

SONY[®]

Stereo Receiver

Operating Instructions

Connection and Preparation

Playback

Tuner

Menu/Other Functions

Troubleshooting/
Specifications

For the customers in the USA

Owner's Record

The model and serial numbers are located on the rear of the receiver. 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-DH190

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.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

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.

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.

CAUTION

Risk of explosion if the battery is replaced by an incorrect type.

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



CAUTION HOT SURFACE

To reduce the risk of thermal burn hazard, do not touch the hot surface where this symbol is displayed.

FOR UNITED STATES CUSTOMERS. NOT APPLICABLE IN CANADA, INCLUDING IN THE PROVINCE OF QUEBEC.

POUR LES CONSOMMATEURS AUX ÉTATS-UNIS. NON APPLICABLE AU CANADA, Y COMPRIS LA PROVINCE DE QUÉBEC.

For the customers in the USA



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.

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.

To reduce the risk of electric shock, the speaker cable 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 cable.
- 3) Connect the speaker cable to the apparatus and the speakers carefully so as not to touch the core of speaker cable by hand. Also disconnect the AC power cord from the MAINS before disconnecting the speaker cable from the apparatus and the speakers.

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

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 licence-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.

For the customers in the USA and Canada

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and 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.

For the customers in Australia



Disposal of old electrical & electronic equipment (applicable in the European Union and other countries with separate collection systems)

For the customers in Europe



Disposal of waste batteries and electrical and electronic equipment (applicable in the European Union and other countries with separate collection systems)

This symbol on the product, the battery or on the packaging indicates that the product and the battery shall not be treated as household waste. On certain batteries this symbol might be used in combination with a chemical symbol. The chemical symbol for lead (Pb) is added if the battery contains more than 0.004% lead. By ensuring that these products and batteries are disposed of correctly, you will help to prevent potentially negative consequences for the environment and human health which could be caused by inappropriate waste handling. The recycling of the materials will help to conserve natural resources. In case of products that for safety, performance or data integrity reasons require a permanent connection with an incorporated battery, this battery should be replaced by qualified service staff only. To ensure that the battery and the electrical and electronic equipment will be treated properly, hand over these products at end-of-life to the appropriate collection point for the recycling of electrical and electronic equipment. For all other batteries, please view the section on how to remove the battery from the product safely. Hand the battery over to the appropriate collection point for the recycling of waste batteries. For more detailed information about recycling of this product or battery, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product or battery.

Notice for customers: the following information is only applicable to equipment sold in countries applying EU directives and/or UK applying relevant statutory requirements

This product has been manufactured by or on behalf of Sony Corporation.
EU and UK Importer: Sony Europe B.V.

Inquiries to the EU Importer or related to product compliance in Europe should be sent to the manufacturer's authorized representative, Sony Belgium, bijkantoor van Sony Europe B.V., Davincilaan 7-D1, 1930 Zaventem, Belgium.

Inquiries to the UK Importer or related to product compliance in the UK should be sent to the manufacturer's authorized representative, Sony Europe B.V., The Heights, Brooklands, Weybridge, Surrey KT13 0XW, United Kingdom.

Hereby, Sony Corporation declares that this equipment is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:
<https://compliance.sony.eu>

Hereby, Sony Corporation declares that this equipment is in compliance with the UK relevant statutory requirements.

The full text of the declaration of conformity is available at the following internet address:
<https://compliance.sony.co.uk>



This radio equipment is intended to be used with the approved version(s) of software that are indicated in the Declaration of Conformity. The software loaded on this radio equipment is verified to comply with the essential requirements of the Radio Equipment Regulations.

You can check the software version by pressing AMP MENU, then select "VERSION" using $\blacktriangle/\blacktriangledown$ and \oplus .

This Stereo Receiver is intended for sound playback from connected devices, music streaming from a BLUETOOTH® device, and FM tuner.

This equipment has been tested and found to comply with the limits set out in the EMC regulation using a connection cable shorter than 3 meters.

Excessive sound pressure from earphones and headphones can cause hearing loss.

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Menu/Other Functions

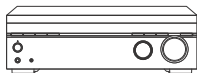
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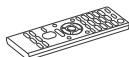
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Supplied Items

- Receiver (1)



- Remote control (1)



- R03 (size AAA) batteries (2)



- FM wire antenna (aerial) (1)



- Startup Guide (1)



Explains how to connect the stereo speaker system, connect devices and listen to connected devices.

- Operating Instructions (this booklet) (1)



About manuals provided for this product

- Some illustrations are presented as conceptual drawings, and may be different from the actual products.
- The manuals provided for this product mainly describe the procedures for using the remote control. You can also use the controls on the receiver if they have the same or similar names as those on the remote control.

Main Features of the Receiver

Compatible with BLUETOOTH® wireless technology

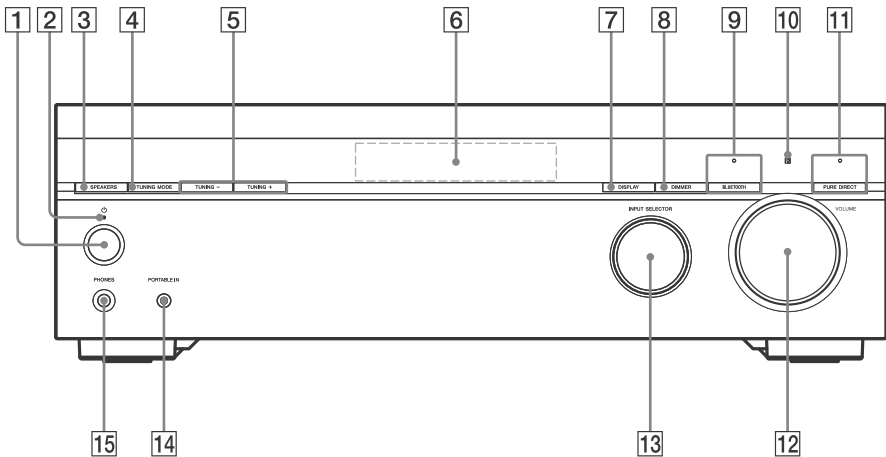
- Connect a WALKMAN®, smartphone, or tablet to the receiver via the BLUETOOTH function to play music content on those devices wirelessly (page 22).
- You can turn on this receiver from a paired BLUETOOTH device even when the receiver is in standby mode (page 28).

Equipped with PHONO IN jacks

You can enjoy high quality sound of a turntable by connecting it to the receiver (page 16).

Parts and Controls

Receiver front panel



1 (power)

Turns the receiver on or sets it to the standby mode.

2 Power indicator

- **Green:** The receiver is turned on.
- **Red:** The receiver is in standby mode, and you have set "BT STBY" to "STBY ON".*
- **The indicator goes off:** The receiver is in standby mode, and you have set "BT STBY" to "STBY OFF".

* The indicator lights up in red only if a device has been paired with the receiver and "BT POWER" is set to "BT ON". If no devices are paired with the receiver or "BT POWER" is set to "BT OFF", the indicator turns off.

3 SPEAKERS (page 20)

Switches the speaker system.

Note

No sound is output from the speakers when you select "OFF SPEAKERS". Be sure to select setting other than "OFF SPEAKERS".

4 TUNING MODE (page 25, 26)

5 TUNING +/- (page 25, 26)

6 Display panel (page 9)

7 DISPLAY (page 31)

8 DIMMER

Adjusts the brightness of the display panel.

9 BLUETOOTH

Switches the input of the receiver to "BLUETOOTH" and automatically connects to the last connected device. Sets the receiver to pairing mode when there is no pairing information on the receiver.

Disconnects the BLUETOOTH device when the receiver is connected to a BLUETOOTH device.

