SONY ®

Multi Channel
AV Receiver

Operating Instructions

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 apparatus with newspapers, tablecloths, curtains, etc.
Do not place the naked flame sources such as lighted candles on the apparatus.

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

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.

Do not expose batteries or apparatus with battery-installed to excessive heat such as sunshine, fire or the like.

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.

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

This symbol is intended to alert the user to the presence of the Hot Surface that may be hot if it is touched during the normal operation.

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

For customers in the United States

Owner's Record

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

Model No. _____

Serial No. _____

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.

The following FCC statement applies only to the version of this model manufactured for sale in the U.S.A. Other versions may not comply with FCC technical regulations.

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

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 in Supplement C to OET65.
This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles).

For 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 licence-exempt RSS standard(s). 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 this 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 20cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles).

About This Manual

- The instructions in this manual are for model STR-DN1030. The model number is located at the lower right corner of the front panel. The illustrations used in this manual are of the USA model and they may be different from your model. Any differences in operation are marked in the manual as "USA model only".
- The instructions in this manual describe the operation of the receiver with the supplied remote control. You can also use the buttons or knobs on the receiver if they have the same or similar names as those on the remote control.

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** Manufactured under license under U.S. Patent Nos: 5,956,674; 5,974,380; 6,226,616; 6,487,535; 7,212,872; 7,333,929; 7,392,195; 7,272,567 & other U.S. and worldwide patents issued & pending. DTS-HD, the Symbol, & DTS-HD and the Symbol together are registered trademarks & DTS-HD Master Audio is a trademark of DTS, Inc. Product includes software. © DTS, Inc. All Rights Reserved.

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Made for
iPod iPhone

AirPlay

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Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.

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FLAC Decoder

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2000,2001,2002,2003,2004,2005,2006,2007
Josh Coalson

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Enjoying Sound Effects

Using Network Features

Using *Bluetooth* Features

"BRAVIA" Sync Features

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Additional Information

Supplied accessories

- Operating Instructions (this manual)
- Quick Setup Guide (1)
- GUI Menu List (1)
- FM wire antenna (aerial) (1)

- AM loop antenna (aerial) (1)

- Remote control (RM-AAP078) (1)
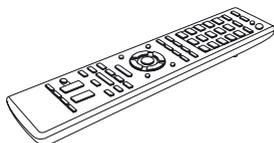
- R6 (size AA) batteries (2)

- Optimizer microphone (ECM-AC2) (1)

Inserting batteries into the remote control

Insert two R6 (size-AA) batteries (supplied) in the remote control. Observe the correct polarity when installing batteries.
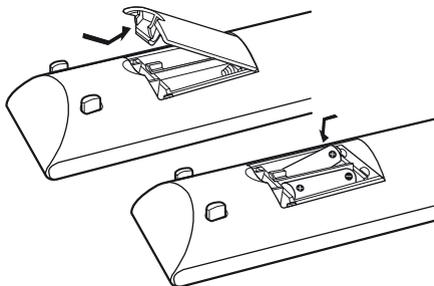
Notes
- Do not leave the remote control in an extremely hot or humid place.
- Do not use a new battery with old ones.
- Do not mix manganese batteries and other kinds of batteries.
- Do not expose the remote control sensor to direct sunlight or lighting apparatuses. Doing so may cause a malfunction.
- 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 you replace or remove the batteries, the programmed codes may be cleared. If this happens, reprogram the remote control (page 107).
- When the receiver no longer responds to the remote control, replace all the batteries with new ones.

Description and location of parts

Front panel
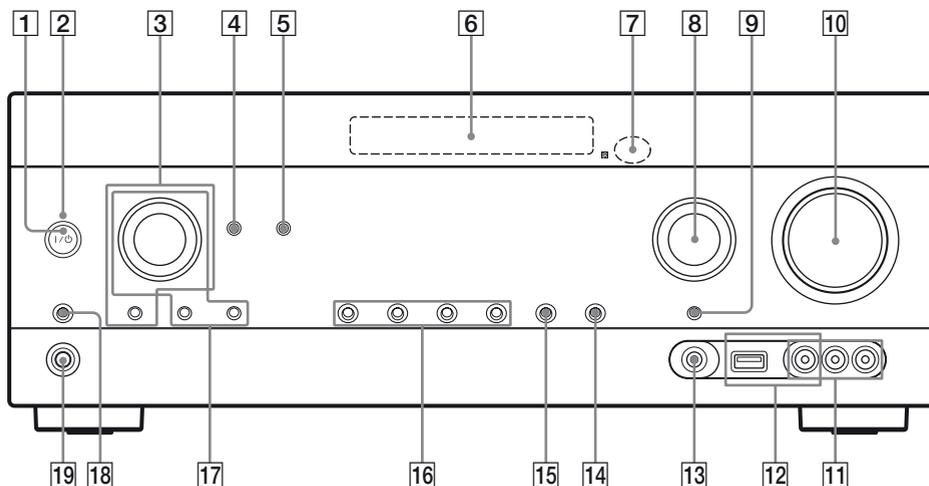
1 **I/(¹) (on/standby) (page 37, 59, 65)**

2 **ON/STANDBY indicator**
Lights up as follows:
Green: The receiver is turned on.
Amber: The receiver is in standby mode, and
– Either Control for HDMI, Network Standby, or
  Bluetooth Standby is set to on.
– The receiver in zone 2 is turned on.
Lights off when the receiver is in standby mode
and Control for HDMI, Network Standby, and
Bluetooth Standby are set to off.

Note
If the ON/STANDBY indicator flashes slowly,
the software update is in progress (page 77). If
the indicator flashes in quick succession, the
software update has error (page 114).

3 **TONE, TONE MODE**
Press TONE MODE repeatedly to select BASS
or TREBLE, then turn TONE to adjust the level.

4 **BLUETOOTH (page 82)**
Operates the *Bluetooth* function.

5 **PARTY (page 74)**
Operates the PARTY STREAMING function.
Hold down the button to start or close a PARTY.

6 **Display panel (page 11)**

7 **Remote control sensor**
Receives signals from remote control.

8 **INPUT SELECTOR (page 51, 57, 88)**

9 **INPUT MODE (page 88)**

10 **MASTER VOLUME (page 51)**

11 **VIDEO 2 IN jacks (page 32)**

12 **iPod/iPhone (⊷ (USB) port and
VIDEO IN jack) (page 31, 34)**

13 **AUTO CAL MIC jack (page 40)**

14 **DISPLAY (page 107)**

15 **DIMMER**
Adjusts the brightness of the display panel in 3
levels.

16 **2CH/A.DIRECT, A.F.D., MOVIE
(HD-D.C.S.), MUSIC (page 61, 62)**
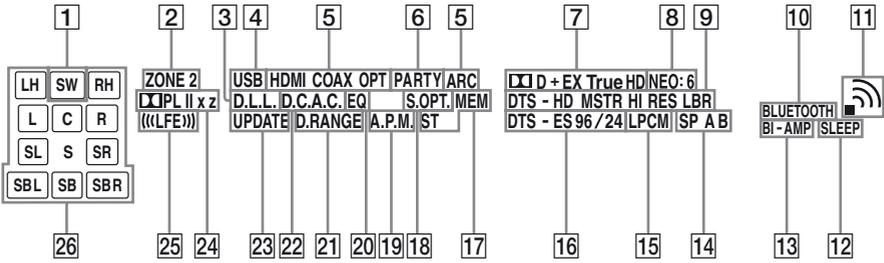
17 **TUNING MODE, MEMORY/ENTER,
TUNING**
Press to operate a tuner (FM/AM).
Turn TUNING to scan a station.

18 **SPEAKERS (page 39)**

19 **PHONES jack**
Connects to headphones.

Indicators on the display panel

```
1        2    3 4      5        6  5            7              8  9        10    11
LH SW RH  ZONE 2   USB HDMI COAX OPT  PARTY ARC    D + EX True HD  NEO:6           
L  C  R   PL II x z  D.L.L. D.C.A.C. EQ      S.OPT. MEM  DTS - HD MSTR HI RES LBR  BLUETOOTH
SL S SR  (((LFE)))  UPDATE D.RANGE A.P.M. ST  DTS - ES 96/24 LPCM SP A B  BI - AMP SLEEP
SBL SB SBR
26        25 24   23 22  21   20 19 18    17       16          15    14       13    12
```

1 SW

Lights up when the audio signal is output from the SUBWOOFER jack.

2 ZONE 2

Lights up while operation in zone 2 is being enabled.

3 D.L.L.

Lights up when the D.L.L. (Digital Legato Linear) function is activated (page 97).

4 USB

Lights up when iPod/iPhone or USB device is detected.

5 Input indicator

Lights up to indicate the current input.

HDMI
The receiver recognizes the equipment connected via an HDMI IN jack.
COAX
Digital signal is input through the COAXIAL jack (page 88).
OPT
Digital signal is input through the OPTICAL jack (page 88).
ARC
TV input is selected and the Audio Return Channel (ARC) signals are detected.

6 PARTY

Lights up when PARTY STREAMING function is activated (page 74).

7 Dolby Digital Surround indicator∗

Lights up the respective indicator when the receiver is decoding the corresponding Dolby Digital format signals.

D	Dolby Digital
D EX	Dolby Digital Surround EX
D+	Dolby Digital Plus
TrueHD	Dolby TrueHD

8 NEO:6

Lights up when DTS Neo:6 Cinema/Music decoder is activated (page 62, 63).

9 DTS-HD indicator∗

Lights up the respective indicator when the receiver is decoding the corresponding DTS-HD format signals.

DTS-HD MSTR	DTS-HD Master Audio
DTS-HD HI RES	DTS-HD High Resolution Audio
DTS-HD LBR	DTS-HD Low Bit Rate Audio

10 BLUETOOTH

Lights up when *Bluetooth* device is connected.

11 Wireless LAN signal strength indicator

Lights up to show the strength of the wireless LAN signal (page 46, 47).

- ■ No signal.
- ▪⌐ The signal strength is weak.
- ▪⌐⌐ The signal strength is moderate.
- ▪⌐⌐⌐ The signal strength is strong.

12 SLEEP

Lights up when the Sleep Timer is activated (page 16).

13 BI-AMP

Lights up when surround back speakers selection is set to "BI-AMP" (page 90).

14 SP A/SP B/SP A B (page 39)

15 LPCM

Lights up when the receiver is decoding the Linear PCM signals.

continued

16 **DTS(-ES) indicator**∗

Lights up the respective indicator when the receiver is decoding the corresponding DTS format signals.

DTS	DTS
DTS-ES	DTS-ES
DTS 96/24	DTS 96 kHz/24 bit

17 **Tuning indicator**

Lights up when the receiver tunes to a radio station.

MEM
Memory function, such as Preset Memory (page 60), etc., is activated.
ST
Stereo broadcast

18 **S.OPT.**

Lights up when Sound Optimizer function is activated (page 64).

19 **A.P.M.**

Lights up when the A.P.M. (Automatic Phase Matching) function is activated.
You can only set the A.P.M. function in the DCAC (Digital Cinema Auto Calibration) function (page 42).

20 **EQ**

Lights up when the equalizer is activated.

21 **D.RANGE**

Lights up when dynamic range compression is activated (page 96).

22 **D.C.A.C.**

Lights up when the measurement results of the "Auto Calibration" function are applied.

23 **UPDATE**

Lights up when a new software is available (page 77).

24 **Dolby Pro Logic indicator**

Lights up the respective indicator when the receiver performs Dolby Pro Logic processing. This matrix surround decoding technology can enhance input signals.

▣ **PL**	Dolby Pro Logic
▣ **PL II**	Dolby Pro Logic II
▣ **PL IIx**	Dolby Pro Logic IIx
▣ **PL IIz**	Dolby Pro Logic IIz

Note
These indicators may not light up depending on the speaker pattern setting.

25 **(((LFE)))**

Lights up when the disc being played back contains an LFE (Low Frequency Effect) channel and the LFE channel signal is actually being reproduced.

26 **Playback channel indicator**

The letters (L, C, R, etc.) indicate the channels being played back. Based on the speaker settings, the box around the letter(s) vary to show how the receiver downmixes the source sound.

LH	Front Left High
RH	Front Right High
L	Front Left
R	Front Right
C	Center (monaural)
SL	Surround Left
SR	Surround Right
S	Surround (monaural or the surround equipment obtained by Pro Logic processing)
SBL	Surround Back Left
SBR	Surround Back Right
SB	Surround Back (the surround back equipment obtained by 6.1 channel decoding)

Example:
Speaker pattern: 3/0.1
Recording format: 3/2.1
Sound Field: A.F.D. AUTO

SW
L C R (((LFE)))
SL   SR
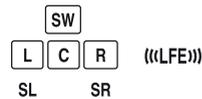
∗ When playing a Dolby Digital or DTS format disc, make sure that you have completed the digital connections and that INPUT MODE is not set to "ANALOG" (page 88) or "A. DIRECT" is not selected.

Rear panel
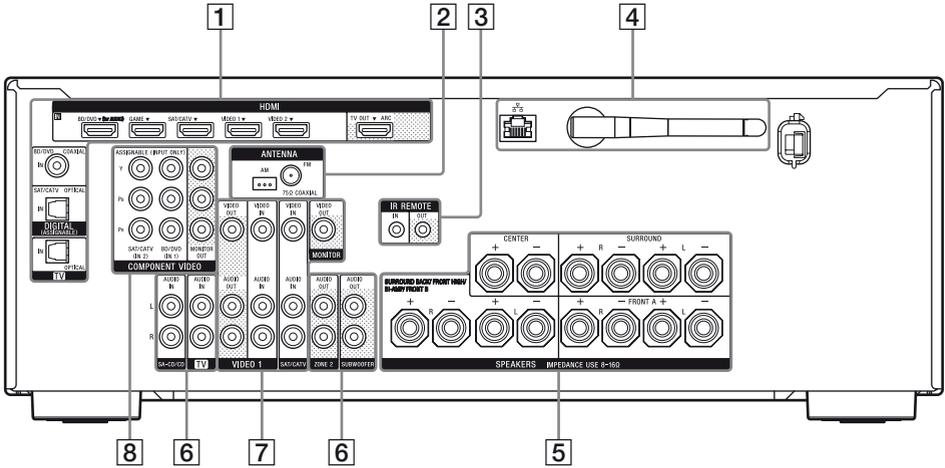
1 DIGITAL INPUT/OUTPUT section

⬓	HDMI IN/OUT* jacks (page 26, 29, 30, 31, 32)
⬓	OPTICAL IN jacks (page 26, 29, 30)
◎	COAXIAL IN jack (page 29)

2 TUNER section

◉	FM ANTENNA jack (page 34)
∘∘∘	AM ANTENNA terminals (page 34)

3 Controls jacks for Sony equipment and other external equipment

◎	IR REMOTE IN/OUT jacks (page 91)

4 NETWORK section

⬛	LAN port (page 36)
◁	Wireless LAN antenna (page 36)

5 SPEAKERS section (page 24)

6 AUDIO INPUT/OUTPUT section

◎ White (L) ◎ Red (R)	AUDIO IN jacks (page 26, 33)
◎ Black	AUDIO OUT jacks (page 24)
AUDIO OUT / ZONE 2	AUDIO OUT jacks (page 91)

G **VIDEO/AUDIO INPUT/OUTPUT section (page 26, 30, 32)**

◎	Yellow	VIDEO IN/OUT* jacks
◎	White (L)	
◎	Red (R)	AUDIO IN/OUT jacks

H **COMPONENT VIDEO INPUT/ OUTPUT section (page 26, 29, 30)**

◎	Green (Y)	
◎	Blue (P$_B$)	Y, P$_B$, P$_R$ IN/OUT* jacks
◎	Red (P$_R$)	

* You must connect the HDMI TV OUT or MONITOR OUT jack to your TV to watch the selected input image (page 26).

Remote control

Use the supplied remote control to operate this receiver and other equipment. The remote control is pre-programmed to operate Sony audio/video equipment. You can also program the remote control to operate non-Sony equipment. For details, see "Programming the remote control" (page 107).

RM-AAP078
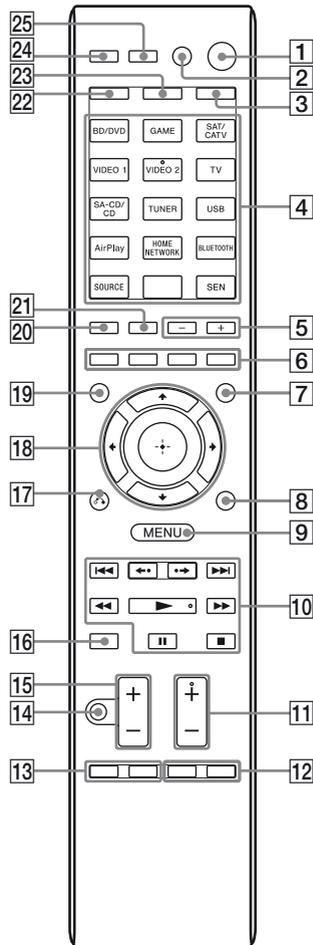
① **I/① (on/standby)**
Turns the receiver on or sets it to the standby mode.
If you press ZONE (③) to switch the remote to zone 2 mode, you can turn the power for zone 2 on or off using I/①.

Saving the power in standby mode
When Control for HDMI (page 98), Network Standby (page 101), and *Bluetooth* Standby (page 101) are set to off, and the receiver in zone 2 is turned off.

② **AV I/①[1] (on/standby)**
Turns on or off the audio/video equipment that the remote control is programmed to operate.
To turn the TV on or off, press TV (㉓) and then press AV I/①.
If you press I/① (①) at the same time, it will turn off the receiver and all other equipment including an amplifier in zone 2 (SYSTEM STANDBY).

Note
The function of the AV I/① changes automatically each time you press the input buttons (④).

③ **ZONE (page 92)**

④ **Input buttons[2]**
Selects the equipment you want to use. When you press any of the input buttons, the receiver turns on. The buttons are assigned to control Sony equipment. You can program the remote control to control non-Sony equipment following the steps in "Programming the remote control" on page 107.

Numeric/text buttons[1][2]
Press SHIFT (㉒), then press numeric/text buttons to
– preset/tune to the preset stations (page 60).
– select track numbers. Press 0/10 to select track number 10.
– select channel numbers.
– select the letters (ABC, DEF, etc.), punctuation marks (!, ?, etc.) or other symbols (#, %, etc.) when you enter characters for network features.
Press TV (㉓), then press the numeric buttons to select the TV channels.

-/--[1]
Press SHIFT (㉒), then press -/-- to select the channel entry mode, either one or two digit.
Press TV (㉓), then press -/-- to select the TV channel entry mode.

>10[1]
Press SHIFT (㉒), then press >10 to select track numbers over 10.

ENT/MEM[1]
Press SHIFT (㉒), then press ENT/MEM to
– enter the value after selecting a channel, disc, or track using numeric buttons.
– store a station during tuner operation.

CLEAR[1]
Press SHIFT (㉒), then press CLEAR to
– erase a letter for network features.
– clear a mistake when you press the incorrect numeric/text button.

CHARACTER
Press SHIFT (㉒), then press CHARACTER to select the character type for network features.
Each time you press CHARACTER, the character type changes in sequence as follows:
"abc" (lowercase letters) → "ABC" (uppercase letters) → "123" (numbers)

ALPHABET SEARCH
Press SHIFT (㉒), then press ALPHABET SEARCH to search for an item using a keyword (page 80).

⑤ **SOUND FIELD +/–**
Selects a sound field (page 61).

⑥ **Color buttons[1]**
Works according to the guide on the TV screen.

⑦ **GUI MODE**
Displays the GUI menu on the TV screen.

⑧ **TOOLS/OPTIONS[1]**
Displays and selects items from the option menus.
Press TV (㉓), then press TOOLS/OPTIONS to display the TV function options.

⑨ **MENU, HOME[1]**
Displays the menu to operate the audio/video equipment.
Press TV (㉓), then press HOME to display the menus of Sony TV.

⑩ **I◄◄/►►I[1], ◄◄/►►[1][2], ►[1][2], II[1], ■[1]**
Skip, backward/forward, play, pause, stop operation.

←•/•→[1]
Press to
– replay the previous scene or fast forward the current scene.
– skip to previous or next album when using iPod/iPhone.

REPEAT[1]
Press SHIFT (㉒), then press REPEAT to play a track or a folder repeatedly.

SHUFFLE[1]
Press SHIFT (㉒), then press SHUFFLE to play a track or a folder in random order.

FOLDER +/–[1]

Selects a folder.

TUNING +/–[1]

Scans a station.

PARTY[2]

Press SHIFT (22), then press PARTY to operate the PARTY STREAMING function. Hold down the button to start or close a PARTY (page 74).

D.TUNING

Enters direct tuning mode.

11 **TV CH +/–[1][2] or PROG +/–[1][2]**

Press TV (23), then press TV CH +/– or PROG +/– to scan for the preset TV channels.

PRESET +/–[1][2]

Selects preset stations or channels.

12 **F1/F2[1]**

Press BD/DVD (4), then press F1 or F2 to select the equipment.
• DVD/HDD COMBO
  F1: HDD
  F2: DVD disc, Blu-ray Disc
• DVD/VCR COMBO
  F1: DVD disc, Blu-ray Disc
  F2: VCR

AUTO VOL

Press AMP (24), then press AUTO VOL to activate the Advanced Auto Volume function (page 64).

SLEEP

Press AMP (24), then press SLEEP to set the receiver to turn off automatically at specified time.
Each time you press SLEEP, the display changes cyclically as follows:

0:30:00 → 1:00:00 → 1:30:00 → 2:00:00 → OFF

Tips

• 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.
  – Update the software of the receiver.

13 **TOP MENU[1]**

Opens or closes the BD-ROM's or DVD's Top Menu.

POP UP/MENU[1]

Opens or closes the BD-ROM's Pop-up Menu, or the DVD's menu.

TV INPUT[1] or ⊸[1] (Input select)

Press TV (23), then press TV INPUT or ⊸ to select the input signal (TV input or video input).

WIDE[1] or ▦[1] (Wide mode)

Press TV (23), then press WIDE or ▦ repeatedly to select the wide picture mode.

14 **MUTING[1] or 🔇[1]**

Turns off the sound temporarily. Press the button again to restore the sound.
Press TV (23), then press MUTING or 🔇 to activate the TV's muting function.

15 **TV VOL +/–[1] or ◁ +/–[1]**

Press TV (23), then press TV VOL +/– or ◁ +/– to adjust the TV volume level.

MASTER VOL +/–[1] or ◁ +/–[1]

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

16 **DISC SKIP/iPhone CTRL[1]**

Press to
– skip disc when using a multi-disc changer.
– enter iPod/iPhone control mode when using iPod/iPhone.

17 **RETURN/EXIT ⌐[1]**

Returns to the previous menu or exits the menu while the menu or on-screen guide is displayed on the TV screen.
Press TV (23), then press RETURN/EXIT ⌐ to return to the previous menu of Sony TV.

18 **⊕[1], ↑/↓/←/→[1]**

Press ↑/↓/←/→ to select the menu items, then press ⊕ to enter/confirm the selection.

19 **GUIDE[1] or ▤[1]**

Press TV (23), then press GUIDE or ▤ to display the on-screen program guide.

20 **AUTO CAL**

Press SHIFT (22), then press AUTO CAL to perform Auto Calibration.

Note

This button is not available when the receiver is in "GUI MODE".

DISPLAY[1]

Views information on the display panel.
Press TV (23), then press DISPLAY to display information of TV.

[21] **SOUND OPTIMIZER**

Activates the Sound Optimizer function (page 64).

[22] **SHIFT**

Changes the remote control button function to activate the buttons printed in pink.

[23] **TV**

Changes the remote control button function to activate the buttons printed in yellow.

[24] **AMP**

Activates the receiver operation for main zone (page 103).

[25] **RM SET UP**

Programs the remote control (page 107).

[1]See the table on page 18 for information on the buttons that you can use to control each equipment.

[2]The 5/JKL/VIDEO 2, ▶/PARTY and TV CH +/ PROG +/PRESET + buttons have tactile dots. Use the tactile dots as reference when operating the receiver.

Notes

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

To control other Sony equipment

Name		TV	VCR	DVD player, DVD/VCR combo	Blu-ray Disc player	HDD Recorder	PSX	Video CD player, LD player	Digital CATV terminal	DSS	Digital satellite/ terrestrial receiver	Tape deck A/B	DAT deck	CD player, MD deck
2	AV I/⏻	●	●	●	●	●	●	●	●	●	●		●	●
4	Numeric buttons	●	●	●	●	●	●	●	●	●	●	●	●	●
	-/--, >10	●	●	●	●	●	●	●	●	●		●		●
	ENT/MEM	●	●	●	●	●	●	●b)	●	●		●	●	●
	CLEAR			●a)	●		●	●c)						●e)
6	Color buttons	●		●a)	●	●					●			
8	TOOLS/ OPTIONS	●		●	●	●	●		●	●				
9	MENU, HOME	●	●	●	●	●	●		●	●	●			
10	I◀◀/▶▶I	●	●	●	●	●	●	●	●			●d)	●	●
	←·/·→, FOLDER +/−	●		●	●	●	●	●c)	●					●e)
	REPEAT			●a)	●			●c)				●d)	●	●
	SHUFFLE			●a)	●			●c)						●
	◀◀/TUNING −, ▶▶/TUNING +	●	●	●	●	●	●	●	●			●	●	●
	▶, II, ■	●	●	●	●	●	●	●	●			●	●	●
11	PRESET +/−, TV CH +/−, PROG +/−	●	●	●	●	●		●b)	●	●	●			
12	F1/F2			●	●									
13	TOP MENU, POP UP/MENU			●	●		●							
	TV INPUT, ⟞⊡ (Input select), WIDE, ⊞ (Wide mode)	●												
14	MUTING, 🔇	●												
15	MASTER VOL +/−, TV VOL +/−, ◿ +/−	●												
16	DISC SKIP/ iPhone CTRL			●a)	●			●c)						●
17	RETURN/ EXIT ⤶	●		●	●	●	●	●	●	●	●			
18	▲/▼/◄/►, (+)	●	●	●	●	●	●		●	●	●			
19	GUIDE, ⊞	●		●a)	●	●	●		●		●			
20	DISPLAY	●	●	●	●	●	●	●	●	●		●d)	●	●

a) DVD player only.
b) LD player only.
c) Video CD player only.
d) Deck B only.
e) CD player only.

Getting started

You can enjoy your audio/video equipment connected to the receiver by following the simple steps below.
Before connecting cords, be sure to disconnect the AC power cord (mains lead).

Installing and connecting the speakers (page 22, 24)

⬇

Checking the connection appropriate for your equipment

Connecting the TV and video equipment (page 26, 27)

The image quality depends on the connecting jack. See the illustration below. Select the connection according to the jacks on your equipment.
We recommend that you connect your video equipment via HDMI connection if they have HDMI jacks.

Digital	Analog

COMPONENT VIDEO
Y
PB/CB
PR/CR

HDMI
VIDEO
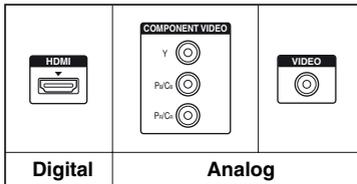
⬅ **High quality image**

⬇

Connecting the audio equipment (page 33)

⬇

Preparing the receiver

See "Setting the voltage selector" (page 37), "Connecting the AC power cord (mains lead)" (page 37) and "Initializing the receiver" (page 37).

⬇

Setting the speakers

Select the speaker pattern (page 38), then perform Auto Calibration (page 39).

Note

You can check the speaker connection using "Test Tone" (page 95). If the sound is not output correctly, check the speaker connection.

⬇

Setting the audio output settings on the connected equipment

To output multi channel digital audio, check the digital audio output setting on the connected equipment.
For a Sony Blu-ray Disc player, check that "Audio (HDMI)", "Dolby Digital", and "DTS" are set to "Auto", "Dolby Digital" and "DTS" respectively (as of September 2011).
For a PlayStation 3, check that "BD/DVD Audio Output Format (HDMI)" and "BD Audio Output Format (Optical Digital)" are set to "Bitstream" (with system software version 3.70).
For details, refer to the operating instructions supplied with the connected equipment.

Function for conversion of video signals

The receiver is equipped with a function for converting video signals.
Video signals and component video signals can be output as HDMI video signals (HDMI TV OUT jack only). As the default setting, video signals input from the connected equipment are output as shown in the table with solid arrows.

INPUT jack		OUTPUT jack
HDMI IN	⟶	HDMI TV OUT
COMPONENT VIDEO IN	⟶	COMPONENT VIDEO MONITOR OUT
VIDEO IN	⟶	MONITOR VIDEO OUT

⟶ : Same type of signal as that of the input signal is output.

------▶ : Video signals are upconverted and output (up to 1080i).

Notes on converting video signals

- When video signals from a VCR, etc., are up converted on this receiver and then viewed on your TV, depending on the status of the video signal output, the image on the TV screen may appear distorted horizontally or no image can be seen.
- If you are using an image improvement circuitry with your VCR, it may impact the video signal conversion. It is recommended to turn off this function on your VCR.
- Converted HDMI image output does not support x.v.Color (x.v.Colour), Deep Color (Deep Colour) and 3D.
- HDMI video signals cannot be converted to component video signals and video signals.

To connect a recording equipment

When recording, connect the recording equipment to the VIDEO OUT jacks of the receiver. Connect cords for input and output signals to the same type of jack, as VIDEO OUT jacks do not have an up-conversion function.

Note

Signals output from the HDMI TV OUT or MONITOR OUT jacks may not be recorded properly.

Digital audio formats supported by the receiver

Digital audio formats that this receiver can decode depend on digital audio output jacks of the equipment connected. This receiver supports the following audio formats.

Audio format	Maximum number of channels	Connection between the playback equipment and the receiver	
		COAXIAL/OPTICAL	HDMI
Dolby Digital	5.1	○	○
Dolby Digital EX	6.1	○	○
Dolby Digital Plus[a]	7.1	×	○
Dolby TrueHD[a]	7.1	×	○
DTS	5.1	○	○
DTS-ES	6.1	○	○
DTS 96/24	5.1	○	○
DTS-HD High Resolution Audio[a]	7.1	×	○
DTS-HD Master Audio[a][b]	7.1	×	○
Multi Channel Linear PCM[a]	7.1	×	○

[a] Audio signals are output in another format if the playback equipment does not correspond to the format. For details, refer to the operating instructions of the playback equipment.

[b] Signals with a sampling frequency of more than 96 kHz are played back at 96 kHz or 88.2 kHz.

1: Installing the speakers

This receiver allows you to use up to a 7.2 channel system (7 speakers and 2 subwoofers).

Example of speaker system configuration
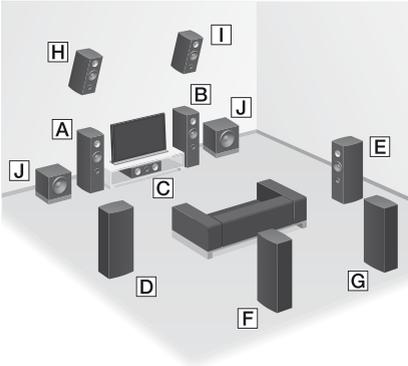
Ⓐ Front speaker (Left)
Ⓑ Front speaker (Right)
Ⓒ Center speaker
Ⓓ Surround speaker (Left)
Ⓔ Surround speaker (Right)
Ⓕ Surround back speaker (Left)*
Ⓖ Surround back speaker (Right)*
Ⓗ Front high speaker (Left)*
Ⓘ Front high speaker (Right)*
Ⓙ Subwoofer

* You cannot use the surround back speakers and the front high speakers simultaneously.
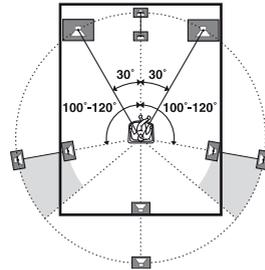
5.1 channel speaker system

To fully enjoy theater-like multi channel surround sound requires five speakers (two front speakers, a center speaker, and two surround speakers) and a subwoofer.
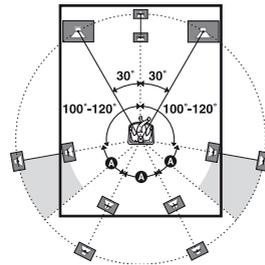
7.1 channel speaker system using surround back speakers

You can enjoy high fidelity reproduction of DVD or Blu-ray Disc software recorded sound in 6.1 channel or 7.1 channel format.

