SAFETY PRECAUTIONS

RISK OF ELECTRIC SHOCK

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

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

SAFETY PRECAUTIONS

1. Read Instructions – All the safety and operating instructions should be read before the product is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the product and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Cleaning – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.
6. Attachments – Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture – Do not use this product near water – for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
8. Accessories – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. 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 manufacturer.
9. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
10. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer’s instructions have been adhered to.
11. Power Sources – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power 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.

SAFETY INSTRUCTIONS

13. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
14. Outdoor Antenna Grounding – If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.
15. Lightning – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
16. Power Lines – An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
17. Overloading – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
18. 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.
19. 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.
20. Damage Requiring Service – Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
   a) When the power-supply cord or plug is damaged,
   b) If liquid has been spilled, or objects have fallen into the product,
   c) If the product has been exposed to rain or water,
   d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage to the product 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,
   f) When the product exhibits a distinct change in performance – this indicates a need for service.
21. Replacement Parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
22. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
23. Wall or Ceiling Mounting – The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
24. Heat – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
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.

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.

NOTE ON USE / OBSERVATIONS RELATIVES A L’UTILISATION

1. COMPLIANCE INFORMATION
Product Name: AV Surround Pre-Amplifier
Model Number: AVP-A1HDI
This product complies with FCC ID: BV2-MPGBR052.

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.

Denon Electronics (USA), LLC
100 Corporate Drive, Mahwah, NJ 07430-2041
Tel. 201-762-6500 (Main)

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. CAUTION
To comply with FCC RF exposure compliance requirement, separation distance of at least 20 cm must be maintained between the antenna of this product and all persons.

4. 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.

IC Information (For Canadian customers)

1. PRODUCT
This product contains IC 6963A-MPGBR052.

This product complies with RSS-210 of Industry Canada. 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.

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.

2. CAUTION
To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.

ATTENTION
Afin de réduire le risque d’interférence aux autres utilisateurs, il faut choisir le type d’antenne et son gain de façon à ce que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne soit pas supérieure au niveau requis pour l’obtention d’une communication satisfaisante.
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- Presetting
- Operating Preset Components
- Setting the Remote ID
- Learning Function
- System Call Function
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- Setting the Time the Backlight Stays Lit
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- Switching Zones
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- Setting the Remote ID
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Multi-Zone Operations
- Setting the Power On and Off
- Selecting the Input Source
- Adjusting the Volume
- Turning off the Sound Temporarily

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List of preset codes

End of this manual
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.

**Getting Started**

**Accessories**

Check that the following parts are supplied with the product.

- Owner’s manual
- Warranty (for North America model only)
- Service station list
- Power cord (Cord length: Approx. 5 ft /1.5 m)
- Main remote control (RC-1067)
- LR6/AA batteries (for RC-1067)
- Sub remote control (RC-1070)
- R03/AAA batteries (for RC-1070)
- FM indoor antenna
- AM loop antenna (small, for AM broadcasts)
- AM loop antenna (large, for HD Radio broadcasts)
- Dipole antenna (for HD Radio broadcasts)
- Rod antenna for wireless LAN connection
- Setup microphone (Cord length: Approx. 7.6 m)

---

**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.**

- **Light Emitting Diodes (LED) are used in the AVP-A1HDCI circuit. When powered on, a green light shows inside part of the AVP-A1HDCI, however this is not a fault.**

---

**About the Remote Control Unit**

In addition to the AVP-A1HDCI, the included main remote control unit (RC-1067) can also be used to operate the equipment listed below.

- DENON system components
- Non-DENON system components
  - By setting the preset memory (page 77 – 79)
  - By using the learn function (page 80)

---

**Inserting the Batteries**

1. Lift the clasp and remove the rear lid.

2. Load the two batteries properly as indicated by the marks in the battery compartment.

3. Put the rear cover back on.

---

**Cautions on Installation**

Note:

For proper heat dispersal, do not install this unit in a confined space, such as a bookcase or similar enclosure.
Part Names and Functions

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

Operating Range of the Remote Control Unit

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

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 "Q" and "W" 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.

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 "Q" and "W" 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.
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[With the door open]

1. DIRECT/STEREO button ........................................ (51)
2. Headphones jack (PHONES) ...................................... (58, 73)
3. CINEMA button ......................................................... (50)
4. RESTORER button ..................................................... (55)
5. MUSIC button .......................................................... (50)
6. NIGHT button .......................................................... (55)
7. MENU button ............................................................ (24)
8. CH SEL / ENTER button ............................................. (24, 75)
9. RETURN button .......................................................... (24)
10. V.AUX INPUT connectors .......................................... (18)
11. SETUP MIC jack ......................................................... (26)
12. DYNAMIC EQ button ................................................... (55)
13. STATUS button .......................................................... (43)
14. DIMMER button ......................................................... (43)

15. SCALE button ........................................................ (47)
16. USB port ...................................................................... (19)
17. ZONE4 ON/OFF button .............................................. (87)
18. ZONE3 ON/OFF button .............................................. (87)
19. ZONE2 ON/OFF button .............................................. (87)
20. AUDIO DELAY button ................................................. (56)
21. Cursor buttons (△▼▼) ................................................. (24)
22. GAME button ............................................................. (50)
23. INPUT MODE button ................................................... (47)
24. 7CH STEREO button .................................................... (51)
25. DSP SIMULATION button ............................................. (51)
26. HOME THX CINEMA button ......................................... (50)
27. STANDARD button ....................................................... (51)
28. PURE DIRECT button .................................................. (52)
29. SCALE button ........................................................... (47)
30. USB port ...................................................................... (19)
31. ZONE4 ON/OFF button .............................................. (87)
32. ZONE3 ON/OFF button .............................................. (87)
33. ZONE2 ON/OFF button .............................................. (87)
34. AUDIO DELAY button ................................................. (56)
35. Cursor buttons (△▼▼) ................................................. (24)
36. GAME button ............................................................. (50)
37. INPUT MODE button ................................................... (47)
38. 7CH STEREO button .................................................... (51)
39. DSP SIMULATION button ............................................. (51)
40. HOME THX CINEMA button ......................................... (50)
41. STANDARD button ....................................................... (51)
42. PURE DIRECT button .................................................. (52)
43. DIMMER button .......................................................... (43)

Input signal indicators
These light when digital signals are input.

Input signal channel indicators
These light when respective decoders are operating.

Information display
The input source name, surround mode, setting values and other information are displayed here.

Output signal channel indicators
These light when the respective decoders are operating.

Surround speaker indicators
These light according to the settings of the surround A and B speakers.

Monitor output indicators
These light according to the HDMI monitor output setting. When set to “Auto (Dual)”, the indicators light according to the connection status.

Master volume indicator

AUDYSSEY DYNAMIC EQ indicator
This lights when the Dynamic EQ is selected.

AUDYSSEY MULTeq XT indicator
This lights when the room equalizer is selected.

Recording output source indicator
This lights when the REC OUT mode is selected.

NIGHT indicator
This lights when the night mode is selected.

Multi zone indicators
These light when the power for the respective zone is turned on.

RESTORER indicator
This lights when the RESTORER mode is selected.

ADVANCED AL24 indicator
This lights when Advanced AL24 Processing is activated (page 92).

D.LINK indicator
This lights when playing using DENON LINK connections.

Input mode indicators

HDMI indicator
This lights when playing using HDMI connections.

Decoder indicators
These light when the respective decoders are operating.

Tuner reception mode indicators
These light according to the reception conditions when the input source is set to “TUNER” or “HD Radio”.
• AUTO
This lights when in the auto tuning mode.
• RDS
These light when receiving RDS broadcasts.
• STEREO
In the FM mode, this lights when receiving analog stereo broadcasts.
• TUNED
This lights when the broadcast is properly tuned.
Remote Control Unit

**Main remote control unit (RC-1067)**

1. Signal transmission indicator (77)
2. Mode select buttons (77)
3. Quick select / System call buttons (75, 81)
4. Surround mode buttons (50 – 52)
5. System buttons (78, 79)
6. Audio delay button (A. DL) (56)
7. Tuner system buttons (59, 79)
8. Input mode button (INPUT) (47)
9. MENU button
10. Cursor buttons (△ ▽ ◀ ▶) (24)
11. Parameter / Search button (PARA / SRCH) (52, 60, 62, 65)
12. Monitor select (M. SEL) / HOME button (32, 77)
13. Channel buttons (CH) (59, 65, 78)
14. Input source select / Number buttons (45, 58)
15. Remote control signal transmitter (4)
16. Device select indicators (DEV1 / DEV2) (77)
17. ZONE3 / ZONE4 select indicators (Z3 / Z4) (87)
18. RESTORER button (RSTR) (55)
19. Night button (NGT) (55)
20. Test tone button (TEST) (30)
21. Surround speaker select button (SPKR) (31)
22. POWER buttons (58)
23. Channel select (CH SEL) / ENTER button (24, 75)
24. Return button (RTN) (24)
25. Master volume control buttons (VOL) (58)
26. Muting button (MUTE) (58, 87)
27. Main remote control unit setup button (RC SETUP) (77)

*NOTE*

The time for which the backlight stays on can be changed (see page 82 “Setting the Time the Backlight Stays Lit”).

The ZONE2 mode QUICK SELECT (1 ~ 3), A. DL, RSTR, NGT, INPUT, SPKR, TEST and surround mode buttons cannot be used.

**Sub remote control unit (RC-1070)**

1. ZONE indicators (85)
2. Advanced setup button (85)
3. Input source select buttons (45)
4. CHANNEL buttons (65, 84)
5. SHIFT button (59)
6. MENU button (24)
7. Cursor buttons (△ ▽ ◀ ▶) (24)
8. SEARCH button (60, 62, 65)
9. REPEAT button (65)
10. RANDOM button (65)
11. Remote control signal transmitter (4)
12. ZONE SELECT button (85)
13. Zone power on/off buttons (ZONE ON / ZONE OFF) (87)
14. Master volume control buttons (VOLUME) (58)
15. Muting button (MUTE) (58, 87)
16. ENTER button (24)
17. RETURN button (24)
18. System buttons (59, 83, 84)
19. ALL MUSIC/FAVORITES (DIRECT PLAY) button (83)
20. USB (DIRECT PLAY) button (83)

*NOTE*

The AUX-1, AUX-2, AUX-3 and OPTION buttons cannot be used.
Connections

Connections for all compatible audio and video signal formats are described in these operating instructions. 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 AVP-A1HDCI. 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.

### Cables Used for Connections

Select the cables according to the equipment being connected.

<table>
<thead>
<tr>
<th>Audio cables</th>
<th>Video cables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coaxial digital connections</strong></td>
<td><strong>Component video connections</strong></td>
</tr>
<tr>
<td>(Orange) Coaxial digital (75 Ω/ohms pin-plug cable)</td>
<td>(Green) Component video cable</td>
</tr>
<tr>
<td><strong>Optical digital connections</strong></td>
<td>(Blue) (Pb/Cb)</td>
</tr>
<tr>
<td>Optical cable</td>
<td>(Red) (Pr/Cr)</td>
</tr>
<tr>
<td><strong>BNC digital connections</strong></td>
<td><strong>BNC (75 Ω/ohms) cable</strong></td>
</tr>
<tr>
<td>BNC (75 Ω/ohms) cable</td>
<td><strong>S-Video connections</strong></td>
</tr>
<tr>
<td><strong>Analog connections (XLR)</strong></td>
<td><strong>S-Video cable</strong></td>
</tr>
<tr>
<td>Balanced cable</td>
<td><strong>Video connections</strong></td>
</tr>
<tr>
<td><strong>Analog connections (stereo, RCA)</strong></td>
<td><strong>(Yellow) 75 Ω/ohms pin-plug video cable</strong></td>
</tr>
<tr>
<td>Stereo pin-plug cable</td>
<td><strong>Audio and video cables</strong></td>
</tr>
<tr>
<td><strong>Analog connections (monaural, for subwoofer)</strong></td>
<td><strong>HDMI connections</strong></td>
</tr>
<tr>
<td>(Black) Pin-plug cable</td>
<td><strong>19-pin HDMI cable</strong></td>
</tr>
<tr>
<td><strong>DENON LINK connections</strong></td>
<td><strong>Signal direction</strong></td>
</tr>
<tr>
<td>DENON LINK cable</td>
<td>Audio signal:</td>
</tr>
<tr>
<td><strong>Network connections (wired LAN)</strong></td>
<td>Output</td>
</tr>
<tr>
<td>Ethernet cable</td>
<td>Input</td>
</tr>
</tbody>
</table>

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.
**Video Conversion Function**

- This function automatically converts various formats of video signals input to the AVP-A1HDCI into the format used to output the video signals from the AVP-A1HDCI to a monitor.
- The AVP-A1HDCI’s video input/output circuitry is compatible with the following four types of video signals:
  - Digital video signals: HDMI
  - Analog video signals: Component video, S-Video and Video

**Flow of video signals for ZONE2**

- When 480i/576i signals are input

**Flow of video signals for ZONE3**

- When 480i/576i signals are input

**NOTE**

- For optimum video performance, THX recommends that you set the conversion mode to “OFF” to use video signals pass through system without up conversion.
- HDMI signals cannot be converted into analog signals.
- 1080p component input video signals cannot be output to anything other than component video connectors.
- 480p/576p, 1080i and 720p component video input signals cannot be converted into S-Video or Video format.
- When a non-standard video signal from a game machine or some other source is input, the video conversion function might not operate.
The illustration below shows a basic example of installation of the amplifier combined with 8 speakers and a monitor.

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

Surround speakers
The table below shows a typical speaker configuration for the AVP-A1HDCI:

<table>
<thead>
<tr>
<th>FRONT CENTER</th>
<th>SURROUND A</th>
<th>SURROUND B</th>
<th>SURROUND BACK</th>
<th>SUBWOOFER</th>
</tr>
</thead>
<tbody>
<tr>
<td>L R</td>
<td>L R</td>
<td>L R</td>
<td>L R 1 only</td>
<td>S</td>
</tr>
<tr>
<td>9.1-channels</td>
<td>○ ○</td>
<td>○ ○</td>
<td>○ ○ –</td>
<td>○</td>
</tr>
<tr>
<td>7.1-channels</td>
<td>○ ○</td>
<td>○ ○ –</td>
<td>○ ○ –</td>
<td>○</td>
</tr>
<tr>
<td>6.1-channels</td>
<td>○ ○</td>
<td>○ ○ –</td>
<td>– –</td>
<td>○</td>
</tr>
<tr>
<td>5.1-channels</td>
<td>○ ○</td>
<td>○ ○ –</td>
<td>– –</td>
<td>○</td>
</tr>
<tr>
<td>3.1-channels</td>
<td>○ ○ –</td>
<td>– –</td>
<td>– –</td>
<td>○</td>
</tr>
<tr>
<td>2.1-channels</td>
<td>○ ○ –</td>
<td>– –</td>
<td>– –</td>
<td>○</td>
</tr>
<tr>
<td>2-channels</td>
<td>○ ○ –</td>
<td>– –</td>
<td>– –</td>
<td>○</td>
</tr>
</tbody>
</table>

* The AVP-A1HDCI can be connected to a maximum of 3 subwoofers.

Connecting to the Power Amp

- Connect the AVP-A1HDCI pre-out terminal to the power amp (sold separately).
- AVP-A1HDCI has a RCA pre-out terminal and XLR pre-out terminal. Connect accordingly with the power amp you want to use.
- The polarity of the XLR pre-out terminal can be switched using GUI menu “Manual Setup” – “Option Setup” – “XLR Out Polarity” (page 41).
- Connect the speakers to the power amp.
- Refer to the owner’s manual of each piece of equipment when making connections.

POA-A1HDCI Connection and Operation

- When connecting the AVP-A1HDCI to the power amp POA-A1HDCI with a control link cable (included with the POA-A1HDCI), you can perform the following control operations.
  - POA-A1HDCI channel input selection and power amp settings
  - Link POA-A1HDCI to AVP-A1HDCI On/Standby control
  - Link POA-A1HDCI meter operation to AVP-A1HDCI display on/off control (page 43)
  - Updating POA-A1HDCI firmware (page 43)
- Up to 2 POA-A1HDCI units can be connected. Refer to the POA-A1HDCI owner’s manual for making connections and POA-A1HDCI settings.

- For instructions for connecting speakers, please refer to the POA-A1HDCI owner’s manual.
- When using just one surround back speaker, connect it to the left channel (SBL).
Connections


Connecting the RCA pre-out terminal (Example : 9.3-channels)

Connecting the XLR pre-out terminal (Example : 9.3-channels)

* L : Left  
R : Right

The default AVP-A1HDCI balance model XLR pre-out terminal pin alignment is as shown.

1 : GROUND  
2 : HOT  
3 : COLD
Connecting Equipment with HDMI connectors

With HDMI connections, the video and audio signals can be transferred with a single cable.

Operations

   * The control link cable is included with the POA-A1HDCI.
   * AVP-A1HDCI can be connected and control to up to 2 POA-A1HDCI units.
   * Refer to the POA-A1HDCI user’s manual for how to connect.

2. Set the POA-A1HDCI’s control selector switch to “AVP”.

3. Set the POA-A1HDCI’s mode select switch according to the number of POA-A1HDCI units you are connecting.
   * When connecting 1 unit : “1”
   * When connecting 2 units : 1st unit “1”, 2nd unit “2”
   * Refer to the POA-A1HDCI owner’s manual for details.

4. Switch the AVP-A1HDCI and POA-A1HDCI power on.

5. Depending on the number of POA-A1HDCI units to be connected, set GUI menu “Option Setup” – “POA Setting” – “POA LINK” to either “ON (Single)” or “ON (Dual)” (page 41).

6. Use GUI menu “Option Setup” – “POA Setting” – “LINK Check” to check the connection.

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.

Copyright protection system (HDCP)

In order to play the digital video and audio signals of a DVD-Video or DVD-Audio disc using HDMI/DVI connections, both the connected DVD player and monitor must be equipped for a copyright protection system called “HDCP” (High-bandwidth Digital Content Protection). HDCP is a copy protection technology consisting of data encoding and mutual identification of the devices.

The AVP-A1HDCI is HDCP-compatible. For details on the DVD player or monitor you are using, refer to its operating instructions.

Compatible audio format | Details | Discs (examples)
--- | --- | ---
2-channel linear PCM | 2ch 32-192 kHz | 16/20/24 bits | CD, DVD-Video, DVD-Audio
Multi-channel linear PCM | 8ch 32-192 kHz | 16/20/24 bits | DVD-Audio
Dolby Digital, DTS | Bitstream | DVD-Video
DSD | 2/5.1ch 2.8224 MHz 1 bit | SACD
Dolby Digital Plus, Dolby TrueHD, DTS-HD | Bitstream | HD DVD, Blu-ray Disc

Notes:

- By default, HDMI sound is output from the speaker of the power amp connected to AVP-A1HDCI.
- To output the sound from the TV, make the settings at GUI menu “Manual Setup” – “HDMI Setup” – “Audio” – “TV” (page 32).

The AVP-A1HDCI is supported to the feature of HDMI listed below.
- 30 and 36 bit Deep Color
- xvYCC
- Auto Lipsync Correction
Connecting the Monitor

- Connect the cables to be used (page 9 “Video Conversion Function”).
- With HDMI connections, the video and audio signals can be transferred with a single cable.
- To output the audio signals to the monitor with HDMI connections, set GUI menu “Manual Setup” – “HDMI Setup” – “Audio” to “TV” (page 32).

Connecting the Playback Components

- Connect the cables to be used.
- With HDMI connections, the video and audio signals can be transferred with a single cable.

NOTE

- Use a CPPM-compatible DVD player to play DVD-Audio discs that are copyright-protected by CPPM.
- The audio signals output from the HDMI connector (sampling frequency, bit rate, etc.) may be restricted by the connected device.
- Video signals are not output properly when using devices that are not HDCP-compatible.
- 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.
- If the GUI menu “Manual Setup” – “HDMI Setup” – “Audio” setting (page 32) is set to “Amp”, the sound may be interrupted when the monitor’s power is turned off.
- 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.
- If the monitor does not support “Auto Lipsync Correction” function, this function will not work.
- The AVP-A1HDCI is compatible with the HDMI’s CEC (Consumer Electronics Control) function. Please note the following.
  - It may not work depending on the device it is connected to and its setup.
  - It does not operate with televisions or players that are not compatible with HDMI’s CEC.

- When the AVP-A1HDCI and DVD player are connected using an HDMI cable, also connect the AVP-A1HDCI and monitor using an HDMI cable.
- 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.

- The component video connectors may be indicated differently on your monitor. For details, see the monitor’s operating instructions.
- The audio signals output from the HDMI connectors are only the HDMI input signals.
Record Player

- When connecting a record player with an MC cartridge, use a commercially available MC head amplifier or a step-up transformer.
- Induction humming (a booming sound) may be produced from the speakers if the volume is raised with no record player connected.
- With some record players, noise may be generated when the ground wire is connected. If so, disconnect the ground wire.

NOTE
The AVP-A1HDCI's SIGNAL GND terminal is meant to reduce noise when a record player is connected. This is not a safety ground terminal.

CD Player

- When using an optical cable or a BNC cable for the digital audio connection, make the settings at GUI menu “Source Select” – “CD” – “Assign” – “Digital” (page 48).
- The default analog audio input setting is “RCA”. When using a balanced cable for the analog audio connection, make the settings at GUI menu “Source Select” – “CD” – “Assign” – “Analog” (page 49).

NOTE
The default AVP-A1HDCI balance model XLR input connectors pin alignment is as shown:
1: GROUND
2: HOT
3: COLD

iPod®

- 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 GUI menu “Source Select” – “(input source to which iPod dock assigned)” – “Assign” – “iPod dock” (page 49).

Use a DENON Control Dock for iPod (ASD-1R, sold separately) to connect the iPod to the AVP-A1HDCI. For instructions on the Control Dock for iPod settings, refer to the Control Dock for iPod's operating instructions.

Example:

Connections
### TV/CABLE Tuner

Connect the cables to be used.

- When using a coaxial digital cable or a BNC cable for the digital audio connection, make the settings at GUI menu “Source Select” – “TV/CBL” – “Assign” – “Digital” (page 48).
- When using a BNC cable for the component video connection, make the settings at GUI menu “Source Select” – “TV/CBL” – “Assign” – “Component” (page 48).

### Satellite Receiver

Connect the cables to be used.

- When using an optical cable or a BNC cable for the digital audio connection, make the settings at GUI menu “Source Select” – “SAT” – “Assign” – “Digital” (page 48).
- When using a BNC cable for the component video connection, make the settings at GUI menu “Source Select” – “SAT” – “Assign” – “Component” (page 48).
Connecting the Recording Components

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

Digital Video Recorder

Connect the cables to be used.

- Make analog connections if you wish to record analog audio signals.
- When recording to a digital video recorder, it is necessary that the type of cable used with the playback source equipment be the same type that is connected to the AVP-A1HDCI DVR-1 OUT connector.
  - Example: TV IN → S-Video cable : DVR-1 OUT → S-Video cable
  - TV IN → Video cable : DVR-1 OUT → Video cable
- Connect a DVR-2 in the same way.
- When using a component video cable or a BNC cable for the component video connection make the settings at GUI menu “Source Select” – “DVR-1” or “DVR-2” – “Assign” – “Component” (page 48).

NOTE

- Do not connect the output of the component connected to the AVP-A1HDCI's OPTICAL2 output connector to any input connector other than OPTICAL2.
- Do not connect the output of the component connected to the AVP-A1HDCI's OPTICAL3 output connector to any input connector other than OPTICAL3.
**Video Cassette Recorder**

Connect the cables to be used.

- **Video cassette recorder**

![Video Cassette Recorder Diagram](image)

- When recording to a VCR, it is necessary that the type of cable used with the playback source equipment be the same type that is connected to the AVP-A1HDCI VCR OUT connector.

  **Example:**
  - TV IN → S-Video cable : VCR OUT → S-Video cable
  - TV IN → Video cable : VCR OUT → Video cable

- When using a component video cable or a BNC cable for the video connection, make the settings at GUI menu “Source Select” – “VCR” – “Assign” – “Component” (page 48).

**NOTE**

Do not connect the output of the component connected to the AVP-A1HDCI’s OPTICAL4 output connector to any input connector other than OPTICAL4.

---

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

Make analog connections if you wish to record analog audio signals, or digital connections if you wish to record digital audio signals, depending on the types of connectors on the components being used.

- **CD recorder / MD recorder / Tape deck**

![CD Recorder / MD Recorder / Tape Deck Diagram](image)

**NOTE**

Do not connect the output of the component connected to the AVP-A1HDCI’s OPTICAL4 output connector to any input connector other than OPTICAL4.
Connections to Other Devices
Carefully check the left (L) and right (R) channels and the inputs and outputs, and be sure to interconnect correctly.

Components Equipped with a DENON LINK connector
Multi-channel playback is possible with DVD-Audio discs, Super Audio CD, etc.

DVD player
Audio
DENON LINK

To use with DENON LINK connections, make the settings at GUI menu “Source Select” – “(input source)” – “Assign” – “Digital” – “DENON LINK” (page 48).

Video Camera / Game Console

Video Camera / Game Console

Component with Multi-channel Output connectors

To play the analog input signals input to the EXT. IN connectors, press the INPUT MODE button on the main unit or INPUT button on the main remote control unit and select “EXT. IN” or make the settings at GUI menu “Source Select” – “(input source)” – “Input Mode” – “Input Mode” – “EXT. IN” (page 47).

The video signal can be connected in the same way as a DVD player (page 13).

To play copyright-protected discs, connect the AVP-A1HDCI’s EXT. IN connector with the DVD player’s analog multi-channel output connector.
USB Port

In the initial status, USB memory devices can be used by connecting them to the USB port on the front panel.
To change the port to be used, see “USB Select” on page 49.
For instructions on playing the files on a USB memory device, see page 69, 70.

NOTE

Set to the USB port you want to use.
The AVP-A1HDCI is equipped with two USB ports, one each on the front and rear panels. It is not possible to use the set with USB memory devices connected to both the ports at the same time. Select the USB port you want to use at the GUI menu “Source Select” – “NET/USB” – “Playback Mode” – “USB Select”.

Do not use the extension cable for connecting the USB memory device to the AVP-A1HDCI’s USB port. Use of the extension cable may cause harmful interference.

XM Connector

The AVP-A1HDCI is an XM Ready® receiver. You can receive XM® Satellite Radio by connecting to the XM Mini-Tuner and Home Dock (includes home antenna, each sold separately) and subscribing to the XM service.
Plug the XM Mini-Tuner and Home Dock into the XM connector on the rear panel.
Position the Home Dock antenna near a south-facing window to receive the best signal.
For details, see “Listening to XM Satellite Radio Programs” (page 61).
When making connections, also refer to the operating instructions of the XM Mini-Tuner and Home Dock.

NOTE

Keep the power cord unplugged until the XM Mini-Tuner and Home Dock connection have been completed.

• The XM name and related logo are registered trademarks of XM Satellite Radio Inc. All rights reserved.
• XM Ready is a registered trademark of XM Satellite Radio Inc. All rights reserved.
Antenna terminals

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

AM/FM

- Direction of broadcasting station
- AM loop antenna (small, supplied)
- FM antenna
- 75 Ω/ohms Coaxial cable
- FM indoor antenna (supplied)
- 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

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

Connection of AM antennas

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

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.

HD Radio™ broadcast

HD Radio broadcast is a service that is only available within the United States.

- Direction of broadcasting station
- AM loop antenna (large, for HD Radio broadcasting, supplied)
- FM antenna
- 75 Ω/ohms Coaxial cable
- FM indoor antenna (dipole, for HD Radio broadcasting, supplied)
- Ground

AM outdoor antenna

Remove the vinyl tie and take out the connection line.

- a. With the antenna on top of any stable surface.
- b. With the antenna attached to a wall.
- Installation hole Mount on wall, etc.

Connections
**Required system**

- **Broadband Internet connection**
  A broadband line connection to the Internet is required in order to use the AVP-A1HDCI’s Internet radio function and firmware update.

- **Modem**
  This is a device that is connected to the broadband line to communicate with the Internet. Some are integrated with the router.

- **Router**
  - When using the AVP-A1HDCI, we recommend you use a router equipped with the following functions:
    - Built-in DHCP (Dynamic Host Configuration Protocol) server
      This function automatically assigns IP addresses on the LAN.
    - Built-in 100BASE-TX switch
      When connecting multiple devices, we recommend a switching hub with a speed of 100 Mbps or greater.
  - When using with a wireless LAN, prepare a broadband router with built-in access point.

- **Ethernet cable (CAT-5 or greater recommended)**
  Use for wired LAN.
  - The AVP-A1HDCI does not come with an Ethernet cable.
  - Some flat type Ethernet cables are easily affected by noise.
    We recommend using a normal type cable.
  - If the sound is broken in an environment in which there is much power supply noise from electric products or in a noisy network environment, use a shielded type Ethernet cable.

