Owner’s Record
The model and serial numbers are located on the rear panel of the unit. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No.  STR-ZA810ES
Serial No. __________________________________________________________

WARNING
To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To reduce the risk of fire, do not cover the ventilation opening of the appliance with newspapers, tablecloths, curtains, etc. Do not expose the appliance to naked flame sources (for example, lighted candles).

To reduce the risk of fire or electric shock, do not expose this appliance to dripping or splashing, and do not place objects filled with liquids, such as vases, on the appliance.

As the main plug is used to disconnect the unit from the mains, connect the unit to an easily accessible AC outlet. Should you notice an abnormality in the unit, disconnect the main plug from the AC outlet immediately.

Do not expose batteries or appliances with battery-installed to excessive heat, such as sunshine and fire.

The unit is not disconnected from the mains as long as it is connected to the AC outlet, even if the unit itself has been turned off.

For the customers in the U.S.A.

This symbol 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.

This symbol 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.

To reduce the risk of electric shock, the speaker cord should be connected to the apparatus and the speakers in accordance with the following instructions.

1) Disconnect the AC power cord from the MAINS.
2) Strip 10 to 15 mm of the wire insulation of the speaker cord.
3) Connect the speaker cord to the apparatus and the speakers carefully so as not to touch the core of speaker cord by hand. Also disconnect the AC power cord from the MAINS before disconnecting the speaker cord from the apparatus and the speakers.

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.

CAUTION
You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Properly shielded and grounded cables and connectors must be used for connection to host computers and/or peripherals in order to meet FCC emission limits.

This equipment must not be co-located or operated in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20 cm or more away from person’s body (excluding extremities: hands, wrists, feet and ankles).

5.47 GHz - 5.725 GHz band is restricted to indoor operations only.

Compliance with FCC requirement 15.407(c)
Data transmission is always initiated by software, which is the passed down through the MAC, through the digital and analog baseband, and finally to the RF chip. Several special packets are initiated by the MAC. These are the only ways the digital baseband portion will turn on the RF transmitter, which it then turns off at the end of the packet. Therefore, the transmitter will be on only while one of the aforementioned packets is being transmitted. In other words, this device automatically discontinue transmission in case of either absence of information to transmit or operational failure.

Frequency Tolerance: ±20 ppm

For the customers in Canada
Properly shielded and grounded cables and connectors must be used for connection to host computers and/or peripherals.

This device complies with Industry Canada’s license-exempt RSSs. Operation is subject to the following two conditions:
(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment should be installed and operated keeping the radiator at least 20 cm or more away from person’s body (excluding extremities: hands, wrists, feet and ankles).

5.15 - 5.25 GHz band is restricted to indoor operations only.
High-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

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This receiver incorporates Dolby1) Digital Surround and the DTS2) Digital Surround System.

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The N-Mark is a trademark or registered trademark of NFC Forum, Inc. in the United States and in other countries.

Android™, Google Play™ and Chromecast are trademarks of Google Inc.
This product incorporates Spotify software which is subject to 3rd party licenses found here[^3]: https://developer.spotify.com/esdk-third-party-licenses/

[^3]: Spotify and Spotify logos are trademarks of the Spotify Group[^3]. This function may not be available in some countries/regions.

All other trademarks and registered trademarks are of their respective holders. In this manual, ™ and © marks are not specified.

For details of the EULA for network services, please refer to [License agreement] in options menu on each network service icon.

For details of the GPL, LGPL and other software licenses, please refer to [Software License Information] in [System Settings] of the [Setup] menu on the product.

This product contains software that is subject to the GNU General Public License (“GPL”) or GNU Lesser General Public License (“LGPL”). These establish that customers have the right to acquire, modify, and redistribute the source code of said software in accordance with the terms of the GPL or the LGPL.

The source code for the software used in this product is subject to the GPL and LGPL, and is available on the Web. To download, please access the following:

URL: http://oss.sony.net/Products/Linux/

Please note that Sony cannot answer or respond to any inquiries regarding the content of this source code.

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**Precautions**

**On safety**

Should any solid object or liquid fall into the cabinet, unplug the receiver and have it checked by qualified personnel before operating it any further.

**On power sources**

- Before operating the receiver, check that the operating voltage is identical with your local power supply. The operating voltage is indicated on the nameplate on the back of the receiver.
- If you are not going to use the receiver for a long time, be sure to disconnect the receiver from the wall outlet. To disconnect the AC power cord (mains lead), grasp the plug itself; never pull the cord.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- AC power cord (mains lead) must be changed only at a qualified service shop.

**On heat buildup**

Although the receiver heats up during operation, this is not a malfunction. If you continuously use this receiver at a large volume, the cabinet temperature of the top, side and bottom rises considerably*. To avoid burning yourself, do not touch the cabinet.

* The top of the cabinet may become too hot to touch.

**On placement**

- Do not install the appliance in a confined space, such as a bookcase.
- Place the receiver in a location with adequate ventilation to prevent heat buildup and prolong the life of the receiver.
- Do not place the receiver near heat sources, or in a place subject to direct sunlight, excessive dust, or mechanical shock.
- Do not place anything on top of the cabinet that might block the ventilation holes and cause malfunctions.
**On operation**
Before connecting other device, be sure to turn off and unplug the receiver.

**On cleaning**
Clean the cabinet, panel, and controls with soft dry cloth. Do not use any type of abrasive pad, scouring powder, or solvent, such as alcohol or benzine.

**On BLUETOOTH communication**

**Supported BLUETOOTH version and profiles**
Profile refers to a standard set of functions for various BLUETOOTH product features. See “BLUETOOTH section” in “Specifications” (page 23) for the BLUETOOTH version and profiles supported by this receiver.

**Effective communication range**
BLUETOOTH devices should be used within approximately 10 meters (33 feet) (unobstructed distance) of each other. The effective communication range may become shorter under the following conditions.
- When a person, metal object, wall or other obstruction is between the devices with a BLUETOOTH connection
- Locations where a wireless LAN is installed
- Around microwave ovens that are in use
- Locations where other electromagnetic waves are generated

**Effects of other devices**
BLUETOOTH devices and wireless LAN (IEEE 802.11b/g/n) device use the same frequency band (2.4 GHz). When using your BLUETOOTH device near a device with wireless LAN capability, electromagnetic interference may occur. This could result in lower data transfer rates, noise, or inability to connect. If this happens, try the following remedies:
- Use this receiver at least 10 meters (33 feet) away from the wireless LAN device.
- Turn off the power to the wireless LAN device when using your BLUETOOTH device within 10 meters (33 feet).
- Install this receiver and BLUETOOTH device as closer to each other as possible.

**Effects on other devices**
The radio waves broadcast by this receiver may interfere with the operation of some medical devices. Since this interference may result in malfunction, always turn off the power on this receiver and BLUETOOTH device in the following locations:
- In hospitals, on trains, in airplanes, at gas stations, and any place where flammable gasses may be present
- Near automatic doors or fire alarms
- This receiver supports security functions that comply with the BLUETOOTH specification to ensure secure connection during communication using BLUETOOTH technology. However, this security may be insufficient depending on the setting contents and other factors, so always be careful when performing communication using BLUETOOTH technology.
- Sony shall not be held liable in any way for damages or other loss resulting from information leaks during communication using BLUETOOTH technology.
- BLUETOOTH communication is not necessarily guaranteed with all BLUETOOTH devices that have the same profile as this receiver.
- BLUETOOTH devices connected with this receiver must comply with the BLUETOOTH specification prescribed by the Bluetooth SIG, Inc., and must be certified to comply. However, even when a device complies with the BLUETOOTH specification, there may be cases where the characteristics or specifications of the BLUETOOTH device make it impossible to connect, or may result in different control methods, display or operation.
- Noise may occur or the audio may cut off depending on the BLUETOOTH device connected with this receiver, the communications environment, or surrounding conditions.

If you have any questions or problems concerning your receiver, please consult your nearest Sony dealer.
Main features of the receiver


Compatible with a variety of connections and high-quality audio/video formats

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
</table>
| Compatible with wired/wireless network, BLUETOOTH, and USB connections* | • Connect a Walkman, iPod/iPhone (AirPlay), computer, NAS or USB device to the receiver to play content on those devices or transmit music to BLUETOOTH headphones/speakers.  
• Music services such as Spotify and Chromecast built-in are supported. |
| Compatible with the latest object-based audio formats | Dolby Atmos and DTS:X are supported (page 24). |
| Compatible with high-definition playback of High-Resolution Audio | • During network audio playback or content playback on a USB device, the receiver supports High-Resolution Audio content at up to 5.6 MHz in the DSD format and at up to 192 kHz/24 bits in the WAV, FLAC, and AIFF formats.  
• Native playback of DSD files is also supported. |
| Compatible with high-definition 4K video formats** | The receiver supports 4K HDR and HDCP 2.2, letting you enjoy high-definition video images (page 24). |

* For details, see the Help Guide.
** You need to change the setting of [HDMI Signal Format] depending on the input video signal.

Functions for an optimum surround environment

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
</table>
| Automatically calibrating your viewing and listening environment to create an ideal surround space using Auto Calibration (D.C.A.C. EX*) | • D.C.A.C. EX measures and calibrates the distance, angle, level, and frequency characteristics of the speakers using the supplied stereo calibration microphone (page 15).  
• The optimum sound is then produced by simulating ideal speaker positions and angles (Speaker Relocation**). |
| Calibration functions for sound fields corresponding to various speaker installation conditions | • Phantom Surround Back**: Allows you to enjoy a surround-sound effect acoustically equivalent to that of a 7-channel speaker system, using only a 5-channel speaker system, and when using a 5.1.2-channel speaker system, it allows you to enjoy a surround-sound effect acoustically equivalent to that of a 7.1.2-channel speaker system.  
• Front Surround: Allows you to enjoy virtual surround-sound with only two front speakers (page 19).  
• In-Ceiling Speaker Mode**: Reproduces more natural sound by lowering the position of audio output from speakers installed in the ceiling.  
• Center Speaker Lift Up**: Reproduces natural sound that feels more authentic by lifting the sound from the center speaker up to the height of the screen. |

* Digital Cinema Auto Calibration EX
** For details, see the Help Guide.

Audio technologies for high-definition music playback

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Sound fields selectable by preference</td>
<td>You can select from a variety of sound fields according to speaker connections or input sources (2ch Stereo, Direct, Auto Format Decoding, etc.) (page 19).</td>
</tr>
<tr>
<td>Upscaling of existing sound sources into higher resolutions with the same quantity of information as High-Resolution Audio using DSEE HX* **</td>
<td>The receiver restores signals in the micro region of compressed sound sources by up-sampling the sampling frequency and expanding the bit depth to the equivalent of a maximum of 192 kHz/24 bits, letting you enjoy CDs and lossy compressed sound sources such as MP3 files in expressive sound quality closer to the original.</td>
</tr>
</tbody>
</table>

continued
**Digital Sound Enhancement Engine HX**

For details, see the Help Guide.

### Other useful functions

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compatible with “SongPal” and “SongPal Link”**</td>
<td>SongPal is a dedicated app for operating SongPal-compatible audio devices manufactured by Sony from a smartphone or tablet device. It lets you operate the receiver from the smartphone or tablet device and use the SongPal Link function.</td>
</tr>
<tr>
<td>Equipped with an ARC-compatible HDMI jack*</td>
<td>TV sound can be output from the receiver using only one HDMI cable.</td>
</tr>
<tr>
<td>Supports bi-amping of front speakers*</td>
<td>You can enhance the sound quality of the front speakers by connecting different amplifiers to the tweeter and woofer using a bi-amplifier connection.</td>
</tr>
<tr>
<td>Support for music and video playback in different rooms*</td>
<td>• The Wireless Multi-Room function** lets you listen to the same music in different rooms. • The multi-zone features let you output audio and video signals to another room.</td>
</tr>
</tbody>
</table>

* For details, see the Help Guide.

** You can enjoy the sound of the device that is connected to the receiver. The sound is delayed behind the picture.

** High-definition BLUETOOTH music playback (LDAC)**

LDAC allows approximately three times more data to be transmitted than with the previous BLUETOOTH A2DP-SBC (328 kbps, 44.1 kHz). The receiver supports wireless playback (transmission/reception) of high-quality sound when speakers, headphones, a Walkman, or a smartphone that supports LDAC are connected to the receiver via a BLUETOOTH connection.

### Reproduction of authentic impact and realistic sense of immersion in movies (Sound Optimizer)**

Sound Optimizer calibrates the disparity in acoustic frequency characteristic between movie production and playback caused by different volume levels, reproducing the impact and immersive surround effect that the movie's sound engineers intended even when it is played back at low volume levels in a home.

