YAMAHA

Wireless Streaming Speaker

WX-021

Owner's Manual

Before using this unit, be sure to read the "Safety Brochure."

MusicCast

EN

Table of contents

Introduction

About this document

This document explains all unit functions and operation in detail. The supplied Quick Manual provides brief instructions on connecting the unit to a network through the playing of music files stored on a mobile device. Keep the Quick Manual at hand for future reference.

- In this document, smartphones and other mobile devices running the iOS or Android operating systems are collectively referred to as "mobile devices".
- The term "iPhone" as used in this document also refers to "iPod touch" and "iPad" devices.
- Illustrations in this manual may differ slightly from the actual objects depicted.
- MusicCast CONTROLLER app screenshots in this document were captured on a device running the English version of iOS. Actual screen displays may differ depending upon the version of the app or iOS used.
- Symbols and conventions

  Caution   Indicates information that should be read before use to prevent failure or physical damage.
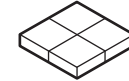
  Note   Indicates precautions and supplementary information that should be read before using the unit.

  ☞   References another page or pages that provide additional information.

Accessories
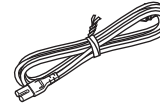
Power cord

Anti-vibration pads
Use when mounting the unit on the wall (☞ p. 24)

Quick Manual

Safety Brochure

Using the unit

- This unit is a wireless streaming speaker that can be used with a home network or audio system to play audio from Internet radio, media server (computer or NAS), AirPlay or Bluetooth devices on the same network.
- The unit itself is small, yet it delivers the rich sound made possible with Yamaha's exclusive digital signal processor (DSP).
- The unit can be operated and a home audio network configured using the dedicated MusicCast CONTROLLER app. (☞ p. 7 "Use MusicCast CONTROLLER to connect to a network")

♪ Use MusicCast CONTROLLER to configure a home audio network ♪

Play audio from an incredibly wide range of input sources with superior sound quality

Bluetooth

AirPlay

The unit

Install

YAMAHA m

Computers (NAS)

- Internet radio
- Streaming service
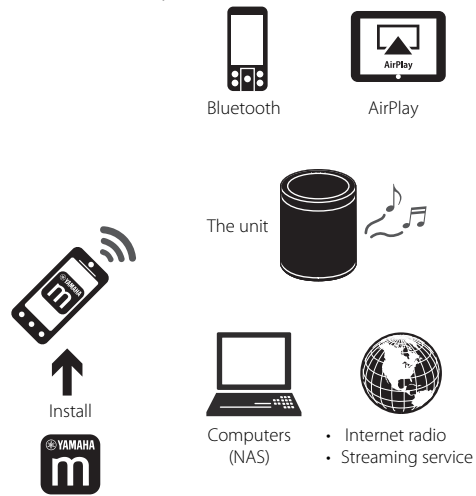
A wireless LAN router (access point) is required.

Using two units

The two units can act as stereo speakers, or they can be combined with a Yamaha amplifier and act as wireless surround sound speakers.
(☞ p. 14 "Using two units as stereo speakers (MusicCast Stereo function)")
(☞ p. 15 "Using two units as surround speakers (MusicCast Surround function)")
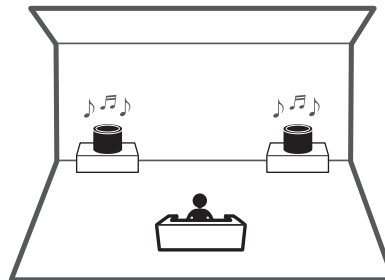
Combining with MusicCast-enabled devices

Listen to Internet radio stations in multiple rooms or play music files. Use MusicCast to enjoy music throughout the house.
(☞ p. 13 "Configuring a MusicCast network")

MusicCast

The unit

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Parts of the unit

Top panel

Indicators

① ⏻ Power indicator (☞ p. 7)

   Glows steadily when the unit is on.

② ⏰ Alarm indicator (☞ p. 17)

③ 📶 Wireless LAN indicator (☞ p. 21)

   Glows steadily when the unit is connected to a wireless LAN router. If the MusicCast Stereo or MusicCast Surround function is used, this indicator will glow steadily even when the unit is connected to a network using the network cable.
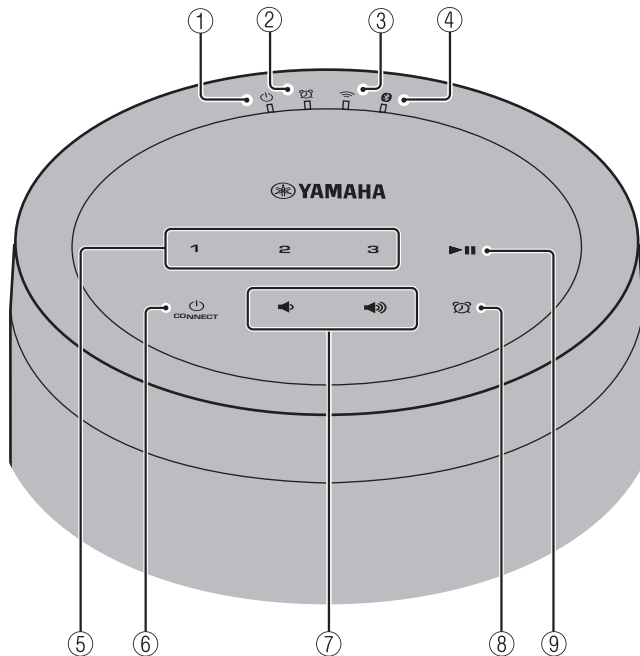
④ ✦ Bluetooth indicator (☞ p. 12, 21)

Control panel

The control panel is touch sensitive. Tap icons with your finger to control functions.

⑤ **1**, **2**, **3** (☞ p. 16)

⑥ ⏻ (Power)/CONNECT (☞ p. 7)

   Auto standby
   The unit will automatically enter standby mode if no audio is played, and no operations are performed, for more than 20 minutes (auto standby function). See "Option settings" (☞ p. 20) to disable the auto standby function.

⑦ 🔉 / 🔊

   Adjust sound volume.

⑧ ⏰ (☞ p. 17)

   Set the alarm.

⑨ ►❚❚

   Play or pause a song.

Rear panel
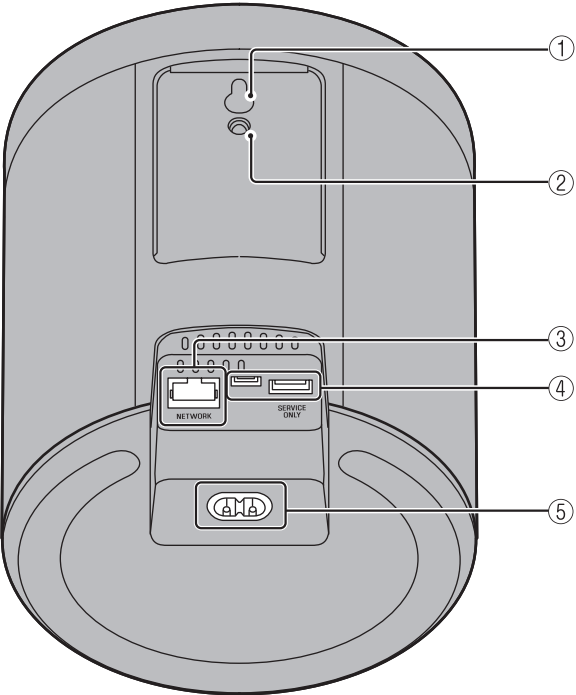
① Hole for wall-mount hanger (except for the U.S.A. and Canada models; ☞ p. 24)

② Hole for wall-mount screw (☞ p. 25)

③ NETWORK jack (☞ p. 7)

④ SERVICE ONLY jack

   Use when the unit requires maintenances.

