# YAMAHA

# WXAD-10

**Wireless Streaming Adapter**

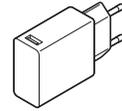**OWNER'S MANUAL**

MusicCast

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

EN

# Table of Contents
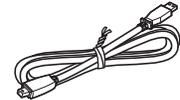
# Accessories

- AC adaptor
  - \* The shape of the AC adaptor may vary depending on the area purchased.

- Power cord

- RCA stereo cable
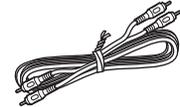
- 3.5 mm stereo mini plug cable

# About this manual

- In this manual, smartphones and other mobile devices with iOS or Android are collectively referred to as "mobile devices."
- The term "iPhone" as used in this manual also refers to an "iPod touch" or "iPad."
- Illustrations in this manual may differ slightly from actual object depicted.
- MusicCast CONTROLLER app screen shots in this manual show the iOS interface in English. The screen appearance may vary depending on the app version.
- About symbols

  *Note*   Indicates precautions and supplementary information for use of the unit.

  ☞   Indicates the corresponding reference page(s) that describe related information.

# Using this product

## ▌ WXAD-10



This product is a streaming adapter that can be controlled via MusicCast CONTROLLER. By connecting this adapter to an audio device that does not support network functions, you can easily enjoy audio streaming services. In addition, you can configure a home audio network by connecting this product to other MusicCast-compatible devices.

For more information on home audio networks, refer to "Configuring the MusicCast network" (☞ P. 12).

## ▌ MusicCast CONTROLLER: an app that lets you enjoy MusicCast

You can listen to music from anywhere in your home using MusicCast. MusicCast is a feature that enables you to share and play music on multiple audio devices located in different rooms.



Using the free app "MusicCast CONTROLLER" on your mobile device, you can enjoy music in several ways, such as listening to an Internet radio station simultaneously on multiple MusicCast-compatible devices, or playing music files stored on your mobile device, PC, or on a server, such as a Network-Attached Storage (NAS) device.

For more information on "MusicCast CONTROLLER" (called "app" elsewhere in this manual), visit the following website.

http://www.yamaha.com/musiccast/

***Note***

- To use the app, a wireless LAN environment is required.
- Download the app from the App Store or Google Play.

# Part Name

## Front/Bottom
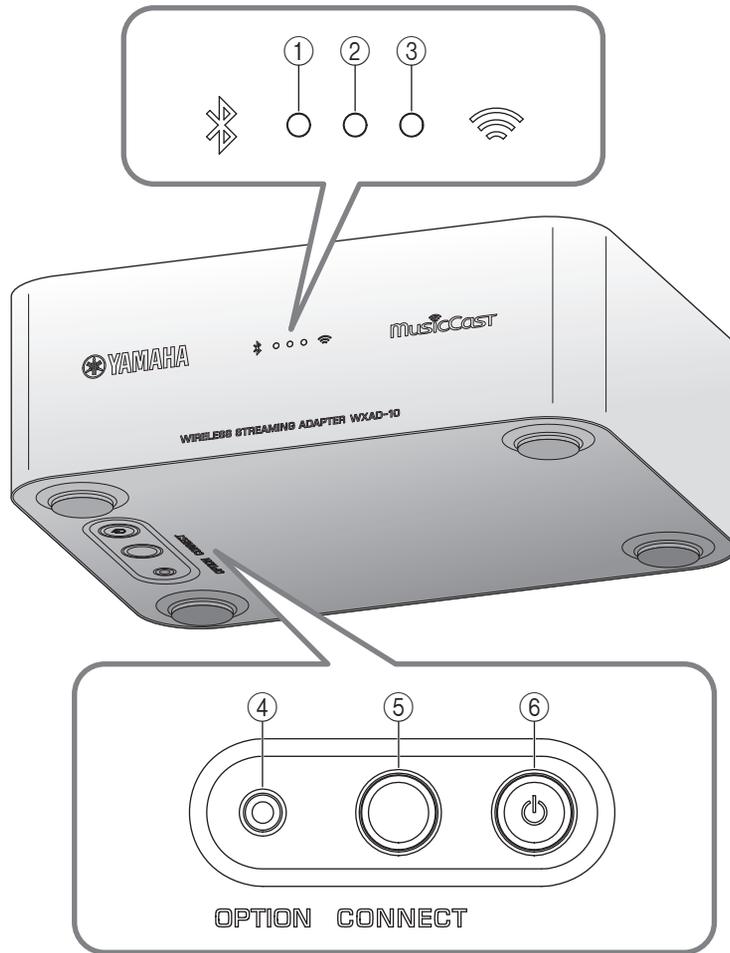


## Rear
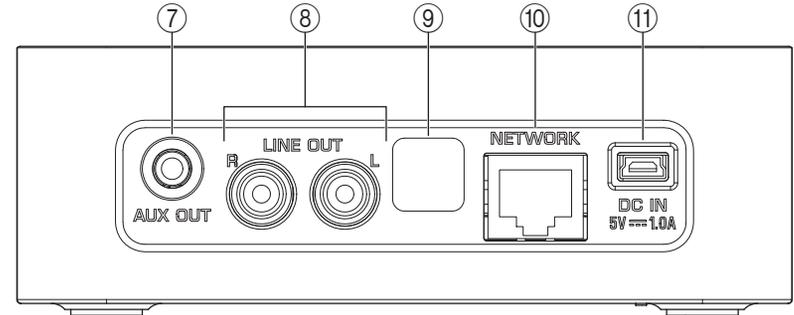


① *Bluetooth* indicator (☞ P. 10)

② **Power indicator**
Lights while the unit is turned on.

