

AV Receiver

# DTR-70.4

**Instruction Manual**

**Integra**



**WARNING:**

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS 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.



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



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



9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Damage Requiring Service  
Unplug the apparatus 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 apparatus,
  - C. If the apparatus has been exposed to rain or water,

PORTABLE CART WARNING



S3125A

- D. If the apparatus does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the apparatus to its normal operation,
  - E. If the apparatus has been dropped or damaged in any way, and
  - F. When the apparatus exhibits a distinct change in performance this indicates a need for service.
16. Object and Liquid Entry  
Never push objects of any kind into the apparatus through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.  
The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases shall be placed on the apparatus.  
Don't put candles or other burning objects on top of this unit.
17. Batteries  
Always consider the environmental issues and follow local regulations when disposing of batteries.
18. If you install the apparatus in a built-in installation, such as a bookcase or rack, ensure that there is adequate ventilation.  
Leave 20 cm (8") of free space at the top and sides and 10 cm (4") at the rear. The rear edge of the shelf or board above the apparatus shall be set 10 cm (4") away from the rear panel or wall, creating a flue-like gap for warm air to escape.

**Important Safety Instructions**

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

# Precautions

1. **Recording Copyright**—Unless it's for personal use only, recording copyrighted material is illegal without the permission of the copyright holder.
2. **AC Fuse**—The AC fuse inside the unit is not user-serviceable. If you cannot turn on the unit, contact the dealer from whom you purchased this unit.
3. **Care**—Occasionally you should dust the unit all over with a soft cloth. For stubborn stains, use a soft cloth dampened with a weak solution of mild detergent and water. Dry the unit immediately afterwards with a clean cloth. Don't use abrasive cloths, thinners, alcohol, or other chemical solvents, because they may damage the finish or remove the panel lettering.

## 4. Power

### WARNING

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

AC outlet voltages vary from country to country. Make sure that the voltage in your area meets the voltage requirements printed on the unit's rear panel (e.g., AC 230 V, 50 Hz or AC 120 V, 60 Hz).

The power cord plug is used to disconnect this unit from the AC power source. Make sure that the plug is readily operable (easily accessible) at all times.

For models with **[Power]** button, or with both **[Power]** and **[On/Standby]** buttons:

Pressing the **[Power]** button to select OFF mode does not fully disconnect from the mains. If you do not intend to use the unit for an extended period, remove the power cord from the AC outlet.

For models with **[On/Standby]** button only:

Pressing the **[On/Standby]** button to select Standby mode does not fully disconnect from the mains. If you do not intend to use the unit for an extended period, remove the power cord from the AC outlet.

## 5. Preventing Hearing Loss

### Caution

Excessive sound pressure from earphones and headphones can cause hearing loss.

## 6. Batteries and Heat Exposure

### Warning

Batteries (battery pack or batteries installed) shall not be exposed to excessive heat as sunshine, fire or the like.

## 7. Never Touch this Unit with Wet Hands

—Never handle this unit or its power cord while your hands are wet or damp. If water or any other liquid gets inside this unit, have it checked by the dealer from whom you purchased this unit.

## 8. Handling Notes

- If you need to transport this unit, use the original packaging to pack it how it was when you originally bought it.
- Do not leave rubber or plastic items on this unit for a long time, because they may leave marks on the case.
- This unit's top and rear panels may get warm after prolonged use. This is normal.
- If you do not use this unit for a long time, it may not work properly the next time you turn it on, so be sure to use it occasionally.

## For U.S. models

### FCC Information for User

#### CAUTION:

The user changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### NOTE:

This equipment 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 equipment 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 equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment 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 equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer from whom you purchased this unit or an experienced radio/TV technician for help.

## For Canadian Models

**NOTE:** THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

For models having a power cord with a polarized plug:

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

## Modèle pour les Canadien

**REMARQUE:** CET APPAREIL NUMÉRIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003 DU CANADA.

Sur les modèles dont la fiche est polarisée:

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

# Supplied Accessories

Make sure you have the following accessories:

**Indoor FM antenna** (→ page 20)

**AM loop antenna** (→ page 20)

(North American models) Two AM loop antennas and two Indoor FM antennas are supplied.

**Power cord** (→ page 21)

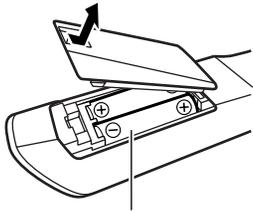
**Speaker cable labels** (→ page 12)

**Speaker setup microphone** (→ page 39)

**Remote controller (RC-842M) and two batteries (AA/R6)**

\* In catalogs and on packaging, the letter at the end of the product name indicates the color. Specifications and operations are the same regardless of color.

## ■ Installing the batteries



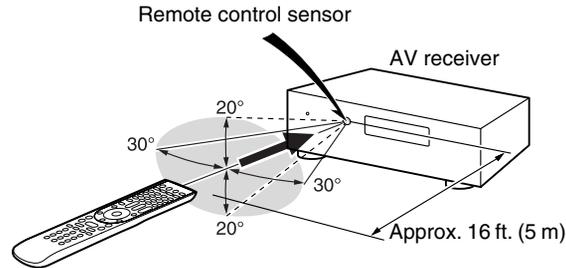
Batteries (AA/R6)

### Note

- If the remote controller doesn't work reliably, try replacing the batteries.
- Don't mix new and old batteries or different types of batteries.
- If you intend not to use the remote controller for a long time, remove the batteries to prevent damage from leakage or corrosion.
- Remove expired batteries as soon as possible to prevent damage from leakage or corrosion.

## ■ Aiming the remote controller

To use the remote controller, point it at the AV receiver's remote control sensor, as shown below.



Thank you for purchasing an Integra AV receiver. Please read this manual thoroughly before making connections and plugging in the unit. Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new AV receiver. Please retain this manual for future reference.

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To reset the AV receiver to its factory defaults, turn it on and, while holding down CBL/SAT, press  On/Standby (→ page 98).

# Features

## Amplifier

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- 140 Watts/Channel @ 8 ohms (FTC)
- 200 Watts/Channel @ 6 ohms (IEC)
- 250 Watts/Channel @ 6 ohms (JEITA)
- WRAT–Wide Range Amplifier Technology (5 Hz to 100 kHz bandwidth)
- Linear Optimum Gain Volume Circuitry
- 3 Stage Inverted Darlington Amplifier Design
- H.C.P.S.(High Current Power Supply) Massive High Power Transformer

## Processing

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- THX Ultra2 Plus Certified
- Incorporates Qdeo™ technology for HDMI Video Upscaling (to 4K Compatible)
- HQV®-Vida Video Processing with 1080p Video upscaling of All Video Sources via HDMI
- HDMI (Audio Return Channel, 3D, DeepColor, x.v.Color, Lip Sync, DTS-HD Master Audio, DTS-HD High Resolution Audio, Dolby TrueHD, Dolby Digital Plus, DSD and Multi-CH PCM)
- Dolby TrueHD and DTS-HD Master Audio
- Dolby Pro Logic IIz and Audyssey DSX®
- DTS Neo:X
- Non-Scaling Configuration
- A-Form Listening Mode Memory
- Direct Mode
- Music Optimizer for Compressed Digital Music files
- 192 kHz/24-Bit D/A Converters
- Powerful and Highly Accurate 32-bit Processing DSP
- Jitter Cleaning Circuit Technology
- Digital Processing Crossover Network
- DSD Direct for Super Audio CD

## Connections

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- 9 HDMI Inputs (1 on front panel) and 2 Outputs
- Zone 2 HDMI Output
- Integra/Onkyo **RIHD** for System Control
- 6 Digital Inputs (3 Optical/3 Coaxial)
- Component Video Switching (2 Inputs/1 Output)
- Banana Plug-Compatible Speaker Posts
- Powered Zone 2/3/4
- Zone 2/3/4 Pre/Line Out
- IR Input/Output and 12 V Triggers
- RS232 Port for Interface Control
- Bi-Amping Capability for FL/FR with FHL/FHR
- Analog RGB Video Input (D-sub 15) for PC
- 2 Independent Subwoofer Pre Outs Capable of 4 Connections
- **(North American models)** HD Radio Capability
- Internet Radio Connectivity
- Network Capability for Streaming Audio Files
- 2 USB Inputs (Front/Rear) for Memory Devices and iPod®/iPhone® models
- \* Only the front-panel USB input is compatible with iPod/iPhone and Onkyo wireless LAN adapter UWF-1.
- MHL-Enabled AUX Front Input

## Miscellaneous

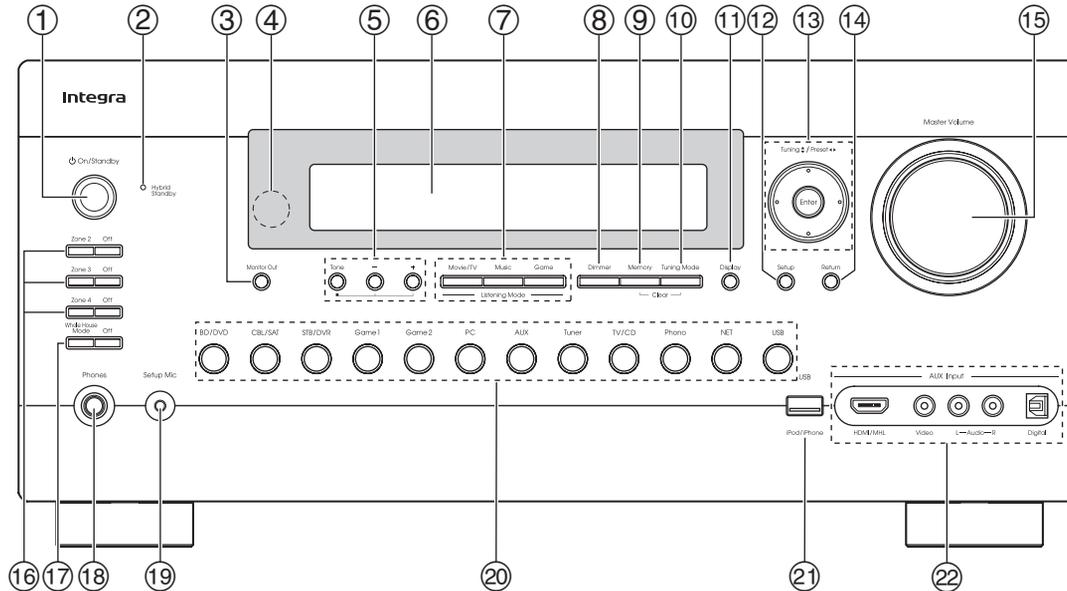
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- 40 FM/AM Presets
- Dolby Volume
- Audyssey MultEQ® XT32 to correct room acoustic problems
- Audyssey Dynamic EQ® for loudness correction
- Audyssey Dynamic Volume® to maintain optimal listening level and dynamic range
- Crossover Adjustment (40/45/50/55/60/70/80/90/100/110/120/130/150/200 Hz)
- A/V Sync Control Function (up to 800 ms)
- Auto Standby Function
- On-Screen Display via HDMI
- Preprogrammed (with onscreen display setup) RI-Compatible Learning Remote with 4 Activities and Mode-Key LEDs
- ISF (Imaging Science Foundation) Video Calibration
- VLSC (Vector Linear Shaping Circuitry) for All Channels

# Front & Rear Panels

## Front Panel

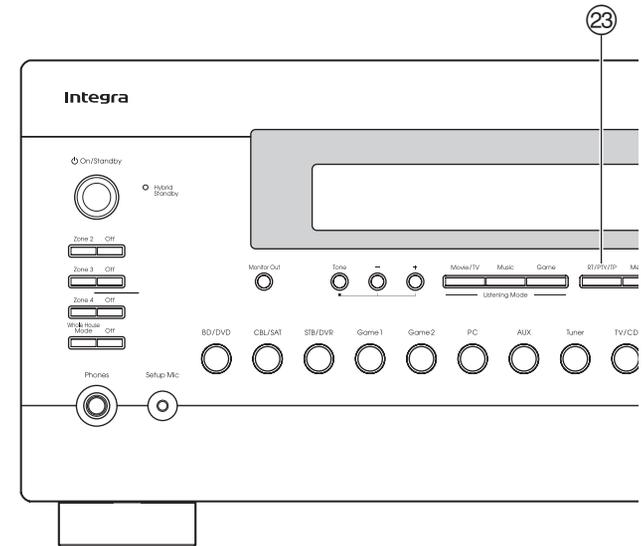
(North American models)



For detailed information, see the pages in parentheses.

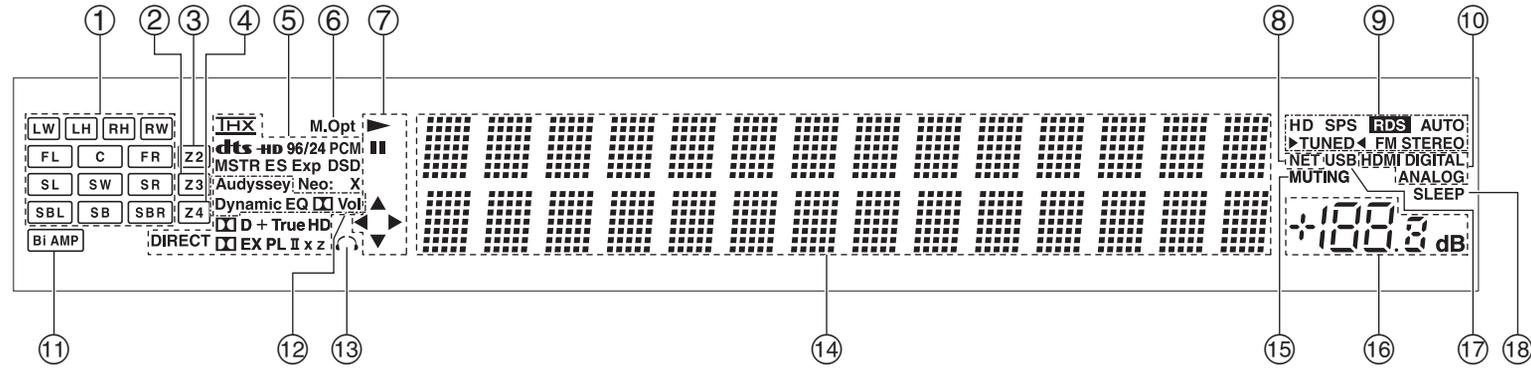
- ① On/Standby button (22)
- ② Hybrid Standby indicator (58)
- ③ Monitor Out button (59)
- ④ Remote control sensor (4)
- ⑤ Tone and Tone Level buttons (54, 87)
- ⑥ Display (8)
- ⑦ Listening Mode buttons (41)
- ⑧ Dimmer button (North American models) (50)
- ⑨ Memory button (33)
- ⑩ Tuning Mode button (33)
- ⑪ Display button (50)
- ⑫ Setup button (57)
- ⑬ Tuning ▲/▼ (33), Preset ◀/▶ (33), cursor and Enter buttons
- ⑭ Return button
- ⑮ Master Volume control (25)
- ⑯ Zone 2/Zone 3/Zone 4 and Off buttons (86)
- ⑰ Whole House Mode and Off buttons (51)
- ⑱ Phones jack (52)

(Australian models)



- ⑱ Setup Mic jack (39)
- ⑳ Input selector buttons (25)
- ㉑ USB port (18)
- ㉒ AUX Input jacks (17, 18)
- ㉓ RT/PTY/TP button (Australian models) (36)

Display



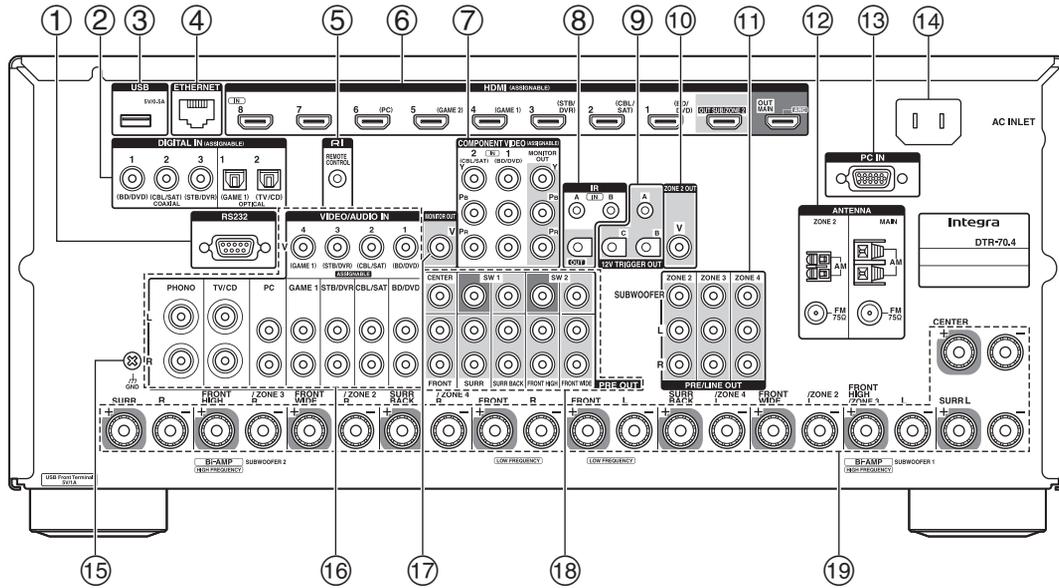
For detailed information, see the pages in parentheses.

- ① **Speaker/channel indicators**
- ② **Z3 (Zone 3) indicator (86)**
- ③ **Z2 (Zone 2) indicator (86)**
- ④ **Z4 (Zone 4) indicator (86)**
- ⑤ **Listening mode and format indicators (41, 77)**
- ⑥ **M.Opt indicator (56)**
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- ⑧ **NET indicator (28 to 32, 82)**
- ⑨ **Tuning indicators**
  - HD indicator (North American models) (34)**
  - SPS indicator (North American models) (34)**
  - RDS indicator (excluding North American models) (35)**
  - AUTO indicator (33)**
  - TUNED indicator (33)**
  - FM STEREO indicator (33)**

- ⑩ **Input indicators (110)**
  - HDMI indicator (80)**
  - DIGITAL indicator**
  - ANALOG indicator**
- ⑪ **Bi AMP indicator**
- ⑫ **Audyssey indicator (38, 72)**
  - Dynamic EQ indicator (72)**
  - ⏏ (Dolby) Vol indicator**
  - Dynamic Vol indicator (72)**
- ⑬ **Headphone indicator (52)**
- ⑭ **Message area**
- ⑮ **MUTING indicator (51)**
- ⑯ **Volume level**
- ⑰ **USB indicator (27, 28)**
- ⑱ **SLEEP indicator (50)**

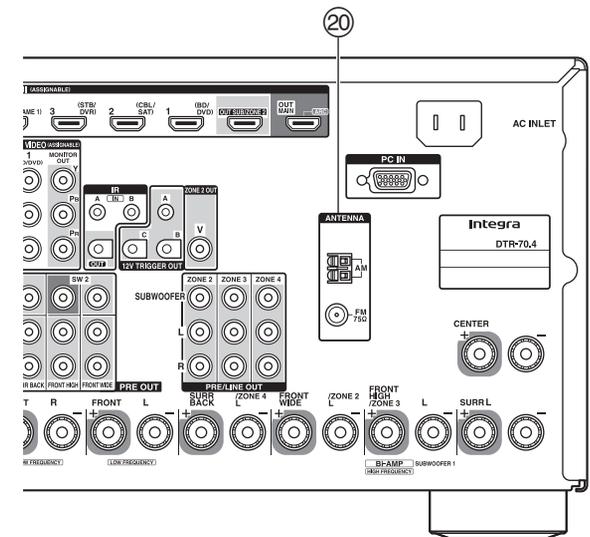
**Rear Panel**

(North American models)



- ① **RS232 port**  
Terminal for control.
- ② **DIGITAL IN COAXIAL and OPTICAL jacks**
- ③ **USB port**
- ④ **ETHERNET port**
- ⑤ **R1 REMOTE CONTROL jack**
- ⑥ **HDMI IN and HDMI output (HDMI OUT MAIN and HDMI OUT SUB/ZONE 2) jacks**
- ⑦ **COMPONENT VIDEO IN and MONITOR OUT jacks**
- ⑧ **IR IN A/B and OUT jacks**
- ⑨ **12V TRIGGER OUT A/B/C jacks**
- ⑩ **ZONE 2 OUT V jack**
- ⑪ **ZONE 2, ZONE 3 and ZONE 4 L/R/SUBWOOFER PRE/LINE OUT jacks**
- ⑫ **MAIN/ZONE 2 FM ANTENNA jacks and MAIN/ZONE 2 AM ANTENNA terminals**
- ⑬ **PC IN jack**
- ⑭ **AC INLET**
- ⑮ **GND screw**
- ⑯ **Composite video and analog audio jacks (BD/DVD IN, CBL/SAT IN, STB/DVR IN, GAME 1 IN, PC IN, TV/CD IN and PHONO IN)**
- ⑰ **MONITOR OUT V jack**

(Australian models)



- ⑱ **PRE OUT jacks**  
(FRONT L/R, CENTER, SURR L/R, SURR BACK L/R, FRONT HIGH L/R, FRONT WIDE L/R, SW1 and SW2)
- ⑲ **Speaker Terminals**  
(FRONT L/R, CENTER, SURR L/R, SURR BACK/ZONE 4 L/R, FRONT HIGH/ZONE 3 L/R and FRONT WIDE/ZONE 2 L/R)
- ⑳ **FM ANTENNA jack and AM ANTENNA terminal**

See "Connecting the AV Receiver" for connection (→ pages 11 to 21).



# Connecting the AV Receiver

## Connecting Your Speakers

### Speaker Configuration

The following table indicates the channels you should use depending on the number of speakers that you have.

No matter how many speakers you use, 2 powered subwoofers are recommended for a really powerful and solid bass.

To get the best from your surround sound system, you need to set the speaker settings automatically (→ page 38) or manually (→ page 64).

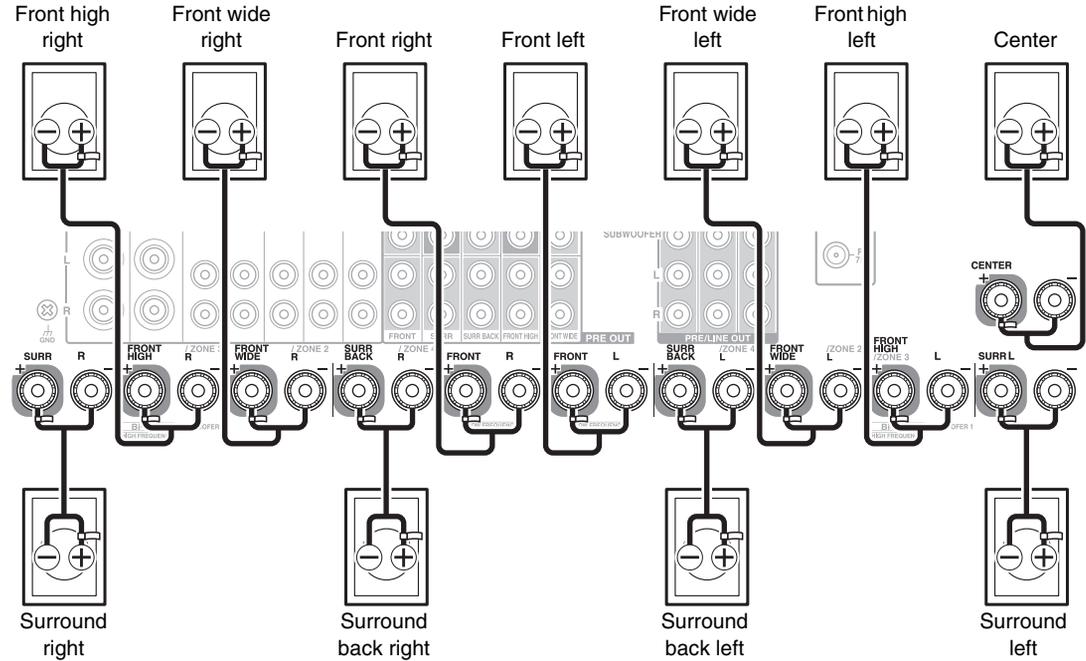
Number of speakers	2	3	4	5	6	7	7	8	8	9	9	10	11
Front speakers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Center speaker		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Surround speakers			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Surround back speaker*1					✓			✓	✓				✓
Surround back speakers						✓			✓	✓			✓
Front high speakers							✓	✓	✓	✓	✓	✓	✓
Front wide speakers								✓	✓	✓	✓	✓	✓

\*1 If you're using only one surround back speaker, connect it to the **SURR BACK L** terminals.

## Connecting the Speaker Cables

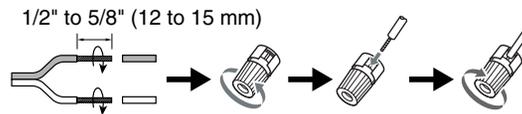
### 9.2-channel playback

The following illustration shows how to connect the speakers to each pair of terminals. If you're using only one surround back speaker, connect it to the **SURR BACK L** terminals. Select the speakers (surround back and front high, surround back and front wide, or front high and front wide) you want to use for 9.2-channel playback. You can set which speakers you want to use by priority. See "Selecting Speaker Layout" (→ page 51).



### Screw-type speaker terminals

Strip 1/2" to 5/8" (12 to 15 mm) of insulation from the ends of the speaker cables, and twist the bare wires tightly, as shown.

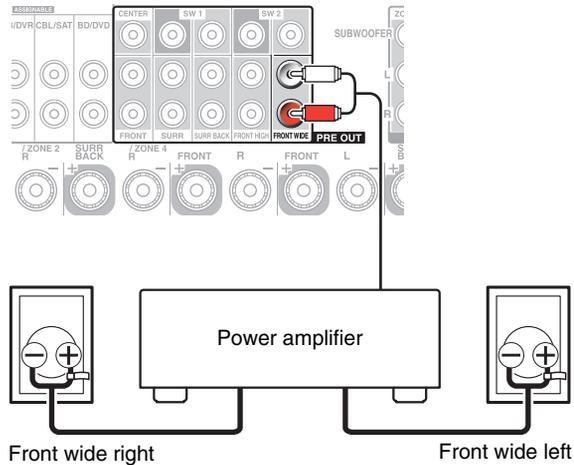


### Banana Plugs (North American models)

- If you are using banana plugs, tighten the speaker terminal before inserting the banana plug.
- Do not insert the speaker code directly into the center hole of the speaker terminal.

## ■ 11.2-channel playback

By using a combination of the built-in power amplifier for 9-channel and an external power amplifier for 2-channel, you can enjoy up to 11.2-channel playback. Connect the external power amplifier's analog audio input jacks to **FRONT WIDE PRE OUT** of the AV receiver with audio cables. To perform the 11.2-channel playback, set the **"11ch Playback"** setting to **"Yes"** (→ page 63).



### Note

- If the **"11ch Playback"** setting is set to **"Yes"**, no sound is output from the **FRONT WIDE** terminals.

## Attaching the Speaker Cable Labels

The speaker terminals are color-coded for identification purpose.

Speaker	Color
Front left, Front high left, Front wide left, Zone 2 left, Zone 3 left	White
Front right, Front high right, Front wide right, Zone 2 right, Zone 3 right	Red
Center	Green
Surround left	Blue
Surround right	Gray
Surround back left, Zone 4 left	Brown
Surround back right, Zone 4 right	Tan

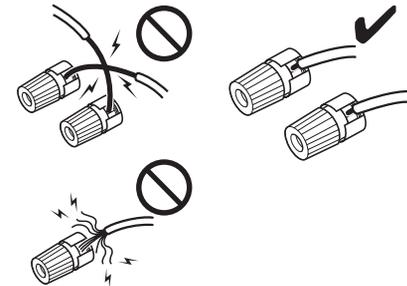
The supplied speaker cable labels are also color-coded and you should attach them to the positive (+) side of each speaker cable in accordance with the table above. Then all you need to do is to match the color of each label to the corresponding speaker terminal.



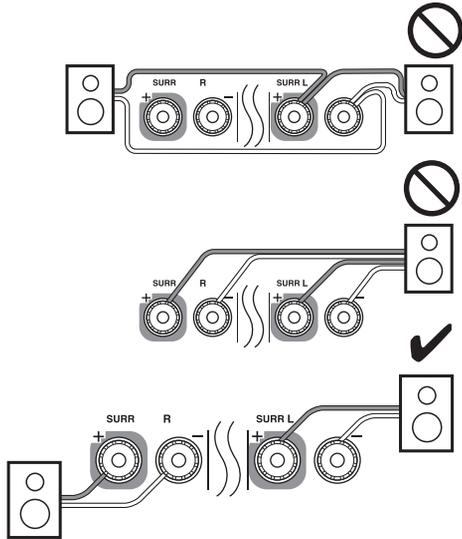
## Speaker Connection Precautions

Read the following before connecting your speakers:

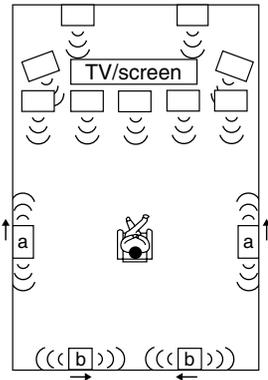
- You can connect speakers with an impedance of between 4 and 16 ohms. If the impedance of any of the connected speakers is 4 ohms or more, but less than 6 ohms, be sure to set the minimum speaker impedance to **"4ohms"** (→ page 63). If you use speakers with a lower impedance, and use the amplifier at high volume levels for a long period of time, the built-in protection circuit may be activated.
- Disconnect the power cord from the wall outlet before making any connections.
- Read the instructions supplied with your speakers.
- Pay close attention to speaker wiring polarity. In other words, connect positive (+) terminals only to positive (+) terminals, and negative (-) terminals only to negative (-) terminals. If you get them the wrong way around, the sound will be out of phase and will sound unnatural.
- Unnecessarily long, or very thin speaker cables may affect the sound quality and should be avoided.
- Be careful not to short the positive and negative wires. Doing so may damage the AV receiver.
- Make sure the metal core of the wire does not have contact with the AV receiver's rear panel. Doing so may damage the AV receiver.



- Don't connect more than one cable to each speaker terminal. Doing so may damage the AV receiver.
- Don't connect one speaker to several terminals.



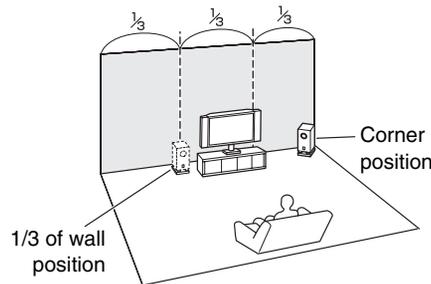
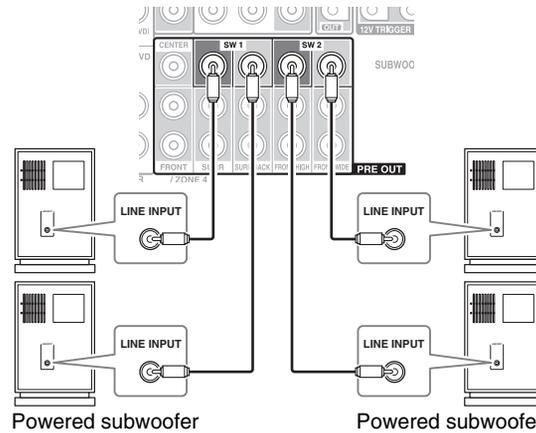
### Using Dipole Speakers



You can use dipole speakers for the surround and surround back speakers. Dipole speakers output the same sound in two directions.

Dipole speakers typically have an arrow printed on them to indicate how they should be positioned. The surround dipole speakers (a) should be positioned so that their arrows point toward the TV/screen, while the surround back dipole speakers (b) should be positioned so that their arrows point toward each other, as shown.

### Using Powered Subwoofers



To find the best position for your subwoofer, while playing a movie or some music with good bass, experiment by placing your subwoofer at various positions within the room, and choose the one that provides the most satisfying results.

You can connect the powered subwoofers with **SW1 PRE OUT** and **SW2 PRE OUT** respectively.

The level and distance can be set individually for each output. If you're using only one subwoofer, connect it to **SW1 PRE OUT**.

#### Tip

- If your subwoofer is unpowered and you're using an external amplifier, connect the subwoofer pre out jack to an input on the amplifier.

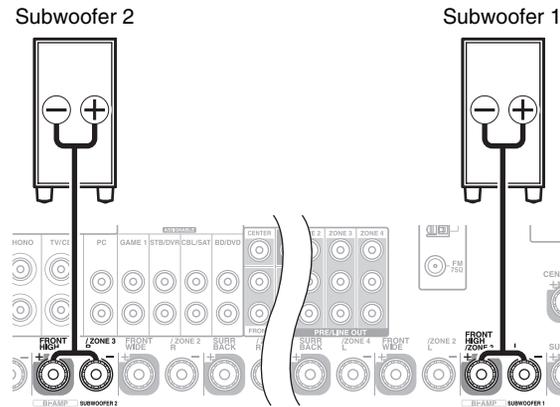
## Connecting Passive Subwoofers

The **FRONT HIGH/ZONE 3 L/R** terminals can be used with front high speakers, Zone 3 speakers, or passive subwoofers.

The level and distance can be set for **SUBWOOFER1** and **SUBWOOFER2** respectively.

Once you've connected the passive subwoofers and turned on the AV receiver, you need to enable the **"Passive Subwoofer"** setting (→ [page 63](#)).

If you use one passive subwoofer, connect it to the **SUBWOOFER1** terminals.



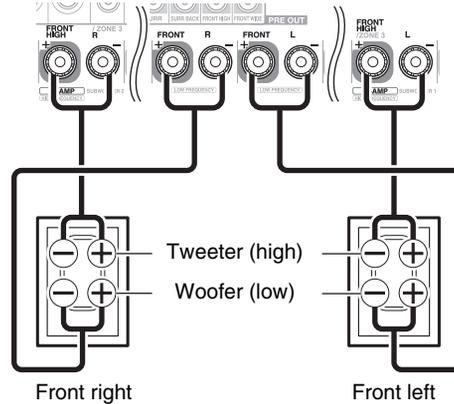
## Bi-amping the Front Speakers

### Important:

- When making the bi-amping connections, be sure to remove the jumper bars that link the speakers' tweeter (high) and woofer (low) terminals.
- Bi-amping can be used only with speakers that support bi-amping. Refer to your speaker manual.

Bi-amping provides improved bass and treble performance. When bi-amping is used, the AV receiver is able to drive up to a 7.2 speaker system in the main room.

Once you've completed the bi-amping connections as shown and turned on the AV receiver, you must set the speaker setting to enable bi-amping (→ [page 63](#)).



## Using Speakers Without Crossover Network

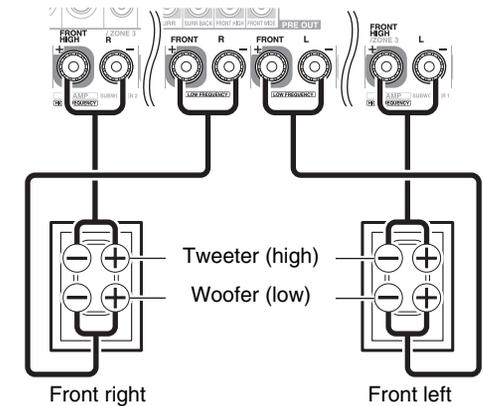
### Important:

- Speakers without crossover network are speakers with no built-in crossover network.
- With speakers without crossover network, be careful **NOT** to connect tweeters and woofers the wrong way around, as this may damage your speakers.
- With speakers without crossover network, be careful **NOT** to set **"Speakers Type(Front)"** to **"Bi-Amp"** as this may damage your speakers. Make sure that this setting is set to **"Digital Crossover"**.
- Confirm that your speakers are without crossover network by referring to your speaker manual.

Connecting speakers without crossover network provide a fine, three-dimensional sound field that extends bass and treble performance to the fullest extent. When speakers without crossover network are used, the AV receiver is able to drive up to a 7.2 speaker system in the main room. You must enable **"Digital Crossover"** in **"Speakers Type(Front)"** (→ [page 63](#)) and make the settings of **"Digital Processing Crossover Network"** (→ [page 67](#)).

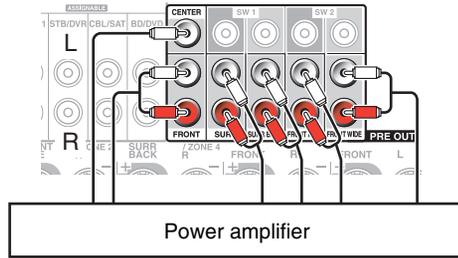
### Note

- You need to make the setting before connecting the speakers.



## Connecting a Power Amplifier

If you want to use a more powerful power amplifier, you can use the AV receiver as a preamp. Connect all speaker outputs to the power amplifier. See the manuals supplied with your amplifier for details.



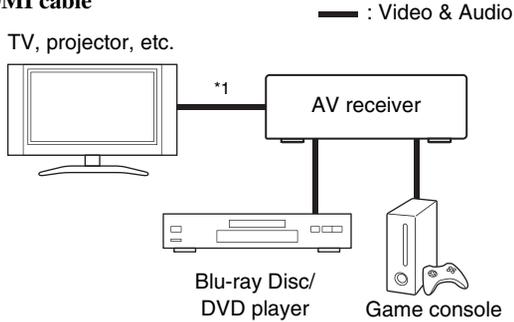
### Note

- Specify “None” for any channel that you don’t want to output (→ [page 64](#)).
- To perform the 11.2-channel playback, set the “11ch Playback” setting to “Yes” (→ [page 63](#)).

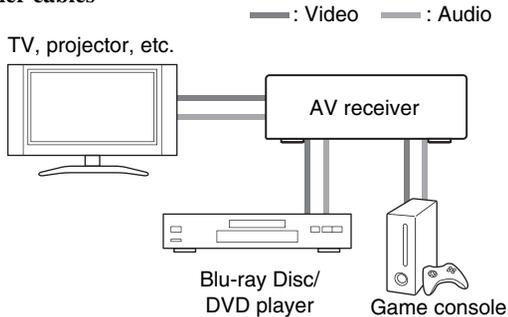
## About AV Connections

### Connecting AV components

#### HDMI cable



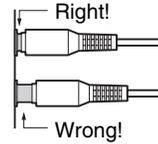
#### Other cables



\*1 If your TV doesn't support Audio Return Channel (ARC), you need to connect an optical digital cable together with the HDMI cable to the AV receiver.

- Before making any AV connections, read the manuals supplied with your AV components.
- Don't connect the power cord until you've completed and double-checked all AV connections.

- Push plugs in all the way to make good connections (loose connections can cause noise or malfunctions).
- To prevent interference, keep audio and video cables away from power cords and speaker cables.



### AV Cables and Jacks

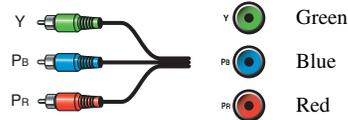
#### HDMI

HDMI connections can carry digital video and audio.



#### Component video

Component video separates the luminance (Y) and color difference signals (Pb, Pr), providing the best picture quality (some TV manufacturers label their component video sockets slightly differently).



#### Analog RGB

This is a conventional analog interface to connect a PC and a display device (also called D-Sub or D-subminiature).



#### Composite video

Composite video is commonly used on TVs, DVDs, and other video equipment.



#### Optical digital audio

Optical digital connections allow you to enjoy digital sound such as PCM<sup>2</sup>, Dolby Digital or DTS. The audio quality is the same as coaxial.



#### Coaxial digital audio

Coaxial digital connections allow you to enjoy digital sound such as PCM<sup>2</sup>, Dolby Digital or DTS. The audio quality is the same as optical.



#### Analog audio (RCA)

Analog audio connections (RCA) carry analog audio.



\*2 For PCM signals, the supported sampling rates are 32/44.1/48/88.2/96 kHz. With HDMI connections, 176.4 and 192 kHz are also supported.

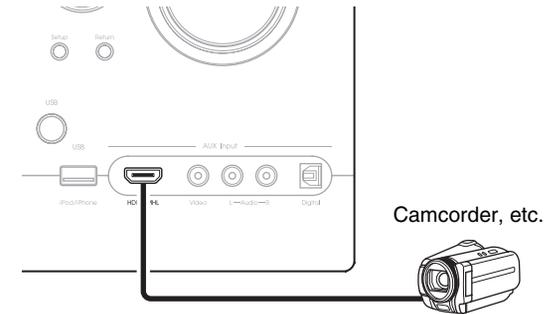
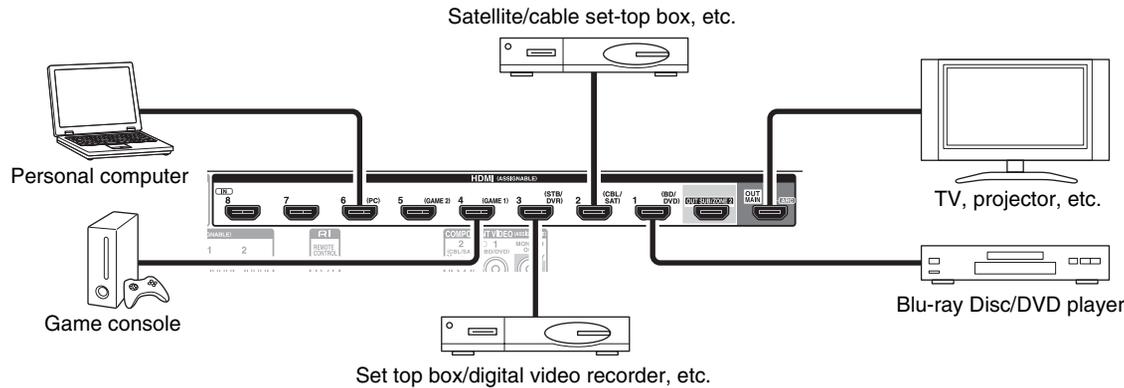
#### Note

- The AV receiver does not support SCART plugs.
- The AV receiver's optical digital jacks have shutter-type covers that open when an optical plug is inserted and close when it's removed. Push plugs in all the way.

#### Caution

- To prevent shutter damage, hold the optical plug straight when inserting and removing.

## Connecting Components with HDMI



- \* If your TV doesn't support Audio Return Channel (ARC), you need to connect an optical digital cable together with the HDMI cable to the AV receiver.
- \* When listening to an HDMI component through the AV receiver, set the HDMI component so that its video can be seen on the TV screen (on the TV, select the input of the HDMI component connected to the AV receiver). If the TV power is off or the TV is set to another input source, this may result in no sound from the AV receiver or the sound may be cut off.

Connect your components to the appropriate jacks. The default input assignments are shown below.

✓: Assignment can be changed (→ page 60).

Jack	Components	
IN1	Blu-ray Disc/DVD player	✓
IN2	Satellite/cable set-top box, etc.	✓
IN3	Set top box/digital video recorder, etc.	✓
IN4	Game console	✓
IN5	Game console	✓
IN6	Personal computer	✓
IN7	Other components	✓
IN8	Other components	✓
Front	Camcorder, etc.	
OUT MAIN	TV	
OUT SUB	Projector, etc.	

See also:

- “Connection Tips and Video Signal Path” (→ page 108)
- “Using an RIHD-compatible TV, Player, or Recorder” (→ page 112)
- “About HDMI” (→ page 114)

### Tip

- To listen to the audio of a component connected via HDMI through your TV's speakers, enable “**HDMI Through**” (→ page 80) and set the AV receiver to standby mode.

### Note

- In the case of Blu-ray Disc/DVD players, if no sound is output despite following the above-mentioned procedure, set your Blu-ray Disc/DVD player's HDMI audio settings to PCM.

### ■ Audio Return Channel (ARC) function

The Audio Return Channel (ARC) function enables an HDMI capable TV to send the audio stream to **HDMI OUT MAIN** on the AV receiver.

