Pioneer

VSX-521-K

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

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.

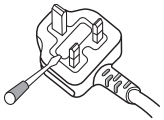
If the fitted moulded plug is unsuitable for your socket outlet, then the fuse shall be removed and the plug cut off and disposed of safely. There is a danger of severe electrical shock if the cut off plug is inserted into any 13 amp socket.

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

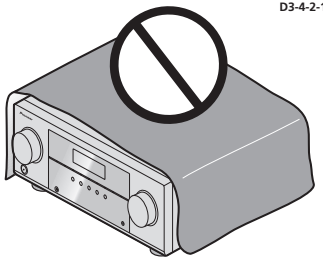
VENTILATION CAUTION

When installing this unit, make sure to leave space around the unit for ventilation to improve heat radiation (at least 40 cm at top, 20 cm at rear, and 20 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)

Pb

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

Thank you for buying this Pioneer product. Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.

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
- 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.

- Placing the speakers (page 10)
- Connecting the speakers (page 11)

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 video outputs connection (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 **The Pre Out Setting (page 34)**

(When connecting the front height speakers.)

The Input Assign menu (page 33)

(When using connections other than the recommended connections.)

Using the Audio Return Channel function (page 35)

(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)**

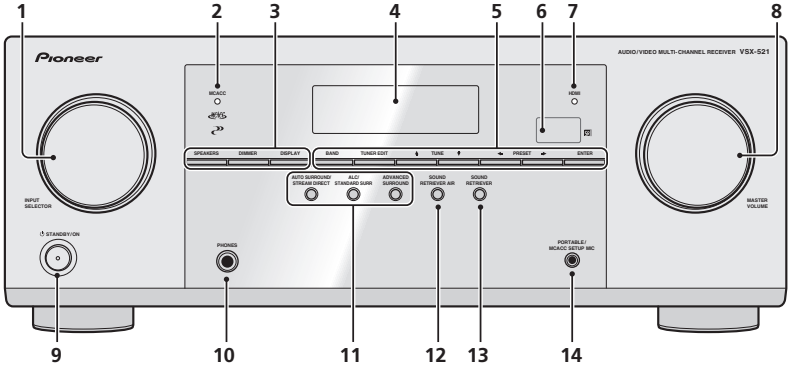
- Selecting the audio input signal (page 21)
- Choosing the listening mode (page 26)

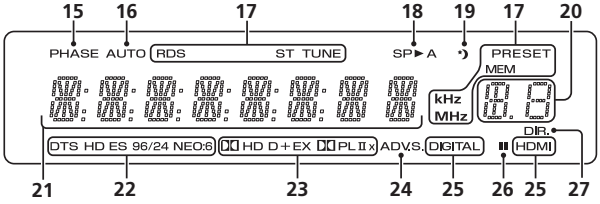
7 **Adjusting the sound as desired**

- Using the Sound Retriever (page 27)
- Better sound using Phase Control (page 28)
- Listening with Acoustic Calibration EQ (page 27)
- Using surround back channel processing (page 28)
- Setting the Up Mix function (page 28)
- Setting the Audio options (page 29)
- Manual speaker setup (page 31)

Chapter 1:
Controls and displays

Front panel





1 INPUT SELECTOR dial
Selects an input source (page 21).

2 MCACC indicator
Lights when Acoustic Calibration EQ (page 27) is on (Acoustic Calibration EQ is automatically set to on after the Auto MCACC setup (page 19)).

3 Receiver control buttons

SPEAKERS – Use to change the speaker system on or off. When the **SP OFF** is selected, no sound is output from the speakers connected to this receiver.

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

DISPLAY – Switches the display of this unit. The listening mode, sound volume, Pre Out setting or input name can be checked by selecting an input source.

- The Pre Out setting may or may not be displayed, depending on the input source you have selected.

4 Character display
See *Display* on page 7.

5 Tuner control buttons

BAND – Switches between AM, FM ST (stereo) and FM MONO radio bands (page 24).

TUNER EDIT – Use with **TUNE** ↑/↓, **PRESET** ←/→ and **ENTER** to memorize and name stations for recall (page 24).

TUNE ↑/↓ – Used to find radio frequencies (page 24).

PRESET ←/→ – Use to select preset radio stations (page 24).

6 Remote sensor
Receives the signals from the remote control (see *Operating range of remote control* on page 9).

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

8 MASTER VOLUME dial

9 ⏻ STANDBY/ON

10 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).

11 Listening mode buttons

AUTO SURROUND/STREAM DIRECT – Switches between Auto surround mode (page 26) and Stream Direct playback (page 27).

ALC/STANDARD SURR – 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 26).

ADVANCED SURROUND – Switches between the various surround modes (page 27).

12 SOUND RETRIEVER AIR
When the button is pressed, the input switches to **ADAPTER** and the listening mode is automatically set to **S.R AIR** (page 23).

13 SOUND RETRIEVER
Press to restore CD quality sound to compressed audio sources (page 27).

14 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).

Display

15 PHASE
Lights when the Phase Control is switched on (page 28).

16 AUTO
Lights when the Auto Surround feature is switched on (page 26).

17 Tuner indicators

RDS – Lights when an RDS broadcast is received (page 25).

ST – Lights when a stereo FM broadcast is being received in auto stereo mode (page 24).

TUNE – Lights when a normal broadcast channel.

PRESET – Shows when a preset radio station is registered or called.

MEM – Blinks when a radio station is registered.

kHz/MHz – Lights when the character display is showing the currently received AM/FM broadcast frequency.

18 Speaker indicators
Shows if the speaker system is on or not (page 6).
SP►A means the speakers are switched on.
SP► means the speakers are switched off.

19 Sleep timer indicator
Lights when the receiver is in sleep mode (page 8).

20 PRESET information or input signal indicator
Shows the preset number of the tuner or the input signal type, etc.

21 Character display
Displays various system information.

22 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.

NEO:6 – When one of the NEO:6 modes of the receiver is on, this lights to indicate NEO:6 processing (page 26).

23 Dolby Digital indicators

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

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

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

EX – Lights to indicate Dolby Digital EX decoding.

DD PLII(x) – Lights to indicate DD Pro Logic II/DD Pro Logic IIx decoding. Light will go off during DD Pro Logic IIz decoding (see *Listening in surround sound* on page 26 for more on this).

24 ADV.S.
Lights when one of the Advanced Surround modes has been selected (see *Using the Advanced surround* on page 27 for more on this).

25 SIGNAL SELECT indicators

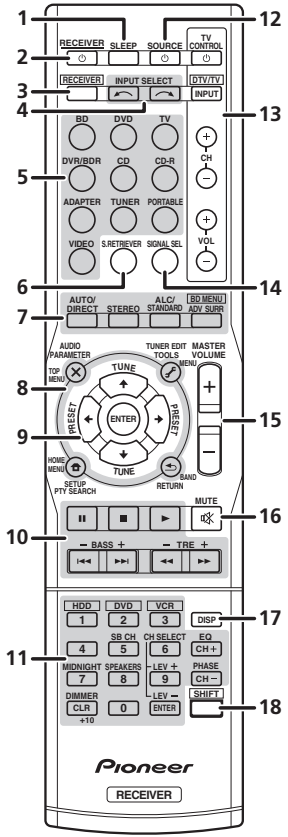
DIGITAL – Lights when a digital audio signal is selected. Blinks when a digital audio signal is selected and selected audio input is not provided.

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

26 Up Mix/DIMMER indicator
Lights when the Up Mix function is set to **ON** (page 28). Also, lights when DIMMER is set to off.

27 DIR.
Lights when the **DIRECT** or **PURE DIRECT** mode is switched on (page 27).

Remote control



As for operating other devices, the remote control codes for the Pioneer products are preset. The settings cannot be changed.

1 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.

2 ⏻ RECEIVER
Switches the receiver between standby and on.

3 RECEIVER
Switches the remote to control the receiver (used to select the white commands above the number buttons (**MIDNIGHT**, etc)). Also use this button to set up surround sound (page 31) or Audio parameters (page 29).

4 INPUT SELECT ↶↷
Use to select the input source (page 21).

5 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.