• 6.1 channel speaker placement
 Place the surround back speaker behind the listening position.

• 7.1 channel speaker placement
 Place the surround back speakers as shown in the illustration below. The angle Ⓐ should be the same.
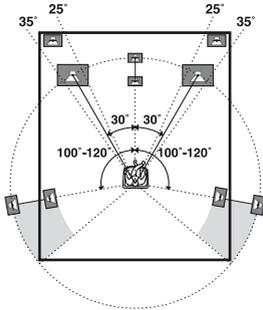
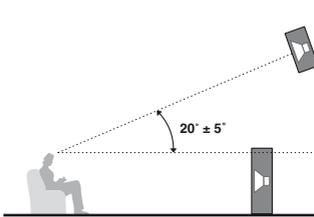## 7.1 channel speaker system using front high speakers

You can enjoy vertical sound effects by connecting additional two front high speakers. Place the front high speakers
– at an angle between 25° to 35°.
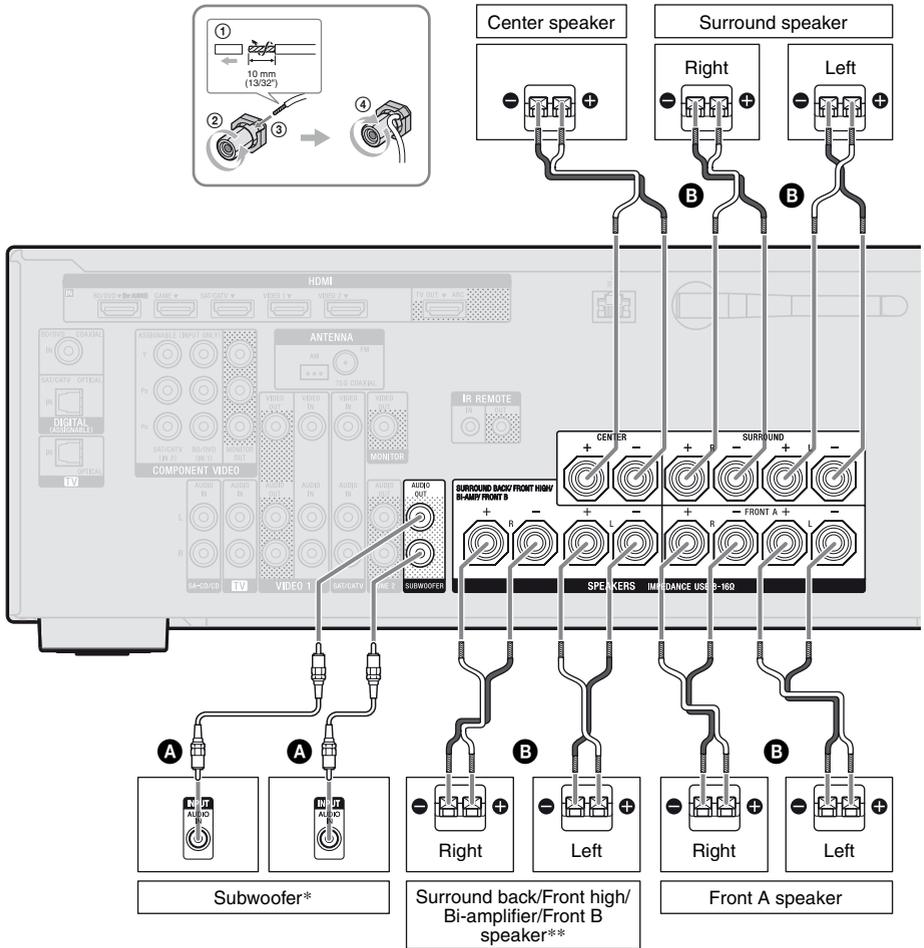

– at an angle of 20° ± 5° in height.

Tip

Since the subwoofer does not emit highly directional signals, you can place it wherever you want.

2: Connecting the speakers

Before connecting cords, be sure to disconnect the AC power cord (mains lead).

Ⓐ Monaural audio cord (not supplied)
Ⓑ Speaker cord (not supplied)

* When you connect a subwoofer with an auto standby function, turn off the function when watching movies. If the auto standby function is set to on, it turns to standby mode automatically based on the level of the input signal to the subwoofer, and the sound may not be output.

**Notes on the SPEAKERS SURROUND BACK/ FRONT HIGH/BI-AMP/FRONT B terminals connection.
   – If you connect only one surround back speaker, connect it to L of this terminals.
   – If you have an additional front speaker system, connect them to this terminals.
     Set the "SB Assign" to "Speaker B" in the Speaker Settings menu (page 38).
     You can select the front speaker system you want by using the SPEAKERS button on the receiver (page 39).
   – You can connect the front speakers to this terminals using bi-amplifier connection (page 25).
     Set the "SB Assign" to "BI-AMP" in the Speaker Settings menu (page 90).

Note

After you have installed and connected your speaker, be sure to select the speaker pattern from the Speaker Settings menu (page 38).

Bi-amplifier connection

If you are not using surround back speakers and front high speakers, you can connect the front speakers to the SPEAKERS SURROUND BACK/FRONT HIGH/ BI-AMP/FRONT B terminals using a bi-amplifier connection.
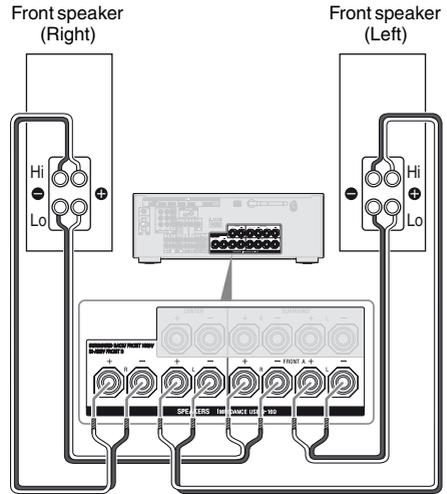
Connect the jacks on the Lo (or Hi) side of the front speakers to the SPEAKERS FRONT A terminals, and connect the jacks on the Hi (or Lo) side of the front speakers to the SPEAKERS SURROUND BACK/FRONT HIGH/BI-AMP/FRONT B terminals.
Make sure that metal fittings of Hi/Lo attached to the speakers have been removed from the speakers to avoid receiver malfunction.
After you have made the bi-amplifier connection, set the "SB Assign" to "BI-AMP" in the Speaker Settings menu (page 90).

3: Connecting the TV

You can watch the selected input image when you connect the HDMI TV OUT or MONITOR OUT jack to a TV. You can operate this receiver using a GUI (Graphical User Interface) if you connect HDMI TV OUT jack to a TV.
Before connecting cords, be sure to disconnect the AC power cord (mains lead).
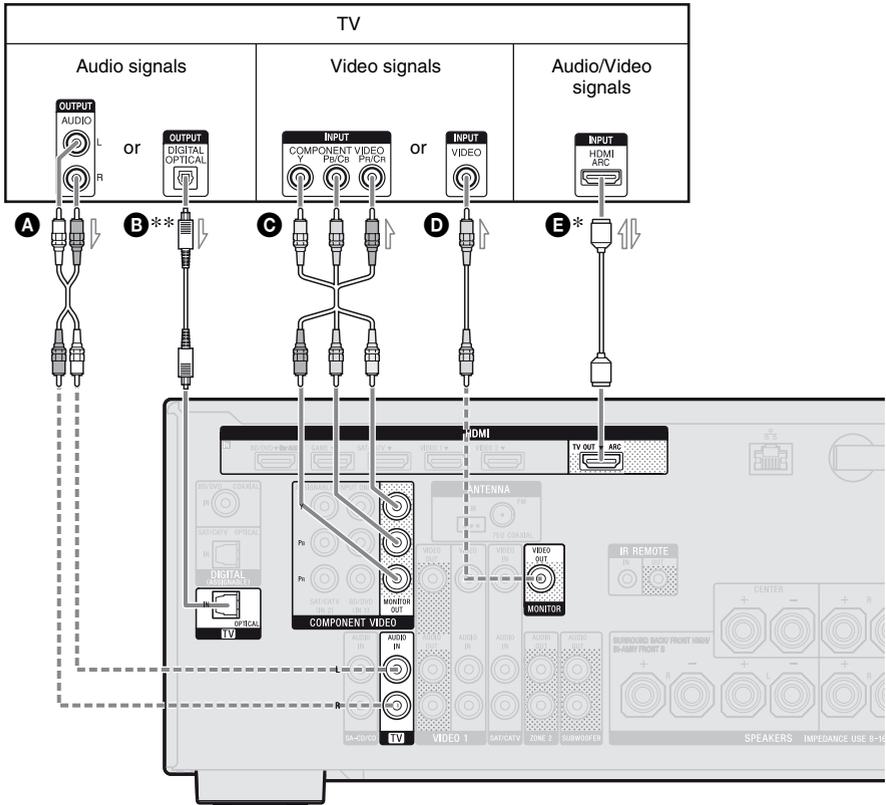
Ⓐ Audio cord (not supplied)
Ⓑ Optical digital cord (not supplied)
Ⓒ Component video cord (not supplied)
Ⓓ Video cord (not supplied)
Ⓔ HDMI cable (not supplied)
   Sony recommends that you use an HDMI-authorized cable or Sony HDMI cable.

────── Recommended connection
------ Alternative connection

To enjoy the TV broadcast in multi channel surround sound from the receiver

* If your TV is compatible with the Audio Return Channel (ARC) function, connect **❺**.

  Be sure to set the "Ctrl for HDMI" to "ON" in HDMI Settings menu (page 85). If you want to select an audio signal using other than an HDMI cable (e.g., via an optical digital cord or an audio cord), switch the audio input mode using INPUT MODE (page 88).

If your TV is not compatible with the ARC function, connect **❷.

Be sure to turn off the TV's volume or activate the TV's muting function.

Notes

- Connect a TV monitor or a projector to the HDMI TV OUT or MONITOR OUT jack on the receiver. You may not be able to record, even if you connect recording equipment.
- Depending on the status of the connection between the TV and the antenna (aerial), the image on the TV screen may be distorted. If this is the case, place the antenna (aerial) farther away from the receiver.
- When connecting optical digital cords, insert the plugs straight until they click into place.
- Do not bend or tie optical digital cords.

Tips

- All the digital audio jacks are compatible with 32 kHz, 44.1 kHz, 48 kHz, and 96 kHz sampling frequencies.
- The receiver has a video conversion function. For details, see "Function for conversion of video signals" (page 20).
- When you connect the audio output jack of the TV to the TV IN jacks of the receiver to output the TV sound from the speakers connected to the receiver, set the sound output jack of the TV to "Fixed" if it can be switched between either "Fixed" or "Variable".

To listen to the sound from the TV

If your TV does not support System Audio Control function, set the "Audio Out" to "TV+AMP" in the HDMI Settings menu (page 98).

4a: Connecting the video equipment

Using HDMI connection

High-Definition Multimedia Interface (HDMI) is an interface which transmits video and audio signals in digital format.
By connecting Sony "BRAVIA" Sync-compatible equipment using HDMI cables, operations can be simplified. See ""BRAVIA" Sync Features" (page 84).

HDMI features

- A digital audio signals transmitted by HDMI can be output from the speakers connected to the receiver. This signal supports Dolby Digital, DTS, and Linear PCM. For details, see "Digital audio formats supported by the receiver" (page 21).
- The receiver can receive Multi Channel Linear PCM (up to 8 channels) with a sampling frequency of 192 kHz or less with an HDMI connection.
- Analog video signals input to the receiver's VIDEO jack or COMPONENT VIDEO jacks can be output as HDMI signals (page 20). Audio signals are not output from an HDMI TV OUT jack while the image is converted.
- This receiver supports High Bitrate Audio (DTS-HD Master Audio, Dolby TrueHD), Deep Color (Deep Colour), x.v.Color (x.v.Colour) and 3D transmission.
- To enjoy 3D images, connect 3D-compatible TV and video equipment (Blu-ray Disc player, Blu-ray Disc recorder, PlayStation 3, etc.) to the receiver using High Speed HDMI cables, put on 3D glasses, and then play back a 3D-compatible content.

Notes on HDMI connections

- The audio and video signals of HDMI input are not output from the HDMI TV OUT jack while the GUI menu is displayed.
- DSD signals of Super Audio CD are not input and output.
- Depending on the TV or the video equipment, 3D images may not be displayed. Check the 3D image formats supported by the receiver (page 127).
- Refer to the operating instructions of each connected equipment for details.

When connecting cords

- Before connecting cords, be sure to disconnect the AC power cord (mains lead).
- It is not necessary to connect all the cords. Connect according to the availability of jacks on the connected equipment.
- Use a High Speed HDMI cable. If you use a Standard HDMI cable, 1080p, Deep Color (Deep Colour) or 3D images may not be displayed properly.
- We do not recommend using an HDMI-DVI conversion cable. When you connect an HDMI-DVI conversion cable to a DVI-D equipment, the sound and/or the image may be lost. Connect a separate audio cords or digital connecting cords, then set the "Input Assign" in the Input Option menu (page 88) when the sound is not output correctly.
- When connecting optical digital cords, insert the plugs straight until they click into place.
- Do not bend or tie optical digital cords.

Tip
All the digital audio jacks are compatible with 32 kHz, 44.1 kHz, 48 kHz, and 96 kHz sampling frequencies.
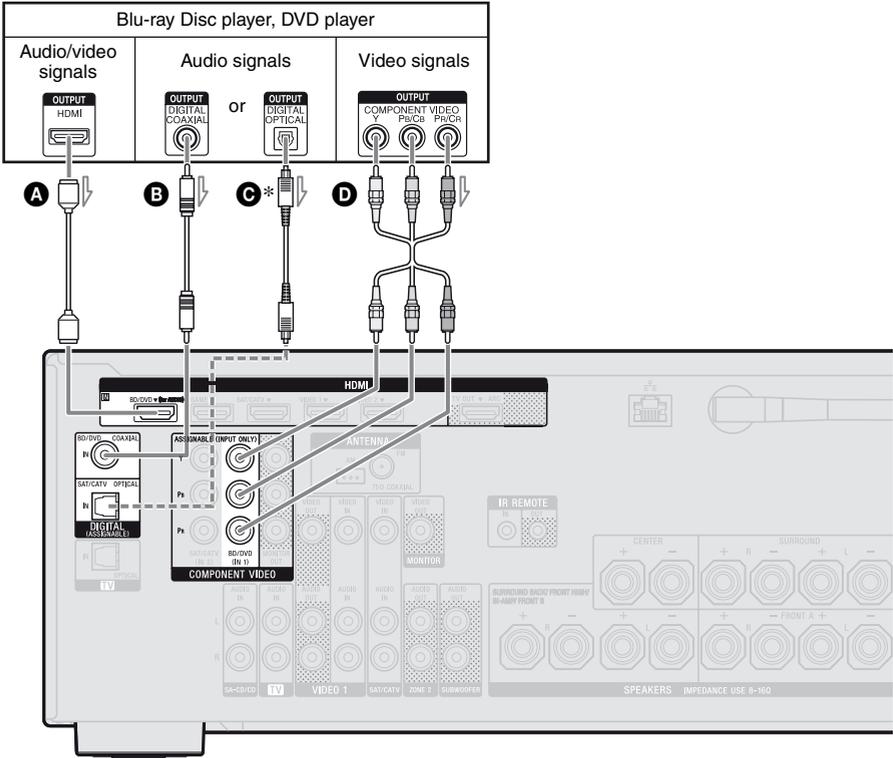
If you want to connect several digital equipment, but cannot find an unused input
See "Using other video/audio input jacks (Input Assign)" (page 88).

Converting video signals
This receiver is equipped with a function for converting video signals. For details, see "Function for conversion of video signals" (page 20).

Connecting a Blu-ray Disc player, DVD player

Ⓐ HDMI cable (not supplied)
Sony recommends that you use an HDMI-authorized cable or Sony HDMI cable.
Ⓑ Coaxial digital cord (not supplied)
Ⓒ Optical digital cord (not supplied)
Ⓓ Component video cord (not supplied)

Notes
• BD/DVD input has a better sound quality. When you need a higher sound quality, connect your equipment to the BD/DVD (for AUDIO) jack and select BD/DVD as input.
• The default setting for the BD/DVD input button on the remote control is Blu-ray Disc player. Be sure to change the default setting of the BD/DVD input button so that you can use the button to control your equipment. For details, see "Programming the remote control" (page 107).
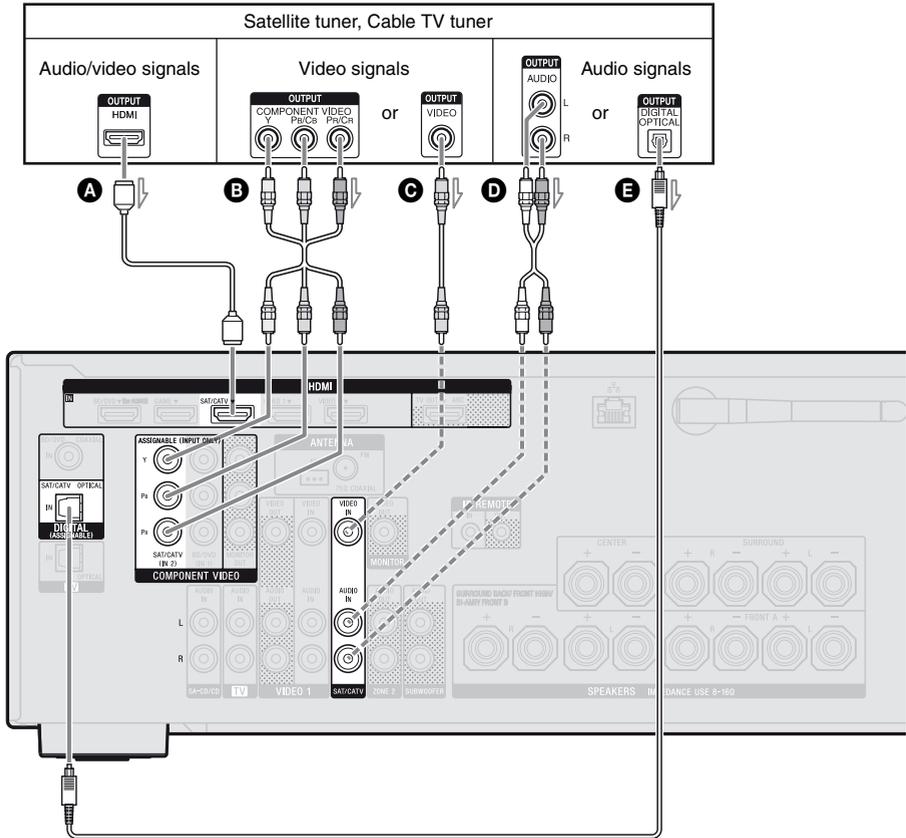
——— Recommended connection
----- Alternative connection

* When you connect equipment with an OPTICAL jack, set the "Input Assign" in the Input Option menu (page 88).

• You can also rename the BD/DVD input so that it can be displayed on the receiver's display panel. For details, see "Naming the input (Name Input)" (page 51).

Connecting a satellite tuner, cable TV tuner

Ⓐ HDMI cable (not supplied)

Sony recommends that you use an HDMI-authorized cable or Sony HDMI cable.

Ⓑ Component video cord (not supplied)

Ⓒ Video cord (not supplied)

Ⓓ Audio cord (not supplied)

Ⓔ Optical digital cord (not supplied)

—— Recommended connection

------ Alternative connection

Connecting a PlayStation 3
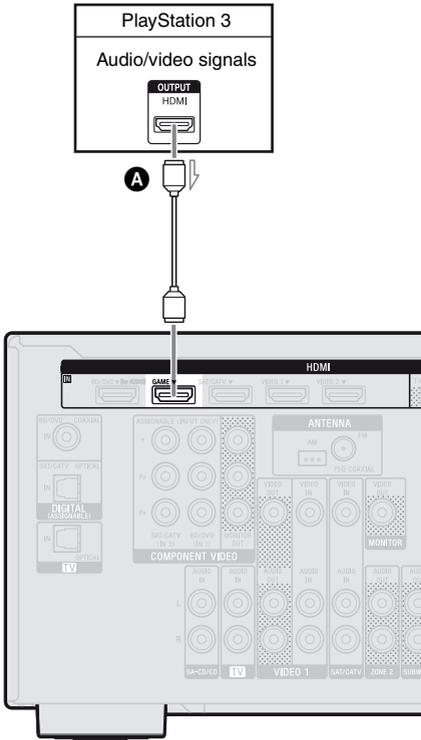
A HDMI cable (not supplied)
Sony recommends that you use an HDMI-authorized cable or Sony HDMI cable.

Note
You can rename the GAME input so that it can be displayed on the receiver's display panel. For details, see "Naming the input (Name Input)" (page 51).

Connecting an iPod, iPhone for video contents
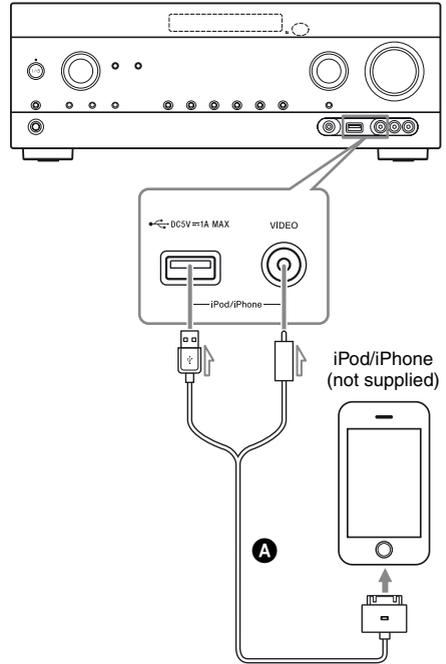
A Apple Composite AV cable (not supplied)

Connecting a DVD recorder, VCR
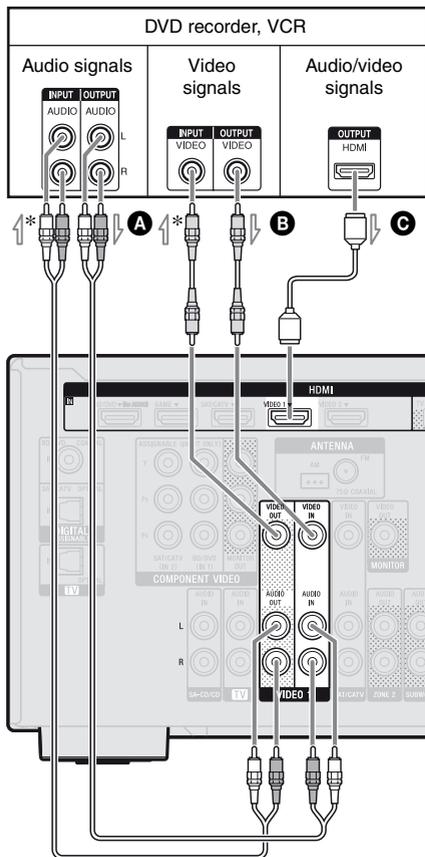
Ⓐ Audio cord (not supplied)
Ⓑ Video cord (not supplied)
Ⓒ HDMI cable (not supplied)
> **Sony recommends that you use an HDMI-authorized cable or Sony HDMI cable.**

* If you want to record, you must make this connection (page 57).

Note

Be sure to change the default setting of the VIDEO 1 input button on the remote control so that you can use the button to control your DVD recorder. For details, see "Programming the remote control" (page 107).

Connecting a Camcorder, Video game, PC
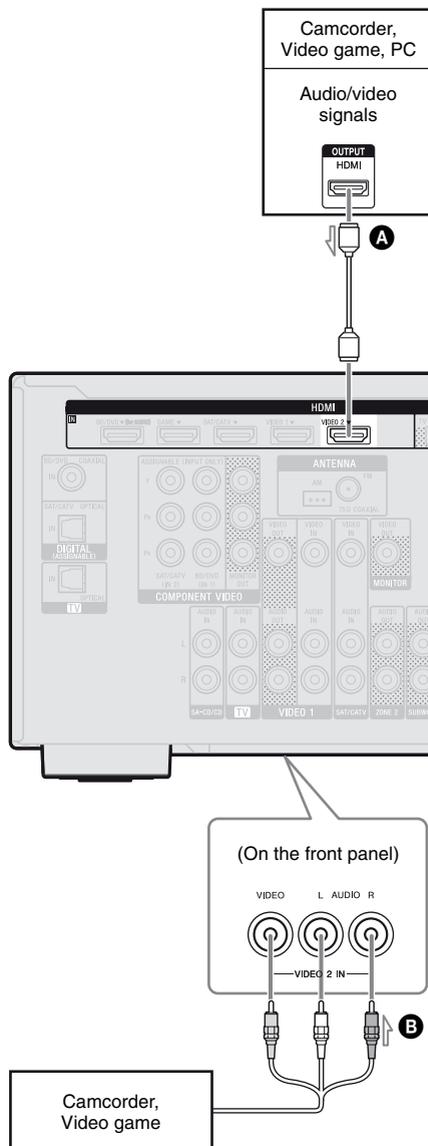
Ⓐ HDMI cable (not supplied)
> **Sony recommends that you use an HDMI-authorized cable or Sony HDMI cable.**

Ⓑ Audio/video cord (not supplied)

Note

You can rename the VIDEO 2 input so that it can be displayed on the receiver's display panel. For details, see "Naming the input (Name Input)" (page 51).

4b: Connecting the audio equipment

Connecting a Super Audio CD player, CD player

Before connecting cords, be sure to disconnect the AC power cord (mains lead).
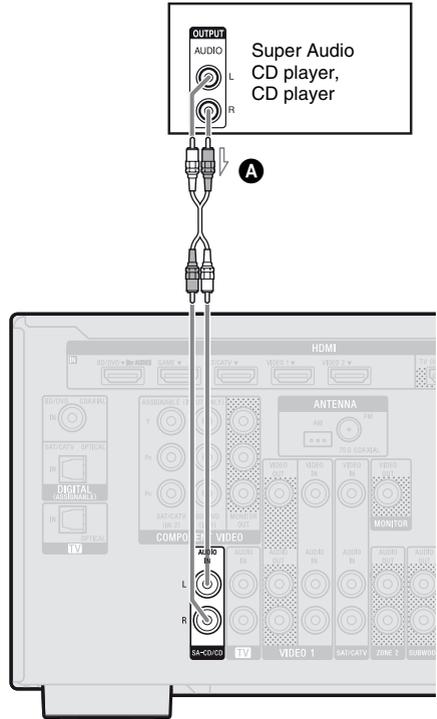
A Audio cord (not supplied)

Connecting an iPod, iPhone, USB device
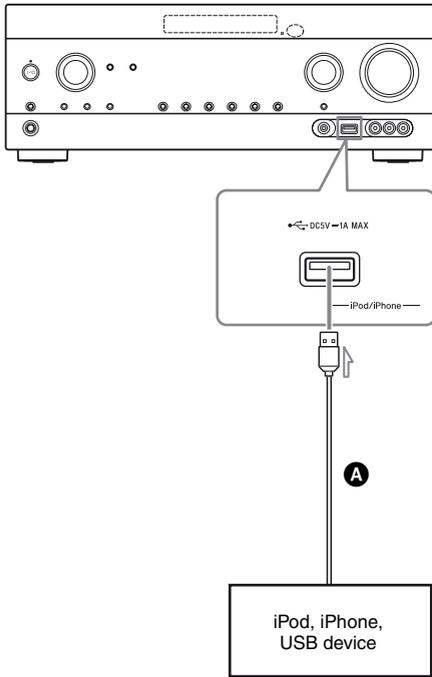
Ⓐ USB cable (not supplied)

5: Connecting the antennas (aerials)

Before connecting the antennas (aerials), be sure to disconnect the AC power cord (mains lead).

FM wire antenna (aerial) (supplied)

AM loop antenna (aerial) (supplied)
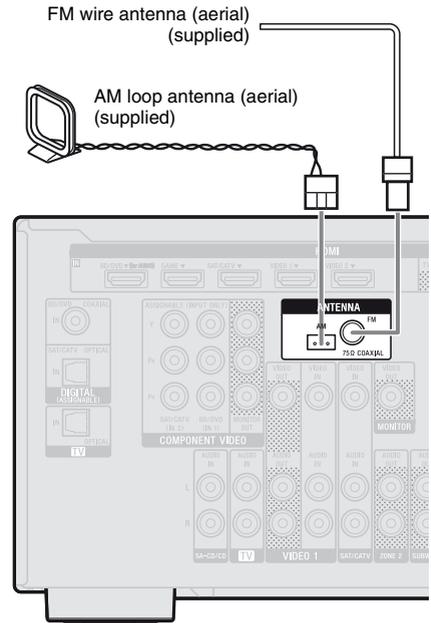
Notes
- To prevent noise pickup, keep the AM loop antenna (aerial) away from the receiver and other equipment.
- Be sure to fully extend the FM wire antenna (aerial).
- After connecting the FM wire antenna (aerial), keep it as horizontal as possible.

6: Connecting to the network

If you have an Internet connection, you can connect this receiver to the Internet as well. You can connect through a wireless or a wired LAN connection.

System requirements

The following system environment is required to use the network function of the receiver.

A Broadband line connection
A Broadband line connection to the Internet is required in order to listen to Sony Entertainment Network (SEN) and to update the software of the receiver.

Modem
This is the device that is connected to the broadband line to communicate with the Internet. Some of these devices are integrated with the router.

Router
- Use a router compatible with 100 Mbps or greater transmission speeds to enjoy content on your home network.
- We recommend that you use a router equipped with the built-in DHCP (Dynamic Host Configuration Protocol) server. This function automatically assigns IP addresses on the LAN.
- Use a wireless LAN router/access point if you want to use a wireless LAN connection.

LAN cable (CAT5) (For a wired LAN connection only)
- We recommend that you use this type of cable for a wired LAN. Some flat-type LAN cables are easily affected by noise. We recommend that you use normal-type cables.
- If the receiver is used in an environment in which there is power supply noise from electric products or in a noisy network environment, use a shielded-type LAN cable.

Server
A server is a device which delivers content (music, photos, and videos) to a DLNA device on a home network. A device that can be used as a server (a computer, etc.) must be connected to your wireless or wired LAN home network*.

* For details on servers which are compatible with this receiver, see page 66.

Configuration example

The following illustration is a configuration example of a home network with the receiver and a server.

We recommend that you connect the server to the router with a wired connection.
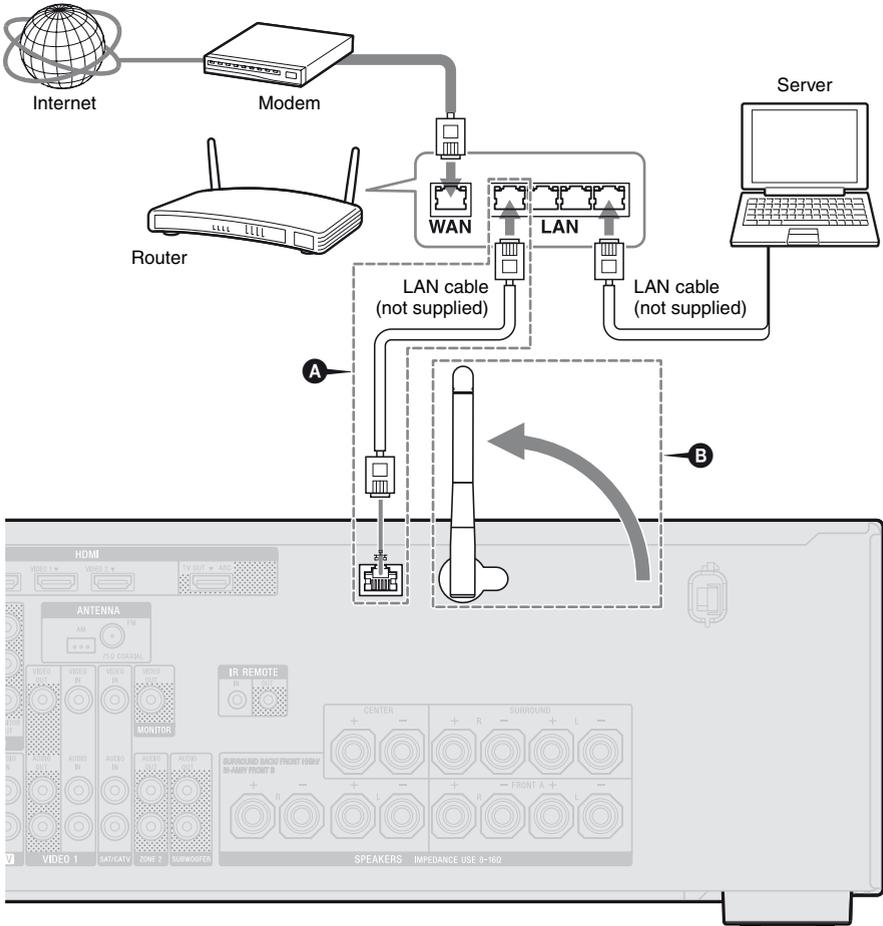
Ⓐ For a wired LAN connection only.