⑤ Power connector (☞ p. 7)

Use MusicCast CONTROLLER to connect to a network

1 Connect the unit to an electrical outlet.

Connect the power cord (supplied) to the power connector on the unit, and then plug the power cord into an electrical outlet.
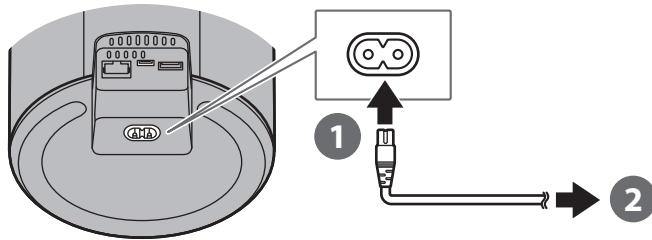
Note

When the power cord is plugged into an electrical outlet, touch-sensitive components on the unit will be adjusted. This adjustment takes approximately five seconds. Do not operate the unit while this adjustment is in progress to prevent the unit from malfunctioning.

2 Connect to a network.

Follow steps ❶ – ❸ at right to connect to a network.

The unit can be connected to a network using either a wired or a wireless connection. A network cable (available separately) is required for a wired network connection.

Note

- For a wired network connection, connect a standard shielded twisted pair (STP) network cable (straight, category 5 or higher; sold separately) to the NETWORK jack on the rear panel.
- For more information on Internet connections, refer to the documentation provided with your network devices.

- Security software installed on your computer or network device settings (firewall, etc.) may prevent the unit from accessing your computer or Internet radio stations. If this occurs, modify security software or network device settings to permit access by the unit.

❶ **Download the MusicCast CONTROLLER app to your mobile device from the App Store or Google Play.**

❷ **Use the app to configure network settings.**

The ⏻ indicator glows steadily when the unit is on.
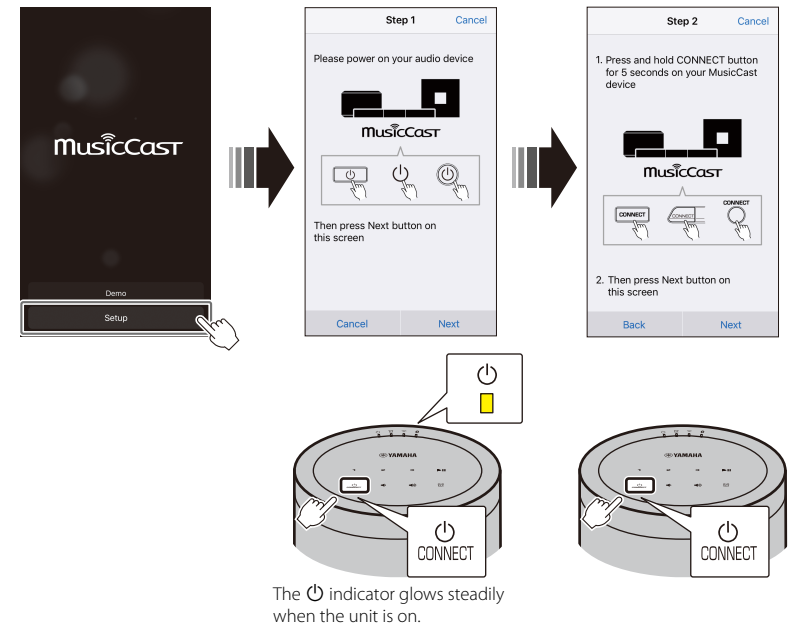
❸ **Follow the app's on-screen instructions to complete network settings.**

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Play from an input source

Use the MusicCast CONTROLLER app to play music. Select a room registered with the unit to open the input source selection screen. This screen provides access to various input sources.

① ⏻ (power)

② Tap

Select a room registered with the unit.

Select an input source.
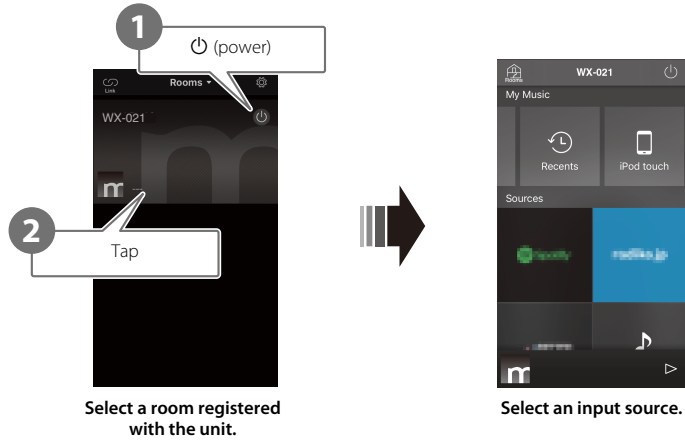
Listening to music stored on the mobile device

Play music files stored on the mobile device to which the MusicCast CONTROLLER app has been installed.

Note

The types (formats) of audio files that can be played vary by mobile device. See documentation provided with your mobile device for information on the supported file formats.

① Mobile device

② Music file

Music begins playing

1	Mozart: Die Zauberflöte – Over...	7:14
2	Mozart: Die Zauberflöte – Act 1:...	6:50
3	Mozart: Die Zauberflöte – Act 1:...	6:01
4	Mozart: Die Zauberflöte – Act 1:...	5:01
5	Mozart: Die Zauberflöte – Act 1:...	5:17
6	Mozart: Die Zauberflöte – Act 1:...	6:32
7	Mozart: Die Zauberflöte – Act 1:...	4:31

Input source selection screen
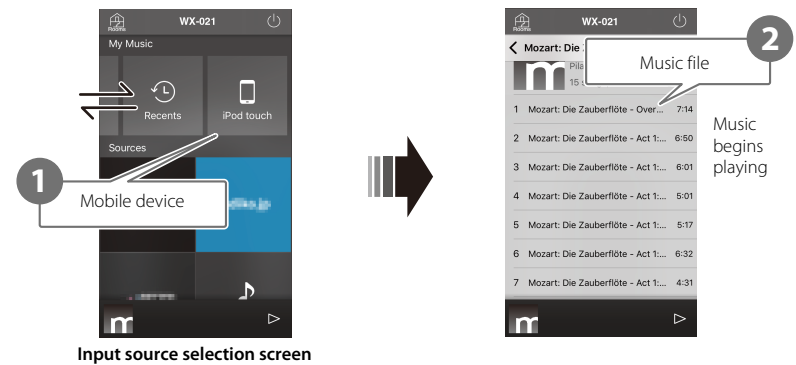
Listening to Internet radio

Listen to radio broadcasts from around the world that are distributed via the Internet.
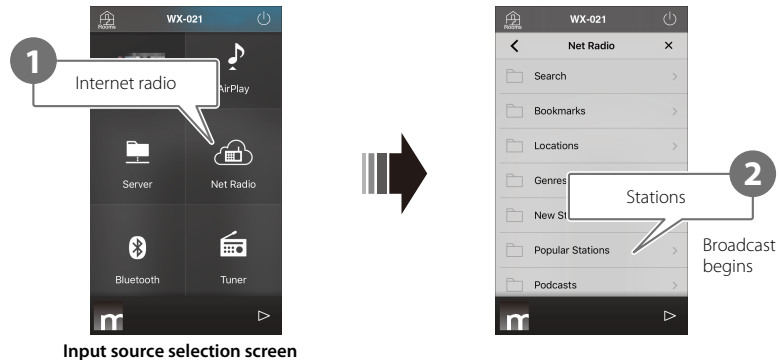
Input source selection screen

Note

- Some Internet radio stations may not be available, or may be available only during certain hours.
- This service may be terminated without prior notice.
- This function uses airable.Radio's extensive catalog. "airable" is a service of Tune In GmbH.

