Register your product at
http://www.pioneerelectronics.com (US)
http://www.pioneerelectronics.ca (Canada)

- Protect your new investment
  The details of your purchase will be on file for reference in the event of an insurance claim such as loss or theft.
- Receive free tips, updates and service bulletins on your new product
- Improve product development
  Your input helps us continue to design products that meet your needs.
- Receive a free Pioneer newsletter
  Registered customers can opt in to receive a monthly newsletter.

Operating Instructions
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.

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).

IMPORTANT NOTICE
– THE SERIAL NUMBER FOR THIS EQUIPMENT IS LOCATED IN THE REAR.
PLEASE WRITE THIS SERIAL NUMBER ON YOUR ENCLOSED WARRANTY CARD AND KEEP IN A SECURE AREA. THIS IS FOR YOUR SECURITY.

NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada.

Information to User
Alterations or modifications carried out without appropriate authorization may invalidate the user’s right to operate the equipment.

CAUTION: This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

FEDERAL COMMUNICATIONS COMMISSION DECLARATION OF CONFORMITY
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Product Name: AUDIO/VIDEO MULTI-CHANNEL RECEIVER
Model Number: VSX-1019AH-K, VSX-919AH-K
Responsible Party Name: PIONEER ELECTRONICS SERVICE INC.
Address: 1905 E. DOMINGUEZ ST. LONG BEACH, CA 90801-1760, USA
Phone: 1-800-421-1404

WARNING: Handling the cord on this product or cords associated with accessories sold with the product will expose you to chemicals listed on proposition 65 known to the State of California and other governmental entities to cause cancer and birth defect or other reproductive harm.

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.

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org.

WARNING: This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org.

WARNING: Wash hands after handling.

WARNING: Handling the cord on this product or cords associated with accessories sold with the product will expose you to chemicals listed on proposition 65 known to the State of California and other governmental entities to cause cancer and birth defect or other reproductive harm.

CAUTION: This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

FEDERAL COMMUNICATIONS COMMISSION DECLARATION OF CONFORMITY
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Product Name: AUDIO/VIDEO MULTI-CHANNEL RECEIVER
Model Number: VSX-1019AH-K, VSX-919AH-K
Responsible Party Name: PIONEER ELECTRONICS SERVICE INC.
Address: 1905 E. DOMINGUEZ ST. LONG BEACH, CA 90801-1760, USA
Phone: 1-800-421-1404

WARNING: Handling the cord on this product or cords associated with accessories sold with the product will expose you to chemicals listed on proposition 65 known to the State of California and other governmental entities to cause cancer and birth defect or other reproductive harm.

WARNING: Wash hands after handling.

WARNING: This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org.
**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**

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

**IMPORTANT SAFETY INSTRUCTIONS**

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

**VENTILATION CAUTION**

When installing this unit, make sure to leave space around the unit for ventilation to improve heat radiation (at least 60 cm at top, 10 cm at rear, and 30 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.

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).

**WARNING**

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

**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).

**CAUTION**

To prevent fire hazard, the Class 2 Wiring Cable should be used for connection with speaker, and should be routed away from hazards to avoid damage to the insulation of the cable.

**CAUTION**

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.

**CAUTION**

For U.S. and Australia Model

---

This page contains important safety instructions. Please read and follow all instructions carefully to ensure safe and proper use of the product.
Contents

01 Before you start
Checking what’s in the box ..................... 7
Installing the receiver ....................... 7
Loading the batteries ........................ 7

02 Controls and displays
Front panel .................................. 8
Display ...................................... 9
Remote control ............................... 11
Operating range of remote control unit ...... 13

03 Connecting your equipment
Rear panel .................................. 14
Determining the speakers’ application ...... 15
Other speaker connection .................... 16
Placing the speakers ......................... 17
Some tips for improving sound quality .. 17
Connecting the speakers ..................... 18
Installing your speaker system ............. 19
Standard 5.1/6.1/7.1-channel surround connections .... 19
Bi-amping your speakers ................. 20
Bi-wiring your speakers ................... 20
Selecting the Surround system ............ 21
Zone 2 setup .................................. 21
Speaker B setup ............................. 21
Bi-Amping setup ............................ 21
About the audio connection ............... 22
About the video converter ................. 22
Connecting your TV and playback components .. 23
Connecting using HDMI .................... 23
Connecting your DVD player with no HDMI output ........ 25
Connecting your TV with no HDMI input .... 26
Connecting a satellite/cable receiver or other set-top box .... 27
Connecting a HDD/DVD recorder, VCR and other video sources .... 28
Connecting the multichannel analog inputs .... 28
Connecting other audio components ....... 29
About the WMA9 Pro decoder ................ 29
Connecting AM/FM antennas ............... 30
Connecting external antennas ............. 30
MULTI-ZONE setup .......................... 31
Making MULTI-ZONE connections .......... 31
Connecting an IR receiver .................. 32
Operating other Pioneer components with this unit’s sensor .... 32
Connecting your SiriusConnect™ Tuner .... 33
Connecting a component to the front panel inputs ..................... 34
Connecting an iPod ......................... 34
Connecting a USB device .................... 35
Plugging in the receiver .................... 35

04 Basic Setup
Switching the speaker impedance ............. 36
Changing the OSD display language (OSD Language) ................ 36
Automatically setting up for surround sound (Auto MCACC) .......... 37
Problems when using the Auto MCACC Setup .................. 39
The Input Setup menu ...................... 39
Input function default and possible settings .... 40

05 Basic playback
Playing a source ............................ 41
Playing a source with HDMI connection .... 42
Selecting the multichannel analog inputs .... 42
Playing an iPod ............................. 43
Playing back audio files stored on an iPod .... 43
Playing a USB device ....................... 45
Playing back audio files stored on a USB memory device .......... 45
Playing back photo files stored on a USB memory device .......... 47
About playable file formats .................. 48
Listening to Satellite Radio ................. 49
Listening to SIRIUS Radio .................. 49
Saving channel presets ..................... 50
Using the SIRIUS Menu .................... 51
Listening to the radio ...................... 51
Improving FM sound ....................... 51
Using Neural THX ......................... 51
Tuning directly to a station ................ 51
Saving station presets ..................... 52
Naming station presets .................... 52
Listening to station presets ................ 52

06 Listening to your system
Auto playback ............................. 53
Listening in surround sound .............. 53
Standard surround sound ................. 53
Using the Advanced surround effects .... 54
Listening in stereo ....................... 55
Using Front Stage Surround Advance .... 55
Using Stream Direct ...................... 56
Using surround back channel processing .... 56
Using the Virtual Surround Back mode .... 57
Setting the Up Mix function .............. 57
Selecting MCACC presets ................. 58
Choosing the input signal .................. 58
Better sound using Phase Control .......... 59
## 07 KURO LINK

Making the KURO LINK connections ........................................... 60
Cautions on the KURO LINK function ........................................... 61
About connections with a product of a different brand that supports the KURO LINK function ........................................... 61
KURO LINK Setup ........................................................................... 62
Setting the POLS function ................................................................. 62
Before using synchronization ........................................................... 63
Synchronized amp mode ................................................................. 63
Synchronized amp mode operations ................................................... 63
Canceling synchronized amp mode .................................................... 63

## 08 Using other functions

Setting the Audio options ................................................................. 64
Setting the Video options ................................................................. 67
Switching the speaker system ............................................................ 69
Using the MULTI-ZONE controls ....................................................... 69
Making an audio or a video recording ............................................... 70
Reducing the level of an analog signal .............................................. 71
Using the sleep timer ...................................................................... 71
Dimming the display ....................................................................... 71
Checking your system settings .......................................................... 71
Resetting the system ....................................................................... 72
Default system settings ................................................................... 72

## 09 Controlling the rest of your system

Operating multiple receivers ............................................................ 73
Setting the remote to control other components ............................... 73
Selecting preset codes directly .......................................................... 73
Resetting the remote control presets ............................................... 74
Default preset codes ....................................................................... 74
Controls the components ................................................................ 74

## 10 The Advanced MCACC menu

Making receiver settings from the Advanced MCACC menu ................. 77
Automatic MCACC (Expert) ................................................................. 78
Manual MCACC setup ..................................................................... 82
Fine Channel Level ......................................................................... 83
Fine Speaker Distance ..................................................................... 83
Standing Wave ................................................................................ 85
Acoustic Calibration EQ Adjust .......................................................... 85
Acoustic Calibration EQ Professional ................................................ 86
Checking MCACC Data ..................................................................... 89
Speaker Setting ................................................................................ 89
Channel Level .................................................................................. 89
Speaker Distance ............................................................................ 90
Standing Wave ................................................................................ 90
Acoustic Cal EQ ............................................................................. 90
Data Management ............................................................................ 91
Renaming MCACC presets ............................................................... 91
Copying MCACC preset data ............................................................ 92
Clearing MCACC presets ................................................................ 92

## 11 The system and the other setup

Making receiver settings from the System Setup menu ....................... 93
Manual speaker setup ...................................................................... 94
Surround back speaker setting ........................................................ 94
Speaker Setting ............................................................................... 95
Channel Level .................................................................................. 96
Speaker Distance ............................................................................ 97
X-Curve .......................................................................................... 98
The Other Setup menu .................................................................... 98
Multi Channel Input Setup .............................................................. 99
ZONE Audio Setup ......................................................................... 99
Power ON Level Setup .................................................................. 100
Volume Limit Setup ...................................................................... 100
Remote Control Mode Setup ......................................................... 101
Flicker Reduction Setup .................................................................. 101

## 12 Additional information

Troubleshooting ............................................................................. 102
No sound ....................................................................................... 103
Other audio problems .................................................................... 105
Video ............................................................................................. 106
Settings .......................................................................................... 106
Professional Calibration EQ graphical output .................................... 107
Display ........................................................................................... 108
Remote control .............................................................................. 109
HDMI ............................................................................................. 109
Important information regarding the HDMI connection .................. 110
USB interface ................................................................................ 111
SIRIUS radio messages .................................................................. 112
Surround sound formats .................................................................. 113
Dolby .............................................................................................. 113
DTS ............................................................................................... 113
Windows Media Audio 9 Professional ............................................. 113
About iPod ....................................................................................... 113
About SIRIUS ................................................................................ 114
About Neural – THX Surround ......................................................... 114
Auto Surround, ALC and Stream Direct with different input signal formats ......................................................... 115
Preset code list .............................................................................. 116
Specifications ............................................................................... 125
Cleaning the unit ............................................................................ 126
Warranty ........................................................................................ 127
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. Before you start
   - Checking what’s in the box (page 7)
   - Loading the batteries (page 7)

2. Determining the speakers’ application (page 15)
   - 7.1ch surround connection
   - 5.1ch surround & Front Bi-amping connection
   - 3.1ch surround & Zone 2 connection
   - 5.1ch surround & Speaker B connection

3. Connecting the speakers
   - Placing the speakers (page 17)
   - Connecting the speakers (page 18)
   - Standard 5.1/6.1/7.1-channel surround connections (page 19)
   - Bi-amping your speakers (page 20)

4. Connecting the components
   - About the audio connection (page 22)
   - About the video converter (page 22)
   - Connecting your TV and playback components (page 23)
   - Connecting AM/FM antennas (page 30)
   - Plugging in the receiver (page 35)

5. Switching the speaker impedance (page 36)
   (Only if the impedance of the connected speakers is 6 Ω to 8 Ω)

6. Power On

7. Changing the OSD display language (OSD Language) (page 36)

8. Surround back speaker setting (page 94)

9. MCACC speaker settings
   - Automatically setting up for surround sound (Auto MCACC) (page 37)

10. The Input Setup menu (page 39)
    (When using connections other than the recommended connections)

11. Basic playback (page 41)

12. Adjusting the sound and picture quality as desired
    - Using the various listening modes
    - Using surround back channel processing (page 56)
    - Better sound using Phase Control (page 59)
    - Switches on/off the Acoustic Calibration EQ, Sound retriever or Dialog Enhancement (page 64)
    - Change the channel level while listening (70p on page 97)
    - Measure the all EQ type (SYMMETRY/ALL CH ADJ/FRONT ALIGN) (page 78)
    - Setting the PQLS function (page 62)
    - Setting the Audio options (Tone, Loudness or Sound delay, etc.) (page 64)
    - Setting the Video options (page 67)

13. Other optional adjustments and settings
    - KURO LINK Setup (page 62)
    - The Advanced MCACC menu (page 77)
    - The system and the other setup (page 93)

14. Making maximum use of the remote control
    - Operating multiple receivers (page 73)
    - Setting the remote to control other components (page 73)
Chapter 1: Before you start

Checking what’s in the box
Please check that you’ve received the following supplied accessories:

- Setup microphone (cable: 5 m (16.4 ft.))
- Remote control unit
- AA size IEC R6 dry cell batteries (to confirm system operation) x2
- AM loop antenna
- FM wire antenna
- iPod cable
- These operating instructions

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)
- Do not touch this receiver’s bottom panel while the power is turned on. The bottom panel gets hot when the power is on, and touching it could cause burns.

Loading the batteries

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.

WARNING
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.

These symbols are only valid in the European Union.
Chapter 2: Controls and displays

Front panel

1 INPUT SELECTOR dial
Use to select an input function.

2 STANDBY/ON
Switches the receiver between on and standby.
Power indicator lights when the receiver is on.
When the KURO LINK function is set to ON, the power indicator lights dimly when the power is in standby.

3 Tuner controls
BAND – Switches between AM and FM radio bands (page 51).
TUNE +/- – Use to find radio frequencies (page 51).
PRESET +/- – Use to find preset stations (page 52).
TUNER EDIT – Use with TUNE +/-, PRESET +/- and ENTER to memorize and name stations for recall (page 52).

4 PHASE CONTROL indicator – Lights to indicate Phase Control is selected (page 59).
ADVANCED MCACC indicator – Lights when EQ is set to ON in the AUDIO PARAMETER menu.
HDMI indicator – Blinks when connecting an HDMI-equipped component; lights when the component is connected (page 23).

5 Character display
See Display on page 9.

6 ENTER

7 Remote sensor
Receives the signals from the remote control (see Operating range of remote control unit on page 13).

8 MASTER VOLUME dial
9 PHONES jack
Use to connect headphones. When the headphones are connected, there is no sound output from the speakers.

10 Listening mode buttons

AUTO SURR/ALC/STREAM DIRECT – Switches between Auto Surround (page 53), Auto level control mode and Stream Direct mode (page 56).

STEREO – Switches between stereo playback, and Front Stage Surround Advance modes (page 55).

ADVANCED SURROUND – Use to switch between the various surround modes (page 54).

STANDARD SURROUND – Press for Standard decoding and to switch between the various Pro Logic IIx and Neo:6 options (page 53).

11 SPEAKERS
Use to change the speaker system (page 69).

12 MULTI-ZONE controls
If you’ve made MULTI-ZONE connections (see MULTI-ZONE setup on page 31) use these controls to control the sub zone from the main zone (see Using the MULTI-ZONE controls on page 69).

13 iPod/iPhone/USB, VIDEO INPUT terminals
Use to connect your Apple iPod as an audio and video source, or connect a USB device for audio and photo playback (page 34, 35).

See Connecting a component to the front panel inputs on page 34.

14 MCACC SETUP MIC jack
Use to connect the supplied microphone (page 37).

---

Display

1 SIGNAL indicators
Light to indicate the currently selected input signal. AUTO lights when the receiver is set to select the input signal automatically (page 58).

2 Program format indicators
Light to indicate the channels being input when PCM signals are being input. They do not indicate the audio signals being output from the receiver.

3 Digital format indicators
Light when a signal encoded in the corresponding format is detected.
4 S.RTRV
Lights when the Sound Retriever function is active (page 65).

5 MULTI-ZONE
Lights when the MULTI-ZONE feature is active (page 69).

6 DSD PCM – Light during DSD (Direct Stream Digital) to PCM conversion with SACDs. PCM – Lights during playback of PCM signals.

7 SOUND
Lights when any of the Midnight, Loudness or tone controls feature is selected (page 64). Lights when Dialog Enhancement is switched on.

8 PQLS
Lights when the PQLS feature is active (page 62).

9 UP MIX
Lights when the UP Mix is switched on (page 57).

10 Listening mode indicators
AUTO SURROUND – Lights when the Auto Surround feature is switched on (page 53). ALC – Lights when the ALC (Auto level control) mode is selected (page 56). STREAM DIRECT – Lights when Direct/Pure Direct is selected (page 56). ADV.SURROUND – Lights when one of the Advanced Surround modes has been selected (page 54). STEREO – Lights when stereo listening is switched on (page 55). STANDARD – Lights when one of the Standard Surround modes is switched on (page 53).

11 (PHASE CONTROL)
Lights when the Phase Control is switched on (page 59).

12 Analog signal indicators
Light to indicate reducing the level of an analog signal (page 71).

13 Tuner indicators
TUNED – Lights when a broadcast is being received. STEREO – Lights when a stereo FM broadcast is being received in auto stereo mode. MONO – Lights when the mono mode is set using MPX.

14 时光
Lights when the sound is muted (page 13).

15 Master volume level
Shows the overall volume level. “- - -” indicates the minimum level, and “+12dB” indicates the maximum level.

16 Input function indicators
Light to indicate the input function you have selected.

17 Scroll indicators
Light when the receiver is selectable items when making the various settings.

18 Matrix decoding format indicators
PRO LOGIC II / PRO LOGIC IIx – This lights to indicate Pro Logic II / Pro Logic IIx decoding (page 53). Neo:6 – When one of the Neo:6 modes of the receiver is on, this lights to indicate Neo:6 processing (page 53).

19 Speaker indicators
Lights to indicate the current speaker system, A and/or B (page 69).

20 SLEEP
Lights when the receiver is in sleep mode (page 71).

21 MSTR
Lights during playback of DTS-HD Master Audio signal.

22 Character display
Displays various system information.

23 Remote control mode indicator
Lights to indicate the receiver's remote control mode setting. (Not displayed when set to 1.) (page 73)
Remote control

The remote has been conveniently color-coded according to component control using the following system:

- **White** – Receiver control, TV Control
- **Blue** – Other controls

1. **RECEIVER**
   This switches between standby and on for this receiver.

2. **Input function buttons**
   Press to select control of other components (see Controlling the rest of your system on page 73).

3. **Number buttons and other receiver/component controls**
   Use the number buttons to directly select a radio frequency (page 51) or the tracks on a CD, DVD, etc.
   **ENTER** can be used to enter commands for TV or DTV.

Press **RECEIVER** first to access:

- **INPUT SELECT** – Use to select the input function (page 41).
- **SIGNAL SEL** – Use to select an input signal (page 58).
- **MCACC** – Press to switch between MCACC presets (page 58).
- **SLEEP** – Use to put the receiver in sleep mode and select the amount of time before sleep (page 71).
- **SBch** – Use to select the surround back/virtual surround back channel mode (page 56).
- **A.ATT** – Attenuates (lowers) the level of an analog input signal to prevent distortion (page 71).
- **DIMMER** – Dims or brightens the display (page 71).
- **CH LEVEL** – Press repeatedly to select a channel, then use ± to adjust the level (page 97).
02 Controls and displays

Press TUNER first to access:

D.ACCESS – After pressing, you can access a radio station directly using the number buttons (page 51).
CLASS – Switches between the seven banks (classes) of radio station presets (page 52).

4 TV CONTROL buttons
These buttons are dedicated to control the TV assigned to TV operation selector switch. Thus if you only have one TV to hook up to this system assign it to the TV operation selector switch (see page 75 for more on this).

⁩ – 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.

5 Tuner/component control button/HOME MENU
These button controls can be accessed after you have selected the corresponding input function button (DVD, DVR, TV, etc.). The BAND and T.EDIT tuner controls are explained on page 51 and page 52.

Press [RECEIVER] first to access:

AUDIO PARAMETER – Use to access the Audio options (page 64).
VIDEO PARAMETER – Use to access the Video options (page 67).
HOME MENU – Use to access the Home Menu (pages 36, 39, 62, 77, 93 and 98).
RETURN – Press to confirm and exit the current menu screen (also use to return to the previous menu with DVDs or to select closed captioning with DTV).

6 ↑/↓↔↕ (TUNE/PRESET) /ENTER
Use the arrow buttons when setting up your surround sound system (see page 77) and the Audio or Video options (page 64 or 67). Also used to control DVD menus/options and for deck 1 of a double cassette deck player. Use TUNE ↑/↓ to find radio frequencies and use PRESET ↔↕ to find preset stations (page 52).

7 Receiver controls
Press [RECEIVER] first to access:

AUTO/ALC/DIRECT – Switches between Auto Surround (page 53), Auto level control mode and Stream Direct mode (page 56).
STEREO – Switches between stereo playback, and Front Stage Surround Advance modes (page 55).
STANDARD – Press for Standard decoding and to switch between the various Pro Logic lxx and Neo:6 options (page 53).
ADV SURR – Use to switch between the various surround modes (page 54).

8 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 (for example DVD, DVR or TV). These buttons also function as described below.

Press TV first to access:

ANT – Use to select the VHF/UHF antennas or Cable TV.

Press TUNER first to access:

MPX – Switches between stereo and mono reception of FM broadcasts. If the signal is weak, then switching to mono will improve the sound quality (page 51).
Controls and displays

Press **RECEIVER** first to access:

**PHASE CTRL** – Press to switch on/off Phase Control (page 59).

**STATUS** – Press to check selected receiver settings (page 71).

**9 AUDIO** – Changes the audio or channel on DVD-discs.

**DISPLAY** – Switches between named station presets and radio frequencies.

**CH +/-** – Use to select channels for DVD/DVR units.

**10 REMOTE SETUP** – Use to input the preset code when making remote control settings and to set the remote control mode (page 73).

**TV CTRL** – Use this button to set preset code of your TV’s manufacturer when controlling TV (see Selecting preset codes directly on page 73 for more on this).

**11 MULTI-ZONE operation selector switch**
Switch to perform operations in the main zone and sub zone (page 70).

**12 Remote control LED**
Lights when a command is sent from the remote control (page 73).

**13 SOURCE**
Press to turn on/off other components connected to the receiver (see page 73 for more on this).

**14 MASTER VOLUME +/-**
Use to set the listening volume.

**15 MUTE**
Mutes the sound or restores the sound if it has been muted (adjusting the volume also restores the sound).

**16 RECEIVER**
Switches the remote to control the receiver (used to select the white commands above the number buttons (A.ATT, etc.)). Also use this button to set up surround sound.

**Operating range of remote control unit**
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 3: Connecting your equipment

This receiver provides you with many connection possibilities, but it doesn’t have to be difficult. This page explains the kinds of components you can connect to make up your home theater system.

Rear panel

Important
- Illustration shows the VSX-1019AH, however connections for the VSX-919AH are the same except where noted.

CAUTION
- Before making or changing the connections, switch off the power and disconnect the power cord from the power outlet. Plugging in should be the final step.
- To avoid hum, do not lay connected cables over the top of the receiver.
Connecting your equipment

Determining the speakers’ application

Surround sound with a strong sense of presence can be enjoyed by connecting 7 speakers and 1 subwoofer. It is also possible to achieve high sound quality using bi-amp connections and to enjoy music in other rooms using the MULTI-ZONE feature. High sound quality can be achieved with a minimum of two speakers.

- Be sure to connect speakers to the front left and right channels (FL and FR).
- The Surr Back System setting must be made if you use any of the connections shown below other than [1] (see Selecting the Surr Back system on page 21).

[1] 7.1ch surround connection (Simple connection & Best surround)

*Default setting

These connections prioritize surround sound with a speaker layout like that in a movie theater.

- Surr Back System setting: Normal (default)
- If you have six speakers, either only connect one surround back speaker (6.1 ch surround), or connect for the 7.1-channel setting as shown on the diagram below but without the center speaker.

[2] 5.1ch surround & Front Bi-amping connection (High quality surround)

Bi-amping connection of the front speakers for high sound quality with 5.1-channel surround sound.

- Surr Back System setting: Front Bi-Amp

[3] 5.1ch surround & Zone 2 connection (Multi Zone)

With these connections you can simultaneously enjoy 5.1-channel surround sound in the main zone with stereo playback on another component in Zone 2. (The selection of input devices is limited.)

- Surr Back System setting: Zone2
[4] 5.1ch surround & Speaker B connection
With these connections you can simultaneously enjoy 5.1-channel surround sound in the main zone with stereo playback of the same sound on the B speakers.

- **Surr Back System setting: Speaker B**

![Diagram of speaker connections]

**Other speaker connection**
- Your favorite speaker connections can be selected even if you have fewer than 5.1 speakers.
- When not connecting a subwoofer, connect speakers with low frequency reproduction capabilities to the front channel. (The subwoofer’s low frequency component is played from the front speakers, so the speakers could be damaged.)
- **After connecting, be sure to conduct the Auto MCACC (speaker environment setting) procedure** (page 37).
Connecting your equipment

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

5.1 channel surround system:

6.1 channel surround system:

7.1 channel surround system:

Some tips for improving sound quality
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 (6 ft. to 9 ft.) apart, at equal distance from the TV.
- If you’re using a center speaker, place the front speakers at a wider angle. If not, place them at a narrower angle.
- Place the center speaker above or below the TV so that the sound of the center channel is localized at the TV screen. Also, make sure the center speaker does not cross the line formed by the leading edge of the front left and right speakers.
- 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 (2 ft. to 3 ft.) higher than your ears and tilted 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 Lip Mix function (see Setting the Lip Mix function on page 57).
- 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.
Connecting the speakers

Each speaker connection on the receiver comprises a positive (+) and negative (–) terminal. Make sure to match these up with the terminals on the speakers themselves.

⚠️ 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.

Bare wire connections
1. Twist exposed wire strands together. *(fig. A)*
2. Loosen terminal and insert exposed wire. *(fig. B)*
3. Tighten terminal. *(fig. C)*

10 mm (3/8 in.)

Banana plug connections
If you want to use speaker cables terminated with banana plugs, screw the speaker terminal fully shut, then plug the banana plug into the end of the speaker terminal.

🔥 Important
- Please refer to the manual that came with your speakers for details on how to connect the other end of the speaker cables to your speakers.
- Use an RCA cable to connect the subwoofer. It is not possible to connect using speaker cables.

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

Installing your speaker system

At the very least, front left and right speakers only are necessary. Note that your main surround speakers should always be connected as a pair, but you can connect just one surround back speaker if you like (it must be connected to the left surround back terminal).

Standard 5.1/6.1/7.1-channel surround connections

The surround back terminals can also be used for the Speaker B and Zone 2.

Surround back left : Surround back right
Surround back : No connect
Speaker B - Left : Speaker B - Right
Zone 2 - Left : Zone 2 - Right

7.1 ch surround setting
6.1 ch surround setting
Speaker B setting
Zone 2 setting
Bi-amping your speakers

Bi-amping is when you connect the high frequency driver and low frequency driver of your speakers to different amplifiers for better crossover performance. Your speakers must be bi-amp-compatible to do this (having separate terminals for high and low) and the sound improvement will depend on the kind of speakers you're using.

⚠️ CAUTION

- Most speakers with both High and Low terminals have two metal plates that connect the High to the Low terminals. These must be removed when you are bi-amping the speakers or you could severely damage the amplifier. See your speaker manual for more information.
- If your speakers have a removable crossover network, make sure you do not remove it for bi-amping. Doing so may damage your speakers.

Bi-wiring your speakers

Your speakers can also be bi-wired if they support bi-amping.

- With these connections, the Surr Back System setting makes no difference.
- To bi-wire a speaker, connect two speaker cables to the speaker terminal on the receiver. Using a banana plug for the second connection is recommended.

⚠️ CAUTION

- Don’t connect different speakers from the same terminal in this way.
- When bi-wiring as well, heed the cautions for bi-amping shown at the left.
Selecting the Surr Back system

The surround back terminals can be used for bi-amping, Speaker B and Zone 2 connections, in addition to for the surround back speakers. Make this setting according to the application.

Zone 2 setup

With these connections you can simultaneously enjoy 5.1-channel surround sound in the main zone with stereo playback on another component in Zone 2.

1. Connect a pair of speakers to the surround back speaker terminals.
   See Standard 5.1/6.1/7.1-channel surround connections on page 19.

2. Select 'ZONE 2' from the Surr Back System menu.
   See Surround back speaker setting on page 94 to do this.

Speaker B setup

You can listen to stereo playback in another room.

1. Connect a pair of speakers to the surround back speaker terminals.
   See Standard 5.1/6.1/7.1-channel surround connections on page 19.

2. Select 'Speaker B' from the Surr Back System menu.
   See Surround back speaker setting on page 94 to do this.

Bi-Amping setup

Bi-amping connection of the front speakers for high sound quality with 5.1-channel surround sound.

1. Connect a Bi-amp compatible speakers to the front and surround back speaker terminals.
   See Bi-amping your speakers on page 20.

2. Select the 'Front Bi-Amp' setting from the 'Surr Back System' menu.
   See Surround back speaker setting on page 94 to do this.
Connecting your equipment

About the audio connection
There are several types of audio input and output terminals on this receiver. The receiver selects the first available signal in the following order:

<table>
<thead>
<tr>
<th>Types of cables and terminals</th>
<th>Transferable audio signals</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDMI</td>
<td>HD audio</td>
</tr>
<tr>
<td>Digital (Coaxial)</td>
<td>Conventional digital audio</td>
</tr>
<tr>
<td>Digital (Optical)</td>
<td></td>
</tr>
<tr>
<td>RCA (Analog) (White/Red)</td>
<td>Conventional analog audio</td>
</tr>
</tbody>
</table>

- With an HDMI cable, video and audio signals can be transferred in high quality over a single cable.

⚠️ CAUTION
- 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.

Note
- If the video signal does not appear on your TV or flat panel TV, try adjusting the resolution settings on your component or display. Note that some components (such as video game units) have resolutions that may not be converted. In this case, try switching Digital Video Conversion (in Setting the Video options on page 67) OFF.
- The signal input resolutions that can be converted from the component video input for the HDMI output are 480i/576i, 480p/576p, 720p and 1080i. 1080p signals cannot be converted.
- Only signals with an input resolution of 480i/576i can be converted from the component video input for the composite monitor output.

About the video converter
The video converter ensures that all video sources are output through all of the MONITOR VIDEO OUT jacks. The only exception is HDMI: since this resolution cannot be downscaled, you must connect your monitor/TV to the receiver’s HDMI video outputs when connecting this video source. ¹

If several video components are assigned to the same input function (see The Input Setup menu on page 39), the converter gives priority to HDMI, component, then composite (in that order).