Ⓑ For a wireless LAN connection only.

Be sure to use a wireless LAN router/access point.

Note

An audio playback on a server may occasionally be interrupted when you use a wireless connection.

Setting the voltage selector

If your receiver has a voltage selector on the rear panel, check that the voltage selector is set to the local power supply voltage. If not, use a screwdriver to set the selector to the correct position before connecting the AC power cord (mains lead) to a wall outlet.
Depending on the area, the VOLTAGE SELECTOR may differ.

Connecting the AC power cord (mains lead)

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

AC power cord (mains lead)

To the wall outlet
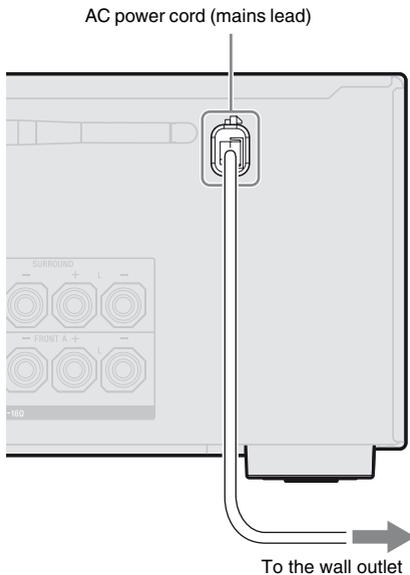
Initializing the receiver

Before using the receiver for the first time, initialize the receiver by performing the following procedure. This procedure can also be used to revert back to the factory default settings.
Be sure to use the buttons on the receiver to perform this operation.

I/(¹)
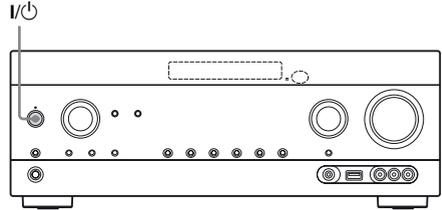
1 Press I/(¹) to turn off the receiver.

2 Hold down I/(¹) for 5 seconds.

The "CLEARING" appears on the display panel for a while, then changes to "CLEARED !".
Changes or adjustments made to the settings are now reset to the defaults.

Setting the speakers

Selecting the speaker pattern

Select the speaker pattern according to the speaker system which you are using.

1 Press MENU.

The menu is displayed on the TV screen.

2 Press ♦/♦ repeatedly to select "🧰 Settings", then press ⊕ or ➡.

The Settings menu list appears on the TV screen.
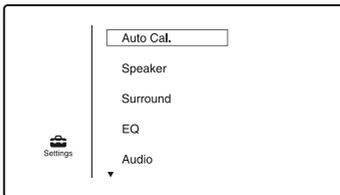
3 Press ♦/♦ repeatedly to select "Speaker", then press ⊕ or ➡.
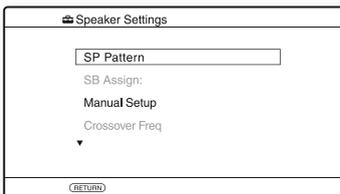
4 Press ♦/♦ repeatedly to select "SP Pattern", then press ⊕ or ➡.
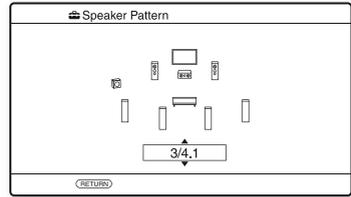
5 Press ♦/♦ repeatedly to select the speaker pattern you want, then press ⊕.

6 Press RETURN/EXIT ◖.

Setting the surround back speakers

You can switch the usage of the speaker(s) connected to the SPEAKERS SURROUND BACK/FRONT HIGH/BI-AMP/FRONT B terminals in accordance with the intended use.

Notes
• This setting is only available if the "SP Pattern" is set to a setting without surround back and front high speakers.
• Be sure to set the "SB Assign" before you perform Auto Calibration.

1 Press MENU.

The menu is displayed on the TV screen.

2 Press ♦/♦ repeatedly to select "🧰 Settings", then press ⊕ or ➡.

The Settings menu list appears on the TV screen.

3 Press ♦/♦ repeatedly to select "Speaker", then press ⊕ or ➡.

4 Press ↑/↓ repeatedly to select "SB Assign", then press ⊕ or ➡.

5 Press ↑/↓ repeatedly to select the parameter you want, then press ⊕.

- **Speaker B:** If you connect an additional front speaker system to the SPEAKERS SURROUND BACK/FRONT HIGH/ BI-AMP/FRONT B terminals, select "Speaker B".
- **BI-AMP:** If you connect front speakers to the SPEAKERS SURROUND BACK/FRONT HIGH/BI-AMP/ FRONT B terminals using a bi-amplifier connection, select "BI-AMP".
- **OFF:** If you connect surround back or front high speakers to the SPEAKERS SURROUND BACK/FRONT HIGH/ BI-AMP/FRONT B terminals, select "OFF".

6 Press RETURN/EXIT ⟲.

Selecting the front speaker

You can select the front speakers you want to drive.
Be sure to use the buttons on the receiver to perform this operation.

SPEAKERS
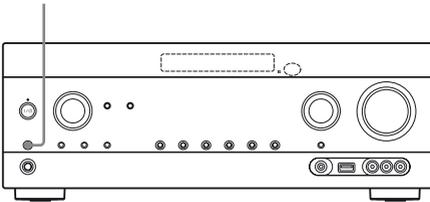
Press SPEAKERS repeatedly to select the front speaker system you want to drive.
You can confirm the selected speakers terminals by checking the indicator on the display panel.

Indicators	Selected speakers
SP A	The speaker connected to the SPEAKERS FRONT A terminals.
SP B*	The speaker connected to the SPEAKERS SURROUND BACK/ FRONT HIGH/BI-AMP/FRONT B terminals.
SP A B*	The speaker connected to both the SPEAKERS FRONT A and SPEAKERS SURROUND BACK/ FRONT HIGH/BI-AMP/FRONT B terminals (parallel connection).
	"SPK OFF" appears on the display panel. No audio signals are output from any speaker terminals.

* To select "SP B" or "SP A B", set the "SB Assign" to "Speaker B" in the Speaker Settings menu (page 38).

Note
This setting is not available when headphones are connected.

Using AUTO CALIBRATION

This receiver is equipped with DCAC (Digital Cinema Auto Calibration) function which 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][2]

[1] The measurement result is not utilized when "A. DIRECT" is selected.
[2] The measurement result is not utilized when Dolby TrueHD or DTS-HD signals with a sampling frequency of more than 48 kHz are being received.

Preparing the Receiver

continued

The DCAC is designed to achieve proper sound balance for your room. However, you can adjust the speaker levels manually according to your preference. For details, see "Test Tone" (page 95).

Before you perform Auto Calibration

Before you perform Auto Calibration, check the following items.
- Set up and connect the speakers (page 22, 24).
- Connect only the supplied optimizer microphone to the AUTO CAL MIC jack. Do not connect any other microphones to this jack.
- Set the "SB Assign" to "BI-AMP" in the Speaker Settings menu if you use bi-amplifier connection (page 90).
- Set the "SB Assign" to "Speaker B" in the Speaker Settings menu if you use speakers front B connection (page 38).
- Make sure the speaker output is not set to "SPK OFF" (page 39).
- Make sure that you are not using PARTY STREAMING function (page 74).
- Disconnect the headphones.
- Remove any obstacles in the path between the optimizer microphone and the speakers to avoid measurement errors.
- Get accurate measurement by making sure the environment is free from noise and quiet.

Notes
- The speakers emit very loud sound during the calibration and the volume cannot be adjusted. Provide consideration to your neighborhood and to the children in presence.
- If the muting function has been activated before you perform Auto Calibration, the muting function will shut off automatically.
- The correct measurements may not be able to take or Auto Calibration cannot be performed when special speakers, such as dipole speakers are used.

Setting up the Auto Calibration

Optimizer microphone

AUTO CAL MIC
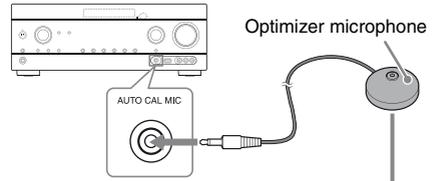
Example of using surround back speakers
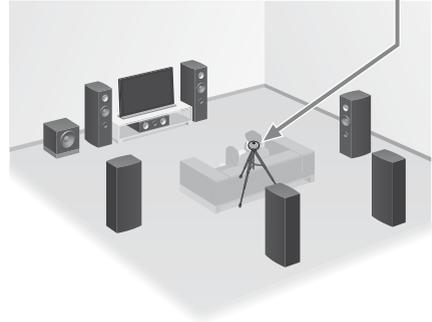
1 Select the speaker pattern (page 38).

If you connect front high speakers, select the speaker pattern that has front high speakers (5/■.■ or 4/■.■) each time you perform Auto Calibration. Otherwise, the characteristics of the front high speakers cannot be measured.

2 Connect the supplied optimizer microphone to the AUTO CAL MIC jack.

3 Set up the optimizer microphone.

Place the optimizer microphone at your seating position. Use a stool or tripod so that the optimizer microphone remains at the same height as your ears.

Confirm active subwoofer setup

- When a subwoofer is connected, turn on the subwoofer and turn up the volume prior to activating the subwoofer. Turn the LEVEL to just before the mid-point.
- If you connect a subwoofer with a crossover frequency function, set the value to maximum.
- If you connect a subwoofer with an auto standby function, set it to off (deactivated).
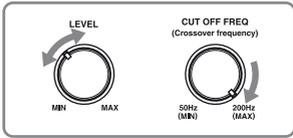
Note

Depending on the characteristics of the subwoofer you are using, the setup distance value may be different from the actual position.

Performing Auto Calibration
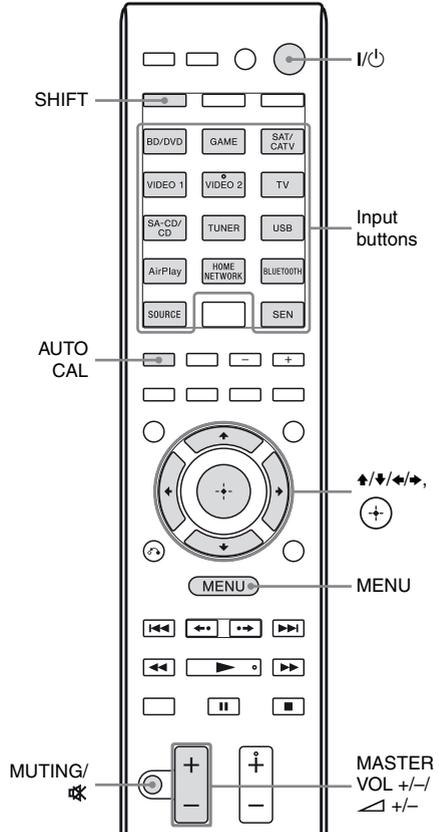
1 Press MENU.

The menu is displayed on the TV screen.

2 Press ↑/↓ repeatedly to select "⚙ Settings", then press ⊕ or →.

The Settings menu list appears on the TV screen.

3 Press ▲/▼ repeatedly to select "Auto Cal.", then press ⊕ or ➡.

```
⏏ Auto Calibration

        Auto Calibration Settings




     Start          Cal. Type


   (RETURN)
```
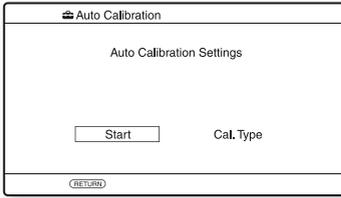
4 Press ◄/➤ repeatedly to select "Start", then press ⊕.

```
⏏ Auto Calibration

       Start auto calibration
       (auto speaker setup).



            START


   (RETURN)
```
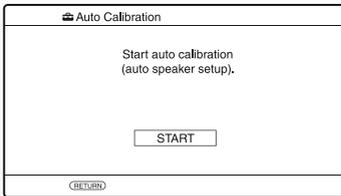
5 Press ⊕ to select "START".

6 The measurement starts in five seconds.

The measurement process will take approximately 30 seconds with a test tone.
When the measurement ends, a beep sounds and the screen switches.

```
⏏ Auto Calibration




            Save

```
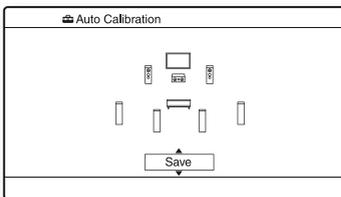
Note
If an error code appears on the screen, see "Message list after Auto Calibration measurement" (page 44).

7 Press ▲/▼ repeatedly to select the item you want, then press ⊕.

- **Retry:** Performs the Auto Calibration again.
- **Save:** Save the measurement results and exits the setting process.
- **Warning:** Displays warning related to the measurement results. See "Message list after Auto Calibration measurement" (page 44).
- **Exit:** Exits the setting process without saving the measurement results.

8 Save the measurement result.

Select "Save" in step 7.

Notes
- The A.P.M. (Automatic Phase Matching) function is activated after you save the measurement result.
- The A.P.M. function does not work in the following cases.
  – The calibration type is set to "Off" when using the "Cal. Type" Auto Calibration (page 42).
  – When Dolby TrueHD or DTS-HD signals with a sampling frequency of more than 48 kHz are being received.

9 Press ◄/➤ repeatedly to select "Cal. Type", then press ⊕.

- **Full Flat:** Makes the measurement of frequency from each speaker flat.
- **Engineer:** Sets to "the Sony listening room standard" frequency characteristics.
- **Front Reference:** Adjusts the characteristics of all the speakers to match the characteristics of the front speaker.
- **Off:** Sets the Auto Calibration equalizer level and the A.P.M. function to off.

Tip
You can select the calibration type after you have performed the Auto Calibration and saved the settings.

10 Disconnect the optimizer microphone from the receiver.

Note

If you reposition your speaker, we recommend that you perform Auto Calibration again to enjoy the surround sound.

Tips

• You can change the unit of distance in "Distance Unit" in the Speaker settings menu (page 96).
• The size of a speaker ("Large"/"Small") is determined by the low frequency characteristics. The measurement results may vary, depending on the position of the optimizer microphone and speakers, and the shape of the room. It is recommended that you apply the measurement results. However, you can change those settings in the Speaker Settings menu. Save the measurement results first, then try to change the settings.

To cancel Auto Calibration

The Auto Calibration function will be canceled when you perform the following during the measurement process:
– Press I/(¹).
– Press the input buttons on the remote control or turn the INPUT SELECTOR on the receiver.
– Press MUTING or ⊠.
– Press SPEAKERS on the receiver.
– Change the volume level.
– Connect the headphones.
– Press SHIFT, then press AUTO CAL.

Checking the Auto Calibration results

To check error code or warning message obtained in "Performing Auto Calibration" (page 41), proceed with the following steps.

Press ⬆/⬇ to select "Warning" in step 7 in "Performing Auto Calibration" (page 42) then press ⊕.

If a warning message appears, check the message and use the receiver without change. Or if necessary, perform Auto Calibration again.

When "Error Code" appears

Check the error and perform Auto Calibration again.

1 Press ⊕ to select "ENTER".
   "RETRY ?" appears on the TV screen.

2 Press ⬅/➡ to select "YES", then press ⊕.

3 Repeat steps 6 to 10 in "Performing Auto Calibration" (page 41).

Message list after Auto Calibration measurement

Display and explanation

Error Code 31
The SPEAKERS is set to off. Set to other speaker settings and perform the Auto Calibration again.

Error Code 32
Error Code 33
Speakers were not detected or not connected properly.
- None of the front speakers are connected or only one front speaker is connected.
- Either the surround left or surround right speaker is not connected.
- Surround back speakers or front high speakers are connected even though surround speakers are not connected. Connect the surround speaker(s) to the SPEAKERS SURROUND terminals.
- The surround back speaker is connected only to the SPEAKERS SURROUND BACK/FRONT HIGH/BI-AMP/FRONT B R terminals. When you connect only one surround back speaker, connect it to the SPEAKERS SURROUND BACK/FRONT HIGH/BI-AMP/FRONT B L terminals.
- Either the front left high or front right high speaker is not connected.

The optimizer microphone is not connected. Make sure that the optimizer microphone is connected properly and perform the Auto Calibration again. If the optimizer microphone is connected properly but the error code still appears, the optimizer microphone cable may be damaged.

Warning 40
The measurement process has completed with high noise level detection. You may be able to achieve better results if you try in a quiet environment again.

Warning 41
Warning 42
The input from the microphone is too big.
- The distance between the speaker and the microphone may be too close. Set them apart and perform the measurement again.

Warning 43
The distance and position of a subwoofer cannot be detected. This may be caused by noise. Try to perform the measurement in a quiet environment.

No Warning
There is no warning information.

Tip
Depending on the position of the subwoofer, the measurement results may vary. However, there will be no problems even if you continue to use the receiver with that value.

Configuring the network settings of the receiver

The network settings for the receiver must be set correctly to use the Home Network, SEN, AirPlay, and PARTY STREAMING functions.

Using a wireless LAN connection

There are several connecting methods you can use to set up a wireless network: searching for an access point, using a WPS connecting method (either the push-button method or the PIN code method), or manual setting.

Notes
- Make sure not to use the wireless LAN function where medical equipment (such as a pacemaker) is used or where the use of wireless communication is prohibited.
- Before connecting to your home network, you need to prepare a wireless LAN router/access point. For details, refer to the operating instructions of the device.
- Depending on your home network environment, the wireless LAN router/access point may have been set up such that it cannot be connected using WPS, even though it is compatible with WPS. For details on whether your wireless LAN router/access point is compatible or not compatible with WPS, and on the setup of a WPS connection, refer to the operating instructions of your wireless LAN router/access point.
- You may encounter setup difficulties if the receiver and the wireless LAN router/access point are located too far from each other. If you do, move the devices closer to each other.

Searching for an access point and setting up a wireless network (Access Point Scan method)

You can set up a wireless network by searching for an access point. To set up the network using this connection method, you will be required to select or enter the following information. Check the following information in advance, and record it in the space provided below.

❏ **The network name (SSID**[*1]**) that identifies your network**[*2]**. (This will be needed in step 7.)**

 :

❏ **If your wireless home network is secured by encryption, the security key (WEP key, WPA/WPA2 key) for your network**[*2]**. (This will be needed in step 8.)**

 :

[*1] SSID (Service Set Identifier) is a name that identifies a particular access point.

[*2] This information should be available from a label on your wireless LAN router/access point, from the operating instructions, from the person who set up your wireless network, or from the information provided by your Internet service provider.
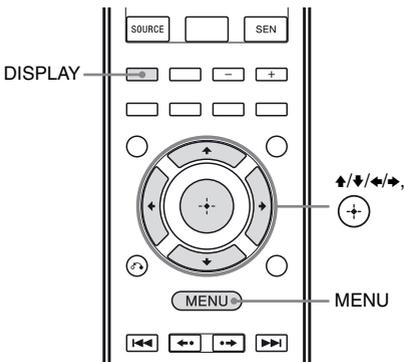
DISPLAY

MENU

1 Press MENU.

The menu is displayed on the TV screen.

2 Press ♦/♦ repeatedly to select "🛠 Settings", then press ⊕ or ♦.

3 Press ♦/♦ repeatedly to select "Network", then press ⊕.

4 Press ♦/♦ repeatedly to select "Settings", then press ⊕.

5 Press ♦/♦ repeatedly to select "Wireless LAN Settings", then press ⊕.

If "Change Setting?" appears on the TV screen, select "OK", then press ⊕.

6 Press ♦/♦ repeatedly to select "Access Point Scan", then press ⊕.

The receiver starts searching for access points, and displays a list of up to 30 available network name (SSID).

7 Press ♦/♦ repeatedly to select the network name (SSID) you want, then press ⊕.

The security setting display appears on the TV screen.

8 Enter the security key (WEP key, WPA/WPA2 key), then press ⊕.

By default, the security key appears as "*****". Press DISPLAY repeatedly to encrypt and disclose the security key. "IP Settings" appears on the TV screen.

9 Press ♦/♦ repeatedly to select "Auto", then press ⊕.

The proxy setting display appears on the TV screen.

When using a fixed IP address

Select "Manual", then press ⊕. The IP address input display appears on the TV screen.

Press SHIFT, then press numeric button to enter the value for "IP Address", and then press ⊕. Then, enter the value for "Subnet Mask", "Default Gateway", "Primary DNS" and "Secondary DNS". The proxy setting display appears on the TV screen.

10 Press ⏶/⏷ repeatedly to select "Do Not Use", then press ⊕.

The confirmation display appears on the TV screen.

When using a proxy server

Select "Use", then press ⊕. The proxy address input display appears on the TV screen.

Press SHIFT, then press numeric/text button to enter the value for "Proxy Address", and then press ⊕. Then, enter the value for "Port Number". The confirmation display appears on the TV screen.

11 Press ⏶/⏷ repeatedly to select "OK", then press ⊕.

"Connecting" flashes on the TV screen. "Complete!" appears after the network settings are completed and "🔊" lights up on the display panel. To return to the Network Settings menu, press ⊕. (Depending on the network environment, the network settings may take some time.)

12 Perform the server settings.

To listen to audio content stored on the server, you need to set up your server (page 66).

Note

If your network has not been secured by encryption (using the security key), the security setting display does not appear in step 8.

Tip

When checking the network settings, see "To check the network information" (page 99).

If you cannot find the network name (SSID) you want (manual setup method)

You can input the network name (SSID) you want manually if it does not appear on the list.

1 Select "Manual Registration" in step 6 in "Searching for an access point and setting up a wireless network (Access Point Scan method)" (page 45).

2 Press ⏶/⏷ repeatedly to select "Direct Input", then press ⊕.

3 Enter the network name (SSID), then press ⊕.

4 Press ⏶/⏷ repeatedly to select the security setting you want, then press ⊕.

5 Follow steps 8 to 12 in "Searching for an access point and setting up a wireless network (Access Point Scan method)" (page 45).

Setting up a wireless network using an access point compliant with WPS

You can easily set up a wireless network using an access point compliant with WPS. The WPS setting can be made using either the push-button configuration method or the PIN (Personal Identification Number) code method.

What is WPS (Wi-Fi Protected Setup)?

WPS is a standard created by the Wi-Fi Alliance allowing you to setup a wireless network easily and securely.

Setting up a wireless network using the WPS push button configuration method

You can easily set up a WPS wireless connection with one push of the designated button.

1 Select "WPS Push" in step 6 in "Searching for an access point and setting up a wireless network (Access Point Scan method)" (page 45).

2 Follow the on-screen directions, and press the WPS button on the access point.
Message: Push WPS button on access point within 2 min
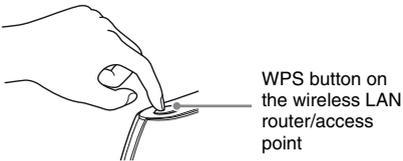
WPS button on the wireless LAN router/access point

"Complete!" appears after the network settings are complete and "⌐" lights up on the display panel. To return to the Network Settings menu, press ⊕.
(Depending on the network environment, the network settings may take some time.)

3 Perform the server settings.
To listen to audio content stored on the server, you need to set up your server (page 66).

Tip
When checking the network settings, see "To check the network information" (page 99).

Setting up a wireless network using the WPS PIN code method

If the access point supports the WPS PIN (Personal Identification Number) code connection, you can set up a WPS wireless connection by entering the receiver's PIN code into the wireless LAN router/access point.

1 Select "Manual Registration" in step 6 in "Searching for an access point and setting up a wireless network (Access Point Scan method)" (page 45).

2 Press ▲/▼ repeatedly to select "WPS PIN", then press ⊕.
The available SSID (access point) list appears.

3 Press ▲/▼ repeatedly to select the network name (SSID) you want, then press ⊕.
The PIN code (8 digits) of the receiver appears on the TV screen. Leave the PIN code displayed until the connection is complete. (A different PIN code is displayed each time you perform this operation.)

4 Input the receiver's PIN code into the wireless LAN router/access point.
The receiver starts the network settings.
"Complete!" appears after the network settings are complete and "⌐" lights up on the display panel. To return to the Network Settings menu, press ⊕.
(Depending on the network environment, the network settings may take some time.)

5 Perform the server settings.
To listen to audio content stored on the server, you need to set up your server (page 66).

Tips
- When checking the network settings, see "To check the network information" (page 99).
- For details on entering the PIN code into the wireless LAN router/access point, refer to the operating instructions of the wireless LAN router/access point.

Using a wired LAN connection

1 **Select "Wired LAN Settings" in step 5 in "Searching for an access point and setting up a wireless network (Access Point Scan method)" (page 45).**

"IP Settings" appears on the TV screen. If "Change Setting?" appears on the TV screen, select "OK", then press ⊕.

2 Press ↑/↓ repeatedly to select "Auto", then press ⊕.

The proxy setting display appears on the TV screen.

When using a fixed IP address

Select "Manual", then press ⊕. The IP address input display appears on the TV screen.
Press SHIFT, then press numeric button to enter the value for "IP Address", and then press ⊕. Then, enter the value for "Subnet Mask", "Default Gateway", "Primary DNS" and "Secondary DNS".
The proxy setting display appears on the TV screen.

3 Press ↑/↓ repeatedly to select "Do Not Use", then press ⊕.

The confirmation display appears on the TV screen.

When using a proxy server

Select "Use", then press ⊕. The proxy address input display appears on the TV screen.
Press SHIFT, then press numeric/text button to enter the value for "Proxy Address", and then press ⊕. Then, enter the value for "Port Number".
The confirmation display appears on the TV screen.

4 Press ↑/↓ repeatedly to select "OK", then press ⊕.

"Connecting" appears on the TV screen. "Complete!" appears after the network settings are completed. To return to the Network Settings menu, press ⊕. (Depending on the network environment, the network settings may take some time.)

5 Perform the server settings.

To listen to audio content stored on the server, you need to set up your server (page 66).

Tip

When checking the network settings, see "To check the network information" (page 99).

Guide to on-screen display operation

You can display the menu of the receiver on the TV screen and select the function you want to use on the TV screen by pressing ↑/↓/←/→ and ⊕ on the remote control.
To display the menu of the receiver on the TV screen, make sure that the receiver is in "GUI MODE" following the steps in "To turn "GUI MODE" on and off" (page 49).
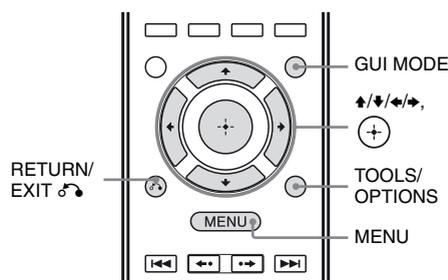
Using the menu

1 Switch the input of the TV so that an image of the menu is displayed.

2 Press MENU.

The menu is displayed on the TV screen.
Depending on the TV, the GUI menu may
take some time to appear on the TV
screen.

3 Press ↑/↓ repeatedly to select a menu you want, then press ⊕ or → to enter the menu.

The menu item list appears on the TV
screen.
Example: When you select "🔲 Input".

4 Press ↑/↓ repeatedly to select the menu item you want to adjust, then press ⊕ to enter the menu item.

5 Repeat steps 3 and 4 to select the parameter you want.

To return to the previous screen
Press RETURN/EXIT ♂⌐.

To exit the menu
Press MENU.

To turn "GUI MODE" on and off
Press GUI MODE. "GUI ON" or "GUI OFF"
appears on the display panel, depending on the
mode selected.

Overview of the main menus

Menu icon	Description
🔲 Input	Selects the input source equipment connected to the receiver (page 50).
🎵 Music	Selects the music from the server on the Home Network (page 69), SEN (page 71), AirPlay (page 75), iPod/iPhone (page 53), USB device (page 56) or *Bluetooth* (page 81).
🎞 Video	Selects the video from iPod/iPhone (page 53).
🎬 FM/AM	Selects the built-in FM/AM radio (page 58).
🧰 Settings	Adjusts the settings of the receiver (page 93).

Using the option menus

When you press TOOLS/OPTIONS, the
option menus for the selected main menu are
displayed. You can select a related function
without reselecting the menu.

1 Press MENU.

The menu is displayed on the TV screen.

2 Press ↑/↓ repeatedly to select a menu you want, then press ⊕ or ➡ to enter the menu.

The menu item list appears on the TV screen.
Example: When you select "🔁 Input".

```
┌─────────────────────────────────┐
│  🔁      BD/DVD                  │
│ Input                           │
│          GAME                   │
│                                 │
│          SAT/CATV               │
│                                 │
│          VIDEO 1                │
│                                 │
│          VIDEO 2                │
│                                 │
│          ▼                      │
└─────────────────────────────────┘
```
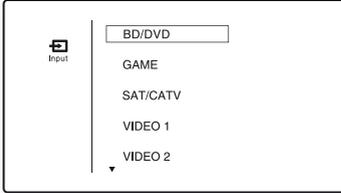
3 Press TOOLS/OPTIONS while the menu item list is displayed.

The option menu appears.

```
┌─────────────────────────────────┐
│  🔁      BD/DVD                  │
│ Input                           │
│          GAME                   │
│                  ┌────────────┐ │
│          SAT/CATV│Input Assign│ │
│                  │Name Input  │ │
│          VIDEO 1 └────────────┘ │
│                                 │
│          VIDEO 2                │
│                                 │
└─────────────────────────────────┘
```
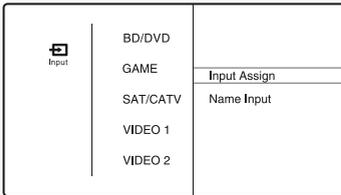
4 Press ↑/↓ repeatedly to select the option menu item you want, then press ⊕ or ➡.

5 Press ↑/↓ repeatedly to select the parameter you want, then press ⊕.

To exit the option menu
Press RETURN/EXIT ↩.

Playing an input source equipment

Input buttons

SOUND FIELD +/–

↑/↓/←/➡, ⊕

TOOLS/ OPTIONS

MENU

MUTING/ 🔇

MASTER VOL +/–/ ⤢ +/–
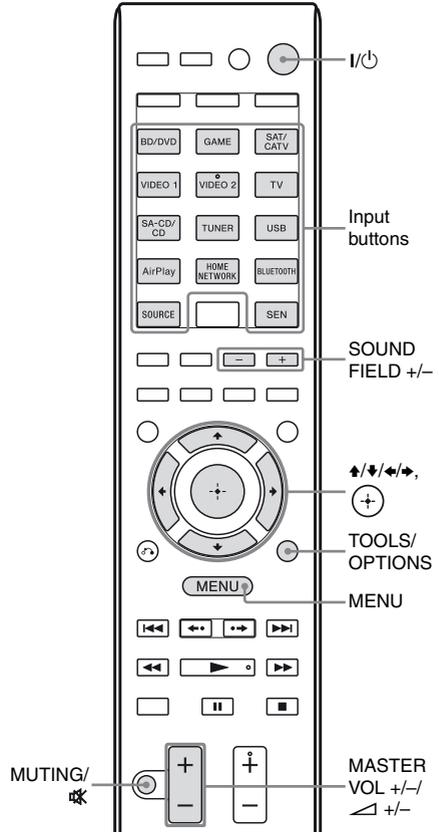
1 Press MENU.

