

User Guide

Sound Bar SR-B20A

CONTENTS

INTRODUCTION

About this User Guide	5
Features	6
Supplied accessories	9

PART NAMES AND FUNCTIONS

Part names of the sound bar (front/top)11	L
Part names of the sound bar (rear)13	3
Part names of the remote control14	ŀ

PREPARATION

Preparation	16
Precautions for preparation	19
Installing the sound bar	21
Connecting a TV	22
Connecting a TV using only the supplied digital optical audio cable Connecting a TV using an HDMI cable (sold separately)	
Connecting an audio device	25
Connecting an external subwoofer	26
Preparing the remote control	
Turning on and off the sound bar	28

PLAYBACK

1	0
Z	2

Basic control during playback	29
Adjusting the sound to your preference	31
Sound functions of this product	
Surround playback	
Stereo playback	
Adjusting the volume of the subwoofer	
Playing back human voices clearly (CLEAR VOICE)	
Enjoying enhanced bass sound (BASS EXT)	

11

5

16

CON	TEN	ITS
-----	-----	-----

Listening to audio from a Bluetooth® device	
---	--

ADDITIONAL FEATURES

Changing the brightness of the indicators (Dimmer)	10
Using a TV's remote control to control the sound bar (HDMI Control)	11
Showing the type of audio signal and settings for functions	12
Controlling the sound bar with the app4	13

CONFIGURATION

44
45
46
47
48
49
51

TROUBLESHOOTING

Check the following first when any problem occurs	
When a problem occurs: Power or overall functionality	53
When a problem occurs: Audio	
When a problem occurs: Bluetooth®	66
When a problem occurs: App	68
Other actions	
How to minimize standby power consumption	
Precautions for remote control batteries	
How to replace the remote control battery	
How to reset the sound bar	

APPENDIX

Specifications of the Sound Bar	73
Supported digital audio signal formats	76
List of indicator displays	77

73

.. 51 **52**

40

44

CONTENTS

About third party software programs	. 80
Mounting the sound bar on a wall	. 88
Precautions for mounting the sound bar on a wall	88
Mounting the sound bar on a wall (for qualified service personnel)	89

INTRODUCTION

About this User Guide

- This User Guide is for the following readers:
 - the users of the product
 - the constructor, builder and dealer that mount the product on the wall
- This User Guide uses the following signal words for the important information:

This content indicates "risk of serious injury or death."



This content indicates "risk of injury."

· NOTICE

Indicates points that you must observe in order to prevent product failure, damage or malfunction and data loss, as well as to protect the environment.

· NOTE

Indicates notes on instructions, restrictions on functions, and additional information that may be helpful.

- The illustrations and screens in this User Guide are for instructional purposes only.
- The company names and product names in this User Guide are the trademarks or registered trademarks of their respective companies.
- Various smartphones and tablet devices are collectively referred to as "mobile devices". When necessary, the type of mobile device is specified in the explanations.
- The [Search tag] is a keyword used in searches. This serves as a link from the Quick Start Guide to the User Guide.

NOTE

The Safety Brochure and the Quick Start Guide are supplied with this product. See the Safety Brochure first.

Features

This sound bar is a speaker for your TV that allows you to easily enjoy surround sound on the TV.

Play surround sound

Virtual 3D surround sound technology, "DTS Virtual:X", allows surround sound to be heard not only from horizontal directions, but also from varying heights. This gives a vastness to the sound that seems to envelop your whole body, and enhances the feeling of being immersed in the worlds of movies, television, and music.



Related links

"Surround playback" (p.32)

Easily play audio content from a Bluetooth device



Related links

"Listening to audio from a Bluetooth® device" (p.37)

Additional features

Clear Voice

This function automatically distinguishes human voices from background sound and increases the volume of the voices only. Human voices in TV programs that use a lot of background music and sound effects can be heard more clearly.

• "Playing back human voices clearly (CLEAR VOICE)" (p.35)

Bass Extension

This function boosts bass levels that are often not strong enough when using a compact speaker, for more impactful sound.

• "Enjoying enhanced bass sound (BASS EXT)" (p.36)

Audio Return Channel (ARC) and HDMI Control function compatible

An Audio Return Channel (ARC) compatible TV can be connected to the sound bar using a single HDMI cable. An HDMI control function compatible TV allows for controlling the sound bar's basic functions using the TV's remote control.

- "Connecting a TV using an HDMI cable (sold separately)" (p.23)
- "Using a TV's remote control to control the sound bar (HDMI Control)" (p.41)

INTRODUCTION > Features

Dedicated app: "Sound Bar Remote"

The sound bar can be easily controlled from your mobile device.

Certified as a Yamaha Eco-Product



Yamaha Eco-Label is a mark that certifies products of high environmental performance.

With an advanced energy saving design, this product achieves a low power consumption of not more than 1.8 watts when in standby mode.

Supplied accessories

Make sure you have received all of the following accessories:

- Sound bar (SR-B20A)
- Remote control



- * A Lithium battery (CR2025) has already been inserted into the remote control.
- Power cord



• Digital optical audio cable



• Spacers (×2, on 1 sheet)



- * Use when mounting the sound bar on a wall.
- Mounting template



* Use when mounting the sound bar on a wall.

INTRODUCTION > Supplied accessories

• Quick Start Guide



• Safety Brochure



PART NAMES AND FUNCTIONS

Part names of the sound bar (front/top)

This section describes the part names and functions of the front/top of the sound bar.



Indicators

The indicators on the top panel flash or glow to show the operation and setting status. During normal playback, the setting status is indicated as follows:

TV / OPTICAL / BLUETOOTH: Selected input source

STEREO: Stereo playback

SURROUND: Surround playback

NOTE

This document uses the following illustrations to show that indicators are off, glowing, or flashing.





Glowing



Flashing

2 Controls

Touch the symbols with your fingertip to control the sound bar.