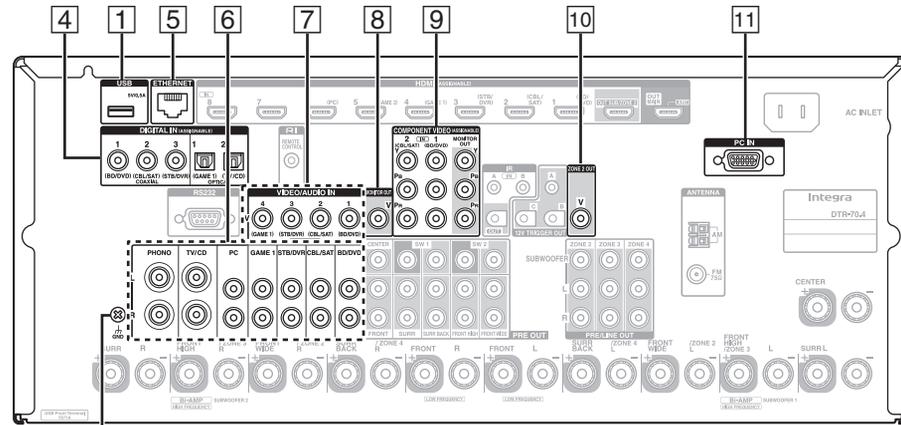
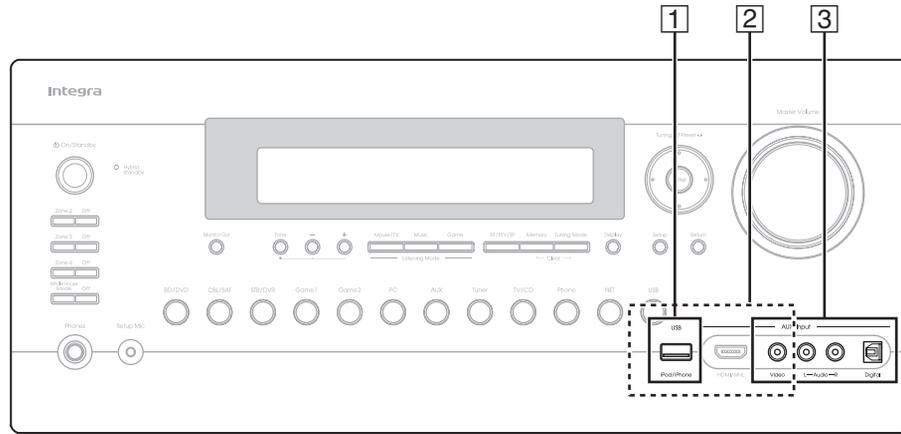
- This function can be used when:
  - Your TV is ARC capable, and
  - The **TV/CD** input selector is selected, and
  - “**HDMI Control(RIHD)**” is set to “**On**”(→ page 80), and
  - “**Audio Return Channel**” is set to “**Auto**” (→ page 81).

### ■ MHL (Mobile High-Definition Link)

With its support for MHL (Mobile High-Definition Link), the AUX (Front) input allows you to deliver high-definition video from a connected mobile device.

## Connecting Your Components

The on-screen menus appear only on a TV that is connected to **HDMI OUT MAIN**. If your TV is connected to other video outputs, use the AV receiver's display when changing settings.



GND screw

Connect your components to the appropriate jacks. The default input assignments are shown below. See “Connection Tips and Video Signal Path” for more information (→ **page 108**).

✓: Assignment can be changed (→ **pages 61, 62**).

No.	Jack/Port	Components	
1	USB*1*2	iPod/iPhone, MP3 player, USB flash drive	
2	USB, AUX Input Video*3	iPod/iPhone (video playback)	
3	AUX Input		
	Video	Camcorder, etc	
	Audio L/R		
4	DIGITAL IN		
	COAXIAL 1 (BD/DVD)	Blu-ray Disc/DVD player	✓
	COAXIAL 2 (CBL/SAT)	Satellite/cable set-top box, etc.	✓
	COAXIAL 3 (STB/DVR)	Set top box/digital video recorder, etc	✓
	OPTICAL 1 (GAME 1)	Game consoles	✓
	OPTICAL 2 (TV/CD)	TV, CD player	✓
5	ETHERNET	Router	
6	AUDIO IN		
	BD/DVD	Blu-ray Disc/DVD player	
	CBL/SAT	Satellite/cable set-top box, etc.	
	STB/DVR	Set top box/digital video recorder, etc	
	GAME 1	Game console, RI dock	
	PC	Personal computer	
	TV/CD	TV, CD player, cassette tape deck, MD, CD-R, Turntable*4, RI dock	
	PHONO	Turntable*4	

↳ To be continued

No.	Jack/Port	Components	
[7]	VIDEO IN		
	1 (BD/DVD)	Blu-ray Disc/DVD player	✓
	2 (CBL/SAT)	Satellite/cable set-top box, etc.	✓
	3 (STB/DVR)	Set top box/digital video recorder, etc	✓
	4 (GAME 1)	Game console, RI dock	✓
[8]	MONITOR OUT	TV, projector, etc.	
[9]	COMPONENT VIDEO		
	MONITOR OUT	TV, projector, etc.	
	IN 1 (BD/DVD)	Blu-ray Disc/DVD player, RI dock	✓
	IN 2 (CBL/SAT)	Satellite/cable set-top box, RI dock, etc.	✓
[10]	ZONE 2 OUT	TV, projector, etc.	
[11]	PC IN*5	Personal computer	

#### Note

- \*1 Do not connect the AV receiver's **USB** port to a USB port on your computer. Music on your computer cannot be played through the AV receiver in this way.
- \*2 Only the front-panel USB input is compatible with iPod/iPhone and Onkyo wireless LAN adapter UWF-1. UWF-1 can be used with the contents of not more than 64 kHz, not compatible with Dolby TrueHD and DSD.
- \*3 When the **USB** input is selected, you can input video signals from the **AUX Input Video** jack. Video signals input from **AUX Input Video** will be output from **MONITOR OUT V**, **COMPONENT VIDEO MONITOR OUT**, and the HDMI output jacks. Select which of **COMPONENT VIDEO MONITOR OUT** and the HDMI output jacks will output the video signal in the "**Monitor Out**" setting (→ **page 59**).
- \*4 Connect a turntable (MM) that has a built-in phono preamp to **TV/CD IN**, or connect it to **PHONO IN** with the phono preamp turned off. If your turntable (MM) doesn't have a phono preamp, connect it to **PHONO IN**. If your turntable has a moving coil (MC) type cartridge, you'll need a commercially available MC head amp or MC transformer to connect to **PHONO IN**. See your turntable's manual for details.

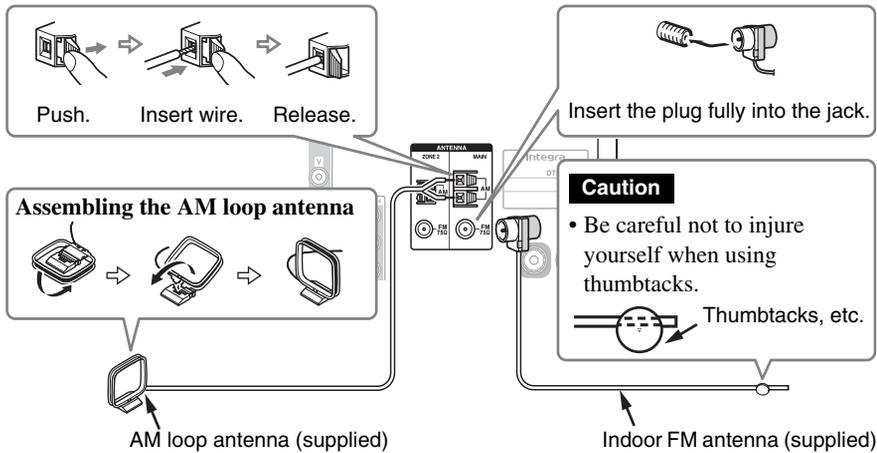
If your turntable has a ground wire, connect it to the AV receiver's **GND** screw. With some turntables, connecting the ground wire may produce an audible hum. If this happens, disconnect it.

- \*5 When you connect your personal computer to **PC IN** and select the **PC** input selector, the video of the personal computer is output from the HDMI outputs. However, if you have assigned the HDMI inputs to the **PC** input selector, the AV receiver will output signals received from the HDMI inputs instead of signals from **PC IN**, based on the priority order of HDMI > component video > PC IN (analog RGB). To have the signals output from **PC IN**, select "- - - -" for "**PC**" in the "**HDMI Input**" setting (→ **page 60**).
- With connection [4], you can enjoy Dolby Digital and DTS. (To listen in Zone 2/3/4 as well, use [4] and [6].)
  - With connection [7], you can enjoy analog video from external components while you are in Zone 2.
  - With connection [6], you can enjoy audio from external components while you are in Zone 2/3/4.
  - With connection [6], if your Blu-ray Disc/DVD player has both the main stereo and multichannel outputs, be sure to connect the main stereo.

## Connecting the Antennas

This section explains how to connect the supplied indoor FM antenna and AM loop antenna. The AV receiver won't pick up any radio signals without any antenna connected, so you must connect the antenna to use the tuner.

### (North American models)



#### Tip

- If you want to select different radio stations for the main room and Zone 2 respectively, connect the indoor FM antenna or AM loop antenna to the **ZONE 2 FM ANTENNA** jack or the **ZONE 2 AM ANTENNA** terminal.

#### Note

- When using the Whole House Mode with "TUNER" input selector, connect antennas to both the **MAIN** and **ZONE 2 ANTENNA** jacks/terminals (→ pages 51, 86).

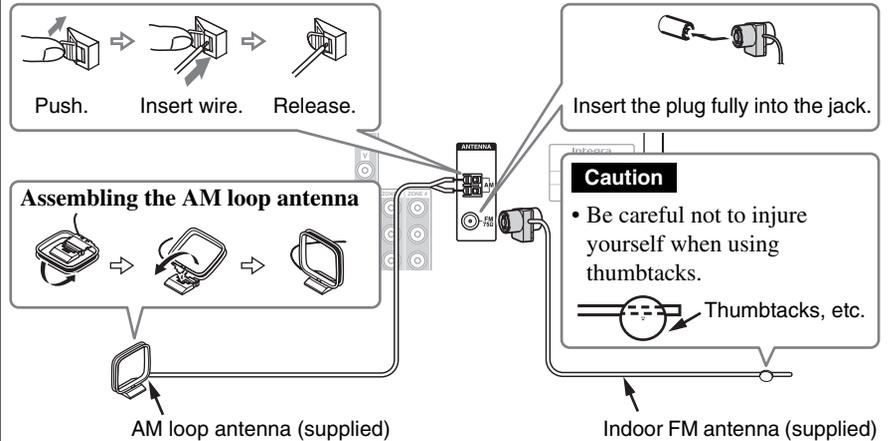
#### Note

- Once your AV receiver is ready for use, you'll need to tune into a radio station and position the antenna to achieve the best possible reception.
- Keep the AM loop antenna as far away as possible from your AV receiver, TV, speaker cables, and power cords.

#### Tip

- If you cannot achieve good reception with the supplied indoor FM antenna, try a commercially available outdoor FM antenna instead.
- If you cannot achieve good reception with the supplied indoor AM loop antenna, try using it with a commercially available outdoor AM antenna.

### (Australian models)



## Connecting Integra/Onkyo RI Components

- 1 Make sure that each Integra/Onkyo component is connected with an analog audio cable (connection 6 in the hookup examples) (→ page 18).
- 2 Make the RI connection (see the illustration).
- 3 If you're using an RI Dock, or cassette tape deck, change the Input Display (→ page 50).

With **RI** (Remote Interactive), you can use the following special functions:

### Auto Power On

When you start playback on a component connected via **RI**, while the AV receiver is on standby, the AV receiver will automatically turn on and select that component as the input source.

### Direct Change

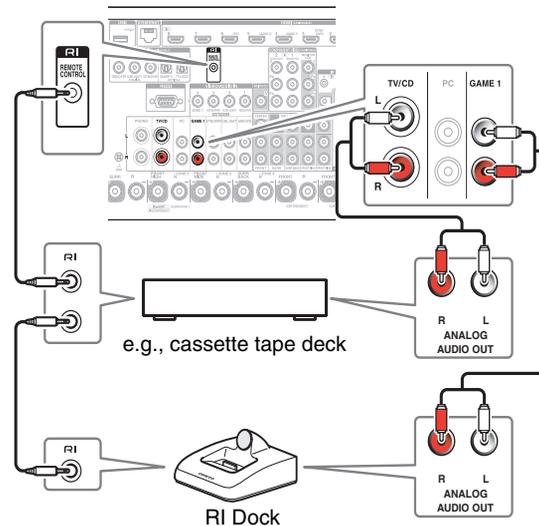
When playback is started on a component connected via **RI**, the AV receiver automatically selects that component as the input source.

### System Off

When you turn off the AV receiver, the components turn off automatically.

### Remote Control

You can use the AV receiver's remote controller to control your other **RI**-capable Integra/Onkyo components, pointing the remote controller at the AV receiver's remote control sensor instead of the component. You must enter the appropriate remote control code first (→ page 93).

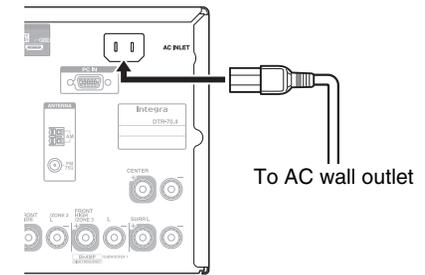


### Note

- Use only **RI** cables for **RI** connections. **RI** cables are supplied with Integra/Onkyo components.
- Some components have two **RI** jacks. You can connect either one to the AV receiver. The other jack is for connecting additional **RI**-capable components.
- Connect only Integra/Onkyo components to **RI** jacks. Connecting other manufacturer's components may cause a malfunction.
- Some components may not support all **RI** functions. Refer to the manuals supplied with your Integra/Onkyo components.
- While Zone 2/3/4 is on, the System Off, Auto Power On and Direct Change **RI** functions do not work.

## Connecting the Power Cord

- 1 Connect the supplied power cord to the AV receiver's **AC INLET**.



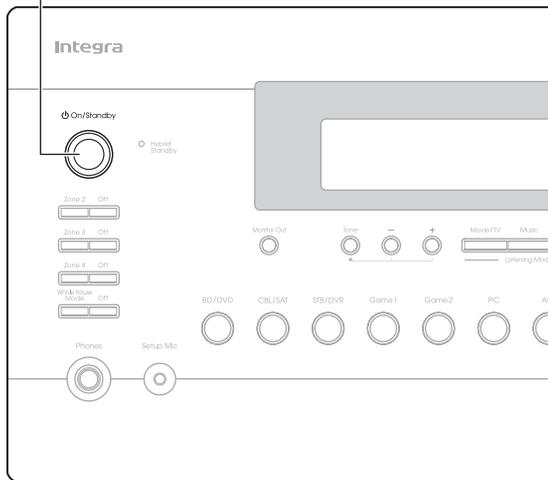
- 2 Plug the power cord into an AC wall outlet.

### Note

- Before connecting the power cord, connect all of your speakers and AV components.
- Turning on the AV receiver may cause a momentary power surge that might interfere with other electrical equipment on the same circuit. If this is a problem, plug the AV receiver into a different branch circuit.
- Do not use a power cord other than the one supplied with the AV receiver. The supplied power cord is designed exclusively for use with the AV receiver and should not be used with any other equipment.
- Never disconnect the power cord from the AV receiver while the other end is still plugged into a wall outlet. Doing so may cause an electric shock. Always disconnect the power cord from the wall outlet first, and then the AV receiver.

# Turning On/Off the AV Receiver

⏻ On/Standby



## Turning On

- 1 Press **⏻ On/Standby** on the front panel.  
or

Press **Receiver** followed by **⏻ Receiver** on the remote controller.

The AV receiver comes on and its display lights.

## Turning Off

- 1 Press **⏻ On/Standby** on the front panel.  
or

Press **Receiver** followed by **⏻ Receiver** on the remote controller.

The AV receiver will enter standby mode. To prevent any loud surprises when you turn on the AV receiver, always turn down the volume before you turn it off.

### Tip

- The **Hybrid Standby** indicator may light depending on the status of settings (→ [page 58](#)).
- For details on power management settings, see “Auto Standby” (→ [page 82](#)).

## ■ Smooth Operation in a Few Easy Steps (Initial Setup)

To ensure smooth operation, here’s a few easy steps to help you configure the AV receiver before you use it for the very first time. These settings only need to be made once. See “Initial Setup” for details (→ [page 23](#)).

## ■ If the “Firmware Update Available” window appears.

When a new version of the firmware is available, the notification window “**Firmware Update Available**” pops up. This notification only appears when the AV receiver is connected to your home network (→ [page 115](#)). To perform the firmware update, follow the instructions on screen.

Use **▲/▼** and **Enter** on the AV receiver or remote controller to select one of the options.

### ▶ Update Now:

Starts the firmware update.

Refer to “Firmware Update” (→ [page 104](#)).

### ▶ Remind me Later:

The update notification will pop up again the next time you turn the AV receiver on.

### ▶ Never Remind me:

Disables the automatic update notification.

### Tip

- The update notification window can be enabled or disabled in “Update Notice” (→ [page 82](#)).

# Initial Setup

This section explains the settings that we recommend you to make before using the AV receiver for the very first time. A setup wizard is launched upon first-time use to let you perform those settings.

**The on-screen menus appear only on a TV that is connected to HDMI OUT MAIN.**

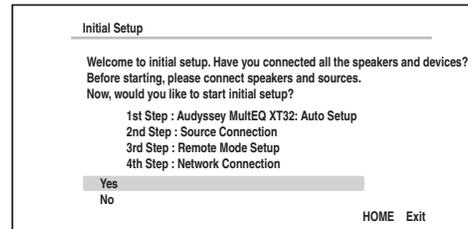
## Selecting the Language for the Onscreen Setup Menus

This step determines the language used for the onscreen setup menus. See “**Language**” in “**OSD Setup**” (→ **page 79**).

### Tip

- Pressing **Home** will close the setup wizard. To restart the initial setup, select “**Initial Setup**” in the “**Hardware Setup**” menu (→ **page 82**).

After selecting the language for on-screen setup menus, a welcome screen is displayed.



- Use **▲/▼** on the AV receiver or remote controller to select one of the following options, and then press **Enter**.

#### ► Yes:

Continues to “**Audyssey MultEQ XT32: Auto Setup**”.

#### ► No:

Skips the settings and terminates the initial setup. The setup wizard goes to “Terminating the Initial Setup” (→ **page 24**). You can always restart the initial setup by selecting “**Initial Setup**” in the “**Hardware Setup**” menu (→ **page 82**).

## Audyssey MultEQ XT32: Auto Setup

This step performs the automatic speaker setup.

- Use **▲/▼** to select one of the following options, and then press **Enter**.

#### ► Do it Now:

The automatic speaker setup is performed following instructions on screen. Refer to step 2 of “Using the Automatic Speaker Setup” (→ **page 38**). When this setting is complete, the setup wizard continues to “**Source Connection**”.

#### ► Do it Later:

Skips this setting.

Press **Enter** and continue to “**Source Connection**”.

## Source Connection

This step checks the connection of source components.

- 1 Use ▲/▼ to select one of the following options, and then press Enter.**
  - ▶ **Yes, Continue:**  
Performs the checkings.
  - ▶ **No, Skip:**  
Skips this step and continues to “**Remote Mode Setup**”.
- 2 Select the input selector for which you want to check the connection and press Enter.**  
The picture of the corresponding source should appear on screen with a verification prompt.
- 3 When prompted, use ▲/▼ to select one of the following options and then press Enter.**
  - ▶ **Yes:**  
Confirms that the source is properly displayed.
  - ▶ **No:**  
Displays an error report. Follow the troubleshooting instructions and recheck the source.
- 4 Use ▲/▼ to select one of the following options, and then press Enter.**
  - ▶ **Yes:**  
Returns to step 2.
  - ▶ **No, Done Checking:**  
The setup wizard continues to “**Remote Mode Setup**”.

## Remote Mode Setup

With this step, you can enter remote control codes for the components you want to operate.

- 1 Use ▲/▼ to select one of the following options, and then press Enter.**
  - ▶ **Yes:**  
Performs the remote control code input. Refer to step 5 of “Looking up for Remote Control Codes” (→ page 91).
  - ▶ **No, Skip:**  
Skips this step and continues to “**Network Connection**”.
- 2 When you’re finished, select one of the following options and press Enter.**
  - ▶ **Yes, Done:**  
The setup wizard continues to “**Network Connection**”.
  - ▶ **No, not yet:**  
You can enter other remote control codes.

## Network Connection

This step checks your network connection.

- 1 Use ▲/▼ to select one of the following options, and then press Enter.**
  - ▶ **Yes:**  
Performs the checkings.
  - ▶ **No, Skip:**  
Skips this step and terminates the initial setup.

- 2 Follow the instructions on screen to perform the network checking.**

The checking is complete when the message “**Successfully connected.**” appears at the middle of the screen. Press **Enter** to terminate the initial setup.

### Tip

- If you have selected “**Wireless (Option)**”, you need to configure the optional wireless adapter. For further details, see the instruction manual provided with the wireless adapter (UWF-1).

- 3 If an error message appears, select one of the following options and press Enter.**

- ▶ **Retry:**  
Performs the checking again.
- ▶ **No, Do it Later:**  
Skips this step and terminates the initial setup. The setup wizard goes to “Terminating the Initial Setup”.

## Terminating the Initial Setup

This step ends the initial setup process.

- 1 Press Enter.**  
To restart the initial setup, select “**Initial Setup**” in the “**Hardware Setup**” menu (→ page 82).

# Playback

The on-screen information appears only on a TV that is connected to HDMI outputs. If your TV is connected to other video outputs, use the AV receiver's display when changing settings.

This section describes the procedure for using the remote controller, unless otherwise specified.

## Playing the Connected Component

### ■ Operating with the remote controller



- 1 Press **Receiver** followed by an **Input Selector** button.

### 2 Start playback on the source component.

See also:

- “Playing an iPod/iPhone via USB” (→ [page 27](#))
- “Playing a USB Device” (→ [page 28](#))
- “Listening to vTuner Internet Radio” (→ [page 28](#))
- “Registering Other Internet Radio” (→ [page 29](#))
- “Playing Music Files on a Server (DLNA)” (→ [page 30](#))
- “Remote Playback” (→ [page 31](#))
- “Playing Music on a Shared Folder” (→ [page 32](#))
- “Listening to AM/FM Radio” (→ [page 33](#))
- “Playing Audio and Video from Separate Sources” (→ [page 37](#))
- “iPod/iPhone Playback via Onkyo Dock” (→ [page 89](#))
- “Controlling Other Components” (→ [page 91](#))

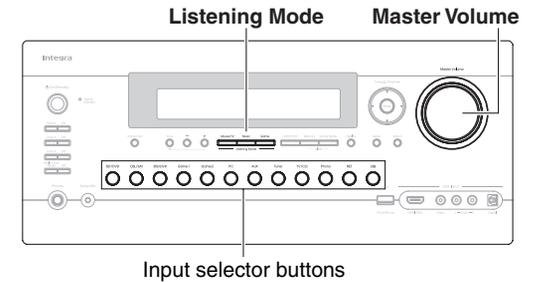
### 3 To adjust the volume, use **VOL ▲/▼**.

### 4 Select a listening mode and enjoy!

See also:

- “Using the Listening Modes” (→ [page 41](#))
- “Sound Program Edit” (→ [page 71](#))

### ■ Operating on the AV receiver



- 1 Use the input selector buttons to select the input source.
- 2 Start playback on the source component.
- 3 To adjust the volume, use the **Master Volume** control.
- 4 Select a listening mode and enjoy!

#### ■ Screen Saver

If there is no video signal on the current input source and no operation for a specific time (three minutes by default), a screen saver automatically comes on.

##### Tip

- The time until the screen saver activates itself can be changed in the “Screen Saver” setting (→ [page 79](#)).
- The screen will return to its previous state if the AV receiver is operated.

## Controlling Contents of USB or Network Devices

Press **USB** or **NET** first.



- |   |  |
|---|--|
| ① | <b>Top Menu</b><br>This button displays the top menu for each media or service.  |
| ② | <b>▲/▼ and Enter</b><br>These buttons navigate through the menus.<br>◀/▶<br>This button cycles through pages.<br><b>Playlist</b> ◀/▶<br>In Standard Mode (iPod/iPhone), this button selects playlists. |
| ③ | ▶<br>This button starts playback.  |
| ④ | ◀◀<br>This button selects the beginning of the current song. Pressing this button twice selects the previous song.   |
| ⑤ | ◀◀<br>This button fast-reverses the current song.  |
| ⑥ | ⏸<br>This button pauses playback.  |
| ⑦ | <b>Search</b><br>You can toggle between the playback screen and the list screen during playback.   |
| ⑧ | <b>Display</b><br>This button switches between song information during playback. Press this button while the list screen is displayed to return to the playback screen.                                |
| ⑨ | <b>Album +/-</b><br>In Standard Mode (iPod/iPhone), this button selects albums.  |
| ⑩ | <b>Menu</b><br>This button displays the menu of Internet radio services.   |
| ⑪ | <b>Return</b><br>This button returns to the previous menu.   |
| ⑫ | ▶▶<br>This button selects the next song.   |
| ⑬ | ▶▶<br>This button fast-forwards the current song.  |

- |   |  |
|---|--|
| ⑭ | ■<br>This button stops playback.   |
| ⑮ | <b>Mode</b><br>You can switch between Standard Mode and Extended Mode (iPod/iPhone). |
| ⑯ | <b>Random</b><br>This button performs random playback.                               |
| ⑰ | <b>Repeat</b><br>Press this button repeatedly to cycle through the repeat modes.     |

### Tip

- See “Controlling Other Components” about the operation of other components (→ **page 91**).

### Note

- The buttons you can use will differ depending on the devices and media used for playback.

## Understanding Icons on the Display

This section describes icons that appear on the AV receiver's display during media playback.

Icon	Description
	Folder
	Track
	Playback
	Pause
	Fast Forward
	Fast Reverse
	Artist
	Album
	Repeat One Track
	Repeat Folder (USB Device)
	Repeat
	Shuffle
	Shuffle Album (iPod/iPhone)

## Playing an iPod/iPhone via USB

The on-screen information appears only on a TV that is connected to HDMI outputs.

This section explains how to play music/video files on the iPod/iPhone.

Compatible iPod/iPhone models

Made for:

iPod touch (1st, 2nd, 3rd and 4th generation), iPod classic, iPod nano (2nd, 3rd, 4th, 5th and 6th generation), iPhone 4S, iPhone 4, iPhone 3GS, iPhone 3G, iPhone

### 1 Press **USB** repeatedly to select the “USB(Front)” input.

#### Tip

- The same operation can be done by selecting “USB” in the Home menu.

### 2 Connect the USB cable that comes with the iPod/iPhone to the USB port on the front of the AV receiver.

While reading the contents of your iPod/iPhone, the message “**Connecting...**” appears on the AV receiver's display.

The **USB** indicator lights. It will flash if the AV receiver cannot read the iPod/iPhone.

#### Tip

- When connecting your iPod/iPhone with a USB cable, we recommend you use an official USB cable from Apple Inc.

### 3 Press **Mode** repeatedly to switch to Extended Mode (Music) or Extended Mode (Video).

A list of your iPod/iPhone model's contents appears.

#### Tip

- If you want to operate using the iPod/iPhone or the remote controller, press **Mode** repeatedly to switch to Standard mode.
- When you disconnect the iPod/iPhone, the AV receiver remembers the current mode. This means that if you disconnect when in Extended Mode (Music), the AV receiver will start in Extended Mode (Music) the next time you connect the iPod/iPhone.

### 4 Use **▲/▼** to select a folder, and then press **Enter** to open it.

#### Tip

- You can also use the **▲/▼**, **Enter** and **Tuning Mode** buttons on the front panel. **Tuning Mode** allows you to switch modes.

### 5 Use **▲/▼** to select a music/video file, and press **Enter** or **▶** to start playback.

#### Note

- While the message “**Connecting...**” appears on the AV receiver's display, do not disconnect the USB cable supplied with your iPod/iPhone or the USB device from the **USB** port.
- If you connect an iPod or iPhone to the **USB** port, no sound will be output from the headphones jack.

## Extended Mode (Music) Control

The music content information is displayed (lists are displayed), and you can control the music content while looking at the screen.

Top screen list:

Playlists, Artists, Albums, Genres, Songs, Composers, Shuffle Songs, Now Playing.

### Note

- In this mode, video contents are not displayed, even if they are input from the **AUX Input Video** jack on the AV receiver's front panel.

## Extended Mode (Video) Control

The video content information is displayed (lists are displayed), and you can control the video content while looking at the screen.

Top screen list:

Movies, Music Videos, TV Shows, Video Podcasts, Rentals.

### Note

- To view the video contents of your iPod/iPhone, connect it to the **USB** port and **AUX Input Video** jack on the AV receiver's front panel, using the official Apple Composite AV Cable.
- Depending on your iPod/iPhone model and generation, the displayed items may vary and the support for Extended Mode (Video) is not guaranteed.

## Standard Mode Control

The content information is not displayed, but can be operated using the iPod/iPhone or the remote controller.

## Playing a USB Device

**The on-screen information appears only on a TV that is connected to HDMI outputs.**

This section explains how to play music files from a USB device (e.g., USB flash drives and MP3 players).

See also:

- “Network/USB Features” (→ [page 115](#)).

- 1 Press **USB** repeatedly to select the “USB(Front)” or “USB(Rear)” input.**
- 2 Plug your USB device into the AV receiver’s **USB** port.**  
The **USB** indicator lights. It will flash if the AV receiver cannot read the USB device.
- 3 Press **Enter**.**  
A list of the device’s contents appears. To open a folder, use **▲/▼** to select it, and then press **Enter**.
- 4 Use **▲/▼** to select a music file, and press **Enter** or **▶** to start playback.**

### Note

- While the message “**Connecting...**” appears on the AV receiver’s display, do not disconnect the USB cable supplied with your iPod/iPhone or the USB device from the **USB** port.

## Listening to vTuner Internet Radio

**You need to connect the AV receiver to your home network (→ [page 115](#)). The on-screen information appears only on a TV that is connected to HDMI outputs.**

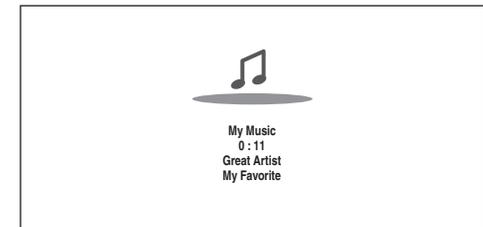
The vTuner Internet Radio Service is a portal site featuring radio stations from all over the world.

You can search for stations by categories such as genre or location. The AV receiver is preinstalled with this service.

- 1 Press **NET**.**  
The network service screen appears, and the **NET** indicator lights. If it flashes, verify that the Ethernet cable is firmly connected to the AV receiver.

### Tip

- The same operation can be done by selecting “**Network Service**” in the Home menu.
- 2 Use **▲/▼/◀/▶** to select “vTuner Internet Radio” and then press **Enter**.**
  - 3 Use **▲/▼** to select a program and then press **Enter**.**  
Playback starts.



### Tip

- You can find stations similar to the one being played. During playback, press **Menu** on the remote controller, select “**Stations like this**” and press **Enter**.

## ■ Adding vTuner Internet Radio Stations to Favorites

There are two ways you can register specific Internet radio stations (programs) from the vTuner Internet Radio.

### Adding to My Favorites

The selected program will be added to “My Favorites” on the network service screen, which appears when pressing **NET** on the remote controller.

1. Press **Menu** with the station selected or while a station is playing.
2. Use **▲/▼** to select “Add to My Favorites”, and press **Enter**.
3. Use **▲/▼/◀/▶** to select “OK”, and press **Enter**.

#### Tip

- You can rename the stations saved in “My Favorites”.

### Adding to vTuner Internet Radio’s Favorites

Select “vTuner Internet Radio” and press **Enter** to display the “Favorites” folder that appears on the same screen as “Stations By Genre”, “Stations By Location”, etc. This is where your favorite Internet radio bookmarks will be stored.

To register your favorite stations using a personal computer, you need to connect your PC to the same network as the AV receiver. Enter the ID# (MAC address) of your unit on <http://integra.vtuner.com/>. You can then register your favorite radio programs. The ID# is shown at the bottom of the “vTuner Internet Radio” top menu, and the AV receiver’s MAC address is shown on “Network” of the Setup menu (→ [page 82](#)).

## Registering Other Internet Radio

**You need to connect the AV receiver to your home network (→ [page 115](#)). The on-screen information appears only on a TV that is connected to HDMI outputs.**

Internet radio URLs in the following formats are supported: PLS, M3U, and podcast (RSS). However, depending on the type of data or audio format used by the Internet radio station, you may not be able to listen to some stations.

To listen to other Internet radio stations, you must register your station in “My Favorites” of the network service screen, as described below.

#### Note

- Services available may vary depending on the region. See the separate instructions for more information.
- Certain network service or contents available through this device may not be accessible in case the service provider terminates its service.

- 1 Select “Network” on the Setup menu to verify your IP address (→ [page 82](#)).**  
Take a note of the IP address.
- 2 On your computer, start your web browser.**
- 3 Enter the AV receiver’s IP address in the browser’s Internet address (URL) field.**  
If you are using Internet Explorer®, you can also enter the URL by selecting “Open...” on the “File” menu. Information on the AV receiver is then shown on your Internet browser (Web Setup).
- 4 Click on the “My Favorites” tab, and enter the Internet radio station’s name and URL.**

## 5 Click “Save” to save the Internet radio station.

The Internet radio station is then added to “My Favorites”. To play the registered station, press **NET**, and then select “My Favorites” on the network service screen. A list of registered Internet radio stations appears. Select the one that you saved and press **Enter**.

#### Tip

- If you want to add a new station directly from “My Favorites”, select an empty slot in the list and press **Menu**. Then, select “Create New Station” and press **Enter**. Pressing **Enter** again will display the keyboard screen. Use that keyboard to enter the station’s name and URL respectively, and then press **Enter**.
- If you want to delete a station saved in “My Favorites”, press **Menu** with the station selected or while the station is playing. Then, use **▲/▼** to select “Delete from My Favorites” and press **Enter**. You can also delete stations from the Web Setup.
- If you want to rename a station, select the desired station and press **Menu**. Then, use **▲/▼** to select “Rename this station” and press **Enter**.
- You can save up to 40 Internet radio stations.

## Changing the Icon Layout on the Network Service Screen

You need to connect your TV to the HDMI output (HDMI OUT MAIN) to make the following on-screen setting.

The layout of icons can be customized by switching their positions on the network service screen.

### 1 Press NET.

The network service screen appears, and the NET indicator lights. If it flashes, verify that the Ethernet cable is firmly connected to the AV receiver.

#### Tip

- The same operation can be done by selecting “Network Service” in the Home menu.

### 2 Press Mode/D (blue) on the remote controller.

### 3 Use ▲/▼/◀/▶ to select an icon to move, and then press Enter.

### 4 Use ▲/▼/◀/▶ to select another icon as the destination, and then press Enter.

The icons switch positions and the message “Completed!” appears.

## Playing Music Files on a Server (DLNA)

You need to connect the AV receiver to your home network (→ page 115). The on-screen information appears only on a TV that is connected to HDMI outputs.

This section explains how to play music files on a computer or media server through the AV receiver (Server Playback).

### 1 Start your computer or media server.

### 2 Press NET.

The network service screen appears. The NET indicator lights. If it flashes, confirm the network connection.

#### Tip

- The same operation can be done by selecting “Network Service” in the Home menu.

### 3 Use ▲/▼/◀/▶ to select “DLNA”, and press Enter.

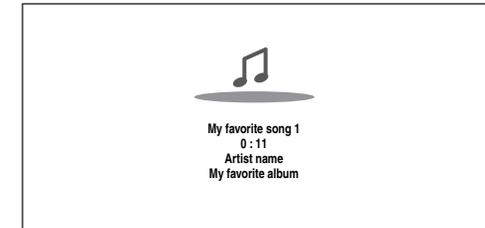
### 4 Use ▲/▼ to select a server, and then press Enter.

The menu is displayed according to the server functions.

#### Note

- The search function does not work with media servers which do not support this function.
- Photos and movies stored on a media server cannot be accessed from the AV receiver.
- Depending on the sharing settings in the media server, the AV receiver may not be able to access the content. See the instruction manual of the media server.

### 5 Use ▲/▼ to select an item, and then press Enter or ▶ to start playback.



#### Note

- Depending on the media server, ◀◀/▶▶/|| may not work.
- If the message “No Item.” appears, this means that no information can be retrieved from the server. In this case, check your server, network, and AV receiver connections.

## Windows Media Player 11 Setup

This section explains how to configure Windows Media Player 11 so that the AV receiver can play the music files stored on your computer.

### 1 Start Windows Media Player 11.

### 2 On the “Library” menu, select “Media Sharing”.

The “Media Sharing” dialog box appears.

### 3 Select the “Share my media” check box, and then click “OK”.

A list of the supported devices appears.

### 4 Select the AV receiver in the list, and then click “Allow”.

The corresponding icon will be checked.

↳ To be continued

**5 Click “OK” to close the dialog box.**

This completes the Windows Media Player 11 configuration.

You can now play the music files in your Windows Media Player 11 library through the AV receiver.

**Tip**

- Windows Media Player 11 can be downloaded for free from the Microsoft web site.

**Remote Playback**

**You need to connect the AV receiver to your home network (→ page 115). The on-screen information appears only on a TV that is connected to HDMI outputs.**

Remote Playback means you can play the music files stored on a media server or personal computer with the AV receiver by operating the controller device in the home network.

**Windows Media Player 12 Setup**

This section explains how to configure Windows Media Player 12 so that the AV receiver can play the music files stored on your personal computer.

**1 Start Windows Media Player 12.****2 On the “Stream” menu, select “Turn on media streaming”.**

A dialog box appears.

**Tip**

- If the media streaming is already activated, clicking on “More streaming options...” in the “Stream” menu will display a list of the playback devices connected to the network. You can skip step 3.

**3 Move your cursor and click on “Turn on media streaming”.**

A list of media server appears. Wording may vary slightly depending on the network location.

**4 On the “Media streaming options”, select the AV receiver and confirm that it is set to “Allow”.****5 Click “OK” to close the dialog box.**

This completes the Windows Media Player 12 configuration.

You can now play the music files in your Windows Media Player 12 library.

**Tip**

- On the “Stream” menu, confirm that “Allow remote control of my Player...” is checked.

**Using Remote Playback****1 Turn on the AV receiver.****2 Start Windows Media Player 12.**

To enable remote playback, you must first configure Windows Media Player 12.

**3 On Windows Media Player 12, right-click on a music file.**

The right-click menu appears.

**Tip**

- For selecting another media server, select the desired media server from the “Other Libraries” menu on Windows Media Player 12.

**4 Select the AV receiver in “Remote playback”.**

The “Play to” window appears and playback on the AV receiver starts. Operations during remote playback can be made from the “Play to” window of Windows 7 on your personal computer.

A playback screen will be displayed on the connected TV.

**5 Adjusting the Volume.**

You can adjust the volume by adjusting the volume bar in the “Remote playback” window. The default maximum volume level is 82 (0dB). If you wish to change this, enter the value from the Web Setup in your browser. Refer to step 3 of “Registering Other Internet Radio” for details (→ page 29).

The volume value of the remote window and the volume value of the AV receiver may not always match.

Adjustments you make to the volume in the AV receiver will not be reflected in the “Remote playback” window.

**Note**

- Remote playback cannot be used in any of the following cases:
  - Network services are being used.
  - Contents are being played from a USB device or iPod/iPhone.
  - Zones are turned on.

## Playing Music Files on a Shared Folder

This section explains how to play music files on a computer or NAS (Network Attached Storage) through the AV receiver.

### Windows 7 Setup

#### ■ Setting the sharing options

- 1 Select “Choose homegroup and sharing options” on the Control Panel.

##### Tip

- If this option is not available, verify that “View by:” is set to “Category”.

- 2 Select “Change advanced sharing settings”.

- 3 Under “Home or Work”, verify that the following items are checked:

“Turn on network discovery”, “Turn on file and printer sharing”, “Turn on sharing so anyone with network access can read and write files in the Public folders”, and “Turn off password protected sharing”.

- 4 Select “Save changes” and click “OK” on the confirmation screen.

#### ■ Creating a shared folder

- 1 Right-click the folder that you want to share.
- 2 Select “Properties”.
- 3 On the “Sharing” tab, select “Advanced Sharing”.
- 4 Check the check box of “Share this folder” and then click “OK”.
- 5 Under “Network File and Folder Sharing”, select “Share”.
- 6 Select and add “Everyone” from the pull-down menu and then click “Share”.

##### Tip

- With this setting, everyone is allowed to access the folder. If you want to assign a user name and password to the folder, make the corresponding settings for “Permissions” in “Advanced Sharing” of the “Sharing” tab.
- Verify that “Workgroup” is properly set.

##### Note

- When using NAS (Network Attached Storage), refer to the instruction manual provided with your NAS unit.

## Playing music files on a shared folder

In order to enjoy Home Media, you must first create a shared folder on your computer.

- 1 On the remote controller, press **Receiver** followed by **NET**.

The network service screen appears. The NET indicator lights. If it flashes, confirm the network connection.

##### Tip

- The same operation can be done by selecting “Network Service” in the Home menu.

- 2 Use **▲/▼/◀/▶** to select “Home Media”, and press **Enter**.

- 3 Use **▲/▼** to select a server, and then press **Enter**.

##### Tip

- The server name of your computer can be viewed on the computer properties screen.

- 4 Use **▲/▼** to select the desired shared folder and then press **Enter**.

- 5 When asked for a user name and password, enter the necessary login information.

##### Tip

- The login information will be remembered for the next time you log in.
- The login information is that of the user account set when creating a shared folder.

- 6 Use **▲/▼** to select a music file and then press **Enter** or **▶**.

The playback of the selected file starts.

## Listening to AM/FM Radio

This section describes the procedure of using the buttons on the front panel, unless otherwise specified.

### Using the Tuner

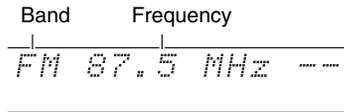
With the built-in tuner you can enjoy AM and FM radio stations. You can store your favorite stations as presets for quick selection.

You can also change the frequency steps (→ page 80).

#### 1 Press Tuner to select either “AM” or “FM”.

In this example, FM has been selected.

Each time you press **Tuner**, the radio band changes between AM and FM.



(Actual display depends on the country.)

#### Note

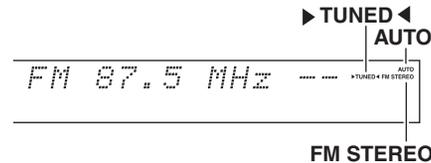
- (North American models) When using the Whole House Mode with “TUNER” input selector, connect antennas to both the **MAIN** and **ZONE 2 ANTENNA** jacks/terminals (→ pages 20, 51, 86).

## Tuning into Radio Stations

### ■ Auto tuning mode

- 1 Press **Tuning Mode** so that the **AUTO** indicator lights on the AV receiver’s display.
- 2 Press **Tuning ▲/▼**.  
Searching stops when a station is found.

When tuned into a station, the **TUNED** indicator lights. When tuned into a stereo FM station, the **FM STEREO** indicator lights as shown.



#### Tip

##### • Tuning into weak FM stereo stations

If the signal from a stereo FM station is weak, it may be impossible to get good reception. In this case, switch to manual tuning mode and listen to the station in mono.

### ■ Manual tuning mode

In manual tuning mode, FM stations will be in mono.

- 1 Press **Tuning Mode** so that the **AUTO** indicator goes off on the AV receiver’s display.
- 2 Press and hold **Tuning ▲/▼**.  
The frequency stops changing when you release the button.  
Press the buttons repeatedly to change the frequency one step at a time.

### ■ Tuning into stations by frequency

You can tune into AM and FM stations directly by entering the appropriate frequency.

- 1 On the remote controller, press **Tuner** repeatedly to select “AM” or “FM”, followed by **D.TUN**.



(Actual display depends on the country.)

- 2 Within 8 seconds, use the number buttons to enter the frequency of the radio station.

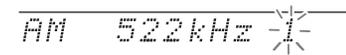
For example, to tune to 87.5 (FM), press **8, 7, 5** or **8, 7, 5, 0**.

If you have entered the wrong number, you can retry after 8 seconds.

### Presetting AM/FM Stations

You can store a combination of up to 40 of your favorite AM/FM radio stations as presets.

- 1 **Tune into the AM/FM station that you want to store as a preset.**  
See the previous section.
- 2 **Press Memory.**  
The preset number flashes.



(Actual display depends on the country.)

- 3 While the preset number is flashing (about 8 seconds), use **Preset ◀/▶** to select a preset from 1 through 40.

↳ To be continued

- 4 Press Memory again to store the station or channel.**  
The station or channel is stored and the preset number stops flashing.  
Repeat this procedure for all of your favorite AM/FM radio stations.

### ■ Selecting Presets

- 1 To select a preset, use Preset ◀/▶ on the AV receiver, or the remote controller's CH +/-.**

#### Tip

- You can also use the remote controller's number buttons to select a preset directly.

### ■ Deleting Presets

- 1 Select the preset that you want to delete.**  
See the previous section.
- 2 While holding down Memory, press Tuning Mode.**  
The preset is deleted and its number disappears from the AV receiver's display.

