

ONKYO

AV RECEIVER

HT-R2295

Instruction Manual

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Made for



iPod



iPhone

En

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.



WARNING
RISK OF ELECTRIC SHOCK
DO NOT OPEN

AVIS
RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR



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.



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.

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.
The temperature protection operates if the apparatus attain an abnormal high temperature.
The apparatus cannot operate until it has cooled down.

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 your Onkyo dealer.
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 your Onkyo dealer.

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 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 17](#))

AM loop antenna (→ [page 17](#))

Speaker cable labels (→ [page 12](#))

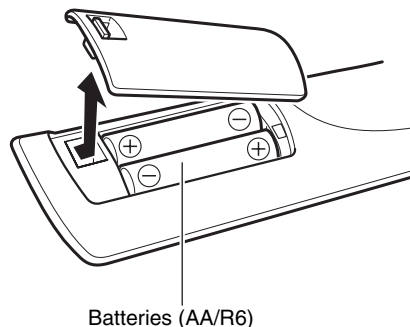
Speaker setup microphone (→ [page 25](#))

Remote controller (RC-863M) and two batteries (AA/R6)

Quick Start Guide

* 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

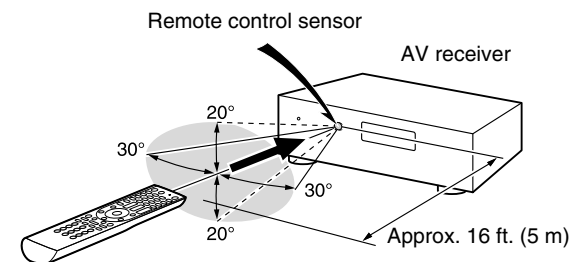


Note

- 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 Onkyo 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 VCR/DVR, press  ON/STANDBY (→ [page 56](#)).



Features

Amplifier

- 80 Watts/Channel @ 8 ohms (FTC)
- Optimum Gain Volume Circuitry
- H.C.P.S. (High Current Power Supply) Massive High Power Transformer

Processing

- 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 Pro Logic IIz
- 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

Connections

- 4 HDMI Inputs and 1 Output
 - Onkyo **RIHD** for System Control
 - 3 Digital Inputs (1 Optical/2 Coaxial)
 - Component Video Switching (2 Inputs/1 Output)
 - Banana Plug-Compatible Speaker Posts
 - Powered Zone 2
 - Front-Panel USB Input for Memory Devices and iPod®/iPhone® models
- * USB input is compatible with iPod/iPhone and Onkyo Bluetooth adapter UBT-1.

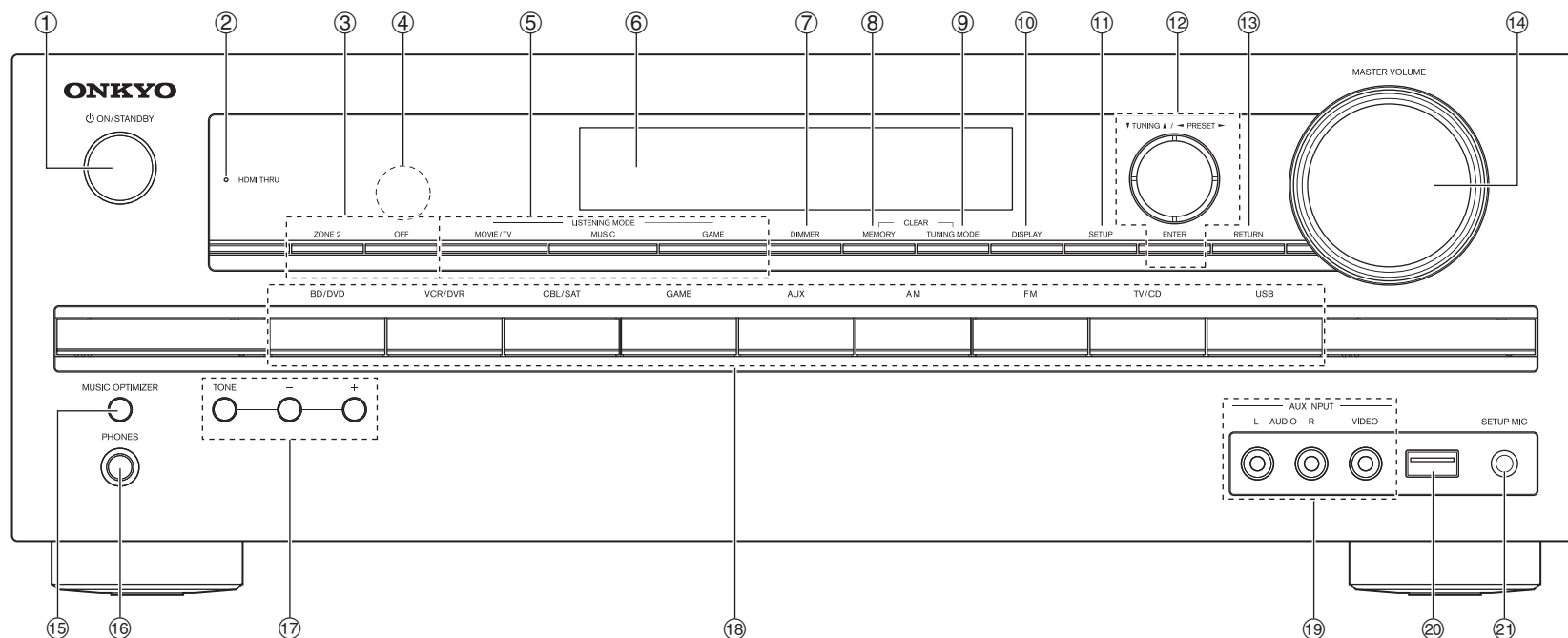
Miscellaneous

- 40 FM/AM Presets
- Audyssey 2EQ® to correct room acoustic problems
- Audyssey Dynamic EQ® for loudness correction
- Audyssey Dynamic Volume® to maintain optimal listening level and dynamic range
- Crossover Adjustment (40/50/60/70/80/90/100/120/150/200 Hz)
- A/V Sync Control Function (up to 400 ms)
- Auto Standby Function
- On-Screen Display via HDMI



Front & Rear Panels

Front Panel



For detailed information, see the pages in parentheses.

① **ON/STANDBY button (18)**

② **HDMI THRU indicator (45)**

③ **ZONE 2, OFF buttons (49)**

④ **Remote control sensor (4)**

⑤ **LISTENING MODE buttons (28)**

⑥ **Display (8)**

⑦ **DIMMER button (33)**

⑧ **MEMORY button (24)**

⑨ **TUNING MODE button (23)**

⑩ **DISPLAY button (34)**

⑪ **SETUP button (35)**

⑫ **TUNING ▲/▼, PRESET ◀/▶ (23), cursor and ENTER buttons**

⑬ **RETURN button**

⑭ **MASTER VOLUME control (19)**

⑮ **MUSIC OPTIMIZER button (34, 47)**

⑯ **PHONES jack (34)**

⑰ **TONE and Tone Level buttons (46)**

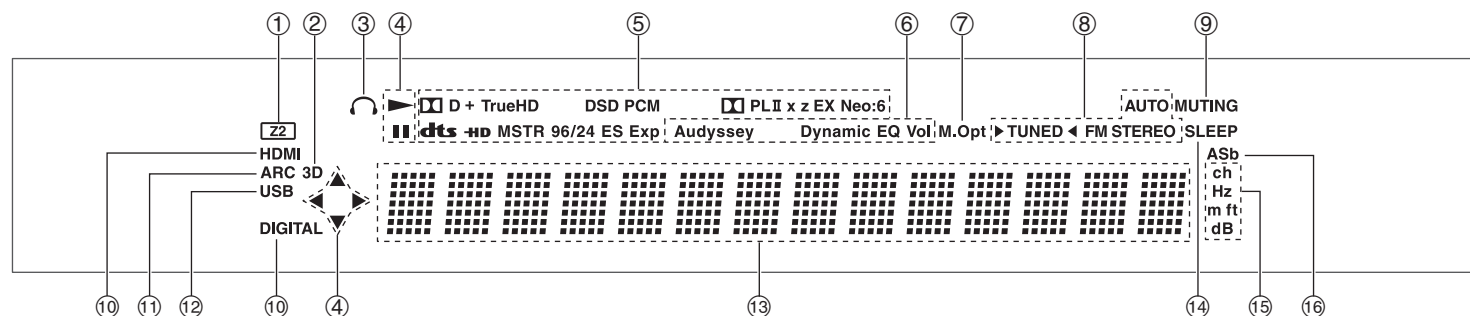
⑱ **Input selector buttons (19)**

⑲ **AUX INPUT AUDIO and VIDEO jacks (15)**

⑳ **USB port (15, 21, 22)**

㉑ **SETUP MIC jack (25)**

Display

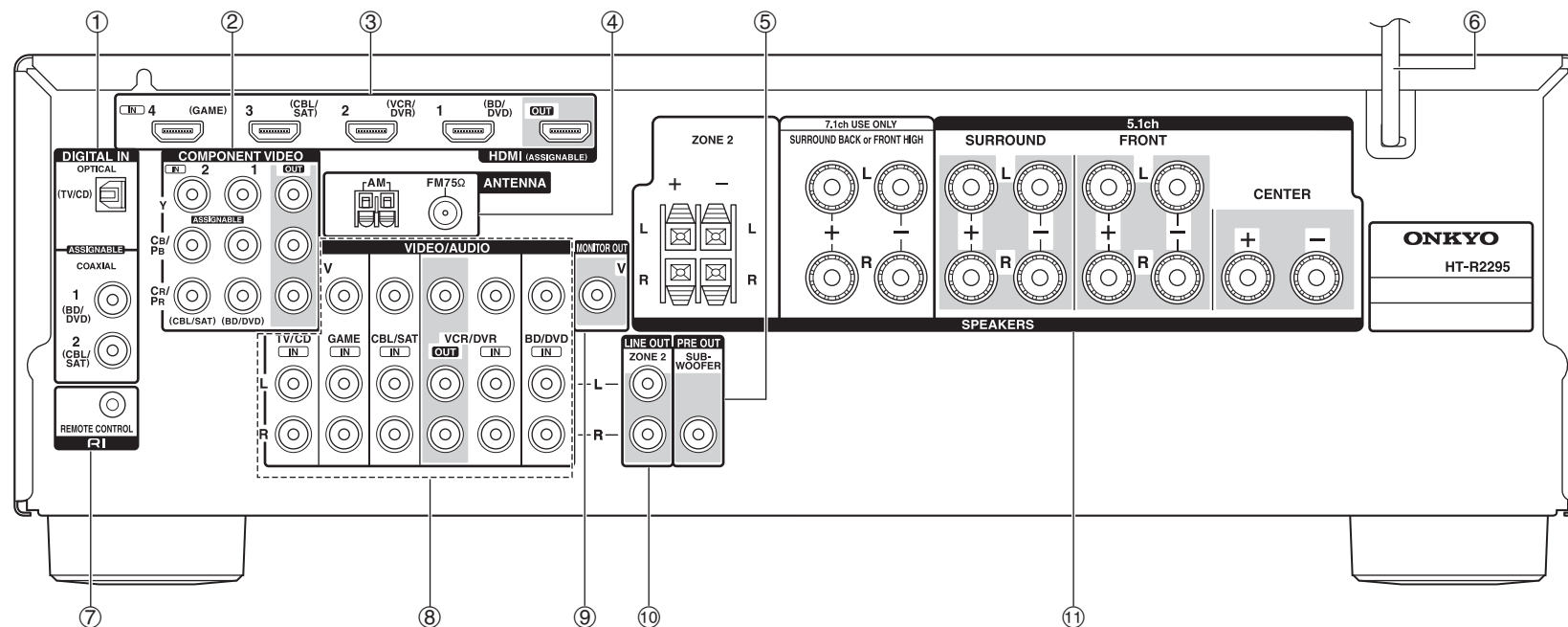


For detailed information, see the pages in parentheses.

- ① **Z2 (Zone 2) indicator** (49)
- ② **3D indicator**
This lights when a 3D input signal is detected.
- ③ **Headphone indicator** (34)
- ④ **►, || and cursor indicators** (22)
- ⑤ **Listening mode and format indicators** (28, 43)
- ⑥ **Audyssey indicator** (25, 41)
Dynamic EQ indicator (42)
Dynamic Vol indicator (42)
- ⑦ **M.Opt (Music Optimizer) indicator** (34, 47)
- ⑧ **Tuning indicators**
AUTO indicator (23)
TUNED indicator (23)
FM STEREO indicator (23)
- ⑨ **MUTING indicator** (33)
- ⑩ **Input indicators** (61)
HDMI indicator (45, 61)
DIGITAL indicator
- ⑪ **ARC (Audio Return Channel) indicator** (46)
- ⑫ **USB indicator** (21, 22)
- ⑬ **Message area**
- ⑭ **SLEEP indicator** (33)
- ⑮ **Channel/Unit indicators**
ch indicator
Hz indicator
m/ft indicator
dB indicator
- ⑯ **ASb (Auto Standby) indicator** (44)



Rear Panel



- ① DIGITAL IN COAXIAL and OPTICAL jacks
- ② COMPONENT VIDEO IN and OUT jacks
- ③ HDMI IN and OUT jacks
- ④ FM ANTENNA jack and AM ANTENNA terminal
- ⑤ SUBWOOFER PRE OUT jack

- ⑥ Power cord
- ⑦ RI REMOTE CONTROL jack
- ⑧ Composite video and analog audio jacks
(BD/DVD IN, VCR/DVR IN and OUT, CBL/SAT IN,
GAME IN, TV/CD IN)

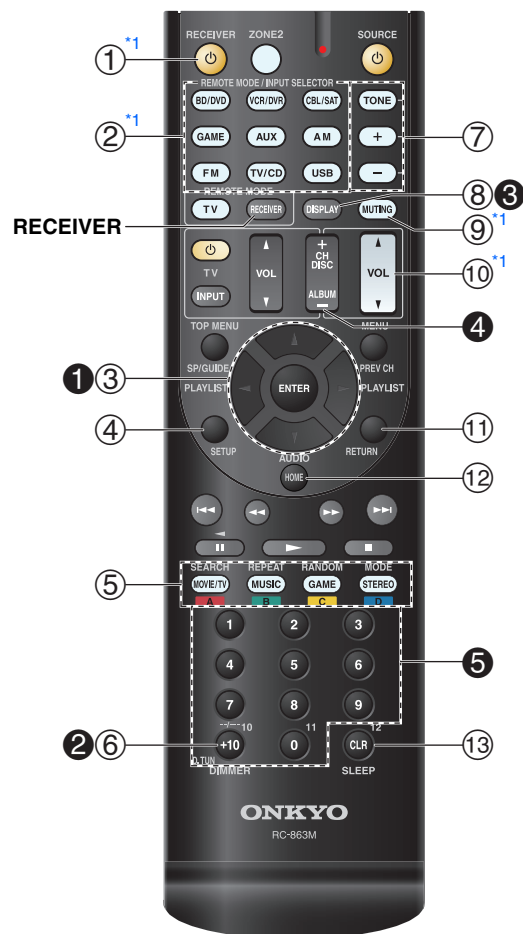
- ⑨ MONITOR OUT V jack
- ⑩ ZONE 2 LINE OUT jacks
- ⑪ SPEAKERS terminals
(CENTER, FRONT, SURROUND, SURROUND
BACK or FRONT HIGH, ZONE 2)

See “Connecting the AV Receiver” for connection
(→ [pages 11 to 17](#)).



Remote Controller

Controlling the AV Receiver



To control the AV receiver, press **RECEIVER** to select Receiver mode.

You can also use the remote controller to control Onkyo Blu-ray Disc/DVD player, CD player, and other components.

See “Entering Remote Control Codes” for more details (→ [page 52](#)).

For detailed information, see the pages in parentheses.

- ① **Power button (18)**
- ② **REMOTE MODE/INPUT SELECTOR buttons (19)**
- ③ **▲/▼/◀/▶ and ENTER buttons**
- ④ **SETUP button (35)**
- ⑤ **Listening Mode buttons (28)**
- ⑥ **DIMMER button (33)**
- ⑦ **TONE and Tone Level buttons (46)**
- ⑧ **DISPLAY button (34)**
- ⑨ **MUTE button (33)**
- ⑩ **VOL ▲/▼ button (19)**
- ⑪ **RETURN button**
- ⑫ **HOME button (33)**
- ⑬ **SLEEP button (33)**

Controlling the tuner

To control the AV receiver's tuner, press **AM** or **FM** (or **RECEIVER**).

- ① **▲/▼ buttons (23)**
- ② **D.TUN button (23)**
- ③ **DISPLAY button**
- ④ **CH +/- button (24)**
- ⑤ **Number buttons (23)**

*1 These buttons can also be used when a **REMOTE MODE** other than Receiver mode is selected.

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, a powered subwoofer is 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 25](#)) or manually (→ [page 38](#)).

Number of speakers	2	3	4	5	6	7	7
Front speakers	✓	✓	✓	✓	✓	✓	✓
Center speaker		✓		✓	✓	✓	✓
Surround speakers			✓	✓	✓	✓	✓
Surround back speaker*1*2					✓		
Surround back speakers*2						✓	
Front high speakers*2							✓

*1 If you're using only one surround back speaker, connect it to the **SURROUND BACK or FRONT HIGH L** terminals.

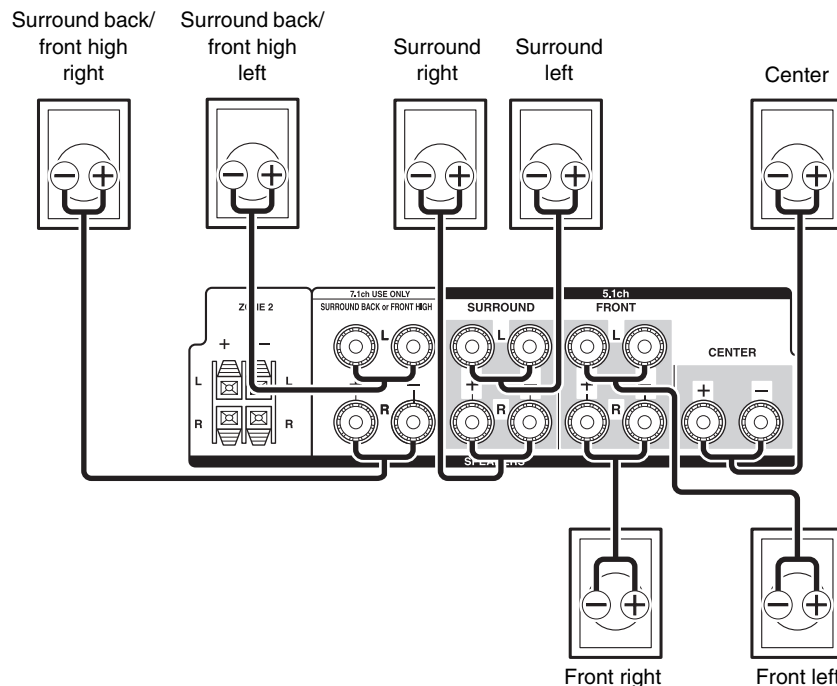
*2 Front high and surround back speakers cannot be used at the same time.

Connecting the Speaker Cables

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 **SURROUND BACK or FRONT HIGH L** terminals.

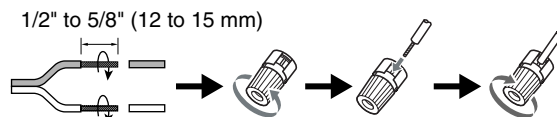
Tip

- You can specify whether surround back or front high speakers are connected in the "4. Sp Config (Speaker Configuration)" menu (→ [page 38](#)) or during Audyssey 2EQ® Room Correction and Speaker Setup (→ [page 25](#)).



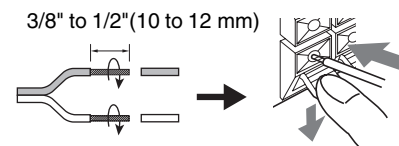
■ Screw-type speaker terminals

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 (Supplied speaker cables are already stripped).