▲) / ● (Volume +/-): Adjust the volume (p.29).

(Power): Turn the sound bar on and off.

Speakers

4 Built-in subwoofers

6 Remote control sensors

NOTE

- To prevent unintended operation, do not place anything on the controls of the sound bar. Enabling the Child Lock function prevents accidental operation.
- The brightness of the indicators can be adjusted by pressing DIM.

Related links

- "Enabling/disabling the Child Lock function" (p.46)
- "Changing the brightness of the indicators (Dimmer)" (p.40)

Part names of the sound bar (rear)

This section describes the part names and functions of the rear of the sound bar.



AC power input jack

2 Reset button

Hold down for at least 10 seconds to force the sound bar to turn off.

SUBWOOFER OUT jack (p.26)

4 UPDATE ONLY jack

Use to update the sound bar's firmware. Refer to the instructions supplied with the firmware for details.

OPTICAL input jack (p.25)

TV input jack (p.22)

HDMI OUT/TV (ARC) jack (p.23)

Related links

- "Part names of the sound bar (front/top)" (p.11)
- "Part names of the remote control" (p.14)

Part names of the remote control

This section describes the part names and functions of the remote control.



(Power) button

Turn the sound bar on and off (p.28).

2 Input source buttons

Select an audio input source (p.29).

- TV button: Audio from a TV
- · OPTICAL button: Audio from a device connected to the OPTICAL input jack
- BLUETOOTH button: Audio from a Bluetooth device

3 INFO button

Shows information such as the type of audio signal being played and the settings for the sound bar's functions (p.42).

d CLEAR VOICE button

Enable or disable the Clear Voice function (p.35).

3D SURROUND button

Press the button to enable or disable 3D surround playback (p.32).

PART NAMES AND FUNCTIONS > Part names of the remote control

6 Sound mode buttons

Switch to your preferred sound mode (p.31).

- STANDARD
- MOVIE
- GAME
- STEREO

Ø BASS EXT button

Enable or disable the Bass Extension function (p.36).

8 DIM button

Switch the brightness of the indicators of the sound bar (p.40).

SUBWOOFER (+/-) button

Adjust the volume of the subwoofer (p.34).

0 VOLUME (+/-) button

Adjust the volume of the sound bar (p.29).

🕕 🔌 (Mute) button

Mute the audio output (p.29). Press this button again, or press VOLUME (+/-) to unmute.

NOTE

• Use the remote control within the range shown in the following illustration:



• When the sound bar is mounted on a wall, point the remote control at the remote control sensor on the top of the sound bar.

Related links

- "Part names of the sound bar (front/top)" (p.11)
- "Mounting the sound bar on a wall (for qualified service personnel)" (p.89)

PREPARATION

Preparation

Install the sound bar and connect a TV to it.

1 Install the sound bar.

Installation procedure "Installing the sound bar" (p.21)

2 Connect a TV to the sound bar.

Depending on the type of TV, connect the TV to the sound bar as follows:

• Connecting the TV using only the supplied digital optical audio cable



Connection procedure

• "Connecting a TV using only the supplied digital optical audio cable" (p.22)

• TV equipped with an HDMI jack labeled as "ARC"



Connection procedure

• "Connecting a TV using an HDMI cable (sold separately)" (p.23)

• TV not equipped with an HDMI jack labeled as "ARC"



Connection procedure

- "Connecting a TV using only the supplied digital optical audio cable" (p.22)
- "Connecting a TV using an HDMI cable (sold separately)" (p.23)

3 Connect an audio device (if required).

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Connection procedure
"Connecting an audio device" (p.25)
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4 Connect an external subwoofer (if required).

Connection procedure "Connecting an external subwoofer" (p.26)



6

Prepare the remote control.

"Preparing the remote control" (p.27)

Turn on the sound bar.

"Turning on and off the sound bar" (p.28)

NOTE

• Connect AV devices (such as BD/DVD players and set top boxes) to the TV's HDMI input jacks.



- When playing audio from a TV or AV device via the sound bar, set the input sources as follows:
 - Sound bar's input source: TV
 - TV's input source: AV device playing the content
- ARC (Audio Return Channel) is a function that sends audio signals from the TV's HDMI output jack.

Precautions for preparation

Before installing the sound bar and connecting other devices, be sure to read the following precautions. Be sure to always obey the precautions.

Precautions for installation

- Install in the manner instructed in the manual. Falling or toppling may result in injury or damage.
- Confirm that the finished installation is safe and secure. Also, carry out safety inspections periodically. Failure to observe this may cause devices to fall and result in injury.
- Do not expose the product to rain, use it near water or in damp or wet conditions, or place on the product any containers (such as vases, bottles or glasses) containing liquids which might spill into any openings or places where water may drop. A liquid such as water getting into the product may cause a fire, electric shocks, or malfunctions.
- Do not place any burning items or open flames near the product, since they may cause a fire.
- Do not use this product near medical devices or inside medical facilities. Radio waves from this product may affect electromedical devices.

- Do not place the product in an unstable position where it might accidentally drop or fall over and cause injuries.
- When installing this product, do not obstruct heat dissipation. Failure to observe this may trap heat inside the product, causing a fire or malfunctions.
- Do not install the product in places where it may come into contact with corrosive gases or salt air, or places that have excessive smoke or steam. Doing so may result in malfunction.
- Avoid being near the product during a disaster, such as an earthquake. Since the product may turn over or fall and cause injury, quickly move away from the product and go to a safe place.

NOTICE

- Do not press hard on the speaker units or fabric-covered portion of this product.
- Do not place any objects susceptible to magnetism (such as a hard disk drive or magnetic card) near the product. The magnetic effect of the sound bar may cause damage to the object or its recorded data.
- Do not use this product in a location that becomes extremely hot, such as in direct sunlight or near a heater, or that becomes extremely cold, or that is subject to excessive dust or vibration. Failure to observe this may cause this product's panel to become deformed, the internal components to malfunction, or for operation to become unstable.
- If using a wireless function, avoid installing this product near metal walls or desks, microwave ovens, or other wireless network devices. Obstructions could shorten the transmission distance.