- **Computer**
  A computer with the following specifications is required to use a media server:
  - **OS**
    Windows® XP Service Pack2, Windows Vista
  - **Software**
    (Prepare one of the following.)
    - .NET Framework 1.1 and Windows Media Connect (Windows XP)
    - Windows Media Player ver.11
    - DLNA-compatible server software
    - Internet browser
    Microsoft Internet Explorer 5.01 or later
  - **LAN port**
  - **300 MB or more free disk space**

  *Free disk space is required to store music and video files. The following sizes are approximate.*

<table>
<thead>
<tr>
<th>Format</th>
<th>Bit rate</th>
<th>Per minute</th>
<th>Per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP3 / WMA</td>
<td>128 kbps</td>
<td>Approx. 1MB</td>
<td>Approx. 60MB</td>
</tr>
<tr>
<td></td>
<td>192 kbps</td>
<td>Approx. 1.5MB</td>
<td>Approx. 90MB</td>
</tr>
<tr>
<td>MPEG-4 AAC</td>
<td>256 kbps</td>
<td>Approx. 2MB</td>
<td>Approx. 120MB</td>
</tr>
<tr>
<td></td>
<td>392 kbps</td>
<td>Approx. 3MB</td>
<td>Approx. 180MB</td>
</tr>
<tr>
<td>WAV (LPCM)</td>
<td>1400 kbps</td>
<td>Approx. 10MB</td>
<td>Approx. 600MB</td>
</tr>
<tr>
<td>FLAC</td>
<td>1080 kbps</td>
<td>Approx. 7.7MB</td>
<td>Approx. 464MB</td>
</tr>
</tbody>
</table>

**NOTE**
- A contract with an ISP is required to connect to the Internet.
- No additional contract is needed if you already have a broadband connection to the Internet.
- The types of routers that can be used depend on the ISP. Contact an ISP or a computer shop for details.
- Depending on the server, video files may be displayed, but they cannot be played on the AVP-A1HDCI.

- **Others**
  - If you have an Internet provider contract for a line on which network settings are made manually, make the settings at GUI menu “Manual Setup” – “Network Setup” (page 35 ~ 38).
  - With the AVP-A1HDCI, it is possible to use the DHCP and Auto IP functions to make the network settings automatically.
  - When using a broadband router (DHCP function), the AVP-A1HDCI sets the IP address, etc., automatically.
  - When using the AVP-A1HDCI connected to a network with no DHCP function, make the settings for the IP address, etc., at GUI menu “Manual Setup” – “Network Setup” (page 35 ~ 38).
  - The AVP-A1HDCI is not compatible with PPPoE. A PPPoE-compatible router is required if you have a contract for a line of the type with which the PPPoE is set.
  - Depending on the ISP with which you have your contract, it may be necessary to make proxy server settings to use the Internet radio function. If you made proxy server settings on the computer to connect to the Internet, make the proxy server settings on the AVP-A1HDCI in the same way.
Multi Zone

ZONE2 or ZONE3 Pre-out Connections

• If another power amplifier or pre-main (integrated) amplifier is connected, the ZONE2 or ZONE3 pre-out (variable or fixed level) connectors can be used to play a different program source in ZONE2 or ZONE3 the same time (page 86, 87).
• To the monitor output of ZONE2, various formats of video signals input by the video conversion function are automatically converted and output (page 9).
• To the monitor output of ZONE3, video signals input from the S video terminal or video terminal is output (page 9).
• The ZONE2 (ZONE3) video out is only for ZONE2 (ZONE3).

NOTE

• For the audio output, use high quality pin-plug cords so that no induction humming or noise is produced.
• For instructions on installing and operating separately sold devices, refer to the respective devices’ operating instructions.
• To conduct multi-zone playback, see “Multi-Zone Connections and Operations” (page 86, 87).

ZONE2 or ZONE4 Optical Connections

The AVP-A1HDCI is equipped with Optical output connectors for ZONE2 and ZONE4. If a bit-stream amp is rigged-up, these zones can also be used to enjoy home theater.

• Connect the monitor for ZONE2 the same as the “ZONE2 or ZONE3 Pre-out Connectors” (See left column).
• If the signal inputted to ZONE2 is analog, change to PCM(2-channel) signal, and output it from ZONE2 optical output connectors.
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 devices. Do not use them as power supplies for hairdryers or anything other than audio equipment. In addition, do not connect audio devices such as high electricity consumption power amplifiers (e.g. POA-A1HDCI).

Connections

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

Turning the Power On

Turning the Power On (page 58)

Once Connections are Completed

Connections

RS-232C connector
This connector is used for an external controller.

- If you use an external controller to operate the unit via the RS-232C terminal, you must confirm the following beforehand.
  1. Turn on the AVP-A1HDCI's power.
  2. Turn off the AVP-A1HDCI's power from the external controller.
  3. AVP-A1HDCI enters the standby status.

Connecting the Power Cord

To household power outlet (AC 120 V, 60 Hz)

Power cord (included)

External Controller

When using in combination with an RF Remote Controller (RC-7000CI, sold separately) and RF Remote Receiver (RC-7001RCI, sold separately) two-way communication with an RF Remote Controller is possible. The AVP-A1HDCI’s status information as well as iPod and Internet audio music files can be browsed watching the RF Remote Controller’s display. For details, refer to the operating instructions of the respective devices.

- When using the 2-way remote control unit, connect to the Port 1 RS-232C connector.

Trigger output jacks

- Output level: 250 mA/12 V
- Check the trigger input conditions of the connected device.
GUI Menu Operations

With the AVP-A1HDCI, settings and operations for most functions can be performed by operating while looking at the GUI menus displayed on the monitor screen.

The GUI cannot be superimposed when xvYCC signals and component 1080p signal, computer’s resolution (e.g. VGA) are input.

Example of the Display of the GUI

Items for which this mark is indicated at the title can be operated from the GUI. We recommend performing such operations from the GUI.

Auto Setup

Optimize settings for speakers in use.

This is the GUI icon for this setting item or for the menu series to which this item belongs.

Example of Display of Default Values

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

[Selectable items] 9.1 7.1 5.1

Operations

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

1. Press the MENU button. The GUI menu is displayed.

   ※ To operate from the main remote control unit, be sure to set the remote control unit to the AMP mode.

2. Press the ▲ ▼ ▶ button to select the menu to be set or operated.

   ※ To return to the previous item, press the ◄ or RETURN button.

3. Press the ENTER button to enter the setting.

4. Press the MENU button to finish.
When "Screensaver" is set to "ON", the screensaver is activated if no operation is performed for about 3 minutes.
Auto Setup

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

Measurements are performed by placing the calibrated microphone (DM-A505Z) successively at multiple positions throughout the listening area as shown in Example ①. For best results, it is strongly recommended to measure 6 or more 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.

Sound receptor

Preparations

1. Connect the included calibrated setup microphone to the SETUP MIC jack on the main unit. The “Auto Setup” screen appears automatically.

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

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

About the main listening position (*M)
The main listening position refers to the most central position where one would normally sit within the listening environment. MultEQ XT 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 29 – 31.

Auto Setup

Optimize settings for speakers in use.

Menu tree

Auto Setup

1. Auto Setup
2. Option
3. Parameter Check

Auto Setup

The settings are performed automatically.

Auto setup flow

STEP1: Speaker Detection
STEP2: Measurement (2 to 8 positions)
STEP3: Calculation
STEP4: Check
STEP5: Store

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.

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”

Preparations

Example ①

Example ②

Setup microphone

( ): Measuring positions)
Start

Start Auto Setup.
The Audyssey MultEQ XT Auto Setup process automatically calculates the size, level, distance, bass management crossover frequency, and optimal settings for each speaker and subwoofer. Audyssey MultEQ XT corrects acoustical distortions within the listening area.

Before starting, connect and position all your speakers. Once started, MultEQ XT will play a series of test tones through each speaker.

If an error message appears during the measurements, check “Error Messages” (page 28), take the advised action, then start the measurements again.

Configuration

The speaker system to be measured can be selected ahead of time here.

[Selectable items]

- 9.1
- 7.1
- 5.1
- 9.2
- 7.2
- 5.2
- 9.3
- 7.3
- 5.3

1: This can be set when “Subwoofer” is set to “1SP”.
2: This can be set when “Subwoofer” is set to “2SP L/R” or “2SP MIX”.
3: This can be set when “Subwoofer” is set to “3SP L/R/LFE” or “3SP MIX”.

Setting the correct speaker configuration can reduce the time required to measure during the auto setup procedure as the system will not have to look for speakers that are not connected.

Subwoofer

The configuration of the measuring subwoofer can be selected beforehand.

[Selectable items]

- 1SP
- 2SP L/R
- 2SP MIX
- 3SP L/R/LFE
- 3SP MIX

Pre-out Assign

Change the pre-out assignment.

[Selectable items] Normal Free Assign

XLR Out Polarity

Set to switch the XLR pre-out terminal polarity.

[Selectable items] XLR XLR (INV)

Set each channel.

STEP 1: Speaker Detection

The speaker connection and polarity are detected at the first measurement position. The following attributes are also determined at this time: “Speaker Size”, “Speaker Distance”, “Channel Level”, “Crossover Frequency”. Once the measurements are completed, the results are displayed.

NOTE

- Loud test tone may be played during Audyssey MultEQ XT Automatic Speaker Setup. This is part of normal operation. If there is background noise in room, these test tones 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.
- Quiet the listening environment before beginning measurements and refrain from talking. Turn off air conditioning units or other devices that emit noise if at all possible as measurements may be affected by these sounds.
- Operating the MASTER VOLUME knob on the main unit or the VOL +/– buttons on the remote control unit during the measurements will cancel the measurements.
- Do not change the speaker connections or subwoofer volume after “STEP 1”.

STEP 2: Measurement

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

Measure at least 6 positions (main listening position and at least 5 other surrounding positions). For best results it is recommend measuring 6 or more positions (with a maximum of 8 positions).

STEP 3: Calculation

When “Calculate” is selected at “STEP 2”, the measurements taken are analyzed automatically to determine how the speaker system interacts with the room.

The time required for this analysis depends on the number of speakers connected. The higher the number of speakers, the longer the time required for analysis.

STEP 4: Check

Once the auto setup procedure is complete, a measuring result check screen appears. Select any item whose results you want to check to review the results.

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 AVP-A1HDCI.

NOTE

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

If the auto setup procedure could not be completed due to speaker installation, the measuring environment, etc., an error message is displayed. If this happens, check the relevant items, be sure to take the necessary measures, then perform the auto setup procedure over again.

<table>
<thead>
<tr>
<th>Error messages (examples)</th>
<th>Cause</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>No microphone or speaker</td>
<td>• Included setup microphone is not connected.</td>
<td>• Connect the included setup microphone to the SETUP MIC jack on the main unit.</td>
</tr>
<tr>
<td></td>
<td>• Not all speakers could be detected.</td>
<td>• Check the speaker connections.</td>
</tr>
<tr>
<td></td>
<td>• The front L speaker was not properly detected.</td>
<td></td>
</tr>
<tr>
<td>Ambient noise is too high</td>
<td>• Too much noise in the room for accurate measurements to be made.</td>
<td>• Either turn off any device generating noise or move it away.</td>
</tr>
<tr>
<td>or Level is too low</td>
<td>• Speaker or subwoofer sound is too low for accurate measurements to be made.</td>
<td>• Try again when the surroundings are quieter.</td>
</tr>
<tr>
<td>None</td>
<td>• Displayed speaker could not be detected.</td>
<td>• Check the connections of the displayed speaker.</td>
</tr>
<tr>
<td></td>
<td>• The front R speaker was not properly detected.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Only one channel of the surround (A) and surround (B) speakers was detected.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sound was output from the R channel when only one surround back speaker was connected.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The surround back or the surround (B) speaker was detected, but the surround (A) speaker was not detected.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• When the subwoofer configuration is set at “2SP L/R”, “2SP MIX”, “3SP L/R/LFE” or “3SP MIX”, the subwoofer could not be detected.</td>
<td></td>
</tr>
<tr>
<td>Phase</td>
<td>• Displayed speaker connected with the polarities reversed.</td>
<td>• Check the polarities of the displayed speaker.</td>
</tr>
<tr>
<td></td>
<td>• If the XLR pre-out terminal is used, the polarity is reversed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Check the polarity setting for the XLR output of the displayed pre-set channel.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• For some speakers, this error message may be displayed even if the speaker is properly connected. If you are sure that the wiring is correct, select “Skip”.</td>
<td></td>
</tr>
</tbody>
</table>

- Sometimes due to the electrical complexities of subwoofers and the interaction with the room, THX recommends setting the level and the distance of the subwoofer manually.
- Sometimes due to interaction with the room, you may notice irregular results when setting the level and/or distance of the main speakers. If this happens, THX recommends setting them manually.
- Please note that any THX main speakers should be set to Small (80 Hz). If you set up your speakers using Auto Setup, please make sure manually that any THX speakers are set to Small with 80 Hz crossover.

- Select “Retry” to make the measurements again.
- Be sure to turn the power off before checking the speaker connections.

---

### Room EQ

Select room EQ setting method.

**[Selectable items]**

- All
- Assign

### Direct Mode

Select room EQ use for DIRECT or PURE DIRECT mode.

**[Selectable items]**

- ON
- OFF

### Mic Select

Select the microphone type if not using supplied mic. The microphone connected to V.AUX Lch is used.

**[Selectable items]**

- Mic
- V.AUX L

- Only a professionally certified installer should ever connect a professionally-calibrated microphone to the V.AUX L input on the front panel.

### Parameter Check

Check auto setup measurement results. This is displayed after the auto setup procedure is completed.

**[Selectable items]**

- Spkr Config Check
- Distance Check
- Ch. Level Check
- Crossover Check
- EQ Check
- Restore

- The auto setup results can be reset to what was originally calculated by MultEQ XT when “Restore” is selected.
Manual Setup
Make detailed settings for various parameters

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

- Menu tree
  Manual Setup
  Speaker Setup
    1. Speaker Configuration
    2. Subwoofer Setup
    3. Distance
    4. Channel Level
    5. Crossover Frequency
    6. THX Audio Setup
    7. Surround Speaker

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

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

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

Subwoofer
Select subwoofer use.
[Selectable items] Yes No

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

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

Surround Back
Select surround back speaker use and size.
[Selectable items] Large Small None 2spkrs 1spkr

2 Subwoofer Setup
Select subwoofer output configuration and bass signal for playback.

Configuration
Select number of subwoofers and configuration.
[Selectable items] 1SP 2SP L/R 2SP MIX 3SP L/R/LFE 3SP MIX

Subwoofer Configuration
Subwoofer Connector

1SP L
2SP L/R L R
2SP MIX 1 2 SW1 SW2
3SP L/R/LFE L LFE R SW1 SW2 SW3
3SP MIX 2 3 SW2 SW3

2SP MIX or 3SP MIX is selected, “Subwoofer 1”, “Subwoofer 2” and “Subwoofer 3” are each displayed.

Mode
Select bass signal for playing with the subwoofer.
[Selectable items] LFE-THX- LFE+Main

- THX recommends LFE-THX- mode so that bass interference is less likely to occur in the room.
- This can be set when the GUI menu “Speaker Configuration” – “Subwoofer” is set to “Yes”.
- Play music or a movie source and select the mode offering the strongest bass.
- Select “LFE+Main” if you want the bass signals to always be produced from the subwoofer.

- Select “Large” or “Small” not according to the physical size of the speaker but according to the low frequency reproduction capabilities based on the frequency set at “Crossover Frequency” (page 30, 31).
- When “Front” is set to “Small”, “Subwoofer” is automatically set to “Yes”.
- If “Subwoofer” is set to “No”, “Front” is automatically set to “Large”.
- If “Surround A” is set to “None”, “Surround B” and “Surround Back” are automatically set to “None”.
- When using just one surround back speaker, connect it to the left channel (SBL).
- To take full advantage of the performance of the Home THX certified speaker systems, set the front, center and surround speaker size parameters to “Small” and the subwoofer to “Yes”.

- Large: Select this for a large speaker with strong bass reproduction.
- Small: Select this for a smaller speaker with weaker bass reproduction.

- THX recommends LFE–THX– mode so that bass interference is less likely to occur in the room.
- This can be set when the GUI menu “Speaker Configuration” – “Subwoofer” is set to “Yes”.
- Play music or a movie source and select the mode offering the strongest bass.
- Select “LFE+Main” if you want the bass signals to always be produced from the subwoofer.
### Distance
Set distance from listening position to speakers.
Before making the settings, measure the distance from the listening position to the different speakers.

<table>
<thead>
<tr>
<th>Feet / Meters</th>
<th>Select unit for distance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step</td>
<td>Select step. (smallest distance)</td>
</tr>
<tr>
<td>[Selectable items]</td>
<td>1ft 0.1ft 0.1m 0.01m</td>
</tr>
</tbody>
</table>

- Can be selected when “Feet” is set.
- Can be selected when “Meters” is set.

| Default | Resets the settings to the default values. |

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

| Variable range | 0.0ft ~ 6.00ft 0.00m ~ 18.00m |

- Display when “Feet” is set.
- Display when “Meters” is set.

### Channel Level
Adjust channel levels to obtain equal volume from all speakers.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Select test tone playback method.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Selectable items]</td>
<td>Auto Manual</td>
</tr>
</tbody>
</table>

### Surround
Select surround speaker from which test tone is output.

| Selectable items | A B A+B |

### Start
Output test tone.

| Variable range | OFF –12dB 0dB +12dB |

- “OFF” can be set by pressing when the subwoofer’s volume is set to –12 dB.

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

| Selectable items | FIXED–THX– |

- Setup when using a THX-certified speaker.

### Operating from the main remote control unit
Adjusting with the main remote control unit using the test tones is only possible in the “Auto” mode and only effective in the STANDARD (Dolby/DTS Surround) and HOME THX CINEMA modes. The adjusted levels for the different modes are automatically stored in the memory.

| Adjusting using test tones | 1. Press the TEST button. Test tones are output from the various speakers. 2. Use the button to adjust so that the volume is equal for all speakers. 3. When the adjustments are completed, press the TEST button again. |

### Notes
- The level of each channel should be adjusted to 75 dB (C-weighted, slow meter mode) on a sound level meter at the listening position. If a sound level meter is not available adjust the channels by ear so the sound levels are the same. Because adjusting the subwoofer level test tone by ear is difficult, use a well known music selection and adjust for natural balance.
- When the GUI menu “Speaker Configuration” – “Surround Back” setting (page 29) is set to “1spkr”, the surround back speaker display is set to “Surround Back”.
- Speakers set to “None” in the “Speaker Configuration” settings are not displayed.
- “Surround” can be set when GUI menu “Speaker Configuration” – “Surround B” is set to “Large” or “Small” (page 29).
- When using surround speakers, be sure to adjust the volume of the different speakers.
- When “Channel Level” is adjusted, the adjusted values are set for all the surround modes. To adjust the channel level separately for the different surround modes, use the operation see page 75.
- Set the distance between the listening position and the various speakers to no more than 20 ft (6.00 meters).
- Two surround back speakers are required to use the THX Ultra2 Cinema, THX Music mode and THX Games mode.
- Set the surround back speakers so that the distance to the listening position is the same for both the left and right speakers.
- It is also recommended that the deviations of the distance from the listening position to L and R channel speakers (front left (FL) and front right (FR), surround left (SL) and surround right (SR), surround back left (SBL) and surround back right (SBR) is less than 2 ft (60 cm).
- Set the distance between the listening position and the various speakers to no more than 20 ft (6.00 meters).
Getting Started

Connections

Playback

Remote Control

Multi-Zone

Information

Troubleshooting

Specifications

**Surround Speaker**
Select surround speakers to use for each surround mode.

**BGC (Boundary Gain Compensation)**
If bass sound feels big compensate by lowering volume.

[Selectable items] ON OFF

- If the bass sound seems too strong: Set “BGC” to “ON”. This activates a filter that gently reduces very deep bass below 50 Hz to provide the flattest overall bass response. Select “ON” or “OFF” according to how strong you prefer the deep bass response to be.
- This can be set when the “THX Ultra2 Subwoofer” setting is set to “Yes”.

**SB Speaker Position**
Set the distance between the left and right surround back speakers.

[Selectable items] Under 1ft 1ft – 4ft Over 4ft

- When two surround back speakers have been set in “Speaker Configuration” (page 29), set the distance of the speakers. This option is not available when “1spkr” is selected.
- This setting is necessary to achieve the optimum effect in the THX Surround EX, THX Ultra2 Cinema, THX Music mode and THX Games mode.

**THX/DOLBY/DTS Cinema**

[Selectable items] A B A+B

**THX/DOLBY/DTS Music**

[Selectable items] A B A+B

**WIDE SCREEN**

[Selectable items] A B A+B

**7CH STEREO**

[Selectable items] A B A+B

**DSP SIMULATION**

[Selectable items] A B A+B

**MULTI CH MODE**

[Selectable items] A B A+B

**Operating from the main remote control unit**

Press the SPKR button.

![Remote Control Layout]

- This can be set when GUI menu “Speaker Configuration” – “Surround A” and “Surround B” are used (page 29).
- Make the surround speaker settings when the input mode is set to “EXT. IN” at GUI menu “Manual Setup” – “Audio Setup” – “EXT. IN Setup” (page 33).

**About Speaker Type Setting when Using Both Surround speakers A and B**

If “Small” is set for either surround speakers A or B, the output is the same as when “Small” is set for both A and B.
HDMI Setup
Make settings for HDMI video/audio output.

1 Color Space
Make settings for output color space.

- [Selectables] YCbCr RGB

✓ When connected to a monitor with a DVI-D connector (HDCP compatible) using an HDMI/DVI converter cable, the signals are output in RGB format, regardless of this setting.

2 RGB Range
Make settings for RGB output range.

- [Selectables] Normal Enhanced

✓ When “YCbCr” is selected under “Color Space”, “RGB Range” will have no effect.

3 Auto Lip Sync
Automatic compensation for timing shift in audio and video output.

- [Selectables] ON OFF

4 Audio
Select HDMI audio output device.

- [Selectables] Amp TV

✓ GUI menu “HDMI Control” – “Control” is “ON”, the “Amp” and “TV” will switch with the operation of any television not related to this setting.

5 Monitor Out
Make settings for HDMI monitor output.

- [Selectables] Auto (Dual) Monitor 1 Monitor 2

✓ Operating from the main remote control unit

Press the M.SEL button.

Auto (Dual) → Monitor 1 → Monitor 2

- When “Monitor Out” is set to “Auto (Dual)”, connections with the MONITOR 1 or MONITOR 2 connectors are recognized automatically.
- If both the MONITOR 1 and 2 connectors are connected and “Resolution” is set to “Auto” (page 47), the signals are output with a resolution compatible with both monitors.
- If “Resolution” is set to something other than “Auto”, check the resolutions with which your monitor is compatible at GUI menu “Information” – “HDMI Information” – “Monitor 1” and “Monitor 2” and set accordingly (page 57).

NOTE
Depending on the monitor you have connected, the display may not be correct when you set to “Auto (Dual)”. In such a case, set to either “Monitor 1” or “Monitor 2”.

6 HDMI Control
Make settings for HDMI control function.

- [Selectables] ON OFF

Control
Set HDMI control function to ON/OFF.

Control Monitor
Select the interlocking monitor through the HDMI controls.

- [Selectables] Monitor 1 Monitor 2

This can be set when “Control” is set to “ON”.

Power Off Control
Interlock with the power off function through the HDMI controls.

- [Selectables] ON OFF

✓ This can be set when “Control” is set to “ON”.
- Please consult the operating instructions for each connected device to check the settings.

NOTE
- When the “Control” setting has been changed, always turn off the power to the connecting devices afterwards and then turn back on.
- The HDMI control function does not work when the power to the equipment is off.
- For details, see “HDMI Control Function” (page 74).
Audio Setup
Make settings for audio playback.

Menu tree
- Audio Setup
  - EXT. IN Setup
  - 2ch Direct/Stereo
  - Downmix Option
  - Auto Surround Mode
  - Manual EQ

EXT. IN Setup
Setup playback method for analog signals inputted from external input connectors (EXT. IN).

Mode
Select playback mode.
[Selectable items] DSP Analog

Surround Back Input
Select surround back channel input in combination with the connected player.
[Selectable items] Not Used SBL/SBR SB(SBL)

2ch Direct/Stereo
Make speaker settings for 2-channel mode playback.

Setting
To change the settings, select “Custom”.
[Selectable items] Basic Custom
*: Use the same settings as in “Speaker Setup”.

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

Subwoofer
Select subwoofer use.
[Selectable items] Yes No

Subwoofer Mode
Select low range signal to be reproduced by subwoofer.
[Selectable items] LFE–THX– LFE+Main

Crossover
Select crossover frequency from which subwoofer handles low range signal.
[Selectable items]
- THX 40Hz 60Hz 80Hz 90Hz 100Hz 110Hz 120Hz 150Hz 200Hz 250Hz

Distance FL
Set distance from listening position to front left speaker.
[Variable range] 0.0ft – 60.0ft

Distance FR
Set distance from listening position to front right speaker.
[Variable range] 0.0ft – 60.0ft
**3 Downmix Option**
Set dynamic range for downmix playback of Dolby Digital sources.

**Selectable items**  
ON  |  OFF

- Set this to “ON” if the sound from the front speakers seems distorted.
- When not using the center speaker or surround speakers, the playback sound is down-mixed and output from the front speakers.

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

**Selectable items**  
ON  |  OFF

- The auto surround mode function lets you store in the memory the surround mode last used for playing the four types of input signals listed below.
  1. Analog and PCM 2-channel signals
  2. Dolby Digital and DTS 2-channel signals
  3. Dolby Digital and DTS multi-channel signals
  4. Multi-channel signals other than Dolby Digital and DTS (PCM, DSD, etc.)
- When playing in the PURE DIRECT mode, the surround mode does not change even if the input signal is changed.

**5 Manual EQ**
Adjust tonal quality for each speaker using graphic equalizer.

**Adjust CH**
Select speaker adjustment method.

**Selectable items**  
Each  |  L/R  |  All

- Select the speaker and frequency band and adjust the level.

**Selectable items**

- 63Hz  
- 125Hz  
- 250Hz  
- 500Hz  
- 1kHz  
- 2kHz  
- 4kHz  
- 8kHz  
- 16kHz

**Variable range**

-20dB  ~  0dB  ~  +6dB

**Curve Copy**
Copy the Room EQ’s “Audyssey Flat” correction curve.

**Selectable items**  
Yes  |  No

- “Curve Copy” is displayed after the auto setup procedure has been performed.

**Default**
Resets the settings to the default values.
Network Setup
Make network settings.

Menu tree
Manual Setup
   1 Network Setup
   2 Other
   3 Network Information

- If you are using a broadband router (DHCP function), there is no need to make the settings at “Setting the IP Address” and “Setting the Proxy”, since the DHCP function is set to “ON” in the AVP-A1HDCI’s default settings.
- If the AVP-A1HDCI is being used connected to a network without the DHCP function, the network settings must be made. In this case, some knowledge of networks is required. For details, consult a network administrator.
- If you cannot connect to the Internet, recheck the connections and settings (page 21).
- If you do not understand about Internet connection, contact your ISP (Internet Service Provider) or the store from which you purchased your computer.

DHCP (Dynamic Host Configuration Protocol)
These are systems by which the IP address and other network settings are automatically set for the AVP-A1HDCI, computer, broadband router and network devices.

DNS (Domain Name System)
This is a system for converting the domain names used when browsing Internet sites (for example, “www.denon.jp”) into the IP addresses actually used for communications (for example, “202.221.192.106”).

Wired LAN settings
Use this procedure to configure the Wired LAN settings.

1 Connect the LAN cable (page 21).
2 Turn on the AVP-A1HDCI (page 58).
   AVP-A1HDCI performs automatic network setup due to the DHCP function.
   When connecting to a network that has no DHCP function, perform the setting in step 3.
3 Set the IP address at the GUI menu “Manual Setup” 
   “Network Setup” – “Network Setup”.

   Select “Detail” and press the ENTER button.

   Use the ▲▼ button to input the address and press the ENTER button.

   IP Address:
   Set the IP address within the ranges shown below. The Network Audio function cannot be used if other IP addresses are set.
   CLASS A: 10.0.0.0 ~ 10.255.255.255
   CLASS B: 172.16.0.0 ~ 172.31.255.255
   CLASS C: 192.168.0.0 ~ 192.168.255.255

   Subnet Mask:
   When connecting an xDSL modem or terminal adapter directly to the AVP-A1HDCI, input the subnet mask indicated in the documentation supplied by your provider. Normally input 255.255.255.0.

   Default Gateway:
   When connected to a gateway (router), input its IP address.

   Primary DNS Secondary DNS:
   If there is only one DNS address indicated in the documentation supplied by your provider, input it at “Primary DNS”. If there are two or more DNS addresses, input the first one at “Secondary DNS”.

   Use the ▼ button to select “Exit” and press the ENTER button. Setup is complete.

   When connecting to the network via a Proxy server, select “Proxy” and press the ENTER button (page 38 “Proxy settings”).
Wireless LAN settings

Use this procedure to configure the Wireless LAN settings.

1 Fitting a rod antenna (page 21).

- If a LAN cable is connected, remove it.

2 Turn on the AVP-A1HDCI (page 58).

3 Set the access point at the GUI menu “Manual Setup” – “Network Setup” – “Network Setup”.

   When searching access points to connect automatically, refer to “Automatic settings”.
   When searching access points to connect manually, refer to “Manual settings”.

Automatic settings

- If the access points are not detected automatically, use the \( \downarrow \) button to select the “Manual” and press the ENTER button.
  Setting becomes manual. For details, see “Manual settings” (page 37).

- If the access points are repeat search, use the \( \downarrow \) button to select the “Search” and press the ENTER button.

- If there is an encryption setting for the access point you selected in step 2, enter same encryption key as used for the access point. (If there is no encryption setting, proceed to step 5.)

   Example) DENON

   Select when access points cannot be searched automatically.

   Select when searching access points again.

   - Enter encryption key.
   - Set only during “WEP” in step 2.

Use the \( \Delta \downarrow \llbracket \) button to input the “Key” (encryption key) and press the ENTER button.

- Enter the same encryption key as used for the access point.

Characters that can be input:

A ~ Z a ~ z 0 ~ 9 ! " # % & ' ( ) * + , - . / : ; < = > ? @ [ ] \ (space)

When no security settings have been used in the Internet connection settings, this step is not necessary.

4 When encryption is by “WEP”, select the “Default Key” using the \( \downarrow \) button, and then press the \( \llbracket \) button.

   Selectable items: 1 2 3 4

Select the same default key as used for the access point. This should normally be set to “1”.

5 Use the \( \downarrow \) button to select “Connection” and press the ENTER button.

Network connection starts.

