

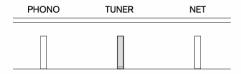
AM/FM Radio Receiving Function

Tuning into a Radio Station

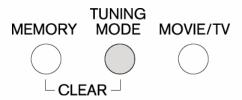
Tuning into stations automatically



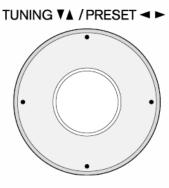
 Press TUNER on the main unit several times to select either "AM" or "FM".



2. Press TUNING MODE so that the "AUTO" indicator on the display lights.

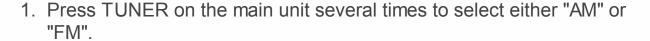


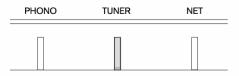
- 3. Press TUNING▼▲ to start automatic tuning.
 - Searching automatically stops when a station is found. When tuned into a radio station, the "►TUNED◄" indicator on the display lights.
 When tuned into an FM radio station, the "FM STEREO" indicator lights.
 - No sound is output while the "►TUNED¬" indicator is off.



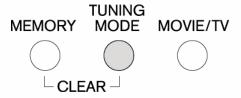
When the signal from an FM radio station is weak: Radio wave may be weak depending on the building structure and environmental conditions. In that case, manually tune into the radio station of your choice by referring to the next section.

Tuning into stations manually

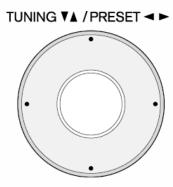




2. Press TUNING MODE so that the "AUTO" indicator on the display goes off.



- 3. Press TUNING▼A to select the desired radio station.
 - The frequency changes by 1 step each time you press the button. The frequency changes continuously if the button is held down and stops when the button is released. Tune by looking at the display.

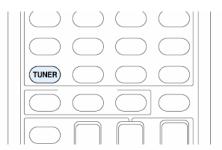


To return the display to "AUTO": Press TUNING MODE on the main unit again. The unit is automatically tuned into an FM radio station. Normally "AUTO" should be displayed.

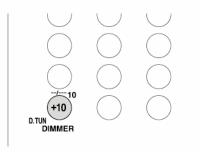
Tuning into stations by frequency

It allows you to directly enter the frequency of the radio station you want to listen to.

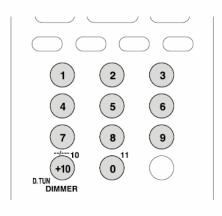
 Press TUNER on the remote controller several times to select either "AM" or "FM".



2. Press D.TUN.



- 3. Using the number buttons, enter the frequency of the radio station within 8 seconds.
 - To enter 87.5 (FM), for example, press 8, 7, 5, or 8, 7, 5, 0. If you entered a wrong number, you can enter a correct one after 8 seconds.



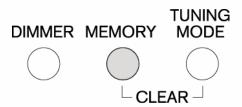
Registering an AM/FM Radio Station

It allows you to register up to 40 of your favorite AM/FM radio stations. Registering radio stations in advance allows you to tune into your radio station of choice directly.

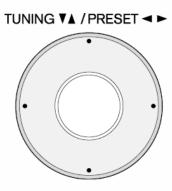
Registering a Station

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- 1. Tune into the AM/FM radio station you want to register.
- 2. Press MEMORY on the unit so that the preset number on the display flashes.



3. Repeatedly press PRESET → to select a number between 1 and 40 while the preset number is flashing (about 8 seconds).



- 4. Press MEMORY again to register the station.
 - When the station is registered, the preset number stops flashing.
 - Repeat this procedure for all of your favorite AM/FM radio stations.

Selecting a Preset Radio Station



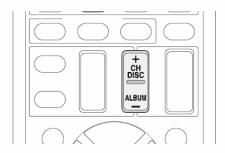
- 1. Press CH +/- on the remote controller to select a preset number.



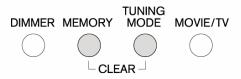
Deleting a Preset Radio Station



1. Press CH +/- on the remote controller to select the preset number to delete.



- 2. Press and hold MEMORY on the main unit and press TUNING MODE to delete the preset number.
 - When deleted, the number on the display goes off.



Using RDS (European, Australian and Asian models)

RDS stands for Radio Data System and is a method of transmitting data in FM radio signals.

- RDS works only in areas where RDS broadcasts are available.
- In some cases, the text information appeared on the display is not identical to the content transmitted by the RDS station. Furthermore, unexpected characters may be displayed when the unit receives unsupported characters. However, this is not a malfunction.
- If the signal from an RDS station is weak, the RDS data may be displayed continuously or not at all.

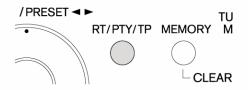
PS (**Program Service**): Tuning into a radio station distributing Program Service information displays the radio station name. Pressing DISPLAY displays the frequency for 3 seconds.

RT (Radio Text): Tuning into a radio station transmitting Radio Text information displays text on the display of the unit.

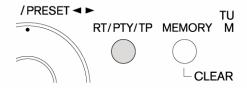
PTY (Program Type): Allows you to search for RDS stations by program type.

TP (Traffic Program): Allows you to search for radio stations transmitting traffic information.

- Displaying Radio Text (RT)
- 1. Press RT/PTY/TP on the main unit once.
 - The Radio Text (RT) is displayed scrolling across the display. "No Text Data" is displayed when no text information is available.



- Searching by Type (PTY)
- 1. Press RT/PTY/TP on the main unit twice.
 - The current program type appears on the display.



2. Press PRESET ► to select the type of program to search for.



The following RDS station types are displayed:

None

News (News reports)

Affairs (Current affairs)

Info (Information)

Sport

Educate (Education)

Drama

Culture

Science (Science and technology)

Varied

Pop M (Pop music)

Rock M (Rock music)

Easy M (Middle of the road music)

Light M (Light classics)

Classics (Serious classics)

Other M (Other music)

Weather

Finance

Children (Children's programmes)

Social (Social affairs)

Religion

Phone In

Travel

Leisure

Jazz (Jazz music)

Country (Country music)

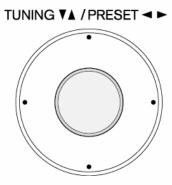
Nation M (National music)

Oldies (Oldies music)

Folk M (Folk music)

Document (Documentary)

3. Press ENTER to search the radio stations of the selected type.



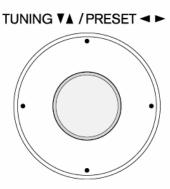
- 4. When such a radio station is found, the indication on the display flashes. Then, press ENTER again.
 - If no stations are found, the message "Not Found" is displayed.
- Listening to Traffic Information (TP)



- 1. Press RT/PTY/TP on the main unit three times.
 - "[TP]" will be displayed if traffic information is transmitted by the radio station you are tuned in. "TP" only is displayed if no traffic information is available.



2. Press ENTER to search a radio station distributing traffic information.

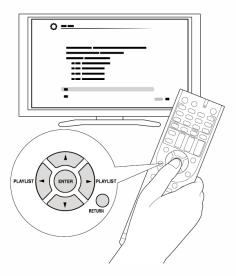


- 3. When such a radio station is found, searching stops and playing traffic information starts.
 - "Not Found" is displayed if no radio station distributing traffic information is found.



Playing Content from a USB Storage Device

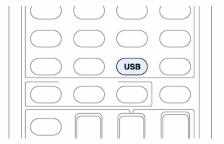
● **Operation**: You can set up by viewing the guidance displayed on the TV screen. To display the guidance, you need to make HDMI connection between the unit and TV. Select the item with the cursor buttons of the remote controller and press ENTER to confirm your selection. To return to the previous screen, press RETURN.



Playing Back



1. Press USB on the remote controller to select "USB".

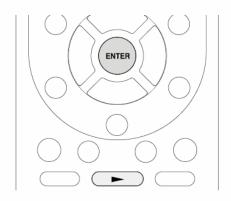


- 2. Plug your USB storage device with the music files into the USB port of the unit so that "USB" lights on the display.
 - If the "USB" indicator flashes, check whether the USB storage device is plugged in properly.
 - Do not unplug the USB storage device while "Connecting..." is appeared on the display. This may cause data corruption or malfunction.



- 3. Press ENTER.
 - The list of folders and music files on the USB storage device is displayed. Select the folder with the cursors and press ENTER to confirm your selection.
- 4. With the cursors, select the music file to play, and then press ENTER or

 ▶ to start playback.



About Internet Radio

Internet radio, also called net radio, web radio or streaming radio, is an audio service accessible at the websites of service providers who distribute music and audio programs in digital format. There are numerous websites all over the world, from terrestrial station, special station to personal website that provide such a service.

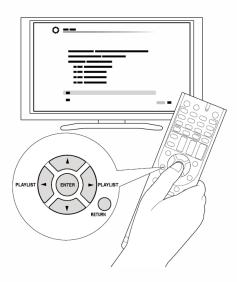
The unit comes preset with Internet radio stations (*) such as TuneIn for you to enjoy these services, just by connecting the unit to the Internet.

* Network services or contents may become unavailable if the service provider terminates its service.

TuneIn

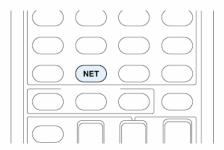
With more than 70,000 radio stations and 2 million on-demand programs registered, TuneIn is a service where you can enjoy music, sports and news from all over the world.

● **Operation**: You can set up by viewing the guidance displayed on the TV screen. To display the guidance, you need to make HDMI connection between the unit and TV. Select the item with the cursor buttons of the remote controller and press ENTER to confirm your selection. To return to the previous screen, press RETURN.



Playing Back

- 1. Press NET on the remote controller to display NET TOP screen.
 - The "NET" indicator on the display stays lit.
 - Alternatively you can select "Network Service" in the Home menu.



- 2. Select "Tuneln" with the cursors and press ENTER to display the Tuneln top screen.
- 3. With the cursors, select a radio station or program and press ENTER to

Regarding the Tuneln Menu

To display the Tuneln menu, press MENU while playing a radio station, or select "Go to Menu" and press ENTER. Selecting the corresponding menu item with the cursors and pressing ENTER allows you to perform the following operations:

Add to My Presets: Registers radio stations and programs in your "My Presets" within Tuneln. This allows you to play registered radio stations and programs with a simple operation. ("My Presets" is not displayed if it is empty.)

Remove from My Presets: Deletes a radio station or program from your "My Presets" within Tuneln.

Report a problem: Reports a problem or interactively solves a problem related to TuneIn.

View Schedule: Displays the radio station or program schedule.

Clear recents: Clears all radio stations and programs from the "Recents" within Tuneln. (This menu is displayed only when a radio station or program inside the "Recents" is being played.)

Add to My Favorites: Registers radio stations and programs in "My Favorites" of "Network Service". This allows you to play registered radio stations and programs with a simple operation.

Regarding the Tuneln Account

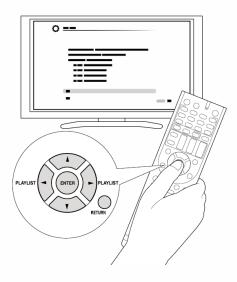
Creating an account on the TuneIn website (tunein.com) and logging in it from the unit allows you to automatically add radio stations and programs to your "My Presets" on the unit as you save them on the website . To display a radio station registered in "My Presets", you must log into TuneIn from the unit. To log in, select "Login" - "I have a TuneIn account" in the "TuneIn" top list on the unit, and then enter your user name and password.

 If you associate the device on My Page within the TuneIn website using the registration code obtained by selecting "Login" - "Login with a registration code" on the unit, you can log in without entering the user name and password.

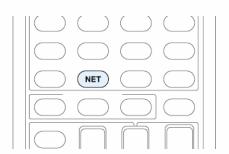
Pandora®—Getting Started (U.S., Australia and New Zealand only)

Pandora is a free, personalized Internet radio service that plays the music you know and helps you discover music you'll love.

● **Operation**: You can set up by viewing the guidance displayed on the TV screen. To display the guidance, you need to make HDMI connection between the unit and TV. Select the item with the cursor buttons of the remote controller and press ENTER to confirm your selection. To return to the previous screen, press RETURN.



- Playing Back
- 1. Press NET on the remote controller to display NET TOP screen.
 - The "NET" indicator on the display stays lit. To display the NET TOP screen, you can alternatively press HOME, select "Network Service" on the displayed Home menu, and then press ENTER.



2. Select "Pandora" with the cursors, and then press ENTER.

- 3. Use ▲/▼ to select "I have a Pandora Account" or "I'm new to Pandora" and then press ENTER.
 - If you are new to Pandora select "I'm new to Pandora". You will see an activation code on your TV screen. Please write down this code. Go to an Internet connected computer and point your browser to www.pandora.com/onkyo. Enter your activation code and then follow the instructions to create your Pandora account and your personalized Pandora stations. You can create your stations by entering your favorite tracks and artists when prompted. After you have created your account and stations you can return to your Onkyo receiver and press enter to begin listening to your personalized Pandora.

If you have an existing Pandora account, you can add your Pandora account to your Onkyo receiver by selecting "I have a Pandora Account" and logging in with your email and password.

- If you want to use multiple user accounts, see "Using Multiple Accounts". Login can be made from the "Users" screen.
- 4. To play a station, use **△/▼** to select the station from your station list, and then press ENTER. Playback starts and the playback screen appears.

Create a New Station

Enter the name of a track, artist, or genre and Pandora will create a unique radio station for you based on the musical qualities of that track, artist, or genre.

I like this track: Give a track "thumbs-up" and Pandora will play more music like it.

I don't like this track: Give a track "thumbs-down" and Pandora will ban that track from the current station.

Why is this track playing?: Discover some of the musical attributes that Pandora uses to create your personal radio stations.

I'm tired of this track: If you are tired of a track, you can put the track to sleep and Pandora will not play it for one month.

Create station from this artist: Creates a radio station from this artist.

Create station from this track: Creates a radio station from this track.

Delete this station: This will permanently delete a station from your Pandora account. All of your thumbs feedback will be lost should you choose to re-create the station with the same track or artist.

Rename this station: Lets you rename the current radio station.

Bookmark this artist: Pandora will bookmark your favorite artist for your

profile on www.pandora.com.

Bookmark this track: Pandora will bookmark the current track and allow you to buy them all from Amazon or iTunes in one step!

Add to My Favorites: Adds a station to My Favorites list.

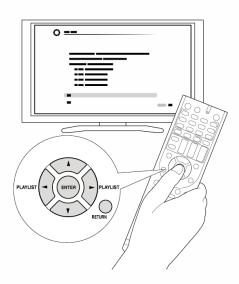
PANDORA°

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SiriusXM Internet Radio (North American only)

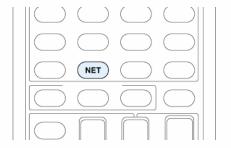
If you want to listen to the service, you must subscribe. To subscribe go to www.siriusxm.com/internetradio with your computer. When you subscribe, you will be provided with a username and password which has to be entered into the AV receiver. To use SiriusXM Internet Radio, you must have your AV receiver connected to the Internet. Using the remote control, follow these steps:

● **Operation**: You can set up by viewing the guidance displayed on the TV screen. To display the guidance, you need to make HDMI connection between the unit and TV. Select the item with the cursor buttons of the remote controller and press ENTER to confirm your selection. To return to the previous screen, press RETURN.



Playing Back

- 1. Press NET on the remote controller to display NET TOP screen.
 - The "NET" indicator on the display stays lit. To display the NET TOP screen, you can alternatively press HOME, select "Network Service" on the displayed Home menu, and then press ENTER.



- 2. Select "SiriusXM Internet Radio" with the cursors, and then press ENTER.
- Select "Sign In", and then press ENTER. If you have an existing SIRIUS
 account, you can sign in by selecting "Sign In". Enter your user name and
 password in the next keyboard screen, or in Web Setup. If you don't know
 your username or password, call Sirius XM at (888) 539-7474 for
 assistance.
 - If you want to use multiple user accounts, see "Using Multiple Accounts". Login can be made from the "Users" screen.

Using the keyboard screen

- ① Use **△/**▼/**⊸**/**▶** and ENTER to enter your user name and password.
- ② Select "OK".
- ③ Press ENTER. The "Confirm your entries" screen appears.
- ④ Press ENTER. "Please wait..." appears and then "SiriusXM Internet Radio" screen appears which displays the category available for selection.
- 4. Use **△/▼** to select the category and then press ENTER.
 - The channel list screen for the selected category appears.
- 5. Use ▲/▼ to select the desired channel and then press ENTER.
 - The playback screen for the selected channel appears and you can listen to SiriusXM Internet Radio. You can control the tracks with the buttons on the remote control.

Enabled buttons: ▶, ■, ◄◄, ▶▶

Add to My Favorites: Adds a channel to My Favorites list.

Add to Presets: Adds the currently playing station to presets list.

Delete from Presets: Deletes the currently playing station from presets list.

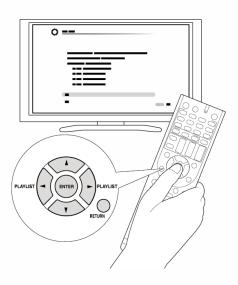


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Slacker Personal Radio (North American only)

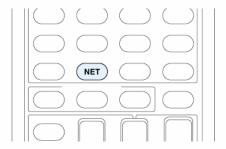
● **Operation**: You can set up by viewing the guidance displayed on the TV screen. To display the guidance, you need to make HDMI connection between the unit and TV. Select the item with the cursor buttons of the remote controller and press ENTER to confirm your selection. To return to the previous screen, press RETURN.



Playing Back



 The "NET" indicator on the display stays lit. To display the NET TOP screen, you can alternatively press HOME, select "Network Service" on the displayed Home menu, and then press ENTER.



- 2. Select "Slacker Personal Radio" with the cursors, and then press ENTER.
- 3. If you do not have an account, create one on the Slacker website (www.slacker.com) with your computer. If you already have a Slacker account, select "Sign in to your account" and then press ENTER. The keyboard screen appears. You can enter information from the remote

- control or the keys on the main unit.
- 4. If there are no mistakes in the information you have entered, use ▲/▼/⊸/► to select "OK" then press ENTER. An account information confirmation screen appears.
- 5. If you do not have an account, select "Access without Sign In" and press ENTER to use a restricted version of the service. Note that use will be restricted.
 - If you want to use multiple user accounts, see "Using Multiple Accounts". Login can be made from the "Users" screen.
- 6. Use **△/▼** to select a menu item and then press ENTER.
 - To sign out, use ▲/▼ to select "Sign out" from this screen and then press ENTER.
- 7. Use ▲/▼ to select a station and then press ENTER or ► to start playback from the station. The playback screen appears.
- 8. You can control the tracks with the buttons on the remote control. Enabled buttons: ►, II, ■, ►►

Rate Song as Favorite: Stores information to server, making it more likely that the song will be played again.

Ban Song: Stores information to server, making it less likely that the song will be played again.

Ban Artist: Stores information to server, making it less likely that the songs from this artist will be played again.

Mark Favorite: Adds the currently playing station to your favorites.

Unmark Favorite: Deletes the currently playing station from your favorites.

Add song to Library: Adds the currently playing track to your library.

Delete song from Library: Deletes the currently playing track from your library.

Add to My Favorites: Adds a station or song to My Favorites list.

Using Multiple Accounts: The AV receiver supports multiple user accounts, which means you can freely switch between several logins. After registering user accounts, login is performed from the "Users" screen.

Press MENU while the Users screen is displayed. "Add new user", "Remove this user" menu appear. You can either store a new user account, or delete an existing one.

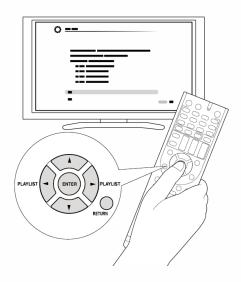
- Some of the services don't allow the use of multiple user accounts.
- You can store up to 10 user accounts.
- To switch between accounts you must first log out from the current account, and log in again on the "Users" screen.

Listening to Internet Radio

Registering Other Internet Radios

To listen to other Internet radio program, register the program in the "My Favorites" list on the NET TOP screen as described below. The unit supports Internet radio stations stored in the following formats: PLS (URL ending in .pls), M3U (URL ending in .m3u) and RSS (URL ending in rss/rdf/xml).

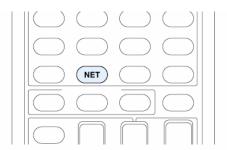
- You can register up to 40 Internet radio stations.
- Depending on the data type and file format for playback, you may not be able to play an Internet radio station even when its format is PLS, M3U or Podcast (RSS).
- Available services may vary depending on your area of residence.
- **Operation**: You can set up by viewing the guidance displayed on the TV screen. To display the guidance, you need to make HDMI connection between the unit and TV. Select the item with the cursor buttons of the remote controller and press ENTER to confirm your selection. To return to the previous screen, press RETURN.



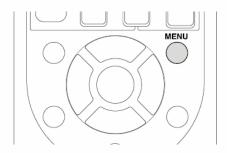
Registering a Station

Before starting the procedure: The name and URL of the radio station that you want to add are required for registration. Check them before starting the procedure.

- 1. Press NET on the remote controller to display NET TOP screen.
 - The "NET" indicator on the display stays lit.



- 2. Select "My Favorites" with the cursors and press ENTER to display the "My Favorites" list screen.
- 3. Select a blank area of "My Favorites" with the cursors and press MENU to display the menu screen.

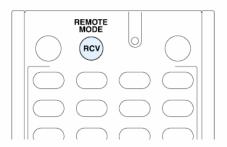


- 4. Select "Create new station" with the cursors and press ENTER to display the keyboard screen.
- 5. Enter the name and URL of the radio station to add.
 - Select "Shift" and press ENTER to toggle between upper and lower case. Select "←" or "→" and press ENTER to move the cursor to the selected direction. Select "Back Space" and press ENTER to delete the character at the left of the cursor position.

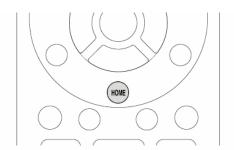
Registering a Station with PC

Before starting the procedure: The name and URL of the radio station that you want to add are required for registration. Check them before starting the procedure.

- 1. Press RCV on the remote controller.
 - Always press RCV first to change the remote controller to RECEIVER mode (the mode to operate this unit) since its mode may be changed to operate another component.



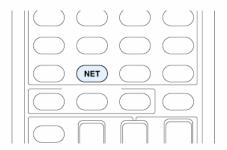
2. Press HOME to display the Home menu.



- 3. Select "Setup" with the cursors, and then press ENTER.
- 4. With the cursors, select "7.Hardware Setup" "Network" -" IP Address" to display the IP address.
 - Write down the IP address since you will need it later.
- 5. Open the Internet browser on your PC or smartphone and enter the IP address of the unit in the URL field.
 - When using Internet Explorer, you can alternatively select "Open" in the "File" menu to enter the IP address.
 - Information of the unit is displayed on the browser. ("WEB Setup")
- 6. Click "My Favorites" tab, then enter the name and URL of the Internet radio station.
- 7. Click "Save" to register the entered Internet radio station in "My Favorites".

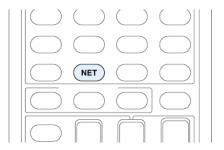
To rename the registered radio station: While the radio station is being played or when it is selected from the "My Favorites" list, press MENU to display the menu screen. Select "Rename this station" with the cursors and press ENTER to display the keyboard screen. Rename the station as desired.

- Radio stations can be renamed also from "WEB Setup".
- Playing a Registered Radio Station
- 1. Press NET on the remote controller to display NET TOP screen.
 - The "NET" indicator on the display stays lit.

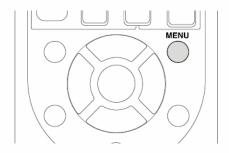


- 2. Select "My Favorites" with the cursors and press ENTER to display the registered Internet radio stations.
- 3. Select a radio station with the cursors and press ENTER to start playing.
- Deleting a Registered Radio Station

- 1. Press NET on the remote controller to display NET TOP screen.
 - The "NET" indicator on the display stays lit.



- 2. Select "My Favorites" with the cursors and press ENTER to display the registered Internet radio stations.
- 3. Select the radio station with the corsors to delete and press MENU to display the menu screen.
 - You can also display the menu screen by pressing MENU while the radio station is being played.

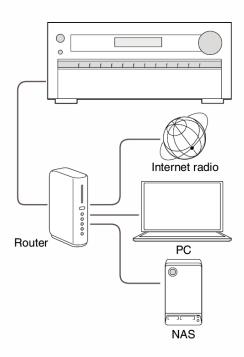


- 4. Select "Delete from My Favorites" with the curosrs, and then press ENTER.
 - Radio stations can be deleted also from "WEB Setup".

About DLNA

Digital Living Network Alliance (DLNA) can be referred to as a technology standard or the industry group to develop the technology standard to interconnect and use AV components, PCs and other devices in a home network (more precisely the technology standard is called the DLNA guidelines).

The unit allows you to use DLNA to play music files stored on a PC or a hard disk connected to your home network (NAS device). Make sure the unit and PC or NAS device are connected to the same router.



- To play a music file with DLNA, you need a NAS device or the like with DLNA server functions and a DLNA player (software) to stream the music. You can also stream music files using a PC installed with Windows Media Player 11 or 12 as they are equipped with both DLNA server and player functions. To enable streaming, you must first configure the Windows Media Player 11 or Windows Media Player 12.
- With Windows Media Player 12 Remote Playback function, you can stream music files stored on your PC to the unit by operating the PC.

Configuring the Windows Media Player

Windows Media Player 11

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- 1. Turn on your PC and start Windows Media Player 11.
- 2. In the "Library" menu, select "Media Sharing" to display a dialog box.
- 3. Select the "Share my media" check box, and then click "OK" to display the compatible devices.
- 4. Select this unit, and then click "Allow".
 - When it is clicked, the corresponding icon is checked.
- 5. Click "OK" to close the dialog.

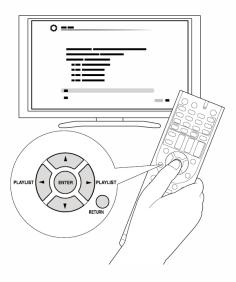
Windows Media Player 12



- 1. Turn on your PC and start Windows Media Player 12.
- 2. In the "Stream" menu, select "Turn on media streaming" to display a dialog box.
 - If media streaming is already turned on, select "More streaming options..." in the "Stream" menu to list players in the network, and then go to step 4.
- 3. Click "Turn on media streaming" to list players in the network.
- 4. Select this unit in "Media streaming options" and check that it is set to "Allow".
- 5. Click "OK" to close the dialog.

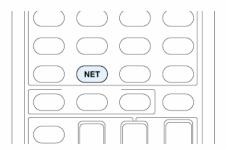
DLNA Playback

● **Operation**: You can set up by viewing the guidance displayed on the TV screen. To display the guidance, you need to make HDMI connection between the unit and TV. Select the item with the cursor buttons of the remote controller and press ENTER to confirm your selection. To return to the previous screen, press RETURN.



■ Playing Back

- 1. Start the server (Windows Media Player 11, Windows Media Player 12, or NAS device) containing the music files to play.
- 2. Press NET on the remote controller to display NET TOP screen.
 - The "NET" indicator on the display stays lit. If the "NET" indicator flashes, the unit is not properly connected to the network. When using a wired LAN connection, check the Ethernet cable connection, and when using a wireless LAN connection, check whether the "Wi-Fi" indicator on the left side of the unit stays lit.

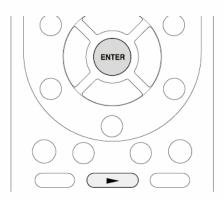


- 3. Select "DLNA" with the cursors and press ENTER.
- 4. Select the target server with the cursors and press ENTER to display the

items list screen.

- Searching does not work in servers that do not support search functions.
- The unit cannot access pictures and videos stored on servers.
- 5. With the cursors, select the music file to play, and then press ENTER or

 ▶ to start playback.
 - If "No Item" is displayed, check whether the network is properly connected.



Controlling Remote Playback from a PC

You can use this unit to play music files stored on your PC by operating the PC inside your home network. The unit supports remote playback with Windows Media Player 12. To use the remote playback function with Windows Media Player 12, Windows Media Player 12 must be configured in advance.

Using a DLNA-compatible controller (such as an Android application), you
can select a music file stored on Windows Media Player 12 and stream to
this unit by operating the controller. For information on how to remotely
play using the controller, refer to the controller's instruction manual.

Setting PC

- 1. Turn on your PC and start Windows Media Player 12.
- 2. In the "Stream" menu, select "Turn on media streaming" to display a dialog box.
 - If media streaming is already turned on, select "More streaming options..." in the "Stream" menu to list players in the network, and then go to step 4.
- 3. Click "Turn on media streaming" to list players in the network.
- 4. Select this unit in "Media streaming options" and check that it is set to "Allow".
- 5. Click "OK" to close the dialog box.
- 6. Open the "Stream" menu and check that "Allow remote control of my Player..." is checked.

Remote playback

- 1. Turn on the power of the unit.
- 2. Turn on your PC and start Windows Media Player 12.
- 3. Select and right-click the music file to play with Windows Media Player 12.
 - To remotely play a music file on another server, open the target server from "Other Libraries" and select the music file to play.
- 4. Select this unit in "Play to" to open the "Play to" window of Windows Media Player 12 and start playback on the unit.
 - Operations during remote playback are possible from the "Play to" window on the PC. The playback screen is displayed on the TV connected to the HDMI output of the unit. If your PC is running on

Windows 8, click "Play to", and then select this unit.

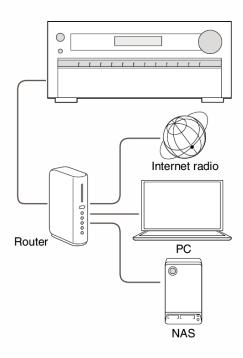
- 5. Adjust the volume using the volume bar on the "Play to" window.
 - Sometimes, the volume displayed on the remote playback window may differ from that appeared on the display of the unit.
 - When the volume is adjusted from the unit, the value is not reflected in the "Play to" window.
 - This unit cannot play music files remotely in the following conditions.
 - It is using a network service.
 - It is playing a music file on a USB storage device.
 - "Agree" was not selected in the "DISCLAIMER" screen that was displayed when the NET input was selected on the unit for the first time.



Music Streaming from a Shared Folder

About Shared Folder

A shared folder is configured in a network device such as a PC or NAS (hard disk connected to your home network) for access from other users. You can play music files in a shared folder on your PC or NAS connected to the same home network as that of the unit. To play music files in a shared folder, you must first configure Windows 8 or Windows 7, Make sure the unit and PC or NAS device are connected to the same router.



- The sharing options must be configured and a shared folder created on the PC in advance.
- For information on how to configure the NAS device and create a shared folder, refer to the NAS device's instruction manual.



Music Streaming from a Shared Folder

Setting PC

Configuring the Sharing Options

- 1. Select "Choose Home group and Sharing Options" on the "Control Panel".
 - If the menu is not displayed, check whether "View by" is set to "Category".
- 2. Select "Change advanced sharing settings".
- 3. Check whether the following radio buttons are selected in "Home or Work":
 - "Enable network discovery"
 - "Turn on file and printer sharing"
 - "Turn on sharing so anyone with network access can read and write files in the Public folders"
 - "Turn off password protected sharing"
- 4. Select "Save Changes" and click "OK" on the dialog box.

Creating a Shared Folder

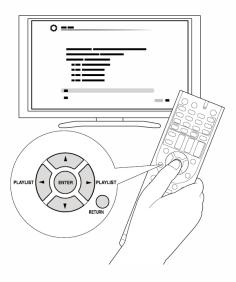
- 1. Select and right-click the folder to share.
- 2. Select "Properties".
- 3. Select "Advanced Sharing" on the "Sharing" tab.
- 4. Select "Share this folder" check box and click "OK".
- 5. Select "Share" for "Network File and Folder Sharing".
- 6. Select "Everyone" from the pull-down menu. Click "Add", and then "Share".
 - To set user name and password to a shared folder, set "Permissions" in "Advanced Sharing" on the "Sharing" tab.
 - Check whether a workgroup is set.



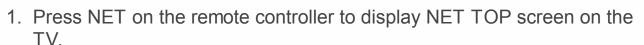
Music Streaming from a Shared Folder

Playing from a Shared Folder

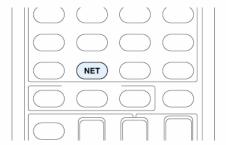
● **Operation**: You can set up by viewing the guidance displayed on the TV screen. To display the guidance, you need to make HDMI connection between the unit and TV. Select the item with the cursor buttons of the remote controller and press ENTER to confirm your selection. To return to the previous screen, press RETURN.



Playing Back



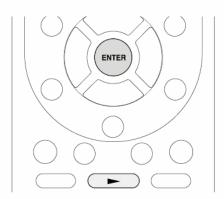
 The "NET" indicator on the display stays lit. If the "NET" indicator flashes, the unit is not properly connected to the network. When using a wired LAN connection, check the Ethernet cable connection, and when using a wireless LAN connection, check whether the "Wi-Fi" indicator on the left side of the unit is lit.



- 2. Select "Home Media" with the cursors, and then press ENTER.
- 3. Select the target server with the cursors, and then press ENTER.
 - You can check the server name of your PC from the PC properties.

- 4. Select the target shared folder with the cursors, and then press ENTER.
- 5. If a username and password is required, enter the necessary login information.
 - The login information is the account information set at the time of creating the shared folder.
 - Once entered, the login information will be remembered from the next time onward.
- 6. With the cursors, select the music file to play, and then press ENTER or

 ▶ to start playback.





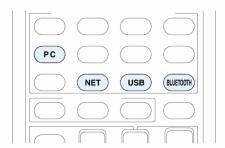
About the Remote Controller

The remote controller of this unit allows you to play music files stored on USB storage devices, Internet radio, PCs and NAS devices on your home network, as well as on Bluetooth-enabled devices. It also allows you to view information of the music file being played and perform various other operations.

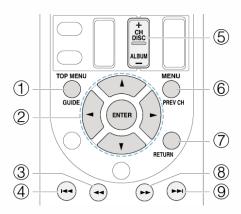
- Available buttons may vary depending on the service and device to play.
- Some buttons cannot be used with Bluetooth-enabled devices.
 Furthermore, the Bluetooth-enabled devices must support the AVRCP profile. Some devices may not be operated, even when they support AVRCP profile.

Remote Controller Buttons

1. Press INPUT SELECTOR (PC, NET, USB or BLUETOOTH) appropriate for the input source on the remote controller.

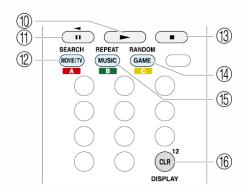


2. Operate the remote controller by referring to the name and function of each of the buttons below.



- 1 **TOP MENU**: This button displays the top menu for each media or server.
- ② ▲/▼, ENTER: These buttons navigate through items and activate the selected item.
 - ◄/►: These buttons allow you to navigate to another page when the list is broken across several pages.
- ③ ◄ : This button fast-reverses the current track. This button is not operable from 10 seconds before the playback ends.
- ④ ► This button plays the current track from the beginning. Pressing this button twice plays the previous track.
- ⑤ **CH +/- button**: Moves the cursor on the Internet radio stations list in "My Favorites".
- 6 MENU: This button displays the menu of each Internet radio service.
- **RETURN**: This button returns to the previous screen.
- ⊗ ►►: This button fast-forwards the current track. This button is not operable from 10 seconds before the playback ends.