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* For details, see the Help Guide.
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#### Manuals provided for this product

The following manuals are provided for this product. The information included in each manual is as shown below:

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<th>Startup Guide (this booklet)</th>
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<td>Installation</td>
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<td>Basic operations</td>
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<td>Listening/Watching</td>
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<tr>
<td>Advanced operations</td>
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<td></td>
</tr>
<tr>
<td>Listening/Watching</td>
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<td></td>
<td></td>
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<tr>
<td>Multi-zone features</td>
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<tr>
<td>BLUETOOTH function</td>
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<td></td>
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</tr>
<tr>
<td>Network features</td>
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<td>Other features</td>
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<td>Adjusting Settings</td>
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<tr>
<td>Precautions/Specifications</td>
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To read the Help Guide, go to the following website:

http://rd1.sony.net/help/ha/strza81/h_uc2/
Main parts and controls

Front panel

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<tr>
<th>Parts</th>
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<td>1</td>
<td>(power)</td>
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<tr>
<td>2</td>
<td>Power indicator</td>
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<tr>
<td>3</td>
<td>SPEAKERS</td>
</tr>
<tr>
<td>4</td>
<td>CONNECTION PAIRING BLUETOOTH</td>
</tr>
<tr>
<td>5</td>
<td>TUNER PRESET+/-</td>
</tr>
<tr>
<td>6</td>
<td>NFC sensor</td>
</tr>
<tr>
<td>7</td>
<td>2CH/MULTI, MOVIE, MUSIC</td>
</tr>
<tr>
<td>8</td>
<td>Display panel</td>
</tr>
<tr>
<td>9</td>
<td>DISPLAY MODE</td>
</tr>
<tr>
<td>10</td>
<td>ZONE SELECT</td>
</tr>
<tr>
<td>11</td>
<td>DIMMER</td>
</tr>
<tr>
<td>12</td>
<td>Remote control sensor</td>
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<tr>
<td>13</td>
<td>PURE DIRECT</td>
</tr>
<tr>
<td>14</td>
<td>MASTER VOLUME</td>
</tr>
<tr>
<td>15</td>
<td>INPUT SELECTOR</td>
</tr>
<tr>
<td>16</td>
<td>(USB) port</td>
</tr>
<tr>
<td>17</td>
<td>CALIBRATION MIC jack</td>
</tr>
<tr>
<td>18</td>
<td>PHONES jack</td>
</tr>
</tbody>
</table>

1 (power) Turns the receiver on or sets it to standby mode (page 14).

2 Power indicator Lights up according to the status of the receiver. Also, the color of the indicator changes depending on the status of the receiver. For details, see the Help Guide.

3 SPEAKERS Switches the front speakers to OFF, A, B or A+B.

4 CONNECTION PAIRING BLUETOOTH Operates the BLUETOOTH function.

5 TUNER PRESET+/- Selects preset FM stations or channels.

6 NFC sensor Communicates with NFC-compatible devices by one touch.

7 2CH/MULTI, MOVIE, MUSIC Selects the sound field you want. For details, see “Selectable sound fields and their effects” (page 19).

8 Display panel Displays information on the status of the receiver.

9 DISPLAY MODE Displays information on the display panel.

10 ZONE SELECT ZONE POWER Selects Zone 2, HDMI Zone or both. Turns on the power of the zone you selected using ZONE SELECT.

11 DIMMER Adjusts the brightness of the display panel.

12 Remote control sensor Receives signals from the remote control.

13 PURE DIRECT Turns on the pure direct function to enjoy high fidelity sound. The indicator above the button lights up when the Pure Direct function is activated.

14 MASTER VOLUME Turns to adjust the volume level (page 16).

15 INPUT SELECTOR Turns to select the input you want watch/listen.

16 (USB) port Connect a USB device here.

17 CALIBRATION MIC jack Connect the supplied calibration microphone for “Auto Calibration” to this jack (page 14).

18 PHONES jack Connect headphones here.
Remote Control

Parts | Functions
--- | ---
1 | (power) Turns the receiver on or sets it to standby mode (page 14).
2 | Input buttons Select the device you want to play. When you press any of the input buttons, the receiver turns on.
3 | BLUETOOTH RX/TX Switches the BLUETOOTH mode of the receiver. (Disabled while the BLUETOOTH function is activated.) In BLUETOOTH RX mode, the receiver receives and outputs audio from the remote device. In BLUETOOTH TX mode, the receiver sends audio to BLUETOOTH headphones/speakers.
4 | FRONT SURROUND Activates the Front Surround mode, which allows you to enjoy virtual surround sound with only two speakers.
5 | DSD NATIVE Activates the DSD Native function. You can turn on or off this function only when playback on the source device is stopped.
6 | AMP MENU Displays the menu on the display panel to operate the receiver.
7 | +1/- Press +1/- to select the menu items. Then press +1 to enter the selection (page 15).
8 | OPTIONS Displays items from the options menus (page 17).
9 | HOME Displays the home menu on the TV screen (page 16).
10 | PRESET+/- Select preset stations or channels. Press and hold to scan stations automatically.
11 | Adjusts the volume level (page 16).
1) The ▶ and + buttons have tactile dots. Use the tactile dots as reference when operating the receiver.

2) Available services may vary depending on your location.

3) Spotify playback using the receiver is limited to Spotify Premium account holders.

<table>
<thead>
<tr>
<th>Parts</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 HDMI OUT</td>
<td>Switches the output for two monitors connected to the HDMI OUT A (TV) and HDMI OUT B/HDMI ZONE jacks. When [HDMI Out B Mode] is set to [Main] in [HDMI Settings], output is toggled between [HDMI A], [HDMI B], [HDMI A+B] and [HDMI OFF] each time the button is pressed. When [HDMI Out B Mode] is set to [Zone], output is toggled between [HDMI A] and [HDMI OFF] each time the button is pressed. Select [HDMI OFF] to turn off the output for HDMI OUT A (TV) and HDMI OUT B/HDMI ZONE jacks.</td>
</tr>
<tr>
<td>13 WATCH, LISTEN</td>
<td>Selects [Watch] or [Listen] on the home menu directly. When pressing these buttons on the Watch or Listen screen, you can move the focus to select the desired input (page 16).</td>
</tr>
<tr>
<td>14 MUSIC SERVICE</td>
<td>When you have played the music of Spotify on the receiver, the music that was played with Spotify is resumed by pressing MUSIC SERVICE. For detailed operations, see the Help Guide.</td>
</tr>
<tr>
<td>15 CUSTOM PRESET 1</td>
<td>Saves and recalls various settings for the receiver. Press to select the custom preset setting. Press and hold to save the current settings to a preset.</td>
</tr>
<tr>
<td>16 2CH/MULTI, MOVIE, MUSIC</td>
<td>Selects the sound field you want. For details, see &quot;Selectable sound fields and their effects&quot; (page 19).</td>
</tr>
<tr>
<td>17 DISPLAY</td>
<td>Press to view information on the TV screen.</td>
</tr>
<tr>
<td>18 BACK</td>
<td>Returns to the previous menu or exits a menu or on-screen guide that is displayed on the TV screen (page 17).</td>
</tr>
<tr>
<td>19 ø</td>
<td>Turns off the sound temporarily. Press the button again to restore the sound.</td>
</tr>
</tbody>
</table>
**Preparation 1: Preparing the receiver and the remote control**

Before starting the following steps, connect speakers and AV devices to the receiver referring to the supplied Startup Guide.

1. **Insert batteries into the remote control with correct polarity.**

2. **Connect the supplied AC power cord (mains lead) to the AC IN terminal on the receiver firmly, then connect the AC power cord (mains lead) to a wall outlet.**

3. **Press \( \odot \) to turn the AV receiver on.**

4. **Place the calibration microphone at your listening position and set it at the same height as your ears.**

The calibration microphone is used for setting the speakers (Auto Calibration) in Preparation 2 (Easy Setup).

5. **Turn the TV on, and then switch the input of the TV to which the receiver is connected.**

*Space remains between the plug and the rear panel even when the power cord (mains lead) is inserted firmly. The cord is supposed be connected this way. This is not malfunction.*
Preparation 2: Performing Easy Setup

The Easy Setup screen appears on the TV screen when you turn on the receiver for the first time or after the receiver is initialized.

1. Press ↑/↓ to select the language for the messages on the screen, and then press +.
2. Set up the receiver in accordance with the instructions on the Easy Setup screen.

Notes
- If the Easy Setup screen does not appear or you want to display the Easy Setup screen manually, you can display it by selecting [Setup] - [Easy Setup] from the home menu.
- The speakers emit very loud sound during the calibration and the volume cannot be adjusted. Be considerate of your neighbors and any children who are present.
Enjoying video/sound from the connected device

1. Turn on the device you want to play.
2. Turn the receiver on.
3. Turn the TV on, and then switch the input of the TV to which the receiver is connected.

![Remote Control Diagram]

4. Press HOME.
The home menu is displayed on the TV screen.

5. Press ←/→ repeatedly to select [Watch] or [Listen], and then press .
The menu item list appears on the TV screen.

6. Select the device you want to play and start playback.
7. Press ▲+/– to adjust the volume.
   You can also use MASTER VOLUME on the receiver.
8. Press 2CH/MULTI, MOVIE or MUSIC to enjoy the surround sound.
   You can also use 2CH/MULTI, MOVIE or MUSIC on the receiver.
   For details on sound fields, see “Selectable sound fields and their effects” (page 19).
Using the menu on the TV screen

You can display the menu of the receiver on the TV screen.

1 Turn the TV on, and then switch the input of the TV to which the receiver is connected.

2 Press HOME.
The home menu is displayed on the TV screen.

3 Press ↵/▶ repeatedly to select the menu you want to use, and then press ↳ to enter the menu.

Home menu items

Watch:
Select to display video from the connected device.

Listen:
Select to listen to sound from the connected device.

Custom Preset:
Select to save various settings for the receiver and recall those settings.

Sound Effects:
Select to enjoy sound effects.

Zone Controls*:
Select to use the multi-zone features.

Setup:
Select to adjust the various settings for the receiver.

* This item is not displayed if [Zone Controls] is set to [Hide] in the [Zone Settings].

Hints

• When [OPTIONS] appears in the lower portion of the TV screen, you can display the function list by pressing OPTIONS and selecting a related function.
• To return to the previous screen, press BACK.
• To exit the menu, press HOME to display the home menu, and then press HOME again.
Changing the settings

1 Turn the TV on, and then switch the input of the TV to which the receiver is connected.

2 Press HOME. The home menu is displayed on the TV screen.

3 Press ←/→ repeatedly to select [Setup], and then press +.

4 Select the settings you want to configure.

Example:
To select a sound field
You can select from a variety of sound fields according to speaker connections or input sources. Select [Audio Settings] - [Sound Field].
• 2ch Stereo
• Multi Ch Stereo
• Direct
• Auto Format Decoding
• Dolby Surround
• Neural:X
• Front Surround
• Audio Enhancer
• Headphone(2ch)*

* available only when headphones are connected to the receiver

For Details on each sound field, visit the Help Guide.
http://rd1.sony.net/help/ha/strza81/h_uc2/
### Selectable sound fields and their effects

<table>
<thead>
<tr>
<th>Sound field</th>
<th>Display panel</th>
<th>Effects of the sound field</th>
</tr>
</thead>
<tbody>
<tr>
<td>2CH/MULTI</td>
<td>2CH Stereo</td>
<td>Plays back 2-channel audio signals without adding any surround effect. Monaural and multi-channel audio signals are output after being converted into a 2-channel signal. This sound field is best suited for playing back audio signals as they are from two front speakers only, without adding any virtual surround effect. The sound is output from the front left/right speakers only. There is no sound from the subwoofer.</td>
</tr>
<tr>
<td>Multi Ch Stereo</td>
<td>MULTI ST.</td>
<td>Outputs sound from all connected speakers. When 2-channel or monaural audio signals are input, the receiver outputs sound from all speakers without adding any surround effect. When multi-channel audio signals are input, sound may not be output from certain speakers depending on the speaker settings or playback content.</td>
</tr>
<tr>
<td>Direct</td>
<td>DIRECT</td>
<td>Plays back all audio signals without adding any surround effect. However, it does not work during wireless multiroom playback.</td>
</tr>
<tr>
<td>A.F.D. (Auto Format Decoding)</td>
<td>A.F.D.</td>
<td>Decodes and plays back audio signals using the optimal processing method according to the audio signal input.</td>
</tr>
<tr>
<td>MOVIE</td>
<td>Dolby Surround</td>
<td>Dolby Surround upmixer expands traditional audio content for playback through any multi-channel speaker configuration, including height speakers. This upmixer is a new and enhanced replacement for the popular Dolby Pro Logic II technology.</td>
</tr>
<tr>
<td>Neural:X</td>
<td>NEURAL:X</td>
<td>Neural:X remaps stereo, 5.1, and 7.1 movies and music to match your speaker layout.</td>
</tr>
<tr>
<td>Front Surround</td>
<td>FRONT SUR.</td>
<td>Reproduces full surround effects with only two front speakers using Sony’s virtual signal processing technology.</td>
</tr>
<tr>
<td>MUSIC</td>
<td>Audio Enhancer</td>
<td>Upscales existing sound sources to near high-resolution sound quality with DSEE HX (Digital Sound Enhancement Engine HX). This sound field makes you feel as if you are really at the recording studio or concert. DSEE HX only works on 2-channel sound sources with a sampling frequency of 44.1 kHz or 48 kHz input from the following way: * USB * Home Network * Music Service List * Bluetooth However, it does not work during wireless multiroom playback.</td>
</tr>
<tr>
<td>Headphones</td>
<td>Headphone(2ch)</td>
<td>This mode is selected automatically if you use headphones (Other sound fields cannot be selected). Plays back 2-channel audio signals without adding any surround effect. Sound from monaural and multi-channel audio signals are output after being converted into a 2-channel signal.</td>
</tr>
</tbody>
</table>

**Notes**

- Depending on the audio format, if you select [Direct] and play a 5.1ch source when surround speakers and two surround back speakers are connected, the same audio as that from surround speakers will be output from surround back speakers, similar to that of a 7.1ch surround system. The sound level of surround and surround back speakers are adjusted automatically for optimum balance.
- Dolby Atmos is decoded as Dolby TrueHD or Dolby Digital Plus when a sound field other than [Multi Ch Stereo], [A.F.D.] or [Dolby Surround] is selected.
Troubleshooting

You can search by a keyword using the online troubleshooting guide. If you still cannot find a solution, consult your nearest Sony dealer.