Listening to streaming services

A streaming service can be heard using the MusicCast CONTROLLER app. On the MusicCast CONTROLLER screen, select the room registered with the unit, and select the streaming service to be tuned into by its station name. For details, see the MusicCast CONTROLLER app.

Note

- Service is limited to certain areas.
- Services supported with the unit may not be available depending upon some regions where the unit is purchased.
- Service may change or be discontinued without notice.
- After registering the unit in the MusicCast CONTROLLER app, the streaming service can be used. For details, see "Use MusicCast CONTROLLER to connect to a network" (☞ p. 7).
- For details on music streaming services, see the supplements for streaming services. Access the Yamaha Downloads site to download the supplement. https://download.yamaha.com/

Listening to music stored on a media server

Music files stored on a computer or network attached storage (NAS) device on the same network as the unit can be played. In such instances, the computer (or NAS) serves as a media server.

Note

- Connect the unit and computer (or NAS) to the same wireless LAN router (access point).
- For information on music files that can be played using the unit, see "File formats, and devices/media supported by the unit" (☞ p. 30).

1 Configure media sharing.

Media sharing must be enabled to play music stored on the media server (computer or NAS). The following instructions use Windows Media Player 12 as an example. Follow the on-screen instructions, as shown below, to configure media sharing.

Windows Media Player 12

Select "Allowed" for this unit.

OK
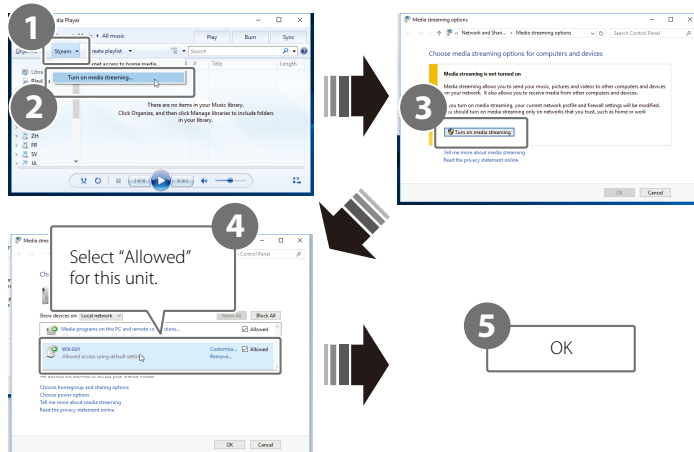
Note

- Windows Media Player 12 screenshots were captured using a computer with an English interface.
- If the media server (computer or NAS) uses an application other than Windows Media Player to play audio, see documentation supplied with the computer (or NAS) or the software application for instructions on enabling media sharing.
- For details on media sharing, see Windows Media Player's help.

2 Play a music file.

Music file

Music begins playing

Media server

Input source selection screen

10
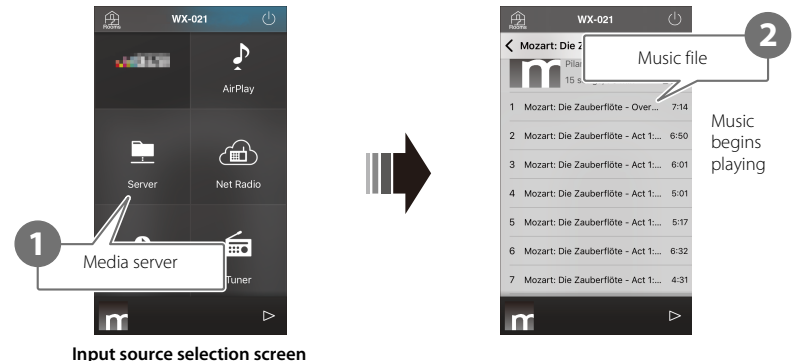
Listening to music via AirPlay

Music files in iTunes, or stored on an iPhone, can be played using the AirPlay function.

Note

- Connect the unit, computer (or NAS), and iPhone to the same wireless LAN router (access point).
- For information on iPhone compatibility, see "File formats, and devices/media supported by the unit" (☞ p. 30).

1 **Start iTunes, or display the iPhone's music playback screen.**

When iTunes, or the iPhone, recognizes the unit, the AirPlay icon will be displayed on the screen.

iTunes   iPhone (iOS 11)
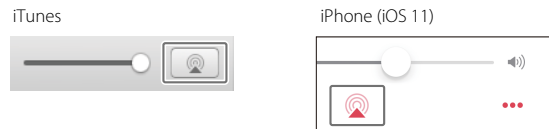
Note
If the icon is not displayed, check to see that the unit and the computer (or iPhone) are correctly connected to the wireless LAN router.

2 **Click or tap the AirPlay icon in iTunes or on the iPhone, and select the unit (a room registered with the unit) as the audio output destination.**

3 **Play a music file.**

The unit's input source changes to AirPlay, and music will begin playing.

0:02   −6:35
Mozart: Die Zauberflöte - Act 2: Ma
Pilar Lorengar, Stuart Burrows, Etc.;

iPod → WX-021

Listening to music via Bluetooth

The unit can be used to play music from a Bluetooth device, such as a mobile device or digital music player.
For more information regarding Bluetooth, see documentation provided with Bluetooth devices.
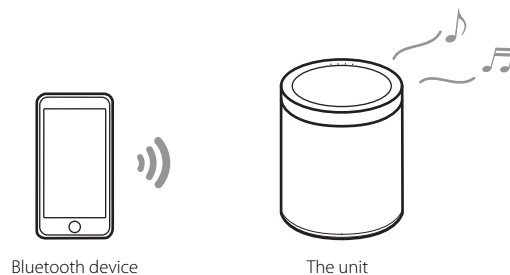
Note

- If one or more Bluetooth devices has been connected to the unit before, the unit will automatically connect to the last connected device when Bluetooth is enabled. Terminate this connection to connect a new device.

- Tap and hold ►▌▌ on the unit for at least three seconds to terminate the Bluetooth connection.

Listening to music on a Bluetooth device

Audio from a Bluetooth device can be played over a wireless connection.

Note

When connecting a Bluetooth device to the unit for the first time, complete step **1** (shown at right) within five minutes of having turned on the unit.

Bluetooth device   The unit

1 **Connect a Bluetooth device to the unit.**

Select this unit from the Bluetooth device list on the Bluetooth device.

Bluetooth ON

＊＊＊＊＊＊＊＊
WX-021 Yamaha   The unit
＊＊＊＊＊＊＊＊

The indicator will glow steadily once the connection has been established.