■ Push-type speaker terminals

Strip 3/8" to 1/2" (10 to 12 mm) of insulation from the ends of the speaker cables, and twist the bare wires tightly, as shown.



■ Banana Plugs

- 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.

Connecting the Speaker Cables

The speaker terminals are color-coded for identification purpose.

Speaker	Color
Front left, Zone 2 left	White
Front right, Zone 2 right	Red
Center	Green
Surround left	Blue
Surround right	Gray
Surround back left, Front high left	Brown
Surround back right, Front high 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.

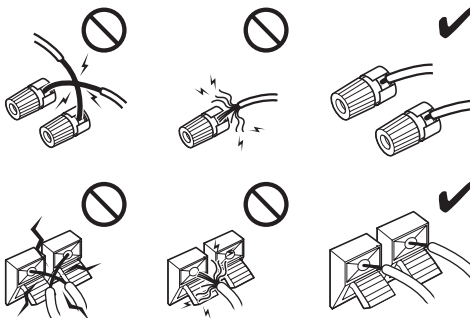


Speaker Connection Precautions

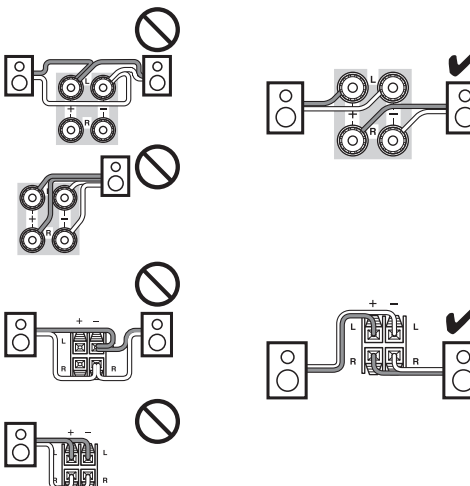
Read the following before connecting your speakers:

- You can connect speakers with an impedance of between 6 and 16 ohms. 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 amp 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.

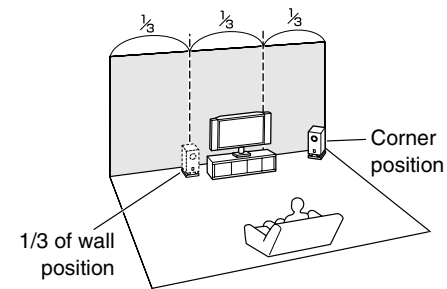
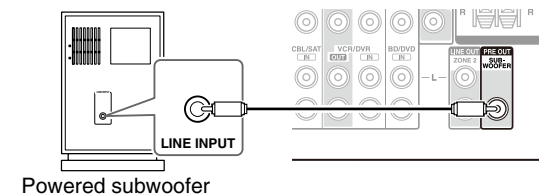
- Be careful not to short the positive and negative wires. Doing so may damage the AV receiver.
- Make sure the metal core of the wire does not have contact with the AV receiver's rear panel. Doing so may damage the AV receiver.



- 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 a Powered Subwoofer



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.

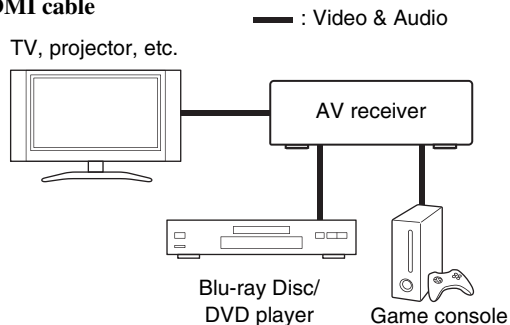
Tip

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

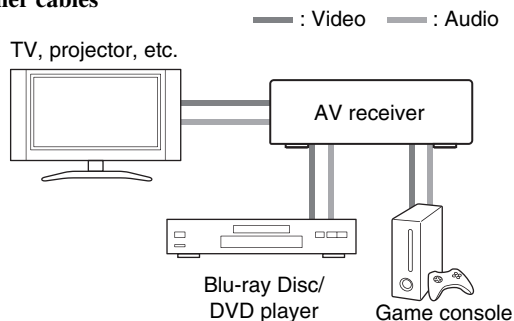
About AV Connections

Connecting AV components

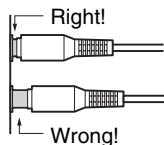
HDMI cable



Other cables



- 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

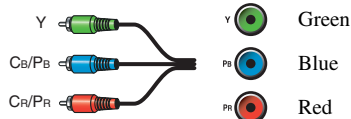
HDMI

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).



Composite video

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



Optical digital audio

Optical digital connections allow you to enjoy digital sound such as PCM^{*1}, 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^{*1}, Dolby Digital or DTS. The audio quality is the same as optical.



Analog audio (RCA)

Analog audio connections (RCA) carry analog audio.



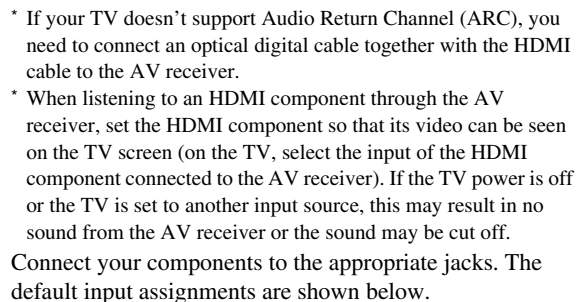
^{*1} For PCM signals, the supported sampling rates are 32/44.1/48/88.2/96 kHz. With HDMI connections, 176.4 and 192 kHz are also supported.

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.

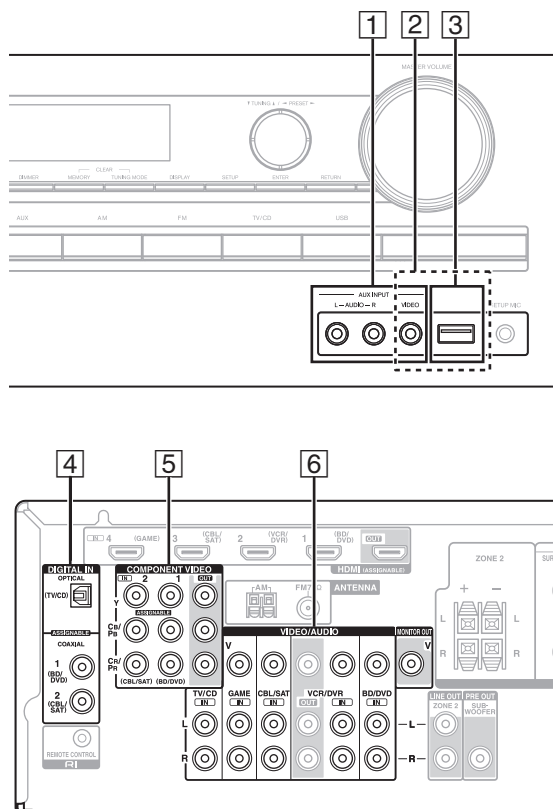


Jack	Components	
HDMI IN1	Blu-ray Disc/DVD player	✓
HDMI IN2	VCR or DVD recorder/digital video recorder	✓
HDMI IN3	Satellite/cable set-top box, etc.	✓
HDMI IN4	Game console	✓
HDMI OUT	TV, projector, etc.	

- 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.

- This function can be used when:
 - Your TV is ARC capable, and
 - The **TV/CD** input selector is selected, and
 - “**HDMI CEC (RIHD)**” is set to “**On**” (→ [page 45](#)), and
 - “**Audio Return Ch (ARC)**” is set to “**Auto**” (→ [page 46](#)).

Connecting Your Components



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 61](#)).

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

✓: Assignment can be changed (→ [pages 37, 38](#)).

No.	Jack/Port	Components	
1	AUX INPUT		
	VIDEO	Camcorder, etc.	
	AUDIO L/R		
2	USB, AUX INPUT VIDEO*1	iPod/iPhone (video playback)	
3	USB*2	iPod/iPhone, MP3 player, USB flash drive	
4	DIGITAL IN		
	OPTICAL (TV/CD)	TV, CD player	✓
	COAXIAL 1 (BD/DVD)	Blu-ray Disc/DVD player	✓
	COAXIAL 2 (CBL/SAT)	Satellite/cable set-top box, RI dock, etc.	✓
5	COMPONENT VIDEO		
	IN 1 (BD/DVD)	Blu-ray Disc/DVD player, RI dock	✓
	IN 2 (CBL/SAT)	Satellite/cable set-top box, RI dock, etc.	✓
	OUT	TV, projector, etc.	
6	MONITOR OUT	TV, projector, etc.	
	BD/DVD IN	Blu-ray Disc/DVD player	
	VCR/DVR IN	VCR, DVD recorder/digital video recorder, RI dock	
	CBL/SAT IN	Satellite/cable set-top box, etc.	
	GAME IN	Game console, RI dock	
	TV/CD IN	TV, CD player, cassette tape deck, MD, CD-R, Turntable*3, RI dock	

Note

- *1 When **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 the **MONITOR OUT** jack.
- *2 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.
- *3 Connect a turntable (MM) that has a phono preamp built-in. If your turntable (MM) doesn’t have it, you’ll need a commercially available phono preamp. If your turntable has a moving coil (MC) type cartridge, you’ll need a commercially available MC head amp or MC transformer as well as a phono preamp. See your turntable’s manual for details.
- With connection [4], you can enjoy Dolby Digital and DTS. (To record or listen the audio in Zone 2 as well, use [4] and [6].)
- With connection [6], you can listen to and record audio from external components while you are in Zone 2.
- With connection [6], if your Blu-ray Disc/DVD player has both the main stereo and multichannel outputs, be sure to connect to the main stereo.

■ How to record a video source

With the connections described above, you cannot record the videos through the AV receiver. See “Recording” about connections for video recording (→ [page 34](#)).

Connecting Onkyo RI Components

- 1 Make sure that each Onkyo component is connected with an analog audio cable (connection 6 in the hookup examples) (→ page 15).
- 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 34).

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

■ System On/Auto Power On

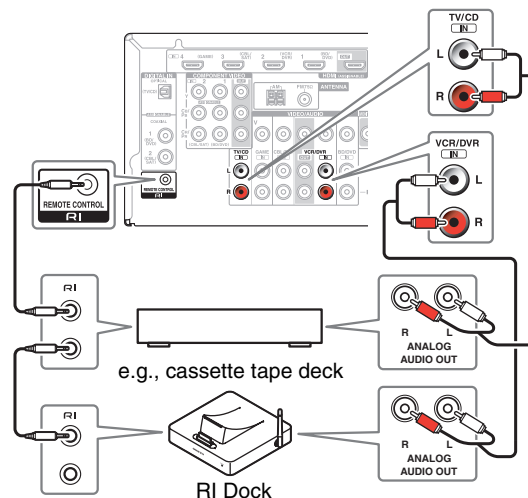
When you start playback on a component connected via **RI** while the AV receiver is on standby, the AV receiver will automatically turn on and select that component as the input source.

■ Direct Change

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

■ Remote Control

You can use the AV receiver's remote controller to control your other **RI**-capable 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 53).

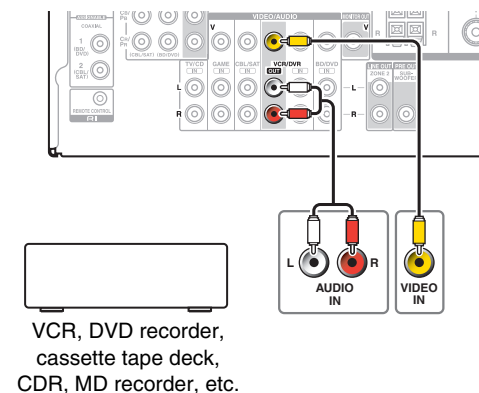


Note

- Use only **RI** cables for **RI** connections. **RI** cables are supplied with 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 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 other Onkyo components.
- While Zone 2 is on, the System On/Auto Power On and Direct Change **RI** functions do not work.

Connecting a Recording Component

See "Recording" for details on recording (→ page 34).

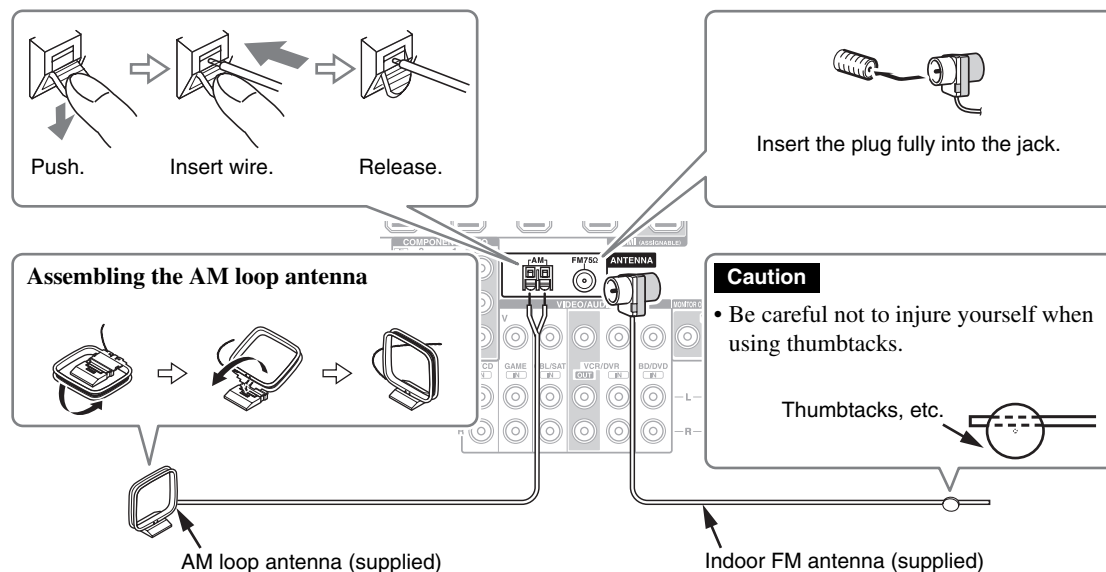


Note

- The AV receiver must be turned on for recording. Recording is not possible while it's in standby mode.
- If you want to record directly from your TV or playback VCR to the recording VCR without going through the AV receiver, connect the TV/VCR's audio and video outputs directly to the recording VCR's audio and video inputs. See the manuals supplied with your TV and VCR for details.
- Video signals connected to composite video inputs can be recorded only via composite video outputs. For example, if your TV/VCR is connected to a composite video input, the recording VCR must be connected to a composite video output.
- The surround sound and DSP listening modes cannot be recorded.
- Copy-protected Blu-ray Discs and DVDs cannot be recorded.
- Sources connected to a digital input cannot be recorded. Only analog inputs can be recorded.
- DTS signals will be recorded as noise, so don't attempt analog recording of DTS CDs or LDs.

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.



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.

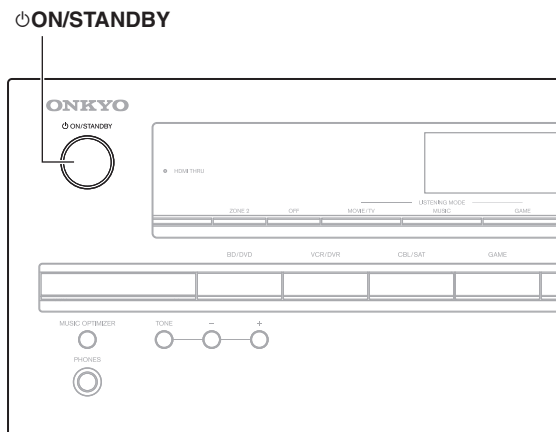
Connecting the Power Cord

1 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.

Turning On/Off the AV Receiver



Turning On

- 1 Press **ON/STANDBY** on the front panel.
or

Press **RECEIVER** followed by **ON** 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 **OFF** 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

- For details on power management settings, see “Auto Standby” ([→ page 44](#)).



Playback

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

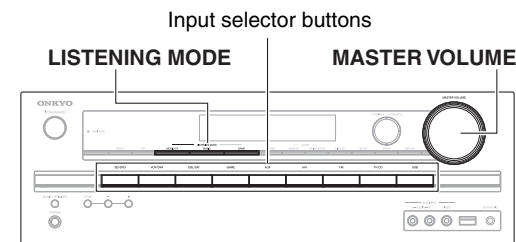
Playing the Connected Component

■ Operating with the remote controller



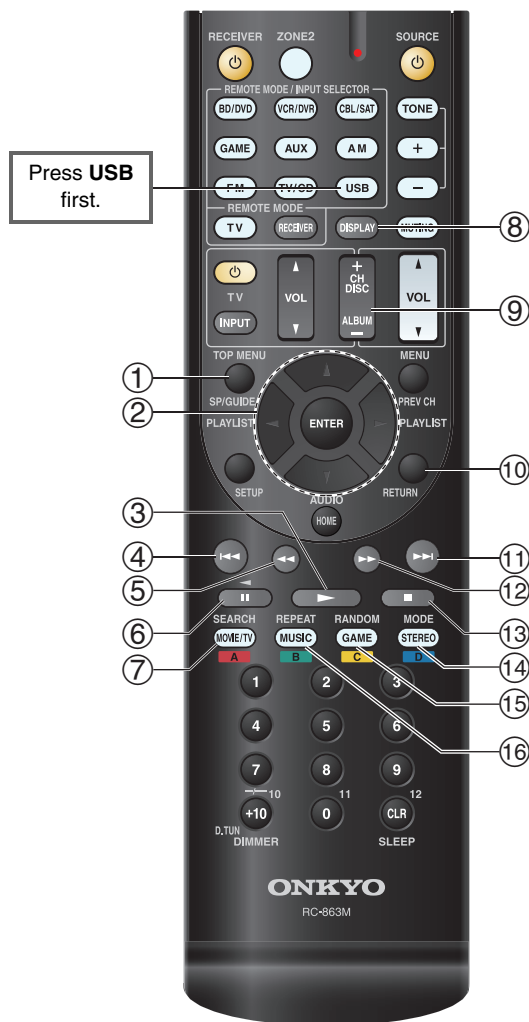
- 1** Press **RECEIVER** followed by an **INPUT SELECTOR** button.
- 2** Start playback on the source component.
See also:
 - “Playing an iPod/iPhone via USB” (→ [page 21](#))
 - “Playing a USB Device” (→ [page 22](#))
 - “Listening to AM/FM Radio” (→ [page 23](#))
 - “iPod/iPhone Playback via Onkyo Dock” (→ [page 50](#))
 - “Controlling Other Components” (→ [page 52](#))
- 3** To adjust the volume, use **VOL ▲/▼**.
- 4** Select a listening mode and enjoy!
See also:
 - “Using the Listening Modes” (→ [page 28](#))

■ 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!

Controlling Contents of USB Devices



- ① **TOP MENU**
This button displays the top menu for each media or service.
- ② **▲/▼ and ENTER**
These buttons navigate through the menus.
◀/▶
This button cycles through pages.
PLAYLIST ◀/▶
In Standard Mode (iPod/iPhone), this button selects playlists.
- ③ **▶**
This button starts playback.
- ④ **◀◀**
This button selects the beginning of the current song. Pressing this button twice selects the previous song.
- ⑤ **◀◀◀**
This button fast-reverses the current song.
- ⑥ **⏸**
This button pauses playback.
- ⑦ **SEARCH**
You can toggle between the playback screen and the list screen during playback.
- ⑧ **DISPLAY**
This button switches between song information.
- ⑨ **CH +/-**
In Standard Mode (iPod/iPhone), this button selects albums.
- ⑩ **RETURN**
This button returns to the previous menu.
- ⑪ **▶▶**
This button selects the next song.
- ⑫ **▶▶▶**
This button fast-forwards the current song.
- ⑬ **■**
This button stops playback.
- ⑭ **MODE**
You can switch between Standard Mode and Extended Mode.

- ⑮ **RANDOM**
This button performs random playback.
- ⑯ **REPEAT**
Press this button repeatedly to cycle through the repeat modes.

Tip

- See “Controlling Other Components” about the operation of other components (→ [page 52](#)).

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 menus appear only on a TV that is connected to the HDMI OUT.