When connection is established with the access point, “Connection completed.” is displayed.

AVP-A1HDCI performs automatic network setup due to the DHCP function.

When connecting to a network that has no DHCP function, perform the setting in step 4.
Manual settings

1. Select “Detail” and press the ENTER button.

2. Use the < ► button to select the Mode and press the ▼ button.
   [Selectable items]
   - Infrastructure: Select when communication is via an access point.
   - Ad-hoc: Select during direct communication, when an access point is not used.

3. Use the △ ▼ < ► button to input the name of the wireless network (SSID) and press the ENTER button.
   [Characters that can be input]
   A ~ Z  a ~ z  0 ~ 9  ! " # % & ' ( ) * + , - . / : ; < = > ? @ [ ] \ (space)

4. Use the △ ▼ button to select the Security and press the ▼ button.
   [Selectable items]
   - None:
     Select if not encrypted.
     Can also be used even without encryption, through we recommend encryption for improved security.
     - WEP
     - WPA-PSK(TKIP)
     - WPA-PSK(AES)
     - WPA2-PSK(TKIP)
     - WPA2-PSK(AES):

5. Use the △ < ► ▼ button to input the “Key” (encryption key) and press the ENTER button.

6. Use the △ < ► ▼ button to select “Connection” and press the ENTER button.

4 Set the IP address.

For details, see page 35 “Wired LAN settings” in step 3.

If you are using a router with no DHCP function to automatically assign the IP address, set the IP address manually.

AVP-A1HDCI performs automatic network setup due to the DHCP function.
When connecting to a network that has no DHCP function, perform the setting in step 4.
Proxy settings
Make this setting when connecting to the Internet via a proxy server.

2. Use the ▲▼<▲ ▼ button to select “Proxy” and press the ENTER button.
3. Select “ON”.
4. Selecting the input method. Example) Address
5. Input the address or domain name.
6. Input the port number.
7. Select “Exit”.

Make this setting when connecting to the Internet via a proxy server.

6. Use the ▲▼<▲ ▼ button to input the proxy server port number and press the ENTER button.
7. Use the ▼ button to select “Exit” and press the ENTER button. Setup is complete.

2 Other
Make setting for amp power save mode and computer language environment.

Power Saving
Make setting for power saving when not connected to network.

[Selectable items] ON OFF

To use the web control function, set this setting to “OFF”.

Character
Set the character code type of the MP3 ID3-Tag played by USB.

[Selectable items] Auto Latin Japanese

If the characters are not properly displayed when set to “Auto”, set to “Latin” or “Japanese”.

PC Language
Select computer environment language.

[Selectable items]
ara chi (smpl) chi (trad) cze dan dut eng fin fre ger gro heb hun ita jpn kor nor pol por por (BR) rus spa swe tur

Rhapsody Account
Set or change Username and Password.

“Listening to Rhapsody” (E) page 70

1. Enter username : Username

[Input characters]
a~z A~Z 0~9 !"#$%&()*+,-./:;<=>?@[\]^_`{|}~ (space)

2. Enter password : Password

[Input characters]
a~z A~Z 0~9 !"#$%&()*+,-./:;<=>?@[\]^_`{|}~ (space)

3. Clear Rhapsody account : Clear Yes No

Merge “My Library” in the trial account with the full account : Merge

The Account Number received is displayed during the 30-day free trial.

Network Information
Display network information.

[Items to be checked]
Wired or Wireless SSID DHCP= ON or OFF IP Address MAC Address

Proxy settings
Make this setting when connecting to the Internet via a proxy server.
**Zone Setup**

Make settings for audio playback in a multi-zone system.

1. **ZONE2**
   - Make settings for audio playback in a ZONE2 system.

2. **ZONE3**
   - Make settings for audio playback in a ZONE3 system.

## Bass

Adjust low frequency range (bass).

- **Variable range**: –10dB ~ 0dB ~ +10dB

## Treble

Adjust high frequency range (treble).

- **Variable range**: –10dB ~ 0dB ~ +10dB

## HPF

When using speakers that cannot satisfactorily play low frequencies, distortion of the bass sound can be reduced by setting “HPF” to “ON”.

- **Selectable items**: ON OFF

## Lch Level

Adjust the left channel output level.

- **Variable range**: –12dB ~ 0dB ~ +12dB

## Rch Level

Adjust the right channel output level.

- **Variable range**: –12dB ~ 0dB ~ +12dB

## Volume Level

Adjust the main volume level.

- **Selectable items**: Variable –40dB 0dB

## Volume Limit

Make a setting for maximum volume.

- **Selectable items**: OFF –40dB –10dB 0dB

This can be set when “Volume Level” is set to “Variable”.

## Channel

Switch between stereo and mono output.

- **Selectable items**: Stereo Mono

## Mute Level

Set the amount of attenuation when muting is on.

- **Selectable items**: Full –40dB –20dB

## Video Convert (ZONE2 only)

Automatically convert video input signal to ZONE2 monitor output format.

- **Input source**: DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX

- **Selectable items**: ON OFF

## Power On Level

Define the volume setting that is active when the power is turned on.

- **Selectable items**: Last –70dB ~ 18dB

## Power On Level

This can be set when “Volume Level” is set to “Variable”.

## OSD

Set ZONE2 monitor as onscreen display Zone.

- **Selectable items**: ZONE2 ZONE2/ZONE3

**NOTE**

On-screen display appears only on the ZONE2 monitor. It does not appear on the ZONE3 monitor.
**Option Setup**

Make various other settings.

<table>
<thead>
<tr>
<th>Menu tree</th>
<th>Manual Setup</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option Setup</strong></td>
<td></td>
</tr>
<tr>
<td>1 Pre-out Assign</td>
<td></td>
</tr>
<tr>
<td>2 XLR Out Polarity</td>
<td></td>
</tr>
<tr>
<td>3 POA Setting</td>
<td></td>
</tr>
<tr>
<td>4 Volume Control</td>
<td></td>
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<tr>
<td>5 Source Delete</td>
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<tr>
<td>6 GUI</td>
<td></td>
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<tr>
<td>7 Quick Select Name</td>
<td></td>
</tr>
<tr>
<td>8 Trigger Out 1</td>
<td></td>
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<tr>
<td>9 Trigger Out 2</td>
<td></td>
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<tr>
<td>10 Trigger Out 3</td>
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<tr>
<td>11 Trigger Out 4</td>
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</tr>
<tr>
<td>12 Transducer Setup</td>
<td></td>
</tr>
<tr>
<td>13 Digital Out</td>
<td></td>
</tr>
<tr>
<td>14 Remote ID</td>
<td></td>
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<tr>
<td>15 2Way Remote</td>
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<td>16 Dimmer</td>
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<td>17 Setup Lock</td>
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<td>18 Maintenance Mode</td>
<td></td>
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<tr>
<td>19 Firmware Update</td>
<td></td>
</tr>
<tr>
<td>20 Add New Feature</td>
<td></td>
</tr>
</tbody>
</table>

---

### 1 Pre-out Assign

Change the pre-out assignment.

Setting “Free Assign” allows you to freely assign each pre-out to any channel, depending on the environment used.

**Selectable items:** [Normal] [Free Assign]

<table>
<thead>
<tr>
<th>Pre-out terminal</th>
<th>FL</th>
<th>FR</th>
<th>C</th>
<th>SL (A)</th>
<th>SR (A)</th>
<th>SL (B)</th>
<th>SR (B)</th>
<th>SBL</th>
<th>SBR</th>
<th>SW1</th>
<th>SW2</th>
<th>SW3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal</strong></td>
<td>FL</td>
<td>FR</td>
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<td>SL (A)</td>
<td>SR (A)</td>
<td>SL (B)</td>
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<td><strong>Free Assign</strong></td>
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</tr>
</tbody>
</table>

- Channels that are set up in the GUI menu “Speaker Setup”-“Speaker Configuration” to “None” can be set up, but will not generate output.
- Pre-out terminals in ZONE2 and ZONE3 can not be allocated.
- One channel can be assigned to up to 4 pre-out terminals.
2 XLR Out Polarity
Set to switch the XLR pre-out terminal polarity.

[Selectable channels]
- Front L
- Front R
- Center
- Surround A L
- Surround A R
- Surround B L
- Surround B R
- Surround Back L
- Surround Back R
- Subwoofer 1
- Subwoofer 2
- Subwoofer 3

[XLR (INV)]
- GROUND
- HOT
- COLD

POA 1/POA 2
Set POA-A1HDCI for which the MODE select switch is set to “1” or “2”.

POA Setting
Set when connecting the receiver to a POA-A1HDCI.

POA LINK
Set when connecting the receiver to a POA-A1HDCI through a CONTROL LINK.

[Selectable items]
- OFF
- ON (Single)
- ON (Dual)

3 POA Setting
Set when connecting the receiver to a POA-A1HDCI.

[Selectable items]
- XLR
- RCA
- XLR
- OFF

Input Selector
Select the setup channel.

[Selectable items]
- L1
- R1
- L2
- R2
- L3
- R3
- L4
- R4
- L5
- R5

Power Amp
Select the setup channel.

[Selectable items]
- L1/L2
- L3/L4
- L5/R5
- R1/R2
- R3/R4

Volume Control
Set the MAIN ZONE volume setting.

Volume Limit
Make a setting for maximum volume.

[Selectable items]
- OFF
- -40dB
- -20dB
- -10dB
- 0dB

Power On Level
This sets the volume set when the MAIN ZONE’s power is turned on.

[Selectable items]
- Last
- -8dB
- -80dB
- 18dB

Mute Level
This sets the amount of attenuation of the volume when the mute mode is set in the MAIN ZONE.

[Selectable items]
- Full
- -40dB
- -20dB

Source Delete
Remove input sources that are not used from the display.

[Selectable items]
- ON
- Delete

NOTE
- Input sources being used in the various zones cannot be deleted.
- Input sources set to “Delete” cannot be selected from GUI menu “Source Select” or using the SOURCE SELECT knob on the main unit or SOURCE SELECT button on the remote control unit.

GUI
Make GUI related settings.

Screen saver
Make screensaver settings. Use the screensaver to prevent burn-in on the monitor screen. When set to “ON”, the screensaver is activated if there is no activity for about 3 minutes.

[Selectable items]
- ON
- OFF

Wall Paper
Change the GUI background.

[Selectable items]
- Picture
- Black
- Gray
- Blue

Format
Select the video output signal format to match the monitor.

[Selectable items]
- NTSC
- PAL

NOTE
When a format other than the video format of the connected monitor is set, the picture will not be displayed properly. Use the procedure described below to change the video format.
Getting Started

Connections

Playback

Remote Control

Multi-Zone

Information

Troubleshooting

Specifications

---

**Master Volume**

Master volume display during adjustment.

[Selectable items] **ON**  **OFF**

---

**NET/USB / iPod / Tuner**

This sets the time the on-screen display is displayed when an operation is performed.

[Selectable items] **Always**  **30s**  **10s**  **OFF**

---

**Quick Select Name**

Change “Quick Select” display name.
Up to 16 characters can be input.

[Input characters] **A-Z a-z 0-9 !"#%&'()*+,-./:;<=>?@\{\} (space)**

---

**Trigger Out 1**

Select the conditions to turn on the trigger out 1 with respect to the zone, input source, surround mode, HDMI monitor, etc.

For details about the trigger out function, see page 23.

---

**Trigger Out 2**

This sets the conditions to turn on the trigger out 2, in the same way as “Trigger Out 1” above.

---

**Trigger Out 3**

This sets the conditions to turn on the trigger out 3, in the same way as “Trigger Out 1” above.

---

**Trigger Out 4**

This sets the conditions to turn on the trigger out 4, in the same way as “Trigger Out 1” above.

---

**Text**

Text information display.

[Selectable items] **ON**  **OFF**

---

**Setting with Respect to the Zone**

When the power of the zone turned on/off, the trigger out turns on.

---

**Setting with Respect to the Input Source**

When the input source set to on is selected, the trigger out turns on.

Associated with respect to the input source for zones set to “ON” at “Setting with Respect to the Zone”.

---

**Setting with Respect to the Surround Mode**

When the surround mode set to on is selected, the trigger out turns on.

This is effective when the “MAIN ZONE” has been set to “ON” for the “Setting with Respect to the Zone” and the input source which is set to “ON” has been selected for the “Setting with Respect to the Input Source”.

---

**Transducer Setup**

Set when using transducer.

[Selectable items] **ON**  **–––**

---

**Setting with Respect to the Monitor**

When the HDMI monitor set to on is selected, the trigger out turns on.

This is effective when the “MAIN ZONE” has been set to “ON” for the “Setting with Respect to the Zone” and the input source which is set to “ON” has been selected for the “Setting with Respect to the Input Source”.

---

**Level**

[Variable range] **–12dB ~ +12dB**

Set the transducer level.

[Selectable items] **OFF**

Turn the transducer output off.

When you adjust “Level”, the adjusted value is set for all surround modes. To adjust the level for individual surround modes, use “Channel Level” (page 75).

---

**LPF**

Set the upper limit of the low frequency output to the transducer.

[Selectable items] **40Hz 60Hz 80Hz 90Hz 100Hz 110Hz 120Hz 130Hz 140Hz 150Hz 200Hz 250Hz**
13 Digital Out

Set usage of OPT4 OUT.

[Selectable items] ZONE4 Select Rec Select

NOTE

The ZONE4 operations cannot be performed when set to “Rec Select”.

14 Remote ID

Set remote control ID.

Match the ID setting of the remote control unit and the receiver.

[Selectable items] 1 2 3 4

• When changing the remote ID, also change the AMP, iPod, TU and NET/DTU modes of the main remote control unit at the same time (page 80).
• When changing the remote ID, also change the sub remote control unit at the same time (page 85).

15 2Way Remote

Set when using the 2-way remote control unit.

[Selectable items] Used Not Used

• When using a 2-way remote control unit (RC-7000CI and RC-7001RCI, sold separately), set this to “Used”.

NOTE

• When using the 2-way remote control unit, connect to the Port 1 RS-232C connector.

16 Dimmer

Adjust display brightness of the receiver.

[Selectable items] Bright Dim Dark OFF

Operating from the main unit

Press the DIMMER button.

If POA-A1HDCI is connected using the control link, POA-A1HDCI meter operation is turned OFF when the AVP-A1HDCI display is turned “OFF”.

17 Setup Lock

Protect settings from inadvertent change.

[Selectable items] ON OFF

• When “Setup Lock” is set to “ON”, the settings listed below can no longer be changed. Also, “SETUP LOCKED!” is displayed if you attempt to operate related buttons.
  - GUI menu operations
  - RESTORER
  - Night Mode
  - Parameter
  - Room EQ
  - Channel Level
  - Audio Delay
• To cancel the setting, press the MENU button to re-display the “Setup Lock” screen, then change the setting to “OFF”.

18 Maintenance Mode

This sets the function for maintenance by a DENON serviceperson or installer. (For professional use only.)

This function allows a DENON serviceperson or installer to check the AVP-A1HDCI’s status and make settings via the Internet.

NOTE

Only use this function if so instructed by a DENON serviceperson or installer.

19 Firmware Update

Update the firmware of the receiver.

If POA-A1HDCI is connected using the control link, POA-A1HDCI is updated simultaneously with update of AVP-A1HDCI.

Check for Update

You can check for firmware updates. You can also check approximately how long it will take to complete an update.

Start

Execute the update process.
When updating starts, the power indicator becomes red and the GUI screen is shut down.
The amount of update time which has elapsed is displayed during the update process.
When updating is complete the power indicator becomes green and normal status is resumed.
• If the display reads as shown below, check the settings and network environment, then update again.

<table>
<thead>
<tr>
<th>Display</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updating failed</td>
<td>Updating failed</td>
</tr>
<tr>
<td>Login failed</td>
<td>Failure to log into server</td>
</tr>
<tr>
<td>Server is busy</td>
<td>Server is busy. Wait a while then try again.</td>
</tr>
<tr>
<td>Connection fail</td>
<td>Failure connecting to server</td>
</tr>
</tbody>
</table>
Notes concerning use of “Firmware Update” and “Add New Feature”

- In order to use these functions, you must have the correct system requirements and settings for a broadband Internet connection. For details, see pages 35 ~ 38.
- Do not turn off the power until updating or upgrading is completed.
- Normally there is no need to use this function, aside from the cases described below.
  - Firmware Update: In the case of applying the latest firmware updates (free)
  - Add New Feature: In the case of future upgrades to add new functions to the receiver (payment required)
- Information regarding the “Firmware Update” function and “Add New Feature” will be announced on the DENON web site each time related plans are defined.
- Even with a broadband connection to the Internet, approximately 1 hour is required for the updating/upgrading procedure to be completed.
- Once updating/upgrading starts, normal operations on the AVP-A1HDCI cannot be performed until updating/upgrading is completed.
- Furthermore, updating/upgrading the firmware may reset the backup data for the parameters, etc., set for the AVP-A1HDCI.
- When updating/upgrading the firmware, we recommend using wired connections (Ethernet cable).

Upgrade

Execute the upgrade process.
When upgrading starts, the power indicator becomes red and the GUI screen is shut down.
The amount of upgrade time which has elapsed is displayed during the upgrade process.
When upgrading is complete the power indicator becomes green and normal status is resumed.
※ If the upgrade is not successful, an error message identical to those in “Firmware Update” will appear on the display.

Upgrade Status

A list of the additional functions provided by the Upgrade will be displayed.

Operating from the main unit

※ The GUI menu is not displayed when performing this setting.
① Press and hold the AUDIO DELAY and RETURN buttons for at least 3 seconds.
“Video Format” appears on the display.
② Use the button to set “GUI Language”.
③ Use the button to make the setting.
④ Press the ENTER, MENU or RETURN button to complete the setting.
Operating from the main unit or main remote control unit

[Operation on the main unit]
Turn the SOURCE SELECT knob.
※ If “Rec Select” or “Video Select” is selected, press the SOURCE button before turning the SOURCE SELECT knob.

[Operation on the main remote control unit]
Press the SOURCE SELECT button.
The desired input source can be selected directly.

To operate the AVP-A1HDCI using the main remote control unit, set the remote control unit to the AMP mode (page 77 “Remote Control Unit Operations”).

Pressing the DVD/HDP button and the VCR/DVR button on the main remote control will switch between the following.

**DVD/HDP:**

**VCR/DVR:**
Connections

Playback

Remote Control

Multi-Zone

Information

Troubleshooting

Specifications

Source Select

XM

1. Play
2. Preset Skip
3. Antenna Aiming
4. Video
5. Input Mode
6. Rename
7. Source Level

HD Radio

1. Play
2. Auto Preset
3. Preset Skip
4. Preset Name
5. Video
6. Input Mode
7. Rename
8. Source Level

*: "Play" and "Playback Mode (iPod)" are displayed for input sources for which "iPod dock" is assigned.

1. Play

The playback screen is displayed.

[Input source]

TUNER NET/USB XM HD Radio iPod

2. Auto Preset

Use the auto preset function to program radio stations.

[Input source]

TUNER HD Radio

[Selectable items] Start

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

3. Preset Skip

Set the preset memories that you do not want to display when tuning.

A ~ G

Select the preset channel(s) you do not want to display.

[Input source]

TUNER HD Radio XM

[Selectable items]

All 1 2 3 4 5 6 7 8

[Selectable items] ON Skip

When set to "All" to "Skip", it is possible to skip entire preset memory blocks (A to G).

4. Preset Name

Assign name to a preset memory.

Names containing up to 8 characters can be input.

A1 ~ G8

Select the preset memory number.

[Input source]

TUNER HD Radio

[Characters that can be input]

A ~ Z a ~ z 0 ~ 9 ! " # % & ' ( ) * + , - . / : ; < = > ? @ \ [ ] (space)

NOTE

• For optimum video performance, THX recommends that you set the conversion mode to "OFF" to use video signals pass through system without up conversion.

Example: View video input from a component video on the component video monitor.

• When a non-standard video signal from a game machine or some other source is input, the video conversion function might not operate. If this happens, please set the conversion mode to "OFF".

i/p Scaler

Make settings for i/p scaler function.

[Selectable items] A to H A to H & H to H OFF

• This can not be set when "Video Convert" is set to "OFF".

• The "A to H & H to H" can be set to the input source assigned to the HDMI input connector.

• "A to H & H to H" setting:
  • Deep color (10 bit/12 bit) signals are converted into 8-bit signals.
  • The i/p scaler function does not work if xvYCC or computer’s resolution signals are input.

5. Video

Setting the video source.

Video Select

Switch video input source while listening to audio signal.

[Selectable items]

DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX SOURCE

Operating from the main unit

Press the VIDEO SELECT button, then turn the SOURCE SELECT knob until the desired picture appears.

To cancel, press the main unit’s VIDEO SELECT button, then turn the main unit’s SOURCE SELECT knob and select “SOURCE”.

NOTE

• It is not possible to select HDMI input signals.

• When playing HDMI video input signals, the analog video signal of another input source cannot be selected for the HDMI video output.

• Input sources for which “Delete” is selected at “Source Delete” cannot be selected.

Video Convert

Automatically convert video input signal to monitor output format.

[Input source]

DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX

[Selectable items] ON OFF

NOTE

• It is not possible to select HDMI input signals.

• When playing HDMI video input signals, the analog video signal of another input source cannot be selected for the HDMI video output.

• Input sources for which “Delete” is selected at “Source Delete” cannot be selected.

Video Convert

Automatically convert video input signal to monitor output format.

[Input source]

DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX

[Selectable items] ON OFF

NOTE

• It is not possible to select HDMI input signals.

• When playing HDMI video input signals, the analog video signal of another input source cannot be selected for the HDMI video output.

• Input sources for which “Delete” is selected at “Source Delete” cannot be selected.

Video Convert

Automatically convert video input signal to monitor output format.

[Input source]

DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX

[Selectable items] ON OFF

NOTE

• It is not possible to select HDMI input signals.

• When playing HDMI video input signals, the analog video signal of another input source cannot be selected for the HDMI video output.

• Input sources for which “Delete” is selected at “Source Delete” cannot be selected.

Video Convert

Automatically convert video input signal to monitor output format.

[Input source]

DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX

[Selectable items] ON OFF

NOTE

• It is not possible to select HDMI input signals.

• When playing HDMI video input signals, the analog video signal of another input source cannot be selected for the HDMI video output.

• Input sources for which “Delete” is selected at “Source Delete” cannot be selected.

Video Convert

Automatically convert video input signal to monitor output format.

[Input source]

DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX

[Selectable items] ON OFF

NOTE

• It is not possible to select HDMI input signals.

• When playing HDMI video input signals, the analog video signal of another input source cannot be selected for the HDMI video output.

• Input sources for which “Delete” is selected at “Source Delete” cannot be selected.
Getting Started
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Playback
Remote Control
Multi-Zone
Information
Troubleshooting
Specifications

Resolution
Set resolution for video signal output to HDMI:
[Selectable items]
Auto 480p/576p 1080i 720p 1080p 1080p:24 Hz

Aspect
This sets the aspect ratio when outputting 480i/576i or 480p/576p input signals from the HDMI output connector.
[Input source]
Auto
[Selectable items] Full Normal

Progressive Mode
Select optimum progressive mode for video material.
[Input source]
DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX
[Selectable items] Auto Video1 Video2

Operating from the main unit
Press the SCALE button.

Input Mode
Make input mode and decode mode settings for this source. The selectable input modes depend on the input source and “Assign” setting (page 49).

Step 1: This can be selected for input sources for which the GUI menu “Assign” setting is set to “HDMI” (page 48). Excluding CD and TUNER.
Step 2: This can be selected for input sources for which the GUI menu “Assign” setting is set to “Digital” (page 48).

Decode Mode
Set the decode mode for this source.
[Input source]
CD DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX
[Selectable items] Auto PCM DTS

Rename
Change the display name for this source. Names containing up to 8 characters can be input.

Source Level
Corrects the playback level of the selected input source’s audio input.
[Variable range] -12dB ~ 0dBA ~ +12dB

• This can be set when “i/p Scaler” is set to anything other than “OFF”.
• When the “i/p Scaler” is set to “A to H & H to H”, the resolutions can be setup to the analog video input signal and HDMI input signal.
• To enjoy 1080p/24 Hz video images, use a monitor which supports 1080p/24 Hz video signals.
• With film source (24 Hz), you can enjoy a film-like image. It is recommended that you use 1080p/60 Hz for video source and mixed source.
• It is not possible to convert a 50 Hz signal to 1080p/24 Hz. It is output at a resolution of 1080p/50 Hz.
• It is not possible to convert a 1080p/60 Hz signal to 1080p/24 Hz.

• This can be set when “i/p Scaler” is set to anything other than “OFF”.
• Only set “PCM” and “DTS” when playing the respective signals.

For input sources for which “HDMI” or “Digital” are set at the GUI menu “Assign” setting, the analog input level and digital input level can be set separately.
Input Att.
Set when replay sound is distorted because the input level is too large.

[Selectable items] OFF -6dB

“Input Att.” is effective during DSP processing of analog audio signals.

Playback Mode (iPod)
Make settings for iPod playback.

[Input source] CD DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX

[Selectable items] All One OFF

Repeat
Make settings for repeat mode.

Shuffle
Make settings for shuffle mode.

[Input source] CD DVD HDP TV/CBL SAT VCR DVR-1 DVR-2

[Selectable items] Songs Albums OFF

HDMI
Select HDMI connector to assign to this source.

[Input source] DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX

[Selectable items] 1 2 3 4 5 6 None

- With an HDMI connection, video and audio signals are transmitted simultaneously. To play the video signal assigned at “HDMI” combined with the audio signal assigned at “Digital”, select “Digital” at the GUI menu “Source Select” – “Input Mode” (page 47).
- When the AVP-A1HDCl and monitor are connected with an HDMI cable, if the monitor is not compatible with HDMI audio signal playback, only the video signals are output to the monitor.
- The audio signals input from the analog, digital and EXT. IN connectors are not output to the monitor.

NOTE
This cannot be set for input sources for which “iPod dock” is assigned.

Assign
Assign input sources to input connectors.

Digital
Select digital input connector to assign to this source.

[Input source] CD DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX

[Selectable items]

Component
Select component video input to assign to this source.

[Input source] DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX

[Selectable items] 1 – 5 – RCA 6 – BNC None

NOTE
This cannot be set for input sources for which “iPod dock” is assigned.
Analog
Select the analog connector using the CD input.

[Input source] CD
[Selectable items] RCA

<table>
<thead>
<tr>
<th>Selectable items</th>
<th>XLR</th>
<th>XLR (INV)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.GROUND</td>
<td>1.GROUND</td>
</tr>
<tr>
<td></td>
<td>2.HOT</td>
<td>2.COLD</td>
</tr>
<tr>
<td></td>
<td>3.COLD</td>
<td>3.HOT</td>
</tr>
</tbody>
</table>

NOTE
When you assign “iPod dock,” you cannot select “XLR,” or “XLR(INV)”.

iPod dock
Assign Control Dock for iPod to this source.

[Input source] CD DVD HDP TV/CBL SAT VCR DVR-1 DVR-2 V.AUX
[Selectable items] Assign None

• With the default settings, the Control Dock for iPod can be used connected to the VCR (iPod) connector.
• Even if “iPod dock” is set to “Assign”, if the set is not connected to a Control dock for iPod, the input source can be used as the normal input source.

Playback Mode
Make settings for “NET/USB” playback.

[Input source] NET/USB

USB Select
Select USB port to use.

[Selectable items] Front Rear

Repeat
Make settings for repeat mode.

[Selectable items] All One OFF

Random
Make random mode settings.

[Selectable items] ON OFF

Direct Play
Set the folder to be played using the DIRECT PLAY button on the sub remote control unit.

[Selectable items] Favorites All Music

Still Picture
Make settings for still picture (JPEG) playback.

[Input source] NET/USB

Slide Show
Make slideshow settings.

[Selectable items] ON OFF

Interval
Set the playback time per image.

[Variable range] 5s – 60s

Antenna Aiming
Adjust the XM radio reception sensitivity.

[Input source] XM

Satellite
Indicate satellite signal strength.

Terrestrial
Indicate terrestrial signal strength.

<table>
<thead>
<tr>
<th>Display</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>★★★★★</td>
<td>Signal strength is strong</td>
</tr>
<tr>
<td>★★★★</td>
<td>Signal strength is good</td>
</tr>
<tr>
<td>★★★</td>
<td>Signal strength is marginal</td>
</tr>
<tr>
<td>★</td>
<td>Signal strength is weak</td>
</tr>
<tr>
<td></td>
<td>No signal</td>
</tr>
</tbody>
</table>
**Surround Mode**

**HOME THX CINEMA**
THX surround sound mode to recreate the authentic sound of movie soundtracks.

**Surround Playback of 2-channel Sources**

**[Selectable items]**
- PLIIx CINEMA
- PLI CINEMA
- Pro Logic
- NEO:6 CINEMA

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

**[Selectable items]**
- HOME THX CINEMA

This mode is for decoding the input signals according to their format and playing THX surround sound.

The display when the HOME THX CINEMA mode is selected depends on the input signal and surround back output playback mode.

### Surround Playback of 2-channel Sources

#### Dolby Digital Source
- DOLBY DIGITAL (other than 2ch) / DOLBY DIGITAL EX
- DOLBY DIGITAL Plus
- DOLBY TrueHD

#### DTS Surround Source

#### DVD-Audio, SACD
- PCM (multi ch) / DSD (multi ch)

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Display</th>
</tr>
</thead>
</table>
| Dolby Digital Source | THX SURROUND EX
| Home THX CINEMA | THX Ultra2 Cinema
| THX Music Mode | THX Games Mode
| THX Cinema | DOLBY PLIIx C + THX
| PRO LOGIC CINEMA | THX SURROUND EX
| PRO LOGIC CINEMA | THX Ultra2 Cinema
| THX Music Mode | THX Games Mode
| THX Cinema | DOLBY PLIIx C + THX
| PRO LOGIC CINEMA | M CH 5.1 + THX
| PRO LOGIC CINEMA | M CH 7.1 + THX

*1: This is displayed when the input signal is “DTS-ES Matrix 6.1” and the AVP-A1HDCI’s “AFDM” setting is set to “ON”.