The menu is displayed on the TV screen.

2 Select "🔁 Input", then press ⊕ or ➡.

The menu item list appears on the TV screen.

---

3 Select the equipment you want, then press ⊕.

The menu screen disappears and the playback screen of the external input appears.

The input that can be selected:
- **BD/DVD:** Blu-ray Disc player or DVD player, etc., connected to the BD/DVD jack.
- **GAME:** PlayStation 3, etc., connected to the GAME jack.
- **SAT/CATV:** Satellite tuner, etc., connected to the SAT/CATV jack.
- **VIDEO 1, VIDEO 2:** VCR, etc., connected to the VIDEO 1 or VIDEO 2 jack.
- **TV:** TV connected to the TV jack.
- **SA-CD/CD:** Super Audio CD or CD player, etc., connected to the SA-CD/CD jack.

4 Turn on the equipment and start playback.

5 Press MASTER VOL +/– or ∠ +/– to adjust the volume.

You can also use MASTER VOLUME on the receiver.

6 Press SOUND FIELD +/– to enjoy the surround sound.

You can also use 2CH/A.DIRECT, A.F.D., MOVIE (HD-D.C.S.) or MUSIC on the receiver.
For details, see page 61.

Tips
- You can turn INPUT SELECTOR on the receiver or press input buttons on the remote control to select the equipment you want.
- You can adjust the volume differently using the MASTER VOLUME knob on the receiver or the MASTER VOL +/– or ∠ +/– button on the remote control.
  To turn the volume up or down quickly
  – Turn the knob quickly.
  – Press and hold the button.
  To make fine adjustment
  – Turn the knob slowly.
  – Press the button and release it immediately.

To activate the muting function

Press MUTING or ⊠.
The muting function will be canceled when you do the following.
- Press MUTING or ⊠ again.
- Change the volume.
- Turn off the receiver.
- Perform Auto Calibration.

To avoid damaging your speakers

Before you turn off the receiver, be sure to turn down the volume level.

Naming the input (Name Input)

You can enter a name of up to 8 characters for inputs and display it.
It is more recognizable having the equipment named on the display than the jacks.

1 Select the input you want to name from "⊡ Input" screen.

2 Press TOOLS/OPTIONS.

The option menu appears.

3 Select "Name Input", then press ⊕ or ➡.

4 Press ▲/▼ repeatedly to select a character, then press ➡.

You can move the input position backward and forward by pressing ◀/▶.

5 Repeat step 4 to input a character one by one, then press ⊕.

The name you entered is registered.

Note
Some letters that can be displayed on the TV screen cannot be displayed on the display panel.

Playing an iPod/iPhone

You can enjoy music/video contents from the iPod/iPhone by connecting it to the iPod/iPhone
((USB) port and VIDEO IN jack) on the receiver.
For details on connecting the iPod/iPhone, see page 31, 34.

Compatible iPod/iPhone models

You can use the following iPod/iPhone models on this receiver. Update your iPod/iPhone with the
latest software before using it.

iPod touch 4th generation	iPod touch 3rd generation	iPod touch 2nd generation	iPod touch 1st generation
iPod nano 6th generation	iPod nano 5th generation (video camera)	iPod nano 4th generation (video)	iPod nano 3rd generation (video)
iPod nano 2nd generation (aluminum)	iPod classic	iPhone 4S	iPhone 4
iPhone 3GS	iPhone 3G	iPhone	

Notes
- Sony cannot accept responsibility in the event that data recorded to iPod/iPhone is lost or damaged when using
  an iPod/iPhone connected to this receiver.
- This product has been designed specifically to work with iPod/iPhone and has been certified to meet Apple
  performance standards.

Selecting the iPod/iPhone control mode

You can select the iPod/iPhone control mode using the GUI menu or iPhone CTRL on the remote control.

You can use the GUI menu to browse contents on the iPod/iPhone.

You can also control all operations by viewing the information on the display panel when "GUI MODE" is turned off.
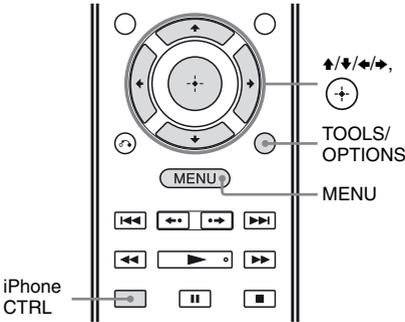
1 Press MENU.

The menu is displayed on the TV screen.

2 Select " ♫ Music" or " ▦ Video", then press ⊕ or ◆.

When the iPod or iPhone is connected, "iPod/iPhone" appears on the TV screen.

3 Select "iPod/iPhone", then press TOOLS/OPTIONS.

The option menu appears.

4 Select "System GUI" or "iPod", then press ⊕.

Operating the iPod/iPhone using "System GUI" mode

1 Make sure that "System GUI" is selected in step 4 in "Selecting the iPod/iPhone control mode" (page 53).

2 Select "iPod/iPhone", then press ⊕.

3 Select the content you want from the content list, then press ⊕.

The selected content starts playback and the information of music/video contents appears on the TV screen.

Note
The video signals from iPod/iPhone are up converted on this receiver and then viewed on your TV, depending on the status of the video signal output.
For details, see "Function for conversion of video signals" (page 20).

To select the playback mode

You can change the playback mode using the TOOLS/OPTIONS on the remote control.
- Repeat: Off / One / All
- Shuffle: Off / Songs / Albums
- Audiobooks: Slower / Normal / Faster

Operating the iPod/iPhone using "iPod" mode

1 Make sure that "iPod" is selected in step 4 in "Selecting the iPod/iPhone control mode" (page 53).

2 Select "iPod/iPhone", then press ⊕.

3 Select the content you want using iPod/iPhone menu.

For details on operating the iPod/iPhone, refer to the operating instructions supplied with iPod/iPhone.

To operate the iPod/iPhone using the remote control
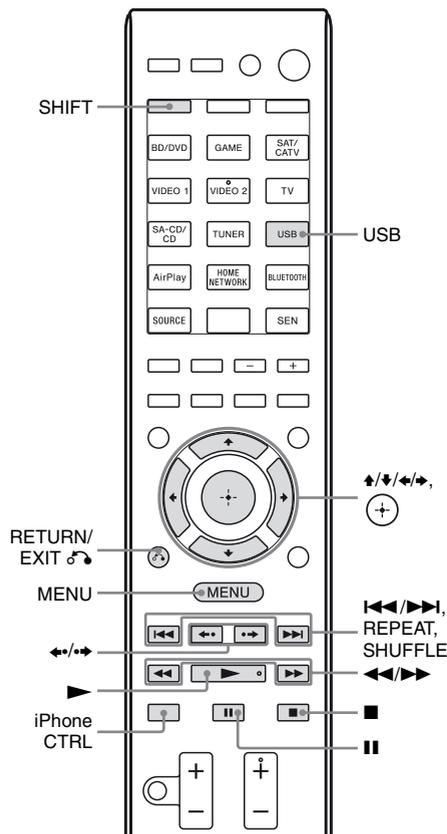
Press USB before you use the following buttons.

Press	Operation
►	Starts play.
II, ■	Pauses play.
◄◄/►►	Fast reverses or forwards.
I◄◄/►►I	Goes to the previous/next track.
◄•/•►*	Skips to the previous/next album.
⊕, ►	Enters the selected item.
MENU, RETURN/ EXIT ♪, ◄	Returns to previous display/ folder hierarchy.
▲/▼	Selects the previous/next item.
REPEAT**	Enters repeat mode.
SHUFFLE**	Enters shuffle mode.
iPhone CTRL	Selects the iPod/iPhone control mode.

* This button only functions when operating the iPod/iPhone using "iPod" mode (page 53).

**Press SHIFT, then press this button.

Notes on iPod/iPhone

- The iPod/iPhone is charged when connected to the receiver while the receiver is turned on.
- You cannot transfer songs onto the iPod/ iPhone from this receiver.
- Do not remove the iPod/iPhone during operation. To avoid data corruption or damage to the iPod/iPhone, turn the receiver off when connecting or removing the iPod/ iPhone.

iPod/iPhone message list

Message and explanation

Reading
The receiver is recognizing and reading information of the iPod or iPhone.

Loading
The receiver is loading information of the iPod or iPhone.

No Support
An unsupported iPod or iPhone is connected.

No Device
No iPod or iPhone is connected.

Message and explanation

No Music/No Video
No music or video was found.

HP No Support
No sound is output from the headphones when iPod
or iPhone is connected.

Playing a USB device

You can enjoy music from the USB device by
connecting it to the ⭤ (USB) port on the
receiver.
For details on connecting a USB device, see
"Connecting an iPod, iPhone, USB device"
(page 34).
The music file formats that can be played back
by this receiver are as follows:

File format	Extensions
MP3 (MPEG-1 Audio Layer III)	".mp3"
AAC*	".m4a", ".3gp", ".mp4"
WMA9 Standard*	".wma"

* The receiver does not play files encoded with
DRM.

Compatible USB devices

You can use the following Sony USB devices
on this receiver. Other USB devices cannot be
used on this receiver.

Verified Sony USB device

Product name	Model name
Walkman®	NWZ-S754 / S755
	NWZ-E453 / E454 / E455
	NWZ-E353 / E354 / E355
	NWZ-B133 / B135 / B133F / B135F
	NWZ-B142 / B143 / B142F / B143F
	NWD-E023F / E025F
	NWZ-E435F / E436F / E438F

Product name	Model name
	NWZ-E343 / E344 / E345
	NWZ-S636F / S638F / S639F
	NWZ-S736F / S738F / S739F
	NWZ-A726 / A728 / A729 / A726B / A728B
	NWZ-A826 / A828 / A829
	NWZ-W202
	NWZ-X1050 / X1060
	NWZ-S744 / S745
	NWZ-E443 / E444 / E445
	NWZ-S543 / S544 / S545
	NWZ-A844 / A845 / A846 / A847
	NWZ-W252 / W253
	NWZ-B152 / B153 / B152F / B153F
MICROVAULT	USM1GL / 2GL / 4GL / 8GL / 16GL
	USM1GLX / 2GLX / 4GLX / 8GLX / 16GLX

Notes
• The receiver is unable to read data in NTFS format.
• The receiver is unable to read data other than that
saved in the first partition of a hard disk drive.
• Do not use USB devices other than these USB
devices. Operation of models not listed here is not
guaranteed.
• Operation may not always be ensured even when
using these USB devices.
• Some of these USB devices may not be available
for purchase in certain areas.
• When formatting the above models, be sure to
format using the model itself or the dedicated
formatting software for that model.
• When connecting a USB device to the receiver, be
sure to connect after the display "Creating Library"
or "Creating Database" on the USB device has
disappeared.

Operating the USB device
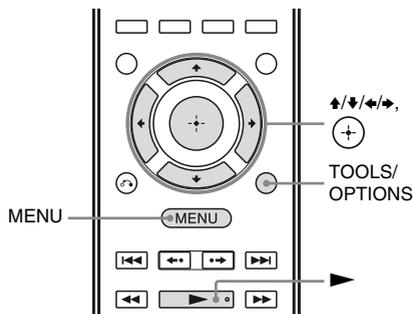
1 Press MENU.

The menu is displayed on the TV screen.

2 Select " ♫ Music", then press ⊕ or →.

When the USB device is connected, "USB" appears on the TV screen.

3 Select "USB", then press ⊕.

4 Press ►.

The information of music contents appear on the TV screen.

To select the playback mode

You can change the playback mode using the TOOLS/OPTIONS on the remote control.
• Repeat: Off / One / All / Folder

To operate the USB device using the remote control
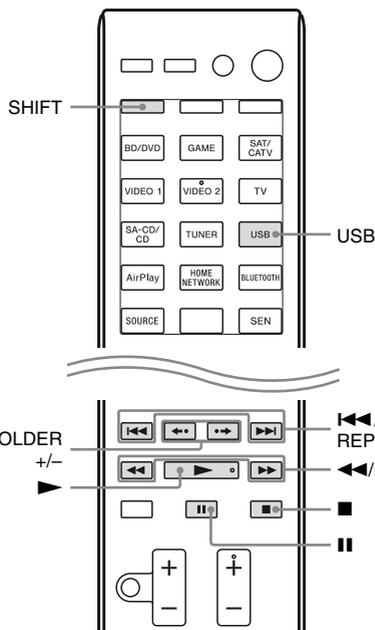
Press USB before you use the following buttons.

Press	Operation
►	Starts play.
❚❚	Pauses play.
■	Stops play.
◄◄/►►	Fast reverses or forwards.
I◄◄/►►I	Goes to the previous/next file.
FOLDER +/–	Goes to the previous/next folder.
REPEAT*	Enters repeat mode.

* Press SHIFT, then press this button.

Notes on the USB device

• Do not remove the USB device during operation. To avoid data corruption or damage to the USB device, turn the receiver off when connecting or removing the USB device.

- When USB cable connection is necessary, connect the USB cable supplied with the USB device to be connected. Refer to the operating instructions supplied with the USB device to be connected for details on the operation method.
- Do not connect the receiver and the USB device through a USB hub.
- When the USB device is connected, "Reading" appears.
- It may take about 10 seconds before "Reading" appears depending on the type of USB device connected.
- When the USB device is connected, the receiver reads all the files on the USB device. If there are many folders or files on the USB device, it may take a long time to finish reading the USB device.
- The receiver can recognize up to
  – 100 folders (including "ROOT" folder).
  – 100 audio files for each folder.
  – 8 folder levels (tree structure of files, including "ROOT" folder).
  The maximum number of audio files and folders may vary depending on the file and folder structure.
  Do not save other types of files or unnecessary folders on a USB device.
- Compatibility with all encoding/writing softwares, recording devices, and recording media cannot be guaranteed. Incompatible USB device may produce noise or interrupted audio or may not play at all.
- Some time may be needed to start playback when:
  – the folder structure is complex.
  – the memory capacity is excessive.
- This receiver does not necessarily support all the functions provided in a connected USB device.
- The playback order for the receiver may differ from the playback order of the connected USB device.
- Folders that have no audio files are skipped.
- When playing a very long track, some operations may cause playback delay.

USB message list

Message and explanation

Reading
The receiver is recognizing and reading information of the USB device.

Device Error
The memory of the USB device could not be recognized (page 55).

No Support
An unsupported USB device is connected, an unknown device is connected, or the USB device is connected through a USB hub (page 55).

No Device
No USB device is connected or the connected USB device is not recognized.

No Track
No track was found.

Recording using the receiver

You can record from an audio/video equipment using the receiver. Refer to the operating instructions supplied with your recording equipment.

1 Prepare the source for playing.

Press the input button to select the source. For example, press SAT/CATV. You can also use INPUT SELECTOR on the receiver.

2 Prepare the recording equipment.

Insert a blank video tape, etc. into the recording equipment (connected to VIDEO 1 OUT jacks).

3 Start recording on the recording equipment, then start the playback equipment.

Notes

• Some sources contain copyright protection to prevent recording. In this case, you may not be able to record from the source.
• Audio and video input signals via HDMI IN, COMPONENT VIDEO IN and DIGITAL IN jacks cannot be recorded.
• While only composite video signals are being recorded, the auto standby function of the receiver may start up and interrupt the recording. In this case, set the "Auto Standby" to "OFF" (page 102).

Listening to FM/AM radio

You can listen to FM and AM broadcasts through the built-in tuner. Before operation, be sure you have connected the FM and AM antennas (aerials) to the receiver (page 34).

Tip

The tuning scale for direct tuning is shown below.

Area	FM	AM
USA, Canada, Brazil	100 kHz	10 kHz*
Mexico	50 kHz	10 kHz*

* The AM tuning scale can be changed (page 59).

SHIFT

Numeric buttons

↑/↓/→, ⊕

TOOLS/OPTIONS
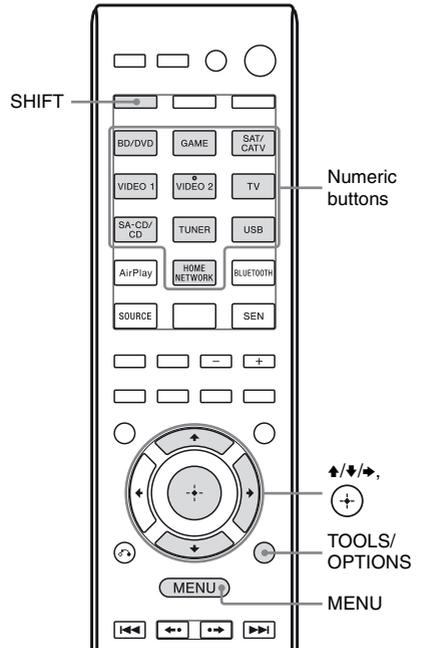
MENU

1 Press MENU.

The menu is displayed on the TV screen.

2 **Select "⬛FM" or "⬛AM" from the menu, then press ⊕ or ➔.**

The FM or AM menu list appears on the TV screen.

Tuning to a station automatically (Auto Tuning)

1 **Select "Auto Tuning", then press ⊕ or ➔.**

2 **Press ✦/✦.**

Press ✦ to scan from lower to higher frequency stations, press ✦ to scan from higher to lower stations.
The receiver stops scanning whenever a station is received.

In case of poor FM stereo reception

1 Tune in the station you want to listen to using Auto Tuning, Direct Tuning (page 59), or select the preset station you want (page 60).
2 Press TOOLS/OPTIONS.
3 Select "FM Mode", then press ⊕ or ➔.
4 Select "MONO", then press ⊕.

Tuning to a station directly (Direct Tuning)

You can enter the frequency of a station directly by using the numeric buttons.

1 **Select "Direct Tuning", then press ⊕ or ➔.**

2 **Press SHIFT, then press numeric buttons to enter the frequency.**

Example 1: FM 102.50 MHz
Select 1 ➔ 0 ➔ 2 ➔ 5 (➔ 0*)
Example 2: AM 1,350 kHz
Select 1 ➔ 3 ➔ 5 ➔ 0

* Press 0 for Mexico model only.

Tip
Adjust the direction of the AM loop antenna (aerial) for optimum reception upon tuning to an AM station.

3 **Press ⊕.**

If you cannot tune to a station

"– – – . – – MHz" or "– – – – kHz" appears and then the screen returns to the current frequency.
Make sure you have entered the right frequency. If not, repeat step 2. If you still cannot tune to a station, the frequency may not be in use in your area.

Changing the AM tuning scale

You can change the AM tuning scale to either 9 kHz or 10 kHz using the buttons on the receiver.

I/⏻
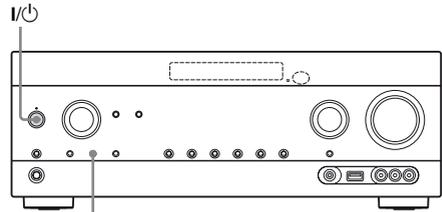
TUNING MODE

1 **Press I/⏻ to turn off the receiver.**

2 **While holding down TUNING MODE, press I/⏻ on the receiver.**

The current AM tuning scale is changed to 9 kHz (or 10 kHz).
To reset the scale to 10 kHz (or 9 kHz), repeat the procedure above.

Notes
• Depending on the settings, the receiver may take some time to change the AM tuning scale.
• All preset stations will be erased when you change the tuning scale.

Presetting FM/AM radio stations

(Preset Tuning)

You can store up to 30 FM and 30 AM stations as your favorite stations.
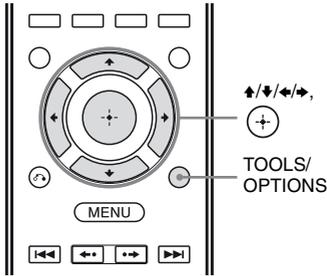
1 **Tune to the station that you want to preset using Auto Tuning (page 59) or Direct Tuning (page 59).**

2 **Press TOOLS/OPTIONS.**

The option menu appears.

3 **Select "Memory", then press ⊕ or ➡.**

4 **Select a preset number, then press ⊕.**

The station is stored as the selected preset number.

5 **Repeat steps 1 to 4 to store another station.**

You can store station as follows:
• AM band: AM 1 to AM 30
• FM band: FM 1 to FM 30

Tuning to preset stations

1 **Select " FM" or " AM" from the menu, then press ⊕ or ➡.**

2 **Select the preset station you want, then press ⊕.**

Preset numbers from 1 to 30 are available.

Naming preset stations (Name Input)

1 **On " FM" or " AM" screen, select the preset number which you want to name.**

2 **Press TOOLS/OPTIONS.**

The option menu appears.

3 **Select "Name Input", then press ⊕ or ➡.**

4 **Press ▲/▼ repeatedly to select a character, then press ➡.**

You can move the input position backward and forward by pressing ◄/►.

5 **Repeat step 4 to input a character one by one, then press ⊕.**

The name you entered is registered.

Note
Some letters that can be displayed on the TV screen cannot be displayed on the display panel.

Enjoying Sound Effects

Selecting the sound field

This receiver can create multi channel surround sound. You can select one of the optimized sound fields from the receiver's pre-programmed sound fields.
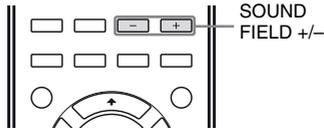
SOUND FIELD +/–

Press SOUND FIELD +/– repeatedly to select the sound field you want.

You can also use 2CH/A.DIRECT, A.F.D., MOVIE (HD-D.C.S.) or MUSIC on the receiver.

2 channel sound mode

You can switch the output sound to 2 channel sound regardless of the recording formats of the software you are using, the playback equipment connected, or the sound field settings of the receiver.

■ 2CH ST. (2ch Stereo)

The receiver outputs the sound from the front left/right speakers only. There is no sound from the subwoofer.
Standard 2 channel stereo sources completely bypass the sound field processing and multi channel surround formats are downmixed to 2 channels.

■ A. DIRECT (Analog Direct)

You can switch the audio of the selected input to 2 channel analog input. This function enables you to enjoy high quality analog sources.
When using this function, only the volume and front speaker level can be adjusted.

Note

You cannot select "A. DIRECT" when you select BD/DVD, GAME, USB, AirPlay, HOME NETWORK and SEN as input.

Auto Format Direct (A.F.D.) mode

The Auto Format Direct (A.F.D.) mode allows you to listen to higher fidelity sound and select the decoding mode for listening to a 2 channel stereo sound as multi channel sound.

■ A.F.D. AUTO (A.F.D. Auto)

Presets the sound as it was recorded/encoded without adding any surround effects. However, for USA and Canada models, this receiver will generate a low frequency signal for output to the subwoofer when there is no LFE signals.

■ MULTI ST. (Multi Stereo)

Outputs 2 channel left/right signals from all speakers. However, sound may not be output from certain speakers depending on the speaker settings.

Movie mode

You can take advantage of surround sound simply by selecting one of the receiver's pre-programmed sound fields. They bring the exciting and powerful sound of movie theaters into your home.

■ HD-D.C.S.

HD Digital Cinema Sound (HD-D.C.S.) is Sony's new innovative home theater technology using the latest acoustic and digital signal processing technologies. It is based on precise response measurement data of a mastering studio.

With this mode, you are able to enjoy Blu-ray and DVD movies at home with not only the high quality of sound, but also the best sound ambience, just as the movie's sound engineer intended in the mastering process.

You can select the effect type for HD-D.C.S. For details, see "Surround Settings menu" (page 96).

■ PLII MV (PLII Movie)

Performs Dolby Pro Logic II Movie mode decoding. This setting is ideal for movies encoded in Dolby Surround. In addition, this mode can reproduce sound in 5.1 channel for watching videos of overdubbed or old movies.

■ PLIIx MV (PLIIx Movie)

Performs Dolby Pro Logic IIx Movie mode decoding. This setting expands Dolby Pro Logic II Movie or Dolby Digital 5.1 to discrete 7.1 movie channels.

■ PLIIz (PLIIz Height)

Performs Dolby Pro Logic IIz mode decoding. This setting can expand a source sound from a 5.1 channel to a 7.1 channel to which a vertical equipment is applied, and gives a dimension of presence and depth.

■ NEO6 CIN (Neo:6 Cinema)

Performs DTS Neo:6 Cinema mode decoding. A source recorded in 2 channel format is decoded into 7 channels.

Music mode

You can take advantage of surround sound simply by selecting one of the receiver's pre-programmed sound fields. They bring the exciting and powerful sound of concert halls into your home.

■ BERLIN (Berlin P.Hall)

Reproduces the sound characteristics of the Berlin Philharmonic Hall.

Note
"BERLIN PHILHARMONIC HALL" scrolls across the display panel when you select this sound field for the first time.

■ JAZZ (Jazz Club)

Reproduces the acoustics of a jazz club.

■ CONCERT (Live Concert)

Reproduces the acoustics of a 300-seat live house.

■ STADIUM (Stadium)

Reproduces the feeling of a large open-air stadium.

■ SPORTS (Sports)

Reproduces the feeling of sports broadcasting.

■ P. AUDIO (Portable Audio)

Reproduces a clear enhanced sound image from your portable audio device. This mode is ideal for MP3 and other compressed music.

■ PLII MS (PLII Music)

Performs Dolby Pro Logic II Music mode decoding. This setting is ideal for normal stereo sources such as CDs.

■ PLIIx MS (PLIIx Music)

Performs Dolby Pro Logic IIx Music mode decoding. This setting is ideal for normal stereo sources such as CDs.

■ PLIIz (PLIIz Height)

Performs Dolby Pro Logic IIz mode decoding. This setting can expand a source sound from a 5.1 channel to a 7.1 channel to which a vertical equipment is applied, and gives a dimension of presence and depth.

■ NEO6 MUS (Neo:6 Music)

Performs DTS Neo:6 Music mode decoding. A source recorded in 2 channel format is decoded into 7 channels. This setting is ideal for normal stereo sources such as CDs.

When headphones are connected

You can only select this sound field if the headphones are connected to the receiver.

■ HP 2CH (HP (2CH))

This mode is selected automatically if you use headphones (except "A. DIRECT"). Standard 2 channel stereo sources completely bypass the sound field processing and multi channel surround formats are downmixed to 2 channels except LFE signals.

■ HP DIRECT (HP (Direct))

This mode is selected automatically if you use headphones when "A. DIRECT" is selected. Outputs the analog signals without processing by the equalizer, sound field, etc.

If you connect a subwoofer

This receiver will generate a low frequency signal for output to the subwoofer when there is no LFE signal, which is a low-pass sound effect output from a subwoofer to a 2 channel signal. However, the low frequency signal is not generated for "NEO6 CIN" or "NEO6 MUS" when all speakers are set to "Large". In order to take full advantage of the Dolby Digital bass redirection circuitry, we recommend setting the subwoofer's cut off frequency as high as possible.

Notes on sound fields

- Depending on the speaker pattern settings, some sound fields may not be available.
- You cannot select PLIIx MV/MS and PLIIz at the same time.
  - PLIIx MV/MS is available only when the speaker pattern is set to a setting with surround back speaker(s).
  - PLIIz is available only when the speaker pattern is set to a setting with front high speakers.
- The sound fields for music and movie do not work in the following cases.
  - DTS-HD Master Audio, DTS-HD High Resolution Audio or Dolby TrueHD with sampling frequency of more than 48 kHz are being received.
  - "A. DIRECT" is selected.
- "PLII MV", "PLIIx MV", "PLII MS", "PLIIx MS", "PLIIz", "NEO6 CIN" and "NEO6 MUS" do not work when the speaker pattern is set to 2/0 or 2/0.1.
- When one of the sound fields for music is selected, no sound is output from the subwoofer if all the speakers are set to "Large" in the Speaker Settings menu. However, the sound will be output from the subwoofer if
  - the digital input signal contains LFE signals.
  - the front or surround speakers are set to "Small".
  - "MULTI ST.", "PLII MV", "PLII MS", "PLIIx MV", "PLIIx MS", "PLIIz", "HD-D.C.S." or "P. AUDIO" is selected.

To turn off the surround effect for movie/music

Press SOUND FIELD +/– repeatedly to select "2CH ST." or "A.F.D. AUTO".
You can also press 2CH/A.DIRECT repeatedly on the receiver to select "2CH ST." or press A.F.D. repeatedly on the receiver to select "A.F.D. AUTO".

Using the Sound Optimizer function

The Sound Optimizer lets you enjoy clear and dynamic sound at low volume levels. It automatically calibrates the sound which cannot be heard well when you turn down the volume level. After Auto Calibration is performed, the sound level is optimized to suit your environment.
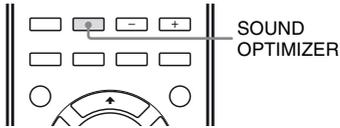
Press SOUND OPTIMIZER to select "S. OPT. ON".

The Sound Optimizer function is activated. The Sound Optimizer is set to on and off as you press SOUND OPTIMIZER.

Note

This function does not work when "A. DIRECT" is being used.

Using the Advanced Auto Volume function

This receiver can adjust the volume automatically depending on the input signal or content from the connected equipment. This function is useful, for example, when the sound of a commercial is louder than the TV programs.
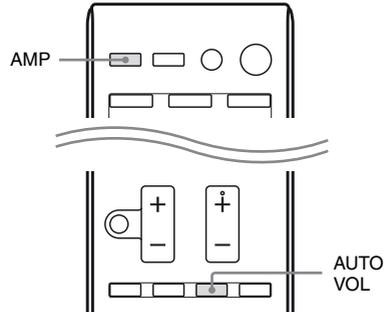
Press AMP, then press AUTO VOL to select "A. VOL ON".

The Advanced Auto Volume function is set to on and off as you press AUTO VOL.

Notes

- Be sure to reduce the volume level before you turn on/off this function.
- As this function is available only when Dolby Digital, DTS or Linear PCM signals are input, the sound may suddenly increase when you switch to other formats.
- This function does not work in the following cases.
  – Linear PCM signals with a sampling frequency of more than 48 kHz are being received.
  – Dolby Digital Plus, Dolby TrueHD, DTS 96/24, DTS-HD Master Audio, or DTS-HD High Resolution Audio signals are being received.

Resetting sound fields to the default settings

Be sure to use the buttons on the receiver to perform this operation.

I/(1)
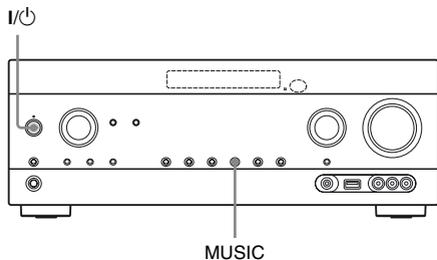
MUSIC

1 Press I/(1) to turn off the receiver.

2 While holding down MUSIC, press I/(1).

"S.F. CLEAR" appears on the display panel and all sound fields are reset to their default setting.

About the network functions of the receiver

- You can enjoy audio content which has been stored on a DLNA-compliant device (DLNA CERTIFIED™ Products) that has an authorized DLNA logo displayed on the device (page 69).
- You can use the receiver as a device equivalent to a UPnP media renderer on your home network.
- With an Internet connection, you can listen to music services (page 71) and update the software of the receiver.
- You can listen to the same music at the same time in different rooms through the PARTY STREAMING function.
- You can register Media Remote devices to control the receiver.
- You can playback audio content on iOS devices or an iTunes Library with AirPlay.

About DLNA

DLNA (Digital Living Network Alliance) is a standard organization made up of manufacturers of various products, such as servers (computers, etc.), AV equipment, and mobile computing devices which exchange content (music, photos, and videos). DLNA decides upon standards and publishes an authorized logo to be displayed on devices which support DLNA standards.

Using Network Features

Setting up the server

To listen to audio content stored on your server with this receiver, you need to set up the server in advance. The following server devices are compatible with this receiver.