## Listening to HD Radio™ Stations (North American models)

HD Radio technology brings digital radio to conventional analog AM and FM radio stations, with improved sound quality, better reception, and new data services. HD Radio technology provides CD-quality sound for FM stations, and FM-quality sound for AM stations. In addition, FM HD Radio stations can transmit multiple programs on the same frequency by using multicast channels. Text data display includes station name, song title, artist name, and so on.

## Digital Sound

- Digital, CD-quality sound. HD Radio Technology enables local radio stations to broadcast a clean digital signal. AM sounds like today's FM and FM sounds like a CD.

## PSD

- Program Service Data: Contributes to the superior user experience of HD Radio Technology. Presents song name, artist, station IDs, HD2/HD3 Channel Guide, and other relevant data streams.

## HD2/HD3

- Adjacent to traditional main stations are extra local FM channels. These HD2/HD3 Channels provide new, original music as well as deep cuts into traditional genre.

For more information about HD Radio technology, visit:  
[www.ibiquity.com](http://www.ibiquity.com)  
[www.hdradio.com](http://www.hdradio.com)

### ■ About HD Radio Stations

HD Radio stations broadcast on the same AM and FM frequencies they've always used, and you can receive them by tuning into your favorite station as normal. If the current

AM or FM station supports HD Radio technology, the HD Radio indicator lights up. When an HD Radio transmission is received, the **HD SPS** indicator appears or "**HD Radio**" appears on the display.

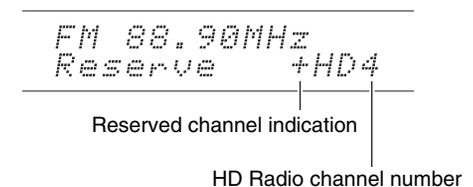
- If the current AM or FM station supports HD Radio technology, the station's name will be displayed instead of the band and frequency.
- When music data is received, song title and artist name information will be displayed next to the "**HD**" indicator.
- If the current HD Radio station supports multicast channels, the currently selected multicast channel will be displayed to the right of the "**HD**" indicator.

### ■ Selecting Multicast Channels

FM HD Radio stations can transmit multiple programs on the same frequency by using what are called multicast channels.

- 1 Press Tuner on the remote controller repeatedly to select "FM" and use the ◀/▶ buttons to select multicast channel.**

If you select a multicast channel that is not currently broadcasting, a plus "+" symbol or period "." will appear next to the "**HD**" indicator, indicating that the channel has been reserved. When broadcasting commences, that channel will be selected automatically.



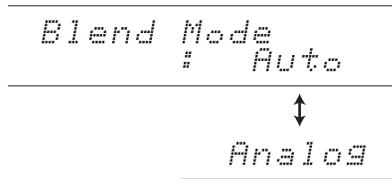
#### Note

- Multicast channels are not available on AM.

## ■ Setting the Blend Mode

HD Radio transmissions contain analog and digital signals. If available, the digital signal is used automatically. In areas with poor reception, you may want to choose the analog signal.

### 1 Press **Enter** repeatedly to select Auto or Analog.



The options are:

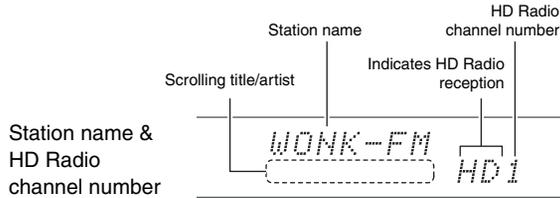
- ▶ **Auto:**  
Select to use the digital signal when available.
- ▶ **Analog:**  
Select to use the analog signal.

#### Note

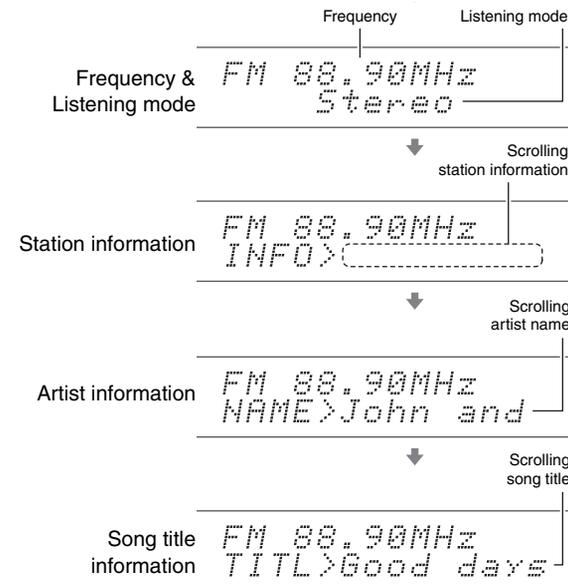
- Multicast channels 2 through 8 are digital only, so you must select multicast channel #1 before you can change the Blend mode.

## ■ Displaying HD Radio Information

Press the **Display** button repeatedly to cycle through the available information.



HD channel, Artist name, and Song title are displayed in the 2nd line if the AV receiver has a two-line display.



#### Note

- The exact information displayed depends on your AV receiver.
- This information is displayed only when receiving an HD Radio signal.

## Using RDS (excluding North American models)

**RDS works only in areas where RDS broadcasts are available.**

When tuned into an RDS station, the **RDS** indicator lights. When the station is broadcasting text information, the text can be displayed.

### ■ What is RDS?

RDS stands for Radio Data System and is a method of transmitting data in FM radio signals. It was developed by the European Broadcasting Union (EBU) and is available in most European countries. Many FM stations use it these days. In addition to displaying text information, RDS can also help you find radio stations by type (e.g., news, sport, rock, etc.).

The AV receiver supports four types of RDS information:  
**PS (Program Service)**

When tuned to an RDS station that's broadcasting PS information, the station's name will be displayed. Pressing **Display** will display the frequency for 3 seconds.

### **RT (Radio Text)**

When tuned to an RDS station that's broadcasting text information, the text will be shown on the AV receiver's display as described in the next section.

### **PTY (Program Type)**

This allows you to search for RDS radio stations by type.

### **TP (Traffic Program)**

This allows you to search for RDS radio stations that broadcast traffic information (→ **page 36**).

**Note**

- In some cases, the text characters displayed on the AV receiver may not be identical to those broadcast by the radio station. Also, unexpected characters may be displayed when unsupported characters are received. This is not a malfunction.
- If the signal from an RDS station is weak, RDS data may be displayed intermittently or not at all.

**■ Displaying Radio Text (RT)****1 Press RT/PTY/TP once.**

The RT information scrolls across the AV receiver's display.

**Note**

- The message “**Waiting**” may appear while the AV receiver waits for the RT information.
- If the message “**No Text Data**” appears, no RT information is available.

**■ Finding Stations by Type (PTY)**

You can search for radio stations by type.

**1 Press RT/PTY/TP twice.**

The current program type appears on the AV receiver's display.

**2 Use Preset ◀/▶ to select the type of program you want.**

See the table shown later in this chapter.

**3 To start the search, press Enter.**

The AV receiver searches until it finds a station of the type you specified, at which point it stops briefly before continuing with the search.

**4 When a station you want to listen to is found, press Enter.**

If no stations are found, the message “**Not Found**” appears.

**■ Listening to Traffic News (TP)**

You can search for stations that broadcast traffic news.

**1 Press RT/PTY/TP three times.**

If the current radio station is broadcasting TP (Traffic Program), “[TP]” will appear on the AV receiver's display. If “TP” without square brackets appears, this means that the station is not broadcasting TP.

**2 To locate a station that is broadcasting TP, press Enter.**

The AV receiver searches until it finds a station that's broadcasting TP.

If no stations are found, the message “**Not Found**” appears.

**RDS program types (PTY)**

Type	Display
None	None
News reports	News
Current affairs	Affairs
Information	Info
Sport	Sport
Education	Educate
Drama	Drama
Culture	Culture
Science and technology	Science
Varied	Varied
Pop music	Pop M
Rock music	Rock M
Middle of the road music	Easy M
Light classics	Light M
Serious classics	Classics
Other music	Other M
Weather	Weather
Finance	Finance
Children's programmes	Children
Social affairs	Social
Religion	Religion
Phone in	Phone In
Travel	Travel
Leisure	Leisure
Jazz music	Jazz
Country music	Country
National music	Nation M
Oldies music	Oldies
Folk music	Folk M
Documentary	Document
Alarm test	TEST
Alarm	Alarm!

## Playing Audio and Video from Separate Sources

You can listen to the audio of one input source while watching the video of another. This function takes advantage of the fact that when an audio-only input source (**BD/DVD**, **CBL/SAT**, **STB/DVR**, **Game 1**, **Game 2**, **Tuner**, **TV/CD**, **Phono**) is selected, the video input source remains unchanged. The following procedure shows how to listen to a CD player's audio source connected to **TV/CD IN** while watching a Blu-ray Disc/DVD player's video source connected to **BD/DVD**.

### Tip

- To use an input selector as audio-exclusive, you must assign all video inputs to "- - - -" (→ **pages 60 to 62**).

**1** Press **BD/DVD**.

**2** Press **TV/CD**.

The audio output changes to the CD source, but the video of previously-selected **BD/DVD** is retained.

**3** Start playback on your Blu-Ray Disc/DVD and CD players.

You can now enjoy watching your Blu-ray Disc/DVD with the sound of your CD player.

# Using Basic Functions

## Using the Automatic Speaker Setup

With the supplied calibrated microphone, Audyssey MultEQ® XT32 automatically determines the number of speakers connected, their size for purposes of bass management, optimum crossover frequencies to the subwoofer (if present), and distances from the primary listening position.

Audyssey MultEQ XT32 then removes the distortion caused by room acoustics by capturing room acoustical problems over the listening area in both the frequency and time domain. The result is clear, well-balanced sound for everyone. Audyssey MultEQ XT32 can be used with Audyssey Dynamic EQ® and Audyssey Dynamic Volume® (→ [page 72](#)).

Before using this function, connect and position all of your speakers.

Audyssey MultEQ XT32 offers two ways of measuring: the “**Audyssey Quick Start**” and “**Audyssey MultEQ XT32 Full Calibration**”.

- “**Audyssey Quick Start**” uses the measurement from one position to perform the speaker setting only.
- “**Audyssey MultEQ XT32 Full Calibration**” uses the measurement from eight positions to correct room response in addition to the speaker setting.

The more positions are used in measuring, the better the listening environment will become. We recommend using a measurement from eight positions to create the best listening environment.

The Quick Start takes 2 minutes and Full Calibration takes about 20 minutes.

Total measurement time varies depending on the number of speakers.

## Measurement procedure

To create a listening environment in your home theater that all listeners will enjoy, Audyssey MultEQ XT32 takes measurements at up to eight positions within the listening area. Position the microphone at ear height of a seated listener with the microphone tip pointed directly at the ceiling using a tripod. Do not hold the microphone in your hand during measurements as this will produce inaccurate results.

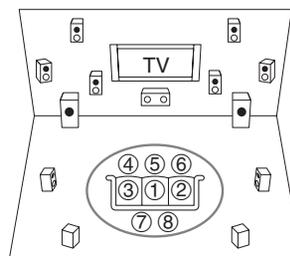
### ■ First measurement position

Also referred to as the Main Listening Position, this refers to the most central position where one would normally sit within the listening environment.

Audyssey MultEQ XT32 uses the measurements from this position to calculate speaker distance, level, polarity, and the optimum crossover value for the subwoofer.

### ■ Second-eighth measurement positions

These are the other listening positions (i.e., the places where the other listeners will sit). You can measure up to eight positions.



○ : Listening area      ① to ⑧: Listening position

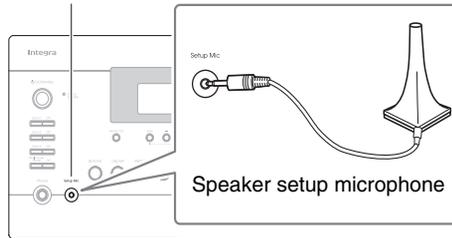
### Note

- Make the room as quiet as possible. Background noise and Radio Frequency Interference (RFI) can disrupt the room measurements. Close windows, televisions, radios, air conditioners, fluorescent lights, home appliances, light dimmers, or other devices. Turn off the cell phone (even if it is not in use) or place it away from all audio electronics.
- The microphone picks up test tones played through each speaker as Audyssey MultEQ XT32 Room Correction and Speaker Setup runs.
- Audyssey MultEQ XT32 Room Correction and Speaker Setup cannot be performed while a pair of headphones is connected.

**1 Turn on the AV receiver and the connected TV.**  
On the TV, select the input to which the AV receiver is connected.

**2 Set the speaker setup microphone at the Main Listening Position ①, and connect it to the Setup Mic jack.**

Setup Mic jack

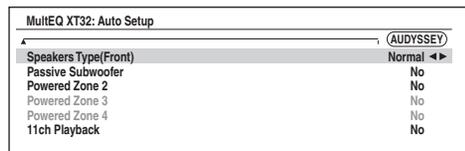


The speaker setting menu appears.

**Note**

- The on-screen menus appear only on a TV that is connected to **HDMI OUT MAIN**. If your TV is connected to other video outputs, use the AV receiver's display when changing settings.

**3 When you've finished making the settings, press Enter.**



Perform the "Speaker Setup" according to your speaker configuration:

- Speakers Type(Front) (→ page 63)
- Passive Subwoofer (→ page 63)
- Powered Zone 2 (→ page 63)
- Powered Zone 3 (→ page 63)
- Powered Zone 4 (→ page 63)
- 11ch Playback (→ page 63)
- Subwoofer (→ page 64)

If you use a powered subwoofer(s), go to step 4. If not, go to step 5.

If "Speakers Type(Front)" is set to "Digital Crossover", a confirmation screen appears. Select "Next (2-7. Digital Processing Crossover Network)" to display the screen for Digital Processing Crossover Network (→ page 67). Continue with the settings.

**4 Adjust the subwoofer volume level to 75 dB, and then press Enter.**

Test tones are played through the subwoofer. Use the volume control on the subwoofer.

When the "Subwoofer" setting is set to "1ch" only, the left-hand subwoofer (SW1) will be measured. When the "Subwoofer" setting is set to "1ch" with two subwoofers connected, the right-hand subwoofer (SW2) will not be measured and no sound will be output.

An error will occur if you set "Subwoofer" to "2ch" without connecting any subwoofers, or with only one subwoofer connected.

**Note**

- If your subwoofer does not have a volume control, disregard the displayed level and press **Enter** to proceed to the next step.
- If you set the subwoofer's volume control to its maximum and the level displayed is lower than 75 dB, leave the subwoofer's volume control at its maximum and press **Enter** to proceed to the next step.
- If you use two subwoofers, perform this step twice.

**5 Use ▲/▼ to select "Audyssey Quick Start" or "Audyssey MultEQ XT32 Full Calibration", and then press Enter.**

**6 Press Enter.**

Audyssey MultEQ® XT32 Room Correction and Speaker Setup starts.

Test tones are played through each speaker as Audyssey MultEQ XT32 Room Correction and Speaker Setup runs. This process takes a few minutes. Please **refrain from talking** during measurements and **do not stand** between speakers and the microphone.

Do not disconnect the speaker setup microphone during Audyssey MultEQ XT32 Room Correction and Speaker Setup, unless you want to cancel the setup. If you select "Audyssey Quick Start", you will go to step 9.

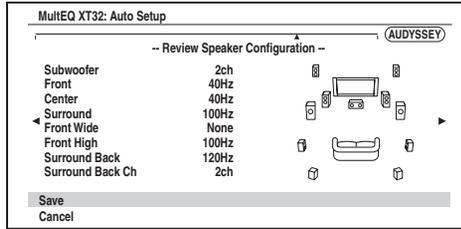
**7 Place the speaker setup microphone at the next position, and then press Enter.**

Audyssey MultEQ XT32 performs more measurements. This takes a few minutes.

**8 When prompted, repeat step 7.**

↳ To be continued

## 9 Use ▲/▼ to select an option, and then press Enter.



The options are:

### ► Save:

Save the calculated settings and exit Audyssey MultEQ® XT32 Room Correction and Speaker Setup.

### ► Cancel:

Cancel Audyssey MultEQ XT32 Room Correction and Speaker Setup.

### Tip

- You can view the calculated settings for the speaker configuration, speaker distances, and speaker levels by using ◀/▶.

## 10 Use ▲/▼ to select a target, and use ◀/▶ to change the setting.

After the results of Audyssey MultEQ XT32 have been saved, the menu will display the “Audyssey” (→ page 72), “Dynamic EQ” (→ page 72), “Dynamic Volume” (→ page 72) settings.

### Note

- When “Audyssey Quick Start” has been used for measurement, “Audyssey” cannot be selected.
- These settings are applied to all input selectors.

## 11 Press Enter.

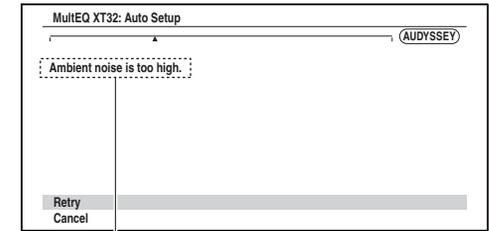
## 12 Disconnect the speaker setup microphone.

### Note

- You can cancel Audyssey MultEQ XT32 Room Correction and Speaker Setup at any point in this procedure simply by disconnecting the setup microphone.
- Do not connect or disconnect any speakers during Audyssey MultEQ XT32 Room Correction and Speaker Setup.
- If the AV receiver is muted, it will be unmuted automatically when Audyssey MultEQ XT32 Room Correction and Speaker Setup starts.
- Changes to the room after Audyssey MultEQ XT32 Room Correction and Speaker Setup requires you run Audyssey MultEQ XT32 Room Correction and Speaker Setup again, as room EQ characteristics may have changed.

## Error Messages

While Audyssey MultEQ XT32 Room Correction and Speaker Setup is in progress, one of the error messages below may appear.



Error message

The options are:

### ► Retry:

Try again.

### ► Cancel:

Cancel Audyssey MultEQ XT32 Room Correction and Speaker Setup.

### • Ambient noise is too high.

The background noise is too loud. Remove the source of the noise and try again.

### • Speaker Matching Error!

The number of speakers detected was different from that of the first measurement. Check the speaker connection.

### • Writing Error!

This message appears if saving fails. Try saving again. If this message appears after 2 or 3 attempts, contact the dealer from whom you purchased this unit.

### • Speaker Detect Error

This message appears if a speaker is not detected. “No” means that no speaker was detected.

### Tip

- See “Speaker Configuration” for appropriate settings (→ page 11).

## Changing the Speaker Setup Manually

You can manually make changes to the settings found during Audyssey MultEQ® XT32 Room Correction and Speaker Setup.

See also:

- “Speaker Configuration” (→ [page 64](#))
- “Speaker Distance” (→ [page 65](#))
- “Level Calibration” (→ [page 65](#))
- “Equalizer Settings” (→ [page 66](#))

### Note

- Please note that THX recommends any THX main speakers be set to “**80Hz(THX)**”. If you set up your speakers using Audyssey MultEQ XT32 Room Correction and Speaker Setup, please make sure manually that any THX speakers are set to “**80Hz(THX)**” crossover (→ [page 64](#)).
- 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.

## Using a Powered Subwoofer

If you’re using a powered subwoofer and it outputs very low-frequency sound at a low volume level, it may not be detected by Audyssey MultEQ XT32 Room Correction and Speaker Setup.

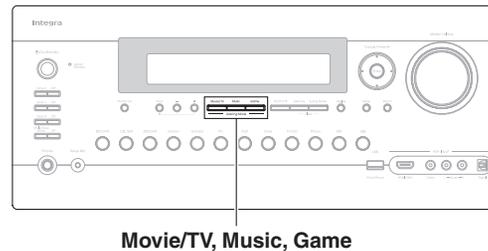
If the “**Subwoofer**” appears on the “**Review Speaker Configuration**” screen as “**No**”, increase the subwoofer’s volume to the half-way point, set it to its highest crossover frequency, and then try running Audyssey MultEQ XT32 Room Correction and Speaker Setup again. Note that if the volume is set too high and the sound distorts, detection issues may occur, so use an appropriate volume level. If the subwoofer has a low-pass filter switch, set it to Off or Direct. Refer to your subwoofer’s instruction manual for details.

## Using the Listening Modes

### Selecting Listening Modes

See “About Listening Modes” for detailed information about the listening modes (→ [page 42](#)).

#### ■ Listening Mode Buttons



#### Movie/TV button

This button selects the listening modes intended for use with movies and TV.

#### Music button

This button selects the listening modes intended for use with music.

#### Game button

This button selects the listening modes intended for use with video games.

#### THX button

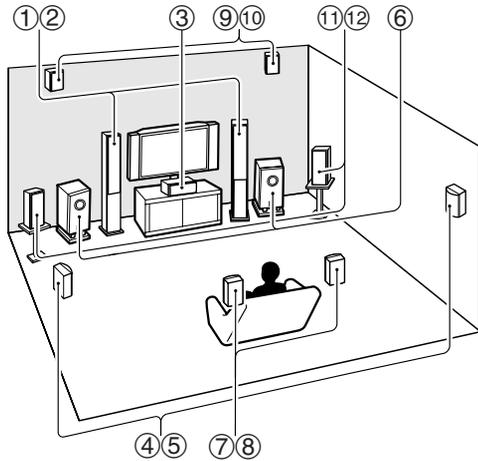
This button selects the THX listening modes.

- The Dolby Digital and DTS listening modes can only be selected if your Blu-ray Disc/DVD player is connected to the AV receiver with a digital audio connection (coaxial, optical, or HDMI).
- The listening modes you can select depends on the format of the input signal. To check the format, see “Displaying Source Information” (→ [page 50](#)).
- While a pair of headphones is connected, you can select the following listening modes: Mono, Direct, and Stereo.

## About Listening Modes

The AV receiver's listening modes can transform your listening room into a movie theater or concert hall, with high fidelity and stunning surround sound.

### ■ Explanatory Notes



- ① ② Front speakers
- ③ Center speaker
- ④ ⑤ Surround speakers
- ⑥ Subwoofer(s)
- ⑦ ⑧ Surround back speakers
- ⑨ ⑩ Front high speakers
- ⑪ ⑫ Front wide speakers



### Input Source

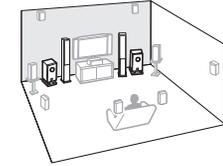
The following audio formats are supported by the listening modes.

<b>MONO</b>	This is mono (monophonic) sound.
<b>STEREO</b>	This is stereo (stereophonic) sound. Two independent audio signal channels are reproduced through two speakers.
<b>5.1ch</b>	This is 5.1-channel surround sound. This surround system has five main channels of sound and a sixth subwoofer channel (called the point-one channel).
<b>7.1ch</b>	This is 7.1-channel surround sound. This is a further sound enhancement to 5.1-channel sound with two additional speakers that provide greater sound envelopment and more accurate positioning of sounds.
<b>DTS-ES</b>	This is DTS-ES surround sound. This surround system can produce a discrete or a matrix-encoded sixth channel from existing DTS 5.1 encoded material.
<b>Dolby EX</b>	This is Dolby Digital EX surround sound. This provides a center back surround channel from 5.1-channel sources.

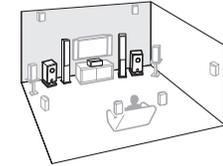
### Speaker Layout

The illustration shows which speakers are activated in each channel. See "Speaker Configuration" for the speaker setup (→ page 64).

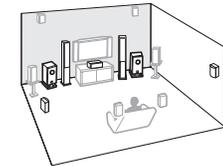
**2.2**

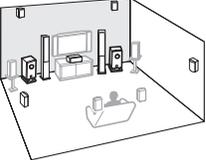
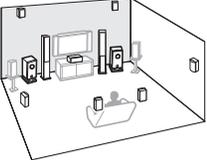
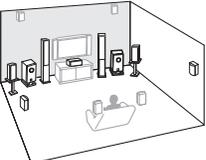
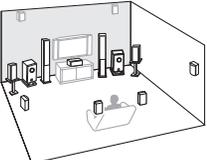
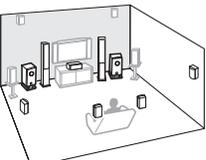
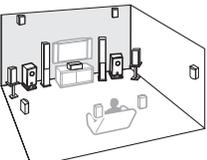
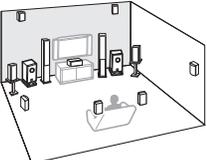


**3.2**



**5.2**



<b>7.2</b>	<b>7.2-FH</b> 	<b>9.2</b> <sup>*1</sup>	<b>9.2-SB/FH</b> 
	<b>7.2-FW</b> 		<b>9.2-SB/FW</b> 
	<b>7.2-SB</b> 		<b>9.2-FH/FW</b> 
		<b>11.2</b> <sup>*2</sup>	

<sup>\*1</sup> After enabling the corresponding speakers, press **Receiver** followed by **SP** (speaker layout) repeatedly to select the speakers you want to use: surround back and front high, surround back and front wide, or front high and front wide.

<sup>\*2</sup> This layout is only available when the external power amplifier is connected to **FRONT WIDE PRE OUT** of the AV receiver and the “11ch Playback” setting is set to “Yes” (→ page 12, 63).

## ■ Onkyo-Original DSP Listening Modes

Listening Mode	Description	Input Source	Speaker Layout
<b>Orchestra</b> <i>Orchestra</i>	Suitable for classical or operatic music, this mode emphasizes the surround channels in order to widen the stereo image, and simulates the natural reverberation of a large hall.	<b>MONO</b> <b>STEREO</b> <b>5.1ch</b> <b>7.1ch</b> <b>DTS-ES</b> <b>DJEX</b>	<b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>Unplugged</b> <i>Unplugged</i>	Suitable for acoustic instruments, vocals and jazz, this mode emphasizes the front stereo image, giving the impression of being right in front of the stage.		
<b>Studio-Mix</b> <i>Studio-Mix</i>	Suitable for rock or pop music, listening to music in this mode creates a lively sound field with a powerful acoustic image, like being at a club or rock concert.		
<b>TV Logic</b> <i>TV Logic</i>	This mode adds realistic acoustics to TV shows produced in a TV studio, surround effects to the entire sound, and clarity to voices.		
<b>Game-RPG</b> <i>Game-RPG</i>	In this mode, the sound has a dramatic feel with a similar atmosphere to Orchestra mode.		
<b>Game-Action</b> <i>Game-Action</i>	In this mode, sound localization is distinct with emphasis on bass.		
<b>Game-Rock</b> <i>Game-Rock</i>	In this mode, sound pressure is emphasized to heighten live feel.		
<b>Game-Sports</b> <i>Game-Sports</i>	In this mode, reverberation is increased and sound localization decreased slightly.		

Listening Mode	Description	Input Source	Speaker Layout
<b>All Ch Stereo</b> <i>All Ch Stereo</i>	Ideal for background music, this mode fills the entire listening area with stereo sound from the front, surround, and surround back speakers.	<b>MONO</b> <b>STEREO</b> <b>5.1ch</b> <b>7.1ch</b> <b>DTS-ES</b> <b>DJEX</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>Full Mono</b> <i>Full Mono</i>	In this mode, all speakers output the same sound in mono, so the sound you hear is the same regardless of where you are within the listening room.		
<b>T-D (Theater-Dimensional)</b> <i>T-D</i>	With this mode you can enjoy a virtual surround sound even with only two or three speakers. This works by controlling how sounds reach the listener's left and right ears. Good results may not be possible if there's too much reverb, so we recommend that you use this mode in an environment with little or no natural reverb.		<b>2.2</b> <b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>

## ■ Listening Modes

Listening Mode	Description	Input Source	Speaker Layout
<b>Direct</b> <i>Direct</i>	In this mode, audio from the input source is output without surround-sound processing. The speaker configuration (presence of speakers) and speaker distance settings are enabled, but much of the processing set via the audio setup is disabled. See “On-screen Setup” for more details (→ page 53).	<b>MONO</b>	<b>2.2</b> <b>3.2</b> <b>5.2</b>
		<b>STEREO</b>	<b>7.2</b> <sup>*1</sup> <b>9.2</b>
		<b>5.1ch</b>	<b>11.2</b>
		<b>7.1ch</b>	
		<b>DTS-ES</b>	
		<b>DJEX</b>	
<b>Stereo</b> <i>Stereo</i>	Sound is output from the front left and right speakers and subwoofer.		<b>2.2</b> <b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>Mono</b> <i>Mono</i>	Use this mode when watching an old movie with a mono soundtrack, or use it with the foreign language soundtracks recorded in the left and right channels of some movies. It can also be used with DVDs or other sources containing multiplexed audio, such as karaoke DVDs.		
<b>Multichannel</b> <i>Multich</i>	This mode is for use with PCM multichannel sources.	<b>5.1ch</b> <b>7.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>DSD<sup>2</sup></b> <i>DSD</i>	In this mode, audio from the input source is output without surround-sound processing. The speaker configuration (presence of speakers), crossover frequency, speaker distance, A/V Sync and much of the processing set via the audio setup are enabled. See “On-screen Setup” for more details (→ page 53).	<b>5.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>Dolby Digital</b> <i>Dolby D</i>			
<b>Dolby Digital Plus<sup>3</sup></b> <i>Dolby D +</i>		<b>5.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
		<b>7.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <sup>*1</sup> <b>9.2</b> <b>11.2</b>
<b>Dolby TrueHD</b> <i>Dolby TrueHD</i>		<b>5.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
		<b>7.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <sup>*1</sup> <b>9.2</b> <b>11.2</b>

Listening Mode	Description	Input Source	Speaker Layout
<b>DTS</b> <i>DTS</i>	In this mode, audio from the input source is output without surround-sound processing. The speaker configuration (presence of speakers), crossover frequency, speaker distance, A/V Sync and much of the processing set via the audio setup are enabled. See “On-screen Setup” for more details (→ page 53).	<b>5.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>DTS-HD High Resolution Audio</b> <i>DTS-HD HR</i>		<b>5.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
		<b>7.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <sup>*1</sup> <b>9.2</b> <b>11.2</b>
		<b>5.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>DTS-HD Master Audio</b> <i>DTS-HD MSTR</i>		<b>7.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <sup>*1</sup> <b>9.2</b> <b>11.2</b>
		<b>5.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>DTS Express</b> <i>DTS Express</i>		<b>5.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>DTS 96/24<sup>4</sup></b> <i>DTS 96/24</i>	This mode is for use with DTS 96/24 sources. This is high-resolution DTS with a 96 kHz sampling rate and 24-bit resolution, providing superior fidelity. Use it with DVDs that bear the DTS 96/24 logo.	<b>5.1ch</b>	<b>3.2</b> <b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>DTS-ES Discrete<sup>5</sup></b> <i>ES Discrete</i>	This mode is for use with DTS-ES Discrete soundtracks, which use a discrete surround back channel for true 6.1/7.1-channel playback. The seven totally separate audio channels provide better spatial imaging and 360-degree sound localization, perfect for sounds that pan across the surround channels. Use it with DVDs that bear the DTS-ES logo, especially those with a DTS-ES Discrete soundtrack.	<b>DTS-ES</b>	<b>7.2-SB</b> <b>9.2-SB/FH</b> <b>9.2-SB/FW</b> <b>11.2</b>
<b>DTS-ES Matrix<sup>5</sup></b> <i>ES Matrix</i>	This mode is for use with DTS-ES Matrix soundtracks, which use a matrix-encoded back-channel for 6.1/7.1-channel playback. Use it with DVDs that bear the DTS-ES logo, especially those with a DTS-ES Matrix soundtrack.		



Listening Mode	Description	Input Source	Speaker Layout	Listening Mode	Description	Input Source	Speaker Layout	
<i>PLII Movie DSX</i>	<ul style="list-style-type: none"> <li>• <b>Dolby Pro Logic II/IIX<sup>6</sup> Movie + Audyssey DSX</b></li> <li>• <b>Dolby Pro Logic II/IIX<sup>6</sup> Music + Audyssey DSX</b></li> <li>• <b>Dolby Pro Logic II/IIX<sup>6</sup> Game + Audyssey DSX</b></li> </ul> The combination of Dolby Pro Logic II/IIX and Audyssey DSX® modes can be used.	<b>STEREO</b>	<b>7.2-FH</b> <b>7.2-FW</b> <b>9.2</b> <b>11.2</b>	<i>THX Cinema</i>	<ul style="list-style-type: none"> <li>• <b>THX Cinema</b></li> </ul> THX Cinema mode corrects theatrical soundtracks for playback in a home theater environment. In this mode, THX Loudness Plus is configured for cinema levels and Re-EQ, Timbre Matching, and Adaptive Decorrelation are active.	<b>5.1ch</b> <b>7.1ch</b>	<b>5.2</b> <b>7.2</b> <b>9.2</b> <b>11.2</b>	
<i>PLII Music DSX</i>				<i>THX Music</i>				<b>DTS-ES</b> <b>DIEX</b>
<i>PLII Game DSX</i>				<i>THX Games</i>				
<i>PLIIX Movie DSX</i>				<ul style="list-style-type: none"> <li>• <b>Dolby Pro Logic IIX Movie + Audyssey DSX</b></li> <li>• <b>Dolby Pro Logic IIX Music + Audyssey DSX</b></li> </ul> The combination of Dolby Pro Logic IIX and Audyssey DSX modes can be used.				<b>5.1ch</b> <b>DIEX</b>
<i>PLIIX Music DSX</i>								
<i>PLIIX Game DSX</i>								
<i>Dolby EX DSX</i>	<ul style="list-style-type: none"> <li>• <b>Dolby EX + Audyssey DSX</b></li> </ul> The combination of <b>Dolby EX</b> and <b>Audyssey DSX</b> modes can be used.	<b>5.1ch</b> <b>DIEX</b>	<b>9.2-SB/FH</b> <b>9.2-SB/FW</b> <b>11.2</b>	<ul style="list-style-type: none"> <li>• <b>THX Games</b></li> </ul> THX Games mode is meant for spatially accurate playback of game audio, which is often mixed similarly to movies but in a smaller environment. THX Loudness Plus is configured for game audio levels, with Timbre Matching active.				
<b>THX</b>	Founded by George Lucas, THX develops stringent standards that ensure movies are reproduced in movie theaters and home theaters just as the director intended. THX Modes carefully optimize the tonal and spatial characteristics of the soundtrack for reproduction in the home-theater environment. They can be used with 2-channel matrixed and multichannel sources. Surround back speaker output depends on the source material and the selected listening mode.				<ul style="list-style-type: none"> <li>• <b>Dolby Pro Logic II/IIX<sup>6</sup> Movie + THX Cinema</b></li> <li>• <b>Dolby Pro Logic II/IIX<sup>6</sup> Music + THX Music</b></li> <li>• <b>Dolby Pro Logic II/IIX<sup>6</sup> Game + THX Games</b></li> </ul> The combination of Dolby Pro Logic II/IIX and THX Cinema/Music/Games modes can be used. The <b>PLII/PLIIX</b> and <b>THX</b> indicators light on the AV receiver's display.			
				<ul style="list-style-type: none"> <li>• <b>Dolby Pro Logic IIX Movie + THX Cinema</b></li> <li>• <b>Dolby Pro Logic IIX Music + THX Music</b></li> </ul> The combination of Dolby Pro Logic IIX and THX Cinema/Music modes can be used. The <b>PLIIX</b> and <b>THX</b> indicators light on the AV receiver's display.	<b>5.1ch</b> <b>DIEX</b>	<b>7.2-SB</b> <b>9.2-SB/FH</b> <b>9.2-SB/FW</b> <b>11.2</b>		

Listening Mode	Description	Input Source	Speaker Layout
	<ul style="list-style-type: none"> <li><b>Dolby Pro Logic IIz Height + THX Cinema</b></li> <li><b>Dolby Pro Logic IIz Height + THX Music</b></li> <li><b>Dolby Pro Logic IIz Height + THX Games</b></li> </ul> <p>The combination of Dolby Pro Logic IIz Height and THX Cinema/Music/Games modes can be used. The <b>PLIIz</b> and <b>THX</b> indicators light on the AV receiver's display.</p>	<b>STEREO</b> <b>5.1ch</b> <b>7.1ch</b> <b>DTS-ES</b> <b>DJEX</b>	<b>7.2-FH</b> <b>9.2-SB/FH</b> <b>9.2-FH/FW</b> <b>11.2</b>
	<ul style="list-style-type: none"> <li><b>DTS Neo:X Cinema + THX Cinema</b></li> <li><b>DTS Neo:X Music + THX Music</b></li> <li><b>DTS Neo:X Game + THX Games</b></li> </ul> <p>The combination of DTS Neo:X Cinema/Music/Game and THX Cinema/Music/Games modes can be used. The <b>Neo:X</b> indicator lights on the AV receiver's display.</p>		<b>7.2</b> <b>9.2</b> <b>11.2</b>
<b>THX U2 Cinema</b> <b>THX U2 Music</b> <b>THX U2 Games</b> <b>THX Surr EX</b>	<ul style="list-style-type: none"> <li><b>THX Ultra2 Cinema</b></li> </ul> <p>This mode expands 5.1-channel sources for 7.1-channel playback. It does this by analyzing the composition of the surround source, optimizing the ambient and directional sounds to produce the surround back channel output.</p> <ul style="list-style-type: none"> <li><b>THX Ultra2 Music</b></li> </ul> <p>This mode is designed for use with music. It expands 5.1-channel sources for 7.1-channel playback.</p> <ul style="list-style-type: none"> <li><b>THX Ultra2 Games</b></li> </ul> <p>This mode is designed for use with video games. It can expand 5.1-channel sources for 6.1/7.1-channel playback.</p> <ul style="list-style-type: none"> <li><b>THX Surround EX</b></li> </ul> <p>This mode expands 5.1-channel sources for 6.1/7.1-channel playback. It's especially suited to Dolby Digital EX sources. THX Surround EX, also known as Dolby Digital Surround EX, is a joint development between Dolby Laboratories and THX Ltd.</p>	<b>5.1ch</b> <b>DJEX</b>	<b>7.2-SB</b> <b>9.2-SB/FH</b> <b>9.2-SB/FW</b> <b>11.2</b>

Listening Mode	Description	Input Source	Speaker Layout
	<ul style="list-style-type: none"> <li><b>Dolby Pro Logic II Game + THX Ultra2 Games</b></li> </ul> <p>The combination of Dolby Pro Logic II Game and THX Ultra2 Cinema modes can be used. The <b>PLII</b> and <b>THX</b> indicators light on the AV receiver's display.</p>	<b>STEREO</b>	<b>7.2-SB</b> <b>9.2-SB/FH</b> <b>9.2-SB/FW</b> <b>11.2</b>
	<ul style="list-style-type: none"> <li><b>Dolby Pro Logic IIz Height + THX Ultra2 Games</b></li> </ul> <p>The combination of Dolby Pro Logic IIz Height and THX Ultra2 Games modes can be used.</p>	<b>STEREO</b> <b>5.1ch</b> <b>DJEX</b>	<b>9.2-SB/FH</b> <b>11.2</b>
	<ul style="list-style-type: none"> <li><b>Dolby Pro Logic IIz Height + THX Ultra2 Cinema</b></li> <li><b>Dolby Pro Logic IIz Height + THX Ultra2 Music</b></li> </ul> <p>The combination of Dolby Pro Logic IIz Height and THX Ultra2 Cinema/Music modes can be used.</p>	<b>5.1ch</b> <b>DJEX</b>	<b>9.2-SB/FH</b> <b>11.2</b>

**Note**

- \*1 Based on the audio channel signal contained in the source, the corresponding speakers will output the sound.
  - \*2 The AV receiver can input the DSD signal from HDMI IN. Depending on the player, setting the output on the player side to PCM might bring better sound.
  - \*3 For the Blu-ray Discs, Dolby Digital is used in a 3.1/5.1-channel speaker system.
  - \*4 DTS is used depending on the configuration of the AV receiver.
  - \*5 If there are no surround back speakers, DTS is used.
  - \*6 If there are no surround back speakers, Dolby Pro Logic II is used.
  - \*7 DTS Neo:X cannot be selected in the case of 192 kHz input signals.
  - \*8 This listening mode can be selected only when all the following conditions are satisfied:
    - Center speaker is connected.
    - Either the front high or front wide speakers are connected.
- The listening modes cannot be selected with some source formats.

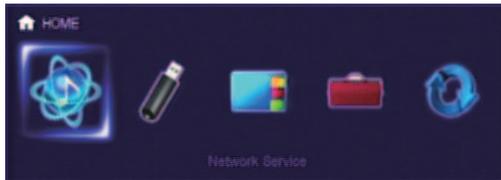
## Using the Home Menu

The Home menu provides quick access to frequently used menus.

**The Home menu appears only on a TV that is connected to HDMI OUT MAIN. If your TV is connected to other video outputs, use the AV receiver's display when changing settings.**

### 1 Press Receiver followed by Home.

The Home menu will be superimposed on the TV screen.



### 2 Use ◀/▶ or ▲/▼ and Enter to make the desired selection.

Press **Home** to close the menu.

## ■ Network Service

**You need to connect the AV receiver to your home network (→ page 115).**

- ▶ With this selection, you can use various Internet radio services or play the contents stored in media connected to your home network (DLNA) (→ pages 28 to 32). Note that this selection will be grayed out for a short while after the AV receiver is turned on. Please wait until it becomes operable.

Press **Enter** to display the network service screen. If you want to use the Internet radio services, use ▲/▼/◀/▶ to select the desired service. Pressing

**Enter** again switches to that selection. If you want to play music files on a server, use ▲/▼/◀/▶ to select “DLNA” and then press **Enter**.

## ■ USB

- ▶ With this selection, you can play contents of portable players (iPod, etc.) and USB storage devices connected to the AV receiver's **USB** port (→ pages 27, 28). Note that this selection will be grayed out for a short while after the AV receiver is turned on. Please wait until it becomes operable.

First, press **USB** repeatedly to select the “**USB(Front)**” or “**USB(Rear)**” input.

Then, press **Enter** to select a drive or browse the contents of the media connected, followed by ▲/▼ to select the desired folder or track. Pressing **Enter** as a track is selected will start playback.

## ■ Note

- Only the front-panel USB input is compatible with iPod/iPhone.

## ■ InstaPrevue

- ▶ With this selection, you can preview audio/video streams coming from HDMI inputs (**HDMI IN 1/2/3/4/AUX Input**). Even with multiple components connected through HDMI, you can easily switch between inputs as their previews are displayed on a single screen.

Press **Enter** to display the main preview (currently selected HDMI input) and the additional previews (other HDMI inputs). Using ▲/▼ or ◀/▶ to select a preview thumbnail and pressing **Enter** will switch the AV receiver to that input source.

## ■ Tip

- If no video signals are present, the thumbnails will be filled in black.
- You can specify the number of preview thumbnails as well as their positioning on screen (→ page 81).

## ■ Note

- This function cannot be selected when:
  - **HDMI IN 5/6/7/8** is the current HDMI input source, or
  - No signal is present on the current input source, or
  - The “**Zone 2 HDMI**” setting is set to “**Use**” (→ page 59).
- Depending on video signals, the picture may not be properly rendered on the preview thumbnails of InstaPrevue.

## ■ Setup

- ▶ With this selection, you can access the common settings of the on-screen Setup menu.

Press **Enter** to display the Setup menu (→ page 57).

## ■ Tip

- You can also access frequently used settings from Quick Setup (→ page 53).

## ■ Firmware Update

- ▶ With this selection, you can update the firmware of the AV receiver. Note that this selection will be grayed out for a short while after the AV receiver is turned on. Please wait until it becomes operable.

Press **Enter** to start the procedure (→ page 104).

## Using the Sleep Timer

With the sleep timer, you can set the AV receiver to turn off automatically after a specified period.

### 1 Press Receiver once followed by Sleep repeatedly to select the required sleep time.

The sleep time can be set from 90 to 10 minutes in 10 minute steps.

The **SLEEP** indicator lights on the AV receiver's display when the sleep timer has been set. The specified sleep time appears for about 5 seconds, then the previous display reappears.

#### Tip

- If you need to cancel the sleep timer, press **Sleep** repeatedly until the **SLEEP** indicator goes off.
- To check the time remaining until the AV receiver sleeps, press **Sleep**. Note that if you press again on **Sleep** as the time being displayed is 10 minutes or less, the sleep timer will go off.

## Setting the Display Brightness

You can adjust the brightness of the AV receiver's display.

### 1 Press Receiver once followed by Dimmer repeatedly to switch between: normal, dim, or dimmer brightness.

#### Tip

- (North American models) Alternatively, you can use **Dimmer** on the AV receiver.