Precautions for connections

- Use this product with the power supply voltage printed on it. Failure to connect to an appropriate AC outlet may cause a fire, electric shocks, or malfunctions.
- Be sure to use the supplied power cord. Do not use the supplied power cord for other devices. Failure to observe this may cause a fire, electric shocks, or malfunctions.
- Never insert or remove an electric plug with wet hands. Do not handle this product with wet hands. Failure to observe this may cause electric shocks or malfunctions.
- Do not touch the power plug or cord if there is a chance of lightning. Failure to observe this may cause electric shocks.
- When setting up the product, make sure that the AC outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the AC outlet. Even when the power switch is turned off, as long as the power cord is not unplugged from the wall AC outlet, the product will not be disconnected from the power source.
- If not using the product for long periods of time, be sure to pull the power plug from the AC outlet. Failure to observe this may cause a fire or malfunctions.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it. Failure to observe this may cause a fire or electric shocks.



- Do not use an AC outlet where the power plug fits loosely when inserted. Failure to observe this may cause a fire, electric shocks, or burns.
- When disconnecting the power plug, always hold the plug itself and not the cord. Pulling by the cord can damage it and cause electric shocks or a fire.
- Insert the power plug firmly all the way into the AC outlet. Using the product when it is not plugged in sufficiently can cause dust to accumulate on the plug, causing a fire or burns.

NOTICE

- If connecting external devices, be sure to thoroughly read the User Guide for each device and connect them in accordance with the instructions. Failure to properly handle a device in accordance with the instructions could cause malfunctions.
- Do not connect this product to industrial devices. This product has been designed to connect to consumer-use devices. Connection to an industrial-use device could cause this product to malfunction.

Installing the sound bar

• Before installing the sound bar, be sure to read the following precautions. • "Precautions for preparation" (p.19)

Install the sound bar as shown in the following illustration.



NOTE

The sound bar can also be mounted on a wall.

Related links

"Mounting the sound bar on a wall (for qualified service personnel)" (p.89)

Connecting a TV

Connecting a TV using only the supplied digital optical audio cable

- Before connecting an external subwoofer, be sure to read the following precautions.
 - "Precautions for preparation" (p.19)

Connect a TV using the supplied digital optical audio cable.



1 Connect a TV to the sound bar.

2 Connect the sound bar to power.



NOTE

Connect an AV device (such as a set top box) to the TV.

Connecting a TV using an HDMI cable (sold separately)

• Before connecting an external subwoofer, be sure to read the following precautions. "Precautions for preparation" (p.19)

If a TV is connected via an HDMI cable, the sound bar can be controlled by the HDMI Control function using the TV's remote control.

Audio Return Channel (ARC)-compatible TV

Connect an Audio Return Channel (ARC) compatible TV using an ARC-compatible HDMI cable (sold separately).

1 Connect a TV to the sound bar.

Connect an HDMI cable to the Audio Return Channel compatible jack (labeled as "ARC") on the TV.



2 Connect the sound bar to power.



Sound bar (rear)

TV that does not support Audio Return Channel (ARC)

Connect the TV using an HDMI cable (sold separately) and supplied digital optical audio cable.

1 Connect a TV to the sound bar.



2 Connect the sound bar to power.



NOTE

- To activate the Audio Return Channel (ARC), enable the HDMI Control function of the sound bar. (The function is enabled by default.)
- Use a 19-pin HDMI cable with the HDMI logo printed on it.
- Use a cable that is as short as possible to prevent any degradation in signal quality.
- Connect an AV device (such as a set top box) to the TV.

Related links

"Enabling/disabling the HDMI Control function" (p.44)

Connecting an audio device

Before connecting an audio device, be sure to read the following precautions.
 "Precautions for preparation" (p.19)

Devices equipped with audio output jacks can be connected directly to the sound bar.

A device with a digital optical audio output jack

Connect an audio device using a digital optical audio cable.

1 Connect an audio device to the sound bar.



2 Connect the sound bar to power.



NOTE

When connecting a device equipped with video output, connect the video output jack directly to the video input jack on the TV.

Connecting an external subwoofer

Before connecting an external subwoofer, be sure to read the following precautions.
 "Precautions for preparation" (p.19)

The sound bar has built-in subwoofers; however, an external subwoofer with a built-in amplifier can be connected to further enhance low frequency sound.

1 Connect an external subwoofer to the sound bar.

Connect an external subwoofer using a monaural cable (sold separately).



2 Connect the sound bar to power.



NOTE

Audio is output from both the built-in subwoofers and external subwoofer.

Preparing the remote control

Remove the battery insulating strip before attempting to use the remote control.



Battery insulating strip

Related links

"How to replace the remote control battery" (p.71)

Turning on and off the sound bar

Turn the sound bar on and off.

1 Press \bigcirc .

Pressing the button turns the sound bar on and off.



When the sound bar is turned on, all the indicators glow, and then some indicators remain glowing to show the setting status (normal display).



When the sound bar is turned off, the indicators go off.

PLAYBACK

Basic control during playback

This section describes the basic control operations available during playback.

Selecting an input source

Press one of the following buttons.

- TV button: Audio from a TV
- OPTICAL button: Audio from a device connected to the OPTICAL input jack
- BLUETOOTH button: Audio from a Bluetooth device



The indicator of the selected input source button glows.



Adjusting volume

Press VOLUME (+/-) to adjust the volume.



The number of glowing indicators changes to show the volume level.



If audio is being output from both the TV speakers and the sound bar, mute the TV.

PLAYBACK > Basic control during playback

To temporarily mute the sound bar, press 承. To unmute, press 承 again or press VOLUME (+/-).