2 **Play a music file.**

0:02   −6:35
Mozart: Die Zauberflöte - Act 2: Ma
Pilar Lorengar, Stuart Burrows, Etc.; (

◀◀   ▌▌   ▶▶

WX-021 Bluetooth   •••
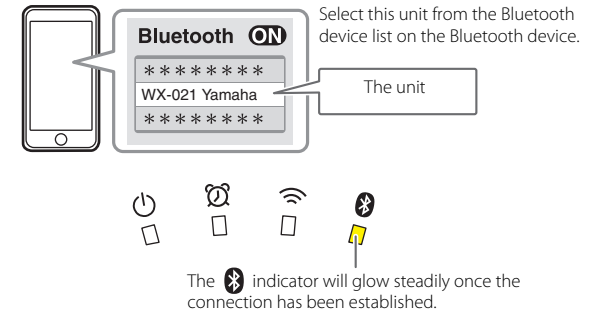
Note

If a Bluetooth connection could not be established, delete the unit from the list of devices registered with the Bluetooth device, and repeat steps **1** and **2**.

Pair the unit with MusicCast-enabled devices

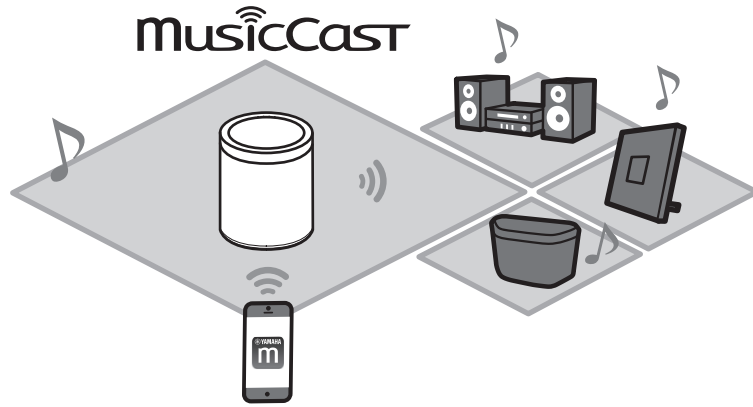Multiple units can be used, or the unit can be paired with other MusicCast-enabled devices, to enjoy higher quality audio. A home audio network can be configured using MusicCast CONTROLLER.
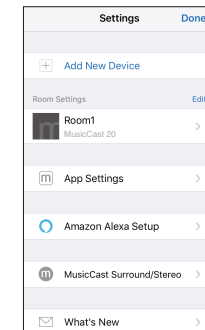

Configuring a MusicCast network

Register the unit with the MusicCast CONTROLLER app, and then register other MusicCast-enabled devices with the app.

Note

To register the unit with the app, see "Use MusicCast CONTROLLER to connect to a network" (☞ p. 7).

❶ **Tap ⚙ (Settings).**

❷ **Follow the on-screen instructions to register MusicCast-enabled devices.**

Using two units as stereo speakers (MusicCast Stereo function)

Two units can be used together as stereo speakers by assigning and positioning one unit as the left speaker and the other as the right speaker.

When using this function, update the firmware for the units to the latest versions (☞ p. 22 "Firmware updates").

Left speaker (unit)   Right speaker (unit)
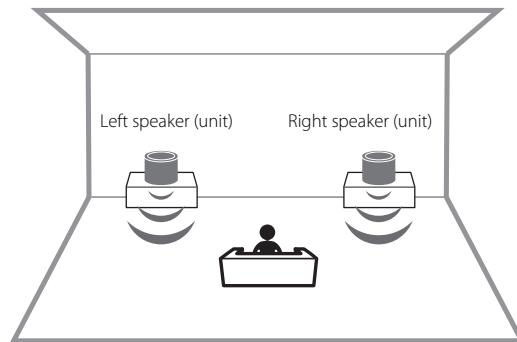
Note

- When the MusicCast Stereo function is used, one unit is set as the "Pairing Master" and the other as the "Pairing Device". The "Pairing Device" only supports the following operations.
  - Turning the units on and off
  - Adjusting the volume
- When the MusicCast Stereo function is used, the option settings available are "Initialize the unit" (☞ p. 20) and "Enable/disable the child lock function" (☞ p. 21).
- If the alarm has been set, turn it off before configuring MusicCast Stereo.

1 **Register the first and second units with the same location on the MusicCast CONTROLLER app (☞ p. 13 "Configuring a MusicCast network").**

2 **Follow the app's on-screen instructions to complete the settings.**

Connecting the unit to a subwoofer on the same network

The unit can be connected to a MusicCast-enabled network subwoofer for more dynamic bass.
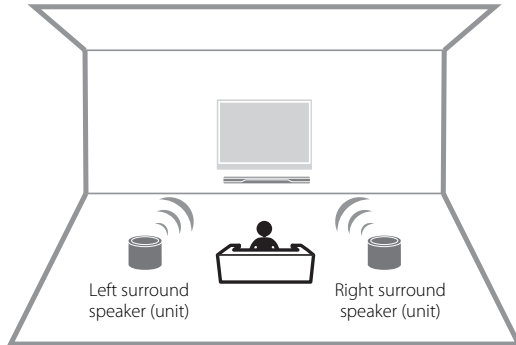Follow the MusicCast CONTROLLER app's on-screen instructions to register the unit and a MusicCast-enabled network subwoofer with the same location. (☞ p. 7 "Use MusicCast CONTROLLER to connect to a network")

- Refer to documentation provided with the network subwoofer for more information.
- If the alarm has been set, turn it off before connecting the network subwoofer.

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Using two units as surround speakers (MusicCast Surround function)

MusicCast Surround-enabled devices such as AV receivers or sound bars can be paired with the units to enjoy multi-channel audio.

When using this function, update the firmware for the units and MusicCast Surround-enabled devices to the latest versions (☞ p. 22 "Firmware updates"). See documentation provided with external devices for information on firmware updates.

Left surround speaker (unit)   Right surround speaker (unit)

1 Register the units and a MusicCast Surround-enabled AV receiver or sound bar with the same location on the MusicCast CONTROLLER app (☞ p. 13 "Configuring a MusicCast network").

2 Follow the app's on-screen instructions to complete the settings.

Configure MusicCast Surround on the AV receiver or sound bar that will be paired with the unit.

Note

- The following functions and operations are not available when the units are used as a surround sound speakers.
  - Favorites function
  - Alarm function
  - Volume adjustment

    The volume is adjusted to match the volume level specified with the AV receiver or sound bar.
  - Option settings other than "Initialize the unit" (☞ p. 20) and "Enable/disable the child lock function" (☞ p. 21).
- If the alarm has been set, turn it off before configuring MusicCast Surround.

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Useful features

Favorites

Favorite songs, Internet radio stations, and such can be registered as favorites with the unit and with the MusicCast app. Once registered, favorites can easily be selected for listening. Up to three favorites can be registered with the unit. Up to 40 favorites can be registered with the MusicCast CONTROLLER app.
The following input sources can be registered.

