Pioneer

VSX-S500-K/-S

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

Discover the benefits of registering your product online at **http://www.pioneer.co.uk** (or **http://www.pioneer.eu**).

Operating Instructions

Thank you for buying this Pioneer product. Please read through these operating instructions so you will know how to operate your model properly.

IMPORTANT

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

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

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

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

D3-4-2-1-1_A1_En

Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel.

IMPORTANT: THE MOULDED PLUG

This appliance is supplied with a moulded three pin mains plug for your safety and convenience. A 10 amp fuse is fitted in this plug. Should the fuse need to be replaced, please ensure that the replacement fuse has a rating of 10 amps and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover the plug must not be used until a replacement cover is obtained. A replacement fuse cover can be obtained from your local dealer.

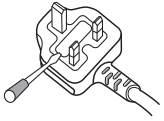
If the fitted moulded plug is unsuitable for your socket outlet, then the fuse shall be removed and the plug cut off and disposed of safely. There is a danger of severe electrical shock if the cut off plug is inserted into any 13 amp socket.

If a new plug is to be fitted, please observe the wiring code as shown below. If in any doubt, please consult a qualified electrician.

IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:
Blue : Neutral Brown : Live
As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows;

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter **N** or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter **L** or coloured RED.

How to replace the fuse: Open the fuse compartment with a screwdriver and replace the fuse.



D3-4-2-1-2-2*_A2_En

WARNING

To prevent a fire hazard, do not place any naked flame sources (such as a lighted candle) on the equipment.

D3-4-2-1-7a_A1_En

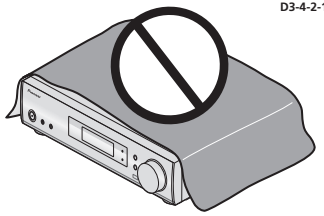
VENTILATION CAUTION

When installing this unit, make sure to leave space around the unit for ventilation to improve heat radiation (at least 10 cm at top, 5 cm at rear, and 5 cm at each side).

WARNING

Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product, and to protect it from overheating. To prevent fire hazard, the openings should never be blocked or covered with items (such as newspapers, table-cloths, curtains) or by operating the equipment on thick carpet or a bed.

D3-4-2-1-7b*_A1_En



Operating Environment

Operating environment temperature and humidity: +5 °C to +35 °C (+41 °F to +95 °F); less than 85 %RH (cooling vents not blocked)
Do not install this unit in a poorly ventilated area, or in locations exposed to high humidity or direct sunlight (or strong artificial light)

D3-4-2-1-7c*_A1_En

Information for users on collection and disposal of old equipment and used batteries

(Symbol for equipment)

(Symbol examples for batteries)

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points in accordance with your national legislation.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

These symbols are only valid in the European Union.

For countries outside the European Union:

If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

K058a_A1_En

If the AC plug of this unit does not match the AC outlet you want to use, the plug must be removed and appropriate one fitted. Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel. If connected to an AC outlet, the cut-off plug can cause severe electrical shock. Make sure it is properly disposed of after removal.
The equipment should be disconnected by removing the mains plug from the wall socket when left unused for a long period of time (for example, when on vacation).

D3-4-2-2-1a_A1_En

CAUTION

The ⏻**STANDBY/ON** switch on this unit will not completely shut off all power from the AC outlet. Since the power cord serves as the main disconnect device for the unit, you will need to unplug it from the AC outlet to shut down all power. Therefore, make sure the unit has been installed so that the power cord can be easily unplugged from the AC outlet in case of an accident. To avoid fire hazard, the power cord should also be unplugged from the AC outlet when left unused for a long period of time (for example, when on vacation).

D3-4-2-2-2a*_A1_En

WARNING

This equipment is not waterproof. To prevent a fire or shock hazard, do not place any container filled with liquid near this equipment (such as a vase or flower pot) or expose it to dripping, splashing, rain or moisture.

D3-4-2-1-3_A1_En

WARNING

Before plugging in for the first time, read the following section carefully.

The voltage of the available power supply differs according to country or region. Be sure that the power supply voltage of the area where this unit will be used meets the required voltage (e.g., 230 V or 120 V) written on the rear panel.

D3-4-2-1-4*_A1_En

This product is for general household purposes. Any failure due to use for other than household purposes (such as long-term use for business purposes in a restaurant or use in a car or ship) and which requires repair will be charged for even during the warranty period.

K041_A1_En

Contents

Before you start

Checking what's in the box

Please check that you've received the following supplied accessories:

- Setup microphone
- Remote control
- AAA size IEC R03 dry cell batteries (to confirm system operation) x2
- AM loop antenna
- FM wire antenna
- Power cord
- Warranty card
- Quick start guide
- Safety Brochure
- These operating instructions (CD-ROM)

Installing the receiver

- When installing this unit, make sure to put it on a level and stable surface.

Don't install it on the following places:

– on a color TV (the screen may distort)

– near a cassette deck (or close to a device that gives off a magnetic field). This may interfere with the sound.

– in direct sunlight

– in damp or wet areas

– in extremely hot or cold areas

– in places where there is vibration or other movement

– in places that are very dusty

– in places that have hot fumes or oils (such as a kitchen)

Flow of settings on the receiver

The unit is a full-fledged AV receiver equipped with an abundance of functions and terminals. It can be used easily after following the procedure below to make the connections and settings.

The colors of the steps indicate the following:

Required setting item

Setting to be made as necessary

1 **Connecting the speakers**

Where you place the speakers will have a big effect on the sound.

- Determining the speakers' application (page 9)
- Connecting the speakers (page 10)

⬇

2 **Connecting the components**

For surround sound, you'll want to hook up using a digital connection from the Blu-ray Disc/DVD player to the receiver.

- About the video converter (page 13)
- Connecting a TV and playback components (page 14)
- Connecting antennas (page 17)
- Plugging in the receiver (page 18)

⬇

3 **Power On**

Make sure you've set the video input on your TV to this receiver. Check the manual that came with the TV if you don't know how to do this.

⬇

4 **Speaker System (page 36)**

(When connecting Speaker B, front bi-amp or surround back speaker.)

The Pre Out Setting (page 39)

(When front height or surround back speakers are connected using an additional amplifier.)

The Input Assign menu (page 39)

(When using connections other than the recommended connections.)

Using the Audio Return Channel function (page 41)

(When the connected TV supports the HDMI Audio Return Channel function.)

⬇

5 **Use the on-screen automatic MCACC setup to set up your system**

- Automatically setting up for surround sound (MCACC) (page 19)

⬇

6 **Playing a source (page 21)**

- Playing an iPod (page 22)
- Playing a USB device (page 23)
- Playback with NETWORK feature (page 23)
- Listening to the radio (page 29)
- Choosing the listening mode (page 31)

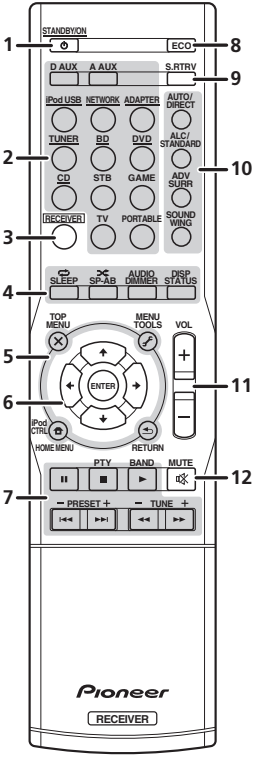
⬇

7 **Adjusting the sound as desired**

- Using the Sound Retriever (page 33)
- Setting the Up Mix function (page 33)
- Setting the Audio options (page 33)
- Manual speaker setup (page 36)

Chapter 1:
Controls and displays

Remote control



1 ⏻ STANDBY/ON
Switches the receiver between standby and on.

2 Input function buttons
Use to select the input source to this receiver (page 21). This will enable you to control other Pioneer components with the remote control.

- Switch to one of the underlined devices to use the remote control to operate that device. As for operating other devices, the remote control codes for the Pioneer products are preset. The settings cannot be changed.

3 RECEIVER
Switches the remote to control the receiver. Also use this button to set up surround sound (page 36) or Audio parameters (page 33).

4 Receiver control buttons

Press **RECEIVER** first to access:

SLEEP – Press to change the amount of time before the receiver switches into standby (**30 min – 60 min – 90 min – Off**). You can check the remaining sleep time at any time by pressing **SLEEP** once.

SP-AB – See *Switching the speaker terminal* on page 12.

DIMMER – Dims or brightens the display. The brightness can be controlled in four steps.

STATUS – Switches the display of this unit.

- The Pre Out setting and Up Mix function settings can be checked depending on the input selected.

Press **TUNER** first to access:

DISP – Press to display the preset name (page 29).

Press **BD** or **DVD** first to access:

AUDIO – Press to change the audio stream/channel of Blu-ray Disc/DVD.

DISP – Press to display information of a Blu-ray Disc/DVD.

5 Receiver and component control buttons
The following button controls can be accessed after you have selected the corresponding input function button (**BD**, **DVD**, etc.).

Press **RECEIVER** first to access:

TOOLS – Use to access the Audio options (page 33).

HOME MENU – Press to access the Home Menu (page 36).

RETURN – Confirm and exit the current menu screen.

Press **TUNER** first to access:

TOOLS – Memorizes stations for recall, also used to change the name (page 29).

Press **BD** or **DVD** first to access:

TOP MENU – Displays the disc 'top' menu of a Blu-ray Disc/DVD.

HOME MENU – Displays the HOME MENU screen.

RETURN – Confirm and exit the current menu screen.

MENU – Displays the TOOLS menu of Blu-ray Disc player.

Press **iPod USB** first to access:

iPod CTRL – Switches between the iPod controls and the receiver controls (page 22).

6 ↑/↓/←/→, ENTER
Use the arrow buttons when setting up your surround sound system (page 36). Also used to control Blu-ray Disc/DVD menus/options.

7 Component control buttons
The main buttons (▶, ■, etc.) are used to control a component after you have selected it using the input function buttons.

The controls above these buttons can be accessed after you have selected the corresponding input function button (**BD**, **DVD** and **CD**). These buttons also function as described below.

Press **TUNER** first to access:

PTY – Use to search for RDS program types (page 30).

BAND – Switches between AM, FM ST (stereo) and FM MONO radio bands (page 29).

TUNE +/– – Use to find radio frequencies.

PRESET +/– – Use to select preset radio stations.

8 ECO
Press to select Ecology mode (page 32).

9 S.RTRV
Press to restore CD quality sound to compressed audio sources (page 33).

10 Listening mode buttons

AUTO/DIRECT – Switches between Auto surround mode (page 31) and Stream Direct playback (page 32).

ALC/STANDARD – Press for standard decoding and to switch between the modes of DD Pro Logic II, DD Pro Logic IIx, DD Pro Logic IIz and NEO:6, and the Auto level control stereo mode (page 31).

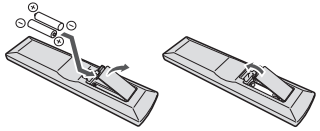
ADV SURR – Switches between the various surround modes (page 32).

SOUND WING – Press to select Sound wing mode (page 31).

11 VOL +/–
Use to set the listening volume.

12 MUTE
Mutes/unmutes the sound.

Loading the batteries



The batteries included with the unit are to check initial operations; they may not last over a long period. We recommend using alkaline batteries that have a longer life.

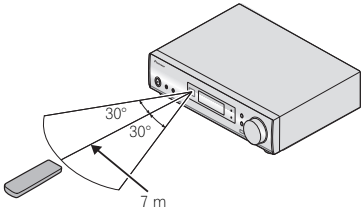
⚠ CAUTION

- Incorrect use of batteries may result in such hazards as leakage and bursting. Observe the following precautions:
  - Never use new and old batteries together.
  - Insert the plus and minus sides of the batteries properly according to the marks in the battery case.
  - Batteries with the same shape may have different voltages. Do not use different batteries together.
  - When disposing of used batteries, please comply with governmental regulations or environmental public institution's rules that apply in your country or area..
  - Do not use or store batteries in direct sunlight or other excessively hot place, such as inside a car or near a heater. This can cause batteries to leak, overheat, explode or catch fire. It can also reduce the life or performance of batteries.

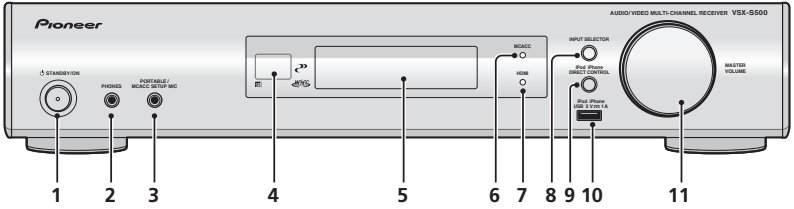
Operating range of remote control

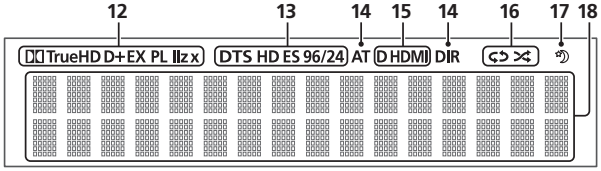
The remote control may not work properly if:

- There are obstacles between the remote control and the receiver's remote sensor.
- Direct sunlight or fluorescent light is shining onto the remote sensor.
- The receiver is located near a device that is emitting infrared rays.
- The receiver is operated simultaneously with another infrared remote control unit.



Front panel





1 ⏻ STANDBY/ON

2 PHONES jack
Use to connect headphones. When the headphones are connected, there is no sound output from the speakers. The listening mode when the sound is heard from the headphone can be selected only from **PHONES SURR**, **STEREO** or **STEREO ALC** mode (**S.R AIR** mode can be also selected with **ADAPTER** input).

3 PORTABLE/MCACC SETUP MIC jack
Use to connect an auxiliary component using a stereo mini-jack cable (page 18) or connect a microphone when performing Auto MCACC setup (page 19).

4 Remote sensor
Receives the signals from the remote control (see *Operating range of remote control* on page 7).

5 Character display
See *Display* below.

6 MCACC indicator
Lights when Acoustic Calibration EQ (page 34) is on (Acoustic Calibration EQ is automatically set to on after the Auto MCACC setup (page 19)).

7 HDMI indicator
Blinks when connecting an HDMI-equipped component; lights when the component is connected (page 14).

8 INPUT SELECTOR
Selects an input source (page 21).

9 iPod iPhone DIRECT CONTROL
Change the receiver's input to the **iPod** and enable iPod operations on the iPod (page 22).

10 iPod iPhone USB terminal
Use to connect your Apple iPod or USB mass storage device as an audio source (page 17).

11 MASTER VOLUME dial

Display

12 Dolby Digital indicators

D – Lights when a Dolby Digital encoded signal is detected.

TrueHD – Lights when a source with Dolby TrueHD encoded audio signals is detected.

D+ – Lights when a source with Dolby Digital Plus encoded audio signals is detected.

EX – Lights to indicate Dolby Digital EX decoding.

PLII(x/z) – Lights to indicate Pro Logic II/Pro Logic IIx or Pro Logic IIz decoding (see *Listening in surround sound* on page 31 for more on this).

13 DTS indicators

DTS – Lights when a source with DTS encoded audio signals is detected.

HD – Lights when a source with DTS-EXPRESS or DTS-HD encoded audio signals is detected.

ES – Lights to indicate DTS-ES decoding.

96/24 – Lights when a source with DTS 96/24 encoded audio signals is detected.

14 Listening mode indicators

AT – Lights when the Auto Surround feature is switched on (page 31).

DIR – Lights when the **DIRECT** or **PURE DIRECT** mode is switched on (page 32).

15 Audio signal indicators

D – Lights when a digital audio input is selected. Blinks when a digital audio input is selected and selected audio input is not provided.

HDMI – Lights when an HDMI input is selected. Blinks when an HDMI input is selected and selected HDMI signal is not provided.

16 iPod indicators

– Lights during repeat play.

– Lights during shuffle play.

17 Sleep timer ( ) indicator
Lights when the receiver is in sleep mode (page 6).

18 Character display
Displays various system information, the preset number of the tuner or the input signal type, etc.

Chapter 2:

Connecting your equipment

Determining the speakers' application

This unit permits you to build various surround systems, in accordance with the number of speakers you have.

- Be sure to connect speakers to the front left and right channels (**L** and **R**).

Choose one from Plans **[A]** to **[D]** below.

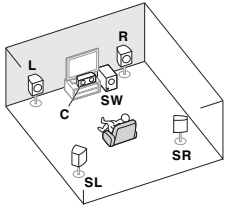
Important

- The Speaker System setting must be made if you use any of the connections shown below other than **[A]** (see *Speaker System* on page 36).
- The Pioneer S-SLW500 passive subwoofer can only be connected using plans **[A]** and **[B]**. When connecting speakers using Plans **[C]** or **[D]**, be sure to use a model with a built-in amp and connect to the PREOUT SUBWOOFER terminal.

[A] 5.1 channel surround system

**Default setting*

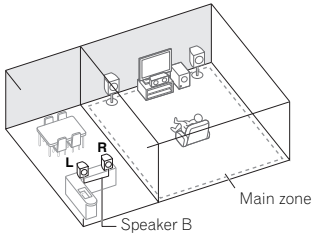
- Speaker System setting: **Normal**



A 5.1 ch surround system connects the left and right front speakers (**L**/**R**), the center speaker (**C**), the left and right surround speakers (**SL**/**SR**), and the subwoofer (**SW**).

[B] 3.1 channel surround system & Speaker B connection

- Speaker System setting: **Speaker B**

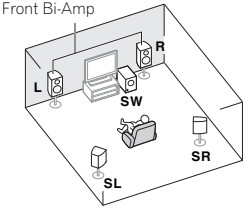


With these connections you can simultaneously enjoy 3.1-channel surround sound in the main zone with stereo playback of the same sound on the B speakers.

- When using the B speakers, main zone sound will only be output from the front speakers, the center speaker and the subwoofer.
- Speaker B does not allow for subwoofer connection. Please use full-range speakers.

[C] 4.1 channel surround system & Front Bi-amping connection (High quality surround)

- Speaker System setting: **Bi-Amp**

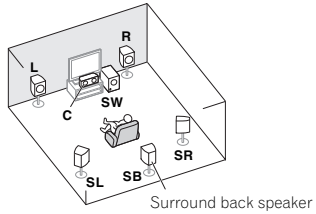


Bi-amping connection of the front speakers for high sound quality with 4.1-channel surround sound.

- When using the Front Bi-amping connection, sound will only be output from the front speakers, the surround speakers and the subwoofer.

[D] 6.1 channel surround system (Surround Back)

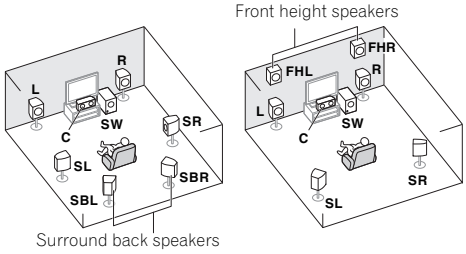
- Speaker System setting: **SB Single**



Adding a surround back (**SB**) speaker to Plan **[A]** improves the surround-sound effect from the rear. When connecting a subwoofer in this way, please make sure to use one with a built-in amp.