- Sony VAIO Media plus 1.3, 1.4, 2.0, and 2.1
- Sony HDD Network Audio System NAS-S500HDE*, NAS-S55HDE*
- Sony Network AV receiver STR-DA6400ES*, TA-DA5600ES*
- Microsoft Windows Media Player 12 installed on Windows 7 (page 66)
- Microsoft Windows Media Player 11 installed on Windows Vista/Windows XP (page 67)

* Not available in some countries or regions.

If the server has a function that limits access from other devices, you must change the setting on the server to allow the receiver to access it.
This section explains how to set up Windows Media Player when using it as a server.
For details on the settings of other server devices, refer to the operating instructions or help of the respective devices or applications.

Note

The items displayed on the computer may be different from the ones shown below, depending on the version of the operating system or the computer environment. For details, refer to Help for your operating system.

When using Windows 7

This section explains how to set up manufacturer-installed Windows Media Player 12 for Windows 7.
For details on how to operate Windows Media Player 12, refer to Help for Windows Media Player 12.

1 Go to [Start] – [Control Panel].

2 Select [View network status and tasks] under [Network and Internet].

The [Network and Sharing Center] window appears.

Tip

If the item you want does not appear on the display, try to change the display type of the Control Panel.

3 Select [Public network] under [View your active networks]. If the display shows other than [Public Network], go to step 6.

The [Set Network Location] window appears.
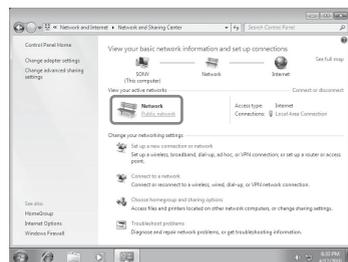
4 Select [Home network] or [Work network] according to the environment in which the receiver is used.

5 Follow the instructions that appear on the display according to the environment in which the receiver is used.

When the settings are completed, confirm that the item under [View your active networks] is changed to [Home network] or [Work network] in the [Network and Sharing Center] window.

6 Select [Change advanced sharing settings].

7 Select [Choose media streaming options…] from [Media streaming].
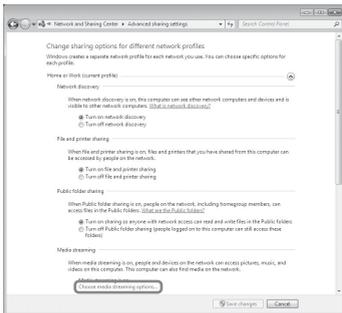
8 If [Media streaming is not turned on] appears on the [Media streaming options] window, select [Turn on media streaming].

9 Select [Allow all].

The [Allow All Media Devices] window opens. If all the devices in the local network are set to [Allowed], select [OK] and close the window.
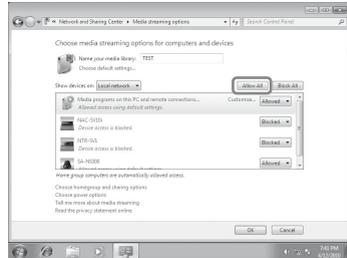
10 Select [Allow all computers and media devices].

11 Select [OK] to close the window.

12 Refresh the server list.

After you finish setting up Windows Media Player 12, refresh the server list of the receiver and select this server from the server list. For details on selecting a server, see "To refresh the server list" (page 69).

When using Windows Vista/XP

This section explains how to set up Windows Media Player 11 installed on Windows Vista/XP∗.

For details on how to operate Windows Media Player 11, refer to Help for Windows Media Player 11.

∗ Windows Media Player 11 is not manufacturer-installed on Windows XP. Access the Microsoft website, download the installer, and then install Windows Media Player 11 on your computer.

1 Go to [Start] – [All Programs].

2 Select [Windows Media Player].

Windows Media Player 11 starts up.

3 Select [Media Sharing…] from the [Library] menu.

If you are using Windows XP, go to step 9.

4 When ⚠ is displayed, select [Networking…].
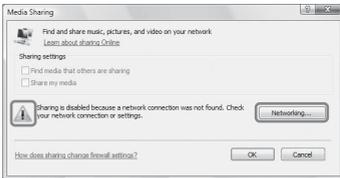
The [Network and Sharing Center] window appears.

5 Select [Customize].
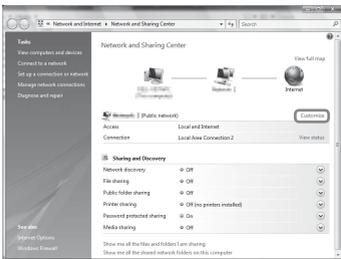
The [Set Network Location] window appears.

6 Check [Private] and select [Next].

7 Confirm that [Location type] is changed to [Private], and select [Close].

8 Confirm that [(Private network)] is displayed on the [Network and Sharing Center] window, and close the window.

9 If [Share my media] in the [Media Sharing] window that is displayed in step 3 is not checked, check [Share my media], then select [OK].

A list of connectable devices is displayed.

10 Select [Settings…] that appears beside [Share my media to:].

11 Check [Allow new devices and computers automatically] and select [OK].

Note

Uncheck this item after you confirm that the receiver can be connected to the server and play audio content stored on the server.

12 Refresh the server list.

After you finish setting up Windows Media Player 11, refresh the server list of the receiver and select this server from the server list. For details on selecting a server, see "To refresh the server list" (page 69).

To refresh the server list

When you add a new server to the home network, or when you cannot find the server you want on the list, refresh the server list.

1 While the server list is displayed, press TOOLS/OPTIONS.

2 Select "Refresh", then press ⊕.
The refreshed server list appears.

Tip

The receiver keeps a history of the last five connected servers and these servers appear at the top of the server list. Up to 20 servers can be displayed in a server list.

To delete a server from the server list

1 While the server list is displayed, select the server you want to delete, then press TOOLS/OPTIONS.
The option menu appears.

2 Select "Delete", then press ⊕.
The confirmation display appears on the TV screen.

3 Select "OK", then press ⊕.
"Complete!" appears, and the selected server is deleted.

Note

Even if you delete the server from the server list, the server will appear in the list again if the receiver finds it on the network (such as when you refresh the server list).

Enjoying audio content stored on the server

You can play back audio content stored on the server using the receiver in MP3, Linear PCM, WMA and AAC* formats. Audio content with DRM (Digital Rights Management) copyright protection cannot be played on this receiver.

* The receiver can play AAC files with the extension of ".m4a", ".mp4" or ".3gp" only.

Using Network Features
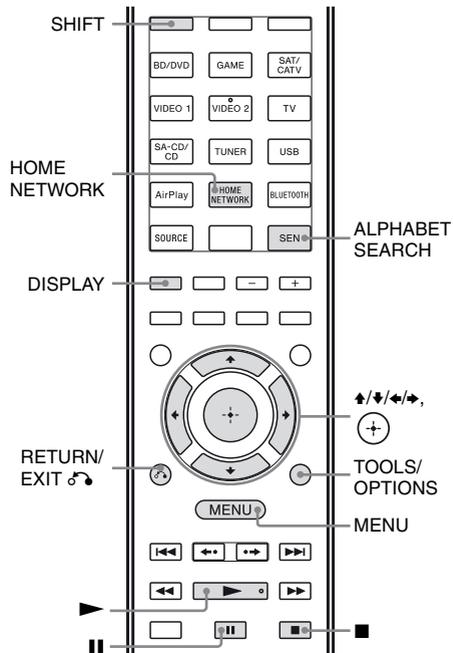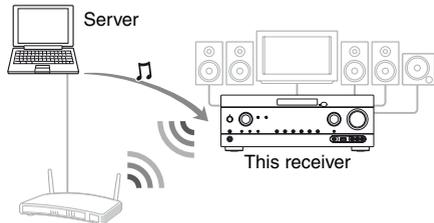
1 Press MENU.

The menu is displayed on the TV screen.

2 Select "♫ Music", then press ⊕ or ➡.

3 Select "HOME NETWORK", then press ⊕.

The server list appears on the TV screen. If the last selected item (playlist, album, folder, etc.) appears on the TV screen, press RETURN/EXIT ♂ repeatedly until the server list appears.

When "No Server" appears, or when the server on the list is not available, press TOOLS/OPTIONS. Select "Refresh", then press ⊕. The refreshed server list appears.

Tip

You can also use HOME NETWORK button on the remote control to select the Home Network function directly.

4 Select the server which holds the content you want to play back.

The content list appears on the TV screen.

Note

If the server device supports the Wake-on-LAN standard, the receiver turns the server on automatically. If the server does not support the Wake-on-LAN standard, turn on the server in advance. For details on settings or operations of Wake-on-LAN of your server, refer to the operating instructions or help of your server.

5 Select the item (playlist, album, folder, etc.) you want, then press ⊕.

If another item appears, repeat this step to narrow down the choices until the item you want appears. The items that are displayed depend on the connected server.

6 Select the track you want, then press ⊕.

Playback starts.
Make sure that sound is being output from the speakers of the receiver.

Notes

• Tracks that the receiver cannot play appear on the TV screen as well. You cannot sort a list of playable tracks.
• "!" appears at the top of a track name that cannot be played on the receiver, and is skipped during playback.
• Play is not resumed from the last selected item if you unplug the power cord from the wall outlet.
• The receiver may take time to display items when browsing a folder that contains a large amount of audio content. In this case, use the Keyword Search (page 80).

Tips

• If you select a folder (such as an artist folder, genre folder, etc.), then press the ▶ button, the receiver plays all items in the selected folder.
• The receiver resumes from the last selected item when the function is changed to Home Network function, until the receiver is turned off. When "Network Standby" is set to "On", play resumes from the last selected item, even if you turned off the receiver.

To check the copyright protection

This receiver cannot play back files in WMA format with DRM copyright protection.
If a WMA file cannot be played back on this receiver, check the property of that file on your computer to see whether the file is DRM-copyrighted.
Open the folder or volume where the WMA file is stored and right-click the file to display the [Properties] window. If there is a [License] tab, the file is DRM-copyrighted and cannot be played back on this receiver.

To operate Home Network function using the remote control

To	Do the following
Pause playback*	Press ▐▐ during playback. Press ▶ to resume playback.
Stop playback	Press ■.
Go to beginning of the current track, previous/next track	Press �◀◀ /▶▶▐ repeatedly.
Reselect the item you want to play	Press RETURN/EXIT ♂ or ✦ repeatedly until the directory you want appears. Or press TOOLS/OPTIONS, select "Server List", then select the item you want. To return to the playback display, press TOOLS/OPTIONS and select "Now Playing".
Search the item you want using a keyword	While selecting the contents in the server, press SHIFT, then press ALPHABET SEARCH, and then enter a keyword (page 80).
Change the server	While playback is stopped, press TOOLS/OPTIONS. Select "Server List", then press ⊕. Select the server you want, then press ⊕.
Select Repeat Play	Press SHIFT, then press REPEAT repeatedly until ⤸ or ⤸1 appears on the TV screen.
Select Shuffle Play	Press SHIFT, then press SHUFFLE repeatedly until "SHUF" appears on the TV screen.

* Depending on the server or track, pause playback may not work when the Home Network function is selected.

Enjoying Sony Entertainment Network (SEN)

You can listen to music services offered on the Internet with this receiver (SEN function). To use this function, the receiver must be connected to the network and the network must be connected to the Internet. For details, see "6: Connecting to the network" (page 35). Visit the website below for more information on the SEN:

http:// www.sonyentertainmentnetwork.com

This receiver
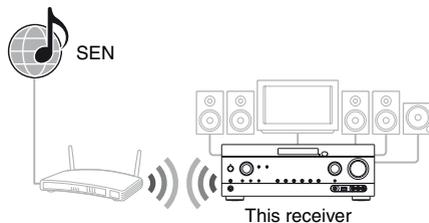
Note

Before using music services, you may have to register your receiver depending on the service provider. For details on registration, visit the customer support site of the service provider.

Using Network Features

SHIFT

BD/DVD GAME SAT/CATV

Numeric buttons

VIDEO 1 VIDEO 2 TV

SA-CD/CD TUNER USB

ENT/MEM

AirPlay HOME NETWORK BLUETOOTH

ALPHABET SEARCH/SEN

SOURCE SEN

▲/▼/◄/►, ⊕

RETURN/EXIT ↻

TOOLS/OPTIONS
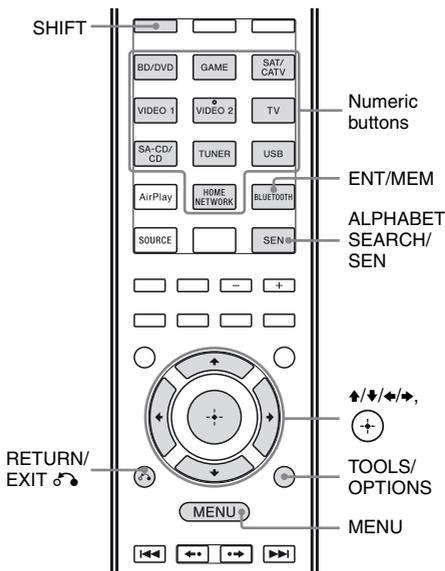
MENU

MENU

The following steps explain how to select "vTuner" as an example of music services offered on the Internet.

1 Press MENU.

The menu is displayed on the TV screen.

2 Select "♫ Music", then press ⊕ or ►.

3 Select "SEN", then press ⊕.

The service provider list appears on the TV screen. If the receiver automatically displays the last selected service or station, press RETURN/EXIT ↻ repeatedly until the service provider list appears.

Tip

You can also use SEN button on the remote control to select the SEN function directly.

4 Select "vTuner", then press ⊕.

5 Select the folder or station you want, then press ⊕.

- Press ▲/▼ to select the item.
- Press ⊕ to go to the next directory, or to listen to the station.
- Press RETURN/EXIT ↻ to go to the previous directory.

Note

If "No Service" appears and you cannot obtain a service provider list, press TOOLS/OPTIONS and select "Refresh".

Tip

The receiver displays the last selected service or station when the function is changed to SEN function, until the receiver is turned off. When "Network Standby" is set to "On", the last selected service or station is displayed even if you turned off the receiver.

To operate SEN function using the remote control

To	Do the following
Change the station or service	Press RETURN/EXIT ↻ to return to the service provider list, then select the service again. To return to the playback display again, press TOOLS/OPTIONS and select "Now Playing".
Use various functions while the receiver is selecting or playing a station or service	Press TOOLS/OPTIONS. The item displayed may vary according to the selected item or directory.
Select the service options	While selecting or playing the contents in the service, press TOOLS/OPTIONS. Select "Service Options", then press ⊕. The contents of the service option vary depending on the selected services.
Search the item you want using a keyword	While selecting the contents in the server, press SHIFT, then press ALPHABET SEARCH, and then enter a keyword (page 80).
View the available information	Press DISPLAY repeatedly to view the artist name, album name, etc.

Presetting stations

You can store up to 20 stations as your favorite stations.

1 **Select the station you want to preset.**

2 **During reception, press SHIFT, then press ENT/MEM.**

The preset memory list appears.

3 **Select a preset number, then press ⊕.**

4 **Repeat steps 1 to 3 to store another station.**

To listen to the preset station

1 Select "♫ Music" from the menu, then press ⊕ or ➜.

2 Select "SEN", then press ⊕.
The service provider list appears on the TV screen. If the receiver automatically displays the last selected station, press RETURN/EXIT ♂⌐ repeatedly until the service provider list appears.

3 Select "Preset", then press ⊕.
"Preset" appears at the top of the service provider list.

4 Select the preset station you want, then press ⊕.

Note
There may be some stations that cannot be preset, depending on the service providers. If you try to preset such a station, "Not Available" appears on the display.

Tip
Use the numeric buttons to select the preset station. Press SHIFT, then press the numeric button that corresponds to the preset number, then press ⊕ to select the preset station directly.

Enjoying a variety of music services

You can enjoy listening to the content of a variety of music services offered on the Internet.
Visit the website below for more information on music services, how to enjoy services, and the registration code of the receiver.
http://munlimited.com/home

Checking the registration code

You may be required to enter the registration code of the receiver when you enjoy a new music service.

1 Select "♫ Music" from the menu, then press ⊕ or ➜.

2 Select "SEN", then press ⊕.
The service provider list appears on the TV screen. If the receiver automatically displays the last selected service or station, press RETURN/EXIT ♂⌐ repeatedly until the service provider list appears.

3 Select "Registration Code", then press ⊕.
The registration code of the receiver appears.

Using Network Features

Using the PARTY STREAMING function

Audio contents currently being played back on this receiver can be also played back on all devices corresponding to the PARTY STREAMING function on your home network at the same time.

If you encounter an interruption when using a wireless connection, connect your receiver to the router with a wired connection.

While PARTY streaming, a device called a "PARTY host" starts a PARTY and streams music, and a device called a "PARTY guest" joins a PARTY and receives music from the "PARTY host".

Before using the PARTY STREAMING function, make sure that "PARTY STREAMING" is set to "On" (page 99).
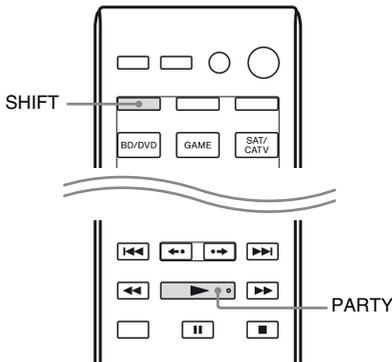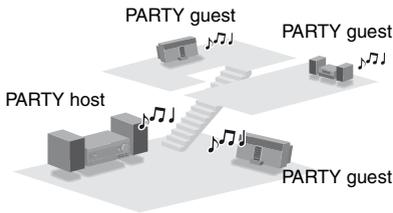
You can enjoy the PARTY STREAMING function with other devices* that have this PARTY STREAMING logo shown below.

* Available PARTY STREAMING-compliant devices may differ depending on the countries or regions. For details on available devices, contact your nearest Sony dealers.

Starting a PARTY

You can start a PARTY so that other devices that support the PARTY STREAMING function can play the same music even though they are in different rooms.

1 **Make sure the PARTY guest devices are turned on and ready to join a PARTY.**

2 **Play the sound source you want.**

Audio content of all the sound sources on this receiver can be streamed.

Notes
• Only audio contents on this receiver can be streamed. During PARTY host, video signals are not output to the TV, and audio signals will downmix to 2 channel. In this case, you can only select "2CH ST." as sound field.
• When you start a PARTY as PARTY host, you may face a time gap between the audio output and visual display in the following cases.
  – The Audio Return Channel (ARC) function is used.
  – The video output of the equipment is connected to the TV and the audio output is connected to the digital or analog audio input jacks on the receiver.
• Sources with copyright protection may not be streamed.

3 **Press SHIFT, then hold down PARTY until "START PARTY" appears.**

The receiver starts PARTY streaming as a PARTY host.
You can also use PARTY on the receiver to start a party.

To close a PARTY

Press SHIFT, then hold down PARTY until "CLOSE PARTY" appears.
You can also use PARTY on the receiver to close a party.

Joining a PARTY

The receiver can join a PARTY that has been started by another device so that you can enjoy the same audio content being played in a different room.

While the PARTY host device is having a PARTY, press SHIFT, then press PARTY.

"JOIN PARTY" appears, and the receiver joins the PARTY as a PARTY guest.

To leave a PARTY

Press SHIFT, then press PARTY.
"LEAVE PARTY" appears, and the receiver leaves a PARTY.

Notes

• You cannot join a PARTY in the following cases:
  – you have a PARTY on this receiver.
  – you have already joined another PARTY.
• If you press PARTY when no PARTY is started, but a device complying with PARTY STREAMING function is playing, the device will be the PARTY host, and the receiver will join the PARTY as a PARTY guest.
• The PARTY guest device function automatically switches to HOME NETWORK when the device joins a PARTY. Even if the PARTY guest device leaves the PARTY, the function remains as HOME NETWORK.

Tip

If "Network Standby" is set to "On", the receiver turns on and joins the PARTY automatically when the PARTY host device starts the PARTY.

Streaming music from iTunes with AirPlay

Using a wireless network, you can play back audio content on iOS devices such as an iPhone, iPod touch, iPad or an iTunes Library on your PC with this receiver.

PC

iPhone/
iPod touch/
iPad
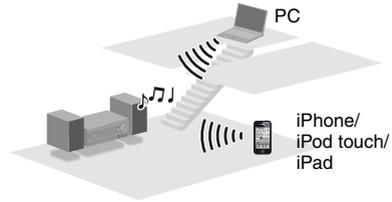
Compatible iPod/iPhone/iPad models

iPhone 4S, iPhone 4, iPhone 3GS, iPod touch (2nd, 3rd or 4th generation), iPad, iPad2 with iOS 4.2 or later, and Mac or PC with iTunes 10.1 or later.

Notes

• Refer to "Compatible iPod/iPhone/iPad models" on this page for details on the supported versions of iOS or iTunes.
• Update iOS or iTunes to the latest version before using with the receiver.
• Refer to the operating instructions of your device for details on operating iOS devices, iTunes or AirPlay.
• You cannot use this receiver as a PARTY host while using the AirPlay function.

1 **Tap/click on the ⬚ icon at bottom right of the iOS device screen or iTunes window.**

[iOS device]

[iTunes]

2 **Select "STR-DN1030" on the AirPlay menu of iTunes or your iOS device.**

[iOS device]

[iTunes]
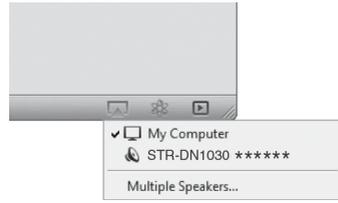
3 **Start playing back audio content on an iOS device or on iTunes.**

AirPlay is selected as a function of the receiver automatically.

Tip
If the playback does not start, perform the process again from step 1.

To confirm/edit the device name

See "To assign the device name" (page 100) for instructions on how to rename the device.

To control AirPlay playback

You can use the MASTER VOL +/– or ⊿ +/–, ▶, ❚❚, ■, ❚◀◀, and ▶▶❚ buttons. Operation from the receiver and the remote control is active only when the receiver is selected as the device for output. When you use iTunes, set an iOS device to accept control from this receiver and the remote control when you want to use this receiver and the remote control to operate an iOS device.

Note
The SHUFFLE and REPEAT buttons on the remote control do not work during AirPlay function.

Tips

- The most recent control command to the receiver is given priority. The receiver starts playing back audio content of another device when it accepts control from that AirPlay-equipped device, even if this receiver is being used for AirPlay with the original device.
- The very loud sound may output from this receiver when you set the volume too loud using iOS devices or iTunes.
- For details on the use of iTunes, refer to the Help of iTunes.
- The volume level of iOS devices or iTunes may not be able to be linked with the volume level of this receiver.

Updating the software

By downloading the latest version of the software, you can take advantage of the newest functions. The receiver accesses the Sony server to update the software.
If a new update is available, "[New Software] Perform Software Update." appears on the TV screen and "UPDATE" appears on the display panel when you are connected to the Internet and using the Home Network or SEN function. Make sure that other equipment connected to the receiver is stopped before updating the software.
For details on software update available, refer to the customer support site (page 126).

Notes

- Make sure not to turn off the receiver, disconnect the network cable or perform any operation on the receiver while the updating operation is in progress.
- If you try to update the software when the Sleep Timer is on, the Sleep Timer will turn off automatically.

1 Press MENU.

The menu is displayed on the TV screen.

2 Select "⚏ Settings", then press ⊕ or ➔.

The Settings menu list appears on the TV screen.

3 Select "Network", then press ⊕.

4 Select "Software Update", then press ⊕.

5 Select "Update", then press ⊕.

The receiver starts checking the available software update.

6 When "Found latest update." appears on the TV screen, press ⊕.

If the update is not available, "No update required." appears.

7 Select "OK", then press ⊕.

A message that confirms whether or not you agree to the terms of the software update appears. Confirm the message and also read the "END-USER LICENSE AGREEMENT FOR SONY SOFTWARE" (page 131), then press ⊕.

8 Select "Agree", then press ⊕.

The receiver starts to update the software and the GUI MODE is turned off automatically. The ON/STANDBY indicator on the front panel flashes during the update. It may take a while (about 40 minutes at the longest) for the receiver to finish the update. The required time will depend on the amount of data in the updates, the line type of the network, the network communication environment, etc.

"Complete!" appears after the software update is finished.

Changes or adjustments made to the settings are now reset to the defaults.

Note

If one of the below conditions appears, the software update has error.

– The ON/STANDBY indicator flashes in quick succession.
– "ERROR" appears on the display panel.
– No indicator lights up on the display panel or the ON/STANDBY indicator lights off.
– The receiver does not finish the update after 40 minutes and "UPDATING" keep on flashes on the display panel.

Unplug the power cord, and then plug in the power cord again. The receiver will try to update the software. If the condition continues, contact your nearest Sony dealer.

To cancel the procedure

Select "Cancel" in step 7.

To go back to the previous screen

Press RETURN/EXIT ᗷ before the receiver starts the software update.

You cannot go back to the previous screen when the update starts.

Network features message list

Network settings

Message and explanation

Connection Fail
The receiver has failed to connect the network.

Input Error!
The entered values are incorrect or invalid.

Not in Use
An operation that is currently prohibited is being performed.

Not Supported
The access point device does not support the WPS-PIN code method.

Home Network

Message and explanation

Cannot Connect
The receiver cannot be connected to the selected server.

Cannot Get Info
The receiver cannot retrieve information on the server or contents.

Cannot JOIN
The receiver has failed to join a PARTY.

Cannot Play
The receiver cannot play audio files due to an unsupported file format or playback restrictions.

Cannot START
The receiver has failed to start a PARTY.

Data Error
You tried to play an unplayable file.

Device Full!
You cannot register any more devices to the device list.

Initialize
The receiver is performing a factory default setting to Network function.

No Server
There is no server on the network that the receiver can connect to. Try refreshing the server list (page 69).

No Track
There is no playable file in the selected folder on the server.

Not Found
There is no item on the server that matches a keyword.

Message and explanation

Not in Use
An operation that is currently prohibited is being performed.

SEN

Message and explanation

Cannot Connect
The receiver cannot be connected to the server.

Cannot Get Data
The receiver cannot obtain content from the server.

Cannot Play
The receiver cannot play a service or station due to an unsupported file format or playback restrictions.

Data Error
• You tried to play an unplayable file.
• The receiver does not recognize the data on the server.

Need Software update
The service is not available in the current version of the receiver software.
Visit the website below for more information on the software update:
http://munlimited.com/home

No Preset
There is no station stored on the receiver for the selected preset number.

No Service
There is no service provider.

No Station
There is no station in the selected service.

Not Available
• The selected service is not available.
• An operation that is currently unavailable is being performed.

Not in Use
An operation that is currently prohibited is being performed.

Software update

Message and explanation

Cannot connect
The receiver cannot access to the server to download the latest version of the software. Enter the settings menu and update the software again (page 77).

Can't download
The receiver failed downloading the update data while performing the software update. Enter the settings menu and update the software again (page 77).

Searching for an item using a keyword

When a list is displayed on the TV screen (such as artist list, a track list, etc.), you can enter a keyword to search for an item you want.
Searching by keywords is available only when the Home Network or SEN function is selected.

SHIFT

Numeric/text buttons

ALPHABET SEARCH

▲/▼/◀/▶, ⊕
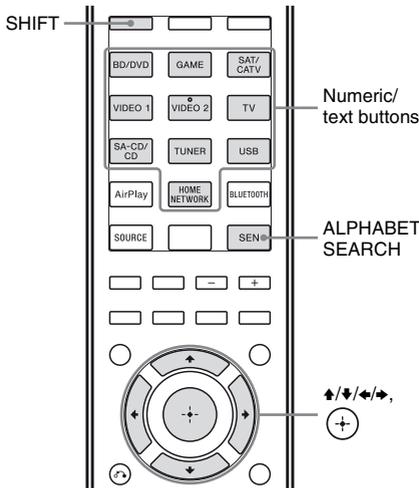
1 Press SHIFT, then press ALPHABET SEARCH while an item list (artist list, track list, etc.) is displayed on the TV screen.

The keyword input display appears on the TV screen.

2 Press SHIFT, then press the numeric/text buttons to enter a keyword.

A keyword can be up to 15 characters.

Note

Enter a keyword that will match the letters or a word at the beginning of the name or title of the item you want to search for. When the receiver searches for an item, "The" at the beginning of a name and the following space will be ignored.

3 Press ⊕.

An item that matches the keyword appears. If the item appears is not the one you are searching for, press ◀/▶ to display the previous/next item.

4 Repeat steps 1 to 3 until you find the item you want, then press ⊕.

5 Select the track you want, then press ⊕.

Playback starts.

About the *Bluetooth* wireless technology

Bluetooth wireless technology is a short-range wireless technology that enables wireless data communication between digital devices. *Bluetooth* wireless technology operates within a range of about 10 meters (33 feet).
You do not need to use a cable for connection, nor is it necessary for the devices to face one another, such is the case with infrared technology.
Bluetooth standard is an international standard supported by thousands of companies all over the world, and employed by various companies worldwide.

About the *Bluetooth* functions of the receiver

Communication System and Compatible *Bluetooth* Profiles of this receiver

Profile is standardization of the function for each *Bluetooth* device specification. This receiver supports the following *Bluetooth* version and profiles:

Communication System:
Bluetooth Specification version 2.1 + EDR*

Compatible *Bluetooth* Profiles:
– A2DP (Advanced Audio Distribution Profile): Receiving audio content of high-quality.
– AVRCP 1.3 (Audio Video Remote Control Profile): Controlling audio/video equipment; pausing, stopping, starting playback, volume control, etc.

* Enhanced Data Rate

Notes
• To be able to use the *Bluetooth* function, the *Bluetooth* device to be connected requires the same profile as the receiver's.
  Note also that even if the same profile exists, devices may vary in function depending on their specifications.
• Due to the characteristic of *Bluetooth* wireless technology, the sound played on this receiver is slightly delayed from the sound played on the *Bluetooth* device during listening to the music.

Listening to music of a *Bluetooth* device

You can play music of a *Bluetooth* device via this receiver after pair and connect the *Bluetooth* device with the receiver.

Check the websites for the latest information about compatible *Bluetooth* devices with URLs listed under "About support information" (page 126).

Pairing the receiver with a *Bluetooth* device

Pairing is an operation where *Bluetooth* devices register with each other beforehand. Use the procedure below to pair the receiver with your *Bluetooth* device. Once a pairing operation is performed, it does not need to be performed again. If pairing is already completed, proceed to "Playing music of a *Bluetooth* device" (page 83).
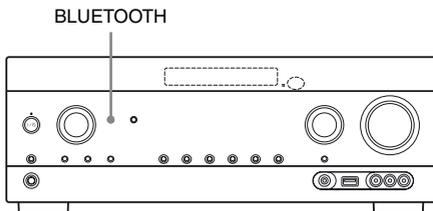
BLUETOOTH

1 **Place the *Bluetooth* device within 1 meter (3.3 feet) from this receiver.**

2 **Press BLUETOOTH to select *Bluetooth* function.**

3 **Hold down BLUETOOTH for 2 seconds to activate the pairing mode of the receiver.**

"Pairing ready" appears on the TV screen and "BLUETOOTH" flashes quickly on the display panel. Perform step 4 within 5 minutes, otherwise pairing will be canceled. In this case, repeat this step.

4 **Perform pairing on the *Bluetooth* device to detect this receiver.**

For details, refer to the operating instructions of your *Bluetooth* device. A list of detected devices may appears on the *Bluetooth* device display depending on the type of *Bluetooth* device. This receiver is displayed as "STR-DN1030".

Note

When establishing a connection with this receiver, select the audio profile (A2DP, AVRCP) at the *Bluetooth* device. If the *Bluetooth* device does not support the AVRCP profile, you cannot perform playback or other operations with this receiver (page 81).

5 **Select "STR-DN1030" on the *Bluetooth* device display.**

If "STR-DN1030" is not displayed, repeat from step 1.

6 **If passkey**∗ **is required on the display of the *Bluetooth* device, enter "0000".**

7 **Once pairing is completed, connect this receiver with the *Bluetooth* device.**

Depending on the device, connection is automatically made along with the pairing. Once the connection is established, the device name appears on the TV screen and "BLUETOOTH" lights up on the display panel.