BLUETOOTH indicator (page 22)

10 Remote control sensor

Receives signals from remote control.

11 PURE DIRECT (page 30)

The indicator above the button lights up when the Pure Direct function is activated.

12 VOLUME (page 22)

13 INPUT SELECTOR

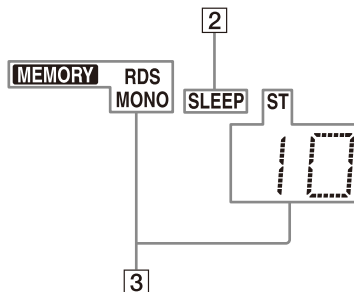
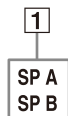
Selects the input channel connected to the device you want to use.

14 PORTABLE IN jack (page 17)

15 PHONES jack

Connect headphones here.

Indicators on the display panel



1 Speaker system indicator (page 20)

Note

These indicators do not light up if the speaker output is turned off or if headphones are connected.

2 SLEEP

Lights up when the sleep timer is activated.

3 Tuning indicator

Lights up when the receiver tunes to a radio station.

MEMORY

A memory function, such as Preset Memory (page 26), etc., is activated.

RDS (European and Asia-Pacific models only)

Tuned to a station with RDS services.

MONO

Monaural broadcast

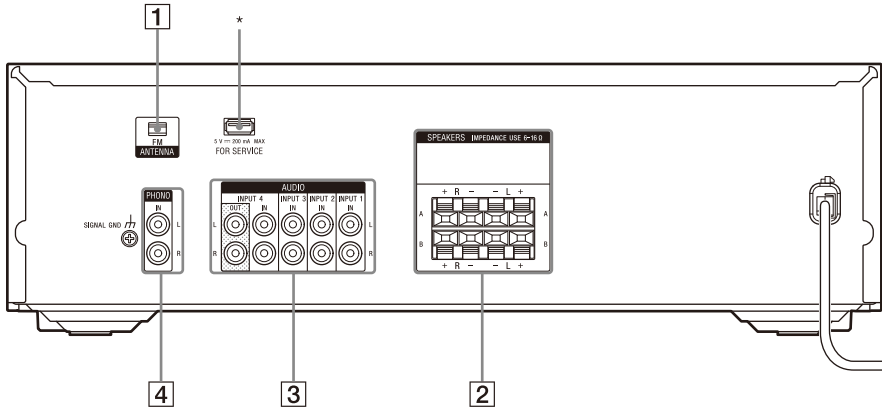
ST

FM stereo broadcast



Preset station number (The number will change according to the preset station you select.)

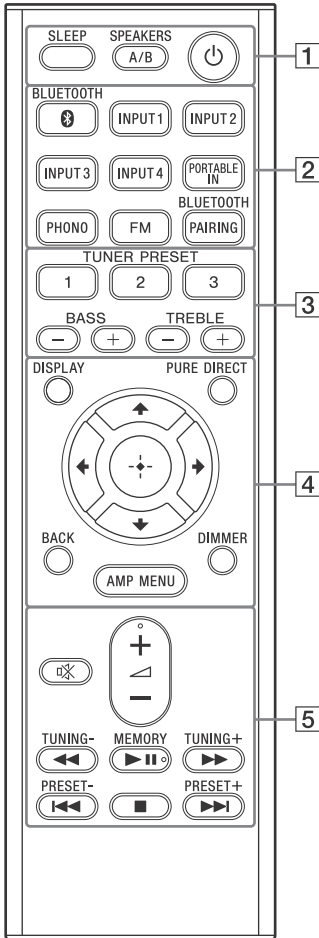
Receiver rear panel



- 1** FM ANTENNA terminal (page 19)
- 2** SPEAKERS terminals (page 14, 15)
- 3** AUDIO IN/OUT jacks (page 16, 18)
Audio input and output jacks.
- 4** PHONO IN jacks (page 16)
For connecting a turntable.

* For service purpose only.

Remote control



1 (power) (page 19)

Turns the receiver on or sets it to the standby mode.

SLEEP

Sets the receiver to turn off automatically at a specified time. Each time you press this button, the display changes cyclically as follows.

0-30-00 → 1-00-00 → 1-30-00 → 2-00-00 → OFF

When Sleep Timer is being used, "SLEEP" indicator lights up on the display panel.

Tip

- To check the remaining time before the receiver turns off, press SLEEP. The remaining time appears on the display panel.
- The Sleep Timer will be canceled when you perform the following.
 - Press SLEEP again.
 - Press (power).

SPEAKERS A/B (page 20)

Switches the speaker system. Each time you press this button, the display changes cyclically as follows.

SPK A → SPK B → SPK A+B → OFF SPEAKERS*

* "OFF" and "SPEAKERS" appears alternately on the display panel.

Note

No sound is output from the speakers when you select "OFF SPEAKERS". Be sure to select setting other than "OFF SPEAKERS".

2 Input buttons

BLUETOOTH, INPUT 1, INPUT 2, INPUT 3, INPUT 4, PORTABLE IN, PHONO, FM

Selects the input channel connected to the device you want to use. When you press any of the input buttons, the receiver turns on.

Note

When you press BLUETOOTH, the receiver turns on only if "BT POWER" is set to "BT ON" (page 29).

BLUETOOTH PAIRING (page 23)

Switches the input of the receiver to "BLUETOOTH" and sets the receiver to the pairing mode.

3 TUNER PRESET 1, 2, 3 (page 26)

Selects preset station 1, 2, or 3. When you press any of these buttons, the receiver turns on and tunes to the selected preset station.

BASS +/- (page 21)

TREBLE +/- (page 21)

4 DISPLAY (page 31)

PURE DIRECT (page 30)

Activates the Pure Direct function which allows you to enjoy higher-fidelity sound from all inputs.

⊕ (enter), ↕/↔/↔/↔

Press ↕, ↔, ↔, ↔ to select the menu items. Then, press ⊕ to enter the selection.

BACK

Returns to the previous menu.

DIMMER

Adjusts the brightness of the display panel.

AMP MENU

Displays the menu on the display panel to operate the receiver.

5 M (muting)

Turns off the sound temporarily. Press the button again to restore the sound.

◀ (volume) +/-

Adjusts the volume level of all speakers at the same time.

◀◀/▶▶ (fast rewind/fast forward), ▶▶ (play/pause)*,

◀◀/▶▶ (previous/next),

■ (stop)

Search, play, pause, skip, stop operation.

TUNING +/-

Scans a FM station.

PRESET +/-

Selects preset stations or channels.

MEMORY*

Stores a station that you are receiving as a preset station.

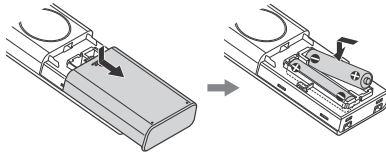
* The ◀, ▶, and MEMORY buttons have tactile dots. Use the tactile dots as reference when operating the receiver.

Note

- The above explanation is intended to serve as examples.
- Depending on the model of your connected device, some functions explained in this section may not work with the supplied remote control.

To insert batteries into the remote control

Insert two R03 (size AAA) batteries (supplied) in the remote control. Make sure that the + and - ends are in the correct position when installing batteries.



Note

- Do not leave the remote control in an extremely hot or humid place.
- Do not use a new battery with an old one.
- Do not mix manganese batteries and other kinds of batteries.
- We recommend that you use AAA manganese batteries.
- Do not expose the remote control sensor on the front panel of the receiver to direct sunlight or lights. Doing so may cause a malfunction.
- If you do not intend to use the remote control for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.
- When the receiver no longer responds to the remote control, replace both of the batteries with new ones.