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.
Connecting your 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 Pioneer KURO LINK feature, the convenient KURO LINK functions can be used (see KURO LINK on page 60).

- When connecting a Blu-ray disc player, connect the player to the receiver’s BD IN terminal.
- The HDMI indicator lights on the front panel when an HDMI-equipped component is connected.
- For input components, connections other than HDMI connections are also possible (see Connecting your DVD player with no HDMI output on page 25).
- If your Blu-ray disc player offers multi-channel analog audio outputs, see Connecting the multichannel analog inputs on page 28.
Connecting your equipment

- The sound of the TV cannot be heard over the receiver if the TV is connected using an HDMI cable.
- If you want to listen to the sound of the TV over the receiver, connect the receiver and TV with audio cables.

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. See About the video converter on page 22 for more on HDMI compatibility.

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.))
- DeepColor signal transfer
- x.v.Color signal transfer
- 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 signal), Video CD, Super VCD

Note

1. An HDMI connection can only be made with DVI-equipped components compatible with both DVI and High Bandwidth Digital Content Protection (HDCP). If you choose to connect to a DVI connector, you will need a separate adaptor (DVI-HDMI) to do so. A DVI connection, however, does not support audio signals. Consult your local audio dealer for more information.
2. If you connect a component that is not compatible with HDCP, an HDCP ERROR message is displayed on the front panel display. Some components that are compatible with HDCP still cause this message to be displayed, but so long as there is no problem with displaying video this is not a malfunction.
3. Depending on the component you have connected, using a DVI connection may result in unreliable signal transfers.
4. This receiver supports SACD, Dolby Digital Plus, Dolby TrueHD and DTS-HD Master Audio. To take advantage of these formats, however, make sure that the component connected to this receiver also supports the corresponding format.

2 Signal transfer is only possible when connected to a compatible component.
Connecting your DVD player with no HDMI output

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

- If you want to listen to the sound of the TV over the receiver, connect the receiver and TV with audio cables.
- Component video should give superior picture quality when compared to composite. You can also take advantage of progressive scan video (if your source and TV are both compatible), 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.
Connecting your TV with no HDMI input

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

- With these connections, the picture is not output to the TV even if the DVD player is connected with an HDMI cable. Connect the DVD player’s video signals using a composite or component cord.

- Connect using an HDMI cable to listen to HD audio on the receiver. Do not use an HDMI cable to input video signals. Depending on the video component, it may not be possible to output signals connected by HDMI and other methods simultaneously, and it may be necessary to make output settings. Please refer to the operating instructions supplied with your component for more information.

- Component video should give superior picture quality when compared to composite. You can also take advantage of progressive scan video (if your source and TV are both compatible), 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.
Connecting your equipment

• If your DVD player has multichannel analog outputs, you can connect these instead. See also Connecting the multichannel analog inputs on page 28.
• The input functions below are assigned by default to the receiver’s different input terminals. Refer to The Input Setup menu on page 39 to change the assignments if other connections are used.

For example, the BD terminal is fixed to BD input; no other audio signals can be input to this terminal.

### Connecting a satellite/cable receiver or other set-top box

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

When you set up the receiver you’ll need to tell the receiver which input you connected the set-top box to (see The Input Setup menu on page 39).

<table>
<thead>
<tr>
<th>Input function</th>
<th>Input Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD</td>
<td>CDAX-1&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>/COAX&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>BD</td>
<td>(BD)</td>
</tr>
<tr>
<td>TV/SAT</td>
<td>OPT-1</td>
</tr>
<tr>
<td>DVR</td>
<td>OPT-2</td>
</tr>
<tr>
<td>HDMI 1</td>
<td>(HDMI-1)</td>
</tr>
<tr>
<td>HDMI 2</td>
<td>(HDMI-2)</td>
</tr>
<tr>
<td>HDMI 3&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(HDMI-3)</td>
</tr>
<tr>
<td>CD</td>
<td>COAX-2&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> VSX-1019AH model only.
<sup>b</sup> VSX-919AH model only.
03 Connecting your equipment

Connecting a HDD/DVD recorder, VCR and other video sources

This receiver has two sets of audio/video inputs and outputs suitable for connecting analog or digital video devices, including HDD/DVD recorders and VCRs.

When you set up the receiver you’ll need to tell the receiver which input you connected the recorder to (see also The Input Setup menu on page 39).

VSX-1019AH

- In order to record, you must connect the analog audio cables (the digital connection is for playback only).

Connecting the multichannel analog inputs

For DVD Audio and SACD playback, your DVD player may have 5.1 channel analog outputs. Make sure that the player is set to output multichannel analog audio.

VSX-1019AH

- If your player has 7.1-channel analog outputs, the player’s surround back output terminals are not used. Please refer to the operating instructions supplied with your component for more information.
Connecting your equipment

Connecting other audio components

This receiver has both digital and analog inputs, allowing you to connect audio components for playback.

This receiver features five stereo audio-only inputs. One of these inputs have corresponding outputs for use with audio recorders.

Most digital components also have analog connections.

When you set up the receiver you’ll need to tell the receiver which input you connected the component to (see also The Input Setup menu on page 39).

- If your turntable has line-level outputs (i.e., it has a built-in phono pre-amp), connect it to the CD inputs instead.
- If you’re connecting a recorder, connect the analog audio outputs to the analog audio inputs on the recorder.

About the WMA9 Pro decoder

This unit has an on-board Windows Media™ Audio 9 Professional™ (WMA9 Pro) decoder, so it is possible to playback WMA9 Pro-encoded audio using HDMI, coaxial or optical digital connection when connected to a WMA9 Pro-compatible player. However, the connected DVD player, set-top box, etc. must be able to output WMA9 Pro format audio signals through a coaxial or optical digital output.

Note

1. Windows Media and the Windows logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.
2. With WMA9 Pro, sound problems may occur depending on your computer system. Note that WMA9 Pro 96 kHz sources will be downsampling to 48 kHz.
Connecting AM/FM antennas

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

1. Pull off the protective shields of both AM antenna wires.
2. Push open the tabs, then insert one wire fully into each terminal, then release the tabs to secure the AM antenna wires.
3. 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).
   - If you plan to mount the AM antenna to a wall or other surface, secure the stand with screws (fig. c) before clipping the loop to the stand. Make sure the reception is clear.
4. Place the AM antenna on a flat surface and in a direction giving the best reception.
5. Connect the FM wire antenna in the same way as the AM loop antenna.
   For best results, extend the FM antenna fully and fix to a wall or door frame. Don’t drape loosely or leave coiled up.

Connecting external antennas

To improve FM reception connect an external FM antenna to the FM UNBAL 75 Ω.

To improve AM reception, connect a 5 m to 6 m (16 ft. to 20 ft.) length of vinyl-coated wire to the AM LOOP terminals without disconnecting the supplied AM loop antenna.

For the best possible reception, suspend horizontally outdoors.
**Connecting your equipment**

**MULTI-ZONE setup**
This receiver can power up to two independent systems in separate rooms after you have made the proper MULTI-ZONE connections. Different sources can be playing in two zones at the same time or, depending on your needs, the same source can also be used. The main and sub zone have independent power (the main zone power can be off while sub zone is on) and the sub zone can be controlled by the remote or front panel controls. However, you may need to specify the volume settings in ZONE Audio Setup on page 99.

**Making MULTI-ZONE connections**
It is possible to make these connections if you have a separate TV and speakers for the sub zone (ZONE2). You will also need a separate amplifier if you are not using the MULTI-ZONE setup using speaker terminals (Zone 2) below for the sub zone.

**MULTI-ZONE listening options**
The following table shows the signals that can be output to ZONE 2:

<table>
<thead>
<tr>
<th>Sub Zone</th>
<th>Input functions available</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZONE2</td>
<td>Analog audio signals (AUDIO ZONE2 OUT).&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>With video signals,&lt;sup&gt;b&lt;/sup&gt; the composite video (VIDEO ZONE2 OUT) signals can be output.</td>
</tr>
</tbody>
</table>

<sup>a</sup>Any analog signal. (This does not apply for the MULTI CH IN input.)

<sup>b</sup>JPEG files cannot be played with the USB input.

**Basic MULTI-ZONE setup (Zone 2)**
- Connect a separate amplifier to the AUDIO ZONE2 OUT jacks and a TV monitor to the VIDEO ZONE2 OUT jack, both on this receiver. You should have a pair of speakers attached to the sub zone amplifier as shown in the following illustration.

**MULTI-ZONE setup using speaker terminals (Zone 2)**
You must select ZONE 2 in Surround back speaker setting on page 94 to use this setup. Note that the sound in the sub zone will be temporarily interrupted when controlling the main zone (for example, changing the input function or starting playback).

- Connect a TV monitor to the VIDEO ZONE2 OUT jacks on this receiver.
  You should have a pair of speakers attached to the surround back speaker terminals as shown below.
03 Connecting your equipment

Connecting an IR receiver

If you keep your stereo components in a closed cabinet or shelving unit, or you wish to use the sub zone remote control in another zone, you can use an optional IR receiver (such as a Niles or Xantech unit) to control your system instead of the remote sensor on the front panel of this receiver.1

1 Connect the IR receiver sensor to the IR IN jack on the rear of this receiver.

2 Connect the IR IN jack of another component to the IR OUT jack on the rear of this receiver to link it to the IR receiver. Please see the manual supplied with your IR receiver for the type of cable necessary for the connection.

- If you want to link a Pioneer component to the IR receiver, see Operating other Pioneer components with this unit’s sensor.

 Operating other Pioneer components with this unit’s sensor

Many Pioneer components have SR CONTROL jacks which can be used to link components together so that you can use just the remote sensor of one component. When you use a remote control, the control signal is passed along the chain to the appropriate component.2

Important

- Note that if you use this feature, make sure that you also have at least one set of analog audio, video or HDMI jacks connected to another component for grounding purposes.

1 Decide which component you want to use the remote sensor of.

When you want to control any component in the chain, this is the remote sensor at which you’ll point the corresponding remote control.

Note

1 Remote operation may not be possible if direct light from a strong fluorescent lamp is shining on the IR receiver remote sensor window.

- Note that other manufacturers may not use the IR terminology. Refer to the manual that came with your component to check for IR compatibility.

- If using two remote controls (at the same time), the IR receiver’s remote sensor takes priority over the remote sensor on the front panel.

2 If you want to control all your components using this receiver’s remote control, see Setting the remote to control other components on page 73.

- If you have connected a remote control to the CONTROL IN jack (using a mini-plug cable), you won’t be able to control this unit using the remote sensor.
2 Connect the CONTROL OUT jack of that component to the CONTROL IN jack of another Pioneer component. Use a cable with a mono mini-plug on each end for the connection.

Continue the chain in the same way for as many components as you have.

Connecting your SiriusConnect™ Tuner

To receive SIRIUS Satellite Radio broadcasts, you will need to activate your SiriusConnect™ tuner.

- Connect a SiriusConnect™ tuner to the SIRIUS IN jack on the rear of this receiver. You will also need to connect the antenna and AC adapter to the SiriusConnect™ tuner.
Connecting a component to the front panel inputs

The front panel inputs comprise a composite video jack (VIDEO) and stereo analog audio inputs (AUDIOL/R). You can use these connections for any kind of audio/video component, but they are especially convenient for portable equipment such as camcorders, video games and portable audio/video equipment.

- Push down on the PUSH OPEN tab to access the front panel inputs.
- Select these inputs using INPUT SELECT (remote) or the INPUT SELECTOR dial (front panel) to select VIDEO.

Connecting an iPod

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

- Switch the receiver into standby then use the supplied iPod cable to connect your iPod to the iPod/iPhone/USB terminal on the front panel of this receiver.
- Push down on the PUSH OPEN tab to access the iPod/iPhone/USB terminal.
- It is also possible to connect using the cable included with the iPod, but in this case it is not possible to view pictures via the receiver.
- For the cable connection, refer to also the operating instructions for iPod.
Connecting your equipment

Connecting a USB device
It is possible to playback files using the USB interface on the front of this receiver.

- Switch the receiver into standby then connect your USB device to the iPod/iPhone/USB terminal on the front panel of this receiver.
- Push down on the PUSH OPEN tab to access the iPod/iPhone/USB terminal.

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

- Plug the AC power cord into a convenient AC power outlet.¹

⚠️ 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.
- The receiver should be disconnected by removing the mains plug from the wall socket when not in regular use, e.g., when on vacation.
- Make sure the blue ✿ STANDBY/ON light has gone out before unplugging.
- If you have connected speakers with a 6 Ω impedance, change the impedance setting before turning on the power.

¹ 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 KURO LINK mode to OFF, you can skip this process. For details about the KURO LINK feature, see KURO LINK on page 60.
Chapter 4:
Basic Setup

Switching the speaker impedance
We recommend using speakers of 8Ω with this system, but it is possible to switch the impedance setting if you plan to use speakers with a 6Ω impedance rating.

1 Switch the receiver into standby.
2 While holding down ENTER on the front panel, press STANDBY/ON.
The display shows RESET NO.
Use TUNE +/- (or ↑/↓ on the remote control) to select SPEAKER 8Ω, and then use PRESET +/- (or ←/→ on the remote control) to select SPEAKER 8Ω or SPEAKER 6Ω.
• SPEAKER 8Ω – Use this setting if your speakers are rated at 8Ω or more.
• SPEAKER 6Ω – Use this setting if your speakers are rated at 6Ω.

Changing the OSD display language (OSD Language)
The language used on the on-screen display can be changed.
• The explanations in these operating instructions are for when English is selected for the OSD.

1 Press RECEIVER on the remote control, then press HOME MENU.
A Graphical User Interface (GUI) screen appears on your TV. Use ↑/↓/←/→ and ENTER to navigate through the screens and select menu items. Press RETURN to exit the current menu.
2 Select ‘System Setup’ from the HOME MENU.
3 Select ‘OSD Language’ from the System Setup menu.
4 Select the desired language.
• English
• French
• German
• Italian
• Spanish
• Dutch
• Russian
5 Select ‘OK’ to change the language.
The setting is completed and the System Setup menu reappears automatically.
**Basic Setup**

**Automatically setting up for surround sound (Auto MCACC)**

The Auto MCACC Setup measures the acoustic characteristics of your listening area, taking into account ambient noise, speaker connection and speaker size, 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.

Make sure you do this before moving on to **Playing a source** on page 41.

**Important**

- Make sure the microphone and speakers are not moved during the Auto MCACC Setup.
- Using the Auto MCACC Setup will overwrite any existing settings for the MCACC preset you select.
- Before using the Auto MCACC Setup, the headphones should be disconnected and the iPod/USB or SIRIUS Radio function should not be selected as an input function.

**CAUTION**

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

**Note**

1. You can’t use the **HOME MENU** when the iPod/USB or SIRIUS Radio input function is selected (in either the main or sub zone). When you set **ZONE 2** to **ON** (page 69), you can’t use the **HOME MENU**.
2. If you leave the GUI screen for over five minutes, the screen saver will appear.
3. If you are planning on bi-amping your front speakers, or setting up a separate speaker system in another room, read through **Surround back speaker setting** on page 94 and make sure to connect your speakers as necessary before continuing to step 4.
4. If you have THX-certified speakers, select **Return**, then select **Auto MCACC** for the THX Speaker setting. See **Automatic MCACC (Expert)** on page 78 for more on this.
5. The test tones used in the Auto MCACC Setup are output at high volume.

1. Switch on the receiver and your TV.
2. Connect the microphone to the MCACC SETUP MIC jack on the front panel.
   - Push down on the **PUSH OPEN** tab to access the **MCACC SETUP MIC** jack.

Place the microphone so that it’s about ear level at your normal listening position (use a tripod if possible). Make sure there are no obstacles between the speakers and the microphone.

The Full Auto MCACC display appears once the microphone is connected.¹

3. Select **Surr Back System setting**,² select an **MCACC preset**³, press **RECEIVER** and then select **START**.⁴

---

¹ The test tones used in the Auto MCACC Setup are output at high volume.
² The Full Auto MCACC display appears once the microphone is connected.
³ The test tones used in the Auto MCACC Setup are output at high volume.
⁴ The Full Auto MCACC display appears once the microphone is connected.
⁵ The test tones used in the Auto MCACC Setup are output at high volume.
Select Normal (Surround back), Speaker B, Front Bi-Amp or ZONE 2 for the Surr Back System setting according to connections to the surround back speaker terminals.

4 Follow the instructions on-screen.
Make sure the microphone is connected, and if you’re using a subwoofer, make sure it is switched on and set to a comfortable volume level.

5 Wait for the test tones to finish, then confirm the speaker configuration in the GUI screen.
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. If no operations are performed for 10 seconds while the speaker configuration check screen is being displayed, the Auto MCACC Setup will resume automatically. In this case, you don’t need to select OK and press ENTER in step 6.

- With error messages (such as Too much ambient noise! or Check microphone.) select RETRY after checking for ambient noise (see Problems when using the Auto MCACC Setup below) and verifying the mic connection. If there doesn’t seem to be a problem, you can simply select GO NEXT and continue.

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

- If you see an ERR message (or the speaker configuration displayed isn’t correct), there may be a problem with the speaker connection. If selecting RETRY doesn’t work, turn off the power and check the speaker connections. If there doesn’t seem to be a problem, you can simply use ↑/↓ to select the speaker and ←/→ to change the setting and continue.

- If Reverse Phase is displayed, the speaker’s wiring (+ and –) may be inverted. Check the speaker connections.

6 Make sure ‘OK’ is selected, then press ENTER.
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, Standing Wave and Acoustic Cal EQ.
Again, try to be as quiet as possible while this is happening. It may take 3 to 10 minutes.

Note

1 Do not adjust the volume during the test tones. This may result in incorrect speaker settings.
2 If the speaker is not pointed to the microphone (listening position) or when using speakers that affect the phase (dipole speakers, reflective speakers, etc.), Reverse Phase may be displayed even if the speakers are properly connected. If this happens, select GO NEXT and continue.
Basic Setup

7 The Auto MCACC Setup procedure is completed and the Home Menu menu reappears automatically. \(^1\)

Be sure to disconnect the microphone from this receiver upon completion of the Auto MCACC Setup.

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 Advanced MCACC menu on page 77 or The system and the other setup on page 93. \(^2\)

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.

The Input Setup menu

You only need to make settings in the Input Setup menu if you didn’t hook up your digital equipment according to the default settings (see Input function default and possible settings on page 40). In this case, you need to tell the receiver what equipment is hooked up to which terminal so the buttons on the remote control correspond to the components you’ve connected.

1 Switch on the receiver and your TV.
Use \\()RECEIVER to switch on.

2 Press \(\text{RECEIVER} on the remote control, then press HOME MENU.
A Graphical User Interface (GUI) screen appears on your TV. Use \(\uparrow/\downarrow/\leftarrow/\rightarrow/\) and ENTER to navigate through the screens and select menu items. Press \(\text{RETURN} to confirm and exit the current menu.

3 Select ‘System Setup’ from the HOME MENU.

4 Select ‘Input Setup’ from the System Setup menu.

5 Select the input function that you want to set up.
The default names correspond with the names next to the terminals on the rear panel (such as DVD or VIDEO), which, in turn, correspond with the names on the remote control.

\(\textbf{Note}\)

- You can also choose to view the settings from the MCACC Data Check screen. See Checking MCACC Data on page 89 for more on this.
- Depending on the characteristics of your room, sometimes identical speakers with cone sizes of around 12 cm (5 inches) will end up with different size settings. You can correct the setting manually using the Manual speaker setup on page 94.
- 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.
- If Auto MCACC Setup measurement results are incorrect due to the interaction of the speakers and viewing environment, we recommend adjusting the settings manually.
6 Select the input(s) to which you’ve connected your component.

For example, if your DVD player only has an optical output, you will need to change the DVD input function’s Digital In setting from COAX-1 (VSX-1019AH model)/COAX (VSX-919AH model) (default) to the optical input you’ve connected it to. The numbering (OPT-1 to 2) corresponds with the numbers beside the inputs on the back of the receiver.

- If your component is connected via a component video cable to an input terminal other than the default, you must tell the receiver which input terminal your component is connected to, or else you may see the composite video signals instead of the component video signals.¹

7 When you’re finished, proceed to the settings for other inputs.

There are three optional settings in addition to the assignment of the input jacks:

- Input Name – You can choose to rename the input function for easier identification. Select Rename to do so, or Default to return to the system default.

- Input Skip – When set to ON, that input is skipped when selecting the input using INPUT SELECT. (DVD and other inputs can be still be selected directly with the input function buttons.)

8 When you’re finished, press RETURN.

You will return to the System Setup menu.

Note

¹ For high-definition video (using component video connections), or when digital video conversion is switched off (in Setting the Video options on page 67), you must connect your TV to this receiver using the same type of video cable as you used to connect your video component.
Chapter 5: 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. Select the input function you want to play.
You can use the input function buttons on the remote control, INPUT SELECT, or the front panel INPUT SELECTOR dial.

3. Press AUTO/ALC/DIRECT (AUTO SURR/ALC/STREAM DIRECT) to select ‘AUTO SURROUND’ and start playback of the source.
If you’re playing a Dolby Digital or DTS surround sound DVD disc, you should hear surround sound. If you are playing a stereo source, you will only hear sound from the front left/right speakers in the default listening mode.  
   • See also Listening to your system on page 53 for information on different ways of listening to sources.

4. Use the volume control 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.

Note
1. Make sure that the TV’s video input is set to 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).  
2. If you need to manually switch the input signal type press SIGNAL SEL (page 58).  
3. • 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. If in this case, the receiver must be set to a multichannel listening mode (see Listening in surround sound on page 53 if you need to do this) if you want multichannel surround sound.
Basic playback

Playing a source with HDMI connection

- Use INPUT SELECT to select the HDMI input you’ve connected to (for example, HDMI 1). You can also perform the same operation by using the INPUT SELECTOR dial on the front panel or by pressing HDMI on the remote control repeatedly.
- Set the HDMI parameter in Setting the Audio options on page 64 to THROUGH if you want to hear HDMI audio output from your TV or flat panel TV (no sound will be heard from this receiver).
- If the video signal does not appear on your TV or flat panel TV, try adjusting the resolution settings on your component or display. Note that some components (such as video game units) have resolutions that may not be converted. In this case, use an analog video connection.

Selecting the multichannel analog inputs

If you have connected a decoder or a DVD player as above, you must select the analog multichannel inputs for surround sound playback.¹

1. Make sure you have set the playback source to the proper output setting. For example, you might need to set your DVD player to output multichannel analog audio.

2. Use INPUT SELECT to select MULTI CH IN. You can also use the INPUT SELECTOR dial on the front panel.

- Depending on the DVD player you’re using, the analog output level of the subwoofer channel may be too low. In this case, the output level of the subwoofer can be increased by 10 dB in the Multi Ch In Setup in Other Setup. For details, see Multi Channel Input Setup on page 99.

¹ Note
- When playback from the multichannel inputs is selected, only the volume and channel levels can be set.
- You can’t listen to your speaker B system during playback from the multichannel inputs.
- With MULTI CH IN inputs, it is possible to play pictures simultaneously. For details, see Multi Channel Input Setup on page 99.
Playing an iPod
This receiver has a dedicated iPod terminal that will allow you to control playback of audio content from your iPod using the controls of this receiver.1

1 Switch on the receiver and your TV.
See Connecting an iPod on page 34.

2 Press iPod USB on the remote control to switch the receiver to the iPod/USB.
Loading appears in the GUI screen while the receiver verifies the connection and retrieves data from the iPod.

When the display shows iPod top menu you’re ready to play music from the iPod.2

- Main Zone:

- Sub Zone (VSX-1019AH model only):

![iPod Interface](image)

Playing back audio files stored on an iPod
To navigate songs on your iPod, you can take advantage of the GUI screen of your TV connected to this receiver.3 You can also control all operations for music in the front panel display of this receiver.

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

1 Use ‹/› to select a category, then press ENTER to browse that category.
   • To return to the previous level any time, press RETURN.

2 Use ‹/› to browse the selected category (e.g., albums).
   • Use ◀/▶ to move to previous/next levels.

3 Continue browsing until you arrive at what you want to play, then press ▶ to start playback.4

- Main Zone:

![GUI Screen](image)

- Sub Zone (VSX-1019AH model only):

![Sub Zone Interface](image)

Note
1 • This system is compatible with the audio and the video of the iPod nano, iPod fifth generation, iPod classic, iPod touch and iPhone (iPod shuffle is not supported). However, that some of the functions may be restricted for some models. Note, however, compatibility may vary depending on the software version of your iPod and iPhone. Please be sure to use the latest available software version.
   • iPod and iPhone are licensed for reproduction of non-copyrighted materials or materials the user is legally permitted to reproduce.
   • Features such as the equalizer cannot be controlled using this receiver, and we recommend switching the equalizer off before connecting.
   • Pioneer cannot under any circumstances accept responsibility for any direct or indirect loss arising from any inconvenience or loss of recorded material resulting from the iPod failure

2 • The controls of your iPod will be inoperable when connected to this receiver.
   • VSX-919AH model only: iPod/USB function cannot be selected for the MULTI-ZONE feature (page 69).
   • VSX-1019AH model only: iPod/USB function cannot be selected for the MULTI-ZONE feature (page 69).

3 • Note that characters that cannot be displayed on this receiver are displayed as ‘#
   • This feature is not available for photos or video clips on your iPod. To display video clips, switch iPod operation to the iPod (see Switching the iPod controls on page 44).

4 If you’re in the song category, you can also press ENTER to start playback.
Basic playback

Sub Zone (VSX-1019AH model only):

<table>
<thead>
<tr>
<th>Button</th>
<th>What it does</th>
</tr>
</thead>
<tbody>
<tr>
<td>◀◀◀▶▶</td>
<td>Press to start playback. If you start playback when something other than a song is selected, all the songs that fall into that category will play.</td>
</tr>
<tr>
<td>◡</td>
<td>Pauses/unpauses playback.</td>
</tr>
<tr>
<td>◡</td>
<td>Press and hold during playback to start scanning.</td>
</tr>
<tr>
<td>▶</td>
<td>Press to skip to previous/next track.</td>
</tr>
</tbody>
</table>

Note
1 You cannot use this function, when an iPod of fifth generation or iPod nano of first generation is connected.
2 When this function is set, iPod images cannot be played on this receiver. However, when video clips recorded on the iPod are played, the playback picture is displayed.

Basic playback controls

The following table shows the basic playback controls for your iPod. Press iPod USB to switch the remote control to the iPod/USB operation mode.

<table>
<thead>
<tr>
<th>Button</th>
<th>What it does</th>
</tr>
</thead>
<tbody>
<tr>
<td>◀◀◀▶▶</td>
<td>Press repeatedly to switch between Repeat One, Repeat All and Repeat Off.</td>
</tr>
<tr>
<td>◡</td>
<td>Press repeatedly to switch between Shuffle Songs, Shuffle Albums and Shuffle Off.</td>
</tr>
<tr>
<td>◡</td>
<td>Press repeatedly to change the song playback information displayed in the front panel display.</td>
</tr>
<tr>
<td>◡</td>
<td>When browsing, press to move to previous levels. During playback, press to set the play and pause modes.</td>
</tr>
<tr>
<td>◡</td>
<td>When browsing, press to move to previous/next levels.</td>
</tr>
<tr>
<td>◡</td>
<td>During Audiobook playback, press to switch the playback speed: Faster ➔ Normal ➔ Slower</td>
</tr>
<tr>
<td>◡</td>
<td>Press to return to the iPod top menu screen.</td>
</tr>
</tbody>
</table>

Switching the iPod controls

You can switch over the iPod controls between the iPod and the receiver.

1 Press iPod CTRL to switch the iPod controls. This enables operation and display on your iPod, and this receiver’s remote control and GUI screen become inactive.

2 Press iPod CTRL again to switch back to the receiver controls.
Basic playback

Playing a USB device

It is possible to playback files using the USB interface on the front of this receiver.

1. Switch on the receiver and your TV.
See Connecting a USB device on page 35.

2. Press iPod USB on the remote control to switch the receiver to the iPod/USB.

Loading appears in the GUI screen as this receiver starts recognizing the USB device connected. When the display shows USB Top menu you’re ready to playback from the USB device.

- **Main Zone:**

- **Sub Zone (VSX-919AH model only):**

---

**Important**

If an Over Current message lights in the display, the power requirements of the USB device are too high for this receiver. Try following the points below:

- Switch the receiver off, then on again.
- Reconnect the USB device with the receiver switched off.
- Use a dedicated AC adapter (supplied with the device) for USB power.

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

Playing back audio files stored on a USB memory device

The maximum number of levels that you can select in Step 2 (below) is 8. Also, you can display and play back up to 30,000 folders and files within a USB memory device.

---

**Note**

- Compatible USB devices include external magnetic hard drives, portable flash memory (particularly keydrives) and digital audio players (MP3 players) of format FAT16/32. It is not possible to connect this unit to a personal computer for USB playback.
- Pioneer cannot guarantee compatibility (operation and/or bus power) with all USB mass storage devices and assumes no responsibility for any loss of data that may occur when connected to this receiver.
- Make sure the receiver is in standby when disconnecting the USB device.
- When the file currently being played back has no title assigned to it, the file name is displayed in the GUI screen instead; when neither the album name nor the artist name is present, the row is displayed as a blank space.
- Note that non-roman characters in the playlist are displayed as #.
- VSX-919AH model only: iPod/USB function cannot be selected for the MULTI-ZONE feature (page 69).
- If this error occurs, playback is interrupted and the next playable file is played automatically.
- This error may occur if the title information is changed on a computer, etc.
- Playback stops when the last song in a USB memory device is played back to the end.
- When a USB memory device with a large capacity is connected, it may take some time to read all the contents.
- This receiver does not support a USB hub.
- Copyrighted audio files cannot be played back on this receiver.
- DRM-protected audio files cannot be played back on this receiver.
05  Basic playback

1 Use ↑/↓ to select ‘Music’ from the USB Top menu.

2 Use ↑/↓ to select a folder, then press ENTER to browse that folder.
   • To return to the previous level any time, press RETURN.

3 Continue browsing until you arrive at what you want to play, then press ▶ to start playback.
   • Main Zone:
     Track number
     Track title or File name
     Playing time
     Play mode
     Artist name
     Album title or Folder name
     File information

   • Sub Zone (VSX-1019AH model only):
     Track number
     Track title or File name
     Play mode
     Playing time
     Album title or Folder name
     Artist name

Basic playback controls
The following table shows the basic playback controls for your USB memory device. Press iPod USB to switch the remote control to the iPod/USB operation mode.

