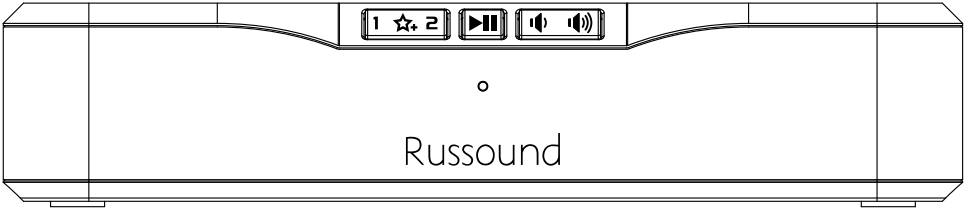
a sound relationship

Russound



BUILT IN SERVICES AVAILABLE

pandora Spotify TIDAL DEEZER tunein SiriusXM SiriusXM vTuner napster

Chromecast built-in

Spotify

Works with Apple AirPlay

This product supports AirPlay 2 and requires iOS 11.4 or later.

STREAM YOUR FAVORITE ENTERTAINMENT WITH CHROMECAST BUILT-IN™

iHeartRADIO YouTube Music Slacker RADIO

MBX-AMP
Wi-Fi Streaming Zone Amplifier

Wi Fi CERTIFIED

Bluetooth

RUSSOUND CERTIFIED INSTALLER REQUIRED

Installation Guide

NOTICE:

IF YOU ARE NOT A RUSSOUND CERTIFIED INSTALLER,
YOU WILL NOT BE ABLE TO INSTALL AND CONFIGURE THIS PRODUCT

INTERNET CONNECTION REQUIRED FOR PRODUCT INSTALLATION AND OPERATION

There are two things that must be done at the time of installation of this product that require a working internet connection:

1. Enter valid Russound Certified Installer credentials. The MBX-AMP is shipped in a locked state. It cannot be operated without first being configured by a Russound Certified Installer.

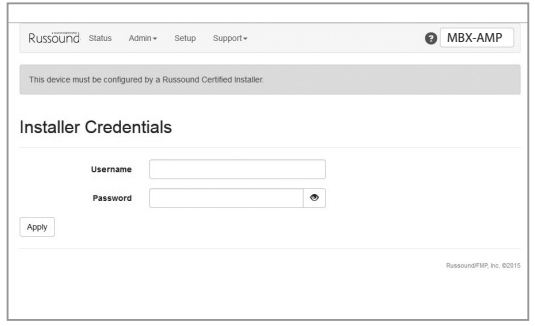
If you are a custom installation professional and wish to become authorized as a Russound Certified Installer, please contact your Russound Sales Representative for more information.

Note: If you are a Russound Certified Installer and you plan on installing this product on a job site that may not have working internet access, please configure the unit at your shop or other location where internet access is available BEFORE you take it to the job site.

2. Firmware may be updated easily through Web Config configuration. An internet connection is required for obtaining the most recent firmware.

Note: If an internet connection will not be available at the place of installation, please download the latest firmware from the Russound website to a laptop **before** going to the job site.

Lockdown Feature



Russound Certified Installer credentials must be entered through the Web Config configuration web pages.

When the MBX-AMP is shipped from Russound, it will only operate in a "locked" state. In this state, no audio or control is available. In order to unlock the system, valid Russound Certified Installer credentials must be entered using our convenient Web Config browser-based configuration utility.

When the MBX-AMP is first powered on, a message will appear on any compatible user interfaces and the Russound App indicating that the device must be unlocked. The message will contain the IP address of the controller. Using your mobile device or computer, browse to the controller's IP address (type http:// and then the IP address).

If you are using the Russound App, the IP address appears as a link that will direct you to Web Config via your local web browser.

If you do not have a valid Russound Certified Installer credential, please contact your Russound Sales Representative.

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Product Overview

The MBX-AMP Wi-Fi Streaming Zone Amplifier is designed to offer a simple-to-install and simple-to-configure streaming media solution to add high quality streaming audio anywhere in the home. Additionally, the advanced TV integration features enable the MBX-AMP to share speakers between your TV and your audio system easily without having to use any additional hardware or control system. Just use the included Infrared Sensor and quickly teach the MBX-AMP your remote control's volume and mute commands. It's that easy.

The MBX-AMP allows for expansion to up to 32 streaming rooms of audio in a single installation with any combination of other MBX-Series streaming products from Russound.

In addition to offering streaming audio from popular internet sources, the MBX-AMP also offers streaming of local UPnP™-compliant audio. In addition, a built-in USB port allows users to connect an external flash drive or an externally-powered USB hard drive for use as additional music sources.

Features

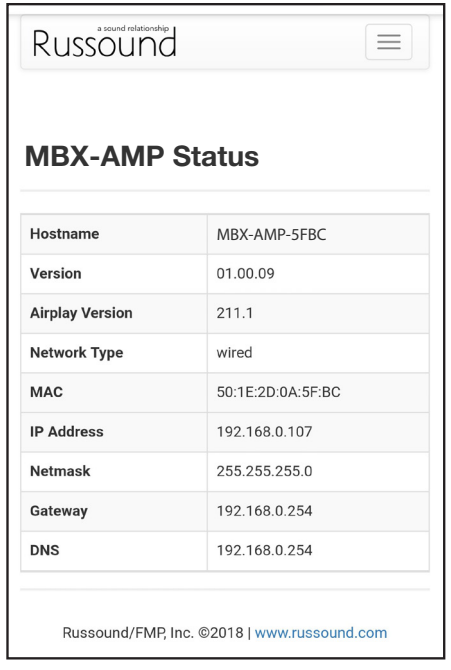
- Connect your TV's digital audio output to improve your TV's sound quality and to share your speakers with your premium audio system.
- External IR Sensor included to use the MBX-AMP with your current remote control for Volume/Mute commands
- Native support for popular audio services including Spotify, TIDAL, Deezer, SiriusXM and more.
- AirPlay 2, Bluetooth, Chromecast, and Spotify Connect for streaming almost any audio content from a phone or tablet
- Bluetooth Audio
- Hi-Res audio streaming support up to 24-bit/192 kHz
- USB for Flash or external USB Hard drive-based music collections
- Digital (PCM) and Analog Stereo Inputs
- Digital or analog output
- Controllable with the Russound App, IPK-1 Keypad, and fully compatible with the Russound XTS7 in-wall touchscreen
- Bass, Treble, and Loudness settings available through the Russound App
- Supports local favorites
- Onboard browser-based configuration, accessible from a smartphone or tablet
- Mix and match with other MBX-Series components for versatile system designs

Key Programming Features

The MBX-AMP has a programming feature called Web Config. Web Config is an onboard hosted web page used for unlocking and configuring the MBX-AMP. Web Config can be accessed by entering the IP address or Hostname in any web browser on a smartphone, tablet, or laptop that is connected to the same network as the MBX-AMP. Using Web Config, the MBX-AMP can be completely configured, quickly and easily, from the palm of your hand.