Add surround back or front height speakers

Adding surround back speakers (**SBL**/**SBR**) or front height speakers (**FHL**/**FHR**) to Plans **[A]** or **[C]** enables playback at up to 7.1 ch (plan **[C]** allows for up to 6.1 ch only).



Important

- **To connect the surround back or front height speakers, an additional amplifier is required.** Connect the additional amplifier to the **PRE OUT SURR BACK/ FRONT HEIGHT** outputs of this unit and connect the surround back or front height speakers to the additional amplifier (see *Connect the surround back or front height speakers* on page 12).

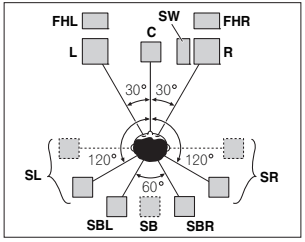
Some tips for improving sound quality

Important

- Speakers such as S-HV500-LR and S-HV600B may have specific installation methods. For more details, refer to the operating instructions supplied with speaker.

Where you put your speakers in the room has a big effect on the quality of the sound. The following guidelines should help you to get the best sound from your system.

- It is best to angle the speakers towards the listening position. The angle depends on the size of the room. Use less of an angle for bigger rooms.
- Refer to the chart below for placement of speakers you intend to connect.



  - Place the surround speakers at 120º from the center. If you, (1) use the surround back speaker, and, (2) don't use the front height speakers, we recommend placing the surround speaker right beside you.
  - If you intend to connect only one surround back speakers, place it directly behind you.
  - If the surround speakers cannot be set directly to the side of the listening position with a 7.1-channel system, the surround effect can be enhanced by turning off the Up Mix function (see *Setting the Up Mix function* on page 33).
- For the best stereo effect, place the front speakers 2 m to 3 m apart, at equal distance from the TV.
- If you're using a center speaker, place the front speakers at a wider angle. If not, place them at a narrower angle.
- Place the center speaker above or below the TV so that the sound of the center channel is localized at the TV screen. Also, make sure the center speaker does not cross the line formed by the leading edge of the front left and right speakers.
- Surround and surround back speakers should be positioned 60 cm to 90 cm higher than your ears and titled slight downward. Make sure the speakers don't face each other. For DVD-Audio, the speakers should be more directly behind the listener than for home theater playback.
- Try not to place the surround speakers farther away from the listening position than the front and center speakers. Doing so can weaken the surround sound effect.
- Place the left and right front height speakers at least one meter directly above the left and right front speakers.
- If you're going to place speakers around your CRT TV, use shielded speakers or place the speakers at a sufficient distance from your CRT TV.
- The subwoofer can be placed on the floor. Ideally, the other speakers should be at about ear-level when you're listening to them. Putting the speakers on the floor (except the subwoofer), or mounting them very high on a wall is not recommended.
- When not connecting a subwoofer, connect speakers with low frequency reproduction capabilities to the front channel. (The subwoofer's low frequency component is played from the front speakers, so the speakers could be damaged.)
- **After connecting, be sure to conduct the Auto MCACC (speaker environment setting) procedure.** See *Automatically setting up for surround sound (MCACC)* on page 19.

CAUTION

- Make sure that all speakers are securely installed. This not only improves sound quality, but also reduces the risk of damage or injury resulting from speakers being knocked over or falling in the event of external shocks such as earthquakes.

Connecting the speakers

The receiver will work with just two stereo speakers (the front speakers in the diagram) but using at least three speakers is recommended, and a complete setup is best for surround sound.

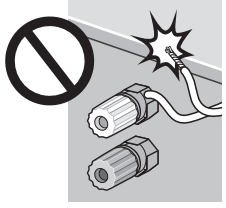
Make sure you connect the speaker on the right to the right (**R**) terminal and the speaker on the left to the left (**L**) terminal. Also make sure the positive and negative (**+**/**–**) terminals on the receiver match those on the speakers.

You can use speakers with a normal impedance between 4 Ω and 16 Ω.

Be sure to complete all connections before connecting this unit to the AC power source.

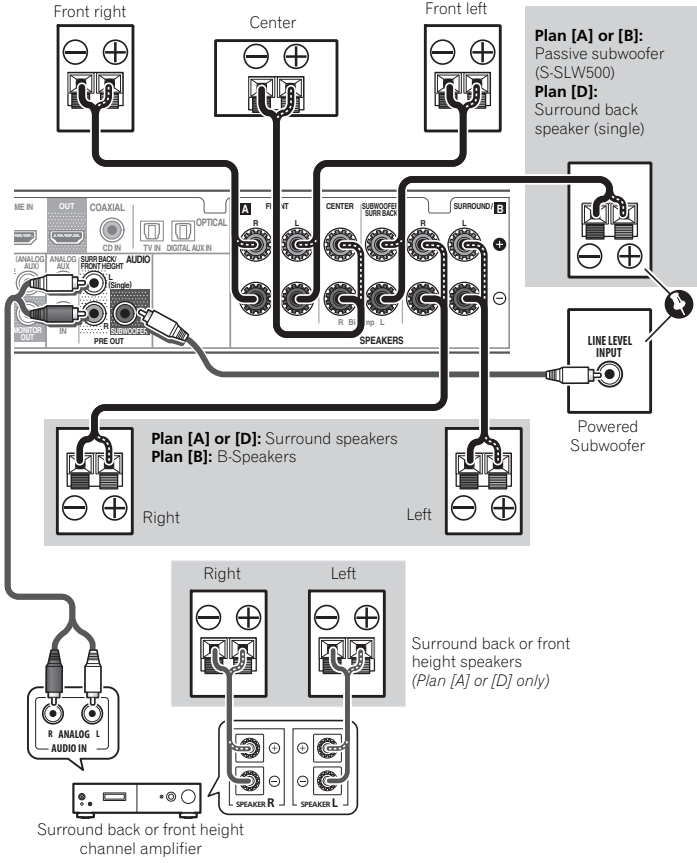
CAUTION

- These speaker terminals carry **HAZARDOUS LIVE voltage**. To prevent the risk of electric shock when connecting or disconnecting the speaker cables, disconnect the power cord before touching any uninsulated parts.
- Make sure that all the bare speaker wire is twisted together and inserted fully into the speaker terminal. If any of the bare speaker wire touches the back panel it may cause the power to cut off as a safety measure.
- Do not allow the speaker cable core to come into contact with the receiver body.

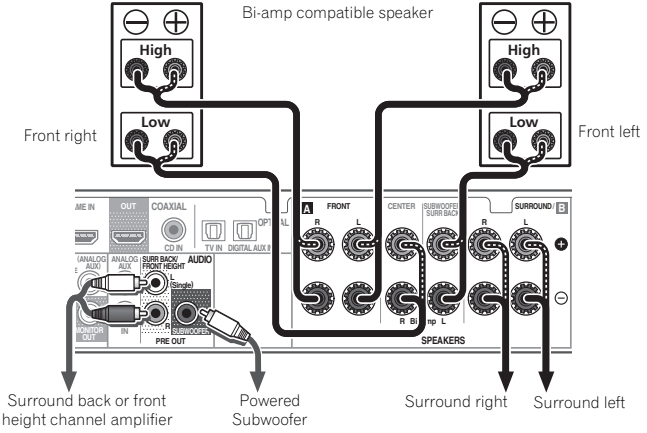


  - If the speaker cable core comes into contact with any metal portion of the receiver's body, it may damage the speakers and cause smoke and fire.
    Insert speaker cables securely into the terminals and check that the cable does not come out of easily.

Standard surround connection (Plan [A], [B] or [D])

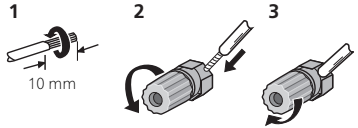


Front Bi-Amp connection (Plan [C])



Bare wire connections

1. **Twist exposed wire strands together.**
2. **Loosen terminal and insert exposed wire.**
3. **Tighten terminal.**



Important

- SPEAKERS SUBWOOFER terminals are Pioneer's passive subwoofer S-SLW500 connection terminals. If using another model of subwoofer, be sure to use a model with built-in amp and connect to the PREOUT SUBWOOFER terminal.
- Please connect either passive or powered subwoofers, as connecting both makes it impossible to achieve the correct sound effect.

Connect the surround back or front height speakers

Connect the **PRE OUT SURR BACK/FRONT HEIGHT** outputs of the unit and additional amplifier to add a surround back or front height speaker.

- The Pre Out setting must be set if the above connections are performed. Select **Surr.Back** if the surround back speaker is connected and **Height** if the front height speaker is connected (If neither the surround back speaker nor the front height speaker is connected, either setting will suffice) (see *The Pre Out Setting* on page 39).
- You can use the additional amplifier on the surround back channel pre-outs for a single speaker as well. In this case plug the amplifier into the left (**L (Single)**) terminal only.

Switching the speaker terminal

Three speaker system settings are possible.

● **Use SP-AB button to select a speaker terminal setting.**

Press repeatedly to choose a speaker terminal option:

- **SP:A ON** – Sound is output from the speakers connected to the A-speaker terminals and **PRE OUT SURR BACK/ FRONT HEIGHT** (multichannel playback is possible).
- **SP:B ON** – Sound is output from the two speakers connected to the B-speaker terminals (only stereo playback is possible).
- **SP:A+B ON** – Sound is output from the A-speaker terminals, the two speakers in the B-speaker terminals, and the subwoofer. Multichannel sources are downmixed only when the **STEREO** or **STEREO ALC** mode is selected for stereo output from A- and B-speaker terminals.
- **SP: OFF** – No sound is output from the speakers.

Note

- **SP:B ON** and **SP:A+B ON** can only be selected when the Speaker System is set to **Speaker B** (see *Speaker System* on page 36).
- The subwoofer output depends on the settings you made in *Speaker Setting* on page 37. However, if **SP:B ON** is selected above, no sound is heard from the subwoofer (the LFE channel is not downmixed).
- All speaker terminals are switched off when headphones are connected.

Making cable connections

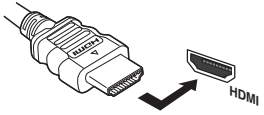
Make sure not to bend the cables over the top of this unit (as shown in the illustration). If this happens, the magnetic field produced by the transformers in this unit may cause a humming noise from the speakers.

Important

- Before making or changing connections, switch off the power and disconnect the power cord from the AC outlet.
- Before unplugging the power cord, switch the power into standby.

HDMI cables

Both video and sound signals can be transmitted simultaneously with one cable. If connecting the player and the TV via this receiver, for both connections, use HDMI cables.



Be careful to connect the terminal in the proper direction.

Note

- Set the HDMI parameter in *Setting the Audio options* on page 33 to **THROUGH**, if you want to hear HDMI audio output from your TV (no sound will be heard from this receiver).
- If the video signal does not appear on your TV, try adjusting the resolution settings on your component or display. Note that some components (such as video game units) have resolutions that may not be displayed. In this case, use a (analog) composite connection.
- When the video signal from the HDMI is 480i, 480p, 576i or 576p, Multi Ch PCM sound and HD sound cannot be received.

About HDMI

The HDMI connection transfers uncompressed digital video, as well as almost every kind of digital audio that the connected component is compatible with, including DVD-Video, DVD-Audio, SACD, Dolby Digital Plus, Dolby TrueHD, DTS-HD Master Audio (see below for limitations), Video CD/ Super VCD and CD.

This receiver incorporates High-Definition Multimedia Interface (HDMI®) technology.

This receiver supports the functions described below through HDMI connections.

- Digital transfer of uncompressed video (contents protected by HDCP (1080p/24, 1080p/60, etc.))
- 3D signal transfer
- Deep Color signal transfer
- x.v.Color signal transfer
- Audio Return Channel
- Input of multi-channel linear PCM digital audio signals (192 kHz or less) for up to 8 channels
- Input of the following digital audio formats:
  – Dolby Digital, Dolby Digital Plus, DTS, High bitrate audio (Dolby TrueHD, DTS-HD Master Audio), DVD-Audio, CD, SACD (DSD 2 ch only), Video CD, Super VCD
- Synchronized operation with components using the **Control** with HDMI function (see *Control with HDMI function* on page 41)

Note

- Use a High Speed HDMI® cable. If HDMI cable other than a High Speed HDMI® cable is used, it may not work properly.
- When an HDMI cable with a built-in equalizer is connected, it may not operate properly.
- 3D, Deep Color, x.v.Color signal transfer and Audio Return Channel are only possible when connected to a compatible component.
- HDMI format digital audio transmissions require a longer time to be recognized. Due to this, interruption in the audio may occur when switching between audio formats or beginning playback.

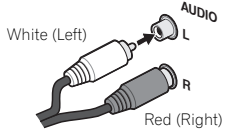
- Turning on/off the device connected to this unit's HDMI OUT terminal during playback, or disconnecting/ connecting the HDMI cable during playback, may cause noise or interrupted audio.

HDMI, the HDMI Logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing, LLC in the United States and other countries.

"x.v.Color" and **x.v.Color** *are trademarks of Sony Corporation.*

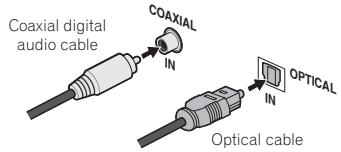
Analog audio cables

Use stereo RCA phono cables to connect analog audio components. These cables are typically red and white, and you should connect the red plugs to R (right) terminals and white plugs to L (left) terminals.



Digital audio cables

Commercially available coaxial digital audio cables or optical cables should be used to connect digital components to this receiver.

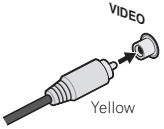


Note

- When connecting optical cables, be careful when inserting the plug not to damage the shutter protecting the optical socket.
- When storing optical cable, coil loosely. The cable may be damaged if bent around sharp corners.
- You can also use a standard RCA video cable for coaxial digital connections.

Standard RCA video cables

These cables are the most common type of video connection and are used to connect to the composite video terminals. The yellow plugs distinguish them from cables for audio.



About the video converter

The video converter ensures that all video sources are output from **HDMI OUT** terminal. The only exception is HDMI: since this resolution cannot be downsampled, you must connect your monitor/TV to the receiver's HDMI video outputs when connecting this video source.

Note

- If the video signal does not appear on your TV, try adjusting the resolution settings on your component or display. Note that some components (such as video game units) have resolutions that may not be converted. In this case, try switching Video Converter **OFF** (see *Video Converter* on page 39).

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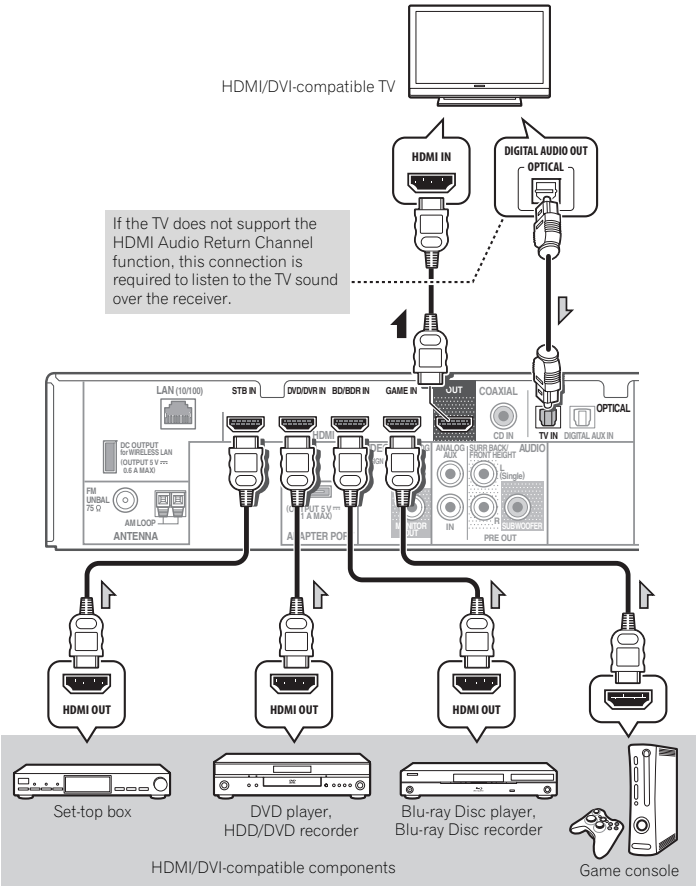
Connecting a TV and playback components

Connecting using HDMI

If you have an HDMI or DVI (with HDCP) equipped component (Blu-ray Disc player, etc.), you can connect it to this receiver using a commercially available HDMI cable.

If the TV and playback components support the **Control** with HDMI feature, the convenient **Control** with HDMI functions can be used (see *Control with HDMI function* on page 41).

- The following connection/setting is required to listen to the sound of the TV over this receiver.
  - If the TV does not support the HDMI Audio Return Channel function, connect the receiver and TV with audio cables (as shown).
  - If the TV supports the HDMI Audio Return Channel function, the sound of the TV is input to the receiver via the HDMI terminal, so there is no need to connect an audio cable. In this case, set **ARC** at **HDMI Setup** to **ON** (see *HDMI Setup* on page 41).



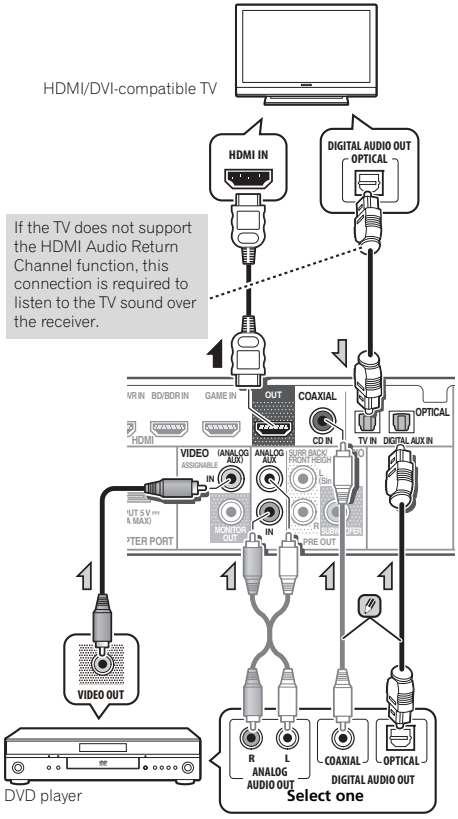
Connecting your DVD player with no HDMI output

This diagram shows connections of a TV (with HDMI input) and DVD player (or other playback component with no HDMI output) to the receiver.

- The following connection/setting is required to listen to the sound of the TV over this receiver.
  - If the TV does not support the HDMI Audio Return Channel function, connect the receiver and TV with audio cables (as shown).
  - If the TV supports the HDMI Audio Return Channel function, the sound of the TV is input to the receiver via the HDMI terminal, so there is no need to connect an audio cable. In this case, set **ARC** at **HDMI Setup** to **ON** (see *HDMI Setup* on page 41).

Note

- When using a digital cable for DVD player audio input, change the Composite Input setting to **CD** (Coaxial) or **DIGITAL AUX** (Optical) via the Input Assign menu (see *The Input Assign menu* on page 39).