<table>
<thead>
<tr>
<th>Button</th>
<th>What it does</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶</td>
<td>Press to start playback.</td>
</tr>
<tr>
<td>■</td>
<td>Pauses/unpauses playback.</td>
</tr>
<tr>
<td>◄►►</td>
<td>Press and hold during playback to start scanning.</td>
</tr>
<tr>
<td>◄►►</td>
<td>Press to skip to previous/next track.</td>
</tr>
<tr>
<td>⊂</td>
<td>Press repeatedly to switch between Repeat One, Repeat Folder, Repeat All and Repeat Off.</td>
</tr>
<tr>
<td>⊄</td>
<td>Press repeatedly to switch between Random On and Random Off.</td>
</tr>
<tr>
<td>DISP</td>
<td>Press repeatedly to change the song playback information displayed in the front panel display.</td>
</tr>
<tr>
<td>ENTER</td>
<td>When browsing, press to move to next levels. During playback, press to set the play and pause modes.</td>
</tr>
<tr>
<td>RETURN</td>
<td>When browsing, press to move to previous levels.</td>
</tr>
<tr>
<td>◄</td>
<td>When browsing, press to move to previous/next levels.</td>
</tr>
<tr>
<td>TOP MENU</td>
<td>Press to return to the USB Top menu.</td>
</tr>
</tbody>
</table>
Basic playback

Playing back photo files stored on a USB memory device

1. Use ↑/↓ to select ‘Photos’ from the USB Top menu.

2. Use ↑/↓ to select a folder, then press ENTER to browse that folder.
   - To return to the previous level any time, press RETURN.

3. Continue browsing until you arrive at what you want to play, then press ► to start playback.
   The selected content is displayed in full screen and starts a slideshow.
   After a slideshow launches, pressing ENTER toggles between play and pause.

Basic playback controls

<table>
<thead>
<tr>
<th>Button(s)</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTER ►</td>
<td>Starts displaying a photo and playing a slideshow.</td>
</tr>
<tr>
<td>RETURN ←</td>
<td>Stops the Player and returns to the previous menu.</td>
</tr>
<tr>
<td>▼◄◄◄</td>
<td>Displays the previous photo content</td>
</tr>
<tr>
<td>►►►</td>
<td>Display the next photo content</td>
</tr>
<tr>
<td>II</td>
<td>Pauses/unpauses the slideshow</td>
</tr>
</tbody>
</table>

Slideshow Setup

Make the various settings for playing slideshows of photo files here.

1. Use ↑/↓ to select ‘Slideshow Setup’ from the USB Top menu.

2. Select the setting you want.
   - Theme – Add various effects to the slideshow.
   - Interval – Set the interval for switching the photos. This may not be available depending on the Theme setting.
   - BGM – Play music files stored on the USB device while displaying photos.
   - Music Select – Select the folder containing the music files to be played when BGM is set to ON.

3. When you’re finished, press RETURN.
   You will return to the USB Top menu.

Note
1. VSX-1019AH model only: Photo files cannot be played in the sub zone.
2. If the slideshow is left in the pause mode for five minutes, the list screen reappears.
## Basic playback

### About playable file formats

The USB function of this receiver supports the following file formats. Note that some file formats are not available for playback although they are listed as playable file formats.

### Music files

<table>
<thead>
<tr>
<th>Category</th>
<th>Extension</th>
<th>Stream</th>
<th>Sampling frequency</th>
<th>Quantization bitrate</th>
<th>Channel</th>
<th>Bitrate</th>
<th>VBR/CBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP3</td>
<td>.mp3</td>
<td>MPEG-1, 2, 2.5 Audio Layer-3</td>
<td>8 kHz to 48 kHz</td>
<td>16 bit</td>
<td>2 ch</td>
<td>8 kbps to 320 kbps</td>
<td>Supported/Supported</td>
</tr>
<tr>
<td>WAV</td>
<td>.wav</td>
<td>LPCM</td>
<td>32 kHz, 44.1 kHz, 48 kHz</td>
<td>8 bit</td>
<td>16 bit</td>
<td>8 kbps to 320 kbps</td>
<td>2 ch, Monaural</td>
</tr>
<tr>
<td>WMA</td>
<td>.wma</td>
<td>WMA8/9P</td>
<td>8 kHz to 48 kHz</td>
<td>16 bit</td>
<td>2 ch</td>
<td>8 kbps to 320 kbps</td>
<td>Supported/Supported</td>
</tr>
</tbody>
</table>

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

b. Files encoded using Windows Media Codec 9 may be playable but some parts of the specification are not supported; specifically, Pro, Lossless, Voice.

### Photo files

<table>
<thead>
<tr>
<th>Category</th>
<th>Extension</th>
<th>Format</th>
<th>Meeting the following conditions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>JPEG</td>
<td>.jpg</td>
<td></td>
<td>• Baseline JPEG format (including files recorded in Exif/DCF format)</td>
</tr>
<tr>
<td></td>
<td>.jpeg</td>
<td></td>
<td>• Y:Cb:Cr - 4:4:4, 4:2:2 or 4:2:0</td>
</tr>
<tr>
<td></td>
<td>.jpe</td>
<td></td>
<td>• Baseline JPEG format (including files recorded in Exif/DCF format)</td>
</tr>
<tr>
<td></td>
<td>.jif</td>
<td></td>
<td>• Baseline JPEG format (including files recorded in Exif/DCF format)</td>
</tr>
<tr>
<td></td>
<td>.jiff</td>
<td>Resolution</td>
<td>30 to 8192 pixels vertical, 40 to 8192 pixels horizontal</td>
</tr>
</tbody>
</table>
Listening to Satellite Radio

To listen to Satellite Radio, you’ll need to connect a SIRIUS Satellite Radio tuner (sold separately) to your Sirius-Ready receiver. SIRIUS Satellite Radio is available to residents of the US (except Alaska and Hawaii) and Canada. Satellite Radio delivers a variety of commercial-free music from categories ranging from Pop, Rock, Country, R&B, Dance, Jazz, Classical and many more plus coverage of all the top professional and college sports including play by play games from select leagues and teams. Additional programming includes expert sports talk, uncensored entertainment, comedy, family programming, local traffic and weather and news from your most trusted sources.

Once you’ve purchased a SIRIUS tuner you’ll need to activate it and subscribe to begin enjoying the service. Easy to follow installation and setup instructions are provided with the SIRIUS tuner. There are a variety of programming packages available, including the option of adding “The Best of XM” programming to the SIRIUS service. The “Best of XM” service is not available to SIRIUS Canada subscribers at this time. Please check with SIRIUS Canada for any updates using the numbers and web address below.

Family friendly packages are also available to restrict channels featuring content that may be inappropriate for children. To subscribe to SIRIUS, U.S. and Canadian customers can call 1-888-539-SIRI (1-888-539-7474) or visit sirius.com (US) or siriuscanada.ca (Canada). SIRIUS, XM and all related marks and logos are trademarks of Sirius XM Radio Inc. and its subsidiaries. All rights reserved. Service not available in Alaska and Hawaii.

Press SIRIUS to switch to the SIRIUS input. For best reception, you may need to move the SIRIUSConnect™ tuner antenna near a window (refer to the manual for the SIRIUSConnect™ Home tuner for antenna placement recommendations).
If after pressing SIRIUS the display shows Antenna Error, try disconnecting the antenna and reconnecting. If the display shows Check Sirius Tuner, check the connection of the AC adapter and this receiver to the SIRIUSConnect™ tuner.

Listening to SIRIUS Radio

After connecting, you will be able to use this receiver to select channels and navigate categories using the GUI screen. The information displayed is as follows:

- **Main Zone:**
  - Preset class
  - Song name
  - Signal strength
  - Artist name
  - Channel name
  - Channel number
  - Category
  - Composer name
  - Preset number

- **Sub Zone (VSX-1019AH model only):**
  - Channel name
  - Song name
  - Preset class
  - Signal strength
  - Artist name
  - Preset number
  - Channel number
  - Composer name
  - Category

**Note**

1. In order to activate your radio subscription, you will need the SIRIUS ID (SID) which uniquely identifies your tuner. The SID may be found on a sticker located on the packaging, or on the bottom of the tuner itself. The label will have a printed 12-digit SID number. When you have located the SID, write it down in the space provided near the end of this manual. Contact SIRIUS on the internet at: https://activate.siriusradio.com
2. Follow the prompts to activate your subscription, or you can also call SIRIUS toll-free at 1-888-539-SIRIUS (1-888-539-7474).
3. Select O(SIRIUS ID) from the GUI screen to check the Radio ID of the SIRIUS Connect tuner (see Selecting channels and browsing by genre below).
4. You can check the strength of reception in Using the SIRIUS Menu on page 51.
5. It's easiest if you have your TV switched on to take advantage of the GUI screens. You can, however, use just the front panel display to do everything if you prefer.
Selecting channels and browsing by genre

From the SIRIUS Channel Guide, you can browse SIRIUS Radio channels in the order that they appear, or you can narrow your channel search by genre.

- **Main Zone:**

- **Sub Zone (VSX-1019AH model only):**

1. Press \( \uparrow / \downarrow \) to enter the SIRIUS Channel Guide, then navigate through the channels one at a time with \( \uparrow / \downarrow \), then press ENTER to listen to the SIRIUS radio broadcast.
   - To browse by genre, first press CATEGORY, use \( \uparrow / \downarrow \) to select a genre, then press ENTER.
   - To cancel and exit any time, press RETURN.

**Tip**
- You can select channels directly by pressing D.ACCESS, then the three-digit channel number.
- You can press DISP to change SIRIUS Radio information in the front panel display.
- The currently selected channel is automatically chosen (without pressing ENTER) after 10 seconds.

Saving channel presets

This receiver can memorize up to 63 channels, stored in seven banks, or classes (A to G) of 9 channels each.

1. **Select the channel you want to memorize.**
   - See Selecting channels and browsing by genre above.

2. **Press T.EDIT.**
   - The display shows a blinking memory class.

3. **Press CLASS to select one of the seven classes,** then press \( \uparrow / \downarrow \) to select the channel preset you want.
   - You can also use the number buttons to select a preset.

4. **Press ENTER.**
   - After pressing ENTER, the preset class and number stop blinking and the receiver stores the SIRIUS channel.

**Tip**
- You can also press MEMORY during reception display to save the information of up to five songs. See Using the SIRIUS Menu below to recall this information.

Listening to channel presets

1. **Press CLASS to select the class in which the channel is stored.**
   - Press repeatedly to cycle through classes A to G.

2. **Press \( \uparrow / \downarrow \) to select the channel preset you want.**
   - You can also use the number buttons on the remote control to recall the channel preset.

**Note**
1 You can reset the Channel presets, Memory, Channel Skip/Add, Parental Lock and Password settings in Resetting the system on page 72.
Basic playback

Using the SIRIUS Menu
The SIRIUS Menu provides additional SIRIUS Radio features.
1 Press TOP MENU.
2 Use ↑/↓ to select a menu item, then press ENTER.
Choose from the following menu items:
- Channel Skip/Add – Use ↑/↓ and ENTER to select channels you would like to remove/restore from/to the channel guide.
- Parental Lock – Use ↑/↓ and ENTER to select channels you would like to place under parental lock. Channels put under parental lock are not displayed in the Channel Guide, but may be accessed by directly inputting their channel number and providing the parental lock password.
- Antenna Aiming – Check the strength of satellite and terrestrial reception.
- Memory Recall – Use ↑/↓ to browse your saved song information (see Tip above).
- Password Set – Set the parental lock password.
3 When you’re finished press TOP MENU to return to the reception display.

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. If you already know the frequency of the station you want, see Tuning directly to a station below. Once you are tuned to a station you can memorize the frequency for recall later—see Saving station presets on page 52 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 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 TUNED or STEREO indicator doesn’t light when tuning to an FM station because the signal is weak, press MPX to switch the receiver into mono reception mode. This should improve the sound quality and allow you to enjoy the broadcast.

Using Neural THX
This feature uses Neural Surround™, THX® technologies to achieve optimal surround sound from FM radio.
- While listening to FM radio, press AUTO/ ALC/DIRECT for Neural THX listening.

See About Neural – THX Surround on page 114 for more on this.
The Neural THX mode can be selected also with STANDARD.

Tuning directly to a station
Sometimes, you’ll already know the frequency of the station you want to listen to. In this case, you can simply enter the frequency directly using the number buttons on the remote control.
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 and AM.
Basic playback

3 Press D.ACCESS (Direct Access).
4 Use the number buttons to enter the frequency of the radio station.
   For example, to tune to 106.00 (FM), press 1, 0, 6, 0.
   If you make a mistake halfway through, press D.ACCESS twice to cancel the frequency and start over.

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 receiver can memorize up to 63 stations, stored in seven banks, or classes (A to G) of 9 stations each. When saving an FM frequency, the MPX setting (see page 51) is also stored.

1 Tune to a station you want to memorize.
   See Listening to the radio on page 51 for more on this.
2 Press T.EDIT (TUNER EDIT).
   The display shows PRESET MEMORY, then a blinking memory class.
3 Press CLASS to select one of the seven classes, then press PRESET <-> to select the station preset you want.
   You can also use the number buttons to select a station preset.
4 Press ENTER.
   After pressing ENTER, the preset class and number stop blinking and the receiver stores the station.

Naming station presets
For easier identification, you can name your station presets.
1 Choose the station preset you want to name.
   See Listening to station presets below for how to do this.
2 Press T.EDIT (TUNER EDIT).
   The display shows PRESET NAME, then a blinking cursor at the first character position.
3 Input the name you want.
   Choose from the following characters for a name up to eight characters long.

   A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
   a b c d e f g h i j k l m n o p q r s t u v w x y z
   0 1 2 3 4 5 6 7 8 9
   ! " # $ % & ' () ∗ + , – ./ : ; < = > ? @ [ \ ] ^ { | } ˜ [space]
   Use ↑/↓ to select a character, ↔/↕ to set the position, and ENTER to confirm your selection.

Tip
- To erase a station name, simply repeat steps 1 to 3 and input eight spaces instead of a name.
- Once you have named a station preset, you can press DISP when listening to a station to switch the display between name and frequency.

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.
1 Press TUNER to select the tuner.
2 Press CLASS to select the class in which the station is stored.
   Press repeatedly to cycle through classes A to G.
3 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.
Chapter 6:
Listening to your system

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
There are many ways to listen back to sources using this receiver, but for the simplest, most direct listening option is the Auto Surround feature. The receiver automatically detects what kind of source you’re playing and selects multichannel or stereo playback as necessary.1
- While listening to a source, press RECEIVER, then press AUTO/ALC/DIRECT (AUTO SURR/ALC/STREAM DIRECT)2 for auto playback of a source.
AUTO SURROUND shows briefly in the display before showing the decoding or playback format. Check the digital format indicators in the front panel display to see how the source is being processed.
- When listening to the FM radio, the Neural THX feature is selected automatically (see Using Neural THX on page 51 for more on this).
In the Auto level control (ALC) mode, this receiver equalizes playback sound levels.

Tip
- When an ALC is selected, the effect level can be adjusted using the EFFECT parameter in Setting the Audio options on page 64.

Listening in surround sound
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 you connected surround back speakers, see also Using surround back channel processing on page 56.

Standard surround sound
The following modes provide basic surround sound for stereo and multichannel sources.3
- While listening to a source, press RECEIVER, then press STANDARD (STANDARD SURROUND).
If necessary, press repeatedly to select a listening mode.
- If the source is Dolby Digital, DTS, or Dolby Surround encoded, the proper decoding format will automatically be selected and shows in the display.4

Note
1 Stereo surround (matrix) formats are decoded accordingly using Neo:6 CINEMA or Pro Logic IIX MOVIE (see Listening in surround sound above for more on these decoding formats).
2 The Auto Surround feature is canceled if you connect headphones.
3 For more options using this button, see Using Stream Direct on page 56.
4 If surround back channel processing (page 56) is switched OFF, or the surround back speakers are set to NO (this happens automatically if the Surround back speaker setting on page 94 is set to anything but Normal) Pro Logic IIX becomes Pro Logic II (5.1 channel sound).
06 Listening to your system

With two channel sources, you can select from:
- **Pro Logic IIx MOVIE** – Up to 7.1 channel sound, especially suited to movie sources
- **Pro Logic IIx MUSIC** – Up to 7.1 channel sound, especially suited to music sources
- **Pro Logic IIx GAME** – Up to 7.1 channel sound, especially suited to video games
- **PRO LOGIC – 4.1 channel surround sound (sound from the surround speakers is mono)

Note: 1 When listening to 2-channel sources in Dolby Pro Logic IIx Music mode, there are three further parameters you can adjust: **C WIDTH, DIMENSION** and **PANORAMA**. See **Setting the Audio options** on page 64 to adjust them.

When there are two channel sources connected to the surround back channel input of the receiver, you can select surround back channel processing.

- **Dolby Digital EX** – Creates surround back channel sound for 5.1 channel sources and provides pure decoding for 6.1 channel sources (like Dolby Digital Surround EX)
- **DTS-ES** – Allows you to hear 6.1 channel playback with DTS-ES encoded sources

Using the Advanced surround effects

The Advanced surround effects can be used for a variety of additional surround sound effects. Most Advanced Surround modes are designed to be used with film soundtracks, but some modes are also suited for music sources. Try different settings with various soundtracks to see which you like.

- **Press RECEVER, then press ADV SURR (ADVANCED SURROUND) repeatedly to select a listening mode.**
  - **ACTION** – Designed for action movies with dynamic soundtracks
  - **DRAMA** – Designed for movies with lots of dialog
  - **SCI-FI** – Designed for science fiction with lots of special effects
  - **MONO FILM** – Creates surround sound from mono soundtracks
  - **ENT.SHOW** – Suitable for musical sources
  - **EXPANDED** – Creates an extra wide stereo field
  - **TV SURROUND** – Provides surround sound for both mono and stereo TV sources
  - **ADVANCED GAME** – Suitable for video games
  - **SPORTS** – Suitable for sports programs
  - **CLASSICAL** – Gives a large concert hall-like sound
  - **ROCK/POP** – Creates a live concert sound for rock and/or pop music

With multichannel sources, if you have connected surround back speaker(s) and have selected **SBch ON**, you can select (according to format):

- **Pro Logic IIx MOVIE** – See above (only available when you’re using two surround back speakers)
- **Pro Logic IIx MUSIC** – See above
- **Dolby Digital EX** – Creates surround back channel sound for 5.1 channel sources and provides pure decoding for 6.1 channel sources (like Dolby Digital Surround EX)
- **DTS-ES** – Allows you to hear 6.1 channel playback with DTS-ES encoded sources
- **DTS Neo:6** – Allows you to hear 6.1 channel playback with DTS encoded sources

**Note:**

1. **When listening to 2-channel sources in Dolby Pro Logic IIx Music mode, there are three further parameters you can adjust:** **C WIDTH, DIMENSION** and **PANORAMA**. See **Setting the Audio options** on page 64 to adjust them.

2. **When listening to 2-channel sources in Neo:6 Cinema or Neo:6 Music mode, you can also adjust the center image effect (see **Setting the Audio options** on page 64).

3. **Neural THX** can be selected for 2-channel signals for which the input signal is PCM (48 kHz or less), Dolby Digital, DTS or analog 2-channel sources.

4. **Depending on the source and the sound mode you have selected, you may not get sound from the surround back speakers in your setup. For more on this, refer to **Using surround back channel processing** on page 66.

5. **If you press ADV SURR when the headphones are connected, the **PHONES SURROUND** mode will automatically be selected.

5 Use with Dolby Pro Logic for a stereo surround effect (stereo field is wider than Standard modes with Dolby Digital sources).
Listening to your system

- **UNPLUGGED** – Suitable for acoustic music sources
- **EXT.STEREO** – Gives multichannel sound to a stereo source, using all of your speakers
- **PHONES Surr.** – When listening through headphones, you can still get the effect of overall surround.

**Tip**
- When an Advanced Surround listening mode is selected, the effect level can be adjusted using the EFFECT parameter in Setting the Audio options on page 64.

Using Front Stage Surround Advance

The Front Stage Surround Advance function allows you to create natural surround sound effects using just the front speakers and the subwoofer.

- While listening to a source, press **RECEIVER**, then press STEREO to select Front Stage Surround Advance modes.
  - **STEREO** – See Listening in stereo above for more on this.
  - **F.S.SURR FOCUS** – Use to provide a rich surround sound effect directed to the center of where the front left and right speakers sound projection area converges.
  - **F.S.SURR WIDE** – Use to provide a surround sound effect to a wider area than **FOCUS** mode.\(^1\)

**FOCUS position**
- Front left speaker
- Front right speaker

**WIDE position**
- Front left speaker
- Front right speaker

Listening in stereo

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, DTS and WMA9 Pro multichannel sources are downmixed to stereo.

- While listening to a source, press **RECEIVER**, then press STEREO for stereo playback.

Press repeatedly to switch between:
- **STEREO** – The audio is heard with your surround settings and you can still use the Midnight, Loudness, and Tone functions.
- **F.S.SURR FOCUS** – See Using Front Stage Surround Advance below for more on this.
- **F.S.SURR WIDE** – See Using Front Stage Surround Advance below for more on this.

\(^1\) When using **F.S.SURR WIDE**, a better effect can be obtained if the **Full Auto MCACC** procedure under Advanced MCACC is performed. For more on this, refer to Automatically setting up for surround sound (Auto MCACC) on page 37.
Using 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, and you’re left with the pure analog or digital sound source.

- While listening to a source, press RECEIVER, then press AUTO/ALC/DIRECT (AUTO SURR/ALC/STREAM DIRECT) to select the mode you want.
  
Check the digital format indicators in the front panel display to see how the source is being processed.

  - AUTO SURROUND – See Auto playback on page 53.
  - ALC – Listening in Auto level control mode (page 53).
  - DIRECT – Sources are heard according to the settings made in the Surround Setup (speaker setting, channel level, speaker distance, acoustic calibration EQ, and X-curve), as well as with dual mono, the input attenuator, and any sound delay settings. You will hear sources according to the number of channels in the signal.
  - PURE DIRECT – Analog sources are heard without any digital processing. No sound is output from the Speaker B in this mode.

Using surround back channel processing
- Default setting: SBch ON
  
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 SBch repeatedly to cycle the surround back channel options.
  
Each press cycles through the options as follows:

  - SBch ON – Matrix decoding processing for generating the surround back component from the surround component is turned on.
  - SBch 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.
  - SBch OFF – Matrix decoding processing for generating the surround back component from the surround component is turned off.
### Listening to your system

**Using the Virtual Surround Back mode**
- Default setting: ON

When you’re not using surround back speakers, selecting this mode allows you to hear a virtual surround back channel through your surround speakers. You can choose to listen to sources with no surround back channel information, or if the material sounds better in the format (for example, 5.1) for which it was originally encoded, you can have the receiver only apply this effect to 6.1 encoded sources like Dolby Digital EX or DTS-ES.1

- Press SBch repeatedly to cycle the virtual surround back channel options.
  Each press cycles through the options as follows:
  - **VirtualSB ON** – Virtual Surround Back is always used (for example, on 5.1 encoded material)
  - **VirtualSB AUTO** – Virtual Surround Back is automatically applied to 6.1 encoded sources (for example, Dolby Digital EX or DTS-ES)
  - **VirtualSB OFF** – Virtual Surround Back mode is switched 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.2

- 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 17.
- 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.

![](Up Mix OFF.png) ![Up Mix ON.png]

1. **Switch the receiver into standby.**
2. While holding down ENTER on the front panel, press / STANDBY/ON.
   The display shows: RESET   NO  
   Use TUNE +/- (or ↑/↓ on the remote control) to select UP MIX   ON  , and then use PRESET +/- (or ←/→ on the remote control) to select ON or OFF.
3. **Press ENTER to confirm.**
   - When set to ON, the UP MIX indicator on the front panel lights.

---

**Note**
1. You can’t use the Virtual Surround Back mode when the headphones are connected to this receiver or when any of the stereo, Front Stage Surround Advance or Stream Direct mode is selected.
2. You can only use the Virtual Surround Back mode if the surround speakers are on and the SB setting is set to NO or if Front Bi-Amp. Speaker B or Zone 2 is selected at Surr Back System.
   - The Virtual Surround Back mode cannot be applied to sources that do not have surround channel information.
   - 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.
Listening to your system

Selecting MCACC presets

• Default setting: MEMORY 1
If you have calibrated your system for different listening positions\(^1\), you can switch between settings to suit the kind of source you’re listening to and where you’re sitting (for example, watching movies from a sofa, or playing a video game close to the TV).

• While listening to a source, press RECEIVER, then press MCACC.
Press repeatedly to select one of the six MCACC presets\(^2\) or to switch calibration off. See Data Management on page 91 to check and manage your current settings.

Choosing the input signal

On this receiver, it is possible to switch the input signals for the different inputs as described below\(^3\).

• Press RECEIVER, then press SIGNAL SEL to select the input signal corresponding to the source component.

Each press cycles through the options as follows:

• AUTO – The receiver selects the first available signal in the following order:

  HDMI: DIGITAL, ANALOG

• ANALOG – Selects an analog signal.

• DIGITAL – Selects an optical or coaxial digital signal.

• HDMI – Selects an HDMI signal.\(^4\)

• PCM – For PCM input signals.\(^5\) The receiver selects the first available signal in the following order: HDMI: DIGITAL.

When set to DIGITAL or AUTO, the indicators light according to the signal being decoded, as follows:

– [ ] DIGITAL lights with Dolby Digital decoding.

– [ ] DIGITAL PLUS lights with Dolby Digital Plus decoding.

– [ ] TrueHD lights with Dolby TrueHD decoding.

– DTS lights with DTS decoding.

– DTS HD lights with DTS-HD Master Audio decoding.

– MSTR lights with DTS-HD Master Audio decoding.

– 96/24 lights with DTS 96/24 decoding.

\(^1\) Different presets might also have separate calibration settings for the same listening position, depending on how you’re using your system. These presets can be set in Automatically setting up for surround sound (Auto MCACC) on page 37 or Automatic MCACC (Expert) on page 78, either of which you should have already completed.

\(^2\) These settings have no effect when headphones are connected.

\(^3\) You can also press \(\uparrow\downarrow\) to select the MCACC preset.

\(^4\) This receiver can only play back Dolby Digital, PCM (32 kHz to 192 kHz), DTS (including DTS 96/24) and WMA9 Pro digital signal formats. The compatible signals via the HDMI terminals are: Dolby Digital, DTS, WMA9 Pro, PCM (32 kHz to 192 kHz), Dolby TrueHD, Dolby Digital Plus, DTS-EXPRESS, DTS-HD Master Audio, SACD and DVD Audio (including 192 kHz). With other digital signal formats, set to ANALOG the MULTI CH IN and TUNER.

\(^5\) 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 29) and set the signal input to DIGITAL.

Some DVD players don’t output DTS signals. For more details, refer to the instruction manual supplied with your DVD player.

4 When the HDMI option in Setting the Audio options on page 64 is set to THROUGH, the sound will be heard through your TV, not from this receiver.

5 This is useful if you find there is a slight delay before AUTO recognizes the PCM signal on a CD, for instance.

When PCM is selected, noise may be output during playback of non-PCM sources. Please select another input signal if this is a problem.
Listening to your system

- WMA9 Pro lights to indicate that a WMA9 Pro signal is being decoded.
  - HDMI is not assigned by default. To select an HDMI signal, conduct the input setup procedure (see The Input Setup menu on page 39).

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\(^1\) for an optimal sound image. The default setting is on and we recommend leaving Phase Control switched on for all sound sources.

- Press \text{RECEIVER}, then press \text{PHASE CTRL (PHASE CONTROL)} to switch on phase correction.

The \text{PHASE CONTROL} indicator on the front panel lights.

\textbf{Note}
\(^1\) 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.
  - The \text{PHASE CONTROL} feature is available even when the headphones are plugged in.
  - If your subwoofer has a phase control switch, set it to the plus (+) sign (or 0\(^\circ\)). However, the effect you can actually feel when \text{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 \text{PHASE CONTROL} effect.
  - The \text{PHASE CONTROL} mode cannot be set to ON in the following cases:
    - When the \text{PURE DIRECT} mode is switched on.
    - When the \text{MULTI CH IN} input is selected.
    - When the HDMI audio output parameter is set to \text{THROUGH} in Setting the Audio options on page 64.
Chapter 7

KURO LINK

Synchronized operation with a KURO LINK-compatible Pioneer flat panel TV or Blu-ray disc player or with a component of another make that supports the KURO LINK function is possible when the component is connected to the receiver using an HDMI cable.

For details about concrete operations, settings, etc., refer to also the operating instructions for each component.

- You cannot use this function with components that do not support KURO LINK.
- We do not guarantee this receiver will work with Pioneer KURO LINK-compatible components or components of other makes that support the KURO LINK function. We do not guarantee that all synchronized operations will work with components of other makes that support the KURO LINK function.
- Use a High Speed HDMI™ cable when you want to use the KURO LINK function. The KURO LINK function may not work properly if a different type of HDMI cable is used.

Making the KURO LINK connections

You can use synchronized operation for a connected flat panel TV and up to four (VSX-1019AH model)/three (VSX-919AH model) other components.

Be sure to connect the flat panel TV’s audio cable to the audio input of this unit.

For details, see Connecting your TV and playback components on page 23.

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 flat panel TV but rather directly to the HDMI terminal on this receiver.
- While the receiver is equipped with four (VSX-1019AH model)/three (VSX-919AH model) HDMI inputs, the KURO LINK 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.
KURO LINK

Cautions on the KURO LINK function

- Connect the TV directly to this receiver. Interrupting a direct connection with other amps or an AV converter (such as an HDMI switch) can cause operational errors.
- Only connect components (Blu-ray disc player, etc.) you intend to use as a source to the HDMI input of this receiver. Interrupting a direct connection with other amps or an AV converter (such as an HDMI switch) can cause operational errors.
- When the TV’s KURO LINK is set to ON, HDMI Input is automatically set to OFF.
- If a listening mode other than AUTO SURROUND, ALC. DIRECT, PURE DIRECT or STEREO is selected while the PQLS function is enabled, the PQLS effect is disabled.
- When this receiver is connected by HDMI cable to a Pioneer player that is compatible with the PQLS function via HDMI connection and a CD is played or HDMI reauthentication is performed (the HDMI indicator blinks), the PQLS effect is enabled and the listening mode is set to AUTO SURROUND if a listening mode other than AUTO SURROUND, ALC. DIRECT, PURE DIRECT or STEREO is selected.
- When the receiver’s KURO LINK 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 KURO LINK-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.