Web Config Features

- General Network Configuration (DHCP/static IP)
- Firmware Updates
- Assign Device Name
- Volume Gain Adjustment
- Set AirPlay Password



Web Config status page.

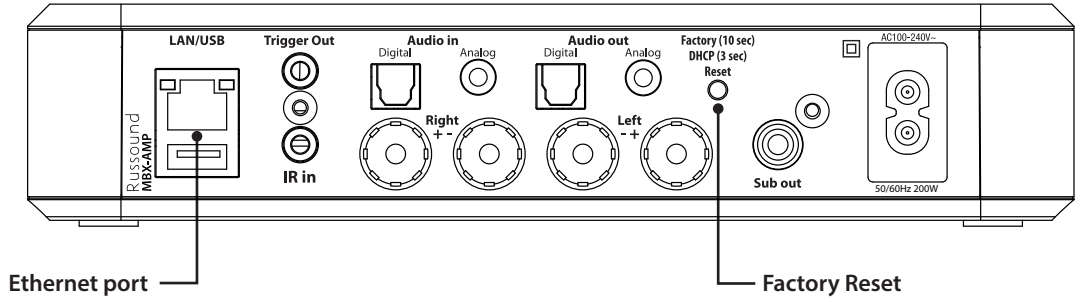
Ethernet Connection

The Ethernet connection is used for configuration and programming as well as for enabling control via the Russound App or the XTS7 Touchscreen. The default network setting is DHCP-enabled, but the MBX-AMP can be configured with a static IP address using the Web Config tool. The Ethernet connection is also used for the built-in streaming services and for playing any music stored on connected network drives using UPnP. The ethernet connection is the preferred method of network connection, but the MBX-AMP is fully Wi-Fi certified and its advanced 2.4Ghz/5Ghz dual-band 802.11ac radio can be used in any installation where running a network cable is difficult or impractical. **The MBX-AMP requires a local network with internet connectivity for proper operation.**

Factory Reset

The factory reset button has three functions. A 1-second press will initiate a device reboot. A 3-second press and hold will restore network settings to DHCP. A 10-second press and hold will completely reset the MBX-AMP to its factory default settings.

Note: Performing a factory reset will restore the unit to its factory default settings. The unit will require valid Russound Certified Installer credentials in order to be unlocked and configured again. The factory reset will also delete all personal information including service account settings, device-stored Favorites and passwords.



Important Considerations

1. Disconnect the power cord before making any wiring connections to the MBX-AMP.

2. Verify that all connections and polarity are correct.

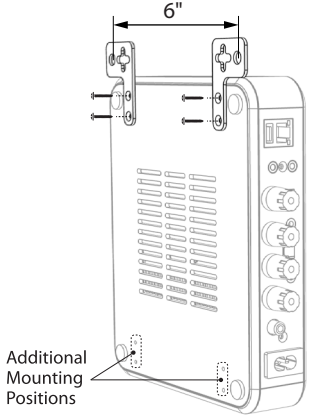
3. Keep all power cords away from all signal cables to prevent humming caused by induced noise.

4. Label wires appropriately, on both ends of the wire run.

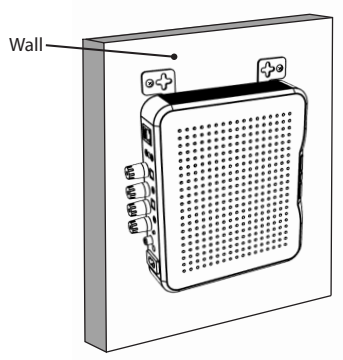
5. Avoid running signal cables close to house electrical wiring for any distance. If you have to run them parallel, make sure to space the wires at least two feet from the AC line. If you need to cross an AC line it should be at a 90° angle.

Mounting Options

The MBX-AMP can be mounted on a table-top or shelf, but can also be wall-mounted using the included brackets or mounted in a rack by using a 2U or larger rack shelf. A 2U or larger rack shelf is required to assure that there is proper ventilation and airflow above the unit.



When mounting the unit, mount it so that the brackets are at the top and the MBX-AMP hangs from the brackets.



The MBX-AMP can also be mounted into a structured wiring can. When installed, the mounting brackets have a 6" on-center separation between the mounting holes.

Step 1. Connect your Loudspeakers to your MBX-AMP

Speakers connect to the MBX-AMP using two wires, a positive (+) and a negative (-). Remove approximately 3/8" (10mm) of insulation from the ends of both conductors of the speaker wire and twist the bare wires of each cable tightly. Loosen the right positive speaker terminal and insert the corresponding bare speaker wire into the gap on the side of the terminal. Tighten the terminal. Repeat for the right negative terminal and then repeat the process for the left positive and negative terminals.

Make certain that no bare cable strands touch any additional speaker terminals or wires.

Step 2.

Insert the power cable into the rear socket of the MBX-AMP and insert the other end into your AC wall outlet.

The MBX-AMP will take about 30 seconds to fully power up. When ready, the front panel LED will illuminate either green or yellow. Green means that a network connection has been made and yellow means that the unit is ready but not yet connected to a wired or wi-fi network. See below for Network Connection information.

Step 3. Network Connections

The MBX-AMP requires a network connection in order to use the Russound app or an XTS7 touchscreen for system control. The network connection is also used for accessing all streaming audio sources other than Bluetooth or any connected USB drives. The MBX-AMP works with Wired Ethernet connections (preferred) or with wireless connections using Wi-Fi.

A. Wired Ethernet Connection (Preferred)

Connect an Ethernet cable from an open network port to the port labeled "LAN" on the rear of the MBX-AMP. The front panel LED of the MBX-AMP will turn green when the network connection is successfully established.

Note: If using Chromecast (Recommended), open your Google Home app on your phone/tablet and follow the prompts to add your MBX-AMP to your list of devices.

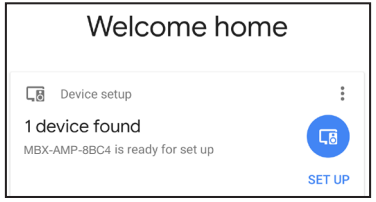
B. Wi-Fi Connections

The MBX-AMP can also be connected to the network utilizing Wi-Fi. There are four ways to configure the Wi-Fi settings. The easiest method is using a phone/tablet to transfer existing Wi-Fi settings.

Option B1 Recommended for all systems

The MBX-AMP can be quickly added to an existing Wi-Fi network by utilizing the Google Home app. The Google Home app is also used to configure the MBX-AMP for Chromecast Built-in for Audio. If you do not yet have the Google Home app on your device, download and install it from the Google Play Store or Apple App Store.

Open the Google Home app and it will automatically discover the MBX-AMP on your network. It will be listed as "MBX-AMP-XXXX", with XXXX being the last 4 digits of the MAC ID of the MBX-AMP. This is done in order to make it easier to identify multiple MBX devices when configuring a large system in a home.



Sample Google Home screen
showing a newly discovered MBX-AMP

1. From the Google Home app, find your MBX-AMP either on the main screen or under "Devices" and choose "Set Up".

2. Choose a name for the MBX-AMP. The name you choose will be name that is visible within the Russound app and any other network based interface to identify the MBX-AMP. There is a list of possible room names as well as an option to use a custom name "Add a custom room".