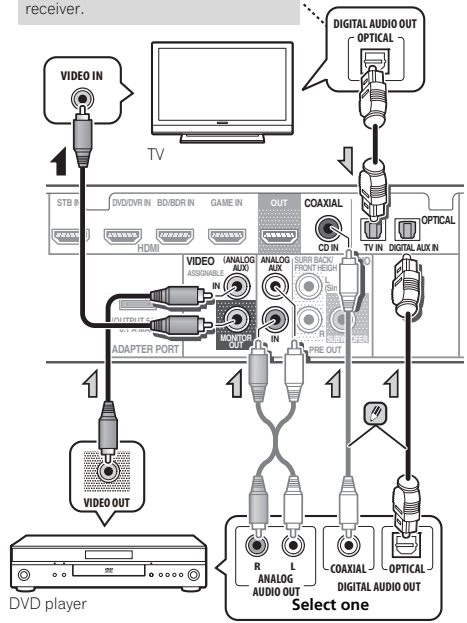


Connecting your TV with no HDMI input

This diagram shows connections of a TV (with no HDMI input) and DVD player (or other playback component) to the receiver.

Note

- When using a digital cable for DVD player audio input, change the Composite Input setting to **CD** (Coaxial) or **DIGITAL AUX** (Optical) via the Input Assign menu (see *The Input Assign menu* on page 39).



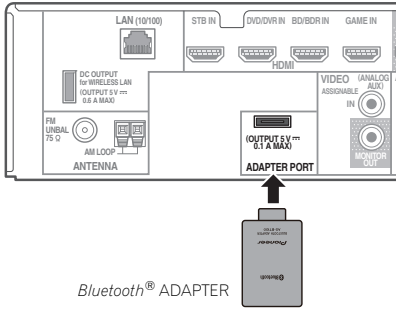
Connecting optional *Bluetooth*® ADAPTER

When the *Bluetooth* ADAPTER (Pioneer Model No. AS-BT100 or AS-BT200) is connected to this unit, a product equipped with *Bluetooth* wireless technology (portable cell phone, digital music player, etc.) can be used to listen to music wirelessly.

- **Connect a *Bluetooth* ADAPTER to the ADAPTER PORT terminal on the rear panel.**
  - For instructions on playing the *Bluetooth* wireless technology device, see *Pairing the Bluetooth ADAPTER and Bluetooth wireless technology device* on page 27.

Important

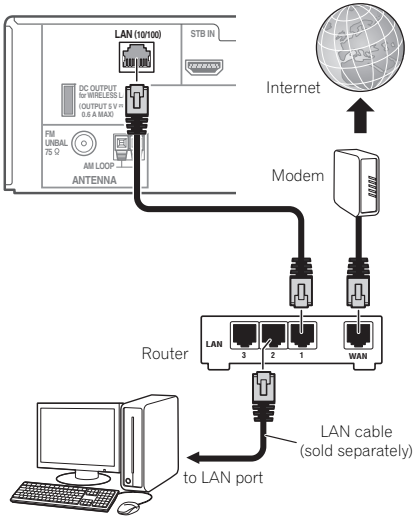
- Do not move the receiver with the *Bluetooth* ADAPTER connected. Doing so could cause damage or faulty contact.



Connecting to the network through LAN interface

By connecting this receiver to the network via the LAN terminal, you can listen to Internet radio stations. To listen to Internet radio stations, you must sign a contract with an ISP (Internet Service Provider) beforehand.

When connected in this way, you can play audio files stored on the components on the network, including your computer, using **NETWORK** inputs.



Connect the LAN terminal on this receiver to the LAN terminal on your router (with or without the built-in DHCP server function) with a straight LAN cable (CAT 5 or higher).

Turn on the DHCP server function of your router. In case your router does not have the built-in DHCP server function, it is necessary to set up the network manually. For details, see *Network setup menu* on page 25.

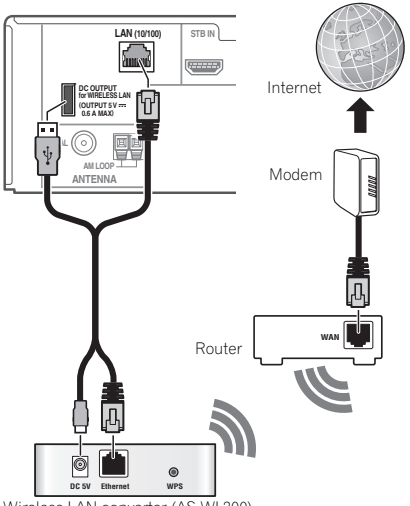
Note

- Refer to the operation manual of the equipment you have as the connected equipment and connection method may differ depending on your Internet environment.
- When using a broadband Internet connection, a contract with an Internet service provider is required. For more details, contact your nearest Internet service provider.

Connecting to a wireless LAN

Wireless connection to the network is possible through a wireless LAN connection. Use the separately sold AS-WL300 for connection.

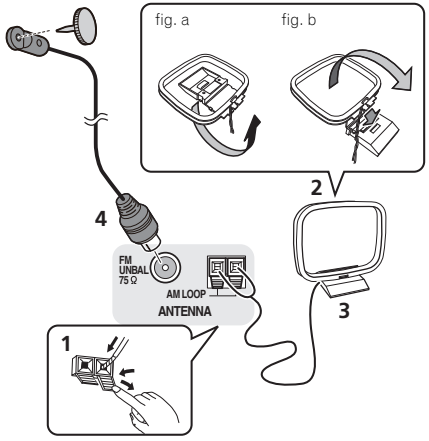
For details, refer to the operating instructions of the wireless LAN converter.



Wireless LAN converter (AS-WL300)

Connecting antennas

Connect the AM loop antenna and the FM wire antenna as shown below. To improve reception and sound quality, connect external antennas (see *Using external antennas* below).



1 Push open the tabs, then insert one wire fully into each terminal, then release the tabs to secure the AM antenna wires.

2 Fix the AM loop antenna to the attached stand.
To fix the stand to the antenna, bend in the direction indicated by the arrow (fig. a) then clip the loop onto the stand (fig. b).

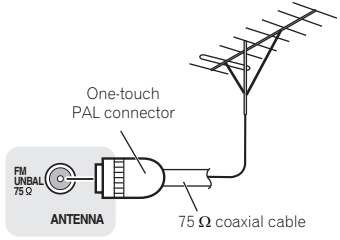
3 Place the AM antenna on a flat surface and in a direction giving the best reception.

4 Connect the FM wire antenna into the FM antenna socket.
For best results, extend the FM antenna fully and fix to a wall or door frame. Don't drape loosely or leave coiled up.

Using external antennas

To improve FM reception

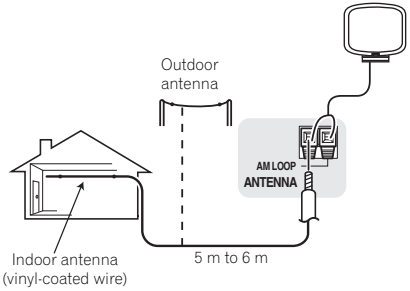
Use a PAL connector (not supplied) to connect an external FM antenna.



To improve AM reception

Connect a 5 m to 6 m length of vinyl-coated wire to the AM antenna terminal without disconnecting the supplied AM loop antenna.

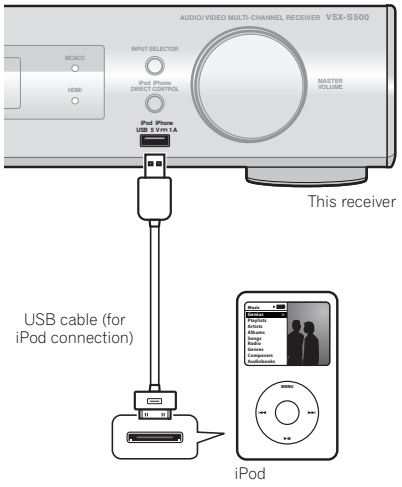
For the best possible reception, suspend horizontally outdoors.



Connecting an iPod

This receiver has a dedicated iPod terminal that will allow you to control playback of audio content from your iPod using the controls of this receiver.

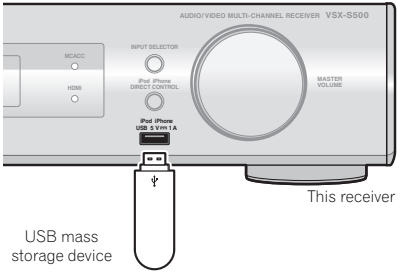
- **Switch the receiver into standby, and then use the USB cable (for iPod connection) to connect your iPod to the iPod iPhone USB terminal on the front panel of this receiver.**
  - For the cable connection, refer to also the operating instructions for iPod.
  - For instructions on playing the iPod, see *Playing an iPod* on page 22.



Connecting a USB device

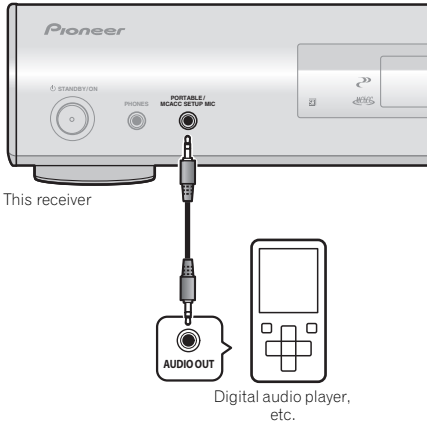
It is possible to listen to two-channel audio using the USB interface on the front of this receiver.

- **Switch the receiver into standby then connect your USB device to the USB terminal on the front panel of this receiver.**
  - This receiver does not support a USB hub.
  - For instructions on playing the USB device, see *Playing a USB device* on page 23.



Connecting to the front panel audio mini jack

Front audio connections are accessed via the front panel using the **PORTABLE** button on the remote control. Use a stereo mini-jack cable to connect a digital audio player, etc.



Plugging in the receiver

Only plug in after you have connected all your components to this receiver, including the speakers.

CAUTION

- Handle the power cord by the plug part. Do not pull out the plug by tugging the cord, and never touch the power cord when your hands are wet, as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, or other object on the power cord or pinch the cord in any other way. Never make a knot in the cord or tie it with other cables. The power cords should be routed so that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electric shock. Check the power cord once in a while. If you find it damaged, ask your nearest Pioneer authorized independent service company for a replacement.
- Do not use any power cord other than the one supplied with this unit.
- Do not use the supplied power cord for any purpose other than that described below.
- The receiver should be disconnected by removing the mains plug from the wall socket when not in regular use, e.g., when on vacation.

Note

- After this receiver is connected to an AC outlet, a 2 second to 10 second HDMI initialization process begins. You cannot carry out any operations during this process. The **HDMI** indicator in the front panel display blinks during this process, and you can turn on this receiver once it has stopped blinking. When you set the **Control** with HDMI to **OFF**, you can skip this process. For details about the **Control** with HDMI feature, see *Control with HDMI function* on page 41.

1 Plug the supplied power cord into the AC IN socket on the back of the receiver.

2 Plug the other end into a power outlet.

Chapter 3:
Basic Setup

Canceling the Auto Power Down

When this receiver is not used over a period of several hours, it will power down automatically. The automatic power-off timer is set to six hours under factory settings, and the timing can be changed or the power-off function switched off altogether. For details, see *The Auto Power Down menu* on page 40.

Canceling the demo display

The display on the front panel shows various information (demo displays) when the receiver is not operating.

You can turn off the demo display. For details, see *The FL Demo Mode menu* on page 40.

- The demo mode is canceled automatically when the Auto MCACC setup is performed (see below).

Automatically setting up for surround sound (MCACC)

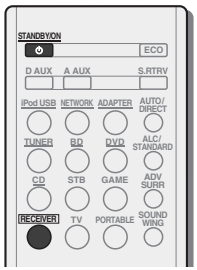
The Auto Multi-Channel Acoustic Calibration (MCACC) setup measures the acoustic characteristics of your listening area, taking into account ambient noise, speaker size and distance, and tests for both channel delay and channel level. After you have set up the microphone provided with your system, the receiver uses the information from a series of test tones to optimize the speaker settings and equalization for your particular room.

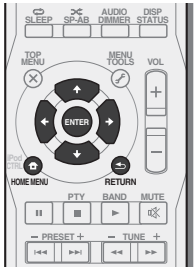
CAUTION

- The test tones used in the Auto MCACC setup are output at high volume.

Important

- When connecting a Pioneer passive subwoofer S-SLW500 or HVT speaker (S-HV500-LR, etc.), set the X.Over of this receiver to 200Hz (see *X.Over* on page 37).
- The Auto MCACC setup will overwrite any existing speaker settings you've made.
- If you connected either the surround back speaker or the front height speaker, make sure that the Pre Out setting is correctly set before performing the Auto MCACC setup (see page 39). (Here is an explanation using the OSD screen for a surround back speaker connection.)



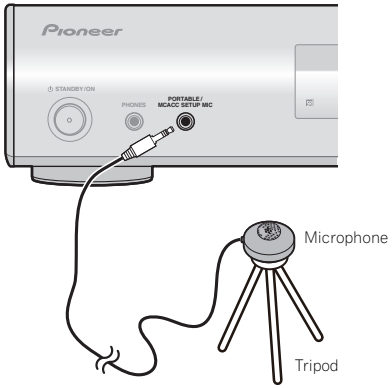


1 Switch on the receiver and your TV.

2 Switch the TV input so that it connects to the receiver.

3 Connect the microphone to the MCACC SETUP MIC jack on the front panel.

Make sure there are no obstacles between the speakers and the microphone.



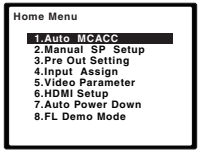
If you have a tripod, use it to place the microphone so that it's about ear level at your normal listening position. Otherwise, place the microphone at ear level using a table or a chair.

4 Press RECEIVER on the remote control, then press the HOME MENU button.

The Home Menu appears on your TV. Use ↑/↓/←/→ and **ENTER** on the remote control to navigate through the screens and select menu items. Press **RETURN** to exit the current menu.

- Press **HOME MENU** at any time to exit the Home Menu. If you cancel the Auto MCACC setup at any time, the receiver automatically exits and no settings will be made.
- The screensaver automatically starts after three minutes of inactivity.

5 Select 'Auto MCACC' from the Home Menu, then press ENTER.



- "**Mic In!**" blinks when the microphone is not connected to MCACC SETUP MIC jack.

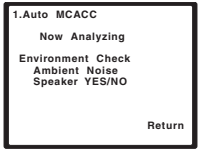
Try to be as quiet as possible after pressing **ENTER**. The system outputs a series of test tones to establish the ambient noise level.

6 Follow the instructions on-screen.

- Make sure the microphone is connected.
- When using a powered subwoofer, make sure the subwoofer is on and the volume is turned up.
- When using surround back or front height speakers, turn on the power to the amplifier to which the surround back or front height speakers are connected, and adjust the sound level to the desired level.
- See below for notes regarding background noise and other possible interference.

7 Wait for the test tones to finish.

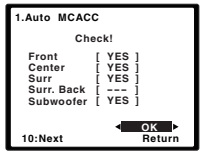
A progress report is displayed on-screen while the receiver outputs test tones to determine the speakers present in your setup. Try to be as quiet as possible while it's doing this.



- For correct speaker settings, do not adjust the volume during the test tones.

8 Confirm the speaker configuration.

The configuration shown on-screen should reflect the actual speakers you have.



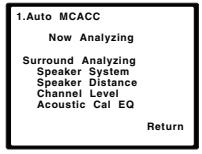
- With error messages (such as **Too much ambient noise**) select **RETRY** after checking for ambient noise (see *Other problems when using the Auto MCACC setup* below).

If the speaker configuration displayed isn't correct, use ⬆/⬇ to select the speaker and ⬅/➡ to change the setting. When you're finished, go to the next step.

If you see an error message (**ERR**) in the right side column, there may be a problem with the speaker connection. If selecting **RETRY** doesn't fix the problem, turn off the power and check the speaker connections.

9 Make sure 'OK' is selected, then press ENTER.

If the screen in step 8 is left untouched for 10 seconds and **ENTER** is not pressed in step 9, the Auto MCACC setup will start automatically as shown.



A progress report is displayed on-screen while the receiver outputs more test tones to determine the optimum receiver settings for channel level, speaker distance, and Acoustic Calibration EQ.

Again, try to be as quiet as possible while this is happening. It may take 1 to 3 minutes.

10 The Auto MCACC setup has finished! You return to the Home Menu.

The settings made in the Auto MCACC setup should give you excellent surround sound from your system, but it is also possible to adjust these settings manually using the Manual Speaker Setup (starting on page 36).

Note

- Depending on the characteristics of your room, sometimes identical speakers with cone sizes of around 12 cm will end up with different size settings. You can correct the setting manually using the *Speaker Setting* on page 37.
- The subwoofer distance setting may be farther than the actual distance from the listening position. If this is the case, perform settings manually (see *Speaker Distance* on page 38).

Other problems when using the Auto MCACC setup

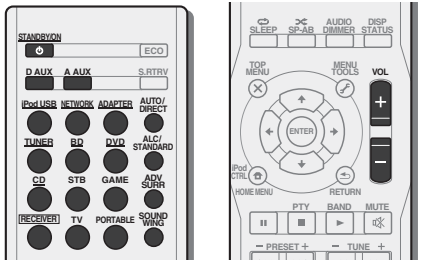
If the room environment is not optimal for the Auto MCACC setup (too much background noise, echo off the walls, obstacles blocking the speakers from the microphone) the final settings may be incorrect. Check for household appliances (air conditioner, fridge, fan, etc.), that may be affecting the environment and switch them off if necessary. If there are any instructions showing in the front panel display, please follow them.

- Some older TVs may interfere with the operation of the microphone. If this seems to be happening, switch off the TV when doing the Auto MCACC setup.

Chapter 4:
Basic playback

Playing a source

Here are the basic instructions for playing a source (such as a DVD disc) with your home theater system.



1 Switch on your system components and receiver.

Start by switching on the playback component (for example a DVD player), your TV and subwoofer (if you have one), then the receiver (press ⏻ **RECEIVER**).

- Make sure the setup microphone is disconnected.

2 Switch the TV input to the input that connects this receiver.

For example, if you connected this receiver to the **VIDEO** jacks on your TV, make sure that the **VIDEO** input is now selected.

3 Press input function buttons to select the input function you want to play.

- The input of the receiver will switch over, and you will be able to operate other components using the remote control. To operate the receiver, first press **RECEIVER** on the remote control, then press the appropriate button to operate.
- The input source can also be selected by using the front panel **INPUT SELECTOR** button. In this case, the remote control won't switch operational modes.

4 Press AUTO/DIRECT to select 'AUTO SURR' and start playback of the source.

If you're playing a Dolby Digital or DTS surround sound DVD disc, with a digital audio connection, you should hear surround sound. If you're playing a stereo source or if the connection is an analog audio connection, you will only hear sound from the front left/right speakers in the default listening mode.

It is possible to check on the front panel display whether or not surround sound playback is being performed properly.

If the display does not correspond to the input signal and listening mode, check the connections and settings.

Note

- You may need to check the digital audio output settings on your DVD player or digital satellite receiver. It should be set to output Dolby Digital, DTS and 88.2 kHz/96 kHz PCM (2 channel) audio, and if there is an MPEG audio option, set this to convert the MPEG audio to PCM.
- Depending on your DVD player or source discs, you may only get digital 2 channel stereo and analog sound. In this case, the receiver must be set to a multichannel listening mode if you want multichannel surround sound.

5 Use VOL +/– to adjust the volume level.

Turn down the volume of your TV so that all sound is coming from the speakers connected to this receiver.