About connections with a product of a different brand that supports the KURO LINK function

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

- You can set whether to output the sound over the speakers connected to the receiver or over the TV’s speakers using the TV’s menu screen.
- You can adjust the receiver’s volume or mute the sound using the TV’s remote control.
- 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. (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 KURO LINK function is connected to a player or recorder of a brand other than Pioneer that supports the KURO LINK 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 KURO LINK function.
**KURO LINK**

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

1. Press **RECEIVER**, then press Home Menu.
2. Select ‘System Setup’, then press ENTER.
3. Select ‘Other Setup’, then press ENTER.

4. Select the ‘KURO LINK’ setting you want. Choose whether to set this unit’s KURO LINK function ON or OFF. You will need to set it to ON to use the KURO LINK function.

When using a component that does not support the KURO LINK function, set this to OFF.

- **ON** – Enables the KURO LINK function. When this unit’s power is turned off and you have a supported source begin playback while using the KURO LINK function, the audio and video output from the HDMI connection are output from the flat panel TV.
- **OFF** – The KURO LINK 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.

5. Select the ‘Display Power Off’ setting you want. If the TV’s power is turned off while using the KURO LINK function, the receiver’s power is also turned off (all power off function). This function can be disabled.

- **YES** – The all power off function is enabled. The receiver’s power turns off together with the TV’s power.
  - This function only works when the input for a component connected to the receiver by HDMI connection is selected or when watching the TV.
- **NO** – The all power off function is disabled.
  - The receiver’s power is not affected when the TV’s power is turned off.

6. When you’re finished, press HOME MENU. You will finish to HOME MENU.

---

**Setting the PQLS function**

PQLS (Precision Quartz Lock System) is a digital audio signal transfer control technology using the KURO LINK function. It offers higher-quality audio playback by controlling audio signals from the receiver to a PQLS compatible player, etc. This enables removing jitter that has a negative effect on the quality of the sound and is generated upon transmission. This function is activated when KURO LINK is set to ON.

1. Press **RECEIVER**, then press PQLS to select PQLS setting.

The setting is displayed on the front panel display.

- **PQLS AUTO** – PQLS is enabled. A precision quartz controller in this receiver eliminates distortion caused by timing errors (jitter), giving you the best possible digital-to-analog conversion from audio CD sources when you use the HDMI interface. This is valid as an HDMI function for PQLS-compatible players.
- **PQLS OFF** – PQLS is disabled.
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 flat panel 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.

Synchronized amp mode

The synchronized amp mode can be set from the KURO LINK-compatible TV’s remote control. See the explanation below for operations in the synchronized amp mode. These functions are set from the TV’s menu screen. For more information, refer to the operating instructions of the KURO LINK-compatible TV.

Synchronized amp mode operations

When using the synchronized amp mode, the KURO LINK-compatible component connected to the receiver operates in sync as described below.

- The receiver’s input switches automatically when the KURO LINK-compatible component is played.
- The receiver’s input switches automatically when the TV’s channel 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.

The operations below can also be used on Pioneer KURO LINK-compatible flat panel TVs.

- When the receiver’s volume is adjusted or the sound is muted, the volume status is displayed on the flat panel TV’s screen.
- When the OSD language is switched on the flat panel TV, the receiver’s language setting also switches accordingly.

Canceling synchronized amp mode

- 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.
- 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, select the synchronized amp mode using the TV’s remote control.
- 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.
Chapter 8:
Using other functions

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.
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.

<table>
<thead>
<tr>
<th>Setting</th>
<th>What it does</th>
<th>Option(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCACC</td>
<td>Selects your favorite MCACC preset memory when multiple preset memories are saved. When a MCACC preset memory has been renamed, the given name is displayed.</td>
<td>M1. MEMORY 1 to M6. MEMORY 6 Default: M1. MEMORY 1</td>
</tr>
<tr>
<td>EQ</td>
<td>Switches on/off the effects of EQ Pro.</td>
<td>ON or OFF</td>
</tr>
<tr>
<td>S-WAVE</td>
<td>Switches on/off the effects of Standing Wave Control.</td>
<td>ON or OFF</td>
</tr>
<tr>
<td>DELAY</td>
<td>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.</td>
<td>0.0 to 10.0 (frames) 1 second = 30 frames (NTSC) Default: 0.0</td>
</tr>
<tr>
<td>MIDNIGHT</td>
<td>Allows you to hear effective surround sound of movies at low volumes.</td>
<td>MIDNIGHT/LOUDNESS OFF</td>
</tr>
<tr>
<td>LOUDNESS</td>
<td>Used to get good bass and treble from music sources at low volumes.</td>
<td>MIDNIGHT ON/LOUDNESS OFF</td>
</tr>
<tr>
<td>TONE(^1)</td>
<td>Applies the treble and bass tone controls to a source, or bypasses them completely.</td>
<td>BYPASS or ON</td>
</tr>
</tbody>
</table>
### Using other functions

<table>
<thead>
<tr>
<th>Setting</th>
<th>What it does</th>
<th>Option(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASS</td>
<td>Adjusts the amount of bass.</td>
<td>–6 to +6 (dB)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: 0 (dB)</td>
</tr>
<tr>
<td>TREBLE</td>
<td>Adjusts the amount of treble.</td>
<td>–6 to +6 (dB)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default: 0 (dB)</td>
</tr>
<tr>
<td>S.RTRV (Sound Retriever)</td>
<td>With the Sound Retriever function, DSP processing is used to compensate for the loss of audio data upon compression, improving the sound’s sense of density and modulation.</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ON</td>
</tr>
<tr>
<td>DNR (Digital Noise Reduction)</td>
<td>May improve the quality of sound in a noisy source (for example, video tape with lots of background noise) when switched on.</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ON</td>
</tr>
<tr>
<td>DIALOG E. (Dialog Enhancement)</td>
<td>Localizes dialog in the center channel to make it stand out from other background sounds in a TV or movie soundtrack.</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ON</td>
</tr>
<tr>
<td>DUAL (Dual Mono)</td>
<td>Specifies how dual mono encoded Dolby Digital soundtracks should be played. Dual mono is not widely used, but is sometimes necessary when two languages need to be sent to separate channels.</td>
<td>CH1 – Channel 1 is heard only</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CH2 – Channel 2 is heard only</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CH1 CH2 – Both channels heard from front speakers</td>
</tr>
<tr>
<td>DRC (Dynamic Range Control)</td>
<td>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).</td>
<td>AUTO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MAX</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF</td>
</tr>
<tr>
<td>LFE (LFE Attenuate)</td>
<td>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 disturbing the sound from the speakers.</td>
<td>0dB: –5dB/ –10dB/ –15dB/ –20dB</td>
</tr>
<tr>
<td></td>
<td>The LFE is not limited when set to 0 dB, which is the recommended value. When set to –5 dB, –10 dB, –15 dB or –20 dB, the LFE is limited by the respective degree. When OFF is selected, no sound is output from the LFE channel.</td>
<td>OFF</td>
</tr>
<tr>
<td>SACD GAIN (HDMI Audio)</td>
<td>Brings out detail in SACDs by maximizing the dynamic range (during digital processing).</td>
<td>0dB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+6 dB</td>
</tr>
<tr>
<td>HDMI (HDMI Audio)</td>
<td>Specifies the routing of the HDMI audio signal out of this receiver (amp) or through to a TV or flat panel TV. When THROUGH is selected, no sound is output from this receiver.</td>
<td>AMPLIFIER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>THROUGH</td>
</tr>
<tr>
<td>A. DELAY (Auto delay)</td>
<td>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.</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ON</td>
</tr>
</tbody>
</table>

---

**Note:** The table above summarizes various settings and their descriptions, along with the available options for each setting. The settings include BASS, TREBLE, S.RTRV, DNR, DIALOG E., DUAL, DRC, LFE, SACD GAIN, HDMI, and A. DELAY. Each setting is described with its purpose and the available options for customization. The options range from simple selection (e.g., ON, OFF) to more complex adjustments (e.g., –6 to +6 dB).
## Using other functions

<table>
<thead>
<tr>
<th>Setting</th>
<th>What it does</th>
<th>Option(s)</th>
</tr>
</thead>
</table>
| C. WIDTH         | Provides a better blend of the front speakers by spreading the center channel between the front right and left speakers, making it sound wider (higher settings) or narrower (lower settings). | 0 to 7  
|                  |              | Default: 3 |
| DIMENSION        | Adjusts the depth of the surround sound balance from front to back, making the sound more distant (minus settings), or more forward (positive settings). | –3 to +3  
|                  |              | Default: 0 |
| PANORAMA         | Extends the front stereo image to include the surround speakers for a ‘wraparound’ effect. | OFF  
|                  |              | ON |
| C. IMAGE         | Adjusts 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: Neo6 MUSIC: 3  
|                  |              | Neo6 CINEMA: 10 |
| EFFECT           | Sets the effect level for the currently selected Advanced Surround or ALC mode (each mode can be set separately). | 10 to 90 |

a. When EQ OFF is selected, the MCACC indicator does not light.
b. This setting is only displayed when the listening mode is Stereo, Auto surround (STEREO) or ALC (STEREO).
c. The adjustment can be made only when TONE is set to ON.
d. With the iPod/USB input function, by default S.RTRV is set to ON.
e. The initially 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. HDMI Audio setting cannot be switched while performing synchronized amp mode operations.
  • The synchronized amp mode must be turned on in order to play the receiver’s HDMI audio and video input signals from the TV with the receiver’s power in the standby mode. See Synchronized amp mode on page 63.
h. This feature is only available when the connected display supports the automatic audio/video synchronizing capability (‘lipsync’) for HDMI. If you find the automatically set delay time unsuitable, set A. DELAY to OFF and adjust the delay time manually. For more details about the lipsync feature of your display, contact the manufacturer directly.
i. Only when listening to 2-channel sources in Dolby Pro Logic IIx Music/Dolby Pro Logic II Music mode.
j. Only when listening to 2-channel sources in Neo:6 MUSIC/CINEMA mode.
Using other functions

Setting the Video options

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

Important

- Note that if an option cannot be selected on the VIDEO PARAMETER menu, it is unavailable due to the current source, setting and status of the receiver.
- These functions do not affect HDMI inputs.

1 Press RECEIVER, then press VIDEO PARAMETER.
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.

<table>
<thead>
<tr>
<th>Setting</th>
<th>What it does</th>
<th>Option(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V. CONV (Digital Video Conversion)</td>
<td>Converts video signals for output from the MONITOR OUT jacks (including HDMI OUT connector) for all video types (see page 22).</td>
<td>ON, OFF</td>
</tr>
<tr>
<td>RES* (Resolution) *VSX-1019AH model only</td>
<td>Specifies the output resolution of the video signal (when analog video input signals are output at the HDMI OUT connector, select this according to the resolution of your monitor and the images you wish to watch).</td>
<td>AUTO, THROUGH, NORMAL, PURE, 480p/576p, 720p, 1080i, 1080p</td>
</tr>
<tr>
<td>ASP* (Aspect) *VSX-1019AH model only</td>
<td>Specifies the aspect ratio when analog video input signals are output at the HDMI output. Make your desired settings while checking each setting on your display (if the image doesn’t match your monitor type, cropping or black bands appear).</td>
<td>AUTO, THROUGH, NORMAL, OFF</td>
</tr>
<tr>
<td>IP CONVc,d (I/P Converter) *VSX-919AH model only</td>
<td>480/576i analog video signals are converted to progressive signals for output. When set to AUTO, the signals are output with the optimum setting for the connected display by HDMI. When set to ON, the signals are up-converted to 480p/576p for output. When set to OFF, the signals are not converted for output.</td>
<td>AUTO, OFF</td>
</tr>
</tbody>
</table>

Note

1 All of the setting items can be set for each input function.
2 Setting items other than V. CONV can only be selected when V. CONV is set to ON.
Using other functions

<table>
<thead>
<tr>
<th>Setting</th>
<th>What it does</th>
<th>Option(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCINEMA®&lt;sup&gt;a&lt;/sup&gt; (PureCinema)</td>
<td>This setting optimizes the picture for film material when the video output is set to progressive. Usually set to AUTO; but try switching to OFF if the picture appears unnatural. Additionally, certain PAL movie video (576i, 25 frames/second STB video output or DVD disc playback, etc.) that contain film progressive material cannot be recognized as such by this receiver. In such instances, if you choose PAL, PureCinema mode is activated.</td>
<td>AUTO&lt;br&gt;PAL&lt;br&gt;OFF</td>
</tr>
<tr>
<td>P.MOTION&lt;sup&gt;c&lt;/sup&gt; (Progressive Motion)</td>
<td>Adjusts the motion and still picture quality when video output is set to progressive.</td>
<td>-4 to +4&lt;br&gt;Default: 0</td>
</tr>
<tr>
<td>VNR&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Adjusts the amount of noise reduction (NR) applied to the Y (brightness) component.</td>
<td>0 to +8&lt;br&gt;Default: 0</td>
</tr>
<tr>
<td>DETAIL&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Adjusts how sharp edges appear.</td>
<td>-4 to +4&lt;br&gt;Default: 0</td>
</tr>
<tr>
<td>SHARP&lt;sup&gt;e&lt;/sup&gt; (Sharpness)</td>
<td>Adjusts the sharpness of the high-frequency (detailed) elements in the picture.</td>
<td>-4 to +4&lt;br&gt;Default: 0</td>
</tr>
<tr>
<td>BRIGHT&lt;sup&gt;c&lt;/sup&gt; (Brightness)</td>
<td>Adjusts the overall brightness.</td>
<td>-6 to +6&lt;br&gt;Default: 0</td>
</tr>
<tr>
<td>CONTRAST&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Adjusts the contrast between light and dark.</td>
<td>-6 to +6&lt;br&gt;Default: 0</td>
</tr>
<tr>
<td>HUE&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Adjusts the red/green balance.</td>
<td>-6 to +6&lt;br&gt;Default: 0</td>
</tr>
<tr>
<td>CHROMA&lt;sup&gt;e&lt;/sup&gt; (Chroma Level)</td>
<td>Adjusts saturation from dull to bright.</td>
<td>-6 to +6&lt;br&gt;Default: 0</td>
</tr>
</tbody>
</table>

a. When set to a resolution with which the TV (monitor) is not compatible, no picture is output. Also, in some cases no picture will be output due to copyright protection signals. In this case, change the setting.
- When AUTO is selected, the resolution is selected automatically according to the capacity of the TV (monitor) connected by HDMI. When PURE is selected, the signals are output with the same resolution as when input (At this time, video signals are only output from the same type of terminals to which they were input).
- When a display is connected by HDMI, if this is set to something other than PURE and 480p/576p analog signals are input, 480i/576i analog signals are output from the component output terminals.
- If the image doesn’t match your monitor type, adjust the aspect ratio on the source component or on the monitor.
- NORMAL setting is only displayed when 480i/p or 576i/p video signals are being input.

b. This setting is only displayed when 480i or 576i video signals are being input.

c. If the picture does not display properly when AUTO or PAL is selected, select OFF.

d. If the picture does not display properly when AUTO or PAL is selected, select AUTO or OFF.

e. This setting is ineffective for HDMI output, from composite and component video inputs.
Using other functions

Switching the speaker system
If you selected Speaker B in Surround back speaker setting on page 94, three speaker system settings are possible using SPEAKERS. If you selected Normal, Front Bi-Amp or ZONE 2, the button will simply switch your main speaker system on or off. The options below are for the Speaker B setting only.1

- Use SPEAKERS on the front panel to select a speaker system setting.

As mentioned above, if you have selected Normal, the button will simply switch your main speaker system (A) on or off. Press repeatedly to choose a speaker system option:

- SP ► A – Sound is output from speaker system A and the same signal is output from the pre-out terminals.
- SP ► B – Sound is output from the two speakers connected to speaker system B. Multichannel sources will not be heard. The same signal is output from the surround back channel pre-out terminals.
- SP ► AB – Sound is output from speaker system A (up to 5 channels, depending on the source), the two speakers in speaker system B, and the subwoofer. The sound from speaker system B will be the same as the sound from speaker system A (multichannel sources will be downmixed to 2 channels).
- SP ► (off) – No sound is output from the speakers. The same sound is output from the pre-out terminals (including from your subwoofer, if connected) as when selecting speaker system A (above).

Using the MULTI-ZONE controls
The following steps use the front panel controls to adjust the sub zone volume and select sources. See MULTI-ZONE remote controls on page 70.

1 Press the MULTI-ZONE ON/OFF button on the front panel.
Each press selects a MULTI-ZONE option:
- ZONE 2 ON – Switches the MULTI-ZONE feature on
- MULTI ZONE OFF – Switches the MULTI-ZONE feature off

The MULTI-ZONE indicator lights when the MULTI-ZONE control has been switched on.

2 Press MULTI-ZONE CONTROL on the front panel.
- When the receiver is on,2 make sure that any operations for the sub zone are done while ZONE 2 shows in the display. If this is not showing, the front panel controls affect the main zone only.

3 Use the INPUT SELECTOR dial to select the source for the sub zone.
For example, ZONE 2 CD-R sends the source connected to the CD-R inputs to the sub room (ZONE 2),
- If you select TUNER, you can use the tuner controls to select a preset station (see Saving station presets on page 52 if you’re unsure how to do this).3
- VSX-919AH model only: iPod/USB and SIRIUS Radio function cannot be selected for the MULTI-ZONE feature.

Note
1 The subwoofer output depends on the settings you made in Manual speaker setup on page 94. However, if SP ► B is selected above, no sound is heard from the subwoofer (the LFE channel is not downmixed).
2 Depending on the settings in Surround back speaker setting on page 94 output from the surround back pre-out terminals may change.
3 All speaker systems (except Speaker B connections) are switched off when headphones are connected.
2 If the receiver is in standby, the display is dimmed, and ZONE 2 DVD for example shows in the display.
3 The tuner cannot be tuned to more than one station at a time. Therefore, changing the station in one zone also changes the station in the other zone. Please be careful not to change stations when recording a radio broadcast.
Use the MASTER VOLUME dial to adjust the volume for the sub zone. This is only possible if you selected the Variable volume control in ZONE Audio Setup on page 99.1

When you’re finished, press MULTI-ZONE CONTROL again to return to the main zone controls.

You can also press the MULTI-ZONE ON/OFF button on the front panel to switch off all output to the sub zone.2

**MULTI-ZONE remote controls**

Set the MULTI-ZONE operation switch to ZONE 2 to operate the corresponding zone.

The following table shows the possible MULTI-ZONE remote controls:

<table>
<thead>
<tr>
<th>Button</th>
<th>What it does</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Switches on/off power in the sub zone.</td>
</tr>
<tr>
<td>INPUT SELECT</td>
<td>Use to select the input function in the sub zone.</td>
</tr>
<tr>
<td>Input function buttons</td>
<td>Use to select the input function directly (this may not work for some functions) in the sub zone.</td>
</tr>
<tr>
<td>MASTER VOLUME +/-</td>
<td>Use to set the listening volume in the sub zone.</td>
</tr>
</tbody>
</table>

**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).3

Keep in mind you can’t make a digital recording from an analog source or vice-versa, so make sure the components you are recording to/from are hooked up in the same way (see Connecting your equipment on page 14 for more on connections).

Since the video converter is not available when making recordings (from the video OUT jacks) make sure to use the same type of video cable for connecting your recorder as you used to connect your video source (the one you want to record) to this receiver. For example, you must connect your recorder using Component video if your source has also been connected using Component video.

For more information about video connections, see Connecting a HDD/DVD recorder, VCR and other video sources on page 28.

1 **Select the source you want to record.**

Use the input function buttons (or INPUT SELECT).

- If necessary, press RECEIVER, then press SIGNAL SEL to select the input signal corresponding to the source component (see Choosing the input signal on page 58 for more on this).

2 **Prepare the source you want to record.**

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

---

1 The volume levels of the main and sub zone are independent.
2 • You won’t be able to switch the main zone off completely unless you’ve switched off the MULTI-ZONE control first.
3 • The receiver’s volume, Audio parameters (the tone controls, for example), and surround effects have no effect on the recorded signal.
   • Some digital sources are copy-protected, and can only be recorded in analog.
   • Some video sources are copy-protected. These cannot be recorded.
Using other functions

3 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.

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

Reducing the level of an analog signal
The input attenuator lowers the input level of an analog signal when it’s too strong. You can use this if you find that the OVER indicator lights often or you can hear distortion in the sound.1

- Press RECEIVER, then press A.ATT to switch the input attenuator on or off.

Using the sleep timer
The sleep timer switches the receiver into standby after a specified amount of time so you can fall asleep without worrying about the receiver being left on all night. Use the remote control to set the sleep timer.

- Press RECEIVER, then press SLEEP repeatedly to set the sleep time.

<table>
<thead>
<tr>
<th>Sleep Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 min</td>
<td></td>
</tr>
<tr>
<td>60 min</td>
<td></td>
</tr>
<tr>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>90 min</td>
<td></td>
</tr>
</tbody>
</table>

- You can check the remaining sleep time at any time by pressing SLEEP once. Pressing repeatedly will cycle through the sleep options again.2

Dimming the display
You can choose between four brightness levels for the front panel display. Note that when selecting sources, the display automatically brightens for a few seconds.

- Press RECEIVER, then press DIMMER repeatedly to change the brightness of the front panel display.

Checking your system settings
Use the status display screen to check your current settings for features such as surround back channel processing and your current MCACC preset.

1 Press RECEIVER, then press STATUS to check the system settings.
These appear on the front panel display.3
The front panel display shows each of the following settings for three seconds each:

- Input function
- Sampling Frequency
- Surround Back channel Processing
- MCACC preset
- ZONE 2 input
- KURO LINK

2 When you’re finished, press STATUS again to switch off the display.

Note
1 The attenuator isn’t available with digital sources, or when using the Stream Direct (ANALOG DIRECT) modes.
2 You can also switch off the sleep timer simply by switching off the receiver.
3 The sleep timer is valid for all zones. If any zone is on, the sleep timer continues functioning.
3 If the Pure Direct mode is switched on, some settings above will show OFF, even though they are on.
Using other functions

Resetting the system

Use this procedure to reset all the receiver’s settings to the factory default. Use the front panel controls to do this. Set MULTI-ZONE to OFF.

- Disconnect the iPod and USB memory device from the receiver beforehand.

1 Switch the receiver into standby.

2 While holding down ENTER on the front panel, press STANDBY/ON. The display shows RESET ▲ NO ▼.

3 Select ‘RESET’ using PRESET +/–, then press ENTER on the front panel. The display shows RESET? OK.

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

- Note that all settings will be saved, even if the receiver is unplugged.

Default system settings

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Video Conversion</td>
<td>ON</td>
</tr>
<tr>
<td>SPEAKERS</td>
<td>A</td>
</tr>
<tr>
<td>Surround Back System</td>
<td>Normal</td>
</tr>
<tr>
<td>Speaker System: Front</td>
<td>SMALL</td>
</tr>
<tr>
<td>Center</td>
<td>SMALL</td>
</tr>
<tr>
<td>Surr</td>
<td>SMALL</td>
</tr>
<tr>
<td>SB</td>
<td>SMALLx2</td>
</tr>
<tr>
<td>SW</td>
<td>YES</td>
</tr>
<tr>
<td>Crossover</td>
<td>80 Hz</td>
</tr>
<tr>
<td>T-Curve</td>
<td>OFF</td>
</tr>
<tr>
<td>DIMMER</td>
<td>brightest</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inputs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>See Input function default and possible settings on page 40.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MULTI-ZONE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone 2 Volume Level</td>
<td>Variable</td>
</tr>
<tr>
<td>Zone 2 Volume</td>
<td>–60 dB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HDMI</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HDMI Audio</td>
<td>Amp</td>
</tr>
</tbody>
</table>

### Setting | Default
---|---
| KURO LINK | ON |
| DSP | |
| Surround back channel Processing | ON |
| Phase Control | ON |
| Sound Retriever iPod/USB function | ON |
| Other functions | OFF |
| Sound Delay | 0.0 frame |
| Dual Mono | CH1 |
| DRC | AUTO |
| SACD Gain | 0 dB |
| LFE Attenuate | 0 dB |
| Auto delay | OFF |
| DSP | ON |
| Digital Safety | OFF |
| Effect Level | ExtendedStereo 90 |
| Other modes | 50 |
| PL II Music Options | |
| Center Width | 3 |
| Dimension | 0 |
| Panorama | OFF |
| Neo:6 Options | Center Image Neo:6 MUSIC: 3 Neo:6 CINEMA: 10 |

| All Inputs | |
| Listened Mode | (2 ch) AUTO SURROUND |
| Listened Mode | (x ch) AUTO SURROUND |
| Listened Mode | (HP) STEREO |

See also Setting the Audio options on page 64 for other default DSP settings.

| MCACC | |
| MCACC, Position Memory | M1: MEMORY 1 |
| Channel Level | (M1 to M6) 0.0 dB |
| Speaker Distance | (M1 to M6) 10.00 |
| Standing Wave | (M1 to M6) ATT of all channels/filters 0.0 dB |
| SWch Wide Trim | 0.0 dB |
| EQ Data | (M1 to M6) All channels/ bands 0.0 dB |
| EQ Wide Trim | 0.0 dB |
Controlling the rest of your system

Chapter 9: Controlling the rest of your system

Operating multiple receivers
The remote control included with this receiver can be used to operate up to three other receivers (of the same model as this receiver) in addition to this receiver. The receiver to be operated is switched by inputting the preset code to set the remote control setting.

- Set the remote modes on the receivers before using this function (see Remote Control Mode Setup on page 101).

1 Check the operation selector switch to MAIN.
2 Press RECEIVER.
3 Press and hold REMOTE SETUP, then release it after the LED flashes twice.
4 Use the number buttons to enter the 5-digit preset code (see below).
   - Receiver 1: 61935 (Default)
   - Receiver 2: 62630
   - Receiver 3: 62631
   - Receiver 4: 62632

When the preset code is fully input, the LED flashes once to indicate that the setting is completed.

To operate another receiver, start over from step 1 to input its preset code.

Setting the remote to control other components
Most components can be assigned to one of the input function buttons (such as DVD or CD) using the component’s manufacturer preset code stored in the remote.

However, there are cases where only certain functions may be controllable after assigning the proper preset code, or the codes for the manufacturer in the remote control will not work for the model that you are using.

Note
- You can cancel or exit any of the steps by pressing RECEIVER. To go back a step, press RETURN.
- After one minute of inactivity, the remote automatically exits the operation.

Selecting preset codes directly
1 Press the input function button for the component you want to control.1
   When assigning preset codes to TV CONTROL, press TV CTRL here.
2 Press and hold REMOTE SETUP, then release it after the LED flashes twice.
3 Use the number buttons to enter the 5-digit preset code.
   See Preset code list on page 116.

Note
1 You can’t assign RECEIVER, TUNER, iPod/USB or SIRIUS.
09 Controlling the rest of your system

When the preset code is fully input, the LED flashes once to indicate that the setting is completed.

4 Repeat steps 1 through 3 for the other components you want to control.
To try out the remote control, switch the component on or off (into standby) by pressing \SOURCE. If it doesn’t seem to work, select the next code from the list (if there is one).

Resetting the remote control presets
This will erase all preset remote control preset codes and programmed buttons.

1 Check the operation selector switch to MAIN.
2 Press [RECEIVER].
3 Press and hold REMOTE SETUP, then release it after the LED flashes twice.
4 Use the number buttons to enter 9, 8, 1.
The LED flashes four times to indicate that the resetting is completed.

Default preset codes

<table>
<thead>
<tr>
<th>Input function button</th>
<th>Preset code</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD</td>
<td>31571</td>
</tr>
<tr>
<td>BD</td>
<td>32442</td>
</tr>
<tr>
<td>DVR</td>
<td>22306</td>
</tr>
<tr>
<td>HDMI</td>
<td>32442</td>
</tr>
<tr>
<td>TV</td>
<td>14001</td>
</tr>
<tr>
<td>CD</td>
<td>70468</td>
</tr>
<tr>
<td>CD-R</td>
<td>71087</td>
</tr>
<tr>
<td>VIDEO</td>
<td>20058</td>
</tr>
<tr>
<td>TV CTRL</td>
<td>14001</td>
</tr>
<tr>
<td>[RECEIVER]</td>
<td>61935</td>
</tr>
</tbody>
</table>

Controls the components
This remote control can control components after entering the proper codes or teaching the receiver the commands (see Setting the remote to control other components on page 73 for more on this). Use the input function buttons to select the component.