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

Compatible iPod/iPhone models

Made for:

iPod touch (1st, 2nd, 3rd, 4th and 5th generation), iPod classic, iPod nano (2nd, 3rd, 4th, 5th, 6th and 7th generation), iPhone 5, iPhone 4S, iPhone 4, iPhone 3GS, iPhone 3G, iPhone

1 Press **USB** to select the “USB” input.

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.

A list of your iPod/iPhone model's contents appears (Extended Mode).

3 Use **▲/▼** to select a folder, and then press **ENTER** to open it.

Tip

- If you want to operate using the iPod/iPhone or the remote controller, press **MODE** 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, the AV receiver will start in Extended Mode the next time you connect the iPod/iPhone.
- You can also use the **▲/▼**, **ENTER** and **TUNING MODE** buttons on the front panel. **TUNING MODE** allows you to switch modes.
- When connecting your iPod/iPhone with a USB cable, we recommend you use an official USB cable from Apple Inc.

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.
- If you connect an iPod or iPhone to the **USB** port, no sound will be output from the headphones jack.

Extended Mode Control

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

Top screen list:

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

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 menus appear only on a TV that is connected to the **HDMI OUT**.

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

See also:

- “USB Features” (→ [page 65](#)).

1 Press **USB** to select the “USB” input.

2 Plug your USB device into the AV receiver’s **USB** port.

While reading the contents of your USB device, the message “**Connecting...**” appears on the AV receiver’s display.

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 AM/FM Radio

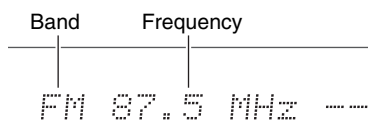
This section describes the procedure using the buttons on the front panel unless otherwise specified.

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 44](#)).

- 1 Press **AM** or **FM** to select either “AM” or “FM”.
In this example, FM has been selected.



(Actual display depends on the country.)

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 **AM** or **FM** 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

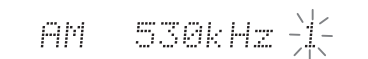
You can store a combination of up to 40 of your favorite AM/FM radio stations as presets.

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.

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.

Using Basic Functions

Using the Automatic Speaker Setup

With the supplied calibrated microphone, Audyssey 2EQ® 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 2EQ 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 2EQ can be used with Audyssey Dynamic EQ® and Audyssey Dynamic Volume® (→ [pages 41, 42](#)).

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

Audyssey 2EQ offers two ways of measuring: the “**Audyssey Quick Start**” and “**Audyssey 2EQ Full Calibration**”.

- “**Audyssey Quick Start**” uses the measurement from one position to perform the speaker setting only.
- “**Audyssey 2EQ Full Calibration**” uses the measurement from three 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 three positions to create the best listening environment.

The Quick Start takes 2 minutes and Full Calibration takes about 10 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 2EQ takes measurements at up to three 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.

① 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 2EQ uses the measurements from this position to calculate speaker distance, level, polarity, and the optimum crossover value for the subwoofer.

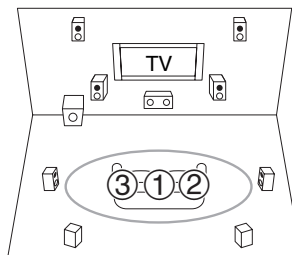
② Second measurement position

The right side of the listening area.

③ Third measurement position

The left side of the listening area.

The distances from position ① to ② and ① to ③ must be at least 1 meter (3.3 ft.).



○ : Listening area

① to ③: Listening position

Note

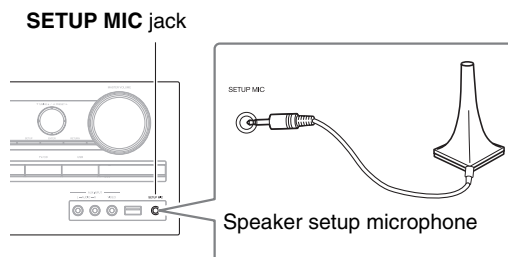
- Make the room as quiet as possible. Background noise and Radio Frequency Interference (RFI) can disrupt the room measurements. Close windows, televisions, radios, air conditioners, fluorescent lights, home appliances, light dimmers, or other devices. Turn off the cell phone (even if it is not in use) or place it away from all audio electronics.
- The microphone picks up test tones played through each speaker as Audyssey 2EQ Room Correction and Speaker Setup runs.
- Audyssey 2EQ 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.

Note

- Before plugging the Speaker setup microphone to perform Automatic Speaker Setup, please make sure that all your connected speakers and subwoofers produce sound.

- 2 Set the speaker setup microphone at the Main Listening Position ①, and connect it to the SETUP MIC jack.**



The speaker setting menu appears.

Note

- The on-screen menus appear only on a TV that is connected to the **HDMI OUT**. 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 "4. Sp Config (Speaker Configuration)" according to your speaker configuration:

- Powered Zone 2 (→ page 38)
- SurrBk/FrontHigh (→ page 38)
- Subwoofer (→ page 38)

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

- 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.

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.

- 5 Use ▲/▼ to select "Audyssey Quick Start" or "Audyssey 2EQ Full Calibration", and then press ENTER.**

- 6 Press ENTER.**

Audyssey 2EQ® Room Correction and Speaker Setup starts.

Test tones are played through each speaker as Audyssey 2EQ 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 2EQ Room Correction and Speaker Setup, unless you want to cancel the setup.

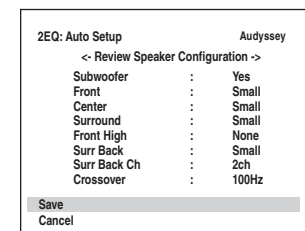
If you select "**Audyssey Quick Start**", you will go to step 9.

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

Audyssey 2EQ performs more measurements. This takes a few minutes.

- 8 When prompted, repeat step 7.**

- 9 Use ▲/▼ to select an option, and then press ENTER.**



The options are:

► **Save:**

Save the calculated settings and exit Audyssey 2EQ Room Correction and Speaker Setup.

► **Cancel:**

Cancel Audyssey 2EQ 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 2EQ have been saved, the menu will display the “Audyssey” (→ [page 41](#)), “Dynamic EQ” (→ [page 42](#)), “Dynamic Volume” (→ [page 42](#)) 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.

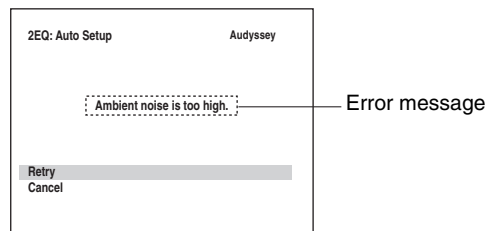
12 Disconnect the speaker setup microphone.

Note

- You can cancel Audyssey 2EQ 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 2EQ Room Correction and Speaker Setup.
- If the AV receiver is muted, it will be unmuted automatically when Audyssey 2EQ Room Correction and Speaker Setup starts.
- Changes to the room after Audyssey 2EQ Room Correction and Speaker Setup requires you run Audyssey 2EQ Room Correction and Speaker Setup again, as room EQ characteristics may have changed.

Error Messages

While Audyssey 2EQ® Room Correction and Speaker Setup is in progress, one of the error messages below may appear.



The options are:

► **Retry:**

Try again.

► **Cancel:**

Cancel Audyssey 2EQ 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 your Onkyo dealer.

• **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 2EQ Room Correction and Speaker Setup.

See also:

- “4. Sp Config (Speaker Configuration)” (→ [page 38](#))
- “5. Sp Distance (Speaker Distance)” (→ [page 39](#))
- “6. Level Cal (Level Calibration)” (→ [page 40](#))

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 2EQ Room Correction and Speaker Setup.

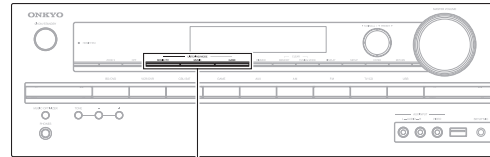
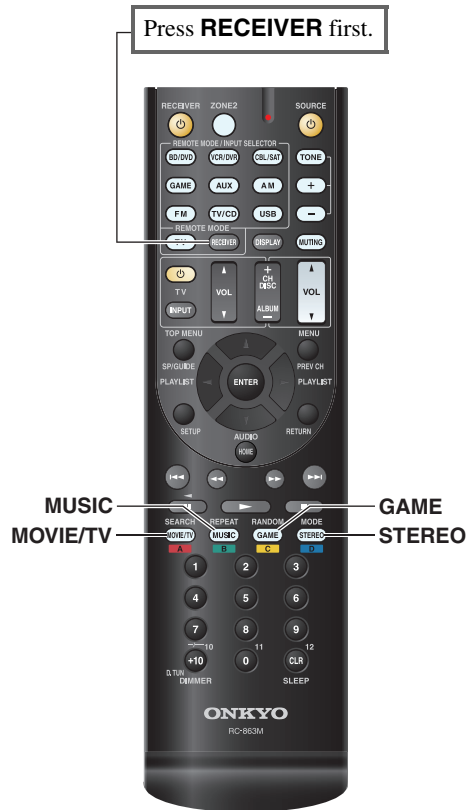
If the “**Subwoofer**” appears on the “**Review Speaker Configuration**” screen as “No”, increase the subwoofer’s volume to the half-way point, set it to its highest crossover frequency, and then try running Audyssey 2EQ Room Correction and Speaker Setup again. Note that if the volume is set too high 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 29](#)).

■ Listening Mode Buttons



MOVIE/TV, MUSIC, GAME

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.

STEREO button

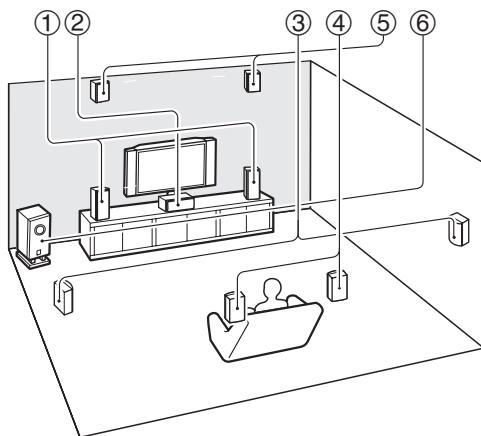
This button selects the Stereo listening mode and All Channel Stereo listening mode.

- 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 34](#)).
- While a pair of headphones is connected, you can select the following listening modes: Direct, Stereo, and Mono.

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 Front speakers
- ② Center speaker
- ③ Surround speakers
- ④ Surround back speakers
- ⑤ Front high speakers
- ⑥ Subwoofer

Input Source

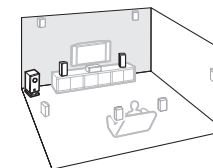
The following audio formats are supported by the listening mode.

MONO	This is mono (monophonic) sound.
STEREO	This is stereo (stereophonic) sound. Two independent audio signal channels are reproduced through two speakers.
5.1ch	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).
7.1ch	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.
DTS-ES	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.
Dolby Digital EX	This is Dolby Digital EX surround sound. This provides a center back surround channel from 5.1-channel sources.

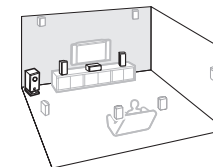
Speaker Layout

The illustration shows which speakers are activated in each channel. See “4. Sp Config (Speaker Configuration)” for the speaker setup (→ [page 38](#)).

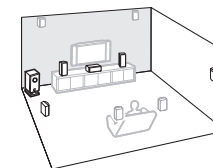
2.1



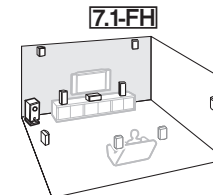
3.1



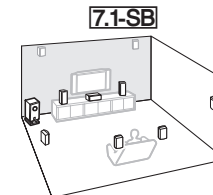
5.1



7.1



7.1-FH



7.1-SB

■ Onkyo-Original DSP Listening Modes

Listening Mode	Description	Input Source	Speaker Layout
Orchestra^{*1} <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.	MONO STEREO 5.1ch 7.1ch DTS-ES DJEX	5.1 7.1
Unplugged^{*1} <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.		
Studio-Mix^{*1} <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.		
TV Logic^{*1} <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.		
Game-RPG^{*1} <i>Game-RPG</i>	In this mode, the sound has a dramatic feel with a similar atmosphere to Orchestra mode.		
Game-Action^{*1} <i>Game-Action</i>	In this mode, sound localization is distinct with emphasis on bass.		
Game-Rock^{*1} <i>Game-Rock</i>	In this mode, sound pressure is emphasized to heighten live feel.		
Game-Sports^{*1} <i>Game-Sports</i>	Suitable for audio source with much reverberation.		3.1 5.1 7.1
All Ch Stereo <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.		
Full Mono <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.		

Listening Mode	Description	Input Source	Speaker Layout
T-D (Theater-Dimensional)^{*1} <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.	MONO STEREO 5.1ch 7.1ch DTS-ES DJEX	2.1 3.1 5.1 7.1

■ Listening Modes

Listening Mode	Description	Input Source	Speaker Layout
Direct <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 Home menu is disabled. A/V Sync does not have effect on the analog audio. See "On-screen Setup" for more details (→ page 35).	MONO STEREO 5.1ch 7.1ch DTS-ES DJEX	2.1 3.1 5.1 7.1 ^{*2}
Stereo <i>Stereo</i>	Sound is output from the front left and right speakers and subwoofer.		2.1 3.1 5.1 7.1
Mono <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.		
Multichannel <i>Multich</i>	This mode is for use with PCM multichannel sources.	5.1ch 7.1ch	3.1 5.1 7.1



Listening Mode	Description	Input Source	Speaker Layout
DSD ³ <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 Home menu are enabled. See “On-screen Setup” for more details (→ page 35).	5.1ch	3.1 5.1 7.1
Dolby Digital <i>Dolby D</i>			
Dolby Digital Plus ⁴ <i>Dolby D +</i>		5.1ch	3.1 5.1 7.1
		7.1ch	3.1 5.1 7.1 ²
Dolby TrueHD <i>Dolby TrueHD</i>		5.1ch	3.1 5.1 7.1
		7.1ch	3.1 5.1 7.1 ²
DTS <i>DTS</i>		5.1ch	3.1 5.1 7.1
DTS-HD High Resolution Audio <i>DTS-HD HR</i>		5.1ch	3.1 5.1 7.1
		7.1ch	3.1 5.1 7.1 ²
DTS-HD Master Audio <i>DTS-HD MSTR</i>		5.1ch	3.1 5.1 7.1
		7.1ch	3.1 5.1 7.1 ²
DTS Express <i>DTS Express</i>		5.1ch	3.1 5.1 7.1
DTS 96/24 ⁵ <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.	5.1ch	3.1 5.1 7.1

Listening Mode	Description	Input Source	Speaker Layout
DTS-ES Discrete ⁶ <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.	DTS-ES	7.1-SB
DTS-ES Matrix ⁶ <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.		
Dolby Pro Logic IIx ⁷ Dolby Pro Logic II	Dolby Pro Logic IIx expands any 2-channel source for 7.1-channel playback. It provides a very natural and seamless surround-sound experience that fully envelops the listener. As well as music and movies, video games can also benefit from the dramatic spatial effects and vivid imaging.	STEREO	3.1 5.1 7.1
<i>PL II Movie</i>	If you're not using any surround back speakers, Dolby Pro Logic II will be used instead of Dolby Pro Logic IIx.		
<i>PL II Music</i>	• Dolby PLIIx Movie Use this mode with any stereo or Dolby Surround (Pro Logic) movie (e.g., TV, DVD, VHS).		
<i>PL II Game</i>	• Dolby PLIIx Music Use this mode with any stereo or Dolby Surround (Pro Logic) music source (e.g., CD, radio, cassette, TV, VHS, DVD).		
<i>PL IIx Movie</i>	• Dolby PLIIx Game Use this mode with video games, especially those that bear the Dolby Pro Logic II logo.		
<i>PL IIx Music</i>			
<i>PL IIx Game</i>			
	• Dolby PLIIx Movie • Dolby PLIIx Music These modes use the Dolby Pro Logic IIx modes to expand 5.1-channel sources for 7.1-channel playback.	5.1ch	7.1-SB

Listening Mode	Description	Input Source	Speaker Layout
Dolby Pro Logic IIz Height <i>PLIIz Height</i>	Dolby Pro Logic IIz Height is designed to more effectively use existing program material when height channel speaker outputs are present. Dolby Pro Logic IIz Height can be used to upmix a variety of sources from movies and music, but are particularly well-suited to upmix game content.	STEREO 5.1ch 7.1ch	7.1-FH
Dolby EX <i>Dolby EX</i> <i>Dolby D EX</i>	These modes expand 5.1-channel sources for 6.1/7.1-channel playback. They're especially suited to Dolby EX soundtracks that include a matrix-encoded surround back channel. The additional channel adds an extra dimension and provides an enveloping surround sound experience, perfect for rotating and fly-by sound effects.	5.1ch Dolby EX	7.1-SB
DTS Neo:6 <i>Neo:6 Cinema</i> <i>Neo:6 Music</i> <i>Neo:6</i>	This mode expands any 2-channel source for up to 7.1-channel playback. It uses seven full-bandwidth channels of matrix decoding for matrix-encoded material, providing a very natural and seamless surround sound experience that fully envelops the listener. • Neo:6 Cinema Use this mode with any stereo movie (e.g., TV, DVD, VHS). • Neo:6 Music Use this mode with any stereo music source (e.g., CD, radio, cassette, TV, VHS, DVD). • Neo:6 This mode uses Neo:6 to expand 5.1-channel sources for 6.1/7.1-channel playback.	STEREO 5.1ch	3.1 5.1 7.1 7.1-SB

Note

- *1 These listening modes cannot be selected during USB or iPod playback.
- *2 Based on the audio channel signal contained in the source, the corresponding speakers will output the sound.
- *3 The AV receiver can input the DSD signal from HDMI IN. Setting the output setting on the player side to PCM might obtain a better sound according to the player. In that case, set the output setting on the player side to PCM.
- *4 For the Blu-ray Discs, Dolby Digital is used in a 3.1/5.1-channel speaker system.
- *5 DTS is used depending on the configuration of the AV receiver.
- *6 If there are no surround back speakers, DTS is used.
- *7 If there are no surround back speakers, Dolby Pro Logic II is used.
- The listening modes cannot be selected with some source formats.

Using the Home Menu

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

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

Note

- The on-screen menus are displayed when:
 - There is no video input, or
 - The video input is 480p, 576p, 720p, 1080i, or 1080p.

1 Press RECEIVER followed by HOME.

The Home menu will be superimposed on the TV screen.

2 Use ▲/▼ and ENTER to make the desired selection.

■ Input

- ▶ You can select the input source.
 - Use ▲/▼ to select the desired input source.
 - Pressing **ENTER** switches to the selected input source.

■ Audio

- ▶ You can change the following settings: “**Bass**”, “**Treble**”, “**PM Bass**”, “**Subwoofer Level**”, “**Center Level**”, “**Audyssey**”, “**Dynamic EQ**”, “**Dynamic Volume**”, “**Late Night**”, “**Music Optimizer**”, and “**Cinema Filter**”.

See also:

- “Audyssey®” (→ [page 41](#))
- “Using the Audio Settings” (→ [page 46](#))

■ Information^{*1}

- ▶ You can view the information of the following items: “**Input**” and “**Output**”.

■ Listening Mode^{*2}

- ▶ You can select the listening modes that are grouped in the following categories: “**MOVIE/TV**”, “**MUSIC**” and “**GAME**”.
 - Use ▲/▼ to select the category and ◀/▶ to select the listening mode. Press **ENTER** to switch to the selected listening mode.

Note

- ^{*1} Depending on the input source and listening mode, not all channels shown here output the sound.
- ^{*2} • This setting is not available in either of the following cases:
- The “**Audio TV Out**” setting is set to “**On**” (→ [page 45](#)).
 - “**HDMI CEC (RIHD)**” is set to “**On**” (→ [page 45](#)) and you're listening through your TV speakers.

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

- Alternatively, you can use the AV receiver's **DIMMER**.

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 equal to 10 minutes or less, the sleep timer will go off.