3. We suggest naming the MBX-AMP as that particular room, such as “Kitchen”.

4. After selecting the name, the next step is connecting to Wi-Fi. Choose the Wi-Fi network you would like to connect to, or enter the appropriate connection information manually and follow the prompts to continue. The MBX-AMP will attempt to connect to the selected network and the front panel LED will turn green when the connection is successful.

*During the setup process, the MBX-AMP will play a tone in order to confirm that you are configuring the proper device. In order for this tone to be heard, the MBX-AMP must be connected to loudspeakers.

Option B2 (iOS devices only)

1. From an iOS device that is on the Wi-Fi network that you would like to use with the MBX-AMP, go to Settings – Wi-Fi – Set up new AirPlay speaker. The MBX-AMP will be listed there as “MBX-AMP-XXXX” with XXXX being the last 4 digits of the MAC ID.

2. Select the MBX-AMP you want to configure.

3. Rename the MBX-AMP according to the room where it is located. For example, "Kitchen".

4. Follow the prompts to connect to the appropriate Wi-Fi network.

5. The MBX-AMP will attempt to connect to the selected network and the front panel LED will turn green when the connection is successful.

Option B3 (Using a soft access point)

The MBX-AMP will broadcast an SSID of “MBX-AMP-XXXX.h013”” with XXXX being the last 4 digits of the MAC ID of the device.

1. From your phone/tablet connect to the MBX-AMP-XXXX.h013 Wi-Fi network.

2. From a browser on your phone/tablet, navigate to “http://192.168.255.249” to access the Web Config page of your MBX-AMP. You can access the network settings by navigating to Admin-Networking. It is recommended to use “Automatic” as the Networking Type. Select the Wi-Fi network you would like to connect to and enter the appropriate password.

3. Select “Apply” to apply the new settings and the MBX-AMP will reboot and attempt to connect to the Wi-Fi network. The front panel LED of the MBX-AMP will turn green when a successful connection has been made.

Option B4 (Configuring using a wired connection)

Connect the MBX-AMP to the network using a wired connection and then use Web Config to access the MBX-AMP settings and enter the appropriate network SSID and password settings. These settings are accessed in the Admin-Networking section.

Accessing Web Config First Time Setup

Web Config is a hosted web page within the MBX-AMP used to configure all settings and to perform firmware updates.

It is accessed by navigating any web browser to the MBX-AMP's IP address on your home network.

The first time that a user navigates to the MBX-AMP Web Config page, Web Config will open automatically in First Time Setup mode.

First Time Setup is designed to help configure a few basic system settings as well as to provide for a quick method of enabling Chromecast Built-in for Audio.

Using a web browser from any device (phone, tablet, or computer) that is on the same network as the MBX-AMP, navigate to the MBX-AMP’s Web Config page by entering one of the following:

1. MBX-AMP IP address – Example: if the IP address is 192.168.0.105, enter http://192.168.0.105 into the web browser. If you don’t know the IP address, you can use a network scanning app such as Fing (Free for iOS and Android) to discover the IP address.

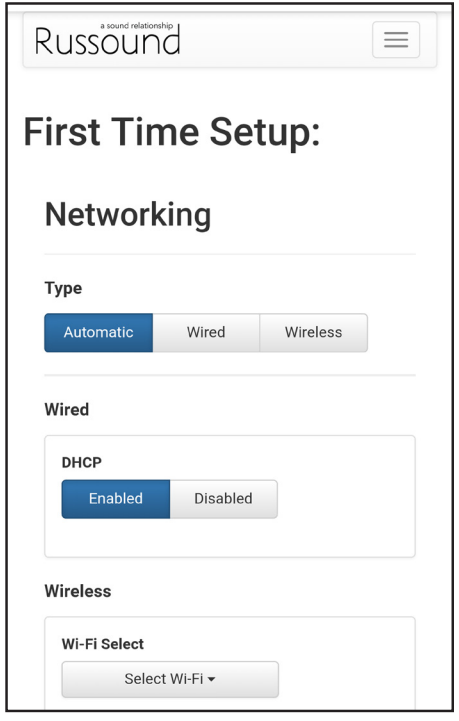
2. MBX-AMP Hostname – The hostname is printed on a label on the bottom of the MBX-AMP. The hostname is formatted as MBX-AMP-XXXX where XXXX is the last four digits of the MBX-AMP’s MAC ID. Example: If the hostname is MBX-AMP-1234, enter http://MBX-AMP-1234 into the web browser.

Device Name

The first item you will see on the first time setup screen is the device name. The default device name is the hostname MBX-AMP-XXXX. If you edited the name using Google Home, or in your Apple configuration in the Installation steps above, the name will be whatever you entered. The name can be edited here or changed at any time in the future using Web Config.

We suggest naming the MBX-AMP for the room or area of the house where it is used. For example, "Kitchen" or "Dining Room".

The name you choose will be the name that is visible within the Russound app when controlling the MBX-AMP and also the name that will appear in apps when attempting to cast or stream audio from a phone or tablet. The name can be changed at any time.



Networking

Because the MBX-AMP is already on the network (or you wouldn't be able to get to the First Time Setup screen), the primary reason for making a change on this page is if you have connected via a wired connection and want to input a Wi-Fi configuration SSID and password to use the MBX-AMP with Wi-Fi. It is also possible to modify DHCP settings here and set a static IP for either the wired connection, the wireless connection, or both. These settings can be changed again at any time in Web Config.

Type – The default type of networking is automatic. This is recommended for almost all installations. When set to "automatic", the MBX-AMP will always prioritize a Wired Ethernet connection if available. If a wired connection is not available, it will attempt to connect to the last properly configured Wi-Fi network. Because it works with both types of connections and prioritizes wired whenever it is available, the "automatic" setting is always recommended.

When set to "Wired", the MBX-AMP's Wi-Fi radio will be disabled. The only way to connect the MBX-AMP to a

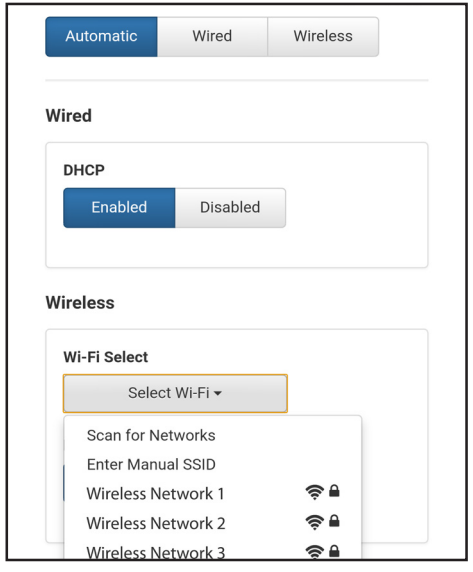
network will be by use of the Wired Ethernet connection.

When set to "Wireless", the MBX-AMP will disable the Ethernet port and will only be able to connect to a network using Wi-Fi.