*2: This is displayed when the input signal is “DTS-ES Discrete 6.1”.

For details, see page 95.

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

Press the HOME THX CINEMA button on the main unit or the THX button on the main remote control unit.

### Standard Playback

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

To select these surround modes pressing the STANDARD button on the main unit or press the STD button on the main remote control unit. The mode switches each time the button is pressed.

### Operating from the main unit

The “Cinema”, “Music”, or “Game” modes can be directly selected with the CINEMA, MUSIC or GAME button on the main unit.

#### DTS NEO:6
- The signals are decoded in DTS NEO:6 for playback.
- This mode is suited for movie sources.
- This mode is suited for music sources.
- This mode is suited for games.

#### Pro Logic
- This is the Pro Logic playback mode. This can be selected when playing with a DOLBY PLII decoder. When this mode is selected, “DOLBY PLII” is displayed.

### Operating from the main unit

The “Cinema”, “Music”, or “Game” modes can be directly selected with the CINEMA button or MUSIC button on the main unit.

#### DOLBY PLIIx or DOLBY PLII
- The signals are decoded in DOLBY PLIIx or DOLBY PLII for playback.
- This mode is suited for movie sources.
- This mode is suited for music sources.

#### Neural
- It is possible to play analog input signals and PCM (2-channel, 48kHz or less) in the surround mode.
- This is the optimum mode for playing sources recorded in XM HD Surround (page 92).

Select the “Cinema”, “Music”, “Game” and “Pro Logic” modes at GUI menu “Parameter” – “Audio” – “Surround Parameters” – “Mode” (page 52).
Playing Multi-channel Sources (Dolby Digital, DTS, etc.)

[Selectable items]

STANDARD:
This mode is for decoding the input signals according to their format and playing surround sound. The display when the STANDARD mode is selected depends on the input signal and surround back output playback mode.

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolby Digital Source</td>
<td>DOLBY DIGITAL</td>
</tr>
<tr>
<td>(other than 2ch) / DOLBY DIGITAL EX</td>
<td>DOLBY DIGITAL EX</td>
</tr>
<tr>
<td>DOLBY DIGITAL Plus</td>
<td>DOLBY DIGITAL +</td>
</tr>
<tr>
<td>DOLBY TrueHD</td>
<td>DOLBY TrueHD</td>
</tr>
<tr>
<td>DTS Surround Source</td>
<td>DTS SURROUND</td>
</tr>
<tr>
<td>DTS-ES Discrete 6.1</td>
<td>DTS+PLIIx CINEMA</td>
</tr>
<tr>
<td>DTS-ES Matrix 6.1 / DTS 96/24</td>
<td>DTS+PLIIx MUSIC</td>
</tr>
<tr>
<td>DTS-HD High Resolution Audio</td>
<td>DTS-HD Hi RES</td>
</tr>
<tr>
<td>DTS-HD Master Audio</td>
<td>DTS-HD MSTR</td>
</tr>
<tr>
<td>DVD-Audio, SACD</td>
<td>MULTI CH IN</td>
</tr>
<tr>
<td>(multi ch) / PCM (multi ch)</td>
<td>MULTI IN+PLIIx CINEMA</td>
</tr>
<tr>
<td>(multi ch) / DSD (multi ch)</td>
<td>MULTI IN+PLIIx MUSIC</td>
</tr>
<tr>
<td></td>
<td>MULTI CH IN 7.1</td>
</tr>
</tbody>
</table>

*1: This is displayed when the input signal is “DTS-ES Matrix 6.1” and the AVP-A1HDCI’s “AFDM” setting is set to “ON”.
*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 95, 96.

Dolby Headphone
The Dolby Headphone mode is set when headphones are connected to the PHONES jack while in the STANDARD (DOLBY/ DTS SURROUND) mode.

[Selectable items] DOLBY HEADPHONE

When RECOUT mode is set to “SOURCE”, with this amplifier signals encoded in the Dolby Headphone mode can be output from the recording output terminals and recorded on another recorder [page 73].

DSP Simulation Playback
The desired mode according to the program source and viewing situation can be selected from among 9 DENON original surround modes.

The surround parameters can be adjusted (page 93, 94) to achieve an even more realistic, powerful sound field.

[Selectable items]

7CH STEREO *[1]: This mode is for enjoying stereo sound from all speakers.

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

SUPER STADIUM: This mode is suited for viewing sports programs.

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.

CLASSIC CONCERT: This mode is for appreciating classical concert programs.

MONO *[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.

*1: Can also be set by pressing the 7CH STEREO button on the main unit. However, the GUI menu is not displayed.
*2: When playing sources recorded in monaural in the MONO mode, the sound will be off balance with a single channel (left or right), so input to both channels.

Stereo Playback

[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.

When the main unit’s DIRECT/STEREO button or the main remote control unit’s D/ST button is pressed, DIRECT mode can be switched to STEREO mode.
Direct Playback

[Selectable items]

DIRECT : 
In this mode the signals bypass the tone control circuitry for high quality sound. The display when the DIRECT mode is selected depends on the input signal. For multi-channel sources, the display depends on the surround back output’s play mode.

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog signal / PCM (2ch) / Dolby Digital source / DTS source / Other 2-channel digital signals</td>
<td>DIRECT</td>
</tr>
<tr>
<td>DSD (2ch)</td>
<td>DSD DIRECT (*)</td>
</tr>
<tr>
<td>PCM (multi ch)</td>
<td>MULTI CH DIRECT</td>
</tr>
<tr>
<td></td>
<td>M DIRECT + PLIIx CINEMA</td>
</tr>
<tr>
<td></td>
<td>M DIRECT + PLIIx MUSIC</td>
</tr>
<tr>
<td></td>
<td>M DIRECT 7.1</td>
</tr>
<tr>
<td>DSD (multi ch)</td>
<td>DSD MULTI DIRECT (*)</td>
</tr>
</tbody>
</table>

*: When DSD signals are converted to PCM signals as set by the audio parameters and speaker settings, “DIRECT” or “MULTI CH DIRECT” is displayed.

For details, see page 96.

Playback in the PURE DIRECT Mode
This is the mode that recreates the original sound most faithfully, providing extremely high quality sound.

Press the PURE DIRECT button on the main unit or the PURE button on the main remote control unit.

- To cancel, press the PURE DIRECT button on the main unit or the PURE button on the main remote control unit.
- When in the PURE DIRECT mode, the GUI screen is not displayed and the display on the main unit is turned off.
- If the HDMI input connector is selected, video outputs are output in the PURE DIRECT mode.
- The channel level and surround parameters in the PURE DIRECT mode are the same as in the DIRECT mode.

Parameter
Parameters can be called out directly by pressing the PARA button on the main remote control unit.

Audio
Adjust various audio parameters.

1) Surround Parameters
Adjust surround sound parameters. The adjustable parameters differ for the different surround modes (page 93, 94).

Mode
Select the mode according to the playback source.

- In the PLIIx or PLII mode

   [Selectable items] Cinema Music Game Pro Logic

- In the DTS NEO:6 mode

   [Selectable items] Cinema Music

The “Music” mode is also effective for movie sources including a lot of stereo music.
DRC
Compress dynamic range (difference between loud and soft sounds).

[Selectable items] Auto Low Middle High OFF

This can be set in the Dolby TrueHD mode.

D.COMP
Compress dynamic range (difference between loud and soft sounds).

[Selectable items] OFF Low Middle High

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

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

[Variable range] –10dB ~ 0dB

For proper playback of 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”

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

[Variable range] 0.0 ~ 0.3 ~ 1.0

Panorama
Assign front L/R signal also to surround channels, for wider sound.

[Selectable items] ON OFF

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

[Variable range] 0 ~ 3 ~ 6

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

[Variable range] 0 ~ 3 ~ 7

Delay Time
Adjust delay time to control sound stage size.

[Variable range] 0 ms ~ 30 ms ~ 300 ms

Effect
Switch effect signal for multi-surround speakers on and off.

[Selectable items] ON OFF

Effect Level
Adjust effect signal level.

[Variable range] 1 ~ 10 ~ 15

※ Only when the surround mode is “MONO”.

[Variable range] 0 ~ 15

Room Size
Determine size of acoustic environment.

[Selectable items] Small Medium small Medium Medium large Large

NOTE
“Room Size” does not indicate the size of the room in which sources are played.
**AFDM**

Auto-select surround mode by source.

This function only works for software containing a special identification signal.

If the software being played is recorded in Dolby Digital EX or DTS-ES, it is played in 6.1-channels. If not, it is played in 5.1-channels.

**[Selectable items]**  

- **ON**  
- **OFF**

**Example: Playing Dolby Digital software (with EX flag)**

- When “AFDM” is set to “ON”, the surround mode is automatically set to the DOLBY D + PLIIx C mode.
- To play in the DOLBY DIGITAL EX mode, set “AFDM” to “OFF” and “SB CH Out” to “MTRX ON”.

**SB CH Out (for Multi-channel sources)**

Select playback mode for surround back channels.

**[Selectable items]**

- **NON MTRX**  
- **MTRX ON**  
- **PLIIx CINEMA**
- **PLIIx MUSIC**
- **ES MTRX**
- **ES DSCRT**
- **DSCRT ON**
- **OFF**

- **1:** This can be selected when “Surround Back” is set to “2spkrs” at the GUI menu “Manual Setup” – “Speaker Setup” – “Speaker Configuration” setting (page 29).
- **2:** This can be selected when “Surround Back” is set to “2spkrs” or “1spkr” at the GUI menu “Manual Setup” – “Speaker Setup” – “Speaker Configuration” 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.

When using the surround back speaker, you can change the “SB CH Out” setting by pressing the STANDARD button.

**SB CH Out (for 2-channel sources)**

Determine whether to use surround back speakers.

**[Selectable items]**  

- **ON**  
- **OFF**

**Input Channel**

Select channel using external input connectors (EXT. IN) for source being played.

**[Selectable items]**

- **8CH**  
- **2CH**

**Can be selected when GUI menu “Manual Setup” – “Audio Setup” – “EXT. IN Setup” – “Mode” is set to “DSP” (page 33).**

**Subwoofer Att.**

Attenuate subwoofer level when using EXT. IN input.

**[Selectable items]**  

- **ON**  
- **OFF**

Set this to “ON” if the subwoofer channel level seems too high when playing Super Audio CD.

**Bass**

Adjust bass for all channels together.

**[Variable range]**

- **–6dB ~ +6dB**

**Treble**

Adjust treble for all channels together.

**[Variable range]**

- **–6dB ~ +6dB**

“Bass” and “Treble” can be set when “Tone Defeat” is set to “OFF”.

**Center**

Adjust each center channel tone.

**[Selectable items]**  

- **Bass**  
- **Treble**

**[Variable range]**

- **–6dB ~ +6dB**

**Surround**

Adjust each surround channel tone.

**[Selectable items]**  

- **Bass**  
- **Treble**

**[Variable range]**

- **–6dB ~ +6dB**

**Surround Back**

Adjust each surround back channel tone.

**[Selectable items]**  

- **Bass**  
- **Treble**

**[Variable range]**

- **–6dB ~ +6dB**

Some Dolby Digital EX sources do not include EX flags. If the playback mode does not switch automatically even when “AFDM” is set to “ON”, set “SB CH Out” to “MTRX ON” or “PLIIx CINEMA”.

**Tone**

Adjust the tonal quality of the sound.

**Tone Defeat**

Turn tone adjustments off.

**[Selectable items]**  

- **ON**  
- **OFF**

The tone cannot be adjusted when in the DIRECT, PURE DIRECT and HOME THX CINEMA mode.
Subwoofer

Adjust each subwoofer channel tone.

[Selectable items]
- Bass

[Variable range] 
-6dB ~ +6dB

This can be set individually for the separate surround mode other than PURE DIRECT, DIRECT and Home THX Cinema mode.

When “Dynamic EQ” is set to “ON”, you cannot use the “Tone” setting (page 94).

Audyssey”, “Audyssey Byp. L/R” and “Audyssey Flat” can be selected after the auto setup procedure has been performed.

If the settings of the speakers for which “None” has been determined at “Auto Setup” are changed, “Audyssey”, “Audyssey Byp. L/R” and “Audyssey Flat” cannot be selected. New measurements have to be taken again to include the newly-added speakers.

When using headphones, “Room EQ” is always set to “OFF”.

3 Room EQ

Select room equalizer for current environment.

[Selectable items]
- Audyssey
- Audyssey Byp. L/R
- Audyssey Flat
- Manual
- OFF

- Audyssey: Optimize frequency response of all speakers. (Audyssey)
- Audyssey Flat: Optimize frequency response of all speakers to flat response. (Audyssey Flat)
- OFF: Turn equalizer off.

Operating from the main unit or main remote control unit

Press the ROOM EQ button on the main unit or the EQ button on the main remote control.

When “Audyssey” is selected, “Audyssey” lights.

When “Audyssey Byp. L/R” or “Audyssey Flat” is selected, or when the auto setup measuring results have changed, “Audyssey” lights.

Dynamic EQ

Make Dynamic EQ settings.

[Selectable items]
- ON
- OFF

Operating from the main unit

Press the DYNAMIC EQ button.

- “Dynamic EQ” is displayed when selecting “Audyssey”, “Audyssey Flat” or “Audyssey Byp. L/R” in the “Room EQ” setup. When set to “ON”, the “Audyssey” indicator is lit.

When the audio setup measuring results have changed, “Audyssey” lights.

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
- Mode1 (RESTORER 64)
- Mode2 (RESTORER 96)
- Mode3 (RESTORER HQ)

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

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 signals.

- This is displayed on the GUI menu and can be set when the input source is set to “XM”, “HD Radio” or “NET/USB”, or when analog signals (including AM/FM signals) or PCM signals (fs = 44.1/48 kHz) are input.

Night Mode

Optimized setting for late-night listening.

[Selectable items]
- OFF
- Low
- Middle
- High

Operating from the main unit or main remote control unit

Press the NIGHT button on the main unit or the NGT button on the main remote control unit.

The “NIGHT” indicator lights when “Low”, “Middle” or “High” is selected.
7 Audio Delay
Compensate for mismatched timing between video and audio.

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

[Variable range] 0 ms ~ 200 ms

Operating from the main unit or the main remote control unit
※ The GUI menu is not displayed when carrying out this setting.
① Press the AUDIO DELAY button on the main unit or A. DL button on the main remote control unit.
② Use the LEFT button to set.

・This cannot be adjusted when playing in the EXT. IN (when in analog mode), DIRECT or STEREO mode (with "Crossover Frequency" set to "FIXED–THX–", "Front" set to "Large", "Tone Defeat" to "ON" and "Room EQ" to "OFF").
・The adjustment range is 0 to 100 ms when the Auto Lipsync Correction function is activated.

Picture Adjust
Adjust the picture quality.

Menu tree
Parameter
Picture Adjust
  1 Contrast
  2 Brightness
  3 Chroma Level
  4 Hue
  5 DNR
  6 Enhancer
  7 Sharpness

1 Contrast
Adjust picture contrast.

[Variable range] –6 ~ 0 ~ +6

2 Brightness
Adjust picture brightness.

[Variable range] 0 ~ +12

3 Chroma Level
Adjust picture chroma level (saturation).

[Variable range] –6 ~ 0 ~ +6

4 Hue
Adjust color hue.

[Variable range] –6 ~ 0 ~ +6

5 DNR
Reduces the overall level of noise on the picture.

[Selectable items] OFF Low Middle High

6 Enhancer
Emphasize picture contours.

[Variable range] 0 ~ +12

7 Sharpness
Adjust color definition.

[Variable range] –6 ~ 0 ~ +6

・When the input signal is 1080p the "Picture Adjust" setting will be ineffective.
・Adjusting the "Contrast", "Brightness", "Chroma Level" and "Hue" settings does not affect the HDMI input signal.
・"Hue" can be adjusted for composite video and S-Video signals.
・The adjustment values are stored for the individual input sources.
・"DNR", "Enhancer", and "Sharpness" are each effective with HDMI output. However, they are ineffective with 480i/576i output.

Information

Status
Shows information about current settings.

Menu tree
Information
Status
MAIN ZONE
ZONE2/3/4

MAIN ZONE
Shows information about settings for MAIN ZONE.
The items displayed differ according to the input source.

[Items to be checked]
Select Source Name Surround Mode Input Mode Room EQ Dynamic EQ Video Select i/p Scaler Source Level Rec Select Night Mode RESTORER etc.

ZONE2/3/4
Shows information about settings for multi-zone.

[Items to be checked]
Power Select Source Volume Level
Audio Input Signal
Shows information about audio input signals.

- **Menu tree**
  - Information
    - Audio Input Signal

**[Items to be checked]**

- **Surround Mode**: The currently set surround mode is displayed.
- **Signal**: The input signal type is displayed.
- **Fs**: The input signal's sampling frequency is displayed.
- **Format**: The number of channels in the input signal (front, surround, LFE) is displayed.
- **Offset**: The dialogue normalization correction value is displayed.
- **Flag**: “MATRIX” is displayed if the input signal has undergone matrix processing, “DISCRETE” if the input signal has undergone discrete processing.

Dialogue normalization function
Dialogue Normalization (Dial Norm) is a feature of Dolby Digital, which is used to keep the programs at the same average listening level so the user does not have to change the volume control between Dolby Digital programs. When playing back software which has been encoded in Dolby Digital, sometimes you may see a brief message in the front panel display which will read “Dial Norm X dB” (X being a numeric value). The display is showing how the program level relates with THX calibration level. If you want to play the program at calibrated theatrical levels, you may wish to adjust the volume. For example, if you see the following message: “Dial. Norm + 4 dB” in the front panel display, to keep the overall output level at THX calibrated loudness, just turn down the volume control by 4 dB. However, unlike a movie theater where the playback loudness is preset, you can choose your preferred volume setting for best enjoyment.

```
Dial Norm
Offset + 4 dB
```

HDMI Information
Shows information about HDMI input/output signals and monitor.

- **Menu tree**
  - Information
    - HDMI Information

**[Items to be checked]**

1. **Signal Information**: The HDMI input/output signal information is displayed.
2. **Monitor1**: The HDMI monitor 1 information is displayed.
3. **Monitor2**: The HDMI monitor 2 information is displayed.

Quick Select
Shows information about “Quick Select” settings.

- **Menu tree**
  - Information

**[Items to be checked]**

- **Select Source**
- **Input Mode**
- **Room EQ**
- **Auto Surround Mode setting**
- **Volume Level**

For instructions on storing settings at Quick Select 1 to 3, see page 75.

Preset Station
Shows information about preset stations.

- **Menu tree**
  - Information

**[Items to be checked]**

- **Preset Station**

**[Input source]**
- **TUNER**
- **XM**
- **HD Radio**
- **NET/USB**

**[Items to be checked]**

- **A1 ~ G8**

When the **STATUS** button on the main unit is pressed, the set’s status can be checked on the display.
Getting Started
Connections
Setup
Remote Control
Multi-Zone
Information
Troubleshooting
Specifications

Branch: Playback

Preparations

[Turning the Power On]
1 Press <POWER>.
The power indicator lights red and the power is set to the standby mode.
2 Press <ON/STANDBY> or [POWER ON].
The power indicator flashes green and the power turns on.

NOTE
To operate the AVP-A1HDCI using the main remote control unit, set the remote control unit to the AMP mode (page 77 “Remote Control Unit Operations”).

[Turning the Power Off]
Press <ON/STANDBY> or [POWER OFF].
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.

Operations During Playback

[Adjusting the Master Volume]
Either turn <MASTER VOLUME> or press [MASTER VOLUME].

[Turning Off the Sound Temporarily (Muting)]
Press [MUTE].
To cancel, press [MUTE] again. Muting can also be canceled by adjusting the master volume.

Listening with Headphones
Plug the headphones into <PHONES>.
The sound from the pre-out connectors is automatically cut.

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

Playing Video and Audio Equipment

Basic Operation

1 Prepare the equipment.
2 To operate using the main remote control unit, set the remote control unit to the AMP mode.
3 Use SOURCE SELECT to select the input source.
4 Start playback.
Listening to FM/AM Broadcasts

Basic Operation

1. Either turn <SOURCE SELECT> or press [TUNER] (AMP mode) to select “TUNER”.
   - *GUI:* “Source Select” (page 45)

2. To operate using the main remote control unit, set the remote control unit to the TUNER (AMP) mode.
   - *GUI:* page 77 “Remote Control Unit Operations”

3. Press [BAND] to select “FM” or “AM”.

4. Tune in the desired broadcast station.
   - To tune in automatically (Auto Tuning)
     - Press [MODE] to light the “AUTO” indicator on the display, then use [A ~ G] to select the station you want to hear.
   - To tune in manually (Manual Tuning)
     - Press [MODE] to turn off the display’s “AUTO” indicator, then use [A ~ G] to select the station you want to hear.

   - It is also possible to switch to “FM” or “AM” in step 1 by pressing [TUNER].
   - If the desired station cannot be tuned in with auto tuning, tune it in manually.
   - When tuning in stations manually, press and hold [A ~ G] to change frequencies continuously.
   - The time for which the GUI menus are displayed can be set at GUI menu “Manual Setup” – “Option Setup” – “GUI” – “Tuner” (page 42).

Listening to Preset Stations

Operation on the Main Unit

Press <TUNING PRESET>, then turn <SOURCE SELECT> to select the preset radio station.

Operation on the Main Remote Control Unit

1. Press [A ~ G] to select the memory block.

2. Press [CHANNEL] or [1 ~ 8] to select the desired preset channel.

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 [MEMO].

3. Press [A ~ G] to select the block in which the station is to be preset, then press [CHANNEL] or [1 ~ 8] to select the preset number.
   - The memory block can also be selected by pressing [SHIFT].

4. Press [MEMO] again to complete the setting.

   - To preset other stations, repeat steps 1 to 4.
   - Stations can be preset automatically at GUI menu “Source Select” – “TUNER” – “Auto Preset” (page 46).

   - Preset stations are erased by overwriting them.

About the button names in these explanations

< > : Buttons on the main unit
[ ] : Buttons on the remote control unit
Button name only: Buttons on the main unit and remote control unit
**Default settings**

<table>
<thead>
<tr>
<th>Auto tuner presets</th>
</tr>
</thead>
</table>
| A1 – A8 | 87.5 / 89.1 / 90.1 / 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

---

**RDS (Radio Data System)**

RDS (works only on the FM band) is a broadcasting service which allows a station to send additional information along with the regular radio program signal. The following three types of RDS information can be received with this unit:

1. **Radio Text (RT)**
   RT allows RDS stations to send text messages that appear on the display.

   **NOTE**
   The operations described below using [SEARCH] will not function in areas in which there are no RDS broadcasts.

2. **Traffic Program (TP)**
   TP identifies programs that carry traffic announcements. This allows you to easily find out the latest traffic conditions in your area before leaving home.

3. **Program Type (PTY)**
   PTY identifies the type of RDS program. The program types and their displays are as follows:

<table>
<thead>
<tr>
<th>NEWS</th>
<th>INFOM</th>
<th>SPORTS</th>
<th>TALK</th>
<th>ROCK</th>
<th>CLS ROCK</th>
<th>ADLT HIT</th>
<th>SOFT RCK</th>
<th>TOP 40</th>
<th>COUNTRY</th>
<th>OLDIES</th>
<th>SOFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>News</td>
<td>Information</td>
<td>Sports</td>
<td>Talk</td>
<td>Rock</td>
<td>Classic rock</td>
<td>Adult hits</td>
<td>Soft rock</td>
<td>Top 40</td>
<td>Country</td>
<td>Oldies</td>
<td>Soft</td>
</tr>
</tbody>
</table>

   | NOSTALGA | JAZZ | CLASSICL | R & B | SOFT R&B | LANGUAGE | REL MUSC | REL TALK | PERSNLTY | PUBLIC | COLLEGE | WEATHER |
   | Nostalgia | Jazz | Classical | R & B | Soft R&B | Language | Religious music | Religious talk | Personality | Public | College | Weather |

4. **RDS Search**
   Use this function to automatically tune to FM stations that provide the RDS service.

   1. Either turn <SOURCE SELECT> or press [TUNER] (AMP mode) to select “TUNER”.
   2. To operate using the main remote control unit, set the remote control unit to the TUNER (DEV1) mode. (page 77 “Remote Control Unit Operations”)
   3. Press [SEARCH] to select “RDS”.
   4. Press [CHANNEL].

   The search for RDS stations begins automatically.

   5. To continue searching, repeat steps 2 to 3.

   6. If no station broadcasting the designated program type is found when all the frequencies have been searched, “NO PROGRAMME” is displayed.

---

**PTY Search**

Use this function to find RDS stations broadcasting a designated program type (PTY). For a description of each program type, refer to “Program Type (PTY)”,

1. Either turn <SOURCE SELECT> or press [TUNER] (AMP mode) to select “TUNER”.

2. To operate using the main remote control unit, set the remote control unit to the TUNER (DEV1) mode. (page 77 “Remote Control Unit Operations”)

3. Press [SEARCH] to select “PTY”.

4. Watching the display, press △ ▽ to call out the desired program type.

5. Press [CHANNEL].

   PTY search begins automatically.

   1. If there is no station broadcasting the designated program type with the above operation, all the reception bands are searched.

   2. The station name is displayed on the display after searching stops.

6. To continue searching, repeat steps 2 to 4.

   If no station broadcasting the designated program type is found when all the frequencies have been searched, “NO PROGRAMME” is displayed.
### TP Search

Use this function to find RDS stations broadcasting traffic programs (TP stations).

1. Either turn <SOURCE SELECT> or press [TUNER] (AMP mode) to select “TUNER”.

2. To operate using the main remote control unit, set the remote control unit to the TUNER (DEV1) mode.

3. Press [SEARCH] to select “TP”.

4. Press [CHANNEL].

- TP search begins automatically.
- While receiving an RDS broadcast station, the text data broadcast from the station is displayed.
- To turn the display off, press op.
- If no text data is being broadcast, “NO TEXT DATA” is displayed.

5. To continue searching, repeat steps 2 to 3.

- If no other TP station is found when all the frequencies have been searched, “NO PROGRAMME” is displayed.

### RT (Radio Text)

“RT” appears on the display when radio text data is received.

1. Either turn <SOURCE SELECT> or press [TUNER] (AMP mode) to select “TUNER”.

2. To operate using the main remote control unit, set the remote control unit to the TUNER (DEV1) mode.

3. Press [SEARCH] to select “RT”.

   - While receiving an RDS broadcast station, the text data broadcast from the station is displayed.
   - To turn the display off, press ▲▼.
   - If no text data is being broadcast, “NO TEXT DATA” is displayed.

### Listening to XM Satellite Radio Programs

#### About XM Radio

XM is North America’s number one satellite radio company, offering an extraordinary variety of commercial-free music, plus the best in premier sports, news, talk radio, comedy, children’s and entertainment programming, broadcast in superior digital audio quality coast to coast. For more information, or to subscribe, U.S. customers visit xmradio.com or call XM Listener Care at 1-800-XMRADIO (1-800-967-2346); Canadian customers visit xmradio.ca or call XM Listener Care at 1-877-GETXMSR (1-877-438-9677).

#### XM Ready® Legal

XM monthly service subscription sold separately. XM Mini-Tuner and Home Dock required (each sold separately) to receive XM service. It is prohibited to copy, decompile, disassemble, reverse engineer, hack, manipulate or otherwise make available any technology or software incorporated in receivers compatible with the XM satellite Radio System. Installation costs and other fees and taxes, including a one-time activation fee may apply. All fees and programming subject to change. Channels with frequent explicit language are indicated with an XL. Channel blocking is available for XM radio receivers by calling 1-800-XMRADIO (U.S. residents) and 1-877-GETXMSR (Canadian residents). XM Service only available in the 48 contiguous United States and Canada. ©2008 XM Satellite Radio Inc. All rights reserved.

#### XM Ready® Subscription

Once you have installed the XM Mini-Tuner Home Dock, inserted the XM Mini-Tuner, connected the XM Mini-Tuner Home Dock to your XM Ready® audio system, and installed the antenna, you are ready to subscribe and begin receiving XM programming. There are three places to find your eight character XM Radio ID: On the XM Mini-Tuner, on the XM Mini-Tuner package, and on XM Channel 0. Record the Radio ID below for reference.

#### Note:

The XM Radio ID does not use the letters “I”, “O”, “S” or “F”. Activate your XM Satellite Radio service in the U.S. online at http://activate.xmradio.com or call 1-800-XMRADIO (1-800-967-2346). Activate your XM Satellite Radio service in Canada online at https://activate.xmradio.ca or call 1-877-GETXMSR (1-877-438-9677). You will need a major credit card. XM will send a signal from the satellites to activate the full channel lineup. Activation normally takes 10-15 minutes, but during peak busy periods you may need to keep your XM Ready audio system on for up to an hour. When you can access the full lineup on your XM Ready audio system you are done.
Basic Operation

1. Either turn <SOURCE SELECT> or press [SAT TU] (AMP mode) to select “XM”.
   (GUI: “Source Select” (page 45)

2. To operate using the main remote control unit, set the remote control unit to the TUNER (AMP mode) mode.
   (page 77 “Remote Control Unit Operations”)

3. Use [▲ ▼] to select the channel.
   When the channel is tuned in, the name of the song and artist are displayed.

4. The channel switches continuously when [▲ ▼] is pressed and held.
5. XM Radio channels can be preset using the same procedure as for FM/AM stations (page 59, 60 “Presetting Radio Stations (Preset Memory)” and “Listening to Preset Stations”).
6. The artist name, song title, category and reception level can be checked by pressing <STATUS>.
7. The time for which the GUI menus are displayed can be set at GUI menu “Manual Setup” – “Option Setup” – “GUI” – “Tuner” (page 42).