③ **Wi-Fi indicator (☞ P. 6)**

④ **OPTION (☞ P. 13)**

⑤ **CONNECT (☞ P. 6)**

⑥ **⏻ (Power) (☞ P. 13)**

⑦ **AUX OUT jack (Stereo mini jack) (☞ P. 5)**

⑧ **LINE OUT jack (RCA jack) (☞ P. 5)**

⑨ **Service jack**
This jack is used for servicing and maintenance. Do not remove the attached cap.

⑩ **NETWORK terminal (☞ P. 6)**

⑪ **DC IN (for power supply) (☞ P. 5)**

# Setup

## *1* Connect such as powered speakers or mini component.

Use the supplied 3.5 mm stereo mini plug cable or RCA stereo cable to connect such as powered speakers or a mini component to this unit. Depending on your audio device, select jack [AUX OUT] or [LINE OUT]. For more information, please also refer to the owner's manual for the connecting device.

### *Note*

- Before you start to make connections, lower the volume level on the connecting device.
- If you use both [LINE OUT] and [AUX OUT] jacks, the audio from the [AUX OUT] will be output.
- If you use the [AUX OUT] jack, you will be able to adjust the audio level from the app.

## *2* Connect the AC adaptor and Power cord.

Connect the supplied Power cord and AC adaptor to the unit.

### *Note*

The Power cord is provided for this unit only. It cannot be used for data communication. Be sure to use it to supply power.

## *3* Connect the AC adaptor to the AC outlet.

First, connect the Power cord and the AC adaptor to the unit, and then connect the AC adaptor to the AC outlet.

3.5 mm stereo mini plug cable

RCA stereo cable

Power cord

AC adaptor

Powered speakers, etc.

Mini component, etc.
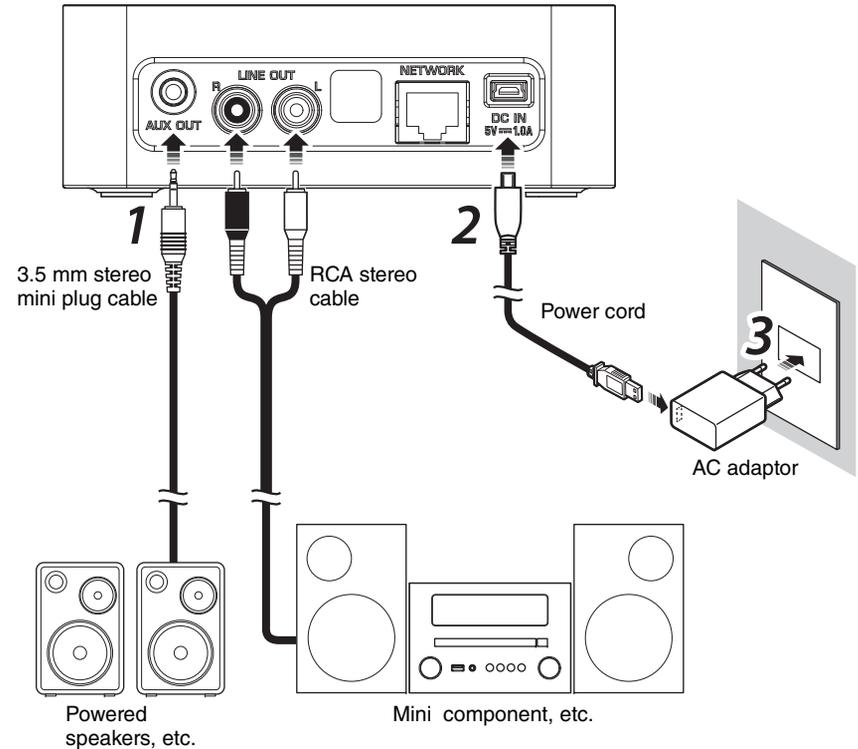
# *4* Connect to the network.

Download and install the MusicCast CONTROLLER app to your mobile device from the App Store or Google Play. Once you start the app, follow the instructions in the app to complete the settings.