General

The top of the receiver is hot.

- Phenomenon is specific to this amplifier. This is not a malfunction. If [Control for HDMI] or [Network Standby] is set to [On], or [Standby Through] is set to [On] or [Auto], the power for zone 2 is turned on, the top of the receiver may become hot even while the receiver is in standby mode. This condition occurs because current is flowing in the internal circuits of the receiver, and this is normal.

Video

There is no picture or an unclear picture appears on the TV screen or monitor, regardless of type of picture.

- Select the appropriate input on the receiver (pages 11, 12).
- Set your TV to the appropriate input mode.
- Make sure that cables are correctly and securely connected to equipment.
- Depending on the playback equipment, equipment may need to be set up. Refer to the operating instructions supplied with the equipment.
- Set [HDMI Signal Format] of the selected HDMI IN jack to [Standard format] in the [HDMI Settings] menu.

Specific type of image is not output or corrupted.

HDMI output

- The output of the HDMI video signals of the receiver may be set to [OFF]. In this case, select [HDMI OUT A] or [HDMI OUT B] using the HDMI OUT button on the remote control (page 13).
- Sony recommends that you use an HDMI authorized cable or HDMI cable made by Sony. Be sure to use High Speed HDMI cables with Ethernet. Premium High Speed HDMI cable with Ethernet, which can support bandwidths of up to 18 Gbps is required for 4K/60p 4:4:4 8 bit and 4K/60p 4:2:0 10 bit, etc.

4K image

- Depending on the TV or video equipment, 4K images may not be displayed. Check the video capability and setting of your TV or video device. Also, make sure to connect to the receiver to an HDMI input jack of a TV or video equipment supporting 4K. You have to connect an HDMI cable to an HDMI jack that supports HDCP 2.2 when you use a playback device for 4K resolution video content, etc.

HDR

- HDR images may not be displayed in HDR mode when using certain TVs or video equipment. Check the video capabilities and settings of your TV and video equipment.
- Some video equipment may not output HDR content in HDR mode if [HDMI Signal Format] is set to [Standard format], even when both the TV and video equipment support HDR and bandwidths of up to 18 Gbps. In this case, set [HDMI Signal Format] for the selected HDMI IN jack to [Enhanced format]. When [Enhanced format] is set as the signal format, use Premium High Speed HDMI Cables with Ethernet, which can support bandwidths of up to 18 Gbps.
Audio

There is no sound, no matter which equipment is selected, or only a very low-level sound is heard.

- Check that the speakers and equipment are connected correctly.
- Check that both the receiver and all equipment are turned on.
- Check that MASTER VOLUME control is not set to [VOL MIN].
- Check that SPEAKERS is not set to [SPK OFF] (page 11).
- Try pressing the input button on the remote control to select the equipment of your choice.

The sound lags behind the picture.

- When the Wireless Multi-Room function is activated, the sound may be delayed.

HDMI input

- Depending on the playback equipment, equipment may need to be set up. Refer to the operating instructions supplied with the equipment.

Error messages

You can check the status of the receiver by the message. See the following to solve the problem. If any problem persists, consult your nearest Sony dealer.

PROTECTOR

- The receiver is covered and ventilation holes are blocked. The receiver will automatically turn off after a few seconds. Remove the object covering the upper panel of the receiver and turn on the power again.
- Irregular current is output to the speakers due to a short circuit on the speaker terminals. The receiver will automatically turn off after a few seconds. If the protective device on the receiver is activated due to a short-circuit problem, turn off the receiver. Check the connection of the speakers and turn on the power again.

UPDATE FAILED

- Insert a USB flash drive on which the package file for updating the receiver is saved, and then turn the receiver off and turn it on again.

List of messages after Auto Calibration measurements

<table>
<thead>
<tr>
<th>Display</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 30</td>
<td>Headphones are connected. Please disconnect the headphones and retry calibration.</td>
</tr>
<tr>
<td>Code 31</td>
<td>The front speakers are not selected correctly. Select the correct front speaker configuration using SPEAKERS on the front panel of the receiver. Make sure that the receiver outputs sound and then try calibrating again.</td>
</tr>
<tr>
<td>Code 32, Code 33</td>
<td>Sound is not detected from speakers.</td>
</tr>
<tr>
<td>Code 34</td>
<td>The speakers are not placed in the proper positions. The left and right speakers or the left and right sides of the calibration microphone may be switched.</td>
</tr>
<tr>
<td>Code 35</td>
<td>The speaker pattern configuration does not match calibration result. Please check the speaker pattern and connection.</td>
</tr>
<tr>
<td>Warning 40</td>
<td>The measurement has been completed, but the noise level is high. For best results, calibrate in as quiet a place as possible.</td>
</tr>
<tr>
<td>Warning 41, Warning 42</td>
<td>The input signal from the calibration microphone is too large. The microphone may be too close to the speakers. Please place the calibration microphone at your desired listening position. Please note, when using the receiver as a pre-amplifier, this message may appear by mistake. Please disregard.</td>
</tr>
</tbody>
</table>

continued
<table>
<thead>
<tr>
<th>Display</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warning 43</td>
<td>The distance and phase of the subwoofer cannot be detected. Please check the subwoofer and re-calibrate in a quiet environment.</td>
</tr>
<tr>
<td>Warning 44</td>
<td>The measurement has been completed, but the speaker may need to be re-positioned. Please see “Installing speakers” in the Help Guide.</td>
</tr>
</tbody>
</table>
Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 6 ohm loads, both channels driven, from 20 Hz – 20,000 Hz; rated 90 watts per channel minimum RMS power, with no more than 0.09% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section1) 2)
Rated Power Output at Stereo Mode
(6 ohms, 20 Hz – 20 kHz, THD 0.09%): 90W + 90 W
Reference Power Output at Stereo Mode
(8 ohms, 20 Hz – 20 kHz, THD 0.09%): 70W + 70 W
Reference Power Output
(6 ohms, 1 kHz, THD 0.9%)
FRONT: 110 W + 110 W
CENTER: 110 W
SURROUND: 110 W + 110 W
SURROUND BACK: 110 W + 110 W
Reference Power Output
(8 ohms, 1 kHz, THD 0.9%)
FRONT: 100 W + 100 W
CENTER: 100 W
SURROUND: 100 W + 100 W
SURROUND BACK: 100 W + 100 W
Reference Power Output at Surround Mode3)
(6 ohms, 1 kHz, THD 0.9%): 140 W per channel

1) Measured under the following conditions:
Power requirements: 120 V AC, 60 Hz
2) Depending on the sound field settings and the source, there may be no sound output.
3) Reference power output for front, center, surround, surround back speakers.

Frequency response
Analog
10 Hz – 100 kHz, ±3dB (When [Direct] is being used and an analog input is selected.)

Input
Analog
Sensitivity: 500 mV/50 kilohms
S/N4): 105 dB (A, 500 mV5))
Digital (Coaxial)
Impedance: 75 ohms
S/N: 100 dB (A, 20 kHz LPF)
Digital (Optical)
S/N: 100 dB (A, 20 kHz LPF)

Output (Analog)
ZONE 2
Voltage: 2 V/1 kilohm
SUBWOOFER
Voltage: 2 V/1 kilohm

Equalizer
Gain levels
±10 dB, 1 dB step
4) INPUT SHORT (with sound field and equalizer bypassed)
5) Weighted network, input level

FM tuner section
Tuning range
87.5 MHz – 108.0 MHz (100 kHz step)
Antenna (aerial)
FM wire antenna (aerial)
Antenna (aerial) terminals
75 ohms, unbalanced

Video section
Inputs/Outputs
Video: 1 Vp-p, 75 ohms

continued
HDMI Input/Output (HDMI Repeater block)

- The HDMI OUT and HDMI IN jacks (except the HDMI IN VIDEO 1 jack) support bandwidth up to 18 Gbps. The HDMI IN VIDEO 1 jack supports bandwidth up to 9 Gbps.
- All HDMI jacks on the receiver support 4K, HDCP 2.2, ITU-R BT.2020 wide color spaces, 3D, Deep Color (Deep Colour), and HDR (High Dynamic Range) contents pass-through.
- The HDMI OUT A (TV) jack supports Audio Return Channel (ARC).
- HDCP 2.2 is newly enhanced copyright protection technology that is used to protect content such as 4K movies.
- BT.2020 color space is a new wider color standard that is defined for ultra-high definition television systems.
- HDR is an emerging video format that can display a wider range of brightness levels.

Supported video formats

<table>
<thead>
<tr>
<th>Format</th>
<th>2D</th>
<th>3D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frame packing</td>
<td>Side-by-Side (Half)</td>
</tr>
<tr>
<td>4096 × 2160p @ 59.94/60 Hz</td>
<td>○*</td>
<td>-</td>
</tr>
<tr>
<td>4096 × 2160p @ 50 Hz</td>
<td>○*</td>
<td>-</td>
</tr>
<tr>
<td>4096 × 2160p @ 29.97/30 Hz</td>
<td>○**</td>
<td>-</td>
</tr>
<tr>
<td>4096 × 2160p @ 25 Hz</td>
<td>○**</td>
<td>-</td>
</tr>
<tr>
<td>4096 × 2160p @ 23.98/24 Hz</td>
<td>○**</td>
<td>-</td>
</tr>
<tr>
<td>3840 × 2160p @ 59.94/60 Hz</td>
<td>○*</td>
<td>-</td>
</tr>
<tr>
<td>3840 × 2160p @ 50 Hz</td>
<td>○*</td>
<td>-</td>
</tr>
<tr>
<td>3840 × 2160p @ 29.97/30 Hz</td>
<td>○**</td>
<td>-</td>
</tr>
<tr>
<td>3840 × 2160p @ 25 Hz</td>
<td>○**</td>
<td>-</td>
</tr>
<tr>
<td>3840 × 2160p @ 23.98/24 Hz</td>
<td>○**</td>
<td>-</td>
</tr>
<tr>
<td>1920 × 1080i @ 59.94/60 Hz</td>
<td>○</td>
<td>-</td>
</tr>
<tr>
<td>1920 × 1080i @ 50 Hz</td>
<td>○</td>
<td>-</td>
</tr>
<tr>
<td>1280 × 720p @ 59.94/60 Hz</td>
<td>○</td>
<td>-</td>
</tr>
<tr>
<td>1280 × 720p @ 50 Hz</td>
<td>○</td>
<td>-</td>
</tr>
<tr>
<td>1280 × 720p @ 29.97/30 Hz</td>
<td>○</td>
<td>-</td>
</tr>
<tr>
<td>1280 × 720p @ 23.98/24 Hz</td>
<td>○</td>
<td>-</td>
</tr>
<tr>
<td>720 × 480p @ 59.94/60 Hz</td>
<td>○</td>
<td>-</td>
</tr>
<tr>
<td>720 × 576p @ 50 Hz</td>
<td>○</td>
<td>-</td>
</tr>
<tr>
<td>640 × 480p @ 59.94/60 Hz</td>
<td>○</td>
<td>-</td>
</tr>
</tbody>
</table>

* If you use YCbCr 4:4:4/YCbCr 4:2:2/RGB 4:4:4 or YCbCr 4:2:0 deep color (10 bit or 12 bit) of these video formats, be sure to use HDMI IN jacks except the HDMI IN VIDEO 1 jack, and Premium High Speed HDMI Cables with Ethernet, which can support bandwidth up to 18 Gbps. For details, see the Help Guide.

** If you use deep color (10 bit or 12 bit) of these video formats, be sure to use HDMI IN jacks except the HDMI IN VIDEO 1 jack, and Premium High Speed HDMI Cables with Ethernet, which can support bandwidth up to 18 Gbps. For details, see the Help Guide.

Supported digital audio formats

<table>
<thead>
<tr>
<th>Digital audio format</th>
<th>Maximum number of decoded channels</th>
<th>Connection with the receiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolby Digital [DOLBY D]</td>
<td>5.1</td>
<td>COAXIAL/OPTICAL, HDMI</td>
</tr>
<tr>
<td>Dolby Digital Plus [DOLBY D +][1]</td>
<td>7.1</td>
<td>HDMI</td>
</tr>
<tr>
<td>Dolby TrueHD [DOLBY HD][1]</td>
<td>7.1</td>
<td>HDMI</td>
</tr>
<tr>
<td>Dolby Atmos - Dolby Digital Plus [DAtmos][1],[2]</td>
<td>5.1.2, 7.1 or 7.1.2[3]</td>
<td>HDMI</td>
</tr>
<tr>
<td>Dolby Atmos - Dolby TrueHD [DAtmos][1],[2]</td>
<td>5.1.2, 7.1 or 7.1.2[3]</td>
<td>HDMI</td>
</tr>
<tr>
<td>DTS [DTS]</td>
<td>5.1</td>
<td>COAXIAL/OPTICAL, HDMI</td>
</tr>
</tbody>
</table>
Audio signals are output in another format if the playback device does not correspond to the actual format. For details, refer to the operating instructions of the playback device.

Dolby Atmos is decoded as Dolby Digital Plus or Dolby TrueHD if the speaker pattern is set to 2.0, 2.1, 3.0, 3.1, 4.0, 4.1, 5.0 or 5.1.

Available only when [SpeakerRelocation/PhantomSurroundBack] is set to [Type A] or [Type B].

This format is not output to wireless headphones.

**USB section**

|^ (USB) port: |
|---|---|
| Type A (For connecting USB flash drive) |

**Network section**

*Ethernet LAN |
| 100BASE-TX* |

*Wireless LAN |
| Compatible standards: IEEE 802.11 a/b/g/n |
| Security: WPA/WPA2-PSK, WEP |
| Radio frequency: 2.4 GHz, 5 GHz |

* We recommend using a Category 7 cable.