Checking the XM Signal Strength and Radio ID

1. Either turn <SOURCE SELECT> or press [SAT TU] (AMP mode) to select “XM”.

2. Press <STATUS> until “SIGNAL” appears on the display.
   The display will switch as shown below, depending on the reception conditions.

3. Adjust the position of the antenna until “SIGNAL: GOOD” is shown on the display.

4. Press <STATUS> until the channel (example: “XM001”) is displayed.

5. Press [▲ ▼] and select channel 0 (XM000).
   The radio ID is shown on the display.

6. “LOADING” is displayed while channels or data are being received.
   “XM - - -” is displayed if the selected channel cannot be used.

Searching Categories

1. Press < ▶ >.

2. Use < ▹ ▶ > to select the category, then use ▲ ▼ to select the desired channel.

Accessing XM Radio Channels Directly

1. Press [SEARCH].

2. Press [NUMBER] then input the channel.
   Example: Accessing channel “XM123”:
   [1] → [2] → [3]
   ※ If no button is pressed within several seconds, the channel automatically switches to the one whose number has been input.

3. Press ENTER to set that channel.
   Reception switches to the selected channel.

The strength of both the XM satellite and terrestrial signals can be checked at GUI menu “Source Select” – “XM” – “Antenna Aiming” (page 49).
Listening to HD Radio™ Stations

HD Radio stations offer higher sound quality than conventional FM/AM broadcasts. It is also possible to receive data services and select broadcasts from among up to eight multicast programs.

Using the HD Radio Receiver

HD Radio technology provides higher quality sound than conventional broadcasts and allows reception of data services.
- FM sounds as sensational as CDs
- AM sounds as rich as analog FM stereo
- A variety of “data services”, including text-based information, song title, artist name, album name, genre, etc. can be received.

Furthermore, in addition to conventional broadcasts, with HD Radio broadcasting it is possible to choose from up to 8 multicast programs.

For detailed information on HD Radio technology, please go to “www.ibiquity.com”.

Listening to HD Radio™ Stations

1. Either turn <SOURCE SELECT> or press [DTU] (AMP mode) to select “HD Radio”.
2. To operate using the main remote control unit, set the remote control unit to the NET/DTU (DEVT) mode.
3. Press [BAND] to select “FM” or “AM”.
4. Tune in the desired broadcast station.

To tune in automatically (Auto Tuning)

Press [MODE] to select “HD Auto” or “Auto”, then use [▲ ▼] to select the station you want to hear.
- The “HD” indicator lights on the display when an HD Radio station is tuned in.
- When “HD Auto” (tuning mode) is selected, only HD Radio stations are tuned in.
- If “Auto” (tuning mode) is selected, both HD Radio and analog stations are tuned in.

To tune in manually (Manual Tuning)

Press [MODE] to select “Manual”, then use [▲ ▼].

Basic Operation

1. Either turn <SOURCE SELECT> or press [DTU] (AMP mode) to select “HD Radio”.
2. To operate using the main remote control unit, set the remote control unit to the NET/DTU (DEVT) mode.
3. Press [BAND] to select “FM” or “AM”.
4. Tune in the desired broadcast station.

- It is also possible to switch to “FM” or “AM” at step 1 by pressing [DTU].
- If the desired station cannot be tuned in with auto tuning, tune it in manually.
- When tuning in stations manually, press and hold [▲ ▼] to change frequencies continuously.
- HD Radio stations can be preset using the same procedure as for FM/AM stations (page 59, 60 “Presetting Radio Stations (Preset Memory)” and “Listening to Preset Stations”). In addition, with HD Radio technology, multicasts can also be preset.
- The time for which the GUI menu is displayed can be set at GUI menu “Manual Setup” – “Option Setup” – “GUI” – “Tuner” (page 42).
Getting Started

Check the HD Radio Reception Information

Press <STATUS> while an HD Radio broadcast is being received.
The current reception information is shown on the display,

1. Normal
2. Frequency / Signal strength
3. Long station name / Program and Program type
4. Title name / Artist name
5. Album name / Genre name

NOTE
If the station signal weakens while receiving a digital broadcast (while "HD" and text is displayed), the mode automatically switches to the analog reception mode (the reception frequency is displayed).
Because of this, the "HD" indicator and text may flicker if the station signal level is weak and unstable.

Default settings

<table>
<thead>
<tr>
<th>Tuner presets</th>
<th>A1 – A8</th>
<th>B1 – B8</th>
<th>C1 – C8</th>
<th>D1 – D8</th>
<th>E1 – E8</th>
<th>F1 – F8</th>
<th>G1 – G8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>875 / 879 / 89.1 / 93.3 / 979 / 98.1 / 98.9 / 100.1 MHz</td>
<td>101.9 / 102.7 / 1079 / 90.1 / 90.1 / 90.1 / 90.1 / 90.1 MHz</td>
<td>530 / 600 / 930 / 1000 / 1120 / 1210 / 1400 / 1710 kHz</td>
<td>90.1 MHz</td>
<td>90.1 MHz</td>
<td>90.1 MHz</td>
<td>90.1 MHz</td>
</tr>
</tbody>
</table>

Selecting Audio Programs

An HD Radio broadcast includes up to 8 audio programs (HD1 to HD8 and Analog). The different audio programs also have data programs.

Press [SEARCH] or △ ▽ to select the audio program.
If the station you are listening to has multiple audio programs, "HD1" is indicated on the display. If it only has one audio program, "HD" is indicated.

If an audio program from HD2 to HD8 has been interrupted, HD1 is automatically selected after about 20 seconds.

iPod® Playback

The music on an iPod can be played by using the Control Dock for iPod (ASD-1R, sold separately).
The operation can also be performed using the buttons on the main unit or remote control unit while watching the GUI menus.

Press [SEARCH] 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.

<table>
<thead>
<tr>
<th>Display mode</th>
<th>Browse mode</th>
<th>Remote mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display location</td>
<td>Main unit display</td>
<td>iPod display</td>
</tr>
<tr>
<td>Playable files</td>
<td>Audio file</td>
<td>Video file</td>
</tr>
<tr>
<td>Active buttons</td>
<td>Remote control unit (AVP-A1HDCI)</td>
<td>iPod</td>
</tr>
</tbody>
</table>

NOTE

- 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".
- Press <ON/STANDBY> or [POWER OFF] and set the AVP-A1HDCI’s power to the standby mode before disconnecting the iPod. Also switch the input source to one to which the GUI menu “iPod dock” is not assigned before disconnecting the iPod.

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.

Basic Operation

1. Make the necessary preparations.
   1. Set the iPod in the DENON Control Dock for iPod.
   * See the Control Dock for iPod’s operating instructions.
   2. Assign the Control Dock for iPod’s input.
   * "Source Select" – "(input source)" – “Assign”– "iPod dock" (page 49)

2. Either turn <SOURCE SELECT> or press [iPod] (AMP mode) to select the input source assigned in step 1-2 above.

3. To operate using the main remote control unit, set the remote control unit to the iPod mode.
   * See page 77 “Remote Control Unit Operations”

4. Press [SEARCH] 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.

Playback

The music on an iPod can be played by using the Control Dock for iPod (ASD-1R, sold separately).
The operation can also be performed using the buttons on the main unit or remote control unit while watching the GUI menus.

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

b
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.

1. Make the necessary preparations.
   1. Set the iPod in the DENON Control Dock for iPod.
   * See the Control Dock for iPod’s operating instructions.
   2. Assign the Control Dock for iPod’s input.
   * "Source Select" – "(input source)" – “Assign”– "iPod dock" (page 49)

2. Either turn <SOURCE SELECT> or press [iPod] (AMP mode) to select the input source assigned in step 1-2 above.

3. To operate using the main remote control unit, set the remote control unit to the iPod mode.
   * See page 77 “Remote Control Unit Operations”

4. Press [SEARCH] 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.

<table>
<thead>
<tr>
<th>Display mode</th>
<th>Browse mode</th>
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<tbody>
<tr>
<td>Display location</td>
<td>Main unit display</td>
<td>iPod display</td>
</tr>
<tr>
<td>Playable files</td>
<td>Audio file</td>
<td>Video file</td>
</tr>
<tr>
<td>Active buttons</td>
<td>Remote control unit (AVP-A1HDCI)</td>
<td>iPod</td>
</tr>
</tbody>
</table>

NOTE

- 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".
- Press <ON/STANDBY> or [POWER OFF] and set the AVP-A1HDCI’s power to the standby mode before disconnecting the iPod. Also switch the input source to one to which the GUI menu “iPod dock” is not assigned before disconnecting the iPod.

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.
Listening to Music

1. Use △ ▽ to select the menu, then press ENTER or ▶ to select the music file to be played.

2. Press ENTER or ▶.
   Playback starts.

To pause
During playback, press ENTER or [▶].
Press again to resume playback.

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

To cue to the beginning of a track
During playback, either press △ (to cue to the previous track) or ▽ (to cue to the next track), or press [◄◄] or [►►].

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

Playing repeatedly
Press [CHANNEL +/-] or [REPEAT] on the sub remote control unit.

[Selectable items]
All One OFF

GU: “Source Select” – “(input source)” – “Playback Mode (iPod)” – “Repeat” (page 48)

Shuffling playback
Press [CHANNEL +/-] or [RANDOM] on the sub remote control unit.

[Selectable items]
Albums Songs OFF

GU: “Source Select” – “(input source)” – “Playback Mode (iPod)” – “Shuffle” (page 48)

Searching up or down pages
Press [SEARCH], then press ◄ (down) or ◄ (up).
To cancel, press △ ◄ or [SEARCH].

To switch between the Browse and Remote modes
Either press and hold [SEARCH].

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.)

1. Press and hold [SEARCH] to set the Remote mode.
   “Remote iPod” is displayed on the AVP-A1HDCI’s display.

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

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

- The title name, artist name and album name can be checked by pressing <STATUS> during playback.
- On the AVP-A1HDCI, folder and file names can be displayed as titles. Any characters that cannot be displayed are replaced with “.” (period).
- The time for which the GUI are displayed can be set at GUI menu “Manual Setup” – “Option Setup” – “GUI” – “iPod” (page 42).

About the button names in these explanations
< ▶ : Buttons on the main unit
[ ] : Buttons on the remote control unit
Button name only:
Buttons on the main unit and remote control unit
Playing Network Audio, USB Memory Devices or Rhapsody

This procedure can be used to play Internet radio stations or music or still picture (JPEG) files stored on a computer or USB memory device or Rhapsody.

About the Internet radio function

- Internet radio refers to radio broadcasts distributed over the Internet. Internet radio stations from around the world can be tuned in.
- The AVP-A1HDCI is equipped with the following Internet radio functions:
  - Stations can be selected by genre and region.
  - Up to 56 Internet radio stations can be preset.
  - Internet radio stations in MP3 and WMA (Windows Media Audio) format can be listened to.
  - Your favorite radio stations can be registered by accessing an exclusive DENON Internet radio URL from a Web browser on a computer.

Media server

This function lets you play music files and playlists (m3u, wpl) stored on a computer (media server) connected to the AVP-A1HDCI via a network.

- The AVP-A1HDCI’s network audio playback function, connection to the server is possible using one of the technologies below.
  - Windows Media Player Network Sharing Service
  - Windows Media DRM10
  - MTP (Media Transfer Protocol) standards

[Album art function]

When a WMA (Windows Media Audio), MP3 or MPEG-4 AAC file includes album art data, the album art can be displayed while playing the file.

[Slide show function]

Still picture (JPEG) files stored in folders on a media server can be played as slide shows.

The time for which each picture is displayed can be set.

When still picture (JPEG) files are played on the AVP-A1HDCI, they are played in the direction in which they are stored in the folder.

Installing Windows Media Player ver. 11

1. If Windows XP Service Pack 2 has not yet been installed, either download it free of charge from Microsoft or install it via a Windows update installer.
2. Download the latest version of Windows Media Player ver. 11, either directly from Microsoft or using a Windows update installer.

USB memory devices

A USB memory device can be connected to the AVP-A1HDCI’s USB port to play music and still picture (JPEG) files stored on the USB memory device.

- Only USB memory devices conforming to mass storage class and MTP (Media Transfer Protocol) standards can be played on the AVP-A1HDCI.
- The AVP-A1HDCI is compatible with USB memory devices in “FAT16” or “FAT32” format.

Slide show function

Still picture (JPEG) files stored on USB memory devices can be played as slide shows.

The time for which each picture is displayed can be set.

When still picture (JPEG) files are played on the AVP-A1HDCI, they are played in the direction in which they are stored in the folder.

For music files in WMA (Windows Media Audio) format, the album art is only played when using Windows Media Player ver. 11.

About Rhapsody

Rhapsody is a paid music broadcast service of RealNetworks. When you first listen to Rhapsody, take advantage of the “30-day free trial”. When the free trial period has expired, it is necessary to subscribe to a Rhapsody account at the Rhapsody homepage and register this machine. See the Rhapsody homepage for details.

www.rhapsody.com/denon/signup

[Compatible formats]

<table>
<thead>
<tr>
<th>Format</th>
<th>Internet radio</th>
<th>Media server</th>
<th>USB</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMA (Windows Media Audio)</td>
<td>○</td>
<td>○</td>
<td>○*</td>
</tr>
<tr>
<td>MP3 (MPEG-1 Audio Layer-3)</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>WAV</td>
<td>–</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>FLAC (Free Lossless Audio Codec)</td>
<td>○*</td>
<td>○*</td>
<td>○*</td>
</tr>
<tr>
<td>JPEG</td>
<td>–</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

A server or server software compatible with distribution in the corresponding formats is required to play music files via a network.

- Only files that are not protected by copyright can be played on the AVP-A1HDCI.
- Contents downloaded from pay sites on the Internet are copyright protected. Also, files encoded in WMA format when ripped from a CD, etc., on a computer may be copyright protected, depending on the computer’s settings.

Media server and USB

- The AVP-A1HDCI is compatible with MP3 ID3-Tag (Ver. 2) standards.
- The AVP-A1HDCI is compatible with WMA META tags.

[Playable formats]

<table>
<thead>
<tr>
<th>Format</th>
<th>Sampling frequency</th>
<th>Bit rate</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMA (Windows Media Audio)</td>
<td>32/44.1/48 kHz</td>
<td>48–192 kbps</td>
<td>.wma</td>
</tr>
<tr>
<td>MP3</td>
<td>32/44.1/48 kHz</td>
<td>32–320 kbps</td>
<td>.mp3</td>
</tr>
<tr>
<td>WAV</td>
<td>32/44.1/48 kHz</td>
<td>–</td>
<td>.wav</td>
</tr>
<tr>
<td>FLAC (Free Lossless Audio Codec)</td>
<td>32/44.1/48 kHz</td>
<td>16–320 kbps</td>
<td>.flac, .m4a/ .mp4</td>
</tr>
</tbody>
</table>

WAV format Quantization bit rate: 16 bits.
Getting Started
Connections
Setup
Remote Control
Multi-Zone
Information
Troubleshooting
Specifications

To pause
During playback, press ENTER. Press again to resume playback.

To stop
During the play or pause mode, press and hold ENTER.

Searching up or down pages
Press [SEARCH], then press < (down) or > (up). To cancel, press △ or [SEARCH].

Searching by first letter (Character search)
This operation is convenient for choosing items from the menu screens for Internet radio stations or files stored on the computer.
When the menu screen is displayed, press [SEARCH] twice.
Use ▼ or ▲ to select the first letter you want to search for.
If there are multiple items starting with the selected letter, they are displayed in alphabetical order.
If it is not possible to search the list, “unsorted list.” is displayed.
To cancel, press or [SEARCH].

• 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”.
• The time for which the GUI are displayed can be set at GUI menu “Manual Setup” – “Option Setup” – “GUI” – “NET/USB” (page 42).
• Use <STATUS> to switch between displaying the title name, artist name or album name.
• The track display order differs with the server specification. When, due to the server specification, track display is not in alphabetical order, character search may not operate correctly.

Basic Operation

Make the necessary preparations.
1 Check the network environment, then turn on the AVP-A1HDCI’s power. (page 21 “Network Audio”)
2 If settings are required, make the network settings. (page 35 ~ 38 “Network Setup”)
3 Prepare the computer. (Computer’s operating instructions) Install “Windows Media Player ver. 11”.

Either turn <SOURCE SELECT> or press [NET/USB] (AMP mode) to select “NET/USB”.

To operate using the main remote control unit, set the remote control unit to the NET/DTU (AMP mode) mode.

Use △ or ▼ to select the menu, then press ENTER or ▶ or ▼ to select the file you want to play.

Press ENTER or ▶.
Playback starts.

Playing repeatedly
Press [REPEAT] on the sub remote control unit.

Playing in random order
Press [RANDOM] on the sub remote control unit.

About the button names in these explanations
< > : Buttons on the main unit
[ ] : Buttons on the remote control unit
Button name only:
Buttons on the main unit and remote control unit

Press [SEARCH], then press < (down) or > (up). To cancel, press △ or [SEARCH].

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”.
The time for which the GUI are displayed can be set at GUI menu “Manual Setup” – “Option Setup” – “GUI” – “NET/USB” (page 42).
Use <STATUS> to switch between displaying the title name, artist name or album name.
The track display order differs with the server specification. When, due to the server specification, track display is not in alphabetical order, character search may not operate correctly.

The repeat mode and random mode can only be used when playing tracks recorded in USB/Media Server/Rhapsody.
### Listening to Internet Radio

1. **Use △ to select “Internet Radio”, then press ENTER or ▶.**

2. **Use △ to select the item you want to play, then press ENTER or ▶.**
   The station list is displayed.

3. **Use △ to select the station, then press ENTER or ▶.**
   Playback starts once buffering reaches “100%”.

**NOTE**

- There are many Internet radio stations on the Internet, and the quality of the programs they broadcast as well as the bit rate of the tracks varies widely.
- Generally, the higher the bit rate, the higher the sound quality, but depending on the communication lines and server traffic, the music or audio signals being streamed may be interrupted.
- Conversely, lower bit rates mean a lower sound quality but less tendency for the sound to be interrupted.
- “Server Full” or “Connection Down” is displayed if the station is busy or not broadcasting.
- On the AVP-A1HDCI, folder and file names can be displayed as titles. Any characters that cannot be displayed are replaced with “.” (period).

### Presetting Internet Radio Stations

1. **While the Internet radio station you want to preset is playing, press [MEMO].**

2. **Use △ to select “Preset”, then press ENTER.**

3. **Press [A ~ G], then press [1 ~ 8] to select the desired preset number.**
   The Internet radio station is now preset.

**NOTE**

If registered at a number that has already been preset, the previously registered setting is cleared.

### Registering Internet Radio Stations as Your Favorites

1. **Press [MEMO] while the Internet radio station you want to register is playing.**

2. **Use △ to select “Favorites”, then press ENTER.**

3. **Press < to select “Yes”.**
   The Internet radio station is registered.
   If you do not want to register it, press ▶.

### Listening to Recently Played Internet Radio Stations

1. **Use △ to select “Recently Played”, then press ENTER or ▶.**

2. **Use △ to select the item you want to play, then press ENTER or ▶.**

   **NOTE**

Up to 20 stations stored in “Recently Played”.

### Listening to Preset Internet Radio Stations

Press [A ~ G], then press [1 ~ 8].
The AVP-A1HDCI automatically connects to the Internet and playback begins.

### Clearing Internet Radio Stations from Your Favorites

1. **Use △ to select “Favorites”, then press ENTER or ▶.**

2. **Use △ to select the Internet radio station you want to clear, then press [MEMO].**
   The AVP-A1HDCI automatically connects to the Internet and playback begins.

### Listening to Internet Radio Stations Registered in Your Favorites

1. **Press [MEMO] while the Internet radio station you want to register is playing.**

2. **Use △ to select “Favorites”, then press ENTER.**

3. **Press < to select “Yes”.**
   The Internet radio station is registered.
   If you do not want to register it, press ▶.

**NOTE**

Up to 20 stations stored in “Recently Played”.

### Clearing Internet Radio Stations from Your Favorites

1. **Use △ to select “Favorites”, then press ENTER or ▶.**

2. **Use △ to select the Internet radio station you want to clear, then press [MEMO].**

3. **Press < to select “Delete”.**
   The selected Internet radio station is cleared.
   To cancel the operation without clearing the station, press ▶.
Playing Files Stored on a Computer
Use this procedure to play music files, image files or playlists.

1. Use \(\Delta\ \nabla\) to select “Media Server”, then press ENTER or \(\triangleright\).
2. Use \(\Delta\ \nabla\) to select the host name of the computer on which the music file you want to play is located, then press ENTER or \(\triangleright\).
3. Use \(\Delta\ \nabla\) to select the search item or folder, then press ENTER or \(\triangleright\).
4. Use \(\Delta\ \nabla\) to select the file, then press ENTER or \(\triangleright\). Playback starts once buffering reaches “100%”.

Selecting tracks
During playback, either press \(\Delta\) (previous track) or \(\nabla\) (next track).
• When playing still picture (JPEG) files, files can also be selected using the operation described below. During playback, either press \([\Delta]\) (previous file) or \([\nabla]\) (next file).
• Connections to the required system and specific settings must be made in order to play music files (page 21).
• Before starting, you must launch the computer’s server software and set the files as server contents. For details, see the operating instructions of your server software.
• Depending on the size of the still picture (JPEG) file, some time may be required for the file to be displayed.

Playing files that have been Preset or Registered in Your Favorites
Files can be preset, registered in your favorites and played using the same operations as for Internet radio stations.

NOTE
• Presettings are erased by overwriting them.
• When the operation described below is performed, the media server’s database is updated and it may no longer be possible to play preset or favorite music files.
• When you quit the media server and then restart it.
• When music files are deleted or added on the media server.
• When using an ESCIENT server, place “ESCIENT” before the server name.

Selecting tracks
During playback, either press \(\Delta\) (previous track) or \(\nabla\) (next track).
• When playing still picture (JPEG) files, tracks can also be selected using the operation described below. During playback, either press \([\Delta]\) (previous file) or \([\nabla]\) (next file).
• If the USB memory device is divided into multiple partitions, only the top partition can be selected.
• The AVP-A1HDCI is compatible with MP3 files conforming to “MPEG-1 Audio Layer-3” standards.
• When \([\triangleright]\) is pressed, playback starts from the first track on the USB memory device.
NOTE

• The AVP-A1HDCI is equipped with two USB ports, one each on the front and rear panels. It is not possible to use the set with USB memory devices connected to both the ports at the same time. Select the USB port you want to use at the “Source Select” – “NET/USB” – “Playback Mode” – “USB Select” menu.
• DENON will accept no responsibility whatsoever for any loss or damage to data on USB memory devices when using the USB memory device connected to the AVP-A1HDCI.
• USB memory devices will not work via a USB hub.
• DENON does not guarantee that all USB memory devices will operate or receive power. When using a USB connection type portable hard disk of the type for which power can be supplied by connecting an AC adapter, we recommend using the AC adapter.
• It is not possible to connect and use a computer via the AVP-A1HDCI’s USB port using a USB cable.
• The AVP-A1HDCI is not compatible with the iPod shuffle.

Listening to Rhapsody

Preparations

1 Use △▽ to select “Rhapsody”, then press ENTER or ▶.

2 Use △▽ to select “I have a Rhapsody account” or “Start 30-day free trial”, then press ENTER or ▶.

3 [When selecting “I have a Rhapsody account”]
   - Enter Username and Password.
   - Select “OK”, then press ENTER.
   [When selecting “Start 30-day free trial”]
   - Select “Accept”, then press ENTER.
   ※ To cancel, select “Reject”, then press ENTER.

• Username :

   [Input characters]
   a – z A – Z 0 – 9
   ! “#$%&’()*+,-./:;<=>?@[\]^_`{|}~(space)

• Password :

   [Input characters]
   a – z A – Z 0 – 9
   ! “#$%&’()*+,-./:;<=>?@[\]^_`{|}~(space)

Search From Rhapsody Latest Information

1 Use △▽ to select “Rhapsody Music Guide”, then press ENTER or ▶.

2 Use △▽ to select the information for track selection, then press ENTER or ▶.
   After selecting, the information is displayed.

3 Use △▽ to select the track, then press ENTER or ▶.

Enter a Character Search For The Track You Want to Listen to

1 Use △▽ to select “Search”, then press ENTER or ▶.

2 Use △▽ to select the search item, then press ENTER or ▶.
   After selecting, the information is displayed.
   ※ You can search by artist name, album name or track name.

3 Enter the characters, then press ENTER.

Search From the Rhapsody Internet Radio Station

1 Use △▽ to select “Rhapsody Channels”, then press ENTER or ▶.

2 Use △▽ to select radio station, then press ENTER or ▶.

Registering Tracks In My Library

1 Press ▶ while the track you wish to register is playing.

2 Use △▽ to select “Add to My Library”, then press ENTER.
   The track is entered in the Library.

Listening to Tracks Registered In My Library

1 Use △▽ to select “My Library”, then press ENTER or ▶.

2 Use △▽ to select the information or track, then press ENTER.
   After selecting, the information is displayed.

Displaying the Track Menu During Play

1 Press ▶ during playback.

2 Use △▽ to select the search item, then press ENTER or ▶.
Operating the AVP-A1HDCI Using a Browser (Web control)

This function lets you operate the AVP-A1HDCI using Internet Explorer.


3. Enter the AVP-A1HDCI IP address in Internet Explorer’s address box.
   For example, if the IP address of AVP-A1HDCI is “192.168.113.3”, enter “http://192.168.113.3”.

4. When the top menu is displayed, click on the menu you want to operate.

   - Click when you operate the setup menu. (Example 2)
   - Click when you operate each zone. (Example 1)
   - Click to change zone name. (Example 3)
   - Click when you update to the latest information. (*1)
   - Click to perform each operation. Changes to each operation screen. (Example 4)
   - Click to return to the top menu. (*2)
   - Click to add a setting to the “Favorites” in your browser. (*3)

   *1: Normally, there is a change to the latest information each time you operate. When operated from the main unit, click because the screen is not updated.
   *2: Displayed when setting “Top Menu Link Setup” to “ON” in [Example 3].
   *3: To avoid mistakenly performing menu operations of a zone you are not operating, we recommend that you register the setting contents for each zone under Favorites in your browser.

5. Operate.

   - Click “SAVE” when you want to save settings, and click “LOAD” when you want to call settings. Becomes each operation screen.
   - Enter figures or click “<” or “>” to make the setting, and then click “Set”.
   - After entering characters, click “Set” to set, or click “Def” to return to initial setting.
   - Enter zone name.
   - Click to set zone name.
   - Click when changing the background color of each operation screen.
   - Click “ON” when performing Top Menu Link Setup. When set up, return to the top menu from each operation screen. (Default setting : “OFF”)

   [Example 2] Setup menu screen
   [Example 3] Zone name change screen
   [Example 1] Main zone control screen
   [Example 4] Setting menu screen
   [Example 5] Operation screen

Click “v” and select from the displayed items.

Click to determine a setting.

Click to return to the top menu.
NOTE
You cannot change setup menu operations and zone name on the PDA menu screen.

NOTE
You cannot change setup menu operations and zone name on the PDA menu screen.

NOTE
To perform web control, you must connect a web control device such as a PC to the same network as the AVP-A1HDCI.
With web control, some network settings, etc., cannot be set.
When updating firmware, settings made by the web controller may be reset.

Other Operations and Functions

Other Operations

Playing Super Audio CD

1. Assign “DENON LINK” with the “Digital” setting or assign “HDMI” with the “HDMI” setting (page 48).

2. Either turn <SOURCE SELECT> or press [SOURCE SELECT] to select the input source assigned in step 1. The “DENON LINK” or “HDMI” indicator lights on the display.

3. Select “AUTO” for the INPUT MODE (page 47).

4. Select the surround mode (page 50 ~ 52).
We recommend playing in the DIRECT mode.

5. Start playing the Super Audio CD.
The “DENON” indicator lights on the display.
For operating instructions, refer to the respective equipment’s operating instructions.

• When playing DSD signals in the DIRECT or PURE DIRECT mode, the DSD signals are converted as such into analog signals. When playing in other surround modes, the DSD signals are first converted into PCM format, then into analog signals.
• “DSD DIRECT” is shown on the display when playing DSD 2-channel signals in the DIRECT mode. “DSD MULTI DIRECT” is shown on the display when playing DSD multi-channel signals in the DIRECT mode.
• The DSD signal may not be output depending on the equipment that is connected. For further details, refer to the user manual for the equipment being used.
Recording on an External Device (REC OUT mode)
You can listen to one program source while recording a different program source.

1. Press <ZONE2/3/4 / REC SELECT>. “ZONE3 SOURCE” is shown on the display.

2. Turn <SOURCE SELECT> until “RECCOUT SOURCE” is displayed.
   The “REC” indicator lights.
   ![Zone Selection Diagram]

3. Turn <SOURCE SELECT> to choose the input source to be recorded.

4. Play the program source.

5. Start recording.

- To cancel, press <ZONE2/3/4 / REC SELECT>, then turn <SOURCE SELECT> until “ZONE3 SOURCE” is displayed.
- Make a test recording before starting the actual recording.
- Signals are only output to the analog REC OUT connectors when the digital signals input to the digital input connectors (OPTICAL/COAXIAL) are PCM (2-channel) signals.
- Digital audio signals input to the DENON LINK or HDMI connectors are not output to the REC OUT connectors, so connect using the OPTICAL or COAXIAL connectors.
- Sources selected with the REC OUT mode are output from ZONE3 as well.
- In the REC OUT mode, the remote control unit’s ZONE3 mode buttons cannot be operated.
- When the “Digital Out” setting is set to “ZONE4 Select”, the OPTICAL4 output connector becomes the ZONE4 output. When using for recording, set to “Rec Select”.
- Copyright protected network audio (Internet radio, media server, USB and Rhapsody) signals cannot be output from the digital output connectors (OPTICAL).