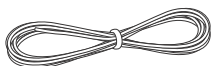
1: Preparing Necessary Items

Supplied items

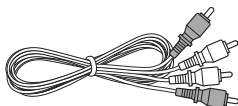
Make sure that you have all the items listed in "Supplied Items" (page 7).

Cables required for connection (not supplied)

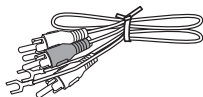
- a Speaker cables



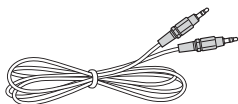
- b Stereo audio cables*



- c PHONO cables with grounding wires*



- d 3.5 mm Stereo audio cable*



* Not required depending on the connection configuration.

2: Setting/Connecting Speakers

Set up and connect the speakers according to the number of speakers that you are using. This manual describes the installation, connections, and setting procedures using the stereo speaker system with A/B speakers as an example.

Note

- Connect speakers with a nominal impedance of 6 ohms to 16 ohms.
- When you connect all the speakers with a nominal impedance of 8 ohms or higher, set "SP IMP." to "8 OHM". In other connections, set it to "6 OHM". For details, see "6: Setting the Speakers" (page 20).
- Before connecting cables, be sure to disconnect the AC power cord (mains lead).
- Before connecting the AC power cord (mains lead), make sure that metallic wires of the speaker cables are not touching each other between the SPEAKERS terminals or on the receiver rear panel. If the wires are touching, it may result in damage to the amplifier circuit.

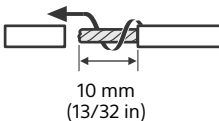
How to connect speaker cables

Connect speaker cables with the polarities + (red)/- (black) matched between the receiver and the speakers as illustrated below.



Strip the jacket to 10 mm (13/32 in) at each end of the speaker cables, and then tightly twist the speaker wire strands. Insert the stripped ends of the cables into the terminals as illustrated below.

①



②



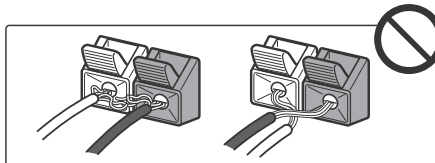
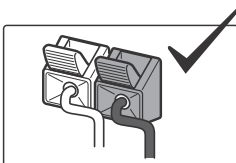
③

④



Note

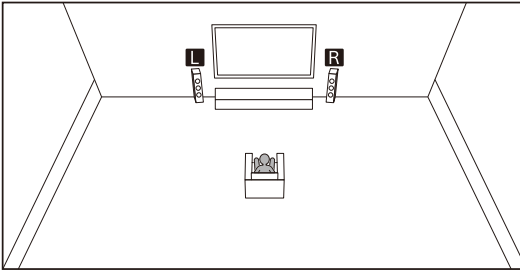
- Be sure not to remove too much of the speaker cable sleeves, so as to prevent the wires of the speaker cables from touching each other.
- Improper connection may result in fatal damage to the receiver.



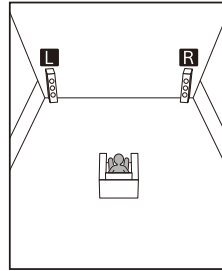
Stereo speaker system with A/B speakers

You can also enjoy the audio in another location by connecting additional B speakers.

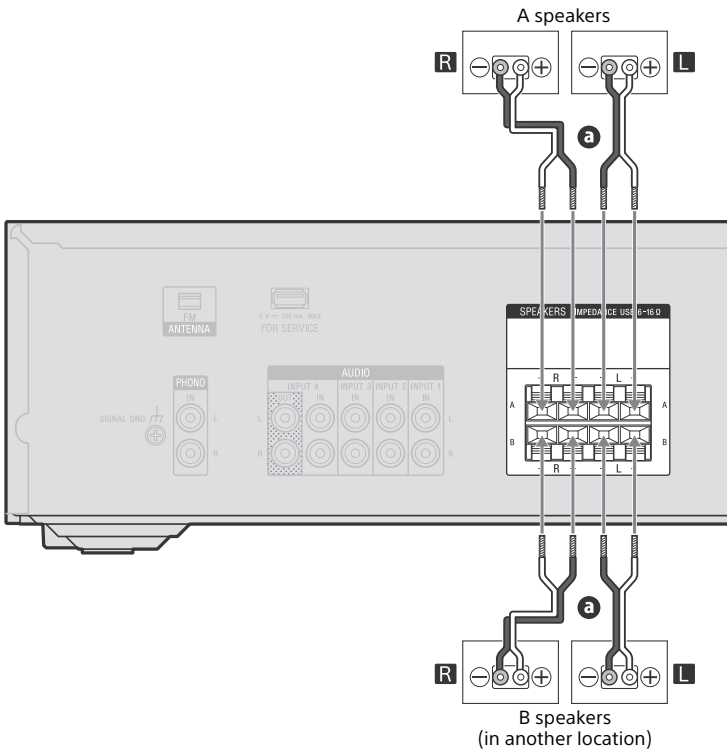
Room with the receiver installed



Another location



L : Left speaker
R : Right speaker



a Speaker cable (not supplied)

Note

If you connect additional B speakers, you can select the speakers you want to use with the SPEAKERS A/B button (page 20). No sound is output from the speakers when you select "OFF SPEAKERS". Be sure to select setting other than "OFF SPEAKERS".

3: Connecting Audio-Visual Devices

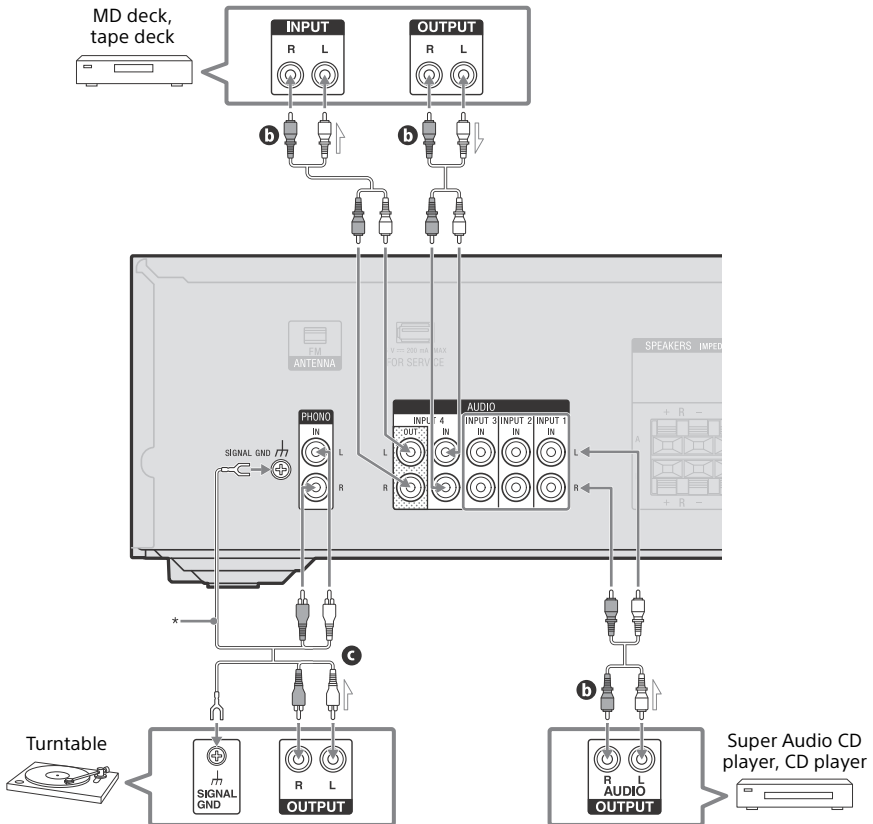
Note

Be sure to make cable connections before connecting the AC power cord (mains lead).