⑨ ►►: This button plays the next track.



- ② **SEARCH**: This button toggles between the playback screen and list screen during playback.
- ③ ■: This button stops the playback.
- (4) **RANDOM**: This button performs random playback.
- (5) **REPEAT**: This button replays the track(or tracks). Pressing this button repeatedly cycles through the repeat modes.
- (6) **DISPLAY**: This button changes the displayed track information during playback. Pressing this button when the list screen is displayed toggles the screen to playback.



Using Remote Controller for Playing Music Files

Icons Displayed during Playback

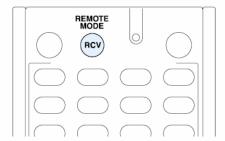
lcons are displayed on the display during music file playback. The meaning of each icon is as follows:

- **!:** Folder
- :Track
- # : Play
- #: Pause
- : Fast-forward
- : Fast-reverse
- : Artist
- **#**: Album
- 1 2: Repeat One Track
- Example: Repeat within a folder
- Repeat
- : Shuffle

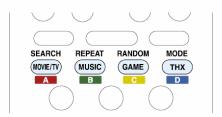
Selecting Listening Mode

The listening modes allow you to select the best sound effect for your input source.

- 1. Press RCV on the remote controller.
 - Always press RCV first to change the remote controller to RECEIVER mode (the mode to operate this unit) since its mode may be changed to operate another component.



- 2. Press one of the following buttons depending on your choice from among the four listening modes.
 - Pressing a button changes the listening mode to that chosen. Set the listening mode of your choice by listening to the actual sound.



For details on the types and difference of listening modes, see "Contents of Listening Modes".

MOVIE/TV button

VIC VIE/ I V Battori

You can select a mode suitable for movies and TV programs.

Selectable listening modes:

All Ch Stereo

Direct

Dolby D

Dolby D+

Dolby EX/Dolby D EX

Dolby TrueHD

DSD DTS DTS 96/24 **DTS Express** DTS-HD HR DTS-HD MSTR **ES** Discrete **ES Matrix Full Mono** Mono Multichannel Neo:6 Neo:6 Cinema **PLII Movie** PLIIx Movie/PLII Movie PLIIz Height T-D **THX Cinema** THX S2 Cinema THX Surr EX TV Logic

MUSIC button

You can select a mode suitable for music.

• Selectable listening modes:

All Ch Stereo

Direct

Dolby D

Dolby D+

Dolby EX/Dolby D EX

Dolby TrueHD

DSD

DTS

DTS 96/24

DTS Express

DTS-HD HR

DTS-HD MSTR

ES Discrete

ES Matrix

Full Mono

Multichannel

Neo:6

Neo:6 Music

Orchestra

PLII Music

PLIIz Height Pure Audio Stereo Studio-Mix **THX Music** THX S2 Music Unplugged GAME button You can select a mode suitable for games. Selectable listening modes: All Ch Stereo Direct Dolby D Dolby D+ Dolby EX/Dolby D EX Dolby TrueHD DSD DTS DTS 96/24 **DTS Express** DTS-HD HR DTS-HD MSTR **ES** Discrete **ES Matrix** Full Mono Neo:6 Game-Action Game-Rock Game-RPG Game-Sports Multichannel **PLII Game** PLIIx Game/PLII Game PLIIz Height T-D **THX Games THX S2 Games** THX button

PLIIx Music/PLII Music

You can select a THX listening mode.

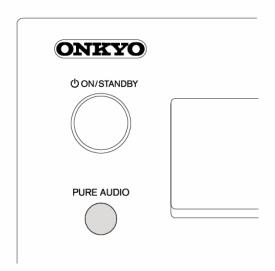
• Selectable listening modes:

THX Cinema

THX Music THX Games THX S2 Cinema THX S2 Games THX S2 Music THX Surr EX

PURE AUDIO button (main unit only)

The display and analog video circuit is cut off to switch the unit to PURE AUDIO mode and provide purer sound. Selecting this mode lights the PURE AUDIO indicator on the unit. Pressing the button again reselects the previous listening mode.



- Selecting Pure Audio for listening mode turns off the display and analog video circuitry, but the video signals input through the HDMI input jack are output from the HDMI output jack.
- Pure Analog Playback (main unit only)

If you connect a CD player or such other player to the analog audio input jacks of the unit with analog audio (RCA) cable, you can use the "Pure Analog Playback function" that physically shuts down the digital circuits affecting sound reproduction and enables cleaner sound playback. If this function is on, the power of the display, analog video circuit, HDMI circuit, digital audio circuit, and tuner circuit is cut off and their interference with sound playback is physically prevented.

To use the function, hold down PURE AUDIO on the main unit 5 seconds during playback. When "Pure Analog [Enter]: OK" appears on the main unit display, press ENTER on the main unit. To turn off the function, press ON/STANDBY on the main unit.

- It cannot be operated with the remote controller.
- When the function is on, you can perform only input selection and volume

adjustment. It cannot be operated with Onkyo Remote or any other application that can control the unit.

- It cannot be used when "TUNER", "NET", "USB", or "BLUETOOTH" input is selected or the multi-zone function is on.
- The Auto Standby setting becomes off if the function is on.

Contents of Listening Modes

Selectable listening modes will differ depending on the number of input source channels and the actual speaker configuration. Listening modes available when headphones are connected are: Pure Audio, Mono, Direct, and Stereo.

Lists in alphabetic order (A-Z)

All Ch Stereo

Ideal for background music, this mode fills the entire listening area with stereo sound from the front, surround, and surround back speakers.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch

Direct

In this mode, audio from the input source is output as-is. For example, if a 2 ch source from a music CD is input, the output will be stereo, or if Dolby Digital signal is input, the sound field will be controlled in accordance with the number of channels present.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 2.1 ch, 3.1 ch, 5.1 ch, 7.1 ch

Dolby D (Dolby Digital)

This mode is for use with Dolby Digital sources. The audio from the input source is output as-is, without surround sound processing.

- Input source: 5.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch
- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.

Dolby D + (Dolby Digital Plus)

This mode is for use with Dolby Digital Plus sources. The audio from the input source is output as-is, without surround sound processing.

- Input source: 5.1 ch, 7.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch

- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.
- When playing back 5.1 ch sources from Blu-ray Discs, Dolby Digital is automatically applied.

Dolby EX/Dolby D EX

This mode expands any 5.1 ch music or movie source for 6.1/7.1 ch playback that can give an effect of surround back speaker. It is suitable for the Dolby EX soundtrack containing the matrix-encoded surround back channel. Adding the surround back effect to 5.1 ch source will improve spatial representation by creating a moving sound effect of 360-degree surround sound or overhead sound and giving a realistic experience.

- Input source: 5.1 ch
- Speaker configuration: 7.1 ch surround back
- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.

■ Dolby Pro Logic IIx/Dolby Pro Logic II

This mode expands any 2 ch source for 7.1-ch playback. It provides a very natural and seamless surround-sound experience, keeping the sound clear.

- In case of 5.1 ch without surround back speaker, the mode becomes Dolby Pro LogicII instead of Dolby Pro Logic IIx.
- PLIIx Movie/PLII Movie: Use this mode with any 2 ch movie.
- PLIIx Music/PLII Music: Use this mode with any 2 ch music source.
- PLIIx Game/PLII Game: Use this mode with any 2 ch game source.
- Input source: STEREO, 5.1 ch (PLIIx Movie and PLIIx Music only)
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch, 7.1 ch surround back (PLllx Movie and PLllx Music only)

Dolby TrueHD

This mode is for use with Dolby TrueHD sources. The audio from the input source is output as-is, without surround sound processing.

- Input source: 5.1 ch, 7.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch
- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.

DSD

This mode is for use with DSD sources. The audio from the input source is output as-is, without surround sound processing.

- Input source: 5.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch

- This unit supports DSD signals input through HDMI IN. However, depending on the connected player, better sound is possible when output from the PCM output of the player. In that case, configure the player for PCM output.
- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.

■ DTS ∨

This mode is for use with DTS sources. The audio from the input source is output as-is, without surround sound processing.

- Input source: 5.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch
- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.

■ DTS 96/24 ∨

This mode is for use with DTS 96/24 sources. The audio from the input source is output as-is, without surround sound processing. With 96 kHz sampling rate and 24-bit resolution, it provides superior fidelity.

- Input source: 5.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch
- Depending on the settings, this listening mode becomes DTS.
- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.

■ DTS Express ∨

This mode is for use with DTS Express sources. The audio from the input source is output as-is, without surround sound processing.

- Input source: 5.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch
- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.

■ DTS-HD HR (DTS-HD High Resolution Audio)

This mode is for use with DTS-HD High Resolution Audio sources. The audio from the input source is output as-is, without surround sound processing.

- Input source: 5.1 ch, 7.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch
- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.

DTS-HD MSTR (DTS-HD Master Audio)

This mode is for use with DTS-HD Master Audio sources. The audio from the input source is output as-is, without surround sound processing.

- Input source: 5.1 ch, 7.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch
- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.

■ DTS Neo:6

This mode expands any 2 ch source for 5.1 ch multichannel surround playback. It offers full-bandwidth on all channels, with great independence between the channels. There are two variants for this mode: one ideal for movies and another ideal for music.

- Neo:6 Cinema: Use this mode with any 2 ch movie.
- Neo:6 Music: Use this mode with any 2 ch music source.
- Neo:6: Use this mode to expand any 5.1 ch music source for 6.1 ch or 7.1 ch playback using Neo:6.
- Input source: STEREO (Neo:6 Cinema and Neo:6 Music only), 5.1 ch (Neo:6 only)
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch (Neo:6 Cinema and Neo:6 Music only), 7.1 ch surround back (Neo:6 only)

■ ES Discrete (DTS-ES Discrete)

This mode is for use with DTS-ES Discrete sources and enables 6.1 ch or 7.1 ch playback using surround back channel. Completely discrete seven channels will improve spatial imaging and enable 360-degree sound localization producing a sound crossing between the surround channels.

- Input source: 6.1 ch
- Speaker configuration: 7.1 ch surround back
- This listening mode can be selected only if your Blu-ray Disc/DVD player is digitally connected to the unit or the player's output setting is bitstream.
- Use on the DVD with DTS ES logo, particularly on the software containing DTS-ES Matrix soundtrack.
- Playback becomes DTS if no surround back speaker is connected.

ES Matrix (DTS-ES Matrix)

This mode is for use with DTS-ES Matrix soundtrack and enables 6.1 ch or 7.1 ch playback using matrix-encoded back channel.

- Input source: 6.1 ch
- Speaker configuration: 7.1 ch surround back
- This listening mode can be selected only if your Blu-ray Disc/DVD player

is digitally connected to the unit or the player's output setting is bitstream.

- Use on the CD, DVD or LD with DTS ES logo, particularly on the software containing DTS-ES Matrix soundtrack.
- Playback becomes DTS if no surround back speaker is connected.

Full Mono

 \vee

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.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch

Game-Action

 \vee

In this mode, sound localization is distinct with emphasis on bass.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 5.1 ch, 7.1 ch

Game-Rock

 \vee

In this mode, sound pressure is emphasized to heighten live feel.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 5.1 ch, 7.1 ch

■ Game-RPG



In this mode, the sound has a dramatic feel with a similar atmosphere to Orchestra mode.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 5.1 ch, 7.1 ch

Game-Sports



Suitable for audio source with much reverberation.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 5.1 ch, 7.1 ch

Mono



Use this mode when watching an old movie with a mono soundtrack, or use it to separately reproduce soundtracks in two different languages recorded in the left and right channels of some movies. It is also suitable for DVDs or other sources containing multiplexed audio.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 2.1 ch, 3.1 ch, 5.1 ch, 7.1 ch

Multichannel

This mode is for use with PCM multichannel sources. The audio from the input source is output as-is, without surround sound processing.

- Input source: 5.1 ch, 7.1 ch
- Speaker configuration: 3.1 ch, 5.1 ch, 7.1 ch

Orchestra

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.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 5.1 ch, 7.1 ch

PLIIz Height (Dolby Pro Logic IIz Height)

This mode allows you to effectively use the existing programs when height speakers are connected. It is suitable for various kinds of sources including movie, music and especially games.

- Input source: STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 7.1 ch height

Pure Audio

This mode reproduces the original sound accurately. Since the audio from the input source is output without surround sound processing and the display and video circuitry are turned off, possible noise sources are minimized for a realistic audio reproduction.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 2.1 ch, 3.1 ch, 5.1 ch, 7.1 ch
- This mode cannot be selected when Zone 2/Zone 3 is active. Activating Zone 2/Zone 3 when this mode is selected, automatically switches the listening mode to Direct.

Stereo

In this mode, sound is output from the front left and right speakers/subwoofer.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 2.1 ch, 3.1 ch, 5.1 ch, 7.1 ch

Studio-Mix

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.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 5.1 ch, 7.1 ch

T-D (Theater-Dimensional)

In this mode, you can enjoy a virtual playback of multichannel surround sound even with only two or three speakers. This works by controlling how sounds reach the listener's left and right ears.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 2.1 ch, 3.1 ch, 5.1 ch, 7.1 ch
- Good results may not be possible if there is too much reverb, so we recommend that you use this mode in an environment with little or no natural reverb.

THX

Founded by George Lucas, THX develops stringent standards that ensure movies are reproduced in movie theaters and home theaters just as the director intended. THX Modes carefully optimize the tonal and spatial characteristics of the soundtrack for reproduction in the home-theater environment. They can be used with 2-channel matrixed and multichannel sources. Surround back speaker output depends on the source material and the selected listening mode.

- The THX mode can finely adjust the acoustic and spatial characteristics
 of the soundtrack for the best reproduction of home theater sound. It will
 work on 2 ch source and multichannel source. Surround back sound will
 differ depending on the source and selected listening mode.
- Dolby Pro Logic II Game + THX Select2 Games: The combination of Dolby Pro Logic II/IIx * 8 and THX Cinema/Music/Games modes can be used. The PLII/PLIIx and THX indicators light on the unit's display.
 - Input source: STEREO
 - Speaker configuration: 7.1 ch surround back
- Dolby Pro Logic II/IIx Movie + THX Cinema, Dolby Pro Logic II/IIx Music + THX Music, Dolby Pro Logic II/IIx Game + THX Games:
 The combination of Dolby Pro Logic II/IIx * 8 and THX
 Cinema/Music/Games modes can be used. The PLII/PLIIx and THX indicators light on the unit's display.
 - Input source: STEREO
 - Speaker configuration: 5.1 ch, 7.1 ch
- Dolby Pro Logic IIx Movie + THX Cinema, Dolby Pro Logic IIx Music
 + THX Music: The combination of Dolby Pro Logic IIx and THX
 Cinema/Music modes can be used. The PLIIx and THX indicators light on

the unit's display.

Input source: 5.1 ch

• Speaker configuration: 7.1 ch surround back

Dolby Pro Logic IIz Height + THX Cinema, Dolby Pro Logic IIz
 Height + THX Music, Dolby Pro Logic IIz Height + THX Games:
 The combination of Dolby Pro Logic IIz Height and THX
 Cinema/Music/Games modes can be used. The PLIIz and THX indicators light on the unit's display.

• Input source: STEREO, 5.1 ch, 7.1 ch

• Speaker configuration: 7.1 ch height

DTS Neo:6 Cinema + THX Cinema, DTS Neo:6 Music + THX Music,

DTS Neo:6 + THX Cinema,

DTS Neo:6 + THX Music,

DTS Neo:6 + THX Games:

The combination of DTS Neo:6 and THX Cinema/Music/Games modes can be used. The Neo:6 and THX indicators light on the unit's display.

- Input source: STEREO (DTS Neo:6 Cinema + THX Cinema, DTS Neo:6 Music + THX Music), 5.1 ch (DTS Neo:6 + THX Cinema, DTS Neo:6 + THX Music, DTS Neo:6 + THX Games)
- Speaker configuration: 5.1 ch, 7.1 ch (DTS Neo:6 Cinema + THX Cinema, DTS Neo:6 Music + THX Music), 7.1 ch surround back (DTS Neo:6 + THX Cinema, DTS Neo:6 + THX Music, DTS Neo:6 + THX Games)
- THX Cinema: THX Cinema mode corrects theatrical soundtracks for playback in a home theater environment. In this mode, THX Loudness Plus is configured for cinema levels and Re-EQ, Timbre Matching, and Adaptive Decorrelation are active.

• Input source: 5.1 ch, 7.1 ch

• Speaker configuration: 5.1 ch, 7.1 ch

 THX Games: THX Games mode is meant for spatially accurate playback of game audio, which is often mixed similarly to movies but in a smaller environment. THX Loudness Plus is configured for game audio levels, with Timbre Matching active.

• Input source: 5.1 ch, 7.1 ch

• Speaker configuration: 5.1 ch, 7.1 ch

 THX Music: THX Music mode is tailored for listening to music, which is typically mastered at significantly higher levels than movies. In this mode, THX Loudness Plus is configured for music playback and only Timbre Matching is active.

• Input source: 5.1 ch, 7.1 ch

• Speaker configuration: 5.1 ch, 7.1 ch

- THX Select2 Cinema: THX Select2 Cinema mode plays 5.1 movie using 8 speakers giving you the best possible movie watching experience. In this mode, THX ASA processing blends the side surround speakers and back surround speakers providing the optimal mix of ambient and directional surround sounds.
 - Input source: 5.1 ch
 - Speaker configuration: 7.1 ch surround back
- THX Select2 Games: For the replay of stereo and multichannel game audio, the THX Select2 Games mode should be selected. In this mode, THX ASA processing is applied to the surround channels of all 5.1 and 2.0 encoded game sources such as analog, PCM, DTS, and Dolby Digital. This accurately places all game audio surround information creating a full 360 degree playback environment. THX Select2 Games is unique as it gives you a smooth transition of audio in all points of the surround field.
 - Input source: 5.1 ch
 - Speaker configuration: 7.1 ch surround back
- THX Select2 Music: For the replay of multichannel music, the THX Select2 Music should be selected. In this mode, THX ASA processing is applied to the surround channels of all 5.1 encoded music sources such as DTS, Dolby Digital, DVD-Audio, etc. to provide a wide and stable rear soundstage.
 - Input source: 5.1 ch
 - Speaker configuration: 7.1 ch surround back
- THX Surround EX: This mode expands 5.1-channel sources for 6.1/7.1-channel playback. It's especially suited to Dolby Digital EX sources. THX Surround EX, also known as Dolby Digital Surround EX, is a joint development between Dolby Laboratories and THX Ltd.
 - Input source: 5.1 ch
 - Speaker configuration: 7.1 ch surround back

TV Logic

Suitable for TV shows produced in a TV studio, This mode enhances the surround effects to the entire sound to give clarity to voices and create a realistic acoustic image.

- Input source: MONO, STEREO, 5.1 ch, 7.1 ch
- Speaker configuration: 5.1 ch, 7.1 ch

Unplugged

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.

• Input source: MONO, STEREO, 5.1 ch, 7.1 ch

■ Reference ∨

Dialogue Normalization

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

THX Cinema Processing

THX is an exclusive set of standards and technologies established by the world-renowned film production company Lucasfilm Ltd. THX grew from George Lucas' personal desire to make your experience of the film soundtrack in both movie theaters and in your home theater as faithful as possible to what the director intended. Movie soundtracks are mixed in special environments called dubbing stages and are designed to be played back in movie theaters with similar equipment and conditions. Most of those soundtracks are remixed using flat response loudspeakers similar to those used in the small home theater environment before being transferred onto Blu-ray Discs, DVD, etc. THX engineers developed patented technologies to accurately translate the sound from the movie theater environment into the home, correcting the tonal and spatial errors that occur. On this product, when the THX indicator is on, THX features are automatically added in Cinema modes (e.g. THX Cinema, THX Surround EX).

Timbre Matching

The human ear changes our perception of a sound depending on the direction from which the sound is coming. In a movie theater, there is an array of surround speakers so that the surround information is all around you. In a home theater, you may only have two speakers located to the side of your head. In this case, the Timbre Matching feature filters the information going to the surround speakers so that they more closely match the tonal characteristics of the sound coming from the front

speakers. This ensures seamless panning between the front and surround speakers.

Adaptive Decorrelation

In a movie theater, a large number of surround speakers help create an enveloping surround sound experience. If a home theater only has two sidewall surround speakers, the surround speakers may sound similar to headphones lacking spaciousness and envelopment. Surround sounds will also collapse toward the closet speaker as you move away from the middle seating position. Adaptive Decorrelation slightly changes one surround channel's time and phase relationship with respect to the other surround experience as in a movie theater using only two speakers.

ASA (Advanced Speaker Array)

ASA is a proprietary THX technology which processes the audio on the two side and two back surround speakers for the optional surround sound experience. When you set up your home theater system using eight speaker outputs (Left, Center, Right, Surround Right, Surround Back Right, Surround Back Left, Surround Left, and Subwoofer), be sure to go to the THX Audio Setup screen and choose the setting that closely corresponds to the back speaker spacing. This will reoptimize the surround sound field. ASA is used in four modes: THX Select2 Cinema, THX Select2 Music, THX Select2 Games and Dolby Pro Logic II + THX Select2 Games.

Checking the Input Format

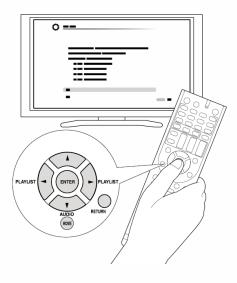
You can check the audio format of the input signals. While audio from the player is being input, press DISPLAY on the remote controller several times to switch the information shown on the main unit display. If "Dolby D 5.1" is displayed in Signal format, the Dolby Digital 5.1 ch signals are being input.

Dolby D 5.1°

How to Set

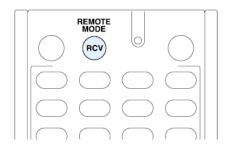
The unit allows you to configure advanced settings, such as to remap the input and input selector, or configure various speaker settings in order to provide even better experience. Make the settings in "Setup" of the Home menu.

● Operation: You can set up by viewing the guidance displayed on the TV screen. To display the guidance, you need to make HDMI connection between the unit and TV. Select the item with the cursor buttons of the remote controller and press ENTER to confirm your selection. To return to the previous screen, press RETURN. To return to the Home menu, press HOME.

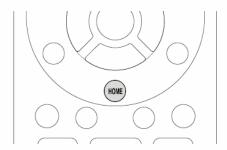


Operation

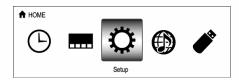
- 1. Press RCV on the remote controller.
 - Always press RCV first to change the remote controller to RECEIVER mode (the mode to operate this unit) since its mode may be changed to operate another component.



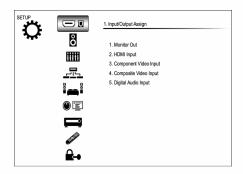
2. Press HOME to display the Home menu.



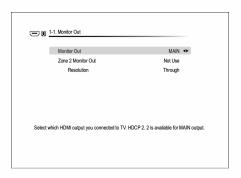
3. Select "Setup" with the **◄/►** cursors and press ENTER.



4. Press ▲/▼ to select the desired menu, and then press ENTER.



- 5. With the $\Delta/\nabla/\ll$ cursors, select the desired item to configure the settings.
 - When "ENTER" is displayed on the setting item, press ENTER.



To save changes and finish the setting: Press HOME to exit.

1.Input/Output Assign

Monitor Out

The video input signals input to the unit will be converted when they are output from the HDMI OUT jack to the TV so that their resolution can match that of the TV used.

☐ Monitor Out

Default Value: MAIN

Select the jack to be used for HDMI output.

"MAIN": When connecting the TV to the HDMI OUT MAIN jack "SUB": When connecting the TV to the HDMI OUT SUB jack

 The resolution of the input signal does not change when output through HDMI OUT SUB jack.

"MAIN+SUB": When connecting to both the MAIN and SUB jacks

- Video signals input to the composite video input jack or the COMPONENT VIDEO input jacks will be upconverted to HDMI signals and then output from the HDMI output jack.
- If "MAIN+SUB" is selected
 - Only "Through" or "Auto" can be selected in "Resolution".
 - The resolution of the input signal does not change when output through HDMI OUT SUB jack.
- HDCP2.2 protected video from HDMI OUT SUB will not be displayed.

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Default Value: Not Use

This is the setting to output to TV of Zone 2 which is connected to the HDMI OUT ZONE2 jack.

"Use": Enable this function

"Not Use": Disable this function

 The setting is set to "Not Use" if "Monitor Out" is set to "SUB" or "MAIN+SUB".

Resolution

Default Value: Through

Specify the output resolution of the HDMI OUT jacks. The image resolution of the unit will be converted so that it can match the resolution supported by the TV used.

"Through": The output resolution will be the same as that of the input signals.

"Auto": The resolution will automatically be converted according to the resolution supported by the TV.

"480p (480p/576p)", "720p", "1680×720p", "1080i", "1080p", "2560×1080p": Select the desired resolution.

"4K": About four times as high resolution as 1080p (3840×2160 or 4096×2160 pixels depending on the resolution supported by the connected TV)

- If "1080p" is selected, 1080p/24 input signals will be output with an unchanged resolution.
- If the selected resolution is not supported by the monitor, the video is displayed in the same resolution as the input signal.
- If "4K" is selected, video signals may not be output to some types of TV. For details, see "Regarding the Video Resolution" in "Troubleshooting".
- If "Monitor Out" is set to "SUB", this setting will be set to "Through".
- Press ENTER if you output signals from the HDMI OUT MAIN jack and check the video on the TV while making this setting. Press RETURN if no video is displayed. (except when "NET", "USB" or "BLUETOOTH" is selected)
- For THX playback, selecting the HDMI output and setting the resolution to "Through" is recommended for the best image quality.

HDMI Input

It is possible to change assignment of input selector buttons and the HDMI IN jacks.

☐ BD/DVD

Default Value: HDMI 1

"HDMI 1" to "HDMI 6": Desired HDMI IN jack can be assigned to BD/DVD button. If you do not assign a jack, select "-----". To select an HDMI IN jack already assigned to another input selector, change its setting to "-----" first.

☐ CBL/SAT

Default Value: HDMI 2

"HDMI 1" to "HDMI 6": Desired HDMI IN jack can be assigned to CBL/SAT button. If you do not assign a jack, select "-----". To select an HDMI IN jack already assigned to another input selector, change its setting to "-----" first.

☐ STB/DVR

Default Value: HDMI 3 (HDCP2.2)

"HDMI 1" to "HDMI 6": Desired HDMI IN jack can be assigned to STB/DVR button. If you do not assign a jack, select "-----". To select an HDMI IN jack already assigned to another input selector, change its setting to "-----" first.

☐ GAME

Default Value: HDMI 4

"HDMI 1" to "HDMI 6": Desired HDMI IN jack can be assigned to GAME button. If you do not assign a jack, select "----". To select an HDMI IN jack already assigned to another input selector, change its setting to "----" first.

□ PC

Default Value: HDMI 5

"HDMI 1" to "HDMI 6": Desired HDMI IN jack can be assigned to PC button. If you do not assign a jack, select "-----". To select an HDMI IN jack already assigned to another input selector, change its setting to "-----" first.

☐ AUX

Default Value: FRONT/MHL

The setting cannot be changed.

☐ TV/CD

Default Value: ----

"HDMI 1" to "HDMI 6": Desired HDMI IN jack can be assigned to TV/CD button. If you do not assign a jack, select "----". To select an HDMI IN jack already assigned to another input selector, change its setting to "----" first.

Default Value:	
"HDMI 1" to "HDMI 6": Desired HDMI IN jack can be assigned to PHONO button. If you do not assign a jack, select "". To select an HDMI IN jack already assigned to another input selector, change its setting to "" first.	
Component Video Input	,
CBL/SAT button is assigned to COMPONENT VIDEO IN jack as factory default setting. This assignment can be changed if necessary. If you do not assign a jack, select "".	
□ BD/DVD	
Default Value:	
"COMPONENT": COMPONENT VIDEO IN jack is assigned to BD/DVD button.	
□ CBL/SAT	
Default Value: COMPONENT	
"COMPONENT": COMPONENT VIDEO IN jack is assigned to CBL/SAT button.	
□ STB/DVR	
Default Value:	
"COMPONENT": COMPONENT VIDEO IN jack is assigned to STB/DVR button.	
Default Value:	
"COMPONENT": COMPONENT VIDEO IN jack is assigned to GAME button.	
□ PC	
Default Value:	

"COMPONENT": COMPONENT VIDEO IN jack is assigned to PC button.
Default Value:
"COMPONENT": COMPONENT VIDEO IN jack is assigned to AUX button.
□ TV/CD
Default Value:
"COMPONENT": COMPONENT VIDEO IN jack is assigned to TV/CD button.
□ PHONO
Default Value:
"COMPONENT": COMPONENT VIDEO IN jack is assigned to PHONO button.
 When you convert video signals input to the COMPONENT VIDEO IN jacks and output them from the HDMI OUT jack, set the output resolution of the player to 480i. If the input has 480p or higher resolution, an error message will appear. When "Monitor Out" is set to "SUB", the 480i/576i component signals only will be output with an unchanged resolution. Video will not be displayed if the TV does not support the resolution. When "Monitor Out" is set to "MAIN" or "MAIN+SUB" and "Resolution" is set to "Through", the 480i/576i component signals will be output with their resolution unchanged. So, TV sets not supporting these resolutions will not be able to display video.
Composite Video Input
It is possible to change assignment of input selector buttons and the COMPOSITE VIDEO IN V1 to 3 jacks.
□ BD/DVD
Default Value:
"VIDEO 1" to "VIDEO 3": Desired COMPOSITE VIDEO IN jack can be assigned to BD/DVD button. If you do not assign a jack, select "".

□ CBL/SAT
Default Value: VIDEO 1
"VIDEO 1" to "VIDEO 3": Desired COMPOSITE VIDEO IN jack can be assigned to CBL/SAT button. If you do not assign a jack, select "".
□ STB/DVR
Default Value: VIDEO 2
"VIDEO 1" to "VIDEO 3": Desired COMPOSITE VIDEO IN jack can be assigned to STB/DVR button. If you do not assign a jack, select "".
Default Value: VIDEO 3
"VIDEO 1" to "VIDEO 3": Desired COMPOSITE VIDEO IN jack can be assigned to GAME button. If you do not assign a jack, select "".
□PC
Default Value:
"VIDEO 1" to "VIDEO 3": Desired COMPOSITE VIDEO IN jack can be assigned to PC button. If you do not assign a jack, select "".
Default Value: FRONT
The setting cannot be changed.
□ TV/CD
Default Value:
"VIDEO 1" to "VIDEO 3": Desired COMPOSITE VIDEO IN jack can be assigned to TV/CD button. If you do not assign a jack, select "".
□ PHONO
Default Value:
"VIDEO 1" to "VIDEO 3": Desired COMPOSITE VIDEO IN jack can be assigned to PHONO button. If you do not assign a jack, select "".

- When "Monitor Out" is set to "SUB", the 480i/576i composite signals only will be output with an unchanged resolution. Video will not be displayed if the TV does not support the resolution.
- When "Monitor Out" is set to "MAIN" or "MAIN+SUB" and "Resolution" is set to "Through", the 480i/576i composite signals will be output with their resolution unchanged. So, TV sets not supporting these resolutions will not be able to display video.

Digital Audio Input

V

It is possible to change assignment of input selector buttons and the DIGITAL IN COAXIAL 1 to 3/OPTICAL 1 to 2 jacks.

☐ BD/DVD

Default Value: COAXIAL 1

"COAXIAL 1", "COAXIAL 2", "COAXIAL 3", "OPTICAL 1", "OPTICAL 2": Desired DIGITAL IN jack can be assigned to BD/DVD button. If you do not assign a jack, select "-----".

☐ CBL/SAT

Default Value: COAXIAL 2

"COAXIAL 1", "COAXIAL 2", "COAXIAL 3", "OPTICAL 1", "OPTICAL 2": Desired DIGITAL IN jack can be assigned to CBL/SAT button. If you do not assign a jack, select "-----".

☐ STB/DVR

Default Value: COAXIAL 3

"COAXIAL 1", "COAXIAL 2", "COAXIAL 3", "OPTICAL 1", "OPTICAL 2": Desired DIGITAL IN jack can be assigned to STB/DVR button. If you do not assign a jack, select "-----".

GAME

Default Value: OPTICAL 1

"COAXIAL 1", "COAXIAL 2", "COAXIAL 3", "OPTICAL 1", "OPTICAL 2": Desired DIGITAL IN jack can be assigned to GAME button. If you do not assign a jack, select "-----".

☐ PC

Default Value: ----

"COAXIAL 1", "COAXIAL 2", "COAXIAL 3", "OPTICAL 1", "OPTICAL 2": Desired DIGITAL IN jack can be assigned to PC button. If you do not assign a jack, select "-----".

☐ AUX

Default Value: -----

"COAXIAL 1", "COAXIAL 2", "COAXIAL 3", "OPTICAL 1", "OPTICAL 2": Desired DIGITAL IN jack can be assigned to AUX button. If you do not assign a jack, select "-----".

☐ TV/CD

Default Value: OPTICAL 2

"COAXIAL 1", "COAXIAL 2", "COAXIAL 3", "OPTICAL 1", "OPTICAL 2": Desired DIGITAL IN jack can be assigned to TV/CD button. If you do not assign a jack, select "-----".

☐ PHONO

Default Value: ----

"COAXIAL 1", "COAXIAL 2", "COAXIAL 3", "OPTICAL 1", "OPTICAL 2": Desired DIGITAL IN jack can be assigned to PHONO button. If you do not assign a jack, select "-----".

• Supported sampling rates for PCM signals (stereo, mono) from a digital input are 32/44.1/48/88.2/96 kHz/16, 20, 24 bit.



2. Speaker Setup

Allows you to change the speaker configuration such as presence or not of subwoofer, crossover frequency, and so on. Settings are automatically configured if you use the Automatic Speaker Setup.

Furthermore, this setting cannot be selected if headphones are connected or audio is output from the speakers of the TV.

Speaker Settings

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Change the impedance of the connected speakers, the type of front speaker connection, and other speaker settings.

□ Speaker Impedance

Default Value: 60hms

Set the impedance of the connected speakers.

"4ohms": When any of the connected speakers have 4 Ω or more to less than 6 Ω impedance

"6ohms": When the connected speakers all have 6 $\boldsymbol{\Omega}$ or more impedance

☐ Front Speakers Type

Default Value: Normal

Select the type of front speaker connection.

"Normal": When front speakers are connected in a normal manner

"Bi-Amp": When front speakers are bi-amp connected

☐ Powered Zone 2

Default Value: No

Set presence of speaker terminal connection of Zone 2

"Yes": When speakers are connected to ZONE 2 speaker terminals "No": When speakers are not connected to ZONE 2 speaker terminals

- If "Front Speakers Type" is set to "Bi-Amp", this setting will be set to
- "No".
- For impedance, check the indications on the back of the speakers or their

Speaker Configuration

Allows you to change the speaker configuration such as presence or not of each speaker, crossover frequency, and so on. Settings are automatically configured if you use the Automatic Speaker Setup. Audio will not be output while you are making this setting.