**NOTE**
- Recordings you make are for your personal enjoyment and should not be used for other purposes without permission of the copyright holder.
- When “DENON LINK” is assigned at the GUI menu “Assign” setting, the PCM signals, network audio signals (Internet radio, media server, USB and Rhapsody), XM signals and HD Radio signals input from the digital input connectors cannot be output from the analog REC OUT connectors.
- Input sources for which “Delete” is selected at “Source Delete” cannot be selected.

Dolby Headphone recording
When REC OUT mode is set to “SOURCE”, with the AVP-A1HDCI it is possible to output signals encoded in the Dolby Headphone mode from the recording output terminal and record them on a separate recorder.

1. The Dolby Headphone play mode is set when headphones are connected to <PHONES> during playback in the STANDARD (DOLBY/DTS Surround) mode. When this is done, signals encoded in the Dolby Headphone mode are automatically output from the recording output terminals (analog and digital) and can be recorded.

2. Select the parameters and set the desired mode.
   Start recording.
   Refer to the “Dolby Headphone” (page 51).

**NOTE**
- Do not disconnect the headphones during recording.
Convenient Functions

HDMI Control Function

When connecting the AVP-A1HDCI to a television or player compatible with the HDMI control function, the following operations are possible:

- Turn power ON/OFF (Synchronize with television)
- Switch to sound output equipment (TV and AVP-A1HDCI)
- Adjust volume
- Switch input source

When using these functions set as follows: GUI menu “Manual Setup” – “HDMI Setup” – “HDMI Control” (page 32).

NOTE

When using the HDMI control function, do not assign HDMI input to “TV/CBL” by setting “Source Select” – “(input source)” – “Assign” in the GUI menu.

Connections

![Diagram of connections between HDMI compatible player and television]

Player compatible with HDMI control function

Television compatible with HDMI control function

Operations

1. Connect the HDMI to the AVP-A1HDCI with equipment compatible with the HDMI control function.

2. Put the power on for all the equipment connected to the HDMI.

3. Check the settings for all the equipment connected to the HDMI and make HDMI available to them.

   ※ Please consult the operating instructions for the connected equipment to check the settings.
   ※ Operations 1 – 3 do not have to be repeated once started.
   ※ Carry out Operations 2 and 3 should any of the equipment be plugged out.

4. Switch the television input to the HDMI connected to the AVP-A1HDCI.

5. Switch the AVP-A1HDCI input to the HDMI input source and check if the picture from the player is ok.

6. Put the television power on standby and check if the AVP-A1HDCI goes into standby.

If the AVP-A1HDCI does not work please check the following:
- Is the GUI menu “Manual Setup” – “HDMI Setup” – “HDMI Control” – “Control” (page 32) set to “ON”?
- Is the GUI menu “Manual Setup” – “HDMI Setup” – “HDMI Control” – “Control Monitor” (page 32) set for the monitor output connected to television?
- Is the GUI menu “Manual Setup” – “HDMI Setup” – “HDMI Control” – “Power Off Control” (page 32) set to “ON”?
- Is the control function used for the television HDMI properly set? (Check the television operating instructions for details.)
- Should any of the operations below be performed, the interlocking function may be reset, in which case, repeat Operation’s 2 and 3.
  - GUI menu “Source Select” – “(input source)” – “Assign” – “HDMI” (page 48) setting has changed
  - There is a change to the connection between the equipment and the HDMI, or an increase in equipment
  - Change of HDMI monitor output in AVP-A1HDCI setup.
Getting Started

Quick Select Function
With this function, the currently playing input source, input mode, surround mode, room EQ settings and volume can be stored in the memory.

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

2 Press and hold the desired QUICK SELECT. Keep pressing the button until the quick select indicator lights.

[Quick Select Defaults]

<table>
<thead>
<tr>
<th>Input Source</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Select 1</td>
<td>DVD</td>
</tr>
<tr>
<td>Quick Select 2</td>
<td>TV/CBL</td>
</tr>
<tr>
<td>Quick Select 3</td>
<td>VCR</td>
</tr>
</tbody>
</table>

Fader Function
This function lets you adjust (fade) the sound from all the front or rear speakers at once.

1 Press CH SELECT.

2 Press ▲ or CH SELECT to select “Fader”.

3 Use ▼ to adjust the volume of the speakers.
(▼: front, ▲: rear)

- The fader function does not affect the subwoofer.
- The fader can be adjusted until the volume of the speaker adjusted to the lowest value is –12 dB.

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

1 Press CH SELECT.

2 Use ▲ or CH SELECT 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.
※ “OFF” can be set by pressing ▼ when the subwoofer’s volume is set to –12 dB.

Personal Memory Plus Function
This function sets the settings (input mode, surround mode, HDMI output mode, Picture Adjust, 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, room EQ settings and the volumes of the different speakers are stored for the individual surround modes.

About the button names in these explanations
< > : Buttons on the main unit
[ ] : Buttons on the remote control unit
Button name only:
Buttons on the main unit and remote control unit
**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.
All settings are reset when the microcomputer is reset.

1. **Turn off the power using <POWER>**.
2. **Press <POWER> while simultaneously pressing <STANDARD> and <HOME THX CINEMA>**.
3. **Once the display starts flashing at intervals of about 1 second, release the two buttons**.

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

Main Remote Control Unit

- On the main remote control unit, the display switches according to the device being operated and the mode.
- In modes other than iPod, the mode switches between “DEVI” and “DEV2” each time the [MODE SELECTOR] is pressed.
- In the AMP, TUNER, NET/DTU and iPod modes, when the remote ID is set, the AVP-A1HDCI can be used independently even in an environment containing multiple DENON amplifiers.

Operating DENON Audio Components

1. Press [MODE SELECTOR] for the component to be operated.

   The indicator for the component to be operated flashes.

   - AMP / ZONE2 / ZONE3 / ZONE4 / SYSTEM CALL
   - TUNER (FM/AM) / XM
   - NETWORK/USB / DIGITAL TUNER (HD Radio)
   - Satellite Receiver / Cable TV
   - iPod
   - DVD player (recorder) / CD player (recorder)
   - VCR / TAPE
   - TV

   ※ The mode switches each time [AMP] is pressed.

2. Operate the component.

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

Presetting

The included main remote control unit can be preset to operate devices of various brands.

1. Press [MODE SELECTOR] for the device you want to preset.

2. Press and hold in [RC SETUP] for at least 3 seconds. The signal transmission indicator flashes twice.

3. Press [NUMBER] and input the 5-digit number of the brand of the component to be preset. The numbers are shown in the Preset Code Table (End of this manual).

   When the code is registered, the signal transmission indicator flashes twice.

   When the preset code is transmitted, the mode indicator for the component to which that code belongs flashes.

   ※ The input mode is canceled if no button is operated for 10 seconds.

   Some brands have more than one preset code. If the component does not operate, try inputting a different code.

Operating Preset Components

1. Press [MODE SELECTOR] for the component to be operated.

   The mode indicator of the device to be operated flashes.

2. Operate the component.

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

[HOME] is used to return to the AMP mode (AMP, ZONE2, ZONE3, ZONE4 or SYSTEM CALL) when in any mode other than AMP.
### Functions of Buttons by Component

**EL Display**

<table>
<thead>
<tr>
<th>Buttons</th>
<th>DVD</th>
<th>DVD Recorder</th>
<th>CD</th>
<th>CD Recorder</th>
<th>VCR</th>
<th>TAPE</th>
<th>iPod</th>
</tr>
</thead>
<tbody>
<tr>
<td>[MODE SELECTOR]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[▲ ◀ ⬆ ▶]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[SOURCE ON], [SOURCE OFF]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[SETUP/SEARCH]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[CH + / SHUFFLE], [CH – / REPEAT]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[ENTER]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[RETURN]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[0 ~ 9, +10]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Buttons

- **MENU**
  - Menu/guide
  - Cursor
  - Enter setting
  - Set up
  - Return

- **CH + / SHUFFLE**
  - Select track

- **CH – / REPEAT**
  - Select track

- **0 ~ 9, +10**
  - Select track

#### Special Remarks

1. Only one component can be preset for each mode. If a new code is preset, the previous code is automatically cleared.
2. The names of the functions for the DVD remote control buttons differ from brand to brand. Check beforehand.

#### NOTE

- Preset a DVD player or DVD recorder for the “DVD” (DEV1) mode. Preset a CD player or CD recorder for the “CD” (DEV2) mode.
- Preset a VCR for the “VCR” (DEV1) mode. Preset a tape deck for the “TAPE” (DEV1) mode.
**Remote Control**

**Buttons**

- **EL Display**
  - **[MODE SELECTOR]**
  - **[MENU]**
  - **[ENTER]**
  - **[SETUP]**
  - **[DISPLAY]**
  - **[TV/VCR]**
  - **[CH +/-]**
  - **[SEARCH]**
  - **[SHIFT]**
  - **[0 ~ 9, +10]**

**Special Remarks**

1. Only one component can be preset for each mode. If a new code is preset, the previous code is automatically cleared.
2. The CD, VCR or DVD buttons (one only set) can be assigned to the TV, satellite receiver and cable TV mode (page 81 “Punch Through Function”).

**MODE SELECTOR**

<table>
<thead>
<tr>
<th>Device Mode</th>
<th>TV</th>
<th>Satellite Receiver / Cable TV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Device operated</strong></td>
<td><strong>[DEV1]</strong></td>
<td><strong>[DEV2]</strong></td>
</tr>
<tr>
<td>TV (HITACHI)</td>
<td>Punch through</td>
<td>Punch through</td>
</tr>
<tr>
<td>SAT</td>
<td>Power on</td>
<td>Power on</td>
</tr>
</tbody>
</table>

**Buttons**

- **MENU**
  - Menu/guide
- **ENTER**
  - Cursor
- **SETUP**
  - Switch search modes
- **DISPLAY**
  - Channel selection
- **CH +/-**
  - Channel selection
- **0 ~ 9, +10**
  - Channel selection
- **TV/VCR**
  - Switch inputs

**EL Display**

- **MODE SELECTOR**
  - **A ~ G**, **[▲ ▼]**, **[BAND]**, **[MODE]**, **[MEMO]**
  - **[▲ ▼]**
  - **[SEARCH]**
  - **[CH +/-]**
  - **[SHIFT]**
  - **[0 ~ 9]**

**Device operated**

- **[DEV1]**
- **[DEV2]**
- **[DEV1]**
- **[DEV2]**

**Device Mode**

<table>
<thead>
<tr>
<th>Device Mode</th>
<th><strong>[DEV1]</strong></th>
<th><strong>[DEV2]</strong></th>
<th><strong>[DEV1]</strong></th>
<th><strong>[DEV2]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog tuner</td>
<td>Preset memory block selection</td>
<td>Preset memory block selection</td>
<td>Preset memory block selection</td>
<td>Preset memory block selection</td>
</tr>
<tr>
<td>XM</td>
<td>Channel selection</td>
<td>–</td>
<td>–</td>
<td>Tuning + / –</td>
</tr>
<tr>
<td>NET / USB</td>
<td>–</td>
<td>AM/FM switching</td>
<td>–</td>
<td>AM/FM switching</td>
</tr>
<tr>
<td>HD Radio</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

**Buttons**

- **[▲ ▼]**
  - Cursor
- **ENTER**
  - Enter, Playback/Pause
- **SEARCH**
  - Preset channel selection
- **CH +/-**
  - Preset channel selection
- **0 ~ 9**
  - Preset channel selection
- **SHIFT**
  - Switch memory block
Setting the Remote ID

When using multiple DENON AV receivers in the same room, make this setting so that only the desired AV receiver operates.

1. Press [AMP] to set the main remote control unit to the AMP mode.
2. Press and hold in [RC SETUP] for at least 3 seconds. The signal transmission indicator flashes twice.
3. Refer to the table at the right, and use [NUMBER] to input the 5-digit number corresponding to the remote ID to be changed. The signal transmission indicator flashes twice.
4. Press [TU], [iPod] or [NET/DTU] to select the mode to be set.
5. Repeat steps 2 to 4 to set the remote IDs for all modes.

NOTE

- When changing a setting, be sure to set the same remote ID as the AVP-A1HDCI’s (page 43).
- When changing the AMP mode’s remote ID, also change the “TUNER”, “iPod” and “NET/DTU” remote ID at the same time.
- Set the remote ID of an analog tuner for “TUNER” ( ), the XM remote ID for “ ”.

Learning Function

If your AV devices are of a brand other than DENON or if they cannot be operated with the preset memory function, their remote control signals can be transferred and stored in the AVP-A1HDCI’s main remote control unit.

1. Press [MODE SELECTOR] for the device you want to set.
2. Press and hold in [RC SETUP] for at least 3 seconds. The signal transmission indicator flashes twice.
3. Press [9], [7] and [5], in that order. The signal transmission indicator flashes twice and the learning mode is set.
4. Press the button to be set. The main remote control unit’s display turns off.

5. Repeat steps 2 to 4 to set the remote IDs for all modes.

NOTE

- With some remote control units, the signals cannot be learned or the device will not operate properly even when the signals have been learned. In this case, use the device’s own remote control unit.
- Learned buttons have priority over the preset memory. If you no longer need the learned setting, reset the learning function (page 82).

- [HOME] cannot be learned.
- Do not learn any remote control signals at [RC SETUP].
- The AMP, ZONE2, ZONE3, ZONE4 and SYSTEM CALL modes cannot be learned.

6. Press and hold in [RC SETUP] for at least 3 seconds. The signal transmission indicator flashes twice and the setting is completed.

NOTE

- If you want to learn other buttons, repeat steps 4 and 5.
- This mode can be switched by pressing [MODE SELECTOR].
- The mode can be switched by pressing [MODE SELECTOR].
- The signal transmission indicator lights once for a long time if learning was not possible.

- The signal transmission indicator lights once for a long time if learning was not possible.
- The signal transmission indicator lights once for a long time if learning was not possible.

- The signal transmission indicator lights once for a long time if learning was not possible.
System Call Function
This function lets you register a series of operations at a single button. For example, the amplifier can be turned on, the input source selected, the monitor’s power turned on, the source device’s power turned on and the play mode set all by pressing a single button. Up to 32 signals each can be registered at [SYSTEM CALL] (1, 2 or 3).

Registering
1 Press [MODE SELECTOR] for the device you want to register.
2 Press and hold in [RC SETUP] for at least 3 seconds.
The signal transmission indicator flashes twice.
3 Press [9], [7] and [8], in that order.
The signal transmission indicator flashes twice and the system call registration mode is set.
4 Press [SYSTEM CALL] (1, 2 or 3) at which you want to register the signals.
5 Press the buttons you want to register in the same sequence as the operations you want to perform.
The signal transmission indicator lights when a button is pressed.
Example: Press [POWER ON].
   ↓ Press [►].
   ※ The mode can be switched by pressing [MODE SELECTOR].
   ※ Perform the registration procedure for all the buttons you want to register.
6 Press and hold in [RC SETUP] for at least 3 seconds.
The signal transmission indicator flashes twice and the setting is completed.

Calling out
1 Press [AMP], to select “SYSTEM CALL”.
2 Press [SYSTEM CALL] (1, 2 or 3) at which the signals were registered.
The registered signals are transmitted in the registered sequence.

Punch Through Function
CD, DVD or VCR mode buttons can be stored at unused TV or SAT/CBL mode buttons. For example, when DVD mode buttons are assigned to the TV mode, the DVD mode operations can be performed while in the TV mode.

Registering
1 Press [MODE SELECTOR] for the device you want to punch through (CD, DVD or VCR).
2 Press and hold in [RC SETUP] for at least 3 seconds.
The signal transmission indicator flashes twice.
3 Press [9], [8] and [4], in that order.
The signal transmission indicator flashes twice and the punch through setting mode is set.
4 Press [MODE SELECTOR] for the device you want to punch through (CD, DVD or VCR).
5 Press the button you want to punch through (►, ■, ◀, ◀, ▶, ◀ or ▶).
6 Press [MODE SELECTOR] for the equipment (TV or SAT/CBL) you want to set to punch-through.
7 Press and hold in [RC SETUP] for at least 3 seconds.
The signal transmission indicator flashes twice and the setting is completed.
**Resetting the Main Remote Control Unit**

### Learning Function

**[Resetting button by button]**

1. Press [MODE SELECTOR] for the device you want to reset.
2. Press and hold in [RC SETUP] for at least 3 seconds.
   - The signal transmission indicator flashes twice.
3. Press [9], [7] and [6], in that order.
   - The signal transmission indicator flashes twice.
4. Press the button you want to reset twice.
   - The signal transmission indicator flashes twice.

### Resetting by device mode

1. Press and hold in [RC SETUP] for at least 3 seconds.
   - The signal transmission indicator flashes twice.
2. Press [9], [8] and [1], in that order.
   - The signal transmission indicator flashes 4 times.
   - All the settings are restored to their defaults.
3. Press [9], [8] and [4], in that order.
   - The signal transmission indicator flashes twice.
4. Press and hold in [RC SETUP] for at least 3 seconds.
   - The signal transmission indicator flashes twice.

### Punch-through function

1. Press [MODE SELECTOR] for the device you want to reset (TV or SAT/CBL).
2. Press and hold in [RC SETUP] for at least 3 seconds.
   - The signal transmission indicator flashes twice.
3. Press [9], [8] and [4], in that order.
   - The signal transmission indicator flashes twice.
4. Press and hold in [RC SETUP] for at least 3 seconds.
   - The signal transmission indicator flashes twice.

### All settings

1. Press and hold in [RC SETUP] for at least 3 seconds.
   - The signal transmission indicator flashes twice.
2. Press [9], [8] and [1], in that order.
   - The signal transmission indicator flashes 4 times.
   - All the settings are restored to their defaults.

---

**Setting the Time the Backlight Stays Lit**

The display’s brightness can be adjusted in 5 steps.

1. Press and hold in [RC SETUP] for at least 3 seconds.
   - The signal transmission indicator flashes twice.
2. Press [CHANNEL +] or [CHANNEL –].
   - The display gets one step brighter when [+] is pressed.
   - The display gets one step darker when [–] is pressed.
3. Press [RC SETUP] to complete the setting.

---

**Adjusting the Backlight’s Brightness**

The display’s brightness can be adjusted in 5 steps.

1. Press and hold in [RC SETUP] for at least 3 seconds.
   - The signal transmission indicator flashes twice.
2. Press [CHANNEL +] or [CHANNEL –].
   - The display gets one step brighter when [+] is pressed.
   - The display gets one step darker when [–] is pressed.
3. Press [RC SETUP] to complete the setting.

---

**System call function**

1. Press and hold in [RC SETUP] for at least 3 seconds.
   - The signal transmission indicator flashes twice.
2. Press [9], [7] and [8], in that order.
   - The signal transmission indicator flashes twice.
3. Press [SYSTEM CALL] (1, 2 or 3) you want to reset.
4. Press and hold in [RC SETUP] for at least 3 seconds.
   - The signal transmission indicator flashes twice.
Sub Remote Control Unit Operations

- The sub remote control unit is equipped with frequently used buttons, so it can be used for simple remote control unit operations.
- The sub remote control unit can also be used for multi-zone, so you can use it to control the AVP-A1HDCI from other rooms.
- The operations listed below can be performed with the sub remote control unit.
  - Switching the input source
  - Adjusting the volume
  - Tuner (AM/FM), XM, HD Radio and iPod operations
  - NET/USB direct play
  - GUI menu and ZONE2 on-screen display operations
  - Zone power on/off
- It is not possible to operate devices other than the amplifier.

## Functions of Buttons by Component

<table>
<thead>
<tr>
<th>Device operated</th>
<th>DVD, HDP, TV/CBL, DVR-1, DVR-2, VCR, V.AUX, SAT, CD, PHONO</th>
<th>TUNER (AM/FM)</th>
<th>DTU (HD Radio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone selection</td>
<td>M</td>
<td>Z2</td>
<td>Z3</td>
</tr>
<tr>
<td>ZONE SELECT</td>
<td>Zone operation mode selection</td>
<td>Zone operation mode selection</td>
<td>Zone operation mode selection</td>
</tr>
<tr>
<td>ZONE OFF</td>
<td>Power turned off (1)</td>
<td>Power turned off (1)</td>
<td>Power turned off (1)</td>
</tr>
<tr>
<td>ZONE ON</td>
<td>Power turned on (1)</td>
<td>Power turned on (1)</td>
<td>Power turned on (1)</td>
</tr>
<tr>
<td>SOURCE SELECT</td>
<td>Input source selection (2)</td>
<td>Input source selection</td>
<td>Input source selection</td>
</tr>
<tr>
<td>CHANNEL +/–</td>
<td>–</td>
<td>Preset channel selection</td>
<td>–</td>
</tr>
<tr>
<td>SHIFT</td>
<td>–</td>
<td>Preset channel memory block selection</td>
<td>–</td>
</tr>
<tr>
<td>VOLUME +/–</td>
<td>Adjustment of volume (1)</td>
<td>Adjustment of volume (1)</td>
<td>Adjustment of volume (1)</td>
</tr>
<tr>
<td>MUTE</td>
<td>Muting (1)</td>
<td>Muting (1)</td>
<td>Muting (1)</td>
</tr>
<tr>
<td>MENU</td>
<td>Selected zone menu</td>
<td>Selected zone menu</td>
<td>Selected zone menu</td>
</tr>
<tr>
<td>[△ △ □ □]</td>
<td>–</td>
<td>–</td>
<td>Multicast switching (Δ △)</td>
</tr>
<tr>
<td>[SEARCH]</td>
<td>–</td>
<td>RDS search</td>
<td>Multicast switching</td>
</tr>
<tr>
<td>[USB]</td>
<td>3</td>
<td>–</td>
<td>3</td>
</tr>
<tr>
<td>ALL MUSIC *</td>
<td>(Media server only)</td>
<td>4</td>
<td>–</td>
</tr>
<tr>
<td>FAVORITES *</td>
<td>5</td>
<td>–</td>
<td>5</td>
</tr>
</tbody>
</table>

**Note:**

1. Affects the currently selected zone.
2. In ZONE4, it is not possible to select “XM”, “HD Radio”, or sources with no digital input signals (“TUNER”, “PHONO”, “iPod”, etc.).
3. Network audio signals (Internet radio, media server, USB) can be played as long as they are not copyright-protected.
4. When “[USB]” is pressed, playback starts from the first track on the USB memory device.
5. Whether “All Music” or “Favorites” is selected depends on the “Direct Play” setting (page 49).

### DIRECT PLAY button

- Playback is possible in the mode selected at GUI menu “Source Select” – “NET/USB” – “Playback Mode” – “Direct Play”.
- FAVORITES: Playback starts from the first track registered in the favorites.
- ALL MUSIC: Playback starts from the first track registered in the “All Music” folder.
- When “[USB]” is pressed, playback starts from the first track on the USB memory device.

**NOTE**

When the media server is stopped or restarted, it may no longer be possible to play tracks stored in the favorites.
<table>
<thead>
<tr>
<th>Device operated</th>
<th>SAT TU (XM)</th>
<th>NET / USB</th>
<th>iPod</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zone selection</strong></td>
<td>M Z2 Z3 Z4</td>
<td>M Z2 Z3 Z4</td>
<td>M Z2 Z3 Z4</td>
</tr>
<tr>
<td><strong>ZONE SELECT</strong></td>
<td>Zone operation mode selection</td>
<td>Zone operation mode selection</td>
<td>Zone operation mode selection</td>
</tr>
<tr>
<td><strong>ZONE OFF</strong></td>
<td>Power turned off (※1)</td>
<td>Power turned off (※1)</td>
<td>Power turned off (※1)</td>
</tr>
<tr>
<td><strong>ZONE ON</strong></td>
<td>Power turned on (※1)</td>
<td>Power turned on (※1)</td>
<td>Power turned on (※1)</td>
</tr>
<tr>
<td><strong>SOURCE SELECT</strong></td>
<td>Input source selection –</td>
<td>Input source selection (※2)</td>
<td>Input source selection –</td>
</tr>
<tr>
<td><strong>CHANNEL +/-</strong></td>
<td>Preset channel selection –</td>
<td>Preset channel selection –</td>
<td>–</td>
</tr>
<tr>
<td><strong>SHIFT</strong></td>
<td>Preset channel memory block selection –</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>VOLUME +/-</strong></td>
<td>Adjustment of volume (※1) –</td>
<td>Adjustment of volume (※1) –</td>
<td>Adjustment of volume (※1) –</td>
</tr>
<tr>
<td><strong>MUTE</strong></td>
<td>Muting (※1) –</td>
<td>Muting (※1) –</td>
<td>Muting (※1) –</td>
</tr>
<tr>
<td><strong>MENU</strong></td>
<td>Selected zone menu –</td>
<td>Selected zone menu –</td>
<td>Selected zone menu –</td>
</tr>
<tr>
<td><strong>ENTER</strong></td>
<td>–</td>
<td>File operations –</td>
<td>–</td>
</tr>
<tr>
<td><strong>SEARCH</strong></td>
<td>Direct access of channel –</td>
<td>Page forward screen / Character search –</td>
<td>Page forward screen / Browse/Remote mode switching (press and hold) –</td>
</tr>
<tr>
<td><strong>RETURN</strong></td>
<td>–</td>
<td>File operations –</td>
<td>–</td>
</tr>
<tr>
<td><strong>TUNING ▲▼</strong></td>
<td>Channel selection –</td>
<td>Track search –</td>
<td>Track search –</td>
</tr>
<tr>
<td><strong>■</strong></td>
<td>–</td>
<td>Stop –</td>
<td>Stop –</td>
</tr>
<tr>
<td><strong>►/II</strong></td>
<td>–</td>
<td>Play/pause –</td>
<td>Play/pause –</td>
</tr>
<tr>
<td><strong>REPEAT</strong></td>
<td>–</td>
<td>1-track/all-track repeat play (USB / Media server) –</td>
<td>1-track/all-track repeat play –</td>
</tr>
<tr>
<td><strong>RANDOM</strong></td>
<td>–</td>
<td>Random play (USB / Media server) –</td>
<td>Song/album shuffle play –</td>
</tr>
<tr>
<td><strong>USB</strong></td>
<td>※3 –</td>
<td>※3 –</td>
<td>※3 –</td>
</tr>
<tr>
<td><strong>ALL MUSIC * (Media server only)</strong></td>
<td>※4 –</td>
<td>※4 –</td>
<td>※4 –</td>
</tr>
<tr>
<td>**FAVORITES ***</td>
<td>※5 –</td>
<td>※5 –</td>
<td>※5 –</td>
</tr>
</tbody>
</table>

※1: Affects the currently selected zone.
※2: In ZONE4, it is not possible to select “XM”, “HD Radio”, or sources with no digital input signals (“TUNER”, “PHONO”, “iPod”, etc.). Network audio signals (Internet radio, media server, USB) can be played as long as they are not copyright-protected.
※3: The input source switches to “NET/USB” and the files on the USB memory device are played.
※4: The input source switches to “NET/USB” and the files in “All Music” on the media server are played.
※5: The input source switches to “NET/USB” and the files in “Favorites” are played.
*: Whether “All Music” or “Favorites” is selected depends on the “Direct Play” setting [p. 49].
Setting the Zone for Which the Sub Remote Control Unit is Used (ZONE SELECT LOCK Mode)

We recommend always using the sub remote control unit for the same room. When this is done, the unit can be set so that the zone does not switch when buttons are operated.

1 Use the tip of a pen to press [ADVANCED SETUP].
   All the multi-zone indicators light.

2 Select the multi-zone to be set.
   The selected multi-zone indicator lights.
   ① To set to "MAIN ZONE": Press [REPEAT]
   ② To set to "ZONE2": Press [RANDOM]
   ③ To set to "ZONE3": Press [USB]
   ④ To set to "ZONE4": Press [ALL MUSIC/FAVORITES]

3 Use the tip of a pen to press [ADVANCED SETUP].
   The multi-zone indicator turns off.

To Cancel

1 Use the tip of a pen to press [ADVANCED SETUP].
   The currently selected multi-zone indicator lights.

2 Press [ZONE SELECT].
   All the multi-zone indicators light.

3 Use the tip of a pen to press [ADVANCED SETUP].
   The multi-zone indicator turns off.

Setting the Remote ID

When using multiple DENON AV receivers in the same room, make this setting so that no AV receiver other than the desired one operates.

1 While pressing [MENU], press [ADVANCED SETUP] with the tip of a pen.
   The multi-zone indicator corresponding to the currently selected remote ID flashes.

2 Select the remote ID to be set.
   ① To set to 1: Press [REPEAT].
      The "M" indicator flashes.
   ② To set to 2: Press [RANDOM].
      The "Z2" indicator flashes.
   ③ To set to 3: Press [USB].
      The "Z3" indicator flashes.
   ④ To set to 4: Press [ALL MUSIC/FAVORITES].
      The "Z4" indicator flashes.

3 While pressing [MENU], press [ADVANCED SETUP] with the tip of a pen.
   The multi-zone indicator turns off.

NOTE

When changing a setting, be sure to set the same remote ID as the AVP-A1HDCI's (page 43).

Resetting the Settings

While pressing [ZONE OFF], press [ADVANCED SETUP] with the tip of a pen.
All the multi-zone indicators flash 4 times, then all the settings are restored to their defaults.
Multi-Zone Connections

- For ZONE2, it is necessary to set in sequence with the signal connected to either the power amplifier or bit stream amps. The amp should be the power amplifier in the case of ZONE3, and the bit-stream for ZONE4.
- If the signal inputted to ZONE2 is analog, change to PCM(2-channel) signal, and output it from ZONE2 optical output connectors.