## Displaying Source Information

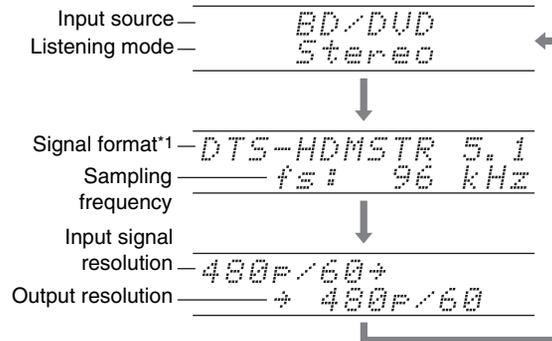
You can display various information about the current input source as follows.

### 1 Press Receiver once followed by Display repeatedly to cycle through the available information.

#### Tip

- Alternatively, you can use **Display** on the AV receiver.

The following information can be typically displayed.



\*1 If the input signal is digital, the signal format is displayed. Information is displayed for about three seconds, then the previously displayed information reappears.

## Changing the Input Display

When you connect an **RI**-capable Integra/Onkyo component, you must configure the input display so that **RI** can work properly.

This setting can be done only from the front panel.

### 1 Press TV/CD or Game1.

“TV/CD” or “GAME1” appears on the AV receiver's display.

### 2 Press and hold down the same button (about 3 seconds) to change the input display.

Repeat this step to select the desired input display.

■ **TV/CD:** TV/CD → DOCK  
                  ↑ TAPE ←

■ **Game1:** GAME1 ↔ DOCK

#### Note

- “DOCK” can be selected for the “TV/CD”, “GAME1” input selector, but not at the same time.
- Enter the appropriate remote control code before using the remote controller for the first time (→ page 93).

## Using the Whole House Mode

The Whole House Mode is useful when you want to add extra background music to your home party; this allows you to enjoy the same stereo music as the main room in separate rooms (Zone 2/3/4).

The Whole House Mode selects the same input source for Multi Zone as the main room's.

See also:

- “Speaker Setup” (→ [page 62](#))
- “Multi Zone” (→ [page 84](#))

### 1 Press Whole House Mode on the front panel.

To cancel the Whole House Mode, press **Off**, change the input source for the main room, or select a listening mode (→ [page 41](#)).

#### Note

- (North American models) When using the Whole House Mode with “TUNER” input selector, connect antennas to both the **MAIN** and **ZONE 2 ANTENNA** jacks/terminals (→ [pages 20, 86](#)).
- The Whole House Mode only supports analog audio.
- To adjust the volume of Multi Zone, switch the AV receiver to Multi Zone control. See “Adjusting the Volume for Zones” (→ [page 86](#)) for the volume adjustment of Multi Zone.
- The Whole House Mode is not available in the following cases:
  - The “**Audio TV Out**” setting is set to “**On**” (→ [page 81](#)).
  - “**HDMI Control(RIHD)**” is set to “**On**” (→ [page 80](#)) and you're listening through your TV speakers.
  - Digital Processing Crossover Network is used (→ [page 67](#)).

## Selecting Speaker Layout

You can set which speakers you want to use by priority.

### 1 Press Receiver followed by SP (speaker layout) repeatedly to select:

#### ■ 9.2 ch playback

#### Important:

- The following layouts are only available when the “**11ch Playback**” is set to “**No**” (→ [page 63](#)) and all corresponding speakers are enabled.

#### ▶ Speaker Layout:SB/FH:

The sounds from surround back and front high speakers are output by priority.

#### ▶ Speaker Layout:SB/FW:

The sounds from surround back and front wide speakers are output by priority.

#### ▶ Speaker Layout:FH/FW:

The sounds from front high and front wide speakers are output by priority.

#### Note

- This setting is not available in either of the following cases:
  - The “**Speakers Type(Front)**” setting is set to “**Bi-Amp**” or “**Digital Crossover**”.
  - The “**Passive Subwoofer**” setting is set to “**Yes**”.
  - The “**Powered Zone 2/3/4**” setting is set to “**Yes**” and Zone 2/3/4 is turned on.
- Playback conditions may be limited depending on the settings in “Speaker Settings” (→ [page 63](#)) and “Speaker Configuration” (→ [page 64](#)).
- When a listening mode which doesn't support front high, front wide or surround back speakers is used, this setting cannot be selected.

## Muting the AV Receiver

You can temporarily mute the output of the AV receiver.

### 1 Press Receiver followed by Muting.

The output is muted and the **MUTING** indicator flashes on the AV receiver's display.

#### Tip

- To unmute, press **Muting** again or adjust the volume.
- Muting is automatically cancelled when the AV receiver is set to standby.

## Using Headphones

### 1 Connect a pair of stereo headphones with a standard plug (1/4 inch or 6.3 mm) to the Phones jack.

While the headphones plug is inserted in the **Phones** jack,  indicator, speaker/channel indicator **FL** and **FR** lights.

#### Note

- Always turn down the volume before connecting your headphones.
- While the headphones plug is inserted in the **Phones** jack, the speakers are turned off. (The Zone 2/3/4 speakers are not turned off.)
- When you connect a pair of headphones, the listening mode is set to Stereo, unless it's already set to Stereo, Mono, or Direct.
- If you connect an iPod or iPhone to the **USB** port on the AV receiver, no sound will be output from the headphones jack.

## Using Easy Macros

By using **Activities** in Easy macro mode, you can sequentially operate Integra/Onkyo components via simple commands from a single-button press.

These commands are user-definable. See “Using Normal Macros” (→ [page 97](#)).

### 1 Press **Activities** (**My Movie**, **My TV**, or **My Music**) to start the Easy macro command.

The default sequences of actions are described below. To change the related source component, see “Changing the Source Components” shown later in this chapter.

#### ■ My Movie

First, the TV, the Integra/Onkyo Blu-ray Disc player, and the AV receiver are turned on. The input selector is set to “**BD/DVD**”. Finally the player starts playback.\*<sup>1</sup>

\*<sup>1</sup> Depending on the start-up time of your Blu-ray Disc/DVD player, the AV receiver may not activate this playback command. In this case, press  on the remote controller.

#### ■ My TV

First, the TV, the cable set-top box, and the AV receiver are turned on. Then the input selector is set to “**CBL/SAT**”.

#### ■ My Music

The Integra/Onkyo CD player and the AV receiver are turned on. The input selector is set to “**TV/CD**”. Finally, the player starts playback.

#### Note

- While the Easy Macro command is being processed, you cannot use other **Activities**. If you want to operate other components, first press **All Off** and use the desired **Activities**.

## Turning Off the Components

This button turns off all components activated by the Easy Macro mode.

### 1 Press **All Off**.

First, the related components stop and turn off. Second, the AV receiver turns off. Finally, the TV turns off (or enters standby mode).\*<sup>1</sup>\*<sup>2</sup>

\*<sup>1</sup> This step doesn't apply to **My Music**, with the default settings.

\*<sup>2</sup> With some televisions, the power may not be turned off (or enter standby mode).

## Changing the Source Components

You can change the source components activated by the Easy Macro mode.

### 1 While holding down **Remote Mode** for the playback component you wish to assign, press and hold down the **Activities** to be changed (**My Movie**, **My TV**, or **My Music**) (about 3 seconds).

**Activities** flashes twice, indicating that the change is complete.

#### Examples:

If you wished to use **My Music** to start the Onkyo cassette recorder, you would press and hold down **My Music** (about 3 seconds) while holding down **TV/CD** until it flashes twice.

## Restoring Default

You can restore **Activities** to the default settings.

- 1 While holding down **Home**, press and hold down **All Off** until **All Off** lights (about 3 seconds).
- 2 Release **Home** and **All Off**, and press **All Off** again. **All Off** flashes twice.

# On-screen Setup

With the AV receiver connected to a TV, there are two ways of changing the settings on-screen: using the Quick Setup or the Setup menu (**Home**).

## ■ Quick Setup

The Quick Setup provides quick access to frequently used settings. You can change settings and view the current information.

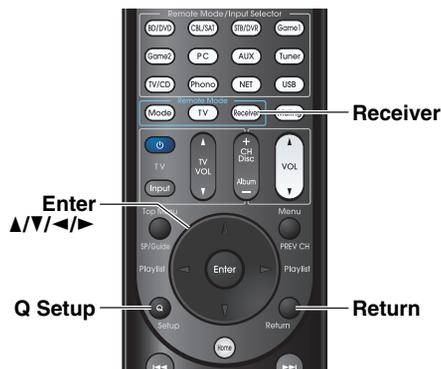
## ■ Setup menu (Home)

The Setup menu (**Home**) provides a convenient way to change the AV receiver's various settings. Settings are organized into 9 categories.

The on-screen menus appear only on a TV that is connected to **HDMI OUT MAIN**. If your TV is connected to other video outputs, use the AV receiver's display when changing settings.

This section describes the procedure for using the remote controller unless otherwise specified.

## Using the Quick Setup



- 1 Press Receiver followed by Q Setup.**  
The Quick Setup will be superimposed on the TV screen.
- 2 Use ▲/▼ and Enter to make the desired selection.**  
Press **Q Setup** to close the menu.  
Press **Return** to return to the previous menu.

### Explanatory Notes

- ① — ■ **Music Optimizer**
- ② —> Off  
      —> **On**

- ① Setting target
- ② Setting options (default setting underlined)

BD/DVD
Input
Audio
Video
Information
Listening Mode

## ■ Input

- ▶ You can select input sources and view the following information: the name of input selectors, input assignments, radio information, and ARC function setting.
- In addition, previews of the video streams coming from HDMI inputs (**HDMI IN 1/2/3/4/AUX Input**) are displayed.<sup>1</sup>
- Use ▲/▼ to select an input source and view the related information. Pressing **Enter** switches to the selected input source.

## ■ Audio (→ page 54)

- ▶ You can change the following settings: “**Sound Program**”, “**Bass (Front)**”, “**Treble (Front)**”, “**Bass (Front Wide)**”, “**Treble (Front Wide)**”, “**Bass (Front High)**”, “**Treble (Front High)**”, “**Bass (Center)**”, “**Treble (Center)**”, “**Bass (Surround)**”, “**Treble (Surround)**”, “**Bass (Surround Back)**”, “**Treble (Surround Back)**”, “**Bass (Subwoofer)**”, “**Subwoofer 1**”, “**Subwoofer 2**”, “**Center**”, “**Dolby Volume<sup>2</sup>**”, “**Audyssey**”, “**Dynamic EQ<sup>2\*3</sup>**”, “**Dynamic Volume<sup>2\*3</sup>**”, “**Late Night**”, “**Music Optimizer**”, “**Re-EQ**”, “**Re-EQ (THX)**” and “**Screen Centered Dialog**”.

## ■ Video<sup>4</sup>

- ▶ You can change the following settings: “**Wide Mode**” and “**Picture Mode<sup>5</sup>**”.
- See also:
  - “**Picture Adjust**” (→ page 74)

## ■ Information<sup>6</sup>

- ▶ You can view the information of the following items: “**Audio**”, “**Video**” and “**Tuner**”.

## ■ Listening Mode<sup>7</sup>

▶ You can select the listening modes that are grouped in the following categories: “**MOVIE/TV**”, “**MUSIC**”, “**GAME**”, and “**THX**”.

Use ▲/▼ to select the category and ◀/▶ to select the listening mode. Press **Enter** to switch to the selected listening mode.

### Note

- \*1 • The video preview is not displayed when:
  - **HDMI IN 5/6/7/8** is the current HDMI input source, or
  - No signal is present on the current input source, or
  - The “**Zone 2 HDMI**” setting is set to “**Use**” (→ page 59).
- \*2 • “**Dolby Volume**”, “**Dynamic EQ**” and “**Dynamic Volume**” cannot be selected when any of the THX listening modes is selected, with “**Loudness Plus**” set to “**On**” or “**Preserve THX Settings**” set to “**Yes**” (→ page 66).
- \*3 • When “**Dynamic EQ**” is set to “**On**” or “**Dynamic Volume**” is set to anything else than “**Off**”, “**Dolby Volume**” will be switched to “**Off**” (→ page 69).
- \*4 • When the “**Monitor Out**” setting is set to “**Sub**”, “**Video**” cannot be selected (→ page 59).
  - This setting cannot be used with the **NET** input selector.
- \*5 • Only when you have selected “**Custom**” in the “**Picture Mode**” (→ page 74), pressing **Enter** allows you to adjust the following items via the Quick Setup: “**Brightness**”, “**Contrast**”, “**Hue**” and “**Saturation**”. Press **Return** to return to the “**Picture Mode**” setting.
- \*6 • Depending on the input source and listening mode, not all channels shown here output the sound.
- \*7 • This setting is not available in either of the following cases:
  - The “**Audio TV Out**” setting is set to “**On**” (→ page 81).
  - “**HDMI Control(RIHD)**” is set to “**On**” (→ page 80) and you’re listening through your TV speakers.

## Using the Audio Settings of Quick Setup

You can change various audio settings from the Quick Setup (→ page 53).

### Note

- These settings are not available in either of the following cases:
  - The “**Audio TV Out**” setting is set to “**On**” (→ page 81).
  - “**HDMI Control(RIHD)**” is set to “**On**” (→ page 80) and you’re listening through your TV speakers.

## Sound Program

### ■ Sound Program

▶ **Stereo Source 1, Stereo Source 2, Stereo Source 3, Multich Source 1, Multich Source 2, Multich Source 3**

▶ **Off**

With this setting, you can select the combination of settings that you registered in “**Sound Program Edit**” (→ page 71).

### Note

- If the input selector is changed, the “**Sound Program**” setting is switched back to “**Off**”.

## Tone Control

### ■ Bass

▶ **-10dB** to **0dB** to **+10dB** in 2 dB steps.

You can boost or cut low-frequency sounds output.

### ■ Treble

▶ **-10dB** to **0dB** to **+10dB** in 2 dB steps.

You can boost or cut high-frequency sounds output.

You can adjust the bass for the front, front wide, front high, center, surround, surround back and subwoofer speakers and treble for the front, front wide, front high, center, surround and surround back speakers, except when the Direct or THX listening mode is selected.

### Operating on the AV receiver

**1** Press **Tone** repeatedly to select either “**Bass**” or “**Treble**” for each speaker or subwoofer.

**2** Use **-** and **+** to adjust.

### Note

- Speakers that are set to “**No**” or “**None**” in “**Speaker Configuration**” (→ page 64) cannot be adjusted.
- When “**Sound Program**” is enabled, “**Subwoofer 1**” and “**Subwoofer 2**” cannot be used if the “**Subwoofer**” setting is set to “**No**” in “**Sound Program Edit**” (→ page 71).

## Speaker Levels

---

### ■ Subwoofer 1

▶ **-15.0dB** to **0.0dB** to **+12.0dB** in 0.5 dB steps.

### ■ Subwoofer 2\*1

▶ **-15.0dB** to **0.0dB** to **+12.0dB** in 0.5 dB steps.

### ■ Center

▶ **-12.0dB** to **0.0dB** to **+12.0dB** in 0.5 dB steps.

You can adjust the volume of each speaker while listening to an input source.

These temporary adjustments are cancelled when the AV receiver is set to standby. To save the setting you made here, go to “Level Calibration” (→ [page 65](#)) before setting the AV receiver to standby.

#### Note

- You cannot use these function while the AV receiver is muted.
- These settings cannot be used while a pair of headphones is connected.
- Speakers that are set to “No” or “None” in “Speaker Configuration” (→ [page 64](#)) cannot be adjusted.
- When “Sound Program” is enabled, “Subwoofer 1” and “Subwoofer 2” cannot be used if the “Subwoofer” setting is set to “No” in “Sound Program Edit” (→ [page 71](#)).
- \*1 If the “Subwoofer” setting is set to “1ch”, this setting cannot be selected (→ [page 64](#)).

## Dolby Volume

---

### ■ Dolby Volume

See “Dolby Volume” of “Audio Adjust” (→ [page 69](#)).

#### Note

- This setting cannot be used in either of the following cases:
  - The Direct listening mode is selected.
  - Any of the THX listening modes is selected, with “Loudness Plus” set to “On” or “Preserve THX Settings” set to “Yes” (→ [page 66](#)).
- When “Dolby Volume” is set to “On”, the “Dynamic EQ” and “Dynamic Volume” settings of all input selectors are switched to “Off”.
- When “Sound Program” is enabled, the setting must be made with “Sound Program Edit” (→ [page 71](#)).

## Audyssey®

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### ■ Audyssey

See “Audyssey” in “Source Setup” (→ [page 72](#)).

### ■ Dynamic EQ

See “Dynamic EQ” in “Source Setup” (→ [page 72](#)).

### ■ Dynamic Volume

See “Dynamic Volume” in “Source Setup” (→ [page 72](#)).

#### Note

- These technologies can be used when all the following conditions are met:
  - Room Correction and Speaker Setup is completed. Note that “Audyssey” requires the “Audyssey MultEQ XT32 Full Calibration” method.
  - Any listening mode other than Direct is selected.
  - A pair of headphones is not connected.
- The setting is stored individually for each input selector.
- “Dynamic EQ” and “Dynamic Volume” cannot be selected when any of the THX listening modes is selected, with “Loudness Plus” set to “On” or “Preserve THX Settings” set to “Yes” (→ [page 66](#)).
- When “Sound Program” is enabled, the setting must be made with “Sound Program Edit” (→ [page 71](#)).

## Late Night

---

### ■ Late Night

For **Dolby Digital** and **Dolby Digital Plus** sources, the options are:

#### ▶ Off

#### ▶ Low:

Small reduction in dynamic range.

#### ▶ High:

Large reduction in dynamic range.

For **Dolby TrueHD** sources, the options are:

#### ▶ Auto:

The Late Night function is set to “On” or “Off” automatically.

#### ▶ Off

#### ▶ On

Turn this setting on to reduce the dynamic range of Dolby Digital material so that you can still hear quiet parts even when listening at low volume levels—ideal for watching movies late at night when you don’t want to disturb anyone.

#### Note

- The effect of the Late Night function depends on the material that you are playing and the intention of the original sound designer, and with some material there will be little or no effect when you select the different options.
- The Late Night function can be used only when the input source is Dolby Digital, Dolby Digital Plus, or Dolby TrueHD.
- The Late Night function is set to “Off” when the AV receiver is set to standby. For Dolby TrueHD sources, it will be set to “Auto”.
- With Dolby TrueHD sources, the Late Night function cannot be used when “TrueHD Loudness Management” is set to “Off” (→ [page 69](#)).
- The Late Night function cannot be used when “Dolby Volume” is set to “On”.

## Music Optimizer

---

### ■ Music Optimizer

- ▶ Off
- ▶ On

The Music Optimizer function enhances the sound quality of compressed music files. When set to “**On**”, the **M.Opt** indicator lights on the AV receiver’s display.

#### Note

- The Music Optimizer function only works with PCM digital audio input signals with a sampling rate below 48 kHz and analog audio input signals.
- The Music Optimizer is disabled when the Direct listening mode is selected.
- The setting is stored individually for each input selector.
- When “**Sound Program**” is enabled, the setting must be made with “**Sound Program Edit**” (→ **page 71**).

## Re-EQ

---

With the Re-EQ function, you can compensate a soundtrack whose high-frequency content is too harsh, making it more suitable for home theater viewing.

### ■ Re-EQ

- ▶ Off
- ▶ On

This function can be used with the following listening modes: Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Multichannel, DTS, DTS-HD High Resolution Audio, DTS-HD Master Audio, DTS Express, DSD, Dolby EX, Dolby Pro Logic IIz Height, Dolby PLIIx Movie, DTS Neo:X Cinema.

### ■ Re-EQ(THX)

- ▶ Off
- ▶ On

This function can be used with the following listening modes: THX Cinema, THX Surround EX, and THX Ultra2 Cinema.

#### Note

- These settings are stored individually for each input selector. In THX listening mode however, the setting will return to “**On**” when the AV receiver is turned off.
- These settings cannot be used while a pair of headphones is connected.

## Screen Centered Dialog

---

By using the front high speaker, this function moves the center image of dialogs etc. upwards, so that the image of dialogs is fixed to the display height.

### ■ Screen Centered Dialog

As the value increases, the center image moves upwards.

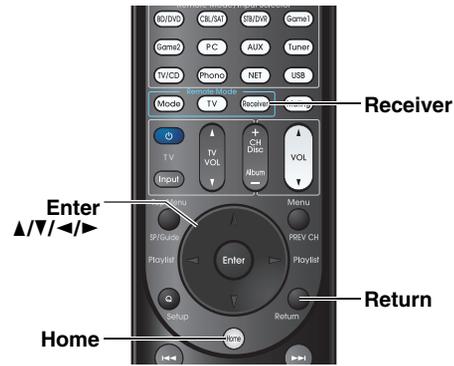
- ▶ 0
- ▶ **1** to **5**:

Screen Centered Dialog on.

#### Note

- The “**Screen Centered Dialog**” can be used when a compatible listening mode is selected.
- This setting cannot be used while a pair of headphones is connected.

## Using the Setup Menu (Home)



### ■ Screen Saver

If there is no video signal on the current input source and no operation for a specific time (three minutes by default), a screen saver automatically comes on.

#### Tip

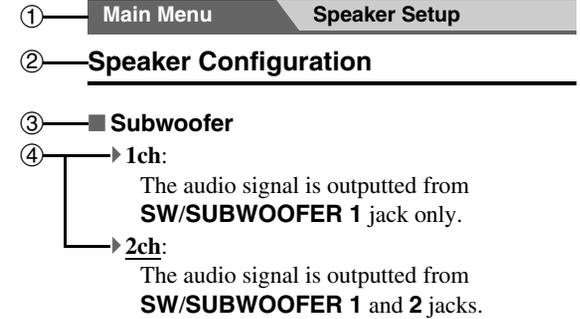
- The time until the screen saver activates itself can be changed in the “Screen Saver” setting (→ page 79).
- The screen will return to its previous state if the AV receiver is operated.

- 1 Press **Receiver** followed by **Home**.
- 2 Use **◀/▶** to select “Setup”, and then press **Enter**.
- 3 Use **▲/▼** to select a main menu item, and then press **Enter**.
- 4 Use **▲/▼** to select a sub menu item, and then press **Enter**.
- 5 Use **▲/▼** to select a setting target, and use **◀/▶** to change the setting.  
Press **Home** to close the menu.  
Press **Return** to return to the previous menu.

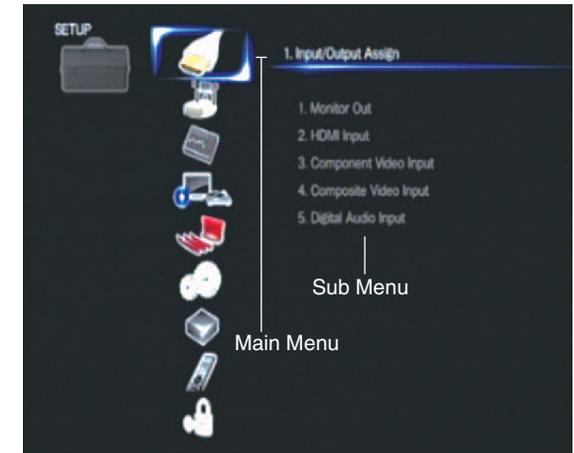
#### Note

- This procedure can also be performed on the AV receiver by using **Setup**, the cursor and enter (middle) buttons.
- During Audyssey MultEQ® XT32 Room Correction and Speaker Setup, messages, etc., that are displayed on the TV screen will appear on the AV receiver’s display.

## Explanatory Notes



- ① Main Menu
- ② Sub Menu
- ③ Setting target
- ④ Setting options (default setting underlined)

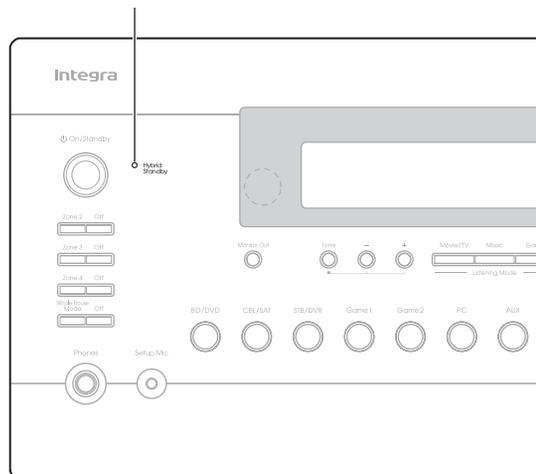


## About the Hybrid Standby Indicator

By way of optimized circuitry, this function reduces power consumption when the AV receiver is in standby mode. The **Hybrid Standby** indicator will light in either of the following conditions:

- “**HDMI Through**” is enabled (the **HDMI** indicator is off).
- “**Network Standby**” is enabled (the **NET** indicator is off).

### Hybrid Standby



### Note

- If Zones are turned on or, if a mobile device connected to the Front Input (MHL) is charging, the **Hybrid Standby** indicator won't light.

## Setup Menu Items

Main menu item	Sub menu item	
<b>Input/Output Assign</b> (→ page 59)	Monitor Out	
	HDMI Input	
	Component Video Input	
	Composite Video Input	
	Digital Audio Input	
	<b>Speaker Setup</b> (→ page 62)	Speaker Settings
		Speaker Configuration
Speaker Distance		
Level Calibration		
Equalizer Settings		
THX Audio Setup		
Digital Processing Crossover		
Network		
<b>Audio Adjust</b> (→ page 68)		Multiplex/Mono
		Dolby
	DTS	
	Audyssey DSX	
	Theater-Dimensional	
	LFE Level	
	Direct	
	Sound Program Edit	
	<b>Source Setup</b> (→ page 72)	Audyssey
		IntelliVolume
A/V Sync		
Name Edit		
Picture Adjust		
Audio Selector		

Main menu item	Sub menu item	
<b>Listening Mode Preset</b> (→ page 77)	BD/DVD	
	CBL/SAT	
	STB/DVR	
	GAME1	
	GAME2	
	PC	
	AUX	
	TUNER	
	TV/CD	
	PHONO	
<b>Miscellaneous</b> (→ page 78)	NET	
	USB	
	<b>Hardware Setup</b> (→ page 79)	Volume Setup
		OSD Setup
		12V Trigger A Setup
12V Trigger B Setup		
12V Trigger C Setup		
<b>Remote Controller Setup</b> (→ page 83)	Multi Zone	
	Tuner	
	HDMI	
	Auto Standby	
	Network	
	Initial Setup	
<b>Lock Setup</b> (→ page 83)	Remote ID	
	Remote Mode Setup	
<b>Lock Setup</b> (→ page 83)	Setup	

## Input/Output Assign



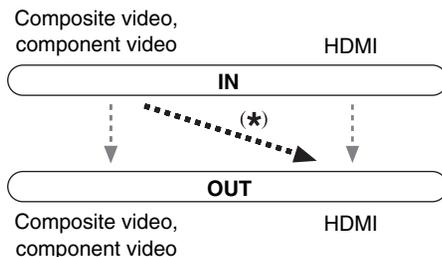
Main Menu

Input/Output Assign

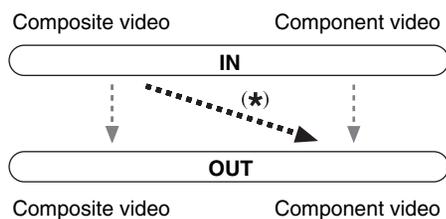
### Monitor Out

On the “**Monitor Out**” settings, you can select whether or not to have the video sources’ images output through the HDMI output.

If you connect your TV to the HDMI output, the “**Monitor Out**” setting is automatically set and composite video and component video sources are upconverted\* and output.



If you connect your TV to the **COMPONENT VIDEO MONITOR OUT** (not the HDMI output), “**Monitor Out**” setting is automatically set and composite video source is upconverted\* and output.



#### Note

- See “Video Connection Formats” (→ **page 108**) for charts showing how the “**Monitor Out**” and “**Resolution**” settings affect the video signal flow through the AV receiver.

#### Monitor Out

##### ▶ Analog:

Select this if your TV is connected to the **COMPONENT VIDEO MONITOR OUT** or **MONITOR OUT V**.

##### ▶ Main:

Select this if your TV is connected to **HDMI OUT MAIN**.

##### ▶ Sub:

Select this if your TV is connected to **HDMI OUT SUB**.

##### ▶ Both:

Select this if your TVs are connected to **HDMI OUT MAIN** and **HDMI OUT SUB**. Video signals are output from both HDMI outputs at the resolution supported by both TVs.

#### Note

- The “**HDMI Through**” setting is only available for the **HDMI OUT MAIN** jack (→ **page 80**).

#### Changing the “Monitor Out” setting manually

##### 1 Press Monitor Out on the front panel.

The current setting is displayed.

```

Monitor Out
# HDMI Main
  
```

##### 2 Press Monitor Out on the AV receiver repeatedly to select:

- ▶ Analog, HDMI Main, HDMI Sub or Both.

#### Zone 2 HDMI

##### ▶ Not Use

##### ▶ Use

When this setting is enabled, the TV connected to **HDMI OUT ZONE 2** can be used as the TV of Zone 2.

#### Tip

- On the connected component, select the mode in which the delay between the video and audio does not occur much if the video signal delay occurs during the playback on the video component connected to the AV receiver.

#### Note

- This setting cannot be selected if the “**Monitor Out**” setting is set to “**Sub**” or “**Both**”.
- When this setting is set to “**Use**”, the “**11ch Playback**” setting is fixed to “**No**” (→ **page 63**).

#### Resolution

##### ▶ Through\*1:

Select this to pass video through the AV receiver at the same resolution and with no conversion.

##### ▶ Auto\*2:

Select this to have the AV receiver automatically convert video at resolutions supported by your TV.

##### ▶ 480p (480p/576p), 720p, 1080i:

Select the desired output resolution.

##### ▶ 1080p\*2:

Select this for 1080p output and video conversion as necessary.

##### ▶ 1080p/24\*2:

Select this for 1080p output at 24 frames per second.

##### ▶ 4K Upscaling\*2:

Select this for an output resolution four times that of 1080p. Depending on the resolution supported by your TV, it will result in either 3840 × 2160 or 4096 × 2160 pixels.

##### ▶ Source:

Select this for an output following the resolution level set in “**Picture Adjust**” (→ **page 74**).

↳ To be continued

You can specify the output resolution for **HDMI OUT MAIN** and **COMPONENT VIDEO MONITOR OUT** so that the AV receiver upconverts the picture resolution as necessary to match the resolution supported by your TV.

**Tip**

- You can see the picture by pressing **Enter** to check the “**Resolution**” setting for **HDMI OUT MAIN** (excluding **NET** input source).

**Note**

- Depending on the incoming video signal, the video playback may not be smooth or the vertical resolution may be lowered. In this case select anything other than “**1080p/24**”.
- With some TVs, there may be no picture when this setting is set to “**4K Upscaling**”.
- If the “**Monitor Out**” setting is set to “**Sub**”, this setting is fixed to “**Through**”.
- If the “**Monitor Out**” setting is set to “**Both**”, this setting is fixed to “**Auto**”.

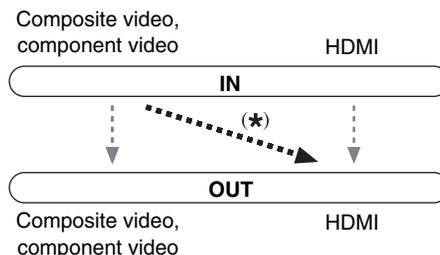
\*1 PC IN (Analog RGB input) signal is output at 480p (480p/576p), 720p, 1080i resolution when the “**Monitor Out**” setting is set to “**Analog**” (→ page 59) and the “**Resolution**” setting is set to “**Through**”.

\*2 These settings are not available when the “**Monitor Out**” setting is set to “**Analog**” (→ page 59).

## HDMI Input

If you connect a video component to an HDMI input, you must assign that input to an input selector. For example, if you connect your Blu-ray Disc/DVD player to **HDMI IN 2**, you must assign “**HDMI2**” to the “**BD/DVD**” input selector.

If you’ve connected your TV to the AV receiver with an HDMI cable, composite video and component video sources can be upconverted\* and output by the HDMI output\*1. You can set this for each input selector by selecting the “- - - -” option, but the video signal coming from the HDMI output depends on the assignments of “**Component Video Input**” and “**Composite Video Input**”. See “Video Connection Formats” for more information on video signal flow and upconversion (→ page 108).



\*1 This applies only when “**Monitor Out**” setting is set to other than “**Analog**” (→ page 59).

Here are the default assignments.

Input selector	Default assignment
BD/DVD	HDMI1
CBL/SAT	HDMI2
STB/DVR	HDMI3
GAME1	HDMI4
GAME2	HDMI5
PC	HDMI6*2
AUX	FRONT (Fixed)
TV/CD	- - - -
PHONO	- - - -

\*2 If you connect your personal computer to **PC IN** (Analog RGB), you must assign “- - - -” to the “**PC**” input selector.

■ **BD/DVD, CBL/SAT, STB/DVR, GAME1, GAME2, PC, TV/CD, PHONO**

▶ **HDMI1, HDMI2, HDMI3, HDMI4, HDMI5, HDMI6, HDMI7, HDMI8:**

Select the input to which the component has been connected.

▶ **- - - -:**

Output composite video and component video sources from the HDMI output. The video signal coming from the HDMI output depends on the assignments of “**Component Video Input**” and “**Composite Video Input**”.

Each HDMI input cannot be assigned to two input selectors or more. When **HDMI1 - HDMI8** have already been assigned, you must first set any unused input selectors to “- - - -” or you will be unable to assign **HDMI1 - HDMI8** to other input selectors.

**Note**

- For composite video and component video upconversion for the HDMI output, the “**Monitor Out**” setting must be set to other than “**Analog**” (→ page 59), and the “**HDMI Input**” setting must be set to “- - - -”. See “Connection Tips and Video Signal Path” for more information on video signal flow and upconversion (→ page 108).
- The assignment of input selector selected for Zone 2 cannot be changed when the “**Zone 2 HDMI**” is set to “**Use**” (→ page 59).
- If no video component is connected to the HDMI input (even if the HDMI input is assigned), the AV receiver selects the video source based on the setting of “**Component Video Input**” and “**Composite Video Input**”.
- When an **HDMI IN** is assigned to an input selector as explained here, the same **HDMI IN** will be set as a priority in the “**Digital Audio Input**” (→ page 62). In this case, if you want to use the coaxial or optical audio input, make the appropriate selection in the “**Audio Selector**” setting (→ page 76).

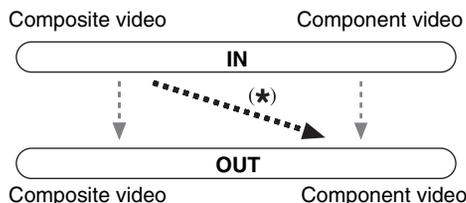
↳ **To be continued**

- Do not assign an **HDMI IN** to the **TV/CD** selector while “**HDMI Control(RIHD)**” is set to “**On**” (→ **page 80**), otherwise appropriate CEC (Consumer Electronics Control) operation will not be guaranteed.
- If you assign “- - - -” to an input selector that is currently selected in “**HDMI Through**” (→ **page 80**), the “**HDMI Through**” setting will be automatically switched to “**Off**”.
- “**AUX**” is used only for input from the front panel.

## Component Video Input

If you connect a video component to a component video input, you must assign that input to an input selector. For example, if you connect your Blu-ray Disc/DVD player to **COMPONENT VIDEO IN 2**, you must assign “**IN2**” to the “**BD/DVD**” input selector.

If you’ve connected your TV to the AV receiver with a component video cable, you can set the AV receiver so that composite video source is upconverted\* and output by the **COMPONENT VIDEO MONITOR OUT**\*1. You can set this for each input selector by selecting the “- - - -” option.



\*1 This applies only when “**Monitor Out**” setting is set to “**Analog**” (→ **page 59**).

Here are the default assignments.

Input selector	Default assignment
<b>BD/DVD</b>	<b>IN1</b>
<b>CBL/SAT</b>	<b>IN2</b>
<b>STB/DVR</b>	- - - -
<b>GAME1</b>	- - - -
<b>GAME2</b>	- - - -
<b>PC</b>	- - - -
<b>AUX</b>	- - - -
<b>TV/CD</b>	- - - -
<b>PHONO</b>	- - - -

## ■ **BD/DVD, CBL/SAT, STB/DVR, GAME1, GAME2, PC, AUX, TV/CD, PHONO**

### ▶ **IN1, IN2:**

Select the input to which the component has been connected.

### ▶ **- - - -:**

Output composite video sources from the HDMI output. The upconverted output from HDMI depends on the assignment of “**Composite Video Input**”.

### Note

- For composite video upconversion for the **COMPONENT VIDEO MONITOR OUT**, the “**Monitor Out**” setting must be set to “**Analog**” (→ **page 59**), and the “**Component Video Input**” setting must be set to “- - - -”. See “**Connection Tips and Video Signal Path**” for more information on video signal flow and upconversion (→ **page 108**).

## Composite Video Input

If you connect a component to a composite video input, you must assign that input to an input selector.

If you switch the input to “TV/CD” with its default assignment, the audio of “TV/CD” is output while the video of the previously-selected source is displayed.

Here are the default assignments.

Input selector	Default assignment
BD/DVD	IN1
CBL/SAT	IN2
STB/DVR	IN3
GAME1	IN4
GAME2	-----
PC	PC IN (Fixed)
AUX	FRONT (Fixed)
TV/CD	-----
PHONO	-----

### ■ BD/DVD, CBL/SAT, STB/DVR, GAME1, GAME2, TV/CD, PHONO

#### ▶ IN1, IN2, IN3, IN4:

Select the input to which the component has been connected.

#### ▶ -----:

The composite video is not input.

#### Note

- “AUX” is used only for input from the front panel.
- “PC” is used only for input from **PC IN**.
- Using these inputs as audio-exclusive allows you to enjoy audio and video from separate inputs. Refer to “Playing Audio and Video from Separate Sources” for details (→ [page 37](#)).

## Digital Audio Input

If you connect a component to a digital audio input, you must assign that input to an input selector. For example, if you connect your CD player to the **OPTICAL IN 1**, you must assign “OPTICAL1” to the “TV/CD” input selector. Here are the default assignments.

Input selector	Default assignment
BD/DVD	COAXIAL1
CBL/SAT	COAXIAL2
STB/DVR	COAXIAL3
GAME1	OPTICAL1
GAME2	-----
PC	-----
AUX	FRONT (Fixed)
TV/CD	OPTICAL2
PHONO	-----

### ■ BD/DVD, CBL/SAT, STB/DVR, GAME1, GAME2, PC, TV/CD, PHONO

#### ▶ COAXIAL1, COAXIAL2, COAXIAL3, OPTICAL1, OPTICAL2:

Select the input to which the component has been connected.

#### ▶ -----:

Select if the component is connected to an analog audio input.

#### Note

- When an **HDMI IN** is assigned to an input selector in “HDMI Input” (→ [page 60](#)), the same **HDMI IN** will be set as a priority in this assignment. In this case, if you want to use the coaxial or optical audio input, make the appropriate selection in the “Audio Selector” (→ [page 76](#)).
- Supported sampling rates for PCM signals (stereo/mono) from a digital input (optical and coaxial) are 32/44.1/48/88.2/96 kHz/16, 20, 24 bit.
- “AUX” is used only for input from the front panel.

## Speaker Setup



### Main Menu

### Speaker Setup

Some of the settings in this section are set automatically by Audyssey MultEQ® XT32 Room Correction and Speaker Setup function (→ [page 38](#)).

Here you can check the settings made by Audyssey MultEQ XT32 Room Correction and Speaker Setup function, or set them manually, which is useful if you change one of the connected speakers after using Audyssey MultEQ XT32 Room Correction and Speaker Setup function.

#### Note

- These settings are not available in either of the following cases:
  - a pair of headphones is connected.
  - the “Audio TV Out” setting is set to “On” (→ [page 81](#)).
  - “HDMI Control(RIHD)” is set to “On” (→ [page 80](#)) and you’re listening through your TV speakers.

## Speaker Settings

If you change these settings, you must run **Audyssey MultEQ® XT32 Room Correction and Speaker Setup** again (→ [page 38](#)).

If the impedance of any speaker is 4 ohms or more but less than 6, set the minimum speaker impedance to 4 ohms.

If you bi-amp the front speakers, you must change the “**Speakers Type(Front)**” setting. For details on speaker wire connection, see “Bi-amping the Front Speakers” (→ [page 14](#)). When connecting speakers without crossover network, you need to change the “**Speakers Type(Front)**” setting beforehand. For details on connection, refer to “Using Speakers Without Crossover Network” (→ [page 14](#)).

### Note

- When bi-amping is used, the AV receiver is able to drive up to 7.2 speakers in the main room.
- Before you change these settings, turn down the volume.

### ■ Speaker Impedance

#### ▶ 4ohms:

Select if the impedance of any speaker is 4 ohms or more but less than 6.

#### ▶ 6ohms:

Select if the impedances of all speakers are between 6 and 16 ohms.

### ■ Speakers Type(Front)

#### ▶ Normal:

Select this if you’ve connected your front speakers normally.

#### ▶ Bi-Amp:

Select this if you’ve bi-amped your front speakers.

#### ▶ Digital Crossover:

Select this if you’re using speakers without crossover network.

### Tip

- If “**Speakers Type(Front)**” is set to “**Digital Crossover**”, a confirmation screen appears. Select “**Next (2-7. Digital Processing Crossover Network)**” to display the screen for Digital Processing Crossover Network (→ [page 67](#)). Continue with the settings.

### ■ Passive Subwoofer

#### ▶ Yes:

Select this if you’ve connected passive subwoofers.

#### ▶ No

### ■ Powered Zone 2, Powered Zone 3, Powered Zone 4

#### ▶ No

#### ▶ Yes:

Zone 2/3/4 speakers can be used. (Powered Zone 2/3/4 enabled).

### ■ 11ch Playback

#### ▶ No

#### ▶ Yes

For 11.2-channel playback, set this setting to “**Yes**”. If you select front wide speakers setting in Speaker Configuration is set to “**None**”, it will be automatically switched to “**80Hz (THX)**”.

### Note

- If the “**Speakers Type(Front)**” setting is set to “**Bi-Amp**” or “**Digital Crossover**”, passive subwoofer cannot be used.
- Powered Zone 3 is not available in the following cases:
  - The “**Speakers Type(Front)**” setting is set to “**Bi-Amp**” or “**Digital Crossover**”.
  - The “**Passive Subwoofer**” setting is set to “**Yes**”.
  - The “**Powered Zone 2**” setting is set to “**No**”.
- Powered Zone 4 is not available in the following cases:
  - The “**Speakers Type(Front)**” setting is set to “**Bi-Amp**” or “**Digital Crossover**”.
  - The “**Passive Subwoofer**” setting is set to “**Yes**”.
  - The “**Powered Zone 3**” setting is set to “**No**”.
- When the “**Powered Zone 3**” setting is set to “**Yes**” (→ [page 63](#)) while Powered Zone 2 is enabled (→ [page 86](#)), the surround back speakers cannot be used.

- When the “**Powered Zone 2**” setting is set to “**Yes**”, the front wide speakers cannot be used.
- When the “**Powered Zone 3**” setting is set to “**Yes**”, the front high speakers cannot be used.
- When the “**Powered Zone 4**” setting is set to “**Yes**”, the surround back speakers cannot be used.
- “**11ch Playback**” is not available in the following cases:
  - The “**Speakers Type(Front)**” setting is set to “**Bi-Amp**” or “**Digital Crossover**”.
  - The “**Passive Subwoofer**” setting is set to “**Yes**”.
  - The “**Powered Zone 2**” setting is set to “**Yes**”.
  - The “**Zone 2 HDMI**” setting is set to “**Use**”.
- If the “**11ch Playback**” setting is set to “**Yes**”, the audio of front wide channel is output from **FRONT WIDE PRE OUT** only.

## Speaker Configuration

This setting is set automatically by Audyssey MultEQ® XT32 Room Correction and Speaker Setup function (→ [page 38](#)).

With these settings, you can specify which speakers are connected and a crossover frequency for each speaker. Specify “**Full Band**” for speakers that can output low frequency bass sounds adequately, for example, speakers with a good sized woofer. For smaller speakers, specify a crossover frequency. Sounds below the crossover frequency will be output by the subwoofer instead of the speaker. Refer to your speaker’s manuals to determine the optimum crossover frequencies. If you set up your speakers using Audyssey MultEQ XT32 Room Correction and Speaker Setup, please make sure manually that any THX speakers are set to “**80Hz(THX)**” crossover.

### ■ Subwoofer

#### ▶ 1ch:

The audio signal is outputted from **SW/SUBWOOFER 1** jack only.

#### ▶ 2ch:

The audio signal is outputted from **SW/SUBWOOFER 1** and **2** jacks.