☐ Subwoofer

Default Value: Yes

Set whether a subwoofer is connected or not.

"Yes": When subwoofer is connected "No": When subwoofer is not connected

☐ Front

Default Value: 80Hz(THX)

Select the crossover frequency from "40Hz" to "200Hz" to start outputting bass frequencies for each channel.

"Full Band": Full band will be output.

"None": When no compatible speaker is connected

 "Front" will be fixed to "Full Band" if "Subwoofer" is set to "No", and the bass frequencies of the other channels will be output from the front speakers. To make the settings, refer to the instruction manual of the speakers used.

Center

Default Value: 80Hz(THX)

Select the crossover frequency from "40Hz" to "200Hz" to start outputting bass frequencies for each channel.

"Full Band": Full band will be output.

"None": When no compatible speaker is connected

• "Full Band" cannot be set unless "Front" is set to "Full Band".

Surround

Default Value: 80Hz(THX)

Select the crossover frequency from "40Hz" to "200Hz" to start outputting bass frequencies for each channel.

"Full Band": Full band will be output.

"None": When no compatible speaker is connected

"Full Band" cannot be set unless "Front" is set to "Full Band".

□ Back

Default Value: 80Hz(THX)

Select the crossover frequency from "40Hz" to "200Hz" to start outputting bass frequencies for each channel.

"Full Band": Full band will be output.

"None": When no compatible speaker is connected

- In the following cases, the setting will be set to "None":
 - "Surround" is set to "None".
 - "Front Speakers Type" is set to "Bi-Amp".
 - "Powered Zone 2" is set to "Yes" and also Zone2 is set to on.
- "Full Band" cannot be set unless "Surround" is set to "Full Band".

□ Back Channel

Default Value: 2ch

Select the number of channels of the connected surround back speaker.

"1ch": When one speaker is connected (Connect to the BACK or HEIGHT L terminal)

"2ch": When two speakers are connected

The setting cannot be changed if "Back" is set to "None".

Wide

Default Value: None

Select the crossover frequency from "40Hz" to "200Hz" to start outputting bass frequencies for each channel.

"Full Band": Full band will be output.

"None": When no compatible speaker is connected

- In the following cases, the setting will be set to "None":
 - "Surround" is set to "None".
 - "Front Speakers Type" is set to "Bi-Amp".
 - "Powered Zone 2" is set to "Yes" and also Zone2 is set to on.
- "Full Band" cannot be set unless "Front" is set to "Full Band".

Height

Default Value: None

Select the crossover frequency from "40Hz" to "200Hz" to start outputting bass frequencies for each channel.

"Full Band": Full band will be output.

"None": When no compatible speaker is connected

- In the following cases, the setting will be set to "None":
 - "Surround" is set to "None".
 - "Front Speakers Type" is set to "Bi-Amp".
 - "Powered Zone 2" is set to "Yes" and also Zone2 is set to on.
- "Full Band" cannot be set unless "Front" is set to "Full Band".

☐ LPF of LFE

Default Value: 120Hz

Set the low-pass filter for LFE (low-frequency effect) signals in order to pass lower frequency signals than the set value and thus cancel unwanted noises. The low-pass filter will be effective only on sources with LFE channel.

Select a value between "80Hz" to "120Hz".

"Off": Do not use this function

☐ Subwoofer Phase

Default Value: 0°

Switch the phase of subwoofer between "0°" and "180°".

☐ Double Bass

Default Value: -----

Boost bass output by feeding bass sounds from the front left and right, and center speakers to the subwoofer.

"On": Bass output will be boosted.

"Off(THX)": Bass output will not be boosted.

- The setting will not automatically be configured even if you performed the automatic speaker setup.
- If "Subwoofer" is set to "No" or if "Front" is set to other than "Full Band", the setting will be fixed to "----".
- If you're using THX-certified speakers, we recommend the following settings:
 - Set a value "80Hz(THX)" in Crossover frequency.
 - Set a value "80Hz(THX)" in LPF of LFE.
 - Set a value "Off(THX)" in Double Bass.

Speaker Distance

~

Set the distance from each speaker to the listening position. Settings are automatically configured if you use the automatic speaker setup.

□ Unit
Default Value: feet/meters
Specify the unit of distance for configuring settings. "feet": When setting in feet (0.1 ft to 30.0 ft, in increments of 0.1 ft) "meters": When setting in meters (0.03 m to 9.00 m, in increments of 0.03 m)
☐ Front Left
Default Value: 12.0 ft/3.60 m
Specify the distance between each speaker and the listening position.
☐ Wide Left
Default Value: 12.0 ft/3.60 m
Specify the distance between each speaker and the listening position.
□ Center
Default Value: 12.0 ft/3.60 m
Specify the distance between each speaker and the listening position.
☐ Wide Right
Default Value: 12.0 ft/3.60 m
Specify the distance between each speaker and the listening position.
☐ Front Right
Default Value: 12.0 ft/3.60 m
Specify the distance between each speaker and the listening position.
☐ Surround Right
Default Value: 7.0 ft/2.10 m
Specify the distance between each speaker and the listening position.
□ Back Right
Default Value: 7.0 ft/2.10 m

Specify the distance between each speaker and the listening position.	
□ Back Left	
Default Value: 7.0 ft/2.10 m	
Specify the distance between each speaker and the listening position.	
☐ Surround Left	
Default Value: 7.0 ft/2.10 m	
Specify the distance between each speaker and the listening position.	
□ Subwoofer	
Default Value: 12.0 ft/3.60 m	
Specify the distance between each speaker and the listening position.	
☐ Height Left	
Default Value: 9.0 ft/2.70 m	
Specify the distance between each speaker and the listening position.	
☐ Height Right	
Default Value: 9.0 ft/2.70 m	
Specify the distance between each speaker and the listening position.	
In the following cases, the settings for "Speaker Distance" cannot be	
changed:The speaker is set to "No" or "None" in "Speaker Configuration".	
 "Powered Zone 2" is set to "Yes" and also Zone2 is set to on. Default values vary depending on the regions. 	
_evel Calibration	
Adjust the level of each speaker with the built-in test tone. Settings are automatically configured if you use the Automatic Speaker Setup.	
☐ Front Left	
Default Value: 0 dB	
Select a value between "-12 dB" to "+12 dB". A test tone will be output	

each time you change the value. Select the desired level.
☐ Wide Left
Default Value: 0 dB
Select a value between "-12 dB" to "+12 dB". A test tone will be output each time you change the value. Select the desired level.
□ Center
Default Value: 0 dB
Select a value between "-12 dB" to "+12 dB". A test tone will be output each time you change the value. Select the desired level.
☐ Wide Right
Default Value: 0 dB
Select a value between "-12 dB" to "+12 dB". A test tone will be output each time you change the value. Select the desired level.
☐ Front Right
Default Value: 0 dB
Select a value between "-12 dB" to "+12 dB". A test tone will be output each time you change the value. Select the desired level.
☐ Surround Right
Default Value: 0 dB
Select a value between "-12 dB" to "+12 dB". A test tone will be output each time you change the value. Select the desired level.
☐ Back Right
Default Value: 0 dB
Select a value between "-12 dB" to "+12 dB". A test tone will be output each time you change the value. Select the desired level.
□ Back Left
Default Value: 0 dB

Select a value between "-12 dB" to "+12 dB". A test tone will be output

each time you change the value. Select the desired level.
☐ Surround Left
Default Value: 0 dB
Select a value between "-12 dB" to "+12 dB". A test tone will be output each time you change the value. Select the desired level.
□ Subwoofer
Default Value: 0 dB
Select a value between "-15 dB" to "+12 dB". A test tone will be output each time you change the value. Select the desired level.
☐ Height Left
Default Value: 0 dB
Select a value between "-12 dB" to "+12 dB". A test tone will be output each time you change the value. Select the desired level.
☐ Height Right
Default Value: 0 dB
Select a value between "-12 dB" to "+12 dB". A test tone will be output each time you change the value. Select the desired level.
In the following cases, the settings for "Level Calibration" cannot be
changed: - The speaker is set to "No" or "None" in "Speaker Configuration".
 Mute (MUTING) is set. The test tone is output at the standard level for THX, which is 0 dB (absolute volume setting 82). If you normally listen at volume settings below this, be careful because the test tone will be much louder. If you are using a handheld sound pressure level meter, adjust the level of each speaker to 75 dB SPL at the listening position, measured in C-Weighting and slow reading.
THX Audio Setup
☐ Surr Back Speaker Spacing
Default Value: >4ft/>1.2m

Select the distance between the surround back speakers from the following values.

When "Unit" is set to "feet" in "Speaker Distance": Select a value from " <1ft", "1ft-4ft", and ">4ft".

When "Unit" is set to "meters" in "Speaker Distance": Select a value from "<0.3m", "0.3m-1.2m", and ">1.2m".

- In the following cases, the setting cannot be changed:
 - "Back" is set to "None" in "Speaker Configuration".
 - "Back Ch" is set to "1ch" in "Speaker Configuration".
 - "Powered Zone 2" is set to "Yes" and also Zone 2 is set to on.

☐ THX Ultra2/Select2 Subwoofer

Default Value: No

Set whether a THX-certified subwoofer is connected or not.

"Yes": When a THX-certified subwoofer is connected

"No": When a THX-certified subwoofer is not connected

• The setting cannot be changed if "Subwoofer" is set to "No".

BGC

Default Value: Off

If your listening room layout (for practical or aesthetic reasons) locates most of the listeners close to the rear wall, the resulting bass level can be sufficiently reinforced by the boundary that the overall sound becomes "boomy". THX Select2 Plus receivers contain a Boundary Gain Compensation (BGC) feature to improve bass balance.

"On": Use this function

"Off": Do not use this function

- In the following cases, the setting cannot be changed:
 - "Subwoofer" is set to "No".
 - "THX Ultra2/Select2 Subwoofer" is set to "No".

Loudness Plus

Default Value: On

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

"On": Use this function

"Off": Do not use this function

THX Loudness Plus

THX Loudness Plus is a new volume control technology featured in THX Ultra2 Plus™ and THX Select2 Plus™ Certified receivers.

With THX Loudness Plus, home theater audiences can now experience the rich details in a surround mix at any volume level.

A consequence of turning the volume below Reference Level is that certain sound elements can be lost or perceived differently by the listener. THX Loudness Plus compensates for the tonal and spatial shifts that occur when the volume is reduced by intelligently adjusting ambient surround channel levels and frequency response. This enables users experience the true impact of soundtracks regardless of the volume setting. THX Loudness Plus is automatically applied when listening in any THX listening mode. The new THX Cinema, THX Music, and THX Games modes are tailored to apply the proper THX Loudness Plus settings for each type of content.

3. Audio Adjust

Configure various settings related to sound, such as settings for listening to multiplex audio or multilingual TV broadcasts and sound field settings for listening modes.

/lultiplex/Mono
☐ Multiplex Input Channel
Default Value: Main
Set the audio channel or language to be output when playing multiplex audio or multilingual TV broadcasts etc. "Main": Main channel only "Sub": Sub channel only "Main/Sub": Main and sub channels will be output at the same time. • If multiplex audio is being played, "1+1" will be displayed when Display on the main unit is pressed.
☐ Mono Input Channel
Default Value: Left+Right
Set the input channel to use for playing any 2 ch digital source such as Dolby Digital, or 2-ch analog/PCM source in the Mono listening mode. "Left": Left channel only "Right": Right channel only "Left+Right": Left and right channels
☐ Mono Output Speaker
Default Value: Center

Select the speaker to output monaural audio in the Mono listening

"Center": Audio is output from the center speaker.

"Left/Right": Audio is output from the front L/R speakers.

mode.

Dolby Make the settings for Dolby listening mode. ☐ PLIIx Music (2ch Input) Panorama Default Value: Off Adjust the sound field setting for playing any 2 ch digital source such as Dolby Digital or 2 ch analog/PCM source in the Dolby PrologicII Music listening mode. Select the width of sound field. "On": Width of sound field will be increased. "Off": Default value ☐ PLIIx Music (2ch Input) **Dimension** Default Value: 0 Adjust the sound field setting for playing any 2 ch digital source such as Dolby Digital or 2 ch analog/PCM source in the Dolby PrologicII Music listening mode. Select the depth of sound field. "-3" to "+3": The sound field shifts forward as the set value becomes smaller than "0" and backward if the set value become larger than "0". ☐ PLIIx Music (2ch Input) Center Width Default Value: 3 Configure the setting to use for playing any 2 ch digital source such as Dolby Digital, or 2-ch analog/PCM source in the Dolby PrologicII Music listening mode. Adjust the width of the sound from the center speaker). "0" to "7": The smaller the setting value is, the more concentrated in the center speaker is the sound, while the larger the setting value is, the more distributed to the front left and right speakers is the sound of the center speaker. ☐ PLIIz Height Gain Default Value: Mid

Adjust the output level of the height speakers in the Dolby Pro Logic IIz

The setting cannot be changed if "Center" is set to "None" in

"Speaker Configuration".

Height listening mode. The output of the height speakers will be enhanced in the order of "Low", "Mid" (Middle), "High": "Low", "Mid" and "High". • The setting cannot be changed if "Height" is set to "None" in "Speaker Configuration". ☐ Dolby EX Dolby EX **Default Value: Manual** If the source signal contains a Dolby EX flag, the Dolby Digital EX listening mode or THX Surround is automatically selected. "Auto": Use this function "Manual": Select the desired listening mode • The setting cannot be changed if "Back" is set to "None" in "Speaker Configuration". □ Loudness Management Default Value: On Enable the Late Night function that allows you to enjoy surround sound of Dolby TrueHD playback even in low volume. "On": Use this function "Off": Do not use this function Depending on the setting of "Back" in "Speaker Configuration", the display will be changed. "PLIIx" will be displayed as "PLIIx/PLII". DTS Make the settings for DTS Neo:6 Music listening mode.

■ Neo:6 Music Center Image

Default Value: 2

Adjust the width of the sound field of the front channel when playing in the DTS Neo:6 Music listening mode.

"0" to "5": Selecting a smaller value brings the sound field of the front channel to the center while selecting a larger value spreads the sound field of the front channel to left and right.

Make the settings for Theater-Dimensional mode.
☐ Listening Angle
Default Value: Wide
Set the angle of the front left and right speakers relative to the listening position when playing in the Theater-Dimensional listening mode. "Narrow": Less than 30° "Wide": Greater than 30°
 Values recommended for "Listening Angle" are: 20° when "Narrow" is selected and 40° when "Wide" is selected.
LFE Level
Set the low-frequency effect (LFE) level of the Dolby Digital, DTS, Multichannel PCM, Dolby TrueHD, DTS-HD Master Audio and DSD signals.
□ Dolby Digital
Default Value: 0 dB
 Select the low-frequency effect (LFE) level of each type of signal from "0dB" to "-∞dB". If the low-frequency effect sound is too strong, select "-20dB" or "-∞dB". This setting works on LFE channel volume of Dolby Digital and Dolby Digital Plus sources.
□ DTS
Default Value: 0 dB
 Select the low-frequency effect (LFE) level of each type of signal from "0dB" to "-∞dB". If the low-frequency effect sound is too strong, select "-20dB" or "-∞dB". This setting works on LFE channel volume of DTS and DTS-HD High Resolution sources.
☐ Multich PCM
Default Value: 0 dB
Select the low-frequency effect (LFE) level of each type of signal from "0dB" to "-∞dB". If the low-frequency effect sound is too strong, select "-20dB" or "-∞dB".

☐ Dolby TrueHD

Default Value: 0 dB

Select the low-frequency effect (LFE) level of each type of signal from "0dB" to "-∞dB". If the low-frequency effect sound is too strong, select "-20dB" or "-∞dB".

□ DTS-HD Master Audio

Default Value: 0 dB

Select the low-frequency effect (LFE) level of each type of signal from "0dB" to "-∞dB". If the low-frequency effect sound is too strong, select "-20dB" or "-∞dB".

☐ DSD

Default Value: 0 dB

Select the low-frequency effect (LFE) level of each type of signal from "0dB" to "-∞dB". If the low-frequency effect sound is too strong, select "-20dB" or "-∞dB".

 This setting works on LFE channel volume of DSD (Super Audio CD) sources.

4. Source Setup

Adjust the volume level difference among the multiple devices connected to this unit, rename an input selector, or adjust the image quality. The setting can be separately set to each input selector button. When you select a desired input to check the video or audio, start playback of the connected device.

401100.	
AccuEQ Room Calibration	V
☐ AccuEQ Room Calibration	
Default Value: Off	
 Enable/disable the sound field set in automatic speaker setup "On": Enable this function "Off": Disable this function In the following cases, the setting cannot be changed: Automatic speaker setup is not performed. Headphones are connected. 	
IntelliVolume	V
☐ IntelliVolume	
Default Value: 0 dB	
Adjust the volume level difference between the devices connected to the unit. Select a value between "-12 dB" to "+12 dB". Set a negative value if the volume of the target device is larger than the others and a positive value if smaller. • This function is not effective in Zone 2/Zone 3.	ıe
Name Edit	~
Set an easy name to each input. The set name will be shown on the main unit display.	
□ Name	

Default Value: Input name

1. Select a character or symbol with the cursors and press ENTER. Repeat it to input 10 or less characters.

"Shift": Switches between upper and lower cases. (Pressing +10 on the remote controller also toggles between upper and lower cases.)
"←" "→": Moves the cursor to the arrow direction.

"Back Space": Removes a character on the left of the cursor.

- "Space": Puts a space.
- Pressing CLR on the remote controller will remove all the input characters.
- 2. After inputting, select "OK" with the cursors and press ENTER. The input name will be saved.
- To name a preset radio station, press TUNER on the remote controller, select AM/FM and select the preset number.
- It cannot be set if the input is "NET", "USB" or "BLUETOOTH".

Picture Adjust

Adjust the image quality. (Possible only when the video player is connected to the HDMI OUT MAIN jack) If you adjust it by checking the video, press ENTER. Press RETURN to return the screen to the previous status.

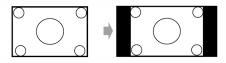
☐ Wide Mode

Default Value: Auto

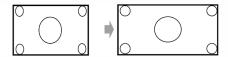
Set the aspect ratio.

"Auto": The aspect ratio will automatically be set according to the input signals and the monitor output setting.

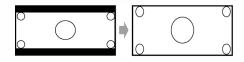
"4:3":

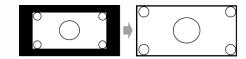


"Full":



"Zoom":





When a 3D or 4K video source is input, this setting is set to "Full".
 Furthermore, for some resolutions, this setting may be disabled and set to "Full".

☐ Picture Mode

Default Value: Custom

An appropriate image quality setting for cinema or game can be selected. You can also adjust each item to obtain your favorite image quality.

"Custom": The items from "Game Mode" to "Color Temperature" below can be adjusted as desired.

"Cinema": When the video source is cinema

"Game": When the video source is game

"Standard": The resolution will be changed but the image quality will not be adjusted.

"Bypass": Both the resolution and image quality will not be adjusted.

- If you select "Bypass", the on-screen display function will be disabled.
- As for THX, it is recommended to select "Bypass" to keep signals of the same input/output unconverted.

☐ Game Mode

Default Value: Off

Change to the setting suitable for game. Also correct the delay of video signals of the game console if any.

"On": Use this function

"Off": Do not use this function

- If you select "On", the delay will be corrected but the image quality will be lower.
- The setting will be fixed to "Off" if "Resolution" is set to "4K".

☐ Film Mode

Default Value: Auto

Change to the setting suitable for film.

"Auto": Image processing suitable for film will be executed.

"Video": "Film Mode" will not be applied and the input signals will be processed as video source.

☐ Edge Enhancement
Default Value: Off
 Adjust the sharpness of the outline of image. Select from "Off", "Low' "Mid" (Middle), and "High". The setting will be fixed to "Off" if "Game Mode" is set to "On". When the horizontal resolution of the output video is 2,000 TV lines or more, this setting is set to "Off".
☐ Noise Reduction
Default Value: Off
Reduces the noise of the screen. Select from "Off", "Low", "Mid" (Middle), and "High". • The setting will be fixed to "Off" if "Game Mode" is set to "On".
☐ Brightness
Default Value: 0
Adjust brightness of the screen. Select a value between "-50" to "+50".
☐ Contrast
Default Value: 0
Adjust contrast of the screen. Select a value between "-50" to "+50".
□ Hue
Default Value: 0
Correct hue of the screen. Select a value between "-50" to "+50".
☐ Saturation
Default Value: 0
Adjust saturation of the screen. Select a value between "-50" to "+50".
☐ Color Temperature
Default Value: Normal
Set color temperature of the screen. Select from "Warm", "Normal" and "Cool".

- In the following cases, the settings for "Picture Adjust" cannot be changed:
 - "NET", "USB" or "BLUETOOTH" is selected.
 - "Monitor Out" is set to "SUB".
- Press CLR on the remote controller if you return all the settings from "Game Mode" through "Color Temperature" to their default value.

Audio Selector V

Make the audio input setting. The setting can be separately set to each input selector button. Select the input selector to configure.

Audio Selector

Default Value: -

Allows you to select prior input source.

"ARC": When giving priority to input signal from ARC compatible TV.

 The setting can be selected only when "Audio Return Channel" is set to "Auto" and also the "TV/CD" input is selected.

"HDMI": When giving priority to input signal from HDMI jacks

 The setting can be selected only when the input is assigned to the HDMI IN jack in the "HDMI Input" setting.

"COAXIAL (Coaxial input)": When giving priority to input signal from DIGITAL IN COAXIAL jacks.

• The setting can be selected only when the input is assigned to the COAXIAL jack in the "Digital Audio Input" setting.

"OPTICAL (Optical input)": When giving priority to input signal from DIGITAL IN OPTICAL jacks.

 The setting can be selected only when the input is assigned to the OPTICAL jack in the "Digital Audio Input" setting.

"Analog": To always output analog audio independently of the input signal

☐ Fixed Mode

Default Value: Off

Specify an input signal when "HDMI", "COAXIAL (Coaxial input)", or "OPTICAL (Optical input)" is selected for "Audio Selector". Set this item if noise is produced, or truncation occurs at the beginning of a track that follows a gap when playing PCM or DTS sources.

"Off": To play an analog signal when there is no digital signal.

"PCM": To fix the input source to PCM.

"DTS": To fix the input source to DTS (except for DTS-HD).

• Changing "Audio Selector" changes the setting to "Off".

"BLUETOOTH" input is selected or the WHOLE HOUSE MODE function is on.



5.Listening Mode Preset

Dolby TrueHD signals.

You can preset your favorite listening mode to each input. (For example, you can always apply straight decode to the Dolby TrueHD source of Blu-ray Disc to play it in unchanged sound field.)

Select the input, signal type and listening mode.

Although it is possible to select the listening mode during playback, the selected mode will be reset when the unit enters standby mode.

Analog/PCM Default Value: Last Valid Set the listening mode for playing PCM signals of CD and analog signals of record and cassette tape. Mono/ Multiplex Source Default Value: Last Valid Set the listening mode for playing Dolby Digital, AAC and other digital signals recorded in monaural or multiplex audio. 2ch Source Default Value: Last Valid Set the listening mode for playing Dolby Digital and other digital signals recorded in 2 channels. Dolby D/ Dolby D Plus/TrueHD Default Value: Last Valid

Set the listening mode for playing Dolby Digital, Dolby Digital Plus and

Default Value: Last Valid

Set the listening mode for playing digital audio signals in DTS and DTS-HD High Resolution formats. Select the listening mode specified for Bluray or such other DTS-HD Master Audio source.

Other Multich Source

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Default Value: Last Valid

Set the listening mode for playing DSD signals of AAC, DVD-Audio and Super Audio CD that are input from HDMI IN jack.

- Available listening modes vary depending on the input signal.
- Setting "Last Valid" will always select the last selected mode.
- Only "Analog" can be set to the "TUNER" input.
- "Digital" and "TrueHD" can be set to the "NET" and "USB" inputs.
- Only "Digital" can be set to the "BLUETOOTH" input.

6.Miscellaneous

Volume Setup

Make the detailed volume setting of the unit.

□ Volume Display

Default Value: Absolute

Switch the volume display between the absolute value and relative value. The absolute value 82 is equivalent to the relative value 0 dB. "Absolute": Absolute value such as "1" to "99"

"Relative (THX)": Relative value such as "-81dB" and "+18dB"

• If the absolute value is set to 82, "82Ref" will appear on the display and the "THX" indicator will flash.

☐ Muting Level

Default Value: -∞dB

Set the volume lowered from the listening volume when muting is on. Select a value from "-∞dB", "-50dB" to "-10dB". (in 10 dB increments)

☐ Maximum Volume

Default Value: Off

Set the maximum value to avoid too high volume. Select a value from "Off", "50" to "99".

□ Power On Volume

Default Value: Last

Set the volume level of when the power is turned on. Select a value from "Last" (Volume level before entering standby mode), "Min", "1" to "99" and "Max".

You cannot set a higher value than that of "Maximum Volume".

☐ Headphone Level

Default Value: 0 dB

Adjust the volume level difference between speakers and headphones. Select a value between "-12 dB" to "+12 dB".

OSD Setup

Make the setting of on-screen display function that can display the setting menu screen, volume operation screen and the like on the TV.

☐ On Screen Display

Default Value: On

Set whether or not to display the operation screen on the TV.

"On": The operation screen will be displayed on the TV.

"Off": The operation screen will not be displayed on the TV.

• The operation screen may not be displayed depending on the input signal even if "On" is selected. If the operation screen is not displayed, change the resolution of the connected device.

□ Language

Default Value: English

Select the on-screen display language.

☐ Screen Saver

Default Value: 3min

Set the time to start the screen saver. Select a value from "3min", "5min", "10min" and "Off".

7. Hardware Setup

Multi Zone

Zone 2 Out

Default Value: Fixed

Select which of the integrated amplifier in a separate room or this unit should be used to adjust the volume when Zone 2 is active.

"Fixed": Adjust on the Integrated amplifier in a separate room

"Variable": Adjust on the unit

Default Value: Off

Set the maximum value for Zone 2 to avoid too high volume. Select a value from "Off", "50" to "99".

☐ Zone 2 Power On Volume

Default Value: Last

Set the Zone 2 volume level of when the unit is turned on. Select a value from "Last" (Volume level when the unit was turned off), "Min", "1" to "99" and "Max".

 You cannot set a higher value than that of "Zone 2 Maximum Volume".

☐ Zone 3 Out

Default Value: Fixed

Select which of the integrated amplifier in a separate room or this unit should be used to adjust the volume when Zone 3 is active.

"Fixed": Adjust on the Integrated amplifier in a separate room

"Variable": Adjust on the unit

☐ Zone 3 Maximum Volume

Default Value: Off Set the maximum value for Zone 3 to avoid too high volume. Select a value from "Off", "50" to "99". ☐ Zone 3 Power On Volume Default Value: Last Set the Zone 3 volume level of when the unit is turned on. Select a value from "Last" (Volume level when the unit was turned off), "Min", "1" to "99" and "Max". You cannot set a higher value than that of "Zone 3 Maximum" Volume". Tuner ☐ AM/FM Frequency Step (North American models) Default Value: 10kHz/200kHz Select a frequency step depending on your area of residence. Select "10kHz/200kHz" or "9kHz/50kHz". • When this setting is changed, all radio presets are deleted. ☐ AM Frequency Step (European, Australian and Asian models) Default Value: 9kHz Select a frequency step depending on your area of residence. Select "10kHz" or "9kHz".

When this setting is changed, all radio presets are deleted.

☐ HDMI CEC (RIHD)

HDMI

Default Value: Off

Setting to "On" enables the input selection link and other link functions with HDMI connected CEC compliant device.

"On": Use this function

"Off": Do not use this function

• Depending on the TV set, a link may need to be configured on the TV.

- This function is effective only when the device is connected to the HDMI OUT MAIN terminal.
- Setting to "On" and closing the on-screen menu displays the name of the CEC-compatible components and "RIHD On" on the display.
- Power consumption in standby mode may increase if "On" is set.
 (Depending on the TV status, the unit will enter the normal standby mode.)
- If you operate the MASTER VOLUME control of the unit when this setting is set to "On" and you are listening to the audio through the speakers of your TV, audio will be output also from the speakers connected to the unit. If you want to output from only either of them, change the unit or TV settings, or reduce the volume of the unit.
- If abnormal operation occurs when you set the setting to "On", set it to "Off".
- When connecting a non-CEC compatible component, or when you are not sure whether it is compatible, set the setting to "Off".
- When changing this setting, turn off and then on again the power of all connected components.

☐ HDMI Through

Default Value: Off

You can display the video of an HDMI connected player on the TV even if the unit is in standby mode. This setting is effective only for an input selector to which an HDMI jack is assigned in "HDMI Input". It cannot be set to any other input selector unless an HDMI jack is assigned to it. "Off": The setting is disabled. Video of device connected to any jack will not be displayed.

"BD/DVD", "CBL/SAT", "STB/DVR", "GAME", "PC", "AUX", "TV/CD", "PHONO": Video of the device connected to the HDMI IN jack assigned to each input will be displayed on the TV.

"Last": Video of the device connected to the HDMI IN jack assigned to the input selector that was selected immediately before the unit enters standby mode will be displayed on the TV.

"Auto": Video of all the devices connected to the HDMI IN jacks will be output to the TV.

"Eco": Video of all the devices connected to the HDMI IN jacks will be output to the TV. If you select this setting when using a CEC-compatible TV, you can reduce the power consumption in standby mode.

- "Auto" and "Eco" cannot be selected if "HDMI CEC (RIHD)" is set to "Off".
- When "HDMI Through" is enabled, the power consumption increases even when the unit is on standby. However, the increase in power consumption is kept to a minimum by automatically entering the HYBRID STANDBY mode, where only the essential circuit is operating.

 When changing the setting, turn off and then on again the power of all connected components.

☐ Audio TV Out (MAIN)

Default Value: Off

You can enjoy audio through the speakers of the HDMI connected TV while this unit is on.

"On": Use this function

"Off": Do not use this function

- If you select "On", set "HDMI CEC (RIHD)" to "Off."
- The setting is fixed to "Auto" if "HDMI CEC (RIHD)" is set to "On".
- Listening mode cannot be changed if "Audio TV Out (MAIN)" is set to "On" and audio is being output through the speakers of the TV.
- Depending on your TV set or input signal of the component, audio may not output through the speakers of the TV even if this setting is set to "On". In such case, audio is output from the speakers of the unit.
- If you operate the MASTER VOLUME control of the unit when "Audio TV Out (MAIN)" or "HDMI CEC (RIHD)" is set to "On" and you are listening to the audio through the speakers of your TV, audio will be output from the unit. If you do not want to output audio from the unit, change the unit or TV settings, or reduce the volume of the unit.
- "Audio TV Out (MAIN)" is fixed to "Off" if "Monitor Out" is set to "SUB".

☐ Audio TV Out (SUB)

Default Value: Off

You can enjoy audio through the speakers of the HDMI connected TV while this unit is on.

"On": Use this function

"Off": Do not use this function

- Listening mode cannot be changed while "Audio TV Out (SUB)" is set to "On" and audio is being output through the speakers of the TV.
- Depending on your TV set or input signal of the component, audio may not output through the speakers of the TV even if this setting is set to "On". In such case, audio is output from the speakers of the unit.
- If you operate the MASTER VOLUME control of the unit when "Audio TV Out (SUB)" is set to "On" and you are listening to the audio through the speakers of your TV, audio will be output from the unit. If you do not want to output audio from the unit, change the unit or TV settings, or reduce the volume of the unit.

 "Audio TV Out (SUB)" is fixed to "Off" if "Monitor Out" is set to "MAIN".
☐ Audio Return Channel
Default Value: –
You can enjoy sound of the HDMI connected ARC compatible TV through the speakers connected to the unit. To use this function, set "HDMI CEC (RIHD)" to "On" in advance. "Auto": When enjoying the TV sound through the speakers connected to the unit "Off": When not using the ARC function
☐ Lip Sync
Default Value: On
This setting automatically corrects any desynchronization between the video and audio signals based on data from the HDMI LipSync compatible TV. "On": Automatic correction will be enabled. "Off": Automatic correction will be disabled.
□ InstaPrevue
Default Value:
 Change the preview display of the video input through HDMI, which will be displayed using "InstaPrevue" in the Home menu. Depending on the video source, the preview thumbnails configured in "InstaPrevue" may not be displayed properly.
☐ Sub Window
Default Value: Multi
Set how to display preview thumbnails. "Multi": Displays all the thumbnails of HDMI IN1, 2, 3, 4 and Front at once. "Single": Displays each thumbnail individually.
☐ Position
Default Value: Bottom/Lower Right
Set the position to display preview thumbnails. When "Multi" is selected for "Sub Window": Select from "Top", "Bottom", "Left" and "Right".

When "Single" is selected for "Sub Window": Select from "Upper Left", "Upper Right", "Lower Left" and "Lower Right".

- If "Monitor Out" is set to "MAIN+SUB" and "Audio TV Out (SUB)" is set to "On"
 - Set the audio output of the connected device to "2ch PCM".
 - If the audio input is via other than HDMI, sound of the TV connected to the HDMI OUT SUB jack will not be output.

Auto Standby

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☐ Auto Standby

Default Value: On/Off

This setting places the unit on standby automatically after 20 minutes of inactivity without any video or audio input.

"On": The unit will automatically enter standby mode ("ASb" will stay lit). "Off": The unit will not automatically enter standby mode.

- "Auto Standby" is appeared on the display and menu screen 30 seconds before the Auto Standby comes on.
- "Auto Standby" does not work when Zone 2/Zone 3 is active.
- Default values vary depending on the regions.

☐ HDMI Through

Default Value: Off

Enable or disable "Auto Standby" while "HDMI Through" is on.

"On": The setting will be enabled.

"Off": The setting will be disabled.

- "HDMI Through" cannot be set to "On" if "Auto Standby" is set to "Off".
- When "HDMI Through" is used, the power consumption increases even when the unit is on standby. However, the increase in power consumption is kept to a minimum by automatically entering the HYBRID STANDBY mode, where only the essential circuit is operating.

Network

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Make the network setting.

 When LAN is configured with a DHCP, set "DHCP" to "Enable" to configure the setting automatically. ("Enable" is set by default) To assign fixed IP addresses to each components, you must set "DHCP" to "Disable" and assign an address to this unit in "IP Address" as well as set

□ Network Standby
Default Value: Off
You can turn on the power of the unit via network using an application such as Onkyo Remote. "On": Use this function "Off": Do not use this function • When "Network Standby" is used, the power consumption increases even when the unit is on standby. However, the increase in power consumption is kept to a minimum by automatically entering the HYBRID STANDBY mode, where only the essential circuit is operating.
□ Wi-Fi
Default Value: Off(Wired)
Connect the unit to network via wireless LAN router. "On": Wireless LAN connection "Off(Wired)": Wired LAN connection
☐ Wi-Fi Setup
Default Value: -
You can configure wireless LAN settings by pressing ENTER when "Start" is displayed.
☐ Wi-Fi Status
Default Value: -
The information of the connected access point will be displayed. "SSID": SSID of the connected access point. "Security": Security method of the connected access point. "Signal": Signal strength of the connected access point. "Status": Status of the connected access point.
☐ MAC Address
Default Value: –
This is the MAC address of the AV receiver. This value is specific to the component and cannot be changed.

information related to your LAN, such as Subnet Mask and Gateway.