<table>
<thead>
<tr>
<th>Zone</th>
<th>Connectors for audio output</th>
<th>Audio signals</th>
<th>Connectors for video output</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZONE2</td>
<td>ZONE2 PRE OUT</td>
<td>Stereo</td>
<td>ZONE2 VIDEO OUT,</td>
</tr>
<tr>
<td></td>
<td>ZONE2 OPTICAL OUT</td>
<td>Bit-stream</td>
<td>ZONE2 S-VIDEO OUT,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ZONE2 COMPONENT VIDEO OUT</td>
</tr>
<tr>
<td>ZONE3</td>
<td>ZONE3 PRE OUT</td>
<td>Stereo</td>
<td>ZONE3 VIDEO OUT</td>
</tr>
<tr>
<td>ZONE4</td>
<td>ZONE4 OPTICAL4 OUT</td>
<td>Bit-stream</td>
<td></td>
</tr>
</tbody>
</table>

- When only using one speaker for ZONE2 or ZONE3, set to “Mono”. In this case, the ZONE2 (ZONE3) monaural output is output from the ZONE2 (ZONE3) pre-out L and R connectors, so connect as desired.
- Separate power amplifiers are needed for ZONE2 and ZONE3.
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Multi-Zone Operations

Turning the Power On and Off

[Operation on the main unit]
Press <ZONE2 ON/OFF>, <ZONE3 ON/OFF>, or <ZONE4 ON/OFF> for the zone to be operated.
When the power turns on, the multi-zone indicator lights on the display.

[Operation on the remote control unit]
In the zone mode you want to operate, press [ON] or [OFF].

Selecting the Input Source

[Operation on the main unit]
1. Press <ZONE2/3/4 / REC SELECT> and select the zone to be adjusted.
2. Turn <SOURCE SELECT>.

[Operation on the remote control unit]
In the zone mode you want to operate, press [SOURCE SELECT].

Adjusting the Volume

[Operation on the main unit]
1. Press <ZONE2/3/4 / REC SELECT> and select the zone to be adjusted.
2. Turn <VOLUME> to adjust.

[Operation on the remote control unit]
In the zone mode whose volume you want to adjust, press [VOLUME].

[Variable range] –70dB ~ –40dB ~ 18dB

• The volume can be adjusted when GUI menu “Manual Setup” – “Zone Setup” – “(select the zone)” – “Volume Level” is set to “Variable”. The volume can be increased up to the value set at GUI menu “Manual Setup” – “Zone Setup” – “(select the zone)” – “Volume Limit” (page 39).

• The volume for ZONE2 and ZONE3 can be adjusted with the remote control unit.

Turning off the Sound Temporarily

In the zone mode for which you want to mute the sound, press [MUTE].
The sound is reduced to the level set at GUI menu “Manual Setup” – “Zone Setup” – “(select the zone)” – “Mute Level” (page 39). To cancel, either adjust the volume or press [MUTE] again.

• The source selected for ZONE3 is also output from the recording output connectors.

• When the [MENU] is selected, it is possible to carry out “Zone Setup” looking at the on-screen display in ZONE2. Also, when the “OSD” is set as “ZONE2/ZONE3”, the on-screen display comes on the ZONE2 monitor when ZONE3 has been operated so it is possible to operate it looking at this.

NOTE

• The digital signal from the digital input connectors (OPTICAL/COAXIAL) are output to the analog audio connectors in ZONE2 and ZONE3 in the case of PCM (2-channel) signals only.

• Digital audio signals input from the DENON LINK or HDMI connectors cannot be played in multi-zone.

• “XM” or “HD Radio” cannot be selected with digital output (OPTICAL) in ZONE2. Copyright-protected Network audio signals (Internet radio, media server, USB, Rhapsody) cannot be output.

• In ZONE4, it is not possible to select “XM”, “HD Radio”, or sources with no digital input signals (“TUNER”, “PHONO”, “iPod”, etc.). Network audio signals (Internet radio, media server, USB, Rhapsody) can be played as long as they are not copyright-protected.

• When certain digital signals are being input, noise may be output from the ZONE2 and ZONE3 audio output connectors.
The THX Surround EX format adds new “Surround Back” (SB) channels to the conventional 5.1 channel system. This makes it easy to achieve sound positioned directly behind the listener, something that was previously difficult with sources designed for conventional multi surround speakers. 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.

In addition to sources recorded in 6.1-channels, the surround effect of conventional 2- to 5.1-channel sources can also be enhanced. Speaker(s) for one or two channels are required in order to achieve a THX Surround EX system with the AVP-A1HDCI. Adding these, however, allows you to achieve stronger surround effects not only with sources recorded in THX Surround EX, but also with conventional 2- to 5.1 channel sources. The WIDE SCREEN mode is a mode for achieving surround sound with up to 7.1 channels using surround back speakers, for sources recorded in conventional Dolby Surround as well as Dolby Digital 5.1 channel and DTS Surround 5.1 channel sources. Furthermore, all the DENON original surround modes (page 51 “DSP Simulation Playback”) are compatible with 7.1 channel playback, so you can enjoy 7.1 channel sound with any signal source.

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

Using surround back speakers greatly improves the positioning of the sound at the rear. Because of this, the surround left and right channels play an important role in achieving a smooth transition of the acoustic image from the front to the back. As shown on the diagram above, in a movie theater the surround signals are also produced from diagonally in front of the listeners, creating an acoustic image as if the sound were floating in space.

To achieve these effects, we recommend placing the speakers for the surround left and right channels slightly more towards the front than with conventional surround systems. Doing so sometimes increases the surround effect when playing conventional 5.1 channel sources in the THX Surround EX mode. Check the surround effects of the various modes before selecting the surround mode.

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] For THX surround EX systems
(Using surround back speakers)

When mainly playing movies
Recommneded when your surround speakers are single or 2-way speakers.

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] For THX surround EX systems
(Using surround back speakers)

When mainly playing movies
Recommended when your surround speakers are single or 2-way speakers.

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] For THX surround EX systems
(Using surround back speakers)

When mainly playing movies
Recommended when your surround speakers are single or 2-way speakers.

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] For THX surround EX systems
(Using surround back speakers)

When mainly playing movies
Recommended when your surround speakers are single or 2-way speakers.
When not using surround back speakers

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 Digital Plus

Dolby Digital Plus is an improved Dolby Digital signal format that is compatible with up to 7.1-channels of discrete digital sound and also improves sound quality thanks to extra data bit rate performance. It is upwardly compatible with conventional Dolby Digital, so it offers greater flexibility in response to the source signal and the conditions of the playback equipment.

Dolby TrueHD

Dolby TrueHD is a high definition audio technology developed by Dolby Laboratories, using lossless coding technology to faithfully reproduce the sound of the studio master. This format is compatible with a maximum sampling frequency of 96 kHz and up to 7.1-channels, so it is used for applications particularly prioritizing sound quality.
**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 Headphone**

This is a three-dimensional sound technology developed jointly by Dolby Laboratories and Lake Technology Ltd. of Australia for achieving surround sound using regular headphones. Previously, when using headphones all the sounds resonated inside the head and it was uncomfortable to listen with headphones for long periods of time. Dolby Headphone simulates speaker playback in a room and places the sound at the front or the sides, outside the head, to achieve a powerful sound like the sound of movie or home theaters. This technology is mainly for multichannel audio/video equipment with Dolby Digital or Dolby Pro Logic Surround decoding functions and works with a high performance digital signal processing (DSP) chip. Dolby Headphone is effective not only for multichannel sources but also for stereo programs.

On the AVP-A1HDCI, it is possible to output signals encoded in the Dolby Headphone mode from the recording output terminal and record them on a separate recorder.

**Dolby Digital EX**

Dolby Digital EX is a 6.1-channel surround format proposed by Dolby Laboratories and Lucas Films. The 6.1 channels of sound, including surround back channels, provide improved sound positioning and expression of space.

*Sources recorded in Dolby Surround*

Sources recorded in Dolby Surround are indicated with the following logo marks:

Dolby Surround support mark: ☑️

**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-HD High Resolution Audio**

DTS-HD High Resolution Audio is an improved version of the conventional DTS, DTS-ES and DTS 96/24 signals formats, compatible with sampling frequencies of 96 kHz and up to 7.1-channels of discrete digital sound. High data bit rate performance provides high quality sound. This format is fully compatible with conventional products, including conventional DTS digital surround 5.1-channel data.

**DTS-HD Master Audio**

DTS-HD Master Audio is DTS, Inc.’s lossless audio format compatible with up to 96 kHz/7.1-channels. The lossless audio coding technology faithfully reproduces the sound of the studio master. It is fully compatible with conventional products, including conventional DTS digital surround 5.1-channel data.

**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™ is a matrix decoding technology for achieving 6.1-channel surround playback with 2-channel sources. It includes “DTS NEO:6 CINEMA” suited for playing movies and “DTS NEO:6 MUSIC” suited for playing music.

**Home THX Cinema Surround**

THX is an exclusive set of standards and technologies established by the world-renowned film production company, Lucasfilm Ltd. THX grew from George Lucas’ personal desire to make your experience of the film soundtrack, in both movie theaters and in your home theater, as faithful as possible to what the director intended.

Movie soundtracks are mixed in special movie theaters called dubbing stages and are designed to be played back in movie theaters with similar equipment and conditions. The soundtrack created for movie theaters is then transferred directly onto Laserdisc, VHS tape, DVD, etc., and is not changed for playback in a small home theater environment.

THX engineers developed patented technologies to accurately translate the sound from the movie theater environment into the home, correcting the tonal and spatial errors that occur. On the AVP-A1HDCI, when the Home THX Cinema mode is on, THX post-processing is automatically added after the Dolby Pro Logic, Dolby Digital or DTS decoder.

**Re-EQ™ (Re-Equalization)**

The tonal balance of a film soundtrack will be excessively bright and harsh when played back over audio equipment in the home because film soundtracks are designed to be played back in large movie theaters using very different professional equipment. Re-Equalization restores the correct tonal balance for listening to a movie soundtrack in a normal home environment.

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Manufactured under license from Dolby Laboratories. “Dolby”, “Pro Logic” and the double-D symbol are trademarks of Dolby Laboratories.

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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 & other U.S. and worldwide patents issued & pending. DTS is a registered trademark and the DTS logos, Symbol, DTS-HD and DTS-HD Master Audio are trademarks of DTS, Inc.© 1996-2007 DTS, Inc. All Rights Reserved.
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Timbre Matching™

The human ear changes our perception of a sound depending on the direction from which the sound is coming. In a movie theater, there is an array of surround speakers so that the surround information is all around you. In a home theater, only two speakers located to the side of your head are the Timbre Matching feature filters the information going to the surround speakers so that they more closely match the tonal characteristics of the sound coming from the front speakers. This ensures seamless panning between the front and surround speakers.

Adaptive Decorrelation™

In a movie theater, a large number of surround speakers help create an enveloping surround sound experience, while in a home theater there are usually only two speakers. This can make the surround speakers sound like headphones that lack spaciousness and envelopment. The surround sounds will also collapse into the closest speaker as you move away from the middle seating position. Adaptive Decorrelation slightly changes one surround channel's time and phase relationship with respect to the other surround channel. This expands the listening position and creates—with only two speakers—the same spacious surround experience as in a movie theater.

THX Ultra2™

Before any home theater component can be THX Ultra2 certified, it must incorporate all the features above and also pass a rigorous series of quality and performance tests. Only then can a product meet the THX Ultra2 logo, which is your guarantee that the Home Theater products you purchase will give you superb performance for many years to come. THX Ultra2 requirements cover every aspect of the product including power amplifier performance, pre-amplifier performance and operation, as well as hundreds of other parameters in both the digital and analog domain.

In addition to improvements to the power amplifier with respect to previous THX Ultra standards, three surround modes have been added: the THX Ultra2 Cinema mode, THX Music Mode and THX Games Mode.

THX Ultra2 Cinema

THX Ultra2 Cinema mode plays 5.1 movies using all 8 speakers giving you the best possible movie watching experience. In this mode, new THX processing blends the side surround speakers and back surround speakers providing the optimal mix of ambient and directional surround sounds.

DTS-ES (Matrix and 6.1 Discrete) and Dolby Digital Surround EX encoded soundtracks will be automatically detected in Ultra2 Cinema mode if the appropriate flag has been encoded.

Some Dolby Digital Surround EX soundtracks are missing the digital flag that allows automatic switching. If you know that the movie that you are watching is encoded in Surround EX, you can manually select the THX Surround EX playback mode, otherwise THX Ultra2 Cinema mode will apply processing to provide optimum replay.

THX Music Mode

For the replay of 5.1 multi-channel music the THX Music Mode should be selected. In this mode new THX processing is applied to the surround channels of all 5.1 encoded music sources such as DTS and Dolby Digital to provide a wide stable rear soundstage.

THX Games Mode

For the replay of stereo and multi-channel game audio the THX Games Mode should be selected. In this mode THX ASA processing is applied to the surround channels of all 5.1 and 2.0 encoded game sources such as analog, PCM, DTS and Dolby Digital. This accurately places all game audio surround information, providing a full 360 degree playback environment. THX Games Mode is unique as it gives you a smooth transition of audio in all points of the surround field.

ASA (Advanced Speaker Array)

ASA is a proprietary THX technology which processes the sound fed to 2 side and 2 back surround speakers to provide the optimal surround sound experience. When you set up your home theater system using all eight speaker outputs (Left, Center, Right, Surround Right, Surround Back Right, Surround Back Left, Surround Left and Subwoofer) placing the two Surround Back speakers close together facing the front of the room as shown in the diagram will provide the largest sweet spot. If for practical reasons you have to place the Surround Back speakers apart, you will need to go THX Audio Set-up screen and choose the setting that most closely corresponds to the speaker spacing, which will re-optimize the surround sound-field.

ASA is used in three new modes; THX Ultra2 Cinema, THX Music Mode and THX Games Mode.

Boundary Gain Compensation

If your chosen listening room layout (for practical or aesthetic reasons) results in the most of the listeners being close to the rear wall, the resulting bass level can be sufficiently reinforced by the boundary that the overall sound quality becomes “boomy”. THX Ultra2 receivers and controllers contain the BGC (Boundary Gain Compensation) feature to provide an improved bass balance. BGC can be selected by choosing “THX Ultra2 Subwoofer—Yes” from the “Boundary Gain Compensation” section of the THX Audio setup menu.

THX™ Surround EX™

In 1999, a new surround system was launched simultaneously with the release of the movie “Star Wars Episode I”. “Dolby Digital Surround EX” is a new movie sound track that greatly enhances the sense of spatial expression and the positioning of the surround channel sound. The result is 360 degrees of movement and moving sound effects that seem to pass right over the listener’s head. This system was developed jointly by THX and Dolby Laboratories, fusing THX’s idea of improving spatial expression and achieving a uniform 360 degree sound experience with Dolby Laboratories’ matrix encoding technology. Emphasis was placed on compatibility with the existing system Dolby Digital 5.1 channel, and the new “surround back (SB) channel” was added to achieve improvements over the conventional 5.1 channel system in terms of the positioning of the sound at the rear, the acoustic image of sound moving from the two sides to the back as well as sound moving from the front to the center rear with the multi surround speaker systems used in movie theaters, thereby enabling various types of surround sound. The surround back channel signal is a matrix-encoded signal inserted into both the Dolby Digital SL (surround left) and SR (surround right) channels. Upon playback, the signals are decoded by a high precision digital matrix decoder within the Dolby Digital decoder into the SL, SR and SB channels and output as 6.1 channels of signals. With the AVP-A1HDCI, the signals further undergo Home THX Cinema processing to achieve a THX Surround EX system. Even without the proper environment for playing the SB channel, Dolby Digital Surround EX signals are 100% compatible with existing 5.1 channel playback systems, so they can be played as such. In this case, the SB channel signal is produced as a monaural signal from both the SL and SR channels, so none of the signal components are missing. The effects specific to THX Surround EX (the sense of spatial expression and the positioning of the sound), however, are the same as with conventional 5.1 channel surround systems.
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. Dynamic EQ selects the best possible frequency response and surround levels moment-by-moment as volume is changed. The result is bass response, tonal balance and surround impression that remain constant despite changes in volume. This is the first technology to combine 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 MultiEQ to provide well-balanced sound for every listener at any volume level.

Audyssey MultEQ® XT
Audyssey MultEQ® XT is the first technology to properly measure sound information throughout a listening area, then combine this information to accurately represent the acoustical problems in the room. Based on these measurements, MultiEQ XT calculates an equalization solution that corrects for both time and frequency response problems in every seat. Audyssey MultiEQ XT not only corrects frequency response problem in a large listening area but also performs a fully automated surround system setup. For a detailed description, see page 26.
## 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.

### Lip Sync

Because consumer electronics devices are using increasingly complex digital signal processing to enhance the clarity and detail of the content, synchronization of video and audio in user devices has become a greater challenge and could potentially require complex end-user adjustments. HDMI 1.3 incorporates an automatic video/audio synching capability that allows devices to perform this synchronization automatically with total accuracy.

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

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### Surround Modes and Parameters

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<th>Parameter (default values are shown in parentheses)</th>
</tr>
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<td></td>
<td>Front L/R</td>
<td>Center</td>
<td>Surround L/R</td>
</tr>
<tr>
<td><strong>PURE DIRECT, DIRECT</strong></td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td><strong>DSD DIRECT</strong></td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td><strong>DSD MULTI DIRECT</strong></td>
<td>□</td>
<td>□</td>
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</tr>
<tr>
<td><strong>MULTI CH DIRECT</strong></td>
<td>□</td>
<td>□</td>
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<tr>
<td><strong>STEREO</strong></td>
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<tr>
<td><strong>EXT. IN</strong></td>
<td>□</td>
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<td>□</td>
</tr>
<tr>
<td><strong>MULTI CH IN</strong></td>
<td>□</td>
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<td>□</td>
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<tr>
<td><strong>WIDE SCREEN</strong></td>
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<tr>
<td><strong>HOME THX CINEMA (2ch)</strong></td>
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<tr>
<td><strong>HOME THX CINEMA (5.1ch)</strong></td>
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<td>□</td>
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<tr>
<td><strong>DOLBY PRO LOGIC Ix</strong></td>
<td>□</td>
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<td>□</td>
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<tr>
<td><strong>DOLBY PRO LOGIC II</strong></td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
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- **7CH STEREO**
- **SUPER STADIUM**
- **ROCK ARENA**
- **JAZZ CLUB**
- **CLASSIC CONCERT**
- **MONO**
- **VIDEO GAME**
- **MATRIX**
- **DOLBY HEADPHONE**

- □ : Signal / Adjustable
- □ : No signal / Not adjustable
- □ : Turned on or off by speaker configuration setting

**NOTE1**: This parameter is available when the GUI menu "Parameter" – "Audio" – "Surround Parameters" – "Mode" is set to "Cinema" (page 52).

**NOTE2**: This parameter is available when the GUI menu "Parameter" – "Audio" – "Surround Parameters" – "Mode" is set to "Cinema" (page 52).

**NOTE6**: This parameter can be used when GUI menu "Manual Setup" – "Audio Setup" – "EXT. IN Setup" – "Mode" is set to "DSP" (page 33).

**NOTE**

*1 : When playing Dolby Digital and DTS signals.
*2 : When playing Dolby True HD signal.
*3 : When playing Dolby Digital, DTS, DVD-Audio and Super Audio CD.
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<th>Surround Mode</th>
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<th>Effect Level</th>
<th>Delay Time</th>
<th>Subwoofer</th>
<th>PRO LOGIC IIIX MUSIC mode only</th>
<th>NEO 6 MUSIC mode only</th>
<th>EXT. IN only</th>
<th>Tone *1</th>
<th>Night Mode</th>
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O : Signal / Adjustable  
X : No signal / Not adjustable  
NOTE3: BASS +6 dB, TREBLE 0 dB  
NOTE4: BASS +6 dB, TREBLE +6 dB  
NOTE5: Can be used according to the "Direct Mode" setting.  
NOTE6: "DSP" mode only  
*1 : When "Dynamic EQ" is set to "ON", you cannot use the "Tone" setting.  
*2 : Can be set when GUI menu "Parameter" - "Audio" - "Room EQ" is set to "Audyssey", "Audyssey Flat", "Audyssey Byp.L/R".
### Differences in Surround Mode Names Depending on the Input Signals

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<th>Surround mode</th>
<th>Note</th>
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<th>PCM</th>
<th>WAV</th>
<th>WMA</th>
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<th>DTS-HD Master Audio</th>
<th>DTS-HD High Resolution Audio</th>
<th>DTS ES DSCRFT (With Flag)</th>
<th>DTS ES MTRX (With Flag)</th>
<th>DTS (5.1ch)</th>
<th>DTS (5.1/5.1ch)</th>
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<th>DOLBY DIGITAL Plus</th>
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**NOTE:**

*1: This mode is not available when the surround back speaker setup is set to “None” (page 29).

*2: This mode is not available when the surround back speaker setup is set to “1spkr” or “None” (page 29).

*3: For input signals other than 2 channel signals, this mode cannot be selected when surround back speaker is set to “1spkr” or “None”.

- **X:** Non-selectable mode
- **O:** Mode fixed when “AFDM” is “ON”
- **●:** Mode selectable in initial status
- **O:** Selectable mode
| Surround mode | Note | ANALOG | LINEAR PCM / WAV | WMA (Windows Media Audio / MP3 / MPG-4 AAC / FLAC) | DTS-HD Master Audio | DTS-HD High Resolution Audio | DTS ES DISCRETE (With Flag) | DTS ES MATRIX (With Flag) | DTS 5.1/6.1 | DTS 7.1 | DOLBY TrueHD | DOLBY DIGITAL Plus | DOLBY DIGITAL EX (With Flag) | DOLBY DIGITAL EX (With Flag) | DOLBY DIGITAL (5.1) | DOLBY DIGITAL (5.1 / 1 / 3ch) | DOLBY DIGITAL (3ch) | DVD-AUDIO (multi ch) | DVD-Audio (2ch) | DSD (multi ch) | DSD (2ch) |
|---------------|------|---------|------------------|-----------------------------------------------|--------------------|--------------------------|----------------------------|--------------------------|----------------|-----------|----------------|----------------|----------------------------|--------------------------|--------------------------|-------------------------|--------------------------|--------------------------|----------------|----------------|
| STANDARD      |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY SURROUND|      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY TrueHD  |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY DIGITAL+|      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY DIGITAL EX | *1 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY (D+) (HD) +EX | *1 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY (D+) (HD) +PLIIx CINEMA | *2 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY (D+) (HD) +PLIIx MUSIC | *1 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY PRO LOGIC II CINEMA | *1 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY PRO LOGIC II MUSIC | *1 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY PRO LOGIC II GAME | *1 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY PRO LOGIC |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DOLBY HEADPHONE | *4 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| MULTI CH IN  |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| MULTI CH IN  |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| MULTI CH IN + PLIIx CINEMA | *2 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| MULTI CH IN + PLIIx MUSIC | *1 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| MULTI CH IN + Dolby EX | *1 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| MULTI CH IN 7.1 |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DIRECT       |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DIRECT       |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DSD DIRECT   |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DSD DIRECT   |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| DSD MULTI DIRECT |    |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| M DIRECT + PLIIx CINEMA | *2 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| M DIRECT + PLIIx MUSIC | *1 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| M DIRECT + Dolby EX | *1 |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |
| M DIRECT 7.1 |      |         |                  |                                               |                    |                          |                            |                          |                |            |                |                  |                            |                          |                          |                          |                          |                          |                |                |

**NOTE:**
*1: This mode is not available when the surround back speaker setup is set to “None” (page 29).
*2: This mode is not available when the surround back speaker setup is set to “1spkr” or “None” (page 29).
*4: You can select this when the headphone plug is inserted into the headphone jack.

● : Mode selectable in initial status
○ : Mode fixed when “AFDM” is “ON”
$: Selectable mode
× : Non-selectable mode
### Input signals

<table>
<thead>
<tr>
<th>Surround mode</th>
<th>Note</th>
<th>ANALOG</th>
<th>LINEAR PCM / WAV</th>
<th>WMA (Windows Media Audio) / MP3 / MPEG-4 AAC / FLAC</th>
<th>DTS-HD Master Audio</th>
<th>DTS-HD High Resolution Audio</th>
<th>DTS ES Master (With Flag)</th>
<th>DTS ES (5.1ch)</th>
<th>DTS 96/24</th>
<th>DOLBY True HD</th>
<th>DOLBY DIGITAL Plus</th>
<th>DOLBY DIGITAL EX (With Flag)</th>
<th>DOLBY DIGITAL EX (5.1/5/4ch)</th>
<th>DOLBY DIGITAL (4/3ch)</th>
<th>DOLBY DIGITAL (2ch)</th>
<th>DOLBY DIGITAL- Audio (multi ch)</th>
<th>DVD-AUDIO (multi ch)</th>
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**NOTE:**

*1: This mode is not available when the surround back speaker setup is set to “None” (page 29).

*2: This mode is not available when the surround back speaker setup is set to “1spkr” or “None” (page 29).

*5: If the surround back speaker setup is set to “None” and when using headphones, then “5CH STEREO” is displayed.

“9CH STEREO” is displayed when surround (A+B) and the surround back speaker are used.

- **O:** Mode selectable in initial status
- **●:** Mode selectable in initial status
- **X:** Non-selectable mode
About Networks

Windows Media Player ver.11
This is a media player distributed free of charge by Microsoft Corporation. It can be used to play playlists created with Windows Media Player ver. 11 as well as files in such formats as WMA, DRM WMA, MP3 and WAV.

vTuner
This is a free online contents server for Internet radio. Note that usage fees are included in upgrade costs. For inquiries about this service, visit the vTuner site below. vTuner website: [http://www.radiodenon.com](http://www.radiodenon.com)

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• Some contents may not be compatible with other DLNA CERTIFIED™ products.

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• Content providers are using the digital rights management technology for Windows Media contained in this device (WM-DRM) to protect the integrity of their content (Secure Content) so that their intellectual property, including copyright, in such content is not misappropriated. This device uses WM-DRM software to play Secure Content (WM-DRM Software). If the security of the WM-DRM Software in this device has been compromised, owners of Secure Content (Secure Content Owners) may request that Microsoft revoke the WM-DRM Software’s right to acquire new licenses to copy, display and/or play Secure Content. Revocation does not alter the WM-DRM Software’s ability to play unprotected content. A list of revoked WM-DRM Software is sent to your device whenever you download a license for Secure Content from the Internet or from a PC. Microsoft may, in conjunction with such license, also download revocation list onto your device on behalf of Secure Content Owners.

About Wireless LAN

Wi-Fi®
Wi-Fi Certification assures tested and proven interoperability by the Wi-Fi Alliance, a group certifying interoperability among wireless LAN devices.

IEEE 802.11
This is one wireless LAN standard set by the 802 working group that establishes LAN technology standards at the IEEE (Institute of Electrical and Electronics Engineers) of the United States. It uses the 2.4 GHz band usable freely without a radio frequency license (ISM band), enabling communications at a maximum speed of 11 Mbps.

The value indicated above is the maximum theoretical value for the wireless LAN standard, and does not indicate the actual data transfer rate.

IEEE 802.11g
This is another wireless LAN standard set by the 802 working group that establishes LAN technology standards at the IEEE (Institute of Electrical and Electronics Engineers) of the United States, and is compatible with IEEE 802.11b. It also uses the 2.4 GHz band, but enables communications at a maximum speed of 54 Mbps.

The value indicated above is the maximum theoretical value for the wireless LAN standard, and does not indicate the actual data transfer rate.

Infrastructure Communications
“Infrastructure Communications” refers to networks using wireless LAN access points. This function can be used to connect to the Internet or a wired LAN via a wireless LAN access point. Wireless LAN access points include wireless broadband routers.

Ad-hoc Communications
Signal transfer through wireless interconnection of computers is referred to as “ad hoc communications”. With such ad hoc communications there is no connection to the Internet. Ad hoc communications are suited for establishing simple temporary networks.

Network Names (SSID: Security Set Identifier)
When forming wireless LAN networks, groups are formed to prevent interference, data theft, etc. This grouping is done by “SSID” or “Security Set Identifiers”. For further security, a WEP key is set and signal transfer is not possible unless the SSID and WEP key match.

WEP Key (Network Key)
This is key information used for encrypting data when conducting data transfer. On the AVP-A1HDCI, the same WEP key is used for data encryption and decryption, so the same WEP key must be set on both devices in order for communications to be established between them.
**WPA (Wi-Fi Protected Access)**

This is a security standard established by the Wi-Fi Alliance. In addition to the conventional SSID (network name) and WEP key (network key), it also uses a user identification function and encrypting protocol for stronger security.

**WPA2 (Wi-Fi Protected Access 2)**

This is a new version of the WPA established by the Wi-Fi Alliance, compatible with more secure AES encryption.

**WPA-PSK/WPA2-PSK (Pre-shared Key)**

This is a simple authentication system for mutual authentication when a preset character string matches on the wireless LAN access point and client.

**Passphrase**

This refers to the code key used for WPA-PSK/WPA2-PSK authentication, a WPA authentication method.

**TKIP (Temporal Key Integrity Protocol)**

This is a network key used for WPA. The encryption algorithm is RC4, the same as for WEP, but the security level is increased by changing the network key used for encryption for each packet.