6 S.RETRIEVER
Press to restore CD quality sound to compressed audio sources (page 27).

7 Listening mode buttons

AUTO/DIRECT – Switches between Auto surround mode (page 26) and Stream Direct playback (page 27).

STEREO – Press to select stereo playback (page 26).

ALC/STANDARD SURR – 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 26).

ADV SURR – Switches between the various surround modes (page 27).

Press **BD** first to access:

BD MENU* – Displays the disc menu of Blu-ray Discs.

8 System Setup 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:

AUDIO PARAMETER – Use to access the Audio options (page 29).

SETUP – Press to access the System Setup menu (page 31).

RETURN – Confirm and exit the current menu screen.

Press **BD**, **DVD** or **DVR/BDR** 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 **TUNER** first to access:

TUNER EDIT – Memorizes stations for recall (page 24), also used to change the name (page 24).

BAND – Switches between AM, FM ST (stereo) and FM MONO radio bands (page 24).

PTY SEARCH – Use to search for RDS program types (page 25).

9 ↑/↓/←/→ (TUNE ↑/↓, PRESET ←/→), ENTER
Use the arrow buttons when setting up your surround sound system (page 31). Also used to control Blu-ray Disc/DVD menus/options.

Use **TUNE ↑/↓** can be used to find radio frequencies and **PRESET ←/→** can be used to select preset radio stations (page 24).

10 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**, **DVR/BDR** and **CD**). These buttons also function as described below.

Press **RECEIVER** first to access:

BASS –/+, **TRE –/+** – Use to adjust Bass or Treble.

- These controls are disabled when the listening mode is set to **DIRECT** or **PURE DIRECT**.

- When the front speaker is set at **SMALL** in the Speaker Setting (or automatically via the Auto MCACC setup) and the Crossover Network is set above 150 Hz, the subwoofer channel level will be adjusted by pressing **BASS –/+** (page 32).

11 Number buttons and other component controls
Use the number buttons to directly select a radio frequency (page 24) or the tracks on a CD, etc. There are other buttons that can be accessed after RECEIVER is pressed. (For example **MIDNIGHT**, etc.)

HDD*, **DVD***, **VCR*** – These buttons switch between the hard disk, DVD and VCR controls for HDD/DVD/VCR recorders.

SB CH – Press to select **ON**, **AUTO** or **OFF** the surround back channel (page 28).

CH SELECT – Press repeatedly to select a channel, then use **LEV +/–** to adjust the level (page 32).

LEV +/– – Use to adjust the channel level.

EQ – Press to switch on/off Acoustic Calibration EQ setting (page 27).

MIDNIGHT – Switches to Midnight or Loudness listening (page 29).

SPEAKERS – Use to change the speaker system on or off. When the **SP OFF** is selected, no sound is output from the speakers connected to this receiver.

PHASE – Press to switch on/off Phase Control (page 28).

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

12 ⏻ SOURCE
Turns on or off the power of the Pioneer DVD/DVR units when **BD**, **DVD**, **DVR/BDR** or **CD** is selected using the input function buttons.

13 TV CONTROL buttons
These buttons can control only be used with Pioneer TVs.

⏻ – Use to turn on/off the power of the TV.

INPUT – Use to select the TV input signal.

CH +/– – Use to select channels.

VOL +/– – Use to adjust the volume on your TV.

DTV/TV* – Switches between the DTV and analog TV input modes for Pioneer TVs.

14 SIGNAL SEL
Press to select the audio input signal of the component to play back (page 21).

15 MASTER VOLUME +/–
Use to set the listening volume.

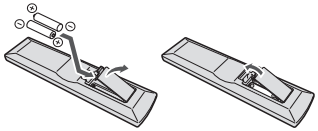
16 MUTE
Mutes/unmutes the sound.

17 DISP
Switches the display of this unit. The listening mode, sound volume, Pre Out setting or input name can be checked by selecting an input source.

- The Pre Out setting may or may not be displayed, depending on the input source you have selected.

18 SHIFT
Press to access the 'boxed' commands (above the buttons) on the remote. These buttons are marked with an asterisk (*) in this section.

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.

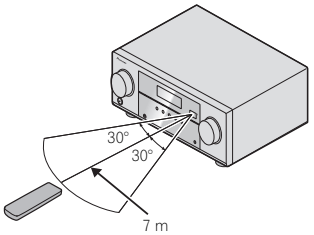
⚠ CAUTION

- 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 instruction'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.



Chapter 2:
Connecting your equipment

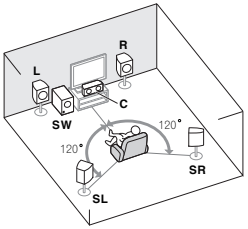
Placing the speakers

By connecting the left and right front speakers (**L**/**R**), the center speaker (**C**), the left and right surround speakers (**SL**/**SR**), and the subwoofer (**SW**), a 5.1 ch surround system can be enjoyed. Further, by using an external amplifier, you can connect the left and right surround back speakers (**SBL**/**SBR**) or the left and right front height speaker (**FHL**/**FHR**) to boost your system up to a 7.1 ch surround system.

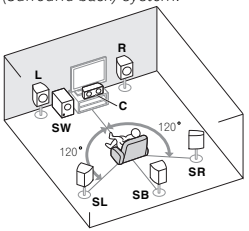
- You can also connect one surround back speaker (**SB**) and enjoy a 6.1 ch surround system.

To achieve the best possible surround sound, install your speakers as shown below.

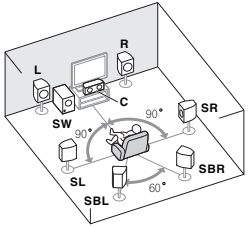
5.1 channel surround system:



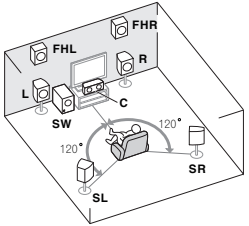
6.1 channel surround (Surround back) system: [a]



7.1 channel surround (Surround back) system: [a]



7.1 channel surround (Front height) system: [a]



a. This layout is available only when the additional amplifier is connected to the unit and the surround back or front height speakers are connected to the amplifier. For details, see *Connect the surround back or front height speakers* on page 11.

Hints on the speaker placement

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.

- 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.
- For the best stereo effect, place the front speakers 2 m to 3 m apart, at equal distance from the TV.
- 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.
- 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.
- 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.
- 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.
- 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 28).
- 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.

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.

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 11).

Connecting the speakers

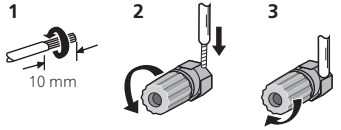
The receiver will work with just two stereo speakers (the front speakers in the diagram) but using at least three speakers is recommended, and a complete setup is best for surround sound.

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.

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

Bare wire connections

Front speaker terminals:



1 Twist exposed wire strands together.

2 Loosen terminal and insert exposed wire.

3 Tighten terminal.

Center and surround speaker terminals:

1 Twist exposed wire strands together.

2 Push open the tabs and insert exposed wire.

3 Release the tabs.

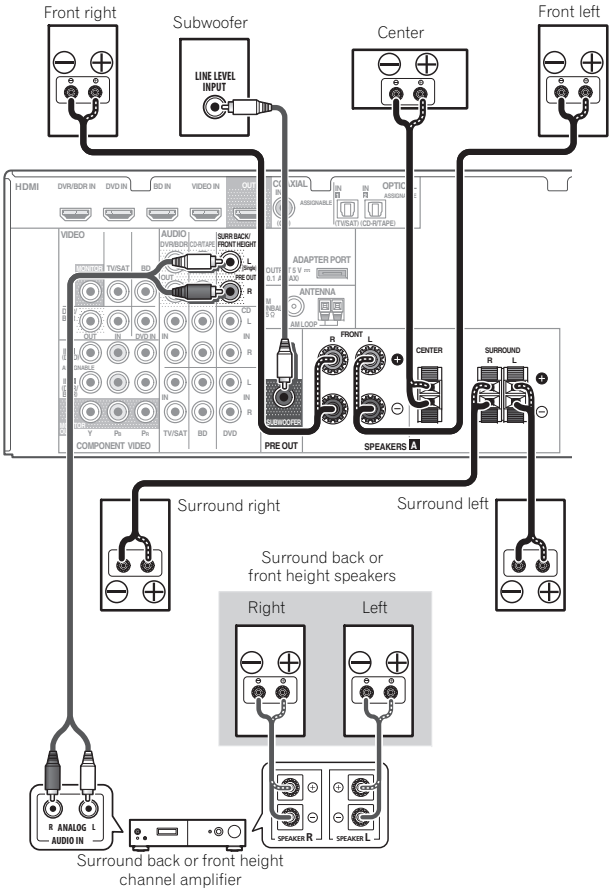
⚠ CAUTION

- 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.