Adding Wi-Fi configuration info

Under "Wireless", choose "Select Wi-Fi". A list of available Wi-Fi networks will appear. If you would like to manually enter an SSID and password, simply select "Enter Manual SSID" from the choices and enter the network configuration information following the user prompts.

Note: If you enter new Wi-Fi information here and apply the changes, your MBX-AMP will attempt to connect to that Wi-Fi network and its network IP address will change. If necessary, enter the new IP address or hostname in your browser again in order to return to the First Time Setup screen.

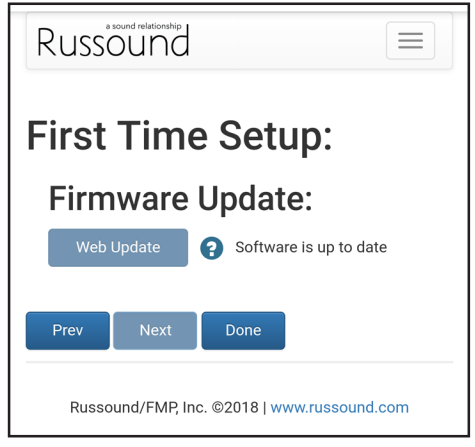


Date and Time

From the drop-down menu's select the country where the MBX-AMP is located as well as the region. This information will allow the MBX-AMP to automatically keep its date and time information accurate at all times.

Firmware Update

The MBX-AMP will automatically verify if it is running the most up-to-date firmware. If it is, you'll see the message "Software is up to date". Otherwise, select the update to get the latest firmware. It is ALWAYS recommended to run the most recent available firmware on your MBX-AMP and other Russound devices.



Updating the unit will not erase any of the settings or configuration steps that you have already done.

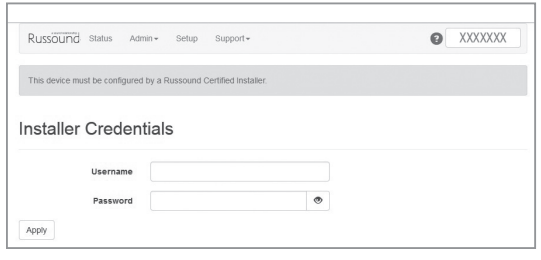
Select "Done" to exit the First Time Setup menu and the MBX-AMP will take you to Status Page for further configuration steps. The first step in the Status Page is unlocking the product for use.

Lockdown Feature

The MBX-AMP is a specialized audio device designed to be installed and configured by a Russound Certified Installer. In order to guarantee that an audio system is properly installed and configured to interact with all of your other home devices, it must be installed and configured by a professional. When the MBX-AMP is shipped from Russound, it will only operate in a "locked" state. In this state, no audio or control is available. In order to unlock the system, valid Russound Certified Installer credentials must be entered using our convenient Web Config browser-based configuration utility.

If you do not have a valid Russound Certified Installer credential, please contact your Russound Sales Representative.

Note: If you are a Russound Certified Installer and you plan on installing this product on a job site that may not have working internet access yet, please configure the unit at your shop or other location where internet access is available BEFORE you take it to the job site.



Configuring Streaming Service Accounts (Optional)

Spotify® – Use your phone, tablet or computer as a remote control for Spotify. Go to spotify.com/connect to learn how.

SiriusXM® – SiriusXM account credentials are entered by using the Russound App or a connected Russound XTS7 in-wall touchscreen. Select the MBX-AMP as the active audio source and then choose "SiriusXM" from its menu. If no account information has been entered, a login screen will be displayed.

vTuner® – No account information is needed to access vTuner internet radio. If you wish to associate an MBX-AMP with a vTuner account so that you can share vTuner favorites across multiple devices, you can select "Get Access Code" from the MBX-AMP vTuner menu and enter that code at http://russound.vtuner.com to associate an MBX-AMP with your vTuner account.

TuneIn® – No account information is needed to access TuneIn internet radio. If you wish to associate an MBX-AMP with a TuneIn account so that you can share TuneIn favorites across multiple devices, you can select "Account Association" from the MBX-AMP TuneIn menu and enter that code in your account settings page at http://www.tunein.com to associate an MBX-AMP with your TuneIn account.

Deezer® – A Deezer subscription is required to use Deezer on your device. First, head to deezer.com/offers and sign up to start your free trial*. Next, Deezer account credentials are entered by using the Russound app or a connected Russound XTS7 in-wall touchscreen. Select the MBX-AMP as the active audio source and then choose "Deezer" from its menu. If no account information has been entered previously, a login screen will be displayed. *terms and conditions apply

Napster - A Napster subscription is required to use this service. First, head to Napster.com to set up a Napster account. Next, enter your Napster account credentials on your MBX-AMP by using the Russound app and selecting Napster as the source. If no login information has been entered previously, a login screen will be displayed.

TIDAL - A TIDAL subscription is required to use this service. First, head to TIDAL.com/try-now and sign up to start your free trial. Next, enter your TIDAL account credentials on your MBX-AMP by using the Russound app and selecting TIDAL as the source. If no login information has been entered previously, a login screen will be displayed.

Listening to AirPlay Streaming

The MBX-AMP supports AirPlay 2 and requires iOS 11.4 or later. AirPlay is an Apple technology designed to control home audio systems and speakers in any room — with a tap or by just asking Siri — right from iPhone, iPad, HomePod, or Apple TV. Play a song in the living room and kitchen at the same time or adjust the volume in any room, all in sync.

Using AirPlay will instantly turn on the MBX-AMP and start playing music from your phone, tablet, or computer.

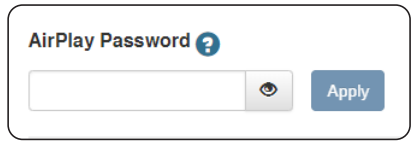
When AirPlay is selected from iTunes or an iOS mobile device and music is sent to the MBX-AMP, the MBX-AMP will activate and start playing the audio content.

When the MBX-AMP is actively streaming AirPlay, the volume control on the MBX-AMP and the AirPlay-enabled device are linked, which means a change in volume on the AirPlay-enabled device will also change the volume level of the MBX-AMP and vice versa.

AirPlay Password

The MBX-AMP supports an optional AirPlay password feature that when set, requires a password in order for an iOS device to stream to the MBX-AMP using AirPlay. You'll find the AirPlay password settings using Web Config in the "Setup" tab.

Under AirPlay Password, enter the desired password. When a password has been configured, any time that the MBX-AMP is selected from the list of available AirPlay devices, a message will appear on the iOS device, prompting for the AirPlay password. Once the correct password is entered, the iOS device can successfully stream music to the MBX-AMP. The iOS device will retain the password for future use.



Multiple Streaming Products

Note that account settings are individual settings for each MBX-AMP or other Russound MBX-Series streaming product. If you have multiple MBX-Series devices, each must be configured with the appropriate account login information. This is done so that each device can have its own independent user in a home so that users will not have to share accounts or favorites with anyone else in the home. The ideal installation is for each user in a home to have their own personal MBX-Series streaming device so that each user always has access to their favorite music selections.