- Media servers (computers or NAS) containing music files, Internet radio stations, and streaming services
- Bluetooth

Register favorites with the unit

1 Use the MusicCast CONTROLLER app to play the input source to be registered.

2 Press and hold 1, 2, or 3 on the unit for at least three seconds during playback.

The ⏻ indicator flashes three times, and the input source is assigned to that favorites number.
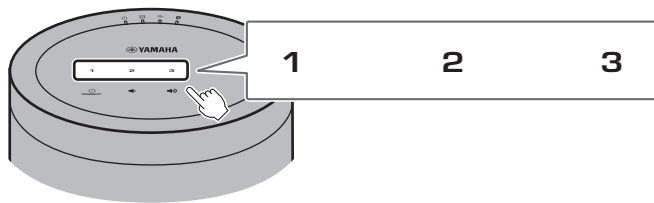
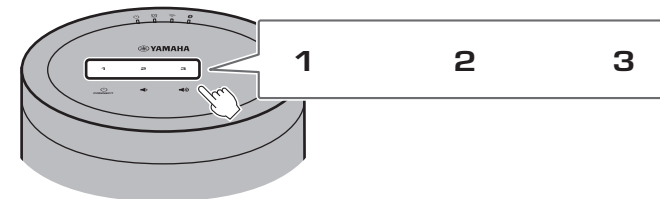**Note**
Favorites assigned to 1, 2 and 3 on the unit will also be assigned to MusicCast CONTROLLER app "Favorites" 1, 2, and 3. If favorite 1, 2, or 3 is changed with either the unit or the MusicCast CONTROLLER app, the corresponding favorite will also be automatically changed with the other.

Play favorite input sources

Tap 1, 2 or 3 on the unit.

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Alarm

The MusicCast CONTROLLER app can be used to set the alarm. The alarm can sound as beeps, or as network content played from a media server (computer or NAS) or Internet radio station, for example.
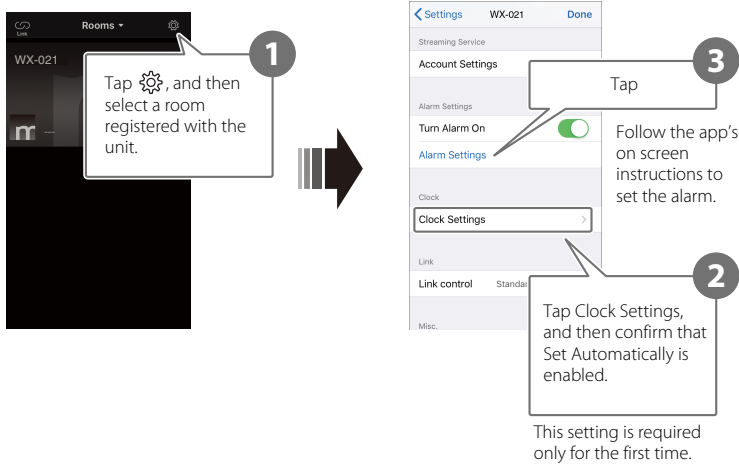
Alarm type

Three alarm types—music, beeps, combination of music and beeps—are available.

Music only	Music begins playing at the specified time. The volume starts low and gradually increases.
Music + beeps	Music begins playing at low volume three minutes prior to the specified time, increasing gradually. Beeps begin sounding over the music at the specified time.
Beeps only	Beeps begin sounding at the specified time.

Set the alarm

1 Use the MusicCast CONTROLLER app to set the alarm.

Tap ⚙, and then select a room registered with the unit.

Tap

Follow the app's on screen instructions to set the alarm.

Tap Clock Settings, and then confirm that Set Automatically is enabled.

This setting is required only for the first time.
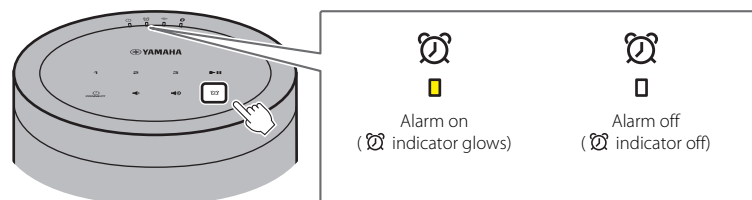
Note
No alarm will sound if "Music only" is selected for the alarm type and the specified network content is unavailable for some reason. Therefore, selecting "Music + beeps" or "Beeps" only is recommended for important alarms.

2 Tap ⏰ on the unit.

The ⏰ indicator glows steadily and the alarm is turned on.

Alarm status alternates between on and off each time ⏰ is tapped.

Alarm on
(⏰ indicator glows)

Alarm off
(⏰ indicator off)

Note

Alarm settings are retained when the alarm is turned off. When ⏰ is tapped to turn on the alarm, the last alarm setting specified is applied.

Stop the alarm

Tap any of the icons on the unit's control panel while the alarm is sounding to stop the alarm.
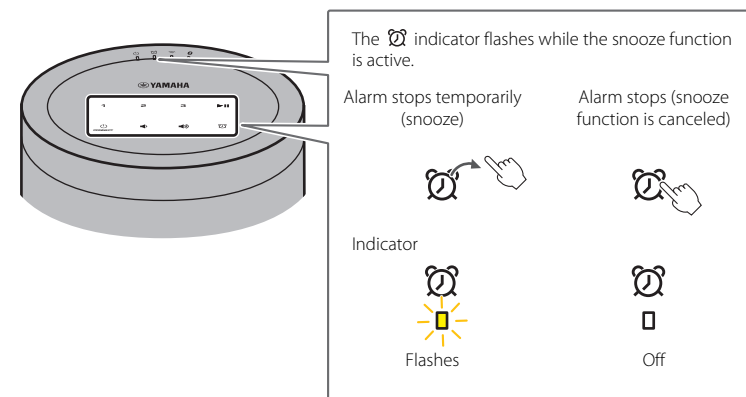
Note

If the alarm is not stopped manually, it will stop automatically after one hour has passed.

Snooze function

The MusicCast CONTROLLER app can be used to set the snooze function, which stops the alarm and sets it to sound again five minutes later.

When this function is enabled, the alarm will stop and then go off again five minutes later when any of the icons on the control panel is tapped. To stop the alarm completely, press and hold any of the icons on the control panel for at least five seconds.

The ⏰ indicator flashes while the snooze function is active.

Alarm stops temporarily (snooze)

Alarm stops (snooze function is canceled)

Indicator

Flashes

Off

Note

When "Music + beeps" is selected as the alarm type, tapping any of the icons on the control panel while the alarm is sounding will stop only the beeps. Tap any of the icons again to stop the music as well. Note that the alarm will sound again five minutes later. To stop both the music and beeps completely, press and hold any of the icons on the control panel for at least five seconds.

Child lock function

This unit is equipped with a child lock function. When the child lock function is enabled, some control panel operations are disabled to prevent unintended or accidental operation.
This function is disabled by default. When the child lock function is enabled, only the following functions can be operated via the control panel. Use the MusicCast CONTROLLER app to operate other functions.
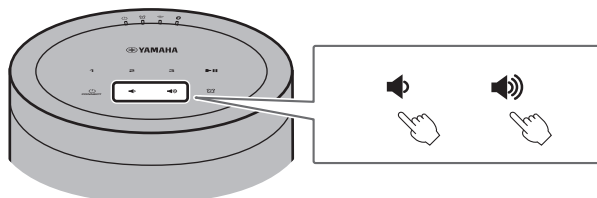
When the unit is in standby mode

• turn on the unit

• configure options (☞ p. 20)
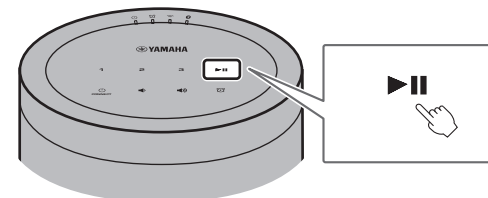
When the unit is on

• set the unit to standby mode

• stop the alarm

Enabling/disabling the child lock function

1 **Tap and hold 🔊 and 🔉 on the control panel simultaneously for at least five seconds when the unit is in standby mode.**

2 **Tap and hold ▶❚❚ at least three seconds.**

The ⏰ and 🛜 indicators will flash three times, and the child lock function will be enabled.