Tip

- You can connect devices other than those indicated below to the AUDIO IN/OUT jacks.
- You can rename each input so that the name can be displayed on the display panel of the receiver (page 30).

Connecting audio devices

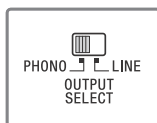


- b** Stereo audio cable (not supplied)
- c** PHONO cables with grounding wires (not supplied)

* If your turntable has a grounding terminal, connect the grounding wire.

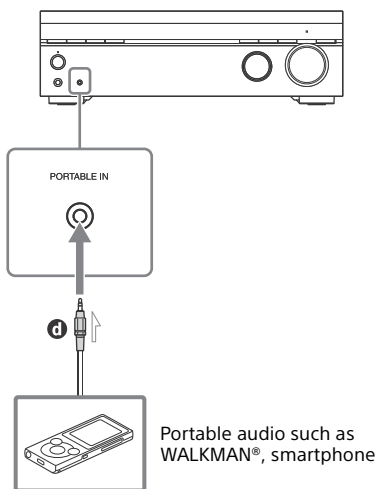
Note

- When you connect a turntable with a PHONO/ LINE switch, be sure to set the PHONO/LINE switch to PHONO.



- This receiver equipped with Phono Equalizer amplifier to meet MM type PHONO cartridges. MM type cartridge used on turntable have a variation of audio output level. In case MM type cartridge output is small, you can use phono volume offset to increase the level (page 29).
- To record the sound from the receiver, you must connect your device to the AUDIO INPUT 4 OUT jacks.

Connecting a portable audio device

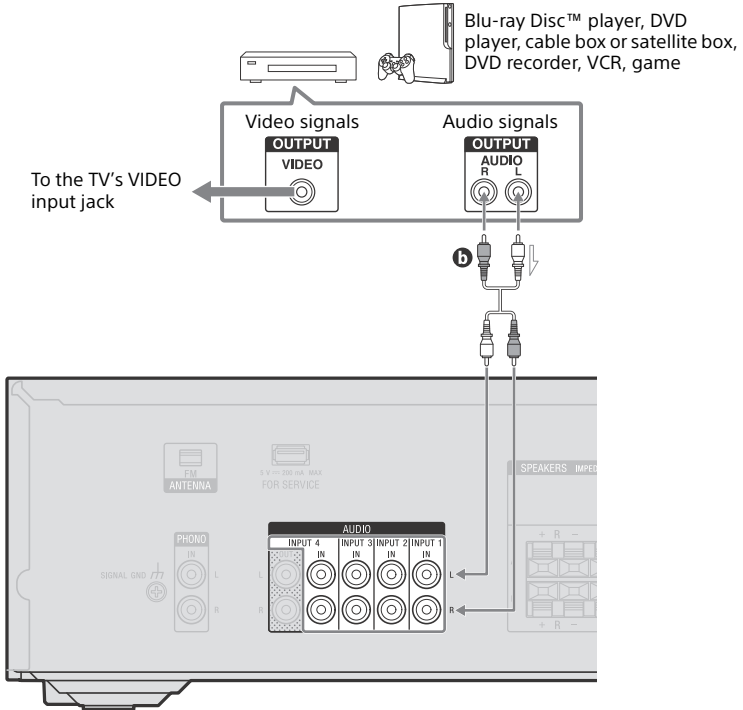


- d** 3.5 mm Stereo audio cable (not supplied)

Note

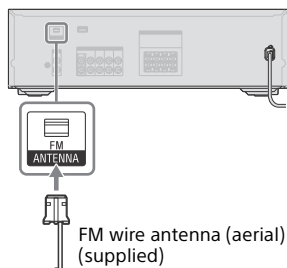
- When listening to a device connected to the PORTABLE IN jack, sound may be distorted or interrupted. This is not a malfunction and will depend on the connected device.
- If the sound from the device connected to the PORTABLE IN jack is very soft, you may increase the volume level. However, before you switch to other input, be sure to reduce the volume level to avoid damaging your speaker.

Connecting visual devices



b Stereo audio cable (not supplied)

4: Connecting the FM Antenna (aerial)



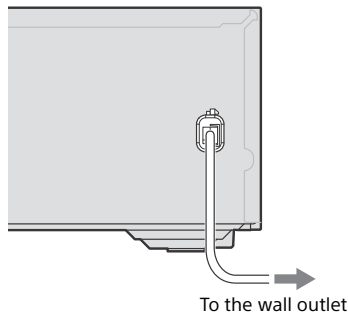
FM wire antenna (aerial)
(supplied)


Note

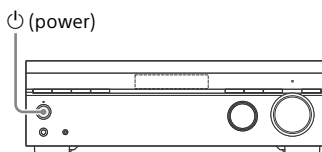
- Be sure to fully extend the FM wire antenna (aerial).
- After connecting the FM wire antenna (aerial), keep it as horizontal as possible.

5: Turning on the Receiver



- 1 Connect the AC power cord (mains lead) to a wall outlet.



- 2 Press  (power) to turn on the receiver.



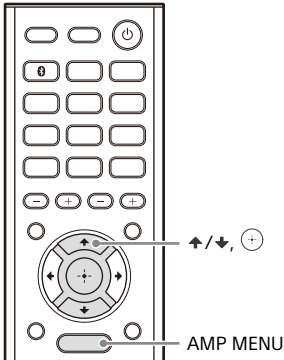
Tip

You can also turn on the receiver using  (power) on the remote control. To turn off the receiver, press  (power) again.

6: Setting the Speakers

Setting the speaker impedance

Set the appropriate speaker impedance for the speakers you are using.



1 Press AMP MENU.

The menu is displayed on the display panel.

2 Press ↑/↓ to select "SP IMP.", and then press ⊕.

3 Press ↑/↓ to select the appropriate speaker impedance, and then press ⊕.

"8 OHM": The default setting. Select this when you connect all speakers with a nominal impedance of 8 ohms or higher.

"6 OHM": Select this when you connect all speakers with a nominal impedance of lower than 8 ohms.

Note

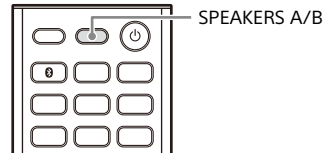
- If you are not sure of the impedances of the speakers, refer to the operating instructions supplied with your speakers. (This information is often on the back of the speaker.)
- When you connect speakers to both the SPEAKERS A and B terminals, connect the speakers with a nominal impedance of 12 ohms or higher.

- When you connect speakers to either SPEAKERS A or B terminals, connect the speakers with a nominal impedance of 8 ohms or 6 ohms.

Switching the speaker system

When two speaker systems are connected to the receiver, you can select the speaker system you want to operate.

Press SPEAKERS A/B repeatedly to select the speaker system you want to operate.



Each time you press this button, the display changes cyclically.

"SPK A": Speakers connected to the SPEAKERS A terminals.

"SPK B": Speakers connected to the SPEAKERS B terminals.

"SPK A+B": Speakers connected to both the SPEAKERS A and B terminals (parallel connection).

"OFF SPEAKERS": "OFF" and "SPEAKERS" appears alternately on the display panel. No audio signals are output from any speaker terminals.

Note

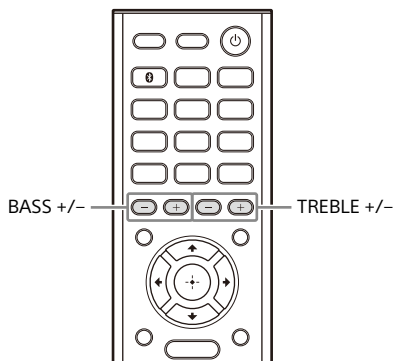
This setting is not available when headphones are connected.