**Playable types of audio files**

<table>
<thead>
<tr>
<th>Codec</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP3 (MPEG-1 Audio Layer III)</td>
<td>.mp3</td>
</tr>
<tr>
<td>AAC/HE-AAC</td>
<td>.m4a, .aac, .mp4, .3gp</td>
</tr>
<tr>
<td>WMA9 Standard</td>
<td>.wma</td>
</tr>
<tr>
<td>WMA10 Pro</td>
<td>.wma</td>
</tr>
<tr>
<td>LPCM</td>
<td>.wav</td>
</tr>
<tr>
<td>FLAC</td>
<td>.flac, .fla</td>
</tr>
<tr>
<td>Dolby Digital</td>
<td>.ac3</td>
</tr>
<tr>
<td>DSD</td>
<td>.dsf</td>
</tr>
<tr>
<td>DSDIFF</td>
<td>.dff</td>
</tr>
<tr>
<td>AIFF</td>
<td>.aiff, .aif</td>
</tr>
<tr>
<td>ALAC</td>
<td>.m4a</td>
</tr>
<tr>
<td>Vorbis</td>
<td>.ogg</td>
</tr>
<tr>
<td>Monkey’s Audio</td>
<td>.ape</td>
</tr>
</tbody>
</table>

1) Audio signals are output in another format if the playback device does not correspond to the actual format. For details, refer to the operating instructions of the playback device.

2) Dolby Atmos is decoded as Dolby Digital Plus or Dolby TrueHD if the speaker pattern is set to 2.0, 2.1, 3.0, 3.1, 4.0, 4.1, 5.0 or 5.1.

3) Available only when [SpeakerRelocation/PhantomSurroundBack] is set to [Type A] or [Type B].

4) This format is not output to wireless headphones.

5) The receiver does not play DST encoded files.

---

**iPhone/iPad/iPod section**

BLUETOOTH technology works with iPhone 7 Plus, iPhone 7, iPhone SE, iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, iPhone 4s, and iPod touch (5th and 6th generation).

AirPlay works with iPhone, iPad, and iPod touch with iOS 4.3.3 or later, Mac with OS X Mountain Lion or later, and PC with iTunes 10.2.2 or later.

You can use “SongPal” app with this receiver via BLUETOOTH or network connection.

iPhone/iPad/iPod playback via | (USB) port is not possible.

---

**USB section**

|^ (USB) port: |
|---|---|
| Type A (For connecting USB flash drive) |

**Network section**

*Ethernet LAN |
| 100BASE-TX* |

*Wireless LAN |
| Compatible standards: IEEE 802.11 a/b/g/n |
| Security: WPA/WPA2-PSK, WEP |
| Radio frequency: 2.4 GHz, 5 GHz |

* We recommend using a Category 7 cable.

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<tr>
<th>Codec</th>
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</thead>
<tbody>
<tr>
<td>MP3 (MPEG-1 Audio Layer III)</td>
<td>.mp3</td>
</tr>
<tr>
<td>AAC/HE-AAC</td>
<td>.m4a, .aac, .mp4, .3gp</td>
</tr>
<tr>
<td>WMA9 Standard</td>
<td>.wma</td>
</tr>
<tr>
<td>WMA10 Pro</td>
<td>.wma</td>
</tr>
<tr>
<td>LPCM</td>
<td>.wav</td>
</tr>
<tr>
<td>FLAC</td>
<td>.flac, .fla</td>
</tr>
<tr>
<td>Dolby Digital</td>
<td>.ac3</td>
</tr>
<tr>
<td>DSD</td>
<td>.dsf</td>
</tr>
<tr>
<td>DSDIFF</td>
<td>.dff</td>
</tr>
<tr>
<td>AIFF</td>
<td>.aiff, .aif</td>
</tr>
<tr>
<td>ALAC</td>
<td>.m4a</td>
</tr>
<tr>
<td>Vorbis</td>
<td>.ogg</td>
</tr>
<tr>
<td>Monkey’s Audio</td>
<td>.ape</td>
</tr>
</tbody>
</table>

1) Audio signals are output in another format if the playback device does not correspond to the actual format. For details, refer to the operating instructions of the playback device.

2) Dolby Atmos is decoded as Dolby Digital Plus or Dolby TrueHD if the speaker pattern is set to 2.0, 2.1, 3.0, 3.1, 4.0, 4.1, 5.0 or 5.1.

3) Available only when [SpeakerRelocation/PhantomSurroundBack] is set to [Type A] or [Type B].

4) This format is not output to wireless headphones.

5) The receiver does not play DST encoded files.

---

**iPhone/iPad/iPod section**

BLUETOOTH technology works with iPhone 7 Plus, iPhone 7, iPhone SE, iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, iPhone 4s, and iPod touch (5th and 6th generation).

AirPlay works with iPhone, iPad, and iPod touch with iOS 4.3.3 or later, Mac with OS X Mountain Lion or later, and PC with iTunes 10.2.2 or later.

You can use “SongPal” app with this receiver via BLUETOOTH or network connection.

iPhone/iPad/iPod playback via | (USB) port is not possible.
Some files may not play depending on the file format, the file encoding, the recording condition, or the home network server condition.
- Some files edited on a PC may not play.
- Fast forward or fast reverse may not be available with some files.
- The receiver does not play coded files such as DRM.
- The receiver can recognize the following files or folders in USB devices:
  - up to folders in the 9th layer (including the root folder)
  - up to 500 files/folders in a single layer
- The receiver can recognize the following files or folders stored in the home network server:
  - up to folders in the 19th layer
  - up to 999 files/folders in a single layer
- Some USB devices may not work with this receiver.
- The receiver can recognize Mass Storage Class (MSC) devices (such as flash drive or an HDD) and 101-key keyboards.

**BLUETOOTH section**
Communication system
- BLUETOOTH Specification version 4.1
Output
- BLUETOOTH Specification Power Class 1
Maximum communication range
- Line of sight approx. 30 m (98.4 feet)\(^1\)
Frequency band
- 2.4 GHz band (2.4000 GHz – 2.4835 GHz)
Modulation method
- FHSS (Freq Hopping Spread Spectrum)
Compatible BLUETOOTH profiles\(^2\)
- A2DP 1.2 (Advanced Audio Distribution Profile)
- AVRCP 1.5 (Audio Video Remote Control Profile)
Supported Codecs\(^3\)
- SBC\(^4\), AAC, LDAC
Transmission range (A2DP)
- 20 Hz – 40,000 Hz (LDAC sampling frequency 96 kHz with 990 kbps transmission)
- 20 Hz – 20,000 Hz (Sampling frequency 44.1 kHz)

1) The actual range will vary depending on factors such as obstacles between devices, magnetic fields around a microwave oven, static electricity, cordless phone, reception sensitivity, antenna’s performance, operating system, software application, etc.
2) BLUETOOTH standard profiles indicate the purpose of BLUETOOTH communication between devices.
3) Codec: Audio signal compression and conversion format
4) Subband Codec

**General**
Power requirements
- 120 V AC, 60 Hz
Power consumption
- 240 W
  - Standby mode: 0.5 W
    (When [Control for HDMI], [Standby Through], [Remote Start], [Bluetooth Standby], [Network Standby] and all zone power are set to [Off].)
  - Bluetooth Standby mode: 2.5 W
    (When [Bluetooth Standby] is set to [On], and [Control for HDMI], [Standby Through], [Remote Start], [Network Standby] and all zone power are set to [Off].)
Dimensions (Approx.)
- 430 mm × 156 mm × 331 mm (17 in × 6 1/4 in × 13 1/8 in) (width/height/depth) including projecting parts and controls
Mass (Approx.)
- 9.1 kg (20 lb 1 oz)

**Supplied accessories**
Operating Instructions (this manual)
Startup Guide (1)
Calibration microphone (1)
FM wire antenna (aerial) (1)
AC power cord (mains lead) (1)
Remote control (1)
R03 (size AAA) batteries (2)

Design and specifications are subject to change without notice.
Before installing the receiver, be sure to update the receiver to the latest software version.

Avant d’installer l’ampli-tuner, veillez à le mettre à jour à la dernière version de logiciel.

Antes de instalar el receptor, asegúrese de actualizar el receptor a la versión de software más reciente.
Map of GUI menu system

Using the home menu

Menu items underlined are default settings.

Home
- Watch
  - BD/DVD
  - GAME
  - SAT/CATV
  - VIDEO 1
  - VIDEO 2
  - TV

- Listen
  - SA-CD/CD
  - FM TUNER
  - USB
  - Bluetooth
  - Home Network
  - Music Service List

- Custom Preset
  - Movie
  - Music
  - Party
  - Night

- Sound Effects
  - Sound Field
    - 2ch Stereo
      - Multi Ch Stereo
      - Direct
      - A.F.D. (Auto Format Decoding)
      - Dolby Surround
      - Neural:X
      - Front Surround
      - Audio Enhancer
    - Equalizer
      (+10.0dB, +9.0dB, ..., 0.0dB, ..., –9.0dB, –10.0dB)
    - Sound Optimizer
      - Normal
      - Low
      - Off
    - In-Ceiling Speaker Mode
      - Front & Center
      - Front
      - Off
    - Pure Direct
      - On
      - Off
Setup

Easy Setup
  Language
  Speaker Settings
  Internet Settings

Speaker Settings
  Auto Calibration\(^2\)
    Automatic Phase Matching (Auto, Off)
    Calibration Type (Full Flat, Engineer, Front Reference, Off)
    Test Tone\(^3\)
      Level\(^3\) (+10.0dB, +9.5dB, ..., 0.0dB, ..., −9.5dB, −10.0dB)
      Equalizer\(^3\) (+10.0dB, +9.0dB, ..., 0.0dB, ..., −9.0dB, −10.0dB)
      Distance\(^3\) (32 ft 9 in, 32 ft 8 in, ..., 9 ft 10 in, ..., 3 ft 4 in, 3 ft 3 in)
      Size\(^3\) (Large, Small)
      Crossover Frequency\(^3\) (40Hz, 50Hz, ..., 120Hz, ..., 190Hz, 200Hz)
  Surround Back Speaker Assign (BI-AMP, Front B, Off)
  Speaker Pattern (See pages 10-11.)
  Speaker Connection Guide
  SURROUND BACK/
    ZONE2 Priority (ZONE2 Terminals)
    Center Speaker Lift Up (10, 9, 8, ..., 2, 1, Off)
    Surround Speaker Position (Front, Back)
  Speaker Relocation/
    Phantom Surround Back (Type A, Type B, Off)
    Ceiling Height (32 ft 9 in, 32 ft 8 in, ..., 9 ft 0 in, ..., 6 ft 7 in, 6 ft 6 in)
    Distance Unit (feet, meter)
1) The sound field is only available when [USB], [Bluetooth], [Home Network], or [Music service list] is selected.
2) Detailed information of these menu items is displayed after you select the settings.
3) The menu item can be adjusted against each speaker.
4) You can select the following inputs in the Input Settings screen.
   BD/DVD, GAME, SAT/CATV, VIDEO 1, VIDEO 2, TV, SA-CD/CD
5) You can set up each input using these menu items in [Input Settings].
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Preparing the receiver

Outline dimensional drawing

[Diagram showing dimensions for top, front, and side views, with measurements in millimeters and inches]
Connecting a 4K TV that supports HDCP 2.2 and a 4K streaming box using a 4K-compatible HDMI cable

All HDMI jacks on the receiver support 4K resolution and HDCP 2.2.
To enjoy audio from 4K content such as 4K movies, connect the HDMI output/input jacks of each device that supports HDCP 2.2* using HDMI cables, as illustrated below.

* HDCP 2.2 (High-bandwidth Digital Content Protection System Revision 2.2) is newly enhanced copyright protection technology that is used to protect content such as 4K movies from Studios.

1. Connect the receiver to a 4K media player using a High Speed HDMI cable (not supplied).

   **If you are using an FMP-X10/X5 Media Player:**
   Connect the cable to the HDMI OUT 1 (for AUDIO VIDEO) jack of the player.
   Select [Settings] - [Sound] - [Audio from HDMI OUT] - [HDMI OUT 1] in the Home menu of the FMP-X10/X5 Media Player after Initial Setup is complete.

   **If you are using a different 4K media player:**
   Connect the cable to one of the HDCP 2.2-compatible HDMI output jacks. For details, refer to the operating instructions supplied with your player.

2. Connect the receiver to a 4K TV or a 4K projector using a High Speed HDMI cable (not supplied).

   **If you are using a BRAVIA TV with the series name X950B, X900B or X850B:**
   Connect the cable to the HDMI IN 1 jack of your TV.

   **If you are using a different 4K TV or 4K projector:**
   Connect to one of the HDCP 2.2-compatible HDMI input jacks. If the jack is not compatible with the ARC (Audio Return Channel) function, also connect an optical digital cable. For details, refer to the operating instructions supplied with your 4K TV or 4K projector.

Note
- Sony recommends that you use an HDMI cable made by Sony or another HDMI-authorized cable. Be sure to use a High Speed HDMI Cable with Ethernet. Premium High Speed HDMI Cable with Ethernet that supports 18 Gbps is required for 4K/60p 4:4:4, 4:2:2, and 4K/60p 4:2:0 10 bit, etc.
Making a multi-zone connection

This receiver allows various multi-zone connections.