Default Value: Enable
 "Enable": Auto configuration by DHCP "Disable": Manual configuration without DHCP If selecting "Disable", you must set "IP Address", "Subnet Mask" "Gateway", and "DNS Server" manually.
☐ IP Address
Default Value: -
Displays/Sets the IP address.
☐ Subnet Mask
Default Value: -
Displays/Sets the subnet mask.
☐ Gateway
Default Value: –
Displays/Sets the gateway.
□ DNS Server
Default Value: –
Displays/Sets the primary DNS server.
□ Proxy URL
Default Value: –
Displays/Sets the proxy server URL.
□ Proxy Port
Default Value: –
Displays/Sets the proxy server port number when you enter "Proxy URL".
□ Network Check
Default Value: –

You can check the network connection. Press ENTER when "Start" is displayed.

 Wait for a while if "Network" cannot be selected. It will appear when the network function is started up.

Bluetooth

☐ Bluetooth

Default Value: On

Select whether or not to use the Bluetooth function.

"On": Enables connection with a Bluetooth-enabled device by using the Bluetooth function. Select "On" also when making various Bluetooth settings.

"Off": When not using the Bluetooth function

□ Direct Change

Default Value: On

The input of the unit will automatically be switched to "BLUETOOTH" when connection is made from a Bluetooth-enabled device to the unit. "On": The input will automatically become "BLUETOOTH" when a Bluetooth-enabled device is connected.

"Off": The function is disabled.

 If the input is not switched automatically, set to "Off" and change the input manually.

☐ Auto Reconnect

Default Value: On

This function automatically reconnects to the Bluetooth-enabled device connected last when you change the input selector to "BLUETOOTH".

"On": Use this function

"Off": Do not use this function

 This function may not work depending on your Bluetooth-enabled device.

☐ Wakeup via Bluetooth

Default Value: Off

This function wakes up the unit on standby by connecting a Bluetooth-

enabled device.

"On": Use this function

"Off": Do not use this function

- Setting to "On" increases the power consumption even when the unit is on standby. However, the increase in power consumption is kept to a minimum by automatically entering the HYBRID STANDBY mode, where only the essential circuit is operating.
- This setting is fixed to "Off" if "Direct Change" is set to "Off".

☐ Pairing Information

Default Value: -

When paring is performed, the information of the previous pairing stored in this unit will be initialized.

Pressing ENTER when "Clear" is displayed initializes the pairing information stored in this unit.

 This function does not initialize the pairing information on the Bluetooth-enabled device. When pairing the unit again with the device, be sure to clear the pairing information on the Bluetoothenabled device in advance. For information on how to clear the pairing information, refer to the Bluetooth-enabled device's instruction manual.

Device

Default Value: -

Displays the name of the Bluetooth-enabled device connected to the unit.

• The name is not displayed when "Status" is "Ready" and "Pairing".

☐ Status

Default Value: -

Displays the status of the Bluetooth-enabled device connected to the unit.

"Ready": Not paired "Pairing": Paired

"Connected": Successfully connected

 Wait for a while if "Bluetooth" cannot be selected. It will appear when the network function is started up.

☐ Update Notice	
Default Value: Enable	
Availability of a firmware update will be notified via network. "Enable": Notify updates "Disable": Do not notify updates	
□ Version	
Default Value: –	
The current firmware version will be displayed.	
☐ Update via NET	
Default Value: -	
 Press ENTER to select when you want to update the firmware via network. You will not be able to select this setting if you do not have Interne access or there is nothing to update. 	t
☐ Update via USB	
Default Value: –	
 Press ENTER to select when you want to update the firmware via US You will not be able to select this setting if a USB storage device is not connected or there is nothing to update in the USB storage device. 	
Wait for a while if "Firmware Update" cannot be selected. It will appear when the network function is started up.	
nitial Setup	V

- You can make the initial setup from the setup menu.

 Wait for a while if "Initial Setup" cannot be selected. It will appear when the network function is started up.
- Setting is not possible if "Monitor Out" is set to "SUB".

8. Remote Controller Setup

Remote ID

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Default Value: 1

Select an ID for the unit's remote controller from "1", "2", and "3" to prevent interference between the unit and other Onkyo components that are installed in the same room. After changing the ID on the main unit, change the ID on the remote controller accordingly with the following procedure.

- 1. While holding down RCV, press Q SETUP for about 3 seconds until the remote indicator lights.
- 2. With the number buttons, press one of 1, 2, and 3. The remote indicator flashes twice.

Remote Mode Setup

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Default Value: -

Input and register the remote controller code of other devices.

 For registration of the remote control code, refer to "Operating Other Components with the Remote Controller".



9.Lock Setup

Setup

Default Value: Unlocked

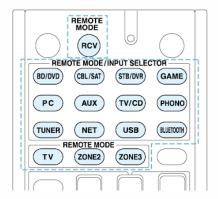
The Setup menu will be locked to protect the settings.

"Locked": The menu is locked.

"Unlocked": The menu is unlocked.

Functions of REMOTE MODE Buttons

You can control any other device than this unit by programming a specified remote control code to a REMOTE MODE button of the remote controller. Register a remote control code to a desired REMOTE MODE button and press it to enter the remote mode that allows you to operate the corresponding device.



* The RCV and ZONE2/ZONE3 buttons cannot be programmed.

Programming Remote Control Codes

For information on the configuration and operation of Onkyo components with RI jack, refer to "Connecting and Operating Onkyo RI Components". Furthermore, the following REMOTE MODE buttons are preprogrammed with remote control codes.

BD/DVD: Onkyo Blu-ray Disc/DVD player

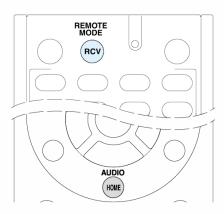
TV/CD: Onkyo CD player

STB/DVR: Apple TV

Searching in the Setup Menu

You can search a remote control code and register it to a desired REMOTE MODE button in the unit's Setup menu.

1. Press RCV and then press HOME on the remote controller.



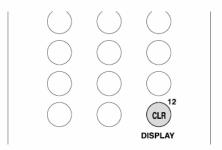
- 2. Select "Setup" with the cursors and press ENTER.
- 3. With the cursors, select "8.Remote Controller Setup" "Remote Mode Setup" and press ENTER.
- 4. With the cursors, select the remote mode for which you want to search a remote control code and press ENTER to display the category selection screen.
- 5. Select the target category with the cursors, and then press ENTER to display the brand name input screen.
- 6. Select a character with the cursors and press ENTER. Repeat it to enter the first three characters of the brand name.
- 7. Select "Search" with the cursors and press ENTER.
 - After a search is done, the list of possible brand names is displayed. If the brand name list is not displayed, select "Not Listed" with the

cursors and press ENTER to return to the brand name input screen in step 6.

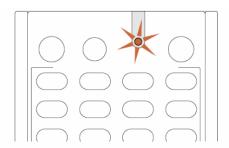
- 8. Select the target brand name with the cursors, and then press ENTER.
 - When the brand name is specified, the remote control code of the brand and how to register it will be displayed on the TV screen.
- 9. Follow the guidance displayed on the TV screen.
- 10.If the component can successfully be operated with its registered remote control code, select "OK" with the cursors and press ENTER.
 - Only TV remote control codes can be entered for TV.
 - Program a remote control code in accordance with the input since each button also works as the input selector. (For example, when the CD player is connected to the TV/CD jack, program the remote control code for the CD player to TV/CD.)
 - If the component cannot be operated, select "Try Next Code" with the cursors and press ENTER to display another code.
 - It is possible to operate an MHL-enabled mobile device with the unit's remote controller by registering the code of the MHL-enabled mobile device below to the unit's remote controller. Operation may be unstable or incorrect depending on the mobile device used. 33101 (North American model) 32910 (European, Australian and Asian models)
- Consulting the Remote Control Code List

Find the remote control code in the remote control code list.

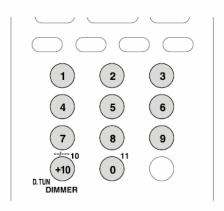
- Look up the Remote Control Code List for the corresponding remote control code.
 - The codes in the Remote Control Code List are those known as of the date of publication and may be changed.
 - Only TV remote control codes can be entered for TV.
 - Program a remote control code in accordance with the input since each button also works as the input selector. (For example, when the CD player is connected to the TV/CD jack, program the remote control code for the CD player to TV/CD.)
- 2. Press DISPLAY for 3 or more seconds while holding down the REMOTE MODE button to which you want to program the remote control code.



The remote indicator stays lit in the input mode.



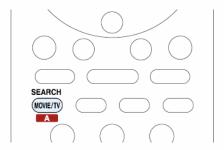
- 3. With the number buttons, enter the 5-digit remote control code within 30 seconds.
 - The registration is complete when the remote indicator flashes twice.
 The remote indicator flashes once slowly when registering the remote control code fails. Try the registration again.



Remapping the Colored Buttons

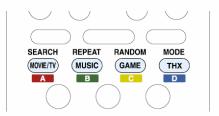
The colored button assignment on the AV receiver's remote controller can be remapped to match that on the remote controller of the component whose remote control code you programmed to REMOTE MODE. However, you will not be able to remap the colored buttons if Zone 2/Zone 3 is selected.

- 1. Hold down the REMOTE MODE button to map and A (Red) simultaneously until the remote indicator lights (about 3 seconds).
 - Remapping is possible only for codes included in the categories of the Remote Control Code List such as DVD player and TV.



- 2. Within 30 seconds, press the colored buttons from left to right, in the order you want to remap.
 - For example, if the colored buttons on the remote controller of the other component are yellow, green, blue, and red from left to right, press the buttons on the AV receiver's remote controller in that order.

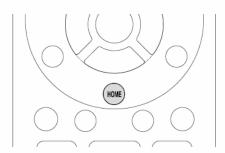
- The registration is complete when the remote indicator flashes twice.
 The remote indicator flashes once slowly when registering the remote control code fails. Try the registration again.
- Pressing any other button than a colored button cancels the remap operation.



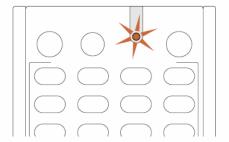
Resetting the REMOTE MODE Buttons

You can reset the remote control code registered in the REMOTE MODE button to its default status. This operation can be executed on a single REMOTE MODE button.

1. Press HOME for 3 or more seconds while holding down the REMOTE MODE button you want to reset.



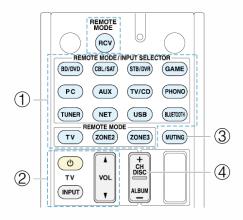
The remote indicator stays lit.



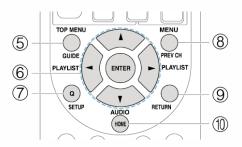
- 2. Within 30 seconds, press the REMOTE MODE button again.
 - Resetting is complete when the remote indicator flashes twice.

To reset all the remote controller settings: While holding down RCV, press and hold down HOME until the remote indicator lights (about 3 seconds). Press RCV again within 30 seconds.

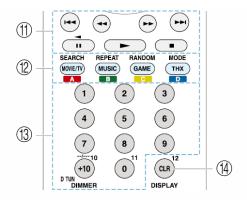
TV Operation



- 1 REMOTE MODE
- ② O, INPUT, VOL ▲/▼
- **3 MUTING**
- 4 CH +/-

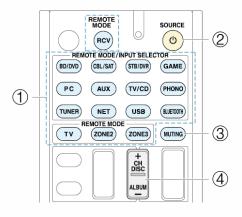


- ⑤ GUIDE
- ⑥ Δ/▼/◄/►, ENTER
- **⑦ SETUP**
- ® PREV CH
- ① AUDIO (*)

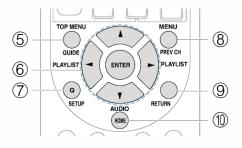


- $\textcircled{1} \blacktriangleright, \blacksquare, \blacksquare, \blacktriangleleft, \blacktriangleright \blacktriangleright, \blacktriangleleft, \blacktriangleright \blacktriangleright (*)$
- 2 A (Red), B (Green), C (Yellow), D (Blue)
- ③ Number 1 to 9, 0, +10
- (4) CLR, DISPLAY
 - * Not CEC-compatible.

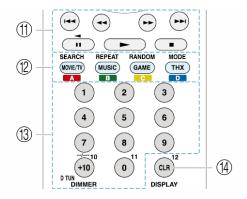
Blu-ray Disc Player/DVD Player/DVD Recorder Operation



- **1) REMOTE MODE**
- ② **USOURCE**
- **3 MUTING**
- 4 CH +/-, DISC +/-

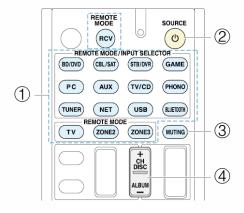


- **5** TOP MENU
- ⑥ Δ/▼/◄/►, ENTER
- **⑦ SETUP**
- ® MENU
- ① AUDIO (*)

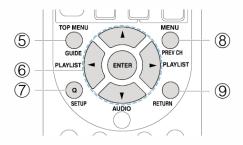


- $\textcircled{1} \blacktriangleright, \textbf{II}, \blacksquare, \blacktriangleleft, \blacktriangleright \blacktriangleright, \blacktriangleright \blacktriangleleft, \blacktriangleright \blacktriangleright$
- ② A (Red) (*), B (Green), C (Yellow) (*), D (Blue) (*)
- (3) Number 1 to 9, 0, +10 (*)
- (4) CLR, DISPLAY
 - * Not CEC-compatible.

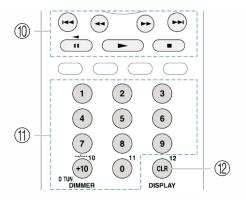
VCR/PVR Operation



- **1** REMOTE MODE
- 2 USOURCE
- ③ MUTING
- ④ CH +/-

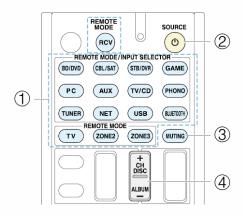


- **5** GUIDE
- ⑥ Δ/▼/◄/►, ENTER
- ® PREV CH
- **9 RETURN**

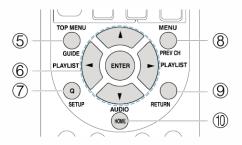


- $\textcircled{1} \blacktriangleright, \textbf{II}, \blacksquare, \blacktriangleleft, \blacktriangleright \blacktriangleright, \blacktriangleleft \blacktriangleleft, \blacktriangleright \blacktriangleright$
- ① Number 1 to 9, 0, +10
- © CLR, DISPLAY

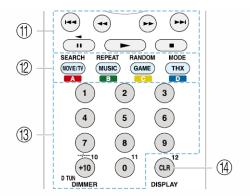
Satellite Receiver/Cable Receiver Operation



- **1** REMOTE MODE
- 2 USOURCE
- ③ MUTING
- ④ CH +/-

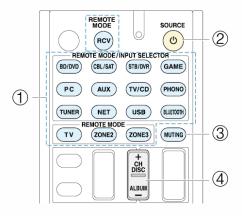


- **5** GUIDE
- ⑥ Δ/▼/◄/►, ENTER
- ⑦ SETUP
- **® PREV CH**
- 9 RETURN
- (10) AUDIO

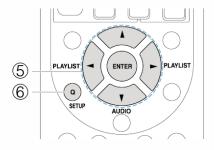


- $\textcircled{1} \blacktriangleright, \blacksquare, \blacksquare, \blacktriangleleft, \blacktriangleright \blacktriangleright, \blacktriangleleft \blacktriangleleft, \blacktriangleright \blacktriangleright$
- 2 A (Red), B (Green), C (Yellow), D (Blue)
- ③ Number 1 to 9, 0, +10
- (4) CLR, DISPLAY

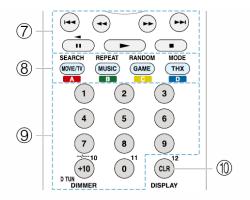
CD Player Operation



- **1 REMOTE MODE**
- 2 USOURCE
- ③ MUTING
- 4 DISC +/-



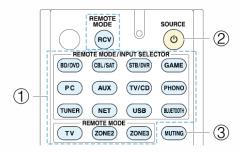
- ⑤ **\(\T/\\ \/ \)**, ENTER
- **6 SETUP**



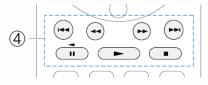
- ® SEARCH, REPEAT, RANDOM, MODE
- 9 Number 1 to 9, 0, +10
- ① CLR, DISPLAY

Cassette Tape Deck Operation

Press the REMOTE MODE button programmed with the remote control code for the relevant AV component to switch the remote controller mode to that for the AV component. Then, operate by using the corresponding buttons. Available buttons vary depending on the product category of the component. Operation may be incorrect or impossible depending on the product.



- **1) REMOTE MODE**
- 2 USOURCE
- ③ MUTING



④ ►, (Reverse Playback), ■, , ► , ► , ►

To Operate CEC-compatible Components

The TV and BD/DVD buttons on the remote controller are preprogrammed with remote control codes for linked operation of some CEC(Consumer Electronics Control)-compatible TV sets and Blu-ray Disk players. By connecting to the unit via HDMI, you may operate them using the AV receiver's remote controller.

 If you cannot operate your CEC-compatible component, program one of the following remote control codes to the TV or BD/DVD button.
 TV: 11807/13100/13500 (CEC-compatible TV)

BD/DVD: 32910/33101/33501/31612 (CEC-compatible BD/DVD player)

Advanced Speaker Connection

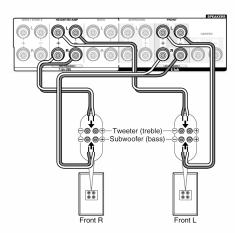
Bi-Amping

It is possible to connect speakers supporting bi-amping to improve quality of the bass and treble. Up to 5.1 ch will be played in bi-amping.

Connections

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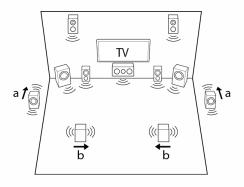
Connect as below using the FRONT terminals and HEIGHT/Bi-AMP terminals.



- 2. Turn the unit on and set "Speaker Setup" to "Bi-Amp".
 - ① After pressing RCV, press HOME on the remote controller.
 - ② Select "Setup" with the cursors and press ENTER.
 - ③ With the cursors, select "2.Speaker Setup" "Speaker Settings" "Front Speakers Type".
 - ④ Select "Bi-Amp" with the cursors.
 - Before bi-amping, be sure to remove the short-circuit connector that connects the tweeter (treble) terminal and the subwoofer (bass) terminal.
 - Use speakers supporting bi-amping only. For details, refer to the speakers' instruction manual.

Connecting Dipole Speakers

It is possible to use dipole speakers instead of surround speakers and surround back speakers. A dipole speaker is bidirectional speaker outputting the same sound in two directions, for example forward and backward.



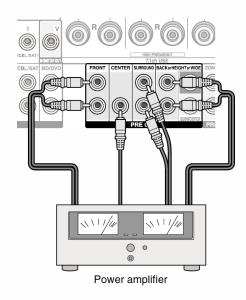
Connections

An arrow for matching the phases (*) is marked on a dipole speaker. Place the surround speakers (a) so that their arrows (\uparrow) point to the TV and the surround back speakers (b) so that their arrows (\rightarrow) point to each other.

* Phase: A waveform position in one cycle (0 to 360 degree) of sine wave. If the phases do not match due to mistake in speaker distance, installation angle or positive/negative of wiring, sound image and sound field may be unclear or hard of listening.

Connecting a Power Amplifier

You can connect a power amplifier to the unit and use the unit as a preamplifier in order to produce a large volume that cannot be output with the unit only. Connect the speakers to the power amplifier. For details, refer to the power amplifier's instruction manual.



- Set the unconnected channels to "None" in "Speaker Configuration".
 - After pressing RCV, press HOME on the remote controller. Select "Setup" with the cursors and press ENTER. Then select "2.Speaker Setup" - "Speaker Configuration" and set the unconnected channels to "None".



Connecting and Operating Onkyo RI Components

About RI Function

Connecting an Onkyo component with RI jack such as the separately sold RI Dock to the unit by using an RI cable and an analog audio (RCA) cable enables the following RI functions:

System On/Auto Power On: Starting playback on a component connected via RI when the unit is on standby mode, automatically turns on the unit to select the relevant component as its input source.

Direct Change: When playback is started on a component connected via RI, the unit selects that component as the input source.

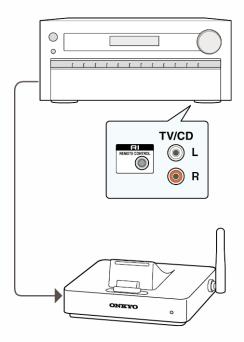
Remote Controller Operation: Allows you to operate RI-compatible Onkyo components using the AV receiver's remote controller. Point the remote controller at remote control sensor of the unit. This operation is possible only when the RI remote control code is programmed.

- Some components may not support all RI functions.
- These functions do not work when Zone 2/Zone 3 is turned on.
- For information on the RI functions, also refer to each component's instruction manual.



Connecting and Operating Onkyo RI Components

RI Connection and Setting



Connect an Onkyo component with RI jack to this unit using an RI cable and an analog audio (RCA) cable. For details, refer to the instruction manual of the component with RI jack. The RI cable can be connected in any order. When there are two RI jacks, both jacks work in the same way and are interchangeable.

To connect the RI Dock or cassette tape deck via RI, you must:

Rename the input selector

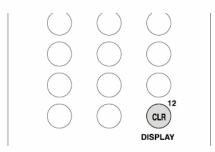
To make the RI functions work, you must rename the input selectors on the unit. Press TV/CD or GAME to display "TV/CD" or "GAME" on the main unit display. Then press and hold TV/CD or GAME 3 seconds or more to switch the display to "DOCK" or "TAPE".

Program the RI remote control code

Program the remote control code to any REMOTE MODE button on the remote controller. This will allow you to operate the component by pointing the remote controller at the unit instead of the component.

- 1. Press DISPLAY for 3 or more seconds while holding down the REMOTE MODE button to which you want to program the remote control code.
 - The remote indicator stays lit.

• The RCV, ZONE2, ZONE3 and TV buttons cannot be programmed.

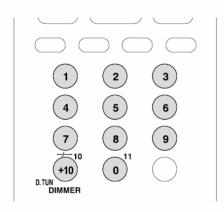


2. With the number buttons, enter the following 5-digit remote control code within 30 seconds.

RI Dock: 81993

Cassette tape deck with RI jack: 42157

 Programming is complete when the remote indicator flashes twice. The remote indicator flashes once slowly when programming the remote control code fails. Try registering again.



Input selector on the RI Dock: Select "HDD" or "HDD/DOC". For details, refer to the RI Dock's instruction manual.

To operate Onkyo components directly or Onkyo components that are not connected via RI, use the following remote control codes:

Onkyo DVD player: 30627 Onkyo CD player: 71817

RI Dock: 82990

• With some models, operation may be not possible in part or not possible at all.

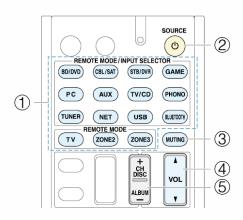
Connecting and Operating Onkyo RI Components

iPod/iPhone Operation

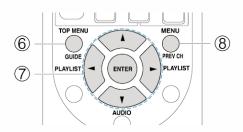
The RI Dock allows you to use the AV receiver's remote controller to operate and play music on your iPod/iPhone. Moreover, it also allows you to view videos on your iPod/iPhone on the screen of your TV, as well as perform RI operations if connected via RI. This operation is possible only when the RI remote control code is programmed.

Before Performing any Operation: Before performing any operation on your iPod/iPhone, make sure to have it updated to the latest version via iTunes. Certain buttons may not work for some iPod/iPhone models and generations, or RI Dock. For details on the operation, refer to the RI Dock's instruction manual.

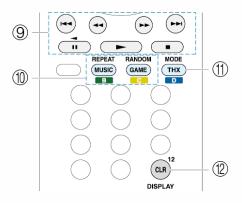
Switch the remote controller mode by pressing the REMOTE MODE button programmed with the remote control code for the iPod/iPhone, and operate by using the corresponding buttons. Point the remote controller at the unit.



- 1) REMOTE MODE
- 2 USOURCE
- ③ MUTING
- ④ VOL ▲/▼
- ⑤ ALBUM +/-



- ⑦ A/▼/◄/►, ENTER, PLAYLIST◄/►
- **® MENU**



- **⑨ ► , II , , ◄◄ , ►► , ◄◄ , ►► |**
- **®** REPEAT, RANDOM
- ① MODE
- 12 DISPLAY
- Pressing DISPLAY turns on the backlight for a few seconds.
- MODE allows you to use the Resume function to resume playing from the song that was playing when you removed your iPod/iPhone from the DS-A2 RI Dock.



Control Function between the Unit and External Component

You can enable the control functions between the unit and external devices using the terminals below. Special devices or cable connections are necessary to enable the functions. For more information about preparation, contact the specialized stores.

RS232 port

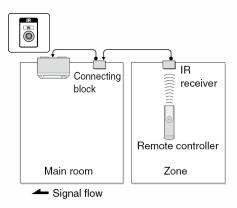
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Use the port for connection with a commercially available integrated control system that can enable home automation. Some integrated control systems provide a centralized operation with a single touch panel controller in order to control audio and video home appliances and security devices together. For more information about adopting an integrated control system, contact the specialized stores.

IR jack



If you use a multiroom remote control kit such as Xantech and Niles with this jack, you can operate the unit with the remote controller even when you are in a separate room, or operate the unit with the remote controller even if its remote control sensor is difficult to see. For more information about adopting a multiroom remote control kit, contact the specialized stores.



12V trigger output jack



You can enable power link operation when you connect the unit and an external device such as power amplifier equipped with 12V trigger input jack. When the Zone 2 function of the unit is turned on, the power link operation will be activated with a control signal of maximum 12V/150mA output from the 12V trigger output jack. For connection, use a monaural mini plug cable.

About Firmware Update

There are two methods for updating the firmware: via network and via USB. Use the one that best suits your environment.

- For the latest information on updates, visit the Onkyo website.
- Before updating, make sure that the speaker setup microphone is not connected.
- During an update, do not
 - Disconnect and reconnect any cable, USB storage device, speaker setup microphone or headphones, or perform any operation on the component such as turn off its power
 - Access to this unit from a PC or smartphone using Android application
- The update may take about 20 minutes to complete for either method: via network or via USB.
 - Furthermore, existing settings are guaranteed regardless of the method used for update.

Disclaimer: The program and accompanying online documentation are furnished to you for use at your own risk.

Onkyo will not be liable and you will have no remedy for damages for any claim of any kind whatsoever concerning your use of the program or the accompanying online documentation, regardless of legal theory, and whether arising in tort or contract.

In no event will Onkyo be liable to you or any third party for any special, indirect, incidental, or consequential damages of any kind, including, but not limited to, compensation, reimbursement or damages on account of the loss of present or prospective profits, loss of data, or for any other reason whatsoever.

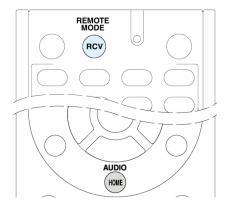
Updating the Firmware via Network

Before Start:

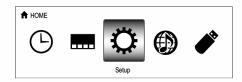
- Check that the unit is turned on, and the connection to the Internet is secured.
- Turn off the controller component (PC etc.) connected to the network.
- Stop any playing Internet radio, USB storage device, or server content.
- If the multi-zone function is active, press OFF on the main unit to turn it off.
- If "HDMI CEC (RIHD)" is set to "On", set it to "Off" (default value).
 - After pressing RCV, press HOME on the remote controller. Select "Setup" with the cursors and press ENTER. Then, after selecting "7.Hardware Setup" - "HDMI" and pressing ENTER, select "HDMI CEC (RIHD)" to select "Off".
 - * The description may differ from the on-screen display but that will not change the way to operate or the function.



1. Press RCV and then press HOME on the remote controller.



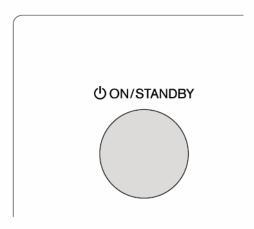
The Home menu is displayed on the TV screen.



- 2. With the cursors, select "Setup" "7.Hardware Setup" "Firmware Update" "Update via NET", and then press ENTER.
 - If "7. Hardware Setup" is grayed out and cannot be selected, wait for a

while until it starts up.

- You will not be able to select "Update via NET" if there is nothing to update.
- 3. Press ENTER with "Update" selected to start update.
 - During the update, the TV screen may go black depending on the updated program. In that case, check the progress on the display of the unit. The TV screen will remain black until the update is complete and the power is turned on again.
 - "Completed!" is displayed when the update is complete.
- 4. Press OON/STANDBY on the main unit to turn the unit into standby mode. The process is completed and your firmware is updated to the latest version.
 - Do not use ΦRECEIVER on the remote controller.



If an Error Message is Displayed

Case 1: When an error occurs, "*-* * Error!" is appeared on the display of the unit. ("*" represents an alphanumeric character.) Check the following:

Error Code

* -01, * -10:

Ethernet cable not found. Connect the Ethernet cable properly.

• *-02, *-03, *-04, *-05, *-06, *-11, *-13, *-14, *-16, *-17, *-18, *-20, *-21:

Internet connection error. Check the following:

- Whether the router is turned on
- Whether this unit and router are connected to the network
 Try to disconnect and then connect again the power to the unit and router. This may solve the problem. If you are still unable to connect to the Internet, the DNS server or proxy server may be temporarily down.
 Check the service status with your ISP provider.
- Others:

disconnect then reconnect the AC power cord, from the beginning.



Updating the Firmware via USB

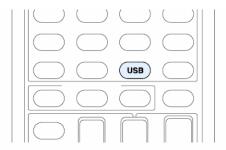
Before Start:

- Prepare a 64 MB or larger USB storage device.
 - Media inserted in a USB card reader may not be used for this function.
 - USB storage devices with security function are not supported.
 - USB hubs and USB devices with hub function are not supported. Do not connect these devices to the unit.
- Delete any data stored on the USB storage device.
- Turn off the controller component (PC etc.) connected to the network.
- Stop any playing Internet radio, USB storage device, or server content.
- If the multi-zone function is active, press OFF on the main unit to turn it off
- If "HDMI CEC (RIHD)" is set to "On", set it to "Off" (default value).
 - After pressing RCV, press HOME on the remote controller. Select "Setup" with the cursors and press ENTER. Then, after selecting "7.Hardware Setup" - "HDMI" and pressing ENTER, select "HDMI CEC (RIHD)" to select "Off".
 - * Some USB storage devices may take long to load, may not be loaded correctly, or may not be correctly fed depending on the device or their content.
 - * Onkyo will not be liable whatsoever for any loss or damage of data, or storage failure arising from the use of the USB storage device with this AV receiver. Thank you for your understanding.
 - * The description may differ from the on-screen display but that will not change the way to operate or the function.

Update



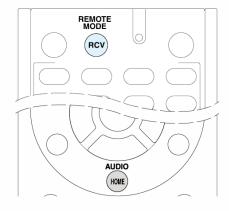
- 1. Connect the USB storage device to your PC.
- 2. Download the firmware file from the Onkyo website to your PC and unzip. Firmware files are named in the following way:
 - ONKAVR * * * * _ * * * * * * * * * * * zip
 - Unzip the file on your PC. The number of unzipped files and folders varies depending on the model.
- 3. Copy all unzipped files and folders to the root folder of the USB storage device.
 - Make sure to copy the unzipped files.
- 4. Press USB on the remote controller to select "USB".



- 5. Connect the USB storage device to the USB port of the main unit.
 - If you connect a USB hard disk drive to the USB port of the unit, we recommend that you use its AC adapter to power it.
 - If the USB storage device has been partitioned, each section will be treated as an independent device.



6. After pressing RCV, press HOME on the remote controller.



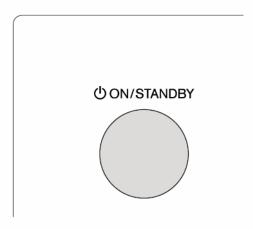
The Home menu is displayed on the TV screen.



- 7. With the cursors, select "Setup" "7.Hardware Setup" "Firmware Update" "Update via USB", and then press ENTER.
 - If "7.Hardware Setup" is grayed out and cannot be selected, wait for a while until it starts up.
 - You will not be able to select "Update via USB" if there is nothing to update.
- 8. Press ENTER with "Update" selected to start update.
 - During the update, the TV screen may go black depending on the updated program. In that case, check the progress on the display of the unit. The TV screen will remain black until the update is complete

and the power is turned on again.

- During the update, do not turn off, or disconnect then reconnect the USB storage device.
- "Completed!" is displayed when the update is complete.
- 9. Disconnect the USB storage device from the unit.
- 10.Press OON/STANDBY on the main unit to turn the unit into standby mode. The process is completed and your firmware is updated to the latest version.
 - Do not use ORECEIVER on the remote controller.



If an Error Message is Displayed

Case 1: When an error occurs, "*-* * Error!" is appeared on the display of the unit. ("*" represents an alphanumeric character.) Check the following:

Error Code

* -01, * -10:

USB storage device not found. Check whether the USB storage device or USB cable is correctly inserted to the USB port of the main unit. Connect the USB storage device to an external power source if it has its own power supply.

* -05, * -13, * -20, * -21:

The firmware file is not present in the root folder of the USB storage device, or the firmware file is for another model. Retry from the download of the firmware file.

Others:

disconnect then reconnect the AC power cord, from the beginning.

Before starting the procedure

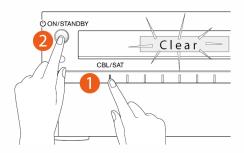
Problems may be solved by simply turning the power on/off or disconnecting/connecting the power cord, which is easier than working on the connection, setting and operating procedure. Try the simple measures on both the unit and the connected device. If the problem is that the video or audio is not output or the HDMI linked operation does not work, disconnecting/connecting the HDMI cable may solve it. When reconnecting, be careful not to wind the HDMI cable since if wound the HDMI cable may not fit well. After reconnecting, turn off and on the unit and the connected device.

Resetting the unit

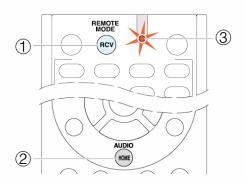
Resetting the unit to the status at the time of shipment may solve the problem. If the measures above do not solve the problem, reset the unit with the following procedure. If you reset the unit status, your preferences will be reset to the defaults. Note them down before starting reset.

How to reset

- 1. While holding down CBL/SAT on the main unit (note that step 2 must be performed with this button pressed down)
- 2. Press OON/STANDBY on the unit. "Clear" is appeared on the display and the unit will enter standby mode.



- How to reset the remote controller
- 1. While holding down ①RCV on the remote controller (note that step 2 must be performed with this button pressed down)
- 2. Press and hold down ② HOME until the ③ remote indicator lights (about 3 seconds). Within 30 seconds, press ① RCV again.