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.

Displaying Source Information

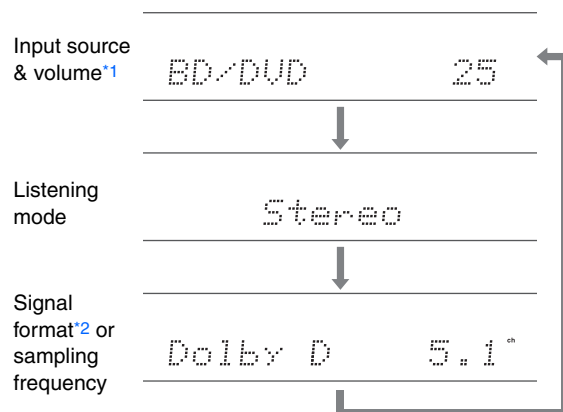
You can display various information about the current input source as follows.

- 1 Press **RECEIVER** once followed by **DISPLAY** repeatedly to cycle through the available information.

Tip

- Alternatively, you can use the AV receiver's **DISPLAY**.

The following information can typically be displayed.



*1 When AM or FM radio is used, the band, frequency, and preset number are displayed.

*2 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 Onkyo component, you must configure the input display so that **RI** can work properly.

- 1 Change the name of the input selector to “**DOCK**” or “**TAPE**”.

Tip

- See “Name” in “8. Source Setup” for changing the name (→ [page 43](#)).

Note

- “**DOCK**” and “**TAPE**” cannot be selected for the input selector at the same time.
- Enter the appropriate remote control code before using the remote controller for the first time (→ [page 53](#)).

Using the Music Optimizer

The Music Optimizer function enhances the sound quality of compressed music files.

- 1 Press **MUSIC OPTIMIZER** on the front panel. The **M.Opt** indicator lights on the AV receiver's display.

Tip

- Alternatively, you can use the remote controller's **HOME**.
- See “Music Optimizer” for more details (→ [page 47](#)).

Using Headphones

- 1 Connect a pair of stereo headphones with a standard plug (1/4 inch or ø 6.3 mm) to the **PHONES** jack.

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 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.

Recording

This section explains how to record the selected input source to a component with recording capability.

AV Recording

Audio sources can be recorded to a recorder (e.g., cassette tape deck, CDR, MD recorder). Video sources can be recorded to a video recorder (e.g., VCR, DVD recorder).

- 1 Use the input selector buttons to select the source that you want to record.
You can watch the source while recording. The AV receiver's **MASTER VOLUME** control has no effect on recording.
- 2 On your recorder, start recording.
- 3 On the source component, start playback.
If you select another input source during recording, that input source will be recorded.

On-screen Setup

The setup menus provides a convenient way to change the AV receiver's various settings. Settings are organized into 10 categories.

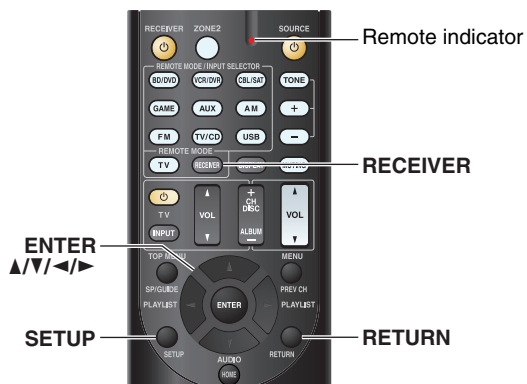
The on-screen menus appear only on a TV that is connected to the HDMI OUT. If your TV is connected to other video outputs, use the AV receiver's display when changing settings.

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

Note

- The on-screen menus are displayed when:
 - There is no video input, or
 - The video input is 480p, 576p, 720p, 1080i, or 1080p.

Common Procedures in Setup Menu

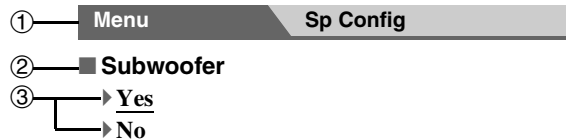


- 1** Press **RECEIVER** followed by **SETUP**.
- 2** Use **▲/▼** to select a menu item, and then press **ENTER**.
- 3** Use **▲/▼** to select a setting target, and use **◀/▶** to change the setting.
Press **SETUP** to close the menu.
Press **RETURN** to return to the previous menu.

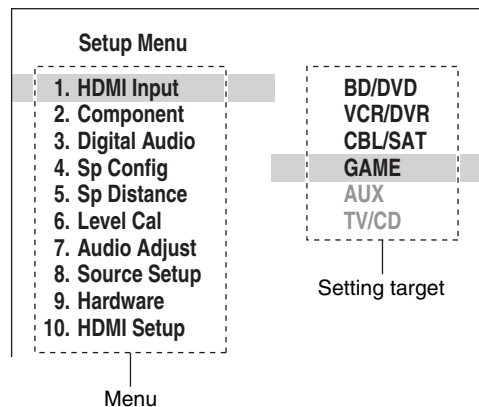
Note

- This procedure can also be performed on the AV receiver by using **SETUP**, the cursor buttons, and **ENTER**.
- During Audyssey 2EQ® 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 Menu selection
- ② Setting target
- ③ Setting options (default setting underlined)



Setup menu items

Menu item	Setting target
1. HDMI Input (→ page 37)	BD/DVD
	VCR/DVR
	CBL/SAT
	GAME
	AUX
	TV/CD
2. Component (→ page 37)	BD/DVD
	VCR/DVR
	CBL/SAT
	GAME
	AUX
	TV/CD
3. Digital Audio (→ page 38)	BD/DVD
	VCR/DVR
	CBL/SAT
	GAME
	AUX
	TV/CD
4. Sp Config (→ page 38)	Powered Zone 2
	Subwoofer
	Front
	Center
	Surround
	Front High
	Surround Back
	Surround Back Ch
	Crossover
	Double Bass

Menu item	Setting target
5. Sp Distance (→ page 39)	Unit
	Left
	Front High Left
	Center
	Front High Right
	Right
	Surround Right
	Surr Back Right
	Surr Back Left
	Surround Left
	Subwoofer
6. Level Cal (→ page 40)	Left
	Front High Left
	Center
	Front High Right
	Right
	Surround Right
	Surr Back Right
	Surr Back Left
	Surround Left
	Subwoofer
7. Audio Adjust (→ page 40)	Input Ch (Mux)
	Input Ch (Mono)
	Panorama
	Dimension
	Center Width
	Height Gain
	Dolby EX
	Center Image
	Listening Angle
8. Source Setup (→ page 41)	Audyssey
	Dynamic EQ [Reference Level]
	Dynamic Volume
	A/V Sync
	Name
	Audio Selector [Fixed Mode]

Menu item	Setting target
9. Hardware (→ page 44)	Volume OSD
	Remote ID
	AM/FM Freq Step
	Auto Standby [HDMI Through]
10. HDMI Setup (→ page 45)	HDMI CEC (RIHD)
	HDMI Through
	Audio TV Out
	Audio Return Ch
	LipSync



1. HDMI Input



Menu 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.

Here are the default assignments.

Input selector	Default assignment
BD/DVD	HDMI1
VCR/DVR	HDMI2
CBL/SAT	HDMI3
GAME	HDMI4
AUX	-----
TV/CD	-----

■ BD/DVD, VCR/DVR, CBL/SAT, GAME, AUX, TV/CD

▶ HDMI1, HDMI2, HDMI3, HDMI4:

Select the input to which the component has been connected.

▶ -----:

Select if you're not using the **HDMI OUT**.

Each HDMI input cannot be assigned to two input selectors or more. When **HDMI1** - **HDMI4** have already been assigned, you must first set any unused input selectors to “-----” or you will be unable to assign **HDMI1** - **HDMI4** to input selector.

Note

- If no video component is connected to HDMI output (even if the HDMI input is assigned), the AV receiver selects the video source based on the setting of “2. Component (Component 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 “3. Digital Audio (Digital Audio Input)” (→ [page 38](#)). In this case, if you want to use the coaxial or optical audio input, make the appropriate selection in the “**Audio Selector**” setting (→ [page 43](#)).
- Do not assign an **HDMI IN** to the **TV/CD** selector while “**HDMI CEC (RIHD)**” is set to “**On**” (→ [page 45](#)), 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 45](#)), the “**HDMI Through**” setting will be automatically switched to “**Off**”.

2. Component (Component Video Input)



Menu Component

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.

Here are the default assignments.

Input selector	Default assignment
BD/DVD	IN1
VCR/DVR	-----
CBL/SAT	IN2
GAME	-----
AUX	-----
TV/CD	-----

■ BD/DVD, VCR/DVR, CBL/SAT, GAME, AUX, TV/CD

▶ IN1, IN2:

Select the input to which the component has been connected.

▶ -----:

Select if you're not using the **COMPONENT VIDEO OUT**.

Note

- The “**TUNER**” selector cannot be assigned and is fixed at the “-----” option.

3. Digital Audio (Digital Audio Input)



Menu

Digital Audio

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 **COAXIAL IN 1**, you must assign “**COAXIAL1**” to the “**TV/CD**” input selector. Here are the default assignments.

Input selector	Default assignment
BD/DVD	COAXIAL1
VCR/DVR	-----
CBL/SAT	COAXIAL2
GAME	-----
AUX	-----
TV/CD	OPTICAL

■ BD/DVD, VCR/DVR, CBL/SAT, GAME, AUX, TV/CD

▶ COAXIAL1, COAXIAL2, OPTICAL:

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 37](#)), 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 43](#)).
- 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.

4. Sp Config (Speaker Configuration)



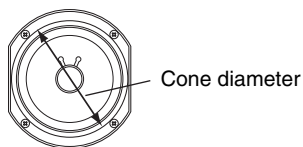
Menu

Sp Config

Some of the settings in this section are set automatically by Audyssey 2EQ® Room Correction and Speaker Setup (→ [page 25](#)).

Here you can check the settings made by Audyssey 2EQ Room Correction and Speaker Setup, or set them manually, which is useful if you change one of the connected speakers after using Audyssey 2EQ Room Correction and Speaker Setup.

This section explains how to specify which speakers are connected and their sizes.



Cone diameter

For speakers with a cone diameter larger than 6-1/2 inches (16 cm), specify **Large** (full band). For those with a smaller diameter, specify **Small** (default crossover 100 Hz).

The crossover frequency can be changed in the “Crossover (Crossover Frequency)” (→ [page 39](#)).

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 45](#)).
 - “**HDMI CEC (RIHD)**” is set to “**On**” (→ [page 45](#)) and you’re listening through your TV speakers.

■ Powered Zone 2

▶ No

▶ Yes:

Zone 2 speakers can be used. (Powered Zone 2 enabled).

Note

- When the “**Powered Zone 2**” setting is set to “**Yes**” and Zone 2 is turned on, the surround back and front high speakers cannot be used.

■ Subwoofer

▶ Yes

▶ No

■ Front

▶ Small

▶ Large:

Select based on the cone diameter.

Note

- If the “**Subwoofer**” setting is set to “**No**”, this setting is fixed to “**Large**”.

■ Center*1, Surround*1

▶ Small

▶ Large:

Select based on the cone diameter.

▶ None

■ Front High*2*3*4

▶ Small

▶ Large:

Select based on the cone diameter.

▶ None

■ Surround Back*2*3*5

▶ Small

▶ Large:

Select based on the cone diameter.

▶ None



Note

- *1 If the “**Front**” setting is set to “**Small**”, the “**Large**” option cannot be selected.
- *2 If the “**Surround**” setting is set to “**None**”, this setting cannot be selected.
- *3 If the “**Surround**” setting is set to “**Small**”, the “**Large**” option cannot be selected.
- *4 If the “**Surround Back**” setting is set to other than “**None**”, this setting is set to “**None**”.
- *5 If the “**Front High**” setting is set to other than “**None**”, this setting is set to “**None**”.

■ Surround Back Ch**▶ 1ch:**

Select if only one surround back speaker 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.
- If the “**Powered Zone 2**” setting is set to “**Yes**” and Zone 2 is turned on, this setting cannot be selected.

■ Crossover (Crossover Frequency)

This setting is advantageous for the speakers that you specified as “**Small**” in the “4. Sp Config (Speaker Configuration)” (→ [page 38](#)). To get the best bass performance from your speaker system, you need to set the crossover frequency according to the size and frequency response of your speakers.

▶ **40Hz, 50Hz, 60Hz, 70Hz, 80Hz, 90Hz, 100Hz, 120Hz, 150Hz, 200Hz**

Use the diameter of the smallest speaker in your system when choosing the crossover frequency.

Speaker cone diameter	Crossover frequency
Over 8 in. (20 cm)	40/50/60 Hz*1
6-1/2 to 8 in. (16 to 20 cm)	70/80/90 Hz*1
5-1/4 to 6-1/2 in. (13 to 16 cm)	100 Hz
3-1/2 to 5-1/4 in. (9 to 13 cm)	120 Hz
Under 3-1/2 in. (9 cm)	150/200 Hz*1

*1 Choose the setting suitable for the speaker.

Note

- For a more accurate setting, look up the frequency response in the manuals supplied with your speakers and set accordingly.
- Choose a higher crossover frequency if you want more sound from your subwoofer.

■ Double Bass

This setting is **NOT** set automatically by Audyssey 2EQ® Room Correction and Speaker Setup (→ [page 25](#)).

▶ On**▶ Off**

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 “**Small**”, this setting is fixed to “**Off**” (→ [page 38](#)).
- This setting is set to “**On**” automatically when the “**Subwoofer**” and “**Front**” settings are set for the first time to “**Yes**” and “**Large**” respectively.

5. Sp Distance (Speaker Distance)**Menu****Sp Distance**

This setting is set automatically by Audyssey 2EQ Room Correction and Speaker Setup (→ [page 25](#)).

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.

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 45](#)).
 - “**HDMI CEC (RIHD)**” is set to “**On**” (→ [page 45](#)) and you're listening through your TV speakers.

■ Unit**▶ feet:**

Distances can be set in feet. Range: **1ft to 30ft** in 1 foot steps.

▶ meters:

Distances can be set in meters. Range: **0.3m to 9.0m** in 0.3 meter steps.

■ Left, Front High Left, Center, Front High Right, Right, Surround Right, Surr Back Right, Surr Back Left, Surround Left, Subwoofer

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

Note

- Speakers that you set to “**No**” or “**None**” in the “4. Sp Config (Speaker Configuration)” (→ [page 38](#)) cannot be selected.
- When the “**Powered Zone 2**” setting is set to “**Yes**” and Zone 2 is turned on, the surround back and front high speakers cannot be used.

6. Level Cal (Level Calibration)



Menu

Level Cal

This setting is set automatically by Audyssey 2EQ® Room Correction and Speaker Setup (→ [page 25](#)).

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.

Note

- These settings cannot be calibrated in either of the following cases:
 - A pair of headphones is connected.
 - The “**Audio TV Out**” setting is set to “**On**” (→ [page 45](#)).
 - “**HDMI CEC (RIHD)**” is set to “**On**” (→ [page 45](#)) and you’re listening through your TV speakers.
 - The AV receiver is muted.

■ Left, Front High Left, Center^{*1}, Front High Right, Right, Surround Right, Surr Back Right, Surr Back Left, Surround Left

▶ -12 dB to 0 dB to +12 dB in 1 dB step.

■ Subwoofer^{*1}

▶ -15 dB to 0 dB to +12 dB in 1 dB step.

Note

- Speakers that you set to “**No**” or “**None**” in the “4. Sp Config (Speaker Configuration)” (→ [page 38](#)) cannot be selected.
- When the “**Powered Zone 2**” setting is set to “**Yes**” and Zone 2 is turned on, the surround back and front high speakers cannot be used.

^{*1} For the center speaker and subwoofer, the level settings made by using the Home menu are saved in this menu (→ [page 46](#)).

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.

7. Audio Adjust



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 Ch (Mux)

▶ 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 Ch (Mono)

▶ 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.

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 Ilz Height Gain

- ▶ **Low**
- ▶ **Mid**
- ▶ **High**

The Height Gain Control in Dolby Pro Logic Ilz 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 38](#)), this setting cannot be selected.
- If the “**Powered Zone 2**” setting is set to “**Yes**” and Zone 2 is turned on, this setting cannot be selected.

■ Dolby EX

▶ **Auto:**

If the source signal contains a Dolby EX flag, the Dolby 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 38](#)), this setting cannot be selected.
- If the “**Powered Zone 2**” setting is set to “**Yes**” and Zone 2 is turned on, this setting cannot be selected.

DTS

■ Neo:6 Music

Center Image

▶ **0** to **2** to **5**

The DTS Neo:6 Music listening mode creates 6-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).

Theater-Dimensional

■ Listening Angle

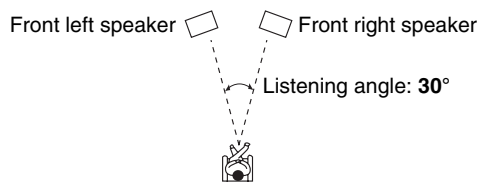
▶ **Wide:**

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°.

8. Source Setup



Items can be set individually for each input selector.

Preparation

Press the input selector buttons to select an input source.

Menu

Source Setup

Audyssey®

The tone for each speaker is set automatically by Audyssey 2EQ® Room Correction and Speaker Setup. To enable the following settings, you must first perform the Room Correction and Speaker Setup (→ [page 25](#)).

- These technologies cannot be used when:
 - A pair of headphones is connected, or
 - Direct listening mode is selected, or
 - The **USB** input selector is selected.

■ Audyssey

▶ **Off**

▶ **Movie:**

Select this setting for movie material.
The **Audyssey** indicator lights.

▶ **Music:**

Select this setting for music material.
The **Audyssey** indicator lights.

Note

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

■ Dynamic EQ

► Off

► On:

Audyssey Dynamic EQ® becomes active.

The **Dynamic EQ** indicator lights.

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

► 0 dB:

This should be selected for movie contents.

► 5 dB:

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

► 10 dB:

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.

► 15 dB:

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 2EQ® 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 make Dynamic Volume active, “**Dynamic EQ**” is set to “**On**”. The **Dynamic Vol** indicator lights.
- When “**Dynamic EQ**” is set to “**Off**”, “**Dynamic Volume**” is automatically switched to “**Off**”.

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. Audyssey Dynamic EQ works in tandem with Audyssey 2EQ® to provide well-balanced sound for every listener at any volume level.

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.



A/V Sync

■ A/V Sync

► **0 ms** to **400 ms** in 10 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**.

To return to the previous screen, press **RETURN**.

The range of values you can adjust will depend on whether your TV supports HDMI Lip Sync and if the “**LipSync**” setting is set to “**On**” or not (→ [page 46](#)).

Note

- A/V Sync is disabled when the Direct listening mode is used with an analog input source.

Preset Name For Input Selector

■ Name

► **- - -**, **Blu-ray**, **DVD**, **HD DVD**, **VCR**, **DVR**, **Tivo**, **CableSTB**, **SAT STB**, **PS3**, **Wii**, **Xbox**, **PC**, **TV**, **CD**, **TAPE**, **iPod**, **DOCK**:

To reset to the default, select “**- - -**”.

You can enter a preset name for each individual input selector for easy identification. When entered, the preset name will be displayed.

Note

- You can't assign the same preset name to multiple input selectors.
- This setting cannot be used for the **AM**, **FM** or **USB** input selector.

Audio Selector

■ Audio Selector

► ARC:

The audio signal from your TV tuner can be sent to the **HDMI OUT** 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 the input source that is assigned as **HDMI IN**, **COAXIAL IN**, or **OPTICAL IN**.

*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 Ch**” setting (→ [page 46](#)).

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 the “**Audio Selector**”.

9. Hardware



Menu

Hardware

OSD

■ Volume OSD

- ▶ On
- ▶ Off

Turn this setting on to display the volume level on the TV screen while it is adjusted.

Remote ID

■ Remote ID

- ▶ 1, 2, or 3

When several Onkyo components are used in the same room, their remote ID codes may overlap. To differentiate the AV receiver from the 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 **SETUP** until the remote indicator lights (about 3 seconds).
- 2** Use the number buttons to enter ID 1, 2, or 3.
The remote indicator flashes twice.