Setup example 1
5.1-channel speaker system with Zone 2 connection

<table>
<thead>
<tr>
<th>Connected device</th>
<th>Zone</th>
<th>Connection</th>
<th>Operation on the receiver</th>
</tr>
</thead>
</table>
| Speakers         | Main     | • Connect 5-channel speakers to SPEAKERS FRONT A, CENTER and SURROUND terminals.  
                      |          | • Connect 1 or 2 subwoofer(s) to SUBWOOFER OUT jack(s).                     | ① Perform Auto Calibration. |
|                  | Zone 2   | Connect left and right speakers to SPEAKERS ZONE 2 terminals.               | ② Select [Setup] - [Speaker Settings] - [SURROUND BACK/ZONE2 Priority] - [ZONE2 Terminals] from the home menu. |
| TV               | Main     | Connect to the HDMI OUT A (TV) jack.                                       | ③ Select [Zone Controls] - [Zone2 Power] - [On] from the home menu and select the desired input for [Zone2 Input]. |

Tip
• Select [Setup] - [Audio Settings] - [In-Ceiling Speaker Mode] - [Front & Center] or [Front] when you use the in-ceiling speakers in the main zone.

Setup example 2
5.1-channel speaker system with HDMI zone connection

<table>
<thead>
<tr>
<th>Connected device</th>
<th>Zone</th>
<th>Connection</th>
<th>Operation on the receiver</th>
</tr>
</thead>
</table>
| Speakers         | Main     | • Connect 5-channel speakers to SPEAKERS FRONT A, CENTER and SURROUND terminals.  
                      |          | • Connect 1 or 2 subwoofer(s) to SUBWOOFER OUT jack(s).                     | Perform Auto Calibration. |
| TV               | Main     | Connect to the HDMI OUT A (TV) jack.                                       | ① Select [Setup] - [HDMI Settings] - [HDMI Out B Mode] - [Zone] from the home menu. |
| TV (or Another Amplifier) | HDMI     | Connect to the HDMI OUT B/HDMI ZONE jack.                                  | ② Select [Zone Controls] - [HDMI Zone Power] - [On] from the home menu and select the desired input for [HDMI Zone Input]. |

TV Main Connect to the HDMI OUT A (TV) jack. Press HDMI OUT to select HDMI OUT A (TV).
Speaker patterns and terminals to be connected

When you connect speakers to the receiver, refer to the following table. You can use the following table to confirm the speaker patterns supported by the receiver as well as the speaker terminals to which the speakers of each speaker pattern are to be connected.

When playing back DTS content, select a speaker pattern which supports DTS playback* (indicated with white background in the following table). If you select other speaker patterns (indicated with gray background in the table), the sound may not be output from some speakers.

To set the speaker pattern, select [Setup] - [Speaker Settings] - [Speaker Pattern] from the home menu.

* Due to the receiver’s system limitations

The abbreviations and symbol used in the list are as follows.

- FH: Front high speakers
- TM: Top middle speakers
- FD: Front Dolby Atmos enabled speakers
- SRD: Surround Dolby Atmos enabled speakers
- SB: SPEAKERS SURROUND BACK/HEIGHT (FRONT B/BI-AMP) terminals

What the numbers in the speaker pattern indicate:

- Number of speakers located at listener’s level
- Number of subwoofers
- Number of height or overhead (top) speakers

<table>
<thead>
<tr>
<th>Speaker pattern</th>
<th>FRONT A</th>
<th>CENTER</th>
<th>SURROUND</th>
<th>SURROUND BACK/HEIGHT (FRONT B/BI-AMP)</th>
<th>SUBWOOFER</th>
<th>ZONE 2 (*)</th>
<th>Front B speaker connection (<em>)/Bi-amplifier connection (</em>)</th>
</tr>
</thead>
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<tr>
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</table>
| Speaker pattern | FRONT A | CENTER | SURROUND | SURROUND BACK/HEIGHT (FRONT B/BI-AMP) (**) | SUBWOOFER | ZONE 2 (*) | Front B speaker connection (***) | Bi-amp connection (****)
<table>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Not available</td>
<td></td>
</tr>
</tbody>
</table>

*1 SPEAKERS SURROUND BACK/HEIGHT (FRONT B/BI-AMP) terminals are not available when [SURROUND BACK/ZONE2 Priority] is set to [ZONE2 Terminals] and [Zone2 Power] is set to [On].

*2 ZONE 2 terminals are not available when [SURROUND BACK/ZONE2 Priority] is set to [SURROUND BACK Terminals].
Setting up the receiver

Activating the network standby mode
You can keep the network function active even when the receiver is in standby mode.

2. Select [On].

Turning on the control mode to make an external controller connection
You can control the receiver from external devices.

2. Select [On].

Note
• Set [External Control] to [On] to activate the network connection or to activate control from an external controller connected to the RS232C port.

Outputting a test tone from each speaker (Test Tone)
You can output a test tone from each speaker in sequence.

1. Select [Setup] - [Speaker Settings] - [Test Tone] from the home menu.
2. Select the setting you want.
   - Off: The test tone is not output.
   - Auto: The test tone is output from each speaker in sequence.

   * [Sur Back] appears when only one surround back speaker is connected.

3. Adjust the speaker level.
   - Tips
     • To adjust the level of all speakers at the same time, press \(\pm\). You can also use MASTER VOLUME on the receiver.
     • The adjusted value is shown on the TV screen while adjusting.

Adjusting the sound balance automatically (Auto Calibration)
This receiver is equipped with a D.C.A.C. EX (Digital Cinema Auto Calibration EX) function, which allows you to perform automatic calibration. Auto Calibration allows you to perform automatic calibration as follows.
- Check the connection between each speaker and the receiver.
- Adjust the speaker level.
- Measure the distance of each speaker from your seating position.*1
- Measure the speaker size.*1
- Measure the frequency characteristics (EQ).*1
- Measure the frequency characteristics (Phase).*1

*1 The measurement result is not utilized when [Direct] is selected.
*2 The measurement result may be not utilized, depending on the audio formats.

Note
• The D.C.A.C. EX function is designed to achieve proper sound balance for your room. However, you can adjust the speaker levels manually according to your preference using Test Tone.

1. Set up each speaker correctly, and then connect the calibration microphone.
3. When you use height/overhead speakers, select [Change Surround Back Speaker Assign], and then select [Height Speakers] on the next screen.
4. Select [Proceed to configure the speaker pattern], and then set the speaker pattern on the next screen.
   - If you have set [Height/Overhead speakers] to a value other than [FH] (front high speakers) or [---], set [Ceiling Height] on the next screen.
5. Make sure that the calibration microphone is connected to the receiver, and then select [Proceed to the next step].
6. Confirm the instructions on the screen, and then press \(\bullet\) to select [Start].
   - The measurement starts in 5 seconds. The measurement process takes approximately 30 seconds. A test tone is output from each speaker in sequence. When the measurement ends, a beep sounds and the screen switches.
7. Select the item you want.
   - Save: Saves the measurement results and exits the setting process.
   - Retry: Performs the Auto Calibration again.
   - Discard: Exits the setting process without saving the measurement results.
8. Save the measurement results.
   - Select [Save] in step 7.
Calibration Matching

When Auto Calibration is executed, this function works automatically to match the distance and level of the right and left speakers. You can set this function only after the Auto Calibration measurement process has been completed and the results of Auto Calibration measurement are saved. The setting is valid until you change it.

**Note**
- If an error code or warning message appears on the screen in step 6, see “List of messages after Auto Calibration measurements” (page 13).

**Tips**
- The Auto Calibration measurement will be canceled if you perform the following during the measurement process:
  - Press 
  - Press the input buttons on the remote control or turn INPUT SELECTOR on the receiver.
  - Press HDMI OUT, AMP MENU, HOME or 
  - Press SPEAKERS on the receiver.
  - Change the volume level.
  - Connect headphones.
  - Press MUSIC on the remote control or the receiver.

**List of messages after Auto Calibration measurements**

- **Code 30:**
  - Headphones are connected. Please disconnect the headphones and retry calibration.
- **Code 31:**
  - The front speakers are not selected correctly. Select the front speakers correctly using SPEAKERS on the receiver and perform Auto Calibration again while sound is being output. For details on selecting the front speakers, see “Selecting the front speakers” in the Help Guide.
- **Code 32, Code 33:**
  - Sound is not detected from one or both of the speakers.
  - Sound is not detected from one or both of the front speakers. Please ensure that the calibration microphone is not damaged, and is connected to the CALIBRATION MIC jack on the front panel of the receiver, and that all speakers are properly connected.
  - Sound is not detected from either the left or right surround speakers. Please ensure that the surround speakers are connected to the SURROUND terminals.
  - The surround back speaker is connected to the SURROUND BACK/HEIGHT R terminal. When using only one surround back speaker, please connect it to the SURROUND BACK/HEIGHT L terminals.
  - Only one height speaker is detected. Please ensure that both the height speakers are connected to the SURROUND BACK/HEIGHT terminals.
  - Sound is not detected from any speakers, please ensure the calibration microphone is not damaged and is connected to the CALIBRATION MIC jack on the front panel of the receiver.
- **Code 34:**
  - Speakers are not placed in the proper position or the calibration microphone may be reversed.
- **Code 35:**
  - The speaker pattern configuration does not match calibration result. Please check the speaker pattern and connection.
- **Warning 40:**
  - The measurement has been completed, but the noise level is high. For best results, calibrate in as quiet a place as possible.

- **Warning 41, Warning 42:**
  - The input signal from the calibration microphone is too large. The microphone may be too close to the speakers. Please place the calibration microphone at your desired listening position. Please note, when using the receiver as a pre-amplifier, this message may appear by mistake. Please disregard.
- **Warning 43:**
  - The distance and phase of the subwoofer cannot be detected. Please check the subwoofer and re-calibrate in a quiet environment.
- **Warning 44:**
  - The measurement has been completed, but the speaker may need to be re-positioned. Please see “Installing Speakers” in the Help Guide.

**Setting the in-ceiling speaker mode**

Sony has developed a new special sound mode for CI installation. This feature will virtually relocate the front and center in-ceiling speakers down to around the screen. That way, the customer will hear the actors’ voices coming from the screen instead of the ceiling. This mode also makes music sound more natural in a room with in-ceiling speakers.

1. Perform Auto Calibration.
2. Select [Setup] - [Audio Settings] - [In-Ceiling Speaker Mode] - [Front & Center] or [Front] from the home menu.

**Notes**
- This mode does not work when [Pure Direct] is set to [On].
- This mode will be disabled in a speaker pattern with Dolby Atmos enabled speakers.

**Tips**
- You can also select [In-Ceiling Speaker Mode] in [Sound Effects] from the home menu.
- To obtain optimal effects in the listening environment, configure the [Ceiling Height] setting in the [Speaker Settings] menu and perform Auto Calibration.
Setting HDMI signal formats

When you use high bandwidth video formats such as 4K/60p YCbCr 4:4:4/YCbCr 4:2:2/RGB 4:4:4 or 4K/60p YCbCr 4:2:0 Deep Color (Deep Colour) (10 bit or 12 bit), be sure to set [HDMI Signal Format].

1 Select [Setup] - [HDMI Settings] - [HDMI Signal Format] from the home menu.

2 Select the HDMI input you want to apply the setting.

3 Select [Enhanced format].

Notes
• For details on the high bandwidth video format, refer to the Help Guide.
• When [Enhanced format] is selected, we recommend using a Premium High Speed HDMI Cable with Ethernet, which can support bandwidth up to 18 Gbps.
• When [Enhanced format] is selected, some devices (cable box or satellite box, Blu-ray Disc player, and DVD player) may not work. In this case, select [Standard format].
• If your TV has similar menu for high bandwidth video format, check the setting on the TV menu when you select [Enhanced format] on this receiver. For details on the TV menu setting, refer to the operating instructions of the TV.

Tip
• Some video equipment may not output HDR contents in HDR mode if [HDMI Signal Format] is set to [Standard format], even if both TV and video equipment support HDR and 18 Gbps bandwidth. In this case, set [HDMI Signal Format] of selected input to [Enhanced format] in the [HDMI Settings] menu. When you select [Enhanced format], use Premium High Speed HDMI cables with Ethernet which can support bandwidth up to 18 Gbps.

Updating the software via the network

You can update the receiver software via the network. Connect the receiver to the Internet beforehand.

1 Select [Setup] - [System Settings] from the home menu.

2 Select [Software Update] - [Update via Internet].

3 Follow the instructions on the TV screen. [UPDATING...XXX%] will be displayed on the front display. The receiver will automatically reboot after the update completes.

Updating the software with a USB flash drive

Make sure to perform the following steps when a software update is delivered. You can download the update software from the following website.
http://esupport.sony.com/

1 Search for “STR-ZA810ES” on the following website and download the update software.
http://esupport.sony.com/
3 Select the desired preset number.  
The playlist will be registered to the selected preset number.

To play the registered playlist

1 Select [Listen] – [Music Service List] from the home menu.

2 Select [Spotify].

3 Press OPTIONS and select [Spotify Preset] from the options menu.

4 Select the desired playlist from the preset list.
Performing commands using the receiver

This receiver allows you to perform various commands using buttons on the front panel.

<table>
<thead>
<tr>
<th>Function</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>User initialize (Memory Clear)</td>
<td>Hold down ( \odot ) for 5 seconds in standby mode.</td>
</tr>
<tr>
<td>Sound Field Clear</td>
<td>Hold down MUSIC and press ( \odot ) in standby mode.</td>
</tr>
</tbody>
</table>
Zone distribution

The receiver can deliver input signals for each video or audio input to another zone in combinations such as the following.