Using Bluetooth

In order to pair a Bluetooth device with the MBX-AMP, you must enter Bluetooth Pairing Mode. To enter pairing mode, press and hold the outermost buttons on the MBX-AMP front panel (Favorite 1 and Volume Up) for a few seconds until the front panel LED on the MBX-AMP blinks blue twice. The MBX-AMP is now in Pairing Mode. Use your phone/tablet Bluetooth pairing process to discover the MBX-AMP and complete the pairing. The name of the device will correspond to the name configured previously, such as "Bob's Streamer" or "Kitchen". You can also enter Pairing Mode by selecting "Bluetooth" as the source in the Russound app and selecting "Scan for other Bluetooth devices" and complete the pairing using your phone/tablet.

Using Quick Access Buttons

The MBX-AMP has two front-panel buttons for quick access to up to 2 favorite audio sources. The buttons operate like radio preset buttons. Press and hold one of the buttons to store the currently playing selection. A quick tap of that button will let you quickly access and start playing that selection again at any time.

Note: Some sources cannot be saved as a favorite, such as AirPlay or Chromecast content.



Quick Access Buttons

DHCP Reset

A DHCP Reset can be performed using the factory reset button on the rear panel of the MBX-AMP.

If your MBX-AMP cannot communicate on the network, you can reset its DHCP connection by pressing and holding the Reset button on the rear of the MBX-AMP for 3 seconds and then releasing it. This will restore the MBX-AMP to a DHCP connection from a static IP connection. This will also reset the network connection type to "Automatic" so that a wired Ethernet connection can easily be made. Performing the DHCP reset will also delete Wi-Fi configuration information so that the device can be configured for a new wireless connection. Refer to “Wi-Fi Connections” on page 7 for more information on connecting to a Wi-Fi network.

Factory Reset

For a full factory reset, erasing all configuration settings, and re-locking the MBX-AMP:

Press and hold the Reset button on the rear of the MBX-AMP for 10 seconds. The Red Status LED will light and the MBX-AMP will reboot on its own.

Note: Performing a factory reset will restore the unit to its factory default settings. The unit will require valid Russound Certified Installer credentials in order to be unlocked and configured again. The factory reset will also delete all personal information including service account settings, device-stored Favorites, and passwords.

General Troubleshooting

This chart explains the operation of the LED:

System Status	Yellow	Green	Red	Blue	Purple	Cyan
Booting	ON	-	-	-	-	-
Ready	-	-	-	-	-	-
Streaming Source is Active	-	ON	-	-	-	-
Bluetooth Streaming	-	-	-	ON	-	-
Bluetooth Pairing	-	-	-	Blinking	-	-
Bluetooth Paused	-	-	-	Blinking	-	-
Digital Input Active	-	-	-	-	-	ON
Group/Party Mode	-	-	-	-	ON	-
Standby Mode	-	-	ON	-	-	-
Firmware Update	-	Blinking	-	-	-	-
Network Error	Blinking	-	-	-	-	-
Amplifier Fault			Blinking			

Check for firmware updates available to make sure that your Russound product is always up to date and to take advantage of any additional features or supporting services that may be available.

Many issues can be resolved by power cycling the MBX-AMP by disconnecting the power supply, waiting 15 seconds and re-connecting the power supply.

For networking issues, resetting network gear in the home such as the router or any switches between the MBX-AMP and the router may also resolve any issues.

If you have the MBX-AMP configured with a static IP address and do not remember the settings, you can reset the MBX-AMP to DHCP by pressing and holding the rear panel Reset button for 3 seconds. If there are any issues reconnecting to the MBX-AMP after resetting to DHCP, unplug the MBX-AMP from the network and re-connect it, or try power cycling the network router to force a new DHCP connection.

Configuration Password

Within Web Config, there is an option in the Setup-Systems Settings menu to Enable/Disable the Configuration Password. This password is disabled by default but can be enabled to prevent inadvertent changes to the MBX-AMP configuration. This is a simple password system to make certain that you want to make changes to key configuration settings before making changes. The password is static and cannot be changed. The configuration password, when enabled, is: **russound123**

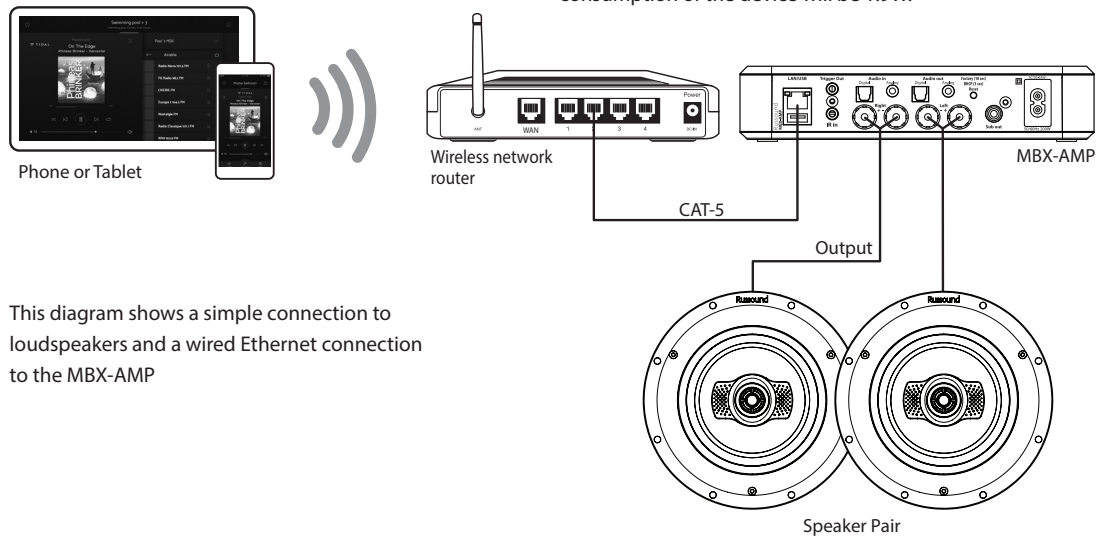
When enabled, this password must be entered in order to change any configuration settings.