#### ▶ No

### Note

- If the “**Passive Subwoofer**” setting is set to “**Yes**”, “**No**” cannot be selected here.

### ■ Front

#### ▶ Full Band

▶ **40Hz, 45Hz, 50Hz, 55Hz, 60Hz, 70Hz, 80Hz(THX), 90Hz, 100Hz, 110Hz, 120Hz, 130Hz, 150Hz, 200Hz**

### Note

- If the “**Subwoofer**” setting is set to “**No**”, the “**Front**” setting is fixed at “**Full Band**”.

### ■ Center\*1, Surround\*1\*9

#### ▶ Full Band

▶ **40Hz, 45Hz, 50Hz, 55Hz, 60Hz, 70Hz, 80Hz(THX), 90Hz, 100Hz, 110Hz, 120Hz, 130Hz, 150Hz, 200Hz**

#### ▶ None

### ■ Front Wide\*1\*3\*4\*6\*7\*10, Front High\*1\*2\*3\*6\*10

#### ▶ Full Band

▶ **40Hz, 45Hz, 50Hz, 55Hz, 60Hz, 70Hz, 80Hz(THX), 90Hz, 100Hz, 110Hz, 120Hz, 130Hz, 150Hz, 200Hz**

#### ▶ None

### ■ Surround Back\*1\*5\*6\*8\*11\*12

#### ▶ Full Band

▶ **40Hz, 45Hz, 50Hz, 55Hz, 60Hz, 70Hz, 80Hz(THX), 90Hz, 100Hz, 110Hz, 120Hz, 130Hz, 150Hz, 200Hz**

#### ▶ None

### Note

- \*1 “**Full Band**” can be selected only when “**Full Band**” is selected in the “**Front**” setting.
- \*2 When the “**Powered Zone 3**” setting is set to “**Yes**”, this setting cannot be selected.
- \*3 This setting cannot be selected if the “**Speakers Type(Front)**” setting is set to “**Bi-Amp**” or “**Digital Crossover**”.
- \*4 When the “**Powered Zone 2**” setting is set to “**Yes**”, this setting cannot be selected.
- \*5 When the “**Powered Zone 3**” setting is set to “**Yes**” (→ [page 63](#)) while Powered Zone 2 is enabled (→ [page 86](#)), this setting cannot be selected.
- \*6 If the “**Surround**” setting is set to “**None**”, this setting cannot be selected.
- \*7 If the “**11ch Playback**” setting is enabled, “**None**” cannot be selected.
- \*8 When the “**Speakers Type(Front)**” setting is set to “**Bi-Amp**” or “**Digital Crossover**” while Powered Zone 2 is enabled (→ [page 86](#)), this setting cannot be selected.
- \*9 When the “**Powered Zone 4**” setting is set to “**Yes**” and Zone 4 is turned on, this setting cannot be selected.
- \*10 If the “**Passive Subwoofer**” setting is set to “**Yes**” (→ [page 63](#)), this setting cannot be selected.
- \*11 When the “**Powered Zone 4**” setting is set to “**Yes**”, this setting cannot be selected.

- \*12 If the “**Passive Subwoofer**” setting is set to “**Yes**” (→ [page 63](#)) while Powered Zone 2 is enabled (→ [page 86](#)), this setting cannot be selected.

### ■ Surround Back Ch

#### ▶ 1ch:

Select if only one surround back speaker L is connected.

#### ▶ 2ch:

Select if two (left and right) surround back speakers are connected.

### Note

- If the “**Surround Back**” setting is set to “**None**”, this setting cannot be selected.

### ■ LPF of LFE (Low-Pass Filter for the LFE Channel)

▶ **80Hz, 90Hz, 100Hz, 110Hz, 120Hz**

#### ▶ Off:

Low-Pass Filter is not applied.

With this setting, you can specify the cutoff frequency of the LFE channel’s low-pass filter (LPF), which can be used to filter out unwanted hum. The LPF only applies to sources that use the LFE channel.

### Note

- If you’re using THX-certified speakers, select “**80Hz**”.

### ■ Subwoofer Phase

#### ▶ 0°

#### ▶ 180°:

Moves the subwoofer phase.

### Note

- If the “**Subwoofer**” setting is set to “**No**”, this setting cannot be selected.

## ■ Double Bass

This setting is **NOT** set automatically by Audyssey MultEQ® XT32 Room Correction and Speaker Setup function (→ [page 38](#)).

- ▶ **On**
- ▶ **Off(THX)**

Turn this setting on to boost bass output by feeding bass sounds from the front left, right, and center channels to the subwoofer.

### Note

- When the “**Subwoofer**” setting is set to “**No**” or the “**Front**” setting to anything other than “**Full Band**”, this setting is fixed to “- - - - -”.
- This setting is set to “**On**” automatically when the “**Subwoofer**” setting is set to “**1ch**” or “**2ch**” and the “**Front**” setting is set to “**Full Band**” for the first time.
- If you’re using THX-certified speakers, select “**Off(THX)**”.

## Speaker Distance

This setting is set automatically by Audyssey MultEQ XT32 Room Correction and Speaker Setup function (→ [page 38](#)).

Here you can specify the distance from each speaker to the listening position so that the sound from each speaker arrives at the listener’s ears as the sound designer intended.

### ■ Unit

#### ▶ feet:

Distances can be set in feet. Range: **0.2ft** to **60.0ft** in 0.2 foot steps.

#### ▶ meters:

Distances can be set in meters. Range: **0.06m** to **18.00m** in 0.06 meter steps.

(The default setting varies from country to country.)

### ■ Left, Front Wide Left, Front High Left, Center, Front High Right, Front Wide Right, Right, Surround Right, Surround Back Right, Surround Back Left, Surround Left, Subwoofer 1, Subwoofer 2<sup>\*1</sup>

- ▶ Specify the distance from each speaker to your listening position.

### Note

- Speakers that you set to “**No**” or “**None**” in “Speaker Configuration” cannot be selected (→ [page 64](#)).
- When the “**Powered Zone 4**” setting is set to “**Yes**” and Zone 4 is turned on, the surround speakers cannot be used.
- When the “**Powered Zone 3**” setting is set to “**Yes**” (→ [page 63](#)) while Powered Zone 2 is enabled (→ [page 86](#)), the surround back speakers cannot be used.

<sup>\*1</sup> If the “**Subwoofer**” setting is set to “**1ch**”, this setting cannot be selected (→ [page 64](#)).

## Level Calibration

This setting is set automatically by Audyssey MultEQ XT32 Room Correction and Speaker Setup function (→ [page 38](#)).

Here you can adjust the level of each speaker with the built-in test tone so that the volume of each speaker is the same at the listening position.

### ■ Left, Front Wide Left, Front High Left, Center<sup>\*1</sup>, Front High Right, Front Wide Right, Right, Surround Right, Surround Back Right, Surround Back Left, Surround Left

- ▶ **-12.0dB** to **0.0dB** to **+12.0dB** in 0.5 dB steps.

### ■ Subwoofer 1<sup>\*1</sup>, Subwoofer 2<sup>\*1\*2</sup>

- ▶ **-15.0dB** to **0.0dB** to **+12.0dB** in 0.5 dB steps.

### Note

- These settings cannot be calibrated when the AV receiver is muted.
  - Speakers that you set to “**No**” or “**None**” in “Speaker Configuration” cannot be selected (→ [page 64](#)).
  - When the “**Powered Zone 3**” setting is set to “**Yes**” (→ [page 63](#)) while Powered Zone 2 is enabled (→ [page 86](#)), the surround back speakers cannot be used.
  - The test tone is output at the standard level for THX, which is 0 dB (absolute volume setting 82). If you normally listen at volume settings below this, be careful because the test tone will be much louder.
  - When the “**Powered Zone 4**” setting is set to “**Yes**” and Zone 4 is turned on, the surround speakers cannot be used.
- <sup>\*1</sup> For the center speaker and subwoofer, the level settings made by using the Quick Setup are saved in this menu (→ [page 55](#)).
- <sup>\*2</sup> If the “**Subwoofer**” setting is set to “**1ch**”, this setting cannot be selected (→ [page 64](#)).

### Tip

- If you’re using a handheld sound level meter, adjust the level of each speaker so that it reads 75 dB SPL at the listening position, measured with C-weighting and slow reading.

## Equalizer Settings

With the Equalizer settings, you can adjust the tone of speakers individually with a 15-band equalizer. The volume of each speaker can be set (→ [page 65](#)).

### Manual Equalizer

#### ▶ On:

You can adjust the equalizer for each speaker manually. Continue with the following procedure:

**1** Press **▼** to select “Channel”, and then use **◀/▶** to select a speaker.

**2** Use **▲/▼** to select a frequency, and then use the **◀/▶** to adjust the level at that frequency.

The volume at each frequency can be adjusted from **-6dB** to **0dB** to **+6dB** in 1 dB steps.

#### Tip

- You can select: “25Hz”, “40Hz”, “63Hz”, “100Hz”, “160Hz”, “250Hz”, “400Hz”, “630Hz”, “1000Hz”, “1600Hz”, “2500Hz”, “4000Hz”, “6300Hz”, “10000Hz”, or “16000Hz”. And for the subwoofer, “25Hz”, “40Hz”, “63Hz”, “100Hz”, or “160Hz”.
- Low frequencies (e.g., 25 Hz) affect bass sounds; high frequencies (e.g., 16000 Hz) affect treble sounds.

**3** Use **▲** to select “Channel”, and then use **◀/▶** to select another speaker.

Repeat steps 1 and 2 for each speaker.

You cannot select speakers that you set to “No” or “None” in the “Speaker Configuration” (→ [page 64](#)).

#### ▶ Off:

Tone off, response flat.

#### Note

- When the Direct listening mode is selected, the equalizer settings have no effect.
- If “Audyssey” is enabled, it prevails over this setting (→ [page 72](#)).

## THX Audio Setup

### Surr Back Speaker Spacing

- ▶ <1ft (<0.3m)
- ▶ 1ft-4ft (0.3m-1.2m)
- ▶ >4ft (>1.2m)

You can specify the distance between your surround back speakers.

#### Note

- This setting is not available in any of the following cases:
  - “Surround Back” is set to “None” (→ [page 64](#)).
  - “Surround Back Ch” is set to “1ch” (→ [page 64](#)).
  - The “Powered Zone 3” setting is set to “Yes” (→ [page 63](#)) while Powered Zone 2 is enabled (→ [page 86](#)).

### THX Ultra2/Select2 Subwoofer

- ▶ No
- ▶ Yes

If you’re using a THX-certified subwoofer, set this setting to “Yes”.

#### Note

- If the “Subwoofer” setting is set to “No”, this setting cannot be selected (→ [page 64](#)).

### BGC

- ▶ Off
- ▶ On

You can apply THX’s Boundary Gain Compensation (BGC) to compensate the perceived exaggeration of low frequencies for listeners sitting very close to a room boundary (i.e., wall).

#### Note

- This setting is only available if “THX Ultra2/Select2 Subwoofer” is set to “Yes”.
- If the “Subwoofer” setting is set to “No”, this setting cannot be selected (→ [page 64](#)).

### Loudness Plus

- ▶ Off
- ▶ On

When the “Loudness Plus” setting is set to “On”, it is possible to enjoy even subtle nuances of audio expression at low volume. This is only available when the THX listening mode is selected.

### Preserve THX Settings

- ▶ Yes
- ▶ No

If this setting is set to “Yes”, Dynamic EQ, Dynamic Volume and Dolby Volume have no effect in THX listening mode.

#### Note

- This setting is fixed at “Yes” if “Loudness Plus” is set to “On”.

### Metadata Compatible

#### ▶ On:

When Metadata Compatible is set to “On”, valid metadata is transmitted via the HDMI connections, and can be used by other devices in the system.

#### ▶ Off:

When Metadata Compatible is set to “Off”, metadata is not transmitted via the HDMI connections.

↳ To be continued

The HDMI connection in your system is used to deliver uncompressed digital audio and video information from one device to the next. There is also additional information about this digital content that can be delivered. Such additional information is referred to as “metadata”. Metadata Compatible mode should be used when there are home theater components in your system, such as Blu-ray disc players, set top boxes and displays that use this additional metadata. For example, Metadata Compatible mode should be set to ON when there are THX Media Director™ Enabled devices in the system. This ensures that this additional information can be received by your Integra AVR and can be sent to other devices that are connected in your home theater system, with no interruption.

### THX Loudness Plus

THX Loudness Plus is a new volume control technology featured in THX Ultra2 Plus™ and THX Select2 Plus™ Certified receivers. With THX Loudness Plus, home theater audiences can now experience the rich details in a surround mix at any volume level. A consequence of turning the volume below Reference Level is that certain sound elements can be lost or perceived differently by the listener. THX Loudness Plus compensates for the tonal and spatial shifts that occur when the volume is reduced by intelligently adjusting ambient surround channel levels and frequency response. This enables users experience the true impact of soundtracks regardless of the volume setting. THX Loudness Plus is automatically applied when listening in any THX listening mode. The new THX Cinema, THX Music, and THX Games modes are tailored to apply the proper THX Loudness Plus settings for each type of content.

## Digital Processing Crossover Network

Digital Crossover provides a separate routing system by splitting the audio signal into separate frequency bands optimized for each speaker driver. It provides a fine, three-dimensional sound field that extend each driver’s performance to the uppermost. With its built-in time alignment function, this system also adjusts the sound shifting that occurs when there is a physical offset between sound drivers. At a digital processing level, it corrects this offset by delaying the related audio signal.

Although this function is meant for speakers without crossover network, it can also be used with bi-amped speakers.

### Tip

- This setting can be done while listening to an audio source.
- Press **Mode/D** (Blue) to switch from the current audio source to test noises. Pressing **Mode/D** (Blue) again or the cursor buttons will stop the test noises and switch back to the original audio source.

### Note

- This setting can only be made when “**Speakers Type(Front)**” is set to “**Digital Crossover**” (→ page 63).

### ■ Crossover

- ▶ “**250Hz**”, “**320Hz**”, “**400Hz**”, “**500Hz**”, “**630Hz**”, “**800Hz**”, “**1000Hz**”, “**1250Hz**”, “**1600Hz**”, “**2000Hz**”, “**2500Hz**”, “**3200Hz**”, “**4000Hz**”, “**5000Hz**”

### Output Band for Test

- ▶ **High + Low, High, Low:**

Select the output for the audio signal.

### Tip

- Pressing **Mode/D** (Blue) button plays band-limited test noises which center on the specified frequency.
- We recommend choosing a crossover value that creates no volume difference between “**High**” and “**Low**”.

### Note

- Refer to your speaker manual when setting without the use of test noises.

Cutoff frequencies of the woofers’ low-pass filter (LPF) and the tweeters’ high-pass filter (HPF) are set according to the frequency specified for “**Crossover**”.

### ■ Overlap

- ▶ **No**

- ▶ **Yes**

With this setting, a frequency band near the specified crossover frequency is output by both tweeters and woofers. Based on the frequency selected for “**Crossover**”, the cutoff frequency of the low-pass filter (LPF) will be set to 1/3 octave up and that of the high-pass filter (HPF) to 1/3 octave down. Example: With a “**Crossover**” of “**3200Hz**”, the cutoff frequency of the woofers’ LPF will be “**4000Hz**”, and the tweeters’ HPF will be “**2500Hz**”.

### Tip

- Sounds processed by Digital Processing Crossover Network are played.
- You can switch from the current audio source to test noises by pressing **Mode/D** (Blue).
- In the case of usage of the bi-amped speakers, if there is a difference between the crossover frequency in the speakers’ built-in network and the crossover frequency to be set on the AV receiver, the frequency dip may be caused. Therefore, it is recommended that this function should be set to “**Yes**”.

### ■ High Level, Low Level

- ▶ **-6.0dB** to **0.0dB** to **+6.0dB** in 0.5 dB steps.

With this setting, you can set the volume of tweeters and woofers.

### Tip

- Sounds processed by Digital Processing Crossover Network are played.
- You can switch from the current audio source to test noises by pressing **Mode/D** (Blue).

## ■ High Phase, Low Phase

- ▶ 0°
- ▶ **180°**

With this setting, you can adjust the phase of tweeters and woofers.

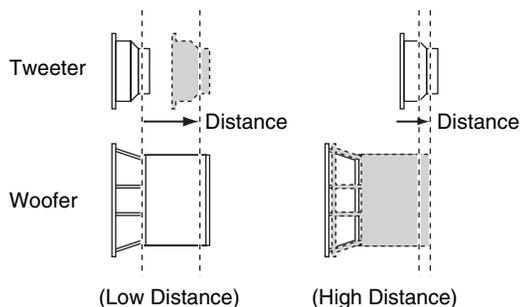
### Tip

- Sounds processed by Digital Processing Crossover Network are played.
- You can switch from the current audio source to test noises by pressing **Mode/D** (Blue).

## ■ High Distance, Low Distance

- ▶ 0inch(0.0cm) to **12inch(30.0cm)** in 1 inch (2.5 cm) steps.

With this setting, you can adjust the virtual position of tweeter and woofer units. Adjusting “**High Distance**” virtually shifts woofers behind tweeters. Adjusting “**Low Distance**” virtually shifts tweeters behind woofers.



### Tip

- Sounds processed by Digital Processing Crossover Network are played.
- You can switch from the current audio source to test noises by pressing **Mode/D** (Blue).

## Audio Adjust



### Main Menu

### Audio Adjust

With the Audio Adjust functions and settings, you can adjust the sound and listening modes as you like.

## Multiplex/Mono

### ■ Multiplex

#### Input Channel

- ▶ Main
- ▶ Sub
- ▶ Main/Sub

This setting determines which channel of a stereo multiplex source is output. Use it to select audio channels or languages with multiplex sources, multilingual TV broadcasts, and so on.

### ■ Mono

#### Input Channel

- ▶ Left + Right
- ▶ Left
- ▶ Right

This setting specifies the channel to be used for playing any 2-channel digital source such as Dolby Digital, or 2-channel analog/PCM source in the Mono listening mode.

## Output Speaker

- ▶ Center:  
Mono audio is output by the center speaker.
- ▶ Left / Right:  
Mono audio is output by the front left and right speakers.

This setting determines which speakers output mono audio when the Mono listening mode is selected.

### Note

- If the “Center” setting is set to “None” (→ page 64), this setting cannot be selected.

## Dolby

### ■ PL IIX Music (2ch Input)

These settings apply to only 2-channel stereo sources. If you’re not using any surround back speakers, these settings apply to Dolby Pro Logic II, not Dolby Pro Logic IIX.

#### Panorama

- ▶ On
- ▶ Off

With this setting, you can broaden the width of the front stereo image when using the Dolby Pro Logic IIX Music listening mode.

#### Dimension

- ▶ -3 to 0 to +3

With this setting, you can move the sound field forward or backward when using the Dolby Pro Logic IIX Music listening mode. Higher settings move the sound field backward. Lower settings move it forward.

If the stereo image feels too wide, or there’s too much surround sound, move the sound field forward to improve the balance. Conversely, if the stereo image feels like it’s in mono, or there’s not enough surround sound, move it backward.

## Center Width

▶ **0** to **3** to **7**

With this setting, you can adjust the width of the sound from the center speaker when using the Dolby Pro Logic IIx Music listening mode. Normally, if you're using a center speaker, the center channel sound is output from only the center speaker. (If you're not using a center speaker, the center channel sound will be distributed to the front left and right speakers to create a phantom center). This setting controls the front left, right, and center mix, allowing you to adjust the weight of the center channel sound.

## ■ PL IIz Height Gain

▶ **Low**

▶ **Mid**

▶ **High**

The Height Gain Control in Dolby Pro Logic IIz enables the listener to select how much gain is applied to the front high speakers. There are three settings, “**Low**”, “**Mid**” and “**High**”, and the front high speakers are accentuated in that order. While “**Mid**” is the default listening setting, the listener may adjust the Height Gain Control to their personal preference.

### Note

- If the “**Front High**” setting is set to “**None**” (→ **page 64**), this setting cannot be selected.

## ■ Dolby EX

▶ **Auto:**

If the source signal contains a Dolby EX flag, the Dolby EX or THX Surround EX listening mode is used.

▶ **Manual:**

You can select any available listening mode.

This setting determines how Dolby EX encoded signals are handled. This setting is unavailable if no surround back speakers are connected. This setting is effective with Dolby Digital, Dolby Digital Plus and Dolby TrueHD only.

### Note

- If the “**Surround Back**” setting is set to “**None**” (→ **page 64**), this setting cannot be selected.
- If the “**Powered Zone 2/3**” setting is set to “**Yes**” and Zone 2 is turned on, this setting cannot be selected.
- When the “**Speakers Type(Front)**” setting is set to “**Bi-Amp**” or “**Digital Crossover**”, this setting cannot be selected if the “**Powered Zone 2**” setting is set to “**Yes**” and Zone 2 is turned on.
- If the “**Front High**” or “**Front Wide**” setting is enabled (→ **page 64**), this setting is fixed to “**Manual**”.
- If the “**Passive Subwoofer**” setting is set to “**Yes**” (→ **page 63**) while Powered Zone 2 is enabled (→ **page 86**), this setting cannot be selected.

## ■ TrueHD Loudness Management

▶ **Off**

▶ **On**

This setting specifies whether or not to apply the Late Night processing on a Dolby TrueHD source.

### Note

- When this setting is set to “**Off**”, the Late Night function for Dolby TrueHD sources is automatically fixed to “**Off**”.
- When this setting is set to “**Off**”, the Dialogue Normalization information is not available for Dolby TrueHD sources.

## ■ Dolby Volume

▶ **Off**

▶ **On**

Dolby Volume automatically adjusts the difference in volume levels which can occur between different contents or source components, freeing the user from having to make volume adjustments. Also, by adjusting the frequency balance according to the playback volume, it recreates the original source audio. Dolby Volume therefore provides comfortable listening, effectively controlling the volume level difference without unnatural changes in volume or sound quality to recreate the balance and nuance of the source audio.

### Note

- When the “**Dolby Volume**” setting is set to “**On**”, “**Dynamic EQ**” and “**Dynamic Volume**” will be set to “**Off**”.
- If you would like to use **Dolby Volume** in THX listening modes, set the “**Loudness Plus**” and “**Preserve THX Settings**” settings to “**Off**” and “**No**”, respectively.
- When “**Dolby Volume**” is set to “**On**”, the Late Night function cannot be set.

## ■ Volume Leveler

▶ **Off**

▶ **Low:**

Low Compression Mode activated.

▶ **Mid:**

Medium Compression Mode activated.

▶ **High:**

High Compression Mode activated. This setting affects volume the most, causing all sounds to be of equal loudness.

“**Volume Leveler**” maintains the perceived loudness of all contents, coming from different channels or input sources.

### Note

- If the “**Dolby Volume**” setting is set to “**Off**”, this setting cannot be selected.

## ■ Half Mode

▶ **Off**

▶ **On**

The Half Mode parameter turns Dolby Volume Half Mode processing on and off.

In off mode, Dolby Volume applies a bass and treble attenuation to the audio when the system gain exceeds reference level. This enables a more perceptually flat listening experience as human ears are more sensitive to bass and treble at higher levels. Some listeners however, prefer to have more bass and treble performance at higher gain levels.

### Note

- If the “**Dolby Volume**” setting is set to “**Off**”, this setting cannot be selected.
- During Half Mode on playback, Dolby Volume does not apply a bass and treble attenuation when the system volume exceeds reference level, thereby boosting perception of high and low frequencies.

## Dialogue Normalization

Dialogue Normalization (DialogNorm) 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, Dolby Digital Plus and Dolby TrueHD programs. When playing back software which has been encoded in Dolby Digital, Dolby Digital Plus and Dolby TrueHD, sometimes you may see a brief message in the front panel display which will read “**DialogNorm: 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: “**DialogNorm: + 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.

## DTS

### ■ Neo:X Music

#### Center Image

▶ **0** to **2** to **5**

The DTS Neo:X Music listening mode creates 11-channel surround sound from 2-channel stereo sources. With this setting, you can specify by how much the front left and right channel output is attenuated in order to create the center channel.

Changing the value from “**0**” to “**5**” will spread the sound of the center channel to left and right (outwards).

## Audyssey DSX®

### ■ Soundstage

▶ **-3dB** to **Reference** to **+3dB**

With this setting, you can adjust the sound stage when using Audyssey DSX.

### Note

- This listening mode can be selected only when all the following conditions are satisfied:
  - The center speaker is connected.
  - Either the front high or front wide speakers are connected.

## Theater-Dimensional

### ■ Listening Angle

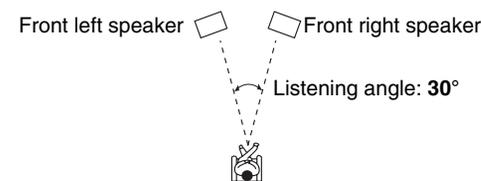
▶ **Wide:**

Select if the listening angle is greater than 30 degrees.

▶ **Narrow:**

Select if the listening angle is less than 30 degrees.

With this setting, you can optimize the Theater-Dimensional listening mode by specifying the angle of the front left and right speakers relative to the listening position. Ideally, the front left and right speakers should be equidistant from the listening position and at an angle close to one of the two available settings.



### Note

- For best results, we recommend setting “**Narrow**” to 20° and “**Wide**” to 40°.

## LFE Level

---

### ■ Dolby Digital<sup>\*1</sup>, DTS<sup>\*2</sup>, Multich PCM, Dolby TrueHD, DTS-HD Master Audio, DSD<sup>\*3</sup>

▶  $-\infty$ dB,  $-20$ dB,  $-10$ dB, or  $0$ dB

With these settings, you can set the level of the LFE (Low Frequency Effects) channel individually for each input sources.

If you find that low-frequency effects are too loud when using one of these sources, change the setting to  $-20$  dB or  $-\infty$  dB.

\*1 Dolby Digital and Dolby Digital Plus sources

\*2 DTS and DTS-HD High Resolution sources

\*3 DSD (Super Audio CD) sources

## Direct

---

### ■ Analog

#### Subwoofer

▶ Off

▶ On:

Analog audio signals (bass signals) are output.

This setting determines whether or not analog audio signals (bass signals) are output from front speakers when the Direct listening mode is selected.

#### Note

- If the “**Subwoofer**” setting is set to “**No**” (→ [page 64](#)), this setting cannot be selected.
- When Digital Processing Crossover Network is being used, this setting is not available.

### ■ DSD

#### DAC Direct

▶ Off

▶ On:

DSD signals are not processed by the DSP.

This setting determines whether or not DSD (Super Audio CD) audio signals pass through the DSP for processing

such as A/V Sync or delay, when the Direct listening mode is selected.

#### Note

- When Digital Processing Crossover Network is being used, this setting is not available.

## Sound Program Edit

---

### ■ Sound Program

▶ **Stereo Source 1, Stereo Source 2, Stereo Source 3, Multich Source 1, Multich Source 2, Multich Source 3**

When playing back different content types on the same source, or when listening to a single content type on different sources, you can pre-register the settings that best suit each content in “**Sound Program**”. The registered settings can then be called up and modified in one set. Use “**Sound Program Edit**” to register and modify a combination of settings.

#### Tip

- To select the registered settings, see “**Sound Program**” (→ [page 54](#)).

### ■ Listening Mode

You can assign a default listening mode that will be selected automatically when you select the sound program. The “**Last Valid**” option means that the listening mode selected last will be used.

The “**Straight Decode**” option means that straight decoding listening mode (Dolby Digital, DTS, etc.) is selected.

### ■ Subwoofer

▶ No, Yes

You can choose whether or not to use the subwoofer with the sound program.

### ■ Music Optimizer<sup>\*1</sup>

▶ Off, On

See “**Music Optimizer**” (→ [page 56](#)).

### ■ Equalizer<sup>\*1</sup>

▶ Off

▶ Manual:

The manual setting in “**Equalizer Settings**” (→ [page 66](#)) is applied.

### ■ Audyssey<sup>\*1</sup>

▶ Off, Movie, Music

See “**Audyssey**” (→ [page 55](#)).

### ■ Dynamic EQ<sup>\*1\*2</sup>

▶ Off, On

See “**Dynamic EQ**” (→ [page 55](#)).

### ■ Dynamic Volume<sup>\*1\*2</sup>

▶ Off, Light, Medium, Heavy

See “**Dynamic Volume**” (→ [page 55](#)).

### ■ Dolby Volume<sup>\*1</sup>

▶ Off, On

See “**Dolby Volume**” (→ [page 55](#)).

#### Note

- “**Listening Mode**” is only available when the input signal matches the setting of “**Sound Program**”.
- You cannot select the “**Subwoofer**” setting if you set it to “**No**” in “**Speaker Configuration**”.
- “**Music Optimizer**” is only available when “**Stereo Source 1**”, “**Stereo Source 2**” or “**Stereo Source 3**” is selected.
- When “**Audyssey Quick Start**” has been used for measurement, the “**Audyssey**” setting cannot be selected.

\*1 This setting cannot be used when the “**Listening Mode**” setting is set to “**Direct**”.

\*2 To enable this setting, you must first perform the Room Correction and Speaker Setup.

## Source Setup



Main Menu

Source Setup

Items can be set individually for each input selector.

### Preparation

Press the input selector buttons to select an input source.

## Audyssey®

The tone for each speaker is set automatically by Audyssey MultEQ® XT32 Room Correction and Speaker Setup. To enable the following settings, you must first perform the Room Correction and Speaker Setup (→ [page 38](#)).

- These technologies cannot be used when:
  - a pair of headphones is connected, or
  - Direct listening mode is selected.

### Audyssey

#### ▶ Off

#### ▶ Movie:

Select this setting for movie material.  
The **Audyssey** indicator will light.

#### ▶ Music:

Select this setting for music material.  
The **Audyssey** indicator will light.

### Note

- When “**Audyssey Quick Start**” has been used for measurement, “**Audyssey**” cannot be selected.
- Audyssey equalizing does not work with DSD sources.

### Dynamic EQ

#### ▶ Off

#### ▶ On:

Audyssey Dynamic EQ® becomes active.

The **Dynamic EQ** indicator will light.

With Audyssey Dynamic EQ, you can enjoy great sound even when listening at low volume levels.

Audyssey Dynamic EQ solves the problem of deteriorating sound quality as volume is decreased by taking into account human perception and room acoustics. It does so by selecting the correct frequency response and surround volume levels moment-by-moment so that the content sounds the way it was created at any volume level — not just at reference level.

### Reference Level

#### Audyssey Dynamic EQ Reference Level Offset

#### ▶ 0dB:

This should be selected for movie contents.

#### ▶ 5dB:

Select this setting for content that has a very wide dynamic range, such as classical music.

#### ▶ 10dB:

Select this setting for jazz or other music that has a wider dynamic range. This setting should also be selected for TV content as that is usually mixed at 10 dB below film reference.

#### ▶ 15dB:

Select this setting for pop/rock music or other program material that is mixed at very high listening levels and has a compressed dynamic range.

Movies are mixed in rooms calibrated for film reference. To achieve the same reference level in a home theater system each speaker level must be adjusted so that –30 dBFS band-limited (500 Hz to 2000 Hz) pink noise produces 75 dB sound pressure level at the listening position. A home theater system automatically calibrated by Audyssey MultEQ XT32 will play at reference level when the master volume control is set to the 0 dB position. At that level you can hear the mix as the mixers heard it.

Audyssey Dynamic EQ is referenced to the standard film mix level. It makes adjustments to maintain the reference response and surround envelopment when the volume is turned down from 0 dB. However, film reference level is not always used in music or other non-film content.

Audyssey Dynamic EQ Reference Level Offset provides three offsets from the film level reference (5 dB, 10 dB, and 15 dB) that can be selected when the mix level of the content is not within the standard.

### Note

- If “**Dynamic EQ**” setting is set to “**Off**”, this technology cannot be used.

### Dynamic Volume

#### ▶ Off

#### ▶ Light:

Activates Light Compression Mode.

#### ▶ Medium:

Activates Medium Compression Mode.

#### ▶ Heavy:

Activates Heavy Compression Mode. This setting affects volume the most. It quiets the loud parts, such as explosions, and boosts the quiet parts so they can be heard.

### Note

- If you want to use Audyssey Dynamic EQ or Audyssey Dynamic Volume® with THX listening modes, set the “**Loudness Plus**” setting to “**Off**” and set “**Preserve THX Settings**” to “**No**” (→ [page 66](#)).
- If you make Dynamic Volume active, “**Dynamic EQ**” is set to “**On**”. The **Dynamic Vol** indicator will light.
- When “**Dynamic EQ**” is set to “**Off**”, “**Dynamic Volume**” is automatically switched to “**Off**”.

↳ **To be continued**

**About 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 correct frequency response and surround levels moment-by-moment at any user-selected volume setting. The result is bass response, tonal balance and surround impression that remain constant despite changes in volume. Dynamic EQ combines information from incoming source levels with actual output sound levels in the room, a prerequisite for delivering a loudness correction solution.

**About Audyssey Dynamic Volume®**

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

**IntelliVolume****■ IntelliVolume**

▶ **-12dB** to **0dB** to **+12dB** in 1 dB steps.

With IntelliVolume, you can set the input level for each input selector individually. This is useful if one of your source components is louder or quieter than the others.

Use ◀/▶ to set the level.

If a component is noticeably louder than the others, use ◀ to reduce its input level. If it's noticeably quieter, use ▶ to increase its input level.

**Note**

- IntelliVolume does not work for Zone 2/3/4.

**A/V Sync****■ A/V Sync**

▶ **0msec** to **800msec** in 1 msec steps

When using progressive scanning on your Blu-ray Disc/DVD player, you may find that the picture and sound are out of sync. With this setting, you can correct this by delaying the audio signals.

Press **Enter** to view the TV picture while setting the delay when the video source is output to **HDMI OUT MAIN**.

To return to the previous screen, press **Return**.

The range of values you can adjust will depend on whether your TV or display supports HDMI Lip Sync and if the “**Lip Sync**” setting is set to “**On**” or not (→ **page 81**).

**Note**

- A/V Sync is disabled when the Direct listening mode is used with an analog input source.
- This setting cannot be used with the **NET** input selector.
- The **USB** input selector can be used only when iPod/iPhone is connected and Standard Mode or Extended Mode (Video) is selected.

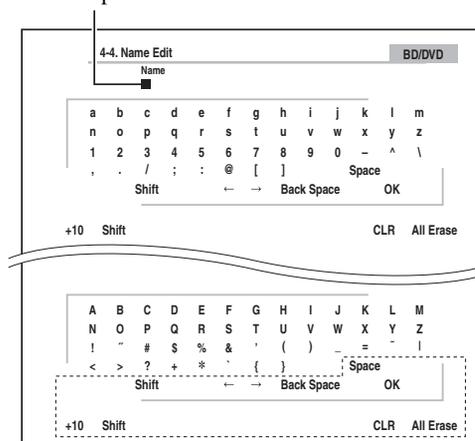
**Name Edit**

You can enter a custom name for each individual input selector and radio preset for easy identification. When entered, the custom name will appear on the display. The custom name is edited using the keyboard screen.

**■ Name**

- 1 Use ▲/▼/◀/▶ to select a character, and then press **Enter**.  
Repeat this step to enter up to 10 characters.
- 2 To store a name when you're done, be sure to select “**OK**” by using ▲/▼/◀/▶, and then press **Enter**.

Name input area



**Space:**

Enters a space character.

**Shift\*1:**

Toggles between lower and upper case characters.

**← (Left)/ → (Right):**

Moves the cursor left or right in the Name input area.

**Back Space\*2:**

Moves the cursor backward and deletes one character.

**OK:**

Confirms your entry.

**Tip**

\*1 This can also be performed by using **+10** on the remote controller.

\*2 Press **CLR** on the remote controller to delete all the characters you have input.

**Tip**

- To name a radio preset, use **Tuner** to select AM or FM, and then select the preset (→ **page 34**).
- To restore a name to its default, erase all characters with **CLR**, select **OK** and then press **Enter**.

**Note**

- This setting cannot be used for the **NET** and **USB** input selectors.

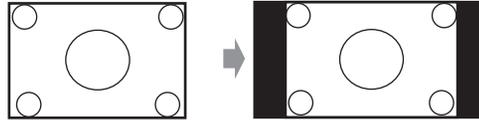
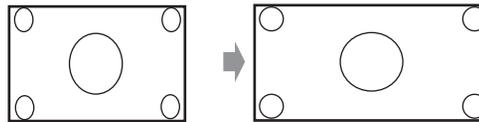
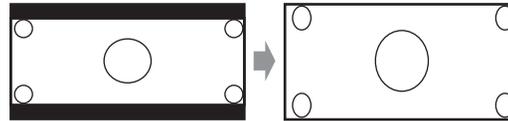
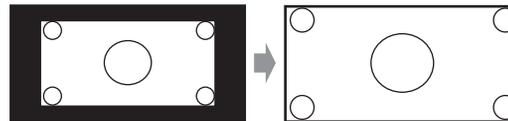
**Picture Adjust**

Using Picture Adjust, you can adjust the picture quality and reduce any noise appearing on the screen.

Press **Enter** to view the TV picture while setting when the video source is output to **HDMI OUT MAIN**. To return to the previous screen, press **Return**.

**■ Wide Mode\*1\*2**

This setting determines the aspect ratio.

**▶ 4:3:****▶ Full:****▶ Zoom:****▶ Wide Zoom:****▶ Auto:**

According to the input signals and monitor output setting, the AV receiver automatically selects the “4:3”, “Full”, “Zoom” or “Wide Zoom” mode. See

“Monitor Out” for details on the monitor output setting (→ **page 59**).

**■ Picture Mode\*1\*3****▶ Custom:**

All settings can be performed manually.

**▶ ISF Day:**

Select when the room is bright.

**▶ ISF Night:**

Select when the room is dark.

**▶ Cinema:**

Select when the picture source is a movie or alike.

**▶ Game:**

Select when the video source is a game console.

**▶ Streaming:**

Attempts to reduce the mosquito noise and block artifact effects.

**▶ Through:**

Does not adjust picture quality (changes resolution).

**▶ Direct:**

Does not adjust picture quality (does not change resolution). The video coming from an analog input and output by the HDMI output is processed in the same way as “Through”.

With “Picture Mode”, you can change the following settings to be suitable for the movie or game screen by one operation; “Game Mode”, “Film Mode”, “Edge Enhancement”, “Noise Reduction”, “Mosquito NR”, “Random NR”, “Block NR”, “Resolution”, “Brightness”, “Contrast”, “Hue”, “Saturation”, “Color Temperature”, “Gamma”, “Red Brightness”, “Red Contrast”, “Green Brightness”, “Green Contrast”, “Blue Brightness” or “Blue Contrast”.

↳ To be continued

The receiver has been designed to incorporate setup and calibration standards established by the Imaging Science Foundation (ISF). The ISF has developed carefully crafted, industry-recognized standards for optimal video performance and has implemented a training program for technicians and installers to use these standards to obtain optimal picture quality from the receiver. Accordingly, Onkyo recommends that setup and calibration be performed by an ISF Certified installation technician.

#### ■ **Game Mode**\*4\*5\*6

- ▶ Off
- ▶ **On**

If video signal delay occurs during playback on a video component (i.e., game console), select the corresponding input source and set the “**Game Mode**” setting to “**On**”. The delay will decrease but in return the picture quality will become poor.

#### ■ **Film Mode**\*4\*6

- ▶ **Video:**  
“**Film Mode**” detection is not applied and the input signal is handled as a video source.
- ▶ Auto:  
Detects whether the input signal is a video or a movie. If it is a movie, the appropriate conversion is applied.

The AV receiver will adjust to the picture source, automatically converting it to the appropriate progressive signal and reproducing the natural quality of the original picture.

#### ■ **Edge Enhancement**\*4\*6

- ▶ Off
- ▶ **Low**
- ▶ **Mid**
- ▶ **High**

With this setting, you can make the picture appear sharper.

#### ■ **Noise Reduction**\*4\*6

- ▶ Off
- ▶ **Low**
- ▶ **Mid**
- ▶ **High**

With this setting, you can reduce noise appearing on the screen. Select the desired level.

#### ■ **Mosquito NR**\*4\*6\*7

- ▶ Off
- ▶ **Low**
- ▶ **Mid**
- ▶ **High**

With Mosquito Noise Reduction, you can remove the shimmering or haziness that sometimes appears around objects in the picture. Mosquito noise can be an issue with overly compressed MPEG content.

#### ■ **Random NR**\*4\*6\*7

- ▶ Off
- ▶ **Low**
- ▶ **Mid**
- ▶ **High**

With Random Noise Reduction, you can remove indiscriminate picture noise, such as film grain.

#### ■ **Block NR**\*4\*6\*7

- ▶ Off
- ▶ **Low**
- ▶ **Mid**
- ▶ **High**

With Block Noise Reduction, you can remove the block distortion that sometimes appears in the picture. Block noise can be an issue with overly compressed MPEG content.

#### ■ **Resolution**\*4\*6\*8\*9\*10

- ▶ **Through:**  
Select this to pass video through the AV receiver at the same resolution and with no conversion.
- ▶ Auto:  
Select this to have the AV receiver automatically convert video at resolutions supported by your TV.
- ▶ **480p (480p/576p), 720p, 1080i, 1080p:**  
Select the desired output resolution.
- ▶ **1080p/24:**  
Select this for 1080p output at 24 frames per second.
- ▶ **4K Upscaling:**  
Select this for an output resolution four times that of 1080p. Depending on the resolution supported by your TV, it will result in either 3840 × 2160 or 4096 × 2160 pixels.

You can specify the output resolution for the HDMI output and have the AV receiver upconvert the picture resolution as necessary to match the resolution supported by your TV. This setting is available only when “**Source**” has been selected in “**Resolution**” of the “**Monitor Out**” setting (→ **page 59**).

#### ■ **Brightness**\*1\*4\*6

- ▶ **-50** to 0 to **+50**

With this setting, you can adjust the picture brightness. “**-50**” is the darkest. “**+50**” is the brightest.

#### ■ **Contrast**\*1\*4\*6

- ▶ **-50** to 0 to **+50**

With this setting, you can adjust contrast. “**-50**” is the least. “**+50**” is the greatest.

#### ■ **Hue**\*1\*4\*6

- ▶ **-50** to 0 to **+50**

With this setting, you can adjust the color hue between “**-50**” and “**+50**”.

**■ Saturation<sup>\*1\*4\*6</sup>**▶ **-50** to **0** to **+50**

With this setting, you can adjust saturation. “-50” is the weakest color. “+50” is the strongest color.

**■ Color Temperature<sup>\*4\*6</sup>**▶ **Warm**▶ **Normal**▶ **Cool**

With this setting, you can adjust the color temperature.

**■ Gamma<sup>\*4\*6</sup>**▶ **-3** to **0** to **+3**

With this setting, you can adjust the incoming picture’s R (red), G (green), and B (blue) color signal in relation to the output color signal.

**■ Red Brightness<sup>\*4\*6</sup>**▶ **-50** to **0** to **+50**

With this setting you can adjust the brightness of red color. “-50” is the darkest. “+50” is the brightest.

**■ Red Contrast<sup>\*4\*6</sup>**▶ **-50** to **0** to **+50**

With this setting you can adjust the contrast of red color. “-50” is the least. “+50” is the greatest.

**■ Green Brightness<sup>\*4\*6</sup>**▶ **-50** to **0** to **+50**

With this setting you can adjust the brightness of green color. “-50” is the darkest. “+50” is the brightest.

**■ Green Contrast<sup>\*4\*6</sup>**▶ **-50** to **0** to **+50**

With this setting you can adjust the contrast of green color. “-50” is the least. “+50” is the greatest.

**■ Blue Brightness<sup>\*4\*6</sup>**▶ **-50** to **0** to **+50**

With this setting you can adjust the brightness of blue color. “-50” is the darkest. “+50” is the brightest.

**■ Blue Contrast<sup>\*4\*6</sup>**▶ **-50** to **0** to **+50**

With this setting you can adjust the contrast of blue color. “-50” is the least. “+50” is the greatest.

**Note**

- “**Picture Adjust**” cannot be used when:
  - The **NET** input selector is selected, or
  - “**Monitor Out**” is set to “**Sub**” (→ **page 59**).
- “**Picture Adjust**” can be used when the **USB** input selector is selected; however, only when iPod/iPhone is connected and Standard Mode or Extended Mode (Video) is selected.
  - \*1 This procedure can also be performed on the remote controller by using the Quick Setup (→ **page 53**).
  - \*2 When a 3D video source is input, “**Wide Mode**” is fixed to “**Full**”.
  - \*3 When “**Metadata Compatible**” is enabled (→ **page 66**), “**Picture Mode**” is fixed to “**Direct**”.
  - \*4 When the “**Picture Mode**” setting is set to anything other than “**Custom**”, this setting cannot be used.
  - \*5 If the “**Resolution**” setting is set to “**4K Upscaling**” (→ **pages 59, 75**), this setting is fixed at “**Off**”.
  - \*6 Press **CLR** if you want to reset to the default value.
  - \*7 When the “**Noise Reduction**” setting is set to anything other than “**Off**”, this setting cannot be selected.
  - \*8 With some TVs, there may be no picture when this setting is set to “**4K Upscaling**”.
  - \*9 When “**Resolution**” is set to “**1080p**”, “**1080p/24**”, or “**4K Upscaling**” while “**Monitor Out**” is set to “**Analog**”, the video is output in 1080i.
  - \*10 When “**Resolution**” is set to “**Auto**” while “**Monitor Out**” is set to “**Analog**”, the video is output as “**Through**”.