Connect the surround back or front height speakers

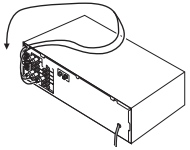
Connect the **PRE OUT SURR BACK/FRONT HEIGHT** outputs of the unit and additional amplifier to add a surround back or front height speaker.

- 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 34).
- 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.



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.

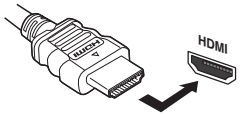


Important

- 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 29 to **THRU** (THROUGH) and set the input signal in *Selecting the audio input signal* on page 21 to **HDMI**, 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.

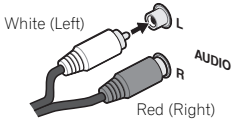
- Digital transfer of uncompressed video (contents protected by HDCP (1080p/24, 1080p/60, etc.))
- 3D signal transfer
- Deep Color signal transfer
- x.v.Color signal transfer
- Audio Return Channel
- Input of multi-channel linear PCM digital audio signals (192 kHz or less) for up to 8 channels
- Input 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 35)

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.

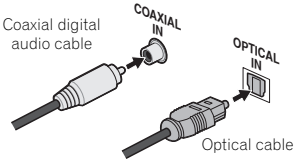
Analog audio cables

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.

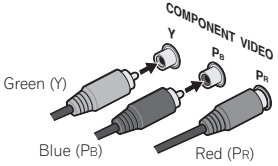
Video cables

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.

Component video cables

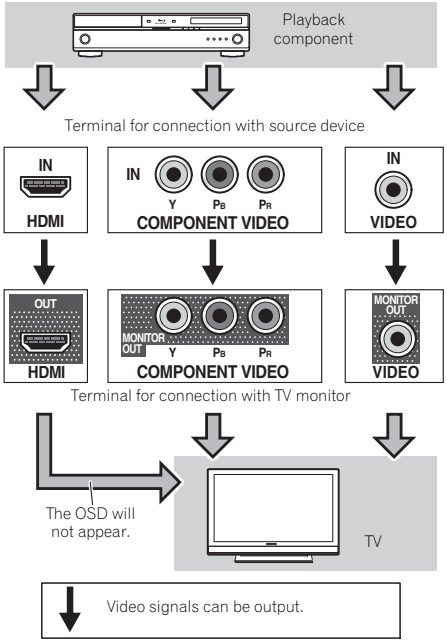
Use component video cables to get the best possible color reproduction of your video source. The color signal of the TV is divided into the luminance (**Y**) signal and the color (**PB** and **PR**) signals and then output. In this way, interference between the signals is avoided.



About video outputs connection

This receiver is not loaded with a video converter. When you use component video cables or HDMI cables for connecting to the input device, the same cables should be used for connecting to the TV.

The signals input from the analog (composite and component) video inputs of this unit will not be output from the **HDMI OUT**.



Connecting a TV and playback components

Connecting using HDMI

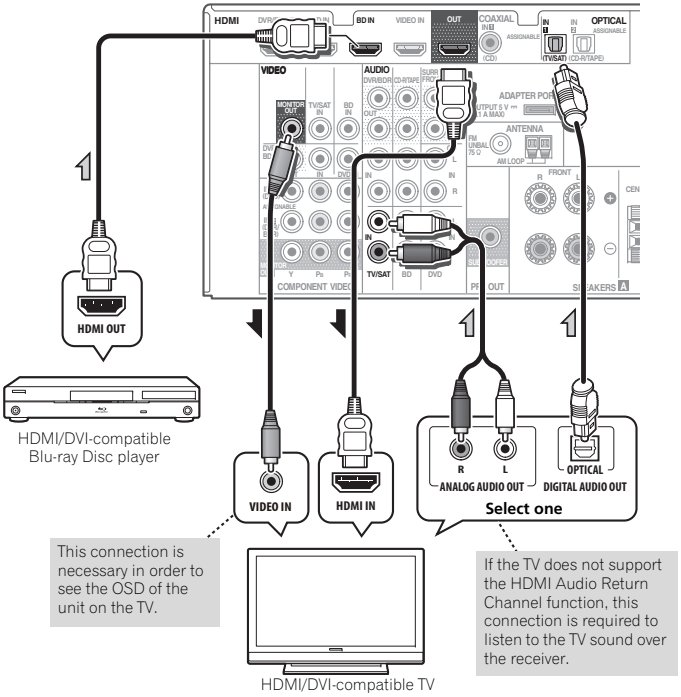
If you have an HDMI or DVI (with HDCP) equipped component (Blu-ray Disc player, etc.), you can connect it to this receiver using a commercially available HDMI cable.

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 35).

- 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 35).

Important

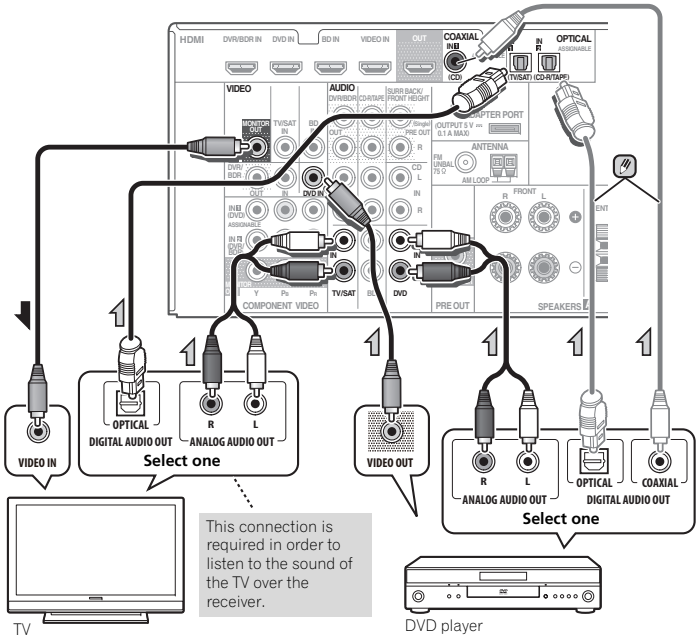
- If the receiver is connected to a TV using an HDMI cable, the on-screen display (OSD) will not be displayed. Be sure to use a standard RCA analog video cable to connect. In this case, switch the TV input to analog to see the OSD screen (for setup, etc.) on the TV.
- When the **Control** with HDMI function is **ON** and the receiver is connected to a compatible TV with an HDMI cable, and you switch the input of the TV to composite or component, the input of the receiver may automatically switch to **TV/SAT**. If this happens, switch the receiver's input back to the original input, or turn **OFF** the **Control** with HDMI function (see *HDMI Setup* on page 35).



Connecting your component with no HDMI terminal

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

- If both TV and player has a component video jacks, you can connect these too. See *Using the component video jacks* on page 16 for more on this.