- If channel levels are calibrated using Auto MCACC setup, "0 dB" represents a level roughly equivalent to the volume of a movie theater (i.e., it is loud; please be considerate of small children and neighbors when adjusting the volume.)

Note

- When digital input (optical or coaxial) is selected, this receiver can only play back Dolby Digital, PCM (32 kHz to 96 kHz) and DTS (including DTS 96 kHz/24 bit) digital signal formats. The compatible signals via the HDMI terminals are: Dolby Digital, DTS, SACD (DSD 2 ch only), PCM (32 kHz to 192 kHz sampling frequencies), Dolby TrueHD, Dolby Digital Plus, DTS-EXPRESS, DTS-HD Master Audio and DVD Audio (including 192 kHz). With other digital signal formats, chose analog input.
- You may get digital noise when a LD or CD player compatible with DTS is playing an analog signal. To prevent noise, make the proper digital connections (page 13).
- Some DVD players don't output DTS signals. For more details, refer to the instruction manual supplied with your DVD player.

Playing an iPod

This receiver has a dedicated iPod terminal that will allow you to control playback of audio content from your iPod using the controls of this receiver.

Important

- Pioneer cannot under any circumstances accept responsibility for any direct or indirect loss arising from any inconvenience or loss of recorded material resulting from the iPod failure.
- If you connect your iPod to the receiver and it doesn't work properly, switch off the receiver and reconnect the iPod to it. If this doesn't seem to work, try resetting your iPod.

Note

- This receiver is compatible with the audio of the iPod nano, iPod (fifth generation), iPod classic, iPod touch and iPhone (iPod shuffle not supported). However, that some of the functions may be restricted for some models.
- This receiver has been developed and tested for the software version of iPod/iPhone indicated on the website of Pioneer (http://pioneer.jp/homeav/support/ios/eu/).
- Installing software versions other than indicated on the website of Pioneer to your iPod/iPhone may result in incompatibility with this receiver.
- iPod and iPhone are licensed for reproduction of non-copyrighted materials or materials the user is legally permitted to reproduce.
- Features such as the equalizer cannot be controlled using this receiver, and we recommend switching the equalizer off before connecting.
- You can recharge the iPod when the power is on and during **iPod USB** function.

1 Switch on the receiver and your TV.

See *Connecting an iPod* on page 17.

2 Switch the TV input so that it connects to the receiver.

3 Press iPod USB on the remote control to switch the receiver to the iPod USB input.

The front panel display shows **Please Wait** while the receiver verifies the connection and retrieves data from the iPod.

When the display shows **Top Menu** you're ready to play music from the iPod.

- If after pressing **iPod USB** the display shows **iPod Disconnected**, try switching off the receiver and reconnecting the iPod to the receiver.
- The controls of your iPod will be inoperable when connected to this receiver.

Playing back files stored on an iPod

To navigate songs on your iPod, you can take advantage of the OSD of your TV connected to this receiver. You can also control all operations for music in the front panel display of this receiver.

- Note that non-roman characters in the title are displayed as '*'.
- This feature is not available for photos or video clips on your iPod.

Finding what you want to play

When your iPod is connected to this receiver, you can browse songs stored on your iPod by playlist, artist, album name, song name, genre or composer, similar to using your iPod directly.

1 Use ⬆/⬇ to select a category, then press ENTER to browse that category.

- To return to the previous level any time, press **RETURN**.

2 Use ⬆/⬇ to browse the selected category (e.g., albums).

- Use ⬅/➡ to move to previous/next levels.

3 Continue browsing until you arrive at what you want to play, then press ► to start playback.

Tip

- If you're in the song category, you can also press **ENTER** to start playback.

Basic playback controls

This receiver's remote control buttons can be used for basic playback of files stored on an iPod.

- Press **iPod USB** to switch the remote control to the iPod/USB operation mode.

Switches between the iPod controls and the receiver controls

This allows you to switch between performing iPod operations via the receiver remote control or on the iPod itself.

- You cannot use this function, when an iPod of fifth generation or iPod nano of first generation is connected.

● **Press iPod CTRL to switch to the iPod controls.**

- Press **iPod CTRL** again to switch back to the receiver controls when you're done.

Tip

- Change the receiver's input to the iPod in one action by pressing **iPod iPhone DIRECT CONTROL** on the front panel to enable **iPod** operations on the iPod.

Playing a USB device

It is possible to listen to two-channel audio using the USB interface on the front of this receiver.

Important

- Pioneer cannot guarantee compatibility (operation and/or bus power) with all USB mass storage devices and assumes no responsibility for any loss of data that may occur when connected to this receiver.

Note

- This includes playback of WMA/MP3/MPEG-4 AAC/WAV/FLAC files (except files with copy-protection or restricted playback). For details, see *About playable music file formats* on page 47.
- Compatible USB devices include external magnetic hard drives, portable flash memory (particularly keydrives) and digital audio players (MP3 players) of format FAT16/32. It is not possible to connect this receiver to a personal computer for USB playback.
- With large amounts of data, it may take longer for the receiver to read the contents of a USB device.
- If the file selected cannot be played back, this receiver automatically skips to the next file playable.
- When the file currently being played back has no title assigned to it, the file name is displayed in the OSD instead; when neither the album name nor the artist name is present, the row is displayed as a blank space.
- Note that non-roman characters in the playlist are displayed as '*'.
- Make sure the receiver is in standby when disconnecting the USB device.

1 Switch on the receiver and your TV.

See *Connecting a USB device* on page 18.

2 Switch the TV input so that it connects to the receiver.

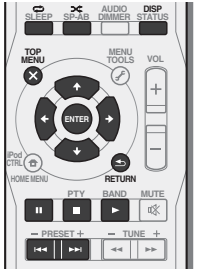
3 Press iPod USB on the remote control to switch the receiver to the iPod USB input.

Please Wait appears in the OSD as this receiver starts recognizing the USB device connected. After the recognition, a playback screen appears in the OSD and playback starts automatically.

Basic playback controls

This receiver's remote control buttons can be used for basic playback of files stored on USB devices.

- Press **iPod USB** to switch the remote control to the iPod/USB operation mode.



Important

If a **USB Error** message lights in the display, try following the points below:

- Switch the receiver off, then on again.
- Reconnect the USB device with the receiver switched off.
- Select another input source (like **BD**), then switch back to **iPod USB**.
- Use a dedicated AC adapter (supplied with the device) for USB power.

If this doesn't remedy the problem, it is likely your USB device is incompatible.

Playback with NETWORK feature

This receiver is equipped with the LAN terminal and you can enjoy the following features by connecting your components to these terminals.

- **Listening to Internet radio stations**

  You can select and listen to your favorite Internet radio station from the list of Internet radio stations created, edited, and managed by the SHOUTcast database service.

  →See *Listening to Internet radio stations* below.
- **Playback the music files stored in PCs**

  You can playback a lot of musics stored in your PCs using this unit. For details, see *About playable music file formats* on page 47.

  - Besides a PC, you can also play back audio files stored on your other components with the built-in media server function based on DLNA 1.0 or DLNA 1.5 framework and protocols (i.e. network-capable hard disks and audio systems).

  →See *Playing back audio files stored on components on the network* on page 24.

Important

- To listen to Internet radio stations, you must sign a contract with an ISP (Internet Service Provider) beforehand.
- Photo or video files cannot be played back.
- Copyrighted audio files cannot be played back on this receiver.
- When you play back audio files, '**Please Wait**' is displayed before playback starts. The display may continue for several seconds depending on the type of file.
- In case a domain is configured in a Windows network environment, you cannot access a PC on the network while you are logged onto the domain. Instead of logging onto the domain, log onto the local machine.
- There are cases where the time elapsed may not be correctly displayed.

1 Switch on the receiver and your TV.
See *Connecting to the network through LAN interface* on page 16.

2 Switch the TV input so that it connects to the receiver.

3 Press NETWORK on the remote control to switch the receiver to the NETWORK input.
It may take several seconds for this receiver to access the network. The following screen appears when the NETWORK is selected as the input function.

4 Use ↑/↓ to select the category you want to play back, and then press ENTER.
Select a category from the following list:

- **Now Playing** – Display the current status and station information.
- **Internet Radio** – Listening the SHOUTcast internet radio via network.
- **Music Library** – Playback the music files stored in PCs.
- **Favorites** – Favorite songs currently being registered.
- **Settings** – Perform NETWORK function settings.

5 Use ↑/↓ to select the folder, music files or Internet radio station to play back, and then press ENTER.
Press ↑/↓ to scroll up and down the list and select the desired item. When you press **ENTER**, playback starts with the playback screen being displayed for the selected item. To return to the list screen, press **RETURN**.
When the items are displayed over multiple pages, use ←/→ to quickly display different pages.

6 Repeat step 5 to play back the desired song.
For detailed operating instructions, refer to the section shown below.

- Internet radio stations – See *Listening to Internet radio stations* below.
- Music files stored in PCs – See *Playing back audio files stored on components on the network* on page 24.

Listening to Internet radio stations

Internet radio is an audio broadcasting service transmitted via the Internet. There are a large number of Internet radio stations broadcasting a variety of services from every corner of the world. Some are hosted, managed, and broadcast by private individuals while others are by the corresponding traditional terrestrial radio stations or radio networks. Whereas terrestrial, or OTA (over-the-air), radio stations are geographically restricted on the range of radio waves broadcast from a transmitter through the air, Internet radio stations are accessible from anywhere in the world, as long as there is a connection to the Internet, as services are not transmitted through the air but are delivered over the World Wide Web. On this receiver you can select Internet radio stations by genre as well as by region.
Depending on the Internet line conditions, the sound may not be smooth when playing Internet radio.

Note

- To listen to Internet radio stations, you must have high-speed broadband Internet access. With a 56 K or ISDN modem, you may not enjoy the full benefits of Internet radio.
- The port number varies depending on the Internet radio station. Check the firewall settings.
- Broadcasts may be stopped or interrupted depending on the Internet radio station. In this case, you cannot listen to a radio station selected from the list of Internet radio stations.

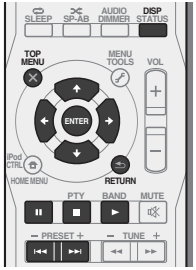
About list of Internet radio

The list of Internet radio stations on this receiver is created, edited, and managed by the SHOUTcast database service.

Playing back audio files stored on components on the network

You can perform the following operations with the remote control of this receiver. Note that some buttons are not available for operation depending on the category currently being played back.

- Press **NETWORK** to switch the remote control to the NETWORK operation mode.



Playing back your favorite songs

Registering audio files and Internet radio stations

- **While Playing back a song, press ↑/↓ to select "Add to Favor", and then press ENTER.**

The selected song is then registered in the Favorites folder.
Note that only the audio files stored on components on the network can be registered.

Playing and deleting audio files and Internet radio stations in and from the Favorites folder

1 Select 'Favorites' from the Main Menu.

2 Use ⬆/⬇ to select audio file or Internet radio station, and then press ENTER.

3 Use ⬅/➡ to select playback or delete options and then press ENTER.

► – Selected item will begin playing

✕ – Deletes selected item from Favorites folder

- Select ⮌ to undo previous operation.

Network setup menu

Setting up the network to listen to Internet radio on this receiver.

1 Select 'Settings' from the Main Menu.

2 Select the setting you want to adjust.

- **Network** – Adjust settings for the network (see *Network settings* below).
- **General** – Use to reset all network connection settings to their initial, factory-setting condition (see *General settings* below).

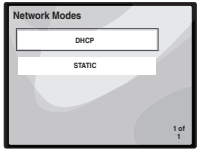
Network settings

In case the router connected to the LAN terminal on this receiver is a broadband router (with a built-in DHCP server function), simply turn on the DHCP server function, and you will not need to set up the network manually. You must set up the network as described below only when you have connected this receiver to a broadband router without a DHCP server function. Before you set up the network, consult with your ISP or the network manager for the required settings. It is advised that you also refer to the operation manual supplied with your network component.

1 Select 'Network' from the Settings menu.

2 Select 'Modes' from the Network Settings menu.

In case you make changes to the network configuration without the DHCP server function, make the corresponding changes to the network settings of this receiver.



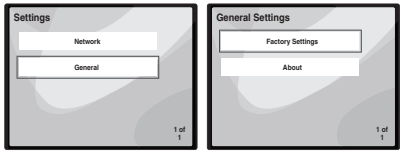
- **DHCP** *(default setting)* – Select if the server is DHCP compatible.
  - When **DHCP** is selected, connection will begin automatically. Connection is complete when network connection details are displayed. Press **ENTER** to return to the previous screen.
- **STATIC** – To connect to the server manually, follow the instructions listed below.
  - Press ⬅ to delete the immediately preceding character.
  - Press ➡ to switch between character types.
  - Press ⬆/⬇ to choose the desired character from those displayed and press **ENTER**.
  - Once input is complete, or if you wish to cancel the input operation, press ➡ until **OK**/**CANCEL** is displayed, then use ⬆/⬇ to choose either **OK** or **CANCEL** and press **ENTER**.

Note

- If **STATIC** is selected, the settings will be as follows.
  - **IP** (IP address)
    The IP address to be entered must be defined within the following ranges. If the IP address defined is beyond the following ranges, you cannot play back audio files stored on components on the network or listen to Internet radio stations.
    Class A: 10.0.0.1 to 10.255.255.254
    Class B: 172.16.0.1 to 172.31.255.254
    Class C: 192.168.0.1 to 192.168.255.254
  - **MASK** (Subnet Mask)
    In case an xDSL modem or a terminal adapter is directly connected to this receiver, enter the subnet mask provided by your ISP on paper. In most cases, enter 255.255.255.0.
  - **Gateway** (Default Gateway)
    In case a gateway (router) is connected to this receiver, enter the corresponding IP address.
  - **DNS** (DNS server)
    Enter the DNS server address you received in writing from your internet service provider.
- Select **Status** from the **Network Settings** menu to show your current network connection mode and details.

General settings

1 Select 'General' from the Settings menu.



2 Select the item you want to set up from the General Settings menu.

- **Factory Settings** – Use to reset all network connection settings to their initial, factory-setting condition.
  - When "**Warning: All Settings will be lost! Are you sure?**" is displayed, select ☑ and press **ENTER**. While the settings are being reset, the screen will display a "**Please Wait**" message. Resetting is complete once the screen returns to the Main Menu.
  - To quit the resetting, select ✕.
- **About** – Displays the MAC address of this receiver.

Network connection requirements

The NETWORK allows you to play music on media servers connected on an identical Local Area Network (LAN) as the receiver. This unit allows for the playing of files stored on the following:

- PCs running Microsoft Windows Vista or XP with Windows Media Player 11 installed
- PCs running Microsoft Windows 7 with Windows Media Player 12 installed
- DLNA-compatible digital media servers (on PCs or other components)

To play back audio files stored on components on the network or listen to Internet radio stations, you must turn on the DHCP server function of your router. In case your router does not have the built-in DHCP server function, it is necessary to set up the network manually. Otherwise, you cannot play back audio files stored on components on the network or listen to Internet radio stations. See *Network setup menu* on page 25 for more on this.

Authorizing this receiver

In order to be able to play with NETWORK, this receiver must be authorized. This happens automatically when the receiver makes a connection over the network to the PC. If not, please authorize this receiver manually on the PC. The authorization (or permission) method for access varies depending on the type of server currently being connected. For more information on authorizing this receiver, refer to the instruction manual of your server.

About network playback

The network playback function of this unit uses the following technologies:

Windows Media Player

See *Windows Media Player 11/ Windows Media Player 12* on page 27 for more on this.

DLNA

DLNA CERTIFIED™ Audio Player

The Digital Living Network Alliance (DLNA) is a cross-industry organization of consumer electronics, computing industry and mobile device companies. Digital Living provides consumers with easy sharing of digital media through a wired or wireless network in the home.

The DLNA certification logo makes it easy to find products that comply with the DLNA Interoperability Guidelines. This unit complies with DLNA Interoperability Guidelines v1.5.

When a PC running DLNA server software or other DLNA compatible device is connected to this player, some setting changes of software or other devices may be required. Please refer to the operating instructions for the software or device for more information.

Content playable over a network

- Even when encoded in a compatible format, some files may not play correctly.
- Movie or Photo files cannot be played back.
- There are cases where you cannot listen to an Internet radio station even if the station can be selected from a list of radio stations.
- Some functions may not be supported depending on the server type or version used.
- Supported file formats vary by server. As such, files not supported by your server are not displayed on this unit. For more information check with the manufacturer of your server.

About playback behavior over a network

- Playback may stall when the PC is switched off or any media files stored on it are deleted while playing content.
- If there are problems within the network environment (heavy network traffic, etc.) content may not be displayed or played properly (playback may be interrupted or stalled). For best performance, a 100BASE-TX connection between player and PC is recommended.
- If several clients are playing simultaneously, as the case may be, playback is interrupted or stalled.
- Depending on the security software installed on a connected PC and the setting of such software, network connection may be blocked.

Pioneer is not responsible for any malfunction of the player and/or the NETWORK features due to communication error/ malfunctions associated with your network connection and/ or your PC, or other connected equipment. Please contact your PC manufacturer or Internet service provider.

Glossary

aacPlus
AAC decoder uses aacPlus developed by Coding Technologies. (www.codingtechnologies.com)

FLAC
FLAC (Free Lossless Audio Codec) is an audio format allows lossless codec. Audio is compressed in FLAC without any loss in quality. For more details about FLAC, visit the following website: http://flac.sourceforge.net/

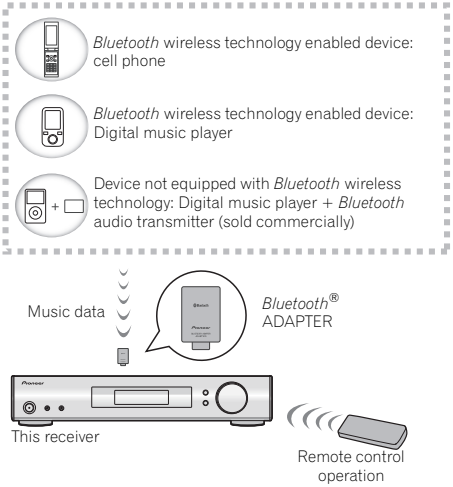
Windows Media
Windows Media is a multimedia framework for media creation and distribution for Microsoft Windows. Windows Media is either a registered trademark or trademark of Microsoft Corporation in the U.S. and/or other countries. Use an application licensed by Microsoft Corporation to author, distribute, or play Windows Media formatted content. Using an application unauthorized by Microsoft Corporation is subject to malfunction.

Windows Media Player 11/ Windows Media Player 12
Windows Media Player is software to deliver music, photos and movies from a Microsoft Windows computer to home stereo systems and TVs.
With this software, you can play back files stored on the PC through various devices wherever you like in your home.
This software can be downloaded from Microsoft's website.

- Windows Media Player 11 (for Windows XP or Windows Vista)
- Windows Media Player 12 (for Windows 7)

For more information check the official Microsoft website.

Bluetooth® ADAPTER for Wireless Enjoyment of Music



Wireless music play

When the *Bluetooth* ADAPTER (Pioneer Model No. AS-BT100 or AS-BT200) is connected to this unit, a product equipped with *Bluetooth* wireless technology (portable cell phone, digital music player, etc.) can be used to listen to music wirelessly. Also, by using a commercially available transmitter supporting *Bluetooth* wireless technology, you can listen to music on a device not equipped with *Bluetooth* wireless technology. The AS-BT100 and AS-BT200 model supports SCMS-T contents protection, so music can also be enjoyed on devices equipped with SCMS-T type *Bluetooth* wireless technology.