While muted, the indicators will show the following.



Related links

- "Surround playback" (p.32)
- "Stereo playback" (p.33)
- "Playing back human voices clearly (CLEAR VOICE)" (p.35)
- "Enjoying enhanced bass sound (BASS EXT)" (p.36)
- "Listening to audio from a Bluetooth® device" (p.37)

Adjusting the sound to your preference

Sound functions of this product

The sound functions of this product are as follows:

Sound modes

This product allows you to enjoy listening to audio in the following modes.

STANDARD

This sound mode is the best suited for general content, such as sports, sitcoms, and reality shows. Surround playback is performed.

MOVIE

This sound mode is the best suited for movies. Surround playback is performed.

GAME

This sound mode is the best suited for video games. Surround playback is performed.

STEREO

2-channel stereo playback.

Sound settings

This product provides the following sound functions.

3D surround

When the 3D surround function is enabled, Virtual 3D surround sound technology, "DTS Virtual:X", allows surround sound to be heard not only from horizontal directions, but also from varying heights.

Clear Voice

The human voices within the audio can be heard more easily when the Clear Voice function is enabled. The function is recommended for movies or dramas that use a lot of background music and sound effects.

Bass Extension

Bass sound is enhanced and becomes more powerful when the Bass Extension function is enabled.

Related links

- "Surround playback" (p.32)
- "Stereo playback" (p.33)
- "Playing back human voices clearly (CLEAR VOICE)" (p.35)
- "Enjoying enhanced bass sound (BASS EXT)" (p.36)

Surround playback

Press STANDARD, MOVIE, or GAME to switch to surround playback in that sound mode. Select your preferred sound mode according to the content viewed or listened to.



Enabling or disabling 3D surround

Press 3D SURROUND to enable or disable 3D surround.



Related links

"Sound functions of this product" (p.31)

PLAYBACK > Adjusting the sound to your preference

Stereo playback

Press STEREO to switch to 2-channel stereo playback.



Related links

"Sound functions of this product" (p.31)

Adjusting the volume of the subwoofer

Adjust the volume of the subwoofer only. The volume of the entire system remains the same. Press SUBWOOFER (+/-) to adjust the volume.



SUBWOOFER

The glowing indicator changes to show the volume level.



Playing back human voices clearly (CLEAR VOICE)

The human voices within the audio can be heard more easily when the Clear Voice function is enabled. The function is recommended for movies or dramas that use a lot of background music and sound effects. Press CLEAR VOICE to enable or disable the function.



NOTE

Press INFO to see whether the Clear Voice function is enabled or disabled.

Related links

"Showing the type of audio signal and settings for functions" (p.42)

Enjoying enhanced bass sound (BASS EXT)

Bass sound is enhanced and becomes more powerful when the Bass Extension function is enabled. Press BASS EXT to enable or disable the function.





NOTE

Press INFO to see whether the Bass Extension function is enabled or disabled.

Related links

"Showing the type of audio signal and settings for functions" (p.42)
Listening to audio from a Bluetooth® device

Audio content from a Bluetooth device can be played through the sound bar.



1 Press BLUETOOTH to switch the input source to Bluetooth.



The sound bar enters the connection wait status, and the BLUETOOTH indicator flashes.



2 On the Bluetooth device, enable the Bluetooth function.

3 Select the sound bar on the Bluetooth device.



When the connection is established, the BLUETOOTH indicator on the sound bar stops flashing and starts glowing blue.



4 Start playback on the Bluetooth device.

The sound bar will begin playing audio from the Bluetooth device.



NOTE

- "Compressed Music Enhancer" is enabled during playback from a Bluetooth device to reproduce the rich, deep sound that the audio had prior to compression.
- Enabling the Bluetooth standby function allows the sound bar to be turned on automatically when a connection operation is performed with a Bluetooth device.
- If other Bluetooth devices have been connected before, the sound bar will connect to the last connected device when the input source is switched to Bluetooth.
- The Bluetooth connection is terminated if one of the following operations is performed.
 - The Bluetooth function on the Bluetooth device is turned off.
 - BLUETOOTH on the sound bar's remote control is held down for at least five seconds.
 - An input source other than Bluetooth is selected on the sound bar.
 - The sound bar is turned off.
- Adjust the volume level of the Bluetooth device if necessary.
- Perform Bluetooth device operations within 10 meters (33 ft) of the sound bar.

Related links

"Enabling/disabling the Bluetooth Standby function" (p.47)

Switching Bluetooth devices for playback (multipoint connection)

The sound bar can be connected to two Bluetooth devices simultaneously. It is easy to switch between the Bluetooth devices for playback.



Perform the following procedures to switch between devices for playback.

1 Stop playback on the Bluetooth device.

2 Start playback on the other Bluetooth device.

Audio from the other Bluetooth device can be heard on the sound bar.

NOTE

When connecting a new Bluetooth device, disconnect the currently connected Bluetooth device and then connect the new device.

ADDITIONAL FEATURES

Changing the brightness of the indicators (Dimmer)

Change the brightness of the indicators of the sound bar to one of three levels: "Bright", "Dim", or "Off". The brightness is "Dim" by default.

- **1** Turn on the sound bar.
- 2 Press DIM.



Press the button to change the brightness in the order of "Dim", "Off" and "Bright".

NOTE

Indicators glow brightly just after operation and then change to the specified brightness after a few seconds.

Using a TV's remote control to control the sound bar (HDMI Control)

When the sound bar is connected to a TV via an HDMI cable, the sound bar can be controlled using the TV's remote control. This is called the HDMI Control function.

TV's remote control (example)



1 Turn the power on and off

Both the TV and the sound bar turn on/off at the same time.

2 Switch the audio output device

The audio output device can be switched to the TV or the sound bar. Control operations vary depending on the TV's type.

6 Adjust volume

The sound bar's volume can be adjusted when the TV's audio output is set to the sound bar.