Tip

- The "SP A" or/and "SP B" indicators on the display panel lights up to show which set of terminals are selected. "SP A" and "SP B" light off when the speaker system is turned off.
- You can also use SPEAKERS button on the receiver to select the speaker system.

Adjusting the tone

You can adjust the tonal balance of the speakers.



Press TREBLE + or TREBLE - repeatedly to adjust the treble level.

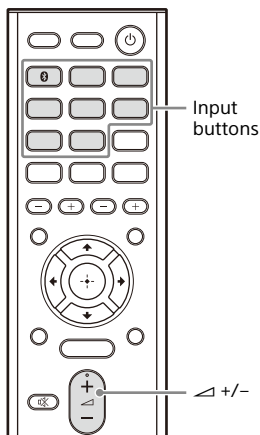
Press BASS + or BASS - repeatedly to adjust the bass level.

You can adjust from -10 dB to +10 dB in 1 dB step.

The initial setting is 0 dB.

Playback

Playing Back Sound on Audio-Visual Devices



- 1 Press the input button which corresponds to the device you want to play.**

The selected input appears on the display panel.

- 2 Start playback on the connected device.**

- 3 Press ▲ +/- to adjust the volume.**

Note

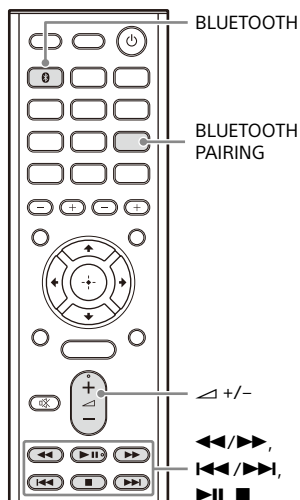
Before you turn off the receiver, be sure to turn down the volume level to avoid damaging your speakers the next time you turn on the receiver.

Tip

- To turn the volume up or down quickly
 - Turn the VOLUME knob quickly.
 - Press and hold one of the ▲ +/- buttons.
- To make fine adjustments
 - Turn the VOLUME knob slowly.
 - Press one of the ▲ +/- buttons and release it immediately.

Playing Back Sound on a BLUETOOTH Device

You can receive audio content from a WALKMAN®, smartphone or tablet that has a BLUETOOTH function and listen to it via this receiver.



About the BLUETOOTH indicator

The BLUETOOTH indicator above the BLUETOOTH button on the receiver lights up or flashes in blue to show the BLUETOOTH status.

Receiver status	Indicator status
The receiver is searching for a BLUETOOTH device to connect	Flashes slowly
BLUETOOTH pairing	Flashes quickly
BLUETOOTH connection is established	Lights up

Registering BLUETOOTH devices to the receiver (Pairing operation)

Pairing is an operation in which BLUETOOTH devices are registered to each other before connection. Follow the steps below to pair the BLUETOOTH device and the receiver. Once the BLUETOOTH devices are paired, there is no need to pair them again. When the pairing is complete, proceed to "Listening to sound on a paired BLUETOOTH device" (page 23).

1 Place the BLUETOOTH device within 1 meter (3.3 feet) of the receiver.

2 Press BLUETOOTH PAIRING.

"PAIRING" flashes on the display panel. Perform step 3 within five minutes, otherwise pairing will be canceled. If pairing is canceled, repeat this step.

3 Perform pairing on the BLUETOOTH device to detect the receiver.

For details, refer to the operating instructions of your BLUETOOTH device.

A list of detected devices may appear on the BLUETOOTH device display depending on the type of BLUETOOTH device. The receiver is displayed as "STR-DH190".

4 Select "STR-DH190" on the BLUETOOTH device display.

If "STR-DH190" is not displayed, repeat this process from step 1.

When the BLUETOOTH connection is established, the paired device name appears on the display panel.

5 Start playback on the BLUETOOTH device.

6 Adjust the volume.

Adjust the volume of the BLUETOOTH device first. If the volume level is still too low, press \triangleleft +/- to adjust the volume level of the receiver.

To cancel pairing operation

Pairing operation will be canceled when you switch the input.

Note

- Some applications of BLUETOOTH device cannot be controlled from the receiver.
- If a passkey is required on the display of the BLUETOOTH device in step 4, enter "0000". The passkey may be called "Passcode", "PIN code", "PIN number" or "Password".
- You can pair up to ten BLUETOOTH devices. If an 11th BLUETOOTH device is paired, the least recently connected device will be replaced by the new one.

Tip

- You can operate a BLUETOOTH device using \lll/\ggg (fast rewind/fast forward), \lll/\ggg (previous/next), \ggg (play/pause), \blacksquare (stop).
- If you press \ggg in "BLUETOOTH" input when no BLUETOOTH device is connected, the receiver automatically connects to the last connected BLUETOOTH device.

Listening to sound on a paired BLUETOOTH device

1 Turn on the BLUETOOTH function on the BLUETOOTH device.

2 Press BLUETOOTH.

The receiver connects to the last connected BLUETOOTH device and the device name appears on the display panel.

3 Start playback on the BLUETOOTH device.

4 Adjust the volume.

Adjust the volume of the BLUETOOTH device first. If the volume level is still too low, press \triangleleft +/- to adjust the volume level of the receiver.

To disconnect a BLUETOOTH connection

The BLUETOOTH connection will be disconnected when you perform either of the following operations:

- Switch the input.
- Turn off the BLUETOOTH function on the BLUETOOTH device.
- Press BLUETOOTH PAIRING.
- Turn off the receiver or the BLUETOOTH device.
- Press BLUETOOTH on the receiver again.

Note

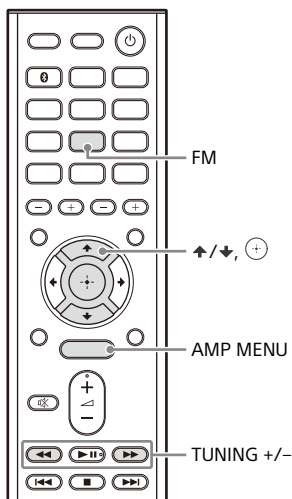
- The functions may differ depending on the specifications of the BLUETOOTH device.
- The audio playback on this receiver may be delayed from that on the BLUETOOTH device because of the characteristics of the BLUETOOTH wireless technology.

Tip

- You can enable or disable AAC codec reception from BLUETOOTH device (page 28).
- You can connect to the receiver from a paired BLUETOOTH device when "BT POWER" is set to "BT ON" (page 29).

Tuning to a FM Station Automatically (Automatic Tuning)

You can listen to FM broadcasts through the built-in tuner. Before operation, make sure you have connected the FM antenna (aerial) to the receiver (page 19).



- 1 Press FM.**
- 2 Press TUNING + or TUNING –.**
TUNING + scans from lower to higher frequency stations and TUNING – for scanning higher to lower.
The receiver stops scanning whenever a station is received.

Using the control buttons on the receiver

- 1** Turn INPUT SELECTOR to select "FM TUNER".
- 2** Press TUNING MODE repeatedly to select "AUTO".
- 3** Press TUNING + or TUNING –.

In case of poor FM stereo reception

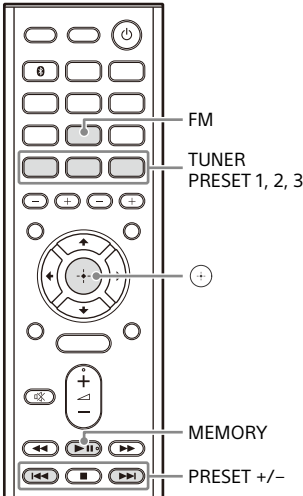
If the FM stereo reception is poor and "ST" flashes on the display panel, select monaural audio to lessen the sound distortion.