∗ Passkey may be called "Passcode", "PIN code", "PIN number" or "Password".

Notes
- If pairing is not successful, "Cancel" appears on the TV screen. Repeat steps 1 to 6.
- The receiver only supports numerical passkey up to 4 digits.
- You can pair up to 9 *Bluetooth* devices with this receiver. If 10th *Bluetooth* device is paired, the least recently connected device will be replaced by the new one.
- To pair with other *Bluetooth* devices, repeats steps 1 to 6.
- To delete all pairing information, see "Clear History" (page 101).

To cancel pairing operation

Hold down BLUETOOTH after step 3. "Cancel" appears on the TV screen.

Playing music of a *Bluetooth* device

You can operate a *Bluetooth* device by connecting the receiver and a *Bluetooth* device using AVRCP.
Check the following before playing music:
– The *Bluetooth* function of the *Bluetooth* device is turned on.
– Pairing has been completed.

1 Press BLUETOOTH to select *Bluetooth* function.

The receiver automatically connects to the last connected *Bluetooth* device. If you cannot connect with a last connected *Bluetooth* device, press BLUETOOTH on the receiver. Once the connection is established, proceed to step 3.

2 Establish a connection from the *Bluetooth* device.

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

3 Start playback from the *Bluetooth* device.

You can also press ▶ on the remote control.

4 Adjust the volume.

Press MASTER VOL +/– or ⊿ +/– (or MASTER VOLUME on the receiver).

Note

Depending on the type of *Bluetooth* device, you can adjust the volume using the controls of the *Bluetooth* device.

Notes

• Once the connection is established, the device name appears on the TV screen and "BLUETOOTH" lights up on the display panel.
• To disconnect from a *Bluetooth* device, press BLUETOOTH on the receiver. You can also disconnect from a *Bluetooth* device. For details, refer to the operating instructions of your *Bluetooth* device.

• While connected to a *Bluetooth* device, this receiver cannot be detected and a connection cannot be established from another *Bluetooth* device.
• If you cannot connect with a paired *Bluetooth* device, perform the pairing operation between the receiver and the *Bluetooth* device again.
• If the input has been set to "BLUETOOTH" when you turn on the receiver, the receiver automatically connects to the last connected *Bluetooth* device.

To operate the *Bluetooth* device using the remote control
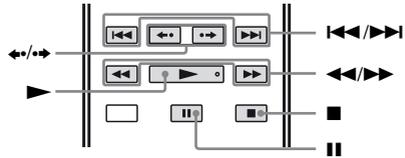
Press	Operation
▶*	Starts play.
II	Pauses play.
■	Stops play.
◀◀/▶▶	Fast reverses or forwards.
I◀◀/▶▶I	Goes to the previous/next file.
◄•/•►	Goes to the previous/next album.

* If no *Bluetooth* device is connected and you press ▶, the receiver automatically connects to the last connected *Bluetooth* device and play back the music.

Note

These operations may not be available for certain *Bluetooth* devices. In addition, the actual operations may differ depending on the connected *Bluetooth* device.

To check the information of a connected *Bluetooth* device

You can check the *Bluetooth* device information by pressing DISPLAY repeatedly. Each time you press DISPLAY, the display will change cyclically as follows:

Bluetooth device name → *Bluetooth* device address → Sound field currently applied → Volume level → Input you selected

What is "BRAVIA" Sync?

The "BRAVIA" Sync function allows communication between Sony products such as TV, Blu-ray Disc/DVD player, AV amplifier, etc. that supports the Control for HDMI function.
By connecting Sony equipment that is compatible with the "BRAVIA" Sync with an HDMI cable (not supplied), operation is simplified as follows:
• One-Touch Play (page 85)
• System Audio Control (page 86)
• System Power-Off (page 86)
• Scene Select (page 87)
• Home Theatre Control (page 87)

Control for HDMI is a mutual control function standard used by HDMI CEC (Consumer Electronics Control) for HDMI (High-Definition Multimedia Interface).

We recommend that you connect the receiver to products featuring "BRAVIA" Sync.

Notes
• You may use "One Touch Play", "System Audio Control", and "System Power-Off" function with non-Sony equipment. However, compatibility with all non-Sony equipment is not guaranteed.
• "Scene Select" and "Home Theatre Control" features are Sony proprietary functions. They cannot operate with non-Sony equipment.
• Equipment not compatible with "BRAVIA" Sync cannot activate these features.

Preparing for the "BRAVIA" Sync

The receiver is compatible with the "Control for HDMI-Easy Setting" function.
• If your TV is compatible with the "Control for HDMI-Easy Setting" function, you can set the Control for HDMI function of the receiver and playback equipment automatically by setting the Control for HDMI function on your TV (page 84).
• If your TV is not compatible with the "Control for HDMI-Easy Setting" function, set the Control for HDMI function of the receiver, playback equipment and TV individually (page 85).

If your TV is compatible with the "Control for HDMI-Easy Setting" function

1 Connect the receiver, TV and playback equipment via HDMI connection (page 26, 27).
(The respective equipment must be compatible with the Control for HDMI function.)

2 Turn on the receiver, TV and playback equipment.

3 Turn on the Control for HDMI function of the TV.
The Control for HDMI function of the receiver and all the connected equipment are turned on simultaneously. During the setup, "SCANNING" flashes on the display panel. Wait until "COMPLETE" appears. The setup is complete.

For details on setup of the TV, refer to the operating instructions of your TV.

If your TV is not compatible with the "Control for HDMI-Easy Setting" function
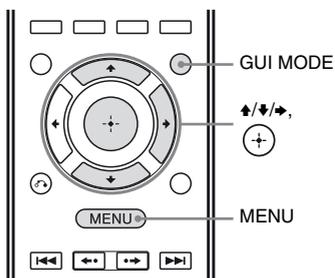
GUI MODE

▲/▼/▶,
⊕

MENU — MENU

1 Press MENU.
The menu is displayed on the TV screen.

2 Select "⊟ Settings" from the menu, then press ⊕ or ▶.
The Settings menu list appears on the TV screen.

3 Select "HDMI", then press ⊕ or ▶.

4 Select "Ctrl for HDMI", then press ⊕ or ▶.

5 Select "ON", then press ⊕.
The Control for HDMI function is set to on.

6 Press GUI MODE to exit the GUI menu.

7 Select the HDMI input of the receiver and TV to match the HDMI input of the connected equipment, so that the image from the connected equipment is displayed.

8 Set the Control for HDMI function for the connected equipment to on.
If the Control for HDMI function for the connected equipment is already set to on, you do not need to change the setting.

9 Repeat steps 7 and 8 for other equipment that you want to use the Control for HDMI function.
For details on setting the TV and connected equipment, refer to the operating instructions of the respective equipment.

Notes
• When you unplug the HDMI cable or change the connection, perform the steps given in "If your TV is compatible with the "Control for HDMI-Easy Setting" function" (page 84) or "If your TV is not compatible with the "Control for HDMI-Easy Setting" function" (page 85).
• Before you perform the "Control for HDMI-Easy Setting" on your TV, be sure to turn on the TV and other connected equipment including the receiver first.
• If the playback equipment cannot function after you have made the settings for "Control for HDMI-Easy Setting", check the Control for HDMI setting of the playback equipment.
• If the connected equipment does not support the "Control for HDMI-Easy Setting", but still supports the Control for HDMI, then you need to set the Control for HDMI function for the connected equipment before you perform the "Control for HDMI-Easy Setting" from the TV.

Playing back equipment with one-touch operation
(One-Touch Play)

When you start playback the equipment connected to the receiver via an HDMI connection, the receiver and TV operation are simplified as follow:

Receiver and TV

> Turns on (if in standby mode)
> ↓
> Switches to appropriate HDMI input
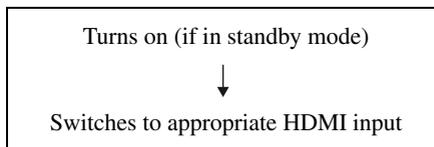
If you set "Pass Through" to "AUTO" or "ON" (page 98), then set the receiver to standby mode, sound and image can be output only from the TV.

Notes
• Be sure that the System Audio Control function is set to on using TV menu.
• Depending on the TV, the start of the content may not appear.

"BRAVIA" Sync Features

- Depending on the settings, the receiver may not turns on when "Pass Through" is set to "AUTO" or "ON".

Tip

You can also select a connected equipment, such as Blu-ray Disc/DVD player from the TV menu. The receiver and TV will automatically switch to the appropriate HDMI input.

Enjoying the TV sound from the speakers connected to the receiver
(System Audio Control)

You can enjoy the TV sound from the speakers connected to the receiver by a simple operation.
You can operate System Audio Control function using the TV menu. For details, refer to the operating instructions of the TV.

TV	Receiver
Sets System Audio Control to on	• Turns on (if in standby mode) • Switches to appropriate HDMI input
Minimizes TV volume	Outputs TV sound
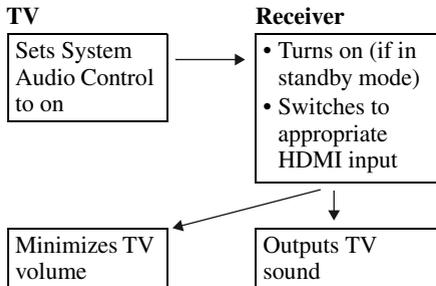
You can also use the System Audio Control function as follows.
- If you turn on the receiver while the TV is turned on, the System Audio Control function will automatically activate to output TV sound through the speakers connected to the receiver. However, if you turn off the receiver, the sound will output from the TV speakers.
- When you enjoy the TV sound from the speakers connected to the receiver, you can adjust the volume or turn off the sound temporarily by using the TV's remote control.

Notes
- If System Audio Control does not function according to your TV setting, refer to the operating instructions of the TV.
- When "Ctrl for HDMI" is set to "ON", the "Audio Out" settings in the HDMI Settings menu will set automatically based on the System Audio Control settings (page 98).

Turning off the receiver with the TV
(System Power-Off)

When you turn the TV off, using the power button on the TV's remote control, the receiver and the connected equipment turn off automatically.
You can also use the receiver's remote control to turn off the TV.
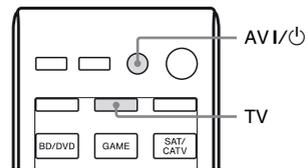
Press TV, then press AV I/⏻.

The TV, receiver and the connected equipment are turned off.

Notes
- Set the TV power supply interlock function to on before using the System Power-Off function. For details, refer to the operating instructions of the TV.
- Depending on the condition of the connected equipment, it may not be turned off. For details, refer to the operating instructions of the connected equipment.
- If you use the System Power-Off function with a non-Sony TV, program the remote control according to the maker of the TV.

Enjoying optimum sound field for the selected scene
(Scene Select)

The optimum picture quality and sound field are selected automatically according to the scene selected on your TV.
For details on the operation, refer to the operating instructions of the TV.

Note
The sound field may not switch depending on the TV.

Correspondence table

Scene setting on the TV	Sound field
Cinema	HD-D.C.S.
Sports	Sports
Music	Live Concert
Animation	A.F.D. Auto
Photo	A.F.D. Auto
Game	A.F.D. Auto
Graphics	A.F.D. Auto

Operating the receiver using the TV's remote control
(Home Theatre Control)

If a "Home Theatre Control"-compatible TV is connected to the receiver, an icon for Internet based applications appears on the connected TV.
You can switch an input of the receiver or switch sound fields by using your TV's remote control. You can also adjust the level of the center speaker or the subwoofer, or adjust the settings of "Sound Optimizer" (page 64), "Dual Mono" (page 97), or "A/V Sync" (page 97).

Note
To use the Home Theatre Control function, your TV must be able to access a broadband service. For details, refer to the operating instructions of your TV.

"BRAVIA" Sync Features

Other Operations

Switching between digital and analog audio
(INPUT MODE)

When you connect equipment to both digital and analog audio input jacks on the receiver, you can fix the audio input mode to either of them, or switch from one to the other, depending on the type of material you intend to watch.

1 Turn INPUT SELECTOR on the receiver to select the input.

You can also use the input buttons on the remote control.

2 Press INPUT MODE repeatedly on the receiver to select the audio input mode.

The selected audio input mode appears on the display panel.

- **AUTO:** Gives priority to digital audio signals. If there are more than one digital connection, HDMI audio signals have priority.
  If there are no digital audio signals, analog audio signals are selected. When TV input is selected, priority is given to the Audio Return Channel (ARC) signals. If your TV is not compatible with the ARC function, the digital optical audio signals are selected.
  If the Control for HDMI functions of both the receiver and the TV are not activated, the ARC does not work.
- **COAX:** Specifies the digital audio signals input to the DIGITAL COAXIAL jack.
- **OPT:** Specifies the digital audio signals input to the DIGITAL OPTICAL jack.

- **ANALOG:** Specifies the analog audio signals input to the AUDIO IN (L/R) jacks.

Notes
- Based on the input, "------" appears on the display panel, and other modes cannot be selected.
- When "A. DIRECT" is being used, audio input is set to "ANALOG". You cannot select other modes.

Using other video/audio input jacks
(Input Assign)

You can reassign video and/or audio signals to another input jacks.
After you have reassigned the input jacks, you can use the input button (or INPUT SELECTOR on the receiver) to select the equipment you connected.

Component video and digital audio input assign

You can reassign the COMPONENT VIDEO and DIGITAL input jacks to other input if the default settings of the jacks do not correspond to your connected equipment.
Example:
When you connect the DVD player to the OPTICAL SAT/CATV IN and COMPONENT VIDEO SAT/CATV (IN 2) jacks.
– Assign the OPTICAL SAT/CATV IN jack to "BD/DVD".
– Assign the COMPONENT VIDEO SAT/ CATV (IN 2) jacks to "BD/DVD".

1 Press MENU.

The menu is displayed on the TV screen.

2 Select "⊞ Input", then press ⊕ or ➡.

3 Select the input name you want to assign.

4 Press TOOLS/OPTIONS.

The option menu appears.

5 Select "Input Assign", then press ⊕ or ➔.

The "Input Assign" screen appears.

6 Select the video and/or audio signals you want to assign to the input which you selected in step 3 using ▲/▼/◄/►.

7 Press ⊕.

Input name		BD/DVD	GAME	SAT/CATV	VIDEO 1	VIDEO 2	SA-CD/CD
Assignable video input jacks	COMP.1	○*	○	○	○	○	○
	COMP.2	○	○	○*	○	○	○
	CVBS	–	–	○	○*	○*	–
	NONE	○	○*	–	–	–	○*
Assignable audio input jacks	BD COAX	○*	○	○	○	○	○
	SAT OPT	○	○	○*	○	○	○
	ANALOG	–	–	○	○*	○*	○*
	NONE	○	○*	–	–	–	–

* Default setting

Notes

• When you assign the digital audio input, the INPUT MODE setting may change automatically.

• One reassignment is allowed for each input.

Using a bi-amplifier connection

1 Press MENU.

The menu is displayed on the TV screen.

2 Select " Settings", then press ⊕ or ➛.

The Settings menu list appears on the TV screen.

3 Select "Speaker", then press ⊕ or ➛.

4 Select "SP Pattern", then press ⊕ or ➛.

5 Select the appropriate speaker pattern so that there are no surround back speakers and front high speakers, then press ⊕.

6 Select "SB Assign", then press ⊕ or ➛.

7 Select "BI-AMP", then press ⊕.

The same signals output from the SPEAKERS FRONT A terminals can be output from the SPEAKERS SURROUND BACK/FRONT HIGH/ BI-AMP/FRONT B terminals.

To exit the menu
Press MENU.

Notes
• Set the "SB Assign" to "BI-AMP" before you perform Auto Calibration.
• If you set the "SB Assign" to "BI-AMP", the speaker level and distance settings of the surround back speakers and front high speakers become invalid, and those of the front speakers are used.

Using multi-zone features

You can enjoy sounds from the equipment connected to the receiver in a zone other than the main zone. For example, you can watch the DVD in the main zone and listen to the CD in zone 2.
When using an IR repeater (not supplied), you can operate both equipment in the main zone and Sony receiver in zone 2 from zone 2.

To operate the receiver from zone 2

You can operate the receiver without pointing the remote control towards the receiver if you connect an IR repeater (not supplied) to the IR REMOTE jack.
Use an IR repeater when you install the receiver in a place where signals from the remote control cannot reach.

Making a zone 2 connection

Outputs sound from speakers in zone 2 using the receiver and another amplifier.
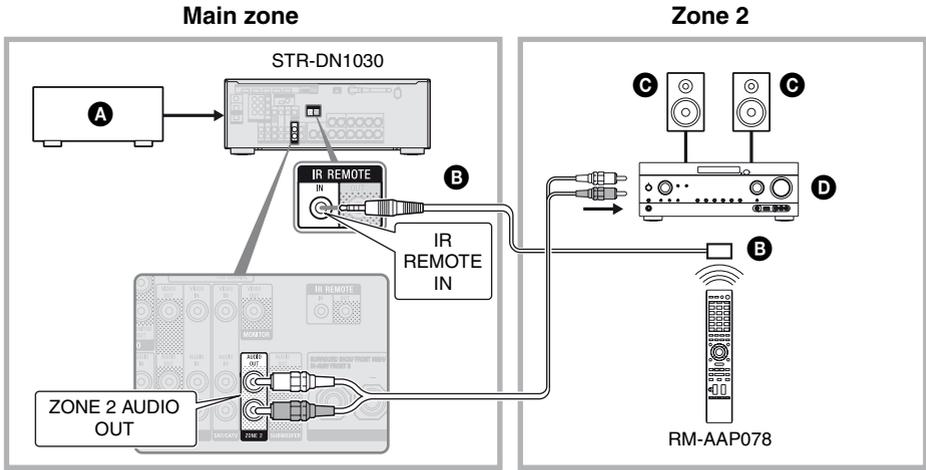
Ⓐ Audio equipment

Ⓑ IR repeater (not supplied)

Ⓒ Speakers

Ⓓ Sony Amplifier/Receiver

Other Operations

91US

Operating the receiver from zone 2

The following operations are described for connecting an IR repeater and operating the receiver in zone 2. When an IR repeater is not connected, use this receiver in the main zone.
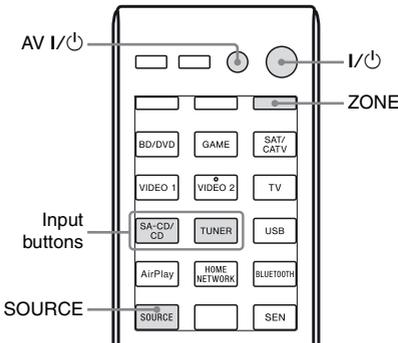
1 **Turn on the main receiver (this receiver).**

2 **Turn on the receiver in zone 2.**

3 **Press ZONE.**

The remote control switches to zone 2.

4 **Press I/(¹).**

The zone function is activated.

5 **Press the input buttons to select the source you want.**

For zone 2, only analog audio signals are output.
When you select SOURCE, the signals of the current input in main zone are output.

6 **Adjust to a suitable volume using the receiver in zone 2.**

To exit the zone 2 operation

Press ZONE, then press I/(¹).

Tips

• Even when this receiver is in standby mode (press I/(¹) on the remote control to turned off this receiver), the receiver in zone 2 remains turned on. To turn off all receivers, press I/(¹) and AV I/(¹) on the remote control at the same time (SYSTEM STANDBY).

• When the receiver is in standby mode, the ON/STANDBY indicator on the front panel lights up in amber if the receiver in zone 2 is turned on.

• Only signals from equipment connected to the analog input jacks are output through the ZONE 2 OUT jacks. No signals are output from equipment connected to only the digital input jacks.

• The BD/DVD, GAME, SAT/CATV, VIDEO 1, VIDEO 2, TV, USB, AirPlay, HOME NETWORK, BLUETOOTH and SEN inputs can be selected in main zone only.

• When SOURCE is selected, the signals input to the HDMI IN jacks, DIGITAL IN jacks and USB port are not output from the ZONE 2 OUT jacks.

• When SOURCE is selected, the audio signals from USB, AirPlay, Home Network, *Bluetooth* and SEN are not output from the ZONE 2 OUT jacks.

• You can select either "FM" or "AM" from the main zone and zone 2. Priority is given to the choice which has most recently been selected, even if a different choice has been selected in one of the zones.

Adjusting Settings

Using the Settings menu

You can adjust various settings for speakers, surround effects, etc. using the Settings menu. To display the menu of the receiver on the TV screen, make sure that the receiver is in "GUI MODE" by following the steps in "To turn "GUI MODE" on and off" (page 49).
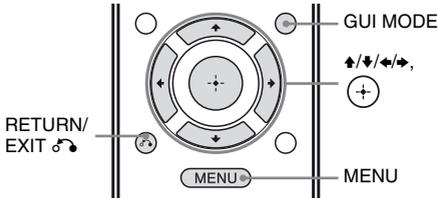
GUI MODE

♠/♥/♦/♦,
⊕

RETURN/
EXIT ♪

MENU

1 Press MENU.

The menu is displayed on the TV screen.

Input	BD/DVD
	GAME
Music	SAT/CATV
	VIDEO 1
Video	VIDEO 2

2 Select "⚏ Settings" from the menu, then press ⊕ or ♦ to enter the menu mode.

The Settings menu list appears on the TV screen.

	Auto Cal.
	Speaker
	Surround
	EQ
Settings	Audio
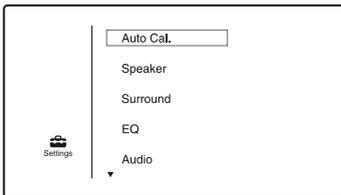
3 Select the menu item you want, then press ⊕.

Example: When you select "Auto Cal.".

⚏ Auto Calibration

Auto Calibration Settings

Start   Cal. Type
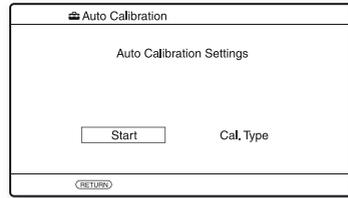
RETURN

4 Select the parameter you want, then press ⊕.

To return to the previous screen
Press RETURN/EXIT ♪.

To exit the menu
Press MENU.

Settings menu list

Settings menu	Description
Auto Cal.	Sets the speaker level or distance and makes the measurement automatically (page 39).
Speaker	Sets the speaker position manually (page 94).
Surround	Selects the sound field and adjusts the surround effect you choose (page 96).
EQ	Adjusts the equalizer (bass/treble sound) (page 97).
Audio	Sets various sound items (page 97).
HDMI	Adjusts settings for sound/images from equipment connected to the HDMI jacks (page 98).
Network	Adjusts settings for the network (page 98).
Bluetooth	Adjusts settings for *Bluetooth* (page 101).
System	Adjusts settings for the system of the receiver (page 102).

Adjusting Settings

Speaker Settings menu

You can adjust each speaker manually.
You can also adjust the speaker levels after the Auto Calibration is completed.

Note

The speaker settings are only for the current seating position.

■ SP Pattern (Speaker Pattern)

Select "SP Pattern" according to the speaker system which you are using. Select the speaker pattern before you perform Auto Calibration.

■ SB Assign (Surround back speaker assign)

Lets you set the SPEAKERS SURROUND BACK/FRONT HIGH/BI-AMP/FRONT B terminals for a bi-amplifier or speakers front B connection.
- **Speaker B**
- **BI-AMP**
- **OFF**

Note

When you change the connection from a bi-amplifier or speakers front B to surround back or front high speakers connection, set the "SB Assign" to "OFF", then set up the speakers again. See "Using AUTO CALIBRATION" (page 39) or "Manual Setup" (page 94).

■ Manual Setup

Lets you adjust each speaker manually on the "Manual Setup" screen. You can also adjust the speaker levels after the Auto Calibration is completed.

To adjust the speaker level

You can adjust each speaker's level (front left/right, front left/right high, center, surround left/right, surround back left/right, subwoofer).

1 Select the speaker on the screen for which you want to adjust the level, then press ⊕.

2 Select "Lvl".

3 Set the level of the selected speaker, then press ⊕.
You can adjust the level from –10.0 dB to +10.0 dB in 0.5 dB intervals.

Note

When one of the sound fields for music is selected, no sound is output from the subwoofer if all the speakers are set to "Large" in the Speaker Settings menu. However, the sound will be output from the subwoofer if
– the digital input signal contains LFE signals.
– the front or surround speakers are set to "Small".
– "MULTI ST.", "PLII MV", "PLII MS", "PLIIx MV", "PLIIx MS", "PLIIz", "HD-D.C.S." or "P. AUDIO" is selected.

To adjust the distance from the seating position to each speaker

You can adjust the distance from the seating position to each speaker (front left/right, front left/right high, center, surround left/right, surround back left/right, subwoofer).

1 Select the speaker on the screen for which you want to adjust the distance from the seating position, then press ⊕.

2 Select "Dist".

3 Set the distance of the selected speaker, then press ⊕.
You can adjust the distance from 1 m 0 cm to 10 m 0 cm (3 feet 3 inches to 32 feet 9 inches) in 10 cm (1 inch) intervals.

Tip

You can adjust the distance in 1 cm interval when you have performed the Auto Calibration and saved the measurement result.

Notes

• Depending on the speaker pattern setting, some parameters may not be available.
• This function does not work when "A. DIRECT" is being used.

To adjust the size of each speaker

You can adjust each speaker's (front left/right, front left/right high, center, surround left/right, surround back left/right) size.

1 Select the speaker on the screen for which you want to adjust the size, then press ⊕.

2 Select "Size".

3 Set the size of the selected speaker, then press ⊕.
- **Large:** If you connect large speakers that will effectively reproduce bass frequencies, select "Large". Normally, select "Large".
- **Small:** If the sound is distorted, or you feel a lack of surround effects when using multi channel surround sound, select "Small" to activate the bass redirection circuitry and output the bass frequencies of each channel from the subwoofer or other "Large" speakers.

Note
This function does not work when "A. DIRECT" is being used.

Tips
- The "Large" and "Small" settings for each speaker determine whether the internal sound processor will cut the bass signal from that channel.
  When the bass is cut from a channel, the bass redirection circuitry sends the corresponding bass frequencies to the subwoofer or other "Large" speakers.
  However, since bass sound has a certain amount of directionality, it is best not to cut it, if possible. Therefore, even when using small speakers, you can set them to "Large" if you want to output the bass frequencies from that speaker. On the other hand, if you are using a large speaker, but prefer not to have bass frequencies output from that speaker, set it to "Small".
  If the overall sound level is lower than you prefer, set all speakers to "Large". If there is not enough bass, you can use the equalizer to boost the bass levels.

- The surround back speakers will be set to the same setting as that of the surround speakers.
- When the front speakers are set to "Small", the center, surround, and surround back/front high speakers are also automatically set to "Small".
- If you do not use the subwoofer, the front speakers are automatically set to "Large".

■ Crossover Freq (Speaker crossover frequency)
Lets you set the bass crossover frequency of speakers that the speaker size has been set to "Small" in the Speaker Settings menu. Measured speaker crossover frequency is set for each speaker after the Auto Calibration.

1 Select the speaker on the screen for which you want to adjust the crossover frequency, then press ⊕.

2 Adjust the value, then press ⊕.

■ Test Tone
Lets you select the test tone type on the "Test Tone" screen.

Tips
- To adjust the level of all speakers at the same time, press MASTER VOL +/– or ⊿ +/–. You can also use MASTER VOLUME on the receiver.
- The adjusted value is shown on the TV screen during adjustment.

To output test tone from each speaker

You can output test tone from the speakers in sequence.

1 Select "Test Tone", then press ⊕ or ➡.

2 Adjust the parameter, then press ⊕.
- **OFF**
- **AUTO:** The test tone is output from each speaker in sequence.
- **FL, CNT, FR, SR, SB*, SBR, SBL, SL, LH, RH, SW:** You can select which speakers will output the test tone.

  * "SB" appears when only one surround back speaker is connected.

3 Adjust the speaker level, then press ⊕.

continued

Adjusting Settings

■ D.Range Comp (Dynamic range compression)

Lets you compress the dynamic range of the soundtrack. This may be useful when you want to watch movies at low volumes late at night. Dynamic range compression is possible with Dolby Digital sources only.

- **MAX:** The dynamic range is compressed dramatically.
- **STD:** The dynamic range is compressed as intended by the recording engineer.
- **AUTO:** The dynamic range is compressed automatically.
- **OFF:** The dynamic range is not compressed.

Tip

"STD" is the standard setting, and enacts light compression. Therefore, we recommend using the "MAX" setting. This greatly compresses the dynamic range and lets you view movies late at night at low volumes. Unlike analog limiters, the levels are predetermined and provide a very natural compression.

■ Distance Unit

Lets you select the unit of measurement for setting distances.

- **FEET:** The distance is displayed in feet.
- **METER:** The distance is displayed in meters.

Surround Settings menu

You can select the sound field and adjust the effect level, etc. on the "Sound Field Setup" screen.

For details on the sound field, see "Enjoying Sound Effects" (page 61).

Note

The setup items you can adjust on each menu vary depending on the sound field.

To adjust the effect level for HD-D.C.S.

1 Select "HD-D.C.S.", then press ⊕ or ➡.

2 Select the effect type you want, then press ⊕.

HD-D.C.S. has three different types: Dynamic, Theater and Studio. Each type has different reflection and reverberation sound mixture levels and is optimized to match a listener's room uniqueness, taste and mood.

- **Dynamic:** This setting is suitable for an environment which is reverberant but lacks a spacious feeling (where sound absorption is not sufficient). It emphasizes the reflection of sound and reproduces the sound of a large, classical movie theater. Thus, the spacious feeling of a dubbing theater is emphasized and a unique acoustic field is created.
- **Theater:** This setting is suitable for a general living room. It reproduces the reverberation of sound just like in a movie theater (dubbing theater). It is most appropriate for watching content recorded on a Blu-ray Disc when you want the atmosphere of a movie theater.
- **Studio:** This setting is suitable for a living room with the appropriate sound equipment. It reproduces the reverberation of sound provided when a theatrical sound source is remixed for a Blu-ray Disc to a volume level suitable for home use. The level of reflection and reverberation of sound is kept to the minimum. However, dialogues and surround effects are reproduced vividly.

EQ Settings menu

You can use the following parameters to adjust the tonal quality (bass/treble level) of front speakers.

• **Bass**
• **Treble**
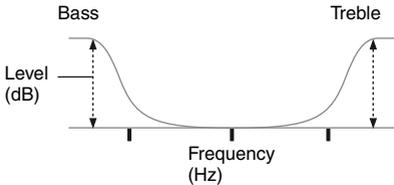
Note

This function does not work when "A. DIRECT" is being used.

Audio Settings menu

You can adjust settings for the audio to suit your preference.

■ D.L.L. (Digital Legato Linear)

The D.L.L. function is Sony proprietary technology that allows low quality digital audio signals and analog audio signals to be played back with high quality sound.

• **AUTO 1:** This function is available for lossy compression audio formats and analog audio signals.
• **AUTO 2:** This function is available for Linear PCM signals, as well as lossy compression audio formats and analog audio signals.
• **OFF**

Note

This function works when "2CH ST.", "A.F.D. AUTO", "MULTI ST." or "HP 2CH" is selected. However, this function does not work in the following cases.

– "FM TUNER" or "AM TUNER" input is selected.
– Linear PCM signals with a sampling frequency of other than 44.1 kHz are being received.

– Dolby Digital Plus, Dolby Digital EX, Dolby TrueHD, DTS 96/24, DTS-HD Master Audio, or DTS-HD High Resolution Audio signals are being received.
– During network function, signals with a sampling frequency of other than 44.1 kHz is being received.

■ A/V Sync (Synchronizes audio with video output)

Lets you delay the output of audio to minimize the time gap between audio output and visual display.

This function is useful when you use a large LCD or plasma monitor or a projector.

• **HDMI AUTO:** The time gap between audio output and visual display for the monitor connected via an HDMI connection will be adjusted automatically based on the information for the TV. This feature is available only when the monitor supports the A/V Sync function.
• **0 ms – 300 ms:** You can adjust the delay from 0 ms to 300 ms in 10 ms intervals.