*Note*

- For a LAN cable connection, connect a commercially-available STP (shielded twisted pair) network cable (straight, CAT-5 or higher) to the [NETWORK] terminal on the rear panel.
- If your router supports multiple SSIDs (network names), connect the mobile device to the primary SSID network (Primary SSID, 1st SSID, etc.).
- For more information about Internet connections, please refer to the instruction manual supplied with your network device.
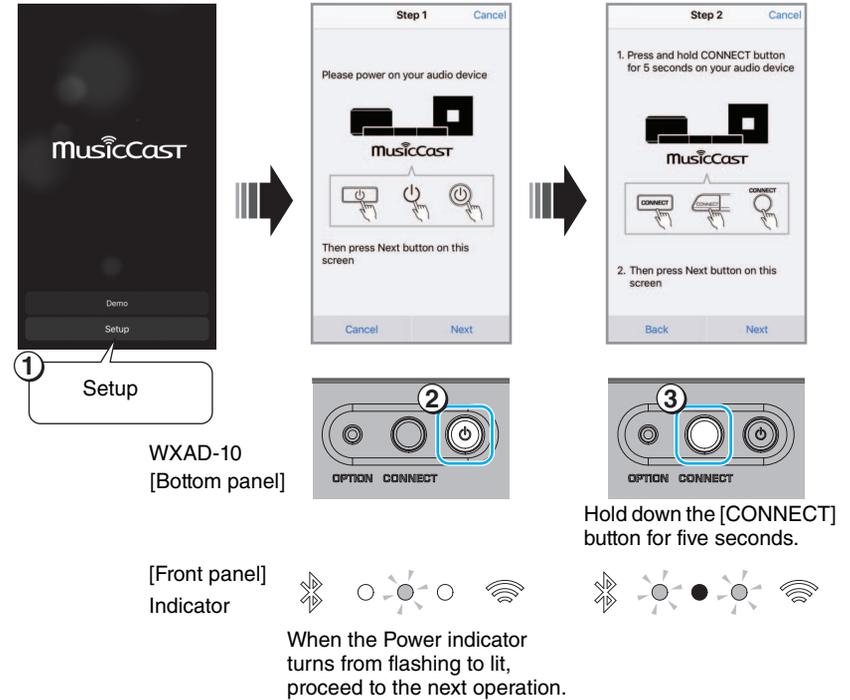- The unit may not be able to access your personal computer or Internet radio station due to security software or network device settings (such as a firewall). In this case, change the settings on the security software or the network device.

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**Auto standby**

This unit automatically engages standby mode if you do not operate it for 20 minutes while the playback is stopped. You can change this setting using

MusicCast CONTROLLER. On the room selecting screen, tap [ ⚙ (Settings)] and change the setting.

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Setup

WXAD-10
[Bottom panel]

Hold down the [CONNECT] button for five seconds.

[Front panel]
Indicator

When the Power indicator turns from flashing to lit, proceed to the next operation.

# Playback

You can play back music using MusicCast CONTROLLER. Select a room that the unit registered to open the Sources menu screen.

### Note

To listen to the playback of music, you must switch the input source on the audio device connected to the unit. Refer to the instruction manual for the audio device on how to switch the input source.

① (Power)

A room that the unit registered

② Tap

Sources menu screen
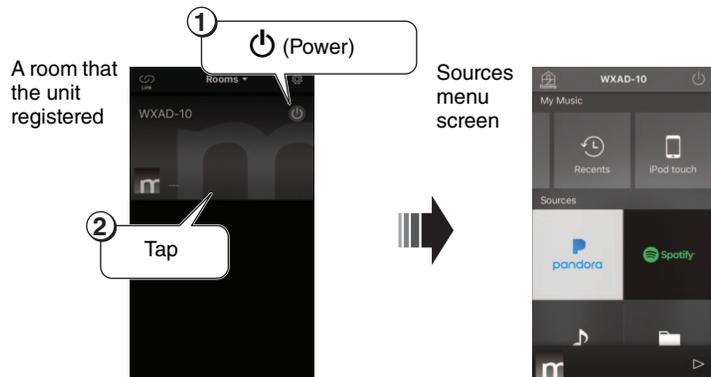
## Listening to the music stored on the mobile device

You can play music files stored on the mobile device on which you installed the app.

① Mobile device

② Music file

Playback starts.

## Listening to the Internet radio

You can listen to world-wide radio stations via the Internet.

① Net Radio

② Select

Select a radio station.
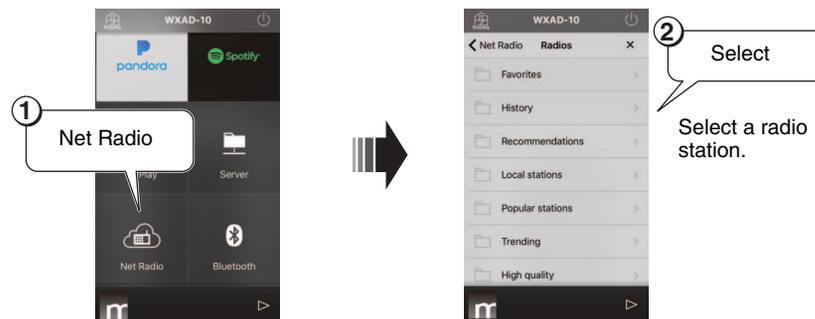
### Note

- Some Internet radio stations may be unavailable at all times or during certain hours.
- This service may be interrupted without advance notice.
- The unit uses the *airable.Radio* service. "airable" is a service of *Tune In GmbH*.

# ◗ Listening to music stored on your PC or NAS

You can play music files stored on your network-connected PC, or on a Digital Living Network Alliance (DLNA)-compatible NAS.

### *Note*

- Connect the unit and your PC (or NAS) to the same wireless LAN router (access point).
- For information on music files that can be played using the unit, please refer to "Supported devices/media and file formats" (☞ P. 20).

## *1* Set up sharing for music files

To play music stored in the PC (or NAS), you must enable media sharing between this unit and other devices. The following instructions use Windows Media Player 12 as an example.

Follow the screens below to set up media sharing.

### *Note*

- These screen images show the English interface.
- If you are using a PC (or NAS) that runs DLNA server software other than Windows Media Player, please refer to the instruction manual for your device or software to configure media sharing.

Windows Media Player 12



## *2* Play back your music files.



Music file

Playback starts.