Tuner

■ AM/FM Freq Step

- ▶ 10kHz/200kHz:
- ▶ 9kHz/50kHz:

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.

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.

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 is on.

■ HDMI Through

- ▶ Off
- ▶ On

This setting enables or disables the Auto Standby during HDMI Through by detecting the audio/video input signal. When this setting is set to “On”, the AV receiver will automatically enter standby mode if there is no audio and no video signal input during HDMI Through for 30 minutes.

When this setting is set to “Off”, the status of HDMI Through is continued regardless of audio/video input signal.

Tip

- Entering standby mode is possible by setting “HDMI CEC (RIHD)” to “On” and using CEC-compatible component regardless of the above-mentioned setting. See “HDMI CEC (RIHD)” in “10. HDMI Setup” for linked operation.
- When the HDMI Through is enabled, the power consumption slightly increases.

Note

- This setting is fixed to “Off” when “Auto Standby” is set to “Off”.

10. HDMI Setup



Menu HDMI Setup

HDMI CEC (RIHD)

- ▶ Off
- ▶ On

Turn this setting on to allow **RIHD**-compatible components connected via HDMI to be controlled by the AV receiver (→ [page 62](#)).

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’s 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 CEC (RIHD)**” setting is set to “**On**”, the power consumption in standby mode slightly increases. (Depending on the TV status, the AV receiver will enter standby mode as usual.)

- When the source equipment is connected with the **RI** connection, it may malfunction if “**HDMI CEC (RIHD)**” is set to “**On**”.

HDMI Through

- ▶ Off
- ▶ BD/DVD, VCR/DVR, CBL/SAT, GAME, AUX, TV/CD:
- 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. In standby mode, the **HDMI THRU** and **HDMI** indicators will light (**HDMI** will be dimly-lit).

This setting is fixed to “**Auto**” automatically when the above “**HDMI CEC (RIHD)**” setting is set to “**On**”, resulting in automatic input source selection.

Note

- Only the input source assigned to the **HDMI IN** via “**HDMI Input**” is enabled (→ [page 37](#)).
- 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 CEC (RIHD)**” setting is set to “**Off**”.

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 CEC (RIHD)**” is set to “**On**”, this setting is fixed to “**Auto**”.
- 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 CEC (RIHD)**” is set to “**On**” and you’re listening through your TV’s speakers (→ [page 14](#)), 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 audio is output from the TV.



■ Audio Return Ch (ARC)

▶ Off

▶ Auto:

The audio signal from your TV tuner can be sent to the **HDMI OUT** of the AV receiver.

The audio return channel (ARC) function allows an ARC capable TV to send the audio stream to the **HDMI OUT** 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 CEC (RIHD)**” setting is set to “**Off**” (→ [page 45](#)).
- This setting is set to “**Auto**” automatically when the “**HDMI CEC (RIHD)**” setting is set to “**On**” for the first time (→ [page 45](#)).
- If you set “**Audio Return Ch**” to “**Auto**”, the “**Audio Selector**” settings of the **TV/CD** input selector will be automatically switched to “**ARC**” (→ [page 43](#)).

■ LipSync

▶ 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.

After changing the settings of the “**HDMI CEC (RIHD)**”, “**HDMI Through**” or “**Audio Return Ch**” 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.

Using the Audio Settings

You can change various audio settings from the Home menu (→ [page 33](#)).

- 1 Press **RECEIVER** followed by **HOME**.
- 2 Use **▲/▼** and **ENTER** to select “**Audio**”, and then use **▲/▼/◀/▶** to make the desired selection.

Note

- These settings are not available in either of the following cases:
 - The “**Audio TV Out**” setting is set to “**On**”.
 - “**HDMI CEC (RIHD)**” is set to “**On**” (→ [page 45](#)) and you’re listening through your TV speakers.

Tone Control

■ Bass

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

You can boost or cut low-frequency sounds output from the front speakers.

■ Treble

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

You can boost or cut high-frequency sounds output from the front speakers.

You can adjust the bass and treble for the front speakers, except when the Direct, Dolby TrueHD, or DTS-HD Master Audio listening mode is selected.

Operating on the remote controller directly

- 1 Press **RECEIVER** once followed by **TONE** repeatedly to select either “**Bass**” or “**Treble**”.
- 2 Use **-** and **+** to adjust.

Tip

- Alternatively, you can use the AV receiver’s **TONE** and **-/+**.

Phase Matching Bass

■ PM Bass

▶ Off

▶ On

From the warm low notes produced by a cello to the deep frequencies of electronic music, a good audio system should be able to deliver plenty of bass resonance.

While traditional enhancement systems effectively boost low-frequency sound, they are often prone to the effects of phase shifting, which can overwhelm mid-range frequencies and muddy the sound. Our Phase-Matching Bass Boost technology effectively preserves mid-range clarity-allowing vocals and strings to shine-while maintaining a smooth, powerful bass response at all volume levels.

Note

- The Phase Matching Bass is disabled when the Direct, Dolby TrueHD, or DTS-HD Master Audio listening mode is selected.
- If the “**Subwoofer**” setting is set to “**No**”, this setting is fixed to “**Off**”.

Tip

- Alternatively, you can use the AV receiver’s **TONE** and **-/+**.

Speaker Levels

■ Subwoofer Level

▶ **-15 dB** to **0 dB** to **+12 dB** in 1 dB steps

■ Center Level

▶ **-12 dB** to **0 dB** to **+12 dB** in 1 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 “6. Level Cal (Level Calibration)” (→ [page 40](#)) before setting the AV receiver to standby.

Note

- These settings cannot be calibrated in either of the following cases:
 - A pair of headphones is connected.
 - The AV receiver is muted.
- Speakers that are set to “**No**” or “**None**” in the “4. Sp Config (Speaker Configuration)” (→ [page 38](#)) cannot be adjusted.

Audyssey®**■ Audyssey**

See “Audyssey” in “8. Source Setup” (→ [page 41](#)).

■ Dynamic EQ

See “Dynamic EQ” in “8. Source Setup” (→ [page 42](#)).

■ Dynamic Volume

See “Dynamic Volume” in “8. Source Setup” (→ [page 42](#)).

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 2EQ Full Calibration” method.
 - Any listening mode other than Direct is selected.
 - A pair of headphones is not connected.
 - The input selector other than **USB** is selected.
- The setting is stored individually for each input selector.

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**”.

Music Optimizer**■ Music Optimizer**▶ **Off**▶ **On**

The Music Optimizer function enhances the sound quality of compressed music files. The **M.Opt** indicator lights on the AV receiver’s display.

Tip

- Alternatively, you can use the AV receiver’s **MUSIC OPTIMIZER**.

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.

CinemaFILTER**■ Cinema Filter**▶ **Off**▶ **On**

Turn this setting on to soften overly bright movie soundtracks, which are typically mixed for reproduction in a movie theater.

CinemaFILTER can be used with the following listening modes: Dolby Digital, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Pro Logic IIx Movie, Dolby Pro Logic II Movie, Dolby Pro Logic IIz Height, Multichannel, DTS, DTS-ES, DTS Neo:6 Cinema, DTS 96/24, Neo:6, DTS-HD High Resolution Audio, DTS-HD Master Audio and DTS Express.

Note

- The CinemaFILTER may not work when used with certain input sources.



Zone 2

In addition to the main listening room, you can also enjoy playback in another room, which we call Zone 2. For either of the rooms, you can specify a different input source.

Making Zone 2 Connections

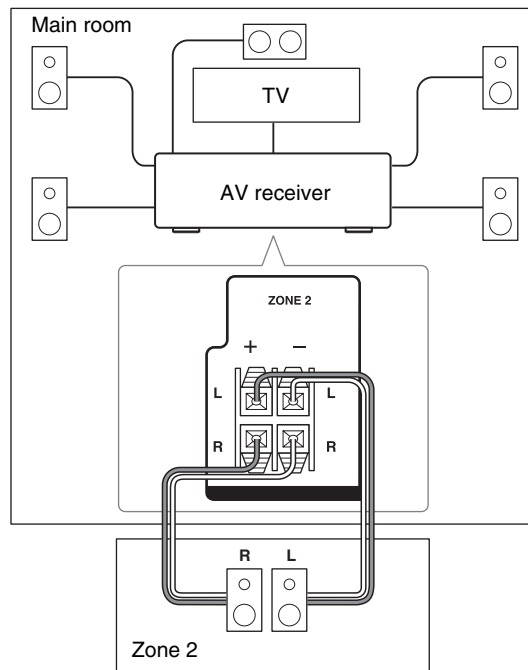
There are two ways you can connect Zone 2 speakers:

1. Connect them directly to the AV receiver.
2. Connect them to an amp in Zone 2.

Connecting Your Zone 2 Speakers Directly to the AV receiver

This setup allows you to select different sources for Main room and Zone 2. This is called Powered Zone, as the Zone 2 speakers are powered by the AV receiver.

To use this setup, you must activate the **Powered Zone 2** setting (→ [page 38](#)).

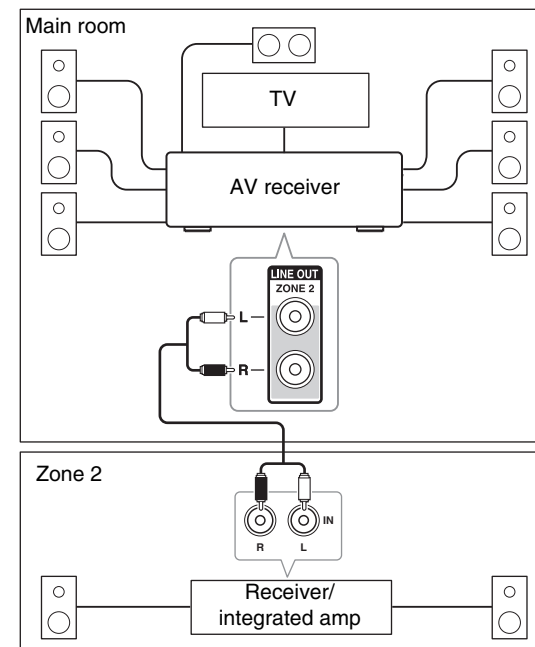


Note

- With this setup, the volume of Zone 2 is controlled by the AV receiver.
- When Powered Zone 2 is used, playback in the main room is reduced to 5.1 channels.

Connecting the Zone Speakers to an Additional Amplifier

This setup allows 7.1-channel playback in your main listening room and 2-channel stereo playback in Zone 2.

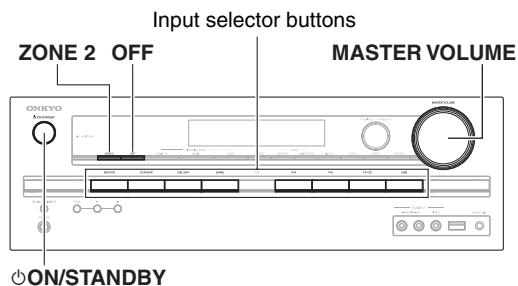


Note

- The volume of Zone 2 must be set on the Zone 2 amplifier.

Controlling Zone 2 Components

■ Operating on the AV receiver



- 1 To turn on Zone 2 and select an input source, press **ZONE 2** followed by an input selector button within 8 seconds.

Zone 2 turns on, the **Z2** indicator lights on the display.

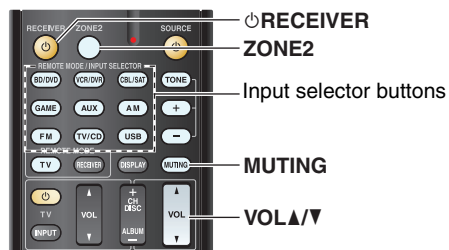
To select the same source as the main room's, press **ZONE 2** twice. "Z2 Sel: Source" appears on the AV receiver's display.

To turn off Zone 2, press **OFF**.

The zone is turned off.

■ Operating on the remote controller

To control Zone 2, you must press **ZONE2** on the remote controller first.



- 1 Press **ZONE2** and then press **RECEIVER**.
Zone 2 turns on, the **Z2** indicator lights on the AV receiver's display.
- 2 To select an input source for Zone 2, press **ZONE2**, followed by an input selector button.
- 3 To turn off Zone 2, press **ZONE2** followed by **RECEIVER**.
The zone is turned off.

Adjusting the Volume for Zone 2

■ Operating on the remote controller

- 1 Press **ZONE2**.
- 2 Use **VOL ▲/▼**.

■ Operating on the AV receiver

- 1 Press **ZONE 2** (the **Z2** indicator on the AV receiver's display flash).
- 2 Use **MASTER VOLUME** control within 8 seconds.

If your Zone 2 speakers are connected to a receiver or integrated amplifier in Zone 2, use its volume control to adjust the volume.

Muting Zone 2

■ Operating on the remote controller

- 1 Press **ZONE2** followed by **MUTING**.

Tip

- To unmute, press **ZONE2** followed by **MUTING** again. Zone can also be unmuted by adjusting the volume.

Note

- Only analog input sources are output from the **ZONE 2 LINE OUT L/R** jacks and **ZONE 2 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.
- You cannot select different AM or FM radio stations for your main room and Zone 2. 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.
- When you have selected **USB** as the input selector, the last selector selected will be set for both Main room and Zone 2.
- When Zone 2 is activated and its input selector is selected, the power consumption of standby mode slightly increases.
- While Zone 2 is on, **RI** functions will not work.
- When setting the AV receiver to standby mode while Zone 2 is active, the **Z2** indicator is dimly lit.
- **AUX** cannot be selected as the input selector for Zone 2.
- When **AUX** is the input source of Main room and Zone 2 is set to share the same source, no sound will be output from Zone 2.

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 53](#)).
- Connect the RI Dock to the AV receiver with an **RI** cable (→ [page 16](#)).
- Set the RI Dock's RI MODE switch to "HDD" or "HDD/DOCK".
- Set the AV receiver's Input Display to "DOCK" (→ [page 34](#)).

System Function

Depending on your iPod/iPhone model and generation, some of the linked operations may not be available.

System On

When you turn on the AV receiver, the RI Dock and iPod/iPhone turn on automatically. In addition, when RI Dock and iPod/iPhone are on, the AV receiver can be turned on by pressing **SOURCE**.

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 RI Dock is connected.

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.
- The System On function may not work depending on the RI Dock.

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 52](#)).

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**).

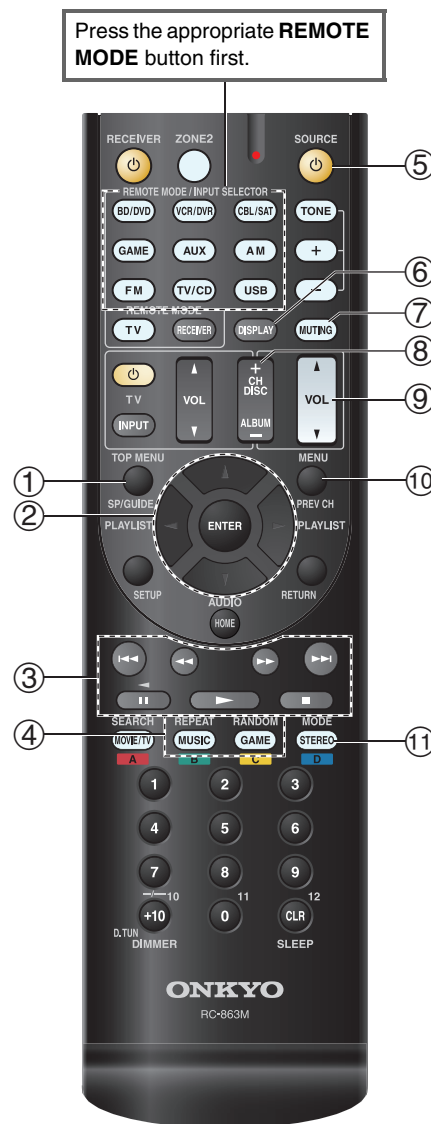
■ With the RI Control

Make an **RI** connection and enter the remote control code **81993** (with **RI**).

- Set the AV receiver's Input Display to "DOCK" (→ [page 34](#)).

■ Without the RI Control

You must enter the remote control code **82990** first (→ [page 53](#)).



■ RI Dock operation

Available buttons

①	TOP MENU ^{*1}	⑥	DISPLAY ^{*3}
②	▲/▼/◀/▶, ENTER	⑦	MUTING
	PLAYLIST ◀/▶	⑧	ALBUM +/–
③	▶, II, ■, ◀◀, ▶▶, ◀◀, ▶▶	⑨	VOL ▲/▼
④	REPEAT	⑩	MENU
	RANDOM	⑪	MODE ^{*4}
⑤	⏻SOURCE ^{*2}		

Note

- 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} 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.

^{*3} **DISPLAY** turns on the backlight for a few seconds.

^{*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.

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 Onkyo Blu-ray Disc player (→ [page 54](#))

TV/CD Onkyo CD player (→ [page 55](#))

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 indicator 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, 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 indicator flashes twice.

If the remote control code is not entered successfully, the remote indicator 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 indicator 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 indicator flashes twice, indicating that the sequence has been successfully assigned. If the sequence is not successfully assigned, the remote indicator will flash once slowly.

Tip

- To reset the **REMOTE MODE** buttons to their default settings, see "Resetting the REMOTE MODE Buttons" (→ [page 53](#)).

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 is active.

Remote Control Codes for Onkyo Components Connected via RI

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 Onkyo component is connected with an **RI** cable and an analog audio cable (RCA). See “Connecting Onkyo RI Components” for details (→ [page 16](#)).
- 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 Onkyo components without RI

If you want to control an Onkyo component by pointing the remote controller directly at it, or you want to control an Onkyo component that’s not connected via **RI**, use the following remote control codes:

- ▶ **30627:**
Onkyo DVD player without **RI**
- ▶ **71817:**
Onkyo CD player without **RI**
- ▶ **32900/33100/33500:**
Onkyo Blu-ray Disc player
- ▶ **32901/33104/33504:**
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 indicator lights (about 3 seconds).
- 2** Within 30 seconds, press the **REMOTE MODE** button again.
The remote indicator 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.

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 the remote indicator lights (about 3 seconds).
- 2** Within 30 seconds, press **RECEIVER** again.
The remote indicator 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 52](#)).

Controlling a TV

TV is preprogrammed with the remote control code for controlling a TV that supports the **RIHD**[†] (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 a Blu-ray Disc/DVD Player, HD DVD Player

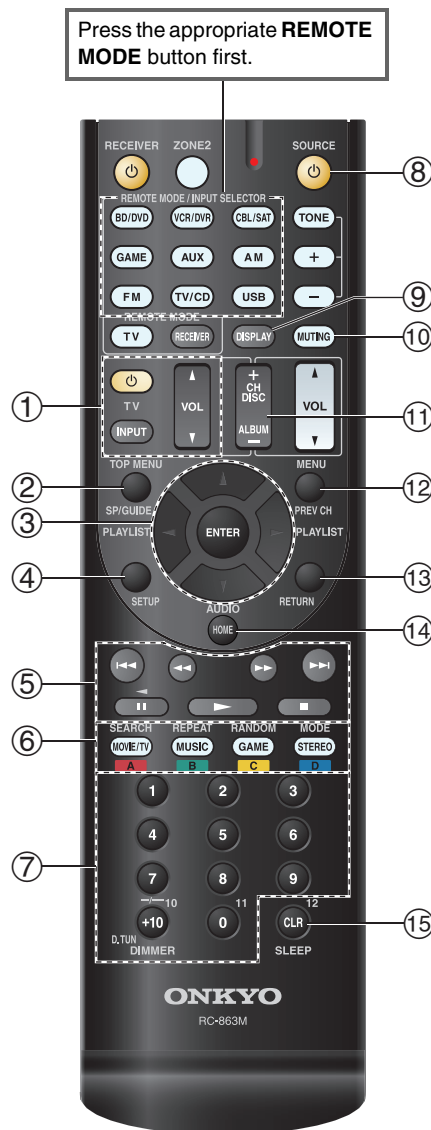
BD/DVD is preprogrammed with the remote control code for controlling a component that supports the **RIHD**^{*1} (limited to some models). The component must be able to receive remote control commands via **RIHD** and be connected to the AV receiver via HDMI.