To disable the child lock function, repeat steps **1** and **2**.

The ⏰ and 🛜 indicators will flash twice, and the child lock function will be disabled.

<u>Note</u>

If no operations are performed for ten seconds or more after performing step **1**, the unit will revert to standby mode without enabling/disabling the child lock function. Proceed from step **1** again to enable/disable the child lock function.

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Option settings

The following options can be changed when the unit is in option setting mode. To set the unit to option setting mode, tap and hold 🔊 and 🔉 on the control panel simultaneously for at least five seconds when the unit is in standby mode.

Note

- If no operations are performed for ten seconds or more, option setting mode will be cancelled.

- The option settings available when the MusicCast Stereo function or MusicCast Surround function is used, or when a MusicCast-enabled network subwoofer is connected to the unit are "Initialize the unit" and "Enable/disable the child lock function".

Setting menu	Default	Instructions
Initialize the unit	—	Tap and hold ⏻/CONNECT on the control panel for at least three seconds. The ⏻ indicator will flash twice, and the unit will be initialized.
Enable/disable Network standby*	Enabled	Tap and hold **1** on the control panel for at least three seconds. The ⏻ and ⏰ indicators will flash twice, and this function will be disabled. Repeating this operation alternately enables and disables this function. When this function is enabled, the ⏻ and ⏰ indicators will flash three times.
Enable/disable Auto standby	Enabled	Tap and hold **2** on the control panel for at least three seconds. The ⏰ indicator will flash twice, and this function will be disabled. Repeating this operation alternately enables and disables this function. When this function is enabled, the ⏰ indicator will flash three times.

* This option enables or disables network operations when the unit is in standby mode. When network standby mode is disabled, network operations are terminated while the unit is in standby mode. Further, a special "eco standby" mode that minimizes power consumption is enabled. The following operation and functions are not available in eco standby mode. To perform or use them, tap ⏻/CONNECT on the unit to turn on the unit.

- Using the MusicCast CONTROLLER app to turn on the unit
- AirPlay
- Bluetooth
- MusicCast Stereo/MusicCast Surround function

ECO	With an advanced energy saving design, this product achieves a low power consumption of not more than two watts when in Network Standby mode

Setting menu	Default	Instructions
Enable/disable Wireless LAN	Enabled	Tap and hold **3** on the control panel for at least three seconds. The 🛜 indicator will flash twice, and wireless LAN function will be disabled. Repeating this operation alternately enables and disables this function. When this function is enabled, the 🛜 indicator will flash three times. Be sure to configure network settings using the MusicCast CONTROLLER app to connect the unit to a network (☞ p. 7).
Enable/disable Bluetooth	Enabled	Tap and hold ⏰ on the control panel for at least three seconds. The ⓫ indicator will flash twice, and Bluetooth will be disabled. Repeating this operation alternately enables and disables this function. When this function is enabled, the ⓫ indicator will flash three times.
Enable/disable the child lock function	Disabled	Tap and hold ▶︎❚❚ for at least three seconds. The ⏰ and 🛜 indicators will flash three times, and this function will be enabled. Repeating this operation alternately enables and disables this function. When this function is disabled, the ⏰ and 🛜 indicators will flash twice.

Firmware updates

The unit's firmware can be updated if it is connected to the Internet. When new firmware is released, a notice is displayed by the MusicCast CONTROLLER app. Follow the app's on-screen instructions to update the unit's firmware.

Update progress indicators

Update progress can be confirmed using the indicators on the unit.

Status	Indicators
Update in progress	Indicators other than the ⏻ indicator will flash or glow as the update progresses.
Update completed successfully	Glow steadily When the update has been successfully completed, the unit will automatically turn off and then on again.
Update failed	Indicators will flash or glow depending upon the cause of the failure. Unplug the power cord from the electrical outlet, plug it in again, and try to update the unit's firmware again.

Note

- Do not attempt to operate the unit, or disconnect the power cord or network cable while firmware is being updated.
- Insufficient Internet speed or other wireless network issues may cause a firmware update to fail.

Using iPhone settings to connect to a network

When the unit is turned on for the first time after purchase or after initializing the unit, the 🛜 indicator on the unit flashes, and the unit will automatically begin searching for an iOS device such as an iPhone. Network settings from your iOS device can be applied to the unit for easy connection to an existing wireless network.

- Download and install the MusicCast CONTROLLER app to your iOS device to take full advantage of all the features this unit offers (☞ p. 7).
- iOS device network settings cannot be automatically applied to the unit (this feature) when a network cable is connected to the unit.

Note

- Be sure that the iOS device is connected to the wireless LAN router (access point).
- An iOS device running iOS 7.1 or later is required.
- iOS device network settings cannot be applied to the unit to establish a wireless connection if the wireless LAN router uses WEP encryption.

1 **While the 🛜 indicator is flashing, open the iOS device's Wi-Fi settings, and then specify this unit as the AirPlay speaker.**

iOS 11 (English interface)
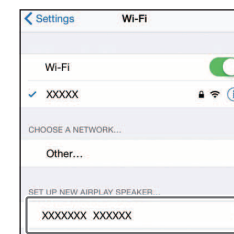
Name of the unit

2 **Choose the wireless network (access point) to which the unit will be connected.**

Once network settings have been successfully shared, the unit will automatically connect to the selected wireless network.
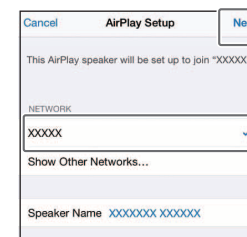
Tap here to start setup

Selected network

Mounting the speaker on a wall

The unit can be mounted on a wall. Be sure to attach the supplied anti-vibration pads to the four corners of the rear panel to prevent the transmission of sound vibrations to the wall.
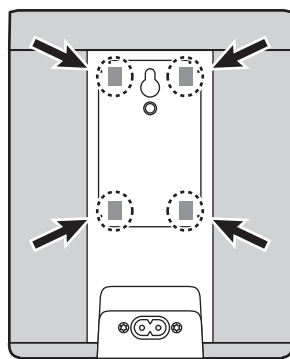
Caution

Be sure to check the stability of the unit after mounting it on the wall. Yamaha is not responsible for any accidents resulting from improper mounting or installation. Have a professional mount the unit if you have any safety concerns.