Server
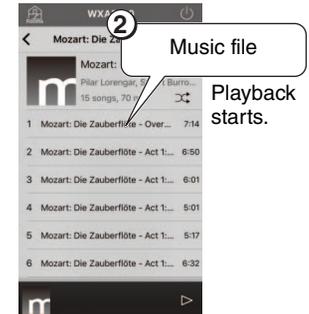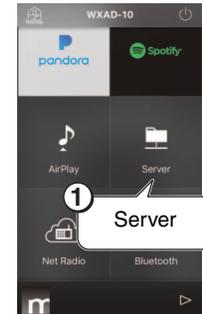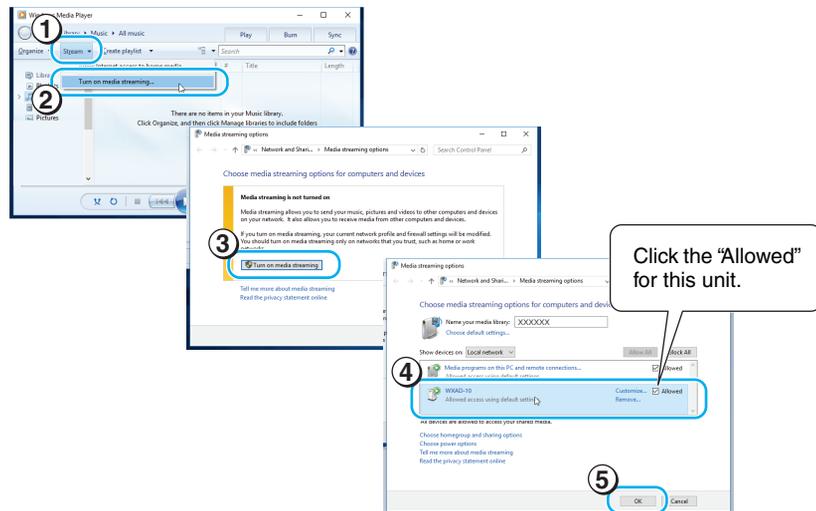
# ▶ Listening to the music via AirPlay

You can use the AirPlay function to play back iTunes or iPhone music files.

*Note*

- Connect the unit and the PC (or iPhone) to the same wireless LAN router (access point).
- For information on supported iPhones, please refer to "Supported devices/media and file formats" (☞ P. 20).

## 1 Start iTunes, or display the playback screen on the iPhone.

When the iTunes or iPhone detects the unit, the AirPlay icon will appear on the screen (see the illustrations on the right).

*Note*

- If you are using iOS 9, the icon will appear in the Control Center. To display the control center, swipe the iPhone screen from bottom to top.
- If the icon does not appear, check to see whether the unit and the PC (or iPhone) are correctly connected to the wireless LAN router.

## 2 In iTunes or on the iPhone, click or tap the AirPlay icon, and select the unit (the room that the unit registered) as the audio output destination.

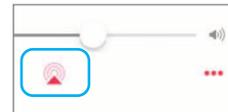## 3 Play back your music files.

The unit's input source will be switched and the playback will start.
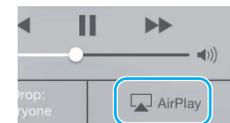
Icon indication example in iTunes

Icon indication example on the iPhone

iOS 10          iOS 9

# ▶ Listening to the music via *Bluetooth*

You can play music that resides on mobile devices or digital music players that supports *Bluetooth* (*Bluetooth* devices). In addition, you can listen to music that is being played back via the unit through speakers or headphones that support *Bluetooth*.

Please also refer to the instruction manual for your *Bluetooth* device.

### *Note*

- You cannot connect both a *Bluetooth* device and *Bluetooth* speakers (or headphones) to the unit at the same time.
- If you previously connected a *Bluetooth* device to this unit, that device will automatically connect to the unit. If you want to connect a different *Bluetooth* device, first cut off the connection with the previous *Bluetooth* device.
- To cut off a *Bluetooth* connection, tap ⏻ in the app to place the unit in standby mode, or cut the connection from the *Bluetooth* device.

## Listening to the music on a *Bluetooth* device

You can play back the audio (that resides on a *Bluetooth* device) through this unit by connecting this unit to the *Bluetooth* device.

### *Note*

If you are planning to connect a *Bluetooth* device to the unit for the first time, complete steps ① and ② (shown on the right) within a timespan of five minutes.



*Bluetooth* device      This unit      Powered speakers

① ⏻ (Power)
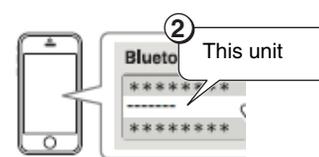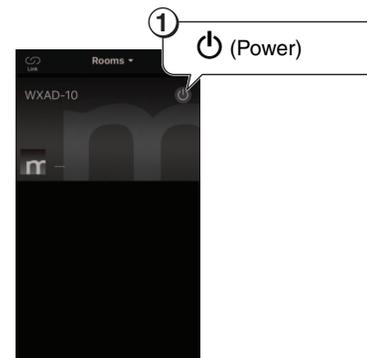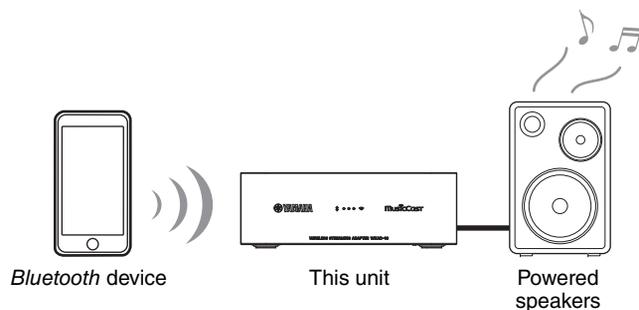
② This unit

On the *Bluetooth* device, select this unit from the *Bluetooth* device list.
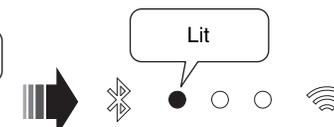
Lit

The *Bluetooth* indicator will light up when the connection is established.