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.



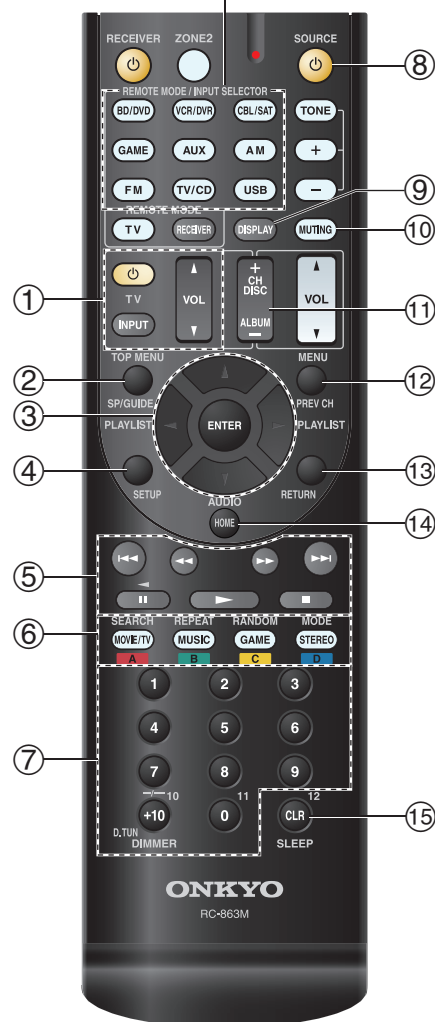
■ TV operation

Available buttons		
①	⏻, INPUT, TV VOL ▲/▼	⑦ Number: 1 to 9, 0
②	GUIDE	Number: +10 ^{*2}
③	▲/▼/◀/▶, ENTER	⑨ DISPLAY
④	SETUP	⑩ MUTING
⑤	▶, II, ■, ◀◀, ▶▶, ◀◀, ▶▶ ^{*2}	⑪ CH +/-
⑥	A (Red)*2 , B (Green)*2 , C (Yellow)*2 , D (Blue)*2	⑫ PREV CH
		⑬ RETURN
		⑭ AUDIO ^{*2}
		⑮ CLR

■ Blu-ray Disc player/HD-DVD player operation

Available buttons		
②	TOP MENU	⑧ ⏻SOURCE
③	▲/▼/◀/▶, ENTER	⑨ DISPLAY
④	SETUP	⑩ MUTING
⑤	▶, II, ■, ◀◀, ▶▶, ◀◀, ▶▶	⑪ CH +/- , DISC +/-
⑥	A (Red) , B (Green) , C (Yellow) , D (Blue)	⑫ MENU
		⑬ RETURN
		⑭ AUDIO ^{*2}
		⑮ CLR
⑦	Number: 1 to 9, 0 , Number: +10 ^{*2}	

Press the appropriate **REMOTE MODE** button first.



■ DVD player/DVD recorder operation

Available buttons

②	TOP MENU	⑧	⏻SOURCE
③	▲/▼/◀/▶, ENTER	⑨	DISPLAY
④	SETUP	⑩	MUTING
⑤	▶, II, ■, ◀, ▶▶, I◀◀, ▶▶▶	⑪	CH +/- DISC +/-
⑥	A (Red)*2 B (Green) C (Yellow)*2 D (Blue)*2	⑫	MENU
		⑬	RETURN
		⑭	AUDIO*2
		⑮	CLR
⑦	Number: 1 to 9, 0 Number: +10*2		

■ VCR/PVR operation

Available buttons

②	GUIDE	⑧	⏻SOURCE
③	▲/▼/◀/▶, ENTER	⑨	DISPLAY
④	SETUP	⑩	MUTING
⑤	▶, II, ■, ◀, ▶▶, I◀◀, ▶▶▶	⑪	CH +/- PREV CH
		⑫	PREV CH
⑦	Number: 1 to 9, 0 Number: +10	⑬	RETURN
		⑮	CLR

■ Cassette tape deck operation

Available buttons

⑤	▶, II (reverse playback), ■, ◀, ▶▶, I◀◀, ▶▶▶	⑧	⏻SOURCE
		⑩	MUTING

■ Satellite receiver/Cable receiver operation

Available buttons

②	GUIDE	⑧	⏻SOURCE
③	▲/▼/◀/▶, ENTER	⑨	DISPLAY
④	SETUP	⑩	MUTING
⑤	▶, II, ■, ◀, ▶▶, I◀◀, ▶▶▶	⑪	CH +/- PREV CH
		⑫	PREV CH
⑥	A (Red) B (Green) C (Yellow) D (Blue)	⑬	RETURN
		⑭	AUDIO
		⑮	CLR
⑦	Number: 1 to 9, 0 Number: +10		

■ CD player/CD recorder/MD recorder operation

Available buttons

③	▲/▼/◀/▶, ENTER	⑦	Number: 1 to 9, 0 Number: +10
④	SETUP		
⑤	▶, II, ■, ◀, ▶▶, I◀◀, ▶▶▶	⑧	⏻SOURCE
		⑨	DISPLAY
⑥	SEARCH REPEAT RANDOM MODE	⑩	MUTING
		⑪	DISC +/-
		⑮	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 51](#)).

*2 The **RIHD** function is not supported. The **RIHD** supported by the AV receiver is the CEC system control function of the HDMI standard.

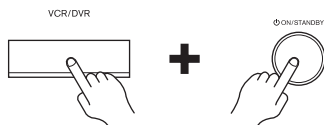


Troubleshooting

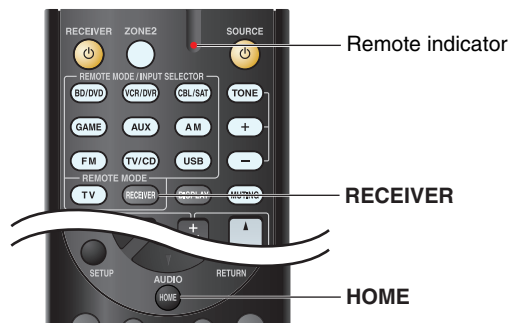
If you have any trouble using the AV receiver, look for a solution in this section. If you can't resolve the issue yourself, contact your Onkyo dealer.

If you can't resolve the issue yourself, try resetting the AV receiver before contacting your Onkyo dealer.

To reset the AV receiver to its factory defaults, turn it on and, while holding down VCR/DVR, 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 the remote indicator lights (about 3 seconds). Within 30 seconds, press **RECEIVER** again.

The on-screen menus appear only on a TV that is connected to the **HDMI OUT**. 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. 44

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 your Onkyo dealer. Caution: If "CHECK SP WIRE" appears on the AV receiver's display, the speaker cables may be shorting. 12

WARNING

If smoke, smell or abnormal noise is produced by the AV receiver, unplug the power cord from the wall outlet immediately and contact your Onkyo dealer.

Audio

There's no sound, or it's very quiet

Make sure that the digital input source is selected properly. 38

Make sure that all audio connecting plugs are pushed in all the way. 13

Make sure that the inputs and outputs of all components are connected properly. 14-16

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. 19

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** to unmute the AV receiver. 33

While a pair of headphones is connected to the **PHONES** jack, no sound is output from the speakers. 34

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. 29

Specify the speaker distances and adjust the individual speaker levels. 39

Make sure that the speaker setup microphone is not still connected. —



If the input signal format is set to “PCM” or “DTS”. **43**
Set it to “Off”.

■ Only the front speakers produce sound

When the Stereo or Mono listening mode is selected, **30**
only the front speakers and subwoofer produce sound.

Check the Speaker Configuration. **38**

■ Only the center speaker produces sound

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.

Make sure the speakers are configured correctly. **38**

■ The surround speakers produce no sound

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, **28**
not much sound may be produced by the surround
speakers. Try selecting another listening mode.

Make sure the speakers are configured correctly. **38**

■ The center speaker produces no sound

When the Stereo or Mono listening mode is selected,
the center speaker produces no sound.

Make sure the speakers are configured correctly. **38**

■ The front high or surround back speakers produce no sound

Depending on the current listening mode, no sound **28**
may be produced by the front high or surround back
speakers. Select another listening mode.

Not much sound may be produced by the front high
or surround back speakers with some sources.

Make sure the speakers are configured correctly. **38**

When Powered Zone 2 is used, playback in the main
room is reduced to 5.1 channels and the front high and
surround back speakers produce no sound.

■ The subwoofer produces no sound

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. **38**

■ There's no sound with a certain signal 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.

Depending on the input signal, some listening modes **29-30**
cannot be selected.

■ Can't get 6.1/7.1 playback

If no surround back speakers and front high speakers
are connected, or the Zone 2 speakers are being used,
6.1/7.1 playback is not possible.

Depending on the number of connected speakers, it is **29-30**
not always possible to select all of the listening
modes.

■ The speaker volume cannot be set as required

After the volume level of each individual speaker has **40**
been adjusted, the maximum volume may be reduced.

If the volume level of each individual speaker has **25, 40**
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 2EQ® Room
Correction and Speaker Setup has been completed.

■ 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, **47**
Dolby Digital Plus, or Dolby TrueHD.

■ 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.

Video

■ There's no picture

Make sure that all video connecting plugs are pushed in all the way. **13**

Make sure that each video component is properly connected. **14, 16**

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 **COMPONENT VIDEO OUT**. **15, 37**

If the video source is connected to a composite video input, your TV must be connected to the corresponding composite video output. **15**

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 OUT**. **14, 37**

On your TV, make sure that the video input to which the AV receiver is connected is selected. —

■ 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. **64**

■ 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**, on-screen menus are not displayed. —

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. **23**

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, 52**

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. **52**

Make sure to set the same ID on both the AV receiver and remote controller. **44**

■ Can't control other components

If it's an Onkyo component, make sure that the **RI** cable and analog audio cable are connected properly. Connecting only an **RI** cable won't be enough. **16**

Make sure you've selected the correct remote controller mode. **10, 53**

For a proper operation of the remote controller as a cassette tape deck is connected to the **TV/CD IN** jack, or as an **RI Dock** is connected to the **TV/CD IN**, **VCR/DVR IN** or **GAME IN** jacks, you must set the input display accordingly. **34**

If you cannot operate it, you will need to enter the appropriate remote control code. **52**

To control another manufacturer's component, point the remote controller at that component. —

To control an 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. **52**

To control an 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. **53**

The entered remote control code may not be correct. If more than one code is listed, try each one. —

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. 51

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. —

Recording

■ Can't record

On your recorder, make sure the correct input is selected. —

To prevent signal loops and damage to the AV receiver, input signals are not fed through to outputs with the same name (e.g., **VCR/DVR IN** to **VCR/DVR OUT**). —

Zone 2

■ There's no sound

Only components connected to analog inputs can be played in Zone 2. —

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. 65

USB memory devices with security functions cannot be played. 22

Others

■ Standby power consumption

In the following cases, the power consumption in standby mode may reach up to a maximum of 36 W: 45

- “**HDMI CEC (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 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 “**Input Ch (Mux)**” setting on the “**Audio Adjust**” menu to select “**Main**” or “**Sub**”. 40

■ 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. 16

■ The functions **System On/Auto Power On** and **Direct Change** don't work for components connected via **RI**

These functions don't work when Zone 2 is turned on. 16

■ 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 settings can be made for the composite video inputs

You must use the buttons on the unit to make these settings.

On the AV receiver, press the input selector for the input source that you want to set and the **SETUP** button

simultaneously. 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.

- **Video Attenuation**

This setting can be made for the **BD/DVD, VCR/DVR, CBL/SAT, GAME, AUX, or USB** input.

If you have a games console connected to the composite video input, and the picture isn’t very clear, you can attenuate the gain.

Video ATT :Off: (default).

Video ATT :On: Gain is reduced by 2 dB.

- **If the picture on your TV/monitor connected to the HDMI OUT is unstable, try switching the DeepColor function off**

To turn off the DeepColor function, simultaneously press the **CBL/SAT** and **ON/STANDBY** buttons on the AV receiver. While holding down **CBL/SAT**, 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.

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

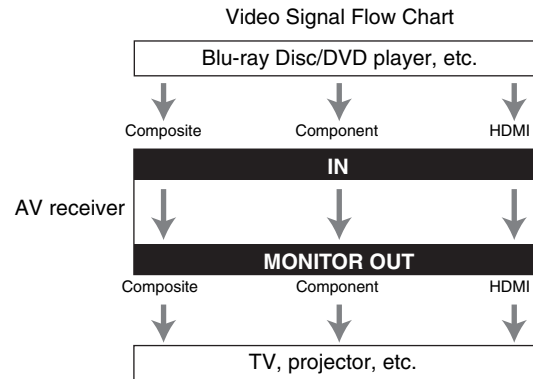
Note

- The on-screen setup menus are displayed when:
 - There is no video input, or
 - The video input is 480p, 576p, 720p, 1080i, or 1080p.

Video Connection Formats

Video components can be connected by using any one of the following video connection formats: composite video, component video, or HDMI, the latter offering the best picture quality.

When choosing a connection format, bear in mind that the AV receiver doesn't convert between formats, so only outputs of the same format as the input will output the signal.

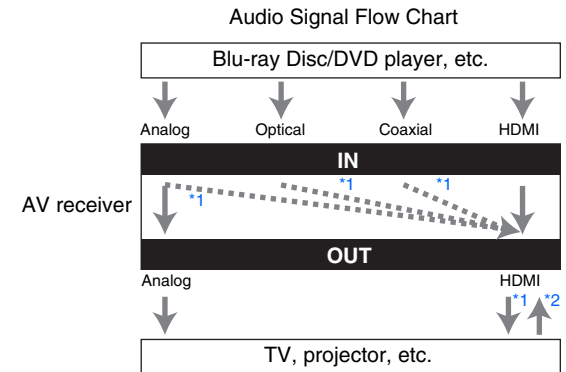


Audio Connection Formats

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. For example, audio signals connected to an optical or coaxial digital input are not output by the analog **VCR/DVR OUT**.

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 45](#)).

*2 This is possible, when "Audio Return Ch" is set to "Auto" (→ [page 46](#)), 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.

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 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 2013).

■ 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 the other 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.

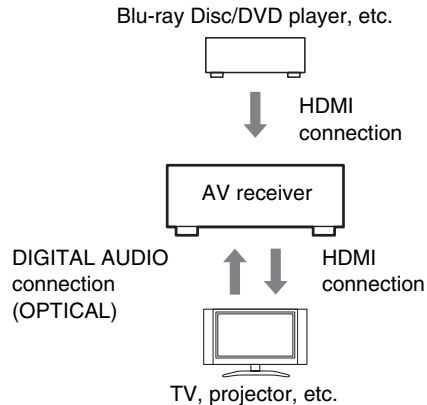
- When the playback is started on the player/recorder, input of the AV receiver will switch to the HDMI input of the player/recorder that is playing back.
- Operation of the player/recorder is possible using the remote controller supplied with the AV receiver.

* Depending on the model used, not all operations may be available.

■ How to connect and setup

1 Confirm the connecting and setting.

1. Connect the **HDMI OUT** jack to the HDMI input jack of the TV.



2. Connect the audio output from the TV to the **OPTICAL IN** 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 46](#)).
- 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 37](#)). 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 Setup” menu according to the following settings:

- **HDMI CEC (RIHD): On**
- **Audio Return Ch (ARC): Auto**

See details of each setting (→ [pages 45, 46](#)).

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 52](#)).

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 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 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.

USB Features

USB Device Requirements

- USB mass storage device class (but not always guaranteed).
- FAT16 or FAT32 file system format.
- Up to 255 folders can be displayed, and folders may be nested up to 8 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

The AV receiver does not support playback of video files.

For playback from a USB device, the AV receiver supports the following music file formats.

Variable bit-rate (VBR) files are supported. However, playback time may not be display correctly.

■ MP3 (.mp3 or .MP3)

- MP3 files must be MPEG-1/MPEG-2.5 Audio Layer 3 format with a 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 32 kHz, 44.1 kHz, 48 kHz, bitrates of between 48 kbps and 320 kbps are supported.
- WMA DRM/Pro/Voice formats are not supported.

■ AAC (.aac/.m4a/.mp4/.AAC/.M4A or .MP4)

AAC stands for MPEG-2/MPEG-4 Audio.

- Sampling rates of 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 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 32 kHz, 44.1 kHz and 48 kHz are supported.
- Quantization bit: 16 bit, 24 bit

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Please note that the use of this accessory with iPod or iPhone may affect wireless performance.

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MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.



Specifications

Amplifier Section

Rated Output Power

All channels: 80 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 0.7% (FTC)
130 watts minimum continuous power per channel, 6 ohm loads, 1 channel driven at 1 kHz, with a maximum total harmonic distortion of 1%

Dynamic Power*

* IEC60268-Short-term maximum output power

180 W (3 Ω , Front)
160 W (4 Ω , Front)
100 W (8 Ω , Front)

THD+N (Total Harmonic Distortion+Noise)

0.08% (20 Hz - 20 kHz, half power)

Damping Factor

60 (Front, 1 kHz, 8 Ω)

Input Sensitivity and Impedance (Unbalance)

200 mV/47 k Ω (LINE)

Rated RCA Output Level and Impedance

200 mV/2.2 k Ω (REC OUT)

Maximum RCA Output Level and Impedance

2 V/2.2 k Ω (REC OUT)

Frequency Response

5 Hz - 100 kHz/+1 dB, -3 dB (DSP bypass)

Tone Control Characteristics

± 10 dB, 20 Hz (BASS)
 ± 10 dB, 20 kHz (TREBLE)

Signal to Noise Ratio

100 dB (LINE, IHF-A)

Speaker Impedance

6 Ω - 16 Ω

Video Section

Input Sensitivity/Output Level and Impedance

1 Vp-p/75 Ω (Component Y)
0.7 Vp-p/75 Ω (Component Pb/Cb, Pr/Cr)
1 Vp-p/75 Ω (Composite)

Component Video Frequency Response

5 Hz - 100 MHz/+0 dB, -3 dB

Tuner Section

FM Tuning Frequency Range

87.5 MHz - 107.9 MHz

AM Tuning Frequency Range

530 kHz - 1710 kHz

Preset Channel

40

General

Power Supply

AC 120 V, 60 Hz

Power Consumption

5 A

No-sound Power Consumption

70 W

Stand-by Power Consumption

0.2 W

Dimensions (W $\times$ H $\times$ D)

435 mm $\times$ 150 mm $\times$ 328 mm
17-1/8" $\times$ 5-7/8" $\times$ 12-15/16"

Weight

8.3 kg (18.3 lbs.)

HDMI

Input

IN 1, IN 2, IN 3, IN 4

Output

OUT

Video Resolution

1080p

Audio Format

Dolby TrueHD, DTS-HD Master Audio, DVD-Audio, DSD

Supported

3D, Audio Return Channel, DeepColor, x.v.Color, LipSync, CEC (RIHD)

Video Inputs

Component

IN 1, IN 2

Composite

BD/DVD, VCR/DVR, CBL/SAT, GAME, AUX

Video Outputs

Component

OUT

Composite

MONITOR OUT, VCR/DVR OUT

Audio Inputs

Digital

Optical: 1
Coaxial: 2

Analog

BD/DVD, VCR/DVR, CBL/SAT, GAME, TV/CD, AUX

Audio Outputs

Analog

VCR/DVR, ZONE2 LINE OUT

Subwoofer Pre Output

1

Speaker Outputs

Main (L, R, C, SL, SR, SBL/FHL, SBR/FHR) + ZONE2 (L, R)

Phones

1 (ϕ 6.3)

Others

Setup Mic

1

USB

1 (Front)

RI

1

Specifications and features are subject to change without notice.



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<http://www.intl.onkyo.com/support/>

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Visit the Onkyo web site for the latest update.