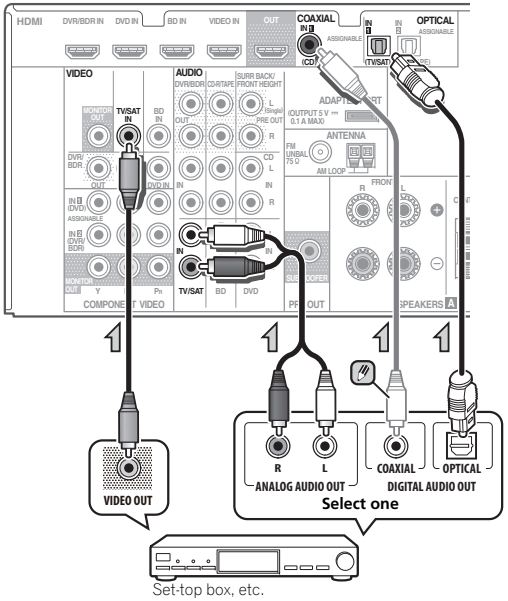
Note

- In order to listen to the audio from the DVD player that is connected to this receiver using an optical cable or a coaxial cable, first, switch to the **DVD** input, then press **SIGNAL SEL** to choose the audio signal **O2** (OPTICAL2) or **C1** (COAXIAL1) (see *Selecting the audio input signal* on page 21).

Connecting a satellite receiver or other digital set-top box

Satellite and cable receivers, and terrestrial digital TV tuners are all examples of so-called 'set-top boxes'.

- If the set-top box or video component also has an HDMI or a component video output, you can connect this too. See *Connecting using HDMI* on page 14 or *Using the component video jacks* on page 16 for more on this.



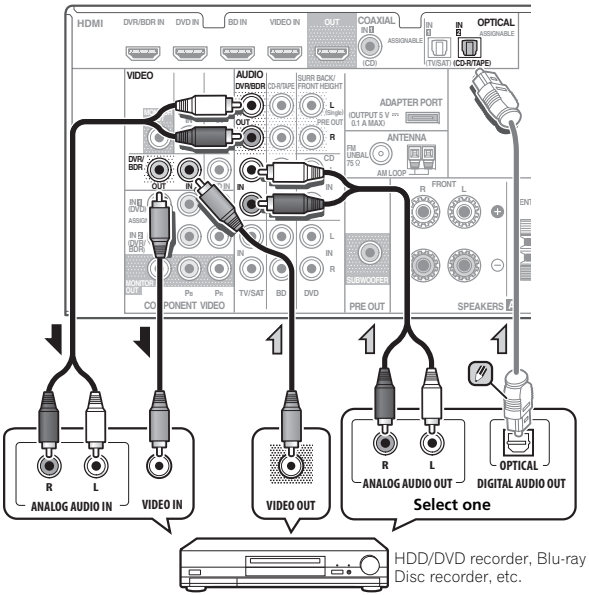
Note

- In order to listen to the audio from the source component that is connected to this receiver using a coaxial cable, first, switch to the **TV/SAT**, then press **SIGNAL SEL** to choose the audio signal **C1** (COAXIAL1) (see *Selecting the audio input signal* on page 21).

Connecting an HDD/DVD recorder, Blu-ray Disc recorder and other video sources

This receiver has audio/video inputs and outputs suitable for connecting analog or digital video recorders, including HDD/DVD recorders and Blu-ray Disc recorders.

- Only the signals that are input to the VIDEO IN terminal can be output from the VIDEO OUT terminal.
- Audio signals that are input through the digital terminal will not be output from the analog terminal.



Note

- In order to listen to the audio from the source component that is connected to this receiver using an optical cable, first, switch to the **DVR/BDR** input, then press **SIGNAL SEL** to choose the audio signal **O2** (OPTICAL2) (see *Selecting the audio input signal* on page 21).

Using the component video jacks

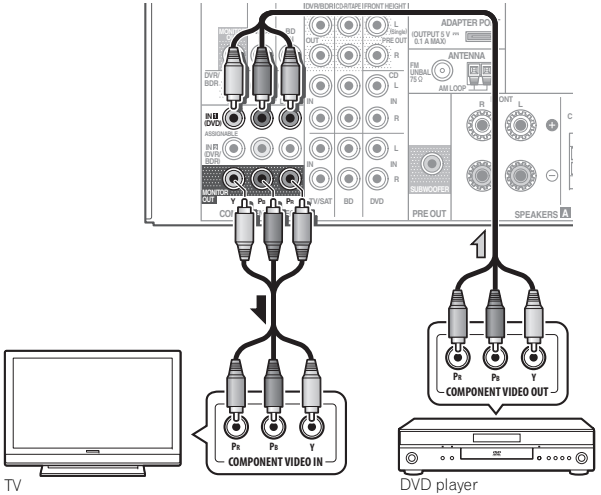
Component video should deliver superior picture quality when compared to composite video. A further advantage (if your source and TV are both compatible) is progressive-scan video, which delivers a very stable, flicker-free picture. See the manuals that came with your TV and source component to check whether they are compatible with progressive-scan video.

- For the audio connection, refer to *Connecting your component with no HDMI terminal* on page 15.

Important

- If you connect any source component to the receiver using a component video input, you must also have your TV connected to this receiver's **COMPONENT VIDEO MONITOR OUT** jacks.
- If necessary, assign the component video inputs to the input source you've connected. This only needs to be done if you didn't connect according to the following defaults:
  - **COMPONENT VIDEO IN 1**: **DVD**
  - **COMPONENT VIDEO IN 2**: **DVR/BDR**

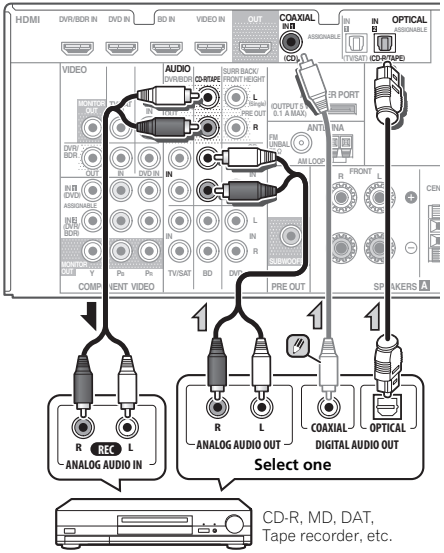
  See *The Input Assign menu* on page 33 for more on this.



Connecting other audio components

The number and kind of connections depends on the kind of component you're connecting. Follow the steps below to connect a CD-R, MD, DAT, tape recorder or other audio component.

- Note that you must connect digital components to analog audio jacks if you want to record to/from digital components (like an MD) to/from analog components.



CD-R, MD, DAT, Tape recorder, etc.

Note

- In order to listen to the audio from the CD player that is connected to this receiver using a coaxial cable, first, switch to the **CD-R** input, then press **SIGNAL SEL** to choose the audio signal **C1** (COAXIAL1) (see *Selecting the audio input signal* on page 21).

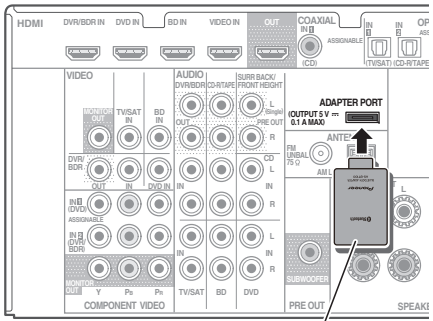
Connecting optional *Bluetooth*® ADAPTER

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 23.

Important

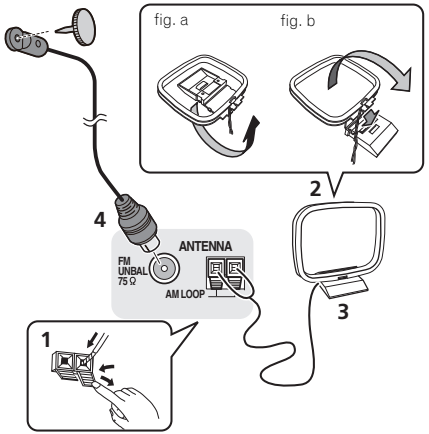
- Do not move the receiver with the *Bluetooth* ADAPTER connected. Doing so could cause damage or faulty contact.



Bluetooth® ADAPTER

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).

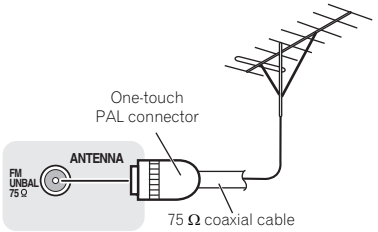
3 Place the AM antenna on a flat surface and in a direction giving the best reception.