Using the wall mount hanger hole (does not apply to the U.S.A. and Canada models)

Wall/wall support

6 mm (1/4")

20 mm (3/4") or more

Unit weight
2.2 kg (4.8 lbs)
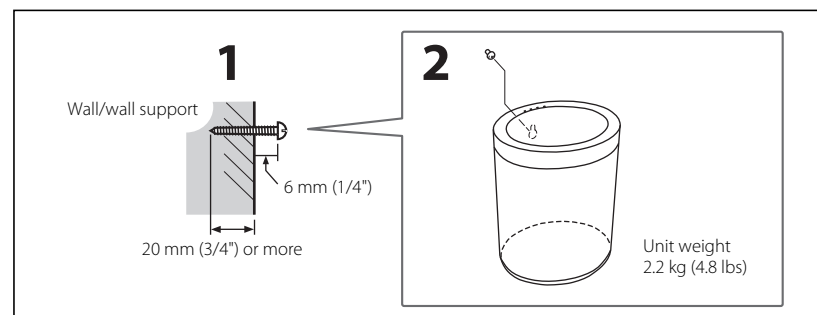
1 **Screw a self-tapping screw (3.5–4 mm (1/8") in diameter; not supplied) into a wall or other vertical support of sufficient strength.**

2 **Position the wall mount hanger hole on the rear panel over the head of the screw.**

Push the unit toward the wall until the head of the screw is fully inserted in the wall mount hanger hole.

Caution

If the unit falls, it may be damaged or cause injury. Observe the following precautions when mounting the unit on a wall.

– Do not mount the unit on a wall covered with a material such as mortar or veneer that peels easily.

– Do not use a nail or double-sided tape to mount the unit on a wall.

– Take all necessary precautions to prevent the unit from falling. Such measures may include the use of a cable or wire anchor.

Using the wall mount screw hole

Use the wall mount screw hole on the rear panel to mount the unit on a common wall mount hanger bracket (sold separately).

Caution

• Be sure to use a wall mount hanger bracket that is compatible with this unit to prevent the unit from falling or overturning.

• Use a wall mount hanger bracket with a load capacity of 4.5 kg (10 lbs) or more.

• Follow mounting instructions provided with the wall mount hanger bracket and mount the unit correctly.

• When a common mount bracket (sold separately) is used, be sure to attach a cable or wire anchor to the unit and the mount bracket.

Note

Use a wall mount hanger bracket that supports a unified-thread screw like those used on camera tripod heads. Refer to the chart below and prepare a screw that conforms to the specifications indicated.

Mounting screw specifications
1/4-20 UNC

Diameter	6.35 mm (1/4")
Threads/inch	20

Wall mount screw hole specifications

Diameter	6.35 mm (1/4")
Depth	8 mm (3/8")

75 mm (3")
52 mm (2")
186 mm (7-3/8")
150 mm (5-7/8")
Wall mount screw hole

8 mm (3/8")
5 mm (1/4") or more
Insert the screw at least 5 mm (1/4").

Unit weight
2.2 kg (4.8 lbs)
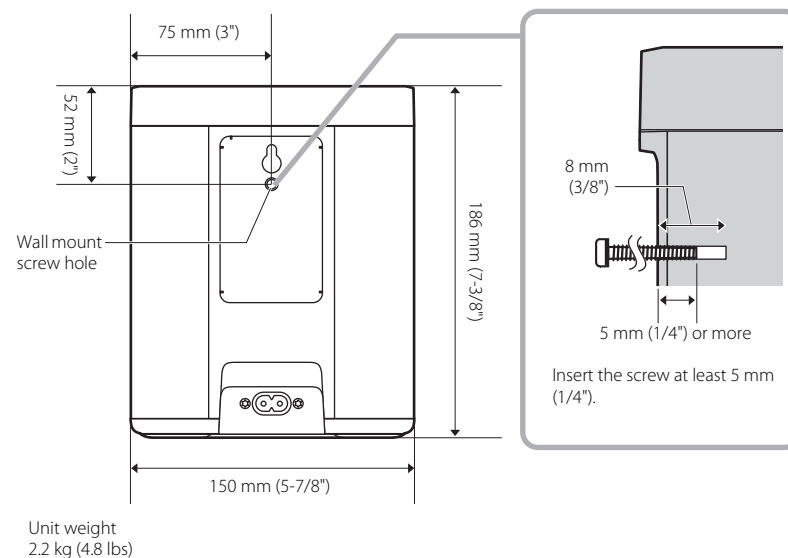
Troubleshooting

Refer to the table below if the unit fails to function properly. If the problem is not listed, or if the symptoms persist after following the instructions provided, turn off the unit, disconnect the unit from the electrical outlet, and contact your nearest authorized Yamaha dealer or service center.

General

Problem	Cause	Solution
The unit is not on. **The touch sensors do not respond.**	A touch sensor was tapped or touched inadvertently while the unit was starting up (a period of approx. five seconds after the power cable is plugged into an electrical outlet).	Avoid tapping or inadvertently touching the touch sensors while the unit is starting up. Do not attempt to turn on the unit until start-up is complete (☞ p. 5).
The unit turns off as soon as it is powered on. **The unit does not operate properly.**	The power cord is not properly connected.	Be sure that the power cord is firmly inserted into the power connector jack on the unit and the electrical outlet.
The unit cannot be operated.	The internal microcomputer has frozen due to an external electrical shock (lightning, excessive static electricity, etc.) or a drop in power supply voltage.	Unplug the unit from the electrical outlet, wait for at least 30 seconds, and then plug the unit into the electrical outlet again.
No sound comes from the unit.	An input source has not been properly selected.	Use the MusicCast CONTROLLER app to select an input source (☞ p. 8).
	The volume level is set to the minimum level or volume is muted.	Increase the volume.
Interference from nearby electronic equipment is producing noise.	The unit is too close to other electronic equipment.	Position the unit farther away from other electronic equipment.

Network

Problem	Cause	Solution
Cannot configure connection using the MusicCast CONTROLLER app.	The mobile device is not connected to the wireless LAN router (access point).	Connect the mobile device to the wireless LAN router, and then use MusicCast CONTROLLER to configure connection settings.
	The unit is turned off.	Turn on the unit.
The MusicCast CONTROLLER app does not recognize the unit.	The unit and the mobile device are not on the same network.	Confirm network connections and wireless LAN router settings, and then connect the unit and mobile device to the same network.
	A wireless LAN router that supports multiple SSIDs is used.	The router's network splitter may be blocking access to the unit. When connecting a mobile device, use an SSID that is able to access to the unit. Try connecting to the primary SSID.
The network feature does not function.	Network information (IP address) has not been properly obtained.	Enable the DHCP server function on the router.
	The unit is starting up (a period of approx. 20 seconds after the power cable is plugged into an electrical outlet).	Do not attempt to operate the unit until start-up is complete.
	An IPv6-only router is being used.	Use an IPv4-compatible router.
Files on the media server (computer or NAS) are not displayed (do not play).	The file format is not supported by the unit or the media server (computer or NAS).	Be sure to use a file format that is supported by both the unit and the media server. For information on music files supported by this unit, see "File formats, and devices/media supported by the unit" (↷ p. 30).
The MusicCast CONTROLLER app does not recognize the media server (computer or NAS).	Media server sharing settings are not correct.	Configure sharing settings to allow the unit access to folders on the media server (↷ p. 10).
	Security software installed on your media server is blocking access by the unit.	Confirm settings for security software installed on the media server.
	The unit and the media server are not connected to the same network.	Confirm network connections and wireless LAN router settings, and then connect the unit and media server to the same network.