Notes

• This function does not work when "A. DIRECT" is being used.
• The delay time may vary depending on audio format, sound field, speaker pattern and speaker distance settings.

■ Dual Mono (Digital broadcast language selection)

Lets you select the language you want when you listen to the dual audio of a digital broadcast when available. This feature only functions for Dolby Digital sources.

• **MAIN/SUB:** Sound of the main language will be output through the front left speaker and sound of the sub language will be output through the front right speaker simultaneously.
• **MAIN:** Sound of the main language will be output.
• **SUB:** Sound of the sub language will be output.

HDMI Settings menu

You can adjust the required settings for equipment connected to the HDMI jack.

■ Ctrl for HDMI (Control for HDMI)

Lets you turn the Control for HDMI function on or off. For details, see "Preparing for the "BRAVIA" Sync" (page 84).
• **ON**
• **OFF**

Notes
• When you set "Ctrl for HDMI" to "ON", "Audio Out" may be changed automatically.
• When the receiver is in standby mode, the ON/STANDBY indicator on the front panel lights up in amber if "Ctrl for HDMI" is set to "ON".

■ Pass Through

Lets you output the HDMI signals to the TV even when the receiver is in standby mode.
• **ON:** When the receiver is in the standby mode, the receiver continuously outputs HDMI signals from the receiver's HDMI TV OUT jack.
• **AUTO:** When the TV is turned on while the receiver is in the standby mode, the receiver outputs HDMI signals from the receiver's HDMI TV OUT jack. Sony recommends this setting if you use a "BRAVIA" Sync compatible Sony TV. This setting saves power in the standby mode when compared with the "ON" setting.
• **OFF:** The receiver does not output HDMI signals when in standby mode. Turn on the receiver to enjoy the connected equipment's source on the TV. This setting saves power in the standby mode when compared with the "ON" setting.

Notes
• This function is not available when "Ctrl for HDMI" is set to "OFF".
• When "AUTO" is selected, it may take a little more time for the image and sound to be output to the TV than when "ON" is selected.

■ Audio Out

Lets you set the HDMI audio signals output from the playback equipment connected to the receiver via an HDMI connection.
• **AMP:** The HDMI audio signals from the playback equipment are only output to the speakers connected to the receiver. Multi channel sound can be played back as it is.

Note
Audio signals are not output from the TV's speaker when "Audio Out" is set to "AMP".

• **TV+AMP:** The sound is output from TV's speaker and the speakers connected to the receiver.

Notes
• The sound quality of the playback equipment depends on the TV's sound quality, such as the number of channels, and the sampling frequency, etc. If the TV has stereo speakers, the sound output from the receiver is also in stereo as that of the TV, even if you play back multi channel source.
• When you connect the receiver to a video equipment (projector, etc.), sound may not be output from the receiver. In this case, select "AMP".

Network Settings menu

You can adjust the settings for the network. The Network Settings menu is available only when the Home Network or SEN function is selected.

■ Settings

Lets you make the network settings. For details, see "Configuring the network settings of the receiver" (page 44).
• **Wireless LAN Settings**
• **Wired LAN Settings**

■ Information

Lets you check the network information for the network.

To check the network information

1 Select "Information", then press ⊕.

2 Select the setting item you want to check, then press ⊕.
The current setting information appears on the TV screen.
You can check the settings* for "Connection", "SSID", "Security Setup", "IP Settings", "IP Address", "Subnet Mask", "Default Gateway", "DNS Settings", "Primary DNS", "Secondary DNS", "Proxy Settings", "Proxy Address", "Port Number" and "MAC Address".

* The setting items during setup differ depending on the network environment and connection type.

■ PARTY STREAMING
Lets you set the receiver to use the PARTY STREAMING function.

1 Select "PARTY STREAMING", then press ⊕.

2 Select "On" or "Off", then press ⊕.
• **On:** The receiver can be detected by other devices on the home network. The receiver can start or close a PARTY, and can join or leave a PARTY.
• **Off:** The receiver can be detected by other devices on the home network. However, the receiver cannot start or close a PARTY, and cannot join or leave a PARTY.

■ Access Settings
Lets you set access restriction or permission for the devices on the device list.

To set the auto access permission

1 Select "Access Settings", then press ⊕.

2 Select "Auto Access", then press ⊕.

3 Select "Allow" or "Not Allow", then press ⊕.
• **Allow:** All the devices on the home network are permitted to access this receiver.
This receiver can start a PARTY as host device and join a PARTY as a guest device if requested.
• **Not Allow:** The receiver restricts a new device that is accessing the receiver. When connecting a new device to the home network, add the device to the device list, and set access permission (page 100).

Note
Up to 20 devices can be added to the device list. If 20 devices have already been registered, "Device Full" appears, and a new device cannot be added to the list. In this case, delete unnecessary devices from the list (page 100).

To add devices to the device list

1 Select "Access Settings", then press ⊕.

2 Select "Control Device", then press ⊕.
The registered device list appears on the TV screen.

3 Select "Add Device", then press ⊕.

4 Select the device you want, then press ⊕.
The selected device is added to the device list. For details on setting the access permission, see "To set access permission for the devices" (page 100).

Adjusting Settings

To set access permission for the devices

You can set access permission for a device on the device list. Only devices set to "Allow" are recognized on the home network.

1 Select "Access Settings", then press ⊕.

2 Select "Control Device", then press ⊕.
The registered device list appears on the TV screen.

3 Select the device you want, then press ⊕.

4 Select "Access", then press ⊕.

5 Select "Allow" or "Not Allow", then press ⊕.

To delete a device from the list
Select "Delete" in step 4, then press ⊕. Select "OK" on the confirmation display, then press ⊕.

■ Media Remote Device Registration
Lets you register your Media Remote devices.

To register the Media Remote devices

1 Select "Media Remote Device Registration", then press ⊕.

2 Select "Start Registration", then press ⊕.
The receiver starts to detect Media Remote device that ready for registration.
"Connecting" appears on the TV screen.
Press "Registration" on the Media Remote device.
However, the receiver will exit the registration if no device detected in 30 seconds.

3 Select "Finish", then press ⊕.

To cancel the registration
Select "Cancel" in step 2, then press ⊕.

Note
Up to 5 Media Remote devices can be added to the device list. If 5 devices have already been registered, "Device Full" appears, and a new device cannot be added to the list. In this case, delete unnecessary devices from the list (page 100).

■ Registered Media Remote Devices
Lets you check the list of the registered Media Remote devices. Only registered devices are allow to control the receiver.

To delete registered Media Remote devices from the device list

1 Select "Registered Media Remote Devices", then press ⊕.
The registered media remote device lists appear on the TV screen.

2 Select the device you want to delete, then press ⊕.

3 Select "Delete", then press ⊕.

4 Select "OK", then press ⊕.
The selected device is deleted from the device list.

■ Device Name
Lets you assign a device name to the receiver up to 30 characters to be easily recognizable by other devices on the home network.

To assign the device name

1 Select "Device Name", then press ⊕.

2 Press ⊕ to select the current device name.

3 Press SHIFT, then press numeric/text button to enter the device name.

4 Press ⊕.

Tip
The default device name is "STR-DN1030 ******".
"******" is the last 6 digits of MAC Address of the receiver.

■ Network Standby

While the "Network Standby" mode is set to "On", the receiver can always be connected and controlled over the network.

1 Select "Network Standby", then press ⊕.

2 Select "Off" or "On", then press ⊕.
   • **Off:** The network function turns off when the receiver is in standby mode. The receiver takes more time to resumes operation when powered on again.
   • **On:** The network function works even when the receiver is in standby mode, and resume operations when controlled over the network.

Note

When the receiver is in standby mode, the ON/STANDBY indicator on the front panel lights up in amber if "Network Standby" is set to "On".

■ Software Update

Lets you update the software of the receiver to the latest version.
For details, see "Updating the software" (page 77).

To check the software version

1 Select "Software Update", then press ⊕.

2 Select "Version", then press ⊕.
   The software version appears on the TV screen.

Bluetooth Settings menu

You can adjust the settings for the *Bluetooth*.

■ Pairing

Lets you pair the *Bluetooth* device with the receiver.

■ BT Standby (*Bluetooth* Standby)

While the "BT Standby" mode is set to "ON", the receiver can be controlled by the *Bluetooth* device even when the receiver is in standby mode.

1 Select "BT Standby", then press ⊕.

2 Select "ON" or "OFF", then press ⊕.
   • **ON:** The receiver turns on automatically when the *Bluetooth* device is connected to the receiver.
   • **OFF:** The receiver does not turns on.

Notes

– When the receiver is in standby mode, the ON/STANDBY indicator on the front panel lights up in amber if "BT Standby" is set to "ON".
– You can only select this parameter when a *Bluetooth* device is paired.

■ Clear History

Lets you clear all paired *Bluetooth* device and connection information from the receiver.

1 Select "Clear History", then press ⊕.
   "Clear all history?" appears on the TV screen.

2 Press ◄/► to select "OK", then press ⊕.
   "Complete!" appears, and all history is deleted.

Note

You cannot clear the history in the following cases.
– No paired *Bluetooth* devices in history.
– When you perform a pairing operation.

Adjusting Settings

■ Address Info

Lets you check the *Bluetooth* device address information. You can check the address information when a *Bluetooth* device is connected.

System Settings menu

You can adjust the settings of the receiver.

■ 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.

- **ON:** Switches to standby mode after approximately 30 minutes.
- **OFF:** Does not switch to standby mode.

Notes

- This function does not work in the following cases.
  - "FM TUNER", "AM TUNER", "HOME NETWORK", "AirPlay" or "SEN" input is selected.
  - PARTY STREAMING function is being used.
  - The software of the receiver is being updated.
- If you use the Auto standby mode and the Sleep Timer at the same time, the Sleep Timer has priority.

Operating without connecting to a TV

You can operate this receiver using the display panel even if the TV is not connected to the receiver.

AMP

DISPLAY

GUI MODE

♠/♦/♦/♦,
(+)

RETURN/
EXIT ♦♦

MENU

BD/DVD GAME SAT/CATV

VIDEO 1 VIDEO 2 TV

SA-CD/CD TUNER USB

AirPlay HOME NETWORK BLUETOOTH

SOURCE SEN
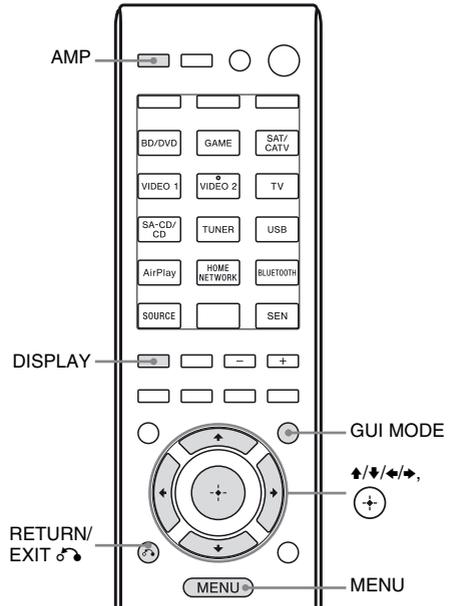
Using the menu on the display panel

Press GUI MODE repeatedly to select "GUI OFF".

The receiver is switched to front panel display mode.

1 Press AMP.

2 Press MENU.

3 Press ▲/▼ repeatedly to select the menu you want, then press ⊕ or ➡.

4 Press ▲/▼ repeatedly to select the parameter you want to adjust, then press ⊕ or ➡.

5 Press ▲/▼ repeatedly to select the setting you want, then press ⊕.

To return to the previous display

Press ◄ or RETURN/EXIT ♂➘.

To exit the menu

Press MENU.

Note

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

Overview of the menus

The following options are available in each menu. For details on navigating through menus, see page 103.

Menu [Display]	Parameters [Display]	Settings	Default setting
Auto Calibration settings [<AUTO CAL>]	Auto Calibration start [A.CAL START]		
	Auto Calibration type[a)] [CAL TYPE]	FULL FLAT, ENGINEER, FRONT REF, OFF	ENGINEER
Level settings [<LEVEL>]	Test tone[b)] [TEST TONE]	OFF, FIX ■■■[c)], AUTO ■■■[c)]	OFF
	Front left speaker level[b)] [FL LEVEL]	FL –10.0 dB to FL +10.0 dB (0.5 dB interval)	FL 0 dB
	Front right speaker level[b)] [FR LEVEL]	FR –10.0 dB to FR +10.0 dB (0.5 dB interval)	FR 0 dB
	Center speaker level[b)] [CNT LEVEL]	CNT –10.0 dB to CNT +10.0 dB (0.5 dB interval)	CNT 0 dB
	Surround left speaker level[b)] [SL LEVEL]	SL –10.0 dB to SL +10.0 dB (0.5 dB interval)	SL 0 dB
	Surround right speaker level[b)] [SR LEVEL]	SR –10.0 dB to SR +10.0 dB (0.5 dB interval)	SR 0 dB
	Surround back speaker level[b)] [SB LEVEL]	SB –10.0 dB to SB +10.0 dB (0.5 dB interval)	SB 0 dB
	Surround back left speaker level[b)] [SBL LEVEL]	SBL –10.0 dB to SBL +10.0 dB (0.5 dB interval)	SBL 0 dB
	Surround back right speaker level[b)] [SBR LEVEL]	SBR –10.0 dB to SBR +10.0 dB (0.5 dB interval)	SBR 0 dB
	Front left high speaker level[b)] [LH LEVEL]	LH –10.0 dB to LH +10.0 dB (0.5 dB interval)	LH 0 dB
	Front right high speaker level[b)] [RH LEVEL]	RH –10.0 dB to RH +10.0 dB (0.5 dB interval)	RH 0 dB
	Subwoofer level[b)] [SW LEVEL]	SW –10.0 dB to SW +10.0 dB (0.5 dB interval)	SW 0 dB
	Dynamic range compression [D. RANGE]	COMP. MAX, COMP. STD, COMP. AUTO, COMP. OFF	COMP. AUTO
Speaker settings [<SPEAKER>]	Speaker pattern [SP PATTERN]	5/2.1 to 2/0 (20 patterns)	3/4.1
	Front speakers size[b)] [FRT SIZE]	LARGE, SMALL	LARGE
	Center speaker size[b)] [CNT SIZE]	LARGE, SMALL	LARGE
	Surround speakers size[b)] [SUR SIZE]	LARGE, SMALL	LARGE
	Front high speakers size[b)] [FH SIZE]	LARGE, SMALL	LARGE

Menu [Display]	Parameters [Display]	Settings	Default setting
	Surround back speaker assign[d] [SB ASSIGN]	SPK B, BI-AMP, OFF	OFF
	Front left speaker distance[b] [FL DIST.]	FL 1.00 m to FL 10.00 m (FL 3'3" to FL 32'9") (0.1 m (1 inch) interval)[e]	FL 3.00 m (FL 9'10")
	Front right speaker distance[b] [FR DIST.]	FR 1.00 m to FR 10.00 m (FR 3'3" to FR 32'9") (0.1 m (1 inch) interval)[e]	FR 3.00 m (FR 9'10")
	Center speaker distance[b] [CNT DIST.]	CNT 1.00 m to CNT 10.00 m (CNT 3'3" to CNT 32'9") (0.1 m (1 inch) interval)[e]	CNT 3.00 m (CNT 9'10")
	Surround left speaker distance[b] [SL DIST.]	SL 1.00 m to SL 10.00 m (SL 3'3" to SL 32'9") (0.1 m (1 inch) interval)[e]	SL 3.00 m (SL 9'10")
	Surround right speaker distance[b] [SR DIST.]	SR 1.00 m to SR 10.00 m (SR 3'3" to SR 32'9") (0.1 m (1 inch) interval)[e]	SR 3.00 m (SR 9'10")
	Surround back speaker distance[b] [SB DIST.]	SB 1.00 m to SB 10.00 m (SB 3'3" to SB 32'9") (0.1 m (1 inch) interval)[e]	SB 3.00 m (SB 9'10")
	Surround back left speaker distance[b] [SBL DIST.]	SBL 1.00 m to SBL 10.00 m (SBL 3'3" to SBL 32'9") (0.1 m (1 inch) interval)[e]	SBL 3.00 m (SBL 9'10")
	Surround back right speaker distance[b] [SBR DIST.]	SBR 1.00 m to SBR 10.00 m (SBR 3'3" to SBR 32'9") (0.1 m (1 inch) interval)[e]	SBR 3.00 m (SBR 9'10")
	Front left high speaker distance[b] [LH DIST.]	LH 1.00 m to LH 10.00 m (LH 3'3" to LH 32'9") (0.1 m (1 inch) interval)[e]	LH 3.00 m (LH 9'10")
	Front right high speaker distance[b] [RH DIST.]	RH 1.00 m to RH 10.00 m (RH 3'3" to RH 32'9") (0.1 m (1 inch) interval)[e]	RH 3.00 m (RH 9'10")
	Subwoofer distance[b] [SW DIST.]	SW 1.00 m to SW 10.00 m (SW 3'3" to SW 32'9") (0.1 m (1 inch) interval)[e]	SW 3.00 m (SW 9'10")
	Distance unit [DIST. UNIT]	FEET, METER	METER[f]
	Front speakers crossover frequency[g] [FRT CROSS]	CROSS 40 Hz to CROSS 200 Hz (10 Hz interval)	CROSS 120 Hz
	Center speaker crossover frequency[g] [CNT CROSS]	CROSS 40 Hz to CROSS 200 Hz (10 Hz interval)	CROSS 120 Hz
	Surround speakers crossover frequency[g] [SUR CROSS]	CROSS 40 Hz to CROSS 200 Hz (10 Hz interval)	CROSS 120 Hz
	Front high speakers crossover frequency[g] [FH CROSS]	CROSS 40 Hz to CROSS 200 Hz (10 Hz interval)	CROSS 120 Hz

Adjusting Settings

Menu [Display]	Parameters [Display]	Settings	Default setting
Surround settings [<SURROUND>]	Effect levelh) [EFFECT]	DYNAMIC, THEATER, STUDIO	THEATER
EQ settings [<EQ>]	Front speakers bass level [BASS]	BASS –10 dB to BASS +10 dB (1 dB interval)	BASS 0 dB
	Front speakers treble level [TREBLE]	TREBLE –10 dB to TREBLE +10 dB (1 dB interval)	TREBLE 0 dB
Tuner settings [<TUNER>]	FM station receiving mode [FM MODE]	STEREO, MONO	STEREO
	Naming preset stations [NAME IN]	For details, see "Naming preset stations (Name Input)" (page 60).	
Audio settings [<AUDIO>]	Digital Legato Linear [D.L.L.]	D.L.L. AUTO2, D.L.L. AUTO1, D.L.L. OFF	D.L.L. AUTO1
	Synchronizes audio with video output [A/V SYNC]	0 ms to 300 ms (10 ms interval), HDMI AUTO	0 ms
	Digital broadcast language selection [DUAL MONO]	MAIN/SUB, MAIN, SUB	MAIN
	Digital audio input assignment [A. ASSIGN]	For details, see "Using other video/ audio input jacks (Input Assign)" (page 88).	
Video settings [<VIDEO>]	Video input assignment [V. ASSIGN]	For details, see "Using other video/ audio input jacks (Input Assign)" (page 88).	
HDMI settings [<HDMI>]	Control for HDMI [CTRL: HDMI]	CTRL ON, CTRL OFF	CTRL ON
	Pass Through [PASS THRU]	ON, AUTO, OFF	OFF
	Audio out [AUDIO OUT]	AMP, TV+AMP	AMP
Bluetooth settings [<BT>]	*Bluetooth* standby modei) [BT STANDBY]	STBY ON, STBY OFF	STBY OFF
System settings [<SYSTEM>]	Auto standby mode [AUTO STBY]	STBY ON, STBY OFF	STBY ON
	Naming inputs [NAME IN]	For details, see "Naming the input (Name Input)" (page 51).	

a)You can select this setting only when you have performed the Auto Calibration and saved the settings.

b)Depends on the speaker pattern setting, some parameters or settings may not be available.

c)■■■ represent a speaker channel (FL, FR, CNT, SL, SR, SB, SBL, SBR, LH, RH, SW).

d)You can only select this parameter if "SP PATTERN" is not set to a setting with surround back or front high speakers (page 38).

e)You can only adjust the distance in 0.01 meter interval when you have performed the Auto Calibration and saved the measurement result.

f)"FEET" for USA and Canada models.

g)You can only select this parameter if your speaker is set to "SMALL".

h)You can only select this parameter if you select "HD-D.C.S." as sound field.

i) You can only select this parameter when a *Bluetooth* device is paired.

To view the information on the display panel

The display panel provides various information of the receiver status such as sound field.

1 Select the input for which you want to check the information.

2 Press AMP, then press DISPLAY repeatedly.

Each time you press DISPLAY, the display will change cyclically as follows.

Index name of the input* → Input you selected → Sound field currently applied → Volume level → Stream information**

When listening to FM and AM radio

Preset station name* → Frequency → Sound field currently applied → Volume level

* Index name appears only when you have assigned one to the input or preset station.
  Index name does not appear when only blank spaces have been entered or it is same as the input name.
**Stream information may not be displayed.

Note

Character or marks may not be displayed for some languages.

Tip

You cannot switch the display while "GUI MODE" is shown on the display panel. Press GUI MODE repeatedly to select "GUI OFF".

Programming the remote control

You can customize the remote control to match the equipment connected to your receiver. You can even program the remote control to operate non-Sony equipment and also Sony equipment that the remote control is normally unable to operate.

Before you begin, note that:
– You cannot change the settings of TUNER, USB, AirPlay, HOME NETWORK, BLUETOOTH, SOURCE and SEN input buttons.
– The remote control can only control equipment that accept infrared wireless control signals.
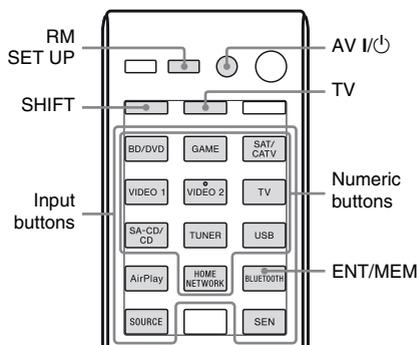
1 Hold down RM SET UP, then press AV I/⏻.

The RM SET UP button flashes slowly.

2 Press the input button of the equipment you want to program.

For example, if you want to program a VCR connected to VIDEO 1 jacks, press VIDEO 1.

The RM SET UP and SHIFT buttons light up.

Using the
Remote Control

3 Press the numeric buttons to enter the numeric code.

If more than one code exists, try to enter either one which corresponds to the equipment including TV.
Use the tables on page 108–111 to find the numeric code(s) corresponding to the equipment.

Note

Only the codes in the 500's are valid for the TV button.

4 Press ENT/MEM.

Once the numeric code has been verified, the RM SET UP button slowly flashes twice and the remote control automatically exits the programming mode.

5 Repeat steps 1 to 4 to program other equipment.

Note

The RM SET UP button turns off while a numeric button is pressed.

To cancel programming

Press RM SET UP during any step. The remote control automatically exits the programming mode.

To activate the input after programming

Press the programmed button to activate the input you want.

If programming is unsuccessful, check the following:

• If the RM SET UP button does not light up in step 1, the batteries are weak. Replace both batteries.
• If the RM SET UP button flashes 5 times in quick succession while entering the numeric code, an error has occurred.
Start again from step 1.

The numeric codes corresponding to the equipment and the maker of the equipment

Use the numeric codes in the tables below to program non-Sony equipment and also Sony equipment that the remote control is normally unable to control. Since the signal from the remote control received by the equipment differs by its model and the year, more than one numeric code may be assigned to the equipment. If you fail to program your remote control using one of the codes, try using other codes.

Notes

• The numeric codes are based on the latest information available for each brand. There is a chance, however, that your equipment will not respond to some or all of the codes.
• All of the input buttons on this remote control may not be available when used with your particular equipment.

To control a CD player

Maker	Code(s)
SONY	101, 102, 103
DENON	104, 123
JVC	105, 106, 107
KENWOOD	108, 109, 110
MAGNAVOX	111, 116
MARANTZ	116
ONKYO	112, 113, 114
PANASONIC	115
PHILIPS	116
PIONEER	117
TECHNICS	115, 118, 119
YAMAHA	120, 121, 122

To control a DAT deck

Maker	Code(s)
SONY	203
PIONEER	219

To control a tape deck

Maker	Code(s)
SONY	201, 202
DENON	204, 205
KENWOOD	206, 207, 208, 209
NAKAMICHI	210
PANASONIC	216
PHILIPS	211, 212
PIONEER	213, 214
TECHNICS	215, 216
YAMAHA	217, 218

To control an MD deck

Maker	Code(s)
SONY	301
DENON	302
JVC	303
KENWOOD	304

To control an HDD recorder

Maker	Code(s)
SONY	307, 308, 309

To control a Blu-ray Disc player/recorder

Maker	Code(s)
SONY	310, 311, 312
PANASONIC	335
SAMSUNG	336
LG	337

To control a PSX

Maker	Code(s)
SONY	313, 314, 315

To control a DVD player

Maker	Code(s)
SONY	401, 402, 403
BROKSONIC	424
DENON	405
HITACHI	416
JVC	415, 423
MITSUBISHI	419
ORITRON	417
PANASONIC	406, 408, 425
PHILIPS	407
PIONEER	409, 410
RCA	414
SAMSUNG	416, 422
TOSHIBA	404, 421
ZENITH	418, 420

To control a DVD recorder

Maker	Code(s)
SONY	401, 402, 403

To control a DVD/VCR COMBO

Maker	Code(s)
SONY	411

To control a DVD/HDD COMBO

Maker	Code(s)
SONY	401, 402, 403

To control a TV

Maker	Code(s)
SONY	501, 502
AIWA	501, 536, 539
AKAI	503
AOC	503
CENTURION	566
CORONADO	517
CURTIS-MATHES	503, 551, 566, 567
DAYTRON	517, 566
DAEWOO	504, 505, 506, 507, 515, 544
FISHER	508, 545
FUNAI	548
FUJITSU	528
GOLDSTAR/LG	503, 512, 515, 517, 534, 544, 556, 568
GRUNDIG	511, 533, 534
HITACHI	503, 513, 514, 515, 517, 519, 544, 557, 571
ITT/NOKIA	521, 522
J.C.PENNY	503, 510, 566
JVC	516, 552
KMC	517
MAGNAVOX	503, 515, 517, 518, 544, 566
MARANTZ	527
MITSUBISHI/MGA	503, 519, 527, 544, 566, 568
NEC	503, 517, 520, 540, 544, 554, 566
NORDMENDE	530, 558
NOKIA	521, 522, 573, 575
PANASONIC	509, 524, 553, 559, 572
PHILIPS	515, 518, 557, 570, 571
PHILCO	503, 504, 514, 517, 518
PIONEER	509, 525, 526, 540, 551, 555
PORTLAND	503
QUASAR	509, 535

Maker	Code(s)
RADIO SHACK	503, 510, 527, 565, 567
RCA/PROSCAN	503, 510, 523, 529, 544
SAMSUNG	503, 515, 517, 531, 532, 534, 544, 556, 557, 562, 563, 566, 569
SAMPO	566
SABA	530, 537, 547, 549, 558
SANYO	508, 545, 546, 560, 567
SCOTT	503, 566
SEARS	503, 508, 510, 517, 518, 551
SHARP	517, 535, 550, 561, 565
SYLVANIA	503, 518, 566
THOMSON	530, 537, 547, 549
TOSHIBA	535, 539, 540, 541, 551
TELEFUNKEN	530, 537, 538, 547, 549, 558
TEKNIKA	517, 518, 567
WARDS	503, 517, 566
YORK	566
ZENITH	542, 543, 567
GE	503, 509, 510, 544
LOEWE	515, 534, 556
VIZIO	576, 577

To control an LD player

Maker	Code(s)
SONY	601, 602, 603
PIONEER	606

To control a Video CD player

Maker	Code(s)
SONY	605

To control a VCR

Maker	Code(s)
SONY	701, 702, 703, 704, 705, 706
AIWA*	710, 750, 757, 758
BLAUPUNKT	740
EMERSON	750
FISHER	717, 720
GENERAL ELECTRIC (GE)	722, 730
GOLDSTAR/LG	723, 753
HITACHI	722, 725, 729, 741
ITT/NOKIA	717
JVC	726, 727, 728, 736
MAGNAVOX	730, 731, 738
MITSUBISHI/MGA	732, 733, 734, 735
NEC	736
PANASONIC	729, 730, 737, 738, 739, 740
PHILIPS	729, 730, 731
PIONEER	729
RCA/PROSCAN	722, 729, 730, 731, 741, 747
SAMSUNG	742, 743, 744, 745
SANYO	717, 720, 746
SHARP	748, 749
TOSHIBA	747, 756

* If an AIWA VCR does not work even though you enter the code for AIWA, enter the code for Sony instead.

To control a satellite tuner (box)

Maker	Code(s)
SONY	801, 802, 803, 804, 824, 825, 865
AMSTRAD	845, 846
BskyB	862
GENERAL ELECTRIC (GE)	866
GRUNDIG	859, 860
HUMAX	846, 847
THOMSON	857, 861, 864, 876
PACE	848, 849, 850, 852, 862, 863, 864
PANASONIC	818, 855
PHILIPS	856, 857, 858, 859, 860, 864, 874
NOKIA	851, 853, 854, 864
RCA/PROSCAN	866, 871
BITA/HITACHI	868
HUGHES	867
JVC/Echostar/Dish Network	873
MITSUBISHI	872
SAMSUNG	875
TOSHIBA	869, 870

To control a cable box

Maker	Code(s)
SONY	821, 822, 823
HAMLIN/REGAL	836, 837, 838, 839, 840
JERROLD/G.I./ MOTOROLA	806, 807, 808, 809, 810, 811, 812, 813, 814, 819
JERROLD	830, 831
OAK	841, 842, 843
PANASONIC	816, 826, 832, 833, 834, 835
PHILIPS	830, 831
PIONEER	828, 829
RCA	805
SCIENTIFIC ATLANTA	815, 816, 817, 844
TOCOM/PHILIPS	830, 831
ZENITH	826, 827

Resetting the remote control
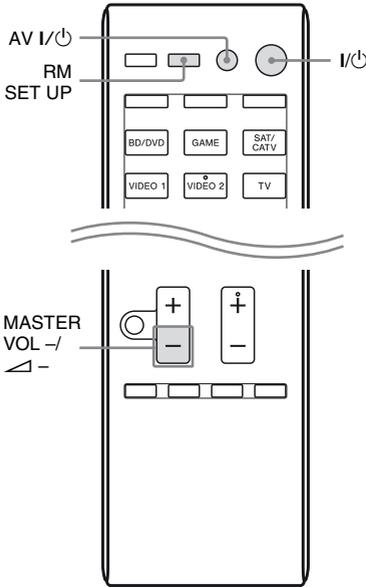
1 While holding down MASTER VOL – or ∠ –, press and hold I/⏻, then press AV I/⏻.

The RM SET UP button flashes 3 times.

2 Release all buttons.

All the contents of the remote control memory (i.e., all the programmed data) are cleared.

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.
• The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
• 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.
• (USA and Canada models only)
  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.
• 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 equipment 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 equipment, noise may result, and picture quality may suffer. This is especially likely when using an indoor antenna (aerial). Therefore, we recommend using an outdoor 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 equipment, 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 *Bluetooth* communication

- *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 occur
- *Bluetooth* devices and wireless LAN (IEEE 802.11b/g) 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 equipment when using your *Bluetooth* device within 10 meters (33 feet).
  – Install this receiver and *Bluetooth* device as closer to each other as possible.
- 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 cannot 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.

Troubleshooting

If you experience any of the following difficulties while using the receiver, use this troubleshooting guide to help you remedy the problem. Should any problem persist, consult your nearest Sony dealer. Note that if service personnel changes some parts during repair, these parts may be retained.

Power

The receiver is turned off automatically.
- "Auto Standby" is set to "ON" (page 102).
- The Sleep Timer function is working (page 16).
- "PROTECTOR" is working (page 125).