Power

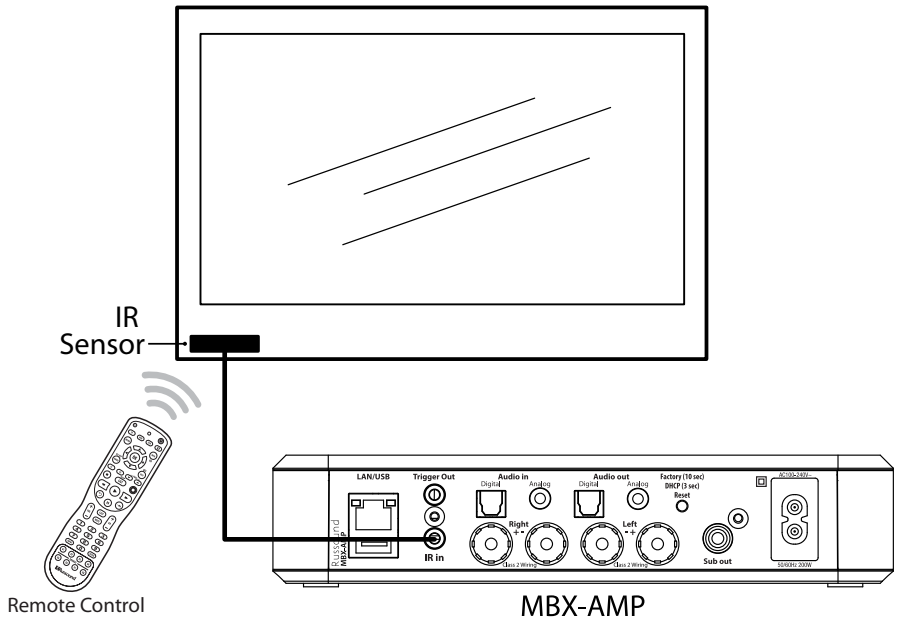
As an advanced networking device, the MBX-AMP is designed to be left on at all times. This allows instant access to your favorite streaming audio sources at any time and is especially useful due to the fact that most installations involve locating the MBX-AMP in remote locations of the home where it would be difficult to know if it is powered on or off or to know its current status.

The MBX-AMP has several options for entering a low-power mode after a specified period of time without being in use. These options are configurable in the "Setup" section of WebConfig.

After the number of minutes configured in "Idle Timeout" in the Admin section of WebConfig has passed without any active audio source in use, the MBX-AMP will enter network standby mode automatically. In this mode the power consumption of the device will be 1.9W.



This diagram shows a simple connection to loudspeakers and a wired Ethernet connection to the MBX-AMP



Your MBX-AMP is designed to work seamlessly with most TV's so that your MBX-AMP and its connected speakers can be used with the TV sound output. An SLM-1 IR Sensor is included with the MBX-AMP so that your TV remote can control the volume of the MBX-AMP. See the next page for information on configuring your IR remote control settings.

Connecting the SLM-1 IR Sensor

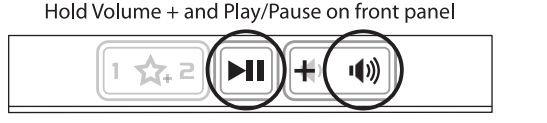
Note: Before connecting or disconnecting the SLM-1 IR Sensor or anyother device wiring, make sure that the power cord is disconnected from the MBX-AMP first. Once all connections have been made and verified, re-connect the MBX-AMP power cord.

IR Learning

The MBX-AMP is designed to be used with virtually all standard remote controls such as a cable box or satellite TV remote control or even a television's original remote control. The MBX-AMP can be taught the commands for Volume +, Volume-, and Mute. With these three commands, you can easily share your room's loudspeakers between your TV and your Russound MBX multiroom audio system.

Steps to teach the IR commands to your MBX-AMP

1. Hold Volume + and Play/Pause on front panel of the MBX AMP to enter IR learning mode. When in IR learning mode the LED should blink green slowly. The device will exit IR learning mode in 10 seconds if nothing is pressed so observe the LED while setting up.



When in IR learning mode
the LED should blink green slowly



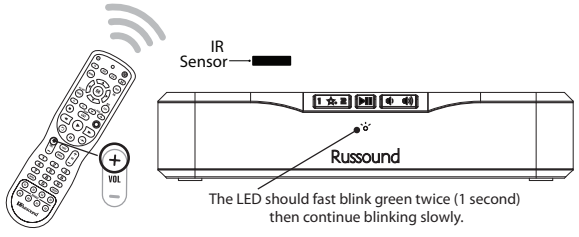
Front Panel Of MBX-AMP

2. Tap random buttons on the 3rd party remote to establish the remote is there (this first step does not learn any buttons). You can also do this by holding down one random remote button until the IR input picks up the signal. The LED should fast blink green twice (1 second) then continue blinking slowly.

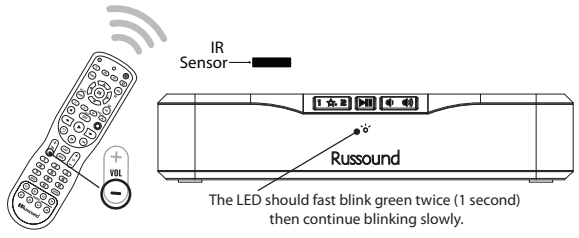


The LED should fast blink green twice (1 second)
then continue blinking slowly.

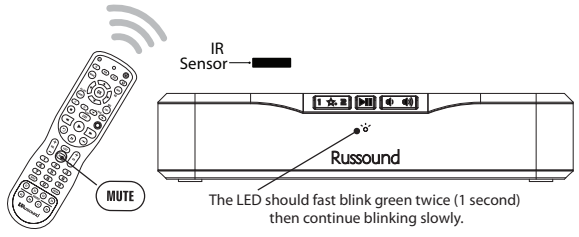
3. Press the 'volume up' button on your 3rd party remote pointed at the remote IR Sensor. The LED should fast blink green twice (1 second) then continue blinking slowly. Press the 'volume down' button on your 3rd party remote pointed at IR input. The LED should fast blink green twice (for 1 second) then continue blinking slowly. Press the 'mute' button on your 3rd party remote pointed at the remote IR Sensor. The LED should blink green twice (for 1 second) then continue blinking slowly.



The LED should fast blink green twice (1 second) then continue blinking slowly.



The LED should fast blink green twice (1 second) then continue blinking slowly.



The LED should fast blink green twice (1 second) then continue blinking slowly.

LED Blinks Green x6

Russound

4. The LED blinks green 6 more times when IR learning is complete and successful.

5. Test the buttons you just learned to make sure they were learned properly.

Russound IR Commands

It is possible to add additional remote control functionality to the MBX-AMP by using standard Russound IR commands such as those of the Russound USRC remote control. These IR commands can be used for the same buttons that are available on the front panel of the MBX-AMP: Play, Pause Favorite 1 (F1) and Favorite 2 (F2), Volume Up, Volume Down, and Mute.

Networking Best Practices

Some of the most common problems can be caused by network configuration and out-of-date firmware. Improper network configuration can prevent MBX-Series devices from connecting and communicating on the network.

The first step for troubleshooting is to check networking connections and power cycle the equipment to check for proper communication.

A dedicated wireless 802.11n or 802.11ac compatible router is recommended. The reason for this is that ISP supplied modem/router combination devices may have incompatible settings that can cause issues with MBX-Series or similar devices connecting or communicating across the network. It is recommended not to use these modem/router combination devices, because the end user may not have access to all services of the device. The ISP may have sole control over the device settings and send updates to reset, reinitialize, or replace the device at their discretion.

Check for **firmware updates** available for your Russound equipment to make sure they are up-to-date in order to take advantage of any additional features and supported services.