③ Playback
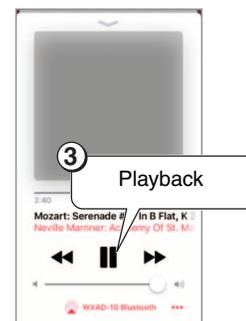
### *Note*

If the connection fails, try steps ① and ② again.

# Listening through *Bluetooth*-compatible speakers or headphones

You can listen to the audio from this unit through *Bluetooth*-compatible speakers or headphones that are connected to the unit. Follow steps ① - ⑦ shown on the right.

MusicCast CONTROLLER     Via network     This unit     *Bluetooth*-compatible speakers/headphones
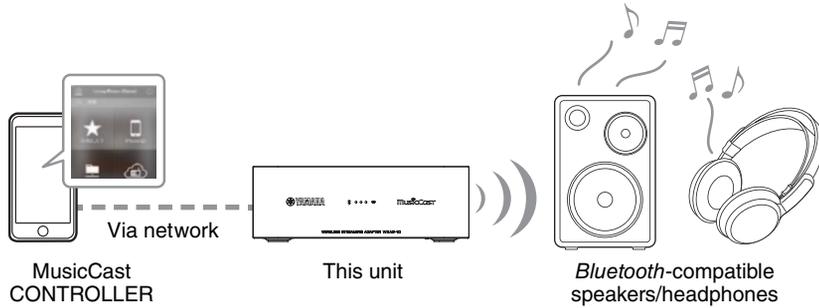
### Note

You cannot transmit audio from AirPlay (with iOS), or from one *Bluetooth* device to another *Bluetooth* device, for listening.
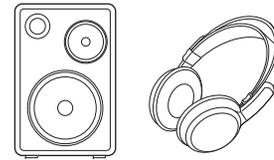
① Set the speakers or headphones (that you want to connect to the unit) to pairing mode.

② Playback

Non-*Bluetooth* music source
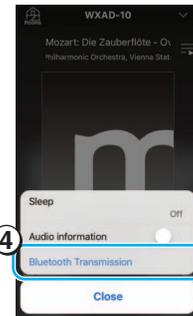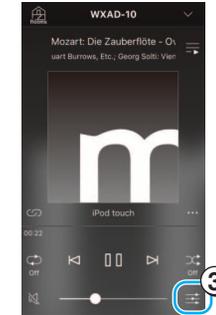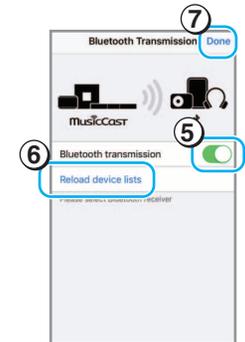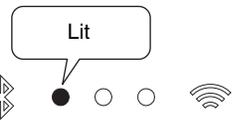
③

④ Bluetooth Transmission

⑤

⑥ Reload device lists

⑦ Done

Lit

The *Bluetooth* indicator will light up when the connection is established.

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# Configuring the MusicCast network

If you have multiple devices that support MusicCast (called "supported devices" in this manual), you will be able to easily configure a home audio network using MusicCast CONTROLLER. After registering the unit to the app, register other supported devices to the app.

***Note***

To register the unit to the app, refer to "Connect to the network." on page 6.



## ▌ Registering supported devices to the app



① {Settings}

③ Done

② Follow the app instruction to register.
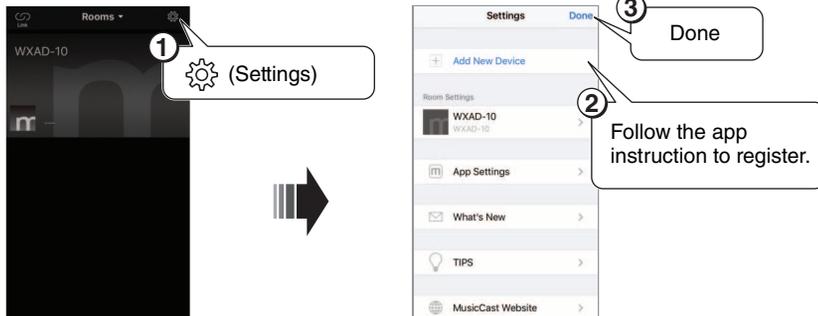
## Standard Mode and Extend mode

If you make a wired connection between a supported device and the wireless LAN router (access point), you can expand the reception range (Extend mode). This will be useful if you want to install a supported device in a location where reception is poor.

***Note***

If you want to play high-resolution audio sources, a wired connection is recommended.