- The TV CONTROL buttons on the remote control are dedicated to control the TV assigned to the TV CTRL button. If you have two TVs, assign the main TV to the TV CTRL button.
### Controlling the rest of your system

<table>
<thead>
<tr>
<th>Button(s)</th>
<th>TV</th>
<th>TV (Monitor)</th>
<th>BD/DVD</th>
<th>HDD/DVR</th>
<th>VCR</th>
<th>SAT/CATV</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOURCE</td>
<td>POWER ON/OFF</td>
<td>POWER ON/OFF</td>
<td>POWER ON/OFF</td>
<td>POWER ON/OFF</td>
<td>POWER ON/OFF</td>
<td>POWER ON/OFF</td>
</tr>
<tr>
<td>Number buttons</td>
<td>numerics</td>
<td>numerics</td>
<td>numerics</td>
<td>numerics</td>
<td>numerics</td>
<td>numerics</td>
</tr>
<tr>
<td>• (dot)</td>
<td>• (dot)</td>
<td>KURO LINK CLEAR</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ENTER (CLASS)</td>
<td>ENTER</td>
<td>CH</td>
<td>ENTER</td>
<td>ENTER</td>
<td>ENTER</td>
<td>ENTER</td>
</tr>
<tr>
<td>EXIT/INFO</td>
<td>EXIT</td>
<td>TOP MENU</td>
<td>TOP MENU</td>
<td>-</td>
<td>LIST</td>
<td></td>
</tr>
<tr>
<td>TOOLS/GUIDE/EPG</td>
<td>TOOLS</td>
<td>GUIDE</td>
<td>GUIDE</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>ENTER</td>
<td>ENTER</td>
<td>ENTER</td>
<td>ENTER</td>
<td>ENTER</td>
<td>ENTER</td>
<td></td>
</tr>
<tr>
<td>HDD (Red)</td>
<td>Red</td>
<td>Red</td>
<td>HDD</td>
<td>-</td>
<td>Red</td>
<td></td>
</tr>
<tr>
<td>DVD (Green)</td>
<td>Green</td>
<td>Green</td>
<td>DVD</td>
<td>-</td>
<td>Green</td>
<td></td>
</tr>
<tr>
<td>(Yellow)</td>
<td>Yellow</td>
<td>Yellow</td>
<td>VCR</td>
<td>-</td>
<td>Yellow</td>
<td></td>
</tr>
<tr>
<td>(Blue)</td>
<td>Blue</td>
<td>Menu</td>
<td>Menu</td>
<td>-</td>
<td>Blue</td>
<td></td>
</tr>
<tr>
<td>•</td>
<td>•</td>
<td>AUTO SETUP</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
<td>FREEZE</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
<td>FREEZE</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
<td>FREEZE</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
<td>FREEZE</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>ANT</td>
<td>AV SELECTION</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>SCREEN SIZE</td>
<td>SCREEN SIZE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>AUDIO</td>
<td>AUDIO</td>
<td>AUDIO</td>
<td>AUDIO</td>
<td>AUDIO</td>
<td>AUDIO</td>
<td>AUDIO</td>
</tr>
<tr>
<td>DISPLAY</td>
<td>DISPLAY</td>
<td>DISPLAY</td>
<td>DISPLAY</td>
<td>-</td>
<td>DISPLAY/INFO</td>
<td></td>
</tr>
<tr>
<td>CH +/-</td>
<td>CH +/-</td>
<td>CH +/-</td>
<td>CH +/-</td>
<td>CH +/-</td>
<td>CH +/-</td>
<td>CH +/-</td>
</tr>
</tbody>
</table>
## Controlling the rest of your system

<table>
<thead>
<tr>
<th>Button(s)</th>
<th>LD</th>
<th>CD/CD-R/SACD</th>
<th>MD/DAT</th>
<th>TAPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOURCE</td>
<td>POWER ON/OFF</td>
<td>POWER ON/OFF</td>
<td>POWER ON/OFF</td>
<td>POWER ON/OFF</td>
</tr>
<tr>
<td>Number buttons</td>
<td>numerics</td>
<td>numerics</td>
<td>numerics</td>
<td>-</td>
</tr>
<tr>
<td>+ (dot)</td>
<td>-10</td>
<td>-10/CLEAR</td>
<td>CLEAR*</td>
<td>CLEAR</td>
</tr>
<tr>
<td>ENTER (CLASS)</td>
<td>ENTER</td>
<td>DISK/ENTER</td>
<td>OPEN/CLOSE*</td>
<td>ENTER</td>
</tr>
<tr>
<td>TOP MENU</td>
<td>-</td>
<td>-</td>
<td>MS ←</td>
<td></td>
</tr>
<tr>
<td>LEGATO LINK*</td>
<td>-</td>
<td>-</td>
<td>MS →</td>
<td></td>
</tr>
<tr>
<td>ENTER</td>
<td>ENTER</td>
<td>ENTER</td>
<td>ENTER</td>
<td>ENTER</td>
</tr>
<tr>
<td>SACD SETUP*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>RETURN</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AUDIO</td>
<td>AUDIO</td>
<td>PURE AUDIO*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DISP</td>
<td>DISPLAY/INFO</td>
<td>TIME*</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Notes
- a. Controls for SACD.
- b. Controls for MD.

<table>
<thead>
<tr>
<th>Button(s)</th>
<th>TV (Projector)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOURCE</td>
<td>POWER ON</td>
</tr>
<tr>
<td>MOVIE</td>
<td>1</td>
</tr>
<tr>
<td>STANDARD</td>
<td>2</td>
</tr>
<tr>
<td>DYNAMIC</td>
<td>3</td>
</tr>
<tr>
<td>USER1</td>
<td>4</td>
</tr>
<tr>
<td>USER2</td>
<td>5</td>
</tr>
<tr>
<td>USER3</td>
<td>6</td>
</tr>
<tr>
<td>GAMMA</td>
<td>7</td>
</tr>
<tr>
<td>COLOR –</td>
<td>8</td>
</tr>
<tr>
<td>SHARP –</td>
<td>9</td>
</tr>
<tr>
<td>COLOR TEMP</td>
<td>0</td>
</tr>
<tr>
<td>EXIT</td>
<td></td>
</tr>
<tr>
<td>INFO</td>
<td></td>
</tr>
<tr>
<td>HIDE</td>
<td>TEST</td>
</tr>
<tr>
<td>MENU</td>
<td></td>
</tr>
<tr>
<td>HDMI1</td>
<td></td>
</tr>
<tr>
<td>HDMI2</td>
<td>COMP,</td>
</tr>
<tr>
<td>VIDEO</td>
<td></td>
</tr>
<tr>
<td>BRIGHT –</td>
<td>BRIGHT +</td>
</tr>
<tr>
<td>BRIGHT +</td>
<td></td>
</tr>
<tr>
<td>AUDIO</td>
<td>POWER OFF</td>
</tr>
<tr>
<td>DISP</td>
<td>ASPECT</td>
</tr>
<tr>
<td>CH +/-</td>
<td>CONTRAST +/-</td>
</tr>
</tbody>
</table>
Chapter 10: The Advanced MCACC menu

Making receiver settings from the Advanced MCACC menu

The Advanced MCACC (Multi Channel ACoustic Calibration) system was developed in Pioneer’s laboratories with the aim of making it possible for home users to perform adjustments of the same level as in a studio easily and with high precision. The acoustic characteristics of the listening environment are measured and the frequency response is calibrated accordingly to allow high precision, automatic analysis and optimal calibration of the sound field to bring it closer to a studio environment than ever before. Furthermore, while it was previously difficult to eliminate standing waves, this receiver is equipped with a standing wave control function using a unique process to perform acoustic analysis and reduce their influence.

This section describes how to calibrate the sound field automatically and fine-adjust the sound field data manually.

3 Select ‘Advanced MCACC’ from the HOME MENU, then press ENTER.

4 Select the setting you want to adjust.

- Full Auto MCACC – See Automatically setting up for surround sound (Auto MCACC) on page 37 for a quick and effective automatic surround setup.
- Auto MCACC – See Automatic MCACC (Expert) on page 78 for a more detailed MCACC setup.
- Manual MCACC – Fine-tunes your speaker settings and customize the Acoustic Calibration EQ (see Manual MCACC setup on page 82).
- Demo – No settings are saved and no errors occur. When the speakers are connected to this receiver, the test tone is output repeatedly. Press RETURN to cancel the test tone.

1 Make sure not to switch off the power when using the HOME MENU.
2 You can’t use the HOME MENU when the iPod/USB or SIRIUS Radio input function is selected. When you set ZONE 2 to ON (page 69), you can’t use the HOME MENU.
The Advanced MCACC menu

**Automatic MCACC (Expert)**

If your setup requires more detailed settings than those provided in Automatically setting up for surround sound (Auto MCACC) on page 37, you can customize your setup options below. You can calibrate your system differently for up to six different MCACC presets, which are useful if you have different listening positions depending on the type of source (for example, watching movies from a sofa, or playing a video game close to the TV).²

**Important**

- Make sure the microphone/speakers are not moved during the Auto MCACC Setup.
- Using the Auto MCACC Setup will overwrite any existing settings for the MCACC preset you select.³
- The screen saver will automatically appear after five minutes of inactivity.

**CAUTION**

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

**THX®**

THX is a trademark of THX Ltd., which may be registered in some jurisdictions. All rights reserved.

1. Select ‘Auto MCACC’ from the Advanced MCACC menu, then press ENTER.

If the Advanced MCACC screen is not displayed, refer to Making receiver settings from the Advanced MCACC menu on page 77.

2. Select the parameters you want to set. Use ↑/↓ to select the item, then use ←/→ to set.

---

**Note**

1. These are stored in memory and referred to as MEMORY1 to MEMORY6 until you rename them in Data Management on page 91.
2. You may also want to have separate calibration settings for the same listening position, depending on how you’re using your system.
3. Except in cases where you are only adjusting one parameter (i.e. channel level) from the Auto MCACC menu (step 2).
The Advanced MCACC menu

- Auto MCACC – The default is ALL (recommended), but you can limit the system calibration to only one setting (to save time) if you want. The available options are ALL, Keep SP System, Speaker Setting, Channel Level, Speaker Distance and EQ Pro & S-Wave.
- EQ Type (only available when the Auto MCACC Menu above is EQ Pro & S-Wave) – This determines how the frequency balance is adjusted. After a single calibration is performed, each of the following three correction curves can be stored separately in the MCACC memory. SYMMETRY (default) implements symmetric correction for each pair of left and right speakers to flatten the frequency-amplitude characteristics. ALL CH ADJ is a ‘flat’ setting where all the speakers are set individually so no special weighting is given to any one channel. FRONT ALIGN sets all speakers in accordance with the front speaker settings (no equalization is applied to the front left and right channels).
- THX Speaker (only available when the Auto MCACC Menu above is ALL or Speaker Setting) – Select YES if you are using THX speakers (set all speakers to SMALL), otherwise leave it set to NO.
- STAND.WAVE Multi-Point (only available when the Auto MCACC Menu above is EQ Pro & S-Wave) – In addition to measurements at the listening position, you can use two more reference points for which test tones will be analyzed for standing waves. This is useful if you want to get a balanced ‘flat’ calibration for several seating positions in your listening area.

Place the microphone at the reference point indicated on-screen and note the last microphone placement will be at your main listening position:

1 Connect the microphone to the MCACC SETUP MIC jack on the front panel.
   - Push down on the PUSH OPEN tab to access the MCACC SETUP MIC jack.
   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.

Note
1 The EQ Pro & S-Wave measurement is also taken when Keep SP System or EQ Pro & S-Wave is selected. See Acoustic Calibration EQ Professional on page 86 for more on this.
2 Either effect of Acoustic Calibration EQ Professional and Standing Wave can be switched on and off in the respective MCACC preset. For details, see Setting the Audio options on page 64.
3 The Keep SP System option allows you to calibrate your system while leaving your current speaker setting (page 95) unchanged.
4 If you selected ALL as your Auto MCACC menu, you can specify the MCACC preset where you want to save the ALL CH ADJ and FRONT ALIGN settings.

En
The Advanced MCACC menu

4. When you’re finished settings the options, select START then press ENTER.

5. Follow the instructions on-screen.
   - Make sure the microphone is connected.
   - If you’re using a subwoofer, it is automatically detected every time you switch on the system. Make sure it is on and the volume is turned up.
   - See Problems when using the Auto MCACC Setup on page 39 for notes regarding high background noise levels and other possible interference.

6. Wait for the Auto MCACC Setup to finish outputting test tones.
   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.
   - Do not adjust the volume during the test tones. This may result in incorrect speaker settings.
   - With error messages (such as Too much ambient noise! or Check microphone) select RETRY after checking for ambient noise (see Problems when using the Auto MCACC Setup on page 39) and verifying the mic connection. If there doesn’t seem to be a problem, you can simply select GO NEXT and continue.

7. If necessary, confirm the speaker configuration in the GUI screen.1
   The configuration shown on-screen should reflect the actual speakers you have.

   If no operations are performed for 10 seconds while the speaker configuration check screen is being displayed, the Auto MCACC Setup will resume automatically. In this case, you don’t need to select OK and press ENTER in step 8.

   • If you see an ERR message (or the speaker configuration displayed isn’t correct), there may be a problem with the speaker connection.
     If selecting RETRY doesn’t work, turn off the power and check the speaker connections. If there doesn’t seem to be a problem, you can simply use ↑/↓ to select the speaker and ←/→ to change the setting and continue.

   • If Reverse Phase is displayed, the speaker’s wiring (+ and –) may be inverted.
     Check the speaker connections.2
     If the connections were wrong, turn off the power, disconnect the power cable, then reconnect properly. After this, perform the Full Auto MCACC procedure again.

---

Note
1. This screen is only shown if you selected ALL or Speaker Setting from the Auto MCACC menu.
2. If the speaker is not pointed to the microphone (listening position) or when using speakers that affect the phase (dipole speakers, reflective speakers, etc.), Reverse Phase may be displayed even if the speakers are properly connected. If this happens, select GO NEXT and continue.
8 Make sure ‘OK’ is selected, then press ENTER.
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 3 to 7 minutes.

• If you selected a STAND.WAVE Multi-Point setup (in step 2), you will be asked to place the mic at the 2nd and 3rd reference points before finally placing it at your main listening position.

9 The Auto MCACC Setup procedure is completed and the Advanced MCACC menu reappears automatically.
The settings made in the Auto MCACC Setup should give you excellent surround sound from your system, but it is also possible to adjust these settings manually using the Manual MCACC setup menu (starting below) or Manual SP Setup menu (starting on page 94).¹

You can also choose to view the settings by selecting individual parameters from the MCACC Data Check screen:

- **Speaker Setting** – The size and number of speakers you’ve connected (see page 95 for more on this)
- **Channel Level** – The overall balance of your speaker system (see page 83 or 96 for more on this)
- **Speaker Distance** – The distance of your speakers from the listening position (see page 83 or 97 for more on this)
- **Standing Wave** – Filter settings to control lower ‘boomy’ frequencies (see page 85 for more on this)
- **Acoustic Cal EQ** – Adjustments to the frequency balance of your speaker system based on the acoustic characteristics of your room (see page 85 for more on this)

Press RETURN after you have finished checking each screen. When you’re finished, select RETURN to go back to the HOME MENU.
Be sure to disconnect the microphone from this receiver upon completion of the Auto MCACC Setup.

¹ Depending on the characteristics of your room, sometimes identical speakers with cone sizes of around 12 cm (5 inches) will end up with different size settings. You can correct the setting manually using the Manual speaker setup on page 94.
² 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.
³ If Auto MCACC Setup measurement results are incorrect due to the interaction of the speakers and viewing environment, we recommend adjusting the settings manually.
⁴ Since the distance measurements have been set according to the sound characteristics of your speakers, there are cases where (for optimal surround sound) the actual distance may differ from the speaker distance setting.
Manual MCACC setup
You can use the settings in the Manual MCACC setup menu to make detailed adjustments when you’re more familiar with the system. Before making these settings, you should have already completed Automatically setting up for surround sound (Auto MCACC) on page 37.
You only need to make these settings once (unless you change the placement of your current speaker system or add new speakers).

CAUTION
• The test tones used in the Manual MCACC setup are output at high volume.

Important
• You will need to first specify the MCACC preset you want to adjust by pressing MCACC before pressing HOME MENU (step 2 in Making receiver settings from the Advanced MCACC menu on page 77).
• For some of the settings below, you’ll have to connect the setup microphone to the front panel and place it about ear level at your normal listening position. Press HOME MENU to display the HOME MENU before you connect the microphone to this receiver. If the microphone is connected while the HOME MENU is not being displayed, the display will change to the Full Auto MCACC under Advanced MCACC.
• See Problems when using the Auto MCACC Setup on page 39 for notes regarding high background noise levels and other possible interference.
• If you’re using a subwoofer, switch it on and turn up the volume to the middle position.

1 Select ‘Manual MCACC’ from the Advanced MCACC menu.
See Making receiver settings from the Advanced MCACC menu on page 77 if you’re not already at this screen.

2 Select the setting you want to adjust.
If you’re doing this for the first time, you might want to make these settings in order.
• Fine Channel Level – Make fine adjustments to the overall balance of your speaker system (see Fine Channel Level on page 83).
• Fine SP Distance – Make precise delay settings for your speaker system (see Fine Speaker Distance on page 83).
• Standing Wave – Control overly resonant low frequencies in your listening room (see Standing Wave on page 85).
The last two settings are specifically for customizing the parameters explained in Acoustic Calibration EQ Adjust on page 86:
• EQ Adjust – Manually adjust the frequency balance of your speaker system while listening to test tones (see Acoustic Calibration EQ Adjust on page 85).
• EQ Professional – Calibrate your system based on the direct sound coming from the speakers and make detailed settings according to your room’s reverberation characteristics (see Acoustic Calibration EQ Professional on page 86).
The Advanced MCACC menu

Fine Channel Level

- Default setting: 0.0dB (all channels)

You can achieve better surround sound by properly adjusting the overall balance of your speaker system. You can adjust the Channel Level of each speaker in 0.5 dB increments. The following setting can help you make detailed adjustments that you may not achieve using the Manual speaker setup on page 94.


   The volume increases to the 0.0 dB reference level.

2. Adjust the level of the left channel.

   This will be the reference speaker level, so you may want to keep the level around 0.0dB so that you’ll have plenty of room to adjust the other speaker levels.

3. Select each channel in turn and adjust the levels (+/-10.0 dB) as necessary.

   Use ←/→ to adjust the volume of the speaker you selected to match the reference speaker. When it sounds like both tones are the same volume, press ↓ to confirm and continue to the next channel.

   - For comparison purposes, the reference speaker will change depending on which speaker you select.
   - If you want to go back and adjust a channel, simply use ↑/↓ to select it.

4. When you’re finished, press RETURN.

   You will return to the Manual MCACC setup menu.

Fine Speaker Distance

- Default setting: 10’00” (all speakers)

For proper sound depth and separation with your system, it is necessary to add a slight bit of delay to some speakers so that all sounds will arrive at the listening position at the same time. You can adjust the distance of each speaker in half inch increments. The following setting can help you make detailed adjustments that you may not achieve using the Manual speaker setup on page 94.

- After pressing ENTER, test tones will be output.
The Advanced MCACC menu

1. Select ‘Fine SP Distance’ from the Manual MCACC setup menu.

2. Adjust the distance of the left channel from the listening position.

3. Select each channel in turn and adjust the distance as necessary.

   Use / to adjust the delay of the speaker you selected to match the reference speaker.

   The delay is measured in terms of speaker distance from 0'00-1/2'' to 45'00''.

When it sounds like the delay settings are matched up, press  to confirm and continue to the next channel.

- For comparison purposes, the reference speaker will change depending on which speaker you select.
- If you want to go back and adjust a channel, simply use / to select it.

4. When you’re finished, press RETURN. You will return to the Manual MCACC setup menu.

Note

- If you can’t seem to achieve this by adjusting the distance setting, you may need to change the angle of your speakers very slightly.
- For better audibility, the subwoofer emits a continuous test tone (oscillating pulses are heard from your other speakers). Note that it may be difficult to compare this tone with the other speakers in your setup (depending on the low frequency response of the reference speaker).
The Advanced MCACC menu

Standing Wave
• Default setting: ON 0.0dB (all filters)
Acoustic standing waves occur when, under certain conditions, sound waves from your speaker system resonate mutually with sound waves reflected off the walls in your listening area. This can have a negative effect on the overall sound, especially at certain lower frequencies. Depending on speaker placement, your listening position, and ultimately the shape of your room, it results in an overly resonant (‘boomy’) sound. The Standing Wave Control uses filters to reduce the effect of overly resonant sounds in your listening area. During playback of a source, you can customize the filters used for Standing Wave Control for each of your MCACC presets.5

1 Select ‘Standing Wave’ from the Manual MCACC setup menu.

2 Adjust the parameters for the Standing Wave Control.
• Filter Channel – Select the channel to which you will apply the filter(s): MAIN (all except center channel and subwoofer), Center or SW (subwoofer).

• TRIM (Only available when the filter channel above is SW) – Adjust the subwoofer channel level (to compensate for the difference in output post-filter).
• Freq / Q / ATT – These are the filter parameters where Freq represents the frequency you will be targeting and Q is the bandwidth (the higher the Q, the narrower the bandwidth, or range) of the attenuation (ATT, the amount of reduction to the targeted frequency).

3 When you’re finished, press RETURN. You will return to the Manual MCACC setup menu.

Acoustic Calibration EQ Adjust
• Default setting: ON 0.0dB (all channels/bands)
Acoustic Calibration Equalization is a kind of room equalizer for your speakers (excluding the subwoofer). It works by measuring the acoustic characteristics of your room and neutralizing the ambient characteristics that can color the original source material (providing a ‘flat’ equalization setting). If you’re not satisfied with the adjustment provided in Automatically setting up for surround sound (Auto MCACC) on page 37 or Automatic MCACC (Expert) on page 78, you can also adjust these settings manually to get a frequency balance that suits your tastes.

Note
1 You can switch on or off the Standing Wave and Acoustic Calibration EQ feature in the AUDIO PARAMETER menu. See Setting the Audio options on page 64 for more on this.
2 • Since they will be overwritten, you may want to save the standing wave settings made with the Auto MCACC Setup to another MCACC preset.
• Standing Wave control filter settings cannot be changed during playback of sources using the HDMI connection.
• When Standing Wave is selected for a MCACC preset memory where STAND.WAVE is set to OFF in the AUDIO PARAMETER, STAND.WAVE ON is automatically selected.
3 When EQ Adjust is selected for a MCACC preset memory where EQ is set to OFF in the AUDIO PARAMETER, EQ ON is automatically selected.
The Advanced MCACC menu

1. Select 'EQ Adjust' from the Manual MCACC setup menu.

2. Select the channel(s) you want and adjust to your liking.

3. When you’re finished, press RETURN.

Acoustic Calibration EQ Professional
This setup minimizes the unwanted effects of room reverberation by allowing you to calibrate your system based on the direct sound coming from the speakers.

How to use Acoustic Calibration EQ Professional
If you find that lower frequencies seem overly reverberant in your listening room (i.e. it sounds ‘boomy’), or that different channels seem to exhibit different reverb characteristics (when Type A or Type B shown on the diagrams on the following applies), select EQ Pro. & S-Wave (or ALL) for the Auto MCACC setting in Automatic MCACC (Expert) on page 78 to calibrate the room automatically.

- Type A: Reverberance of high vs. low frequencies
- Type B: Reverb characteristics for different channels

Tip
- Changing the frequency curve of one channel too drastically will affect the overall balance. If the speaker balance seems uneven, you can raise or lower channel levels using test tones with the TRIM feature. Use ↑/↓ to select TRIM, then use ←/→ to raise or lower the channel level for the current speaker.

3. When you’re finished, press RETURN.
You will return to the Manual MCACC setup menu.
The Advanced MCACC menu

Using Acoustic Calibration EQ Professional

1 Select 'EQ Professional', then press ENTER.
2 Select an option and press ENTER.
   - Reverb Measurement – Use this to measure the reverb characteristics of your room.
   - Reverb View – You can check the reverb measurements made for specified frequency ranges in each channel.\(^1\)
   - Advanced EQ Setup – Use this to select the time period that will be used for frequency adjustment and calibration, based on the reverb measurement of your listening area. Note that customizing system calibration using this setup will alter the settings you made in Automatically setting up for surround sound (Auto MCACC) on page 37 or Automatic MCACC (Expert) on page 78 and is not necessary if you’re satisfied with these settings.

3 If you selected 'Reverb Measurement', select EQ ON or OFF, and then START.

The following options determine how the reverb characteristics of your listening area are displayed in Reverb View:

- **EQ OFF** – You will see the reverb characteristics of your listening area without the equalization performed by this receiver (before calibration).
- **EQ ON** – You will see the reverb characteristics of your listening area with the equalization performed by this receiver (after calibration).\(^2\) Note that the EQ response may not appear entirely flat due to adjustments necessary for your listening area.\(^3\)

When the reverb measurement is finished, you can select **Reverb View** to see the results on-screen. See Professional Calibration EQ graphical output on page 107 for troubleshooting information.

---

\(1\) If the Reverb View procedure is performed after the Automatically setting up for surround sound (Auto MCACC) on page 37 or Reverb Measurement operation, depending on the standing wave control setting, differences may appear on the reverb graph. With the Auto MCACC function, the reverberations are measured with the standing waves controlled, so the reverb characteristics graph shows the characteristics with the effect of the standing waves eliminated. By contrast, the Reverb Measurement function measures the reverberations without controlling the standing waves, so the graph indicates the reverb characteristics including the effect of the standing waves. If you wish to check the reverb characteristics of the room itself (with the standing waves as such), we recommend using the Reverb Measurement function.

\(2\) The calibration corresponding to the currently selected MCACC preset will be used when EQ ON is selected. To use another MCACC preset, exit the HOME MENU and press MCACC to select it before pressing HOME MENU.

\(3\) After auto calibration with **EQ Type : SYMMETRY** (Full Auto MCACC, etc.), the graph for the inferred reverb characteristics can be displayed by selecting **Reverb View**. To display the actually measured reverb characteristics after EQ calibration, measure with **EQ ON**.
4 If you selected ‘Reverb View’, you can check the reverb characteristics for each channel. Press RETURN when you’re done.

The reverb characteristics are displayed when the Full Auto MCACC or Reverb Measurement measurements are conducted.¹

Use ←/→ to select the channel, frequency and calibration setting you want to check. Use ↑/↓ to go back and forth between the three. The reverb characteristics graph before and after EQ calibration can be displayed by selecting Calibration : Before / After.² Note that the markers on the vertical axis indicate decibels in 2 dB steps.

5 If ‘Advanced EQ Setup’ is selected, select the MCACC memory to be stored, then enter the desired time setting for calibration, and then select START.

Based on the reverb measurement above, you can choose the time period that will be used for the final frequency adjustment and calibration. Even though you can make this setting without reverb measurement, it is best to use the measurement results as a reference for your time setting. For an optimal system calibration based on the direct sound coming from the speakers, we recommend using the 30-50ms setting.

Use ←/→ to select the setting. Use ↑/↓ to switch between them.

Select the setting from the following time periods (in milliseconds): 0-20ms, 10-30ms, 20-40ms, 30-50ms, 40-60ms, 50-70ms and 60-80ms. This setting will be applied to all channels during calibration.

When you’re finished, select START. It will take about 2 to 4 minutes for the calibration to finish.

After the Acoustic Calibration Equalization is set, you are given the option to check the settings on-screen.

¹ The After display when measurements have been made using the Full Auto MCACC or Auto MCACC | ALL function shows the graph for the inferred reverb characteristics after EQ Type : SYMMETRY calibration.

² The reverb characteristics graph is overwritten each time the reverberations are measured. No Data is displayed if there is no reverb characteristic data, for example before measurements have been taken.
The Advanced MCACC menu

Checking MCACC Data
At the procedure of Automatically setting up for surround sound (Auto MCACC) on page 37, the procedure of Automatic MCACC (Expert) on page 78 or after fine-adjusting at Manual MCACC setup on page 82, you can check your calibrated settings using the GUI screen.

1 Press RECEIVER, then press HOME MENU. A Graphical User Interface (GUI) screen appears on your TV. Use ↑/↓/←→ and ENTER to navigate through the screens and select menu items. Press RETURN to confirm and exit the current menu.

2 Select ‘MCACC Data Check’ from the HOME MENU.

3 Select the setting you want to check.
   • Speaker Setting – Used to check the settings of the speaker systems. See Speaker Setting below for more on this.
   • Channel Level – Used to check the output level of the different speakers. See Channel Level below for more on this.
   • Speaker Distance – Used to check the distance to the different speakers. See Speaker Distance on page 90 for more on this.
   • Standing Wave – Used to check the standing wave control filter settings. See Standing Wave on page 90 for more on this.
   • Acoustic Cal EQ – Used to check the calibration values of the listening environment’s frequency response. See Acoustic Cal EQ on page 90 for more on this.

4 Press RETURN to go back to MCACC Data Check menu, repeating steps 2 and 3 to check other settings.

5 When you’re finished, press RETURN. You will return to the HOME MENU.

Speaker Setting
Use this to display the speaker size and number of speakers. See Speaker Setting on page 95 for more on this.

1 Select ‘Speaker Setting’ from the MCACC Data Check menu.

2 Select the channel you want to check. Use ↑/↓ to select the channel. The corresponding channel on the layout diagram is highlighted.

Channel Level
Use this to display the level of the various channels. See Channel Level on page 96 for more on this.
The Advanced MCACC menu

1. Select ‘Channel Level’ from the MCACC Data Check menu.

2. When ‘MCACC’ is highlighted, use ←/→ to select the MCACC preset you want to check.

The level of the various channels set at the selected MCACC preset is displayed. ‘---’ is displayed for channels that are not connected.

Speaker Distance
Use this to display the distance from the different channels to the listening position. See Speaker Distance on page 97 for more on this.

1. Select ‘Speaker Distance’ from the MCACC Data Check menu.

2. When ‘MCACC’ is highlighted, use ←/→ to select the MCACC preset you want to check.

The distance from the various channels set at the selected MCACC preset is displayed. ‘---’ is displayed for channels that are not connected.

Standing Wave
Use this to display the standing wave related adjustment values for the various MCACC memories. See Standing Wave on page 85 for more on this.

1. Select ‘Standing Wave’ from the MCACC Data Check menu.

2. When ‘Filter Channel’ is highlighted, use ↑/↓ to select the channel for which you want to check standing wave control.

The standing wave related calibration value for the selected channel stored at the selected MCACC preset and its graph are displayed.

3. Press ← to highlight ‘MCACC’, then use ↑/↓ to select the MCACC preset you want to check.

Acoustic Cal EQ
Use this to display the calibration values for the frequency response of the various channels set in the different MCACC presets. See Acoustic Calibration EQ Adjust on page 85 for more on this.

1. Select ‘Acoustic Cal EQ’ from the MCACC Data Check menu.

2. When ‘Ch’ is highlighted, use ↑/↓ to select the channel.

The calibration value for the frequency response of the selected channel stored at the selected MCACC preset and its graph are displayed.

3. Press ← to highlight ‘MCACC’, then use ↑/↓ to select the MCACC preset you want to check.
The Advanced MCACC menu

Data Management
This system allows you to store up to six MCACC presets, allowing you to calibrate your system for different listening positions (or frequency adjustments for the same listening position). This is useful for alternate settings to match the kind of source you’re listening to and where you’re sitting (for example, watching movies from a sofa, or playing a video game close to the TV).

From this menu you can copy from one preset to another, name presets for easier identification and clear any ones you don’t need.

1. Press RECEIVER, then press HOME MENU. A Graphical User interface (GUI) screen appears on your TV. Use ↑ / ↓ / ← / → and ENTER to navigate through the screens and select menu items. Press RETURN to confirm and exit the current menu.

2. Select ‘Data Management’ from the HOME MENU.

3. Select the setting you want to adjust.

- **Memory Rename** – Name your MCACC presets for easy identification (see Renaming MCACC presets below).

- **MCACC Memory Copy** – Copy settings from one MCACC preset to another (see Copying MCACC preset data on page 92).

- **MCACC Memory Clear** – Clear any MCACC presets that you don’t want (see Clearing MCACC presets on page 92).