Use a network discovery and IP scanning application that can assist to better understand the network, such as FING. **http://overlooksoft.com/FING** is free and available for iOS and Android and can assist in identifying devices on the network and if there are any IP addressing conflicts.

Bandwidth:

Audio streaming uses substantially less network bandwidth than video streaming or large file transfers. Typical audio streams range from 64 kbps to 160 kbps for most streaming services and hi-res audio streams typically max out at 320 kbps. This compares to video streaming which will typically range from 1.5 to 3 Mbps for SD, 5 Mbps or more for HD and even 25 Mbps or higher for Ultra HD.

Video consumes much more bandwidth overall than audio.

Satellite Internet Service

Due to the inherent high-latency nature of Satellite Internet Service, it is generally incompatible with reliable and enjoyable audio streaming. Russound therefore does not recommend utilizing any of its streaming audio solutions in systems that rely solely on a satellite internet connection. For installations where satellite internet service is the only available option, Russound recommends using UPnP-based NAS drives, flash drives, or AirPlay/casting-type solutions from a dedicated audio source rather than internet streaming.

Router Configuration:

A few routers may need additional configuration to prevent incompatibility or intermittent connection issues. Access the router and check user accessible settings that enable support for **Multicast** or **IGMP** and enable them or check for options that may be actively filtering these protocols and disable those filters. Check for other options that could have an effect on communication: Options such as **UPnP** should be **enabled** Options such as **IGMP Proxy, IGMP Snooping, Multicast Filtering or WMM Proxy** should be **disabled**.

Glossary

Multicast: The delivery of a message or information to a group of destination computers simultaneously in a single transmission from the source.

Unicast: The delivery of a message or information which is sent from one point to another point An example would be connecting to an IP address of a URL such as www.google.com.

IGMP: Internet Group Management Protocol is an integral part of IP Multicast and is used for one-to-many networking applications such as online streaming audio and video, gaming, and allows more efficient use of resources when supporting these types of applications.

WMM: Wireless Media Management is designed to support consumer and corporate applications and works with 802.11a, 802.11b and 802.11g. The specification provides basic prioritization of data packets based on four categories - voice, video, best effort and background.

UPnP: Universal Plug and Play uses Multicast and allows media servers and streaming devices to communicate.

Frequency Response	20Hz to 20kHz
Speaker Output	50 Watts Per Channel @ 8 ohms, 70 Watts @ 4 ohms
Audio Outputs	Analog – Stereo Audio RCA Digital Optical Subwoofer Out (Low Frequency Filter: 80Hz)
Line Audio Output	2V rms Configurable as Fixed or Variable
Audio Inputs	3.5mm Analog Stereo Audio Digital Optical USB2.0 Media Playback
Communication Ports	Ethernet RJ45 10/100 BaseT
Wi-Fi	802.11ac, dual band
Bluetooth Audio Support	Yes
Trigger Output	12vDC @100mA
Music File Formats	MP3 (CBR, VBR), WAV (8, 16-bit), OGG Vorbis, FLAC (8, 16-bit). AAC, AAC+ (supports up to 24-bit/192 kHz)
Power Requirements	100-240V~50/60Hz, 4A
Product Dimensions	8.25”W x 7”D x 1.75”H 21cm W x 17.8cm D x 4.5cm H
Product Weight:	1.5 lb 0.68 kg



ATTENTION:
RISQUE DE CHOC ÉLECTRIQUE NE PAS OUVRIR.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
ATTENTION: AFIN DE RÉDUIRE LES RISQUES D'INCENDIE OU DE CHOC ÉLECTRIQUE, NE PAS EXPOSER CET APPAREIL À LA PLUIE OU.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
ATTENTION: AFIN DE RÉDUIRE LE RISQUE DE CHOC ÉLECTRIQUE, NE PAS RETIRER LE CAPOT. AUCUNE PIÈCE À L'INTÉRIEUR. CONFIER L'ENTRETIEN DE PERSONNEL QUALIFIÉ.

WARNING: The terminals marked with this symbol are hazardous live. External wiring connected to these terminals requires installation by an instructed person or the use of ready-made leads or cords.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Safety Instructions

1. **Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
   Lisez les instructions - Toutes les instructions de sécurité et doivent être lues avant d'utiliser l'appareil.
2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
   Conservez les instructions - Les instructions de sécurité et devrait être conservé pour référence future.
3. **Heed Warnings** - All warnings on the appliance in the operating instructions should be adhered to.
   Tenez compte des avertissements - Tous les avertissements figurant sur l'appareil dans les instructions de fonctionnement doivent être respectées.
4. **Follow Instructions** - All operating and user instructions should be followed.
   Suivez les instructions - Toutes les instructions de fonctionnement et d'utilisation doivent être suivies.
5. **Water and Moisture** - The appliance should not be used near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus. Do not touch the appliance with wet hands. Do not handle the appliance or power cord with wet or damp hands. If water or any other liquid enters the appliance cabinet, take it to qualified service personnel for inspection.
   Eau et humidité - L'appareil ne doit pas être utilisé près de l'eau, par exemple près d'une baignoire, d'un lavabo, d'un évier, machine à laver, dans un sous-sol humide ou près d'une piscine. L'appareil ne doit pas être exposé à des éclaboussures de liquides et aucun objet rempli de liquide, comme des vases, ne doit être posé sur l'appareil. Ne pas toucher l'appareil avec les mains mouillées. Ne manipulez pas l'appareil ou le cordon d'alimentation avec les mains mouillées ou humides. Si de l'eau ou tout autre liquide pénètre dans le coffret de l'appareil, il amène à un personnel qualifié pour l'inspection.
6. **Cleaning** - The appliance should be cleaned only as recommended by the manufacturer. From time to time you should wipe off the front and side panels and the cabinet with a soft cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since this may damage the finish or remove the panel lettering.
   Nettoyage - L'appareil doit être nettoyé uniquement tel que recommandé par le fabricant. De temps en temps vous

devriez essuyer les panneaux latéraux avant et arrière et le boîtier avec un chiffon doux. Ne pas utiliser de matériel rugueux, de diluant, d'alcool ou d'autres solvants chimiques ou de chiffons car cela pourrait endommager la finition ou faire disparaître la sérigraphie du boîtier.