### Standard Mode: Wireless connection to the access point



Wireless LAN router (Access point)    Supported device    This unit
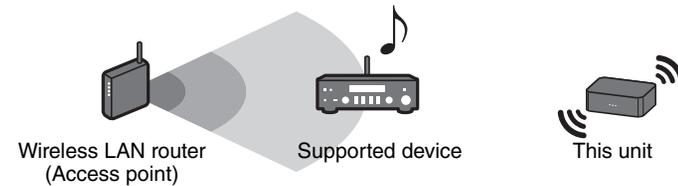
### Extend mode: Wired connection to the access point



Wireless LAN router (Access point)    Supported device    This unit

# Other functions and information

## ◗ Optional settings

You can change the following settings.

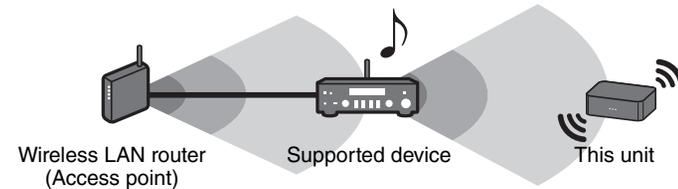| Setting menu | Default | To modify the default setting: |
|---|---|---|
| Initializing the network settings | – | While pressing and holding down the [CONNECT] button on the bottom panel, insert the AC adaptor into the AC outlet, and then keep holding down the [CONNECT] button for another three seconds.<br><br>Three indicators on the front panel will flash simultaneously and the network settings will be initialized. Do not operate the unit until the indicators turn off. |
| Enabling/disabling the Network Standby function* | Enabled | While pressing and holding down the [⏻] button on the bottom panel, insert the AC adaptor into the AC outlet, and then keep holding down the [⏻] button for another three seconds.<br><br>The power indicator will flash twice and then turn off, and the Network Standby function will be disabled. Repeating this operation will alternate between enabling and disabling.<br>When the Standby function is enabled: The power indicator will flash twice, and then light up steadily. |
| Enabling/disabling Wi-Fi | Enabled | ① While the unit is in standby mode, press and hold down the [OPTION] button on the bottom panel for five seconds.<br>The front indicators will flash alternately.<br>② Press and hold down the [⏻] button for three seconds.<br>The Wi-Fi indicator will flash twice, and then turn off, and the Wi-Fi function will be disabled. If you connect the unit to the Wi-Fi network again, the Wi-Fi function will be enabled (☞ P. 6). |
| Enabling/disabling *Bluetooth* | Enabled | ① While the unit is in standby mode, press and hold down the [OPTION] button on the bottom panel for five seconds.<br>The front indicators will flash alternately.<br>② Press and hold down the [CONNECT] button for three seconds.<br>The *Bluetooth* indicator will flash twice, and then turn off, and the *Bluetooth* function will be disabled. Repeating steps 1 and 2 will alternate between enabling and disabling.<br>When the *Bluetooth* function is enabled: The *Bluetooth* indicator will flash twice, and then light up steadily. |

\* This menu enables you to configure network operation during standby mode. If you disable this setting, the unit will stop the network operation and enter Eco Standby mode to minimize power consumption. The following functions will be unavailable during Eco Standby mode. To use these functions, press the [⏻ (Power)] button on the bottom panel to turn on the power to the unit.
- Turning on the power to the unit from MusicCast CONTROLLER
- AirPlay
- *Bluetooth*

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

# ◗ Updating the firmware

You can update the unit's firmware via the Internet if the unit is connected to the Internet. If new firmware is released, you will be notified on the MusicCast CONTROLLER screen. Follow the instructions in the app to update the firmware.

## Status indicators

The update status is displayed by the front indicators.

| Status | Indicators |
|--------|------------|
| Updating now | Flashing from left to right one by one |
| Update complete | Light up steadily<br>When the update is successfully complete, the unit will automatically restart. |
| Update failed | Flashing simultaneously |

***Note***

- Be sure to follow the instructions below during the update operation.
  - Do not operate the unit.
  - Do not disconnect the Power cord, AC adaptor, or LAN cable.
- A firmware update may fail due to insufficient Internet speed or other issues related to wireless network connections. In such a case, disconnect the AC adaptor from the AC outlet, re-connect it, and then try again to update the firmware.

# Sharing the iPhone settings and connecting to a network

When you turn on the power to the unit for the first time after purchasing the unit or initializing the network settings, the Wi-Fi indicator on the front panel will flash, and the unit will automatically start searching for an iOS device, such as an iPhone. At this time, you can connect the unit to the network easily by applying the network settings on the iOS device to the unit.

* To take full advantage of the functions on this unit, install MusicCast CONTROLLER on your iOS device.

*Note*

- If you make a wired connection, this function is not available.
- Make 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.
- If the wireless LAN router features WEP wireless encryption, the unit will be unable to share the network settings on the iOS device to connect to the network.

**1** **While the Wi-Fi indicator is flashing, open the Wi-Fi setting screen on the iOS device, and then assign this unit for the AirPlay speaker.**

iOS 9 (example of English version)



Name of the unit

**2** **Choose the wireless network (access point) you want to access with the unit.**

When the sharing setup is complete, the unit will automatically connect to the selected wireless network.