The ON/STANDBY indicator flashes in quick succession.
- The software update has error. Unplug the power cord, and then plug in the power cord again. The receiver will try to update the software. If the indicator continues to flash in quick succession, contact your nearest Sony dealer.

Image

No image appears on the TV.
- Select the appropriate input using the input buttons.
- Set your TV to the appropriate input mode.
- Move your audio equipment away from the TV.
- Assign the component video input correctly.
- The input signal should be same as the input function when you are up-converting an input signal with this receiver (page 20).
- Make sure that cables are correctly and securely connected to equipment.

- Depending on the playback equipment, you may need to set up the equipment. Refer to the operating instructions supplied with each equipment.
- Be sure to use a High Speed HDMI cable when you view images or listen to sound, especially for the 1080p, Deep Color (Deep Colour) or 3D transmission.

No 3D image appears on the TV.

- Depending on the TV or the video equipment, 3D images may not be displayed. Check the 3D image formats supported by the receiver (page 127).

When the receiver is in standby mode, there is no image output from the TV.

- When the receiver enters into standby mode, image is from the last HDMI equipment selection before you turned off the receiver. If you are enjoying other equipment, play the equipment and perform the One-Touch Play operation, or turn on the receiver to select the HDMI equipment you want to enjoy.
- Make sure "Pass Through" is set to "ON" in the HDMI Settings menu if you connect equipment not compatible with the "BRAVIA" Sync to the receiver (page 98).

Recording cannot be carried out.

- Check that the equipment is connected correctly.
- Select the source equipment using the input buttons (page 50).
- Video input signals via HDMI IN and COMPONENT VIDEO IN jacks cannot be recorded.
- Copyright protection to prevent recording is contained in the sources. In this case, you may not be able to record from the sources.

The GUI menu does not appear on the TV screen.

- Press GUI MODE repeatedly to select "GUI ON". If the GUI menu still does not appear on the TV screen, press MENU.

- Check that the TV is connected correctly.
- Depending on the TV, the GUI menu may take some time to appear on the TV screen.

Sound

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

- Check that all connecting cords are inserted to their input/output jacks for the respective jacks of the receiver, speakers and the equipment.
- Check that both the receiver and all equipment are turned on.
- Check that MASTER VOLUME control is not set to "VOL MIN".
- Check that the SPEAKERS is not set to "SPK OFF" (page 39).
- Check that headphones are not connected to the receiver.
- Press MUTING or ✕ on the remote control to cancel the muting function.
- Try pressing the input button on the remote control or turning the INPUT SELECTOR on the receiver to select the equipment of your choice (page 50).
- When you want to listen to the sound from the TV speaker, set the "Audio Out" to "TV+AMP" in the HDMI Settings menu (page 98). If you cannot play back multi channel audio source, set to "AMP". However, the sound will not output through the TV speaker.
- Sound may be interrupted when the sampling frequency, the number of channels or audio format of audio output signals from the playback equipment is switched.

There is severe hum or noise.

- Check that the speakers and equipment are connected securely.

Additional Information

- Check that the connecting cords are away from a transformer or motor, and at least 3 meters (10 feet) away from a TV set or fluorescent light.
- Move your audio equipment away from the TV.
- The plugs and jacks are dirty. Wipe them with a cloth slightly moistened with alcohol.

There is no sound, or only a very low-level 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 equipment may not be connected to the receiver correctly. Check that all the cords are fully inserted into the jacks on both the receiver and the equipment.
  If both channels are output from the headphones, the front speaker may not be connected to the receiver correctly. Check the connection of the front speaker which is not outputting any sound.
- Make sure you have connected to both the L and R jacks of an analog equipment, analog equipment requires both L and R jack connections. Use an audio cord (not supplied).
- Adjust the speaker level (page 94).
- Check that the speaker settings are appropriate for the setup using the Auto Calibration menu or "SP Pattern" in the Speaker Settings menu. Then check that sound is output from each speaker correctly, using "Test Tone" in the Speaker Settings menu.
- Some discs have no Dolby Digital Surround EX information.
- Check that the subwoofer is connected correctly and securely.
- Make sure you have turned on your subwoofer.
- Depending on the selected sound field, no sound will be available from the subwoofer.

- When all speakers are set to "Large" and "NEO6 CIN" or "NEO6 MUS" is selected, there is no sound from the subwoofer.

There is no sound from a specific equipment.

- Check that the equipment is connected correctly to the audio input jacks for that equipment.
- Check that the cord(s) used for the connection is (are) fully inserted into the jacks on both the receiver and the equipment.
- Check the INPUT MODE (page 88).
- Check that the equipment is connected correctly to the HDMI jack for that equipment.
- You cannot listen to the Super Audio CD by connecting HDMI.
- Depending on the playback equipment, you may need to set up the HDMI setting of the equipment. Refer to the operating instructions supplied with each equipment.
- Be sure to use a High Speed HDMI cable when you view images or listen to sound, especially for the 1080p, Deep Color (Deep Colour) or 3D transmission.
- Sound may not be output from the receiver while the GUI appears on the TV screen. Press GUI MODE to select "GUI OFF".
- Audio signals (format, sampling frequency, bit length, etc.) transmitted from an HDMI jack may be suppressed by the connected equipment. Check the setup of the connected equipment if the image is poor or the sound does not come out of the equipment connected via the HDMI cable.
- When the connected equipment is not compatible with copyright protection technology (HDCP), the image and/or the sound from the HDMI TV OUT jack may be distorted or may not be output. If this is the case, check the specification of the connected equipment.

- Set the image resolution of the playback equipment to more than 720p/1080i to enjoy High Bitrate Audio (DTS-HD Master Audio, Dolby TrueHD).
- The image resolution of the playback equipment may need to be at certain settings before you can enjoy Multi Channel Linear PCM. Refer to the operating instructions of the playback equipment.
- Make sure the TV is compatible with the System Audio Control function.
- If the TV does not have System Audio Control function, set the "Audio Out" settings in HDMI Settings menu to
  – "TV+AMP" if you want to listen to the sound from the TV speaker and receiver.
  – "AMP" if you want to listen to the sound from the receiver.
- When you connect the receiver to a video equipment (projector, etc.), sound may not be output from the receiver. In this case, set the "Audio Out" to "AMP" in the HDMI Settings menu (page 98).
- If you cannot listen to the sound of the equipment connected to the receiver while TV input is selected on the receiver
  – Be sure to change the input of the receiver to HDMI when you want to watch a program on the equipment connected via HDMI connection to the receiver.
  – Change the TV channel when you want to watch a TV broadcast.
  – Be sure to select the correct equipment or input you want when you watch a program from the equipment connected to the TV. Refer to the operating instructions of the TV on this operation.
- Check that the "A. DIRECT" is not being used.

- When using the Control for HDMI function, you cannot control the connected equipment using TV's remote control.
  – Depending on the connected equipment and TV, you may need to set up the equipment and TV. Refer to the operating instructions supplied with each equipment and TV.
  – Change the input of the receiver to the HDMI input connected to the equipment.
- Check that the selected digital audio input jack is not reassigned to other inputs (page 88).

The left and right sounds are unbalanced or reversed.

- Check that the speakers and equipment are connected correctly and securely.
- Adjust the sound level parameters using the Speaker Settings menu.

Dolby Digital or DTS multi channel sound is not reproduced.

- Check that the DVD, etc. you are playing is recorded in Dolby Digital or DTS format.
- When connecting the DVD player, etc., to the digital input jacks of this receiver, make sure the digital audio output setting of the connected equipment is available.
- Set "Audio Out" to "AMP" in the HDMI Settings menu (page 98).
- You can enjoy High Bitrate Audio (DTS-HD Master Audio, Dolby TrueHD), Multi Channel Linear PCM only with an HDMI connection.

The surround effect cannot be obtained.

- Make sure you have selected the sound field for movie or music (page 61, 62).
- Sound fields do not function when DTS-HD Master Audio, DTS-HD High Resolution Audio or Dolby TrueHD with sampling frequency of more than 48 kHz are being received.

Additional Information

continued

Recording cannot be carried out.

- Check that the equipment is connected correctly.
- Select the source equipment using the input buttons (page 50).
- Audio input signals via HDMI IN and DIGITAL IN jacks cannot be recorded.
- Copyright protection to prevent recording is contained in the sources. In this case, you may not be able to record from the sources.

A test tone is not output from the speakers

- The speaker cords may not be connected securely. Check to see if they are connected securely and cannot be disconnected by pulling on them slightly.
- The speaker cords may have short-circuit problem.
- Make sure that you are not using PARTY STREAMING function (page 74).

A test tone is output from a different speaker than the speaker displayed on the TV screen

- The speaker pattern set up is incorrect. Make sure that the speaker connections and the speaker pattern match correctly.

When the receiver is in standby mode, there is no sound output from the TV.

- When the receiver enters into standby mode, sound is from the last HDMI equipment selection before you turned off the receiver. If you are enjoying other equipment, play the equipment and perform the One-Touch Play operation, or turn on the receiver to select the HDMI equipment you want to enjoy.
- Make sure "Pass Through" is set to "ON" in the HDMI Settings menu if you connect equipment not compatible with the "BRAVIA" Sync to the receiver (page 98).

There is a time gap between the audio output and visual display.

- Check that the PARTY STREAMING function is not being used. To close a PARTY, press SHIFT, then hold down PARTY until "CLOSE PARTY" appears. For details, see page 74.

Tuner

The FM reception is poor.

- Use a 75-ohm coaxial cable (not supplied) to connect the receiver to an outdoor FM antennas (aerial) as shown below.

Outdoor FM antenna (aerial)

Receiver
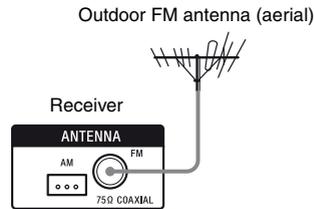
Radio stations cannot be tuned in.

- Check that the antennas (aerials) are connected securely. Adjust the antennas (aerials) and connect an external antenna (aerial), if necessary.
- The signal strength of the stations is too weak with automatic tuning. Use direct tuning.
- Make sure you set the tuning scale correctly (when tuning in AM stations with direct tuning) (page 59).
- No stations have been preset or the preset stations have been cleared (when tuning by scanning preset stations is used). Preset the stations (page 60).
- Press AMP, then press DISPLAY repeatedly on the remote control so that the frequency appears on the display panel.

iPod/iPhone

The sound is distorted.

- Press MASTER VOL – or ⏤ – on the remote control repeatedly.
- Set the "EQ" setting of the iPod/iPhone to "Off" or "Flat".

There is no sound from the iPod/ iPhone.

- Disconnect the iPod/iPhone and connect the iPod/iPhone again.

The iPod/iPhone cannot be charged.

- Check that the receiver is turned on.
- Make sure the iPod/iPhone is connected firmly.

The iPod/iPhone cannot be operated.

- Check that you have removed the protect case of the iPod/iPhone.
- Depending on the contents of the iPod/ iPhone, it may take time to start playback.
- Disconnect the iPod/iPhone and connect the iPod/iPhone again.
- You are using an unsupported iPod/ iPhone. See "Compatible iPod/iPhone models" (page 52) for the supported device types.

The ring volume of the iPhone does not change.

- Adjust the ring volume using the controls on the iPhone.

USB device

Are you using a supported USB device?

- If you connect an unsupported USB device, the following problems may occur. See "Compatible USB devices" (page 55) for the supported device types.
  - The USB device is not recognized.
  - File or folder names are not displayed on this receiver.
  - Playback is not possible.
  - The sound skips.
  - There is noise.
  - A distorted sound is output.

There is noise, skipping, or distorted sound.

- Turn off the receiver and reconnect the USB device, then turn on the receiver.
- The music data itself contains noise, or the sound is distorted.

The USB device is not recognized.

- Turn off the receiver, then disconnect the USB device. Turn on the receiver again and reconnect the USB device.
- Connect the supported USB device (page 55).
- The USB device does not work properly. Refer to the USB device operating instructions on how to deal with this problem.

Playback does not start.

- Turn off the receiver and reconnect the USB device, then turn on the receiver.
- Connect the supported USB device (page 55).
- Press ▶ to start playback.

The USB device cannot be connected into the ⟷ (USB) port.

- The USB device is being connected upside down. Connect the USB device in the correct orientation.

Erroneous display.

- The data stored in the USB device may have been corrupted.
- The character codes that can be displayed by this receiver are as follows:
  – Upper cases (A to Z)
  – Lower cases (a to z)
  – Numbers (0 to 9)
  – Symbols (' = < > * + , – . / @ [\ ] _ `)
  Other characters may not be displayed correctly.

"Reading" is displayed for an extended time, or it takes a long time before playback starts.

- The reading process can take a long time in the following cases.
  – There are many folders or files on the USB device.
  – The file structure is extremely complex.
  – The memory capacity is excessive.
  – The internal memory is fragmented.
  Thus, we recommend following these guidelines.
  – Total folders on USB device: 100 or less (including "ROOT" folder)
  – Total files per folder: 100 or less.

Audio file cannot be played back.

- MP3 files in MP3 PRO format cannot be played back.
- The audio file is a multiple track audio file.
- Some AAC files may not be played back correctly.
- WMA files in Windows Media Audio Lossless and Professional format cannot be played back.
- USB device formatted with file systems other than FAT16 or FAT32 are unsupported.*
- If you use partitioned USB device, only audio files on the first partition can be played back.
- Playback is possible up to 8 levels (including "ROOT" folder).
- The number of folders has exceeded 100 (including "ROOT" folder).

- The number of files in a folder has exceeded 100.
- Files that are encrypted or protected by passwords, etc. cannot be played back.

* This unit supports FAT16 and FAT32, but some USB device may not support all of these FAT. For details, refer to the operating instructions of each USB device or contact the manufacturer.

Network connection

The receiver cannot connect to the WPS via a wireless LAN connection.

- You cannot connect to a network using WPS when your access point is set to WEP. Set up your network after searching the access point using the access point scan.

An error message appears.

- Check the nature of the error. See "Network features message list" (page 78).

The receiver cannot connect to the network.

- Check the network status. See "To check the network information" (page 99), then select "Connection" in step 2.
  If "Connection Fail" appears, set up the network connection again (page 66).
- When the system is connected through a wireless network, move the receiver and the wireless LAN router/access point closer to each other and do the setup again.
- Check the settings of the wireless LAN router/access point and do the setup again. For details on the settings of the devices, refer to the operating instructions of the devices.
- Make sure that you use a wireless LAN router/access point.
- Wireless networks are influenced by electromagnetic radiation emitted by microwave ovens and other devices. Move the unit away from these devices.

• Make sure that the wireless LAN router/ access point is turned on.

Cannot control the receiver using the Media Remote device.

• The receiver may take a long time to connect to the network after you turn on the receiver. Wait for a few moments, and then try using the Media Remote again.
• Make sure "Network Standby" is set to "On" in the Network Settings menu so that you can use the Media Remote immediately after you have turned on the receiver.

Cannot select the Network Settings menu.

• Wait for a few moments after you turned on the receiver, and then select the Network Settings menu again.

Home Network

The receiver cannot connect to the network.

• Make sure the wireless LAN router/access point is turned on.
• Make sure the server is turned on.
• The network settings on the receiver may be incorrect. Check the network status. See "To check the network information" (page 99), then select "Connection" in step 2.
If "Connection Fail" appears, set up the network connection again (page 66).
• The server may be unstable. Restart it.
• Confirm that the receiver and the server are connected to the wireless LAN router/ access point correctly.
• Confirm that the server has been set correctly (page 66). Confirm that the receiver has been registered to the server and allows the music streaming from the server.

• When the system is connected to the wireless network, move the receiver and the wireless LAN router/access point closer to each other.
• If the ICF (Internet Connection Firewall) function is active on the computer, this may prevent the receiver from connecting to the computer (only when your computer is used as a server). You may need to change the firewall settings to allow the receiver to connect. (For details on changing the firewall settings, refer to the operating instructions supplied with your computer.)
• If you have initialized the receiver or performed a system recovery on your server, perform the network settings again (page 66).

The server (such as a computer) does not appear in the server list. ("No Server" appears on the TV screen.)

• You may have turned on this receiver before you turned on the server. Refresh the server list (page 69).
• Make sure that the wireless LAN router/ access point is turned on.
• Make sure that the server is turned on.
• Confirm that the server has been set correctly (page 66). Confirm that the receiver has been registered to the server and allows the music streaming from the server.
• Confirm that the receiver and the server are connected to the wireless LAN router/ access point correctly. Check the network setting information (page 99).
• Refer to the operating instructions of your wireless LAN router/access point, and check the multicast setting. If the multicast setting is enabled on the wireless LAN router/access point, disable it.

You cannot play audio data normally.

- Shuffle Play is selected. Press SHIFT, then press SHUFFLE repeatedly until "SHUF" disappears.

Play does not start, or does not automatically change to the next track or file.

- Make sure that the audio file you are trying to play is in a format supported by this receiver (page 69).
- WMA files with DRM copyright protection cannot be played back. For how to check the copyright protection of a WMA file, see page 70.

The sound skips during playback.

- The bandwidth of your wireless LAN may be too low. Move the receiver and the wireless LAN router/access point closer to each other, without any obstacles in between them.
- When using your computer as a server, the computer may be running many applications. If anti-virus software is active on the computer, temporarily disable the software as it needs large amount of system resources.
- Depending on the network environment, it may not be possible to play tracks with more than one device operating at the same time. Turn off another device to enable the receiver to play tracks.

"Cannot Play" appears.

- You cannot play any files other than audio files.
- Confirm that the server has been set correctly (page 66). Confirm that the receiver has been registered to the server and allows the music streaming from the server.
- Check to confirm whether the audio file on the server has been damaged or erased. Refer to the operating instructions supplied with the server.

- You cannot play the following tracks:
  – A track that violates playback restrictions.
  – A track with irregular copyright information.
  – A track that you purchased at an online music store that does not allow home network streaming.
  – A track in a format unsupported by the receiver (page 69).
- Confirm that the selected track has not been erased from the server. If the track has been erased, select another track.
- Make sure that the wireless LAN router/access point is turned on.
- Make sure that the server is turned on.
- The server may be unstable. Restart it.
- Confirm that the receiver and the server are connected to the wireless LAN router/access point correctly.

"No Track" appears.

- If there are no tracks or folders in the selected folder, you cannot extend the folder to display its contents.

You cannot play a copyrighted WMA format track.

- For how to check the copyright protection of a WMA file, see page 70.

You cannot select a previously selected track.

- The track information may have been changed on the server. Reselect the server in the server list (page 69).

Devices on the home network cannot connect to the receiver.

- "Network Standby" may be set to "Off". Turn on the receiver or set "Network Standby" to "On" (page 101).
- Confirm that the network is correctly set up. If it is not, the connection cannot be made (page 99).
- The device on the device list is set to "Not Allow" (page 99), or the device is not added to the device list (page 99).

- A maximum of 20 connectable devices has been set. Delete unnecessary devices on the device list, and then set "Auto Access" to "Allow" (page 99).
- Server operation of the receiver is suspended if the receiver is conducting one of the following operations.
  – Playing a track stored on the server (the receiver is operating as a player)
  – Updating the software
  – Formatting the system

The receiver cannot be turned on automatically when accessed by devices on the network.

- The receiver itself does not support the Wake-on-LAN standard. Therefore the receiver cannot be turned on by Wake-on-LAN when "Network Standby" is set to "Off". Set "Network Standby" to "On" so that the receiver can respond to operations by other devices via a network (page 101).

Devices on the network cannot turn on the receiver.

- The receiver cannot be turned on with a Wake-on-LAN start up operated by other devices on a network.

The receiver cannot play the track that is currently being played by the PARTY host.

- The PARTY host is playing a track of an audio format that cannot be played on the receiver.
- It may take a while before the playback sound is output.

The receiver joins an unintended PARTY.

- If more than one PARTY has been started when the receiver joins, the receiver may not be able to join the PARTY you want. Close the other PARTY, and then join the PARTY you want.

AirPlay

The receiver cannot be found from an iOS device.

- Check your set-up of the firewall of the security software. Refer to the website (page 126) for details.
- Make sure the iOS device or the computer with iTunes is connected to your home network.
- Update the AirPlay software version of the receiver and the iOS device to the latest version (page 77).

The sound skips.

- The sound may skip depending on factors such as the network environment when you use a wireless network.
- The servers are overloaded. Close all unneeded applications you are currently using.

This receiver cannot be operated.

- Update the software version of the iOS device to the latest version (page 77).
- Update the software version of the receiver to the latest version (page 77).
- Make sure another device is not streaming to the AirPlay compatible device at the same time.

Buttons such as MASTER VOL +/– or ⏤ +/–, ▶, ❚❚, ■, ⏮ and ⏭ do not work.

- Make sure that the settings that allow iTunes to accept control from this receiver are active.
- The receiver is not selected as the remote speaker on the iOS device. Select the receiver as the network speaker.

SEN

You cannot connect the receiver to a service.

- Make sure that the wireless LAN router/access point is turned on.
- Check the network status. See "To check the network information" (page 99), then select "Connection" in step 2. If "Connection Fail" appears, set up the network connection again (page 66).
- When the system is connected to the wireless network, move the receiver and the wireless LAN router/access point closer to each other.
- If your contract with your Internet provider limits Internet connection to one device at a time, this device will not be able to access the Internet when another device is already connected. Consult your carrier or service provider.

The sound skips.

- The bandwidth of your wireless LAN may be too low. Move the receiver and the wireless LAN router/access point closer to each other, without any obstacles between.

Bluetooth device

Pairing cannot be done.

- Move the *Bluetooth* device closer to the receiver.
- Pairing may not be possible if other *Bluetooth* devices are present around the receiver. In this case, turn off the other *Bluetooth* devices.
- Enter the same passkey that was entered at the *Bluetooth* device correctly (page 82).

Cannot make the *Bluetooth* connection.

- The *Bluetooth* device you attempted to connect does not support the A2DP profile, and cannot be connected with the receiver.
- Press BLUETOOTH on the receiver 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 (page 82).
- While connected to a *Bluetooth* device, this receiver cannot be detected and a connection cannot be established from another *Bluetooth* device.
- Erase the pairing registration information of a *Bluetooth* device (page 101) 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 obstacles between the receiver and your *Bluetooth* device, remove or avoid the obstacles.
- If there is equipment that generates electromagnetic radiation, such as a wireless LAN, other *Bluetooth* device, or a microwave oven nearby, move them away.

The sound of your *Bluetooth* device cannot be heard on this receiver.

- Turn up the volume on your *Bluetooth* device first, and then adjust the volume using MASTER VOL + or ∠ + (or MASTER VOLUME on the receiver).

Severe hum or noise

- If there are obstacles between the receiver and your *Bluetooth* device, remove or avoid the obstacles.

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

"BRAVIA" Sync (Control for HDMI)

The Control for HDMI function does not work.

- Check the HDMI connection (page 27).
- Make sure "Ctrl for HDMI" is set to "ON" in HDMI Settings menu.
- Make sure the connected equipment is compatible with the Control for HDMI function.
- Check the Control for HDMI settings on the connected equipment. Refer to the operating instructions of the connected equipment.
- If you unplug the HDMI cable or change the connection, repeat the procedures of "Preparing for the "BRAVIA" Sync" (page 84).
- When "Ctrl for HDMI" is set to "OFF", the "BRAVIA" Sync does not work properly, even if the equipment is connected to the HDMI IN jack.
- The types and the number of equipment which can be controlled by the "BRAVIA" Sync are restricted in the HDMI CEC standard as follows.
  – Recording equipment (Blu-ray Disc recorder, DVD recorder, etc.): up to 3 equipment
  – Playback equipment (Blu-ray Disc player, DVD player, etc.): up to 3 equipment
  – Tuner-related equipment: up to 4 equipment
  – AV receiver (audio system): up to 1 equipment

Remote control

The remote control does not function.

- Point the remote control at the remote control sensor on the receiver (page 10).
- Remove any obstacles in the path between the remote control and the receiver.
- Replace all the batteries in the remote control with new ones, if they are weak.
- Make sure you select the correct input on the remote control.
- When you operate a programmed non-Sony equipment, the remote control may not function properly depending on the model and the manufacturer of the equipment.

Error messages

If there is a malfunction, a message appears on the display panel. You can check the condition of the system by the message. If any problem persists, consult your nearest Sony dealer.

PROTECTOR

Irregular current is output to the speakers, or 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, check the speaker connection and turn on the power again.

USB FAIL

An over current from the ⟵⟶ (USB) port was detected. The receiver will automatically turn off after a few seconds. Check the iPod/iPhone or USB device, then unplug it and turn on the power again.

For other messages, see "Message list after Auto Calibration measurement" (page 44), "iPod/iPhone message list" (page 54), "USB message list" (page 57) and "Network features message list" (page 78).

Clearing the memory

Reference sections

To clear	See
All memorized settings	page 37
Customized sound fields	page 65

About support information

Refer to the following web site for details of the latest information on the receiver.

For customers in the USA:
http://www.esupport.sony.com/

For customers in Canada:
[English]
http://www.sony.ca/ElectronicsSupport/
[French]
http://fr.sony.ca/ElectronicsSupport/

For customers in Latin America:
http://esupport.sony.com/LA

For customers in Brazil:
http://esupport.sony.com/BR

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
(USA model only)
With 8 ohm loads, both channels driven, from 20 – 20,000 Hz; rated 100 watts per channel minimum RMS power, with no more than 0.09% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

USA model[1]
Minimum RMS Output Power
(8 ohms, 20 Hz – 20 kHz, THD 0.09%)
100 W + 100 W
Stereo Mode Output Power
(8 ohms, 1 kHz, THD 1%)
110 W + 110 W
Surround Mode Output Power[2]
(8 ohms, 1 kHz, THD 10%)
150 W per channel

Canada model[1]
Minimum RMS Output Power
(8 ohms, 20 Hz – 20 kHz, THD 0.09%)
95 W + 95 W
Stereo Mode Output Power
(8 ohms, 1 kHz, THD 1%)
110 W + 110 W
Surround Mode Output Power[2]
(8 ohms, 1 kHz, THD 10%)
150 W per channel

Mexico and Brazil models[1]
Minimum RMS Output Power
(8 ohms, 20 Hz – 20 kHz, THD 0.09%)
95 W + 95 W
Stereo Mode Output Power
(8 ohms, 1 kHz, THD 1%)
105 W + 105 W
Surround Mode Output Power[2]
(8 ohms, 1 kHz, THD 10%)
150 W per channel

[1]Measured under the following conditions:

Area	Power requirements
USA, Canada	120 V AC, 60 Hz
Mexico	127 V AC, 60 Hz
Brazil	220 V AC, 60 Hz

[2]Reference power output for front, center, surround, surround back and front high speakers. Depending on the sound field settings and the source, there may be no sound output.

Frequency response

Analog	10 Hz – 100 kHz, +0.5/–2 dB (with sound field and equalizer bypassed)

Input

Analog	Sensitivity: 500 mV/ 50 kilohms S/N[3]: 105 dB (A, 500 mV[4])
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)

AUDIO OUT	Voltage: 500 mV/1 kilohm
SUBWOOFER	Voltage: 2 V/1 kilohm

Equalizer

Gain levels	±10 dB, 1 dB step

[3] INPUT SHORT (with sound field and equalizer bypassed).
[4] Weighted network, input level.

FM tuner section

Tuning range	87.5 MHz – 108.0 MHz
Antenna (aerial)	FM wire antenna (aerial)
Antenna (aerial) terminals	
	75 ohms, unbalanced

AM tuner section

Tuning range

Area	Tuning scale	
	10 kHz step	9 kHz step
USA, Canada, Mexico, Brazil	530 kHz – 1,710 kHz	531 kHz – 1,710 kHz

Antenna (aerial)	Loop antenna (aerial)

Video section

Inputs/Outputs

Video:	1 Vp-p, 75 ohms
COMPONENT VIDEO:	
	Y: 1 Vp-p, 75 ohms
	P_B: 0.7 Vp-p, 75 ohms
	P_R: 0.7 Vp-p, 75 ohms
	80 MHz HD Pass Through

HDMI Video

Input/Output (HDMI Repeater block)

Format	2D	3D		
		Frame packing	Side-by-Side (Half)	Over-Under (Top-and-Bottom)
1920 × 1080p @ 59.94/60 Hz	○	–	○	○
1920 × 1080p @ 50 Hz	○	–	○	○
1920 × 1080p @ 29.97/30 Hz	○	○	○	○
1920 × 1080p @ 23.98/24 Hz	○	○	○	○
1920 × 1080i @ 59.94/60 Hz	○	○	○	○
1920 × 1080i @ 50 Hz	○	○	○	○
1280 × 720p @ 59.94/60 Hz	○	○	○	○
1280 × 720p @ 50 Hz	○	○	○	○
1280 × 720p @ 29.97/30 Hz	○	○	○	○
1280 × 720p @ 23.98/24 Hz	○	○	○	○
720 × 480p @ 59.94/60 Hz	○	–	–	–
720 × 576p @ 50 Hz	○	–	–	–
640 × 480p @ 59.94/60 Hz	○	–	–	–

iPod/iPhone section
DC 5V 1.0 A MAX

USB section
Supported bit rate* MP3 (MPEG 1 Audio Layer-3):
           32 kbps – 320 kbps, VBR
           WMA: 48 kbps – 192 kbps
           AAC: 48 kbps – 320 kbps

Sampling frequencies*
           MP3 (MPEG 1 Audio Layer-3):
           32 kHz/44.1 kHz/48 kHz
           WMA: 44.1 kHz
           AAC: 44.1 kHz

* Compatibility with all encoding/writing software, recording devices and recording media cannot be guaranteed.

Transfer speed Full-speed

Supported USB device
           Mass Storage Class

Maximum current 500 mA

NETWORK section
Ethernet LAN 10BASE-T/100BASE-TX

Wireless LAN
  Compatible standards:
           IEEE 802.11 b/g
  Security: WEP 64 bit, WEP 128 bit, WPA/WPA2-PSK (AES), WPA/WPA2-PSK (TKIP)
  Radio frequency: 2.4 GHz

Bluetooth section
Communication system
           Bluetooth Specification version 2.1 + EDR (Enhanced Data Rate)

Output *Bluetooth* Specification Power Class 2

Maximum communication range
           Line of sight approx. 10 m[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 (Advanced Audio Distribution Profile)
           AVRCP 1.3 (Audio Video Remote Control Profile)

Supported Codecs[3] SBC[4]

Transmission range (A2DP)
           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

Area	Power requirements
USA, Canada	120 V AC, 60 Hz
Mexico	127 V AC, 60 Hz
Brazil	127 V AC – 220 V AC, 60 Hz

Power consumption 240 W

Power consumption (during standby mode)
           0.3 W (When Control for HDMI, Network Standby, and *Bluetooth* Standby are set to off, and the receiver in zone 2 is turned off.)

Dimensions (width/height/depth) (Approx.)
           430 mm × 158 mm × 322.6 mm (17 in × 6 1/4 in × 12 3/4 in) including projecting parts and controls

Mass (Approx.) 8.8 kg (19 lb 7 oz)

Design and specifications are subject to change without notice.

> Halogenated flame retardants are not used in the certain printed wiring boards.

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Additional Information

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If you use or transfer the SONY SOFTWARE in or to a country other than your country of residence, you shall comply with applicable laws and regulations relating to exports, imports and customs.

GOVERNING LAW

This EULA shall be construed, governed, interpreted and applied in accordance with the laws of Japan, without regards to any conflict of laws provisions. Any dispute arising out of this EULA shall be subject to the exclusive venue and jurisdiction of the courts in Tokyo, Japan, and you and SONY hereby consent to the venue and jurisdiction of such courts. YOU AND SONY WAIVE THE RIGHT TO TRIAL BY JURY WITH RESPECT TO ANY MATTERS ARISING UNDER OR RELATING TO THIS EULA.

SEVERABILITY

If any part of this EULA is held invalid or unenforceable, other parts will remain valid.

Should you have any questions in connection with this EULA or the limited warranty provided hereunder, you may contact SONY by writing to SONY at the designated contact address mentioned in the warranty card included in the product package.