Power

- Cannot turn on the unit
- Make sure that the power cord is properly plugged into the wall outlet.
- Unplug the power cord from the wall outlet, wait 5 seconds or more, then plug it in again.
- The unit turns off unexpectedly
- The unit will automatically enter standby mode when Auto Standby has been set and launches.
- The unit 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 unit with its power cord disconnected for 1 hour. After that, reconnect the power cord and turn the power on. If the unit turns off again, avoid resetting it and unplug the power cord. Then contact your Onkyo dealer.

Caution: If "CHECK SP WIRE" appears on the display, the speaker cables may be short-circuited.

WARNING: If smoke, smell or abnormal noise is produced by the unit, unplug the power cord from the wall outlet immediately and contact the dealer or Onkyo Support.

Audio

- There is no sound, or it is very quiet
- Make sure that the proper input source is selected.
- Make sure that connecting plugs are pushed in all the way.
- Make sure that the inputs and outputs of all components are connected properly.
- Make sure that the polarity of the speaker cables is correct, and that no bare wires are in contact with the metal part of speaker terminals.
- Make sure that the input source is properly selected.
- Make sure that the speaker cables are not shorting.
- Check the volume. The volume level is adjustable between Min, 1 to 79, Max (100) It is normal that the unit volume level is set up to 40 or around.
- If the MUTING indicator on the display flashes, press MUTING on the remote controller to unmute the unit.
- While headphones are connected to the PHONES jack, no sound is output from the speakers.
- If there is no sound from a BD/DVD player connected to an HDMI IN, check the BD/DVD player's output settings, and be sure to select a supported audio format.
- Check the digital audio output setting on the connected component. 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.
- Specify the speaker distances and adjust the individual speaker levels.
- Make sure that the speaker setup microphone is not still connected.
- If the input signal format is set to "PCM" or "DTS", set it to "Off".
- Only the front speakers produce sound
- When the Stereo or Mono listening mode is selected, only the front speakers and subwoofer produce sound.
- Make sure the speakers are configured correctly.
- Only the center speaker produces sound
- If you use the Dolby Pro Logic II 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.
- 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, not much sound may be produced by the surround speakers. Try selecting another listening mode.
- Make sure the speakers are configured correctly.
- 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.
- 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.
- There is no sound with a certain signal format
- When listening to Dolby Digital and/or DTS sound, digital connection is necessary.
- Check the digital input terminal setting. If the connection is different from the default, re-setting is necessary.
- Check the digital audio output setting on the connected component. On some game consoles, such as those that support DVD, the default setting is off.
- Cannot select the Pure Audio listening mode
- The Pure Audio listening mode cannot be selected while Zone 2/Zone 3 is on.
- Cannot select a desired listening mode
- Depending on the connecting status of the speaker, some listening modes may not be selected. Check the details in "Using the Listening Modes" section.
- Cannot play 5.1ch
- Make sure the speakers are configured correctly.
- Not all listening modes use all speakers.
- Cannot get 6.1/7.1 playback
- 6.1/7.1 playback is not possible if surround back speakers and height speakers are not connected.
- Depending on the number of connected speakers, it is not always

possible to select all of the listening modes.

- The speaker volume cannot be set as required
- Check to see if a maximum volume has been set.
- Noise can be heard
- Using cable ties to bundle analog audio (RCA) cables with power cords, speaker cables, etc. may degrade the audio performance, so refrain from doing it.
- An analog audio (RCA) cable may be picking up interference. Try repositioning your cables.
- The Late Night function does not work
- Make sure the source material is Dolby Digital, Dolby Digital Plus, or Dolby TrueHD.
- About DTS signals
- When DTS program material ends and the DTS bitstream stops, the unit 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 unit does not switch formats immediately. In such case, you should stop your player for about 3 seconds and then resume playback.
- With some CD and LD players, you will not be able to playback DTS material properly even though your player is connected to a digital input on the unit. This is usually because the DTS bitstream has been processed (e.g., output level, sampling rate, or frequency response changed) and the unit does not 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 cannot 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.

Troubleshooting

Video

- There is no picture
- Make sure that all video connecting plugs are pushed in all the way.
- Make sure that each video component is properly connected.
- If the TV is connected to the HDMI OUT jack of the unit, set "Monitor Out" to "MAIN" or "SUB" according to the output jack. If the playback source is connected to the video (composite) jack or component video jacks and you want to output the video to the TV via the HDMI OUT jack, set "HDMI Input" to "----".
- 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 terminal.
- If the video source is connected to a composite video input, your TV must be connected to the MONITOR OUT V terminal.
- If the video source is connected to an HDMI input, you must assign that input to an input selector, and your TV must be connected to the HDMI output(s).
- While the Pure Audio listening mode is selected, the analog video circuitry is turned off and only video signals input through HDMI IN can be output.
- Make sure the switching of input screens is proper at the monitor side such as a TV.
- When the image input from the composite video input terminal does not get displayed, make sure that the component video input terminal is not set to the selected input. If selected, images input from the composite video input terminal cannot be output to this input switching. If only composite video input terminal connection is used, set the component video input terminal to "-----."
- Images of a component connected to the composite video input terminal cannot be output by converting on the monitor of a TV or other components connected to COMPONENT VIDEO OUT terminal.
- If the input selector to which the input from the TV connected to the HDMI OUT SUB jack is connected is changed on this unit when "Monitor Out" is set to "MAIN+SUB", or "MAIN" and when outputting to Zone 2, the video from the TV connected to HDMI OUT MAIN stops displaying.
- "Resolution" is effective only for the HDMI OUT MAIN jack if "Monitor Out" is set to "MAIN+SUB".
- There is 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 supported.

- Check if "Resolution Error" is displayed on the main unit display when video input via HDMI IN jack is not displayed. In this case, the TV does not support the resolution of the video input from the player. Change the setting on the player.
- The on-screen menus do not appear
- On your TV, make sure that the video input to which this unit is connected is selected.
- Set "On Screen Display" to "On" in "OSD Setup".
- When the unit is not connected to a TV via HDMI OUT MAIN jack, the setting screen and on-screen menus are displayed only on the connected TV or monitor display.

Troubleshooting

Tuner

- Reception is noisy, FM stereo reception is noisy, or the "FM STEREO" indicator does not stay lit
- Re-check the antenna connection.
- Relocate your antenna.
- Move the unit away from your TV or PC.
- Passing cars and airplanes can cause interference.
- Concrete walls weaken radio signals.
- Listen to the station in mono.
- When listening to an AM station, operating the remote controller may cause noise.
- If nothing improves the reception, install an outdoor antenna.

Remote Controller

- The remote controller does not work
- Before operating this unit using remote controller, be sure to press RCV.
- Make sure that the batteries are installed with the correct polarity.
- Install new batteries. Do not mix different types of batteries, or old and new batteries.
- Make sure that the remote controller is not too far away from the unit, and that there is no obstruction between the remote controller and the remote control sensor of the unit.
- Make sure that the unit is not subjected to direct sunshine or inverter-type fluorescent lights. Relocate if necessary.
- If the unit is installed in a rack or cabinet with colored-glass doors or if the doors are closed, the remote controller may not work reliably.
- Make sure you have selected the correct remote controller mode.
- When using the remote controller to control other manufacturers' AV components, some buttons may not work as expected.
- Make sure you have entered the correct remote control code.
- Make sure to set the same ID on both the unit and remote controller.
- Operating other Onkyo component by using a RI remote control code is not available
- Make sure that the Onkyo component is properly connected with RI cable.
 When RI cable is used for connection, make sure to connect analog audio (RCA) cable as well. (Connecting only an RI cable will not be enough.)
- Make sure you have selected the correct remote controller mode.
- Make sure that the input display is correctly set.
- Input the RI remote control code again.
- When the RI remote control code is input, point the remote controller at remote control sensor of the unit.
- Cannot operate Onkyo components (ones without RI connection) and components of other makers
- Make sure that the connection with other components is correct.
- Input a correct remote control code again. If there are several codes, try each code.
- Make sure that the remote controller mode is correctly selected.
- Operate the remote controller by setting toward the light receiving section of each component.
- Some components may not start the operation.

RI Dock for iPod/iPhone

- There is no sound
- Make sure your iPod/iPhone is actually playing.
- Make sure your iPod/iPhone is properly inserted in the Dock.
- Make sure the unit 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 is 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 unit.
- Some versions of the iPod/iPhone do not output video.
- The AV receiver's remote controller does not 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 is displaying the Apple logo.
- Make sure you have selected the correct remote controller mode.
- When you use the AV receiver's remote controller, point it toward this unit.
- Before operating with the remote controller, you may need to play on your iPod/iPhone to make the input selector be recognized.
- Try resetting your iPod/iPhone.
- Depending on your iPod/iPhone model and generation, some buttons may not work as expected.
- The unit 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 does not work properly
- Try reconnecting your iPod/iPhone.



Multi-zone Function

- There is no sound
- When you connect a CD player or such other player without HDMI output jack, connect it to the analog audio input jacks of the unit. Multi-zone output is not possible if the connection is only with digital optical cable or digital coaxial cable. In case of analog connection, analog audio output setting may be necessary on the player.

Wi-Fi (Wireless LAN) Network

- Cannot access to Wi-Fi (Wireless LAN) network or sound playback is interrupted and communication does not work
- Try plugging/unplugging the power supply of wireless LAN router and the unit, check the wireless LAN router power-on status, and try reboot of the wireless LAN router.
- The setting of SSID and encryption (WEP, etc.) is not correct. Make sure the network settings of the unit is properly set.
- Connection to an SSID that includes multi-byte characters is not supported. Name the SSID of the wireless LAN router using single-byte alphanumeric characters only and try again.
- Cannot receive radio wave due to a bad connection. Shorten the distance from wireless LAN access point or remove obstacles for a good visibility, and try again. Place the unit away from microwave ovens or other access points. 2.4 GHz band for wireless LAN may not be enough. Connect ETHERNET terminal of the unit and the router via an Ethernet cable after selecting "7.Hardware Setup" - "Network" and changing "Wi-Fi" to "Off(Wired)".
- Place the unit away from the components emitting electromagnetic waves on the 2.4 GHz band (microwave ovens, game consoles, etc.). If this does not solve the problem, stop using other components which emit electromagnetic waves.
- When other wireless LAN devices are used near the unit, several issues such as interrupted playback and communication may occur. You can avoid these issues by changing the channel of your wireless LAN router. For instructions on changing channels, see the instruction manual provided with your wireless LAN router.
- If there is a metallic object near the unit, wireless LAN connection may not be possible as the metal can effect on the radio wave.
- If there is more than one access point in the network, separate each access point.
- It is recommended to place the Wi-Fi router (access point) and the unit in the same room.
- The connection does not complete even when the automatic setting button is pressed on the wireless LAN router
- The wireless LAN router setting may be switched to Manual. Return the setting to Auto.
- Try the manual set-up. The connection may succeed.

- On the list of SSID on the TV menu screen, there is no corresponding SSID
- When the wireless LAN router setting is at stealth mode (mode to hide the SSID key) or when ANY connection is off, the SSID is not displayed. Change the setting and try again.

Bluetooth

- Music playback is unavailable on the unit even after successful Bluetooth connection
- Depending on the characteristics or specifications of your Bluetoothenabled device, playback on the unit is not guaranteed.
- When the audio volume of your Bluetooth-enabled device is set low, the playback of audio may be unavailable. Volume up the Bluetooth-enabled device.
- Depending on the Bluetooth-enabled device, Send/Receive selector switch may be provided. Select Send mode.
- Even when a music file is playing on the Bluetooth-enabled device, the sound cannot be played if the connection is not established with the unit. Make sure that the unit is connected (this unit is selected as the sound output destination).
- Sound is interrupted
- Problem may be occurring at the Bluetooth-enabled device. Check the information on a web page.
- The audio quality is poor after connection with a Bluetooth-enabled device
- The Bluetooth reception is poor. Move the Bluetooth-enabled device closer to the unit or remove any obstacle between the Bluetooth-enabled device and this unit.
- Cannot connect with this unit
- Try plugging/unplugging the power of the unit and try turning on/off the Bluetooth-enabled device. Re-startup of the Bluetooth-enabled device may be effective.
- The Bluetooth-enabled device does not support the profiles required for this unit.
- The Bluetooth function of the Bluetooth-enabled device is not enabled. Refer to the user manual of the Bluetooth-enabled device for how to enable the Bluetooth function.
- Near components such as microwave oven or cordless phone, which use the radio wave in the 2.4 GHz range, a radio wave interference may occur, which disables the use of this unit.
- Bluetooth connection cannot be built
- When building a Bluetooth connection between this unit and your

Bluetooth-enabled device for the first time, if the connection fails, select "7.Hardware Setup" - "Bluetooth", execute "Clear" in "Pairing Information", turn off and then on again your Bluetooth-enabled device to clear the device name, and build the connection again.

- If there is a metallic object near the unit, Bluetooth connection may not be possible as the metal can effect on the radio wave.
- If the wireless LAN and Bluetooth connections are used at the same time, try to connect the ETHERNET port and router with the Ethernet cable after selecting "7.Hardware Setup" - "Network" and changing "Wi-Fi" to "Off(Wired)" for a better connection.
- The Auto Reconnect function of Bluetooth does not work
- This may not work with some Bluetooth-enabled devices. In that case, pair the unit and the Bluetooth-enabled device and then play again

NET/USB Function

- Cannot access the network server
- When NET is blinking, the AV receiver is not properly connected to the home network.
- Make sure your network server has been started up.
- Make sure your network server is properly connected to the home network.
- Make sure your network server is correctly set.
- Make sure that the router LAN side port is properly connected to the AV receiver.
- Make sure that the correct IP address is allocated in "7.Hardware Setup" "Network".
- Playback stops while listening to music files on the network server
- Make sure the network server is compatible with this unit.
- When the PC is serving as the network server, try quitting any application software other than the server software (Windows Media Player 12 etc.).
- If the PC is downloading or copying large files, the playback may be interrupted.
- Cannot access the Internet radio
- Certain network service or contents available through the unit may not be accessible in case the service provider terminates its service.
- If a specific radio station is unavailable for listening, make sure the registered URL is correct, or whether the format distributed from the radio station is supported by the AV receiver.
- When NET is blinking, the AV receiver is not properly connected to the home network.
- Make sure that your modem and router are properly connected, and make sure they are both turned on.
- Make sure that connecting to Internet from other components is possible. If connecting is not possible, turn off all components connected to the network, wait for a while, and then turn on the components again.
- Make sure that the router LAN side port is properly connected to the AV receiver.
- Make sure that the correct IP address is allocated in "7.Hardware Setup" -"Network".
- Depending on ISP, setting the proxy server is necessary.
- Make sure that the used router and/or modem is supported by your ISP.

- Cannot connect to the AV receiver from a Web browser
- Make sure that the IP address of the AV receiver is correctly input to the Internet browser.
- When DHCP is used for allocating the IP address, the IP address of this AV receiver may have been changed.
- Make sure that both AV receiver and PC are properly connected to the network.
- USB storage device is not displayed
- Make sure that USB storage device and USB cable are securely plugged to the USB port of this AV receiver.
- Remove the USB storage device from the AV receiver once, and then try re-connecting.
- Performance of the hard disk that receives power from the USB port of the unit is not guaranteed.
- Depending on the type of format, the playback may not be performed normally. Check the type of the file formats that is supported.
- USB storage device with security functions may not be played.

Troubleshooting

Others

- Power consumption in standby mode
- In the following cases, the power consumption in standby mode may reach up to a maximum of 5 W:
 - When "Network Standby" in "7.Hardware Setup" "Network" is set to "On".
 - When "HDMI CEC (RIHD)" is set to "On". (Depending on the TV status, the AV receiver will enter normal standby mode.)
 - The "HDMI Through" setting is set to other than "Off".
 - When "Wakeup via Bluetooth" in "7.Hardware Setup" "Bluetooth" is set to "On".
- The power consumption in standby mode may be larger than the value above while the MHL (Mobile High-definition Link) enabled mobile device connected to the AUX INPUT HDMI/MHL jack is being charged.
- The sound changes when I connect my headphones
- When a listening mode other than Direct, Pure Audio, or Mono is selected, connecting a headphone automatically selects Stereo.
- The display does not work
- The display is turned off when the Pure Audio listening mode is selected.
- How do I change the language of a multiplex source
- Select "Main" or "Sub" for "Multiplex Input Channel" in "3.Audio Adjust" -"Multiplex/Mono".
- The RI functions do not work
- To use RI, you must make an RI connection and an analog audio (RCA) connection between the component and AV receiver, even if they are connected digitally.
- While Zone 2/Zone 3 is selected, the RI functions do not work.
- The functions System On/Auto Power On and Direct Change do not work for components connected via RI
- These functions do not work when Zone 2//Zone 3 is turned on.
- 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 display is dark
- Make sure that Dimmer function is not working. Press DIMMER button and change the brightness level of the display.
- The following settings can be made for the composite video inputs
- While holding down the input selector button to configure, press Home once at a time until "Video ATT: On" appears on the display. To resume the setup, repeat the above described step until "Video ATT: Off" appears on the display.

This setting is possible for input selectors assigned with one of the video inputs "VIDEO 1" to "VIDEO 3" in "1.Input/Output Assign" - "Composite Video Input". If you have a game console connected to the composite video input, and the picture is not very clear, you can attenuate the gain.

Video ATT: Off: (Default).

On" appears on the display.

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

- The picture on your TV/monitor connected to the HDMI output(s) is unstable
- Try turning the DeepColor function off.
 To turn off the DeepColor function, press STB/DVR and ΦΟΝ/STANDBY on the AV receiver simultaneously.
 While holding down STB/DVR, press ΦΟΝ/STANDBY repeatedly until "Deep Color: Off" is appeared on the display. To reactivate the DeepColor function, repeat the above described step until "Deep Color:

Radio Wave Caution

The AV receiver uses a 2.4 GHz radio wave frequency, which is a band used by other wireless systems as 1 and 2 described below.

- 1. Devices which use a 2.4 GHz radio wave frequency
 - Cordless phones
 - Cordless facsimiles
 - Microwave ovens
 - Wireless LAN devices (IEEE802.11b/g/n)
 - Wireless AV equipment
 - Wireless controllers for game systems
 - Microwave oven-based health aids
 - Video transmitter
 - Specific type of external monitor and LCD display
- 2. Less common devices which use a 2.4 GHz radio wave frequency
 - Anti-theft systems
 - Amateur radio stations (HAM)
 - Warehouse logistic management systems
 - Discrimination systems for train or emergency vehicles

If these devices and the AV receiver are used at the same time, the audio may be undesirably stopped or disturbed due to a radio wave interference. Suggestions for improvement

- Switch off the devices which emit the radio wave.
- Place the interfering devices away from the AV receiver.
- The AV receiver uses radio wave, and a third person can receive the wave on purpose or accidentally. Do not use the communication for important or fatal matters.
- We assume no responsibility whatsoever for any error or damage of network environment or access device resulting from the use of this apparatus.

Confirm with the provider or access device maker for more information.

Scope of Operation

Use of the AV receiver is limited to home use. (Transmission distances may be reduced depending on communication environment.) In the following locations, poor condition or inability to receive radio waves may cause the audio to be interrupted or stopped:

- In reinforced concrete buildings or steel framed or iron framed buildings.
- Near large metallic furniture.

interference.

- In a crowd of people or near a building or obstacle.
- In a location exposed to the magnetic field, static electricity or radio wave interference from radio communication equipment using the same frequency band (2.4 GHz) as the AV receiver, such as a 2.4 GHz wireless LAN device (IEEE802.11b/g/n) or microwave oven.
- If you live in a heavily populated residential area (apartment, townhouse, etc.) and if your neighbor's microwave oven is placed near your AV receiver, you may experience radio wave interference. If this occurs, move your AV receiver to a different place.
 When the microwave oven is not in use, there will be no radio wave

Radio Wave Reflections

The radio waves received by the AV receiver include the radio wave coming directly from the devices and waves coming from various directions due to reflections by walls, furniture and building (reflected waves). The reflected waves (due to obstacles and reflecting objects) further produce a variety of reflected waves as well as variation in reception condition depending on locations. If the audio cannot be received properly due to this phenomenon, try moving the location of the wireless LAN device a little.

Also note that audio may be interrupted due to the reflected waves when a person crosses or approaches the space between the AV receiver and the wireless LAN device.

- We assume no responsibility whatsoever for any damages resulting from the use of this apparatus except in the cases deemed acceptable under the applicable laws and regulations.
- Operation in all environment is not guaranteed for wireless LAN. The communication may not be possible or have desirable communication speed.

Precautions

- Do not use this apparatus near an electronic device handling highaccuracy controls or weak signals. Doing so may cause an accident due to a malfunction of the device.
- Do not use this apparatus in use prohibited location such as an aircraft equipment or a hospital. Doing so may cause an accident due to a malfunction of an electronic device or an electro-medical apparatus.
 Follow the instructions of the medical facilities.
- Electronic device which requires cautions
 Hearing aid, pace maker, other medical electronic devices, fire alarm,
 automatic door, and other automatic control device.
 When using a pace maker or other medical electronic devices, confirm with
 the medical electronic device maker or dealer for the effect of the radio wave.

The AV receiver contains a microPC 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 5 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.

Regarding the Video Resolution

See below the video signal types and resolutions that the unit can output when it receives the input signals of the following types and resolutions. The supported resolutions are shown as "Input: Output".

(North American models)

```
HDMI: HDMI
4K: 4K (* 1/* 3)
1080p/24: 4K, 1080p/24 ( * 1)
2560 × 1080p: 4K ( * 2), 2560 × 1080p ( * 1)
1680 × 720p: 4K ( * 2), 2560 × 1080p, 1680 × 720p ( * 1)
1080p: 4K (*3), 2560 × 1080p, 1080p (*1)
1080i: 4K ( * 3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i ( * 1)
720p: 4K (*3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i, 720p (*1)
480p: 4K (*3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i, 720p, 480p (*1)
480i: 4K (*3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i, 720p, 480p, 480i
(*1)
HDMI: Component
Can not be output.
HDMI: Composite
Can not be output.
Component: HDMI
480i: 4K (*3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i, 720p, 480p, 480i
(*1)
Component: Component
1080p: 1080p (* 1)
1080i: 1080i (* 1)
720p: 720p (* 1)
480p: 480p (* 1)
480i: 480i (* 1)
Composite: HDMI
```

480i: 4K (*3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i, 720p, 480p, 480i

Composite: Composite

(*1)

480i: 480i (*1)

- * 1 Resolution supported by HDMI OUT SUB jack
- *2 Supported resolution: [3840 × 2160 24/30/60 Hz]
- *3 Supported resolution: [3840 × 2160 24/30/60 Hz], [4096 × 2160 24/30/60 Hz]

(European, Australian and Asian models)

```
HDMI: HDMI
4K: 4K (* 1/* 3)
1080p/24: 4K, 1080p/24 (* 1)
2560 × 1080p: 4K (* 2), 2560 × 1080p (* 1)
1680 × 720p: 4K (* 2), 2560 × 1080p, 1680 × 720p (* 1)
1080p: 4K (* 3), 2560 × 1080p, 1080p (* 1)
1080i: 4K (* 3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i (* 1)
720p: 4K (* 3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i, 720p (* 1)
576p: 4K (* 3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i, 720p, 480p/576p (* 1)
576i: 4K (* 3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i, 720p, 480p/576p, 480i/576i (* 1)
```

- HDMI: Component Can not be output.
- HDMI: Composite Can not be output.
- Component: HDMI 480i/576i: 4K (*3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i, 720p, 480p/576p, 480i/576i (*1)
- Component: Component 1080p: 1080p (* 1) 1080i: 1080i (* 1) 720p: 720p (* 1) 480p/576p: 480i/576i (* 1)
- Composite: HDMI 480i/576i: 4K (*3), 2560 × 1080p, 1680 × 720p, 1080p, 1080i, 720p, 480p/576p, 480i/576i (*1)
- Composite: Composite 480i/576i: 480i/576i (* 1)
 - * 1 Resolution supported by HDMI OUT SUB jack

- * 2 Supported resolution: [3840 × 2160 24/25/30/50/60 Hz]
- * 3 Supported resolution: [3840 × 2160 24/25/30/50/60 Hz], [4096 × 2160 24/25/30/50/60 Hz]

Linked Operation with CEC-compatible Components

The AV receiver is compatible with the following components (as of January 2014).

TV (Random order):

- Toshiba TV sets
- Sharp TV sets

Players/Recorders (Random order):

- Onkyo and Integra RIHD-compatible players
- Toshiba players and recorders
- Sharp players and recorders (only when used together with Sharp TV sets)

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 RI functions to work properly, do not connect more RIHD-compatible components than the quantities specified below, to the HDMI jack. RI functions are not guaranteed when more RIHD-compatible components than the below mentioned quantities are connected. Furthermore, do not connect the AV receiver to another AV receiver/AV amplifier via HDMI.

- Blu-ray Disc/DVD players: up to 3.
- Blu-ray Disc/DVD recorders: up to 3.
- Cable TV tuner, terrestrial digital tuner, and satellite broadcasting tuner: up to 4 units.

Checking whether the HDMI Linked Operation Settings Are Enabled

- 1. Turn on the power of 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:

- Even if you set to output audio on the TV speakers, audio will be output from the speakers connected to the AV receiver when you adjust the volume or switch the input on the AV receiver. To output audio from the TV speakers, redo the corresponding operations on the TV.
- In case of an RIHD connection with RI and RI audio control compatible components, do not connect the RI cable at the same time.
- On the TV, when you select anything other than the HDMI jack to which the AV receiver is connected, the input on the AV receiver will be switched to "TV/CD".
- The AV receiver will automatically power on in conjunction when it determines it to be necessary. Even if the AV receiver is connected to an RIHD compatible TV or player/recorder, it will not power on if it is not necessary. It may not power on in conjunction when the TV is set to output audio from the TV.
- Linked system functions with the AV receiver may not work depending on the component model connected. In such cases, operate the AV receiver directly.
- When the player/recorder cannot be operated with the remote controller

of the AV receiver, the corresponding component may not be programmed to support the remote controller operation of CEC. Program the remote control code of the component maker to the remote controller for using.

About HDMI

HDMI (High Definition Multimedia Interface) is a 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 and digital audio of digital video (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.)

This unit supports HDCP (High-bandwidth Digital Content Protection) (* 2), so it can display picture only on HDCP-compatible components.

HDMI of the unit supports the following functions.

Audio Return Channel, 3D, x.v.Color, DeepColor, Lip Sync, 4K (Passthrough), DTS-HD Master Audio, DTS-HD High Resolution Audio, Dolby TrueHD, Dolby Digital Plus, DSD and Multichannel PCM.

Audio Formats Supported by The Unit:

- 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 unit supports Revision 1.4 and Revision 2.2 (HDMI OUT MAIN and HDMI IN3 only) of the HDCP (High-bandwidth Digital Content Protection) (*2), a copy-protection system for digital video signals. Other devices connected to the unit 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 is designed to protect video content and requires a HDCP-compatible HDMI/DVI receiver 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 PC and digital displays.

Note:

- There are some content that can be played only with HDCP Rev. 2.2 compatible devices. To play such content, connect an HDCP Rev.2.2 compatible TV or player to the HDMI OUT MAIN jack or HDMI IN3 jack of the unit.
- The HDMI video stream (i.e., video signal) 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 will 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 is no sound from a component connected via HDMI, check its setup. Refer to the connected component's instruction manual for details.

Home network (LAN)

The connection of several components via cables enabling the mutual communication is called a network.

At households, many families create (generally, the term "build" is used) a network to connect PC and gaming machines to the Internet and to exchange data between PC.

The network established in a relatively narrow area such as one household is called a LAN (Local Area Network).

In this manual, a term "home network" (network for a family) is used instead of "LAN," so this LAN becomes more familiar.

By connecting this unit with the network server such as a PC, playing music files in the network server (in the PC) is possible. Moreover, by connecting to the Internet, listening to the Internet radio is also possible.

This unit, PC, and Internet are not directly connected.

When connecting with a PC and/or Internet, several components (network components) are necessary.

Components necessary for establishing a home network (LAN):

Components necessary for the home network (LAN) for using the NET function of this unit are as follows.

Router

A router is a device that controls information (data) flow between the unit, PC, and the Internet.

As a network term, the flow of information (data) is called "traffic". The router has a role to control the information flow as the traffic control, between connected components.

- A router with a built-in 100Base-TX switch is recommended.
- In addition, if your router has the DHCP function, facilitating the network setting becomes possible.
- Some routers have a built-in modem, and some Internet Service Providers (ISP) require you to use specific routers.

Please consult your ISP or PC dealer if you are unsure.

CAT5 Ethernet cable

The Ethernet cable is a cable that actually connects components that comprise the network. There are straight type and cross type Ethernet cables.

 Use a shielded CAT5 Ethernet cable (straight-type) to connect the unit to your home network. Consult your cable store for details of Ethernet cable.

Network server(When PC etc./network server is used)

Component that stores music files and provides those files at the time of playback.

- Requirements for use with this unit depend on the component that is used as a network server.
- Conditions for pleasant playback of music files on the unit depend on the using network server (PC performance). See instruction manuals of using components.
- Modem (when Internet radio is used)

Device that connects home network (LAN) and Internet

There are many kinds of modems depending on the forms of Internet connection.

In addition, when connecting to the Internet, it is required to conclude an agreement with a company that provides Internet connection service, called ISP (Internet Service Provider).

Use a modem that is recommended by your ISP company for the Internet connection.

There are some devices that have both router and modem functions. Within above network components, prepare a router, Ethernet cable, and network server when the NET function "network server" is used. For enjoying the NET function "Internet radio," it is necessary to use the router, Ethernet cable, and modem (and agreement with ISP).

Reference Information

Server Requirements

Server playback

This unit can play digital music files stored on a PC or media server and supports the following technologies:

- Windows Media Player 11
- Windows Media Player 12
- DLNA-certified media server

The network server must be connected to the same network as this unit. Up to 20,000 folders can be displayed, and folders may be nested up to 16 levels deep.

Note: Depending on the media server, the unit may not recognize it, or may not be able to play its music files.

Remote playback

Remote playback is the function that enables this unit to play music files saved in different components by operating the DLNA-compliant controller component and PC in the home network.

- Windows Media Player 12
- DLNA-certified (within DLNA Interoperability Guidelines version 1.5) media server or controller component.
 - * The setting varies depending on the media server or controller components. Refer to your components' instruction manual for details.

If the operating system of your personal PC is Windows 8/Windows 7, Windows Media Player 12 is already installed. For more information, see the Microsoft web site.

USB Storage Device Requirements

- USB mass storage device class (but not always guaranteed).
- FAT16 or FAT32 file system format.
- If the USB storage device has been partitioned, each section will be treated as an independent device.
- Up to 20,000 folders can be displayed, and folders may be nested up to 16 levels deep.
- USB hubs and USB storage devices with hub functions are not supported. Do not connect these devices to the unit.

Note:

- If the media you connect is not supported, the message "No Storage" will be displayed.
- Sound files that are protected by copyright cannot be played.
- When the USB audio player and this unit are connected, the audio player screen and the screen of the unit may be different. In addition, control functions of the audio player (classifying and sorting music files and adding information, etc.) are not available on this unit.
- Do not connect a PC to the USB port of the unit. Inputting sound to the USB port of the unit from a PC is not possible.
- Media inserted to the USB card reader may not be available in this function.
- Some USB storage devices and its contents may require some time to be read.
- Depending on the USB storage device, proper reading of the contents and proper supply of the power supply may not be possible.
- Onkyo accepts no responsibility whatsoever for the loss or damage to data stored on a USB storage device when that device is used with this unit. We recommend that you back up your important music files beforehand.
- Performance of the hard disk that receive power from the USB port of the unit is not guaranteed.
- If you connect a USB hard disk drive to the USB port of the unit, we recommend that you use its AC adapter to power it.
- When an audio player that are operated with batteries is used, make sure that the batteries have enough remaining power.
- USB storage devices with security functions cannot be played.

Supported Audio Formats

- For server playback and playback from a USB storage device, this unit supports the following music file formats.
- Music files of the following formats that can be played depend on the network server. For example, when using Windows Media Player 12, not all music files in the PC can be played. The music files that can be played are the ones registered to the Windows Media Player 12 library.
- Variable bit-rate (VBR) files are supported. However, playback times may not be displayed correctly.
- This unit supports the gapless playback of the USB storage device in the following conditions.
 - When WAV, FLAC and Apple Lossless files are continuously played back with the same format, sampling frequency, channels and quantization bit rate.
- Remote playback does not support the gapless playback.

Note:

- With remote playback, this unit does not support the following music file formats:
 - FLAC, Ogg Vorbis, DSD and Dolby TrueHD.
- MP3 (.mp3 or .MP3)
- Supported formats: MPEG-1/MPEG-2 Audio Layer 3
- Supported sampling rates: 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz
- Supported bitrates: Between 8 kbps and 320 kbps and VBR.

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.
- Supported sampling rates: 8 kHz, 11.025 kHz, 16 kHz, 22.05 kHz, 32 kHz, 44.1 kHz, 48 kHz
- Supported bitrates: Between 5 kbps and 320 kbps and VBR.
- WMA Pro/Voice formats are not supported.
- WMA Lossless (.wma or .WMA)
- Supported sampling rates: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
- Quantization bit: 16 bit, 24 bit

WAV (.wav or .WAV)

WAV files contain uncompressed PCM digital audio.

- Supported sampling rates: 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz, 64 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz
- Quantization bit: 8 bit, 16 bit, 24 bit
 - * For playback from a USB storage device, sampling rates of 176.4 kHz and 192 kHz are not supported.

AAC

(.aac/.m4a/.mp4/.3gp/.3g2/.AAC/.M4A/.MP4/.3GP or .3G2)

- Supported formats: MPEG-2/MPEG-4 Audio
- Supported sampling rates: 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz, 64 kHz, 88.2 kHz, 96 kHz
- Supported bitrates: Between 8 kbps and 320 kbps and VBR

FLAC (.flac or .FLAC)

FLAC is a file format for lossless audio data compression.

- Supported sampling rates: 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz, 64 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz
- Quantization bit: 8 bit, 16 bit, 24 bit
 - * For playback from a USB storage device, sampling rates of 176.4 kHz and 192 kHz are not supported.

Ogg Vorbis (.ogg or .OGG)

- Supported sampling rates: 8 kHz, 11.025 kHz, 16 kHz, 22.05 kHz, 32 kHz, 44.1 kHz, 48 kHz
- Supported bitrates: Between 32 kbps and 500 kbps and VBR.
- Incompatible files cannot be played.

■ LPCM (Linear PCM)

- Supported sampling rates: 44.1 kHz, 48 kHz
- Quantization bit: 16 bit
 - * Only for playback via DLNA.

Apple Lossless (.m4a/.mp4/.M4A/.MP4)

- Supported sampling rates: 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz, 64 kHz, 88.2 kHz, 96 kHz
- Quantization bit: 16 bit, 24 bit

■ DSD (.dsf or .DSF)

- Supported sampling rates: 2.8224 MHz, 5.6448 MHz
 - * For playback from a USB storage device, sampling rates of 5.6448 MHz is not supported.