Press AMP MENU, and then press ↑/↓ and ⊕ to select "FM MODE" – "MONO".

To return to the stereo mode, select "STEREO".

Presetting FM Radio Stations (Preset Memory)

You can store up to 30 FM stations as your favorite stations as preset stations.



- 1 Press FM.**
- 2 Tune to the station that you want to preset using Automatic Tuning (page 25).**
- 3 Press MEMORY.**
- 4 Press PRESET + or PRESET - to select a preset number.**
- 5 Press +.**

The station is stored as the selected preset number.
- 6 Repeat steps 1 to 5 to store another station.**

Tuning to preset stations

- 1 Press FM.**
- 2 Press PRESET + or PRESET - repeatedly to select the station.**

Tip

You can also use TUNER PRESET 1, 2 or 3 to select a preset station.

Using the control buttons on the receiver

- 1 Turn INPUT SELECTOR to select "FM TUNER".**
- 2 Press TUNING MODE repeatedly to select "PRESET".**
- 3 Press TUNING + or TUNING - to select the preset station you want.**

Receiving RDS Broadcasts

(European and Asia-Pacific models only)

This receiver allows you to use Radio Data System (RDS), which enables FM radio stations* to send additional information along with the regular programming signal. This receiver offers convenient RDS features, such as Program Service name display.

* Not all FM stations provide RDS service, nor do they provide the same type of services. If you are not familiar with the RDS services in your area, check with your local radio stations for details.

Simply select a station on the FM band using Automatic Tuning (page 25) or Tuning with Preset Station (page 26).

When you tune to a station that provides RDS services, "RDS" lights up and the Program Service name appears on the display panel.

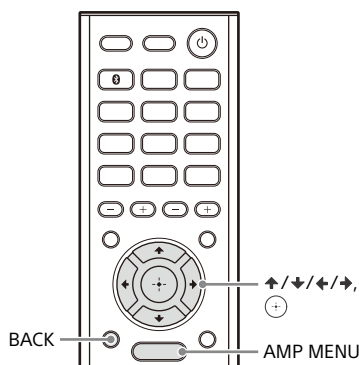
Note

RDS may not work properly if the station you tuned to does not transmit the RDS signal or if the signal strength is weak.

Tip

While a Program Service name is displayed, you can check the frequency by pressing DISPLAY repeatedly (page 31).

Using the Menu



- 1 Press AMP MENU.**
The menu is displayed on the display panel.
- 2 Press \uparrow/\downarrow to select the menu item you want and then press \oplus .**
- 3 Press $\uparrow/\downarrow/\leftarrow/\rightarrow$ to select the parameter/setting you want, and then press \oplus .**

To return to the previous display

Press \leftarrow or BACK.

To exit the menu

Press AMP MENU.

Note

Some parameters and settings may appear dimmed on the display panel. This means that they are either unavailable or fixed and unchangeable.

Menu list

The default settings are underlined.

■ "SP IMP." (Speaker impedance)

For details, see "Setting the speaker impedance" (page 20).

■ "FM MODE" (FM station receiving mode)

- "STEREO"
This receiver will decode the signal as stereo signal when the radio station is broadcast in stereo.
- "MONO"
This receiver will decode the signal as mono signal regardless of the broadcast signal.

■ "BT MENU" (BLUETOOTH settings menu)

- "BT STBY" (BLUETOOTH standby mode)
 - "STBY ON": You can turn on this receiver from a paired BLUETOOTH device.
 - "STBY OFF": This receiver cannot be turned on from a paired BLUETOOTH device.

Note

- If you set "BT STBY" to "STBY ON", this receiver turns on when you establish a BLUETOOTH connection from a BLUETOOTH device.
- You cannot change this setting when "BT POWER" is set to "BT OFF".
- "BT AAC" (BLUETOOTH codec – AAC)
 - "AAC ON": AAC audio is available if the BLUETOOTH device supports AAC.
 - "AAC OFF": AAC audio is not available.

Note

- You cannot change this setting when "BT POWER" is set to "BT OFF".
- While a BLUETOOTH device is connected, the settings of this function cannot be changed.

Tip

You can enjoy high-quality sound if AAC is enabled.

- “BT POWER” (BLUETOOTH signal)
 - “BT ON”: You can connect to the receiver from a paired BLUETOOTH device.
 - “BT OFF”: The receiver cannot be connected from a paired BLUETOOTH device.

Note

You cannot change this setting when “BLUETOOTH” input is selected.

■ “PH.OFFSET” (Phono volume offset)

Lets you adjust the volume level of the device connected to PHONO IN jacks. MM type cartridge used on turntable have a variation of audio output level.

In case MM type cartridge output is small, you can use phono volume offset to increase the level.

You can adjust from 0 dB to +6 dB in 1 dB/step.

The initial setting is “PHONO 0”.

■ “BALANCE” (Speaker balance)

Lets you adjust the balance between left and right speakers.

You can adjust from “BAL. L+10” to “BAL. R+10” in 1 dB/step.

The initial setting is “BAL. 0”.

■ “NAME IN” (Naming inputs)

Lets you set the name of inputs and preset stations. For details, see “Changing the Name for Each Input and Preset Station (NAME IN)” (page 30).

■ “AUTO.STBY” (Auto standby)

Lets you set the receiver switch to standby mode automatically when you do not operate the receiver or when there is no signals input to the receiver.

- “STBY ON”
 - Switches to standby mode after approximately 20 minutes.
- “STBY OFF”
 - Does not switch to standby mode.

Note

- This function does not work when “FM TUNER” input is selected.

- If you use the Auto Standby mode and the Sleep Timer at the same time, the Sleep Timer has priority.

■ “UPDATE” (Software update)

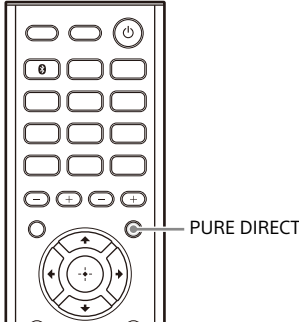
For service purpose only.

■ “VERSION” (Software version)

Lets you check the system’s software version information.

Enjoying High-fidelity Sound (Pure Direct)

You can enjoy higher-fidelity sound from all inputs using the Pure Direct function. When the Pure Direct function is on, the display panel lights off to suppress noise that affects sound quality.



Press PURE DIRECT.

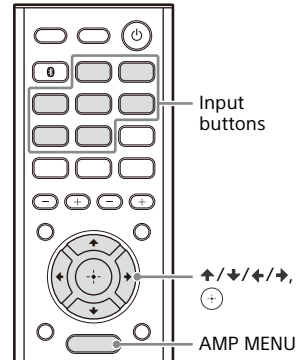
The indicator above the button lights up when the Pure Direct function is activated. To cancel the Pure Direct function, press PURE DIRECT again.

Note

- Bass and treble do not work when the Pure Direct function is selected.
- The Pure Direct function will be canceled when you press BASS +/- or TREBLE +/-.

Changing the Name for Each Input and Preset Station (NAME IN)

You can enter a name of up to 8 characters for inputs (except "FM TUNER" and "BLUETOOTH") and preset stations to appear on the display panel. It is more recognizable having the device named on the display than the jacks.



1 For "FM TUNER" input

Press FM, then tune to the preset station you want to create an index name for (page 26).

For other inputs (except "BLUETOOTH")

Press the corresponding input button which you want to create an index name.