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

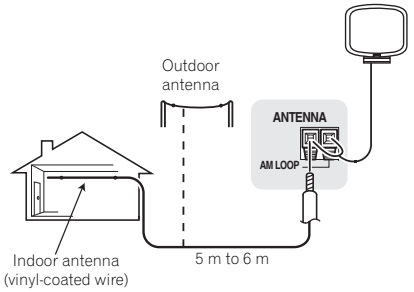
Use a PAL connector (not supplied) to connect an external FM antenna.



To improve AM reception

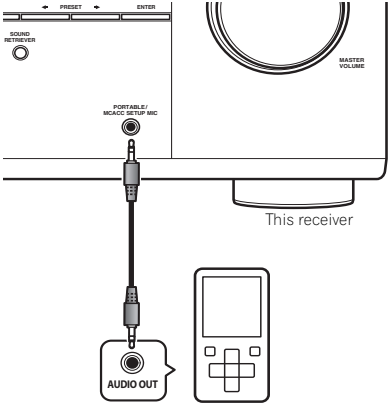
Connect a 5 m to 6 m length of vinyl-coated wire to the AM antenna terminal without disconnecting the supplied AM loop antenna.

For the best possible reception, suspend horizontally outdoors.



Connecting to the front panel audio mini jack

Front audio connections are accessed via the front panel using the **INPUT SELECTOR** or **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 35.

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 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 34.

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

Automatically setting up for surround sound (MCACC)

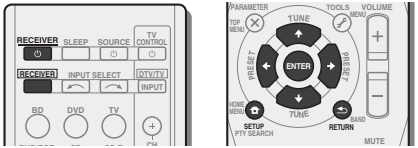
The Auto Multi-Channel Acoustic Calibration (MCACC) setup measures the acoustic characteristics of your listening area, taking into account ambient noise, speaker size and distance, and tests for both channel delay and channel level. After you have set up the microphone provided with your system, the 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

- The OSD will not appear if you have connected using the HDMI output to your TV. Use composite connections for system setup.
- 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 34). (Here is an explanation using the OSD screen for a surround back speaker connection.)

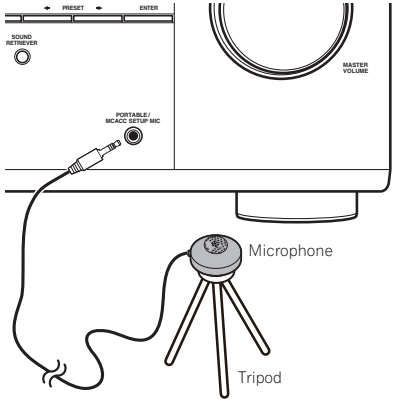


1 Switch on the receiver and your TV.

2 Switch the TV input to the input that connects this receiver to the TV through the corresponding composite or component cable.

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.



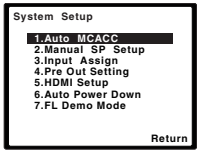
If you have a tripod, use it to place the microphone so that it's about ear level at your normal listening position. Otherwise, place the microphone at ear level using a table or a chair.

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

The System Setup 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 **SETUP** at any time to exit the System Setup 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 System Setup menu, then press ENTER.



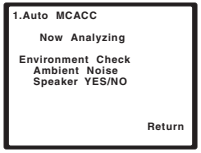
- **MIC IN** blinks when the microphone is not connected to MCACC SETUP MIC jack.

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.

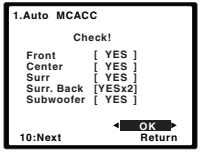
- Make sure the microphone is connected.
- Make sure the subwoofer is on and the volume is turned up.
- When using surround back or front height speakers, turn on the power to the amplifier to which the surround back or front height speakers are connected, and adjust the sound level to the desired level.
- 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.

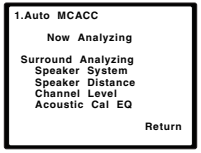


- With error messages (such as **Too much ambient noise**) select **RETRY** after checking for ambient noise (see *Other problems when using the Auto MCACC setup* below).

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 7 is left untouched for 10 seconds and **ENTER** is not pressed in step 8, 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 System Setup 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 System Setup menu (starting on page 31).

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 31.
- The subwoofer distance setting may be farther than the actual distance from the listening position. This setting should be accurate (taking delay and room characteristics into account) and generally does not need to be changed.

Other problems when using the Auto MCACC setup

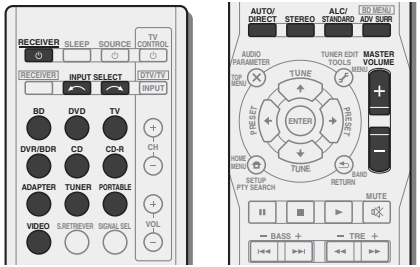
If the room environment is not optimal for the Auto MCACC setup (too much background noise, echo off the walls, obstacles blocking the speakers from the microphone) the final settings may be incorrect. Check for household appliances (air conditioner, fridge, fan, etc.), that may be affecting the environment 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 **INPUT SELECT** buttons on the remote control, or by using the front panel **INPUT SELECTOR** dial. In this case, the remote control won't switch operational modes.

If you selected the proper input source and there is still no sound, select the audio input signal for playback (see *Selecting the audio input signal* below).

4 Press AUTO/DIRECT to select 'AUTO SURROUND' 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.

When using a surround back speaker, **DD+PLIIx** is displayed when playing Dolby Digital 5.1-channel signals, and **DTS+NEO:6** is displayed when playing DTS 5.1-channel signals.

When not using a surround back speaker, **DD** is displayed when playing Dolby Digital signals.

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

Note

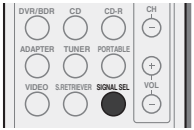
- You may need to check the digital audio output settings on your DVD player or digital satellite receiver. It should be set to output Dolby Digital, DTS and 88.2 kHz/96 kHz PCM (2 channel) audio, and if there is an MPEG audio option, set this to convert the MPEG audio to PCM.
- Depending on your DVD 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 MASTER VOLUME 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.

Selecting the audio input signal

The audio input signal can be selected for each input source. Once it is set, the audio input that was selected will be applied whenever you select the input source using the input function buttons.



- **Press SIGNAL SEL to select the audio input signal corresponding to the source component.**

Each press cycles through the following:

- **H** – Selects an HDMI signal. **H** can be selected for **BD**, **DVD**, **DVR/BDR** or **VIDEO** input. For other inputs, **H** cannot be selected.
  - When the **HDMI** option in *Setting the Audio options* on page 29 is set to **THRU**, the sound will be heard through your TV, not from this receiver.
- **A** – Selects the analog inputs.
- **C1**/**O1**/**O2** – Selects the digital input. The coaxial 1 input is selected for **C1**, and the optical 1 or 2 audio input is selected for **O1** or **O2**.

When **H** (HDMI) or **C1**/**O1**/**O2** (digital) is selected and the selected audio input is not provided, **A** (analog) is automatically selected.