Tap here to start setup

Currently-selected network

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# Troubleshooting

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

## ▌ General

| Problem | Cause | Solution |
|---|---|---|
| **The unit is not turned on.**<br><br>**The unit turns off as soon as it is powered on.**<br><br>**The unit does not operate properly.** | The AC adaptor or Power cord is not properly connected. | Make sure that the AC adaptor and Power cord are correctly connected, and insert the AC adaptor into the AC outlet firmly. |
| **The unit is not operable.** | The internal microcomputer has frozen, due to an external electrical shock (such as lightning or excessive static electricity) or due to a drop in the power supply voltage. | Unplug the AC adaptor from the AC outlet, wait 30 seconds or more, and then plug the AC adaptor back in. |
| **No sound** | The music source you want to play was not selected properly. | Use the MusicCast CONTROLLER app to select the music source you want to play (☞ P. 7). |
| | The speaker or audio system has not been connected properly. | Make sure that the system is connected properly. |
| | Cables are connected to both the [AUX OUT] and [LINE OUT] jacks. | If you connect cables to both jacks, no audio will be output from the [LINE OUT] jack. To output audio from the [LINE OUT] jack, remove the cable from the [AUX OUT] jack. |
| | The volume level of the device connected to the unit is set to minimum or muted. | Turn up the volume. |
| **There is noise interference from nearby electronic equipment.** | The unit is too close to electronic equipment. | Place the unit further away from such equipment. |
| | Noise interference may be generated if you do not use the supplied Power cord and AC adaptor. | Be sure to use the supplied Power cord and AC adaptor. |
| **Unable to adjust the volume.** | Cable is connected to the [LINE OUT] jack. | Connect the cable to the [AUX OUT] jack. |

# MusicCast

| Problem | Cause | Solution |
| --- | --- | --- |
| **Unable to make the connection settings using MusicCast CONTROLLER.** | The mobile device is not connected to the wireless LAN router (access point). | Connect the mobile device to the wireless LAN router, and then make the connection settings using MusicCast CONTROLLER. |
| | The unit is turned off. | Turn on the power to the unit. |

# Network

| Problem | Cause | Solution |
| --- | --- | --- |
| **MusicCast CONTROLLER does not detect this unit.** | The unit and the mobile device are not on the same network. | Check the network connections and your router settings, and then connect the unit and mobile device to the same network. |
| | You are using a router supporting multi SSIDs. | The router's network split function may be blocking access to the unit. If you are connecting an iPhone, use an SSID that allows access to the unit. (Try to connect to the Primary SSID.) |
| **The network feature does not function.** | The network parameters (IP address) have not been obtained properly. | Enable the DHCP server function on the router. |
| **Files on the PC (or server) are not displayed (played back).** | The file format is not supported by the unit or the PC (or server). | Be sure to use a file format that is supported by the unit and the PC. For information on music files supported by this unit, please refer to "Supported devices/media and file formats" (☞ P. 20). |
| **MusicCast CONTROLLER does not detect the PC (or server).** | The media sharing settings on the PC are not correct. | Modify the media sharing settings so that the unit will be able to access the folders on the PC (or server) (☞ P. 8). |
| | Security software installed on your PC (or server) is blocking the unit from accessing the PC. | Check the settings of the security software installed on your PC (or server). |
| | The unit and the PC are not connected to the same network. | Check the network connections and the router settings, and then connect the unit and PC to the same network. |

| Problem | Cause | Solution |
|---|---|---|
| **Unable to play the Internet radio.** | The selected Internet radio station is currently out of service. | There may be a network problem at the radio station, or the broadcasting service may have been stopped. 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. In this case, there is no problem with the reception, but no audio will be produced. Try the station later or select another station. |
| | Access to the network is restricted by the firewall settings of the network devices (such as the router). | Check the firewall settings on your devices. The Internet radio can be played only through the port designated by each radio station. The port number varies depending on the radio station. |
| **Firmware update failed.** | The network connection is unstable. | Try updating again after a while. |
| **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 power to 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 in a location where there are no obstacles between them. |
| **MusicCast CONTROLLER does not detect a wireless network.** | A device that uses a frequency band of 2.4 GHz (microwave oven, wireless LAN device, etc.) is interfering the wireless communication. | Turn off the power to the device, or relocate it further away from the unit and the wireless LAN router. |
| | Access to the network is restricted by the firewall settings of the wireless LAN router (access point). | Check the firewall setting of the wireless LAN router. |
| **The iPhone does not detect the unit when using AirPlay.** | You are using a router supporting multi SSIDs. | The router's network split function may be blocking access to the unit. If you are connecting an iPhone, use an SSID that allows access to the unit. (Try to connect to the Primary SSID.) |

# ▶ *Bluetooth*

| Problem | Cause | Solution |
|---|---|---|
| **Unable to pair the unit with the *Bluetooth* device.** | Your *Bluetooth* device does not support A2DP. | Pair with a *Bluetooth* device that supports A2DP. |
| | The passkey of the device, such as a *Bluetooth* adaptor, that you want to pair with the unit is other than "0000." | Use a connecting device with a passkey "0000." |
| | The unit and the *Bluetooth* device are too far apart. | Move the *Bluetooth* device closer to the unit. |
| | A device that uses a frequency band of 2.4 GHz (microwave oven, wireless LAN device, etc.) is interfering the wireless communication. | Move the unit away from the device. |
| | Another *Bluetooth* device is already connected to this unit. | Terminate the current *Bluetooth* connection, and then pair with the new device. |
| | The *Bluetooth* function on the unit is disabled. | Enable the *Bluetooth* function on the unit (☞ P. 13). |
| **No sound or the sound is interrupted during playback.** | The *Bluetooth* connection has been cut. | Re-establish the *Bluetooth* connection. (☞ P. 6). |
| | The unit and the *Bluetooth* device are too far apart. | Move the *Bluetooth* device closer to the unit. |
| | A device that uses a frequency band of 2.4 GHz (microwave oven, wireless LAN device, etc.) is interfering the wireless communication. | Turn off the power to the device, or relocate it further away from the unit and the *Bluetooth* device . |
| | The *Bluetooth* device is not set to send audio signals to this unit. | On the *Bluetooth* device, select this unit as the audio output destination. |
| | The volume level of the *Bluetooth* device is too low. | Increase the volume level of the *Bluetooth* device. |