2 Press AMP MENU.

3 Press ↑/↓ repeatedly to select "NAME IN", then press



The cursor flashes and you can enter a character.

4 Press ↑/↓ to select a character, then press ←/→ to move the input position backward and forward.

Tip

- You can select the character type as follows by pressing \uparrow/\downarrow .
Alphabet (upper case) \rightarrow Numbers \rightarrow Symbols
- To enter a blank space, press \rightarrow without selecting a character.

If you made a mistake

Press \leftarrow/\rightarrow until the character you want to change flashes, then press \uparrow/\downarrow to select the correct character.

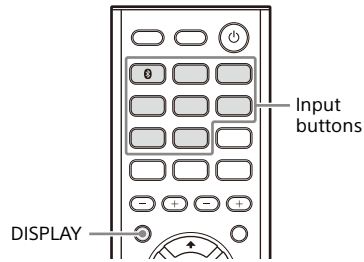
5 Press \oplus .

The name you entered is registered.

Note

(European and Asia-Pacific models only)
When you name an RDS (Radio Data System) station and tune to that station, the Program Service name appears instead of the name you entered.

Viewing Information on the Display Panel

**1 Press the corresponding input button which you want to check the information.****2 Press DISPLAY repeatedly.**

Each time you press the button, the display changes cyclically as follows.

Index name of the input* \rightarrow Selected input \rightarrow Volume level

When listening to FM radio

Preset station name* \rightarrow Frequency, band and preset number \rightarrow Volume level

When receiving RDS broadcasts (European and Asia-Pacific models only)

Program Service name or preset station name* \rightarrow Frequency, band and preset number \rightarrow Volume level

When connecting to a BLUETOOTH device

BLUETOOTH device name \rightarrow
BLUETOOTH MAC address \rightarrow Volume level \rightarrow "BLUETOOTH"

* Index name appears only when you have assigned one to the input or preset station (page 30). Index name does not appear when only blank spaces have been entered, or it is the same as the input name.

Note

Character or marks may not be displayed for some languages.

Recording Using the Receiver

You can record sound from an audio device using the receiver. Refer to the operating instructions supplied with your recording device.

- 1 Press the input button which corresponds to the playback device.**
- 2 Prepare the playback device for playing.**
For example, insert the CD you want to play into the CD player.
- 3 Prepare the recording device.**
Insert a blank MD or tape into the recording device (connected to AUDIO INPUT 4 OUT jacks).
- 4 Start recording on the recording device, then start the playback device.**

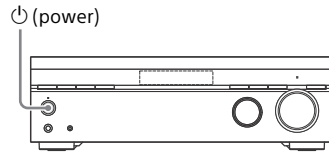
Note


- The recorded music is limited to private use only. Use of the music beyond this limit requires permission of the copyright holders.
- Sound adjustments do not affect the signal output from the AUDIO INPUT 4 OUT jacks.
- While the source is being recorded, the auto standby function of the receiver may start up and interrupt the recording. In this case, set the "AUTO.STBY" to "STBY OFF" (page 29).
- You can record the sound from the visual device connected to this receiver. However, you cannot record the image via this receiver.

Reverting to the Factory Default Settings

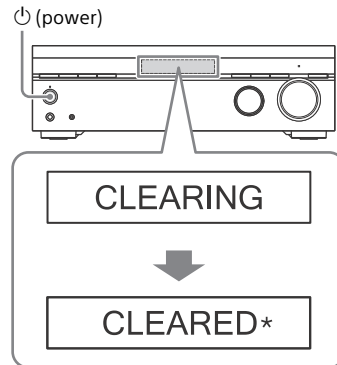
You can clear all memorized settings and restore the receiver to the factory default settings by the following procedure. Be sure to use the buttons on the receiver to perform this operation.

- 1 Press  (power) to turn off the receiver.**



- 2 Press and hold  (power) for 5 seconds.**

"CLEARING" appears on the display panel during initialization. When initialization is complete, "CLEARED*" appears on the display panel.



Note

It takes a few seconds for the memory to be cleared completely. Do not turn the receiver off until "CLEARED*" appears on the display panel.

Saving Power

You can save power by setting “BT STBY” to “STBY OFF” in the “BT MENU” menu.

Troubleshooting/ Specifications

Troubleshooting

If a problem occurs while operating the receiver, check the following to resolve the problem before consulting your nearest Sony dealer.

- Check to see if the problem is listed in this “Troubleshooting” section.
- Clear all saved settings and restore the receiver to the factory default settings (page 32).

If the problem persists after doing all of the above, consult your nearest Sony dealer.

General

The receiver is turned off automatically.

- If “AUTO.STBY” is set to “STBY ON”, set it to “STBY OFF” (page 29).
- The sleep timer function was activated.
- “PROTECT” (page 36) was activated.

The indicator on the display panel turns off.

- If the PURE DIRECT indicator on the front panel lights up, press PURE DIRECT to turn off this function.
- Press DIMMER to select “BRIGHT” or “DARK”.

Audio

No sound or only a very low level of sound is heard, no matter which device is selected.

- Check that all connecting cables are inserted to their input/output jacks on the receiver, speakers and the devices.
- Check that the receiver and all devices are turned on.

- Check that VOLUME on the receiver is not set to “VOL MIN”.
- Press SPEAKERS A/B to select a setting other than “OFF SPEAKERS” (page 20).
- Check that headphones are not connected to the receiver.
- Press \times (muting) to cancel the muting function. “MUTING” disappears from the display panel.
- Try pressing the input button on the remote control or turning INPUT SELECTOR on the receiver to select the input to which you want to listen.
- The protective device on the receiver has been activated. Turn off the receiver, eliminate the short-circuit problem, and turn on the power again.

There is severe humming or noise.

- Check that the speakers and device are connected securely.
- Make sure that the connecting cables are not near a transformer or motor.
- Move your audio device away from the TV.
- If the plugs and jacks are dirty, wipe them with a cloth slightly moistened with alcohol.

No sound or only a very low level of sound is heard from specific speakers.

- Connect a pair of headphones to the PHONES jack to verify that sound is output from the headphones. If only one channel is output from the headphones, the device may not be connected to the receiver correctly. Check that all of the cables are fully inserted into the jacks on both the receiver and the device. If both channels are output from the headphones, the speaker may not be connected to the receiver correctly. Check the connection of the speaker that is not outputting any sound.
- Make sure you have connected to both the L and R jacks of an analog device, as analog devices require both L and R jack connections. Use a stereo audio cable (not supplied).

There is no sound from a specific device.

- Check that the device is correctly connected to the corresponding audio input jacks.
- Check that the cable(s) used for the connection is (are) fully inserted into the jacks on both the receiver and the device.

The left and right sound is unbalanced or reversed.

- Check that the speakers and device are connected correctly and securely.
- Check the speaker balance (page 29).

There is severe hum, interrupted noise or distortion from the device connected to the PORTABLE IN jack.

- Check that the device is connected securely.
- This is not a malfunction and will depend on the connected device.

Recording cannot be carried out.

- Check that the device is connected correctly.
- Select the source device using the input buttons (page 32).

Turntable

Only a very low level of sound is heard.

- Check that MM type cartridge is used on the turntable.

There is severe humming.

- If your turntable has a grounding terminal, connect grounding wire (page 16).

There is distorted sound.

- If you connect a turntable with a PHONO/LINE switch, make sure that the PHONO/LINE switch on the turntable is set to PHONO (page 17).

FM radio

The FM reception is poor.

- Extend and adjust the position of the FM wire antenna (aerial) to a place where the reception conditions are good.
- Place the FM wire antenna (aerial) near a window.
- Position the FM wire antenna (aerial) as horizontally as possible.