**AES (Advanced Encryption Standard)**

This is a next generation standard encryption method replacing the current DES and 3DES, and because of its high security it is expected to be applied widely to wireless LANs in the future. It uses the “Rijndael” algorithm developed by two Belgian cryptographers to divide the data into blocks of fixed lengths and encrypt each block. It supports data lengths of 128, 192 and 256 bits and key lengths of 128, 192 and 256 bits as well, offering extremely high encryption security.
## MAIN ZONE

### Relationship Between Video Signals and Monitor Output

<table>
<thead>
<tr>
<th>Video Convert</th>
<th>Input signal</th>
<th>HDMI</th>
<th>COMPONENT</th>
<th>S-VIDEO</th>
<th>VIDEO</th>
<th>HDMI</th>
<th>COMPONENT</th>
<th>S-VIDEO</th>
<th>VIDEO</th>
<th>HDMI</th>
<th>COMPONENT</th>
<th>S-VIDEO</th>
<th>VIDEO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ON</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>With HDMI</td>
<td>monitor on</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>HDMI</td>
<td>HDMI</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>X</td>
<td>X</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>COMPONENT</td>
<td>COMPONENT</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>X</td>
<td>X</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>S-VIDEO</td>
<td>S-VIDEO</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>X</td>
<td>X</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>VIDEO</td>
<td>VIDEO</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>X</td>
<td>X</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

| **Without HDMI** | monitor off |      |           |         |       |      |           |         |       |      |           |         |       |
| HDMI         | HDMI         | X    | X         | X       | O     | O    | X         | O       | O     | X    | X         | O       | O     |
| COMPONENT     | COMPONENT     | X    | X         | X       | O     | O    | X         | O       | O     | X    | X         | O       | O     |
| S-VIDEO      | S-VIDEO       | X    | X         | X       | O     | O    | X         | O       | O     | X    | X         | O       | O     |
| VIDEO        | VIDEO         | X    | X         | X       | O     | O    | X         | O       | O     | X    | X         | O       | O     |

### Monitor output

- **HDMI**: When selected, HDMI signals are used.
- **COMPONENT**: When selected, Component signals are used.
- **S-VIDEO**: When selected, S-Video signals are used.
- **VIDEO**: When selected, Composite signals are used.

### Notes

- **Signal present**: ✓
- **No signal**: X

- 480p ~ 720p: 480p / 576p / 1080i / 720p

### Additional Information

- **No output**: X
- **Output according to “Resolution” setting (i/p Scaler)**: When “A to H” is set (p.46).
- **Wallpaper or set background color displayed**: X
- **Output according to “Resolution” setting (i/p Scaler)**: When “A to H” is set (p.46).
- **GUI menu display not displayed**: X

### Technical Details

- The MAIN ZONE video conversion function is compatible with the following formats: NTSC, PAL, SECAM, NTSC4.43, PAL N, PAL-M and PAL-60.
- When SECAM signals of video input are up-converted, the signals are output in PAL format from the S-Video connector.
- If the input signal is a component 1080p signal, up-converting to HDMI is not possible.
- The GUI menu display cannot be superimposed when xYCC signals and component 1080p signal, computer’s resolution (e.g., VGA) are input.
### Video Convert

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Monitor output (Normally)</th>
<th>Monitor output (when GUI menu displayed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDMI</td>
<td>COMPONENT</td>
<td>S-VIDEO</td>
</tr>
<tr>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>×</td>
<td>×</td>
<td>×</td>
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<tr>
<td>×</td>
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<tr>
<td>×</td>
<td>○</td>
<td>×</td>
</tr>
</tbody>
</table>

- **ZONE2**

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Monitor output</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPONENT</td>
<td>S-VIDEO</td>
</tr>
<tr>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>×</td>
<td>○</td>
</tr>
<tr>
<td>×</td>
<td>○</td>
</tr>
</tbody>
</table>

**OFF**

- **Video Convert**

<table>
<thead>
<tr>
<th>HDMI</th>
<th>COMPONENT</th>
<th>S-VIDEO</th>
<th>VIDEO</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>×</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>○</td>
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</tbody>
</table>

- **ZONE2**

- **Video Convert**

<table>
<thead>
<tr>
<th>HDMI</th>
<th>COMPONENT</th>
<th>S-VIDEO</th>
<th>VIDEO</th>
</tr>
</thead>
<tbody>
<tr>
<td>×</td>
<td>×</td>
<td>×</td>
<td>○</td>
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<tr>
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</tr>
</tbody>
</table>

- **ZONE2**

- **Video Convert**

<table>
<thead>
<tr>
<th>HDMI</th>
<th>COMPONENT</th>
<th>S-VIDEO</th>
<th>VIDEO</th>
</tr>
</thead>
<tbody>
<tr>
<td>×</td>
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<td>×</td>
<td>○</td>
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</tr>
</tbody>
</table>

- **ZONE2**

- **Video Convert**

<table>
<thead>
<tr>
<th>HDMI</th>
<th>COMPONENT</th>
<th>S-VIDEO</th>
<th>VIDEO</th>
</tr>
</thead>
<tbody>
<tr>
<td>×</td>
<td>×</td>
<td>×</td>
<td>○</td>
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<tr>
<td>×</td>
<td>○</td>
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<tr>
<td>○</td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
</tbody>
</table>
### Video Convert

<table>
<thead>
<tr>
<th>S-VIDEO Monitor Out</th>
<th>COMPO</th>
<th>S-VIDEO</th>
<th>VIDEO</th>
<th>COMPO</th>
<th>S-VIDEO</th>
<th>VIDEO</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>–</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>–</td>
<td>x</td>
</tr>
<tr>
<td>–</td>
<td>–</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>–</td>
<td>x</td>
</tr>
<tr>
<td>–</td>
<td>–</td>
<td>–</td>
<td>x</td>
<td>x</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Used</td>
<td>x</td>
<td>o</td>
<td>o</td>
<td>x</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Not used</td>
<td>x</td>
<td>o</td>
<td>o</td>
<td>x</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

- Off: Output present
- x: No output

*1: With On-screen display, the VIDEO signal is superimposed output.
*2: With On-screen display, the S-VIDEO signal is superimposed output.

### ZONE3

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Monitor output</th>
<th>Monitor output</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-VIDEO</td>
<td>VIDEO</td>
<td>VIDEO</td>
</tr>
<tr>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>x</td>
<td>o</td>
<td>o (VIDEO)</td>
</tr>
<tr>
<td>o</td>
<td>x</td>
<td>o (VIDEO)</td>
</tr>
<tr>
<td>o</td>
<td>o</td>
<td>o (VIDEO)</td>
</tr>
</tbody>
</table>

- o: Signal present
- x: No signal
- X: No output

- o: Output present
- X: No output
## Troubleshooting

If a problem should arise, first check the following:

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

If this unit does not operate properly, check the items listed in the table below. Should the problem persist, there may be a malfunction. In this case, disconnect the power immediately and contact your store of purchase.

### [General]

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power does not turn on, or turns off directly after it was turned on.</td>
<td>Connection of the power cord is faulty.</td>
<td>Check that the power plug is securely inserted into the AVP-A1HDCI's AC inlet and the wall power outlet.</td>
<td>23</td>
</tr>
<tr>
<td>No sound is produced from speakers.</td>
<td>The connection with the input devices or power amp is faulty.</td>
<td>Check the connections.</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Device you want to play and set input source do not match.</td>
<td>Select an appropriate input source.</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Master volume is turned too low.</td>
<td>Adjust the master volume to an appropriate level.</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Mute mode is set.</td>
<td>Cancel the mute mode.</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Headphones are connected.</td>
<td>Disconnect the headphones.</td>
<td>45, 48</td>
</tr>
<tr>
<td></td>
<td>No digital signals are being input.</td>
<td>Select an input source for which the digital input setting has been made.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The connectors to which the digital inputs are assigned and the settable input modes do not match.</td>
<td>Set the input mode.</td>
<td>47</td>
</tr>
<tr>
<td>Display is off.</td>
<td>The “Dimmer” setting is set to “OFF.”</td>
<td>Set to something other than “OFF.”</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>The PURE DIRECT mode is set.</td>
<td>Set a surround mode other than the PURE DIRECT mode.</td>
<td>52</td>
</tr>
<tr>
<td>“DOLBY DIGITAL” indicator does not appear on display.</td>
<td>DVD player’s digital audio output setting is not proper.</td>
<td>Check the DVD player’s audio output setting. For details, read the DVD player’s operating instructions.</td>
<td>–</td>
</tr>
</tbody>
</table>

### [Remote Control Unit]

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set does not work properly when remote control unit operated.</td>
<td>Batteries are worn.</td>
<td>Replace with new batteries.</td>
<td>3, 4</td>
</tr>
<tr>
<td></td>
<td>You are operating outside of the specified range.</td>
<td>Operate within the specified range.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Obstacle between main unit and remote control unit.</td>
<td>Remove the obstacle.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>The batteries are not inserted in the proper direction, as indicated by the polarity marks in the battery compartment.</td>
<td>Insert the batteries in the proper direction, following the polarity marks in the battery compartment.</td>
<td>3, 4</td>
</tr>
<tr>
<td></td>
<td>The set’s remote control sensor is exposed to strong light (direct sunlight, inverter type fluorescent bulb light, etc.).</td>
<td>Move the set to a place in which the remote control sensor will not be exposed to strong light.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>The remote ID of the main unit and remote control unit do not match.</td>
<td>Set the same remote IDs for the main unit and remote control unit.</td>
<td>43, 80, 85</td>
</tr>
</tbody>
</table>

---
### Audio Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sound is produced from center speaker.</td>
<td>• You are playing a monaural source (TV, AM radio broadcast, etc.) in the “STANDARD” (Dolby/DTS Surround) or “HOME THX CINEMA” mode.</td>
<td>• The mode is set to something other than “STANDARD” (Dolby/DTS Surround) or “HOME THX CINEMA”.</td>
<td>50</td>
</tr>
</tbody>
</table>

| No sound is produced from surround speakers. | • The surround mode is set to “STereo,” “DIRECT” or “PURE DIRECT.” | • Set to a surround playback mode. | 50 – 52 |

| No sound is produced from subwoofer. | • Subwoofer’s power not turned on. • The “Subwoofer” setting at “Speaker configuration” is set to “None.” • The subwoofer is not properly connected. • The subwoofer’s volume is turned off. | • Turn on the subwoofer’s power. • Set to “Yes.” • Check the connections. • Adjust the subwoofer’s volume to an appropriate level. | – |

| No test tones are produced when main control unit’s TEST button is pressed. | • Surround mode is set to “STANDARD” (Dolby/DTS Surround) or “HOME THX CINEMA” mode. | • Set to the “STANDARD” (Dolby/DTS Surround) or “HOME THX CINEMA” mode. | 50 |

| DTS sound is not output. | • DVD player’s audio output setting is not set to bitstream. • DVD player is not compatible with DTS sound playback. • The AVP-A1HDCI’s “Decode Mode” setting is set to “PCM.” | • Set the DVD player. For details, refer to the DVD player’s operating instructions. • Use a DTS-compatible player. • Set to the “Auto” or “DTS” mode. | – |

| HDMI audio signals are not output from speakers. | • The “Manual Setup” – “HDMI Setup” – “Audio” setting is set to “TV.” | • Set to “Amp.” | 32 |

### Video Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The on-screen display does not appear.</td>
<td>• The “Manual Setup” – “HDMI Setup” – “Audio” setting is set to “Amp.”</td>
<td>• Set to “TV.”</td>
<td>32</td>
</tr>
</tbody>
</table>

| No picture appears. | • The format of the GUI and TV (NTSC or PAL) do not match. | • Match the format of the GUI and TV. | 41 |

| No picture appears with HDMI connections. | • The connections between the AVP-A1HDCI and monitor are faulty. • The monitor’s input setting is wrong. • PURE DIRECT mode is set. • The player is connected using the component input connectors, the monitor is connected using the video (yellow) or S-Video output connectors. | • Check the connections. • Set properly. • Cancel the PURE DIRECT mode. • High definition (1080i/720p) and progressive (480p/576p) video signals are not down-converted. | 12, 13 |

| Picture cannot be recorded. | • Input source does not match recorder’s video connection connector (video or S-Video). | • The video conversion function does not work for the REC OUT connectors. Match the input source and recorder connections. | 16, 17 |

| DVDs cannot be copied on a VCR. | | • This is not a malfunction. Most movie software includes copy prevention signals and cannot be copied. | – |
### iPod

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
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</thead>
<tbody>
<tr>
<td>iPod cannot be played.</td>
<td>• The input source assigned to “iPod dock” is not selected.</td>
<td>• Switch to the input source assigned at “iPod dock”.</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>• Cable is not properly connected.</td>
<td>• Connect to the port set at “USB Select”.</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>• Control Dock for iPod’s AC adapter is not connected to power outlet.</td>
<td>• Plug the Control Dock for iPod’s AC adapter into a power outlet.</td>
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</tr>
</tbody>
</table>

### [NET/USB / Rhapsody]

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>When a USB memory device is connected, “USB” is not displayed on the GUI menu.</td>
<td>• The set cannot recognize a USB memory device.</td>
<td>• Check the connection.</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>• A USB memory device not conforming to mass storage class or MTP standards is connected.</td>
<td>• Connect a USB memory device conforming to mass storage class or MTP standards.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>• The set port and the connected port do not match.</td>
<td>• Connect to the port set at “USB Select”.</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>• A USB memory device that the set cannot recognize is connected.</td>
<td>• This is not a malfunction. DENON does not guarantee that all USB memory devices will operate or receive power.</td>
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<tr>
<td></td>
<td>• USB memory device is connected via USB hub.</td>
<td>• Connect the USB memory device directly to the USB port.</td>
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</tr>
<tr>
<td>Files on a USB memory device cannot be played.</td>
<td>• USB memory device is in format other than FAT16 or FAT32.</td>
<td>• Set the format to FAT16 or FAT32. For details, refer to the USB memory device’s operating instructions.</td>
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<td></td>
<td>• USB memory device is divided into multiple partitions.</td>
<td>• When divided into multiple partitions, only files stored in the top partition can be played.</td>
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</tr>
<tr>
<td></td>
<td>• Files are stored in a non-compatible format.</td>
<td>• Record the files in a compatible format.</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>• You are attempting to play a file that is copyright protected.</td>
<td>• Files that are copyright protected cannot be played on this set.</td>
<td>66</td>
</tr>
<tr>
<td>The file names are not displayed properly (‘.’, etc.).</td>
<td>• Characters that cannot be displayed are used.</td>
<td>• This is not a malfunction. On this set, characters that cannot be displayed are replaced with a “.” (period).</td>
<td>–</td>
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</tbody>
</table>

### Internet radio cannot be played.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The computer’s or router’s firewall is activated.</td>
<td>• Program is being broadcast in non-compatible format.</td>
<td>• Only Internet radio programs in MP3 and WMA can be played on this set.</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>• Radio station is not currently broadcasting.</td>
<td>• Check the computer’s or router’s firewall settings.</td>
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</tr>
<tr>
<td></td>
<td>• IP address is wrong.</td>
<td>• Choose a radio station that is currently broadcasting.</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>• Check the set’s IP address.</td>
<td>• Check the set’s IP address.</td>
<td>38</td>
</tr>
<tr>
<td>Files stored on a computer cannot be played.</td>
<td>• Files are stored in a non-compatible format.</td>
<td>• Record in a compatible format.</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>• You are attempting to play a file that is copyright protected.</td>
<td>• Files that are copyright protected cannot be played on this set.</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>• Set and computer are connected by USB cable.</td>
<td>• The set’s USB port cannot be used for connection to a computer.</td>
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<tr>
<td>Server is not found, or it is not possible to connect to the server.</td>
<td>• The computer’s or router’s firewall is activated.</td>
<td>• Check the computer’s or router’s firewall settings.</td>
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<td>• Computer’s power is not turned on.</td>
<td>• Turn on the power.</td>
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<td>• Server is not running.</td>
<td>• Launch the server.</td>
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<td></td>
<td>• Set’s IP address is wrong.</td>
<td>• Check the set’s IP address.</td>
<td>–</td>
</tr>
<tr>
<td>Cannot connect to preset or favorite radio stations.</td>
<td>• Radio station is not currently broadcasting.</td>
<td>• Wait a while before trying again.</td>
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</tr>
<tr>
<td></td>
<td>• Radio station is not currently in service.</td>
<td>• It is not possible to connect to radio stations that are no longer in service.</td>
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<tr>
<td>For some radio stations, “Server Full” or “Connection Down” is displayed and station cannot be connected to.</td>
<td>• Station is congested or not currently broadcasting.</td>
<td>• Wait a while before trying again.</td>
<td>–</td>
</tr>
<tr>
<td>Sound is broken during playback.</td>
<td>• Network’s signal transfer speed is slow or communications lines or radio station is congested.</td>
<td>• This is not a malfunction. When playing broadcast data with a high bit rate, the sound may be broken, depending on the communications conditions.</td>
<td>–</td>
</tr>
<tr>
<td>Sound quality is poor or played sound is noisy.</td>
<td>• File being played has a low bit rate.</td>
<td>• This is not a malfunction.</td>
<td>–</td>
</tr>
</tbody>
</table>
### Symptom | Cause | Countermeasure | Page
--- | --- | --- | ---
Cannot login to Rhapsody. ("Username or Password is incorrect" is displayed) | • Login information is incorrect. • Trial period has expired. | • Check if the Username for Rhapsody has been properly entered. • Re-enter the Password. (Password is not displayed.) • Get a full account. www.rhapsody.com/denon/signup | 38

Cannot play. | • When the trial period has finished, there is a limit to the playing time and number of tracks that can be played. | • Get a full account. www.rhapsody.com/denon/signup | 66, 70

Stops in the middle of playing. | • When the trial period has finished, there is a limit to the playing time and number of tracks that can be played. | • Get a full account. | 66, 70

Cannot compile Playlist. | • The AVP-A1HDCI does not respond to playlist compilation. | • When the playlist is compiled in “PC Application”, it is registered to “My Library”. In this way, the playlist can be played in AVP-A1HDCI. ※ Need full account. | –

Cannot delete Rhapsody Channel registered in “My Channels”. | • Cannot be done with AVP-A1HDCI. | • Delete from “PC Application”. | –

Cannot delete Tracks, Playlists, Channels registered in “My Library”. | • Cannot be done with AVP-A1HDCI. | • Delete from “PC Application”. ※ Need full account. | –

**[Wireless LAN]**

| Symptom | Cause | Countermeasure | Page
--- | --- | --- | ---
Cannot connect to network. | • The settings of the SSID and network key (WEP) are incorrect. • The reception is poor and the signals cannot be received. | • Match the network settings with the AVP-A1HDCI’s settings. • Shorten the distance from the wireless LAN’s access point, remove any obstacles and otherwise improve visibility, then try reconnecting. Also install away from microwave ovens and the access points of other networks. • Set the access point’s channel settings away from the channels used for other networks. Alternatively, connect using a network cable. | 35 – 38

Played sound is interrupted or sound cannot be played. | • There are multiple networks and the usable channels overlap. | • Set the access point’s channel settings away from the channels used for other networks. Alternatively, connect using a network cable. | –

**[XM Satellite Radio]**

| Symptom | Cause | Countermeasure | Page
--- | --- | --- | ---
“CHECK XM TUNER” is displayed. | • The XM Mini-Tuner is not installed or not fully seated in the XM Mini-Tuner Dock or the XM Mini-Tuner dock is not connected to the AVP-A1HDCI. | • Confirm the XM Mini-Tuner is fully seated in the dock and check the XM Mini-Tuner dock cable is connected to the AVP-A1HDCI. | 19

“CHECK ANTENNA” is displayed. | • AVP-A1HDCI’s XM connector and the XM Mini-Tuner and Home Dock is not properly connected. | • Check that the connections are correct. | 19
### XM Satellite Radio

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Countermeasure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;NO SIGNAL&quot; is displayed.</td>
<td>The signal cannot be received.</td>
<td>Reposition your XM Mini-Tuner and Home Dock antenna.</td>
<td>–</td>
</tr>
<tr>
<td>&quot;OFF AIR&quot; is displayed.</td>
<td>The selected channel is not currently broadcasting.</td>
<td>Select another channel.</td>
<td>–</td>
</tr>
<tr>
<td>Receiving only XM channels 0 and 1.</td>
<td>The XM Mini-Tuner is not activated.</td>
<td>Contact XM Radio.</td>
<td>–</td>
</tr>
<tr>
<td>&quot;XM - - -&quot; is displayed.</td>
<td>You selected an XM channel that is blocked or cannot be receive with your XM subscription package.</td>
<td>Consult the latest channel guide at <a href="http://www.xmradio.com">www.xmradio.com</a> or <a href="http://www.xmaradio.ca">www.xmaradio.ca</a> for the current list of channels. For cases of a new radio or a radio that has not received XM’s signal for an extended period, allow the radio to receive the XM satellite signal for at least 5 minutes and then try to select the channel again.</td>
<td>–</td>
</tr>
<tr>
<td>&quot;UPDATING&quot; is displayed.</td>
<td>The selected channel is not available. The channel may have been reassigned to a different channel number. This message may occur initially with a new radio or a radio that has not received XM’s signal for an extended period.</td>
<td>Consult the latest channel guide at <a href="http://www.xmradio.com">www.xmradio.com</a> or <a href="http://www.xmaradio.ca">www.xmaradio.ca</a> for the current list of channels. For information on receiving this channel, visit <a href="http://www.xmradio.com">www.xmradio.com</a> or <a href="http://www.xmaradio.ca">www.xmaradio.ca</a> contact XM Satellite Radio at 1-800-967-2346 or 1-877-438-9677.</td>
<td>–</td>
</tr>
</tbody>
</table>
Specifications

Audio section
• Analog
  Input sensitivity / Input impedance: RCA Pre output (unbalanced) : 200 mV / 47 kΩ/kohms
  XLR Pre output (balanced) : 400 mV / 100 kΩ/kohms
  Frequency response: 10 Hz ~ 100 kHz +1, –3 dB (DIRECT mode)
  S/N: 102 dB (IHF–A weighted, DIRECT mode)
  Distortion: 0.005% (20 Hz ~ 20 kHz) (DIRECT mode)
  Rated output: RCA Pre output (unbalanced) : 1.2 V
  XLR Pre output (balanced) : 2.4 V
• Digital
  D/A output: Rated output — 2 V (at 0 dB playback)
  Total harmonic distortion — 0.005% (1 kHz, at 0 dB)
  Dynamic range — 110 dB
  Digital input: Format — Digital audio interface
• Phono equalizer (PHONO input — REC OUT)
  Input sensitivity: 2.5 mV
  RIAA deviation: ±1 dB (20 Hz to 20 kHz)
  S/N: 74 dB (A weighting, with 6 mV input)
  Rated output: 150 mV
  Distortion factor: 0.03% (1 kHz, 3 V)

Video section
• Standard video connectors
  Input / output level and impedance: 1 Vp-p, 75 Ω/ohms
  Frequency response: 5 Hz ~ 10 MHz — +0, –3 dB (when video convert set to “OFF”)
• S-Video connectors
  Input / output level and impedance: Y (brightness) signal — 1 Vp-p, 75 Ω/ohms
  C (color) signal — 0.286 Vp-p, 75 Ω/ohms
  Frequency response: 5 Hz ~ 10 MHz — +0, –3 dB (when video convert set to “OFF”)
• Color component video connector
  Input / output level and impedance: Y (brightness) signal — 1 Vp-p, 75 Ω/ohms
  PB / CB signal — 0.7 Vp-p, 75 Ω/ohms
  PR / CR signal — 0.7 Vp-p, 75 Ω/ohms
  Frequency response: 5 Hz ~ 100 MHz — +0, –3 dB (when video convert set to “OFF”)

Tuner section
• [FM] [AM]
  Receiving Range: 875 MHz ~ 1079 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)
  S/N (IHF–A): MONO 77 dB STEREO 72 dB
  Total harmonic Distortion (at 1 kHz): MONO 0.2% STEREO 0.3%

Wireless LAN
Network type (wireless LAN standards):
Conforming to IEEE 802.11b
Conforming to IEEE 802.11g
(Conforming to Wi-Fi®)
Transfer rate:
DS-SS: 11 / 5.5 / 2 / 1 Mbps (Automatic switching)
OFDM: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbps (Automatic switching)
Security:
SSID (Network name)
WEP key (network key) (64/128 bits)
WPA-PSK (TKIP/AES)
WPA2-PSK (TKIP/AES)
Used frequency range:
2,412 MHz ~ 2,472 MHz
No. of channels:
Conforming to IEEE 802.11b : 11ch (DS-SS) (Of which 1 channel used)
Conforming to IEEE 802.11g : 11ch (OFDM) (Of which 1 channel used)

General
Power supply: AC 120 V, 60 Hz
Power consumption: 2 A
0.3 W (Standby)
Maximum external dimensions: 434 (W) x 214 (H) x 488 (D) mm (17-3/32" x 8-27/64" x 19-7/32")
Weight: 27 kg (Approx 59 lbs 8 oz)

Main remote control unit (RC-1067)
Batteries: LR6/AA Type (two batteries)
Maximum external dimensions: 63 (W) x 238 (H) x 31 (D) mm
Weight: 190 g (Approx 6.7 oz) (including batteries)

Sub remote control unit (RC-1070)
Batteries: R03/AAA Type (two batteries)
Maximum external dimensions: 49 (W) x 220 (H) x 24.5 (D) mm
Weight: 190 g (Approx 6.7 oz) (including batteries)

Audio section
• Analog
  Input sensitivity / Input impedance:
  RCA Pre output (unbalanced) : 200 mV / 47 kΩ/kohms
  XLR Pre output (balanced) : 400 mV / 100 kΩ/kohms
  Frequency response: 10 Hz ~ 100 kHz +1, –3 dB (DIRECT mode)
  S/N: 102 dB (IHF–A weighted, DIRECT mode)
  Distortion: 0.005% (20 Hz ~ 20 kHz) (DIRECT mode)
  Rated output: RCA Pre output (unbalanced) : 1.2 V
  XLR Pre output (balanced) : 2.4 V
• Digital
  D/A output: Rated output — 2 V (at 0 dB playback)
  Total harmonic distortion — 0.005% (1 kHz, at 0 dB)
  Dynamic range — 110 dB
  Digital input: Format — Digital audio interface
• Phono equalizer (PHONO input — REC OUT)
  Input sensitivity: 2.5 mV
  RIAA deviation: ±1 dB (20 Hz to 20 kHz)
  S/N: 74 dB (A weighting, with 6 mV input)
  Rated output: 150 mV
  Distortion factor: 0.03% (1 kHz, 3 V)

Video section
• Standard video connectors
  Input / output level and impedance: 1 Vp-p, 75 Ω/ohms
  Frequency response: 5 Hz ~ 10 MHz — +0, –3 dB (when video convert set to “OFF”)
• S-Video connectors
  Input / output level and impedance: Y (brightness) signal — 1 Vp-p, 75 Ω/ohms
  C (color) signal — 0.286 Vp-p, 75 Ω/ohms
  Frequency response: 5 Hz ~ 10 MHz — +0, –3 dB (when video convert set to “OFF”)
• Color component video connector
  Input / output level and impedance: Y (brightness) signal — 1 Vp-p, 75 Ω/ohms
  PB / CB signal — 0.7 Vp-p, 75 Ω/ohms
  PR / CR signal — 0.7 Vp-p, 75 Ω/ohms
  Frequency response: 5 Hz ~ 100 MHz — +0, –3 dB (when video convert set to “OFF”)

Tuner section
• [FM] [AM]
  Receiving Range: 875 MHz ~ 1079 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)
  S/N (IHF–A): MONO 77 dB STEREO 72 dB
  Total harmonic Distortion (at 1 kHz): MONO 0.2% STEREO 0.3%
<table>
<thead>
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<th>Denon</th>
<th>81001, 62001, 83001, 84001</th>
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<td>Denon</td>
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<td>Denon (Analog)</td>
<td>Denon</td>
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<td>Cable</td>
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**Satellite Receiver/ PVR Combination**

**A** Bluetooth
**B** Alliance
**C** Adillard
**D** Alineon
**E** Adillard
**F** Atwood
**G** Bluftime
**H** British Sky Broadcasting
**I** BskyB
**J** Cable Satellite
**K** DigiDvision
**L** DigiQuest
**M** DigiQust
**N** DirectTV Network System
**O** Dishpro
**P** DMT
**Q** Dream Multimedia
**R** ExpressVu
**S** Fotitel
**T** Gsat
**U** Globoc
**V** Hdt
**W** Hirschmann
**X** Homecast
**Y** Hughes Network Systems
**Z** Humax

**Television**

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**Setting**

1. **A-** Mark
2. **A.** R. Systems
3. **A.** Accente
4. **A.** Accuscan
5. **A.** Accuscreen
6. **A.** Acoustic Research
7. **A.** Action
8. **A.** Azura
9. **A.** Addison
10. **A.** ADL
11. **A.** Admiral
12. **A.** Advent
13. **A.** Adventuri
14. **A.** ADF
15. **A.** Agahi
16. **A.** Agni
17. **A.** Akio
18. **A.** Aim
19. **A.** Akbar
20. **A.** Akai
21. **A.** Sky Italia
22. **A.** SkyXL
23. **A.** SkyMaster
24. **A.** Sony
25. **A.** Strong
26. **A.** TechniSat
27. **A.** Thomson
28. **A.** Topfield
29. **A.** TPS
30. **A.** Xtreme
31. **A.** Zehnder
32. **H.** Hughes Network Systems
33. **P.** Philips
34. **S.** Samsung
35. **T.** TechniSat
36. **X.** United
37. **Z.**下行

**Brand**

- **Sky**
- **Opentel**
- **SEGA**
- **Sede Electronique**
- **Selderco**
- **Segito**
- **Serino**
- **Sercram**
- **Savimat**
- **Satellite Receiver/ PVR Combination**
- **Television**
### DVD preset codes / Codes préréglés DVD

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

※1 : These preset codes can be recorded in the SAT/CBL mode.
  : Ces codes de préréglage peuvent être enregistrés en mode SAT/CBL.

※2 : These preset codes can be recorded in the TV mode.
  : Ces codes de préréglage peuvent être enregistrés en mode TV.

※3 : These preset codes can be recorded in the VCR mode.
  : Ces codes de préréglage peuvent être enregistrés en mode VCR.

※4 : These preset codes can be recorded in the DVD mode.
  : Ces codes de préréglage peuvent être enregistrés en mode DVD.