Renaming MCACC presets
If you have several different MCACC presets that you’re using, you may want to rename them for easier identification.

1. Select ‘Memory Rename’ from the Data Management setup menu.

2. Select the MCACC preset you want to rename, then select an appropriate preset name.

3. Repeat for as many MCACC presets as necessary, then press RETURN when you’re finished.

You will return to the Data Management setup menu.

Note
1. This can be done in Automatically setting up for surround sound (Auto MCACC) on page 31 or Automatic MCACC (Expert) on page 78, either of which you should have already completed.
The Advanced MCACC menu

Copying MCACC preset data
If you want to manually adjust the Acoustic Calibration EQ (see Manual MCACC setup on page 82), we recommend copying your current settings to an unused MCACC preset. Instead of just a flat EQ curve, this will give you a reference point from which to start.

1 Select ‘MCACC Memory Copy’ from the Data Management setup menu.

2 Select the setting you want to copy.
   • All Data – Copies all the settings of the selected MCACC preset memory.
   • Level & Distance – Copies only the channel level and speaker distance settings of the selected MCACC preset memory.

3 Select the MCACC preset you’ll be copying the settings ‘From’, then specify where you want to copy them (‘To’). Make sure you don’t overwrite an MCACC preset you’re currently using (this can’t be undone).

4 Select ‘OK’ to confirm and copy the settings.
When MCACC Memory Copy? is displayed, select YES. If NO is selected, the memory is not copied.

Completed! shows in the GUI screen to confirm the MCACC preset has been copied, then you automatically return to the Data Management setup menu.

Clearing MCACC presets
If you are no longer using one of the MCACC presets stored in memory, you can choose to clear the calibration settings of that preset.

1 Select ‘MCACC Memory Clear’ from the Data Management setup menu.

2 Select the MCACC preset you want to clear.
Make sure you don’t clear an MCACC preset you’re currently using (this can’t be undone).

3 Select ‘OK’ to confirm and clear the preset.
When MCACC Memory Clear? is displayed, select YES. If NO is selected, the memory is not cleared.

Completed! shows in the GUI screen to confirm the MCACC preset has been cleared, then you automatically return to the Data Management setup menu.

Note
1 The settings made in Automatically setting up for surround sound (Auto MCACC) on page 37 or Automatic MCACC (Expert) on page 78.
Chapter 11:
The system and the other setup

Making receiver settings from the System Setup menu

The following section describes how to change the speaker-related settings manually and make various other settings (input selection, OSD language selection, etc.).

1 Switch on the receiver and your TV. Use the RECEIVER button to switch on.¹
   • If headphones are connected to the receiver, disconnect them.
2 Press RECEIVER, then press HOME MENU.²
   A Graphical User Interface (GUI) screen appears on your TV. Use ↑/↓/←/→ and ENTER to navigate through the screens and select menu items. Press RETURN to confirm and exit the current menu.
   • Press HOME MENU at any time to exit the HOME MENU.
3 Select 'System Setup' from the HOME MENU, then press ENTER.

4 Select the setting you want to adjust.
   - Manual SP Setup – Sets the type of connection used for surround back terminals and the size, number distance and overall balance of the connected speakers (see Manual speaker setup on page 94).
   - Input Setup – Specifies what you’ve connected to the digital, HDMI and component video inputs (see The Input Setup menu on page 39).
   - OSD Language – The GUI screen’s display language can be changed (see Changing the OSD display language (OSD Language) on page 36).
   - Other Setup – Makes customized settings to reflect how you are using the receiver (see The Other Setup menu on page 98).

¹ Make sure not to switch off the power when using the System Setup menu.
² You can’t use the HOME MENU when either the iPod/USB or SIRIUS Radio input function is selected or the headphones are connected. When you set ZONE 2 to ON (page 69), you can’t use the HOME MENU.
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 customize your system, but if you’re satisfied with the settings made in Automatically setting up for surround sound (Auto MCACC) on page 37, it isn’t necessary to make all of these settings.

⚠️ CAUTION
- The test tones used in the Manual SP Setup are output at high volume.

1 Select ‘Manual SP Setup’, then press ENTER.
See Making receiver settings from the System Setup menu on page 93 if you’re not already at this screen.

2 Select the setting you want to adjust.
If you are doing this for the first time, you may want to adjust these settings in order:
- Surr Back System – Specifies how you are using your surround back speakers (see below).
- Speaker Setting – Specifies the size and number of speakers you’ve connected (page 95).
- Channel Level – Adjusts the overall balance of your speaker system (page 96).
- Speaker Distance – Specifies the distance of your speakers from the listening position (page 97).
- X-Curve – Adjusts the tonal balance of your speaker system for movie soundtracks (page 98).

3 Make the adjustments necessary for each setting, pressing RETURN to confirm after each screen.

Surround back speaker setting
- Default setting: Normal
There are several ways you can use the surround back speaker channels with this system. In addition to a normal home theater setup where they are used for the surround back speakers, they can be used for bi-amping the front speakers or as an independent speaker system in another room.

1 Select ‘Surr Back System’ from the Manual SP Setup menu.
See Making receiver settings from the System Setup menu on page 93 if you’re not already at this screen.
The system and the other setup

2 Select the surround back speaker setting.
   - Normal – Select for normal home theater use with surround back speakers in your main (speaker system A) setup.
   - Speaker B – Select to use the (surround back) B speaker terminals to listen to stereo playback in another room (see Switching the speaker system on page 69).
   - Front Bi-Amp – Select this setting if you’re bi-amping your front speakers (see Bi-amping your speakers on page 20).
   - ZONE 2 – Select to use the (surround back) B speaker terminals for an independent system in another zone (see Using the MULTI-ZONE controls on page 69).

3 When ‘Setting Change?’ is displayed, select Yes.
   If No is selected, the setting is not changed. You will return to the Manual SP Setup menu.

Speaker Setting
Use this setting to specify your speaker configuration (size, number of speakers and crossover frequency)1. It is a good idea to make sure that the settings made in Automatically setting up for surround sound (Auto MCACC) on page 37 are correct. Note that this setting applies to all MCACC presets, and cannot be set independently.

1 Select ‘Speaker Setting’ from the Manual SP Setup menu.

2 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:2
   - 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 front speakers).
   - 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 front speakers or a subwoofer).

Note
1 If you’re using a THX speaker setup, set all speakers to SMALL.
2 If you select SMALL for the front speakers the subwoofer will automatically be fixed to YES. Also, the center, surround and surround back 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.
Chapter 11 The system and the other setup

- **8B** – Select the number of surround back speakers you have (one, two or none).
  - Select **LARGEx2** or **LARGEx1** if your surround back speakers reproduce bass frequencies effectively. Select **SMALLx2** or **SMALLx1** to send bass frequencies to the other speakers or subwoofer. If you didn’t connect surround back speakers choose **NO**.

- **8W** – LFE signals and bass frequencies of channels set to **SMALL** are output from the subwoofer when **YES** is selected. 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).

3. Select ‘X. OVER’ and set the crossover frequency. Frequencies below this point will be sent to the subwoofer (or **LARGE** speakers).

4. When you’re finished, press RETURN. You will 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 ‘Channel Level’ from the Manual SP Setup menu.

2. 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.

---

**Note**

1. If you selected **Speaker B** or **ZONE 2** or **Front Bi-Amp**, on page 94 you can’t adjust the surround back settings.
   - If the surround speakers are set to **NO**, the surround back speakers will automatically be set to **NO**.
   - If you select one surround back speaker only, make sure that speaker is hooked up to the left surround back terminal.

2. 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 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.

3. 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.

   - If you’re using a THX speaker setup, confirm that the crossover frequency is set to 80Hz.
3 Confirm your selected setup option. The test tones will start after you press ENTER.

4 Adjust the level of each channel using \(-1/1\). If you selected MANUAL, use \(+1/-\) 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.

5 When you’re finished, press RETURN. You will return to the Manual SP Setup menu.

**Tip**
- You can change the channel levels at any time by press RECEIVER, then press CH LEVEL, and then using \(-1/1\) on the remote control.

**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 ‘Speaker Distance’ from the Manual SP Setup menu.

2 Adjust the distance of each speaker using \(-1/1\). You can adjust the distance of each speaker in 1/2 inch increments.

3 When you’re finished, press RETURN. You will return to the Manual SP Setup menu.

**Tip**
- For best surround sound, make sure the surround back speakers are the same distance from the listening position.

2 **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.
X-Curve
Most soundtracks mixed for cinema sound too bright when played back in large rooms. The X-Curve setting acts as a kind of re-equalization for home theater listening, and restores proper tonal balance of movie soundtracks.

1. Select 'X-Curve' from the Manual SP Setup menu.

2. Choose the X-Curve setting you want. Use \(\uparrow/\downarrow\) to adjust the setting. The X-Curve is expressed as a downwards slope in decibels per octave, starting at 2 kHz. The sound becomes less bright as the slope increases (to a maximum of \(-3.0\text{dB/oct}\)). Use the following guidelines to set the X-Curve according to your room size:

<table>
<thead>
<tr>
<th>Room size (ft(^2))</th>
<th>(&lt;400)</th>
<th>(400)–(550)</th>
<th>(550)–(650)</th>
<th>(650)–(800)</th>
<th>(800)–(2200)</th>
<th>(2200)–(12000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-Curve (dB/oct)</td>
<td>(-0.5)</td>
<td>(-1.0)</td>
<td>(-1.5)</td>
<td>(-2.0)</td>
<td>(-2.5)</td>
<td>(-3.0)</td>
</tr>
</tbody>
</table>

\* If you select OFF, the frequency curve will be flat and the X-Curve has no effect.

3. When you're finished, press RETURN.

The Other Setup menu
The Other Setup menu is where you can make customized settings to reflect how you are using the receiver.

1. Press RECEIVER on the remote control, then press HOME MENU. A Graphical User Interface (GUI) screen appears on your TV. Use \(\uparrow/\downarrow/\leftarrow/\rightarrow\) and ENTER to navigate through the screens and select menu items. Press RETURN to confirm and exit the current menu.

2. Select 'System Setup' from the HOME MENU.

3. Select 'Other Setup', then press ENTER.

4. Select the setting you want to adjust. If you are doing this for the first time, you may want to adjust these settings in order:

   - KURO LINK Setup – Synchronizes this receiver with your Pioneer component supporting KURO LINK (see KURO LINK Setup on page 62).
   - Multi Ch In Setup – Specifies the optional settings for a multi-channel input (page 99).
   - ZONE Audio Setup – Specifies the volume setting for a MULTI-ZONE setup (page 99).
   - Power ON Level Setup – Specifies the volume level set when the power is turned on (page 100).
   - Volume Limit Setup – Limits the maximum volume (page 100).
The system and the other setup

- Remote Control Mode Setup – Sets this receiver’s remote control mode (page 101).
- Flicker Reduction – Adjusts the way the GUI screen looks (page 101).

5 Make the adjustments necessary for each setting, pressing RETURN to confirm after each screen.

Multi Channel Input Setup
You can adjust the level of the subwoofer for a multi-channel input. Also, when the multi-channel input is selected as an input function, you can display the video images of other input functions. In the Multi Channel Input Setup, you can assign a video input to the multi-channel input.

1 Select ‘Multi Ch In Setup’ from the Other Setup menu.

2 Select the ‘SW Input Gain’ setting you want.
  - 0dB – Outputs sound of the subwoofer at the level originally recorded on the source.
  - +10dB – Outputs sound of the subwoofer at the level increased by 10 dB.

3 Select the ‘Video Input’ setting you want. When the multi-channel input is selected as an input function, you can display the video images of other input functions. The video input can be selected from the following: DVD, TV/SAT, DVR, VIDEO. OFF.

4 When you’re finished, press RETURN. You will return to the Other Setup menu.

ZONE Audio Setup
If you’ve made MULTI-ZONE connections (see Using the MULTI-ZONE controls on page 69), you may need to specify your volume setting.

1 Select ‘ZONE Audio Setup’ from the Other Setup menu.

2 Select the volume level setting of ZONE 2.
  - Variable – Use this setting if you’ve connected a power amplifier in the sub room (this receiver is simply being used as a pre-amp) and you will be using this receiver’s controls to adjust the volume.

Note
1 If you selected ZONE 2 in the Surround back speaker setting on page 94, you won’t be able to change the volume level.
The system and the other setup

- **Fixed** — Use this setting if you’ve connected a fully integrated amplifier (such as another Pioneer VSX receiver) in the sub room and want to use that receiver’s volume controls.

With the **Fixed** setting, the source is sent from this receiver at maximum volume, so make sure the volume is quite low in the sub zone at first, and then experiment to find the correct level.

3 When you’re finished, press RETURN.
You will return to the Other Setup menu.

**Power ON Level Setup**
The volume can be set so that it is always set to the same level when the receiver’s power is turned on.

1 Select ‘Power ON Level Setup’ from the Other Setup menu.

2 Select the Power ON Level setting you want.
- **LAST** — When the power is turned on, the volume is set to the same level as when the power was last turned off.
- **"---"** — When the power is turned on, the volume is set to minimum level.
- **-80.0dB to +12.0dB** — Specify the volume to be set when the power is turned, in steps of 0.5 dB.

It is not possible to set a volume level greater than the value specified at Volume Limit Setup.

3 When you’re finished, press RETURN.
You will return to the Other Setup menu.

**Volume Limit Setup**
Use this function to limit the maximum volume. The volume cannot be increased above the level set here, even by operating MASTER VOLUME button (or the dial on the front panel).

1 Select ‘Volume Limit Setup’ from the Other Setup menu.

2 Select the Volume Limit setting you want.
- **OFF** — The maximum volume is not limited.
- **-20.0dB/-10.0dB/0.0dB** — The maximum volume is limited to the value set here.

3 When you’re finished, press RETURN.
You will return to the Other Setup menu.
The system and the other setup

Remote Control Mode Setup

- Default setting: 1

This sets this receiver’s remote control mode to prevent erroneous operation when multiple units of the receiver are being used.¹

1 Select ‘Remote Control Mode Setup’ from the Other Setup menu.

2 Select the Remote Control Mode setting you want.

3 Select “OK” to change the remote control mode.

4 Follow the instructions on the screen to change the remote control’s setting. See Operating multiple receivers on page 73.

5 When you’re finished, press RETURN. You will return to the Other Setup menu.

Flicker Reduction Setup

- Default setting: 4

The GUI screen’s resolution can be increased. If you feel the GUI screen is hard to see, try changing this setting. Note that the resolution in this setting only affects the GUI screen; it has no influence on the video output.

1 Select ‘Flicker Reduction Setup’ from the Other Setup menu.

2 Select the Flicker Reduction setting you want.

3 When you’re finished, press RETURN. You will return to the Other Setup menu.

Note

¹ If you change this receiver’s setting, also change the setting on the remote control.
Chapter 12: 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. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest Pioneer authorized independent service company to carry out repair work.

Note

- 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.

Power

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The power does not turn on.</td>
<td>• Make sure that the power cable is plugged in to an active power outlet.</td>
</tr>
<tr>
<td></td>
<td>• Try disconnecting from the power outlet, then plugging back in.</td>
</tr>
<tr>
<td>Power cannot be turned off.</td>
<td>• Set the remote control’s MULTI-ZONE operation selector switch to ZONE 2.</td>
</tr>
<tr>
<td>(ZONE 2 ON is displayed.)</td>
<td>then press RECEIVER to switch the Zone 2 off.</td>
</tr>
<tr>
<td>The receiver suddenly switches off or the PHASE CONTROL indicator blinks.</td>
<td>• Check that there are no loose strands of speaker wire touching the rear panel or another set of wires. If so, re-attach the speaker wires, making sure there are no stray strands.</td>
</tr>
<tr>
<td></td>
<td>• The receiver may have a serious problem. Disconnect from the power and call a Pioneer authorized independent service company.</td>
</tr>
<tr>
<td>During loud playback the power suddenly switches off.</td>
<td>• Turn down the volume.</td>
</tr>
<tr>
<td></td>
<td>• Lower the 63 Hz and 125 Hz equalizer levels in the Manual MCACC setup on page 82.</td>
</tr>
<tr>
<td></td>
<td>• Switch on the digital safety feature. While holding down ENTER on the front panel, press STANDBY/ON to set this receiver to the standby mode. Use TUNE +/- to select D.SAFETY OFF, and then use PRESET +/- to select 1 or 2 (select D.SAFETY OFF to deactivate this feature). If the power switches off even with 2 switched on, turn down the volume. With 1 or 2 on, some features may be unavailable.</td>
</tr>
<tr>
<td>The unit does not respond when the buttons are pressed.</td>
<td>• Try switching the receiver off, then back on again.</td>
</tr>
<tr>
<td></td>
<td>• Try disconnecting the power cable, then connect again.</td>
</tr>
</tbody>
</table>
### Additional information

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedy</th>
</tr>
</thead>
</table>
| **AMP ERR** blinks in the display, then the power automatically switches off. The **ADVANCED MCACC** blinks and the power does not turn on. | - Check that the speaker setting (SBch Auto) is set to **LARGE** or **SMALL** (see **Speaker Setting** on page 95).  
- Check that the surround back channel speakers are set to **SBch ON** (see **Speaker Setting** on page 95).  
- Check that the stereo listening mode or the Front Stage Surround Advance mode isn’t selected; select one of the surround listening modes (see **Listening in surround sound** on page 53).  
- Check that the surround/center speakers are not set to **NO** (see **Speaker Setting** on page 95).  
- Check the channel level settings (see **Channel Level** on page 96).  
- Check the speaker connections (see **Connecting the speakers** on page 18). |
| Power indicator flashes and power turns off. | - Check that the volume, mute setting (press **MUTE**) and speaker setting (press **SPEAKERS**).  
- Make sure the correct input function is selected.  
- Check that the MCACC setup microphone is disconnected.  
- Make sure the correct input signal is selected (press **SIGNAL SEL**). Note that when **PCM** is selected, you won’t be able to hear any other signal format.  
- Check that the source component is connected properly (see **Connecting your equipment** on page 14).  
- Check that the speakers are connected properly (see **Connecting the speakers** on page 18). |
| **AMP OVERHEAT** and the power indicator flash and the power turns off. | - Allow the unit to cool down in a well-ventilated place before switching back on.  
- Wait at least 1 minute, then try turning the power on again.  
- The Receiver suddenly power off or the blue indicator at the center of the receiver flashes. |
| **No sound** | - There is a problem with the receiver’s power unit or fan. Try turning on the power after 1 minute. If the same thing happens, the receiver is damaged. Unplug the receiver from the wall and call a Pioneer authorized independent service company. (Other symptoms may appear when the power is turned on.) |

### No sound

**Symptom**

- No sound is output when an input function is selected.  
- No sound output from the front speakers.

**Remedy**

- Check that the speaker setting (SBch Auto) is set to **LARGE** or **SMALL** (see **Speaker Setting** on page 95).  
- Check that the surround back channel speakers are set to **SBch ON** (see **Using surround back channel processing** on page 56).  
- Check that the Stereo listening mode or the Front Stage Surround Advance mode isn’t selected; select one of the surround listening modes (see **Listening in surround sound** on page 53).  
- Check that the surround/center speakers are not set to **NO** (see **Speaker Setting** on page 95).  
- Check the channel level settings (see **Channel Level** on page 96).  
- Check the speaker connections (see **Connecting the speakers** on page 18).  
- The surround back channel processing is set to **SBch ON** (see **Using surround back channel processing** on page 56).  
- If the source is Dolby Surround EX or DTS-ES with no flag to indicate 6.1 compatibility, then with surround back channel processing set to **SBch Auto**, there will be no sound from the surround back speakers. In this case, set to **SBch ON** (see **Using surround back channel processing** on page 56).
### Additional information

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedy</th>
</tr>
</thead>
</table>
| No sound from surround back speakers. (Continued)                       | • If the source does not have 6.1 playback channels, make sure that surround back channel processing is set to SBch ON and a surround mode is selected (see Listening in surround sound on page 53).  
• Check the speaker connections (see Connecting the speakers on page 18). If only one surround back speaker is connected, make sure it’s connected to the left channel speaker terminal. |
| No sound from subwoofer.                                                | • Check that the subwoofer is connected properly, switched on and the volume turned up.                                             |
|                                                                         | • If your subwoofer has a sleep function, make sure it is switched off.                                                             |
|                                                                         | • Make sure that the Subwoofer setting is YES or PLUS (see Speaker Setting on page 95).                                               |
|                                                                         | • The crossover frequency may be set too low; try setting it higher to match the characteristics of your other speakers (see Speaker Setting on page 95). |
|                                                                         | • If there is very little low frequency information in the source material, change your speaker settings to Front: SMALL / Subwoofer: YES, or Front: LARGE / Subwoofer: PLUS (see Speaker Setting on page 95). |
|                                                                         | • Check that the LFE channel is not set to OFF, or a very quiet setting (see Setting the Audio options on page 64).                |
|                                                                         | • Check the speaker level settings (see Channel Level on page 96).                                                                 |
| No sound from one speaker.                                              | • Check the speaker connection (see Connecting the speakers on page 18).                                                             |
|                                                                         | • Check the speaker level settings (see Channel Level on page 96).                                                                 |
|                                                                         | • Check that the speaker hasn’t been set to NO (see Speaker Setting on page 95).                                                     |
|                                                                         | • The channel may not be recorded in the source. By using one of the advanced effect listening mode, you may be able to create the missing channel (see Listening in surround sound on page 53). |
| Sound is produced from analog components, but not from digital ones    | • Check that the input signal type is set to DIGITAL (see Choosing the input signal on page 56).                                   |
| (DVD, LD, CD-ROM, etc.).                                                | • Make sure that the digital input is assigned correctly for the input jack the component is connected to (see The Input Setup menu on page 39). |
|                                                                         | • Check the digital output settings on the source component.                                                                        |
|                                                                         | • If the source component has a digital volume control, make sure this is not turned down.                                         |
|                                                                         | • Make sure that the multichannel analog inputs are not selected. Select any other input function.                                 |
| No sound is output or a noise is output when Dolby Digital/ DTS software is played back | • Check that your DVD player is compatible with Dolby Digital/DTS discs.                                                             |
|                                                                         | • Check the digital output settings of your DVD player. Make sure that the DTS signal output is set to On.                           |
|                                                                         | • If the source component has a digital volume control, make sure this is not turned down.                                         |
| No sound when using the HOME MENU or STATUS menu.                      | • If the HDMI input function is selected, sound is muted until exiting either menu.                                               |
|                                                                         | • If sound is muted in the sub zone (ZONE 2), it will be restored after exiting the HOME MENU.                                     |
Additional information

Other audio problems

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadcast stations cannot be selected automatically, or there is considerable noise in radio broadcasts.</td>
<td>For AM broadcasts</td>
</tr>
<tr>
<td></td>
<td>• Fully extend the FM wire antenna, adjust the position for best reception and secure to a wall, etc.</td>
</tr>
<tr>
<td></td>
<td>• Use an outdoor antenna for better reception (see page 30).</td>
</tr>
<tr>
<td></td>
<td>For AM broadcasts</td>
</tr>
<tr>
<td></td>
<td>• Adjust the position and direction of the AM antenna.</td>
</tr>
<tr>
<td></td>
<td>• Use an outdoor antenna for better reception (see page 30).</td>
</tr>
<tr>
<td></td>
<td>• Noise may be caused by interference from other equipment, such as a fluorescent light, motor, etc. Switch off or move the other equipment, or move the AM antenna.</td>
</tr>
<tr>
<td>A multichannel DVD source appears to be downmixed to 2 channels during playback.</td>
<td>• Make sure that the multichannel analog inputs are selected (see Selecting the multichannel analog inputs on page 42).</td>
</tr>
<tr>
<td>Noise is output when scanning a DTS CD.</td>
<td>• This is not a malfunction of the receiver. The scan function of your player alters the digital information, making it unreadable, resulting in noise being output. Lower the volume when scanning.</td>
</tr>
<tr>
<td>When playing a DTS format LD there is audible noise on the soundtrack.</td>
<td>• Make sure that the input signal type is set to DIGITAL (see Choosing the input signal on page 58).</td>
</tr>
<tr>
<td>Can’t record audio.</td>
<td>• You can only make a digital recording from a digital source, and an analog recording from an analog source.</td>
</tr>
<tr>
<td></td>
<td>• For digital sources, make sure that what you’re recording isn’t copy protected.</td>
</tr>
<tr>
<td></td>
<td>• Check that the OUT jacks are properly connected to the recorders input jacks (see Connecting other audio components on page 59).</td>
</tr>
<tr>
<td>Subwoofer output is very low.</td>
<td>• To route more signal to the subwoofer, set it to PLUS or set the front jacks to SMALL (see Speaker Setting on page 95).</td>
</tr>
<tr>
<td>Everything seems to be set up correctly, but the playback sound is odd.</td>
<td>• The speakers may be out of phase. Check that the positive/negative speaker terminals on the receiver are matched with the corresponding terminals on the speakers (see Connecting the speakers on page 18).</td>
</tr>
<tr>
<td>The PHASE CONTROL feature doesn’t seem to have an audible effect.</td>
<td>• If applicable, check that the lowpass filter switch on your subwoofer is off, or the lowpass cutoff is set to the highest frequency setting. If there is a PHASE setting on your subwoofer, set it to 0° (or depending on the subwoofer, the setting where you think it has the best overall effect on the sound).</td>
</tr>
<tr>
<td></td>
<td>• Make sure the speaker distance setting is correct for all speakers (see Speaker Distance on page 97).</td>
</tr>
<tr>
<td>Noise or hum can be heard even when there is no sound being input.</td>
<td>• Check that personal computers or other digital components connected to the same power source are not causing interference.</td>
</tr>
<tr>
<td>There seems to be a time lag between the speakers and the output of the subwoofer.</td>
<td>• See Automatically setting up for surround sound (Auto MCACC) on page 37 to set up your system again using MCACC (this will automatically compensate for a delay in the subwoofer output).</td>
</tr>
<tr>
<td>The maximum volume available (shown in the front panel display) is lower than the +12dB maximum.</td>
<td>• Check that the Volume Limit is set to OFF (see Volume Limit Setup on page 100).</td>
</tr>
</tbody>
</table>
12 Additional information

Video

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>No image is output when an input is selected.</td>
<td>• Check the video connections of the source component (see page 28).</td>
</tr>
<tr>
<td></td>
<td>• For HDMI, or when digital video conversion is set to OFF and a TV and another component are connected with different cords (in Setting the Video options on page 67), you must connect your TV to this receiver using the same type of video cable as you used to connect your video component.</td>
</tr>
<tr>
<td></td>
<td>• Make sure the input assignment is correct for components connected using component video or HDMI cables (see The Input Setup menu on page 99).</td>
</tr>
<tr>
<td></td>
<td>• Check the video output settings of the source component.</td>
</tr>
<tr>
<td></td>
<td>• Check that the video input you selected on your TV is correct.</td>
</tr>
<tr>
<td></td>
<td>• Some components (such as video game units) have resolutions that may not be converted. If adjusting this receiver’s Resolution setting (in Setting the Video options on page 67) and/or the resolution settings on your component or display doesn’t work, turn switching Digital Video Conversion (in Setting the Video options on page 67) OFF.</td>
</tr>
</tbody>
</table>

| Can’t record video.                          | • Check that the source is not copy-protected.                         |
|                                              | • The video converter is not available when making recordings. Check that the same type of video cable is used for connecting both the recorder and the video source (the one you want to record) to this receiver. |

| Noisy, intermittent, or distorted picture.  | • Sometimes a video deck may output a noisy video signal (during scanning, for example), or the video quality may just be poor (with some video game units, for example). The picture quality may also depend on the settings, etc. of your display device. Switch off the video converter and reconnect the source and display device using the same type of connection (component or composite), then start playback again. |

Settings

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Auto MCACC Setup continually shows an error.</td>
<td>• The ambient noise level may be too high. Keep the noise level in the room as low as possible (see also Problems when using the Auto MCACC Setup on page 39). If the noise level cannot be kept low enough, you will have to set up the surround sound manually (page 94).</td>
</tr>
<tr>
<td></td>
<td>• When using only one surround back speaker, connect it to the SURROUND BACK L (Single) terminals.</td>
</tr>
<tr>
<td></td>
<td>• To use a 5.1-channel speaker set, use the surround speakers for the surround channel, not the surround back channel.</td>
</tr>
<tr>
<td></td>
<td>• Make sure there are no obstacles between the speakers and the microphone.</td>
</tr>
<tr>
<td></td>
<td>• If Reverse Phase is displayed, try the following:</td>
</tr>
<tr>
<td></td>
<td>– The speaker’s wiring (+ and –) may be inverted. Check the speaker connections.</td>
</tr>
<tr>
<td></td>
<td>– Depending on the type of speakers and their installation conditions, Reverse Phase may be displayed even if the speakers are properly connected. If this happens, select GO NEXT and continue.</td>
</tr>
<tr>
<td></td>
<td>– If the speaker is not pointed to the microphone (listening position) or when using speakers that affect the phase (dipole speakers, reflective speakers, etc.), it may not be possible to properly identify the polarity.</td>
</tr>
</tbody>
</table>
### Additional information

#### Symptom
After using the Auto MCACC Setup, the speaker size setting is incorrect.

#### Remedy
- There may have been some low frequency noise in the room from an air-conditioner, motor, etc. Switch off all other appliances in the room and use Auto MCACC Setup again.
- Depending on a number of factors (room size, speaker placement, etc.) this may occur in some cases. Change the speaker setting manually in Speaker Setting on page 95, and use the ALL (Keep SP System) option for the Auto MCACC menu in Automatic MCACC (Expert) on page 78 if this is a recurring problem.

Can’t adjust the Fine Speaker Distance setting (page 83) properly.

- Check that the speakers are all in phase (make sure the positive (+) and negative (-) terminals are matched up properly).

The display shows KEY LOCK ON when you try to make settings.

- With the receiver in standby, press STANDBY/ON while holding down SPEAKERS to disable the key lock.

Most recent settings have been erased.

- The power cord was disconnected from the wall while adjusting this setting.

### Professional Calibration EQ graphical output

#### Symptom
The EQ response displayed in the graphical output following calibration does not appear entirely flat.

#### Remedy
- There are cases where the graph does not appear flat (even when selecting ALL CH ADJ in the Auto MCACC Setup) due to adjustments made to compensate for room characteristics to achieve optimal sound.
- Areas of the graph may appear identical (before and after) when there is little or no adjustment needed.
- The graph may appear to have shifted vertically when comparing before and after measurements.