# Supported devices/media and file formats

## ▶ File format

This unit supports the following formats.

| File | Sampling frequency (kHz) | Quantization bitrate (bit) | Bitrate | The number of channels | Gapless playback |
|------|--------------------------|----------------------------|---------|------------------------|------------------|
| WAV (PCM format only) | 32/44.1/48/ 88.2/96/176.4/ 192 | 16/24 | – | 2 | ✓ |
| MP3 | 32/44.1/48 | – | up to 320 kbps | 2 | – |
| WMA | 32/44.1/48 | – | up to 320 kbps | 2 | – |
| MPEG-4 AAC | 32/44.1/48 | – | up to 320 kbps | 2 | – |
| FLAC | 32/44.1/48/ 88.2/96/176.4/ 192 | 16/24 | – | 2 | ✓ |
| ALAC | 32/44.1/48/ 88.2/96 | 16/24 | – | 2 | ✓ |
| AIFF | 32/44.1/48/ 88.2/96/176.4/ 192 | 16/24 | – | 2 | ✓ |

- To play back FLAC files, you need to install server software that supports sharing of FLAC files via DLNA on your PC or use a NAS that supports FLAC files.
- Digital Rights Management (DRM) contents cannot be played back.

## PC

A PC with the following software installed.
- Windows Media Player 11/Windows Media Player 12

## NAS

NAS that is compatible with DLNA version 1.5.

## AirPlay

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.

(as of March 2017)

**Made for:**
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 (9.7-inch and 12.9-inch), iPad mini 4, iPad Air 2, iPad mini 3, iPad Air, iPad mini 2, iPad mini, iPad (3rd and 4th generation), iPad 2

iPod touch (5th and 6th generation)

(as of March 2017)

### *Bluetooth*

*Bluetooth* is a technology for wireless communication employing the 2.4 GHz frequency band, which can be used without a license.

**Handling *Bluetooth* communications**

- The 2.4 GHz band used by *Bluetooth* compatible devices is a radio band shared by many types of equipment. While *Bluetooth* compatible devices use a technology minimizing the influence of other components using the same radio band, such influence may reduce the speed or distance of communications and in some cases interrupt communications.
- The speed of signal transfer and the distance at which communications is possible differs according to the distance between the communicating devices, the presence of obstacles, radio wave conditions and type of equipment.
- Yamaha does not guarantee all wireless connections between the sound bar and devices compatible with *Bluetooth* function.

# Specifications

## Network

| | |
|---|---|
| Ethernet interface | 100 Base-TX/10 Base-T |
| Internet radio | airable.radio service supported |
| PC client function | DLNA Ver. 1.5 (DMR function) supported |
| Supported file format | WAV (PCM only), MP3, WMA, MPEG-4 AAC, FLAC, ALAC, AIFF |
| AirPlay | AirPlay supported |

## Wi-Fi

| | |
|---|---|
| Wireless LAN standards | IEEE 802. 11 b/g/n |
| Radio frequency | 2.4 GHz |
| Available security method | WEP, WPA2-PSK (AES), Mixed Mode |

## *Bluetooth*

| | |
|---|---|
| *Bluetooth* version | *Bluetooth* Ver. 2.1+EDR |
| Supported profile | A2DP (Advanced Audio Distribution Profile) |
| | AVRCP (Audio/Video Remote Control Profile) |
| Compatible codec | Sink: SBC, AAC |
| | Source: SBC |
| Operation mode | Sink or Source |
| RF output power | *Bluetooth* Class 2 |
| Maximum communication range | 10 m (33 ft) (without interference) |

## AUX OUT

| | |
|---|---|
| Output connector | 3.5 mm stereo mini jack |

## LINE OUT

| | |
|---|---|
| Output connector | RCA jack |

## POWER SUPPLY

| Power voltage/frequency | | | AC 100-240 V 50/60 Hz |
|---|---|---|---|
| Power consumption | | | 2.8 W |
| Standby power consumption | Network standby off / *Bluetooth* standby off | | 0.2 W |
| | Network standby on / *Bluetooth* standby off | Wired | 1.6 W |
| | | Wireless (Wi-Fi) | 1.7 W |
| | Network standby on / *Bluetooth* standby on | Wired | 1.6 W |
| | | Wireless (Wi-Fi) | 1.7 W |

## OTHERS

| | |
|---|---|
| Dimensions (W x H x D) | 130 x 45 x 106 mm (5-1/8 x 1-3/4 x 4-1/8 inch) |
| Weight | 226 g (8.0 oz) |

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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### *Bluetooth* protocol stack (Blue SDK)

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**Made for iPod iPhone iPad** AirPlay

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