Related links

"Enabling/disabling the HDMI Control function" (p.44)

Showing the type of audio signal and settings for functions

The type of audio signal being played and settings for the sound bar's functions can be confirmed.

1 Press INFO.



The indicators on the sound bar will show the following information on the type of audio signal and the settings for functions for three seconds immediately after INFO is pressed.



The type of audio signal

TV glows white: Dolby Digital TV glows red: DTS OPTICAL glows white: AAC TV and OPTICAL off: PCM or no input signal

2 Whether Dolby Pro Logic II is enabled or disabled

Glows: enabled Off: disabled

NOTE

Dolby Pro Logic II is enabled automatically when 2-channel stereo signals are played in surround.

6 Whether the Bass Extension function is enabled or disabled

Glows: enabled Off: disabled

Whether the Clear Voice function is enabled or disabled

Glows: enabled Off: disabled

Controlling the sound bar with the app

By installing the dedicated free app "Sound Bar Remote" on a mobile device, the sound bar can be controlled from the mobile device.

Search for "Sound Bar Remote" on the App Store or Google Play and install it on the mobile device.



The main functions are as follows:

- Turn the power on/off, select an input source, adjust the volume, and adjust the subwoofer volume
- · Switch between sound modes
- Enable or disable 3D surround
- · Enable or disable the Bass Extension and Clear Voice functions
- · Change the brightness of the indicators (Dimmer)

For details on the app, see the description of the app on the App Store or Google Play.

NOTE

- This sound bar supports Sound Bar Remote only. This sound bar cannot be controlled using other apps (such as Sound Bar Controller).
- To control the sound bar using the app, configure the settings on the mobile device as follows:
 - Enable the Bluetooth function.
 - For Android devices, configure the settings to allow obtaining of location information.
- Sound Bar Remote uses the location information of the Android device only to detect the sound bar. Your personal information will not be collected.

CONFIGURATION

Enabling/disabling the HDMI Control function

Enabling the HDMI Control function allows the sound bar to be controlled using the TV's remote control. Default setting: Enabled

1 Turn off the sound bar.

2 Hold down TV for at least five seconds.



The HDMI Control function switches from enabled to disabled, or from disabled to enabled.

The indicator shows the setting applied as follows, and the sound bar is turned on.

•	•	•	•	•
TV	OPTICAL	BLUETOOTH	STEREO	SURROUND
Glows: ena Off: disable				

NOTE

To activate the Audio Return Channel (ARC), enable the HDMI Control function.

Related links

- "Connecting a TV using an HDMI cable (sold separately)" (p.23)
- "Connecting an audio device" (p.25)
- "The sound bar cannot be controlled using the TV's remote control" (p.60)

Enabling/disabling the Auto Power Standby function

Enabling the Auto Power Standby function turns off the sound bar in any of the following situations.

- No control operations for eight hours
- No audio input and no control operations for 20 minutes

The default setting varies depending on the model.

Models for U.S.A., Canada, Mexico, Australia, China and Taiwan: Disabled

Models for Europe, U.K., Korea, and other areas: Enabled

1 Turn off the sound bar.

${f 2}$ While holding down ${f ar 2}$ on the sound bar, hold down ${f ar 0}$ for at least five seconds.



The Auto Power Standby function switches from enabled to disabled, or from disabled to enabled.

The indicator shows the setting applied as follows, and the sound bar is turned on.



Enabling/disabling the Child Lock function

Locking the controls of the sound bar prevents accidental operation (Child Lock function). Default setting: Disabled (no Child Lock)

1 Turn off the sound bar.

2 Hold down INFO for at least five seconds.



The Child Lock function switches from enabled to disabled, or from disabled to enabled.

The indicator shows the setting applied as follows, and the sound bar is turned on.



Glows: enabled (Child Lock) Off: disabled (no Child Lock)

Enabling/disabling the Bluetooth Standby function

Enabling the Bluetooth Standby function allows the sound bar to be turned on automatically when a Bluetooth device connects to the sound bar.

Default setting: Enabled

1 Turn off the sound bar.

2 Hold down BLUETOOTH for at least five seconds.



The Bluetooth Standby function switches from enabled to disabled, or from disabled to enabled.

The indicator shows the setting applied as follows, and the sound bar is turned on.

•	•	•	•	•	
TV	OPTICAL	BLUETOOTH	STEREO	SURROUND	
Glows: enabled Off: disabled					

Enabling/disabling the Bluetooth function

The Bluetooth function can be disabled. Default setting: Enabled

- **1** Turn off the sound bar.
- 2 Hold down DIM for at least five seconds.



The Bluetooth function switches from enabled to disabled, or from disabled to enabled. The indicator shows the setting applied as follows, and the sound bar is turned on.



Setting the dynamic range compression level

Compressing the dynamic range of audio signals (the volume difference between the loudest and quietest sounds) makes it easier to listen at a low volume. This setting is applied only when Dolby Digital audio signals are being played.

Default setting: No compression

1 Turn off the sound bar.

2

Hold down one of the following buttons for at least five seconds.

Compression level	Function	Button to hold
Maximum compression	Apply the maximum amount of dynamic range compression.	STANDARD
Standard compression	Apply an amount of dynamic range compression well suited for a typical room.	MOVIE
No compression	Dynamic range compression is not applied.	GAME

The dynamic range compression level setting is changed.

The indicators show the applied compression level setting as shown in the following illustration, and the sound bar turns on.



Initializing the sound bar

Reset the settings of the sound bar to the factory presets.

- **1** The sound bar is turned off.
- 2 While holding down () on the sound bar, hold down () until all indicators flash.



Initialization is performed. When initialization is complete, the indicators will show the following.



Flash (initialization complete)

TROUBLESHOOTING

Check the following first when any problem occurs

Make sure of the following when the sound bar does not function properly.