■ Dolby TrueHD (.vr/.mlp/.VR/.MLP)

Supported sampling rates: 48 kHz, 64 kHz, 88.2 kHz, 96 kHz, 176.4 kHz,

192 kHz

* For playback from a USB storage device, only sampling rates of 48 kHz is supported.



Remote Control Code List

Television (A to E)

A.R. Systems 10037, 10556

Accent 10037

Acoustic Solutions 11667, 11585, 11037

Action 10650

Addison 10653, 11150

AEG 11037 Aiko 10037 Aim 10037

Akai 10037, 12676, 10208, 10714, 10556, 12414,

13183, 10178

Akiba 10037 Akito 10037

Akura 10037, 10714, 11667, 11585, 10171, 11037

Alba 11037, 12676, 10037, 10714, 11585

Alien 11037 Alistar 10037

Amstrad 10037, 10171, 11037

Anam 10037, 10650 Andersson 11585, 12676

Anitech 10037 Ansonic 10037

AOC 11365, 12769, 10178, 10625, 11150

Apex Digital 12397

Ardem 10714, 10037

Arena 10037 Ario 12397

Aristona 10556, 10037

ART 11037
Art Mito 11585
Asberg 10037
Astra 10037

ATD 10698 Atlantic 10037

Audiosonic 10714, 10037

 Audioworld
 10698

 Autovox
 12676

 Aventura
 10171

 Axxon
 10714

 Baird
 10208

 Barco
 10556

 Base
 10698

Basic Line 10037, 11037, 10556

Baur 10037, 10195

Beaumark 10178 Beijing 10208

Beko 10714, 10037

Bell & Howell 10017 Belson 10698 Belstar 11037 Beon 10037 Berthen 10556 10037 Bestar Bexa 12493 **BGH** 12414 **Black Diamond** 11037

Blue Sky 10714, 10037, 11037, 10556, 10625

10195

BPL 10208, 10037

Brandt 10625, 11585, 10714

Brinkmann 10037 Brionvega 10037 Britania 12414

Blaupunkt

Bush 11037, 10037, 10714, 12676, 11667, 10208,

10556, 10698, 11585

 Byd:sign
 12209

 Camper
 10037

 Carad
 11037

 Carena
 10037

 Carrefour
 10037

Cascade 10037 Casio 10037 Cathay 10037

CCE 13782, 10037 Celcus 12676, 11585

Celebrity 10000
Centrum 11037
Centurion 10037

Changhong 13434, 12769, 10508

Chimei 12769

Chun Yun 10000, 11150

Chung Hsin 11150 Clarivox 10037

Clatronic 10037, 10714

Clayton 11037 Coby 13478 Commercial 11447

Solutions

 Condor
 10037

 Conrowa
 10698

 Contec
 10037

 Cosmel
 10037

 CPTEC
 10625

Crown 10037, 10714, 10208, 11037

Crypton 11667 Curtis 12397 Cyberpix 11667

D-Vision 10037, 10556

Daewoo 10037, 10556, 10178, 11150

Dansai 10037, 10208

Dantax 11037, 10714, 12676

Datsura 10208 Dawa 10037 Daytron 10037 De Graaf 10208 10037 Decca 10037 Denver Desmet 10037 Diamant 10037 Diamond 10698 Digatron 10037

Digihome 11667, 12676

Digiline 10037 Digisonic 11826

Digitor 10698, 10037

Dixi 10037
Drean 10037
DSE 10698

Dual 11667, 10037, 11037, 11585, 12676, 10714

Dumont 10017

Durabrand 10171, 10178, 10714, 11037

 Dux
 10037

 DX Antenna
 13817

 Dynatron
 10037

 Dynex
 12049

 E.S.C.
 10037

 ECE
 10037

Elbe 10037, 10556

 Electroband
 10000

 Electrograph
 11755

 Elektra
 10017

 Elfunk
 11037

 ELG
 10037

 Elin
 10037

 Elite
 10037

Emerson 11864, 10171, 11394, 10178, 10037, 10714

Envision 11365, 11506

 Epson
 11379

 Erres
 10037

 ESA
 10171

 Euroman
 10037

 Europa
 10037

 Europhon
 10037

 Evesham
 11667

Technology

Excello 11037 Exquisit 10037

Television (F to J)

F&U 12676 FairTec 11585

Ferguson 10625, 11037, 10037, 10195, 11585, 12676

Fidelity 10037, 10171

Finlandia 10208

Finlux 11667, 10714, 12676, 10037, 10556 Firstline 10714, 10037, 11037, 10208, 10556

Fisher 10208 Flint 10037 Formenti 10037 Fraba 10037 Freesat 11636 Friac 10037 Frigidaire 11826 **Fujitsu** 10809 Fujitsu Siemens 10809

Funai 13817, 10171, 11394, 11037, 10714

 Gaba
 11037

 Galaxi
 10037

 Galaxis
 10037

 Gateway
 11755

GE 11447, 10178, 10625, 11454

GEC 10037 Genesis 10037 Genexxa 10037

GFM 10171, 11864

 Gibralter
 10017

 Gibson
 11826

 Gintai
 11150

 Godrej
 11585

 GoGen
 12676

GoldStar 10178, 10037, 10714, 11150

Goodmans 10037, 11037, 11667, 10714, 11585, 10556,

10625, 12676

Gorenje 11585, 12676

Gradiente 10037 Graetz 10714 Granada 10208, 10037

Grandin 10037, 10714, 11037, 10556

Grundig 10195, 11223, 10556, 10037, 11667, 12676

H-Buster 13620

Haier 13620, 10698, 10037, 10508

Hallmark 10178 Hankook 10178 Hannspree 11826

Hanseatic 10037, 10714, 10625, 10556

Hantarex 10037 Hantor 10037 Harwood 10037 Hauppauge 10037 10714 HB **HCM** 10037 Heran 11826 Herosonic 11826 Highline 10037

Hinari 10037, 10208

HiPlus 11826 Hisawa 10714

Hisense 10556, 10508, 10208

Hitachi 11643, 12676, 11576, 11585, 11691, 11037,

11667, 10037, 10150, 10178, 10508, 11150,

12170

Hitachi Fujian 10150
Hitec 10698
Hoher 10714
Hornyphon 10037
Hua Tun 11150

Hypson 10037, 10714, 10556, 11037

Hyundai 10698, 12676, 11037

 Iberia
 10037

 ICE
 10037

 iLo
 11394

 Imperial
 10037

 Indiana
 10037

Inno Hit 11037, 11585

Innova 10037

Insignia 12049, 10171

Integra 11807, 13100, 13500

10017 Inteq Interbuy 10037 Interfunk 10037 Internal 10556 Intervision 10037 Irradio 10037 **IRT** 10698 Isis 12676 Isukai 10037 ITS 10037

ITT 12676, 10208

ITT Nokia 10208 ITV 10037 JCB 10000 Jinfeng 10208

Jinxing 10037, 10556, 10698

JMB 12676, 10556

Jubilee 10556

JVC 11774, 10653, 11601, 12271, 11428, 10508,

10650, 12676

Television (K to N)

Kaisui 10037 Karcher 10714 Kathrein 10556

Kendo 11037, 11585, 12676, 10037

 Kennex
 11037

 Kioto
 10556

 Kiton
 10037

 KLL
 10037

Kneissel 10037, 10556

Kolin 10150, 10037, 11150, 11755

Kolster 10037

Konka 10037, 10714

Konnig 10037 Korpel 10037 Kosmos 10037 Kunlun10208Kupperbusch12676L&S Electronic10714Lavis11037Lecson10037

Lenco 10037, 11037

Leyco 10037

LG 11840, 11860, 11423, 12731, 12182, 12358,

12362, 10178, 12424, 10037, 10714, 10017,

10556, 10698

LiesenKotter 10037

Lifetec 10037, 11037, 10714

Linetech 12676

Linsar 12676, 11667, 11585

Local India Brand 10208 Local Malaysia 10698

Brand

Lodos 11037 Loewe 10633

Logik 11037, 10698, 11585

 Luma
 11037

 Lumatron
 10037

 Lumenio
 10037

 Lux May
 10037

Luxor 11037, 12676, 10208

LXI 10178 Madison 10037

Magnavox 12372, 11454, 11506, 10171, 11365, 11755,

11867

Magnum 10714, 10037

Manesth 10037

Manhattan 10037, 11037 Marantz 10037, 10556 Mark 10037, 10714

Mastro 10698 Masuda 10037

Matsui 10037, 10195, 10208, 11037, 10714, 10556,

11667, 12676

Matsushita 10650 Maxent 11755 Maxess 12493 Meck 10698

Mediator 10037, 10556

Medion 10714, 10037, 11037, 12676, 11667, 10556,

10698, 11585

Megatron 10178 MEI 11037

Melectronic 10037, 10195, 10714 Memorex 10178, 10150, 11037

Mercury 10037 Mermaid 10037 Metronic 10625

Metz 11037, 10195 MGA 10150, 10178

Micromaxx 10037, 10714, 11037

Midland 10017

Mikomi 11585, 11667

Minato 10037
Minerva 10195
Ministry Of Sound 11667
Minoka 10037

Mitsubishi 10150, 11250, 12313, 10178, 10037, 10556,

11150, 11037, 11171

 Moree
 10037

 Morgan's
 10037

 Moserbaer
 11585

 MTlogic
 10714

 Mudan
 10208

Multitec 11037, 10037

Multitech 10037 Myryad 10556

NAD 10037, 10178

Naiko 10037 Nakimura 10037

National 10208, 10508

NEC 12461, 10178, 10508, 10653, 11150

Neckermann 10037, 10556

NEI 10037, 11037

Neoka 11826

Netsat 10037 NetTV 11755

Neufunk 10556, 10714, 10037

Nevir 12676 New Sonic 11826

New Tech 10037, 10556 Newave 10178, 11150

 Nikkai
 10037

 Nikkei
 10714

 Nikko
 10178

 Nokia
 10208

 Norcent
 11365

Nordmende 10195, 11585, 10037, 10714, 11667

Normerel 10037 Novatronic 10037 Novita 11585 NPG 13434

Television (O to S)

Oceanic 10208 OK Line 11037

OK. 13434, 12676

Okano 10037

OKI 11667, 12676, 13434, 11585

Omni 10698 Onei 11667

Onida 10653, 12414

Onimax 10714 Onix 10698

Onkyo 11807, 13100, 13500

Onn 11667

Opera 10037, 10714

 Optimus
 10650

 Orava
 11037

 Orbit
 10037

Orion 10037, 10556, 10714, 11037, 12676

Orline 10037 Ormond 11037

Osaki 10037, 10556

Osio 10037 Osume 10037

Otto Versand 10037, 10556, 10195
Pacific 10714, 11037, 10556
Palladium 10037, 10714, 10556
Palsonic 12461, 10698, 10037

Panama 10037

Panasonic 11636, 11291, 11480, 11650, 10650, 13825,

12170, 10037, 10208, 10508

Panavideo 13825 Panavision 10037

Panda 10208, 10508, 10698

Penney 10178 Perdio 10037 Perfekt 10037

Philco 13426, 12414, 10037, 10178

Philips 10037, 12800, 10556, 11887, 11867, 11506,

12372, 12680, 11454, 10171, 11365, 10017,

10000, 10178, 11394

Phocus 10714 Phoenix 10037

Phonola 10037, 10556

Pioneer 11457, 10037, 10698, 11636, 12171

PJ 11506 Plantron 10037

Playsonic 10714, 10037 Polaroid 12676, 11826 Powerpoint 10037, 10698

Prima 12461 Prinston 11037

Pro Vision 10037, 10556, 10714

Profitronic 10037

Proline 10625, 10037, 11037, 12676

Proscan 11447

Prosonic 10714, 12676, 10037, 11585, 11667

Protech 10037, 11037

Proton 10178 Pulsar 10017

Pye 10037, 10556

Qingdao 10208 Quadro 11667

Quasar 11291, 10650

Quelle 10037, 11037, 10195

R-Line 10037

Radiola 10037, 10556

Radiomarelli 10037

RadioShack 10037, 10178 Radiotone 10037, 11037

RCA 11447, 12746, 10625, 12434, 12932, 12187,

10000, 10178, 10618, 11454, 13426

Realistic 10178
Recor 10037
Rectiligne 10037
Red Star 10037

Reflex 10037, 11037

Relisys 11585 Relon 11826

Remotec 10037, 10171

Reoc 10714 Revox 10037 RFT 10037

Roadstar 11037, 10037, 10714

Rowa 10698, 10037

Runco 10017

Saba 10625, 10714, 12676

Sagem 10618

Saivod 11037, 10037

Salora 10208

Sampo 11755, 10171, 10178, 10650

Samsung 12051, 11632, 10618, 10037, 10556, 10178,

10208, 11150

Sansui 10037, 10714

Sanyo 10208, 11142, 11585, 12676, 12461, 11974,

12769, 10508, 11037, 11150, 11365, 11667

SBR 10037, 10556

Schaub Lorenz 10714, 12676, 11667

Schneider 10037, 10556, 10714, 11037, 11585, 12676

Schontech 11037

Scotch 10178 Scott 10178

Sears 10171, 10178

Seelver 11037

SEG 11037, 10037, 13434

SEI 10037
Sei-Sinudyne 10037
Semp Toshiba 13793
Sencor 10714
Senzu 12493
Serie Dorada 10178

Sharp 11659, 12360, 10818, 11393, 12676, 10650,

11165, 11423

10208

Sheng Chia 11150 Shintoshi 10037

Shanghai

Shivaki 10178, 10037

Siam 10037

Siemens 10195, 10037 Siera 10556, 10037

Silva 10037 Silva Schneider 10037

SilverCrest 12676, 11037

Sinudyne 10037 SKY 10037

Skyworth 12769, 10037, 10698

Solavox 10037 Soniko 10037 Soniq 12493 Sonitron 10208 Sonneclair 10037 Sonoko 10037 Sonolor 10208 Sontec 10037

Sony 12778, 11825, 10810, 10000, 11651, 11505,

11167

Soundesign 10178

Soundwave 10037, 11037 Sowa 10178, 11150 Soyea 10698 Soyo 11826 Squareview 10171

SR Standard 10037, 11037

Starlite 10037 STI 13793 Strato 10037 Sunny 10037 Sunstar 10037 Sunstech 12676 Sunwood 10037 Supersonic 10208

SuperTech 10037, 10556

 Supra
 10178

 Supreme
 10000

 Svasa
 10208

Sylvania 10171, 11864, 11394

Symphonic 10171, 11394

Synco 11755, 10000, 10178, 11826

Sysline 10037

Television (T to Z)

Tacico 10178, 11150

Tai Yi 11150 Talent 10178

Tashiko 10650, 11150 Tatung 10037, 11150

TCL 12434, 13183, 13426, 12414, 10698

TCM 10714

Teac 10037, 11037, 10698, 10714, 11755, 10171,

10178

Tec 10037

Tech Line 10037, 11585

Technica 11037

Technics 10556, 10650 Technika 11667, 12676

TechniSat 10556 Technisson 10714 Techno 11585 Technosonic 10556, 10625

Techwood 11667, 11037, 12676

Tecnimagen 10556

Teco 10178, 10653

Tedelex 10208
Teknika 10150
TELE System 11585
Telecor 10037

Telefunken 10625, 12676, 12414, 10698, 11585, 10037,

10714, 11667

Telefusion 10037
Telegazi 10037
Telemeister 10037
Telesonic 10037

Telestar 10037, 10556 Teletech 10037, 11037

Teleview 10037 Tennessee 10037

Tensai 10037, 11037

Terris 11667

Tesla 11037, 10037, 10556, 10714

Tevion 10714, 11037, 10037, 10556, 11585, 11667

Thomson 10625, 11447, 10037

Thorn 10037 TMK 10178 TNCi 10017

Tokai 10037, 11037

Tokaido 11037 Topline 11037

Toshiba 11508, 11524, 11656, 12676, 10508, 13570,

10650, 11037, 10195, 10618, 11150, 11169

TRANS-continents 10037, 10556, 11037

Transonic 10037, 10698

Triad 10556

Triumph 10037, 10556

TVTEXT 95 10556 Uher 10037 Ultravox 10037

Unic Line 10037

Uniden 12122, 12676, 11667

United 10714, 11037, 10037, 10556

Universal 10037, 10714

Universum 10037, 11037, 10195, 10618

Univox 10037 V7 Videoseven 11755

Vestel 11037, 10037, 11585, 11667

Vexa 10037

Victor 11428, 10650, 10653

Videocon 10508, 10037

VideoSystem 10037 Vidtech 10178

Viewsonic 11755, 12049, 11365

Vision 11826, 10037

VIZIO 11758, 13758, 12209

Vortec 10037

Voxson 10037, 10178, 11667

VU 11365

Walker 12676, 11667, 11585

Waltham 10037, 11037

Wards 10017, 10000, 10178 Watson 11037, 10037, 10714

Wega 10037 Welltech 10714 Weltstar 11037

Westinghouse 11712, 11826, 11755, 12397

Westwood 11585

Wharfedale 11667, 10037, 10556

White 10037

Westinghouse

 Wilson
 10556

 Windsor
 11037

 Windy Sam
 10556

 Wintel
 10714

 Wyse
 11365

 Xiahua
 10698

 Xiron
 11037

XLogic 10698

Xoceco 10037, 12461

Xrypton 10037

Yamaha 11576, 10650

 Yamishi
 10037

 Yokan
 10037

 Yoko
 10037

 YU-MA-TU
 10037

Zenith 10017, 10178, 11423, 12731, 11365, 12358,

12362

Zepto 11585 Zonda 10698

TV DVD Combination

Akai 12676, 32966 Alba 12676, 32966 Black Diamond 11037, 30713 Blue Sky 11037, 30713

Bush 12676, 10698, 11037, 30713, 32966

Centrum 11037, 30713 Crown 11037, 30713 Dual 11037, 30713

Dynex 12049

Elfunk 11037, 30713

Emerson 11864, 11394, 30675

Ferguson 11037, 30713 Funai 11394, 30675

Goodmans 11037, 12676, 30713, 32966

Grandin 30713 Grundig 30539

Hitachi 12676, 11037, 30713, 32966

Insignia 12049

JVC 12271, 11774

LG 11423

Linsar 12676, 32966 Logik 11037, 30713 Luxor 11037, 30713

Magnavox 12372

Matsui 11037, 12676, 30713

Medion 12676, 32966

Mitsubishi 34004

OK. 13434

OKI 12676, 32966 Orava 11037, 30713

Panasonic 12170

Philips 10556, 11454, 11394, 12372, 30539

Polaroid 12676, 32966

Powerpoint 10698

Prosonic 12676, 32966

RCA 12187, 12746, 12932, 11447

Samsung 12051 Sanyo 12676

SEG 11037, 30713

Sharp 10818, 12360, 12676, 32966

Soniq 12493 Sony 12778

Sylvania 11864, 11394, 10171, 30675, 30630

Teac 10698

Technica 11037, 30713

Telefunken 10698

Teletech 11037, 30713 Thomson 10625, 30551

Toshiba 11524, 12676, 32966

United 11037, 30713

Universum 30713 Vestel 11037 Viewsonic 12049

Weltstar 11037, 30713

Westinghouse 11712

Xiron 11037, 30713

DVD

3D LAB 30539 Accurian 30675

Acoustic Solutions 30730, 30713

AEG 30675, 30770, 31233

Aiwa 30533

Akai 32966, 31233, 30675, 30770

Akura 31233

Alba 32966, 30713, 30730, 30539

Amitech 30770

Amstrad 30713, 30770, 32139

AMW 30872 Ansonic 30831

Aristona 30539, 30646

ASDA 32213 Audix 30713 Autovox 30713

Awa 30730, 30872

Axion 30730 **Basic Line** 30713 Bel Canto Design 31571 Belson 32139 **Best Buy** 32139 **Black Diamond** 30713 Blu:sens 31233 Blue Parade 30571 Blue Sky 30713 Brainwave 30770

Brandt 30551, 30503

Bush 30713, 30730, 30831, 32966

 Byd:sign
 30872

 CCE
 30730

 Celcus
 32966

Centrum 30713, 30675

Changhong 30627
Cinea 30831
Cineral 30730

Cinetec 30713, 30872

Classic 30730

Clatronic 30675, 31233

 Clayton
 30713

 Coby
 30730

 Codex
 31233

Continental Edison 30831, 30872

Craig 30831

Crown 30713, 30770

Cybercom 30831

Daenyx 30872

Daewoo 30770, 30872

Dansai 30770

Dantax 30713, 30539, 32966

 Datsun
 31233

 Daytek
 30872

 Dayton Audio
 30872

 DCE
 30831

 Decca
 30770

Denon 31634, 32258, 32748, 30490, 33851

Dewo 31634

Digihome 30713, 32966

DigiLogic 30713 DiK 30831

Disney 30675, 30831

 DK Digital
 30831

 Dragon
 30831

 DSE
 30675

Dual 30831, 30713, 30730, 32966

Durabrand 30675, 30713, 30831

Dynex 32596

E:max 30770, 31233

 ECC
 30730

 Elfunk
 30713

 Elin
 30770

 Elite
 32854

Elta 30770, 31233

Eltax 31233

Emerson 30675, 32213 EuroLine 30675, 31233 Ferguson 30713, 32966

Finlux 32966, 30770, 30741

 Firstline
 30713

 Funai
 30675

 G-Hanz
 32213

 G-HanzS
 32213

 GE
 30522

 GFM
 30675

Go Video 31044, 30741

GoldStar 30741

Goodmans 30713, 30730, 32966

GPX 30741 Gran Prix 30831

Grandin 30713, 31233

Grundig 30539, 30551, 30713, 32966

Grunkel 30770, 30831

GVG 30770

H & B 30713, 31233

 Hanseatic
 30741

 Harman/Kardon
 30582

 HE
 30730

 Hello Kitty
 30831

 Henss
 30713

Hitachi 32966, 30573, 30713, 31664

Hoher 30713, 30831 Home Electronics 30730, 30770

 Humax
 30646

 HYD
 31233

 Hyundai
 32966

 Inno Hit
 30713

Insignia 32596, 30675, 30741

Integra 32147, 30627, 31769, 30503, 31612, 30571,

31634

Irradio 31233, 30646

 ITT
 31233

 JDB
 30730

 JMB
 32966

JVC 30623, 31602, 30503, 30539, 32966

Kansas 31233

Technologies

Kendo 30713, 30831 Kennex 30713, 30770

 Kenwood
 30490

 Kiiro
 30770

 Kupperbusch
 32966

 Leiker
 30872

Lenco 30713, 30770

Lexicon 32545

LG 30741, 31602, 31233

 Lifetec
 30831

 Linetech
 32966

 Linsar
 32966

 Lodos
 30713

Loewe 30741, 30539

Logik 30713

Lumatron 30713, 30741

Lunatron 30741 Luxman 30573

Luxor 30713, 32966

Magnavox 30675, 30503, 30646, 30539, 31354, 30713

Manhattan 30713

Marantz 30539, 32414, 33444

Mark 30713 Marquant 30770

Matsui 30713, 32966 Maxim 30713, 30872

MBO 30730 MDS 30713 Mecotek 30770

Medion 30831, 32966, 30741, 30630

 Memorex
 30831, 32213

 Metz
 30713, 30571

 Micromedia
 30503, 30539

Micromega 30539

Microsoft 31708, 32083, 30522

Microstar 30831 Minax 30713 Minoka 30770

Mitsubishi 34004, 30713

 Mizuda
 30770

 Mustek
 30730

 Mystral
 30831

 NAD
 30741

 Naiko
 30770

NEC 30741, 31602 Nevir 30831, 30770

Nisato 31233

Noblex	31233
Norcent	30872
Nordmende	30831
OK.	32966
OKI	32966

Onkyo 30627, 32147, 31612, 31769, 30503, 30571,

31634

Oppo 32545, 30575

Orava 30713 Orbit 30872

Orion 30713, 31233

Ormond 30713

Pacific 30831, 30713

Packard Bell 30831 Palladium 30713

Panasonic 30490, 31579, 31641, 32710, 33641, 33862,

32523

Philco 30675

Philips 32056, 30539, 31354, 32789, 32434, 30646,

31340, 30503, 30675, 32084

Pioneer 31571, 30631, 30571, 32442, 32854, 30142

Polaroid 32966 Polk Audio 30539 Portland 30770 Powerpoint 30872 Presidian 30675 Prinz 30831 Prism 30831 **Pro Vision** 30730 **Proline** 32966 Proscan 30522

Prosonic 32966

Proson

Pye 30539, 30646

Radionette 30741

Radiotone 30713

RCA 30522, 32213, 30571, 31769

30713

REC 30490 Red 32213 Red Star 30770 Richmond 31233

Roadstar 30713, 30730

 Ronin
 30872

 Rotel
 30623

 Rowa
 30872

 Saba
 30551

 Saivod
 30831

 Salora
 30741

Samsung 30199, 30573, 33195, 31635, 32369, 32489,

32329, 30490, 31044

Sanyo 32966, 30713, 31233

ScanMagic 30730 Schaub Lorenz 30770

Schneider 30539, 30831, 30646, 30713

Schontech 30713 Scott 31233

SEG 30713, 30872

Semp 30503 Semp Toshiba 30503

Sharp 30630, 32250, 30713, 32966, 30675

Sherwood 30741, 30770

Shinsonic 30533 Sigmatek 32139

Silva Schneider 30831, 30741 Skantic 30713, 30539

Skymaster 30730
SM Electronic 30730
Smart 30713
Sonashi 30831
Soniq 30831

Sony 31633, 31516, 30533, 31033, 31070, 30864,

32861, 31536, 32180

30770

Sound Color 31233
Soundwave 30713
Spectra 30872
SR Standard 30831
Strong 30713

Sunkai

Sunstech 30831, 32139, 32966

Supratech 32139

Sylvania 30675, 30630

 Symphonic
 30675

 Sytech
 30831

 Tandberg
 30713

 Targa
 30741

 Tascam
 31818

 Tatung
 30770

TBoston 32139
Tchibo 30741

TCM 30741

Teac 30571, 30675, 30741, 31818, 32139, 34004

Technica 30713 Technics 30490

Technika 30770, 30831

Technosonic 30730

Techwood 30713, 32966 Telefunken 30551, 32966

Teletech 30713
Tensai 30770
Theta Digital 30571

Thomson 30551, 30522, 30831

Tokai 31233

Toshiba 30503, 32705, 32277, 31769, 33157, 32966,

32551

TRANS-continents 30831, 30872, 31233

 Transonic
 30730

 Trevi
 30831

 TVE
 30713

United 30713, 30675, 30730, 31233

Universum 30713, 30741

Urban Concepts 30503
Venturer 31769
Vestel 30713
VIZIO 32563

Voxson 30831, 30730 Waitec 30730, 31233

Walker 32966

Waltham 30713
Welkin 30831
Wellington 30713
Weltstar 30713
Wharfedale 30713

Wilson 31233, 30831

 Windsor
 30713

 Windy Sam
 30573

 Woxter
 32139

 X-View
 31233

Xbox 31708, 32083, 30522

Xiron 30713 XMS 30770

Yamada 30872, 32139

Yamaha 30539, 30817, 30490, 32298, 31354, 30646

Yamakawa 30872 Yukai 30730

Zenith 30741, 30503

■ Blu-ray Disc

Denon 32258, 32748, 33851

Elite 32854 Funai 30675

Insignia 32596, 30675

Integra 32147, 32900, 32910, 33100, 33101, 33500,

33501

Lexicon 32545

LG 31602, 30741

Magnavox 30675

Marantz 32414, 33444

Mitsubishi 34004

Onkyo 32147, 32900, 33101, 33501, 32910, 33100,

33500

Oppo 32545

Panasonic 31641, 33641, 33862, 32523, 32710

Philips 32789, 32434, 32084 Pioneer 32442, 32854, 30142

Samsung 30199, 33195

Sharp 32250

Sony 31516, 32180

Sylvania 30675

Tascam 31818, 34004

Toshiba 32705, 33157, 32551

VIZIO 32563 Yamaha 32298

DVD-R

Accurian 30675 Aristona 30646 Denon 30490 Emerson 30675 Funai 30675 Go Video 30741 **GPX** 30741 Hitachi 31664 Humax 30646 Irradio 30646 LG 30741 Loewe 30741

Magnavox 30675, 30646

Medion 30741

Panasonic 30490, 31579, 32710, 32523

Philips 30646, 31340

 Pioneer
 30631

 Pye
 30646

 RCA
 30522

Samsung 31635, 30490, 32489

Schneider 30646

Sharp 30630, 30675

Sony 32861, 31070, 31516, 31033, 31536, 32180,

31633

 Sylvania
 30675

 Targa
 30741

 Thomson
 30551

Toshiba 32277, 32551

Yamaha 30646 Zenith 30741

VCR

DirecTV	20739
Humax	20739
Panasonic	20616
Philips	20739
RCN	20739
ReplayTV	20616
Sonic Blue	20616
Sony	20636

TiVo 20739, 20636

Cable Set Top Box (A to E)

3 Rivers Telephone 01376

Cooperative

Accelplus 01376, 01877, 01982 Access Cable 01376, 01877, 01982

Television

Access 01376, 01877

Communications

Ace 02586

Communications

ACTV Cablevision 01376, 01877, 01982

Adams Cable TV 01376

ADB 02586, 01920, 01481, 01998, 02437, 03028

Advanced 01376, 01877, 01982

Broadband

Advanced 01376, 01877, 01982

Telemedia

Airwave Networks 01376, 01982

Akado 02043 Alabama Broadband 01376 Alcom 02437

Algona Municipal 01376, 01877, 01982

Utilities

All West 01376

Communications

Alleghany 01376, 01877, 01982

Cablevision

Allegiance 01376

Communications

Alliance Communications	01376
Allied Telesis	01376, 01877, 01982
Almega Cable	01376, 01877, 01982
Alpine Cable	01376, 01877, 01982
Alta Utilities	01877
Alternative Cable	01376, 01877, 01982
Altibox	02437
Altitude	01376
Communications	01070
Americable	01877
International	
American	01376, 01877, 01982
Broadband	
American	01376, 01877, 01982
Entertainment	
Network	01276 01077 01002
American Telecasting	01376, 01877, 01982
Amherst Telephone	01376, 01877, 01982
Amino	01615, 01481, 01898, 01998, 03028
Anne Arundel	01376
Broadband	0.0.0
Antietam Cable	01376, 01877, 01982
Arc One	01376, 01877, 01982
Arctic Cooperatives	01376, 01877, 01982
Argent	01376, 01877, 01982
Communications	
Arialink Broadband	01376, 01877, 01982
Arkwest	01481, 01998, 03028
Arledge Electronics	01376
Armstrong	01376, 01877
Arris	02187
Arvig	01376, 01982, 01998, 02345
Communication	
Systems	04070 04077 04000
Ashland Home Net	01376, 01877, 01982
Askivision Systems	01376, 01877, 01982
Astound Broadband	01376, 01877
AT&T	00858

ATC Communications	01376
Atlantic Broadband	01877, 01376
ATMC	01376, 01982, 01998, 03028
Atwood Cable	01376, 01982, 01998, 03028
	·
Aurora Cable TV	01376, 01877, 01982
Ayrshire Communications	01376, 01877, 01982
B & C Cablevision	01376, 01877, 01982
B & L Technologies	01376, 01877, 01982
Bailey Cable TV	01376, 01877, 01982
•	01376, 01077, 01902
Baja Broadband	
Baldwin County Internet	01376, 01877, 01982
Baldwin Telecom	01877
Ballard Rural	02586
Telephone	
Cooperative	
Barbourville Utility	01376, 01877, 01982
Commission	
Bardstown Cable	01376, 01877, 01982
Bascom	01376, 01877, 01982
Communications	0.40=0.040== 0.4000
Base Cablevision	01376, 01877, 01982
Bay Cablevision	01376, 01877, 01982
Bay City	01376, 01877, 01982
Cablevision	04276 04077 04002
Bay Country Communications	01376, 01877, 01982
Bay Creek	01376
Communications	01370
Bayland	02586
Communications	
Bayou Cable	01376, 01877, 01982
Beamspeed	01376, 01877, 01982
Beaver Creek	01877, 01982
Telephone	,
Beaver Valley Cable	01376, 01877, 01982
Beck's Cable	01376, 01877, 01982
Systems	
Bee Line Cable	01376

Beeline	03028
BELD Broadband	01376, 01877, 01982
Belgacom TV	02132
Belhaven Cable TV	01376, 01877, 01982
Bell	01998
Bell Aliant	01998
Bell Fibe TV	01998
Bellaire Cable	01376, 01877, 01982
Bellevue Cable	01376, 01877, 01982
Bend Broadband	01376, 02187
Bentleyville Cable	01376, 01877, 01982
Benton Cooperative Telephone	01376, 01877, 01982
Beresford Cablevision	01376, 01877, 01982
Berkshire Cable Corp	01376, 01877, 01982
Beulah Cable TV	01376, 01877, 01982
Bevcomm	01615, 01898
Beyond	01376, 01877, 01982
Communications	
Big Sandy	01376, 01877, 01982
Broadband	
Biltmore	01877, 01982
Communications Plakely Cable	01276 01077 01002
Blakely Cable Television	01376, 01877, 01982
Bledsoe Telephone Cooperative	01481, 01998, 03028
Bloomingdale Communications	01481, 01998, 03028
Blue Mountain TV Cable	01376, 01877, 01982
	01877
Blue Ridge Communications	01077
Blue Sky Cable	01376, 01877, 01982
Blue Valley	01898
Telecommunications	
Bobcaygeon Cable	01376, 01877, 01982
Booher Brothers Cable	01376, 01877, 01982

Bouygues Telecom	03007
Bowen Cablevision	01376, 01877, 01982
Boycom Cablevision	01376
Branch Cable	01376, 01877, 01982
Brandenburg	01481, 01998, 03028
Telecom	
Brandywine Cablevision	01376, 01877, 01982
Bresnan	01376, 01877
Briand et Moreau Cable	01376, 01877, 01982
Bright Green	01376, 01877, 01982
Communications	
Bright House	01877, 01376
Bristol Tennessee	01877, 01998
Essential Services	
Bristol Virginia	01376, 01877, 01982
Utilities	04070 04077 04000
British American	01376, 01877, 01982
Broadstar Communications	01376, 01877, 01982
	01376
Broadstripe Brockway	01376, 01877, 01982
Television	01370, 01077, 01902
Broken Bow Cable	01376, 01877, 01982
TV	
Brooks Bay Cable	01376, 01877, 01982
Brownwood TV	01376, 01877, 01982
Cable Service	
Bryan Municipal Utilities	01376, 01877, 01982
BT	02294
BTC Broadband	02586
Buckeye Cable	01877, 01376, 02187
System	
Bulldog Cable	01376, 01877, 01982
Bulloch Telephone	01376, 01877, 01982
Cooperative	
Burlington Telecom	01481, 01615
Butler Bremer	01898
Mutual Telephone	