- It must be necessary that the *Bluetooth* wireless technology enabled device supports A2DP profiles.

Important

- Pioneer does not guarantee proper connection and operation of this unit with all *Bluetooth* wireless technology enabled devices.

Remote control operation

The remote control supplied with this unit allows you to play and stop media, and perform other operations.

- It must be necessary that the *Bluetooth* wireless technology enabled device supports AVRCP profiles.
- Remote control operations cannot be guaranteed for all *Bluetooth* wireless technology enabled devices.

Pairing the *Bluetooth* ADAPTER and *Bluetooth* wireless technology device

"Pairing" must be done before you start playback of *Bluetooth* wireless technology content using *Bluetooth* ADAPTER. Make sure to perform pairing first time you operate the system or any time pairing data is cleared. "Pairing" is the step necessary to register *Bluetooth* wireless technology device to enable *Bluetooth* communications. For more details, see also the operating instructions of your *Bluetooth* wireless technology device.

- Pairing is required when you first use *Bluetooth* wireless technology device and *Bluetooth* ADAPTER.
- To enable *Bluetooth* communication, pairing should be done with both of your system and *Bluetooth* wireless technology device.
- If the *Bluetooth* wireless technology device's security code is "0000", there is no need to make the security code setting on the receiver. Press **ADAPTER** to switch the **ADAPTER** input, then conduct the pairing operation on the *Bluetooth* wireless technology device. If pairing is successful, there is no need to performing the pairing operation below.
- When using the AS-BT200 only: If the *Bluetooth* wireless technology device supports SSP (Secure Simple Pairing), there is no need to make the security code setting. Press **ADAPTER** to switch the **ADAPTER** input, then conduct the pairing operation on the *Bluetooth* wireless technology device. If pairing is successful, there is no need to performing the pairing operation below.

1 Press TOP MENU.

2 Press ENTER to enter PAIRING.

3 Select the PIN code to be used from 0000/1234/8888 using ←/→, then press ENTER.
PAIRING blinks.

- You can use any of 0000/1234/8888 PIN codes. *Bluetooth* wireless technology device using any other PIN code cannot be used with this system.

4 Switch on the *Bluetooth* wireless technology device that you want to make pairing, place it near the system and set it into the pairing mode.

5 Check to see that the *Bluetooth* ADAPTER is detected by the *Bluetooth* wireless technology device.
When Bluetooth wireless technology device is connected:
Bluetooth wireless technology device name appears in the receiver display.

- The system can display alphanumeric characters only. Other characters may not be displayed correctly.

When Bluetooth wireless technology device is not connected:
NO DEVICE appears in the receiver display. In this case, perform the connection operation from the side of the *Bluetooth* wireless technology device.

6 From the *Bluetooth* wireless technology device list, select *Bluetooth* ADAPTER and enter the PIN code selected in the step 4.

- PIN code may in some case be referred to as PASSKEY.

Listening to Music Contents of *Bluetooth* wireless technology device with Your System

1 Press ADAPTER to switch the receiver to ADAPTER input.

2 Perform the connection operation from the side of the *Bluetooth* wireless technology device to the *Bluetooth* ADAPTER.

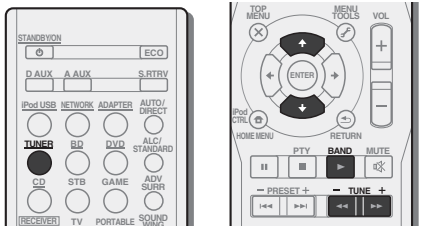
- When the *Bluetooth* ADAPTER is not plugged into the **ADAPTER PORT** terminal, **NO ADAPTER** will be displayed if **ADAPTER** input is selected.

3 Start playback of music contents stored in *Bluetooth* wireless technology device.
This receiver's remote control buttons can be used for basic playback of files stored on the *Bluetooth* wireless technology device.

- *Bluetooth* wireless technology device should be compatible with AVRCP profile.
- Depending on *Bluetooth* wireless technology device you use, operation may differ from what is shown in the remote control buttons.

Listening to the radio

The following steps show you how to tune in to FM and AM radio broadcasts using the automatic (search) and manual (step) tuning functions. Once you are tuned to a station you can memorize the frequency for recall later—see *Saving station presets* below for more on how to do this.



1 Press TUNER to select the tuner.

2 Use BAND to change the band (FM or AM), if necessary.
Each press switches the band between FM (stereo or mono) and AM.

3 Tune to a station.
There are three ways to do this:

Automatic tuning
To search for stations in the currently selected band, press and hold **TUNE +/–** (or ↑/↓) for about a second. The receiver will start searching for the next station, stopping when it has found one. Repeat to search for other stations.

Manual tuning
To change the frequency one step at a time, press **TUNE +/–** (or ↑/↓).

High speed tuning
Press and hold **TUNE +/–** (or ↑/↓) for high speed tuning. Release the button at the frequency you want.

▼ – Lights when a normal broadcast channel.
▼ – Lights when a stereo FM broadcast is being received in auto stereo mode.

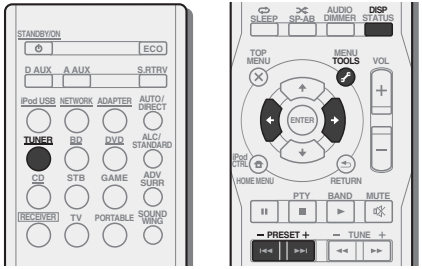
Improving FM sound

If the ▼ or ▼ indicators don't light when tuning to an FM station because the signal is weak, set the receiver to the mono reception mode.

● **Press BAND to select FM MONO.**
This should improve the sound quality and allow you to enjoy the broadcast.

Saving station presets

If you often listen to a particular radio station, it's convenient to have the receiver store the frequency for easy recall whenever you want to listen to that station. This saves the effort of manually tuning in each time. This unit can memorize up to 30 stations.



1 Tune to a station you want to memorize.
See *Listening to the radio* above for more on this.

2 Press TOOLS.
The preset number is blinking.

3 Press PRESET +/– (or ←/→) to select the station preset you want.

4 Press ENTER.
The preset number stop blinking and the receiver stores the station.

Note

- If the receiver is left disconnected from the AC power outlet for over a month, the station memories will be lost and will have to be reprogrammed.
- Stations are stored in stereo. When the station is stored in the FM MONO mode, it shows as ▼ when recalled.

Listening to station presets

You will need to have some presets stored to do this. See *Saving station presets* above if you haven't done this already.

● **Press PRESET +/– (or ←/→) to select the station preset you want.**

Naming preset stations

For easier identification, you can name all of your preset stations.

1 Choose the station preset you want to name.
See *Listening to station presets* above for how to do this.

2 Press TOOLS twice.
The cursor at the first character position is blinking on the display.

3 Input the name you want.
Choose a name up to eight characters long.

- Use **PRESET +/–** (or ←/→) to select character position.
- Use **TUNE +/–** (or ↑/↓) to select characters.
- The name is stored when **ENTER** is pressed.

Tip

- To erase a station name, follow steps 1 and 2, and press **ENTER** while the display is blank. Press **TOOLS** while the display is blank, to keep the previous name.
- Once you have named a station preset, Press **DISP** to show the name. When you want to return to the frequency display, press **DISP** several times to show the frequency.

An introduction to RDS

Radio Data System (RDS) is a system used by most FM radio stations to provide listeners with various kinds of information—the name of the station and the kind of show they're broadcasting, for example.

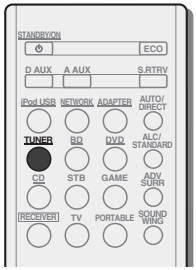
One feature of RDS is that you can search by type of program. For example, you can search for a station that's broadcasting a show with the program type, **JAZZ**.

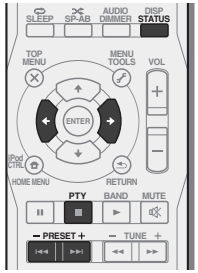
You can search the following program types:

NEWS – News
AFFAIRS – Current Affairs
INFO – General Information
SPORT – Sport
EDUCATE – Educational
DRAMA – Radio plays, etc.
CULTURE – National or regional culture, theater, etc.
SCIENCE – Science and technology
VARIED – Usually talk-based material, such as quiz shows or interviews.
POP M – Pop music
ROCK M – Rock music
EASY M – Easy listening
LIGHT M – 'Light' classical music
CLASSICS – 'Serious' classical music
OTHER M – Music not fitting above categories
WEATHER – Weather reports
FINANCE – Stock market reports, commerce, trading, etc.
CHILDREN – Programs for children
SOCIAL – Social affairs
RELIGION – Programs concerning religion
PHONE IN – Public expressing their views by phone
TRAVEL – Holiday-type travel rather than traffic announcements
LEISURE – Leisure interests and hobbies
JAZZ – Jazz
COUNTRY – Country music
NATION M – Popular music in a language other than English
OLDIES – Popular music from the '50s and '60s
FOLK M – Folk music
DOCUMENT – Documentary

Note

- In addition, there are three other program types, **ALARM**, **ALARMTST**, and **NO TYPE**. **ALARM** and **ALARMTST** are used for emergency announcements. **NO TYPE** appears when a program type cannot be found.





Searching for RDS programs

You can search for a program type listed above.

1 Press TUNER then press BAND to select the FM band.

- RDS is only possible in the FM band.

2 Press PTY.

SEARCH shows in the display.

3 Press PRESET +/– (or ⬅/➡) to select the program type you want to hear.

4 Press ENTER to search for the program type.

The system starts searching through the station presets for a match, stopping when it was found one. Repeat to search for other stations.

If **NO PTY** is displayed it means the tuner couldn't find that program type at the time of the search.

- RDS searches station presets only. If no stations have been preset, or if the program type could not be found among the station presets **NO PTY** is displayed. **FINISH** means the search is complete.

Displaying RDS information

Use the DISP button to display the different types of RDS information available.

- **Press DISP for RDS information.**

Each press changes the display as follows:

- Listening mode
- Master volume
- Radio Text (**RT**) – Messages sent by the radio station. For example, a talk radio station may provide a phone number as RT.
- Program Service Name (**PS**) – The name of the radio station.
- Program Type (**PTY**) – This indicates the kind of program currently being broadcast.
- Current tuner frequency (**FREQ**)

Note

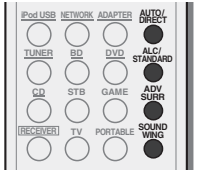
- If any noise is picked up while displaying the RT scroll, some characters may be displayed incorrectly.
- If you see **NO TEXT** in the RT display, it means no RT data is sent from the broadcast station. The display will automatically switch to the PS data display (if no PS data, **NO NAME** is displayed).
- In the PTY display, **NO PTY** may be shown.

Chapter 5:
Listening to your system

Choosing the listening mode

This receiver offers a variety of listening modes to accommodate playback of various audio formats. Choose one according to your speaker environment or the source.

● **While listening to a source, press the listening mode button repeatedly to select a listening mode you want.**



- The listening mode is shown on the display on the front panel.

Important

- The listening modes and many features described in this section may not be available depending on the current source, settings and status of the receiver.

Auto playback AUTO/ DIRECT

The simplest, most direct listening option is the **AUTO SURR** feature. With this, the receiver automatically detects what kind of source you're playing and selects multichannel or stereo playback as necessary.

- Press **AUTO/DIRECT** repeatedly until **AUTO SURR** shows briefly in the display (it will then show the decoding or playback format). Check the digital format indicators in the display to see how the source is being processed.

Note

- Stereo surround (matrix) formats are decoded accordingly using **NEO:6 CINEMA** or **DD PLIIx MOVIE** (see *Listening in surround sound* below for more on these decoding formats).
- When listening to the **ADAPTER** input, the **S.R AIR** feature is selected automatically (see *Using the Advanced surround* on page 32 for more on this).

Listening in surround sound ALC/ STANDARD

Using this receiver, you can listen to any source in surround sound. However, the options available will depend on your speaker setup and the type of source you're listening to.

- If the source is Dolby Digital, DTS, or Dolby Surround encoded, the proper decoding format will automatically be selected and shows in the display.

When you select **STEREO ALC** (Auto Level Control stereo mode), this unit equalizes playback sound levels if each sound level varies with the music source recorded in a portable audio player.

When you select **STEREO**, you will hear the source through just the front left and right speakers (and possibly your subwoofer depending on your speaker settings). Dolby Digital and DTS multichannel sources are downmixed to stereo.

The following modes provide basic surround sound for stereo and multichannel sources.

Explanatory notes

No: *No connected* / Yes: *Connected* / Two: *Two speakers are connected* / –: *Whether connected or no*

Type of surround modes	Suitable sources	Surround back speaker(s)	Front height speakers
Two channel sources			
STEREO ALC	See above.	–	–
DD PRO LOGIC	Old movies	–	–
DD PLIIx MOVIE	Movie	Yes[a]	No
DD PLII MOVIE		No	–
DD PLIIx MUSIC[b]	Music	Yes[a]	No
DD PLII MUSIC[b]		No	–
DD PLIIx GAME	Video games	Yes[a]	No
DD PLII GAME		No	–
DD PLIIz HEIGHT[c]	Movie/Music	No	Yes
Straight Decode[d]	No additional effects	No	–
NEO:6 CINEMA[e]	Movie	–	–
NEO:6 MUSIC[e]	Music	–	–
STEREO[f]	See above.	–	–
Multichannel sources			
STEREO ALC	See above.	–	–
DD PLIIx MOVIE	Movie	Two[a]	No
DD PLII MOVIE		No	–
DD PLIIx MUSIC[b]	Music	Two[a]	No
DD PLII MUSIC[b]		No	–
DD DIGITAL EX	Movie/Music	Yes	No
DD PLIIz HEIGHT	Movie/Music	No	Yes
Straight Decode[d]	No additional effects	–	–
DTS-ES	Movie/Music	Yes	No
DTS NEO:6	Movie/Music	Yes	No
STEREO[f]	See above.	–	–

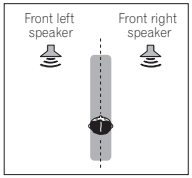
a. If surround back channel processing (page 34) is switched off, or the surround back speakers are set to **NO**, **PLIIx** becomes **PLII** (5.1 channel sound).
b. You can also adjust the **CENTER WIDTH**, **DIMENSION**, and **PANORAMA** effect (see *Setting the Audio options* on page 33).
c. You can also adjust the **HEIGHT GAIN** effect (see *Setting the Audio options* on page 33).
d. Cannot be selected when the **Pre Out** is set to **Surr. Back** (see *The Pre Out Setting* on page 39).
e. You can also adjust the **CENTER IMAGE** effect (see *Setting the Audio options* on page 33).
f. The audio is heard with your surround settings and you can still use the Midnight, Loudness, Phase Control, Sound Retriever and Tone functions.

Note

- In modes that give 6.1 channel sound, the same signal is heard from both surround back speakers.

Using the Advanced surround ADV SURR

The Advanced surround feature creates a variety of surround effects. Try different modes with various soundtracks to see which you like.

ACTION	Designed for action movies with dynamic soundtracks.
DRAMA	Designed for movies with lots of dialog.
ENT.SHOW	Suitable for musical sources.
ADV GAME	Suitable for video games.
SPORTS	Suitable for sports programs.
CLASSICAL	Gives a large concert hall-type sound
ROCK/POP	Creates a live concert sound for rock and/or pop music.
UNPLUGGED	Suitable for acoustic music sources.
EXT.STEREO	Gives multichannel sound to a stereo source, using all of your speakers
FSS ADVANCE (Front Stage Surround ADVANCE)	Allows you to create natural surround sound effects using just the front speakers and the subwoofer. Use to provide a rich surround sound effect directed to the center of where the front left and right speakers sound projection area converges. 
SOUND WING	HVT speakers make it possible to enjoy a broader-ranging sound. • **SOUND WING** mode can be selected only when the HVT speakers (e.g., S-HV500-LR) are connected and the Speaker Settings for the front speakers are set to **SMALL**, the subwoofer is set to **YES**, and other speakers are set to **NO** via the Auto MCACC setup. • You can choose the **SOUND WING** mode by using **SOUND WING** button on the remote control.
S.R AIR (Sound Retriever AIR)	Suitable for listening to the sound from a *Bluetooth* wireless technology device. The **S.R AIR** listening mode can only selected when the **ADAPTER** input.
PHONES SURR	When listening through headphones, you can still get the effect of overall surround.

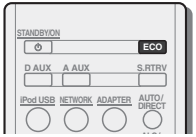
Using Stream Direct AUTO/ DIRECT

Use the Stream Direct modes when you want to hear the truest possible reproduction of a source. All unnecessary signal processing is bypassed.

AUTO SURR	See *Auto playback* on page 31.
DIRECT	Sources are heard according to the settings made in the Manual SP Setup (speaker setting, channel level, speaker distance), as well as with dual mono settings. You will hear sources according to the number of channels in the signal. Phase Control, Acoustic Calibration EQ, Sound Delay, Auto Delay, LFE Attenuate and Center image functions are available.
PURE DIRECT	Analog and PCM sources are heard without any digital processing.

Using the Ecology mode

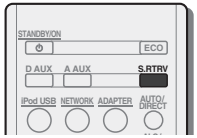
Select Ecology mode to enjoy the full benefits of great sound with half the regular power consumption.



- **Press ECO to switch the ECO MODE ON or OFF.**
  - The power will switch once to standby when Ecology mode is switched on or cancelled.
  - Ecology mode offers the following power-saving benefits.
    - Sound is output from only the front-left, front-right and subwoofer.
    - The front panel display dimmer is activated.
  - Ecology mode can be cancelled by switching the input function.
  - When the Ecology mode is switched on, the **Control** with HDMI function does not work. However, the HDMI Audio Return Channel (ARC) function is available.

Using the Sound Retriever

When audio data is removed during the compression process, sound quality often suffers from an uneven sound image. The Sound Retriever feature employs new DSP technology that helps bring CD quality sound back to compressed 2-channel audio by restoring sound pressure and smoothing jagged artifacts left over after compression.



- **Press S.RTRV to switch the SOUND RTRV (Sound Retriever) ON or OFF.**

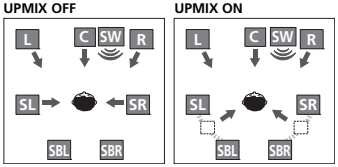
Note

- The Sound Retriever is only applicable to 2-channel sources.

Setting the Up Mix function

In a 7.1-channel surround system with surround speakers placed directly at the sides of the listening position, the surround sound of 5.1-channel sources is heard from the side. The Up Mix function mixes the sound of the surround speakers with the surround back speakers so that the surround sound is heard from diagonally to the rear as it should be.

- Using the Up Mix function is effective when the speakers in the 7.1-channel surround system are set up as recommended in the example on page 9.
- Depending on the positions of the speakers and the sound source, in some cases it may not be possible to achieve good results. In this case, set the setting to **OFF**.



1 Switch the receiver into standby.

2 Press and hold INPUT SELECTOR button on the front panel for more than five seconds, and then press TUNER button on the remote control.

UPMIX OFF appears and the Up Mix function turns off. If you want to turn this function on, perform steps 1 and 2 again.