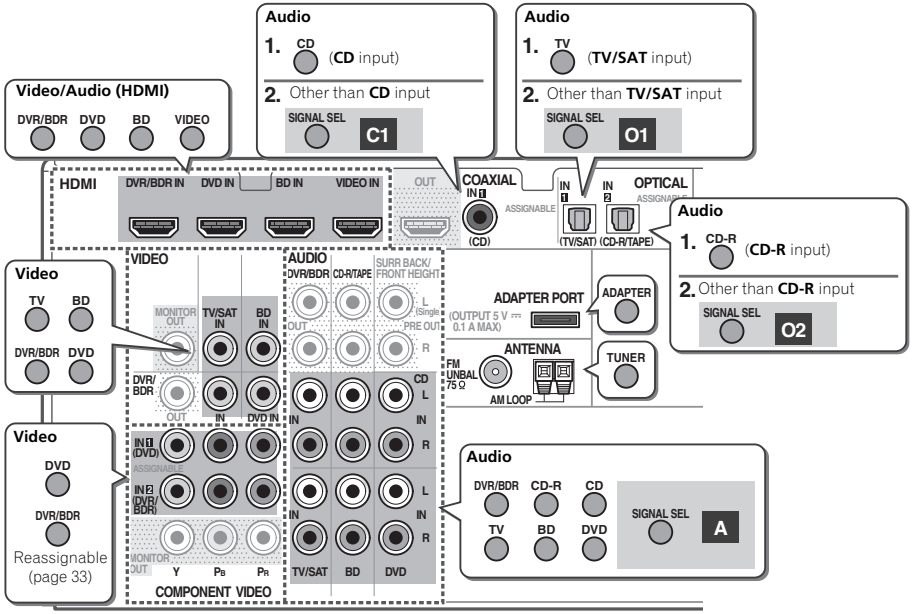
Note

- **VIDEO** input is fixed to **H** (HDMI). It cannot be changed.
- For the **TV/SAT** input, only **A** (analog) or **C1**/**O1**/**O2** (digital) can be selected. However, if the **ARC** at **HDMI Setup** is set to **ON**, the input is fixed to **H** (HDMI) and cannot be changed.
- When set to **H** (HDMI) or **C1**/**O1**/**O2** (digital), **DD** lights when a Dolby Digital signal is input, and **DTS** lights when a DTS signal is input.
- When the **H** (HDMI) is selected, the **A** and **DIGITAL** indicators are off (see page 7).

- 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, set to **A** (analog).
- 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) and set the signal input to **C1**/**O1**/**O2** (digital).
- Some DVD players don't output DTS signals. For more details, refer to the instruction manual supplied with your DVD player.

Tip

- In order to enjoy the picture and/or sound from devices connected to each terminal, select the input by doing the following.

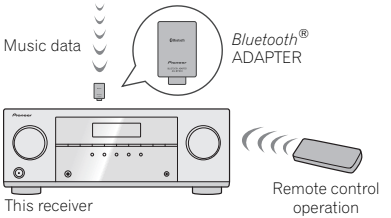


Bluetooth® ADAPTER for Wireless Enjoyment of Music

Bluetooth wireless technology enabled device: cell phone

Bluetooth wireless technology enabled device: Digital music player

Device not equipped with *Bluetooth* wireless technology: Digital music player + *Bluetooth* audio transmitter (sold commercially)



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:

NODEVICE 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.

The **ADAPTER** input can also be selected by pressing **SOUND RETRIEVER AIR** on the front panel. In this case, **S.R AIR**, the optimum listening mode, is selected automatically.

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.

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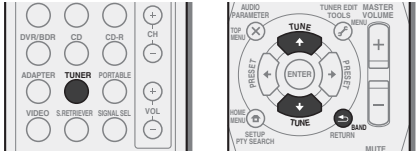
Listening to the radio

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** ↑/↓ 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** ↑/↓.

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

Improving FM sound

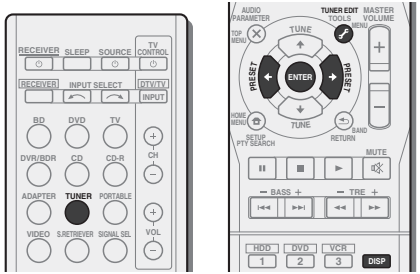
If the **TUNE** or **ST** indicators don't light when tuning to an FM station because the signal is weak, set the receiver to the mono reception mode.

- **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 TUNER EDIT.
The display shows **PRESET**, then a blinking **MEM** and station preset.

3 Press PRESET ⬅/➡ to select the station preset you want.
You can also use the number buttons.

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 **ST** 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 ⬅/➡ to select the station preset you want.**
  - You can also use the number buttons on the remote control to recall the station preset.

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 TUNER EDIT 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** ⬅/➡ to select character position.
- Use **TUNE** ↑/↓ 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 **TUNER EDIT** 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.

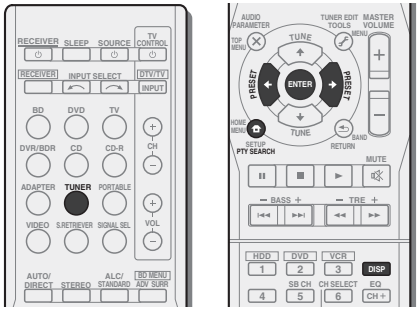
One feature of RDS is that you can search by type of program. For example, you can search for a station that's broadcasting a show with the program type, **JAZZ**.

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.

SEARCH shows in the display.

3 Press PRESET ⬅/➡ 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.

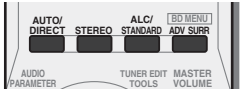
Chapter 5:

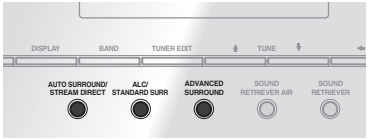
Listening to your system

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 — AUTO SURROUND/ STREAM DIRECT

The simplest, most direct listening option is the **AUTO SURROUND** 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 SURROUND** 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 **DOLBY 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 27 for more on this).

Listening in surround sound

ALC/ STANDARD — ALC/ STANDARD SURR

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.	–	–
DOLBY PLIIx MOVIE	Movie	Yes[a]	No
DOLBY PLII MOVIE		No	–
DOLBY PLIIx MUSIC[b]	Music	Yes[a]	No
DOLBY PLII MUSIC[b]		No	–
DOLBY PLIIx GAME	Video games	Yes[a]	No
DOLBY PLII GAME		No	–
DOLBY PLIIz HEIGHT[c]	Movie/Music	No	Yes
NEO:6 CINEMA[d]	Movie	–	–
NEO:6 MUSIC[d]	Music	–	–
DOLBY PRO LOGIC	Old movies	–	–
Straight Decode[e]	No additional effects	No	–
STEREO[f]	See above.	–	–
Multichannel sources			
STEREO ALC	See above.	–	–
DOLBY PLIIx MOVIE	Movie	Two[a]	No
DOLBY PLII MOVIE		No	–
DOLBY PLIIx MUSIC[b]	Music	Two[a]	No
DOLBY PLII MUSIC[b]		No	–
DOLBY DIGITAL EX	Movie/Music	Yes	No
DTS-ES	Movie/Music	Yes	No
DTS NEO:6	Movie/Music	Yes	No
DOLBY PLIIz HEIGHT	Movie/Music	No	Yes
Straight Decode[e]	No additional effects	–	–
STEREO[f]	See above.	–	–

a. If surround back channel processing (page 28) is switched off, or the surround back speakers are set to **NO**, **DOLBY PLIIx** becomes **DOLBY PLII** (5.1 channel sound).
b. You can also adjust the **C.WIDTH**, **DIMEN.**, and **PNRM.** effect (see *Setting the Audio options* on page 29).
c. You can also adjust the **H.GAIN** effect (see *Setting the Audio options* on page 29).
d. You can also adjust the **C.IMG** effect (see *Setting the Audio options* on page 29).
e. Cannot be selected when the **Pre Out** is set to **Surr. Back** (see *The Pre Out Setting* on page 34).
f. • You can choose the **STEREO** mode by using **STEREO** button on the remote control.
• The audio is heard with your surround settings and you can still use the Midnight, Loudness, Phase Control, Sound Retriever and Tone functions.

Note

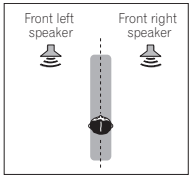
• In modes that give 6.1 channel sound, the same signal is heard from both surround back speakers.

Using the Advanced surround

BD MENU / ADV SURR — ADVANCED SURROUND

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.
ADVANCED 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
F.S.S.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.
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

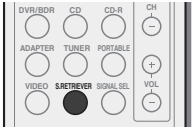
AUTO/ DIRECT — AUTO SURROUND/ STREAM DIRECT

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

AUTO SURROUND	See *Auto playback* on page 26.
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 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.



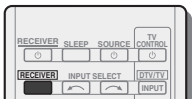
● **Press S.RETRIEVER to switch the S.RTV (Sound Retriever) ON or OFF.**

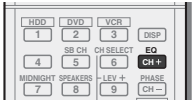
Note

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

Listening with Acoustic Calibration EQ

You can listen to sources using the Acoustic Calibration Equalization set in *Automatically setting up for surround sound (MCACC)* on page 19. Refer to these pages for more on Acoustic Calibration Equalization.