**Audio Selector****■ Audio Selector**▶ **ARC:**

The audio signal from your TV tuner can be sent to **HDMI OUT MAIN** of the AV receiver.\*1

With this selection, the TV’s audio can be automatically selected as a priority among other assignments.

▶ **HDMI:**

This can be selected when **HDMI IN** has been assigned as an input source. If both HDMI (**HDMI IN**) and digital audio inputs (**COAXIAL IN** or **OPTICAL IN**) have been assigned, HDMI input is automatically selected as a priority.

▶ **COAXIAL:**

This can be selected when **COAXIAL IN** has been assigned as an input source. If both coaxial and HDMI inputs have been assigned, coaxial input is automatically selected as a priority.

▶ **OPTICAL:**

This can be selected when **OPTICAL IN** has been assigned as an input source. If both optical and HDMI inputs have been assigned, optical input is automatically selected as a priority.

▶ **Analog:**

The AV receiver always outputs analog signals.

You can set priorities of audio output when there are both digital and analog inputs.

**Note**

- This setting can be made only for an input source that is assigned to **HDMI IN**, **COAXIAL IN**, or **OPTICAL IN**.
- This setting cannot be used with the **NET** and **USB** input selectors.
- When using the Whole House Mode, this setting cannot be selected.
- With the **Game2** input selector, “**Analog**” cannot be used.
- \*1 You can select “**ARC**” if you select the **TV/CD** input selector. But you cannot if you’ve selected “**Off**” in the “**Audio Return Channel**” setting (→ **page 81**).

## Setting the Incoming Digital Signal (Fixed Mode)

### ■ Fixed Mode

#### ▶ Off:

The format is detected automatically. If no digital input signal is present, the corresponding analog input is used instead.

#### ▶ PCM:

Only 2-channel PCM format input signals will be heard. If the input signal is not PCM, the **PCM** indicator will flash and noise may also be produced.

#### ▶ DTS:

Only DTS (but not DTS-HD) format input signals will be heard. If the input signal is not DTS, the **dts** indicator will flash and there will be no sound.

When **“HDMI”**, **“COAXIAL”** or **“OPTICAL”** is selected in the **“Audio Selector”** setting, you can then specify the signal type in **“Fixed Mode”**.

Normally, the AV receiver detects the signal format automatically. However, if you experience either of the following issues when playing PCM or DTS material, you can manually set the signal format to PCM or DTS.

- If the beginnings of tracks from a PCM source are cut off, try setting the format to PCM.
- If noise is produced when fast forwarding or reversing a DTS CD, try setting the format to DTS.

#### Note

- The setting will be reset to **“Off”** when you change the setting in **“Audio Selector”**.

## Listening Mode Preset



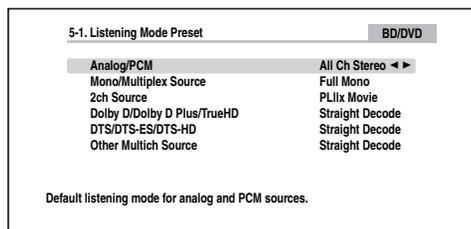
### Main Menu

### Listening Mode Preset

You can assign a default listening mode to each input source that will be selected automatically when you select each input source. For example, you can set the default listening mode to be used with Dolby Digital input signals. You can select other listening modes during playback, but the mode specified here will be resumed once the AV receiver has been set to standby.

### 1 Use ▲/▼ to select the input source that you want to set, and then press Enter.

The following menu appears.



### 2 Use ▲/▼ to select the signal format that you want to set, and then use ◀/▶ to select a listening mode.

Only listening modes that can be used with each input signal format can be selected (→ **pages 41 to 48**).

The **“Last Valid”** option means that the listening mode selected last will be used.

The **“Straight Decode”** option means that straight decoding listening mode (Dolby Digital, DTS, etc.) is selected.

#### Note

- **(North American models)** For the **“TUNER”** input selector, only **“Digital”** will be available.
- **(Australian models)** For the **“TUNER”** input selector, only **“Analog”** will be available.
- For the **“NET”** or **“USB”** input selector, only **“Digital”** will be available.

### ■ Analog/PCM/Digital

With this setting, you can specify the listening mode used when an analog (CD, TV, LD, VHS, MD, turntable, radio, cassette, cable, satellite, etc.) or PCM digital (CD, DVD, etc.) audio signal is played.

### ■ Mono/Multiplex Source

With this setting, you can specify the listening mode used when a mono digital audio signal is played (DVD, etc.).

### ■ 2ch Source

With this setting, you can specify the listening mode used when 2-channel (2/0) stereo digital sources, such as Dolby Digital or DTS, are played.

### ■ Dolby D/Dolby D Plus/TrueHD

With this setting, you can specify the listening mode used when Dolby Digital or Dolby Digital Plus format digital audio signals are played (DVD, etc.). Specifies the default listening mode for Dolby TrueHD sources, such as Blu-ray or HD DVD (input via HDMI).

### ■ DTS/DTS-ES/DTS-HD

With this setting, you can specify the listening mode used when DTS or DTS-HD High Resolution format digital audio signals are played (DVD, LD, CD, etc.). Specifies the default listening mode for DTS-HD Master Audio sources, such as Blu-ray or HD DVD (input via HDMI).

### ■ Other Multich Source

Specifies the default listening mode for multichannel PCM sources from **HDMI IN** such as DVD-Audio, and DSD multichannel sources such as Super Audio CD.

## Miscellaneous



## Main Menu

## Miscellaneous

### Volume Setup

#### ■ Volume Display

##### ▶ Absolute:

Displayed range is **Min, 0.5 to 99.5, Max.**

##### ▶ Relative(THX):

Displayed range is **-∞dB, -81.5dB to +18.0dB.**

With this setting, you can choose how the volume level is displayed.

The absolute value 82 is equivalent to the relative value 0 dB.

#### Note

- If the absolute value is set to 82, “**82.0Ref**” will appear on the display and the **THX** indicator will flash.

#### ■ Muting Level

▶ **-∞dB** (fully muted), **-50dB** to **-10dB** in 10 dB steps.

This setting determines how much the output is muted when the muting function is used (→ **page 51**).

#### ■ Maximum Volume

▶ Off, **50** to **99** (Absolute display)

▶ Off, **-32dB** to **+17dB** (Relative display)

With this setting, you can limit the maximum volume.

To disable this setting, select “**Off**”.

#### ■ Power On Volume

▶ Last, **Min, 1** to **99** or **Max** (Absolute display)

▶ Last, **-∞dB, -81dB** to **+18dB** (Relative display)

With this preference, you can specify the volume setting to be used each time the AV receiver is turned on.

To use the same volume level that was used when the AV receiver was turned off, select “**Last**”.

The “**Power On Volume**” setting cannot be set higher than the “**Maximum Volume**” setting.

#### ■ Headphone Level

▶ **-12dB** to 0dB to **+12dB**

With this setting, you can specify the headphone volume relative to the main volume. This is useful if there’s a volume difference between your speakers and your headphones.

## OSD Setup

### ■ On Screen Display

- ▶ On
- ▶ Off

This preference determines whether operation details are displayed on-screen when an AV receiver function is adjusted.

Even when “**On**” is selected, operation details may not be output if the input source is connected to an **HDMI IN**.

### ■ Language

- ▶ English, Deutsch, Français, Español, Italiano, Nederlands, Svenska, 中文

This setting determines the language used for the on-screen menus.

### ■ Screen Saver

- ▶ 3min, 5min, 10min
- ▶ Off

With this setting, you can set the time until the screen saver activates itself. Once active, the screen saver will go off and the screen will return to its previous state if the AV receiver is operated in any way.

## 12V Trigger A/B/C Setup

Depending on their type, when some components are turned by using triggers A, B, and C, a large amount of current may be drawn at once. To prevent this, you can delay each trigger signal individually. Another application of trigger delay is to eliminate the “thump” noise that’s sometimes heard when a source component is turned on. You can accomplish this by delaying the trigger signal for your power amplifier, so that it’s the last component to be turned on.

### ■ Delay

- ▶ 0sec, 1sec, 2sec, 3sec:

When “**0sec**” is selected, the trigger signal is output as soon as the input source is changed.

#### Note

- By default, “**12V Trigger A Setup**” is set to “**0sec**”, “**12V Trigger B Setup**” to “**1sec**”, and “**12V Trigger C Setup**” to “**2sec**”.
- Use a miniplug cable to connect the AV receiver’s **12V TRIGGER OUT A, B, or C** jack to the 12 V trigger input of a connected component.

### ■ BD/DVD, CBL/SAT, STB/DVR, GAME1, GAME2, PC, AUX, TUNER, TV/CD, PHONO, NET, USB

- ▶ Off:

No trigger signal is output.

A 12-volt trigger signal is output when the connected component is selected as the source for:

- ▶ Main, Zone 2, Main/Zone 2, Zone 3, Main/Zone 3, Zone 2/Zone 3, Main/Zone 2/Zone 3, Zone 4, Main/Zone 4, Zone 2/Zone 4, Main/Zone 2/Zone 4, Zone 3/Zone 4, Main/Zone 3/Zone 4, Zone 2/Zone 3/Zone 4, Main/Zone 2/Zone 3/Zone 4

#### Note

- By default, all input sources on the “**12V Trigger A Setup**” menu are set to “**Main**”, those on “**12V Trigger B Setup**” are set to “**Main/Zone 2/Zone 3/Zone 4**”, and those on “**12V Trigger C Setup**” are set to “**Zone 2**”.

## Hardware Setup



Main Menu

Hardware Setup

## Multi Zone

### ■ Zone 2 Out, Zone 3 Out, Zone 4 Out

- ▶ Fixed:

The Zone 2/3/4 volume must be set on the amp in that zone.

- ▶ Variable:

The Zone 2/3/4 volume can be set on the AV receiver.

If you’ve connected your Zone 2/3/4 speakers to an amp with no volume control, set the “**Zone 2 Out**”, “**Zone 3 Out**”, and “**Zone 4 Out**” setting, respectively, to “**Variable**” so that you can set the volume, balance, and tone of Zone 2/3 and volume of Zone 4 on the AV receiver.

### ■ Zone 2 Maximum Volume, Zone 3 Maximum Volume, Zone 4 Maximum Volume

- ▶ Off, 50 to 99 (Absolute display)

- ▶ Off, -32dB to +17dB (Relative display)

With this setting, you can limit the maximum volume for Zone 2/3/4.

### ■ Zone 2 Power On Volume, Zone 3 Power On Volume, Zone 4 Power On Volume

- ▶ Last, Min, 1 to 99 or Max (Absolute display)

- ▶ Last, -∞dB, -81dB to +18dB (Relative display)

↳ To be continued

This setting determines what the volume will be for Zone 2/3/4 each time the AV receiver is turned on.

To use the same volume level as when the AV receiver was last turned off, select “**Last**”.

The “**Zone 2 Power On Volume**”, “**Zone 3 Power On Volume**”, and “**Zone 4 Power On Volume**” cannot be set higher than the “**Zone 2 Maximum Volume**”, “**Zone 3 Maximum Volume**”, and “**Zone 4 Maximum Volume**” setting.

## Tuner

### ■ AM/FM Frequency Step (North American models)

#### ▶ 10kHz/200kHz:

#### ▶ 9kHz/50kHz:

Select the frequency step according to your area.

### ■ AM Frequency Step (Australian models)

#### ▶ 10kHz:

#### ▶ 9kHz:

Select the frequency step according to your area.

For AM/FM tuning to work properly, you must specify the AM/FM frequency step used in your area.

#### Note

- When this setting is changed, all radio presets will be deleted.

## HDMI

### ■ HDMI Control(RIHD)

#### ▶ Off

#### ▶ On

Turn this setting on to allow **RIHD**-compatible components connected via HDMI to be controlled by the AV receiver (→ [page 112](#)).

#### Note

- When the setting is set to “**On**” and the menu is closed, the names of connected **RIHD**-compatible components and “**RIHD On**” are displayed on the AV receiver.  
“**Search...**” → “**(name)**” → “**RIHD On**”  
When the AV receiver cannot receive the name of the component, it is displayed as “**Player\*\***” or “**Recorder\*\***”, etc. (“**\*\***” shows up and indicates the number of components, when two or more are received).
- When an **RIHD**-compatible component is connected to the AV receiver via an HDMI cable, the name of the connected component is displayed on the AV receiver display. For example, while you are watching TV broadcasting, if you operate a Blu-ray Disc/DVD player (being powered on) with the remote control of the AV receiver, the name of the Blu-ray Disc/DVD player will be displayed on the AV receiver.
- Set it to “**Off**” when a connected piece of equipment is not compatible or it is unclear whether the equipment is compatible or not.
- If operation is not normal when set to “**On**”, change the setting to “**Off**”.
- Refer to the connected component’s instruction manual for details.
- When the “**HDMI Control(RIHD)**” setting is set to “**On**”, the power consumption on standby mode slightly increases. (Depending on the TV status, the AV receiver will enter standby mode as usual.)
- The HDMI component (connected to **HDMI IN 1/2/3/AUX Input**) selected for Zone 2 cannot be operated with the remote controller through the AV receiver using RIHD function and also cannot be operated on the TV connected to **HDMI OUT MAIN** using CEC function.
- The HDMI component (connected to **HDMI IN 1/2/3/AUX Input**) selected for Zone 2 can be operated on the TV in Zone 2 using CEC function.
- When the source equipment is connected with the **RI** connection, it may malfunction if “**HDMI Control(RIHD)**” is set to “**On**”.

### ■ HDMI Through

#### ▶ Off

#### ▶ BD/DVD, CBL/SAT, STB/DVR, GAME1, GAME2, PC, AUX, TV/CD, PHONO:

Selects the input source for which the HDMI Through function is enabled.

#### ▶ Last:

The HDMI Through function is activated on the input source selected at the time of setting the AV receiver to standby mode.

When enabling the HDMI Through function, regardless of whether the AV receiver is on or in standby, both audio and video streams from an HDMI input will be output to the TV or other components via HDMI connection. The **HDMI** indicator will be dimly-lit in standby mode. Note that the indicator may not light under certain conditions (→ [page 58](#)).

This setting is fixed to “**Auto**” automatically when the above “**HDMI Control(RIHD)**” setting is set to “**On**”, resulting in automatic input source selection.

#### Note

- Only an input source assigned to an **HDMI IN** via “**HDMI Input**” setting is enabled (→ [page 60](#)).
- The power consumption in standby mode will increase during the HDMI Through function; however in the following cases, the power consumption can be saved:
  - The TV is in standby mode.
  - You are watching a TV program.
- Refer to the connected component’s instruction manual for details.
- Depending on the connected component, the correct input source may not be selected with the setting fixed to “**Auto**”.
- This setting is set to “**Off**” automatically when the “**HDMI Control(RIHD)**” setting is set to “**Off**”.
- This function is only available for the **HDMI OUT MAIN** jack.

## ■ Audio TV Out

▶ **Off**

▶ **On**

This preference determines whether the incoming audio signal is output from the HDMI output. You may want to turn this preference on if your TV is connected to the HDMI output and you want to listen to the audio from a connected component through your TV's speakers. Normally, this should be set to “**Off**”.

### Note

- If “**On**” is selected and the audio can be output from the TV, the AV receiver will output no sound through its speakers. In this case, “**TV Speaker**” appears on the AV receiver's display by pressing **Display**.
- When “**HDMI Control(RIHD)**” is set to “**On**”, this setting is fixed to “**Auto**”.
- When Digital Processing Crossover Network is being used, this setting is not available.
- With some TVs and input signals, no sound may be output even when this setting is set to “**On**”.
- When “**Audio TV Out**” or “**HDMI Control(RIHD)**” is set to “**On**” and you're listening through your TV's speakers (→ [page 17](#)), turning up the AV receiver's volume control will make the sound be output from the AV receiver's front left and right speakers. To stop the AV receiver's speakers producing sound, change the settings, change your TV's settings, or turn down the AV receiver's volume.
- Listening mode cannot be changed when this setting is set to “**On**” and the input source is not HDMI.

## ■ Audio Return Channel (ARC)

▶ **Off**

▶ **Auto:**

The audio signal from your TV tuner can be sent to **HDMI OUT MAIN** of the AV receiver.

The audio return channel (ARC) function allows an ARC capable TV to send the audio stream to **HDMI OUT MAIN** of the AV receiver. To use this function, you must select the **TV/CD** input selector and your TV must be ARC capable. Default setting: “- - - -”

### Note

- This setting is fixed to “- - - -” when the “**HDMI Control(RIHD)**” setting is set to “**Off**”.
- This setting is set to “**Auto**” automatically when the “**HDMI Control(RIHD)**” setting is set to “**On**” for the first time.
- If you set “**Audio Return Channel**” to “**Auto**”, the “**Audio Selector**” settings of the **TV/CD** input selector will be automatically switched to “**ARC**” (→ [page 76](#)).

After changing the settings of the “**HDMI Control(RIHD)**”, “**HDMI Through**” or “**Audio Return Channel**”, turn off the power on all connected pieces of equipment and then turn them on again. Refer to the user's manuals for all connected pieces of equipment.

## ■ Lip Sync

▶ **Off**

▶ **On**

This function allows the AV receiver to automatically correct any delay between the video and the audio, based on the data from the connected monitor.

### Note

- This function works only if your HDMI-compatible TV supports HDMI Lip Sync.

## ■ InstaPrevue

These settings apply to “**InstaPrevue**” of the Home menu (→ [page 49](#)) and specify the preview display of HDMI video streams.

### Sub Window

▶ **Multi:**

Displays preview thumbnails all at once.

▶ **Single:**

Displays preview thumbnails one-by-one.

With this setting, you can set the number of preview thumbnails displayed.

### Position

(with “**Sub Window**” set to “**Multi**”)

▶ **Top, Bottom, Left, Right**

(with “**Sub Window**” set to “**Single**”)

▶ **Upper Left, Upper Right, Lower Left, Lower Right**

With this setting, you can set the position of preview thumbnails on the TV screen.

### Note

- Depending on video signals, the picture may not be properly rendered on the preview thumbnails of InstaPrevue.

## Auto Standby

---

### ■ Auto Standby

▶ Off

▶ On

When “**Auto Standby**” is set to “**On**”, the AV receiver will automatically enter standby mode if there is no operation for 30 minutes with no audio and no video signal input.

“**Auto Standby**” will appear on the AV receiver’s display and OSD 30 seconds before the Auto Standby comes on.

Default setting: **On (Australian models), Off (North American models)**

#### Note

- Set to “**On**”, the Auto Standby function may activate itself during playback with some sources.
- The Auto Standby function does not work when Zone 2/3/4 is on.

## Network

---

After modifying the network settings, you must confirm the changes by executing “**Save**”.

This section explains how to configure the AV receiver’s network settings manually.

If your router’s DHCP server is enabled, you don’t need to change any of these settings, as the AV receiver is set to use DHCP to configure itself automatically by default (i.e., DHCP is set to “**Enable**”). If, however, your router’s DHCP server is disabled (you’re for example using static IP), you’ll need to configure these settings yourself, in which case, a knowledge of Ethernet networking is essential.

### What’s DHCP?

DHCP (Dynamic Host Configuration Protocol) is used by routers, computers, the AV receiver, and other devices to automatically configure themselves on a network.

### What’s DNS?

The DNS (Domain Name System) translates domain names into IP addresses. For example, when you enter a domain name such as *www.onkyousa.com* in your Web browser, before accessing the site, your browser uses DNS to translate this into an IP address, in this case 63.148.251.142.

### ■ MAC Address

This is the AV receiver’s MAC (Media Access Control) address. This address cannot be changed.

### ■ DHCP

▶ Enable

▶ Disable

This setting determines whether or not the AV receiver uses DHCP to automatically configure its IP Address, Subnet Mask, Gateway, and DNS Server settings.

#### Note

- If you select “**Disable**”, you must configure the “**IP Address**”, “**Subnet Mask**”, “**Gateway**”, and “**DNS Server**” settings yourself.

### ■ IP Address

▶ Class A:

“**10.0.0.0**” to “**10.255.255.255**”

▶ Class B:

“**172.16.0.0**” to “**172.31.255.255**”

▶ Class C:

“**192.168.0.0**” to “**192.168.255.255**”

Enter a static IP address provided by your Internet Service Provider (ISP).

Most routers use Class C IP addresses.

### ■ Subnet Mask

Enter the subnet mask address provided by your ISP (typically **255.255.255.0**).

### ■ Gateway

Enter the gateway address provided by your ISP.

### ■ DNS Server

Enter the DNS server address provided by your ISP.

### ■ Proxy URL

To use a Web proxy, enter its URL here.

### ■ Proxy Port

If you’re using a Web proxy, enter a proxy port number here.

### ■ Network Standby

▶ On

▶ Off

This setting enables or disables control over the network. When enabled, the **NET** indicator will be dimly-lit while the AV receiver is in standby mode. Note that the indicator may not light under certain conditions (→ [page 58](#)).

#### Note

- When set to “**On**”, the power consumption slightly increases in standby mode.

### ■ Update Notice

▶ Enable

▶ Disable

When this setting is enabled, you will be notified if a firmware update via network is available.

#### Note

- Selecting “**Never Remind me**” on the notification window will switch this setting to “**Disable**” (→ [page 22](#)).
- For details on the update notification, see “If the “Firmware Update Available” window appears.” (→ [page 22](#)).

## Initial Setup

---

If you skipped the initial setup wizard, for example on first-time use, you can reaccess it from here.

See “**Initial Setup**” (→ [page 23](#)).

## Remote Controller Setup



Main Menu

Remote Controller Setup

### Remote ID

#### ■ Remote ID

▶ 1, 2, or 3

When several Integra/Onkyo components are used in the same room, their remote ID codes may overlap. To differentiate the AV receiver from other components, you can change its remote ID from "1", to "2" or "3".

#### Note

- If you do change the AV receiver's remote ID, be sure to change the remote controller to the same ID (see below), otherwise, you won't be able to control it with the remote controller.

### Changing the remote controller's ID

- 1** While holding down **Receiver**, press and hold down **Q Setup** until the **Receiver** lights (about 3 seconds).
- 2** Use the number buttons to enter ID 1, 2, or 3. **Receiver** flashes twice.

### Remote Mode Setup

See "Looking up for Remote Control Codes"  
(→ page 91).

## Lock Setup



Main Menu

Lock Setup

With this preference, you can protect your settings by locking the setup menus.

#### ■ Setup

▶ **Locked**

▶ **Unlocked**

When "**Locked**" is selected, the setup menus will be locked and you cannot change any setting.

# Multi Zone

In addition to the main listening room, you can also enjoy playback in the other room, or as we call Multi Zone. And, you can select a different source for each room.

## Making Multi Zone Connections

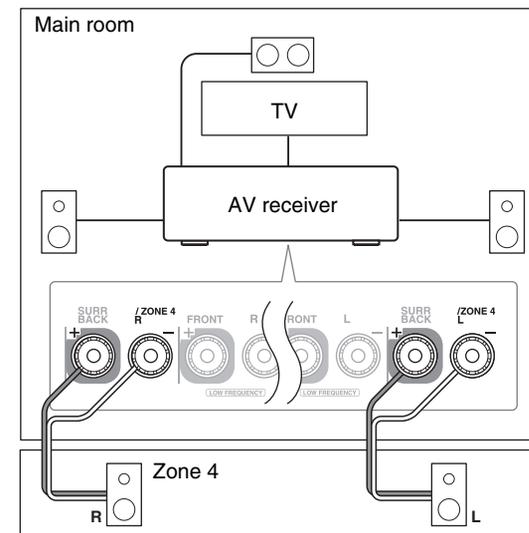
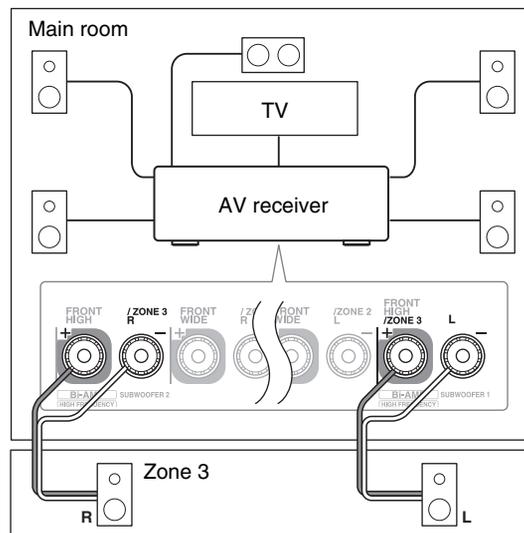
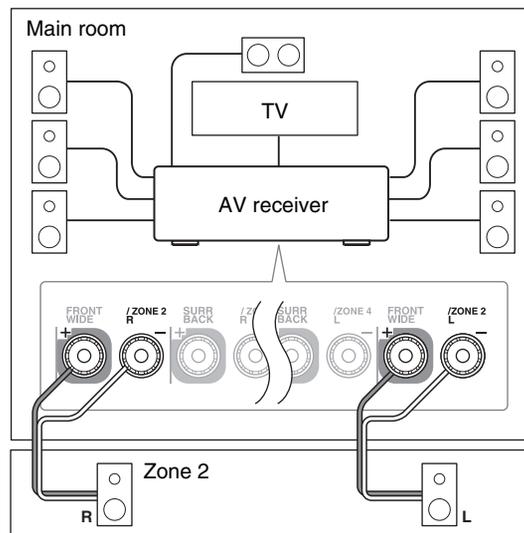
There are two ways you can connect Zone speakers:

1. Connect them directly to the AV receiver.
2. Connect them to an additional amplifier.

## Connecting Your Zone Speakers Directly to the AV receiver

This setup allows you to select different sources for Main room and Zone 2/3/4. This is called Powered Zone, as the Zone 2/3/4 speakers are powered by the AV receiver.

**To use this setup, you must activate the Powered Zone 2/3/4 setting (→ page 63).**

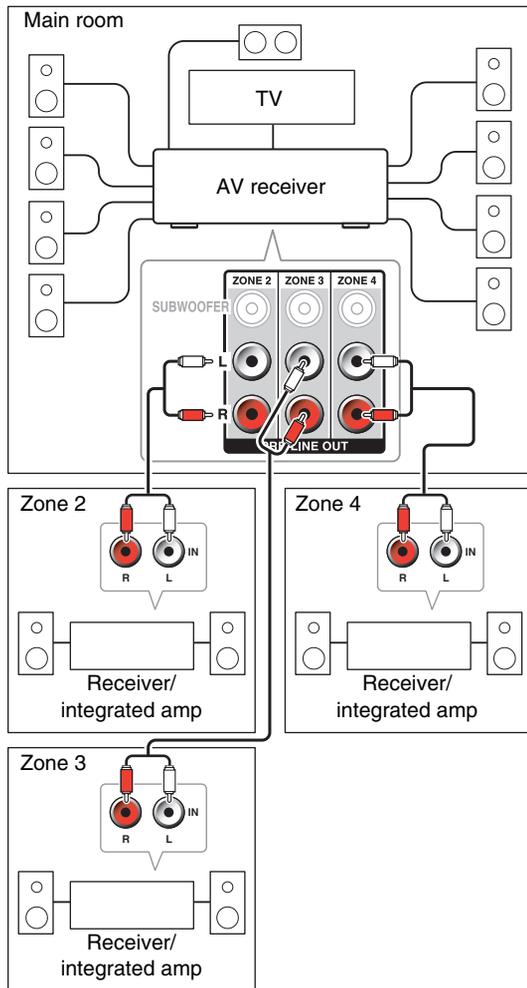


### Note

- With this setup, the volume of Zone 2/3/4 is controlled by the AV receiver.
- When Powered Zone 2 is used, playback in the main room is reduced to 7.2 channels.
- When Powered Zone 3 is used, playback in the main room is reduced to 5.2 channels.
- When Powered Zone 4 is used, playback in the main room is reduced to 3.2 channels.

## Connecting the Zone Speakers to an Additional Amplifier

This setup allows 9.2-channel playback in your main listening room and 2-channel stereo playback in Zone 2/3/4.

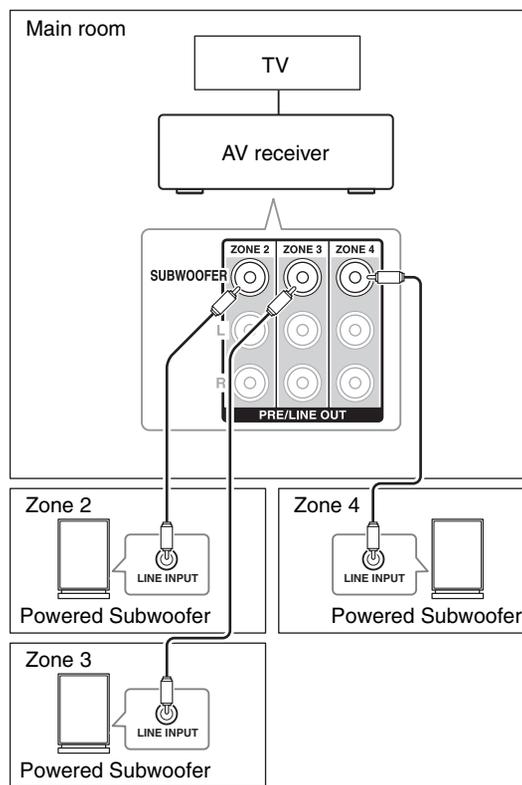


### Note

- With the default settings, the Zone 2/3/4 volume must be set on the Zone 2/3/4 amplifier. If your Zone 2/3/4 amplifier has no volume control, change the setting so that you can set the Zone 2/3/4 volume on the AV receiver. See “Multi Zone” (→ page 79).

## Connecting Powered Subwoofers in Zone 2/3/4

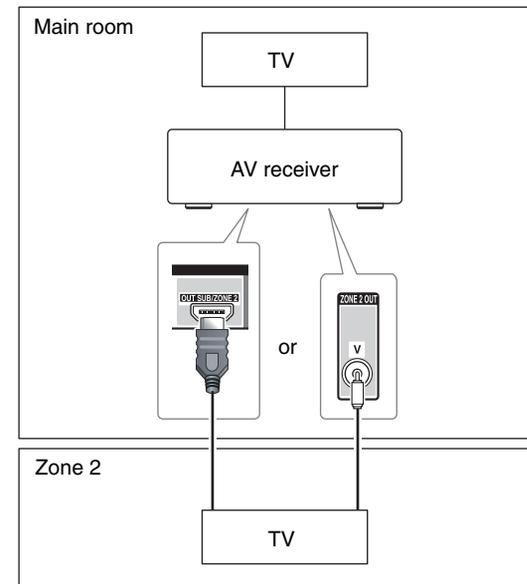
This setup allows you to use powered subwoofers in Zone 2/3/4.



## Zone 2 Video Output

The on-screen information appears on the TV screen in Zone 2 by connecting the TV to HDMI OUT ZONE 2 of the AV receiver with HDMI cable.

The AV receiver allows you to enjoy the composite video and HDMI audio/video in Zone 2 by connecting the TV of Zone 2 to the respective output jacks.



### Note

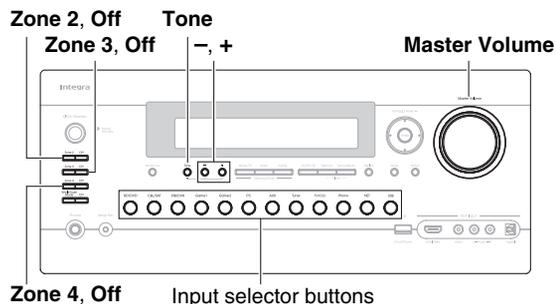
- If you use **HDMI OUT ZONE 2**, make sure to set “Zone 2 HDMI” to “Use” (→ page 59).
- Video and audio signals from an HDMI input will be output to **HDMI OUT ZONE 2**.
- The **ZONE 2 OUT V** jack outputs video of components connected to composite video only.
- The information of connected component appears on a TV in Zone 2 by pressing **Display**.

## Setting the Zone 2/3/4 Out

See “Multi Zone” (→ page 79).

## Controlling Multi Zone Components

### ■ Operating on the AV receiver



#### Tip

- The Whole House Mode function shares the input source of main room with Multi Zone (→ page 51).

- 1 To turn on Zone 2/3/4 and select an input source, press **Zone 2**, **Zone 3**, or **Zone 4** followed by an **input selector button** within 8 seconds.  
Zone 2/3/4 turns on, the **Z2**, **Z3**, or **Z4** indicator lights on the AV receiver's display.

#### Tip

- The corresponding trigger output goes high (+12 V).

To select AM or FM, press **Zone 2**, **Zone 3**, or **Zone 4** and the **Tuner** input selector repeatedly.

To select the same source as the main room's, press **Zone 2**, **Zone 3**, or **Zone 4** twice. “**Zone 2 Selector: Source**”, “**Zone 3 Selector: Source**”, or “**Zone 4 Selector: Source**” appears on the AV receiver's display.

- 2 To turn off Zone 2/3/4, press **Off** for each Zone.  
The zone is turned off.

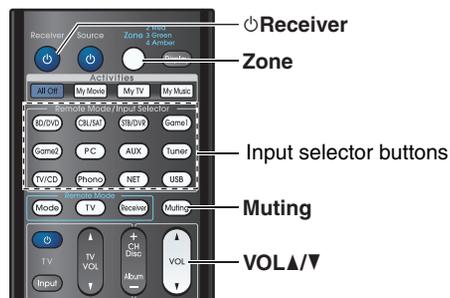
#### Tip

- The corresponding trigger output goes low (0 volts).

### ■ Operating on the remote controller

To control Zone 2/3/4, you must press **Zone** on the remote controller first.

**Zone** turns red while Zone 2 is on, and green while Zone 3 is on, and amber while Zone 4 is on.



- 1 Press **Zone** repeatedly, then point the remote controller at the AV receiver and press **Receiver**.  
Zone 2/3/4 turns on, the **Z2**, **Z3**, or **Z4** indicator lights on the AV receiver's display.

#### Tip

- The corresponding trigger output goes high (+12 V).

- 2 To select an input source for Zone 2/3/4, press **Zone** repeatedly, followed by an **Input Selector button**.  
To select AM or FM, press **Zone** and the **Tuner** input selector repeatedly.

- 3 To turn off Zone 2/3/4, press **Zone** repeatedly, followed by **Receiver**.

The zone is turned off.

#### Tip

- The corresponding trigger output goes low (0 volts).

## Adjusting the Volume for Zones

### ■ Operating on the remote controller

- 1 Press **Zone** repeatedly.
- 2 Use **VOL Δ/∇**.

### ■ Operating on the AV receiver

- 1 Press **Zone 2**, **Zone 3**, or **Zone 4** (the **Z2/Z3/Z4** indicator on the AV receiver's display flashes).
- 2 Use **Master Volume** control within 8 seconds.

If your Zone 2/3/4 speakers are connected to a receiver or integrated amplifier in Zone 2/3/4, use its volume control to adjust the volume.

## Muting Zones

### ■ Operating on the remote controller

#### 1 Press Zone repeatedly, and then press Muting.

##### Tip

- To unmute, press **Zone** followed by **Muting** again. Zones can also be unmuted by adjusting the volume.

## Adjusting the Tone and Balance of Zone 2/3

#### 1 On the AV receiver, press Zone 2 or Zone 3.

#### 2 Press the AV receiver's Tone repeatedly to select "Bass", "Treble" or "Balance".

#### 3 Use – or + to adjust the bass, treble or balance.

- You can boost or cut the bass or treble from –10 dB to +10 dB in 2 dB steps.
- You can adjust the balance from 0 in the center to +10 dB to the right or +10 dB to the left in 2 dB steps.

##### Note

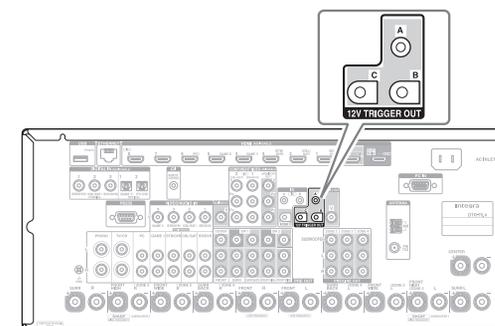
- ZONE 2 PRE/LINE OUT** and **FRONT WIDE/ZONE 2 L/R** output 2ch PCM and analog input sources. To listen to the PCM source, you need to make an HDMI connection (→ page 17). If no sound is heard when an input source is selected, check if the source is connected to an analog input and HDMI input.
- Only analog input sources are output by the **ZONE 3/4 PRE/LINE OUT**, **FRONT HIGH/ZONE 3 L/R**, and **SURR BACK/ZONE 4 L/R** terminals. Digital input sources are not output. If no sound is heard when an input source is selected, verify that the source is connected to an analog input.
- (North American models) You can select different radio stations for the main room and Zone 2 by connecting the supplied antennas respectively (→ page 20).

- (North American models) When the main room and Zone 2 share the same input source, if the input selector of the main room is **Tuner**, you cannot select different radio stations for the main room and Zone 2 respectively.
- (Australian models) You cannot select different AM or FM radio stations for your main room and Zone 2/3/4. The same AM/FM radio station will be heard in each room. Namely, if you have selected an FM station for the main room, that station will also be output in Zone 2/3/4.
- You cannot select different radio stations for Zone 2, Zone 3, and Zone 4 respectively.
- If Zone 2 and the main room share the same input source, only an analog input signal is output.
- If an HDMI component selected in Zone 2 outputs the sound other than PCM, the sound is not output from **FRONT WIDE/ZONE 2** and **ZONE 2 PRE/LINE OUT**.
- Both audio and video outputs from an HDMI component may interrupt when the main room and Zone 2 are set to share the same source or not.
- When you have selected **NET** or **USB** as input selector, the last selector selected will be set for Main room and Zone 2/3/4.
- When Zone 2/3/4 is activated and its input selector is selected, the power consumption of standby mode slightly increases.
- While Zone 2/3/4 is on, **RI** functions will not work.
- The component connected to HDMI input other than **HDMI IN 1/2/3/AUX Input** is selected as an input source for Zone 2, the linked operations of **RIHD** may not work properly. In this case, set the linked operations to Off on the source component.
- When setting the AV receiver to standby mode while Zone 2/3/4 is active, the **Z2**, **Z3**, or **Z4** indicator is dimly lit.
- Even if you repeatedly press the remote controller's **Zone** to select zones, the last zone selection will be retained once you have switched to other components by pressing other **Remote Mode** after pressing **Zone**.
- The Zone 2/3 level, balance, and tone functions have no effect on the **ZONE 2/3 PRE/LINE OUT** jacks when the "Zone 2 Out" or "Zone 3 Out" setting is set to "Fixed" (→ page 79).
- The Zone 4 volume function has no effect on **ZONE 4 PRE/LINE OUT** when the "Zone 4 Out" setting is set to "Fixed" (→ page 79).

## Using the 12V Triggers

The 12V triggers A, B, and C can be used to turn on 12V trigger-capable components automatically when they are selected as the input source. The triggers can be set so that they activate themselves once a connected component is selected as the input source for the main room, Zone 2, Zone 3, Zone 4, or any combination of rooms. When triggered, the output from a **12V TRIGGER OUT** goes high (+12 volts and 150 milliamperes max. at **12V TRIGGER OUT A**; +12 volts and 25 milliamperes max. at **12V TRIGGER OUT B** and **C**).

See "12V Trigger A/B/C Setup" (→ page 79).



### Hookup

- Use a miniplug cable to connect the AV receiver's **12V TRIGGER OUT A, B, or C** jack to the 12 V trigger input of a connected component.

## Using the Remote Controller in Zone and Multiroom Control Kits

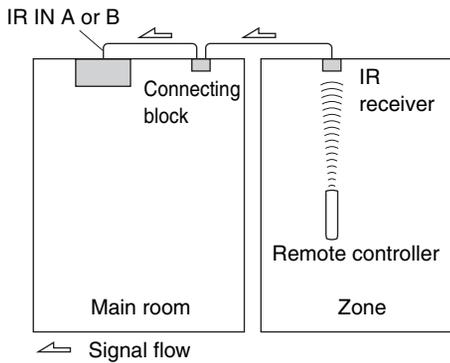
To control the AV receiver with the remote controller while you're in Zone, you'll need a commercially available multiroom remote control kit for each zone.

- Multiroom kits are made by Niles and Xantech.

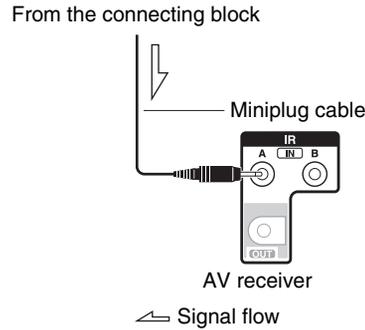
These kits can also be used when there isn't a clear line of sight to the AV receiver's remote sensor, such as when it's installed inside a cabinet.

### Using a Multiroom Kit with Zone

In this setup, the IR receiver in Zone picks up the infrared signals from the remote controller and feeds them through to the AV receiver in the main room via the connecting block.

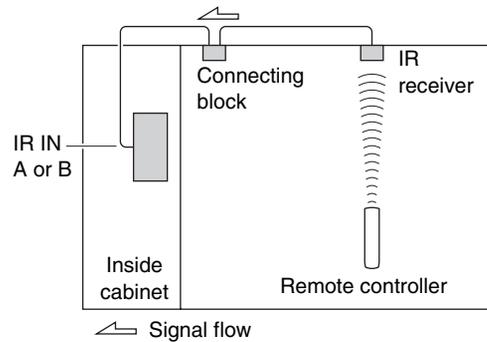


The miniplug cable from the connecting block should be connected to the AV receiver's **IR IN A** or **B** jack, as shown below. The **IR IN A** and **B** jacks are identical. Up to two IR receivers can be connected.



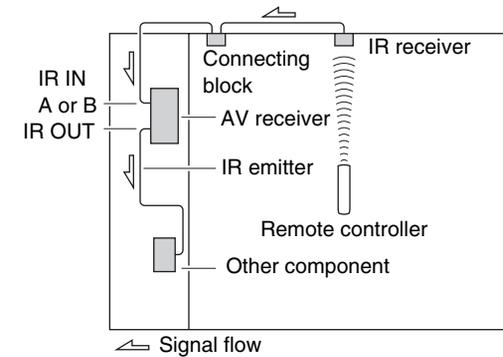
### Using a Multiroom Kit with a Cabinet

In this setup, the IR receiver picks up the infrared signals from the remote controller and feeds them to the AV receiver located in the cabinet via the connecting block.

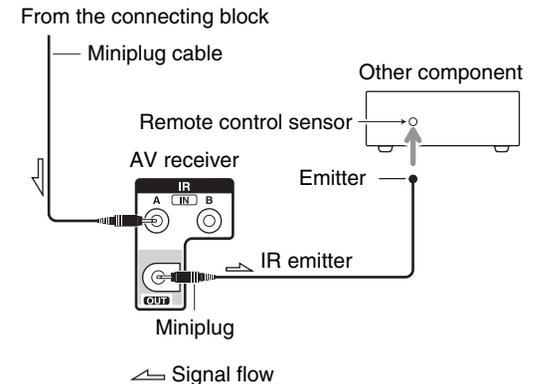


### Using a Multiroom Kit with Other Components

In this setup, an IR emitter is connected to the AV receiver's **IR OUT** jack and placed in front of the other component's remote control sensor. Infrared signals received at the AV receiver's **IR IN A** or **B** jack are fed through to the other component via the IR emitter. Signals picked up by the AV receiver's remote control sensor are not output.



The IR emitter should be connected to the AV receiver's **IR OUT** jack, as shown below.



# iPod/iPhone Playback via Onkyo Dock

## Using the Onkyo Dock

The Dock is sold separately. Models sold are different depending on the region.

For the latest information on the Onkyo Dock components, see the Onkyo web site at:

<http://www.onkyo.com>

Before using the Onkyo Dock components, update your iPod/iPhone with the latest software, available from the Apple web site.

For supported iPod/iPhone models, see the instruction manual of the Onkyo Dock.