EQ adjustments made using the Manual MCACC setup on page 82 do not appear to change the graphical output.

- Despite level adjustments being made, the filters used for analysis may not display these adjustments in the graphical output. However, these adjustments are taken into account by the filters dedicated to overall system calibration.

Lower frequency response curves do not seem to have been calibrated for SMALL speakers.

- Low frequencies used in bass management (the subwoofer channel) will not change for speakers that have been specified as SMALL in the configuration, or do not output these frequencies.
- Calibration is performed, but due to your speakers’ low frequency limitations, no measurable sound is output for display.
### Additional information

#### Display

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The display is dark or off.</td>
<td>• Press <strong>DIMMER</strong> repeatedly to select a different brightness.</td>
</tr>
<tr>
<td>After making an adjustment the display goes off.</td>
<td>• Press <strong>DIMMER</strong> repeatedly to select a different brightness.</td>
</tr>
</tbody>
</table>
| You can't get **DIGITAL** to display when using **SIGNAL SEL**. | • Check the digital connections and make sure that the digital inputs are assigned correctly (see The Input Setup menu on page 39).  
• If the multichannel analog inputs are selected, select a different input function. |
| **DIGITAL** or **DTS** does not light when playing Dolby/DTS software. | • These indicators do not light if playback is paused.  
• Check the playback (especially the digital output) settings of the source component. |
| When playing Dolby Digital or DTS sources, the receiver's format indicators do not light. | • Check that the player is connected using a digital connection.  
• Make sure that the receiver is set to **AUTO** or **DIGITAL** (see Choosing the input signal on page 58).  
• Ensure that if there are several audio tracks on the disc, the Dolby Digital or DTS is selected. |
| When playing certain discs, none of the receiver’s format indicators light. | • The disc may not contain 5.1/6.1 channel material. Check the disc packaging for more on what audio tracks are recorded on the disc. |
| When playing a disc with the listening mode set to Auto Surround or ALC, **PL II** or **Neo6** appear on the receiver. | • Make sure that the receiver is set to **AUTO** or **DIGITAL** (see Choosing the input signal on page 58).  
• If a two channel soundtrack is currently playing (including Dolby Surround encoded), then this is not a malfunction. Check the disc packaging for details about the audio tracks available. |
| During playback of a Surround EX or DTS-ES source on the **SBch AUTO** setting, **EX** or **ES** does not appear; or the signal is not properly processed. | • The source may be Dolby Surround EX/DTS-ES software, but it has no flag to indicate it is 6.1 compatible. Set to **SBch ON** (see Using surround back channel processing on page 56), then switch to the Standard EX listening mode (see Listening in surround sound on page 53). |
| During playback of DVD-Audio, the display shows **PCM**. | • This will occur when playing DVD-Audio material over the HDMI connection.  
This is not a malfunction. |
| The power turns off automatically and some indicator flashes, or some indicator flashes and the power does not turn on. | • See the Power section (page 102). |
**Remote control**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedy</th>
</tr>
</thead>
</table>
| Cannot be remote controlled. | - Set a 5-digit preset code corresponding to the receiver to be operated in the remote control (see Operating multiple receivers on page 73).  
- Check whether the receiver’s remote control mode is properly set (see Remote Control Mode Setup on page 101).  
- Try replacing the batteries in the remote control (see Loading the batteries on page 7).  
- Be sure to operate within 7 m (23 feet) and a 30° angle of the remote sensor on the front panel (see Operating range of remote control unit on page 13).  
- Check that there are no obstacles between the receiver and the remote control.  
- Make sure that there is no fluorescent or other strong light shining on to the remote sensor.  
- Check the connections of the CONTROL IN jack (see Operating other Pioneer components with this unit’s sensor on page 32).  
- If the battery ran down, the preset codes may have been cleared. Re-enter the preset codes.  
- The preset code may be incorrect. Redo the procedure for entering preset codes. |

| Other components can’t be operated with the system remote. | |

**HDMI**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedy</th>
</tr>
</thead>
</table>
| The HDMI indicator blinks continuously. | - Check all the points below.  
- 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 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.  
- If video images do not appear on your TV or flat panel TV, try adjusting the resolution, DeepColor or other setting for your component.  
- If ‘NOT SUPPORT’ appears in the receiver’s display, try adjusting the resolution, DeepColor or other setting for your component.  
- While analog video signals are being output over HDMI, use a separate connection for audio output.  
- When this receiver reproduces MULTI CH IN audio sources with the HDMI setting set to THROUGH, you cannot hear audio output from all channels. In this case, make a digital or analog audio connection.  
- To output signals in DeepColor, use an HDMI cable (High Speed HDMI™ Cable) to connect this receiver to a component or TV with the DeepColor feature. |

| No picture or sound. | |

| No picture. | |

Try changing the Resolution setting (in Setting the Video options on page 67).
Additional information

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Remedy</th>
</tr>
</thead>
</table>
| No sound, or sound suddenly ceases. | • Check that the HDMI AV setting is set to AMP/THROUGH  
• If the component is a DVI device, use a separate connection for the audio.  
• If analog video is being output over HDMI, please use a separate connection for the audio.  
• Check the audio output settings of the source component. |
| Noisy or distorted picture.   | • Sometimes a video deck may output a noisy video signal (during scanning, for example), or the video quality may just be poor (with some video game units, for example). The picture quality may also depend on the settings, etc. of your display device. Switch off the video converter and reconnect the source and display device using the same type of connection (component or composite), then start playback again.  
• 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. |
| HDCP ERROR shows in the display. | • Check whether or not the connected component is compatible with HDCP. If it is not compatible with HDCP, reconnect the source device using a different type of connection (component or composite). Some components that are compatible with HDCP still cause this message to be displayed, but so long as there is no problem with displaying video, this is not a malfunction. |
| Amp-linked operation not possible using KURO LINK function. | • Check the HDMI connections.  
• The cable may be damaged.  
• Select ON for the KURO LINK setting (see KURO LINK Setup on page 62).  
• Turn the TV’s power on before turning on this receiver’s power.  
• Set the TV side KURO LINK setting to ON. |

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 one of the following configurations when connecting up.

| Configuration A | Use component video cables to connect the video output of your HDMI-equipped component to the receiver’s component video input. The receiver can then convert the analog component video signal to a digital HDMI signal for transmission to the display. For this configuration, use the most convenient connection (digital is recommended) for sending audio to the receiver. See the operating instructions for more on audio connections. |

Note

• The picture quality will change slightly during conversion.
Additional information

Configuration B
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
• If your display only has one HDMI terminal, you can only receive HDMI video from the connected component.

USB interface

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Causes</th>
<th>Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>The folders/files stored on a USB memory device are not displayed.</td>
<td>The folders/files are currently stored in a region other than the FAT (File Allocation Table) region.</td>
<td>Store the folders/files in the FAT region.</td>
</tr>
<tr>
<td></td>
<td>The number of levels in a folder is more than 8.</td>
<td>Limit the maximum number of levels in a folder to 8 (page 49).</td>
</tr>
<tr>
<td></td>
<td>There are more than 30,000 folders/files stored in a USB memory device.</td>
<td>Limit the maximum number of folders/files stored in a USB memory device to 30,000 (page 45).</td>
</tr>
<tr>
<td></td>
<td>The audio files are copyrighted.</td>
<td>Copyrighted audio files stored on a USB memory device cannot be played back (page 45).</td>
</tr>
</tbody>
</table>

A USB memory device is not recognized.

A USB hub is currently being used.

This receiver recognizes the USB memory device as a fraud.
Additional information

**Symptoms**

A USB memory device is connected and displayed, but the audio files stored on the USB memory device cannot be played back.

**Causes**

Some formats of a USB memory device, including FAT 12, NTFS, and HFS, cannot be played back on this receiver.

**Remedies**

Check whether the format of your USB memory device is either FAT 16 or FAT 32. Note that the FAT 12, NTFS, and HFS formats cannot be played back on this receiver (page 45).

The file format cannot be properly played back on this receiver.

See the list of file formats that can be played back on this receiver (page 48).

---

**SIRIUS radio messages**

- **Message**: Antenna ERROR
  - **Cause**: Antenna is not properly connected.
  - **Remedies**: Check that the antenna cable is attached securely.

- **Message**: Check Sirius Tuner
  - **Cause**: SIRIUS Connect tuner is not properly connected.
  - **Remedies**: Check that the 8 pin mini DIN cable and AC Adapter are attached securely.

- **Message**: Acquiring Signal
  - **Cause**: The SIRIUS signal is too weak at the current location.
  - **Remedies**: n/a

- **Message**: Subscription Updating
  - **Cause**: Unit is updating subscription.
  - **Remedies**: Wait until the encryption code has been updated.

- **Message**: Updating Channels
  - **Cause**: Unit is updating channels.
  - **Remedies**: Wait until the encryption code has been updated.

- **Message**: Invalid Channel
  - **Cause**: Selected channel is not available/does not exist.
  - **Remedies**: Select another channel.

- **Message**: Firmware Updating
  - **Cause**: The SIRIUS Connect tuner’s firmware is being updated.
  - **Remedies**: Wait for updating to finish.

If the problem is not solved after the troubleshooting above, if the screen freezes unexpectedly or if the buttons on the remote control or front panel stop working completely, do the following:

- Press ⊗ STANDBY/ON on the front panel to turn off the power, then turn the power back on.
- If the power cannot be turned off, press and hold ⊗ STANDBY/ON on the front panel for over 10 seconds. The power will turn off. (In this case, the various settings made on the receiver may be cleared.)
Additional information

Surround sound formats
Below is a brief description of the main surround sound formats you'll find on DVDs, satellite, cable and terrestrial broadcasts, and video cassettes.

Dolby
The Dolby technologies are explained below. See www.dolby.com for more detailed information.

Dolby
Dolby, Pro Logic, Surround EX and the double-D symbol are trademarks of Dolby Laboratories.

DTS
The DTS technologies are explained below. See www.dtstech.com for more detailed information.

Windows Media Audio 9 Professional
Windows Media Audio 9 Professional (WMA9 Pro) is a discrete surround format developed by Microsoft Corporation.

Windows Media and the Windows logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

About iPod
“Made for iPod” means that an electronic accessory has been designed to connect specifically to iPod and has been certified by the developer to meet Apple performance standards.

“Works with iPhone” means that an electronic accessory has been designed to connect specifically to iPhone and has been certified by the developer to meet Apple performance standards.

Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

iPod is a trademark of Apple Inc., registered in the U.S. and other countries. iPhone is a trademark of Apple Inc.
About SIRIUS

SIRIUS, XM and all related marks and logos are trademarks of Sirius XM Radio Inc. and its subsidiaries. All rights reserved. Service not available in Alaska and Hawaii.

About Neural – THX Surround

Neural-THX® is taking surround sound to the next level. This revolutionary new technology delivers the rich envelopment and discrete image detail of surround sound in a format that is fully compatible with stereo from various content sources. Neural-THX® enables 5.1, 6.1 and 7.1 channel support for gaming, movies and digital music. By unmasking the audio details, typically lost by other playback modes, audiences will experience the deep ambience and subtle details of movies, music and games.

Neural-THX® Digital Music™ is a new surround mode specifically designed to enhance the playback of compressed digital music content. It provides listeners with an expanded sound stage and clean surround experience, even with compressed audio sources such as MP3s and internet streams.

Neural-THX® has been chosen as the official surround sound format for TV sports broadcasting, 7.1 games, Music Direct Internet streaming as well as leading FM/HD radio stations worldwide. And with this technology being used by sound designers during content creation, as well as embedded into playback devices, Neural-THX® promises a listening experience that is true to the original mix.

For additional information, please visit www.neuralsurround.com.

This product is manufactured under license from Neural Audio Corporation and THX Ltd. PIONEER Corporation hereby grants the user a non-exclusive, non-transferable, limited right of use to this product under USA and foreign patent, patent pending and other technology or trademarks owned by Neural Audio Corporation and THX Ltd. “Neural Surround”, “Neural Audio”, “Neural” and “NRL” are trademarks and logos owned by Neural Audio Corporation. THX is a trademark of THX Ltd., which may be registered in some jurisdictions. All rights reserved.
### Additional information

#### Auto Surround, ALC and Stream Direct with different input signal formats

The following charts show what you will hear with different input signal formats, depending on the Stream Direct mode (see Using Stream Direct on page 56) you have selected.

**Stereo (2 channel) signal formats**

<table>
<thead>
<tr>
<th>Input signal format</th>
<th>Auto Surround / ALC / DIRECT</th>
<th>PURE DIRECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surround Back speaker(s): Connected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dolby Digital Surround</td>
<td>[a] Pro Logic IIx MOVIE</td>
<td>[a] Pro Logic IIx MOVIE</td>
</tr>
<tr>
<td>DTS Surround</td>
<td>Neo:6 CINEMA</td>
<td>Neo:6 CINEMA</td>
</tr>
<tr>
<td>Other stereo sources</td>
<td>Stereo playback</td>
<td>Stereo playback</td>
</tr>
<tr>
<td>Analog sources</td>
<td>As above</td>
<td>ANALOG DIRECT (stereo)</td>
</tr>
<tr>
<td>PCM sources</td>
<td>As above</td>
<td>Stereo playback</td>
</tr>
<tr>
<td>DVD-A sources</td>
<td>As above</td>
<td>As above</td>
</tr>
<tr>
<td>SACD sources</td>
<td>As above</td>
<td>As above</td>
</tr>
<tr>
<td>Surround Back speaker(s): Not connected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dolby Digital Surround</td>
<td>[a] Pro Logic II MOVIE</td>
<td>[a] Pro Logic II MOVIE</td>
</tr>
<tr>
<td>DTS Surround</td>
<td>Neo:6 CINEMA</td>
<td>Neo:6 CINEMA</td>
</tr>
<tr>
<td>Other stereo sources</td>
<td>Stereo playback</td>
<td>Stereo playback</td>
</tr>
<tr>
<td>Analog sources</td>
<td>As above</td>
<td>ANALOG DIRECT (stereo)</td>
</tr>
<tr>
<td>PCM sources</td>
<td>As above</td>
<td>Stereo playback</td>
</tr>
<tr>
<td>DVD-A sources</td>
<td>As above</td>
<td>As above</td>
</tr>
<tr>
<td>SACD sources</td>
<td>As above</td>
<td>As above</td>
</tr>
</tbody>
</table>

#### Multichannel signal formats

<table>
<thead>
<tr>
<th>Input signal format</th>
<th>Auto Surround / ALC</th>
<th>PURE DIRECT / DIRECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surround Back speaker(s): Connected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dolby Digital EX (6.1 channel flagged)</td>
<td>Dolby Digital EX [a] Pro Logic IIx MOVIE</td>
<td>Dolby Digital EX [a] Pro Logic IIx MOVIE</td>
</tr>
<tr>
<td>DTS-ES (6.1 channel sources/6.1 channel flagged)</td>
<td>DTS-ES (Matrix/Discrete)</td>
<td>DTS-ES (Matrix/Discrete)</td>
</tr>
<tr>
<td>DTS sources (6.1 channel encoding)</td>
<td>DTS + Neo:6</td>
<td>Straight decoding</td>
</tr>
<tr>
<td>DTS-HD sources</td>
<td>Straight decoding</td>
<td>As above</td>
</tr>
<tr>
<td>Other 6.1/7.1 channel sources</td>
<td>As above</td>
<td>As above</td>
</tr>
<tr>
<td>Other 5.1 channel sources</td>
<td>Dolby Digital EX [a] Pro Logic IIx MOVIE</td>
<td>As above</td>
</tr>
<tr>
<td>Surround Back speaker(s): Not connected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DVD-A sources/Multi-ch PCM</td>
<td>Straight decoding</td>
<td>Straight decoding</td>
</tr>
<tr>
<td>SACD sources (5.1 channel encoding)</td>
<td>As above</td>
<td>As above</td>
</tr>
<tr>
<td>Other 5.1/6.1/7.1 channel sources</td>
<td>As above</td>
<td>As above</td>
</tr>
</tbody>
</table>

[a] Unavailable with only one surround back speaker connected.
Preset code list

You should have no problem controlling a component if you find the manufacturer in this list, but please note that there are cases where codes for the manufacturer in the list will not work for the model that you are using. There are also cases where only certain functions may be controllable after assigning the proper preset code.

TV

General
Pioneer 10166, 10879, 11260, 11399
A-Mark 10047, 10054, 10160
A.R. Systems 10556
Acuscan 10047
Admiral 10047, 10054, 10051, 10093, 10463, 10180
Adventuri 10000
Algna 10150
Aiko 10092
Akai 10812, 11675, 10060, 10702, 10145, 10672
Alba 10037
Alflye 10072
Ambassador 10150
America Action 10180
American High 10000, 10060
Amstrad 10171
Amtron 10000, 10180
Anam 10180
AOC 10180, 11065
Apex Digital 10156, 10765, 10880, 11217
AR 10556
Audinac 10180
Audion 10451, 10180, 10092, 10823, 10802, 10875
Aventura 10171
Barco 10556
Bayonic 10180
Beaumark 10017, 10178
Bell & Howell 10054, 10154, 10093
BenQ 11674
Blue Sky 10566
Bradford 10180
Brockwood 10180
Broksonic 10236, 10463, 10180
Bydsign 11309
Capethart 10017, 10178, 10092
Carver 10054
CCE 10037

Celebrity 10000
Celeria 10765
Changshong 10156, 10765
Chengin 10451, 10092
Cftek 10047
Citizen 10000, 10054, 10463, 10180, 10093, 10171, 10092
Clarion 10180
Classic 10097
Colorymte 10047, 10054, 10017, 10060, 10178
Commercial Solutions 11447, 10047
Conic 10178
Contec 10180
Craig 10180, 10171
Crosley 10000, 10054, 10180, 10171
Crown 10093, 10180, 10672
Crown Mustang 10072
Curis Mathes 10000, 10047, 10054, 10154, 10051, 10451, 10093, 10180, 10060, 10702, 10178, 10145, 10166, 10037, 11147
CXC 10180
Daewoo 11755, 10451, 10092, 11681, 10623, 10661, 10672, 11765
Dayton 10092
Daytron 10178, 10092
Dell 11264, 11080, 11178, 11403
Denon 10145
Dumont 10017, 10180, 10178
Duraiband 10463, 10180, 10178, 10171
Dyne 10093
Dynex 11463, 12049
Eaton 10060
Electroband 10000
Electrograph 11765
Electrohome 10000, 10154, 10451, 10150, 10178
Element 11687
Emerald 10178
Emerson 10047, 10017, 10154, 10451, 10026, 10463, 10180, 10150, 10178, 10171, 10663, 11394
Envision 11365
ESA 10812, 10171
Ferguson 10625
Fisher 10000, 10054, 10154
Fortress 10093
Fujitsu 10609, 10683, 10853
Funai 10000, 10180, 10171, 11271
Futuretech 10180
Gateway 11755, 11765
GE 10000, 11447, 10047, 10051, 10451, 10060, 10178, 11147
Gemini 10047
GFN 10171
Gibralter 10000, 10017
GoldStar 10047, 10054, 10178, 10037
Goodmans 10037
Gradiente 10053
Granada 10037
Grundig 10037, 10672, 10685
Grundy 10180
Grumpy 10180
Haier 11748
Hallmark 10236, 10180, 10178
Hannspree 11351
Hanseatic 10566
Harley Davidson 10000, 10180, 10060, 10178
Harman/Kardon 10024
Harvard 10180
Havemery 10093
Healthkit 10017
Helios 10685
Hello Kitty 10451
Hewlett Packard 11494, 11101, 11502
Hitachi 10000, 11643, 10047, 10054, 10107, 10115, 11455
HP 11494, 11101, 11502
Hyundai 10865
Ima 10236, 10180, 10178
Infinity 10264
Innova 10037
Insignia 11423, 11646, 10171, 11177, 11170, 12049
Inteq 10017, 10145
JBL 10054
JCB 10000
Jinxing 10037, 10556
JVC 10047, 10003, 10160, 10050, 10731, 11253, 11601, 11633, 11774
Kamp 10017, 10180
KDS 11498, 11687
KEC 10180, 10060
Kenwood 10180
Kioto 10556
KLH 10156, 10180, 10765
Konka 10180
KTV 10463, 10180
Lark 10154
LG 11423, 10054, 10117, 11685, 10060, 10178, 10037, 10856, 11178, 11683, 11768
Lloyd’s 10236, 10180
Loewe 10263
Logik 10026, 10180
Lumatron 10037, 10566
LXI 10000, 10047, 10054, 10017, 10154, 10156, 10051, 10093, 10060, 10053, 10178, 10171, 10166, 10037
MAG 11488, 11687
Magnasonic 10000, 10054, 11393, 10093
Magnavox 10000, 10250, 11454, 11866, 11785, 10047, 10054, 10154, 10051, 10180, 10080, 10171, 10092, 10802, 11254, 11365, 10037
Majestic 10017
Marantz 11454, 10054, 1037, 10056, 10074, 10885, 11398
Mark 10037
Additional information
## Plasma Television

- **Pioneer**: 10679, 11260, 11398, 11633, 14000, 14001, 14003, 14004
- **Akai**: 10812, 11675
- **Daewoo**: 10661
- **Dell**: 11264
- **Electrograph**: 11755
- **ESA**: 10812
- **Fujitsu**: 10809, 10863, 10856
- **Funai**: 10731
- **Gateway**: 11755
- **Haier**: 11748
- **Helios**: 11755
- **Hitachi**: 11264, 11260
- **Insignia**: 11564
- **JVC**: 10731
- **LG**: 11423, 10178, 10856
- **Magnavox**: 11866, 11217
- **Maxent**: 11755, 11211
- **Mitsubishi**: 11250
- **NEC**: 11398, 11704
- **NetTV**: 11755
- **Panasonic**: 11480, 10650
- **Philips**: 10890, 11217
- **Polaroid**: 10865, 11276
- **Runco**: 11998
- **Sampo**: 11755
- **Samsung**: 10812, 12051, 11256
- **Sanyo**: 10865, 11276
- **Sceptre**: 11217, 11363
- **Sharp**: 10681, 10093
- **Superscan**: 10864
- **SVA**: 10857
- **Toshiba**: 11265
- **Westinghouse**: 11712
- **Zenith**: 11017

## LCD

- **Pioneer**: 11260
- **Akai**: 11675
- **Apex Digital**: 10890, 11217
- **Audiovox**: 10180, 10802, 10657
- **Bydsign**: 11309
- **Dell**: 11264, 11080, 11178
- **Dynex**: 12049
- **Element**: 11687
- **Emerson**: 11394
- **Envision**: 11365
- **Funai**: 11017
- **Haier**: 11748
- **Hannspree**: 11351
- **Hitachi**: 11643
- **Insignia**: 11564, 11517, 11710, 12049
- **JVC**: 11601, 11774
- **LG**: 11423, 11080, 11718, 11768
- **Magnavox**: 11866, 10802, 11217
- **Marantz**: 10855
- **Maxent**: 11755, 11211, 11752
- **Mitsubishi**: 11250
- **NEC**: 11797
- **Norcent**: 11365
- **Olevia**: 11610, 11144, 11240, 11331
- **Panasonic**: 11480, 10650
- **Peters**: 11523
- **Philips**: 11454, 11744
- **Polaroid**: 11523, 11276, 11448, 11687, 11766
- **RCA**: 10047, 11791, 12187
- **Sampo**: 11755
- **Sanyo**: 11017
- **Sony**: 10810, 11685
- **Superscan**: 10864
- **ViewSonic**: 10857, 10864, 10885
- **Vizio**: 11758, 10885, 11756
- **Westinghouse**: 11712, 10865, 10885, 10889, 11282, 11777
- **Wyse**: 11365
- **Zenith**: 11265

## HDTV

- **Pioneer**: 10679
- **Mitsubishi**: 10150
- **Olevia**: 11610
- **Panasonic**: 10250, 10650
- **RCA**: 11447
- **Samsung**: 10812, 10702
- **Toshiba**: 11265

## Rear Projection TV

- **Akai**: 10812, 10702
- **AOC**: 10857, 10864
- **Dynex**: 12049
- **Element**: 11687
- **Emerson**: 11394
- **Insignia**: 12049
- **Magnavox**: 11866, 10802, 11365
- **Marantz**: 10855
- **Maxent**: 11755, 11211, 11752
- **Mitsubishi**: 11250
- **NEC**: 11797
- **Norcent**: 11365
- **Olevia**: 11610, 11144, 11240, 11331
- **Panasonic**: 11480, 10650
- **Peters**: 11523
- **Philips**: 11454, 11744
- **Polaroid**: 11523, 11276, 11448, 11687, 11766
- **RCA**: 10047, 11791, 12187
- **Sampo**: 11755
- **Sanyo**: 11017
- **Sony**: 10810
- **Toshiba**: 11016, 11686

## TV/DVD Combination

- **Akai**: 11675
- **Dynex**: 12049
- **Emerson**: 11394
- **Insignia**: 12049
- **Magnavox**: 11866
- **Polaroid**: 11523, 11766
- **RCA**: 12187
- **Sanyo**: 11684, 11394
- **Toshiba**: 11524

## TV/VCR Combination

- **America Action**: 10180
- **Audiovox**: 10810
- **Emerson**: 10236
Additional information

DVR/VCR

General
Pioneer 20162, 20081, 20042, 20067, 20008, 2206, 2246, 21972, 2046
A-Mark 20037, 20000, 20278
ABS 21972
Accurian 20000
Admiral 20050, 20039
Adventura 20037, 20000
Alka 20278
Alwa 20037, 20000
Alba 20278
Alienware 21972
Allegro 20039
America Action 20278
American High 20035, 20081
Amstrad 20000
Anam National 20226
Astra 20035
Audio-Technica 20038
Audiovox 20037, 20278, 20038
Avis 20000
Bell & Howell 20035, 20039, 20009
Brodcast 20348, 21479
Calix 20037
Candle 20037, 20038
Canon 20035
Carver 20081, 20081
CSD 20718
Citizen 20035, 20000, 20278
Classic 20037
Colortyme 20060, 20035, 20048, 20718
Col 20000
Craig 20037
Criterion 20000
Crosley 20035, 20081, 20000
Crown 20278
Curis Mathes 20060, 20035, 20162, 20000, 20278
CyberPower 21972
Daewoo 20037, 20045, 20278
Daytron 20037, 20278
Dell 1972
Denon 20081, 20042
DirecTV 20739
Dual 20030
Durabrand 20039, 20038
Dynatech 20000
Electrohome 20060, 20037, 20009, 20043
Electrophonic 20037
Emerex 20032
Emerson 20037, 20000, 20043, 20278, 20348, 21479, 21593
Fisher 20039, 20000
Fujifilm 20035, 20033
Fujitsu 20000
Funai 20037, 20000, 20278, 21939
Garrard 20000
Gateway 21972
GE 20060, 20035, 20000, 20087
Gemini 20060
Genexx 20007, 20000, 20278
GFM 21593
Gold Video 20064
GoldStar 20035, 20037, 20000, 20278, 20038
Goodmans 20037, 20081, 20000, 20278
Gradiente 20000
Granada 20081, 20042
Grundig 20081, 20226
Harley Davidson 20000
Harman/Kardon 20035, 20000
Hewlett Packard 21972
Hi-Q 20035, 20000
Hitachi 20035, 20037, 20045, 20000, 20042
Howard Computers 21972
HP 21972
Hughes Network Systems 20739, 20042
Humax 20739
Hush 21972
Hytec 20000
IBUYPOWER 21972
Instant Replay 20035, 20022
Jensen 20067
JVC 20067, 20058, 21162
JVC 20067, 20058, 21162
KEC 20037, 20028
Kenwood 20067, 20038
Kodak 20035, 20037
KTV 20000
LG 20037, 20038
Lifetec 20348
Linksys 21972
Lloyd's 20000, 20038
Loewe 20081
Logik 20000
Lumatron 20278
LXI 20037, 20000, 20042, 20058
Magnasonic 20037, 20000, 20278
Magnavox 20035, 20037, 20000, 20278, 20039, 20000
Matsui 20037, 20037, 20039, 20000, 20278, 20348, 21162
Media Center PC 21972
Medion 20035
MEI 20035
Memorex 20035, 20037, 20039, 20000, 20278, 20348, 21162
Metz 20037
MGA 20060, 20043
Microsoft 21972
Mind 21972
Minolta 20042
Motorola 20035
MTX 20000
Multitech 20039, 20000
NAD 20034
NEC 20067, 20038
Nikko 20037, 20078
Nikkodo 20030, 20278
Niveus Media 21972
Northgate 21972
Olympus 20035, 20162, 20226
Onkyo 20222
Optimus 20162, 20035, 20162, 20037, 20000, 20058, 21162
Orion 20000, 20278, 21479
Panasonic 20035
Panasonic 21062, 20035, 20162, 20000, 20067, 20226, 20162, 21162, 21244, 21293, 21562
Penney 20035, 20162, 20037, 20081, 20000, 20042, 20067, 20038
Pentax 20042
Philco 20055, 20081, 20000
Philips 20162, 20035, 20162, 20081, 20045, 20000, 20616, 20618
Pilot 20037
Polk Audio 20038
Portland 20278
Presidian 21931
Proscan 20060
Protec 20000
Pulsar 20039, 20278
Quartz 20035
Quasar 20035, 20162, 20226, 21162
RadioShack 20035, 20162, 20037, 20000, 21162
Radix 20037
Randex 20037
RCA 20060, 20035, 20045, 20000, 20042, 20058, 20807, 20880
Realistic 20035, 20162, 20037, 20000, 20278, 21162
ReplayTV 20614, 20616
Ricavision 21972
Runco 20039
Samsung 20073, 20060, 20045, 20300, 20038, 2104
Sanky 20039
Sansui 20000, 20067, 21479
Sanyo 20000
Scott 20045, 20043
Sears 20060, 20035, 20162, 20371, 20039, 20033, 20046, 20000, 20042, 20067, 20043, 20058
Sharp 20032, 20000, 20087
Shintosh 20038, 20000
Siemens 20037
Signature 20080, 20035, 20037, 20000
Singer 20037
Sonix Blue 20014, 20016
Sony 20032, 20035, 20033, 20000, 20067, 20256, 20368, 21972
Soundmater 20000
Stack 9 21972
STS 20042
SV2000 20000
SVA 20000
Sylvania 20038, 20081, 20000, 20043, 21930
Symphonics 20035, 21935
Systemax 21972
Tagar Systems 21972
Tandy 20000
Tashiko 20037
Additional information