D 0 11 TV	0.40=0.040== 0.4000
Byron Cable TV	01376, 01877, 01982
C & W Cable	01376, 01877, 01982
C.L. Davis Cable Services	01376, 01877, 01982
Cable &	01376
Communications	01070
Cable America	01376, 01877
Cable Axion Digitel	01376
Cable	01376, 01877, 01982
Communications of	
Willsboro	
Cable Cooperative	01376, 01877, 01982
Cable Development Corporation	01376, 01877, 01982
Cable Management Assocication	01376, 01877, 01982
Cable Montana	01376, 01877, 01982
Cable Nebraska	01376, 01877, 01982
Cable Of The	01376, 01877, 01982
Carolinas	
Cable One	01376, 01877
Cable Plus	01376, 01877, 01982
Cable Suite	01376
Cable Tech Cable TV	01376, 01877, 01982
Cable TV of	01376
Camrose	
Cable TV of East Alabama	01376, 01877, 01982
Cable TV of Slave Lake	01376, 01877, 01982
Cable TV of St. Paul	01376, 01877, 01982
Cable Vision	01877
Services	
Cablecom	01582
Cablecom Mexico	01376
Cablemas	01376, 01877
Cablenet	01376, 01877, 01982
CableSouth Media	01376, 01877, 01982
Cableview	01376, 01877, 01982
Communications	

Cablevision	01877, 01376
Cablevision du Nord	01376
Cablevision of Marion County	01376
Cablevision T.R.P.	01376, 01877, 01982
Cabovis	02436
Caiway	02015, 0660
CalNeva Broadband	01376, 01877, 01982
CalTel Connections	02586
Cameron	01376, 01877, 01982
Communications	01370, 01077, 01902
CAMS Cable	01376, 01877, 01982
Canby Telcom	01481
Cannon Valley	01481, 01998, 03028
Cablevision	0.101, 0.1000, 00020
Caprock TV	01376, 01877, 01982
Carnegie Cable	01376, 01877, 01982
Carolina Mountain	01376, 01877, 01982
Cable	
Carr	01376, 01877, 01982
Communications	
Carrell	01376, 01877, 01982
Communications	0.4.0.7.0
CAS Cable	01376
Cascade Communications	01376, 01877, 01982
	01376, 01877, 01982
Casey Cable Caspian Community	01376, 01877, 01982
TV	01370, 01077, 01902
Cass Cable	01376
Castle Cable	01376, 01877, 01982
Service	
Catalina Cable	01376, 01877, 01982
Catawba Services	01376, 01877, 01982
CBN	01376, 01877, 01982
CBPU Cable	01376, 01877, 01982
CCAP	01877
CDE Lightband	00858, 01615, 02586
Cedar Falls Utilities	01376
Celect	01376, 01877, 01982

Communications	
Cencom	01376, 01877, 01982
CentraCom Interactive	01376, 01877, 01982
Central Texas Communications	01376, 01877, 01982
Central Valley Cable	01376, 01877, 01982
Centre TV Cable	01376, 01877, 01982
Centrovision	01376, 01877, 01982
Century	01376, 01877, 01982
Communications	
Century Telephone	01376, 01877, 01982
CenturyLink	01998
CenturyTel TeleVideo	01376, 01877, 01982
Chambers Cable	01376
Champion Broadband	01376, 01877, 01982
Chaparral Cablevision	01376, 01877, 01982
Chariton Valley Communications	01376, 01877, 01982
Charter	01376, 01877, 02187
Chatmoss Cablevision	01376, 01877, 01982
Chequamegon Telephone Cooperative	01898, 01615
Chesnee Communications	01376, 01877, 01982
Chester Telephone	01376
Chinook	01376, 01877, 01982
Progressive Club	01010, 01011, 01002
Chippewa Valley Cable	01376, 01877, 01982
Choice Cable TV	01376, 01877, 01982
Choice Communications	01376, 01877, 01982
Choice Television	01376, 01877, 01982
ChoiceCable	01376

Christy Cablevision CimTel Cincinnati Bell	01376, 01877, 01982 01376 01877, 01376
Officialitati Deli	01077, 01070
Circle Bar Cable Television	01376, 01877, 01982
Cisco	01877, 01982, 00858, 02589, 03028, 02132, 02345, 01582, 01883, 02378, 02401, 03265
Citizens Cable	01376
Citizens Cable TV	01376
Citizens Cablevision	01481
Citizens Mutual Telephone	01376, 01877, 01982
Citizens Telecom	01376, 01877, 01982
Citizens Telephone	02586
City Cablevision	01376, 01877, 01982
City of Barnesville Cable	01376, 01877, 01982
City of Baxter Springs Cable	01376, 01877, 01982
City of Hawarden Cable	01376, 01877, 01982
City of Norway Cable	01376, 01877, 01982
City of Quitman Cable	01376, 01877, 01982
City Of Salisaw	01376
City of Sumas TV Cable System	01376, 01877, 01982
City West	01376
Citycable	03477
Clarence Telephone	01376, 01877, 01982
Claro	01376
Clear Creek Communications	01376
Clearview Cable	01376, 01877, 01982
Clearview Partners	01376, 01877, 01982
Clearview TV Cable	01376, 01877, 01982
Clearvision Cable TV	01376, 01877, 01982
Click Network	01376

01376, 01877, 01982
01376, 01877, 01982
01376, 01877, 01982
02132
01376
01376, 01877, 01982
01376
01376, 01877, 01982
01376
01376
01376, 01877, 01982
01376
01376
04070 04077 04000
01376, 01877, 01982
01376, 01877, 01982
01376, 01877, 01982
01376, 01877, 01982
01376, 01877, 01982
02378
01376, 01877
0.107.0, 0.107.7
01376
00660, 02015
01376, 01877, 01982
01376, 01982, 01877, 02187
01376, 01877, 01982
01376, 01877, 01982
01376, 01877, 01982
01376 01977 01092
01376, 01877, 01982
01376

Broadband	
Community Cable Service	01376, 01877, 01982
Community	01376, 01877, 01982
Communications	
Community Telecom	01376, 01877, 01982
Community Television	01376, 01877
Compas Cable	01376, 01877, 01982
Complete	01376, 01877, 01982
Communication	
Services Comserv Ltd	01276 01077 01002
ComSouth	01376, 01877, 01982 01376, 01877, 01982
ComSpan	01376, 01877, 01982
Communications	01401, 01090
Comstar Cable TV	01376, 01877, 01982
Consolidated Cable	01376, 01877, 01982
Consolidated	01376
Communications	
Conuma Cable Systems	01376, 01877, 01982
Conway Corporation	01376, 01877, 01982
Cable TV	
Conxxus	01376, 01877, 01982
Coon Creek	01376
Telephone	
Coon Rapids	01376, 01877, 01982
Municipal Utilities	04070
Coop CSCF	01376
Cooperative Television Godahl	01376, 01877, 01982
CoopTel	00858, 01615, 01898
Coosa Cable	01376
Copper Mountain	01376, 01877, 01982
Metropolitan	01070, 01077, 01002
Country Cable	01376, 01877, 01982
Country Cable TV	01376, 01877, 01982
Country Cablevision	01376
Country Cablevision	01376
Ltd.	

Cowley Telecable Cox Craig Cable TV Craw-Kan Telephone Cooperative	01376, 01877, 01982 01877, 01376 01376, 01877, 01982 02586
Crestview Cable	01376, 01877, 01982
Cross Country TV	01376, 01877, 01982
Crosslake Communications	01376, 01877, 01982
Crow Cable TV	01376, 01877, 01982
CRRS-TV	01376
CRST Telephone	01481, 01998, 03028
Authority	
Crystal Cable TV	01376, 01877, 01982
CSI Cable	01376, 01877, 01982
CT & R Cable	01376, 01877, 01982
CTC	01376
Cunningham Telephone & Cable	01376
Curtis Cable TV	01376, 01877, 01982
CUTV	01376, 01877, 01982
CWA Cable	01376, 01877, 01982
D & D Cable Systems	01376, 01877, 01982
D&P	01376
Communications	
Daeryung	01877
Dairyland Cable Systems	01376, 01877, 01982
Dakota Central Telecommunications	02345
Dalton Cable Television	01877, 01982
Darty Box	02436
Davis	01376, 01877, 01982
Communications	
Dawson City	01376, 01877, 01982
Television	
DCA Cablevision	01376, 01877, 01982

DDD Cablevision Dean Hill Cable Dean's Cablevision Decca Cable Deffner Cable TV Delhi Telephone	01376, 01877, 01982 01376, 01877, 01982 01376, 01877, 01982 01376, 01877, 01982 01376, 01877, 01982 01376, 01877, 01982
Delta	02015, 00660
Delta Cable	01376
Demopolis CATV	01376, 01877, 01982
Denali TV	01376, 01877, 01982
Dery Telecom Deutsche Telekom	01376 02132
	01376, 01877, 01982
Dickey Rural Networks	01370, 01077, 01902
Digeo	02187
Diode	01376, 01877, 01982
Communications	
Diverse	01898, 01982
Communications	0.40=0.040== 0.4000
Dixie Cable TV	01376, 01877, 01982
Dixon Telephone	01376, 01877, 01982
DMS Cable	01376, 01877, 01982
Downsville Community Antenna	01376, 01877, 01982
Doylestown Cable	01376, 01877, 01982
Drummond Cable TV	01376, 01877, 01982
DTC	01376, 01877, 01982
Du	02401
Dumont Telephone	01376, 01877, 01982
Duncan Cable TV	01376, 01877, 01982
Eagle Broadband	01481, 01998, 03028
Eagle Cablevision	01376, 01877, 01982
Eagle	01376, 02187
Communications	
Eagle Valley	01481, 01998, 03028
Telephone EagleVision	01376, 01877, 01982
Wireless TV	01370, 01077, 01902

Services East Arkansas 01376 Video East Cleveland 01376, 01877, 01982 Cable East Texas Cable 01376, 01877, 01982 Eastern Cable 01376, 01877, 01982 EastLink 01376 **Easton Cable** 01877 EasyTEL 01481, 01998, 03028 Eatel 01877 **Echostar** 03452 **Electron Enterprises** 01376, 01877, 01982 Elk River Cable TV 01376, 01877, 01982 Elkhart TV Cable 01376, 01877, 01982 **Emery Telcom** 01376, 01877, 01982 Video **Emily Coop** 01481, 01615 Telephone Enhanced 01376 **Telecommunications** EnTouch 01376 EPB of Chattanooga 00858 **Escape Broadband** 01376, 01877, 01982 **Eston CATV** 01376, 01877, 01982 Cooperative

ETAN Industries 01376, 01877, 01982

Etex 02586 Execulink 01376

Eyecom 01376, 01877, 01982

Cable Set Top Box (F to J)

F & B Telephone 02586

FairPoint 01376, 01877, 01982

Communications

Falls Earth Station 01376, 01877, 01982 FamilyView 01376, 01877, 01982

Cablevision

Fannettsburg Cable 01376, 01877, 01982

TV

Farmer & Merchant	01376, 01877, 01982
Mutual Farmer's Telephone	01998, 03028
Cooperative Farmers	01376, 01877, 01982
Independent Telephone	
Farmers Mutual Telephone	01376, 01877, 01982
Fayetteville Electric	01877
System Federated	01376
Telephone Fenton Cablevision	01376, 01877, 01982
FiberCast Cable	01376, 01877, 01982
Communications	, ,
FiberNet Monticello	01376, 01877, 01982
Fibrant	01376, 01877, 01982
Fidelity	01376
Communications	
First Cable Of	01376, 01877, 01982
Missouri	
FirstMile	01376, 01877, 01982
Flint Cable TV	01376, 01877, 01982
Florida Cable	01376
Foothills Rural	01877
Telephone Cooperative	
Forsyth CableNet	01376, 01877, 01982
Fort Jennings	02586
Communications	02300
Fort Towson Cable	01376, 01877, 01982
Foster	01376, 01877, 01982
Communications	01010, 01011, 01002
Frank Howard TV	01376, 01877, 01982
Cable	, ,
Frankfort Plant	01376
Board Cable	
Freebox	01976
FTC	01877, 01982, 01376
Full Channel TV	01376, 01877, 01982

Full Choice Communications	01376, 01877, 01982
Fusion Broadband	01376, 01877, 01982
Futuristic Cablevision	01376, 01877, 01982
Galaxy American Communication	01376, 01877, 01982
Galaxy Cable	01376, 01877, 01982
Gardonville Cooperative Telephone	01998
Gatehouse Networks	01376, 01877, 01982
Gauthier Cablevision & Electric	01376, 01877, 01982
GCI	01877
General	01376
Communications	
Genext	01376, 01877, 01982
Geraldine Cable TV	01376, 01877, 01982
Get Real Cable	01376, 01877, 01982
GEUS	01376, 01877, 01982
Giant Communications	01376, 01877, 01982
Giles-Craig Communications	01376, 01877, 01982
Gilmer Cable Television	01376, 01877, 01982
Glasgow Electric Plant Board	01376, 01877, 01982
Glass Antenna Systems	01376, 01877, 01982
Glenwood Telecommunications	01376
Glide Cablevision	01376, 01877, 01982
Globalcom	01376, 01877, 01982
Golden Belt Telephone	02586
Golden Communications	01376, 01877, 01982

Golden Rain Foundation	01376, 01877, 01982
Golden Valley Cable	01376, 01877, 01982
Golden West	01376, 01877, 01982
Telecommunications	, ,
Goldfield	01376, 01877, 01982
Communications	
Gorham	01481
Communications Gowrie Cablevision	01276 01077 01002
Grafton Cable	01376, 01877, 01982 01376, 01877, 01982
Communications	01370, 01077, 01902
Grand River Cable	01376, 01877, 01982
Grande	01877, 01376
Communications	
Great Plains	01376
Communications	04070 04077 04000
Green Hills Communications	01376, 01877, 01982
Greene County	01376, 01877, 01982
Cable TV	01010, 01011, 01002
Greenlight	01376, 01877, 01982
Community	
Broadband	04070 04077 04000
Gridley Cable	01376, 01877, 01982
Griswold Cooperative	01481, 01998, 03028
Telephone	
Grove Cable	01376, 01877, 01982
Grundy Center	01376, 01877
Utilities	
GTI	01481, 01998, 03028
Guadalupe Valley	01877
Haefele TV	01376, 01877, 01982
Haines Cable TV	01376, 01877, 01982
Hall Beach	01376, 01877, 01982
Cooperative	01877 01082 01376
Hamilton County Cable TV	01877, 01982, 01376
Hancel	01376, 01877, 01982
Hargray	01376, 01877, 01982
-	

Harlan Community	01376
TV	01070
Harlan Municipal Utilities	01376
Harmony Cable TV	01376, 01877, 01982
Harris Broadband	01376
Harrisonville Telephone	02586
Harron Metrocast	01376, 01877
Hart Cable	01376, 01877, 01982
Hart Electric	01376, 01877, 01982
Hartelco	01376, 01877, 01982
Hastings Cable Vision	01376, 01877, 01982
Hathw@y	02043
Hawaiian Telcom	03028
HBC	01376, 01877, 01982
HBL	01376, 01877, 01982
Communications	
HCS	01376, 01877, 01982
Healthcare Cable Systems	01376, 01877, 01982
Heart of lowa Communications	01376, 01877, 01982
Heartland Cable	01376, 01877, 01982
Heartland Wireless	01376, 01877, 01982
Communications	01070, 01077, 01002
Heck's TV & Cable	01376, 01877, 01982
Henderson	01376, 01877, 01982
Telephone	
Hermosa Cablevision	01376, 01877, 01982
Herr Cable	01376, 01877, 01982
HFU Television	01376, 01877, 01982
Hiawatha	01376, 01877, 01982
Broadband	
HickoryTech	01898
High Plains Cablevision	01376, 01877, 01982
Highland	01376, 01877, 01982

Hill Top Communications	01376, 01877, 01982
Hinton CATV	01376, 01877, 01982
HLM Cable Corp	01376, 01877, 01982
HomeTel	01376
Hometown Cable	01376, 01877, 01982
Hometown Utilicom	01376, 01877, 01982
Hood Canal	01376
Cablevision	
Hoonah Community Television	01376, 01877, 01982
Hooper Telephone	01376, 01877, 01982
Horizon Cable TV	01376, 02586
Horizon Telecom	02586
Horry Telephone Cooperative	01376, 01877, 01982
Hospers Telephone	01376, 01877, 01982
Hotwire	02586
Houston Cable	01376, 01877, 01982
Hrvatski Telekom	02132
HTC	01481, 01998, 03028
Communications	
HTC Services	01376, 01877, 01982
Humax	00660, 02620, 02043, 02165
HunTel Systems	01376
Huxley Communications	01376, 01877, 01982
Hydaburg Cable TV	01376, 01877, 01982
HYDE County Cablevision	01376, 01877, 01982
i-CAN	02437
I-Speed	01376, 01877, 01982
ICE Cable Holdings	01376
ICS	01376, 01877, 01982
Communications	
Illini Cablevision Of Illinois	01376, 01877, 01982
lmOn	01877
Communications	
Indco Cable TV	01376, 01877, 01982

Independence Telecom Utility	01376, 01982
Independent Cable Systems of Idaho	01376, 01877, 01982
Indevideo	01376, 01877, 01982
Index Cable TV	01376, 01877, 01982
Innovative Cable TV	01376
Innovative Systems	01898
Inotel	02437
Inside Connect Cable	01376
Insight	01376, 01877
Integra Telecom	02345
Inter Mountain Cable	01877
Inter-County Cable	01376, 01877, 01982
Interstate	01481, 01998, 03028
Cablevision	
Intertech Private Cable	01376, 01877, 01982
InviTV	02437
Iron River	01376, 01877, 01982
Cooperative TV	
Irvine Community TV	01376, 01877, 01982
ITV-3	01376, 01877, 01982, 03028
J & L Cable	01376, 01877, 01982
J & N Cable	01376, 01877, 01982
Jack McClanahan Cable TV	01376, 01877, 01982
Jackson Energy Authority	01376, 01877, 01982
Jaguar Communications	01376, 01877, 01982
James Cable Partners	01376, 01877, 01982
James Valley Cooperative Telephone	02586
Jayroc Cablevision	01376, 01877, 01982
Jefferson County	01376, 01877, 01982

Cable	
Jefferson Telecom	01376, 01877, 01982
Jeffersonville Cable TV	01376, 01877, 01982
Jet Broadband	01376
Johnston County Cable	01376, 01877, 01982
Journeyvision Cable	01376, 01877, 01982
JP PTT	01615
■ Cable Set Top Box	(K to N)
K-Communications	01376, 01877, 01982
Kabel Deutschland	02165
Kalida Telephone	01376, 01877, 01982
Kalona Cooperative	02586
Telephone	02000
Kaplan Telephone	02586
Karban TV Systems	01376, 01877, 01982
KAS Cable TV	01376, 01877, 01982
Kaslo Cable	01376, 01877, 01982
KBS Cable TV	01376
Keene Valley Video	01376, 01877, 01982
Kelley	01376, 01877, 01982
Communications	
Kennebec	01376, 01877, 01982
Telephone	04070 04077 04000
Kennedy Cablevision	01376, 01877, 01982
Kentucky Ridge	01376, 01877, 01982
Country	
Communications	04070 04077 04000
Keta Cable	01376, 01877, 01982

01376, 01877, 01982

01376, 01877, 01982

01376, 01877, 01982

01376

02132

KFW

 TV

Kiss

KLiP

Kings Bay

Communications

Kincardine Cable

Communications

KM Telecom	01481
Knology	01877, 01376
KoolConnect	01481
Koomiut	01376, 01877, 01982
Cooperative	
KPN	02952, 02437
Kraus Electronic Systems	01376, 01877, 01982
Kudzu Cable TV	01376, 01877, 01982
Kugluktuk Cooperative	01376, 01877, 01982
Kuhn Communications	01376, 01877
L & J Cable	01376, 01877, 01982
La Harpe Communications	01376, 01877, 01982
La Harpe Video and Data Services	01376, 01877
Lafayette Utilities System	01376
Laguna Serrano Cable	01376, 01877, 01982
Lake Cable	01376, 01877, 01982
Lakeland Cablevision	01376, 01481, 01877, 01982, 01998
Lakeland Telecom	01481, 01998, 03028
Lakeview Cable	01376, 01877, 01982
Lamont Digital Systems	01376, 01877, 01982
Lang	01376, 01877, 01982
Laurel Highland	01376, 01877, 01982, 02187
LB Cable	01376, 01877, 01982
Lehigh Valley Cooperative Telephone	01376, 01877, 01982
Lemonweir Valley Telephone	01481, 01998, 03028
Lexcom Cable Services	01376, 01877, 01982
Liberty Cablevision	01376
Liberty	01481, 02586

Communications	
Limestone Cablevision	01376, 01877, 01982
Lincoln Cable Television	01376
Lincolnville	01376
Lindsey	01376, 01877, 01982
Communications	
LISCO	01376, 01877, 01982
Litestream Holdings	01376, 01877, 01982
LNE Telco	01376, 01877, 01982
Localtel	01376, 01877, 01982
Lockesburg Cablevision	01376, 01877
Lodgenet Entertainment	01376, 01877, 01982
Lone Pine Cable TV	01376, 01877, 01982
Longview	01376, 01877, 01982
Communications	0.0.0, 0.0, 0.002
Lonsdale Video Ventures	01481, 01998, 03028
Loretel Cablevision	01376, 01877, 01982
Loretel Systems	01376
Lost Island Cable	01376, 01877, 01982
Lumos Networks	01998, 03028
Lycom	01376, 01877, 01982
Communications	
M-Tek Systems	01376, 01877, 01982
M.T.C. Cable	01376, 01877, 01982
Maddock Cable TV	01376, 01877, 01982
Madison	01376, 01982
Communications	
Madison County Cable	01376, 01877, 01982
Magio Sat	02132
Magnet	01615
Mahaska	01376, 01877, 01982
Communications	
Mainstreet Communications	01376, 01877, 01982

Maitland Cable TV	01376, 01877, 01982
Mallard Cable	01376, 01877, 01982
Manawa Telecom	02586
	01376, 01877, 01982
Manning Municipal Utilities	01370, 01077, 01902
Manti Telecom	01481, 01998, 03028
Marco Island Cable	01376, 01877, 01982
Markdale Cable TV	01376
Marne & Elk Horn	01376, 01877, 01982
Telephone	01370, 01077, 01302
Marquette-Adams	01376, 01877, 01982
Telephone	0.0.0, 0.0, 0.002
Martelle	01376, 01877, 01982
Communications	, ,
Cooperative	
Mascon Cable	01376
Masset-Haida TV	01376, 01877, 01982
Society	
Massillon Cable	01376
Matanuska	01481, 02586
Telephone	
Association	04070 04077 04000
Matrix Cablevision	01376, 01877, 01982
Mattawamkeag Cablevision	01376, 01877, 01982
	01376, 01877, 01982
McDonough Telephone	01370, 01077, 01902
Cooperative	
McKee TV	01376, 01877, 01982
Enterprises	, ,
McNabb Cable	01376, 01877, 01982
MCV Broadband	01877
Media One	01376, 01877, 01982
Mediacom	01376, 01877, 01982
Mediapolis	01376, 01982
Telephone	
Mediastream	01376
Megacable	01376
Meo	02401
Merrimac	01376, 01877, 01982
Communications	

Metlakatla Indian Community TV	01376, 01877
MetroCast Cablevision	01376, 01982, 01877
MetroNet	01877, 0858
Metropolitan Cable	01376, 01877, 01982
MGS Cablevision	01376, 01877, 01982
MHTC	01481, 01998, 03028
Mi-Connection	01877
Microwave Satellite	
Technologies	01481, 01998, 03028
•	01401 01615
Mid Century Telecom	01481, 01615
Mid Missouri	01376, 01877, 01982
Broadband & Cable	01370, 01077, 01902
Mid Missouri	01376, 01877, 01982
Telephone	01070, 01077, 01302
Mid-Coast	01376, 01877, 01982
Cablevision	01010, 01011, 01002
Mid-Hudson Cable	01376
Mid-Rivers	01376
Communications	01010
Mid-South	01376, 01877, 01982
Cablevision	, ,
Midamerican Cable	01376, 01877, 01982
Systems	,
Midcontinent	01376, 01877, 01982
Communications	
Midstate	01376, 01877, 01982
Communications	
Midtel Cable TV	01376, 01877, 01982
Milcom Cable	01376, 01877, 01982
Milford Cable TV	01376, 01877, 01982
Milk River Cable	01376, 01877, 01982
Club	
Millennium Telecom	01481, 01998, 03028
Millheim TV	01376, 01877, 01982
Transmission	
Millington CATV	01376, 01877, 01982
Minburn	01481, 01998, 03028
Communications	

Minerva Valley Cable	01376, 01877, 01982
MINET	01877
MLGC Cable TV	01376, 01877, 01982
MM&G Enterprises MMDS Wireless	01481, 01998, 03028 01376, 01877, 01982
East	01370, 01077, 01902
Mobius Communications	01376, 01877, 01982
Monroe Cablevision	01376, 01877, 01982
Monroe Utilities	01376, 01877, 01982
Montana Opticom	01376, 01877, 01982
Moosehead Enterprises	01376, 01877, 01982
Morris Broadband	01376
Morristown Utility Systems	01877
Mosaic Telecom	01376, 02586
Motorola	01376, 02437, 02378, 01998, 00858, 02952, 01562, 01982, 02401
Moultrie	01376, 01877, 01982
Telecommunications	
Mountain Shadows Cable TV	01376, 01877, 01982
Mountain Telecommunications	01376, 01877, 01982
Mountain Zone TV	01376, 01877, 01982
Movistar	03288
Moxi	02187
Mt. Baker Cable	01376, 01877, 01982
MTC	01376, 01877, 01982
MTC Technologies	01376, 01982
MTS	01998
Multiband Cable	01376, 01877, 01982
Municipality Cable Operator	01376, 01877, 01982
Murphy Cable	01376, 01877
Murray Electric System	01376, 01877, 01982
Muscatine Power &	01376

Water	
	01376, 01877, 01982
Communications	
National Cable	01376, 01877, 01982
•	01376, 01877, 01982
NDTC	01481, 01998, 03028
Nebraska Central Telecom	01376, 01877, 01982
NEIT	01376, 01877, 01982
Nelson County Cablevision	01376, 01877, 01982
Nelsonville TV Cable	01376, 01877, 01982
Nemont Communications	01376, 01877
NET	01883
New Century Communication	01376, 01877, 01982
New Day Broadband	01376, 01877, 01982
New England Cable	01376, 01877, 01982
New Jersey Broadband	01376, 01877, 01982
New Knoxville Cable Systems	01376, 01877, 01982
New North Networks	01376, 01877, 01982
New Paris Quality Cablevision	01376, 01877, 01982
New Visions Communications	01376, 01877, 01982
New Windsor Cable TV	01376, 01877, 01982
Newcastle Cablevision	01376, 01877, 01982
Newpath Communications	01877, 01982
NewWave Communications	01376, 02187
NexHorizon Communications	01376, 01877, 01982
	01376, 01877, 01982

Communications	
Nextgen Communications	01376, 01877
Niagara Community	01376, 01877, 01982
TV Cooperative	01010, 01011, 01002
Nimpkish Valley	01376, 01877, 01982
Communcations	
Nittany Media	01376
Nor-Cal Cable Systems	01376, 01877, 01982
Nortex	01376, 01877, 01982
Communications	
North American Communications	01376, 01877, 01982
North Central	02345
Telephone	02010
North Crossroads	01376, 01877, 01982
Communications	00500
North Dakota Telephone	02586
North Star	01376, 01877, 01982
Cablevision	
North State	00858
Communications	04070 04077 04000
North Texas Broadband	01376, 01877, 01982
North Yellowstone	01376, 01877, 01982
Cable TV	
Northern Cable	01376, 01877, 01982
Holdings Northern Lakes	01376, 01877, 01982
Cable TV	01370, 01077, 01902
Northland	01376
Communications	
Northside TV	01376, 01877, 01982
Northstar	01376, 01982
Broadband	01076 01077 01000
Northwest Communications	01376, 01877, 01982
Northwest	01877
Community	
Northwest Iowa	01877

Telephone Northwest Telephone Cooperative	01376, 01877, 01982
NorthwesTel	01376
Norvado	02586
Norwood Light	01376
Broadband	
Nova Cable	01376, 01877, 01982
Management	04070 04077 04000
Nova Cablevision	01376, 01877, 01982
Novus	01376, 01877
NPG Cable	01376
Nsight NTC Cable Services	02345, 02586
nTelos	01376, 01877, 01982 01998
NTL	01060
NTS	01376, 01877, 01982
Communications	01370, 01077, 01302
NU Telecom	01998, 03028
NuLink	01877, 01376, 01982
Numericable	02436
Nushagak	01376, 01877, 01982
Cooperative	
Cable Set Ton Pay	(O to S)
Cable Set Top Box	,
Oak Cable Systems Of lowa	01376, 01877, 01982
Oak Hill Cablevision	01376, 01877, 01982
Oasis	01376, 01877, 01982
Communications	01370, 01077, 01302
Oi TV	03452, 03454
Omni III Cable TV	01376, 01877, 01982
Oneida Cablevision	01376, 01877, 01982
OneLink	01376, 01877, 01982
OneSource	01376
Communications	
Ono	01562

Ono 01562 Open IPTV 01615 Opp Cablevision 01376, 01877, 01982

Optimum	01877
Optimus Clix	02437
Optus	01060
Orange	02407
Orbitel	01376
Communications	
Oregon Cable	01376, 01877, 01982
Group	
Orion Cablesystems	01376, 01877, 01982
OTEC	02586
Communications	
Our Cable	01376, 01877, 01982
Overton County	01376, 01877, 01982
Cable	0.107.0, 0.107.7, 0.1002
Oxford Networks	01376, 01877, 01982
Pace	01877, 01060, 02620, 01982, 01582, 01376,
	01883, 02401, 03454
Packerland	01376
Broadband	
Paleajook	01376, 01877, 01982
Cooperative	,
Palmer Mutual	01376, 01877, 01982
Telephone	
Palmetto Rural	00858
Telephone	
Cooperative	
Panasonic	01982
Pangnirtung	01376, 01877, 01982
Cooperative	
Panhandle	01376
Telephone	
Panora	01481
Telecommunications	
Paragould Light &	01376, 01877, 01982
Water	
Parish	01376, 01877, 01982
Communications	
Park Region Mutual	01481, 01998, 02345, 03028
Telephone	0.40=0.040== 0.4000
Park TV &	01376, 01877, 01982
Electronics	04070 04077 04000
Partner	01376, 01877, 01982

Communications	
Pathway Com-Tel	01376, 01877, 01982
Patterson Cable TV	01376, 01877, 01982
Paul Bunyan	02586
Communications	
PBT Cable Services	01376, 01877, 01982
PC One Cable	01376, 01877, 01982
PDQ Cable TV	01376, 01877, 01982
PEC Cablevision	01376, 01877, 01982
Pegasus	01376, 01877, 01982
Communications	
Peoples CATV	01376, 01877, 01982
Persona	01376, 01877, 01982
Communications	
Philippi	01376, 01877, 01982
Communications	
Philips	01582, 02294
Phoenix	01376
Phoenix Cable	01376, 01877, 01982
Phonoscope	01376, 01877, 01982
Communications	
Pickwick	01376, 01877, 01982
Cablevision	
Piedmont Cable	01376, 01877, 01982
Services	
Pine Bluff Cable	01376
Pine Island Telephone	01481, 01998, 03028
Pine River Cable	01376, 01877, 01982
Pine Tree	01376, 01877, 01982
Cablevision	, ,
Pineland Telephone	01481, 01615, 01898, 02586
Cooperative	
Pinpoint	01376, 01877, 01982
Communications	
Pioneer	01877
Pioneer Cable	01376, 01877, 01982
Pioneer	01376, 01877, 01982
Communications	
Pioneer Long	01898, 01615
Distance	

Pitcairn Community Cable TV	01376, 01877, 01982
Plantation Cable System	01376, 01877, 01982
Pleasant Vision	01376, 01877, 01982
Polar	02586
Communications	
Polaris Cable	01376, 01877, 01982
Ponderosa Cablevision	01376, 01877, 01982
Poplar Bluff	01481, 01998, 03028
Municipal Utilities	01.101, 01.000, 00020
Portal Cablevision	01376, 01877, 01982
Portugal Telecom	02401
Post Cablevision	01376, 01877, 01982
Premier	01376
Communications	
Premiere	02620
Price County Telephone	01481, 01998, 03028
Prime Cable	01376, 01877, 01982
Corporation	
Prime Time Cable	01376, 01877, 01982
Princetown Cable	01376, 01877, 01982
Private Cable Systems	01376, 01877, 01982
Private Network Cable Systems	01376, 01877, 01982
Project Mutual Telephone	01481, 01998, 03028
Project Services	01376, 01877, 01982
PSC	01481, 01998, 03028
PTCI	01376
PVT Networks	01376, 01877, 01982
Quality Cable TV	01376, 01877, 01982
Quality One	01481, 01998, 03028
Technologies	0.101, 0.1000, 00020
Quinter Cable	01376, 01877, 01982
Qwerty.TV	01898
R & R Cable	01376
Raftview	01376, 01877, 01982

Communications

Rainbow Cable	01376, 01877, 01982
Rainbow Communications	01376, 01877, 01982
Rainbow Lake Cable TV	01376, 01877, 01982
Rainier Connect	01376, 01877, 01982
Ramapo Cable	01376, 01877, 01982
Rancho Murieta Association	01376
Randolph Telephone	02586
Rapid Communications	01376, 01877, 01982
RC Communications	01376, 01877, 01982
RCN	01376
Reach Broadband	01376, 01877, 01982
Readlyn Telephone	02586
Rebeltec	01376, 01877, 01982
Communications	
Red River Cable	01376, 01877, 01982
Reds Cable TV	01376, 01877, 01982
Regional Cable TV	01376, 01877, 01982
Reinbeck Telecommunications	01376, 01877, 01982
Reservation Telephone	01376, 01998, 02345
Reserve Long Distance	01376, 01877, 01982
Resnet Communications	01376, 01877, 01982
Resort Cable	01376
Reveille Broadband	01376, 01877, 01982
Reynolds Cable	01376, 01877, 01982
RGA Cablle	01376, 01877, 01982
Ridgewood	01376, 01877, 01982
Cablevision	. ,
Ringgold Telephone	01376, 01877, 01982
Rio Virgin	01376, 01877, 01982
Telephone	

Riondel Community Cable Society	01376, 01877, 01982
Ripley Video Cable	01376, 01877, 01982
Ritter Cable	01376, 01877, 01982
River Road Cable	01376, 01877, 01982
River Valley Cable	01376, 01877, 01982
TV	
River Valley	01481, 01998, 03028
Telecommunications	
Riverside	01376, 01877, 01982
Cablevision	04070 04077 04000
Riviera Cable TV	01376, 01877, 01982
Robins Cable TV	01376, 01877, 01982
Rock Port Cablevision	01376, 01877, 01982
Rocky Mountain	01376, 01877, 01982
Cable Systems	01070, 01077, 01002
Rogers	01877, 01376
Roome	01376, 01877, 01982
Telecommunications	
Royal Telephone	01376, 01877, 01982
RTC	01376, 01877, 01982
RTEC	01376, 01877, 01982
Communications	
Runestone Telcom	01376, 01877, 01982
Rural Route Video	01376, 01877, 01982
Rural Telephone	01376
Company RuralWest	04276 04977 04092
Russellville Electric	01376, 01877, 01982
Plant Board	02586
S & K TV Systems	01376, 01877, 01982
S&T	01376, 01877, 01982
Communications	
S-GO Video	01877, 01982
S.Bryer Cable TV	01376, 01877, 01982
Sagem	02407, 02436, 03288
Sagemcom	02407, 02436, 03007
Sallisaw Municipal	01376, 01877, 01982
Authority	
Samsung	02407, 02015, 01877, 03477, 01060, 01987,