- The power cords of all the devices are connected to AC wall outlets securely.
- The sound bar, TV and AV devices are turned on.
- The connectors of each cable are securely inserted into jacks on each device.

When a problem occurs: Power or overall functionality

The power turns off suddenly

The Auto Power Standby function turned off the sound bar.

Enabling the Auto Power Standby function turns off the sound bar automatically in any of the following situations.

- No control operations for eight hours
- No audio input and no control operations for 20 minutes

Turn on the sound bar again. The Auto Power Standby function can be disabled.

• "Enabling/disabling the Auto Power Standby function" (p.45)

The protection circuitry has been activated. (The TV indicator on the sound bar flashes red.)

After confirming that all connections are made properly, turn on the sound bar again. If the power still turns off frequently, unplug the power cord from the AC wall outlet and contact the nearest authorized Yamaha dealer or service center.

The power cannot be turned on

• The protection circuitry has been activated three times consecutively.

To protect the product, the power cannot be turned on. Unplug the power cord from the AC wall outlet and contact the nearest authorized Yamaha dealer or service center.

No operations can be performed from the sound bar's controls

• The controls of the sound bar are locked.

Unlock the controls of the sound bar.

• "Enabling/disabling the Child Lock function" (p.46)

All indicators are off although the power is on (the power appears to be off)

Indicator brightness is set to "Off".

Change the brightness.

• "Changing the brightness of the indicators (Dimmer)" (p.40)

The sound bar does not function correctly

- The internal microcomputer is frozen due to an external electric shock (such as lightning or excessive static electricity) or to a drop in the power supply voltage.
 - Press the Reset button on the rear of the sound bar for at least 10 seconds to force the sound bar to turn off. Wait for at least 10 seconds, then turn on the sound bar again.

The sound bar turns on by itself

Another Bluetooth device is being operated nearby.

Terminate the Bluetooth connection with the sound bar.

• "Listening to audio from a Bluetooth® device" (p.37)

The sound bar cannot be controlled with the remote control

The sound bar is out of the operating range.

Use the remote control within the operating range.

• "Part names of the remote control" (p.14)

• The battery has run out.

Replace the battery with a new one.

• "How to replace the remote control battery" (p.71)

• The remote control sensor of the sound bar is exposed to direct sunlight or strong lighting.

Adjust the lighting angle or reposition the sound bar.

The sound bar cannot be controlled using the TV's remote control

The HDMI Control function is not properly configured.

Confirm that the settings are properly configured as follows:

- The HDMI Control function of the sound bar is enabled.
- The HDMI Control function is enabled on the TV.
- In the TV's HDMI settings, the audio output destination is set to an option other than the TV's built-in speakers.
- If the sound bar still cannot be controlled with the TV's remote control, perform the following:
- Turn off the sound bar and the TV, and then turn them back on again.
- Unplug the power cord of the sound bar, as well as the power cords of external devices connected to the sound bar via an HDMI cable, from the AC wall outlet. Plug them in again after about 30 seconds.

Related links

"Enabling/disabling the HDMI Control function" (p.44)

• The TV does not support the sound bar's control functions.

Even if your TV supports the HDMI Control function, some functions may not be available. For details, see the documentation supplied with your TV.

When a problem occurs: Audio

No sound

The input source you are attempting to play back from is not selected.

Select the correct input source.

• "Basic control during playback" (p.29)

The mute function is active.

Cancel the mute function.

• "Basic control during playback" (p.29)

The volume is too low.

Turn up the volume.

• "Basic control during playback" (p.29)

The power cord of the sound bar is not connected securely.

Make sure that the power cord of the sound bar is properly connected to an AC wall outlet.

• An input jack is connected to another input jack.

Connect the input jack on the sound bar to the output jack on the AV device.

Signals that the sound bar cannot play back are being input.

Change the digital audio output setting on the TV or AV device to a type of audio signal supported by the sound bar.

• "Supported digital audio signal formats" (p.76)

The HDMI Control function is disabled.

When connecting a TV that supports ARC (Audio Return Channel) to the sound bar using an HDMI cable only, enable the HDMI Control function.

To output audio from the sound bar when the HDMI Control function is disabled, connect the TV's audio output jack to the sound bar's TV jack (digital optical) via a digital optical audio cable.

- "Enabling/disabling the HDMI Control function" (p.44)
- "Connecting a TV using an HDMI cable (sold separately)" (p.23)

The audio output destination of an HDMI Control-enabled TV is set to the TV's built-in speakers.

In the TV's HDMI settings, set the audio output destination to an option other than the TV's built-in speakers.

No sound is coming from the subwoofer

• The playback source does not contain subwoofer channel signals or low-frequency signals.

Try to play content containing subwoofer channel signals, to see if any sound can be heard from the subwoofer.

The volume of the subwoofer is too low.

Turn up the volume of the subwoofer.

• "Adjusting the volume of the subwoofer" (p.34)

The volume decreases when the sound bar is turned on

The Automatic Volume Adjustment function is activated.

To prevent unexpected excessive loudness, if the sound bar was turned off with the volume set high, the volume is automatically adjusted the next time the sound bar is turned on. Turn up the volume if necessary.

• "Basic control during playback" (p.29)

No surround effect

Stereo playback is selected.

Select surround playback.

• "Surround playback" (p.32)

• The volume is too low.

Turn up the volume.

• "Basic control during playback" (p.29)

The TV or AV device is set to output 2-channel audio (such as PCM) only.

Change the audio output setting on the TV or AV device to output Bitstream audio signals.

• Sound is also heard from the TV's built-in speakers.

Turn the TV's volume all the way down.

• You are listening from a position that's extremely close to the sound bar.

You should listen at some distance from the sound bar.

Noise is heard

• The sound bar is too close to another digital or high-frequency device.

Move those devices away from the sound bar.

When a problem occurs: Bluetooth®

The sound bar cannot be connected to a Bluetooth® device

Bluetooth is not selected as the input source of the sound bar.