SN 29401568EN

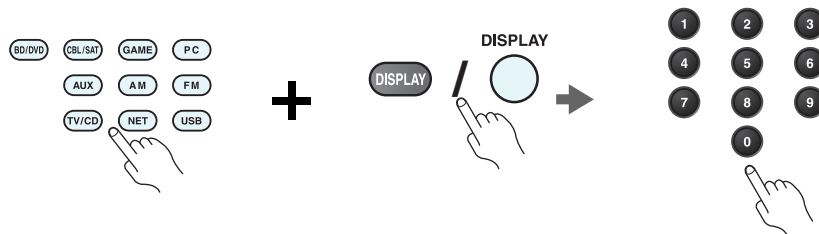
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Y1306-1



* 2 9 4 0 1 5 6 8 E N *

Remote Control Codes



1 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/Remote indicator lights.

On Integra products, button names are capitalized. For example, “Remote Mode” button and “Display” button.

Notes:

- 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, 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.

2 Within 30 seconds, use the number buttons to enter the 5-digit remote control code.

The REMOTE MODE button/Remote indicator flashes twice.

If the remote control code is not entered successfully, the REMOTE MODE button/Remote indicator will flash once slowly.

Notes:

- The flashing element of the remote controller will differ according to your AV receiver’s model.
- The remote controller is preconfigured with remote controller presets of different components. By entering a code from the Remote Control Code list, you can activate the relevant preset for that component.
- When there are multiple codes related to one manufacturer, try and enter them one-by-one until it matches your component.
- Depending on the model and year of your component, compatibility is not guaranteed.
- With some models, the remote controller may not work or its compatibility may be limited to part of the component’s functionality.
- Besides, it is not possible to add new codes to the existing remote controller presets.
- Though the provided remote control codes are correct at the time of printing, they are subject to change by the manufacturer.



Codes de télécommande

1 Tout en maintenant enfoncé le bouton REMOTE MODE auquel vous souhaitez associer un code, pressez et maintenez enfoncé le bouton [DISPLAY] (pendant environ 3 secondes).

Le bouton REMOTE MODE/le témoin Remote s'allume.

Les noms de boutons sont en minuscules sur les produits Integra. Par exemple, le bouton « Remote Mode » et le bouton « Display ».

Remarques :

- Les codes de télécommande ne peuvent pas être entrés pour [RECEIVER] et le bouton multi zone.
- Seul les code de télécommande de téléviseurs peuvent être entrés pour [TV].
- À l'exception de [RECEIVER], [TV] et du bouton multi zone, vous pouvez affecter des codes de télécommande de n'importe quelle catégorie pour les boutons REMOTE MODE. Cependant, ces boutons font également office de bouton de sélecteur d'entrée : par conséquent, choisissez un bouton REMOTE MODE correspondant à l'entrée à laquelle vous souhaitez raccorder votre appareil. Par exemple, si vous raccordez votre lecteur CD à l'entrée CD, choisissez [TV/CD] lorsque vous saisissez le code de télécommande.

2 Vous disposez de 30 secondes pour saisir le code de télécommande à cinq chiffres à l'aide des boutons numérotés.

Le bouton REMOTE MODE/le témoin Remote clignote deux fois.

Si le code de télécommande n'a pas été saisi correctement le bouton REMOTE MODE/l'indicateur Remote ne clignote qu'une seule fois.

Remarques :

- L'élément clignotant de la télécommande différera selon le modèle de votre ampli-tuner AV.
- La télécommande est préconfigurée avec des préréglages de télécommande de différents appareils. En entrant un code de la liste des codes de télécommandes, vous pouvez activer le préréglage approprié pour cet appareil.
- Quand il y a de multiples codes liés à un fabricant, essayez-les et entrez-les un par un jusqu'à ce que cela corresponde à votre appareil.
- Selon le modèle et l'année de votre appareil, la compatibilité n'est pas garantie.
- Avec certains modèles, la télécommande peut ne pas fonctionner ou sa compatibilité peut être limitée à une partie de la fonctionnalité de l'appareil.
- En outre, il n'est pas possible d'ajouter de nouveaux codes aux préréglages de télécommande existants.
- Bien que les codes de télécommande fournis soient corrects au moment de l'impression de la liste, ils sont susceptibles d'être modifiés par le fabricant.

Códigos de control remoto

1 Manteniendo pulsado el botón REMOTE MODE para el cual desea introducir un código, pulse y mantenga presionado el botón [DISPLAY] (aproximadamente 3 segundos).

Se iluminará el botón REMOTE MODE/indicador Remote.

En los productos Integra, los nombres de los botones aparecen con mayúsculas. Por ejemplo, el botón "Remote Mode" y el botón "Display".

Notas:

- No podrán introducirse códigos de mando a distancia para [RECEIVER] y el botón multizona.
- Únicamente podrán introducirse códigos de mando a distancia de televisor para el botón [TV].
- Con la excepción de [RECEIVER], [TV] y el botón multizona, se pueden asignar códigos de mando a distancia de cualquier categoría a los botones de REMOTE MODE. No obstante, estos botones también pueden funcionar como botones de selector de entrada; por tanto, seleccione un botón REMOTE MODE que se corresponda con la entrada a la cual está conectado el componente. Por ejemplo, si conecta un reproductor de CD a la entrada de CD, seleccione [TV/CD] cuando introduzca su código de mando a distancia.

2 Antes de que transcurran 30 segundos, utilice los botones numéricos para introducir el código de mando a distancia de 5 dígitos.

El botón REMOTE MODE/indicador Remote parpadeará dos veces.

Si el código de mando a distancia no se introduce correctamente, el botón REMOTE MODE/indicador Remote parpadeará una vez despacio.

Notas:

- El parpadeo del mando distancia será distinto según el modelo de receptor de AV.
- El mando a distancia está preconfigurado con los ajustes predeterminados de los distintos componentes. Al introducir un código de la lista de códigos del mando a distancia se puede activar el ajuste predeterminado de ese componente.
- Cuando hay múltiples códigos relacionados con un fabricante, pruebe a introducirlos uno a uno hasta que coincida con su componente.
- Dependiendo del modelo y el año de su componente, la compatibilidad no está garantizada.
- Con algunos modelos, es posible que el mando a distancia no funcione o que su compatibilidad esté limitada a una parte de las funciones del componente.
- Además, no es posible añadir nuevos códigos a los ajustes predeterminados existentes del mando a distancia.
- Los códigos de mando a distancia suministrados son correctos en el momento de la impresión, pero el fabricante puede realizar cambios.



Codici del telecomando

1 Tenendo premuto il tasto REMOTE MODE al quale si desidera assegnare il codice, premere e tenere premuto [DISPLAY] (per circa 3 secondi).

Il tasto REMOTE MODE/l'indicatore Remote si accende.

Sui prodotti Integra, i nomi dei tasti sono scritti con l'iniziale maiuscola. Ad esempio, tasto "Remote Mode" e tasto "Display".

Note:

- I codici di controllo del telecomando non possono essere inseriti per [RECEIVER] e i tasti multi zona.
- Per [TV] è possibile immettere solo codici telecomando del televisore.
- Tranne che per [RECEIVER], [TV], e per il tasto multi zona, è possibile assegnare codici di controllo di ogni categoria per i tasti REMOTE MODE. Tuttavia, tali tasti fungono anche da tasti del selettore d'ingresso, quindi scegliere un tasto REMOTE MODE che corrisponda all'ingresso al quale viene collegato il dispositivo. Per esempio, se si collega il lettore CD all'ingresso CD, scegliere il [TV/CD] quando si immette il relativo codice telecomando.

2 Entro 30 secondi utilizzare i tasti numerici per inserire il codice telecomando a 5 cifre.

Il tasto REMOTE MODE/l'indicatore Remote lampeggia due volte.

Se il codice telecomando non viene inserito correttamente, il tasto REMOTE MODE/l'indicatore Remote lampeggia lentamente una volta.

Note:

- L'elemento lampeggiante del telecomando varia a seconda del modello del ricevitore AV.
- Il telecomando è preconfigurato con preselezioni per diversi apparecchi. Inserendo un codice dall'elenco dei codici telecomando, è possibile attivare la relativa preselezione per tale apparecchio.
- Se sono presenti più codici relativi allo stesso produttore, provare a inserirli uno a uno finché non si arrivi al codice corrispondente dell'apparecchio.
- A seconda del modello e dell'anno dell'apparecchio, la compatibilità non è garantita.
- Con alcuni modelli, il telecomando può non funzionare o la sua compatibilità può essere limitata a una parte della funzionalità dell'apparecchio.
- Inoltre, non è possibile aggiungere nuovi codici alle preselezioni esistenti del telecomando.
- I codici telecomando specificati sono validi alla data della stampa del presente documento, ma sono soggetti a variazioni da parte del produttore.

Fernbedienungscodes

1 Halten Sie die REMOTE MODE-Taste gedrückt, für die Sie den Code eingeben möchten, und drücken Sie (ca. 3 Sekunden lang) die [DISPLAY]-Taste.

Die REMOTE MODE-Taste/Remote-Anzeige leuchtet.

Bei den Integra-Produkten werden die Namen der Tasten groß geschrieben. Zum Beispiel „Remote Mode“ (Fernbedienungsmodus)-Taste und „Display“-Taste.

Hinweise:

- Der Fernbedienungscodes kann nicht [RECEIVER] und der Multi-Zonen-Taste zugeordnet werden.
- Der Taste [TV] können nur Fernbedienungscodes für einen Fernseher zugeordnet werden.
- Abgesehen von [RECEIVER], [TV] und der Multi-Zone-Taste, können die Fernbedienungscodes jeder Kategorie den REMOTE MODE-Tasten zugewiesen werden. Allerdings dienen diese Tasten auch als Quellenwahltasten. Wählen Sie also nach Möglichkeit eine REMOTE MODE-Taste, die dem Eingang zugeordnet ist, an den Sie die betreffende Quelle angeschlossen haben. Wenn Sie z.B. einen CD-Player an den CD-Eingang anschließen, sollten Sie [TV/CD] wenn Sie den Fernbedienungscodes eingeben.

2 Geben Sie mit den Zifferntasten innerhalb von 30 Sekunden den 5-stelligen Herstellercode ein.

Die REMOTE MODE-Taste/Remote-Anzeige blinkt zwei Mal.

Wenn der Fernbedienungscodes nicht ordnungsgemäß eingegeben wurde, blinkt die REMOTE MODE-Taste/Remote-Anzeige einmal langsam.

Hinweise:

- Das blinkende Element auf der Fernbedienung unterscheidet sich je nach AV-Receiver-Modell.
- Die Fernbedienung ist mit den Voreinstellungen der Fernbedienung der verschiedenen Komponenten vorkonfiguriert. Indem ein Code aus der Liste der Fernbedienungscodes eingegeben wird, können Sie die entsprechende Voreinstellung für die Komponente aktivieren.
- Wenn es mehrere Codes gibt, die sich auf einen Hersteller beziehen, versuchen Sie sie einzeln einzugeben, bis einer mit Ihrer Komponente übereinstimmt.
- Dies hängt vom Modell und Herstellungsjahr Ihrer Komponente ab und die Kompatibilität ist nicht garantiert.
- Es kann sein, dass bei einigen Modellen die Fernbedienung nicht funktioniert oder ihre Kompatibilität sich auf nur auf Teile der Funktionalität der Komponente beschränkt.
- Abgesehen davon ist es nicht möglich, den bestehenden Voreinstellungen der Fernbedienung neue Codes hinzuzufügen.
- Obwohl die angegebenen Fernbedienungscodes dem Stand bei Drucklegung entsprechen, sind Änderungen durch den Hersteller vorbehalten.



Afstandsbedieningscodes

1 Houd terwijl u de REMOTE MODE toets ingedrukt houdt waarvoor u een code wilt toewijzen de [DISPLAY] toets ingedrukt (ongeveer 3 seconden).

De toets REMOTE MODE (afstandsbedieningsmodus) / Het indicatielampje afstandsbediening gaat branden.

Op producten van Integra staan de namen van de toetsen in hoofdletters. Bijvoorbeeld, de toetsen "Remote Mode" en "Display".

Opmerkingen:

- Er kunnen geen afstandsbedieningscodes worden ingevoerd voor [RECEIVER] en de multi zone-toets.
- Alleen TV afstandsbedieningscodes kunnen worden ingevoerd voor [TV].
- Behalve voor [RECEIVER], [TV] en de multi zone-toets, kunnen afstandsbedieningscodes vanuit elke categorie worden toegewezen aan de REMOTE MODE toetsen. Deze toetsen werken overigens ook als ingangsselectortoetsen, kies dus een REMOTE MODE toets die overeenkomt met de ingang waarop u uw component wilt aansluiten. Kies indien u bijvoorbeeld uw CD-speler aansluit op de CD-ingang de [TV/CD] toets bij het invoeren van de afstandsbedieningscode.

2 Gebruik binnen 30 seconden de cijfertoetsen om de 5-cijferige afstandsbedieningscode in te voeren.

De toets REMOTE MODE (afstandsbedieningsmodus) / Het indicatielampje afstandsbediening knippert tweemaal.

Indien de afstandsbedieningscode niet met succes wordt ingevoerd, zal de toets REMOTE MODE/Remote-indicator eenmaal traag knipperen.

Opmerkingen:

- Het knippergedeelte van de afstandsbediening zal verschillen ten opzichte van het model van uw AV-receiver.
- De afstandsbediening is voorgeprogrammeerd met voorkeuzetoetsen van verschillende componenten. Door het invullen van een code uit de afstandsbediening codelijst kunt u de voorkeuzetoets voor die component activeren.
- Wanneer er meerdere codes gerelateerd zijn aan één fabrikant, probeer deze dan een voor een totdat de juiste code overeenkomt met uw component.
- Afhankelijk van het model en het bouwjaar van uw component is de compatibiliteit niet gegarandeerd.
- Bij sommige modellen werkt de afstandsbediening mogelijk niet of is de compatibiliteit ervan beperkt tot een deel van de functionaliteit van de component.
- Daarnaast is het niet mogelijk om nieuwe codes aan de bestaande voorkeuzetoetsen van de afstandsbediening toe te voegen.
- Hoewel de gegeven afstandsbedieningscodes correct zijn op het moment van afdrukken, kunnen deze door de fabrikant gewijzigd worden.

Fjärrstyrningskoder

1 Håll ned knappen för det REMOTE MODE som du vill tilldela en kod samtidigt som du trycker och håller ned [DISPLAY] (i cirka 3 sekunder).

REMOTE MODE-knapp/Fjärrindikatorlampa.

På Integra-produkter, är knappnamnens begynnelsebokstav en versal. Till exempel, "Fjärrläge"-knapp och "Display"-knapp.

Anmärkningar:

- Fjärrkontrollkoder kan inte anges för knapparna [RECEIVER] och flerzonsknappen.
- Endast fjärrkontrollkoder för tv kan anges för [TV].
- Förutom [RECEIVER], [TV] och flerzonsknappen, kan fjärrkontrollkoder för vilken som helst kategori tilldelas för knapparna REMOTE MODE. Dessa knappar fungerar dock även som ingångväljarknappar, så använd en knapp för REMOTE MODE som motsvarar ingången som du ansluter utrustningen till. Till exempel, om du ansluter din CD-spelare till CD-ingången ska du välja [TV/CD] när du anger dess fjärrkontrollkod.

2 Använd sifferknapparna för att ange den femsiffriga koden inom 30 sekunder.

REMOTE MODE-knapp/Fjärrindikatorlampa blinkar två gånger.

Om fjärrkontrollkoden inte ställdes in, blinkar REMOTE MODE-knappen/fjärrindikatorn långsamt en gång.

Anmärkningar:

- Det blinkande elementet på fjärrkontrollen skiljer sig åt beroende på din modell av AV-receiver.
- Fjärrkontrollen har förkonfigurerats med förvalda kanaler på fjärrkontrollen för olika komponenter. Genom att ange en kod från fjärrkontrollkodlistan, kan du aktivera relevanta förvalda kanaler för den utrustningen.
- När det finns flera olika koder för en tillverkare ska du försöka att ange dem en och en tills de stämmer överens med din utrustning.
- Beroende på utrustningens modell och årgång, går det inte att garantera kompatibilitet.
- På vissa modeller kan det hända att fjärrkontrollen inte fungerar eller så kan dess kompatibilitet vara begränsad till en del av utrustningens funktion.
- Dessutom går det inte att lägga till nya koder till fjärrkontrollens existerande förvalda kanaler.
- Även om erhållna fjärrkontrollkoder är korrekta vid tryckningen, kan de ändras av tillverkaren.



遙控代碼

- 1 在按住想指定編碼的 REMOTE MODE（遙控模式）按鈕時，同時按住 [DISPLAY]（顯示）（約 3 秒）。

REMOTE MODE（遙控模式）按鈕 / 遙控指示燈亮起。

在 Integra 系列產品上，按鈕名稱為大寫。例如，「Remote Mode」（遙控模式）按鈕和「Display」（顯示）按鈕。

注意：

- [RECEIVER]（接收機）和多區域按鈕不能輸入遙控編碼。
- 您只能為 [TV]（電視）輸入電視遙控編碼。
- 除 [RECEIVER]（接收機）、[TV]（電視）和多區域按鈕外，您可針對 REMOTE MODE（遙控模式）按鈕指定任何類別的遙控編碼。但是，這些按鈕仍可用作為輸入選擇器按鈕，因此，請選擇與您設備所連接輸入接口對應的 REMOTE MODE 按鈕。例如，如果要將 CD 播放機連接到 CD 輸入源上，則需在輸入遙控編碼時選擇 [TV/CD]。

- 2 在 30 秒內，使用數字按鈕輸入 5 位數的遙控編碼。

REMOTE MODE（遙控模式）按鈕 / 遙控指示燈閃爍兩次。

如果無法成功輸入遙控編碼，REMOTE MODE（遙控模式）按鈕 / 遙控指示燈會慢慢地閃爍一次。

注意：

- 視您的 AV 接收機型號而定，遙控器的閃爍元件會有不同。
- 遙控器已預先設定有不同設備的遙控器預設值。透過輸入遙控編碼清單中的編碼，您可啟用該設備的相關預設值。
- 當有多個編碼與單一製造商相關時，請嘗試一個接著一個輸入，直到與您的設備對應為止。
- 視設備的型號和年份而定，並不保證與本公司產品相容。
- 在某些型號上，遙控器可能無法作用，或是其相容性限於部份設備功能。
- 除此之外，您無法新增編碼至現有的遙控器預設值。
- 雖然所提供之遙控編碼在本文件列印時為正確，製造商仍可能會對其作出修改。

遙控代碼

- 1 按住想指定編碼的 REMOTE MODE（遙控模式）按鈕的同時，按住 [DISPLAY]（顯示）（大約 3 秒鐘）。

REMOTE MODE（遙控模式）按鈕 / 遙控指示燈亮起。

Integra 產品上的按鈕名稱單詞首字母大写。例如，“Remote Mode（遙控模式）”按鈕和“Display（顯示）”按鈕。

注意：

- [RECEIVER]（接收機）和多區域按鈕不能輸入遙控編碼。
- 只能為 [TV]（電視）輸入電視遙控編碼。
- 除 [RECEIVER]（接收機）、[TV]（電視）和多區域按鈕外，不能為 REMOTE MODE（遙控模式）按鈕指定任何類別的遙控編碼。但是，這些按鈕仍可用作輸入選擇器按鈕，因此，選擇與設備所要連接的輸入端對應的 REMOTE MODE（遙控模式）按鈕。例如，如果要將 CD 播放機連接到 CD 輸入端，應在輸入遙控編碼時選擇 [TV/CD]（電視 / CD）。

- 2 在 30 秒內，使用數字按鈕輸入 5 位數的遙控編碼。

REMOTE MODE（遙控模式）按鈕 / 遙控指示燈閃爍兩次。

如果不能順利輸入遙控編碼，REMOTE MODE（遙控模式）按鈕 / 遙控指示燈會緩慢閃爍一次。

注意：

- 根據 AV 接收機產品類型的不同，遙控器閃爍元素將會不同。
- 遙控器採用不同設備的遙控器預設進行預配置。通過從遙控器編碼列表輸入編碼，便可激活相應設備的相關預設。
- 單個製造商關聯多個編碼時，請嘗試逐個輸入，直至符合當前設備。
- 根據設備的產品類型和年份的不同，無法保證兼容性。
- 對於某些產品類型，遙控器可能無法工作或其兼容性可能受到部分設備功能性的限制。
- 此外，可能無法將新的編碼追加到現有的遙控器預設。
- 儘管付印時所提供的遙控編碼是正確的，但製造商會隨時更改。