## RI Dock

With the RI Dock, you can easily play the music of your iPod/iPhone, or watch the slideshows and videos of your iPod/iPhone on a TV. In addition, the on-screen display (OSD) allows you to view, navigate, and select your iPod/iPhone model's contents on your TV, and with the supplied remote controller, you can control your iPod/iPhone from the comfort of your sofa. You can even use the AV receiver's remote controller to operate your iPod/iPhone.

### Note

- Enter the appropriate remote control code before using the AV receiver's remote controller for the first time (→ [page 93](#)).
- Connect the RI Dock to the AV receiver with an **RI** cable (→ [page 21](#)).
- Set the RI Dock's RI MODE switch to "HDD" or "HDD/DOCK".
- Set the AV receiver's Input Display to "DOCK" (→ [page 50](#)).

## System Function

Depending on your iPod/iPhone model and generation, some of the linked operations may not be available.

### Auto Power On

If you press the remote controller's **▶** (Playback) while the AV receiver is on standby, the AV receiver will automatically turn on, select your iPod/iPhone as the input source, and your iPod/iPhone will start playback.

### Direct Change

If you start iPod/iPhone playback while listening to another input source, the AV receiver will automatically switch to the input to which the RI Dock is connected.

### System Off

When you turn off the AV receiver, the RI Dock turns off automatically.

## Other Remote Operations

You can use the remote controller that came with the AV receiver to control other iPod/iPhone functions. The available functionality depends on the AV receiver.

### Note

- If you use your iPod/iPhone with any other accessories, iPod/iPhone playback detection may not work.

## iPod Alarm

If you use the Alarm function on your iPod to start playback, the AV receiver will turn on at the specified time and select your iPod as the input source automatically.

### Note

- This linked operation won't work while a video is being played or when the sound set for the alarm is a built-in sound (Beep).
- This linked operation won't work with models on which music files cannot be used to set the alarm sound.

## Operating Notes

- Use the AV receiver's volume control to adjust the playback volume.
- While your iPod/iPhone is inserted in the RI Dock, its volume control has no effect.
- If you do adjust the volume control on your iPod/iPhone while it's inserted in the RI Dock, be careful that it's not set too loud before you reconnect your headphones.

## Controlling Your iPod/iPhone

By pressing the **Remote Mode** button that's been programmed with the remote control code for your Dock, you can control your iPod/iPhone in the Dock with the buttons described further in this section.

See "Entering Remote Control Codes" for details on entering a remote control code (→ [page 92](#)).

See the Dock's instruction manual for more information.

### RI Dock

- Set the RI Dock's RI MODE switch to "HDD" or "HDD/DOCK".
- **Source** may not work with a remote control code (without **RI**). In this case, make an **RI** connection and enter the remote control code **81993** (with **RI**).

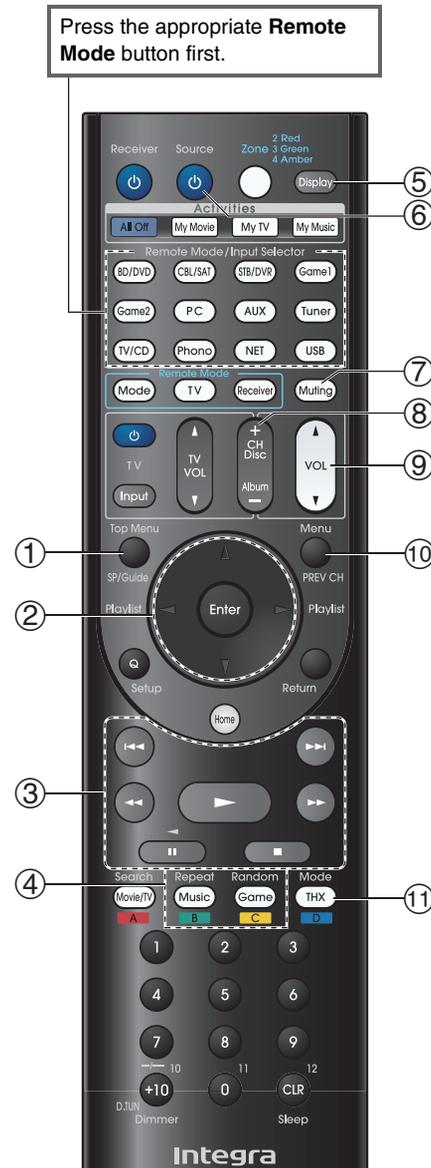
#### ■ With the RI Control

Make an **RI** connection and enter the remote control code **81993** (with **RI**).

- Set the AV receiver's Input Display to "DOCK" (→ [page 50](#)).

#### ■ Without the RI Control

You must enter the remote control code **82990** first (→ [page 93](#)).



### ■ RI Dock operation

Available buttons		
①	Top Menu*1	⑤ Display*2
②	▲/▼/◀/▶, Enter	⑥ Source*3
Playlist ◀/▶		⑦ Muting
③	▶▶, II, ■, ◀◀, ▶▶, ◀◀, ▶▶	⑧ Album +/-
④ Repeat		⑨ VOL ▲/▼
Random		⑩ Menu
		⑪ Mode*4

- With some iPod/iPhone models, generations and RI Docks, certain buttons may not work as expected.
- For detailed operation of iPod/iPhone, please refer to the instruction manual of the RI Dock.

\*1 **Top Menu** works as the mode button when used with the DS-A2 RI Dock.

\*2 **Display** turns on the backlight for a few seconds.

\*3 This button does not turn the Onkyo DS-A2 or DS-A2X RI Dock on or off. Also, your iPod/iPhone may not respond the first time you press this button, in which case you should press it again. This is because the remote controller transmits the On and Standby commands alternately, so if your iPod/iPhone is already on, it will remain on when the remote controller transmits the On command. Similarly, if your iPod/iPhone is already off, it will remain off when the remote controller transmits the Off command.

\*4 **Resume mode**

With the Resume function, you can resume playback of the song that was playing when you removed your iPod/iPhone from the Onkyo DS-A2 RI Dock.

# Controlling Other Components

You can use the AV receiver's remote controller to control your other AV components, including those made by other manufacturers. This section explains how to enter the remote control code for a component that you want to control: DVD, TV, CD, etc.

See "Learning Commands" for learning commands directly from another component's remote controller (→ [page 96](#)).

See "Using Normal Macros" for programming **Activities** to perform a sequence of remote control actions (→ [page 97](#)).

## Preprogrammed Remote Control Codes

The following **Remote Mode** buttons are preprogrammed with remote control codes for controlling the components listed. You do not need to enter a remote control code to control these components.

For details on controlling these components, see the indicated pages.

**BD/DVD** Integra/Onkyo Blu-ray Disc player  
(→ [page 94](#))

**TV/CD** Integra/Onkyo CD player (→ [page 93](#))

**STB/DVR** Apple TV

## Looking up for Remote Control Codes

You can look up for an appropriate remote control code from the on-screen menu.

**You need to connect your TV to the HDMI output (HDMI OUT MAIN) to make the following on-screen setting.**

- 1** Press **Receiver** followed by **Home**.
- 2** Use **◀/▶** to select "Setup", and then press **Enter**.
- 3** Use **▲/▼** to select "Remote Controller Setup", and then press **Enter**.
- 4** Use **▲/▼** to select "Remote Mode Setup", and then press **Enter**.
- 5** Use **▲/▼** to select a remote mode, and then press **Enter**.  
The menu of category selection appears.
- 6** Use **▲/▼** to select a category, and then press **Enter**.  
The keyboard screen for brand name input appears.
- 7** Use **▲/▼/◀/▶** to select a character, and then press **Enter**.  
Repeat this step for the first three characters of the brand name.  
When you have entered the 3rd character, select "Search" and press **Enter**.  
A list of brand names is retrieved.  
**If the desired brand name is not found:**  
Use **▶** to select "Not Listed", and then press **Enter**.  
The keyboard screen for brand name input appears.
- 8** Use **▲/▼** to select a brand, and then press **Enter**.  
A remote control code with its instructions are displayed. Follow the procedure.

- 9** If you can control the component, use **▲/▼** to select "OK", and then press **Enter**.

The on-screen menu returns to the "Remote Mode Setup" front screen.

**If you cannot control the component, use ▲/▼ to select "Try Next Code" and press Enter.**

The next code is displayed.

## Entering Remote Control Codes

You'll need to enter a code for each component that you want to control.

### 1 Look up the appropriate remote control code in the separate Remote Control Codes list.

The codes are organized by category (e.g., DVD player, TV, etc.).

### 2 While holding down the Remote Mode button to which you want to assign a code, press and hold down Display (about 3 seconds).

The **Remote Mode** button lights.

#### Note

- Remote control codes cannot be entered for **Receiver** and the multi zone button.
- Only TV remote control codes can be entered for **TV**.
- Except for **Receiver**, **TV**, and the multi zone button, remote control codes from any category can be assigned for the **Remote Mode** buttons. However, these buttons also work as input selector buttons (→ page 25), so choose a **Remote Mode** button that corresponds with the input to which you connect your component. For example, if you connect your CD player to the CD input, choose **TV/CD** when entering its remote control code.

### 3 Within 30 seconds, use the number buttons to enter the 5-digit remote control code.

The **Remote Mode** button flashes twice.

If the remote control code is not entered successfully, the **Remote Mode** button will flash once slowly.

#### Note

- Though the provided remote control codes are correct at the time of release, they are subject to change.

## Remapping Colored Buttons

You can change the configuration of colored buttons, with which **Remote Mode** buttons are preset.

### 1 While holding down the Remote Mode button that you want to program, press and hold down A (Red) until the Remote Mode button lights (about 3 seconds).

You can only change colored buttons for components whose codes belong to categories of the Remote Control Codes list (BD/DVD player, TV, cable set-top box, etc).

### 2 Within 30 seconds, press the colored buttons in the order that you want to reassign them.

The button presses are assigned to each button from left to right. The **Remote Mode** button flashes twice, indicating that the sequence has been successfully assigned. If the sequence is not successfully assigned, the **Remote Mode** button will flash once slowly.

#### Tip

- To reset the **Remote Mode** buttons to their default settings, see "Resetting the Remote Mode Buttons" (→ page 93).

#### Note

- If any other button than the colored buttons is pressed, the operation will be cancelled.
- This operation cannot be done while the AV receiver is in Receiver mode or when Zone 2/3/4 is active.

## Remote Control Codes for Integra/Onkyo Components Connected via RI

Integra/Onkyo components that are connected via **RI** are controlled by pointing the remote controller at the AV receiver, not the component. This allows you to control components that are out of view, in a rack, for example.

- 1** Make sure the Integra/Onkyo component is connected with an **RI** cable and an analog audio cable (**RCA**).  
See “Connecting Integra/Onkyo RI Components” for details (→ [page 21](#)).
- 2** Enter the appropriate remote control code for a **Remote Mode** button, by referring to the previous section.
  - ▶ **42157**:  
Onkyo cassette tape deck with **RI**
  - ▶ **81993**:  
Onkyo Dock with **RI**
- 3** Press the **Remote Mode** button, point the remote controller at the AV receiver, and operate the component.

### Controlling Integra/Onkyo components without RI

If you want to control an Integra/Onkyo component by pointing the remote controller directly at it, or you want to control an Integra/Onkyo component that’s not connected via **RI**, use the following remote control codes:

- ▶ **30627**:  
Integra/Onkyo DVD player without **RI**
- ▶ **71817**:  
Integra/Onkyo CD player without **RI**
- ▶ **32900/33100/33500**:  
Integra/Onkyo Blu-ray Disc player
- ▶ **32901/33104/33504**:  
Integra/Onkyo HD DVD player

- ▶ **70868**:  
Onkyo MD recorder without **RI**
- ▶ **71323**:  
Onkyo CD recorder without **RI**
- ▶ **82990**:  
Onkyo Dock without **RI**

## Resetting the Remote Mode Buttons

You can reset a **Remote Mode** button to its default remote control code.

- 1** While holding down the **Remote Mode** button that you want to reset, press and hold down **Home** until the **Remote Mode** button lights (about 3 seconds).
- 2** Within 30 seconds, press the **Remote Mode** button again.  
The **Remote Mode** button flashes twice, indicating that the button has been reset.  
Each **Remote Mode** button is preprogrammed with a remote control code. When a button is reset, its preprogrammed code is restored.

### Note

- The learning command is also reset.

## Resetting the Remote Controller

You can reset the remote controller to its default settings.

- 1** While holding down **Receiver**, press and hold down **Home** until **Receiver** lights (about 3 seconds).
- 2** Within 30 seconds, press **Receiver** again.  
**Receiver** flashes twice, indicating that the remote controller has been reset.

## Controlling Other Components

By pressing the **Remote Mode** button that’s been programmed with the remote control code for your component, you can control your component as described below.

For details on entering a remote control code for other components, see “Entering Remote Control Codes” (→ [page 92](#)).

### Controlling a TV

**TV** is preprogrammed with the remote control code for controlling a TV that supports the **RIHD**\*1 (limited to some models). The TV must be able to receive remote control commands via **RIHD** and be connected to the AV receiver via HDMI. If controlling your TV via **RIHD** doesn’t work very well, program your TV’s remote control code into **TV** and use the TV remote mode to control your TV.

Use the following remote control codes:

- ▶ **11807/13100/13500**:  
TV with **RIHD**

### Controlling Apple TV

By programming the supplied remote controller with the appropriate remote control code, you can use it to operate your Apple TV.

Use the following remote control codes:

- ▶ **02615**:  
Apple TV

## Controlling MHL-Enabled Mobile Device

By programming the supplied remote controller with the appropriate remote control code, you can use it to operate your MHL-enabled mobile device.

Connect your MHL-enabled mobile device to the **AUX Input MHL** jack. We advise you to program the remote control code on the **AUX** button.

Use the following remote control codes:

(North American models)

▶ **33101:**

MHL-enabled mobile device

(Australian models)

▶ **32910:**

MHL-enabled mobile device

### Note

- With some mobile devices, reliable operation cannot be guaranteed.

## Controlling a Blu-ray Disc/DVD Player, HD DVD Player or DVD Recorder

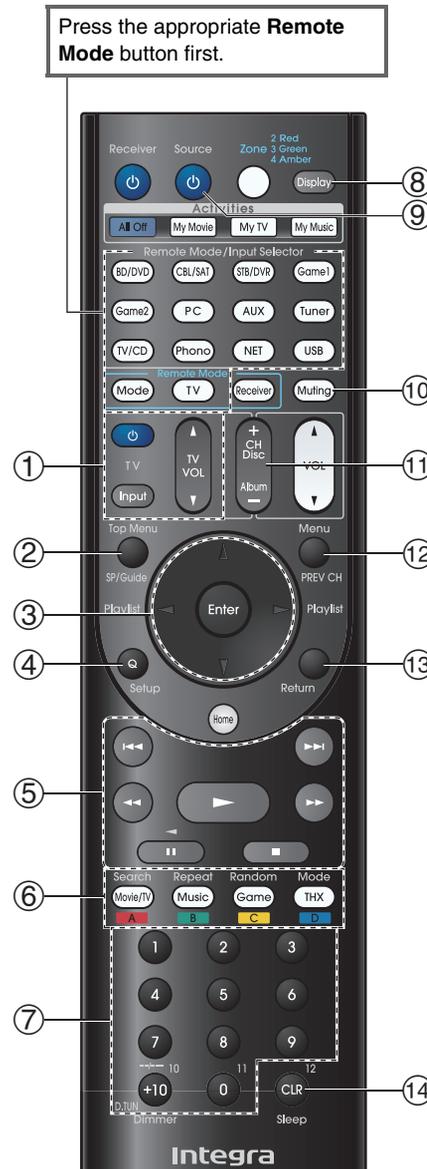
**BD/DVD** is preprogrammed with the remote control code for controlling a component that supports the **RIHD**\*1 (limited to some models). The component must be able to receive remote control commands via **RIHD** and be connected to the AV receiver via HDMI.

Use the following remote control codes:

▶ **32910/33101/33501/31612:**

Blu-ray Disc/DVD player with **RIHD**

\*1 The **RIHD** supported by the AV receiver is the CEC system control function of the HDMI standard.



## TV operation

### Available buttons

①	⏻, Input, TV VOL ▲/▼	⑦	Number: <b>1 to 9, 0</b>
②	Guide		Number: <b>+10</b> *1
③	▲/▼/◀/▶ Enter	⑧	Display
④	Setup	⑩	Muting
⑤	▶▶,   , ■, ◀◀, ▶▶, ◀◀, ▶▶*1	⑪	CH +/-
⑥	A (Red)*1 B (Green)*1 C (Yellow)*1 D (Blue)*1	⑫	PREV CH
		⑬	Return
		⑭	CLR

## Blu-ray Disc/HD DVD player operation

### Available buttons

②	Top Menu	⑦	Number: <b>1 to 9, 0</b>
③	▲/▼/◀/▶ Enter		Number: <b>+10</b> *1
④	Setup	⑧	Display
⑤	▶▶,   , ■, ◀◀, ▶▶, ◀◀, ▶▶	⑨	⏻Source
⑥	A (Red) B (Green) C (Yellow) D (Blue)	⑩	Muting
		⑪	CH +/-
		⑫	Disc +/-
		⑬	Menu
		⑭	Return
			CLR

Press the appropriate **Remote Mode** button first.



### ■ DVD player/DVD recorder operation

Available buttons			
②	Top Menu	⑦	Number: 1 to 9, 0
③	▲/▼/◀/▶ Enter	⑧	Display
④	Setup	⑨	Source
⑤	▶, ■, ■, ◀, ▶,  ◀◀, ▶▶	⑩	Muting
⑥	A (Red)*1 B (Green) C (Yellow)*1 D (Blue)*1	⑪	CH +/- Disc +/-
		⑫	Menu
		⑬	Return
		⑭	CLR

### ■ VCR/PVR operation

Available buttons			
②	Guide	⑧	Display
③	▲/▼/◀/▶ Enter	⑨	Source
④	Setup	⑩	Muting
⑤	▶, ■, ■, ◀, ▶,  ◀◀, ▶▶	⑪	CH +/-
⑥	Number: 1 to 9, 0 Number: +10	⑫	PREV CH
		⑬	Return
		⑭	CLR

### ■ Cassette tape deck operation

Available buttons			
⑤	▶, ◀ (Reverse Playback), ■, ◀◀, ▶▶,  ◀◀, ▶▶	⑨	Source
		⑩	Muting

### ■ Satellite receiver/Cable receiver operation

Available buttons			
②	Guide	⑦	Number: 1 to 9, 0
③	▲/▼/◀/▶ Enter	⑧	Display
④	Setup	⑨	Source
⑤	▶, ■, ■, ◀, ▶,  ◀◀, ▶▶	⑩	Muting
⑥	A (Red) B (Green) C (Yellow) D (Blue)	⑪	CH +/-
		⑫	PREV CH
		⑬	Return
		⑭	CLR

### ■ CD player/CD recorder/MD recorder operation

Available buttons			
③	▲/▼/◀/▶ Enter	⑦	Number: 1 to 9, 0 Number: +10
④	Setup	⑧	Display
⑤	▶, ■, ■, ◀, ▶,  ◀◀, ▶▶	⑨	Source
⑥	Search Repeat Random Mode	⑩	Muting
		⑪	Disc +/-
		⑭	CLR

#### Note

- With some components, certain buttons may not work as expected, and some may not work at all.
- See “Controlling Your iPod/iPhone” about the operation of iPod/iPhone (→ page 90).

\*1 The **RIHD** function is not supported. The **RIHD** supported by the AV receiver is the CEC system control function of the HDMI standard.

## Learning Commands

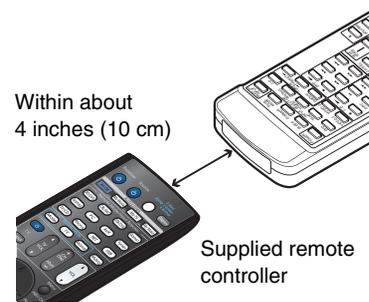
The AV receiver's remote controller can learn the commands of other remote controllers. By transmitting, for example, the Play command from your CD player's remote controller, the supplied remote controller can learn it and then reproduce the exact same command when its **▶** is pressed in CD remote mode.

This is useful when some buttons don't work as expected though you entered the appropriate remote control code (→ [page 92](#)).



- 1** While holding down the **Remote Mode** button for the mode in which you want to use the command, press and hold down **Receiver** until the **Remote Mode** button lights (about 3 seconds).
- 2** On the supplied remote controller, press the button to which you want to assign the new command.
- 3** Point the remote controllers at each other, within about 4 inches (10 cm) apart, and then press and hold the button whose command you want to acquire until the **Remote Mode** button flashes.

If the command is learned successfully, the **Remote Mode** button flashes twice.



- 4** To learn more commands, repeat steps 2 and 3. Press any **Remote Mode** button when you've finished. The **Remote Mode** button flashes twice.

### Note

- The following buttons cannot learn new commands: **Receiver**, **All Off**, **My Movie**, **My TV**, **My Music**, **Remote Mode**, **Mode**.
- The remote controller can learn approximately 70 to 90 commands, although this will be less if commands that use a lot of memory are learned.
- Remote controller buttons such as Play, Stop, and Pause are preprogrammed with commands for controlling Integra/Onkyo CD players, cassette decks, and DVD players. However, they can learn new commands, and you can restore the preprogrammed commands at any time by resetting the remote controller (→ [page 93](#)).
- To overwrite a previously acquired command, repeat this procedure.
- Depending on the remote controller used, some buttons may not respond as expected, or the learning process itself may not be possible.
- Only commands from infrared remote controllers can be acquired.
- When the remote controller runs out of batteries, all commands acquired will be lost and will have to be learned all over again. Therefore, do not discard your other remote controllers.

### Deleting Acquired Commands

1. While holding down the **Remote Mode** button for the mode from which you want to delete a command, press and hold down **TV** until the **Remote Mode** button lights (about 3 seconds).
2. Press the **Remote Mode** button or the button from which you want to delete the command. The **Remote Mode** button flashes twice. When you press the **Remote Mode** button, all commands learned in that mode will be deleted.

## Using Normal Macros

You can program the remote controller's **Activities** to perform a sequence of remote control actions.

### Example:

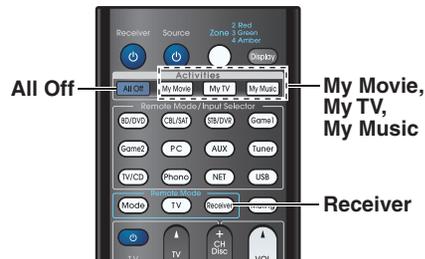
To play a CD you typically need to perform the following actions:

1. Press **Receiver** to select the Receiver remote controller mode.
2. Press **Receiver** to turn on the AV receiver.
3. Press **TV/CD** to select the TV/CD input source.
4. Press **▶** to start playback on the CD player.

You can program **Activities** so that all four actions are performed with just one button press.

## Making Macros

Each **Activities** can store one macro, and each macro can contain up to 32 commands.



- 1 While holding down **Receiver**, press and hold down **My Movie, My TV, or My Music** until **My Movie, My TV, or My Music** lights (about 3 seconds).
- 2 Press the buttons whose actions you want to program into the macro in the order you want them performed.

For the CD example above, you would press the following buttons: **Receiver**, **TV/CD**, **▶**.

- 3 When you've finished, press **Activities** again. **Activities** button flashes twice.

If you enter 32 commands, the process will finish automatically.

### Note

- **Mode** cannot be operated during the macro-making process.
- Once you assign new macro commands, the previously registered macro will no longer work. If you wish to retrieve it, you will have to reassign the commands with the macro-making.

## Running Macros

- 1 Press **My Movie, My TV, or My Music**.

The commands in the macro are transmitted in the order in which they were programmed. Keep the remote controller pointed at the AV receiver until all of the commands have been transmitted.

Macros can be run at any time, regardless of the current remote controller mode.

## Deleting Macros

- 1 While holding down **Home**, press and hold down **All Off** until **All Off** lights (about 3 seconds).
- 2 Press **All Off** again. **All Off** flashes twice.

### Note

- When Normal macros are deleted, **Activities** are restored to their default settings, namely the Easy macro commands (→ page 52).
- When using Normal macros, Easy macros cannot be used, which includes changing the source components.

# Troubleshooting

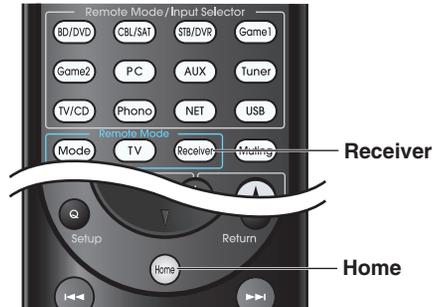
If you have any trouble using the AV receiver, look for a solution in this section. If you can't resolve the issue yourself, contact the dealer from whom you purchased this unit.

If you can't resolve the issue yourself, try resetting the AV receiver before contacting the dealer from whom you purchased this unit.

**To reset the AV receiver to its factory defaults, turn it on and, while holding down CBL/SAT, press  $\odot$  On/Standby. "Clear" will appear on the AV receiver's display and the AV receiver will enter standby mode.**



Note that resetting the AV receiver will delete your radio presets and custom settings.



To reset the remote controller to its factory defaults, while holding down **Receiver**, press and hold down **Home** until **Receiver** lights (about 3 seconds). Within 30 seconds, press **Receiver** again.

**The on-screen information appears only on a TV that is connected to HDMI outputs. If your TV is connected to other video outputs, use the AV receiver's display when changing settings.**

## Power

### ■ Can't turn on the AV receiver

Make sure that the power cord is properly plugged into the wall outlet. —

Unplug the power cord from the wall outlet, wait five seconds or more, then plug it in again. —

### ■ The AV receiver turns off unexpectedly

The AV receiver will automatically enter standby mode when Auto Standby has been set and launches. **82**

### ■ The AV receiver turns off and after restoring the power, it turns off again

The protection circuit has been activated. Remove the power cord from the wall outlet immediately. Make sure that all speaker cables and input sources are properly connected, and leave the AV receiver with its power cord disconnected for 1 hour. After that, reconnect the power cord and turn the power on. If the AV receiver turns off again, unplug the power cord and contact the dealer from whom you purchased this unit. **12**

Caution: If "CHECK SP WIRE" appears on the AV receiver's display, the speaker cables may be shorting.

## WARNING

If smoke, smell or abnormal noise is produced by the AV receiver, unplug the power cord from the wall outlet immediately and contact the dealer from whom you purchased this unit.

## Audio

### ■ There's no sound, or it's very quiet

Make sure that the digital input source is selected properly. **62**

Make sure that all audio connecting plugs are pushed in all the way. **16**

Make sure that the inputs and outputs of all components are connected properly. **17-21**

Make sure that the polarity of the speaker cables is correct, and that the bare wires are in contact with the metal part of each speaker terminal. **12**

Make sure that the input source is properly selected. **25**

Make sure that the speaker cables are not shorting. **12**

Check the volume. The AV receiver is designed for home theater enjoyment. It has a wide volume range, allowing precise adjustment. —

If the **MUTING** indicator is flashing on the AV receiver's display, press the remote controller's **Muting** button to unmute the AV receiver. **51**

While a pair of headphones is connected to the **Phones** jack, no sound is output from the speakers. **52**

If there's no sound from a DVD player connected to an HDMI IN, check the DVD player's output settings, and be sure to select a supported audio format. —

Check the digital audio output setting on the connected device. On some game consoles, such as those that support DVD, the default setting is off. —

With some DVD-Video discs, you need to select an audio output format from a menu. —

If your turntable uses an MC cartridge, you must connect an MC head amp, or an MC transformer. —

Make sure that none of the connecting cables are bent, twisted, or damaged. —

Not all listening modes use all speakers. **41**

Specify the speaker distances and adjust the individual speaker levels. **65**

Make sure that the speaker setup microphone is not still connected. —

If the input signal format is set to “PCM” or “DTS”. Set it to “Off”.	77
<b>Only the front speakers produce sound</b>	
When the Stereo or Mono listening mode is selected, only the front speakers and subwoofer produce sound.	45
In the Mono listening mode, only the front speakers output sound if the “Output Speaker” setting is set to “Left / Right”.	68
Check the Speaker Configuration.	64
<b>Only the center speaker produces sound</b>	
If you use the Dolby Pro Logic IIx Movie, Dolby Pro Logic IIx Music, or Dolby Pro Logic IIx Game listening mode with a mono source, such as an AM radio station or mono TV program, the sound is concentrated in the center speaker.	—
In the Mono listening mode, only the center speaker output sound if the “Output Speaker” setting is set to “Center”.	68
Make sure the speakers are configured correctly.	64
<b>The surround speakers produce no sound</b>	
When the T-D (Theater-Dimensional), Stereo or Mono listening mode is selected, the surround speakers produce no sound.	—
Depending on the source and current listening mode, not much sound may be produced by the surround speakers. Try selecting another listening mode.	41
Make sure the speakers are configured correctly.	64
When Powered Zone 4 is used, playback in the main room is reduced to 3.2 channels and the surround speakers produce no sound.	—
<b>The center speaker produces no sound</b>	
When the Stereo or Mono listening mode is selected, the center speaker produces no sound.	—
In the Mono listening mode, only the front speakers output sound if the “Output Speaker” setting is set to “Left / Right”.	68

Make sure the speakers are configured correctly.	64
<b>The front high, front wide and surround back speakers produce no sound</b>	
Depending on the current listening mode, no sound may be produced by the front high, front wide and surround back speakers. Select another listening mode.	41
Depending on the sources, the sound produced by the front high, front wide and surround back speakers may be weak.	—
Make sure the speakers are configured correctly.	64
When Powered Zone 2 is used, playback in the main room is reduced to 7.2 channels and the front wide speakers produce no sound.	—
When Powered Zone 3 is used, playback in the main room is reduced to 5.2 channels and the front high, front wide and surround back speakers produce no sound.	—
<b>The subwoofer produces no sound</b>	
When you play source material that contains no information in the LFE channel, the subwoofer produces no sound.	—
Make sure the speakers are configured correctly.	64
<b>There’s no sound with a certain signal format</b>	
Check the digital audio output setting on the connected device. On some game consoles, such as those that support DVD, the default setting is off.	—
With some DVD-Video discs, you need to select an audio output format from a menu.	—
Depending on the input signal, some listening modes cannot be selected.	41-48

## ■ Can’t get 6.2/7.2 playback

If no surround back speakers, front wide and front  
high speakers are connected, or the Zone 3/4 speakers  
are being used, 6.2/7.2 playback is not possible.

Depending on the number of connected speakers, it is  
not always possible to select all of the listening  
modes. 41-48

## ■ The speaker volume cannot be set as required

Check to see if a maximum volume has been set. 78

If the volume level of each individual speaker has  
been adjusted to high positive values, then the  
maximum master volume possible may be reduced.  
Note that the individual speaker volume levels are set  
automatically after the Audyssey MultEQ® XT32  
Room Correction and Speaker Setup has been  
performed. 38, 65

## ■ Noise can be heard

Using cable ties to bundle audio cables with power  
cords, speaker cables, and the like may degrade the  
audio performance, so refrain from doing it. —

An audio cable may be picking up interference. Try  
repositioning your cables. —

## ■ The Late Night function doesn’t work

Make sure the source material is Dolby Digital,  
Dolby Digital Plus, and Dolby TrueHD. 55

Make sure that the “TrueHD Loudness  
Management” setting is not set to “Off”. The Late  
Night function doesn’t work when this setting is  
disabled. 69

## ■ About DTS signals

When DTS program material ends and the DTS bitstream stops, the AV receiver remains in DTS listening mode and the **dts** indicator remains on. This is to prevent noise when you use the pause, fast forward, or fast reverse function on your player. If you switch your player from DTS to PCM, you may not hear any sound because the AV receiver does not switch formats immediately. In such case, you should stop your player for about three seconds and then resume playback.

With some CD and LD players, you won't be able to playback DTS material properly even though your player is connected to a digital input on the AV receiver. This is usually because the DTS bitstream has been processed (e.g., output level, sampling rate, or frequency response changed) and the AV receiver doesn't recognize it as a genuine DTS signal. In such cases, you may hear noise.

Playing DTS program material, using the pause, fast forward, or fast reverse function on your player may produce a short audible noise. This is not a malfunction.

## ■ The beginning of audio received by an HDMI IN can't be heard

Since it takes longer to identify the format of an HDMI signal than it does for other digital audio signals, audio output may not start immediately.

## ■ There's no sound during Whole House Mode

Make sure you've selected an analog audio input. (North American models) When using the Whole House Mode with "Tuner" input selector, connect antennas to both the **MAIN** and **ZONE 2 ANTENNA** jacks/terminals.

## Video

### ■ There's no picture

Make sure that all video connecting plugs are pushed in all the way. 16

Make sure that each video component is properly connected. 17, 18

If your TV is connected to the HDMI output, set the "Monitor Out" setting other than "Analog", and select "- - - -" in the "HDMI Input" setting to watch composite video, and component video sources. 59, 60

If your TV is connected to the **COMPONENT VIDEO MONITOR OUT** or **MONITOR OUT V**, set the "Monitor Out" setting to "Analog", select "- - - -" in "Component Video Input", and assign a composite video input for that input selector in order to watch composite video sources. 59, 61

If the video source is connected to a component video input, you must assign that input to an input selector, and your TV must be connected to either the HDMI output or **COMPONENT VIDEO MONITOR OUT**. 18, 61

If the video source is connected to a composite video input, you must assign that input to an input selector, and your TV must be connected to the HDMI output or the corresponding composite video output. 18

If the video source is connected to an HDMI input, you must assign that input to an input selector, and your TV must be connected to the HDMI output. 17, 60

On your TV, make sure that the video input to which the AV receiver is connected is selected.

When the "Monitor Out" setting is set to "Both", the "HDMI Through" setting is only available for the **HDMI OUT MAIN** jack. 59, 80

### ■ There's no picture from a source connected to an HDMI IN

Reliable operation with an HDMI-to-DVI adapter is not guaranteed. In addition, video signals from a PC are not guaranteed. 114

When the "Monitor Out" setting is set to "Analog", no video is output by the HDMI output. 59, 109

When the resolution is set to any resolution not supported by the TV, no video is output from the HDMI output. 59

If the message "**Resolution Error**" appears on the AV receiver's display, this indicates that your TV does not support the current video resolution and you need to select another resolution on your DVD player.

### ■ The on-screen menus don't appear

On your TV, make sure that the video input to which the AV receiver is connected is selected.

When the AV receiver is not connected to a TV via **HDMI OUT MAIN**, on-screen menus are not displayed.

### ■ The on-screen information does not appear

Depending on the input signal, the on-screen information may not appear when the input signal from **HDMI IN** is output to a device connected to the HDMI output. 53

## Tuner

### ■ Reception is noisy, FM stereo reception is noisy, or the FM STEREO indicator doesn't light

Relocate your antenna. —

Move the AV receiver away from your TV or computer. —

Listen to the station in mono. 33

When listening to an AM station, operating the remote controller may cause noise. —

Passing cars and airplanes can cause interference. —

Concrete walls weaken radio signals. —

If nothing improves the reception, install an outdoor antenna. —

## Remote Controller

### ■ The remote controller doesn't work

Before operating this unit, be sure to press **Receiver**. —

Make sure that the batteries are installed with the correct polarity. **4**

Install new batteries. Don't mix different types of batteries, or old and new batteries. **4**

Make sure that the remote controller is not too far away from the AV receiver, and that there's no obstruction between the remote controller and the AV receiver's remote control sensor. **4**

Make sure that the AV receiver is not subjected to direct sunshine or inverter-type fluorescent lights. Relocate if necessary. —

If the AV receiver is installed in a rack or cabinet with colored-glass doors, the remote controller may not work reliably when the doors are closed. —

Make sure you've selected the correct remote controller mode. **10, 93**

When using the remote controller to control other manufacturers' AV components, some buttons may not work as expected. —

Make sure you've entered the correct remote control code. **92**

Make sure to set the same ID on both the AV receiver and remote controller. **83**

### ■ Can't control other components

If it's an Integra/Onkyo component, make sure that the **RI** cable and analog audio cable are connected properly. Connecting only an **RI** cable won't be enough. **21**

Make sure you've selected the correct remote controller mode. **10, 93**

If you've connected an cassette tape deck to the **TV/CD IN** jack, or an **RI Dock** to the **TV/CD IN** or **GAME 1 IN** jacks, for the remote controller to work properly, you must set the input display appropriately. **50**

If you cannot operate it, you will need to enter the appropriate remote control code. **91**

To control another manufacturer's component, point the remote controller at that component. **92**

To control an Integra/Onkyo component that's connected via **RI**, point the remote controller at the AV receiver. Be sure to enter the appropriate remote control code first. **93**

To control an Integra/Onkyo component that's not connected via **RI**, point the remote controller at the component. Be sure to enter the appropriate remote control code first. **93**

The entered remote control code may not be correct. If more than one code is listed, try each one. —

### ■ Can't learn commands from another remote controller

When learning commands, make sure that the transmitting ends of both remote controllers are pointing at each other. **96**

Are you trying to learn from a remote controller that cannot be used for learning? Some commands cannot be learned, especially those that contain several instructions. —

## RI Dock for iPod/iPhone

### ■ There's no sound

Make sure your iPod/iPhone is actually playing. —

Make sure your iPod/iPhone is properly inserted in the Dock. —

Make sure the AV receiver is turned on, the correct input source is selected, and the volume is turned up. —

Make sure the plugs are pushed in all the way. —

Try resetting your iPod/iPhone. —

### ■ There's no video

Make sure that your iPod/iPhone model's TV OUT setting is set to On. —

Make sure the correct input is selected on your TV or the AV receiver. —

Some versions of the iPod/iPhone do not output video. —

### ■ The AV receiver's remote controller doesn't control my iPod/iPhone

Make sure your iPod/iPhone is properly inserted in the Dock. If your iPod/iPhone is in a case, it may not connect properly to the Dock. Always remove your iPod/iPhone from the case before inserting it into the Dock. —

The iPod/iPhone cannot be operated while it's displaying the Apple logo. —

Make sure you've selected the right remote mode. **90**

When you use the AV receiver's remote controller, point it toward your AV receiver. —

If you still can't control your iPod/iPhone, start playback by pressing your iPod/iPhone model's Play button. Remote operation should then be possible. —

Try resetting your iPod/iPhone. —

Depending on your iPod/iPhone, some buttons may not work as expected. —

### ■ The AV receiver unexpectedly selects my iPod/iPhone as the input source

Always pause iPod/iPhone playback before selecting a different input source. If playback is not paused, the Direct Change function may select your iPod/iPhone as the input source by mistake during the transition between tracks. —

### ■ iPod/iPhone doesn't work properly

Try reconnecting your iPod/iPhone. —

## Zone 2/3/4

### ■ There's no sound

Only components connected to analog or HDMI (2ch PCM) inputs can be played in Zone 2. —

Only components connected to analog inputs can be played in Zone 3/4. —

### ■ The Zone 2/3/4 speakers produce no sound

See "Multi Zone" for the conditions in which Powered Zone 2/3/4 cannot be used. **84**

To use the Zone 2 speakers, you must set the "Powered Zone 2" setting to "Yes". **63**

To use the Zone 3 speakers, you must set the "Powered Zone 3" setting to "Yes". **63**

To use the Zone 4 speakers, you must set the "Powered Zone 4" setting to "Yes". **63**

## Music Server and Internet Radio

### ■ Can't access the server or Internet radio

Certain network service or contents available through this device may not be accessible in case the service provider terminates its service. —

Check the network connection between the AV receiver and your router or switch. **115**

Make sure that your modem and router are properly connected, and make sure they are both turned on. —

Make sure the server is up and running and compatible with the AV receiver. **115**

Check the "Network" settings. **82**

### ■ Playback stops while listening to music files on the server

Make sure your server is compatible with the AV receiver. **115**

If you download or copy large files on your computer, playback may be interrupted. Try closing any unused programs, use a more powerful computer, or use a dedicated server. —

If the server is serving large music files to several networked devices simultaneously, the network may become overloaded and playback may be interrupted. Reduce the number of playback devices on the network, upgrade your network, or use a switch instead of a hub. —

### ■ Can't connect to the AV receiver from a Web browser

If you're using DHCP, your router may not always allocate the same IP address to the AV receiver, so if you find that you can't connect to a server or Internet radio station, recheck the AV receiver's IP address on the "Network" screen. **82**

Check the "Network" settings. **82**

## USB Device Playback

### ■ Can't access the music files on a USB device

Make sure the USB device is plugged in properly. —

The AV receiver supports USB devices that support the USB mass storage device class. However, playback may not be possible with some USB devices even if they conform to the USB mass storage device class. **116**

USB memory devices with security functions cannot be played. —

## Others

### ■ Standby power consumption

In the following cases, the power consumption in standby mode may reach up to a maximum of 12.5 W: **80, 82**

- The "HDMI Control(RIHD)" setting is set to "On". (Depending on the TV status, the AV receiver will enter standby mode as usual.)
- The "HDMI Through" setting is set to other than "Off".
- The "Network Standby" setting is set to "On".

If an MHL-enabled mobile device is connected to the AUX (front) input, the power consumption in standby mode will increase. **17**

### ■ The sound changes when I connect my headphones

When a pair of headphones is connected, the listening mode is set to Stereo, unless it's already set to Stereo, Mono, or Direct. —

### ■ The speaker distance cannot be set as required

The values entered may be automatically adjusted with values best-suited for your home theater. —

### ■ How do I change the language of a multiplex source

Use the "Multiplex" setting in the "Audio Adjust" menu to select "Main" or "Sub". **68**

### ■ The RI functions don't work

To use RI, you must make an RI connection and an analog audio connection (RCA) between the component and AV receiver, even if they are connected digitally. **21**

While Zone 2/3/4 is selected, the RI functions don't work. **21**

### ■ The functions System Off/Auto Power On and Direct Change don't work for components connected via RI

These functions don't work when Zone 2/3/4 is turned on. **21**

### ■ When performing Automatic Speaker Setup, the measurement fails and the message "Ambient noise is too high." is displayed.

This can be caused by a malfunction in your speaker unit. Check if the unit produces normal sounds. —

## ■ The following setting can be made for composite video inputs

### • Video Attenuation

If you have a game console connected to the composite video input, and the picture isn't very clear, you can attenuate the gain.

**Video ATT :Off:** The gain is not changed (default).

**Video ATT :On:** The gain is reduced by the values specified below.

-2 dB for the **ZONE 2 OUT V** and HDMI output.

-6 dB for the **MONITOR OUT V** output.

To make this setting, you must use the buttons on the AV receiver.

Press the input selector button for the source that you want to set, simultaneously with **Setup**. Note that the input selector must be assigned to a composite video input. While holding down the input selector button, press **Setup** until "**Video ATT :On**" appears on the AV receiver's display. Then, release both buttons. To turn the setting off, repeat the above process so that "**Video ATT :Off**" appears on the AV receiver's display, and release the buttons.

### Note

- With the **USB** input selector, this setting is only available when an iPod/iPhone is connected and set to Extended Mode (Video) or Standard Mode.

## ■ If the picture on your TV/monitor connected to the HDMI output is unstable, try switching the DeepColor function off

To turn off the DeepColor function, simultaneously press the **STB/DVR** and **On/Standby** buttons on the AV receiver. While holding down **STB/DVR**, press **On/Standby** until "**Deep Color:Off**" appears on the AV receiver's display. Then, release both buttons. To reactivate the DeepColor function, repeat the above process until "**Deep Color:On**" appears on the AV receiver's display and release the buttons.

The AV receiver contains a microcomputer for signal processing and control functions. In very rare situations, severe interference, noise from an external source, or static electricity may cause it to lockup. In the unlikely event that this happens, unplug the power cord from the wall outlet, wait at least five seconds, and then plug it back in.

Onkyo is not responsible for damages (such as CD rental fees) due to unsuccessful recordings caused by the unit's malfunction. Before you record important data, make sure that the material will be recorded correctly.

Before disconnecting the power cord from the wall outlet, set the AV receiver to standby.

## Important Note Regarding Video Playback

The AV receiver can upconvert component video and composite video sources for display on a TV connected to the HDMI output. However, if the picture quality of the source is poor, upconversion may make the picture worse or disappear altogether.

In this case, try the following:

- 1 If the video source is connected to a component video input, connect your TV to COMPONENT VIDEO MONITOR OUT.**  
If the video source is connected to a composite video input, connect your TV to **MONITOR OUT V**.
- 2 On the main menu, select "Input/Output Assign", and then "Component Video Input" (→ page 61).**

If the video source is connected to **COMPONENT VIDEO IN 1**, select the relevant input selector, and assign it to "**IN1**".

If the video source is connected to **COMPONENT VIDEO IN 2**, select the relevant input selector, and assign it to "**IN2**".

If the video source is connected to a composite video input, select the relevant input selector, and assign it to "**-----**".