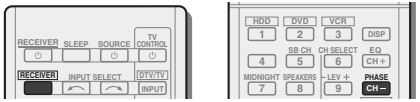
● **While listening to a source, press RECEIVER, then press EQ to switch the EQ (Acoustic Calibration EQ) ON or OFF.**
The MCACC indicator on the front panel lights when Acoustic Calibration EQ is active.

• You can't use Acoustic Calibration EQ with Stream Direct mode and it has no effect with headphones.

Better sound using Phase Control

This receiver's 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.



● **Press RECEIVER, then press PHASE to switch the P.CTL (Phase Control) ON or OFF.**

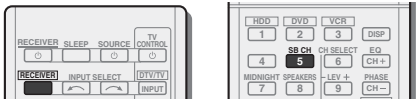
Note

- 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.

Using surround back channel processing

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).

- 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.



● **Press RECEIVER, then press SB CH repeatedly to cycle the surround back channel options.**

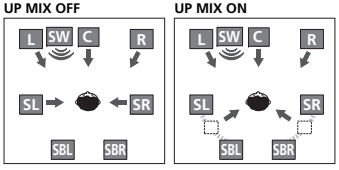
Each press cycles through the options as follows:

- **SB ON** – Matrix decoding processing for generating the surround back component from the surround component is turned on.
- **SB AUTO** – 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.
- **SB OFF** – Matrix decoding processing for generating the surround back component from the surround component is turned off.

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 10.
- 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 While holding down PRESET ➡ on the front panel, and hold the ⏻ STANDBY/ON for about two seconds.

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

- When set to **ON**, the ▪▪ (Up Mix) indicator on the front panel lights.

Note

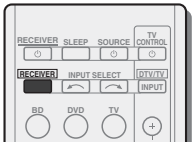
- Set to **ON** regardless of this setting when playing DTS-HD signals.
- May automatically be set to **OFF** even when set to **ON**, depending on the input signal and listening mode.

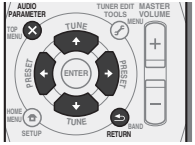
Setting the Audio options

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

Important

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





1 Press RECEIVER, then press AUDIO PARAMETER 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)
EQ (Acoustic Calibration EQ) Switches on/off the effect of Acoustic Calibration EQ.	**ON** *OFF*
S.DELAY (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**
MIDNIGHT/**LOUDNESS**[a] 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.	**M/L OFF** *MIDNIGHT* *LOUDNESS*
S.RTV (Sound Retriever)[b] 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**[c] *ON*
DUAL MONO[d] 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
F.PCM (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**[e] *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.	**0** (0 dB) *5 (–5 dB)* *10 (–10 dB)* *15 (–15 dB)* *20 (–20 dB)* *** (OFF)*
SACD G. (SACD Gain)[f] Brings out detail in SACDs by maximizing the dynamic range (during digital processing).	**0** (0 dB) *+6 (+6 dB)*
HDMI (HDMI Audio) Specifies the routing of the HDMI audio signal out of this receiver (**AMP**) or through to a TV (**THRU**). When **THRU** is selected, no sound is output from this receiver.	**AMP** *THRU*
A.DLY (Auto Delay)[g] 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*
C.WIDTH (Center Width)[h] (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**
DIMEN (Dimension)[h] 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**

Setting/What it does	Option(s)
PNRM. (Panorama)[h] Extends the front stereo image to include surround speakers for a 'wraparound' effect.	**OFF** / *ON*
C.IMG (Center Image)[i] (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)
H.GAIN (Height Gain) Adjusts the output from the front height speaker when listening in **DOLBY PLIIz HEIGHT** mode. If set to **H**, the sound from the top will be more emphasized.	*L (Low)* / **M** (Mid) / *H (High)*

a. You can change the MIDNIGHT/LOUDNESS options at any time by using **MIDNIGHT** button.

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

c. The default setting when the **ADAPTER** input is selected is **ON**.

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

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

f. 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.

g. 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 **A.DLY** to **OFF** and adjust the delay time manually. For more details about the lip-sync feature of your display, contact the manufacturer directly.

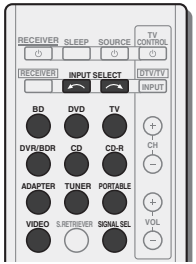
h. Only available with 2-channel sources in **DOLBY PLII MUSIC** mode.

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

Making an audio or a video recording

You can make an audio or a video recording from the built-in tuner, or from an audio or video source connected to the receiver (such as a CD player or TV).

Only video signals that were input to this receiver through a composite video cable or analog audio inputs can be recorded. Signals that were input through an HDMI cable, component video cable or digital audio cable (optical / coaxial) cannot be recorded (see *Connecting other audio components* on page 17 for more on connections).



1 Press input function buttons to select the input function you want to record.

The input of the receiver will switch over, and you will be able to operate other components using the remote control.

- The input source can also be selected by using **INPUT SELECT** ↶↷ buttons on the remote control, or by using the front panel **INPUT SELECTOR** dial.

2 Select the audio input signal (if necessary).

Press **SIGNAL SEL** and select the analog inputs (**A**) for the source component of which you want to record (see page 21 for more on this).

3 Prepare the source you want to record.

Tune to the radio station, load the CD, video, DVD etc.

4 Prepare the recorder.

Insert a blank tape, MD, video etc. into the recording device and set the recording levels.

Refer to the instructions that came with the recorder if you are unsure how to do this. Most video recorders set the audio recording level automatically—check the component's instruction manual if you're unsure.

5 Start recording, then start playback of the source component.

Note

- The receiver's volume, balance, tone (bass, treble, loudness), and surround effects have no effect on the recorded signal.
- Some video sources are copy-protected. These cannot be recorded.

Chapter 6:

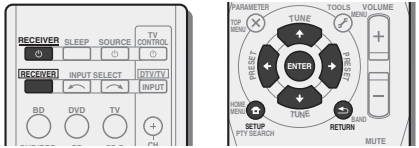
The System Setup menu

Using the System Setup 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

- The OSD will not appear if you have connected using the HDMI output to your TV. Use component or composite connections for system setup.
- If headphones are connected to the receiver, disconnect them.



1 Switch on the receiver and your TV.

Press ⏻ **RECEIVER** to switch on.

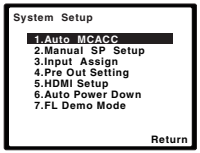
2 Switch the TV input to the input that connects this receiver to the TV through the corresponding composite or component cable.

3 Press RECEIVER, then press SETUP.

The System Setup 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 **SETUP** at any time to exit the System Setup 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 Setting** – Specify the size and number of speakers you've connected (see below).
  - **Crossover Network** – Specify which frequencies will be sent to the subwoofer (page 32).
  - **Channel Level** – Adjust the overall balance of your speaker system (page 32).
  - **Speaker Distance** – Specify the distance of your speakers from the listening position (page 33).
- **Input Assign** – Specify what you've connected to the component video inputs (see *The Input Assign menu* on page 33).
- **Pre Out Setting** – Specify how to use the **PRE OUT SURR BACK/FRONT HEIGHT** outputs (see *The Pre Out Setting* on page 34).
- **HDMI Setup** – Sets synchronized operations when connected to a device/TV that supports the **Control** with HDMI function (see *HDMI Setup* on page 35).
- **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 34).
- **FL Demo Mode** – Sets the demo display on the front panel display (see *The FL Demo Mode menu* on page 34).

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 System Setup are output at high volume.

Important

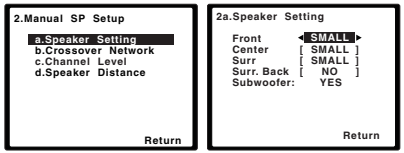
- Depending on the **Pre Out Setting**, there will be differences in the speaker items that can be adjusted. The OSD display for these operating instructions is an example of when the **Pre Out Setting** is set to **Surr. Back**.

Speaker 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 System Setup 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

- 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.