### Zone distribution capability (video)

<table>
<thead>
<tr>
<th>Input source</th>
<th>Zone output</th>
<th>Main zone HDMI OUT A</th>
<th>Main zone HDMI OUT B</th>
<th>HDMI zone HDMI OUT B</th>
<th>Main zone MONITOR OUT jack (Composite)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIDEO IN jacks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>HDMI IN jacks&lt;sup&gt;1)&lt;/sup&gt;</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

<sup>1)</sup> HDMI IN GAME, SAT/CATV, BD/DVD, SA-CD/CD and VIDEO 2 jacks support bandwidth up to 18 Gbps, and HDMI IN VIDEO 1 jack supports bandwidth up to 9 Gbps.

<sup>2)</sup> HDMI OUT B jack supports bandwidth up to 9 Gbps.

<sup>3)</sup> HDMI OUT B jack can output signal input from the HDMI IN jacks except for VIDEO 1.

<sup>4)</sup> HDMI down converting is prohibited by HDMI guidelines.

### Zone distribution capability (audio)

<table>
<thead>
<tr>
<th>Input source</th>
<th>Zone output</th>
<th>Main zone HDMI OUT A</th>
<th>Main zone HDMI OUT B</th>
<th>HDMI zone HDMI OUT B</th>
<th>Main zone SPEAKERS terminals</th>
<th>Zone 2 SPEAKERS terminals</th>
<th>Zone 2 AUDIO OUT jacks (Fixed/Variable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIO IN jacks (RCA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Built-in sources*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DIGITAL OPTICAL IN jacks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>DIGITAL COAXIAL IN jack</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>HDMI IN jacks</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

<sup>*</sup> Built-in sources include [FM TUNER], [USB], [Bluetooth], [Home Network], and [Music Service List] on the receiver.

If you set [USB], [Bluetooth], [Home Network], or [Music Service List] for the main zone or Zone 2 while another of these sources is already selected for the other zone, the setting for both zones will switch to the most recently selected item.
Installing and connecting the speakers
Installation et raccordement des enceintes
Instalación y conexión de los altavoces

Example of a 5.1.2 channel speaker system configuration
Exemple d’une configuration de systèmes d’enceintes 5.1.2 canaux
Ejemplo de configuración de un sistema de altavoces de 5.1.2 canales

Supplied accessories:
Accessoires fournis:
Accesorios suministrados:

- Remote control (1)
- Télécommande (1)
- Mando a distancia (1)

- Speaker cables
- Câbles d’enceinte
- Cables de altavoz

- Monaural audio cable
- Câble audio mono
- Cable de audio monofónico

Note / Remarque / Nota

Connect speaker cables properly with the polarities (×) matched between the speaker cables and the SPEAKERS terminals.
Raccordez correctement les câbles d’enceinte en respectant les polarités (×) entre les câbles d’enceinte et les bornes SPEAKERS.
Conecte los cables de altavoz debidamente haciendo coincidir las polaridades (×) entre los cables de altavoz y los terminales SPEAKERS.

Improper connection may result in fatal damage to the receiver.
Un raccordement incorrect peut endommager l’ampli-tuner de façon irréversible.
Una conexión incorrecta puede causar daños irreparables al receptor.

Visit the Help Guide for complete instructions.
Consultez le Guide d’aide pour obtenir des instructions complètes.
Visite la Guía de ayuda para obtener instrucciones completas.

http://rd1.sony.net/help/ha/strza81/h_u2/

You will also need (not supplied):
Autres accessoires nécessaires (non fournis):
También necesitará (no suministrado):

- Ac power cord (mains lead) (1)
- Cordon d’alimentation secteur (1)
- Cable de alimentación CA (1)

- FM wire antenna (aerial) (1)
- Antenne fil FM (1)
- Antena FM de cable (1)

- Calibration microphone (1)
- Microphone de calibrage (1)
- Microfono de calibracion (1)

You will also need (not supplied):
Autres accessoires nécessaires (non fournis):
También necesitará (no suministrado):

- HDMI cables*1
- Câbles HDMI*1
- Cables HDMI*1

- Optic digital cables*2
- Câbles optique numérique*2
- Cable digital óptico*2

*1 We recommend using Premium High Speed HDMI Cables with Ethernet.
*1 Nous vous conseillons d’utiliser des câbles HDMI grande vitesse haute qualité avec Ethernet.
*1 Recomendamos utilizar cables HDMI de alta velocidad de primera calidad con Ethernet.

*2 These cables may not be needed depending on your connection.
*2 Il est possible que ces câbles ne soient pas nécessaires selon votre connexion.
*2 Puede que estos cables no sean necesarios dependiendo del tipo de conexión.

Visit the Help Guide for information including more examples of speaker system configurations and connections.
Pour plus d’information, lisez le guide d’aide, notamment pour consulter des exemples de configurations et de raccordements de systèmes d’enceintes.
Lea la guía de ayuda para ver información, incluidos más ejemplos, de configuraciones y conexiones del sistema de altavoces.

Go to back page for step.
Consultez le verso pour l’étape.
Vaya al dorso para consultar el paso.
To watch content in high-bandwidth video formats
To use high-bandwidth video formats, you need to adjust the [HDMI Signal Format] settings. Select [Setup] - [HDMI Settings] - [HDMI Signal Format] from the home menu, select the HDMI input to which you want to apply the setting, and select [Enhanced format].

**Notes**
- We recommend using a Premium High Speed HDMI Cable with Ethernet, which can support bandwidths of up to 18 Gbps.
- For details on high-bandwidth video formats and other notes, refer to the Help Guide.

**When connecting a Blu-ray Disc player manufactured by Sony via an HDMI cable**
Set [BD Audio Mix Setting] to [Off] on the Blu-ray Disc player. Otherwise, some high-quality audio codecs may not be reproduced properly. For details, refer to the operation instructions of the Blu-ray Disc player.

**For the content윤로 영상에서 범위를 늘려야 하는 경우**
Pour utiliser des formats audio de bande passante élevée, vous devez ajuster les paramètres [HDMI Signal Format]. Sélectionnez [Setup] - [HDMI Settings] - [HDMI Signal Format] dans le menu d'accueil, sélectionnez l'entrée HDMI à laquelle vous voulez appliquer le paramètre, puis sélectionnez [Enhanced format].

**Remarques**
- Nous recommandons l'utilisation d'un câble HDMI de grande vitesse haute qualité avec Ethernet qui peut prendre en charge les bandes passantes pouvant atteindre 18 Gbits/s.
- Pour des informations détaillées sur les formats audio à haute bande passante et consulter d'autres notes, reportez-vous au Guide d'aide.

**Lorsque vous connectez un lecteur Blu-ray Disc fabriqué par Sony via un câble HDMI**

**Pour le contenu en formats de vidéo de élevé ancho de banda**
Para para utilizar formatos de video de elevado ancho de banda, necesitas hacer los ajustes de [HDMI Signal Format]. Seleccione [Setup] - [HDMI Settings] - [HDMI Signal Format] en el menú de inicio, seleccione la entrada HDMI a la que quiere aplicar el ajuste, y seleccione [Enhanced format].

**Notas**
- Recomendamos utilizar un cable HDMI de alta velocidad de primera calidad con Ethernet que admite ancho de banda de hasta 18 Gbps.
- Para obtener detalles sobre formatos de video de elevado ancho de banda y otras notas, consulte el manual de ayuda.

**Cuando conecta un reproductor de Blu-ray Disc fabricado por Sony a través de un cable HDMI**
Ajuste [Ajuste de audio BD] a [No] en el reproductor de Blu-ray Disc. De lo contrario, algunos codecs de audio de alta calidad puede que no se reproduzcan debidamente. Para más detalles, consulte el manual de instrucciones del reproductor de Blu-ray Disc.
STR-ZA810ES
7.2 ch. Hi-RES Wi-Fi® Network AV Receiver

Enjoy flexible connectivity, powerful configurability and renowned ES quality in this 7.2 channel 4K AV receiver with Dolby Atmos® and DTS:X object-based surround sound. Add in full 4K HDR compatibility and easy IP integration with leading control systems and you have the total package of installation-friendly features and audio/video performance.

Features

7.2 Ch. Of Power
With 100W per channel, the STR-ZA810ES delivers cinema-like surround sound and crystal clear music reproduction (100W @ 8 ohms, 1 kHz, THD 0.9%) For special installations, the amplifier can be configured to support: 2 pairs of speakers either independently (A or B) or simultaneously (A and B), in addition to Bi-Amp fashion.

Supports Dolby Atmos®, and DTS:X® object based surround9,10
You’ll feel like you’re inside the action as the sounds of people, music, and objects move all around you in three-dimensional space.9,10 Can’t fit seven channel surround? Phantom rear surround channels will transform your five channel system into a seven channel system.

4K HDR compatibility
Flexible connectivity with 6 assignable HDMI® inputs and 2 outputs supporting HDR and HDCP 2.2.3 In addition the ZA810ES allows full, native 4K video content pass-through to 4K capable televisions and projectors, and even up-scales high definition movies and TV shows to 4K quality.3

Digital Cinema Auto Calibration EX with speaker relocation technology
D.C.A.C. EX with stereo mic is Sony’s unique auto calibration technology. This technology balances output to closely simulate sound as would be produced by optimally positioned and angled speakers. The results are nothing short of breathtaking, with the entire sound field seamlessly integrated for outstanding surround sound.

Firmware update via network connection1
Perform firmware updates quickly and easily over a network connection1

Built for sound
Every detail from the electronic component selection, to special 2nd generation ES solder, structural/chassis elements, and even screw placement has been scrutinized and tuned in the higher interest of reliably consistent sound performance. The STR-ZA810ES offers improved structural stability for better sound via the analogue signal path. This circuit is located on a glass epoxy board, in order to achieve higher speed and power.

Three DSPs to reduce unwanted electrical noise
Dispersing the load between three DSPs allow the realization of clarity and realistic ambience by reducing noise.
Flexible 2nd zone connectivity and control
Easily expand your audio/video experience beyond the living room with flexible 2nd zone connectivity and control. Complete with dedicated 2nd zone HDMI®, IR repeater, and both amplified and line-level audio connectivity, all audio (including network services, BT connected devices and USB) and video sources connected to the STR-ZA810ES can be independently controlled and output from the Main Zone to a second zone (bedroom or den).

In-Ceiling speaker mode
Developed especially for use with in-ceiling speakers and easily configured during setup, In-Ceiling Speaker Mode virtually relocates the Front and Center in-ceiling speaker sound images to better coincide with the screen. Dialog and music will sound as if coming from the screen instead of the ceiling.

Amazing Hi-Res Audio quality
Enjoy the subtlest nuances of studio-quality sound in higher than CD quality with High-Resolution Audio.7 Passion for music unites every component from signal to speaker so it feels like the artist is performing right in front of you. Supports high bit rate 192k/24-bit WAV/FLAC audio playback, and even native DSD up to 5.6MHz. Additional file formats supported include: MP3, AAC, WMA, WAV 192k, FLAC 192k, ALAC and AIFF. Simply connect the compatible device to the receiver and enjoy.

Advanced on-screen graphical user interface
Easily set-up and control the A/V receiver via intuitive on-screen graphical user interface. Change inputs, adjust settings, and confirm volume levels on-screen.

Dual-band (2.5/5 GHz) Wi-Fi1
Wirelessly connect to your home network and access music stored on: your computer, network storage device, smartphone, or built-in music services13. Also cast music, podcasts and radio from 100+ apps with Chromecast built-in1

Multi-room listening, plus voice control powered by Google Home1
Easily expand and control your music across multiple, compatible speakers in separate rooms with powerful multi-room capability and intuitive SongPal™ Link app functionality4. Also enjoy voice control, powered by Google Home6, that lets you control what music you want-and where-by the sound of your voice.1

Control with your iPhone® or Android™ devices with free Apps3
Download the free SongPal™ and Network Audio Remote apps from iTunes® or the Google™ Play Store and use your iPhone® or Android™ devices with the SongPal™ app to control receiver functionality including volume and input selection24

Standby Audio/Video signal pass-through
Enjoy convenient access to all of your HDMI® connected devices without having to power on the receiver3.