Note

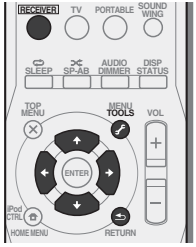
- Set to **ON** regardless of this setting when playing DTS-HD signals.
- May automatically be set to **OFF** even when set to **ON**, depending on the input signal and listening mode.

Setting the Audio options

There are a number of additional sound settings you can make using the **TOOLS** menu. The defaults, if not stated, are listed in bold.

Important

- Note that if a setting doesn't appear in the **TOOLS** menu, it is unavailable due to the current source, settings and status of the receiver.



1 Press RECEIVER, then press TOOLS button.

2 Use ⬆/⬇ to select the setting you want to adjust.

Depending on the current status/mode of the receiver, certain options may not be able to be selected. Check the table below for notes on this.

3 Use ⬅/➡ to set it as necessary.

See the table below for the options available for each setting.

4 Press RETURN to confirm and exit the menu.

Setting/What it does	Option(s)
MIDNIGHT/LOUDNESS The **MIDNIGHT** allows you to hear effective surround sound of movies at low volumes. The **LOUDNESS** is used to get good bass and treble from music sources at low volumes.	**MID/LDN OFF** *MIDNIGHT* *LOUDNESS*
BASS[a] Adjust the bass level to accentuate or minimize the bottom end.	–6 to +6 Default: **0**

Setting/What it does	Option(s)
TREBLE Adjust the treble level to accentuate or minimize the bottom end.	–6 to +6 Default: **0**
CH LEV (Channel Level)[b] Using the channel level settings, you can adjust the overall balance of your speaker system, an important factor when setting up a home theater system.	–15 to +15 Default: **0**
SB CH (Surround back channel processing)[c] You can have the receiver automatically use 6.1 or 7.1 decoding for 6.1 encoded sources (for example, Dolby Digital EX or DTS-ES), or you can choose to always use 6.1 or 7.1 decoding (for example, with 5.1 encoded material). With 5.1 encoded sources, a surround back channel will be generated, but the material may sound better in the 5.1 format for which it was originally encoded (in which case, you can simply switch surround back channel processing off). When **ON** is selected, matrix decoding processing for generating the surround back component from the surround component is turned on. When **AUTO** is selected, matrix decoding processing for generating the surround back component from the surround component is switched automatically. Matrix decoding processing is only performed when surround back channel signals are detected in the input signals. When **OFF** is selected, matrix decoding processing for generating the surround back component from the surround component is turned off.	**ON** *AUTO* *OFF*

Setting/What it does	Option(s)
PHASE CTRL (Phase Control)[d] Phase Control feature uses phase correction measures to make sure your sound source arrives at the listening position in phase, preventing unwanted distortion and/or coloring of the sound. Phase Control technology provides coherent sound reproduction through the use of phase matching for an optimal sound image at your listening position. The default setting is on and we recommend leaving Phase Control switched on for all sound sources.	**ON** *OFF*
EQ (Acoustic Calibration EQ) Switches on/off the effect of Acoustic Calibration EQ.	**ON** *OFF*
SOUND DELAY Some monitors have a slight delay when showing video, so the soundtrack will be slightly out of sync with the picture. By adding a bit of delay, you can adjust the sound to match the presentation of the video.	0.0 to 9.0 (frames) *1 second = 25 frames (PAL)* Default: **0.0**
SOUND RTRV (Sound Retriever)[e] When audio data is removed during the compression process, sound quality often suffers from an uneven sound image. The Sound Retriever feature employs new DSP technology that helps bring CD quality sound back to compressed 2-channel audio by restoring sound pressure and smoothing jagged artifacts left over after compression.	**OFF**[f] *ON*
DUAL (Dual monaural)[g] Specifies how dual mono encoded Dolby Digital soundtracks should be played.	**CH1** – Channel 1 is heard only *CH2* – Channel 2 is heard only *CH1 CH2* – Both channels heard from front speakers

Setting/What it does	Option(s)
FIXED PCM This is useful if you find there is a slight delay before **OFF** recognizes the PCM signal on a CD, for instance. When **ON** is selected, noise may be output during playback of non-PCM sources. Please select another input signal if this is a problem.	**OFF** *ON*
DRC (Dynamic Range Control) Adjusts the level of dynamic range for movie soundtracks optimized for Dolby Digital, DTS, Dolby Digital Plus, Dolby TrueHD, DTS-HD and DTS-HD Master Audio (you may need to use this feature when listening to surround sound at low volumes).	**AUTO**[h] *MAX* *MID* *OFF*
LFE ATT (LFE Attenuate) Some Dolby Digital and DTS audio sources include ultra-low bass tones. Set the LFE attenuator as necessary to prevent the ultra-low bass tones from distorting the sound from the speakers. The LFE is not limited when set to 0 dB, which is the recommended value. When set to –15 dB, the LFE is limited by the respective degree. When OFF is selected, no sound is output from the LFE channel.	**0dB** *–5dB* *–10dB* *–15dB* *–20dB* *OFF*
SACD GAIN[i] Brings out detail in SACDs by maximizing the dynamic range (during digital processing).	**0** (dB) *+6 (dB)*
HDMI (HDMI Audio) Specifies the routing of the HDMI audio signal out of this receiver (**AMP**) or through to a TV (**THROUGH**). When **THROUGH** is selected, no sound is output from this receiver.	**AMP** *THROUGH*
AUTO DELAY[j] This feature automatically corrects the audio-to-video delay between components connected with an HDMI cable. The audio delay time is set depending on the operational status of the display connected with an HDMI cable. The video delay time is automatically adjusted according to the audio delay time.	**OFF** *ON*

Setting/What it does	Option(s)
CENTER WIDTH[k] (Applicable only when using a center speaker) Spreads the center channel between the front right and left speakers, making it sound wider (higher settings) or narrower (lower settings).	0 to 7 Default: **3**
DIMENSION[k] Adjusts the surround sound balance from front to back, making the sound more distant (minus settings), or more forward (positive settings).	–3 to +3 Default: **0**
PANORAMA[k] Extends the front stereo image to include surround speakers for a 'wraparound' effect.	**OFF** *ON*
CENTER IMAGE[l] (Applicable only when using a center speaker) Adjust the center image to create a wider stereo effect with vocals. Adjust the effect from **0** (all center channel sent to front right and left speakers) to **10** (center channel sent to the center speaker only).	0 to 10 Default: **3** (NEO:6 MUSIC), **10** (NEO:6 CINEMA)
HEIGHT GAIN Adjusts the output from the front height speaker when listening in **DOLPLIIz HEIGHT** mode. If set to **HIGH**, the sound from the top will be more emphasized.	*HIGH* **MID** *LOW*

a. **BASS** settings cannot be adjusted when the front speaker is set to **SMALL** in the Speaker Setting (or is set automatically via the Auto MCACC setup) and the X.Over is set above 150 Hz. In this case, adjusting the subwoofer channel levels via **CH LEV** allows for similar adjustments to those that could otherwise be performed via **BASS** (page 38).

b. • Channels are displayed as follows.
L – Front left
FHL – Front height left
C – Center
FHR – Front height right
R – Front right
SR – Surround right
SBR – Surround back right
SBL – Surround back left
SL – Surround left
SW – Subwoofer
• Speakers for which Speaker Settings are set to **NO** cannot be selected.

c. With a 7.1-channel surround system, audio signals that have undergone matrix decoding processing through surround back channel processing to which the Up Mix function is added are output from the surround back speakers.

d. • Phase matching is a very important factor in achieving proper sound reproduction. If two waveforms are 'in phase', they crest and trough together, resulting in increased amplitude, clarity and presence of the sound signal. If a crest of a wave meets a trough, then the sound will be 'out of phase' and an unreliable sound image will be produced.
• If your subwoofer has a phase control switch, set it to the plus (+) sign (or 0°). However, the effect you can actually feel when Phase Control is set to **ON** on this receiver depends on the type of your subwoofer. Set your subwoofer to maximize the effect. It is also recommended you try changing the orientation or the place of your subwoofer.
• Set the built-in lowpass filter switch of your subwoofer to OFF. If this cannot be done on your subwoofer, set the cutoff frequency to a higher value.
• If the speaker distance is not properly set, you may not have a maximized Phase Control effect.
• The Phase Control mode cannot be set to **ON** in the following cases:
– When the **PURE DIRECT** mode is switched on.
– When the headphones are connected.

e. You can change the Sound Retriever feature at any time by using **S.RTRV** button.

f. The default setting when the **iPod USB**, **NETWORK** or **ADAPTER** input is selected is **ON**.

g. This setting works only with dual mono encoded Dolby Digital and DTS soundtracks.

h. The initial set **AUTO** is only available for Dolby TrueHD signals. Select **MAX** or **MID** for signals other than Dolby TrueHD.

i. You shouldn't have any problems using this with most SACD discs, but if the sound distorts, it is best to switch the gain setting back to **0** dB.

j. This feature is only available when the connected display supports the automatic audio/video synchronizing capability ('lip-sync') for HDMI. If you find the automatically set delay time unsuitable, set **AUTO DELAY** to **OFF** and adjust the delay time manually. For more details about the lip-sync feature of your display, contact the manufacturer directly.

k. Only available with 2-channel sources in **DOLPLII MUSIC** mode.

l. Only when listening to 2-channel sources in **NEO:6 CINEMA** and **NEO:6 MUSIC** mode.

Chapter 6:

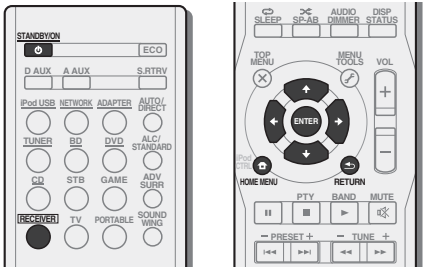
The Home Menu

Using the Home Menu

The following section shows you how to make detailed settings to specify how you're using the receiver, and also explains how to fine-tune individual speaker system settings to your liking.

Important

- If headphones are connected to the receiver, disconnect them.



1 Switch on the receiver and your TV.

Press ⏻ **RECEIVER** to switch on.

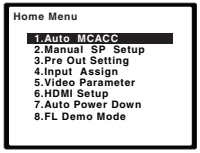
2 Switch the TV input so that it connects to the receiver.

3 Press RECEIVER, then press HOME MENU.

The Home Menu appears on your TV. Use ↑/↓/←/→ and **ENTER** on the remote control to navigate through the screens and select menu items. Press **RETURN** to confirm and exit the current menu.

- Press **HOME MENU** at any time to exit the Home Menu.

4 Select the setting you want to adjust.



- **Auto MCACC** – This is a quick and effective automatic surround setup (see *Automatically setting up for surround sound (MCACC)* on page 19).
- **Manual SP Setup**
  - **Speaker System** – Specify how to use the speaker terminals (see below).
  - **Speaker Setting** – Specify the size and number of speakers you've connected (see below).
  - **X.Over** – Specify which frequencies will be sent to the subwoofer (page 37).
  - **Channel Level** – Adjust the overall balance of your speaker system (page 38).
  - **Speaker Distance** – Specify the distance of your speakers from the listening position (page 38).
- **Pre Out Setting** – Specify how to use the **PRE OUT SURR BACK/FRONT HEIGHT** outputs (see *The Pre Out Setting* on page 39).
- **Input Assign** – Specify what you've connected to the **ANALOG AUX** (composite) video input (see *The Input Assign menu* on page 39).
- **Video Parameter**
  - **Video Converter** – Converts video signals for output from the HDMI OUT terminal for all video types (page 39).
  - **Resolution** – Specifies the output resolution of the video signal (page 40).
  - **Aspect** – Specifies the aspect ratio (page 40).
- **HDMI Setup** – Sets synchronized operations when connected to a device/TV that supports the **Control** with HDMI function (see *HDMI Setup* on page 41).
- **Auto Power Down** – Sets to automatically turn off the power when the receiver has not operated for several hours (see *The Auto Power Down menu* on page 40).
- **FL Demo Mode** – Sets the demo display on the front panel display (see *The FL Demo Mode menu* on page 40).

Manual speaker setup

This receiver allows you to make detailed settings to optimize the surround sound performance. You only need to make these settings once (unless you change the placement of your current speaker system or add new speakers).

These settings are designed to fine-tune your system, but if you're satisfied with the settings made in *Automatically setting up for surround sound (MCACC)* on page 19, it isn't necessary to make all of these settings.

CAUTION

- The test tones used in the channel level setting are output at high volume.

Important

- Depending on the **Pre Out Setting**, there will be differences in the speaker items that can be adjusted. The OSD display for these operating instructions is an example of when the **Pre Out Setting** is set to **Surr. Back**.

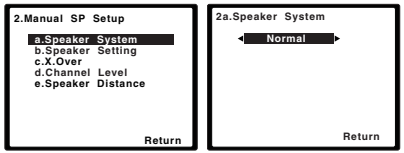
Speaker System

- Default setting: **Normal**

This receiver's speaker terminals are compatible with a range of connection methods. Please select the appropriate settings for your speakers.

1 Select 'Manual SP Setup' from the Home Menu.

2 Select 'Speaker System' from the Manual SP Setup menu.



3 Use ←/→ to select the speaker system setting.

- **Normal** – Regular 5.1 channel surround sound system (plan **[A]**).
- **Speaker B** – Enables Speaker B to be installed in another room so that the sound of the stereo can be enjoyed elsewhere (plan **[B]**).
- **Bi-Amp** – Enables higher quality playback sound through the front speakers with the connection of bi-amp speakers (plan **[C]**).
- **Surr.Back Single** – Enhances sound from behind and creates a greater "live" sound effect with the connection of surround back speakers (plan **[D]**).

Important

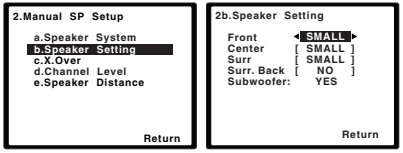
- Reset the Auto MCACC if changes are made to the Speaker System setting.

Speaker Setting

Use this setting to specify your speaker configuration (size, number of speakers). It is a good idea to make sure that the settings made in *Automatically setting up for surround sound (MCACC)* on page 19 are correct.

1 Select 'Manual SP Setup' from the Home Menu.

2 Select 'Speaker Setting' from the Manual SP Setup menu.



3 Choose the set of speakers that you want to set then select a speaker size.

Use ←/→ to select the size (and number) of each of the following speakers:

- **Front** – Select **LARGE** if your front speakers reproduce bass frequencies effectively, or if you didn't connect a subwoofer. Select **SMALL** to send the bass frequencies to the subwoofer.
- **Center** – Select **LARGE** if your center speaker reproduces bass frequencies effectively, or select **SMALL** to send bass frequencies to the other speakers or subwoofer. If you didn't connect a center speaker, choose **NO** (the center channel is sent to the other speakers).
- **Front Height** – Select **LARGE** if your front height speakers reproduce bass frequencies effectively. Select **SMALL** to send bass frequencies to the other speakers or subwoofer. If you didn't connect front height speakers choose **NO**.
  - You can only adjust the **Front Height** setting when **Pre Out Setting** is set to **Height**.
- **Surr** – Select **LARGE** if your surround speakers reproduce bass frequencies effectively. Select **SMALL** to send bass frequencies to the other speakers or subwoofer. If you didn't connect surround speakers choose **NO** (the sound of the surround channels is sent to the other speakers).
- **Surr. Back** – Select the number of surround back speakers you have (one, two or none). Select **LARGE** if your surround back speakers reproduce bass frequencies effectively. Select **SMALL** to send bass frequencies to the other speakers or subwoofer. If you didn't connect surround back speakers choose **NO**.
  - You can only adjust the **Surr. Back** setting when **Pre Out Setting** is set to **Surr. Back**.
  - If you select one surround back speaker only, make sure that additional amplifier is hooked up to the **PRE OUT L (Single)** terminal.
- **Subwoofer** – LFE signals and bass frequencies of channels set to **SMALL** are output from the subwoofer when **YES** is selected (see notes below). Choose the **PLUS** setting if you want the subwoofer to output bass sound continuously or you want deeper bass (the bass frequencies that would normally come out the front and center speakers are also routed to the subwoofer). If you did not connect a subwoofer choose **NO** (the bass frequencies are output from other speakers).

4 When you're finished, press RETURN.

You return to the Manual SP Setup menu.

Note

- Only the **Front** and **Center** speakers and **Subwoofer** settings can be adjusted when the Speaker System setting is set to **Speaker B**.
- If you select **SMALL** for the front speakers, the subwoofer will automatically be fixed to **YES**. Also, the center, surround, surround back and front height speakers can't be set to **LARGE** if the front speakers are set to **SMALL**. In this case, all bass frequencies are sent to the subwoofer.
- If the surround speakers are set to **NO**, the surround back speakers will automatically be set to **NO**.
- If you have a subwoofer and like lots of bass, it may seem logical to select **LARGE** for your front speakers and **PLUS** for the subwoofer. This may not, however, yield the best bass results. Depending on the speaker placement of your room you may actually experience a decrease in the amount of bass due to low frequency cancellations. In this case, try changing the position or direction of speakers. If you can't get good results, listen to the bass response with it set to **PLUS** and **YES** or the front speakers set to **LARGE** and **SMALL** alternatively and let your ears judge which sounds best. If you're having problems, the easiest option is to route all the bass sounds to the subwoofer by selecting **SMALL** for the front speakers.

X.Over

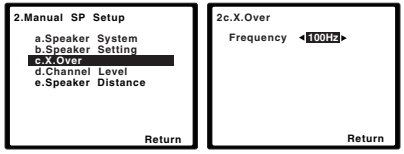
- Default setting: **100Hz**

This setting decides the cutoff between bass sounds playing back from the speakers selected as **LARGE**, or the subwoofer, and bass sounds playing back from those selected as **SMALL**. It also decides where the cutoff will be for bass sounds in the LFE channel.

- For more on selecting the speaker sizes, see *Speaker Setting* on page 37.

1 Select 'Manual SP Setup' from the Home Menu.

2 Select 'X.Over' from the Manual SP Setup menu.



3 Choose the frequency cutoff point.
Frequencies below the cutoff point will be sent to the subwoofer (or **LARGE** speakers).

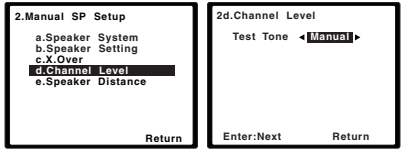
4 When you're finished, press RETURN.
You return to the Manual SP Setup menu.

Channel Level

Using the channel level settings, you can adjust the overall balance of your speaker system, an important factor when setting up a home theater system.

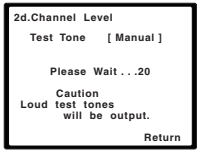
1 Select 'Manual SP Setup' from the Home Menu.

2 Select 'Channel Level' from the Manual SP Setup menu.

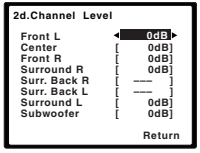


3 Select a setup option.
- **Manual** – Move the test tone manually from speaker to speaker and adjust individual channel levels.
- **Auto** – Adjust channel levels as the test tone moves from speaker to speaker automatically.

4 Confirm your selected setup option.
The test tones will start after you press **ENTER**. After the volume increases to the reference level, test tones will be output.