7. **Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings, or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings. Place the unit in a well-ventilated location, leaving at least 2 inches (5 cm) of clearance on all sides, top and rear of unit for air flow. If ventilation is blocked, the unit may overheat and malfunction.
   Ventilation - L'appareil doit être placé de telle sorte que son emplacement ou sa position ne gêne pas sa propre ventilation. Par exemple, l'appareil ne doit pas être placé sur un lit, un canapé, un tapis ou une surface similaire qui pourrait obstruer les ouvertures de ventilation, ou placés dans un haut-installation, comme une bibliothèque ou un meuble qui pourrait empêcher le flux d'air à travers les ouvertures de ventilation. Placer l'appareil dans un endroit bien aéré, laissant au moins 2 pouces (5 cm) de dégagement de tous les côtés, en haut et à l'arrière de l'unité de circulation de l'air. Si la ventilation est bloqué, l'appareil peut surchauffer et mal fonctionner.
8. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
   Chaleur - L'appareil doit être placé loin des sources de chaleur telles que des radiateurs, registres de chaleur, poêles ou autres appareils (incluant les amplificateurs) qui produisent de la chaleur.
9. **Grounding or Polarization** - Precaution should be taken so that the grounding or polarization means of an appliance is not defeated.
   La terre ou polarisation - précautions doivent être prises pour que les moyens d'un appareil à la terre ou polarisation ne soit pas annulée.
10. **Power Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, receptacles, and the point where they exit from the appliance.
    Protection du cordon d'alimentation - Les cordons d'alimentation doivent être acheminés de sorte qu'ils ne sont pas susceptibles d'être piétinés ou coincés par des objets placés sur ou contre eux, en accordant une attention particulière aux cordons au niveau des fiches, des prises et à l'endroit où ils sortent de l'appareil.
11. **Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
    Sources d'énergie - Cet appareil doit être connecté à une source d'alimentation du type décrit dans le mode manuel ou tel qu'indiqué sur l'appareil.



12. **Main Power Disconnect** - The power switch is a single-pole switch. When the switch is in the "Off" position, the appliance is not completely disconnected from the main power. The main power plug is used as the disconnect device and shall remain readily operable. When installing the product, ensure that the plug is easily accessible.
    Débranchez l'alimentation principale - L'interrupteur est un interrupteur unipolaire. Lorsque l'interrupteur est en position "Off", l'appareil n'est pas complètement déconnecté de l'alimentation principale. La fiche d'alimentation est utilisée comme dispositif de déconnexion et doit rester facilement accessible. Lors de l'installation du produit, assurez-vous que la prise soit facilement accessible.
13. **Non-Use Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
    Périodes de non-utilisation - Le cordon d'alimentation de l'appareil doit être débranché de la prise en cas de non utilisé pendant une longue période de temps.
14. **Attachments** - Only use attachments/accessories specified by the manufacturer.
    Accessoires - N'utilisez que des fixations / accessoires spécifiés par le fabricant.

15. **Carts and Stands** - The appliance should be used only with a cart or stand that is recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.
    Chariots et supports - L'appareil doit être utilisé uniquement avec un chariot ou un support recommandé par le fabricant. Une combinaison de l'appareil et chariot doit être déplacé avec précaution. Des arrêts brusques, une force excessive et des surfaces inégales peuvent provoquer la chute de l'appareil et du chariot.
16. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
    Mur ou au plafond - L'appareil doit être fixé au mur ou au plafond, tel que recommandé par le fabricant.
17. **Location of the Amplifier** - Do not mount this unit under a kitchen cabinet. Do not expose the amplifier to direct sun light or heating units as the amplifier internal components' temperature may rise and shorten the life of the components. Avoid damp and dusty places.
    Localisation de l'amplificateur - Ne montez pas cet appareil dans une armoire de cuisine. N'exposez pas l'amplificateur à la lumière directe du soleil ou appareils de chauffage comme la température des composants internes de l'amplificateur de risque d'augmenter et raccourcir la durée de vie des composants. Evitez les endroits humides et poussiéreux.
18. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through the openings.
    Objets et de liquides - Des précautions doivent être prises afin que des objets ne tombent ou que des liquides coulent dans le boîtier à travers les ouvertures.
19. **Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
    Entretien - L'utilisateur ne doit pas tenter de réparer l'appareil au-delà de celle qui est décrite dans le manuel d'instructions. Toutes les réparations doivent être effectuées par un technicien qualifié.
20. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when: A. The power supply cord or the plug has been damaged; B. Objects have fallen, liquid has been spilled into the appliance; C. The appliance has been exposed to rain; or D. The appliance does not appear to operate normally; or E. The appliance has been dropped or the enclosure is damaged.
    Dommages nécessitant des réparations - L'appareil doit être réparé par un personnel qualifié lorsque: A. Le cordon d'alimentation ou la prise a été endommagé; B. Des objets sont tombés, du liquide a été renversé dans l'appareil C. Si l'appareil a été exposé à pluie; ou D. l'appareil ne semble pas fonctionner normalement, ou E. L'appareil est tombé ou son boîtier est endommagé.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of or more of the following measures: reorient or relocate the receiving antenna; increase the separation between the equipment and receiver; connect the equipment into an outlet on a circuit different from that to which the receiver is connected, or consult the dealer or an experienced radio/TV technician for help.
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan (for Finland). Apparatet må tilkoples jordet stikkontakt (for Norway). Apparaten skall anslutas till jordat uttag (for Sweden).

Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord (for Denmark).

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The Russound MBX-AMP is guaranteed against all defects in materials and workmanship for two (2) years from the date of purchase. During this period, Russound will replace any defective parts and correct any defect in workmanship without charge for either parts or labor.

For this warranty to apply, the unit must be installed and used according to its written instructions. If service is necessary, it must be performed by Russound. The unit must be returned to Russound at the owner's expense and with prior written permission from Russound. Accidental damage and shipping damage are not considered defects, nor is damage resulting from abuse or from servicing by an agency or person not specifically authorized in writing by Russound.

This Warranty does not cover:

1. Damage caused by abuse, accident, misuse, negligence, or improper installation or operation
2. Power surges and lightning strikes
3. Normal wear and maintenance
4. Products that have been altered or modified
5. Any product whose identifying number, decal, serial number, etc. has been altered, defaced or removed.

Russound sells products only through authorized Dealers and Distributors to ensure that customers obtain proper support and service. Any Russound product purchased from an unauthorized dealer or other source, including retailers, mail order sellers and online sellers will not be honored or serviced under existing Russound warranty policy. Any sale of products by an unauthorized source or other manner not authorized by Russound shall void the warranty on the applicable product.

Damage to or destruction of components due to application of excessive power voids the warranty on those parts. In these cases, repairs will be made on the basis of the retail value of the parts and labor. To return for repairs, the unit must be shipped to Russound at the owner's expense, along with a note explaining the nature of service required. Be sure to pack the unit in a corrugated container with at least three (3) inches of resilient material to protect the unit from damage in transit.

Before returning a unit for repair, call Russound at (603) 659-5170 for a Return Authorization number. Write this number on the shipping label and ship to:

Russound

Attn: RA# *(Insert your RA number here)*

1955 Wehrle Dr

Williamsville NY 14221

Due to continual efforts to improve product quality as new technology and techniques become available, Russound/FMP, Inc. reserves the right to revise system specifications without notice.

The Spotify Software is subject to third party licenses found here: www.spotify.com/connect/third-party-licenses.

a sound relationship
Russound

MBX-AMP
Wi-Fi Streaming Zone Amplifier

Installation Guide

Russound
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Portsmouth, NH 03801 USA
Tel: 603.659.5170 – www.russound.com
Email: tech@russound.com

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Use of the Works with Apple badge means that an accessory has been designed to work specifically with the technology identified in the badge and has been certified by the developer to meet Apple performance standards.

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This product includes some software components that are licensed under the General Public License (GPL). Source code for GPL components is available upon request.

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