Select Bluetooth as the input source.

- "Listening to audio from a Bluetooth[®] device" (p.37)
- The sound bar is too far away from the Bluetooth device.

Move the Bluetooth device closer to the sound bar.

A device emitting electromagnetic waves (such as a microwave oven or a wireless device) is located nearby.

Do not use the sound bar near devices that emit electromagnetic waves.

- The Bluetooth device you are using does not support the A2DP profile. Use a Bluetooth device that supports the A2DP profile.
- The connection profile registered in the Bluetooth device is not functioning correctly. Delete the connection profile in the Bluetooth device, and then connect the Bluetooth device to the sound bar.
- The passkey for devices such as a Bluetooth adapter is not "0000". Use a Bluetooth device with a passkey of "0000".
- The sound bar is already connected to another Bluetooth device (when connecting a Bluetooth device for the first time).

Terminate the current Bluetooth connection, and then connect to the new device.

The sound bar is already connected to two Bluetooth devices (when these devices have been connected to the sound bar before).

Disconnect one of the currently connected Bluetooth devices, and then connect to another device.

The Bluetooth function of the sound bar is disabled.

Enable the Bluetooth function.

• "Enabling/disabling the Bluetooth function" (p.48)

The volume on the Bluetooth device is too low.

No sound can be heard or the sound cuts off intermittently from a Bluetooth[®] device

Raise the volume on the Bluetooth device.
Bluetooth is not selected as the input source of the sound bar. Select Bluetooth as the input source.

"Listening to audio from a Bluetooth® device" (p.37)

Playback is not being performed on the Bluetooth device. Perform playback on the Bluetooth device.
The audio output destination on the Bluetooth device is not set to the sound bar. Select the sound bar as the audio output destination on the Bluetooth device.
The connection to the Bluetooth device was terminated. Connect to the Bluetooth device again.
The sound bar is too far away from the Bluetooth device.

Move the Bluetooth device near the sound bar.

A device emitting electromagnetic waves (such as a microwave oven or a wireless device) is located nearby.

Do not use the sound bar near devices that emit electromagnetic waves.

Playback is being performed on another Bluetooth device. Stop the current playback, and perform playback on the other Bluetooth device.

When a problem occurs: App

The app cannot detect the sound bar

• An app not supported by the sound bar is being used.

The sound bar supports Sound Bar Remote only. Sound Bar Controller, Home Theater Controller, and MusicCast Controller cannot be used.

The Bluetooth function on the mobile device is disabled.

Enable the Bluetooth function on the mobile device.

• On an Android device, the function for obtaining location information is disabled.

To detect Sound Bar Remote, configure the settings to allow obtaining of location information on the Android device.

Other actions

How to minimize standby power consumption

Change the settings as follows:

- HDMI Control: Disabled
- Bluetooth Standby: Disabled

Related links

- "Enabling/disabling the HDMI Control function" (p.44)
- "Enabling/disabling the Bluetooth Standby function" (p.47)

Precautions for remote control batteries

Before replacing the remote control battery with a new one, be sure to read the following precautions. Be sure to follow the precautions.



- The remote control supplied with this product contains a coin/button cell battery. Do not ingest the coin/button battery. Keep
 new and used batteries away from children. If the battery compartment does not close securely, keep it away from children. If
 the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. If you think
 batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.
- Do not dispose of a battery in fire. Do not expose a battery to high temperatures, such as direct sunlight or a fire. Do not charge the supplied battery. The battery could burst or leak, causing a fire or injury.
- Do not disassemble a battery. If the battery leaks, avoid contact with the leaked fluid. If the contents of the battery get on your hands or in your eyes, it can cause blindness or chemical burns. If the battery fluid should come in contact with your eyes, mouth, or skin, wash immediately with water and consult a doctor.



- Do not use a battery other than the specified one. Doing so may cause fire or burns, or result in fluid leakage that may cause skin inflammation.
- Always make sure the battery is inserted in conformity with the +/- polarity markings. Failure to do so might result in a fire, burns, or inflammation due to fluid leaks.
- When the battery runs out, or if the sound bar is not to be used for a long time, remove the battery from the remote control to prevent possible leakage of the battery fluid.
- Do not put in a pocket or bag, carry, or store batteries together with pieces of metal. The battery could short, burst, or leak, causing a fire or injury.
- When storing or discarding batteries, insulate the terminal area by applying tape, or some other protection. Mixing them with other batteries or metal objects can cause a fire, burns, or inflammation due to fluid.

How to replace the remote control battery

Before replacing the battery with a new one, be sure to read the following precautions.
 "Precautions for remote control batteries" (p.70)

When the battery runs out, the sound bar can no longer be controlled with the remote control. Replace the battery with a new one.

1 Slide the cover in the direction of the arrow to remove it.



2 Remove the old battery and insert a new one.



3 Slide the cover back into its position in the direction of the arrow.



How to reset the sound bar

Reset the sound bar by performing the following operations.

Force the sound bar to turn off

Press the Reset button on the rear of the sound bar for at least 10 seconds. The sound bar is forced to turn off.

To initialize the sound bar

Refer to the following explanation and reset the settings of the sound bar to the factory presets.

"Initializing the sound bar" (p.51)
APPENDIX

Specifications of the Sound Bar

The specifications of the Sound Bar are as follows.