5 Adjust the level of each channel using ⬅/➡.
If you selected **Manual**, use ⬆/⬇ to switch speakers. The **Auto** setup will output test tones in the order shown on-screen:



Adjust the level of each speaker as the test tone is emitted.

Note

- If you are using a Sound Pressure Level (SPL) meter, take the readings from your main listening position and adjust the level of each speaker to 75 dB SPL (C-weighting/slow reading).
- The subwoofer test tone is output at low volumes. You may need to adjust the level after testing with an actual soundtrack.

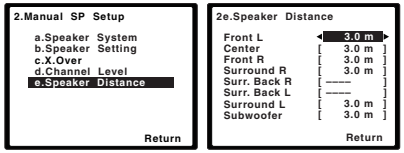
6 When you're finished, press RETURN.
You return to the Manual SP Setup menu.

Speaker Distance

For good sound depth and separation from your system, you need to specify the distance of your speakers from the listening position. The receiver can then add the proper delay needed for effective surround sound.

1 Select 'Manual SP Setup' from the Home Menu.

2 Select 'Speaker Distance' from the Manual SP Setup menu.



3 Adjust the distance of each speaker using ⬅/➡.
You can adjust the distance of each speaker in 0.1 m increments.

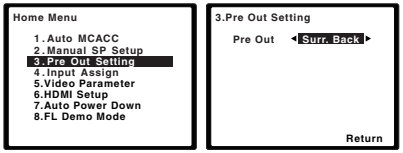
4 When you're finished, press RETURN.
You return to the Manual SP Setup menu.

The Pre Out Setting

Specify either using the surround back speaker or the front height speaker connection with the **PRE OUT SURR BACK/ FRONT HEIGHT** outputs. An additional amplifier is required for the speaker connection.

- Default setting: **Surr. Back**

1 Select 'Pre Out Setting' from the Home Menu.



2 Select which speaker to connect to the PRE OUT SURR BACK/FRONT HEIGHT outputs using ⬅/➡.

- **Surr. Back** – Connect the surround back speaker.
- **Height** – Connect the front height speaker.

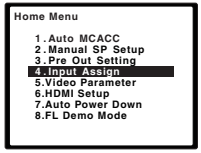
3 When you're finished, press RETURN.

You return to the Home Menu.

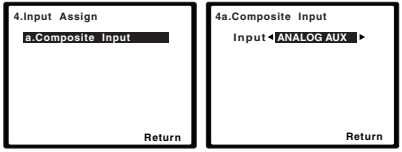
The Input Assign menu

The composite video input terminal is assigned to **ANALOG AUX** under factory settings, but this can be changed to **DIGITAL AUX** or **CD** input.

1 Select 'Input Assign' from the Home Menu.



2 Select 'Composite Input' from the Input Assign menu.



3 Select the desired input option for the composite video input terminal.

Select between **ANALOG AUX**, **DIGITAL AUX**, **CD** or **OFF**.

- Make sure you have connected the audio from the component to the corresponding inputs on the rear of the receiver.

4 When you're finished, press RETURN.

You return to the Input Assign menu.

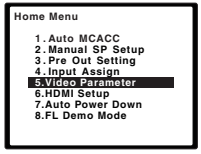
The Video Parameter setting

This receiver can up-convert the video signal input from the composite video terminal; the output is from the HDMI OUT terminal. The following shows the various settings for this function.

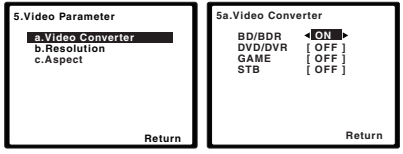
Video Converter

This setting specifies valid/invalid for the function that converts the input video signal from composite video terminal. When **OFF** is selected, Resolution and Aspect can not be set.

1 Select 'Video Parameter' from the Home Menu.



2 Select 'Video Converter' from the Video Parameter menu.



3 Select the setting for converting each type of video input.

- **ON** – The signal is output also to the HDMI OUT terminal.
- **OFF** – The signal input from the HDMI terminal of the selected input function will be output from the HDMI OUT terminal. The signal input from the analog composite video will not be output from the HDMI OUT terminal.

4 When you're finished, press RETURN.

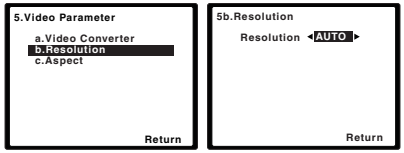
You return to the Video Parameter menu.

Resolution

Specifies the output resolution of the video signal (when video input signals are output at the HDMI OUT terminal, select this according to the resolution of your monitor and the images you wish to watch).

1 **Select 'Video Parameter' from the Home Menu.**

2 **Select 'Resolution' from the Video Parameter menu.**



3 **Select output resolution.**

- **AUTO** – The resolution is selected automatically according to the capacity of the TV (monitor) connected by HDMI.
- **PURE** – The signals are output with the same resolution as when input.
- **480p**/**720p**/**1080i**/**1080p** – The signal is output with the resolution specified here (**480p** means the resolution of 480p/576p).

4 **When you're finished, press RETURN.**

You return to the Video Parameter menu.

Note

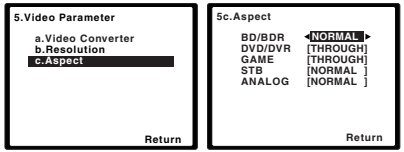
- When set to a resolution with which the TV (monitor) is not compatible, no picture is output. Also, in some cases no picture will be output due to copyright protection signals. In this case, change the setting.

Aspect

Specifies the aspect ratio when analog video input signals are output at the HDMI OUT terminal. Make your desired settings while checking each setting on your display (if the image doesn't match your monitor type, cropping or black bands appear).

1 **Select 'Video Parameter' from the Home Menu.**

2 **Select 'Aspect' from the Video Parameter menu.**



3 **Select desired output aspect ratio.**

- **THROUGH** – The input video signal is output unchanged.
- **NORMAL** – Black bands will appear either at top and bottom or on both sides.

4 **When you're finished, press RETURN.**

You return to the Video Parameter menu.

Note

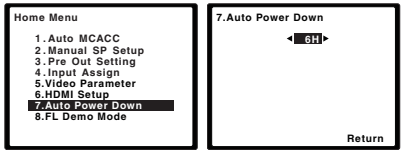
- If the image doesn't match your monitor type, adjust the aspect ratio on the source component or on the monitor.
- **ANALOG** refers to the composite video input terminal. Depending on the Input Assign menu setting, the input will be allocated to either **ANALOG AUX**, **DIGITAL AUX**, or **CD**.

The Auto Power Down menu

Set to automatically turn off the receiver after a specified time has passed (when the power has been on with no operation for several hours).

- Default setting: **6H**

1 **Select 'Auto Power Down' from the Home Menu.**



2 **Specify the amount of time to allow before the power is turned off (when there has been no operation).**

- You can select 2, 4 or 6 hours, or **OFF** (if no automatic shutoff is desired).

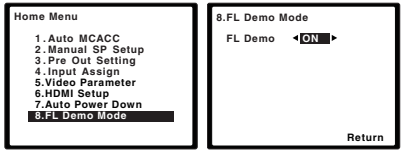
3 **When you're finished, press RETURN.**

You return to the Home Menu.

The FL Demo Mode menu

Set whether or not various demos are to be shown on the front panel display.

1 **Select 'FL Demo Mode' from the Home Menu.**



2 **Choose ON or OFF for the demo display.**

3 **When you're finished, press RETURN.**

You return to the Home Menu.

Chapter 7:

Control with HDMI function

Synchronized operations below with a **Control** with HDMI-compatible Pioneer TV or Blu-ray Disc player or with a component of another make that supports the **Control** with HDMI functions are possible when the component is connected to the receiver using an HDMI cable.

- **Synchronized amp mode**
  The receiver's volume can be set and the sound can be muted using the TV's remote control.
- **Power synchronization with TV**
- **Automatic switching of inputs**
  The receiver's input switches over automatically when the TV's input is changed or a **Control** with HDMI-compatible component is played.

Important

- With Pioneer devices, the **Control** with HDMI functions are referred to as "KURO LINK".
- You cannot use this function with components that do not support **Control** with HDMI.
- We only guarantee this receiver will work with Pioneer made **Control** with HDMI-compatible components and components of other makes that support the **Control** with HDMI function. However, we do not guarantee that all synchronized operations will work with components of other makes that support the **Control** with HDMI function.
- Use a High Speed HDMI® cable when you want to use the **Control** with HDMI function. The **Control** with HDMI function may not work properly if a different type of HDMI cable is used.
- For details about concrete operations, settings, etc., refer to also the operating instructions for each component.

Making Control with HDMI connections

You can use synchronized operation for a connected TV and up to four other components.

- Be sure to connect the TV's audio cable to the audio input of this unit. When the TV and receiver are connected by HDMI connections, if the TV supports the HDMI Audio Return Channel function, the sound of the TV is input to the receiver via the HDMI terminal, so there is no need to connect an audio cable. In this case, set **ARC** at **HDMI Setup** to **ON** (see *HDMI Setup* below).

For details, see *Connecting using HDMI* on page 14.

Important

- When connecting this system or changing connections, be sure to switch the power off and disconnect the power cord from the wall socket.
  After completing all connections, connect the power cords to the wall socket.
- After this receiver is connected to an AC outlet, a 2 second to 10 second HDMI initialization process begins. You cannot carry out any operations during initialization. The HDMI indicator on the display unit blinks during initialization, and you can turn this receiver on once it has stopped blinking.
- To get the most out of this function, we recommend that you connect your HDMI component not to a TV but rather directly to the HDMI terminal on this receiver.
- While the receiver is equipped with four HDMI inputs, the **Control** with HDMI function can only be used with up to three DVD or Blu-ray Disc players or up to three DVD or Blu-ray Disc recorders.

HDMI Setup

You must adjust the settings of this receiver as well as the connected **Control** with HDMI-compatible components in order to make use of the **Control** with HDMI function. For more information see the operating instructions for each component.

1 Switch on the receiver and your TV.

Press ⏻ **RECEIVER** to switch on.

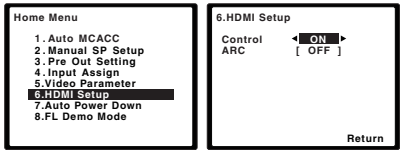
2 Switch the TV input so that it connects to the receiver.

3 Press RECEIVER, then press HOME MENU.

The Home Menu appears on your TV. Use ↑/↓/←/→ and **ENTER** on the remote control to navigate through the screens and select menu items. Press **RETURN** to confirm and exit the current menu.

- Press **HOME MENU** at any time to exit the Home Menu.

4 Select 'HDMI Setup' from the Home Menu.



5 Select the 'Control' setting you want.

Choose whether to set this unit's **Control** with HDMI function **ON** or **OFF**. You will need to set it to **ON** to use the **Control** with HDMI function.

When using a component that does not support the **Control** with HDMI function, set this to **OFF**.

- **ON** – Enables the **Control** with HDMI function. When this unit's power is turned off and you have a supported source begin playback while using the **Control** with HDMI function, the audio and video outputs from the HDMI connection are output from the TV.
- **OFF** – The **Control** with HDMI is disabled. Synchronized operations cannot be used. When this unit's power is turned off, audio and video of sources connected via HDMI are not output.

6 Select the 'ARC' setting you want.
When a TV supporting the HDMI Audio Return Channel function is connected to the receiver, the sound of the TV can be input via the HDMI terminal.

- **ON** – The TV's sound is input via the HDMI terminal. This can only be selected when **Control** is set to **ON**.
- **OFF** – The TV's sound is input from the audio input terminals other than HDMI inputs.

7 When you're finished, press RETURN.
You return to the Home Menu.

Before using synchronization

Once you have finished all connections and settings, you must:

1 Put all components into standby mode.

2 Turn the power on for all components, with the power for the TV being turned on last.

3 Choose the HDMI input to which the TV is connected to this receiver, and see if video output from connected components displays properly on the screen or not.

4 Check whether the components connected to all HDMI inputs are properly displayed.

About synchronized operations

The **Control** with HDMI-compatible component connected to the receiver operates in sync as described below.

- **Synchronized amp mode**
  - From the menu screen of the **Control** with HDMI-compatible TV, set audio to be played through this receiver, and the receiver will switch to the synchronized amp mode.
  - When in the synchronized amp mode, the synchronized amp mode is canceled when the receiver's power is turned off. To turn the synchronized amp mode back on, set audio to be played through the receiver from the TV's menu screen, etc. This receiver will power up and switch to the synchronized amp mode.
  - When in the synchronized amp mode, the synchronized amp mode is canceled if an operation that produces sound from the TV is performed from the TV's menu screen, etc.
  - When the synchronized amp mode is canceled, the receiver's power turns off if you were viewing an HDMI input or a TV program on the TV.
- **Power synchronization with TV**
  - When the TV's power is set to standby, the receiver's power is also set to standby. (Only when the input for a component connected to the receiver by HDMI connection is selected or when watching the TV.)
- **Automatic switching of inputs**
  - The receiver's input switches automatically when the **Control** with HDMI-compatible component is played.
  - The receiver's input switches automatically when the TV's input is switched.
  - The synchronized amp mode remains in effect even if the receiver's input is switched to a component other than one connected by HDMI.

About connections with a product of a different brand that supports the Control with HDMI function

The synchronized operations below can be used when the receiver's **Control** with HDMI function is connected to a TV of a brand other than Pioneer that supports the **Control** with HDMI function. (Depending on the TV, however, some of the **Control** with HDMI functions may not work.)

- When the TV's power is set to standby, the receiver's power is also set to standby. (Only when the input for a component connected to the receiver by HDMI connection is selected or when watching the TV)
- The sound of TV programs or an external input connected to the TV can also be output from the speakers connected to the receiver. (If the TV does not support the HDMI Audio Return Channel function, this requires connection of an optical digital cable, etc., in addition to the HDMI cable.)

The synchronized operations below can be used when the receiver's **Control** with HDMI function is connected to a player or recorder of a brand other than Pioneer that supports the **Control** with HDMI function.

- When playback starts on the player or recorder, the receiver's input switches to the HDMI input to which that component is connected.

See the Pioneer website for the latest information on the models of non-Pioneer brands and products that support the **Control** with HDMI function.

Cautions on the Control with HDMI function

- Connect the TV and components (Blu-ray Disc player, etc.) directly to this receiver. Interrupting a direct connection with other amps or an AV converter (such as an HDMI switch) can cause operational errors.
- When the receiver's **Control** is turned **ON**, even if the receiver's power is in the standby mode, it is possible to output the audio and video signals from a player via HDMI to the TV without producing sound from the receiver, but only when a **Control** with HDMI-compatible component (Blu-ray Disc player, etc.) and compatible TV are connected. In this case, the receiver's power turns on and the power and **HDMI** indicators light.

Chapter 8: Additional information

Troubleshooting

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Take a look at the other components and electrical appliances being used, because sometimes the problem may lie there. If the trouble isn't sorted out even after going through the checks below, ask your nearest Pioneer authorized independent service company to carry out repair work.

- If the unit does not operate normally due to external effects such as static electricity disconnect the power plug from the outlet and insert again to return to normal operating conditions.

General

The power does not turn on.

→ Disconnect the power plug from the outlet, and insert again.

→ Make sure there are no loose strands of speaker wire touching the rear panel. This could cause the receiver to shut off automatically.

The receiver suddenly switches off.

→ When the Auto Power Down function is working, the power will automatically turn off if the receiver has not operated for several hours. Check the setting for the Auto Power Down function (see *The Auto Power Down menu* on page 40).

→ After about a minute (you won't be able to switch the unit on during this time), switch the receiver back on. If the message persists, call a Pioneer authorized independent service company.

The power suddenly turns on or off, or the input suddenly changes (When the Control with HDMI is ON).

→ This happens because of the synchronized operation due to the **Control** with HDMI function. If synchronized operations are not needed, set the **Control** with HDMI to **OFF** (see *HDMI Setup* on page 41).

OVERHEAT shows in the display and the power turns off.

→ The temperature within the unit has exceeded the allowable value. Try moving the unit for better ventilation (see page 2).

→ Lower the volume level.

OVER TEMP shows in the display and the volume level drops.

→ The temperature within the unit has exceeded the allowable value. Try moving the unit for better ventilation (see page 2).

→ Lower the volume level.

No sound is output when an input function is selected.

→ Use **VOL +/–** to turn up the volume.

→ Press **MUTE** to turn muting off.

→ Make sure the component is connected correctly (refer to *Connecting your equipment* on page 9).

→ Check the audio output settings of the source component.

→ Refer to the instruction manual supplied with the source component.

No image is output when an input function is selected.

→ Make sure the component is connected correctly (refer to *Connecting your equipment* on page 9).

→ Check *The Input Assign menu* on page 39 to make sure you're assigned the correct input.

→ The video input selected on the TV monitor is incorrect. Refer to the instruction manual supplied with the TV.

→ For HDMI, or when Video Converter is set to **OFF** and a TV and another component are connected with different cords (in *Video Converter* on page 39), you must connect your TV to this receiver using the same type of video cable as you used to connect your video component.

→ Some components (such as video game units) have resolutions that may not be converted. If adjusting this receiver's Resolution setting (in *Resolution* on page 40) and/or the resolution settings on your component or display doesn't work, try switching Video Converter (in *Video Converter* on page 39) **OFF**.

No sound from subwoofer.

→ When using a powered subwoofer, make sure the subwoofer is switched on.

→ If the subwoofer has a volume knob, make sure it's turned up.

→ The Dolby Digital or DTS source you are listening to may not have an LFE channel.

→ Switch the subwoofer setting in *Speaker Setting* on page 37 to **YES** or **PLUS**.

→ Switch the *LFE ATT (LFE Attenuate)* on page 34 to **0dB** or **-5dB**.

No sound from surround or center speakers.

→ Connect the speakers properly (refer to page 10).

→ Refer to *Speaker Setting* on page 37 to check the speaker settings.

→ Refer to *Channel Level* on page 38 to check the speaker levels.

The Phase Control feature doesn't seem to have an audible effect.

→ If applicable, check that the lowpass filter switch on your subwoofer is off, or the lowpass cutoff is set to the highest frequency setting. If there is a PHASE setting on your subwoofer, set it to 0° (or depending on the subwoofer, the setting where you think it has the best overall effect on the sound).

→ Make sure the speaker distance setting is correct for all speakers (see *Speaker Distance* on page 38).

Considerable noise in radio broadcasts.

→ Connect the antenna (page 17) and adjust the position for best reception.

→ Route any loose cables away from the antenna terminals and wires.

→ Fully extend the FM wire antenna, position for best reception, and secure to a wall (or connect an outdoor FM antenna).

→ Connect an additional internal or external AM antenna (page 17).

→ Turn off equipment causing interference or move it away from the receiver (or move antennas farther away from equipment causing noise).

Broadcast stations cannot be selected automatically.

→ Connect an outdoor antenna (refer to page 17).

A vibrating sound emanates from the speakers while the AM radio is automatically tuning.

→ The noise is to increase reception capabilities and is not a malfunction.

Low sounds will not emanate; vocals are distorted.

→ When connecting a Pioneer passive subwoofer S-SLW500 or HVT speaker (S-HV500-LR, etc.), set the X.Over of this receiver to 200Hz (see *X.Over* on page 37).

Noise during playback of a cassette deck.

→ Move the cassette deck away from your receiver, until the noise disappears.

No sound is output or a noise is output when software with DTS is played back.