You cannot tune to radio stations.

- Check that the antennas (aerials) are connected securely. Adjust the antennas (aerials) if necessary.
- No stations have been preset or the preset stations have been cleared (when tuning by scanning preset stations is used). Preset the stations.
- Press DISPLAY repeatedly so that the frequency appears on the display panel.

RDS does not work.*

- Make sure that you are tuned to an FM RDS station.
- Select a stronger FM station.
- The station you tuned to is not transmitting the RDS signal or the signal strength is weak.

The RDS information that you want does not appear.*

- The service may be temporarily out of order. Contact the radio station and find out whether they actually provide the service in question.

* European and Asia-Pacific models only.

BLUETOOTH device

Pairing cannot be done.

- Move the BLUETOOTH device closer to the receiver.
- Pairing may not be possible if there are other BLUETOOTH devices near the receiver. In this case, turn off the other BLUETOOTH devices.

- Correctly enter the same passkey that was entered on the BLUETOOTH device.

Cannot make a BLUETOOTH connection.

- The BLUETOOTH device you attempted to connect does not support the A2DP profile, and cannot be connected with the receiver.
- Press BLUETOOTH to connect to the last connected BLUETOOTH device.
- Turn on the BLUETOOTH function of the BLUETOOTH device.
- Establish a connection from the BLUETOOTH device.
- The pairing registration information has been erased. Perform the pairing operation again.
- While connected to a BLUETOOTH device, this receiver cannot be detected.
- Erase the pairing registration information of the BLUETOOTH device on the BLUETOOTH device and perform the pairing operation again.

The sound skips or fluctuates, or the connection is lost.

- The receiver and the BLUETOOTH device are too far apart.
- If there are obstructions between the receiver and your BLUETOOTH device, remove these or move the receiver and/or device avoid them.
- If there is a device that generates electromagnetic radiation, such as a wireless LAN, other BLUETOOTH device, or a microwave oven nearby, move it away.

The sound of your BLUETOOTH device cannot be heard on the receiver.

- Turn up the volume on your BLUETOOTH device first, and then adjust the volume using $\triangleleft +$ on the remote control (or VOLUME on the receiver).

Severe humming or noise.

- If there are obstructions between the receiver and your BLUETOOTH device, remove them or move the receiver and/or device avoid them.

- If there is a device that generates electromagnetic radiation, such as a wireless LAN, other BLUETOOTH device, or a microwave oven nearby, move it away.
- Turn down the volume of the connected BLUETOOTH device.

Remote control

The remote control does not function.

- Point the remote control at the remote control sensor on the receiver.
- Remove any obstructions between the remote control and the receiver.
- Replace both of the batteries in the remote control with new ones if they are weak.

Error messages

“PROTECT” appears on the display panel.

The receiver will automatically turn off after a few seconds. Check the followings: Unplug the AC power cord (mains lead) and let the receiver cool down for 30 minutes while performing the following troubleshooting:

- Disconnect all of the speakers.
- Check that the speaker wires are tightly twisted on both ends.
- Check that the receiver is not covered and ventilation holes are not blocked.
- Check that the nominal impedance of the connected speakers fall within the impedance range indicated on the rear panel of the receiver.

After checking the above items and fixing any problems, plug in the AC power cord (mains lead) and turn on the receiver. If the problem persists, consult your nearest Sony dealer.

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 rear 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.
- The 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.

On placement

- 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.

- Do not place the receiver near device such as a TV, VCR, or tape deck. (If the receiver is being used in combination with a TV, VCR, or tape deck, and is placed too close to that device, noise may result, and picture quality may suffer. This is especially likely when using an indoor antenna (aerial).)
- Use caution when placing the receiver on surfaces that have been specially treated (with wax, oil, polish, etc.) as staining or discoloration of the surface may result.

On operation

Before connecting other device, be sure to turn off and unplug the receiver.

On cleaning

Clean the cabinet, panel, and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent, such as alcohol or benzine.

On replacement of parts

In the events that this receiver is repaired, repaired parts may be retained for reuse or recycling purposes.

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION: (USA models only)

With 8 ohm loads, both channels driven, from 20 Hz – 20,000 Hz; rated 90 watts per channel minimum RMS power at stereo mode, with no more than 0.09% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section¹⁾

Speaker impedance use
6 ohms – 16 ohms

Impedance of A/B speakers and its corresponding speaker impedance setting

Speaker system	Speaker impedance setting (page 20)	
	"6 OHM"	"8 OHM"
A or B	6 ohms – 16 ohms	8 ohms – 16 ohms
A and B	12 ohms – 16 ohms	> 16 ohms

Minimum RMS Output Power
(8 ohms, 20 Hz – 20 kHz, THD 0.09%)
90 W + 90 W

Stereo Mode Output Power
(8 ohms, 1 kHz, THD 1%)
100 W + 100 W

¹⁾ Measured under the following conditions:

Area	Power requirements
USA, Canada, Taiwan	120 V AC, 60 Hz
Oceania, Europe	230 V AC, 50 Hz

Frequency response
Analog
10 Hz – 100 kHz, +0.5/-2 dB (with BASS = 0 dB, TREBLE = 0 dB)

Input (Analog)
PHONO IN
For MM type cartridge
Equalizer RIAA; +/-1 dB
S/N²⁾: 80 dB (A – Weighted network)

PORTABLE IN
Sensitivity: 500 mV/50 kilohms
S/N²⁾: 90 dB (A – Weighted network)

AUDIO IN
Sensitivity: 500 mV/50 kilohms
S/N²⁾: 96 dB (A – Weighted network)

Output (Analog)
AUDIO OUT
Voltage: 500 mV/1 kilohm

Tone
Gain levels
±10 dB, 1 dB step

²⁾ Input short with BASS = 0 dB, TREBLE = 0 dB.

FM tuner section

Tuning range
USA and Canadian models:
87.5 MHz – 108.0 MHz (100 kHz step)
Other models:
87.5 MHz – 108.0 MHz (50 kHz step)

Antenna (aerial)
FM wire antenna (aerial)

Antenna (aerial) terminals
75 ohms, unbalanced

Service section

Output voltage
DC 5 V

Maximum current
200 mA

BLUETOOTH section

Communication system
BLUETOOTH Specification version 4.2

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

Modulation method
FHSS (Freq Hopping Spread Spectrum)

Compatible BLUETOOTH profiles²⁾
A2DP 1.2 (Advanced Audio Distribution Profile)

AVRCP 1.6 (Audio Video Remote Control Profile)

Supported Codecs³⁾
SBC⁴⁾, AAC

Transmission range (A2DP)
20 Hz – 20,000 Hz (Sampling frequency 44.1 kHz)

Frequency band and maximum output power
(European models only)

BLUETOOTH

Frequency band	Maximum output power
2,400 MHz – 2,483.5 MHz	≤ 6.0 dBm

- 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

Area	Power requirements
USA, Canada, Taiwan	120 V AC, 60 Hz
Oceania	230 V AC, 50 Hz
Europe	230 V AC, 50/60 Hz

Power consumption

200 W

Standby mode: 0.3 W

(When "BT STBY" is set to "STBY OFF".)

BLUETOOTH Standby mode (all wireless

network ports are activated): 1.0 W

(When "BT STBY" is set to "STBY ON".)

Dimensions (width/height/depth) (Approx.)

430 mm × 133 mm × 284 mm (17 in ×

5 1/4 in × 11 1/4 in) including projecting

parts and controls

Mass (Approx.)

6.7 kg (14 lb 13 oz)

Design and specifications are subject to change without notice.

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 38) 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

Note

- 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.

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