Amplifier section

Maximum rated output power

- Front L/R
- Subwoofer

Speaker section

Front L/R

- Type
- Driver
- Frequency response
- Impedance

Tweeter

- Type
- Driver
- Frequency response
- Impedance

Subwoofer

- Type
- Driver
- Frequency response
- Impedance

Decoder

Supported audio signal (HDMI (ARC)/optical input) 30 W × 2 channels 60 W

Acoustic suspension type (non-magnetic shielding) 5.5 cm (2-1/8") cone × 2 160 Hz to 22 kHz 6 Ω

Acoustic suspension type (magnetic shielding) 2.5 cm (1") dome × 2 7 kHz to 23 kHz 6 Ω

> Bass reflex type (non magnetic shielding) 7.5 cm (3") cone \times 2 55 Hz to 160 Hz 3 Ω (6 Ω \times 2)

> PCM (up to 2 channels) Dolby Digital (up to 5.1 channels) DTS Digital Surround (up to 5.1 channels)

Input jacks

Digital (optical)

2 (TV, OPTICAL)

Output jacks	
HDMI	1 (HDMI OUT/TV (ARC))
Analog (RCA/monaural)	1 (SUBWOOFER OUT)
Other jacks	
USB	1 (UPDATE ONLY)
Bluetooth	
Function	Sink function (source device to this unit)
Bluetooth version	Ver 5.0
Supported profiles	A2DP
Supported codecs	Sink function: SBC, AAC
Bluetooth class	Bluetooth Class 1
Range (line-of-sight)	Approx. 10 m (33 ft)
Supported content protection method	SCMS-T (sink function)
Models for U.K. and Europe	
Radio frequency	2402 MHz to 2480 MHz
• Maximum output power (EIRP)	9.7 dBm (9.3 mW)

General

Power supply	
 Models for U.S.A., Canada, Taiwan and Mexico 	AC 100 to 120 V, 50/60 Hz AC 100 to 240 V, 50/60 Hz
Models for U.K., Europe, and other areas	
Power consumption	25 W (Rated)
Standby power consumption	
• [Models for U.S.A., Canada, Taiwan and Mexico]	
HDMI Control/Bluetooth Standby: Off	0.2 W
HDMI Control/Bluetooth Standby: On	0.5 W
 [Models for U.K., Europe, and other areas] 	
HDMI Control/Bluetooth Standby: Off	0.2 W
 HDMI Control/Bluetooth Standby: On 	0.5 W

Dimensions (W x H x D)

- Installing the Sound Bar in front of a TV, etc.
- Mounting the Sound Bar on a wall, with spacers

Weight

910 × 53 × 131 mm (35-7/8" × 2-1/8" × 5-1/8")

910 × 131 × 62 mm (35-7/8" × 5-1/8" × 2-1/2")

eigint

3.2 kg (7.1 lbs)

NOTE

The contents of this User Guide apply to the latest specifications as of the publishing date. To obtain the latest User Guide, access the Yamaha website then download the User Guide.

Supported digital audio signal formats

The following digital audio signals are supported by this product.

TV, OPTICAL, and TV (ARC)

Audio formats	Details
2-channel Linear PCM	2 channels, 32/44.1/48/88.2/96 kHz, 16/20/24-bit
Bitstream	Dolby Digital, DTS Digital Surround

NOTE

The contents of this User Guide apply to the latest specifications as of the publishing date. The latest version of the User Guide is available to download from the Yamaha website.

List of indicator displays

The indicators of this product (the sound bar) display information primarily in the following ways:

NOTE

This document shows indicator glowing status as follows:



Flashing

Power off state



Normal playback state



1 TV

Glowing: Playing audio from the TV

OPTICAL

Glowing: Playing audio from the OPTICAL input jack

BLUETOOTH

Glowing blue: Bluetooth device connection established Flashing white: Bluetooth device connection wait status

4 STEREO

Glowing: Stereo playback

SURROUND

Glowing green: Surround playback (3D surround enabled) Glowing white: Surround playback (3D surround disabled) Off: Stereo playback

Muted state



An error occurred



Flashes red

NOTE

- When the brightness of the indicators is set to "Off", the indicators glow only during control operations.
- See the description of each setting for what the indicators will show when the setting is changed.

Related links

- "Basic control during playback" (p.29)
- "Showing the type of audio signal and settings for functions" (p.42)
- "Changing the brightness of the indicators (Dimmer)" (p.40)
- "When a problem occurs: Power or overall functionality" (p.53)

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- STM32F4 HAL
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- STM32_USB_Host_Library
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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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* a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

* b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

* c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

* d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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END OF TERMS AND CONDITIONS

Mounting the sound bar on a wall

Precautions for mounting the sound bar on a wall

Before mounting the sound bar on a wall, be sure to read the following precautions for safe installation. Be sure to follow the precautions.



- For proper installation of the sound bar on a wall, make sure to have it done by the dealer from where you purchased the unit or by qualified service personnel. Some skills and experience are required for safe installation.
- Be sure to follow the precautions when mounting the sound bar on a wall. The sound bar may fall, resulting in injury.
 - Do not attach it to a wall constructed of weak materials such as drywall or plasterboard.
 - Use screws that are of the size specified in this document and that can support the weight of the installation. Do not use nails, two-sided tape, screws other than the size specified, or screws that are worn out or damaged.
 - Fix the cables in place so nothing will accidentally catch on them.
- Check that the sound bar is securely fixed in place after the installation. Yamaha will bear no responsibility for any accidents caused by improper installations.
- Do not lean on the sound bar or apply excessive force to its top. Doing so may cause the sound bar to fall.

Mounting the sound bar on a wall (for qualified service personnel)

- Before mounting the sound bar on a wall, be sure to read the following precautions.
 - "Precautions for mounting the sound bar on a wall" (p.88)

Use the screw-hanging holes on the sound bar to mount the sound bar on a wall.

[Search tag]#Q01 Wall mounting



1 Attach the mounting template (supplied) on a wall.

Mounting template (supplied)



Tape or thumbtacks

2 Mark the positions for the screws.



3 Remove the mounting template from the wall.

4 Install screws (sold separately) at the points marked on the wall.

Be sure to use screws of the following size.



5 Peel off the backing paper from the spacers (supplied), and attach the adhesive face of each spacer to the bottom of the sound bar.



6 Connect cables to the sound bar.

7 Hang the sound bar on the screws.



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Published 06/2022 NV-D0

AV19-0292