sunlight, inverter type fluorescent bulb light, etc.).	the remote control sensor will	3
	The remote ID of the main unit and remote control unit do not match.		28
	The <b>SOURCE CONTROL</b> switches are not set in the correct positions.		38, 40, 41, 45 ~ 47, 50

#### [Audio]

Symptom	Cause	Countermeasure	Page
No sound is produced from center speaker.	You are playing a monaural source (TV, AM radio broadcast, etc.) in the "STANDARD" (Dolby/ DTS Surround) mode.	other than "STANDARD" (Dolby/	29
No sound is produced from surround speakers.	The surround mode is set to "STEREO" or "DIRECT".	• Set to a surround playback mode.	30
No sound is produced from	• Select item other than "7.1ch" by "Amp Assign" setting.	• Select "7.1ch".	27
surround back speaker.	• Surround back speaker setting is set to "None".	• Set to something other than "None".	22
	The "Parameter" – "Surround Parameter" – "SB CH OUT" settings are "OFF".	Please set "Parameter" –     "Surround Parameter" – "SB     CH OUT" to settings other than     "OFF".	33
	• Surround mode not set to a mode for 6.1- or 7.1-channel playback.	• Select a surround playback mode.	29, 30
No sound is produced from	• Subwoofer's power not turned on.	• Turn on the subwoofer's power.	_
subwoofer.	• The "Subwoofer" setting at "Speaker Setup" is set to "No".	• Set to "Yes".	22
	• The subwoofer is not properly connected.	Check the connections.	9
	• The subwoofer's volume is turned off.	Adjust the subwoofer's volume to an appropriate level.	43
No test tones are produced when remote control unit's <b>TEST</b> button is pressed.	• Surround mode not set to "STANDARD" (Dolby/DTS Surround).	Set to the "STANDARD"(Dolby/ DTS Surround) mode.	29
DTS sound is not output.	DVD player's audio output setting is not set to bitstream.	Set the DVD player. For details, refer to the DVD player's operating instructions.	_
	DVD player is not compatible with DTS sound playback.	'	-
	• The AVR-1609's "Input Mode" setting is set to other than "DTS".	• Set to the "Auto" or "DTS" mode.	37

#### [Video]

Symptom	Cause	Countermeasure	Page
No picture appears.	• The connections between the AVR-1609 and monitor are faulty.		10 ~ 14
	• The connection terminal of the AVR-1609 and the connection		_
	terminal of the monitor are not of the same type.	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.	-
DVDs cannot be copied on a VCR.	-	• This is not a malfunction. Most movie software includes copy prevention signals and cannot be copied.	-

#### [HDMI]

Symptom	Cause	Countermeasure	Page
HDMI audio signals are not output from speakers.	_	The audio signal input to the HDMI input connector cannot be played on the AVR-1609. Input the audio signal to the digital audio input connector or analog audio input connector.	10
No picture appears	• The connections to the HDMI connectors are faulty.	Check the connections.	10
with HDMI	HDMI input setting is improper.	Check the HDMI input setting.	24
connections.	• The HDMI format of the player and monitor do not match.	Match the HDMI format of the player and monitor.	10
No sound is output from the monitor connected with HDMI connections.	HDMI input setting is improper.	Check the HDMI input setting.	24

#### [iPod]

Symptom	Cause	Countermeasure	Page
iPod cannot be played.		• Switch to the input source assigned at control dock for iPod.	25
	Cable is not properly connected.	Reconnect.	12
		Plug the control dock for iPod's AC adapter into a power outlet.	-

#### [SIRIUS Satellite Radio]

Symptom	Cause	Countermeasure	Page
"CHECK SR TUNER" is displayed in the SIRIUS mode.	The Sirius Tuner unit is not connected.	Check that the connections are correct.	15
"ANTENNA ERROR" is displayed in the SIRIUS mode.	If the Sirius Tuner is not connected, it will be broken.	Check that the connections are correct.	15
"NO SIGNAL" is displayed in the SIRIUS mode.	• The signal cannot be received.	Reposition your SiriusConnect Home Tuner antenna.	40
"INVALID CHANNEL" is displayed in the SIRIUS mode.	Channel is not present.	Select another channel.	40
"NO CH AVAILABLE" is displayed in the SIRIUS mode.	• Even searching categories, if none of the channels are present, the "Parental Lock" is on (locked).	Please search for other categories.	40
"ACQUIRING" is displayed in the SIRIUS mode.	The selected channel is not currently broadcasting.  Displays while SiriusConnect Home Tuner is connected.		40
"Call SIRIUS" * is displayed in the SIRIUS mode.	Channels are not subscribed to.	If you subscribe to the channel, you can receive the channel.	-
"SUB UPDATED" is displayed in the SIRIUS mode.	While updating contract information.	-	-
"Code? [ ]" is displayed in the SIRIUS mode.	Selected channels are locked.	Please insert pass word (4 digits) into "[ ]".	26

\* : After scroll displays "Call 888-539-····" twice, displays "Call SIRIUS".

# **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.)

110 W + 110 W (6 Ω/ohms, 1 kHz with 0.7 % T.H.D.)

Surround Back:

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.) Front: A or B 6 ~ 16 Ω/ohms

A + B 12 ~ 16 Ω/ohms Center, Surround, Surround Back: 6 ~ 16 Ω/ohms

Analog

Input sensitivity / Input impedance:

Frequency response:

S/N:

200 mV / 47 kΩ/kohms

5 Hz ~ 10 MHz — +1, -3 dB

5 Hz ~ 10 MHz — +1, -3 dB

10 Hz ~ 100 kHz — +1, -3 dB (DIRECT mode) 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: S-Video connectors

**Output connectors:** 

Input / output level and impedance:

Frequency response: Color component video connectors

Input / output level and impedance:

Y (brightness) signal — 1 Vp-p, 75  $\Omega$ /ohms PB / CB signal — 0.7 Vp-p, 75 Ω/ohms

PR / CR signal — 0.7 Vp-p, 75 Ω/ohms

Y (brightness) signal — 1 Vp-p, 75 Ω/ohms C (color) signal — 0.286 Vp-p, 75 Ω/ohms

5 Hz ~ 30 MHz — +0, -3 dB Frequency response:

☐ Tuner section [FM] (note:  $\mu V$  at 75  $\Omega$ /ohms, 0 dBf = 1 x 10<sup>-15</sup> W)

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)

STEREO 23 µV (38.5 dBf) MONO 77 dB

[AM]

18 μV

520 kHz ~ 1710 kHz

STEREO 72 dB Total harmonic Distortion (at 1 kHz): MONO 0.15 %

STEREO 0.3 %

☐ General

S/N (IHF-A):

Power supply: AC 120 V, 60 Hz

Power consumption: 4.4 A

0.3 W (Standby)

Maximum external dimensions: 434 (W) x 171 (H) x 377 (D) mm (17-3/32" x 6-47/64" x 14-27/32")

Weight: 11.1 kg (24 lbs 14.6 oz)

☐ Remote control unit (RC-1098)

**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)

<sup>\*</sup> For purposes of improvement, specifications and design are subject to change without notice.

#### List of preset codes / Liste de codes préréglés

В	lu-Ray Disc P	layer / DVD Player
Α	Aiwa	009
D	Denon	014, <b>[111]*</b> , 121
Н	Hitachi	010
J	JVC	006, 011
K	Konka	012, 013
M	Magnavox	005
	Mitsubishi	004
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- Preset codes set upon shipment from the factory.
   Les codes préréglés diffèrent en fonctiom des livraison de l'usine.