Cable Set Top Box	
ADB	02254, 02769
Aon	02769
Arris	02187
AT&T	00858
Bright House	01376, 01877
BT Vision	02294
Cable & Wireless	01068
Cable One	01376, 01877
Cablecom	01582
Cablevision	01376, 01877
Charter	01376, 01877, 02187
Cisco	01877, 00858, 01982, 02345, 02378
Com Hem	00817, 00660, 01666, 02015, 02447
Comcast	01376, 01877, 01982, 02187
Cox	01376, 01877
Daeryung	01877
Digeo	02187
DX Antenna	01500
France Telecom	00817
Freebox	01482
Fujitsu	01497
Humax	00660, 02142, 02447, 03051, 03053
Insight	01376, 01877
J:COM	03051, 03053
Knology	01877
Kreatel	01385
Macab	00817
Mediacom	01376, 01877
mio TV	02802
Motorola	01376, 00858, 01562, 01982, 01998, 02378
Moxi	02187
NEC	01496

Cable Set Top Box	
Neuf TV	03107
Noos	00817
NTL	01068, 01060
Numericable	02767
Ono	01068, 01562
Optus	01060
Orange	00817
Pace	01376, 01877, 01068, 01060, 01982
Panasonic	01488, 01982
Philips	00817, 01582, 02294, 02767
Pioneer	01877, 01500
RCN	01376
Rogers	01877
Sagem	00817
Samsung	01877, 01060, 01666, 02015, 02774
Scientific Atlanta	01877, 00858, 01982, 02345
SFR	03107
Shaw	01376
SingTel	01998, 02802
Sony	01460
Stofa	02015
Suddenlink	01376, 01877
Sumitomo	01500
Telewest	01068
TeliaSonera	01385
Telus	02345
Thomson	01582, 01982, 02769
Time Warner	01376, 01877, 02187
Toshiba	01509
UPC	01582
Verizon	02378
Videotron	01877
Virgin Media	01068, 01060

Cable Set Top Box	
Visiopass	00817
VTR	01376
WideOpenWest	01877
Ziggo	00660, 01666, 02015, 02142, 02447, 02774

Cable/PVR Combination	
Arris	02187
Bright House	01376, 01877
Cable One	01376, 01877
Cablevision	01376, 01877
Charter	01376, 01877, 02187
Cisco	01877, 01982
Comcast	01376, 01877, 01982, 02187
Cox	01376, 01877
Digeo	02187
Freebox	01482
Humax	02142, 03051, 03053
Insight	01376, 01877
J:COM	03051, 03053
Knology	01877
Mediacom	01376, 01877
Motorola	01376
Moxi	02187
Numericable	02767
Pace	01877
Panasonic	01982
Philips	01582, 02767
Pioneer	01877
Rogers	01877
Samsung	01877
Scientific Atlanta	01877, 01982
Shaw	01376
Suddenlink	01376, 01877
Thomson	01582

Cable/PVR Combination	
Time Warner	01376, 01877, 02187
UPC	01582
Videotron	01877
VTR	01376
WideOpenWest	01877
Ziggo	02142

IPTV	
ADB	02254, 02769
Aon	02769
AT&T	00858
BT Vision	02294
Canal+	02657
Cisco	00858, 02345, 02378
Kreatel	01385
mio TV	02802
Motorola	01376, 00858, 01998, 02378
Neuf TV	03107
Pace	02657
Scientific Atlanta	00858, 02345
SFR	03107
SingTel	01998, 02802
TeliaSonera	01385
Telus	02345
Thomson	02769
Verizon	02378

IPTV/PVR Combination	
ADB	02769
Aon	02769
AT&T	00858
BT Vision	02294
Cisco	00858, 02345, 02378
Kreatel	01385
Motorola	00858, 02378



IPTV/PVR Combination	
Neuf TV	03107
Philips	02294
Scientific Atlanta	00858
SFR	03107
Verizon	02378

CD/Cassette Dock	
TASCAM	73095

CD	
Advantage	70032
AH!	70157
Aiwa	70157
Arcam	70157
Atoll Electronique	70157
Audio Research	70157
Audiolab	70157
Audiomeca	70157
Audioton	70157
AVI	70157
Balanced Audio Technology	70157
Cairn	70157
California Audio Labs	70029, 70303
Cambridge	70157
Cambridge Audio	70157
Carver	70157
CCE	70157
Cyrus	70157
Denon	70626, 70766
DKK	70000
DMX Electronics	70157
Dynaco	70157
Genexxa	70000, 70032
Goldmund	70157
Grundig	70157

CD	
Harman/Kardon	70157
Hitachi	70032
Integra	71817, 70101
JVC	70072
Kenwood	70626, 70157, 70036
Krell	70157
Linn	70157
Loewe	70157
Magnavox	70157
Marantz	70626, 70029, 70157
Matsui	70157
MCS	70029
Memorex	70032
Meridian	70157
Micromega	70157
Miro	70000
Mission	70157
Myryad	70157
NAD	70000, 70721
Naim	70157
NSM	70157
Onkyo	71817
Optimus	70000, 70032
Panasonic	70029, 70303
Philips	70626, 70157
Pioneer	70032, 70101
Polk Audio	70157
Primare	70157
Proton	70157
QED	70157
Quad	70157
Quasar	70029
Radiola	70157
RCA	70032
Restek	70157
Revox	70157

CD	
Rotel	70157
SAE	70157
Sansui	70157
SAST	70157
Siemens	70157
Silsonic	70036
Simaudio	70157
Sonic Frontiers	70157
Sony	70490, 70000
Sylvania	70157
TAG McLaren	70157
Tandy	70032
TASCAM	73533, 73095
TEAC	73531, 73551, 73532
Technics	70029, 70303
Thorens	70157
Thule Audio	70157
Traxdata	70626
Universe	70157
Victor	70072
Wards	70000, 70032, 70157
Yamaha	70490, 70032, 70036
Zonda	70157

CD-R	
Denon	70626, 70766
JVC	70072
Kenwood	70626
Marantz	70626
Onkyo	71323
Philips	70626
Sony	70000
TASCAM	71830, 72304

CD-R/MD	
TASCAM	73511

MD	
Onkyo	70868
Sony	70490, 70000
TEAC	72977
Yamaha	70490

Cassette Deck	
Aiwa	40029
Arcam	40076
Audiolab	40029
Carver	40029
Denon	40076
Grundig	40029
Harman/Kardon	40029
Inkel	40070
JVC	40244
Kenwood	40070
Magnavox	40029
Marantz	40029
Myryad	40029
Onkyo	42157
Optimus	40027
Philips	40029
Pioneer	40027
Polk Audio	40029
Radiola	40029
RCA	40027
Revox	40029
Sansui	40029
Sony	40243
Thorens	40029
Victor	40244
Wards	40027, 40029
Yamaha	40097

Accessory	
Apple	81115



Accessory	
Jamo	82228
Logitech	82182
Onkyo	82990, 81993, 82351
Polk Audio	82228

Video - Accessory	
ADB	02254, 02769
Aon	02769
Apple	02615
AT&T	00858
BT Vision	02294
Canal+	02657
Cisco	00858, 02345, 02378
Kreatel	01385
mio TV	02802
Motorola	01376, 00858, 01998, 02378
Neuf TV	03107
Pace	02657
Philips	02294
Scientific Atlanta	00858, 02345
SFR	03107
SingTel	01998, 02802
TeliaSonera	01385
Telus	02345
Thomson	02769
Verizon	02378

Receiver	
Onkyo	52503

Satellite Set Top Box	
@sat	01300
@Sky	01334
Acoustic Solutions	01284
ADB	00642, 00887, 01259
Akura	01626

Satellite Set Top Box	
Alba	01284
Allvision	01334
Amstrad	00847, 01175, 01662, 01693
Ansonic	02418
Arnion	01300
ASCI	01334
AssCom	00853
Astro	00173, 01100
Atlanta	02418
Atsat	01300
AtSky	01334
Audiola	02418
Aurora	00879, 00642, 01433
Austar	00879, 00642, 01259
Avanit	01631
Awa	02418
Axil	01413, 01457, 02418
Axitronic	01626
Balmet	01457
Bell ExpressVu	00775
Belson	02418
Big Sat	01457
Black Diamond	01284
Blaupunkt	00173
Boshmann	01413, 01631
Boston	01251
Boxer	01458
British Sky Broadcasting	00847, 01175, 01662
BskyB	00847, 01175, 01662
Bush	01284, 01291, 01626
Canal Digital	00853, 01334
Canal Satellite	00853, 02657
Canal+	00853, 02657
CanalSat	00853, 02657

Satellite Set Top Box	
Centrex	01457
CGV	01413, 01567
Chess	01334, 01626
CityCom	01176
Clatronic	01413
Clayton	01626
Com Hem	01176, 01915
Comag	01413
Cosmat	01413
Coship	01457
Crown	01284
CS	01631
Cyfra+	01409
Cyfrowy Polsat	00853, 02527
D-box	00723, 01114
Dantax	01626
Denver	02418
Dgtc	01631, 02418
Dick Smith Electronics	02418
Digi Raum Electronics	01176
Digiality	01334
Digihome	01284
DigiLogic	01284
DigiQuest	01300, 01457, 01631
Digisky	01457
DigitalBox	01100, 01631
Digiwave	01631
DirecTV	01377, 00099
Dish Network	00775
Dishpro	00775
DishTV	01300
DRE	01176
Dream Multimedia	01237
DSE	02280, 02418
DSTV	00879, 00642, 01433

Satellite Set Top Box	
Durabrand	01284
Echostar	00775, 00853, 01323, 01409, 02527
Eco-Star	01413
Edision	01631
Elap	01413, 01567
Elbe	02418
Energy Sistem	01631, 02418
Engel	01251
EuroLine	01251
Europhon	01334
Europsat	01413, 01611
Expressvu	00775
Fagor	01611
Ferguson	01291
Finlux	01626
Fly Com	01457
FMD	01413, 01457
Foxtel	00879, 01176, 01356
Freesat	02408
Fuba	00173, 01251
Galaxis	00853, 00879
General Satellite	01176
Globo	01251, 01334, 01626
GOI	00775
Gold Box	00853
Gold Vision	01631
GoldMaster	01334
Goodmans	01284, 01291
Gradiente	00099, 00887
Grandin	01626
Grococ	01409, 01457
Grundig	00847, 00853, 00173, 00879, 01284, 01291
Haier	02418
Hallo	01626



Satellite Set Top Box	
Hama	01567
Hanseatic	01100
Hirschmann	00173
Hitachi	01284
Hornet	01300
HTS	00775
Humax	01377, 01176, 01427, 01675, 01808, 01882, 01915, 02144, 02408, 02616
ID Digital	01176
ID Sat	01334
ILLUSION sat	01631
Imperial	01195, 01334
Indovision	00887
iNETBOX	01237
Inno Hit	01626
Innova	00099
inVion	02418
iotronic	01413
ISkyB	00887
ITT	02418
ITT Nokia	00723
Jadeworld	00642
Jaeger	01334
JVC	00775
KabelBW	01195, 01882, 01915
Kaon	01300
Kathrein	00173, 01561, 01567
Kenwood	00853
Koenig	01631
Kreiling	01626
Kreiselmeyer	00173
L&S Electronic	01334
LaSAT	00173
Lava	01631

Satellite Set Top Box	
Leiko	01626
Lemon	01334
Lenoxx	01611
Linsar	01284
Listo	01626
Lodos	01284
Logik	01284
Macab	00853
Manhattan	01300
Maspro	00173
Matsui	00173, 01284, 01626
Maximum	01334
Mediabox	00853
Mediacom	01206
MediaSat	00853
Medion	01334, 01626
MegaSat	01631
Metronic	01334, 01413, 01631, 02418
Metz	00173
Moserbaer	01251
Movistar	02527, 02761
Multichoice	00879, 00642, 01433, 02059, 02060
MySky	01356, 01693, 01850
NEOTION	01334
Netsat	00099, 00887
Nikko	00723
Nokia	00853, 00723, 01223
Nordmende	01611
NPG	01631
Onn	01284
Optex	01413, 01611, 01626
Optus	00879, 01356
Orbis	01334
Orbitech	01100, 01195

Satellite Set Top Box	
Pace	00847, 00853, 00887, 01175, 01323, 01356, 01423, 01662, 01693, 01850, 02059, 02060, 02211, 02657
Pacific	01284
Palcom	01409, 01611
Panasat	00879, 01433
Panasonic	00847, 01304, 01404, 03099
Panda	00173
Pass	01567
peeKTON	01457, 02418
Philips	00099, 00853, 00173, 01114, 00887, 00133, 02211
Phoenix	02418
Pino	01334
Pioneer	00853, 01308
PMB	01611
Premiere	00723
Pro Basic	00853
Proline	01284
QNS	01404
RCA	01291
Regal	01251
Roadstar	00853
Rollmaster	01413
Rownsonic	01567
SAB	01251, 01300, 01631
Sagem	01114
Saivod	02418
Samsung	01377, 00853, 01175, 01206, 01458, 01662, 02986
Sansui	01251
Sanyo	01626
Sat Control	01300

Satellite Set Top Box	
Sat Industrie	01611
SAT+	01409
Satplus	01100
SatyCon	01631
Schaub Lorenz	02418
Schneider	01206, 01251
Schwaiger	01334, 01457, 01631
Sede Electronique	01206, 01626
SEG	01251, 01284, 01626
Servimat	01611
ServiSat	01251
Shark	01631
Sherwood	01409
Siemens	00173, 01334, 01626, 02418
Sigmatex	02418
SKY	00099, 00847, 00887, 01175, 01662, 01693, 01850, 02754
SKY Brazil	00887
SKY Deutschland	02754
SKY Italia	00853, 01693, 01850
SKY New Zealand	02211
SKY PerfecTV!	02299, 02616, 03099
Sky XL	01251
Sky+	01175, 01662
Skymaster	01334, 01409, 01567, 01611
Skymax	01413
Skyplus	01175, 01334
SkySat	01100
Skyvision	01334
SM Electronic	01409
Smart	01404, 01413, 01631
SmartVision	01457
Sony	00847, 00853, 01558, 02299



Satellite Set Top Box	
Star	00887
Stream System	01300
Strong	00853, 00879, 01284, 01300, 01409, 01626, 02418
Sunny	01300
Sunstar	00642
Supernova	00887
Supratech	01413
Systec	01334
Sytech	02418
TBoston	01251, 02418
TEAC	01251
Technical	01626
Technika	01284
TechniSat	01100, 01195
Technosat	01206
Techwood	01251, 01284, 01626
TELE System	01251, 01409, 01611
Telefonica	02527, 02761
Telestar	01100, 01195, 01251, 01334, 01626
Televés	01300, 01334
Televisa	00887
Tevion	01409
Thomson	00847, 00853, 01175, 01046, 01291, 01662
Tonna	01611
Topfield	01206
Toshiba	01284
Trevi	01251
Triax	00853, 01251, 01291, 01413, 01611, 01626, 01631
Tricolor TV	01176
True Visions	02408
Twiner	01611

Satellite Set Top Box	
UBC	00642
UEC	00879, 01356
United	01251, 01626, 02418
Unitymedia	01882
Univsum	00173, 01251
Variosat	00173
VEA	02418
Vestel	01251, 01284
Viasat	01195
Vision	01626
Visiosat	01413, 01457
Vitecom	01413
Vivax	02418
Volcasat	02418
Wavelength	01413
Wharfedale	01284
Wisi	00173
Worldsat	01251
Woxter	02418
Xsat	00847, 01323
Xtreme	01300
Yakumo	01413
Yes	00887
Zehnder	01251, 01334, 01413, 01631
Zinwell	02280, 02761
SAT/PVR Combination	
@sat	01300
Amstrad	01175, 01662, 01693
Atsat	01300
Bell ExpressVu	00775
British Sky Broadcasting	01175, 01662
BskyB	01175, 01662
Canal Satellite	02657

SAT/PVR Combination	
Canal+	02657
CanalSat	02657
Cyfrowy Polsat	02527
DigiQuest	01300
DirecTV	01377, 00099, 20739
Dish Network	00775
Dishpro	00775
Dream Multimedia	01237
Echostar	00775, 02527
Edision	01631
Expressvu	00775
Foxtel	01356
Humax	01176, 01427, 01675, 01808
ID Sat	01334
iNETBOX	01237
Kaon	01300
Kathrein	01561
Maximum	01334
Mediacom	01206
MegaSat	01631
Movistar	02527
Multichoice	02059, 02060
MySky	01356, 01693, 01850
NEOTION	01334
Pace	01175, 01356, 01423, 01662, 01693, 01850, 02059, 02060, 02211, 02657
Panasonic	01304, 03099
Philips	00099
Samsung	01175, 01206, 01662
Sat Control	01300
Schneider	01206
Sedea Electronique	01206
SKY	01175, 01662, 01693, 01850, 02754

SAT/PVR Combination	
SKY Deutschland	02754
SKY Italia	01693, 01850
SKY New Zealand	02211
SKY PerfecTV!	02299, 03099
Sky+	01662
Skyplus	01175, 01334
Smart	01631
Sony	02299
Stream System	01300
Strong	01300
Sunny	01300
TechniSat	01195
Technosat	01206
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Telestar	01195
Thomson	01175, 01662
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Akito	10037



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Akura	10171, 10037, 10714, 10668, 11037, 11363, 11585, 11667, 11709
Alba	10037, 10714, 10668, 11037, 11585
Alien	11037
Allstar	10037
Amstrad	10171, 10037, 11037
Anam	10037
Anam National	10037, 10650
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Anitech	10037
Ansonic	10037, 10668
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Ardem	10037, 10714
Arena	10037
Aristona	10556, 10037
ART	11037
Art Mito	11585
Asberg	10037
Astra	10037
ATD	10698
Atlantic	10037
Audiosonic	10037, 10714, 10715
Audioworld	10698
Aventura	10171
Axxon	10714
Baird	10208
Barco	10556
Basic Line	10556, 10037, 10668, 11037
Baur	10037, 10195, 10512
Beaumark	10178
Beijing	10208
Beko	10037, 10714, 10715, 11652
Belson	10698

Television	
Belstar	11037
Beon	10037
Berthen	10556, 10668
Bestar	10037
Bexa	12493
Black Diamond	11037
Blaupunkt	10195
Blue Sky	10556, 10037, 10625, 10714, 10668, 11037, 10715, 10499, 11324, 11363, 11652, 11709
Boca	11652
Boman	11324
Bork	11363
BPL	10037, 10208
Brandt	10625, 10714, 10560
Brimax	11709
Brinkmann	10037, 10668
Brionvega	10037
Bush	10556, 10037, 10714, 10668, 11037, 10698, 10208, 11585, 11652, 11667, 12719
Byd:sign	12140, 12209
Camper	10037
Carad	10668, 11037
Carena	10037
Carrefour	10037
Cascade	10037
Casio	10037
Cathay	10037
CCE	10037
Centrum	11037
Centurion	10037
Changhong	10508
Chimei	11666
Clarivox	10037

Television	
Classic	10499
Clatronic	10037, 10714, 11324
Clayton	11037
Condor	10037
Conrowa	10698
Contec	10037
Cosmel	10037
CPTEC	10625, 11363
Crown	10037, 10714, 10668, 11037, 10715, 10208, 11652
Cyberpix	11667
D-Vision	10556, 10037
Daewoo	10178, 10556, 10037, 10634, 10499, 12098
Dansai	10037, 10208
Dantax	10714, 11037, 10715, 11652
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Daytron	10037
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Denver	10037, 11709
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Diamond	10698
Dick Smith Electronics	10698
Digatron	10037
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Digiline	10037, 10668
Digitek	11709
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Domeos	10668
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DSE	10698
Dual	10037, 11037, 11585, 11667
Durabrand	10178, 10171, 10714, 11037, 11652
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Element	11886
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Emerson	10178, 10171, 10037, 10714, 10668, 11394, 11864, 11886
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Television	
Ferguson	10037, 10625, 10560, 10195, 11037, 11585
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