→ Make sure the player's settings are correct and/or the DTS signal out is on. Refer to the instruction manual supplied with the DVD player.

There seems to be a time lag between the speakers and the output of the subwoofer.

→ See *Automatically setting up for surround sound (MCACC)* on page 19 to set up your system again using MCACC (this will automatically compensate for a delay in the subwoofer output).

After using the Auto MCACC setup, the speaker size setting (LARGE or SMALL) is incorrect.

→ Low-frequency noise could have been caused by an air conditioner or motor. Switch off all appliances in the room and rerun the Auto MCACC setup.

Can't operate the remote control.

→ Replace the batteries (refer to page 7).
→ Operate within 7 m, 30° of the remote sensor (refer to page 7).
→ Remove the obstacle or operate from another position.
→ Avoid exposing the remote sensor on the front panel to direct light.

The display is dark or off.

→ Press **DIMMER** repeatedly to return to the default.

The front panel display switches over for no apparent reason to various different displays.

→ This happens because the demo display is in operation. To turn off the demo display, press any button to go back to the original display, or set the **FL Demo Mode** to **OFF** (see *The FL Demo Mode menu* on page 40).

The receiver doesn't recognize iPod touch/iPhone.

→ Try the following.
1. Simultaneously keep pressing the sleep button and home button on the iPod touch or iPhone for over 10 seconds to restart.
2. Turn on the receiver.
3. Connect the iPod touch/iPhone to the receiver.

The *Bluetooth* wireless technology device cannot be connected or operated. Sound from the *Bluetooth* wireless technology device is not emitted or the sound is interrupted.

→ Check that no object that emits electromagnetic waves in the 2.4 GHz band (microwave oven, wireless LAN device or *Bluetooth* wireless technology apparatus) is near the unit. If such an object is near the unit, set the unit far from it. Or, stop using the object emitting the electromagnetic waves.
→ Check that the *Bluetooth* wireless technology device is not too far from the unit and that obstructions are not set between the *Bluetooth* wireless technology device and the unit. Set the *Bluetooth* wireless technology device and the unit so that the distance between them is less than about 10 m and no obstructions exist between them.
→ Check that the *Bluetooth* ADAPTER and the **ADAPTER PORT** terminal of the unit are correctly connected.
→ The *Bluetooth* wireless technology device may not be set to the communication mode supporting the *Bluetooth* wireless technology. Check the setting of the *Bluetooth* wireless technology device.
→ Check that pairing is correct. The pairing setting was deleted from this unit or the *Bluetooth* wireless technology device. Reset the pairing.
→ Check that the profile is correct. Use a *Bluetooth* wireless technology device that supports A2DP profile and AVRCP profile.

NETWORK feature

Cannot access the network.

→ The LAN cable is not firmly connected. Firmly connect the LAN cable (page 16).
→ The router is not switched on. Switch on the router.
→ Internet security software is currently installed in the connected component. There are cases where a component with Internet security software installed cannot be accessed.
→ The audio component on the network which has been switched off is switched on. Switch on the audio component on the network before switching on this receiver.

Playback does not start while 'Connecting Wired...' continues to be displayed.

→ The component is currently disconnected from this receiver or the power supply. Check whether the component is properly connected to this receiver or the power supply.

The PC or Internet radio is not properly operated.

→ The corresponding IP address is not properly set. Switch on the built-in DHCP server function of your router, or set up the network manually according to your network environment (page 25).
→ The IP address is being automatically configured. The automatic configuration process takes time. Please wait.

The audio files stored on components on the network, such as a PC, cannot be played back.

→ Windows Media Player 11 or Windows Media Player 12 is not currently installed on your PC. Install Windows Media Player 11 or Windows Media Player 12 on your PC.
→ Audio files were recorded in formats other than MP3, WAV (LPCM only), MPEG-4 AAC, FLAC, and WMA. Play back audio files recorded in MP3, WAV (LPCM only), MPEG-4 AAC, FLAC, or WMA. Note that some audio files recorded in these formats may not be played back on this receiver.
→ Audio files recorded in MPEG-4 AAC or FLAC are being played back on Windows Media Player 11 or Windows Media Player 12. Audio files recorded in MPEG-4 AAC or FLAC cannot be played back on Windows Media Player 11 or Windows Media Player 12. Try using another server. Refer to the operation manual supplied with your server.
→ The component connected to the network is not properly operated.
- Check whether the component is affected by special circumstances or is in the sleep mode.
- Try rebooting the component if necessary.

→ The component connected to the network does not permit file sharing. Try changing the settings for the component connected to the network.
→ The folder stored on the component connected to the network has been deleted or damaged. Check the folder stored on the component connected to the network.

Cannot access the component connected to the network.

→ The component connected to the network is not properly set. If the client is automatically authorized, you need to enter the corresponding information again. Check whether the connection status is set to "Do not authorize".
→ There are no playable audio files on the component connected to the network. Check the audio files stored on the component connected to the network.

Audio playback is undesirably stopped or disturbed.

→ The audio file currently being played back was not recorded in a format playable on this receiver.
- Check whether the audio file was recorded in a format supported by this receiver.
- Check whether the folder has been damaged or corrupted.
- Note that there are cases where even the audio files listed as playable on this receiver cannot be played back or displayed (page 47).

→ The LAN cable is currently disconnected. Connect the LAN cable properly (page 16).
→ There is heavy traffic on the network with the Internet being accessed on the same network. Use 100BASE-TX to access the components on the network.

Cannot access Windows Media Player 11 or Windows Media Player 12.

→ *In case of Windows Media Player 11:* You are currently logged onto the domain through your PC with Windows XP or Windows Vista installed. Instead of logging onto the domain, log onto the local machine (page 23).

→ *In case of Windows Media Player 12:* You are currently logged onto the domain through your PC with Windows 7 installed. Instead of logging onto the domain, log onto the local machine (page 23).

Cannot listen to Internet radio stations.

→ The firewall settings for components on the network are currently in operation. Check the firewall settings for components on the network.

→ You are currently disconnected from the Internet. Check the connection settings for components on the network, and consult with your network service provider if necessary (page 25).

→ The broadcasts from an Internet radio station are stopped or interrupted. There are cases where you cannot listen to some Internet radio stations even when they are listed in the list of Internet radio stations on this receiver (page 24).

The NETWORK function cannot be operated with the buttons on the remote control.

→ The remote control is not currently set to the NETWORK mode. Press **NETWORK** to set the remote control to the NETWORK mode (page 23).

Troubleshooting of wireless LAN

Network cannot be accessed via wireless LAN.

→ Wireless LAN converter's power is not on (Wireless LAN converter's "Power", "WPS" and "Wireless" indicators are not all lit). Check that the USB cable connecting the wireless LAN converter to the receiver's **DC OUTPUT for WIRELESS LAN** terminal is properly connected.

→ The LAN cable is not firmly connected. Firmly connect the LAN cable (page 16).

→ Wireless LAN converter and base unit (wireless LAN router, etc.) are too far apart or there is an obstacle between them. Improve the wireless LAN environment by moving the wireless LAN converter and base unit closer together, etc.

→ There is a microwave oven or other device generating electromagnetic waves near the wireless LAN environment.
- Use the system in a place away from microwave ovens or others device generating electromagnetic waves.
- Avoid using devices generating electromagnetic waves as much as possible when using the system with the wireless LAN.

→ Multiple wireless LAN converters are connected to the wireless LAN router. When connecting multiple wireless LAN converters, their IP addresses must be changed. For example, if the wireless LAN router's IP address is "192.168.1.1", set the first wireless LAN converter's IP address to "192.168.1.249", the second wireless LAN converter's IP address to "192.168.1.248", using values between 2 and 249 (such as "249" and "248") that are not assigned to other wireless LAN converters or to other devices.

→ Wireless LAN connections cannot be established between the wireless LAN converter and base unit (wireless LAN router, etc.).
- With the wireless LAN converter connected to the receiver, turn the receiver's power off, unplug the power cord from the power outlet, then plug the power cord back in and turn the receiver's power on.
- The wireless LAN converter must be set in order to establish wireless LAN connections. For details, refer to the operating instructions of the wireless LAN converter.

→ The wireless LAN converter is properly connected to the receiver and the wireless LAN converter's indicators are lit, but the wireless LAN converter cannot be set from the receiver (the settings screen cannot be displayed).
If **Network Modes** in the receiver's **Network Settings** is set to **STATIC** and the IP address has been set manually, the IP address set in the wireless LAN converter may not match. In the receiver's **Network Settings**, set **Network Modes** to **DHCP**. After the setting is completed, turn the receiver's power off. Next, turn the receiver's power back on and check whether the wireless LAN converter's settings can be displayed with the receiver.
If the settings can be displayed, change the IP address settings of the receiver and wireless LAN converter as necessary.

→ The IP address settings of the receiver and wireless LAN converter do not match the settings of the wireless LAN router, etc.
Check the IP address settings of the receiver and wireless LAN converter (including the **Network Modes**).
If the receiver's **Network Modes** is **DHCP**, turn the receiver's power off, then turn the power back on.
Check that the IP addresses of the receiver and wireless LAN converter match the settings of the wireless LAN router, etc.
If the receiver's **Network Modes** is **STATIC**, set an IP address matching the network of the base unit (wireless LAN router, etc.).
For example, if the wireless LAN router's IP address is "192.168.1.1", set the receiver's IP address to "192.168.1.XXX" (*1), the subnet mask to "255.255.255.0", the gateway and DNS to "192.168.1.1".
Next, set the wireless LAN converter's IP address to "192.168.1.249" (*2).
(*1) Set the "XXX" in "192.168.1.XXX" to a number between 2 and 248 that is not assigned to other devices.
(*2) Set the "249" in "192.168.1.249" to a number between 2 and 249 that is not assigned to other devices.

→ Try making the wireless LAN converter's advanced settings. The wireless LAN converter can be connected to a computer to make the advanced wireless LAN settings. For details, see the CD-ROM included for the wireless LAN converter. Check the settings of the wireless LAN router, etc., then change the settings of the wireless LAN converter.
Note, however, that making the advanced wireless LAN settings will not necessarily improve the wireless LAN environment. Be careful when changing the settings.

→ The access point is set to conceal the SSID. In this case, the SSID may not be displayed on the access point list screen. If not, set the SSID, etc., by making the wireless LAN converter settings on the receiver manually.

→ The access point's security settings use WEP 152-bit length code key or shared key authentication. The receiver does not support WEP 152-bit length code key or shared key authentication.

→ Network connections cannot be established even when the above measures are taken. Reset the wireless LAN converter. After this, redo the wireless LAN converter's settings.
- About resetting
  1. Check that the wireless LAN converter's power is on.
  2. Press the wireless LAN converter's reset button for at least 3 seconds.
  3. Release the reset button.
  When the wireless LAN converter is restarted, the resetting procedure is completed.

HDMI

No picture or sound.

→ If the problem still persists when connecting your HDMI component directly to your monitor, please consult the component or monitor manual or contact the manufacturer for support.

No picture.

→ Video signals that are input from the analog video terminal will not output from the HDMI terminal. Signals that are input from the HDMI terminal will not output from the analog video terminal. Be consistent with the type of cable between input and output.

→ Depending in the output settings of the source component, it may be outputting a video format that can't be displayed. Change the output settings of the source, or connect using the composite video jacks.

→ This receiver is HDCP-compatible. Check that the components you are connecting are also HDCP-compatible. If they are not, please connect them using the composite video jacks.

→ Depending on the connected source component, it's possible that it will not work with this receiver (even if it is HDCP-compatible). In this case, connect using the composite video jacks between source and receiver.

→ If video images do not appear on your TV, try adjusting the resolution, Deep Color or other setting for your component.

→ To output signals in Deep Color, use an HDMI cable (High Speed HDMI® Cable) to connect this receiver to a component or TV with the Deep Color feature.

The OSD screen (Home Menu, etc.) isn't displayed.

→ The OSD will not appear if you have connected using the HDMI output to your TV. Use composite connections when setting up the system.

No sound, or sound suddenly ceases.

→ Check that the **HDMI** setting is set to **AMP** (refer to page 33).

→ If the component is a DVI device, use a separate connection for the audio.

→ HDMI format digital audio transmissions require a longer time to be recognized. Due to this, interruption in the audio may occur when switching between audio formats or beginning playback.

→ Turning on/off the device connected to this unit's HDMI OUT terminal during playback, or disconnecting/connecting the HDMI cable during playback, may cause noise or interrupted audio.

Synchronized operation not possible using Control with HDMI function.

→ Check the HDMI connections.

→ The cable may be damaged.

→ Select **ON** for the **Control** with HDMI setting (see *HDMI Setup* on page 41).

→ Turn the TV's power on before turning on this receiver's power.

→ Set the TV side Control with HDMI setting to on (see TV's operating instructions).

→ When the Ecology mode is switched on, the **Control** with HDMI function does not work.

→ When the Ecology mode is turned off again, the **Control** with HDMI function may not work. In this case, see *Before using synchronization* on page 42.

Important information regarding the HDMI connection

There are cases where you may not be able to route HDMI signals through this receiver (this depends on the HDMI equipped component you are connecting-check with the manufacturer for HDMI compatibility information).

If you aren't receiving HDMI signals properly through this receiver (from your component), please try the following configuration when connecting up.

Configuration

Connect your HDMI-equipped component directly to the display using an HDMI cable. Then use the most convenient connection (digital is recommended) for sending audio to the receiver. See the operating instructions for more on audio connections. Set the display volume to minimum when using this configuration.

Note

- Depending on the component, audio output may be limited to the number of channels available from the connected display unit (for example audio output is reduced to 2 channels for a monitor with stereo audio limitations).
- If you want to switch the input source, you'll have to switch functions on both the receiver and your display unit.
- Since the sound is muted on the display when using the HDMI connection, you must adjust the volume on the display every time you switch input sources.

About status messages

Refer to the following information when you come up with a status message while operating the NETWORK function.

Status messages	Descriptions
List empty, Add from Now Playing...	The list is empty. Please add from Now Playing.
No item	There are no items.
Rescanning devices...	Rescanning. Please wait.
Unsupported Format	This format is not supported.
Server Connection Error	Cannot connect to server.
Error opening stream	This is a stream error.
Already in favorites	This is already registered in your favorites.
Unsupported item	This item is not supported by this receiver.
Unknown error	An unidentified error has occurred.
Connection Error...	Cannot connect to network.

About playable music file formats

The USB and NETWORK function of this receiver supports the following music file formats.

- Note that some file formats are not available for playback although they are listed as playable file formats. Also, the compatibility of file formats varies depending on the type of server. Check with your server to ensure the compatibility of file formats supported by your server.
- Copyrighted audio files cannot be played back on this receiver

Category	Extension	Stream		
MP3[a]	.mp3	MPEG-1 Audio Layer-3	Sampling frequency	44.1 kHz to 48 kHz
			Quantization bitrate	16 bit
			Channel	2 ch
			Bitrate	32 kbps to 320 kbps
			VBR/CBR	Supported/Supported
WAV	.wav	LPCM	Sampling frequency	44.1 kHz, 48 kHz, 96 kHz
			Quantization bitrate	16 bit, 20 bit, 24 bit
			Channel	2 ch
WMA	.wma	WMA2/7/8	Sampling frequency	44.1 kHz to 48 kHz
			Quantization bitrate	16 bit
			Channel	2 ch
			Bitrate	32 kbps to 320 kbps
			VBR/CBR	Supported/Supported
		WMA9	Sampling frequency	44.1 kHz to 48 kHz
			Quantization bitrate	16 bit
			Channel	2 ch
			Bitrate	32 kbps to 320 kbps
			VBR/CBR	Supported/Supported
AAC	.m4a .aac	MPEG-4 AAC LC MPEG-4 HE AAC (aacPlus v1/2)	Sampling frequency	44.1 kHz to 48 kHz
			Quantization bitrate	16 bit
			Channel	2 ch
			Bitrate	16 kbps to 320 kbps
			VBR/CBR	Supported/Supported
FLAC	.flac	FLAC	Sampling frequency	44.1 kHz, 48 kHz, 96 kHz
			Quantization bitrate	16 bit, 24 bit
			Channel	2 ch
			Bitrate	—

a *"MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia."*

About iPod/iPhone

Made for iPod iPhone

"Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.

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About FLAC

FLAC Decoder

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Resetting the main unit

Use this procedure to reset all the receiver's settings to the factory default. Use the front panel controls to do this.

1 Switch the receiver into standby.

2 Press and hold INPUT SELECTOR button on the front panel for more than five seconds, and then press BD button on the remote control.

3 When you see RESET? appear in the display, press AUTO/DIRECT.

OK? shows in the display.

4 Press ALC/STANDARD to confirm.

OK appears in the display to indicate that the receiver has been reset to the factory default settings.

Important

- If the **Control** with HDMI function is set to **ON**, you may not be able to reset the unit. In this case, reset either by turning **OFF** the **Control** with HDMI function, or by putting the unit into standby mode by turning off the power of all the connected devices, and resetting after the HDMI indicator on the front panel turns off.

Cleaning the unit

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surface is dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleansers.
- Never use thinners, benzine, insecticide sprays or other chemicals on or near this unit, since these will corrode the surface.

Specifications

Audio section

Rated power output
Front, Center, Surround, Surround Back (Single) . . . . . 100 W per channel (1 kHz, 4 Ω, 1 %)
Subwoofer . . . . . 100 W (30 Hz, 4 Ω, 3 %)
Total Harmonic Distortion . . . . . 0.06 % (20 Hz to 20 kHz, 8 Ω, 50 W/ch)
Frequency response (Analog Pure Direct mode) . . . . . 10 Hz to 20 kHz $^{+0}_{-3}$ dB
Guaranteed speaker impedance . . . . . .4 Ω to 16 Ω
Input (Sensitivity/Impedance) . . . . . 200 mV/47 kΩ
Signal-to-Noise Ratio (IHF, short circuited, A network) . . . . . 90 dB

Video section

Signal level (Composite) . . . . . 1 Vp-p (75 Ω)

Tuner section

Frequency Range (FM) . . . . . 87.5 MHz to 108 MHz
Antenna Input (FM) . . . . . 75 Ω unbalanced
Frequency Range (AM) . . . . . 531 kHz to 1602 kHz
Antenna (AM) . . . . . Loop antenna

Digital In/Out section

HDMI terminal . . . . . Type A (19-pin)
HDMI output type . . . . . 5 V, 100 mA
USB (iPod) terminal . . . . . USB2.0 Full Speed (Type A)
ADAPTER PORT terminal . . . . . 5 V, 100 mA

Miscellaneous

Power Requirements . . . . . AC 220 V to 230 V, 50 Hz/60 Hz
Power Consumption . . . . . 74 W
In standby
. . . . . 0.5 W (**Control** with HDMI function: ON)
. . . . . 0.45 W (**Control** with HDMI function: OFF)
Dimensions . . . . . .435 mm (W) x 85 mm (H) x 317 mm (D)
Weight (without package) . . . . . 4.3 kg

Furnished Parts

Microphone (for Auto MCACC setup) 1
Remote control 1
Dry cell batteries (AAA size IEC R03) 2
AM loop antenna 1
FM wire antenna 1
Warranty card 1
Power cord
Quick start guide
Safety Brochure
These operating instructions

Note

- The specifications are applicable when the power supply is 230 V/50 Hz.
- Specifications and the design are subject to possible modifications without notice, due to improvements.

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