	02589, 03265
San Bruno Municipal Cable TV	01376, 01877, 01982
San Carlos Cablevision	01376, 01877, 01982
San Juan Cable	01376, 01877, 01982
San Simeon	01376, 01877, 01982
Community Cable	
Santel Comm Cooperative	01376, 01877, 01982
Sasktel	01998
Satellite Cable Services	01376, 01877, 01982
Satview Broadband	01376, 01877, 01982
Saugeen Telecable	01376, 01877, 01982
Savage	01376, 01877, 01982
Communications	
Sayward Valley Communications	01376, 01877, 01982
Schindler Cable TV	01376, 01877, 01982
SCI Cable	01376, 01877, 01982
Scientific Atlanta	01877, 01982, 00858, 01987, 02401, 02436, 02345, 03028
Scio Cablevision	01376, 01877, 01982
Scott Telecom And Electronics	01376, 01877, 01982
Scottsboro Cable TV	01376, 01877, 01982
Sea Island	01877
Seaside Cable TV	01376, 01877, 01982
Seaview	01376, 01877, 01982
Communications	
SecureVision	01376, 01877, 01982
Semo	01376, 01877, 01982
Communications	
Senior TV	01376, 01877, 01982
Service Electric	01376, 01877, 01982
Service One Cable	01376, 01877, 01982
Shannon Vision	01376, 01877, 01982
Shaw	01376, 01877, 02187
Shawano Municipal	01376, 01877, 01982

Utilities	
Shellsburg	01376, 01877, 01982
Cablevision	01070, 01077, 01302
Chan Haishta T\/	04070 04077 04000
Shen-Heights TV	01376, 01877, 01982
Shenandoah Cable	01376, 01877, 01982
Shenandoah Telecommunications	01376, 01877, 01982
Shentel	01376, 01877, 01982
Sherburne Cable	01376, 01877, 01982
Sherman	·
Cablevision	01376, 01877, 01982
Shrewsbury Electric	01376, 01877
& Cable	01010, 01011
Silver Star	01481, 01998, 03028
Communications	
Simpson Country	01376, 01877, 01982
Cable TV	
SingTel	01998
Siskiyou	01376, 01877, 01982
Cablevision	
Sister Lakes Cable	01376, 01877, 01982
Sjoberg's Cable TV	01376
Skisat	01376, 01877, 01982
SKT	01376, 01877, 01982
SKY	02620
Sky Angel	01376, 01877, 01982
Sky Cablevision	01376, 01877, 01982
SKY Deutschland	02620
Skyline Cable	02586
SkyPix	01481, 01998, 03028
Sleepy Eye	02345
Telephone	0.40=0.040== 0.4000
Small Town Cable	01376, 01877, 01982
Smile Content	02437
Smithville	02586
Sogetel	01998
Somerfield Cable TV	01376, 01877, 01982
Source Cable	01376
South Benton	01376, 01877, 01982

Cablevision South Central Communications	01376, 01877, 01982
South Holt Cablevision	01376, 01877, 01982
South Slope Communications	01376, 01877, 01982
Southeast Cable TV	01376, 01877, 01982
Southern Cayuga County Cable	01376, 01877, 01982
Southern Coastal Cable	01376, 01877, 01982
Southern Kansas Telephone	01376
Southern Plains Cable	01376, 01877, 01982
Southern Vermont Cable	01376, 01982
Southey Cable	01376, 01877, 01982
Southside TV	01376, 01877, 01982
Southwest MN Broadband	01376, 01877, 01982
Southwestern Bell Video Services	01376, 01877, 01982
Spanish Fork	01376, 01877, 01982
Spencer Municipal Utilities	01376, 01877, 01982
Spillway Cablevision	01376, 01877, 01982
Spirit Broadband	01376, 01877, 01982
Spring Creek Cable	01376, 01877, 01982
Springcom	01376, 01877, 01982
Springfield Cablevision	01376, 01877, 01982
Springville Cable	01376, 01877, 01982
St. George Island Cable	01376, 01877, 01982
St. John Cable	01376, 01877, 01982
Stanley Cablevision	01376, 01877, 01982
Stanton Telecom	01376, 01877, 01982
Star Cablevision	01376, 01877, 01982
Starkville	01376, 01877, 01982

Cablevision
Starlight 01376, 01877, 01982 Communications
Starview Cable of 01376, 01877, 01982
Delaware
Starvision 01376, 01877, 01982
Starwest 01376, 01877, 01982
Stellar 01376, 01877, 01982
Communications
Stellar Private Cable 01376, 01877, 01982
Systems
Stofa 02015
Stowe Cablevision 01376, 01877, 01982
Strategic 01376, 01877, 01982
Technologies
Stubbs 01376, 01877, 01982
Communications
Suddenlink 01877, 01376
Summit Broadband 01376, 01877, 01982
Summit 01376, 01877, 01982
Communications
Sumner Cable TV 01376, 01877, 01982
Sun Country Cable 01376
Sunrise 01376, 01877, 01982
Communications
Supercanal 01376
Superior Cable & 01376, 01877, 01982
Data
Supervision Cable 01376, 01877, 01982
SureWest 01481, 01998, 02586
,,
7 1
SWAT Cooperative 01481, 01998, 03028 Sweetwater Cable 01376, 01877, 01982
Sweetwater Cable 01376, 01877, 01982
Swisher Telephone 02345
ewioner releptione 62046
Cable Set Top Box (T to Z)
T-Home 02132

I -Home	02132	
TA Communications	01376	01

01376, 01877, 01982 Taloga Cable 01376, 01877, 01982

TAT Cablevision	01376, 01877, 01982
Tbaytel	03028
TCSI Huntsville	01376, 01877, 01982
TCT	01376, 01877, 01982
TDS	01376, 01877, 01982
TDS Telecom	03028
Technicolor	01982
Tekstar Cablevision	01376, 01877, 01982
Tel-Star Cablevision	01376, 01877, 01982
Tele-Media	01376, 01877, 01982
Tele-Services	01376, 01877, 01982
Tele2	00660
Telecentro	01376
Telecom Cable	01376, 01877, 01982
Teledistribution	01376
Amos	
Telefonica	03288, 03028
Telenet	01920, 03477
Telepak Networks	01376, 01877, 01982
TelePartners	01376, 01877, 01982
Telerent Leasing	01376, 01877, 01982
Corporation	04070 04077 04000
Telestar Systems	01376, 01877, 01982
Telewest	01987
Telmex	01376
Telsat Systems	01376, 01877, 01982
Telus	03028
Templeton	01376, 01877, 01982
Telephone	01000
TeNeT	01898
Tesco Cable TV	01376, 01877, 01982
Texas Mid-Gulf Cablevision	01376
Thames Valley	01376, 01877, 01982
Communications	
The Community	01376
Agency	04076 04077 04000
The Town of Mountain Village	01376, 01877, 01982
Cable	

Thomson	01582, 01982, 03007, 02407
Three River Digital Cable	01376, 01877, 01982
Throckmorton Cablevision	01376, 01877, 01982
TiftNet	01376, 01877, 01982
Time Warner	01877, 01376, 02187
Tip-Top Communications	01376, 01877, 01982
TiVo	03265
Tobacco Valley Communications	01376, 01877, 01982
Tongue River Cable TV	01376, 01877, 01982
Total Cable Service	01376
Touchet Valley Television	01376, 01877, 01982
TP	02407
Trans-Video	01376, 01877, 01982
Trappers Loop Communications	01376, 01877, 01982
Trenton Cable	01376, 01877, 01982
Tri-County Cable TV	01376
TrioTel Communications	01376, 01877, 01982
Troy Cablevision	01376
Trust Cable TV	01376, 01877, 01982
TruVista	01376, 01877, 01982
Tudjaat Cooperative	01376, 01877, 01982
Tulalip Broadband	01376, 01877, 01982
Tullahoma Utilities	02586
Tulugak Cooperative	01376, 01877, 01982
Turquoise Turtle TV	01376, 01877, 01982
TV Cable	01376
TV Cable Company of Andalusia	01376
TV Cable of Winamac	01376, 01877, 01982
TV Northeast	01481, 01998, 03028

TV Service	01376, 01877, 01982
TVB	01615
TVC	01376, 01877, 01982
TVision	01376, 01877, 01982
TVMAX	01376, 01877, 01982
TVS Cable	01376, 01877, 01982
Twin Valley	02586
Communications	
Two Creeks Cable	01376, 01877, 01982
Ucluelet Video	01376, 01877, 01982
Uintah Basin	01376, 01877, 01982
Electronic Telecom	
UMBC	01376, 01877, 01982
Union Telephone	01376, 01877, 01982
Unitah-Strata	01376
Networks	
United	01376
Communications Association	
United States	01276 01977 01092
Gypsum	01376, 01877, 01982
United Telephone	01376, 02586
Unitymedia	03477
Universal	01376, 01877, 01982
Cablevision	0.0.0, 0.0, 0.002
Universal Satellite	01376, 01877, 01982
Cable	
UPC	01582, 03477, 00660, 01060
UPC Cablecom	01582, 03477
Upper Peninsula	01376, 01877, 01982
Communications	
US Online	01376, 01877, 01982
US Sonet	01376, 01877, 01982
USA Cablesystems	01376, 01877, 01982
USA Companies	01376, 01877, 01982
Utica Cablevision	01376, 01877, 01982
Utilities Board City of Foley	01376
Utility Systems	01376, 01877, 01982
Development	

Uwharrie Communications	02586
Valley Cable & Satellite Communications	01376, 01877, 01982
Valley Cable TV	01376, 01877, 01982
Valparaiso Communications	01376
Venture Communications Cooperative	01481, 01998, 03028
Venus Telephone Cooperative	01376, 01898
Veracity Communications	01376, 01877, 01982
Verizon	02378
Vernon Telephone Cooperative	02586
Vicksburg Video	01376
Videotron	01877
Vidia	01376, 01877, 01982
Communications	
Vidion Cable	01376, 01877, 01982
Viken Fibernett	02437
Viola Communications	01376, 01877, 01982
Virgin Media	01987, 01060, 03265
Vision	01376
Communications	04070 04077 04000
VisionComm	01376, 01877, 01982
Vital	01376, 01877, 01982
Communications	02200
Vivo	03288
Vodafone	02401
Vogtmann Engineering	01376, 01877, 01982
Volcano Vision	01376
W.D.B. Communications	01376, 01877, 01982
Wabash Independent	01376, 01877, 01982

Networks Wadsworth Cable TV	01376
Waitsfield Cable	01376
Walnut	01376, 01982
Communications	01070, 01002
Walnut Grove Cable TV	01376, 01877, 01982
Ward Communications	01376, 01877, 01982
Warwick Valley Telephone	01376, 01877, 01982
Washington County Rural Telephone Cooperative	01376, 01877, 01982
Watch TV	01481, 01998, 03028
Waterville Cable TV	01376, 01877, 01982
Watson Cable	01376, 01877, 01982
Wave Broadband	01376
Wavevision	01376, 01877, 01982
WCTA	01376, 01877, 01982
WEHCO Video	01376
Weiss Lake Cable	01376, 01877
West Alabama TV Cable	01376, 01877, 01982
West Carolina Telephone	03028
West Central Telephone	01376, 01877, 01982
West Lake Cablevision	01376, 01877, 01982
West River Cable Television	01376, 01877, 01982
WesTel Systems	01376, 01877, 01982
Western Broadband	01376, 01877, 01982
Western Cable Service	01376, 01877, 01982
Western lowa Telephone	01877
Western Telephone Company	01376, 01877, 01982

Western Wisconsin Communications	01376, 02586
Westman Communications	01376, 02187
Westphalia Broadband	02586
Wetherell Satellite Cable TV	01376, 01877, 01982
WFL Cable Television	01376, 01877, 01982
White County Video	01376
WideOpenWest	01376, 01877, 02187
Wikstrom Systems	01376, 01877, 01982
Wilco Electronic	·
Systems	01376, 01877, 01982
Wilkes	01481, 01998, 03028
Telecommunications	
Willamette	01376
Broadband	
Windbreak Cable TV	01376, 01877, 01982
Windjammer Cable	01376, 01877
Windom	01877
Communications	
Windstream	01376, 01982
Winslow	01376, 01877, 01982
Communications	, ,
Wire Tele-View	01376, 01877, 01982
Wireless One	01376, 01877, 01982
Wittenberg	01376, 01877, 01982
Telephone	01070, 01077, 01002
Wood County	01376, 01877, 01982
Telephone	0.0.0, 0.0.1, 0.002
Woodsfield	01376, 01877, 01982
Municipal Cable	01070, 01077, 01002
Worth Cable TV	01376, 01877, 01982
WT Services	01376, 01877, 01982
WTC	
Communications	01376, 01877, 01982
WTCI Cable	01376, 01877, 01982
	·
Wyandotte	01376, 01982

Municipal

Yadkin Valley 02345

Telecom

Ycom Networks 01376, 01877, 01982 Yelcot Video Group 01376, 01877, 01982

Yelo 01376

Ygnition 01376, 01877, 01982 Zampelli Electronics 01376, 01877, 01982

Ziggo 02589, 02015, 00660, 02401

Zito Media 01376, 01982

Zoom Media 01376, 01877, 01982

Satellite Set top Box

@sat 01300 Acoustic Solutions 01284 ADB 00887

AEG 02738, 02813

 Agora
 01284

 Airis
 02813

 Airtel
 02248

 Akira
 02738

Alba 01284, 02034

Altech UEC 02059

Amstrad 00847, 01662, 01175, 01693, 02467

AMTC 02738, 02813

Arledge Electronics 00775
Arnion 01300
ASDA 01284
AssCom 00853

Astro 01100, 02026

 Aurora
 00879

 Austar
 00879

Auvisio 02738, 02813

Avanit 01631 Axil 02738 Ballard Rural 00775

Telephone

Cooperative

Bell 00775

Bell Satellite TV 00775 Biostek 02738 Black Diamond 01284

Boca 02026, 02813

Boshmann 01631

Boxer 02443, 01692

BskyB 01175, 00847, 01662

Bulltech 02738

Bush 02376, 01284, 02034, 02813

Cablecom 01195, 01197 Caiway 02443, 00253 Canal Digitaal 00853, 02957

Canal Digital 00853

Canal+ 00853, 02657, 01195, 01197

CanalSat 00853, 02657

Century 00856
CGV 02034
Chess 02026
Cignal 02835
City of Cawker City 00775

Cable

CityCom 01176

Claro 03787, 03790

Clatronic 02738

 Com Hem
 01176, 01915

 Comag
 02026, 02813

 Coship
 03787, 03790

 Country Vision
 00775, 00869

Cable

 Croner
 02813

 Crown
 01284

Cyfra+ 00853, 01409

Cyfrowy Polsat 00253, 0853, 01409

D-box 01114
DASAN 03321
Delta 02443
Denver 02738

Deutsche 01195, 01197

Telekabel

 Dgtec
 01631

 Dicra
 02738

 Digi
 02026

 Digiality
 02813

Digihome 01284, 02034 DigiLogic 01284, 02034

DigiQuest 01300, 02738, 01631

DigitAlb 01195, 01197 DigitalBox 01631, 01100

Digiwave 01631

DirecTV 01377, 00099

 Dish Network
 00775

 Dishpro
 00775

 DishTV
 01300

 DMT
 03321

 DMTech
 02738

 DRE
 01176

Dream Multimedia 01237, 01652, 01923

DSE 02813 DSTV 00879

DTK Deutsche 01195, 01197

Telekabel

Dual 02034

Durabrand 01284, 02034 Dyon 02738, 02813

Echostar 00775, 00853, 01409

Edision 01631 Elta 02738

Energy Sistem 01631, 02813

Etisalat 02443 Evesham 02034

Technology

Finlux 02034

FinnSat 01195, 01197

Fortec Star 01631

Foxtel 01356, 00879, 01176

Freesat 01692, 02376

Freesat+ 02443

Frontier 00775

Communications

Fuji Onkyo 01631

Galaxis 00853, 00879

General Instrument 00869 General Satellite 01176

Globo 02026, 02957

 GoGen
 02738

 GOI
 00775

 Gold Box
 00853

 Gold Vision
 01631

Goodmans 01284, 02376, 02034 Gradiente 00887, 00856, 00099

Grocos 01409

Grundig 00847, 02376, 02034, 01284, 00853, 00879

 Hanseatic
 01100

 HD+
 02443

 HDT
 03321

 Hirschmann
 02026

Hitachi 02034, 01284

Hornet 01300 HTS 00775 Huawei 03787 Hughes Network 01377

Systems

Humax 01176, 02443, 01808, 01915, 02408, 01377,

03321, 01989, 02616

 ibox
 01652

 ID Digital
 01176

 Illusion
 01631

Imagin 01195, 01197 Imperial 01195, 01197

Indovision 01989, 00856, 00887

iNETBOX 01652, 01237

Innova 00099 IQ 02813 ISkyB 00887

JVC 00775, 01284 Kabel Deutschland 01195, 01197

KabelBW 01195, 01197, 01915

Kaon 01300 Kenwood 00853 Koenig 01631 KT 03321 01631 Lava LG 03321 01284 Linsar Lodos 01284

Logik 01284, 02034 LogiSat 02026, 02813

Luxor 02034 Macab 00853 02738 Majestic Manhattan 01300 Maplin 02034 Marusys 03543 02738 Mascom 01284 Matsui 02813 Maximum Mediabox 00853 MediaSat 00853

Mediascape 02835

Medion 02026

Mega TV 03321

MegaSat 02034, 02813, 01631, 02738

Metronic 02738, 01631

Micro 02813 Micro electronic 02813 Milestone 00775

Communications

Mitsai 02738 Morgan's 02026

Motorola 00869, 00856, 03469

Movistar 01409

Multichoice 00879, 02059, 02060

Murphy 02034 Mysat 02738 NET 01409

Netsat 00099, 00887

 Next Level
 00869

 Nokia
 00853

 NPG
 01631

NTV Plus 01692, 02443

Olleh TV 03321 Olleh-Skylife 03321

Onn 02034, 01284

Opticum 02957

Optus 00879, 01356

Orbitech 01100, 01195, 01197

Orton 02957

Pace 00847, 01356, 00887, 01175, 01693, 00853,

01662, 02467, 02657, 03469, 01377, 02059,

02060, 02211, 03787, 03790, 02620

Pacific 01284
Palcom 01409
Palsonic 02813
Panasat 00879
Panasonic 00847

Philips 00099, 00853, 01114, 02619, 00856, 00887,

02211, 03469

Pioneer 00853 PLDT 02835

Premiere 01114, 01195, 01197 Primacom 01176, 01195, 01197

 Pro Basic
 00853

 Proline
 01284

 Qook TV
 03321

 Qook-SkyLife
 03321

 Qwest
 01377

 RadioShack
 00869

 Raduga TV
 02957

RiksTV 01692 Roadstar 00853

SAB 01300, 01631 Sagem 01692, 01114

Sagemcom 01692

Samsung	03063.	00253.	01377.	01989.	02467.	00853,
Carricarig	00000,	00200,	01011,	01000,	02 101,	00000,

03321, 01662, 01693, 03834

 Sat Control
 01300

 SAT+
 01409

Satellite Operations 00775 Satplus 01100 SatyCon 01631

Schaub Lorenz 02034

Schwaiger 01631, 02813, 02957

Schwaiger CS 01631 Scott 02738

SEG 01284, 02034

Shark 01631
Sharp 02034
Shaw Direct 00869
Sherwood 01409
Shinelco 02738

Sigmatek 02738, 02813

SilverCrest 02026

SKY 00856, 00847, 01662, 00887, 01175, 02619,

01693, 00099, 01114, 01377, 01915, 02467,

03469

 Sky Brasil
 00856, 00887, 01377, 02619

 SKY Deutschland
 02443, 01114, 01915, 02620

 SKY Italia
 01693, 02467, 00853, 01356

SKY Mexico 00856, 02619, 00887, 01377, 03469

SKY New Zealand 02211
SKY PerfecTV! 02616
SkyCable 01631
SkyLife 03321

Skylink 02443, 02957

Skymaster 01409

Skyplus 02026, 01175

SkySat 01100

Skyworth 01631, 02835

 SL
 02026

 SM Electronic
 01409

 Smart
 01631

Sony 00847, 00853

Star	00887
Star Choice	00869
Stream System	01300

Strong 01409, 00879, 02813, 01300, 00853, 01284

Sunny 01300 Sunstech 02738 Supernova 00887 T-Mobile 02443 TATA Sky 03575 TDS Telecom 00775 Teac 02813 **Technicolor** 03469

Technika 01284, 02034

TechniSat 01195, 01197, 01100, 02813

Techwood 01284, 02034

tekComm 02738

TELE System 01409, 02738, 02813

Tele2 01195, 01197 Telefonica 01692, 01409

Telestar 01100, 01197, 01195

Televes 01300 Teleview 00775

Communications

 Televisa
 00887

 Telsey
 02738

 Telstra
 01356

 Telus
 00775

Tevion 01409, 02026, 02813

Thomson 00847, 01175, 00853, 01662, 02619, 03469

TNT SAT 01692, 01195, 01197

Toshiba 01284
TrekStor 02738
Triangle 00775

Communication

System

Triax 00853, 01631

Tricolor TV 01176
True Visions 02408
TV Vlaanderen 00853

TVA Digital 01692, 01409

TVB 01989

UEC 00879, 01356

United Satellite 00775

America

United States 00775

Wireless

Unitymedia 01915 Unixbox 01652 USA Wireless 00775

Satellite TV

Vectra 01195, 01197 Vestel 01284, 02034

Via Embratel 03787

Viasat 01197, 0253, 01195

 VisionNet
 01631

 Viva
 00856

 Vivo
 01409

 Voom
 00869

 VTC
 03834

 Vu+
 03543

Walker 02034, 01284

Wharfedale 02034
Windstream 00775
Wisi 02957
World Satellite 00775

Cable Systems

Woxter 02813, 02738

 Xoro
 02813

 Xtreme
 01300

Yes 00887, 01631 Zehnder 02034, 03469 Zenith 00856, 00253

 Ziggo
 02443

 Zircon
 02957

■ Video - Accessory

A.C.Ryan 02709, 03350

ABS 01272

Acer	01272
Alienware	01272
Apple	02615
Boxee	03693
Claritas	01272
CyberPower	01272
D-Link	03693
Daily Media	01272
Dell Dell	01272
Digitech	02260
Elonex	01272
Eminent	02260
Emtec	02709
Fantec	02709
Fujitsu Siemens	01272
Gateway	01272
Hewlett Packard	01272
hFX	01272
Howard Computers	01272
Hush	01272
iBUYPOWER	01272
iconBIT	02709, 03350
ISTAR	02260
Linksys	01272
Mede8er	02709
Media Center PC	01272
Microsoft	01272, 01805
Mind	01272
NiveusMedia	01272
Northgate	01272
Packard Bell	01272
Philips	01272
PopBox	02260

Stack 9 01272

02260

01272 03061

02713, 01272

Popcorn Hour

Ricavision

Roku

Sony

Systemax	01272
Tagar Systems	01272
Toshiba	01272
Touch	01272
Trust	01272
VIA Technologies	01272
Viewsonic	01272
Voodoo	01272
Western Digital	02558
Woxter	02709
Xbox	01805, 01272
ZT Group	01272
■ CD	
Advantage	70032
Advantage AH!	70032 70157
•	
AH!	70157
AH! Aiwa	70157 70157
AH! Aiwa Arcam	70157 70157 70157
AH! Aiwa Arcam Atoll Electronique	70157 70157 70157 70157
AH! Aiwa Arcam Atoll Electronique Audio Research	70157 70157 70157 70157 70157
AH! Aiwa Arcam Atoll Electronique Audio Research Audiolab	70157 70157 70157 70157 70157 70157
AH! Aiwa Arcam Atoll Electronique Audio Research Audiolab Audiomeca	70157 70157 70157 70157 70157 70157 70157
AH! Aiwa Arcam Atoll Electronique Audio Research Audiolab Audiomeca Audioton	70157 70157 70157 70157 70157 70157 70157 70157
AH! Aiwa Arcam Atoll Electronique Audio Research Audiolab Audiomeca Audioton AVI Balanced Audio	70157 70157 70157 70157 70157 70157 70157 70157
AH! Aiwa Arcam Atoll Electronique Audio Research Audiolab Audiomeca Audioton AVI Balanced Audio Technology	70157 70157 70157 70157 70157 70157 70157 70157 70157 70157

Cambridge 70157 Cambridge Audio 70157 Carver 70157 CCE 70157 Cyrus 70157 70766 Denon 70000 DKK **DMX Electronics** 70157 Dynaco 70157

Genexxa 70032, 70000

Goldmund	70157
Grundig	70157
Harman/Kardon	70157
Hitachi	70032
Integra	71817
JVC	70072

Kenwood 70157, 70036

 Krell
 70157

 Linn
 70157

 Loewe
 70157

 Magnavox
 70157

Marantz 70157, 70029

Matsui 70157 MCS 70029 Memorex 70032 Meridian 70157 Micromega 70157 Miro 70000 Mission 70157 70157 Myryad

NAD 70721, 70000

 Naim
 70157

 NSM
 70157

 Onkyo
 71817

Optimus 70032, 70000 Panasonic 70303, 70029

Philips 70157 70032 Pioneer 70157 Polk Audio Primare 70157 70157 Proton QED 70157 Quad 70157 70029 Quasar 70157 Radiola **RCA** 70032 70157 Restek

Revox 70157

Rotel 70157 SAE 70157 70157 Sansui SAST 70157 Siemens 70157 Silsonic 70036 70157 Simaudio Sonic Frontiers 70157

Sony 70000, 70490

Sylvania 70157 TAG McLaren 70157 Tandy 70032

 Tascam
 73095, 73511, 73533

 Teac
 73531, 73532, 73551

Technics 70303, 70029

Thorens 70157
Thule Audio 70157
Universum 70157
Victor 70072

Wards 70032, 70000, 70157 Yamaha 70036, 70032, 70490

Zonda 70157

Cassette Deck

 Aiwa
 40029

 Arcam
 40076

Audiolab 40029, 40229

Carver 40029 Denon 40076 40029 Grundig Harman/Kardon 40029 Inkel 40070 **JVC** 40244 Kenwood 40070 Magnavox 40029 Marantz 40029 Myryad 40029 Onkyo 42157 **Optimus** 40027

Panasonic	40229
-----------	-------

Philips 40029, 40229

 Pioneer
 40027

 Polk Audio
 40029

 Radiola
 40029

 RCA
 40027

 Revox
 40029

 Sansui
 40029

Sony 40243, 40170

 Tascam
 73095

 Technics
 40229

 Thorens
 40029

 Victor
 40244

Wards 40027, 40029

Yamaha 40097

Audio - Accessory

Apple 81115 Jamo 82228

Onkyo 81993, 82351, 82990

Polk Audio 82228

Receiver

Integra 52503 Onkyo 52503

Cable PVR Combination

Access 01376, 01877

Communications

Adams Cable TV 01376 ADB 01920

Armstrong 01376, 01877

Arris 02187
Atlantic Broadband 01877
ATMC 01376
Bend Broadband 02187
Blue Ridge 01877

Communications

Bright House 01877, 01376

Buckeye Cable 01376, 01877, 02187

System

Cable Axion Digitel 01376

Cable One 01376, 01877

Cablecom 01582

Cablevision 01877, 01376

Cablevision du 01376

Nord

CCAP 01877

Charter 01376, 01877, 02187

Cincinnati Bell 01877, 01376

Cisco 01877, 02589, 01982, 01582, 01883, 02401,

03265

Citycable 03477

Cogeco 01376, 01877, 01982

Comcast 01376, 01877, 01982, 02187

Cox 01877, 01376

Darty Box 02436 Digeo 02187 Freebox 01976

Grande 01877, 01376

Communications

Humax 02620, 02165

ImOn 01877

Communications

Insight 01376, 01877

Inter Mountain 01877

Cable

Kabel Deutschland 02165 Knology 01877

Mediacom 01376, 01877

MetroCast 01877

Cablevision

Midcontinent 01376, 01877

Communications

 Motorola
 01376

 Moxi
 02187

 NET
 01883

 NorthwesTel
 01376

Novus 01376, 01877

Numericable 02436

Pace 01877, 02620, 01582, 01883

Panasonic 01982
Philips 01582
Pioneer 01877
RCN 01376

Rogers 01877, 01376

Sagem 02436

Samsung 03477, 01877, 01987, 02589, 03265 Scientific Atlanta 01877, 01982, 01987, 02436, 02401

Service Electric 01376, 01877

Shaw 01376, 01877, 02187

SKY 02620 SKY Deutschland 02620 Source Cable 01376

Suddenlink 01877, 01376 Telenet 01920, 03477

Telewest 01987 Thomson 01582

Time Warner 01877, 01376, 02187

TiVo 03265 Unitymedia 03477

UPC 01582, 03477 UPC Cablecom 01582, 03477

Videotron 01877

Virgin Media 01987, 03265

Wave Broadband 01376 Western Iowa 01877

Telephone

Westman 01376, 02187

Communications

WideOpenWest 01877, 01376, 02187

Ziggo 02589

IPTV

ADB 02586, 01481, 01998, 03028

Alcom 02437 Altibox 02437

Amino 01615, 01481, 01898, 01998, 03028

Arkwest	01481, 01998
Arvig	01998, 02345
Communication	
Systems	00050
AT&T	00858
ATMC	01998, 03028
Ballard Rural Telephone	02586
Cooperative	
Bayland	02586
Communications	
Bell	01998
Bell Aliant	01998
Bell Fibe TV	01998
Bledsoe Telephone	01481, 01998
Cooperative	
Bloomingdale	01481, 01998, 03028
Communications	0.4.000
Blue Valley Telecommunications	01898
Bouygues Telecom	03007
Brandenburg	01481, 01998
Telecom	01401, 01000
BT	02294
BTC Broadband	02586
Burlington Telecom	01481, 01615
Cabovis	02436
CalTel Connections	02586
Canby Telcom	01481
Cannon Valley	01481, 01998
Cablevision	
CenturyLink	01998
Cisco	00858, 03028, 02345, 02378
ClubInternet	02132
CoopTel	00858, 01615, 01898
CRST Telephone	01481, 01998
Authority	00245
Dakota Central Telecommunications	02345
Dalton Cable	01877, 01982
Television	5.517, 5.100 2

01376
01898
02401
01481, 01998
01481, 01998
01481, 01998, 03028
03452
02586
01998, 03028
00500
02586
01481
01401
01481, 01998
,
01481, 01998, 03028
02586
00010
02043
02586
02586
01481, 01998
01898
02437
02345
01481, 01998
01401, 01990
01615
02132
01481
01481
02952, 02437
01481, 01998
,
01481, 01998

Liberty Communications	02586
Lonsdale Video	01481, 01998
Ventures	01401, 01330
Lumos Networks	01998, 03028
Manawa Telecom	02586
Manti Telecom	01481, 01998
Matanuska	01481, 02586
Telephone	
Association	
Meo	02401
MHTC	01481, 01998
Microwave Satellite Technologies	01481, 01998
Millennium Telecom	01481, 01998
Minburn	01481, 01998, 03028
Communications	
MM&G Enterprises	01481, 01998
Motorola	02378, 01998, 02437, 0858, 02952, 01376
Movistar	03288
MTS	01998
NDTC	01481, 01998, 03028
North Central	02345
Telephone	
North Dakota	02586
Telephone	00050
North State Communications	00858
Norvado	02586
Nsight	02345, 02586
NU Telecom	01998, 03028
Oi TV	03452, 03454
Open IPTV	01615
Optimus Clix	02437
Orange	02407
OTEC	02586
Communications	02000
Pace	02401, 03454
Panora	01481
Telecommunications	
David Davis	00506

Paul Bunyan 02586

Communications	
Pine Island Telephone	01481, 01998
Polar	02586
Communications	
Poplar Bluff	01481, 01998
Municipal Utilities	
Portugal Telecom	02401
Price County	01481, 01998
Telephone	04404 04000
Project Mutual	01481, 01998
Telephone PSC	01998
Quality One Technologies	01481, 01998
Qwerty.TV	01898
Randolph	02586
Telephone	02000
Readlyn Telephone	02586
Reservation	01998, 02345
Telephone	
River Valley	01481, 01998
Telecommunications	
S-GO Video	01877
Sagem	02407, 03288
Sagemcom	02407
Samsung	02407
Sasktel	01998
Scientific Atlanta	00858, 02345, 03028
Silver Star	01481, 01998, 03028
Communications	04000
SingTel	01998
SKY Deutschland	02620
Skyline Cable	02586
SkyPix	01481, 01998
Smile Content	02437

 Skyl ix
 01401, 01930

 Smile Content
 02437

 Smithville
 02586

 Sogetel
 01998

 SureWest
 01481, 01998, 02586

 Surry Telephone
 02586

SWAT Cooperative	01481, 01998, 03028
T-Home	02132
Telefonica	03288, 03028
Telus	03028
TeNeT	01898
Thomson	03007, 02407
TV Northeast	01481, 01998
TVB	01615
Twin Valley	02586
Communications	
United Telephone	02586
Venture	01998
Communications	
Cooperative	00070
Verizon	02378
Viken Fibernett	02437
Vivo	03288
Watch TV	01481, 01998
West Carolina	03028
Telephone Western Wisconsin	02586
Communications	02300
Westphalia	02586
Broadband	0_000
Wilkes	01481, 01998
Telecommunications	

■ IPTV PVR Combination

Yadkin Valley 02345 Telecom

ADB	02437
Altibox	02437
Amino	01615, 01898
AT&T	00858
ATMC	03028
Beeline	03028
Belgacom TV	02132
Bell	01998
Bell Aliant	01998
Bell Fibe TV	01998

Bouygues Telecom 03007
BT 02294
Cabovis 02436
CenturyLink 01998

Cisco 00858, 03028, 02132, 02345, 02378

ClubInternet 02132 Deutsche Telekom 02132 Du 02401 **Echostar** 03452 Freebox 01976 i-CAN 02437 Innovative Systems 01898 InviTV 02437 02132 **Kiss**

KPN 02952, 02437

Lumos Networks01998Magio Sat02132Magnet01615Meo02401

Motorola 02437, 02378, 00858, 01998, 02952, 02401

MTS 01998 Numericable 02436

Oi TV 03452, 03454

Orange 02407

Pace 02401, 03454

Philips 02294
Portugal Telecom 02401

Sagem 02407, 03288

Sagemcom 02436, 02407, 03007

Samsung 02407 Sasktel 01998

Scientific Atlanta 00858, 02345, 02401, 03028

SKY Deutschland 02620 SureWest 01998 T-Home 02132

Telefonica 03028, 03288

 Telus
 03028

 Thomson
 03007

 Verizon
 02378

Vodafone	02401
■ PVR	
DirecTV	20739
Humax	20739
Panasonic	20616
Philips	20739
RCN	20739
ReplayTV	20616
Sonic Blue	20616
Sony	20636
TiVo	20739, 20636

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