Sony® ES 5-Year Limited Warranty
All ES-Series receivers come with an industry leading 5-year parts and labor warranty, 90-day advanced exchange program, and dedicated toll-free support line staffed by CEDIA-trained product experts. (1-877-619-7669; Monday – Friday 10am – 7pm ET)5
## Specifications

<table>
<thead>
<tr>
<th>Amplifier/Receiver</th>
<th>Audio Features</th>
<th>DCAC Features</th>
<th>Input/Output Others</th>
<th>Output Power</th>
<th>Sound Field</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A/V SYNC</td>
<td></td>
<td></td>
<td>Center</td>
<td>2ch</td>
</tr>
<tr>
<td></td>
<td>Yes (Variable)</td>
<td></td>
<td></td>
<td>100W(8ohms, 1kHz, 1ch, THD 0.9%)</td>
<td>Yes (2ch Stereo)</td>
</tr>
<tr>
<td></td>
<td>A/V Sync Time/Sampling Frequency</td>
<td></td>
<td></td>
<td>Front</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>0-300msec/192kHz</td>
<td></td>
<td></td>
<td>100W + 100W (8ohms, 1kHz, 2ch, THD 0.9%)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Center Speaker Lift Up</td>
<td></td>
<td></td>
<td>Number of amp. channels</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td>7ch</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Digital Legato Linear</td>
<td></td>
<td></td>
<td>Speaker Impedance</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td>6ohms-16ohms</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>DSEE HX</td>
<td></td>
<td></td>
<td>Surround</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Yes (USB/ Home Network/ Bluetooth-RX/ Spotify Connect)</td>
<td></td>
<td></td>
<td>100W + 100W(8ohms, 1kHz, 2ch, THD 0.9%)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>In-Ceiling Speaker Mode</td>
<td></td>
<td></td>
<td>Surround Back</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td>100W + 100W(8ohms, 1kHz, 2ch, THD 0.9%)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>OP processing</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pure Direct</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
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<td>Speaker Selector A/B/A+B/OFF</td>
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<td>Pre Out (Subwoofer)</td>
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<td>Automatic Phase Matching</td>
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<td>Input/Output Others</td>
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<td>100W(8ohms, 1kHz, 1ch, THD 0.9%)</td>
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<td>Speaker Out</td>
<td>Center</td>
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<td>Front A</td>
<td>Yes</td>
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<td>Front High (L/R)/ Surround Back for Common Use</td>
<td>Yes (Height / Surround Back / Front B / Bi-AMP (for Common Use))</td>
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<td>Surround</td>
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<td>Center (Bass/Treble)</td>
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<td>Surround (Bass/Treble)</td>
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<td>HDMI Output supporting: 2 (1:Assignable)</td>
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<td>HDMI Audio Features</td>
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<td>Decoding Formats</td>
<td>Dolby Atmos</td>
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<td>Dolby Dual Mono</td>
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<td>Dolby TruHD/Dolby Digital Plus</td>
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<td>DSD</td>
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<td>DTS / DTS-ES (Matrix6.1 / Discrete6.1)</td>
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<td>BRAVIA® SYNC™ (CEC Control)</td>
<td>Yes (One-Touch Play, System Audio Control, System Power Off)</td>
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<td>4K 60p 4:4:4 Support</td>
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<td>Control Features</td>
<td>CIS IP Control</td>
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<td>IR Repeat (In/Out)</td>
<td>Yes (1/1)</td>
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<td>2nd A</td>
<td>Speaker (Variable) / Line (Variable, Fixed)</td>
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<td>HDMI Zone</td>
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<td>Multi Zone Line Out Level Control (Zone2/Zone3)</td>
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<td>Multi Zone Volume Control (Zone2/Zone3)</td>
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<td>Google Cast</td>
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<td>Mobile Application</td>
<td>SongPal / Video &amp; TV sideview</td>
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<td>Network Player/Renderer</td>
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<td>SongPal Link</td>
<td>Yes (SongPal compatible models with iPod/iPhone/iPad (iPhone 6s Plus iPhone 6s Plus iPhone 6 iPhone 6 iPhone 5s iPhone 5c iPhone 5 iPhone 4s iPod touch (5th and 6th generation)))</td>
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<td>Spotify Connect</td>
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<td>Easy Setup Wizard</td>
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<td>Other</td>
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<td>GUI</td>
<td>YES (Only through HDMI)</td>
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<td>GUI Language</td>
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<td>Customize Features</td>
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<td>Custom Preset (Easy Automation)</td>
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<td>Sleep Timer</td>
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<td>Detachable AC</td>
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<td>Calibration microphone, FM wire antenna, AM loop antenna, AC power cord, Remote control (RMT-AA320U), R03 (size-AAA) batteries, Front cover</td>
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<tr>
<td>FLAC</td>
<td>Yes (Up to 192kHz/24bit 5.1ch)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface</td>
<td>2.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walkman Connectivity</td>
<td>Music/Video/Photo -/-/--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight and Measurements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carton Dimensions (WxHxD mm)</td>
<td>19 x 5/8 x 15 5/8 x 8 inches (496 x 396 x 211 mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receiver Dimension (WxHxD inches)</td>
<td>17 x 6 1/4 x 13 1/8 inches (430 x 156 x 331 mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receiver Weight (pound)</td>
<td>20 lbs. 1 oz. (9.1 kg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross weight</td>
<td>24lb 5oz (11 kg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Wireless connectivity requires an 802.11 home network (802.11n recommended). (broadband)
2. Interoperability and compatibility among Bluetooth® devices vary. (BT)
3. Requires HDMI® cable sold separately. (HDMI-24P)
4. Requires download of SongPal app for iPhone from the App Store or for Android from Google Play. User must link compatible devices in order to control operation. Subject to app terms and conditions.
5. For full terms and conditions please visit www.esupport.sony.com
6. Requires download of Google Home app for iPhone from the App Store or for Android from Google Play. User must link compatible devices in order to control operation. Subject to app terms and conditions. Some features may not be available in all countries.
7. Only compatible with High-Resolution Audio when wired.
8. Requires HDMI® cable, HDR media and HDR capable device sold separately.
9. May require HDMI® cable, Dolby Atmos media and Dolby Atmos capable playback device sold separately.
10. May require HDMI® cable, DTS:X media and DTS:X capable playback device sold separately.

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How to set up the “SongPal” app

“SongPal” is a free dedicated app for smartphones that allows you to enjoy the music content on your audio system or smartphone, by using a wireless BLUETOOTH® connection. Some features of the app are as follows.

- Choose music and control playback on the various music sources in combination with the functions of your audio system and a “SongPal”-ready smartphone.
- Operation of sound settings, power control and other features is easy and intuitive.
- Instantly recognizable content browsing and visually easy-to-use music play features make navigation easier and more enjoyable with your smartphone.

The app is available at both Google Play™ and App Store. Search for “SongPal” and download it to find out about more convenient features.

**On your audio system**

Turn on the system.

Hold down the BLUETOOTH button for 2 seconds or longer to enter pairing mode.

**On your Android™ device**

Download “SongPal” from Google Play and launch it.

Complete the BLUETOOTH connection, following the on-screen instructions.

**On your iPhone or iPod**

Tap “Settings” > “Bluetooth” and turn on the BLUETOOTH function on your iPhone or iPod.

Choose the name of your system and complete the BLUETOOTH connection.

Download “SongPal” from the App Store and launch it.

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Android and Google Play are trademarks of Google Inc.

iPhone and iPod are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc.

All other trademarks are trademarks of their respective owners.
Before connecting speakers/ Avant de raccorder des enceintes/ Antes de conectar los altavoces/ Vor dem Anschließen der Lautsprecher

- Check that the speaker impedance is within the rated impedance range indicated on the back panel of the receiver (or amplifier).

Verifizieren Sie sicher, dass die Impedanz der Lautsprecher im Nennimpedanzbereich liegt, der auf der Rückseite des Receivers (oder Verstärkers) angegeben ist.

- Be sure to disconnect the AC power cord (main lead) of the receiver (or amplifier).

Veillez à débrancher le cordon d'alimentation secteur de l'ampli-tuner (ou amplificateur).

- Do not connect two speaker cables to lengthen its length.

Ne raccordez pas deux cordons d'enceinte pour les rallonger. / No conecte dos cables de altavoz para obtener uno más largo. / Schließen Sie nicht zwei Lautsprecherkabel aneinander, um sie zu verlängern.

- Note on connecting speaker cables/ Remarque sur le raccordement des cordons d'enceinte/ Nota sobre la conexión de los cables de altavoz/ Hinweis zum Anschließen von Lautsprecherkabeln

Make sure that the speaker cables are properly connected to the speaker and receiver (or amplifier) terminals. Otherwise, the receiver (or amplifier) may be fatally damaged.

Asegúrese de que los cables de los altavoces estén correctamente conectados a los terminales del altavoz y receptor (o amplificador). De lo contrario, el receptor (o amplificador) puede resultar gravemente dañado.

- Do not connect multiple speakers to one speaker terminal.

Ne raccordez pas plusieurs enceintes à une borne d'enceinte. / No conecte varios altavoces a un terminal de altavoz. / Schließen Sie nicht mehrere Lautsprecher an einen Lautsprecheranschluss an.

Note on placing receiver (or amplifier)/ Remarque sur le positionnement de l’ampli-tuner (ou amplificateur)/ Nota sobre la colocación del receptor (o amplificador)/ Hinweis zum Aufstellen des Receivers (oder Verstärkers)

- Do not place anything on top of the cabinet that might block the ventilation holes and cause malfunction.

Ne placez rien au-dessus du boîtier qui puisse obstruer les orifices d'aération et provoquer des anomalies.

- No coloque encima de la carcasa ningún objeto que pueda bloquear los orificios de ventilación y provocar problemas de funcionamiento.

- Stellen Sie keine Gegenstände auf das Gehäuse, welche die Lüftungsöffnungen blockieren und Funktionsstörungen verursachen könnten.

If “PROTECTOR” or “PROTECT” appears on the display panel/ Si « PROTECTOR » ou « PROTECT » apparaît sur le panneau de l'afficheur/ Si “PROTECTOR” o “PROTECT” aparece en el visor/ Wenn ”PROTECTOR” oder „PROTECT” im Bedienfeld-Display eingeblendet wird

The protector function is activated. The receiver (or amplifier) will automatically turn off after a few seconds. For details on how to deal with this problem, refer to “Error messages” in “Troubleshooting” in the supplied operating instructions.

La fonction du protecteur est activée. L'ampli-tuner (ou amplificateur) s'éteindra automatiquement après quelques secondes. Pour plus d'informations sur la résolution de ce problème, reportez-vous aux « Messages d'erreur » dans la section « Dépannage » du mode d'emploi fourni.

La función del protector está activada. El receptor (o amplificador) se apagará automáticamente al cabo de unos segundos. Para obtener detalles sobre cómo solucionar este problema, consulte "Mensajes de error" en el apartado "Solución de problemas" del manual de instrucciones suministrado.

Die Schutzfunktion ist aktiviert. Der Receiver (oder Verstärker) schaltet sich nach wenigen Sekunden automatisch aus. Informationen zum Umgang mit diesem Problem finden Sie in der mitgelieferten Bedienungsanleitung im Kapitel „Störungsbehebung“ unter „Fehlermeldungen“. 
Thank you for purchasing this Sony product. Proper registration will enable us to send you periodic mailings about new products and other important announcements. Registering your product will also allow us to contact you in the unlikely event that it will need adjustment or modification. Please take the time to register your new product at our website:

http://www.sony.com/productregistration

You will find the product serial number on the main unit and the carton box.

If you have any operational questions regarding your new purchase, please contact your retailer. For the location of a Sony dealer in your area, or for any other questions, please call 1-800-222-SONY (7669).

Thank you.
Garantie limitée
É.-U. et Canada uniquement – 5 ans

Sony Electronics Inc. exclusivement pour les achats effectués aux États-Unis et Sony du Canada Ltd. exclusivement pour les achats effectués au Canada (collectivement « Sony ») garanti ce produit contre les défauts de matériaux ou de fabrication pour le propriétaire d’origine et tous les propriétaires ultérieurs utilisateurs (« Vous » ou « Vous ») pendant la période définie ci-dessus et comme indiqué dans les présentes. Contrairement à cette garantie limitée, Sony, à son gré, peut réparer le produit en utilisant des pièces neuves ou remises en état ou (ii) remplacer le produit par un produit neuf ou remis en état de même modèle (ou similaire). Aux fins de la présente Garantie limitée, les termes « réparé » ou « remis en état » désignent un produit ou une pièce qui a retrouvé ses spécifications en cas de défaut, ce sont vos recours exclusifs. Sony ne garantit pas le fonctionnement ininterrompu ou sans erreur du produit.

Modalité : Pendant la période définie ci-dessus à compter de la date d’achat du produit directement chez Sony ou un vendeur autorisé Sony (pour déterminer si un vendeur fait partie du réseau de vendeurs autorisés, contactez votre vendeur local ou visitez le site Web de Sony au Canada à https://www.sony.ca/support ou au U.S. à https://www.sony.com/support ou contactez Sony directement), Sony, à son gré, réparera ou remplacera par un produit ou une pièce remise en état ou remis en état en état tout produit ou pièce défaillant(e).

Cette garantie limitée couvre uniquement les composants matériels embarqués avec le produit. Elle ne couvre pas les accessoires séparés, l’assistance technique pour l’utilisation du matériel ou du logiciel et elle ne couvre pas les produits logiciels contenus ou non dans le produit, et tout autre contenu inclus; tout logiciel ou autre contenu inclus est fourni « EN L’ÉTAT » sauf indication contraire de Sony (à la suite de défauts de matériels de fabrication de Sony ou de fournisseurs de Sony autorisés). Veuillez vous reporter à la Licence d’utilisation du logiciel de l’utilisateur final inclus avec le produit pour connaître vos droits et obligations en ce qui concerne le logiciel ou tout autre contenu inclus. Si vous avez acheté un plan de services étendus, veuillez vous reporter au plan de services pour connaître l’étendue de la couverture, la durée et les conditions d’utilisation. Les plans de services étendus ne sont pas régis par cette Garantie limitée.

Pour obtenir un service de garantie, vous devez livrer le produit, dans son emballage d’origine ou un emballage offrant un niveau de protection équivalent, à un centre de service autorisé Sony accompagné du reçu d’achat daté afin l’accéder au service de garantie. Sony n’est pas en mesure de garantir la réparation d’un produit au titre de ladite garantie ou l’échange d’un produit sans risque d’altérer le logiciel ou de perdre des données. Il relève de votre responsabilité de retirer ou sauvegarder tout média ou toute pièce amovible, toutes données, logiciel ou autre matériel stocké ou conservé sur votre produit. Il est probable que tout média ou toute pièce, toutes données, tout logiciel ou autre matériel (comme des images, de la musique, des vidéos, etc.) soit perdu ou reformaté pendant le service et Sony ne pourra être tenu responsable du dommage de la perte de données, d’altérer le logiciel ou de perdre des données. Vous êtes tenu de rembourser Sony des frais et dépenses encourus par Sony dans cet objet.