### Tip

- To by-pass the upconversion, set the "**Picture Mode**" setting to "**Direct**" (→ page 74).

# Firmware Update

To update the firmware of the AV receiver, you can choose from the following two methods: update via network, or update via USB storage. Choose the one that best suits your environment. Before proceeding with the update, please read the corresponding explanations carefully.

## ■ Update via network

You need a wired Internet connection to update the firmware.

## ■ Update via USB storage (→ page 106)

Please prepare a USB storage device such as a USB flash memory stick. You need at least 32 MB of available space to update the firmware.

### Note

- Check the network connection before updating.
- Do not touch any cable or device connected to the AV receiver during the update process.
- Do not attempt to access the AV receiver from your PC while it is being updated.
- Do not shutdown the power of the AV receiver while it is being updated.
- The storage media in the USB card reader may not work.
- If the USB device is partitioned, each section will be treated as an independent device.
- If the USB device contains a lot of data, the AV receiver may take a while to read it.
- Operation is not guaranteed for all USB devices, which includes the ability to power them.
- Onkyo takes no responsibility whatsoever for the loss or damage of data resulting from the use of a USB device with the AV receiver. Onkyo recommends that you back up your important music files beforehand.
- If you connect a USB hard disk drive to the USB port, Onkyo recommends that you use its AC adapter to power it.
- USB hubs and USB devices with hub functions are not supported. Do not connect your USB device via a USB hub.
- USB devices with security functions are not supported.

### Limitation of liability

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**See the Integra web site for latest information.**

## Updating the Firmware via Network

The AV receiver allows you to update the firmware using network connection on the rear panel.

### Note

- Make sure your AV receiver and TV are turned on and an Ethernet cable is connected to the rear panel of the AV receiver.
- Never unplug or turn off the AV receiver while it is being updated.
- Never plug or unplug an HDMI or Ethernet cable during the update process.
- Do not attempt to access the AV receiver from your PC while it is being updated.
- Never unplug the power cord during the update process.
- It takes up to 60 minutes to complete the firmware update.
- The AV receiver will retain all your settings after the update is finished.

## Before Starting

- Set the “**HDMI Control(RIHD)**” setting to “**Off**” (→ page 80).
- Turn off the controller device connected via RS232 and network.
- Turn off Multi Zone if this function is present.
- Stop playback of contents from Internet Radio, iPod/iPhone, USB or servers, etc.

## Update Procedure

### 1 Press **Receiver** followed by **Home** on the remote controller.

The Home menu appears on the TV screen.

### 2 Select **“Firmware Update”** and press **Enter**.

Note that the **“Firmware Update”** option will be grayed out for a short while after the AV receiver is turned on. Please wait until it becomes operable.

### 3 Select **“Update via NET”** and press **Enter**.

Note that this option will not be available if there is no firmware file newer than the currently installed version.

### 4 Select **“Update”** and press **Enter**.

The update process will begin.

During the update process, the on-screen display may disappear depending on the updated program. When this occurs, you can still view the update progress on the AV receiver’s display. The on-screen display will reappear after the update is complete, and upon turning the AV receiver off and on again.

### 5 The message **“Completed!”** appears on the AV receiver’s display, indicating that the update has been completed.

### 6 Turn off the AV receiver using **⏻On/Standby** on the front panel.

Do not use **⏻Receiver** on the remote controller.

Once turned off, the AV receiver will automatically turn on again.

Congratulations! You now have the latest firmware installed on your Integra AV receiver.

## Troubleshooting

### Case 1:

If an error occurs, **“Error!! \*.\*”** is displayed on the AV receiver’s display. (Alpha-numeric characters on the front display are denoted by asterisks.) Refer to the following table and take appropriate action.

#### ■ Errors during an update via network

Error Code	Description
*-10, *-20	The Ethernet cable was not detected. Reconnect the cable properly.
*-11, *-13, *-21, *-28	Internet connection error. Check the following items: <ul style="list-style-type: none"> <li>• Make sure the IP address, subnet mask, gateway address, and DNS server are configured properly.</li> <li>• Make sure the router is turned on.</li> <li>• Make sure the AV receiver and the router are connected with an Ethernet cable.</li> <li>• Make sure your router is configured properly. See the instruction manual of the router.</li> <li>• If your network allows only one client connection and there is any other device already connected, the AV receiver will not be able to access the network. Consult your Internet Service Provider (ISP).</li> <li>• If your modem does not function as a router, you will need a router. Depending on your network, you may need to configure the proxy server if necessary. See the document provided by your ISP. If you are still unable to access the Internet, the DNS or proxy server may be temporarily down. Contact your ISP.</li> </ul>
Others	Retry the update procedure from the beginning. If the error persists, please contact Integra Support (→ <b>page 107</b> ) and provide the error code.

### Case 2:

If an error occurs during the update process, disconnect then reconnect the AC power cord and try again.

### Case 3:

If you do not have an Internet connection to the network, please contact Integra Support (→ **page 107**).

## Updating the Firmware via USB

The AV receiver allows you to update the firmware using a USB device.

### Note

- Never unplug or turn off the AV receiver during the update process.
- Never plug or unplug an HDMI cable or a USB device during the update process.
- Never unplug the USB storage device containing the firmware file or the AC power cord during the update process.
- Do not attempt to access the AV receiver from your PC while it is being updated.
- It takes up to 60 minutes to complete the firmware update.
- The AV receiver will retain all your settings after the update is finished.

### Before Starting

- Set the “HDMI Control(RIHD)” setting to “Off” (→ page 80).
- Turn off the controller device connected via RS232 and network.
- Turn off Multi Zone if this function is present.
- Stop playback of contents from Internet Radio, iPod/iPhone, USB or servers, etc.
- If there is any data in the USB device, remove it first.

## Update Procedure

- 1 Connect a USB device to your PC. If there is any data in the USB device, remove it first.**
- 2 Download the firmware file from the Integra web site. The file name is as follows:**  
**ONKAVR\*\*\*\*\_\*\*\*\*\*.zip**  
**Unzip the downloaded file. The following six files are created:**  
**ONKAVR\*\*\*\*\_\*\*\*\*\*.of1**  
**ONKAVR\*\*\*\*\_\*\*\*\*\*.of2**  
**ONKAVR\*\*\*\*\_\*\*\*\*\*.of3**  
**ONKAVR\*\*\*\*\_\*\*\*\*\*.of4**  
**ONKAVR\*\*\*\*\_\*\*\*\*\*.of5**  
**ONKAVR\*\*\*\*\_\*\*\*\*\*.of6**
- 3 Copy the extracted files to the USB device. Be careful not to copy the zip file.**
- 4 Remove the USB device from your PC and connect it to the USB port on the AV receiver.**  
 When the AV receiver has two USB ports, you can use either one.
- 5 Make sure the AV receiver and TV are turned on.**  
 If the AV receiver is in standby mode, press **⏻On/Standby** on the AV receiver to light up the front display.
- 6 Select the USB input source.**  
 “Now Initializing...” appears on the AV receiver’s display and then the name of the USB device is displayed. It takes 20 to 30 seconds to recognize the USB device.
- 7 Press Receiver followed by Home on the remote controller.**  
 The Home menu appears on the TV screen.
- 8 Select “Firmware Update” and press Enter.**

- 9 Select “Update via USB” and press Enter.**  
 Note that this option will not be available if there is no firmware file newer than the currently installed version.
- 10 Select “Update” and press Enter.**  
 The update process will begin.  
 During the update process, the on-screen display may disappear depending on the updated program. When this occurs, you can still view the update progress on the AV receiver’s display. The on-screen display will reappear after the update is complete, and upon turning the AV receiver off and on again.  
 Do not turn off the AV receiver and do not remove the USB device during the update process.
- 11 The message “Completed!” appears on the AV receiver’s display, indicating that the update has been completed.**  
**Remove the USB device.**
- 12 Turn off the AV receiver using ⏻On/Standby on the front panel.**  
 Do not use **⏻Receiver** on the remote controller.  
 Once turned off, the AV receiver will automatically turn on again.  
 Congratulations! You now have the latest firmware installed on your Integra AV receiver.

## Troubleshooting

---

### Case 1:

If an error occurs, “**Error!! \*-\*\***” is displayed on the AV receiver’s display. (Alpha-numeric characters on the front display are denoted by asterisks.) Refer to the following table and take appropriate action.

#### ■ Errors during an update via USB

Error Code	Description
*-10, *-20	The USB device was not detected. Make sure the USB flash memory or USB cable is properly connected to the USB port. If the USB storage device has its own power supply, use it to power the USB device.
*-14	The firmware file was not found in the root folder of the USB device, or the firmware file is for another model. Retry and download the file on the support page of the web site, following the on-site instructions. If the error persists, please contact Integra Support and provide the error code.
Others	Retry the update procedure from the beginning. If the error persists, please contact Integra Support and provide the error code.

### Case 2:

If an error occurs during the update process, disconnect then reconnect the AC power cord and try again.

---

#### The Americas

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#### Asia, Oceania, Middle East, Africa

Please contact an Integra distributor referring to  
 Integra Worldwide web site.  
<http://www.integraworldwide.com>

Integra Division of  
**Onkyo Sound & Vision Corporation**  
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<http://www.integraworldwide.com>

The above-mentioned information is subject to change without prior notice. Visit the Integra web site for the latest update.

---

# Connection Tips and Video Signal Path

The AV receiver supports several connection formats for compatibility with a wide range of AV equipment. The format you choose will depend on the formats supported by your components. Use the following sections as a guide.

**The on-screen setup menus appear only on a TV that is connected to HDMI OUT MAIN. If your TV is connected to other video outputs, use the AV receiver's display when changing settings.**

## Video Connection Formats

Video components can be connected by using any one of the following video connection formats: composite video, PC IN (Analog RGB), component video, or HDMI, the latter offering the best picture quality.

The AV receiver can upconvert between video formats, depending on the “**Monitor Out**” setting (→ [page 59](#)), which generally determines whether video signals are upconverted for the component video output or the HDMI output.

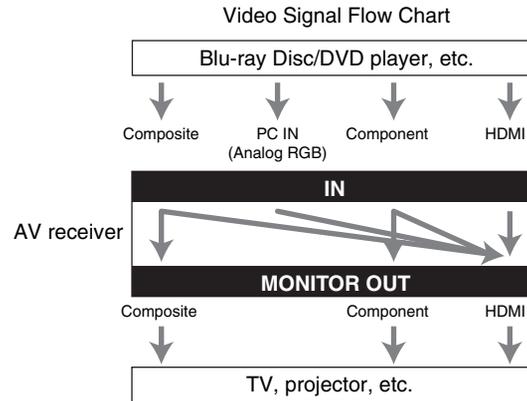
### Tip

- For optimal video performance, THX recommends that video signals pass through the system without upconversion (e.g., component video input passing through to component video output).
- To by-pass the upconversion, set the “**Picture Mode**” setting to “**Direct**” (→ [page 74](#)).

### ■ “Monitor Out” set to “HDMI Main” or “HDMI Sub”

Video input signals flow through the AV receiver as shown, with composite video, PC IN (Analog RGB), and component video sources all being upconverted for the HDMI output. **Use these settings if you connect either HDMI OUT MAIN or HDMI OUT SUB of the AV receiver to your TV.**

The composite video and component video outputs pass through their respective input signals as they are. When you connect a video component to an HDMI, COMPONENT or COMPOSITE input, you must assign that input to an input selector (→ [pages 60, 61, 62](#)).



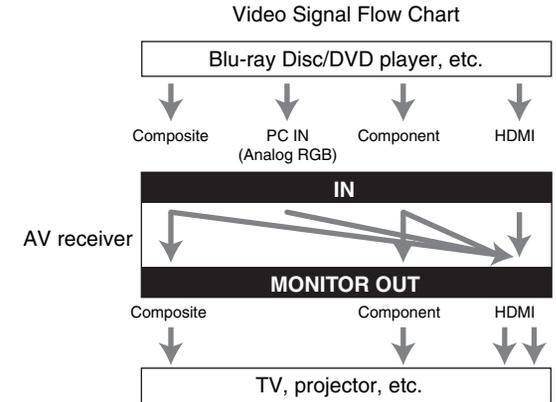
### ■ “Monitor Out” set to “Both”

Video input signals flow through the AV receiver as shown, with composite video, PC IN (Analog RGB), and component video sources all being upconverted for both HDMI outputs. **Use this setting if you connect both HDMI OUT MAIN and HDMI OUT SUB of the AV receiver to your TV.**

Note that video signals are output from both HDMI outputs at the resolution supported by both TVs.

The composite video and component video outputs pass through their respective input signals as they are.

When you connect a video component to an HDMI, COMPONENT or COMPOSITE input, you must assign that input to an input selector (→ [pages 60, 61, 62](#)).



### Note

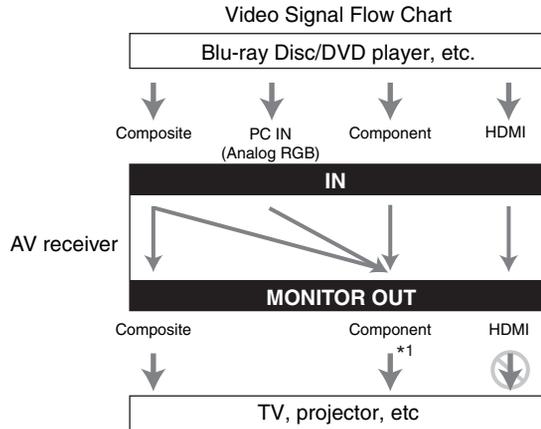
- When “**Monitor Out**” is set to “**Both**”, the “**Resolution**” setting cannot be selected (→ [page 59](#)).
- The “**HDMI Through**” setting is only available for the **HDMI OUT MAIN** jack (→ [page 80](#)).

### ■ “Monitor Out” set to “Analog”

Video input signals flow through the AV receiver as shown, with composite video and PC IN (Analog RGB) sources being upconverted for the component video output.

**Use this setting if you connect the AV receiver’s COMPONENT VIDEO MONITOR OUT to your TV.**

The composite video and component video outputs pass through their respective input signals as they are. This signal flow also applies when the “Resolution” setting is set to “Through” (→ page 59).

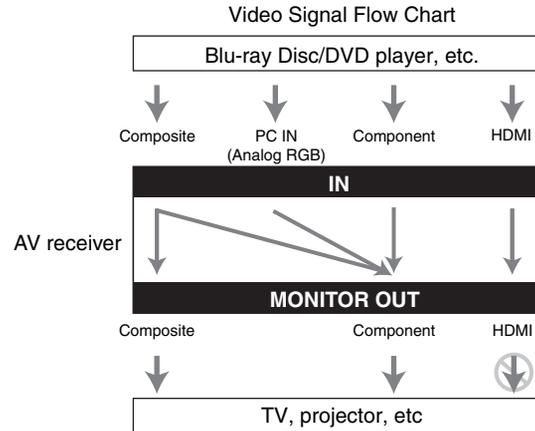


\*1 For details, refer to “Video Resolution Chart” (→ page 111).

### Video Signal Flow and the Resolution Setting

When the “Monitor Out” setting is set to “Analog” (→ page 59), if the “Resolution” setting is set to anything other than “Through” (→ page 59), the video signal flow will be as shown here, with composite video and PC IN (Analog RGB) sources being upconverted for the component video output.

The composite video and component video outputs pass through their respective analog input signals as they are. HDMI input signals are not output.

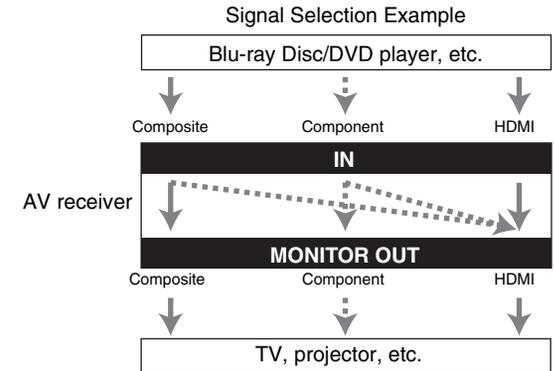


### ■ Signal Selection

If signals are present at more than one input, the inputs will be selected automatically in the following order of priority: HDMI, component video, composite video.

However, for component video only, regardless of whether a component video signal is actually present, if a component video input is assigned to the input selector, that component video input will be selected. And if no component video input is assigned to the input selector, this will be interpreted as no component video signal being present.

In the Signal Selection Example shown below, video signals are present at both the HDMI and composite video inputs. However, the HDMI signal is automatically selected as the source and the video is output by the HDMI output.

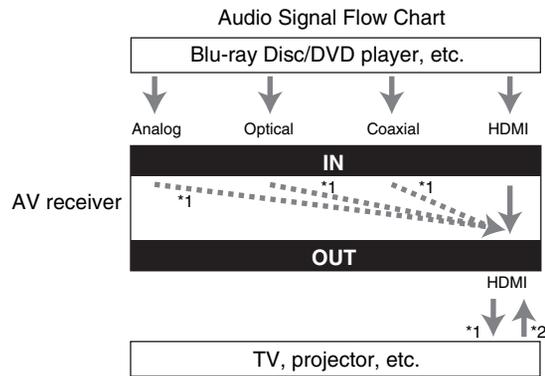


## Audio Connection Formats

Audio components can be connected by using any of the following audio connection formats: analog, optical, coaxial, or HDMI.

When choosing a connection format, bear in mind that the AV receiver does not convert digital input signals for analog line outputs and vice versa.

If signals are present at more than one input, the inputs will be selected automatically in the following order of priority: HDMI, digital, analog.



\*1 Depends on the "Audio TV Out" setting (→ page 81).

\*2 This is possible when "Audio Return Channel" is set to "Auto" (→ page 81), the TV/CD input selector is selected, and your TV is ARC capable.

### Tip

- When a signal is input via HDMI and the corresponding input selector is selected, the **HDMI** indicator lights. In the case of an optical or coaxial connection, the **DIGITAL** indicator lights. If the analog audio is output, or if neither HDMI nor digital signal inputs are assigned, **ANALOG** indicator lights.

## Video Resolution Chart

The following tables show how video signals at different resolutions are output by the AV receiver.

### NTSC/PAL

✓: Output available

Input \ Output		HDMI							Component					Composite
		4K*2	1080p/24	1080p	1080i	720p	480p/576p	480i/576i	1080p	1080i	720p	480p/576p	480i/576i	480i/576i
HDMI	1080p/24	✓	✓*4											
	1080p	✓	✓	✓*4										
	1080i	✓	✓	✓	✓*4	✓								
	720p	✓	✓	✓	✓	✓*4								
	480p/576p	✓	✓	✓	✓	✓	✓*4							
	480i/576i	✓	✓	✓	✓	✓	✓	✓*4						
Component	1080p	✓	✓	✓*4*5					✓					
	1080i	✓	✓	✓*5	✓*4*5	✓				✓				
	720p	✓	✓	✓*5	✓*5	✓*4*5				✓	✓			
	480p/576p	✓	✓	✓*5	✓*5	✓*5	✓*4*5			✓*6	✓*6	✓		
	480i/576i	✓	✓	✓*5	✓*5	✓*5	✓*4*5	✓*5		✓*6	✓*6	✓	✓	
Composite	480i/576i	✓	✓	✓*5	✓*5	✓*5	✓*4*5	✓*5		✓*6	✓*6	✓	✓	✓
PC IN (Analog RGB)*1*3		✓	✓	✓*5	✓*5	✓*5	✓*5			✓*7	✓*7	✓*7		

\*1 Available resolutions: [640 × 480 60 Hz], [800 × 600 60 Hz], [1024 × 768 60 Hz], [1280 × 1024 60 Hz]

\*2 Supported resolutions: [3840 × 2160 24/25/30 Hz], [4096 × 2160 24 Hz]

\*3 When video signals of personal computers connected to **PC IN** are output from **HDMI OUT SUB**, they may not display properly on some TVs.

\*4 Supported resolutions for **HDMI OUT SUB** (“**Monitor Out**” = “**Sub**”).

\*5 Supported resolutions for **HDMI OUT SUB** (“**Monitor Out**” = “**Both**”).

\*6 The output is limited to 480p/576p for an effective signal in the effect of copy protect.

\*7 PC IN (Analog RGB) input signal is output at 720p resolution when you select “**Analog**” in the “**Monitor Out**” setting (→ page 59) and “**Through**” in the “**Resolution**” setting (→ page 59).

# Using an RIHD-compatible TV, Player, or Recorder

**RIHD**, which stands for Remote Interactive over HDMI, is the name of the system control function found on Integra/Onkyo components. The AV receiver can be used with CEC (Consumer Electronics Control), which allows system control over HDMI and is part of the HDMI standard. CEC provides interoperability between various components, however, operation with components other than **RIHD**-compatible components cannot be guaranteed.

## About RIHD-Compatible Components

The following components are **RIHD**-compatible (As of January 2012).

### ■ TV

- Toshiba TV
- Sharp TV

### ■ Players/Recorders

- Onkyo and Integra **RIHD**-compatible players
- Toshiba players and recorders
- Sharp players and recorders (only when used together with Sharp TV)

\* Models other than those mentioned above may have some interoperability if compatible with CEC, which is part of the HDMI Standard, but operation cannot be guaranteed.

### Note

- For proper linked operations, do not connect more **RIHD**-compatible components than the quantities specified below, to the HDMI input terminal.
  - Blu-ray Disc/DVD players: up to three.
  - Blu-ray Disc/DVD recorders/Digital Video Recorders: up to three.
  - Cable/Satellite Set-top boxes: up to four.
- Do not connect the AV receiver to another AV receiver/AV amplifier via HDMI.
- Proper linked operations are not guaranteed when more **RIHD**-compatible components than the above-mentioned quantities are connected.

## Operations that can be performed with RIHD connection

### ■ For RIHD-compatible TV

The following linked operations are enabled by connecting the AV receiver to an **RIHD**-compatible TV.

- The AV receiver will enter standby mode when the TV is set to standby.
- You can set on the menu screen of the TV to either output the audio from the speakers connected to the AV receiver, or from the speakers of the TV.
- It is possible to output the audio coming from the tuner or auxiliary input of your TV to the speakers of the AV receiver. (A connection such as an optical digital cable or similar is required in addition to the HDMI cable.)
- Input to the AV receiver can be selected with the remote controller of the TV.
- Operations such as volume adjustment or similar for the AV receiver can be performed from the remote controller of the TV.

### ■ For RIHD-compatible players/recorders

The following linked operations are enabled by connecting the AV receiver to an **RIHD**-compatible player/recorder.

- When playback is started on the player/recorder, AV receiver will switch to the HDMI input of the player/recorder that is playing back.
- Operation of the player/recorder is possible using the remote controller supplied with the AV receiver.

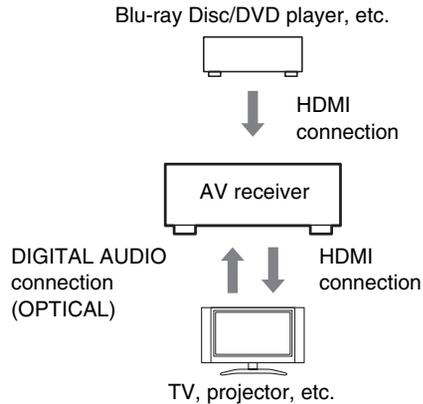
\* Depending on the model used, not all operations may be available.

↳ To be continued

## ■ How to connect and setup

### 1 Confirm the connection and settings.

1. Connect the **HDMI OUT MAIN** jack to the HDMI input jack of the TV.



2. Connect the audio output from the TV to the **OPTICAL IN 2** jack of the AV receiver using an optical digital cable.

#### Note

- When the audio return channel (ARC) function is used with an ARC capable TV, this connection is not necessary (→ [page 81](#)).
3. Connect the HDMI output of the Blu-ray Disc/DVD player/recorder to the **HDMI IN 1** jack of the AV receiver.

#### Note

- It is necessary to assign the HDMI input when connecting the Blu-ray Disc/DVD player/recorder to other jacks (→ [page 60](#)). Do not assign an HDMI IN to the TV/CD selector at this time, otherwise appropriate CEC (Consumer Electronics Control) operation will not be guaranteed.

### 2 Change each item in the “HDMI” menu according to the following settings:

- **HDMI Control(RIHD): On**
- **Audio Return Channel (ARC): Auto**

See details of each setting (→ [pages 80, 81](#)).

### 3 Confirm the settings.

1. Turn on the power for all connected components.
2. Turn off the power of the TV, and confirm that the power of the connected components is turned off automatically with the link operation.
3. Turn on the power of the Blu-ray Disc/DVD player/recorder.
4. Start playback on the Blu-ray Disc/DVD player/recorder, and verify the following:
  - The AV receiver automatically turns on, and selects the input to which the Blu-ray Disc/DVD player/recorder is connected.
  - The TV automatically turns on, and selects the input to which the AV receiver is connected.
5. Following the operating instructions of the TV, select “Use the TV speakers” from the menu screen of the TV, and confirm that the audio is output from the speakers of the TV, and not from the speakers connected to the AV receiver.
6. Select “Use the speakers connected from the AV receiver” from the menu screen of the TV, and confirm that the audio is output from the speakers connected to the AV receiver, and not from the TV speakers.

#### Note

- Perform the above operations when you use the AV receiver for the first time, when the settings of each component are changed, when the main power of each component is turned off, when the power cable is disconnected from the power supply, or when there has been a power outage.

### 4 Operate with the remote controller.

For buttons that can be operated (→ [page 94](#)).

#### Note

- Audio from DVD-Audio or Super Audio CD may not output from the TV speakers. You will be able to output the audio from the TV speakers by setting the audio output of the DVD player to 2ch PCM. (It may not be possible depending on the player models.)
- Even if you set to output audio on the TV speakers, audio will be output from the speakers connected to the AV receiver when you adjust the volume or switch the input on the AV receiver. To output audio from the TV speakers, redo the corresponding operations on the TV.
- In case of an **RIHD** connection with **RI** and **RI** audio control compatible components, do not connect the **RI** cable at the same time.
- On the TV, when you select anything other than the HDMI jack to which the AV receiver is connected, the input on the AV receiver will be switched to “TV/CD”.
- The AV receiver will automatically power on in conjunction when it determines it to be necessary. Even if the AV receiver is connected to an **RIHD** compatible TV or player/recorder, it will not power on if it is not necessary. It may not power on in conjunction when the TV is set to output audio from the TV.
- Linked functions with the AV receiver may not work depending on the component model connected. In such cases, operate the AV receiver directly.

# About HDMI

Designed to meet the increased demands of digital TV, HDMI (High Definition Multimedia Interface) is a new digital interface standard for connecting TVs, projectors, Blu-ray Disc/DVD players, set-top boxes, and other video components. Until now, several separate video and audio cables have been required to connect AV components.

With HDMI, a single cable can carry control signals, digital video, and up to eight channels of digital audio (2-channel PCM, multichannel digital audio, and multichannel PCM).

The HDMI video stream (i.e., video signal) is compatible with DVI (Digital Visual Interface)\*1, so TVs and displays with a DVI input can be connected by using an HDMI-to-DVI adapter cable. (This may not work with some TVs and displays, resulting in no picture.)

The AV receiver uses HDCP (High-bandwidth Digital Content Protection)\*2, so only HDCP-compatible components can display the picture.

The AV receiver's HDMI interface is based on the following:

Audio Return Channel, 3D, x.v.Color, DeepColor, Lip Sync, DTS-HD Master Audio, DTS-HD High Resolution Audio, Dolby TrueHD, Dolby Digital Plus, DSD and Multichannel PCM.

## Supported Audio Formats

- 2-channel linear PCM (32–192 kHz, 16/20/24 bit)
- Multichannel linear PCM (up to 7.1 ch, 32–192 kHz, 16/20/24 bit)
- Bitstream (DSD, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, DTS, DTS-HD High Resolution Audio, DTS-HD Master Audio)

Your Blu-ray Disc/DVD player must also support the HDMI output of the above audio formats.

## About Copyright Protection

The AV receiver supports HDCP (High-bandwidth Digital Content Protection)\*2, a copy-protection system for digital video signals. Other devices connected to the AV receiver via HDMI must also support HDCP.

\*1 DVI (Digital Visual Interface): The digital display interface standard set by the DDWG\*3 in 1999.

\*2 HDCP (High-bandwidth Digital Content Protection): The video encryption technology developed by Intel for HDMI/DVI. It's designed to protect video content and requires a HDCP-compatible device to display the encrypted video.

\*3 DDWG (Digital Display Working Group): Lead by Intel, Compaq, Fujitsu, Hewlett Packard, IBM, NEC, and Silicon Image, this open industry group's objective is to address the industry's requirements for a digital connectivity specification for high-performance PCs and digital displays.

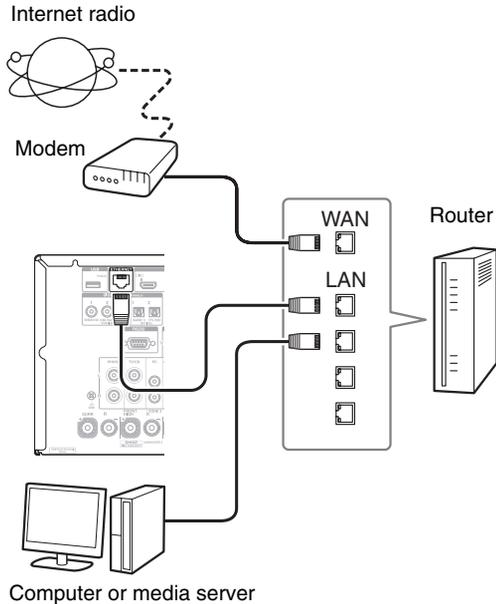
### Note

- The HDMI video stream is compatible with DVI (Digital Visual Interface), so TVs and displays with a DVI input can be connected by using an HDMI-to-DVI adapter cable. (Note that DVI connections only carry video, so you'll need to make a separate connection for audio.) However, reliable operation with such an adapter is not guaranteed. In addition, video signals from a PC are not supported.
- The HDMI audio signal (sampling rate, bit length, etc.) may be restricted by the connected source component. If the picture is poor or there's no sound from a component connected via HDMI, check its setup. Refer to the connected component's instruction manual for details.

# Network/USB Features

## Connecting to the Network

The following diagram shows how you can connect the AV receiver to your home network. In this example, it's connected to a LAN port on a router, which has a 4-port 100Base-TX switch built-in.



## Network Requirements

### ■ Ethernet Network

For the best results, a 100Base-TX switched Ethernet network is recommended. Although it's possible to play music on a computer that's connected to the network wirelessly, playback may be unreliable, so it is recommended to use wired connections.

### ■ Ethernet Router

A router manages the network, data-routing and supplying of IP addresses. Your router must support the following:

- NAT (Network Address Translation). NAT allows several networked computers to access the Internet simultaneously via a single Internet connection. The AV receiver needs Internet access for Internet radio.
- DHCP (Dynamic Host Configuration Protocol). DHCP supplies IP addresses to the network devices, allowing them to configure themselves automatically.
- A router with a built-in 100Base-TX switch is recommended.

Some routers have a built-in modem, and some Internet Service Providers (ISP) require you to use specific routers. Please consult your ISP or computer dealer if you're unsure.

### ■ CAT5 Ethernet cable

Use a shielded CAT5 Ethernet cable (straight-type) to connect the AV receiver to your home network.

### ■ Internet Access (for Internet radio)

To receive Internet radio, your Ethernet network must have Internet access. A narrowband Internet connection (e.g., 56K modem, ISDN) will not provide satisfactory results, so a broadband connection is strongly recommended (e.g., cable modem, xDSL modem, etc.). Please consult your ISP or computer dealer if you're unsure.

#### Note

- To receive Internet radio with the AV receiver, your broadband Internet connection must be working and able to access the Web.

Consult your ISP if you have any problems with your Internet connection.

- The AV receiver uses DHCP to configure its network settings automatically. If you want to configure these settings manually, see "Network" (→ page 82).
- The AV receiver does not support PPPoE settings, so if you have a PPPoE-type Internet connection, you must use a PPPoE-compatible router.
- Depending on your ISP, you may need to specify a proxy server to use Internet radio. If your computer is configured to use a proxy server, use the same settings for the AV receiver (→ page 82).

## Server Requirements

### ■ Server playback

The AV receiver can play digital music files stored on a computer or media server and supports the following technologies:

- Windows Media Player 11
- Windows Media Player 12
- Windows Media Connect 2.0
- DLNA-certified media server

If the operating system of your computer is Windows Vista, Windows Media Player 11 is already installed. Windows Media Player 11 for Windows XP can be downloaded for free from the Microsoft web site.

- The computer or media server must be on the same network as the AV receiver.
- Up to 20,000 folders can be displayed, and folders may be nested up to 16 levels deep.

#### Note

- Depending on the media server, the AV receiver may not recognize it, or may not be able to play its music files.

### Minimum system requirements for Windows Media Player 11 on Windows XP

#### Operating system

Windows XP Home Edition (SP2), Windows XP Professional (SP2), Windows XP Tablet PC Edition (SP2), Update Rollup 2 for Windows XP Media Center Edition 2005 (KB900325), October 2006 Update Rollup for Windows XP Media Center Edition (KB925766)

**Processor:** 233 MHz Intel Pentium II, Advanced Micro Devices (AMD), etc.

**Memory:** 64 MB

**Hard disk:** 200 MB of free space

**Drive:** CD or DVD drive

**Modem:** 28.8 kbps

**Sound card:** 16-bit sound card

**Monitor:** Super VGA (800 x 600)

**Video card:** 64 MB VRAM, DirectX 9.0b

**Software:** Microsoft ActiveSync (only when using a Windows Mobile-based Pocket PC or smartphone)

**Web browser:** Microsoft Internet Explorer 6 or Netscape 7.1

#### ■ Remote playback

- Windows Media Player 12
- DLNA-certified (within DLNA Interoperability Guidelines version 1.5) media server or controller device.

The setting varies depending on the media server or controller devices. Refer to your devices' instruction manual for details.

If the operating system of your personal computer is Windows 7, Windows Media Player 12 is already installed.

For more information, see the Microsoft web site.

### USB Device Requirements

- USB mass storage device class (but not always guaranteed).
- FAT16 or FAT32 file system format.
- If the storage device has been partitioned, each section will be treated as an independent device.
- Up to 20,000 folders can be displayed, and folders may be nested up to 16 levels deep.
- USB hubs and USB devices with hub functions are not supported.

#### Note

- If the media you connect is not supported, the message “No Storage” will be displayed.
- If you connect a USB hard disk drive to the AV receiver's **USB** port, we recommend that you use its AC adapter to power it.
- The AV receiver supports USB MP3 players that support the USB Mass Storage Class standard, which allows USB devices to be connected to computers without the need for special drivers or software. Note that not all USB MP3 players support the USB Mass Storage Class standard. Refer to your USB MP3 player's instruction manual for details.
- Protected WMA music files on an MP3 player cannot be played.
- Onkyo accepts no responsibility whatsoever for the loss or damage to data stored on a USB device when that device is used with the AV receiver. We recommend that you back up your important music files beforehand.
- MP3 players containing music files that are managed with special music software are not supported.
- Operation is not guaranteed for all USB devices, which includes the ability to power them.
- Do not connect your USB device via a USB hub. The USB device must be connected directly to the AV receiver's **USB** port.
- If the USB device contains a lot of data, the AV receiver may take a while to read it.
- USB devices with security functions cannot be played.

### Supported Audio File Formats

For server playback and playback from a USB device, the AV receiver supports the following music file formats. Variable bit-rate (VBR) files are supported. However, playback times may not display correctly.

#### Note

- With remote playback, the AV receiver does not support the following music file formats: FLAC, Ogg Vorbis, DSD and Dolby TrueHD.
- In the case of server playback, the above-mentioned file formats may not be played depending on the server type.

#### ■ MP3 (.mp3 or .MP3)

- MP3 files must be MPEG-1/MPEG-2 Audio Layer 3 format with sampling rates of 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz and bitrates of between 8 kbps and 320 kbps. Incompatible files cannot be played.

#### ■ WMA (.wma or .WMA)

WMA stands for Windows Media Audio and is an audio compression technology developed by Microsoft Corporation. Audio can be encoded in WMA format by using Windows Media® Player.

- WMA files must have the copyright option turned off.
- Sampling rates of 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz, bitrates of between 5 kbps and 320 kbps, and WMA DRM are supported.
- WMA Pro/Voice formats are not supported.

#### ■ WMA Lossless (.wma or .WMA)

- Sampling rates of 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz are supported.
- Quantization bit: 16 bit, 24 bit

### ■ WAV (.wav or .WAV)

WAV files contain uncompressed PCM digital audio.

- Sampling rates of 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz, 64 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz are supported.
- Quantization bit: 8 bit, 16 bit, 24 bit

### ■ AAC

(.aac/.m4a/.mp4/.3gp/.3g2/.AAC/.M4A/.MP4/.3GP or .3G2)

AAC stands for MPEG-2/MPEG-4 Audio.

- Sampling rates of 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz, 64 kHz, 88.2 kHz, 96 kHz and bitrates of between 8 kbps and 320 kbps are supported.

### ■ FLAC (.flac or .FLAC)

FLAC is a file format for lossless audio data compression.

- Sampling rates of 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz, 64 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz are supported.
- Quantization bit: 8 bit, 16 bit, 24 bit

### ■ Ogg Vorbis (.ogg or .OGG)

- Sampling rates of 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz and bitrates of between 48 kbps and 500 kbps are supported. Incompatible files cannot be played.

### ■ LPCM (Linear PCM)

- Sampling rates of 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz, 64 kHz, 88.2 kHz and 96 kHz are supported.
- Quantization bit: 8 bit, 16 bit, 24 bit
- \* Only for playback via network.

### ■ Apple Lossless (.m4a/.mp4/.M4A/.MP4)

- Sampling rates of 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz, 64 kHz, 88.2 kHz and 96 kHz are supported.
- Quantization bit: 16 bit, 24 bit

### ■ DSD (.dsf or .DSF)

- The sampling rate of 2.8224 MHz is supported.

### ■ Dolby TrueHD (.vr/.mlp/.VR/.MLP)

- Sampling rates of 48 kHz, 64 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz are supported.

## About DLNA

The Digital Living Network Alliance is an international, cross-industry collaboration. Members of DLNA develop a concept of wired and wireless interoperable networks where digital content such as photos, music, and videos can be shared through consumer electronics, personal computers, and mobile devices in and beyond the home.

The AV receiver complies with the DLNA Interoperability Guidelines version 1.5.

## License and Trademark Information

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#### THX Ultra2 Plus

Before any home theater component can be THX Ultra2 Plus certified, it must pass a rigorous series of quality and performance tests. Only then can a product feature the THX Ultra2 Plus logo, which is your guarantee that the Home Theater products you purchase will give you superb performance for many years to come. THX Ultra2 Plus requirements define hundreds of parameters, including power amplifier performance, and pre-amplifier performance and operation for both digital and analog domains. THX Ultra2 Plus receivers also feature proprietary THX technologies (e.g., THX Mode) which accurately translate movie soundtracks for home theater playback.

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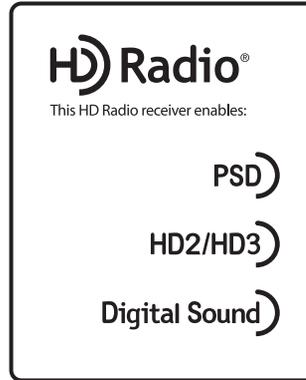
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# Specifications

## Amplifier Section

<b>Rated Output Power</b> All channels:	(North American) <b>140 watts minimum continuous power per channel, 8 ohm loads, 2 channels driven from 20 Hz to 20 kHz, with a maximum total harmonic distortion of 0.05% (FTC)</b> (Australian) 9 ch × 200 W at 6 ohms, 1 kHz, 1 ch driven of 1% (IEC)
<b>Maximum Effective Output Power</b>	(Australian) 9 ch × 250 W at 6 ohms, 1 kHz, 1 ch driven (JEITA)
<b>Dynamic Power*</b> * IEC60268-Short-term maximum output power	320 W (3 Ω, Front) 270 W (4 Ω, Front) 160 W (8 Ω, Front)
<b>THD+N (Total Harmonic Distortion+Noise)</b>	0.05% (20 Hz - 20 kHz, half power)
<b>Damping Factor</b>	60 (Front, 1 kHz, 8 Ω)
<b>Input Sensitivity and Impedance (Unbalance)</b>	200 mV/47 kΩ (LINE) 2.5 mV/47 kΩ (PHONO MM)
<b>Rated RCA Output Level and Impedance</b>	1 V/470 Ω (PRE OUT)
<b>Maximum RCA Output Level and Impedance</b>	5.5 V/470 Ω (PRE OUT)
<b>Phono Overload</b>	70 mV (MM 1 kHz 0.5% Direct)
<b>Frequency Response</b>	5 Hz - 100 kHz/+1 dB, -3 dB (LINE)
<b>Tone Control Characteristics</b>	±10 dB, 50 Hz (BASS) ±10 dB, 20 kHz (TREBLE)
<b>Signal to Noise Ratio</b>	110 dB (LINE, IHF-A) 80 dB (PHONO MM, IHF-A)
<b>Speaker Impedance</b>	4 Ω - 16 Ω

## Video Section

<b>Input Sensitivity/Output Level and Impedance</b>	1 V <sub>p-p</sub> /75 Ω (Component Y) 0.7 V <sub>p-p</sub> /75 Ω (Component Pb/Cb, Pr/Cr) 1 V <sub>p-p</sub> /75 Ω (Composite)
<b>Component Video Frequency Response</b>	5 Hz - 100 MHz/+0 dB, -3 dB

## Tuner Section

<b>FM Tuning Frequency Range</b>	(North American) 87.5 MHz - 107.9 MHz (Australian) 87.5 MHz - 108.0 MHz, RDS
<b>AM Tuning Frequency Range</b>	522/530 kHz - 1611/1710 kHz
<b>Preset Channel</b>	40
<b>Digital Tuner</b>	(North American) HD Radio

## General

<b>Power Supply</b>	(North American) AC 120 V, 60 Hz (Australian) AC 220 - 240 V, 50/60 Hz
<b>Power Consumption</b>	(North American) 11.0 A (Australian) 1015 W
<b>No-sound Power Consumption</b>	(North American) 150 W (Australian) 145W
<b>Stand-by Power Consumption</b>	(North American) 0.10 W (Australian) 0.15 W
<b>Dimensions (W × H × D)</b>	435 mm × 198.5 mm × 455.0 mm 17-1/8" × 7-13/16" × 17-15/16"
<b>Weight</b>	24.5 kg (54.0 lbs.)
<b>■ HDMI</b>	
<b>Input</b>	IN 1, IN 2, IN 3, IN 4, IN 5, IN 6, IN 7, IN 8, AUX INPUT
<b>Output</b>	OUT MAIN, OUT SUB/ZONE 2 OUT
<b>Video Resolution</b>	1080p
<b>Audio Format</b>	Dolby TrueHD, DTS-HD Master Audio, DVD-Audio, DSD

<b>Supported</b>	3D, Audio Return Channel, DeepColor, x.v.Color, Lip Sync, CEC (RIHD), HDMI ZONE 2
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## ■ Video Inputs

<b>Component</b>	IN 1, IN 2
<b>Composite</b>	IN 1, IN 2, IN 3, IN 4, AUX
<b>Analog RGB</b>	PC IN

## ■ Video Outputs

<b>Component</b>	MONITOR OUT
<b>Composite</b>	MONITOR OUT, ZONE 2 OUT

## ■ Audio Inputs

<b>Digital</b>	Optical: 2 (Rear), 1(Front) Coaxial: 3
<b>Analog</b>	BD/DVD, CBL/SAT, STB/DVR, GAME 1, PC, TV/CD, PHONO, AUX

## ■ Audio Outputs

<b>Analog</b>	PREOUT, ZONE 2 PRE/LINE OUT, ZONE 3 PRE/LINE OUT, ZONE 4 PRE/LINE OUT
<b>Analog Multichannel Pre Outputs</b>	11
<b>Subwoofer Pre Outputs</b>	4, ZONE 2 SW, ZONE 3 SW, ZONE 4 SW
<b>Speaker Outputs</b>	Main [L, R, C, SL, SR, SBL/Z4L, SBR/Z4R] + Front Wide/ZONE 2 (L, R) + Front High/ZONE 3 (L, R)/Passive SW
<b>Phones</b>	1 (6.3 ø)

## ■ Others

<b>Setup Mic</b>	1
<b>RS232</b>	1
<b>RI</b>	1
<b>USB</b>	1 (Front)/1 (Rear)
<b>Ethernet</b>	1
<b>IR Input</b>	2
<b>IR Output</b>	1
<b>12 V Trigger Out</b>	3

Specifications and features are subject to change without notice.

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