Problem	Cause	Solution
Unable to play Internet radio.	The selected Internet radio station is currently offline.	The radio station may be experiencing problems with their network, may not be broadcasting, or their services may have been terminated. Try to play the station later or select another station.
	The selected Internet radio station is currently broadcasting silence.	Some Internet radio stations broadcast silence at certain times of the day. When this occurs, there are no problems with reception, but no sound plays. Try the station later or select another station.
	Access to the network is restricted by network device (wireless LAN router, etc.) firewall settings.	Check device firewall settings. Internet radio can be played only through the port specified by each radio station. The port number varies depending on the radio station.
Firmware update failed.	The network connection is unstable.	Try again later.
The unit is unable to connect to the Internet via a wireless LAN router (access point).	The wireless LAN router is turned off.	Turn on the wireless LAN router.
	The unit and the wireless LAN router are too far apart.	Place the unit and the wireless LAN router closer to each other.
	There is an obstacle between the unit and the wireless LAN router.	Move the unit and the wireless LAN router to a location with a direct line of sight (no obstacles) between the two.
	The unit's wireless LAN function is disabled.	Enable the unit's wireless LAN function (☞ p. 21).
The MusicCast CONTROLLER app does not detect a wireless network.	A device that operates in the 2.4 GHz band (microwave oven, wireless network device, etc.) is interfering with wireless communication.	Turn off the offending device, or move it farther away from the unit and the wireless LAN router.
	Access to the network is restricted by the wireless LAN router's (access point's) firewall settings.	Confirm wireless LAN router firewall settings.
My iPhone does not recognize the unit when using AirPlay.	A wireless LAN router that supports multiple SSIDs is used.	The router's network splitter may be blocking access to the unit. When connecting a mobile device, use an SSID that is able to access to the unit. Try connecting to the primary SSID.

Bluetooth

Problem	Cause	Solution
Unable to connect the unit to a Bluetooth device.	The Bluetooth device does not support the Advanced Audio Distribution Profile (A2DP).	Use a Bluetooth device that supports A2DP.
	The passkey for devices such as a Bluetooth adapter is not "0000".	Use a Bluetooth device with a passkey of "0000."
	The unit and the Bluetooth device are too far apart.	Move the Bluetooth device closer to the unit.
	A device that operates in the 2.4 GHz band (microwave oven, wireless network device, etc.) is interfering with wireless communication.	Move the unit and Bluetooth device farther away from the device. If the wireless LAN router supports the 5 GHz band, connect network devices to the network using the 5 GHz band.
	The unit is already connected to another Bluetooth device.	Terminate the current Bluetooth connection, and then connect to the new device.
	The unit's Bluetooth function is disabled.	Enable the unit's Bluetooth function (☞ p. 21).
No sound is played, or sound is interrupted during playback.	The Bluetooth connection has been terminated.	Establish the Bluetooth connection again (☞ p. 12).
	The unit and the Bluetooth device are too far apart.	Move the Bluetooth device closer to the unit.
	A device that operates in the 2.4 GHz band (microwave oven, wireless network device, etc.) is interfering with wireless communication.	Move the unit and Bluetooth device farther away from the device. If the wireless LAN router supports the 5 GHz band, connect network devices to the network using the 5 GHz band.
	The Bluetooth device is not configured to transmit audio signal to this unit.	On the Bluetooth device, select this unit as the audio output destination.
	The volume level on the Bluetooth device is set too low.	Increase the volume on the Bluetooth device.

File formats, and devices/media supported by the unit

This unit supports the following file formats, devices, and media.

File formats

File	Sampling frequency	Quantization bitrate (bits)	Bitrate	No. channels	Gapless playback
WAV (Linear PCM format only)	32/44.1/48/ 88.2/96/176.4/ 192 kHz	16/24	—	2	✔
MP3	32/44.1/48 kHz	—	up to 320 kbps	2	—
WMA	32/44.1/48 kHz	—	up to 320 kbps	2	—
MPEG-4 AAC	32/44.1/48 kHz	—	up to 320 kbps	2	—
FLAC	32/44.1/48/ 88.2/96/176.4/ 192 kHz	16/24	—	2	✔
ALAC	32/44.1/48/ 88.2/96 kHz	16/24	—	2	✔
AIFF	32/44.1/48/ 88.2/96/176.4/ 192 kHz	16/24	—	2	✔

- The file formats that can be played may vary depending upon the software installed on media servers (computer or NAS). For details, refer to the documentation provided with media server software.
- Digital Rights Management (DRM) content cannot be played.

AirPlay devices

Supports iOS 7 or later for setup using Wireless Accessory Configuration.
AirPlay works with iPhone, iPad, and iPod touch with iOS 4.3.3 or later, Mac with OS X Mountain Lion or later, and PC with iTunes 10.2.2 or later.

Made for:
iPhone X, iPhone 8 Plus, iPhone 8, iPhone 7 Plus, iPhone 7, iPhone SE, iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, iPhone 4s
iPad Pro (10.5"), iPad Pro (12.9") 2nd Generation, iPad Pro (12.9") 1st Generation, iPad Pro (9.7"), iPad mini 4, iPad Air 2, iPad mini 3, iPad Air, iPad mini 2, iPad mini, iPad (5th generation), iPad (4th generation), iPad (3rd generation), iPad 2
iPod touch (6th generation), iPod touch (5th generation)
(as of May 2018)

Bluetooth devices

This unit supports Bluetooth devices that use the Advanced Audio Distribution Profile (A2DP). Yamaha does not guarantee that the unit can be connected to all Bluetooth devices.

Specifications

Player

Network

Network	
Ethernet interface	100 Base-TX/10 Base-T
Internet radio	airable.radio service supported
Supported file format	WAV, MP3, WMA, MPEG-4 AAC, FLAC, ALAC, AIFF
AirPlay	AirPlay supported

Wi-Fi	
Wireless LAN standards	IEEE 802. 11 a/b/g/n/ac* * 20 MHz channel bandwidth only
Radio frequency	2.4 GHz, 5 GHz
Available security method	WEP, WPA2-PSK (AES), Mixed Mode

Bluetooth

Bluetooth version	Bluetooth Ver. 4.2
Supported profile	A2DP (Advanced Audio Distribution Profile) AVRCP (Audio/Video Remote Control Profile)
Compatible codec	SBC, AAC
RF output power	Bluetooth Class 2
Maximum communication range	10 m (33 ft) (without interference)

General

Power voltage/frequency	U.S.A. and Canada models	AC 120 V, 60 Hz	
	Taiwan model	AC 110 to 120 V, 50/60 Hz	
	Other models	AC 100 to 240 V, 50/60 Hz	
Power consumption	10 W		
Standby power consumption	Network standby off/ Bluetooth standby off	0.2 W	
	Network standby on	Wired	1.5 W
		Wireless (Wi-Fi)	1.7 W
		Bluetooth	1.5 W
		Wireless (Wi-Fi/ Bluetooth)	1.9 W
Maximum Output power	40 W (tweeter 6 Ω 15 W, woofer 4 Ω 25 W) (1 kHz, 10 % THD)		
Driver unit	3 cm soft dome tweeter x1, 9 cm woofer x1, Passive radiator x2		
Weight	2.2 kg (4.8 lbs)		
Dimensions (W x H x D)	150 x 186 x 130 mm (5-7/8 x 7-3/8 x 5-1/8 inch)		

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

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http://(IP address of this product*)/licenses.html
* IP address of this product is checked with MusicCast CONTROLLER.

ECO

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Works with Apple AirPlay

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