Les pièces de rechange d’origine ou remises en état, remises en état par Sony ou un vendeur autorisé Sony (y compris les pièces remises en état en lieu et place de pièces de rechange), ou les dommages causés par : (i) une exposition extérieure et d’autres actes de la nature; (ii) les surintensités ou les accidents; (iii) l’utilisation de produits d’entretien non autorisés; (iv) le manque d’entretien régulier; (v) le contact avec un liquide, la chaleur, l’humidité ou le sable, la fumée ou des matériaux étrangers; (vi) l’utilisation de pièces ou d’accessoires non vendus ou autorisés par Sony; (vii) l’exactitude ou le non-exécution; (viii) l’utilisation de centre de service non autorisé; (ix) les virus informatiques ou circulant sur Internet, les logiciels, les victime, les chevaux ou les chevaux de Troie; (x) les dysfonctionnements dus à des périphériques/accessoires; (xx) les modifications apportées à une pièce du produit, incluant l’enlacement ou toute autre modification visant à contrôler le comportement du produit ou tout système d’exploitation installé à l’usine; (xxi) les consommables comme les batteries; ou (xxii) tout produit dont le numéro de série appliqué à l’usine a été altéré ou retiré du produit. En outre, dans la mesure où le produit requiert l’utilisation d’un écran, veuillez noter qu’un écran contient des centaines de milliers de pixels individuels, et les écrans contiennent généralement un petit nombre de pixels qui ne fonctionnent pas correctement. Ladite Garantie limitée ne couvre pas les défauts de pixels à hauteur de 0.01 % (petits éléments d’image sous forme de points sombres ou clair éclairs).

Ladite Garantie limitée ne couvre pas les défauts produits Sony vendus « EN L’ÉTAT » ou « AVEC DÉFAUTS » ou les consommables (comme les fusibles ou les piles jetables). Sony ne remplace pas les composants manquants d’un emballage acclamé comme « Boîte ouverte » ou « EN L’ÉTAT ». L’adéquation du produit est vérifiée uniquement aux États-Unis et au Canada (selon le cas). Les dommages provoqués par le non-respect du propriétaire de l’usage ; (xiii) l’usine ; (xv) la personne manquante d’un composant manquant d’un écran, veuillez veiller à ce que l’écran contienne des centaines de milliers de pixels individuels, et les écrans contiennent généralement un petit nombre de pixels qui ne fonctionnent pas correctement. L’autre partie peut participer en tant que partie ou membre du recours à la résolution des litiges devant un tribunal. Vous acceptez également que toute procédure de règlement des différends considérera uniquement vos revendications individuelles, et les deux parties acceptent de faire un arbitrage confidentiel avec une médiation d’un recours collectif ou un recours du procureur général. Malgré les indications ci-dessous, vous avez le droit d’intenter une action en justice de manière individuelle auprès du Sony ou le forum approprié. L’arbitrage aura lieu dans le pays et l’état du produit ou sur le produit que le montant en question n’exclut pas 15 000 $, et aussi longtemps que la dite Cour soit compétente et que toutes les autres exigences (incluant le montant en litige) soient satisfaits.

Consignes d’arbitrage : Pour commencer l’arbitrage, vous ou Sony peuvent faire une demande d’arbitrage écrite à l’autre partie. L’arbitrage aura lieu dans un seul arbitre. L’arbitrage sera géré en suivant les Procédures accélérées de règlement des différends et les Procédures additives (les « Règles ») de l’association américaine d’arbitrage (« AAA ») pour les différends de consommateur, si elles sont applicables et acceptées au moment où la réclamation est traitée. Vous pouvez demander un copie des Règles de l’AAA en contactant l’AAA au (800) 778-7879 ou en visitant le site Web www.adr.org. Les droits de dépôt pour commencer l’arbitrage sont payables en cas de connaître et vous, mais vos frais ne devront pas en aucun cas excéder le montant permis par les règles spécifiques de l’AAA pour les Différends de consommateur, après quoi Sony couvrira tous les frais administratifs et dépenses additionnels. Ce paragraphe n’interdit pas de participer à la résolution des différends entre les consommateurs qui ont été convenus ou qui ont été conformément à la loi de l’état dans lequel ils se trouvent. Finalement, Sony accepte la résolution des différends entre la Cour de commerce limitée ou une concurrence à l’arbitrage limitée, dans le cas où ou celle de l’état de l’État applicable régir la final du différend en arbitrage. Cependant, la Loi sur l’arbitrage fédéral 9 U.S.C. § 1, et seq., régira l’arbitrage et non une quelconque loi d’état sur l’arbitrage. La décision de l’arbitre sera obligatoire et définitive, sauf dans le cadre d’un appel limité conformément à la Loi sur l’arbitrage.

Consignes d’exclusion : Si vous ne souhaitez pas être contraint par la clause d’arbitrage obligatoire, alors : (1) Vous devez en informer Sony par écrit dans les 30 jours à compter de la date d’achat du produit. (2) Votre notification écrite doit être envoyée par courrier à Sony Electronics Inc., 16535 Via Espriilo, MZ 1105, San Diego, California 92127. (3) La notification doit être postée à la date de réception, (d) une déclaration claire stipulant que « vous ne souhaitez pas résoudre les différends avec une entité Sony Electronics à travers l’arbitrage et/ou être contraint par la renonciation à initier ou participer à un recours collectif ». Décider de ne pas adhérer à cette procédure de résolution des différends n’affectera en aucun cas la couverture de la Garantie limitée et vous continuerez à bénéficier des avantages de la garantie limitée.
LIMITED WARRANTY

U.S. and Canada only – 5 years

Sony Electronics Inc. solely for purchases made in the United States and Sony of Canada Ltd. solely for purchases made in Canada (collectively “Sony”) warrants this product against defects in material or workmanship for the original owner and any subsequent end user owner(s) (“You” or “Your”) for the time period set forth above as set forth herein. Pursuant to the terms of this Limited Warranty, Sony will, at its option, (i) repair the product with new or refurbished parts, (ii) replace the product with a new or refurbished product of the same (or similar) model. For purposes of this Limited Warranty, “renewed” or “refurbished” means a product or part that has been returned to its original specifications. In the event of a defect, these are Your exclusive remedies. Sony does not warrant that the operation of the product will be uninterrupted or error-free.

Term: For the time period set forth above from the original date of purchase of the product when purchased directly from Sony or Sony authorized dealer (To determine if a dealer is in the Sony authorized dealer network, please visit US: www.sony.com/retailers; Canada: https://dealerlocator.sony.ca/locator; or contact Sony directly). Sony will, at its option, repair or replace with a new, recertified or refurbished product or part, any product or part determined to be defective.

This Limited Warranty covers only the hardware components packaged with the product. It does not cover separate accessories, technical assistance for hardware or software usage and it does not cover any software products whether or not contained in the product, and other included content; any such software or other included content is provided “AS IS” unless expressly provided for in any enclosed software Limited Warranty or End User License Agreement. Please refer to the End User License Agreement(s) included with the product for Your rights and obligations with respect to the software or other included content. If You purchased an extended service plan, please refer to the service plan for the coverage, duration and terms of service. Extended service plans are not governed by this Limited Warranty.

To obtain warranty service, You must deliver the product, in either its original packaging or packaging affording an equal degree of protection to a Sony authorized service center together with a dated purchase receipt in order to obtain warranty service. Sony cannot guarantee that it will be able to repair any product under this warranty or make a product exchange without risk to or loss of software or data. It is Your responsibility to remove or backup any removable media or parts, data, software or other materials You may have stored or preserved on Your product. It is likely that any media or parts, data, software, or other materials (like pictures, music, videos, etc.) will be lost or reformatted during service and Sony will not be responsible for any such damage or loss. Contact the following for specific instructions on how to obtain warranty service for Your product:

For purchases made in the UNITED STATES:
Visit Sony’s Website: www.sony.com/support
Or call the Customer Experience Center: 1-800-222-SONY (7669)
To register Your product or for contact information to purchase accessories or parts go to Sony’s Website

For purchases made in CANADA:
Visit Sony’s Website: www.sony.ca/support
Or call the Customer Experience Center: 1-877-899-SONY (7669)
To register Your product or for contact information to purchase accessories or parts go to Sony’s Website

On-site service for televisions of certain dimensions may be available to a customer living within a 50km radius of an authorized Sony service facility, provided the residence can be accessed by an on-road service vehicle.

Repair/Replacement Warranty: This Limited Warranty shall apply to any repair, replacement part or replacement, recertified or refurbished product for the remainder of the original Limited Warranty period or for ninety (90) days, whichever is longer. Any parts or product replaced under this Limited Warranty will become the property of Sony. Any replacement, recertified or refurbished product provided under this Limited Warranty may, at Sony’s option, vary in color and/or cosmetic design from the original product and may not include any original engraving or similar customization/personalization.

Sony is not responsible for, and this Limited Warranty does not cover, any damage arising from a failure to operate the product within its intended uses, or otherwise follow the owner's manual and safety instructions relating to the products use and installation. This Limited Warranty only covers product issues caused by defects in material or workmanship during ordinary consumer use. This Limited Warranty does not cover products purchased from sources other than Sony or a Sony authorized dealer (including non-authorized online auctions), or issues due to: (i) outdoor exposure and other acts of nature; (ii) power surges; (iii) accidental damage; (iv) abuse; (v) limitations of technology; (vi) cosmetic damage; (vii) contact with liquid, heat, humidity or perspiration, sand, smoke, or foreign materials; (viii) use of parts or supplies not sold or authorized by Sony; (ix) servicing not authorized or performed by Sony or a Sony authorized service center; (x) computer or internet viruses, bugs, worms, or Trojan Horses; (xi) malfunctions due to peripherals/accessories; (xii) modifications of or to any part of the product, including "rooting" or other modifications to control the behavior of the product or any factory installed operating system; (xiii) consumable parts such as batteries; or (xiv) any product where the factory-applied serial number has been altered or removed from the product. Further, to the extent this product incorporates use of a display, please note that a display contains hundreds of thousands of individual pixels, and displays typically contain a small number of pixels that do not function properly. This Limited Warranty does not cover missing components from any package purchased "Open Box" or "AS IS". This Limited Warranty is valid only in the United States and Canada (as applicable).

LIMITATION ON DAMAGES: SONY SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY OR CONDITION ON THIS PRODUCT, NOR SHALL RECOVERY OF ANY KIND AGAINST SONY BE GREATER THAN THE ORIGINAL PURCHASE PRICE OF THE PRODUCT FROM SONY OR AN AUTHORIZED SONY DEALER.

DURATION OF IMPLIED WARRANTIES OR CONDITIONS: EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY.

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to You. This Limited Warranty gives You specific legal rights and You may have other rights which vary from jurisdiction to jurisdiction.

For purchases made in the U.S.: Read the following Dispute Resolution/Arbitration provision carefully. It details Your rights and instructions should a dispute related to the product arise.

What Happens If We Have A Dispute: Should a dispute or claim arise related to the product, Your purchase and/or use of the product, the terms of this Limited Warranty or any service provided under the terms of this Limited Warranty (including any repair or replacement) (“Dispute”), You and Sony agree that the Dispute shall be resolved exclusively through binding arbitration, YOU UNDERSTAND AND ACKNOWLEDGE THAT BY AGREEING TO ARBITRATION, YOU ARE GIVING UP THE RIGHT TO LITIGATE (OR PARTICIPATE IN AS A PARTY OR CLASS MEMBER) IN ANY DISPUTES IN COURT. You also agree that ANY DISPUTE RESOLUTION PROCEEDING WILL ONLY CONSIDER YOUR INDIVIDUAL CLAIMS, AND BOTH PARTIES AGREE NOT TO HAVE ANY DISPUTE HEARD AS A CLASS ACTION, REPRESENTATIVE ACTION, CONSOLIDATED ACTION, OR PRIVATE ATTORNEY GENERAL ACTION. Despite the above, You have the right to litigate any Dispute on an individual basis in small claims court or other similar court of limited jurisdiction, to the extent the amount of issue does not exceed $15,000, and as long as such court has proper jurisdiction and all other requirements (including the amount in controversy) are satisfied.

Arbitration Instructions. To begin Arbitration, either You or Sony must make a written demand to the other for arbitration. The Arbitration will take place before a single arbitrator. The arbitration will be administered in keeping with the Expedited Procedures of the Commercial Arbitration Rules and the Supplementary Proceedings for Consumer Related Disputes ("Rules") of the American Arbitration Association ("AAA") and as long as such court has proper jurisdiction and all other requirements (including the amount in controversy) are satisfied. In all such cases, you may have a copy of AAA’s Rules by contacting AAA at (800) 778-7879 or visiting www.adr.org. The filing fees to begin and carry out arbitration will be shared between You and Sony, but in no event shall You ever exceed the amount allowed by the special rules for Consumers Disputes provided for by AAA, at which point Sony will cover all additional administrative fees and expenses. In the event when the claim is filed, You may get a copy of AAA’s Rules by contacting AAA at (800) 778-7879 or visiting www.adr.org. You must mail your written notification to the AAA and include in it: (a) your name, (b) your address, (c) the date You purchased the product, and (d) a clear statement that "YOU DO NOT WISH TO RESOLVE DISPUTES WITH ANY SONY ELECTRONICS ENTITY THROUGH ARBITRATION AND/OR BE BOUND BY THE CLASS ACTION WAIVER." Opting out of this dispute resolution procedure will not affect the coverage of the Limited Warranty in any way, and You will continue to enjoy the benefits of the Limited Warranty.

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