Crossover Network

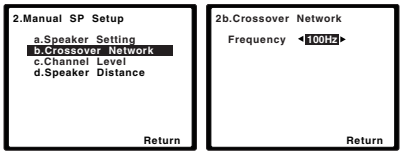
- Default setting: **100Hz**

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 31.

1 Select 'Manual SP Setup' from the System Setup menu.

2 Select 'Crossover Network' 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).

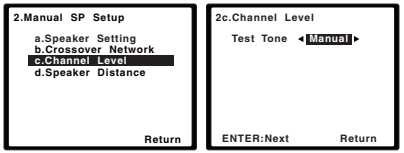
4 When you're finished, press RETURN.
You return to the Manual SP Setup menu.

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 System Setup menu.

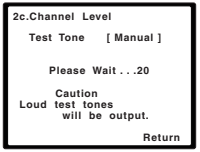
2 Select 'Channel Level' from the Manual SP Setup menu.



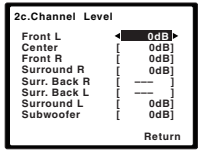
3 Select a setup option.

- **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.

Tip

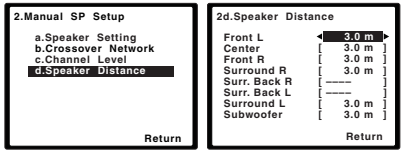
- You can change the channel levels at any time by press RECEIVER, then press **CH SELECT** and **LEV +/–** on the remote control. You can also press **CH SELECT** and use ⬆/⬇ to select the channel, and then use ⬅/➡ to adjust the channel levels.

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 System Setup 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 Input Assign menu

You only need to make settings in the Input Assign menu if you didn't hook up your equipment according to the default settings for the component video inputs.

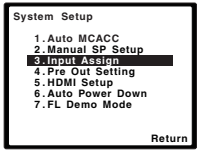
- Default settings:
  - **Component-1**: **DVD**
  - **Component-2**: **DVR** (**DVR/BDR**)

Important

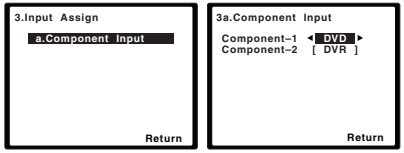
- If you connect any source component to the receiver using a component video input, you should also have your TV connected to this receiver's **COMPONENT VIDEO MONITOR OUT** output (down converting component video is not possible after assigning an input).

If you didn't make component video connections according to the defaults above, you must assign the numbered input to the component you've connected (or else you may see the video signal of a different component). For more on this, see *Using the component video jacks* on page 16.

1 Select 'Input Assign' from the System Setup menu.



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



3 Select the number of the component video input to which you've connected your video component.
The numbers correspond with the numbers beside the inputs on the rear of the receiver.

4 Select the component that corresponds with the one you connected to that input.
Select between **BD**, **DVD**, **TV** (**TV/SAT**), **DVR** (**DVR/BDR**) or **OFF**.

- Use ⬅/➡ and **ENTER** to do this.
- If you assign a component input to a certain function, any component inputs previously assigned to that function will automatically be switched off.
- Make sure you have connected the audio from the component to the corresponding inputs on the rear of the receiver.

5 When you're finished, press RETURN.
You return to the Input Assign menu.

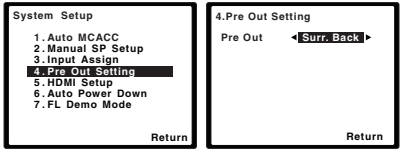
- For the assignment of the digital signal inputs, see *Selecting the audio input signal* on page 21.

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 System Setup 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.

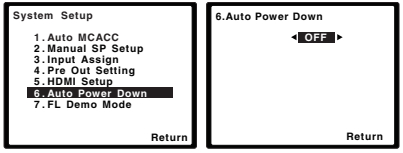
You return to the System Setup menu.

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: **OFF**

1 Select 'Auto Power Down' from the System Setup 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).

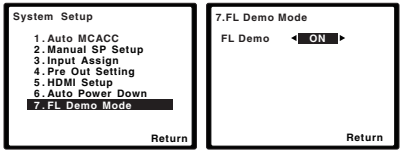
3 When you're finished, press RETURN.

You return to the System Setup 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 System Setup menu.



2 Choose ON or OFF for the demo display.

3 When you're finished, press RETURN.

You return to the System Setup 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.

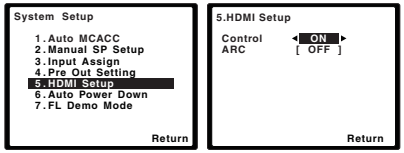
2 Switch the TV input to the input that connects this receiver to the TV through the corresponding composite or component cable.

3 Press RECEIVER, then press SETUP.

The System Setup 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 **SETUP** at any time to exit the System Setup menu.

4 Select 'HDMI Setup' from the System Setup 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 System Setup 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 34).

→ 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 35).

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.

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 **MASTER VOLUME** to turn up the volume.

→ Press **MUTE** on the remote control to turn muting off.

→ Set the **SIGNAL SEL** to **H** (HDMI), **C1**/**O1**/**O2** (digital) or **A** (analog) according to the type of connections made (refer to page 21).

→ Make sure the component is connected correctly (refer to *Connecting your equipment* on page 10).

→ 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 10).

→ Use the same type of video cables for the source component and TV to connect to this receiver (see *About video outputs connection* on page 13).

→ Check *The Input Assign menu* on page 33 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.

No sound from 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 31 to **YES** or **PLUS**.

→ Switch the *LFE ATT (LFE Attenuate)* on page 29 to **LFEATT 0** or **LFEATT 5**.

No sound from surround or center speakers.

→ Connect the speakers properly (refer to page 11).

→ Refer to *Speaker Setting* on page 31 to check the speaker settings.

→ Refer to *Channel Level* on page 32 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 0º (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 33).

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 18).

→ 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 18).

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 9).
→ Operate within 7 m, 30° of the remote sensor (refer to page 9).
→ 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** on the remote control 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 34).

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.

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 component or composite 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 component or 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 component or 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 (System Setup menu, etc.) isn't displayed.
→ The OSD will not appear if you have connected using the HDMI output to your TV. Use component or composite connections when setting up the system.

No sound, or sound suddenly ceases.
→ Check that the Audio Parameter setting is set to **HDMI AMP/THRU** (refer to page 29).
→ 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 35).
→ 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).

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.

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 While holding down BAND, press and hold ⏻ STANDBY/ON for about two seconds.

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

4 Press ALC/STANDARD SURR 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
. . . . . 130 W per channel (1 kHz, 6 Ω, 1 %)
. . . . . 100 W per channel (20 Hz to 20 kHz, 8 Ω, 0.09 %)
Total Harmonic Distortion
. . . . . 0.06 % (20 Hz to 20 kHz, 8 Ω, 50 W/ch)
Frequency response (LINE Pure Direct mode)
. . . . . 5 Hz to 100 kHz $^{+0}_{-3}$ dB
Guaranteed speaker impedance . . . . . 6 Ω to 16 Ω
Input (Sensitivity/Impedance)
LINE . . . . . 200 mV/47 kΩ
Output (Level/Impedance)
REC . . . . . 200 mV/2.2 kΩ
Signal-to-Noise Ratio (IHF, short circuited, A network)
LINE . . . . . 98 dB

Video section

Signal level
Composite . . . . . 1 Vp-p (75 Ω)
Component Video . . . . . Y: 1.0 Vp-p (75 Ω)
PB, PR: 0.7 Vp-p (75 Ω)
Corresponding maximum resolution
Component Video 1080p (1125p)

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
ADAPTER PORT terminal . . . . . 5 V, 100 mA

Miscellaneous

Power Requirements . . . . . AC 220 V to 230 V, 50 Hz/60 Hz
Power Consumption . . . . . 415 W
In standby . . . . . 0.45 W
(**Control** with HDMI function: OFF)
Dimensions . . . . . 435 mm (W) x 168 mm (H) x 362.5 mm (D)
Weight (without package) . . . . . 9.0 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
These operating instructions

Note

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

http://www.pioneer.co.uk

http://www.pioneer.eu

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