- Tuxton 20081, 20080, 20087
- Teac 20000, 20067
- Technics 20035, 20162, 20037, 20000
- Teknika 20035, 20037, 20000
- Thomas 20000
- Thomson 20060
- Tisonic 20078
- Tivo 20379, 20618, 20636, 21996
- TMK 20000
- TNIX 20037
- Toshiba 20045, 20000, 20433, 21972, 21996
- Tosonic 20027
- Toevision 20037
- Touch 21972
- Trinix 20037
- Ultra 20045, 20278
- Vector 20045

Vector Research 20038

PVR
- Pioneer 22306, 22465, 22466, 22467
- ABS 21972
- Alienware 21972
- CyberPower 21972
- Dell 21972
- DirecTV 20739
- Gateway 21972
- Go Video 20614
- Hewlett Packard 21972
- Howard Computers 21972
- HP 21972
- Hughes Network Systems 20739
- Humax 20739
- Hughes 21972
- iBUYPOWER 21972
- Linksys 21972
- Media Center PC 21972

Microsoft 21972
- Mind 21972

Niveus Media 21972

Northern 21972

Panasonic 20614, 20616

Philips 20739, 20618

RCA 20685

ReplayTV 20614, 20616

Samsung 20739

Sonic Blue 20614, 20616

Sony 20636, 21972

Stack 9 21972

Systemax 21972

Tagar Systems 21972

Tivo 20739, 20618, 20636

Toshiba 21972, 21996

Touch 21972

Viewsonic 21972

Voodoo 21972

ZT Group 21972

DVD

General
- Pioneer 30525, 30571, 30142, 30631, 30632, 31460, 31512, 31571, 32042
- 3D LAB 30503, 30539
- A-Trend 30714
- Accurian 30675, 31416
- Acoustic Solutions 30730
- Adcom 31094
- AEG 30768
- Aiwa 30533, 30441
- Akai 30695, 30700, 30899
- Alba 30672
- Alco 30790
- Allegra 30669
- Amphion Media Works 30672
- Amstrad 30273
- AMW 30872
- Apex Digital 30533, 30672, 30734, 30797, 30863, 30700, 30210, 30516, 30681
- Argo 31023
- Audiovox 30790
- Awa 30730
- BBK 31224
- Bel Canto Design 31571
- Black Diamond 30713
- Blue Parade 30571
- Blue Sky 30695, 30713
- Brandt 30651
- Broksonic 30696, 30688

Bush 30690
- California Audio Labs 30430
- Cambridge Soundworks 30690
- Cat 30789
- Celestion 31020
- Centrex 30672, 31004
- Cinea 30831
- CineVision 30689, 31483
- Citizen 30695, 31277, 31587, 32116
- Clairtone 30671
- Clairsonic 30788
- Coby 30778, 30852, 31086, 31107, 31321, 31351
- Craig 30851
- Creative 30503, 30539
- CyberHome 30714, 30816, 30874, 31023, 31024, 31129, 31502, 31537
- Daewoo 30784, 30714, 30700, 30689, 31172
- Dansai 30770
- Daytek 30872
- Decca 30770
- Denon 30490, 30634, 31634, 32258
- Denver 30778
- Diamond 30768
- Digiton 31005
- Digitrex 30678
- Disney 30675, 31270
- Dual 30675
- Durabrand 30713, 31023

DVD2000 30521
- Electrohome 32116
- Elta 30690
- Emerson 30591, 30675, 30621, 31268
- Enterprise 30591
- Entvio 30503, 30539
- Enzer 30770
- ESA 30691, 31268
- Firstline 30651
- Fisher 30670
- Funai 30675, 31268, 33134
- Gateway 31158
- GE 30522, 30815
- GFM 30675, 31268
- Go Video 30573, 30744, 30741, 30873, 30869, 30104, 31075, 31158, 31304, 31483
- GoldStar 30741, 30869
- Goodmans 30790
- Gradiente 30406, 30651
- Grundig 30539, 30775
- H & B 30850
- Harman/Kardon 30582, 30702
- Hello Kitty 30851
- Hitech 30843
- Hitachi 30573, 30664, 31247, 31664, 31748
- Hitkik 30272
- Hoyo 30665
- Humax 31500, 31588
- Hyundai 30690

iLx 31348, 31472
- Initial 31472
- Insignia 30675, 31268, 32095, 32428
- Integra 30571, 31769, 30657, 31634, 32147
- IRT 30783
- Jaton 30665
- JBL 30702
- JMB 30695
- JSI 31423
- JVC 30558, 30623, 30867, 31164, 31275, 31550
- jWin 31051
- Kawasaki 30790
- Kenwood 30490, 30534
- Kiss 30685, 30841
- KLH 30790, 31020, 31149
- Kloss 30533
- Koss 30651, 31061, 31423
- Kreisen 31421
- Landel 30806
- Lasonic 30677, 30789
- Lecon 31533
- LG 30991, 30741, 30869
- Limit 30768
- LiteOn 31058, 31158, 31416, 31566
- Loewe 30511, 30741
- Logix 30783
- Magnasonic 30651, 30875
Additional information

Magnavox 30503, 30539, 30546, 30573, 30613, 30621, 31410, 31416, 3154, 31472, 31506
Marantz 30030, 30039, 30675
McIntosh 31533, 31273
Medion 30651
Memorex 30695, 30831, 30836
MiCO 30723, 30751
Microsoft 30622, 30803
Minato 30752
Mintek 31472
Mitsubishi 31521, 30521
Monyka 30655
Mustek 30730
Myrdal 30849
NAD 30741
Naiko 30770
Nakamichi 31222
NEC 30795, 30869
Next Base 30826
Nintaus 31051
Norcent 30872, 31107
Onkyo 30503, 31769, 30527, 30612, 31612, 31627, 32147
Philec 30675, 31224, 31525
Optimus 30871
Oritron 30651
Pacific 30788
Palsonic 30672, 30852
Panasonic 30490, 30503, 30571, 30632, 30703, 31010, 31101, 31962, 31462, 31490, 31578, 31641, 31762
Philco 30675, 30690, 30733
Philips 30503, 30539, 30556, 32084, 30646, 30568, 30675, 30713, 30854, 31158, 31260, 31267, 31340, 31584, 31506
PianoDisc 31024
Polaroid 31020, 31061, 1986
Polk Audio 30539
Portland 30770
Presidant 30675
Proceed 30672
Proscan 30522
ProVision 30778
Qvestar 30551
Radionette 30141
RadioShack 30571
Raiite 30666
RCA 30622, 30571, 31769, 30790, 30822, 31022
Realistic 30571
Redstar 30763
Roei 30752
Rico 30639
Rotel 30623, 31117
Rowa 31004
Saba 30651
Sampo 30752
Samsung 30490, 30573, 30744, 30198, 30820, 30899, 31044, 31075, 31748, 33329
Sansui 30695
Sanyo 30670, 30675, 30695, 3334
Schmartz 32367
Schneider 30783
Schwaiger 30762
Sensory Science 31158
Sharp 30630, 30675, 30752, 31256, 32250
Sherwood 30700
Shinssonic 30533
Singer 30751
Skyworth 30898, 32148
Slim Art 30784
SM Electronic 30690, 30730
Sonic Blue 30573, 30783, 30869
Sony 31533, 30533, 30864, 31033, 31063, 31070, 31431, 31516, 31536
Superscan 30821
Sylvania 30675, 30821, 31268, 32194
Symphonix 30675, 30821, 31268, 31334
TAG McLaren 30894
Tatung 30770
Teac 30571, 30798, 30799
Technics 30490, 30703
Technika 30770
Technosonic 30730
Television 30561
Theta Digital 30571
Thomson 30522, 30511, 30521
Tivo 31503, 31512, 31588
Tokai 30665
Toshiba 30503, 30573, 30539, 31769, 30695, 31045, 31154, 31503, 31510, 31515, 31588, 31608, 32277
Tredex 30843
Unimax 30770
Unified 30670, 30788
Universum 30591, 30739
Urban Concepts 30503, 30539
V 31064, 31226
Venturer 30790
Vizio 31064, 31226
Xbox 30522, 32083
Yamaha 30490, 30539, 30646, 30845, 30487, 30817
Yamakawa 30665, 30710, 30872
Zenith 30503, 30591, 30741, 30869
Zeus 30784
Blu-ray Pioneer 30142, 32442
Denon 32258
Insignia 30675, 32428
Integra 32147
LG 30741
Magnavox 30675
Onkyo 32147
Panasonic 31641
Philips 32084
Sharp 32250
Sony 31516
Sylvania 30675
HD-DVD Integral 31769
LG 30741
Microsoft 32083
Onkyo 31769
RCA 31769
Toshiba 31769, 31515
Xbox 32083
DVP-R Pioneer 30631, 31460, 31512
Accurian 30675, 31416
Apex Digital 31056
Citizen 31116
Coby 31086
CyberHome 31129, 31502
Electrohome 32116
Funai 30675, 31334
Gateway 31158
Go Video 30741, 31158, 31304
Humax 31588
Ilo 31348
JVC 31164, 31275
Kreisen 31421
LG 30741
LiteOn 31158, 31416
Magnavox 30646, 30675, 31506
Panasonic 30490, 31010, 31011, 31579
Philips 30646, 31340
Polaroid 31086
RCA 30622
Samsung 30490
Sanyo 30670
Sensory Science 31158
Sharp 30675
Sony 31033, 31069, 31070, 31431, 31596
Sylvania 30675
Toshiba 31510, 31588, 32277
Zenith 30741
DVP/DVD Combination Pioneer 30631, 31512
Humax 31500, 31588
LG 30741
Panasonic 30490, 31010, 31011, 31340
Philips 31340
RCA 30622
Sharp 31256
Sony 31033, 31069, 31070, 31431, 31596
Sylvania 30675
Tivo 31512
Toshiba 31503, 31510, 31586
Additional information

DVD/VCR Combination
Pioneer 31460
Accurian 30675
Allegro 30969
Apex Digital 31061
Broksonic 30695
CineVision 30869, 31483
Daewoo 30869
Emerson 30675
Funai 30675
GFM 30675
Go Video 30744, 30741, 30869, 31044, 31075, 31483
GoldStar 30741
Hitachi 30664
JVC 30867, 31164, 31550
LG 30741
LiteOn 31656
Magnavox 30675
Memorex 30675
Panasonic 31762
Philips 30675, 31267
Presidian 30865
RCA 30522, 30822
Samsung 30820, 31044, 31075
Sansui 30695
Sanyo 30670
Sharp 30630
Sony 30684, 31033, 31069, 31070, 31431
Sylvania 30675
Symphonic 30675
Toshiba 30503
Zenith 30741, 31069

CD General
Pioneer 71063, 70032, 71087, 70468, 73468
Aiwa 70157
Arcam 70157
Audio Research 70157
Cairn 70157
California Audio Labs 70029
Cambridge Soundworks 70157
Carver 70157
Curtis Mathes 70032
Denon 70034, 70766
DKX 7000
DMX Electronics 70157
Fisher 70000
Genexxa 70032
Grundig 70157
Harman/Kardon 70100, 70157
Hitachi 70032
Inkel 70157, 70180
Integra 70101
JVC 70032, 70072
Kenwood 70628, 70000, 70029, 70028, 70037
Krell 70157
Linn 70157
Magnavox 70157
Marantz 70626, 70809, 70180
Matsui 70157
MCS 70029
Memorex 70000, 70032, 70468
Micromega 70157
Miro 70100
Mission 70157
Modulaire 70000, 70032, 70087, 70180, 70468
Mryyad 70157
NSM 70157
Onkyo 70668, 71297, 70101, 70102, 70136, 70381, 71322, 71333
Optimus 70868, 70000, 70032, 70037, 70067, 70468
Panasonic 70029, 70388, 70752
Penney 70029
Philips 70666, 70157
Polk Audio 70157
Proton 70157
QED 70157
Quad 70157
Quasar 70029
Selsy 70157
Sonax 70157
Sony 70000, 70032, 70053, 70468
Symphony 70157
Symphonic 70180
TAG McLaren 70157
Tandy 70032
Teac 70100
Technics 70029
Thule Audio 70157
Victor 70072
Wards 70032, 70157, 70053, 70087
Yamaha 70886, 70036, 71069
Yorx 70000

CD-R
Pioneer 71087
Kenwood 70626
Marantz 70826
Onkyo 71322, 71333
Philips 70626
RCA 70053
Sony 70000, 70100, 71364
Yamaha 71292

MD
Pioneer 71063
Onkyo 70688
Optimus 70163
Additional information

Satellite Set Top Box

**General**
- Pioneer 00329, 01308
- Akai 00020
- Allsat 00300
- Amstrad 00847, 01113
- Asat 00200
- Austar 00842, 00879, 01176
- Bell ExpressVu 00775
- British Sky Broadcasting 00847
- Canal 00853
- Chaparral 00216
- Crossdigital 01109
- DirecTV 01776, 00392, 00060, 00539, 01635, 01142, 02424, 02478, 01748, 00819, 01686, 01076, 01168, 00098, 01109, 01392, 01414, 01442, 01639, 01640
- Dish Network System 00775, 01505, 01775
- Dishpro 00775, 01505, 01775
- EchoStar 00775, 01505, 01775
- Esat 00879
- Expressvu 00775, 01775
- Fortec Star 01821
- Fostel 00879

**Funai** 01377
**GE** 00566
**GOI** 00775, 01775
**Gradiente** 00887
**Grundig** 00173, 00847
**Hitachi** 00749, 00819
**Houston** 00775
**HTS** 00775, 01775
**Hughes Network Systems** 01142, 02478, 01749, 01442
**Humax** 01781, 01790
**Indivision** 00887
**Innova** 00999
**iSky** 00887
**JVC** 00775, 00492, 01775
**LG** 01414
**Magnavox** 00722
**Marantz** 00200
**Mitsubishi** 00749
**Netsat** 00099, 00887
**Nokia** 00723
**Omega** 00887
**Pace** 00847, 00887, 01175
**Panasonic** 00879
**Panasonic** 00247, 00701, 00847
**Pansat** 01807
**Philips** 00775, 01142, 00749, 01749, 01076, 00722, 00099, 00200, 00847, 01442
**Proscan** 00392, 00566
**Radioshack** 00775, 00666
**RCA** 00775, 00392, 00566, 00142, 00143, 01291, 01392, 01442
**Sagem** 00820, 01114
**Samsung** 01377, 01142, 01276, 01108, 01109, 01142, 01609
**Siemens** 00173
**SKY** 00099, 00847, 00887, 01175
**Sony** 00393, 01639, 00847, 01640
**Star** 00887
**Televisa** 00887
**Thomson** 00392, 00566
**Tivo** 01142, 01442
**Toshiba** 00749, 01749, 00790
**TPS** 00820
**UltimateTV** 01392, 01640
**Uniden** 00722
**ViewSat** 01232
**Zenith** 01856, 01810

**SAT/PVR Combination**
- Bell ExpressVu 00775
- DirecTV 01377, 00392, 00539, 01142, 01076, 00099, 01392, 01442, 01640
- Dish Network System 00775, 01505
- Dishpro 00775, 01505
- EchoStar 00775, 01505
- Expressvu 00775
- Hughes Network Systems 01142, 01442
- Philips 01142, 01442
- Proscan 00392
- RCA 01392
- Samsung 01442
- Sony 00393, 01640
- Tivo 01142, 01442
- Zenith 01810

Cable Set Top Box

**General**
- Pioneer 01877, 00877, 00144, 00539, 01021, 01782
- A-Mark 00008, 00144
- ABC 00237, 00008
- Acorn 00237
- Action 00237
- Active 00237
- Amino 01602, 01822
- Archer 00237
- BCC 00276
- Century 00008
- Cisco 01877, 00877, 01982
- Comcast 01982
- Digeo 02187
- Director 00476
- Fosgate 00276
- GE 00144

**General Instrument** 00476, 00810, 00276
**GoldStar** 00144
**Hitachi** 00008
**i3 Micro** 01602
**Insight** 00476, 00810
**Jerrold** 00476, 00810, 00276
**Macab** 00817
**Memorex** 00000
**Motorola** 01376, 00476, 00810, 00276, 01106
**Myrio** 01602, 01822
**Noos** 00017
**Nova Vision** 00008
**Novaplex** 00008
**Ono** 01068
**Pace** 01877, 00877, 00237, 00008, 01602, 01608

**Panasonic** 00000, 00008, 00144, 01107, 01982
**Paragon** 00000, 00008, 00526
**Penney** 00000
**Philips** 01305, 00317
**Pulsar** 00000
**Quasar** 00000
**RCA** 01256
**Regal** 00276
**Runco** 00000
**Samsung** 00144
**Scientific Atlanta** 01877, 00877, 00331, 00000, 00008
**Sejin** 01602
**Sony** 01068
**Sprucer** 00144
**Supercable** 00276
**Thomson** 01286
**Toshiba** 00000

**United Cable** 00276
**US Electronics** 00276, 00008
**Videoway** 00000
**Zenith** 00000, 00525
### Additional information

#### Cable/PVR Combination
- **Pioneer** 01877
- **Amino** 01822
- **Cisco** 01877, 01982
- **Comcast** 01982
- **Digeo** 02187
- **General Instrument** 00810, 00810
- **Motorola** 01376, 00810, 01106
- **Myrio** 01822
- **Pace** 01877, 02037
- **Panasonic** 01982
- **RCA** 01256
- **Scientific Atlanta** 01877
- **Sony** 01206
- **Supercable** 00276
- **Thomson** 01256

#### Laser Disc Player
- **Pioneer** 30241, 32447
- **Denon** 30241
- **Magnavox** 30241
- **Mitsubishi** 30241
- **Harman/Kardon** 40029
- **JVC** 40024
- **Kenwood** 40070
- **Magnavox** 40029
- **Marantz** 40029
- **Onkyo** 40136
- **Optimus** 40027
- **Polk Audio** 40029
- **Philips** 40029
- **RCA** 40027
- **Sansui** 40029
- **Sony** 40243
- **Wards** 40027
- **Yamaha** 40097

#### Cassette Deck
- **Pioneer** 40027, 42446
- **Aiwa** 40039
- **Carver** 40029
- **Denon** 40076
- **Grundig** 40027
- **Harman/Kardon** 40029
- **JVC** 40024
- **Kenwood** 40070
- **Magnavox** 40029
- **Marantz** 40029
- **Onkyo** 40136
- **Optimus** 40027
- **Polk Audio** 40029
- **RCA** 40027
- **Sansui** 40029
- **Sony** 40043
- **Wards** 40027
- **Yamaha** 40097

#### Digital Tape
- **Pioneer** 40019
- **Onkyo** 40019
- **Hewlett Packard** 01272
- **Howard Computers** 01272
- **HP** 01272
- **Hush** 01272
- **iBUYPOWER** 01272
- **Insignia** 01415
- **KoolConnect** 01481
- **LG** 01415
- **Linksys** 01272
- **Magnavox** 01563
- **Media Center PC** 01272
- **Microsoft** 02049, 01272
- **Mind** 01272
- **Motorola** 01986, 01363
- **Niveus Media** 01272
- **Northgate** 01272
- **Panasonic** 01106
- **Philco** 01563
- **Ricavision** 01272
- **Samsung** 01190, 01490
- **Sharp** 01310
- **Sony** 01272, 01324
- **Stack 9** 01272
- **SureWest** 01481
- **Sylvania** 01563
- **Systemax** 01272
- **Tagar Systems** 01272
- **Toshiba** 01272
- **Touch** 01272
- **Viewsonic** 01272, 01329
- **Voodoo** 01272
- **Xbox** 02049
- **Zenith** 01415
- **ZT Group** 01272
Specifications

Amplifier section
Continuous average power output of 90 watts* per channel, min., at 8 ohms, from 20 Hz to 20 000 Hz with no more than 0.2 %** total harmonic distortion.
Front (stereo) ..................... 90 W + 90 W
Power output (1 kHz, 6 Ω, 0.05 %, 1 ch driven) ..................... 120 W per channel
Guaranteed speaker impedance
.................................................. 16 Ω to 8 Ω
.................................................. less than 8 Ω to 6 Ω (setting required)
* Measured pursuant to the Federal Trade Commission’s Trade Regulation rule on Power Output Claims for Amplifiers
** Measured by Audio Spectrum Analyzer

Audio Section
Input (Sensitivity/Impedance)
LINE  ................. 284 mV/47 kΩ
Output (Level/Impedance)
REC  ................. 284 mV/2.2 kΩ
Signal-to-Noise Ratio
(IHF, short circuited, A network)
LINE  ..................... 100 dB
Signal-to-Noise Ratio [EIA, at 1 W (1 kHz)]
LINE  ..................... 81 dB

Tuner Section
Frequency Range (FM) ... 87.5 MHz to 108 MHz
Antenna Input (FM) .......... 75 Ω unbalanced
Frequency Range (AM) ....... 530 kHz to 1700 kHz
Antenna (AM) ............... Loop antenna (balanced)

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)
........................... (Video convert off)

Digital In/Out Section
HDMI terminal ............... 19-pin (Not DVI)
HDMI output type ............ 5 V, 100 mA
USB terminal ......... USB2.0 Full Speed (Type A)
I Pod terminal ......... USB, and Video (Composite)
S IRUS antenna cable ....... 8-pin mini DIN cable

Integrated control section
Control (SR) terminal .... Ø 3.5 Mini-jack (MONO)
Control (IR) terminal ...... Ø 3.5 Mini-jack (MONO)
IR signal .......... High Active (High Level: 2.0 V)

Miscellaneous
Power requirements ......... AC 120 V, 60 Hz
Power consumption .......... 350 W
In standby ........... 0.5 W (KURO LINK OFF)
........................... 0.8 W (KURO LINK ON)
Dimensions
.. .. 420 mm (W) x 158 mm (H) x 348.6 mm (D)
........................... (16 9/16 in. (W) x 6 1/4 in. (H) x 13 3/4 in. (D))
Weight (without package) .... 8.7 kg (19 lb 3 oz)

Furnished Parts Number
MCACC Setup microphone (APM7008) .......... 1
Remote control unit (AXD7551(VSX-1019AH) / AXD7552 (VSX-919AH)) .......... 1
AA/IEC R6 dry cell batteries .......... 2
iPod cable (ADE7129) .......... 1
AM loop antenna .......... 1
FM wire antenna .......... 1
These operating instructions

Note
• Specifications and the design are subject to possible modifications without notice, due to improvements.
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 wring 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.

Additional information

Dear Customer:

Selecting fine audio equipment such as the unit you’ve just purchased is only the start of your musical enjoyment. Now it’s time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association’s Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion—and, most importantly, without affecting your sensitive hearing.

Sound can be deceiving. Over time your hearing “comfort level” adapts to higher volumes of sound. So what sounds “normal” can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:
- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:
- Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

We Want You Listening For A Lifetime

Used wisely, your new sound equipment will provide a lifetime of fun and enjoyment. Since hearing damage from loud noise is often undetectable until it is too late, this manufacturer and the Electronic Industries Association’s Consumer Electronics Group recommend you avoid prolonged exposure to excessive noise. This list of sound levels is included for your protection.

<table>
<thead>
<tr>
<th>Decibel Level</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Quiet library, soft whispers</td>
</tr>
<tr>
<td>40</td>
<td>Living room, refrigerator, bedroom away from traffic</td>
</tr>
<tr>
<td>50</td>
<td>Light traffic, normal conversation, quiet office</td>
</tr>
<tr>
<td>60</td>
<td>Air conditioner at 20 feet, sewing machine</td>
</tr>
<tr>
<td>70</td>
<td>Vacuum cleaner, hair dryer, noisy restaurant</td>
</tr>
<tr>
<td>80</td>
<td>Average city traffic, garbage disposals, alarm clock at two feet.</td>
</tr>
</tbody>
</table>

THE FOLLOWING NOISES CAN BE DANGEROUS UNDER CONSTANT EXPOSURE

| 90            | Subway, motorcycle, truck traffic, lawn mower |
| 100           | Garbage truck, chain saw, pneumatic drill    |
| 120           | Rock band concert in front of speakers, thunderclap |
| 140           | Gunshot blast, jet plane                   |
| 180           | Rocket launching pad                       |

Information courtesy of the Deafness Research Foundation.

This product includes FontAvenue® fonts licenced by NEC corporation. FontAvenue is a registered trademark of NEC Corporation.
The warranty period for retail customers who rent the product commences upon the date the product is first put into use (a) during the rental period or (b) retail sale, whichever occurs first.

**WARRANTY**

**IN CANADA**

Informing you why it will not take any action.

1. Respond to your complaint in writing informing you what action Pioneer will take, and in what time period, to resolve the dispute; or
2. Respond to your complaint in writing having been explained to the representative, a resolution number will be issued. Within 40 days of receiving your complaint, Pioneer will investigate the dispute and will either:

- Following our response to any initial request to Customer Support, should a dispute arise between you and Pioneer, Pioneer makes available its Complaint Resolution Program to resolve the dispute. The Complaint Resolution Program is available to you without charge. You are encouraged to use the Complaint Resolution Program before you exercise any rights under, or seek any remedy resulting from, the Magnuson-Moss Warranty-Federal Trade Commission Improvement Act, 15 U.S.C. 2301 et seq.

TO OBTAIN SERVICE

In the U.S.A.-PIONEER LIMITS ITS OBLIGATIONS UNDER ANY IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO A PERIOD NOT TO EXCEED THE WARRANTY PERIOD. NO WARRANTIES SHALL APPLY AFTER THE WARRANTY PERIOD. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND SOME STATES DO NOT ALLOW THE EXCLUSIONS OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

- Call the Customer Satisfaction Manager at (905) 946-7446 to discuss your complaint and to obtain a prompt resolution.

**PRODUCT WARRANTY PERIOD**

<table>
<thead>
<tr>
<th>Parts</th>
<th>Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year</td>
<td>1 Year</td>
</tr>
</tbody>
</table>

Microphones, Headphones, Phono Cartridges and Styluses ................................. 90 Days

Shipment of service parts is not guaranteed and may cause delay.

WHAT IS NOT COVERED

If this product has been rented from an unauthorized distributor, there are no warranties, express or implied, including the implied warranty of merchantability and the implied warranty of fitness for a particular purpose and this product is sold strictly "AS IS" and "WITH ALL FAULTS".

PIONEER SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, AND/OR INCIDENTAL DAMAGES.

PIONEER DOES NOT WARRANT ANY PRODUCT LISTED ABOVE WHEN IT IS USED IN A TRADE OR BUSINESS OR IN ANY INDUSTRIAL OR COMMERCIAL APPLICATION.

This warranty does not apply if the product has been subjected to power in excess of its published power rating.

This warranty does not cover the cost of parts or labor which would be otherwise provided without charge under this warranty obtained from any source other than Pioneer or an Authorized Service Company or any designated location. This warranty does not cover defects or damage caused by the use of unauthorized parts or labor or from improper maintenance.

Altered, defaced, or removed serial numbers void this entire warranty.

No other warranties

In the U.S.A. - Pioneer limits its obligations under any implied warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, to a period not to exceed the warranty period. No other warranties, express or implied, shall apply after the warranty period. Some states do not allow limitations on how long an implied warranty lasts and some states do not allow the exclusions or limitations of incidental or consequential damages. Some states do not allow the above limitations or exclusions to apply to you. This warranty gives you specific legal rights and you may have other rights which may vary from state to state.

In Canada - Except as expressly provided herein, there are no representations, warranties, obligations or conditions, implied, statutory or otherwise, applicable to this product.

To obtain service

PUSA and POC have appointed a number of Authorized Service Companies throughout the U.S.A. and Canada should your product require service. To receive warranty service properly under normal use due to a manufacturing defect when installed and operated according to the owner's manual enclosed with the unit will be repaired or replaced at Pioneer's option, without charge to you for parts or labor, except for labor for the first 90 days. Any repair or replacement under warranty will be performed by an Authorized Service Company.

Dispute resolution

In the U.S.A. - Following our response to any initial request to Customer Support, should a dispute arise between you and Pioneer, Pioneer makes available its Complaint Resolution Program to resolve the dispute. The Complaint Resolution Program is available to you without charge. You are encouraged to use the Complaint Resolution Program before you exercise any rights under, or seek any remedy resulting from, the Magnuson-Moss Warranty-Federal Trade Commission Improvement Act, 15 U.S.C. 2301 et seq.

To use the Complaint Resolution Program call 1-800-421-1404 and explain to the customer service representative the problem you are experiencing, steps you have taken before you exercise any rights under, or seek any remedy resulting from, the Magnuson-Moss Warranty-Federal Trade Commission Improvement Act, 15 U.S.C. 2301 et seq., and whether you obtained the product from a retail source or rental source.

In Canada - Call the Customer SATISFACTION GROUP at 1-877-293-5001 to discuss your complaint and to obtain a prompt resolution.

RECORD THE PLACE AND DATE OF PURCHASE FOR FUTURE REFERENCE

KEEP THIS INFORMATION AND YOUR SALES RECEIPT IN A SAFE PLACE.
Should this product require service in the U.S.A. and you wish to locate the nearest Pioneer Authorized Independent Service Company, or if you wish to purchase replacement parts, operating instructions, service manuals, or accessories, please call the number shown below.

1-800-421-1404

Please do not ship your product to Pioneer without first calling the Customer Support at the above listed number for assistance.

Pioneer Electronics Service, Inc.
P.O. BOX 1760, Long Beach,
CA 90801-1760, U.S.A.

For warranty information please see the Limited Warranty sheet included with your product.

Should this product require service in Canada, please contact a Pioneer Canadian Authorized Dealer to locate the nearest Pioneer Authorized Service Company in Canada. Alternatively, please contact the Customer Satisfaction Department at the following address:

Pioneer Electronics of Canada, Inc.
Customer Satisfaction Department
300 Allstate Parkway, Markham, Ontario L3R 0P2
1-877-283-5901
905-479-4411

For warranty information please see the Limited Warranty sheet included with your product.

Si ce produit doit être réparé au Canada, veuillez vous adresser à un distributeur autorisé Pioneer du Canada pour obtenir le nom du Centre de Service Autorisé Pioneer le plus près de chez-vous. Vous pouvez aussi contacter le Service à la clientèle de Pioneer:

Pioneer Électroniques du Canada, Inc.
Service Clientèle
300, Allstate Parkway, Markham, Ontario L3R 0P2
1-877-283-5901
905-479-4411

Pour obtenir des renseignements sur la garantie, veuillez vous reporter au feuillet sur la garantie restreinte qui accompagne le produit.