

#### NOTICE

Do not use the stereo as a template when drilling the mounting holes because this may damage the glass display and void the warranty. You must only use the included template to correctly drill the mounting holes.

#### AVIS

N'utilisez pas la chaîne stéréo comme modèle lorsque vous percez les trous de montage, car cela peut endommager l'écran en verre et annuler la garantie. Vous devez utiliser uniquement le modèle inclus pour percer correctement les trous de montage.

#### AVVISO

Non utilizzare lo stereo come dima durante la perforazione dei fori di montaggio, poiché tale operazione potrebbe danneggiare lo schermo di vetro e invalidare la garanzia. Utilizzare esclusivamente la dima inclusa per perforare correttamente i fori di montaggio.

#### HINWEIS

Verwenden Sie das Radio beim Bohren der Montagelöcher nicht als Schablone, da es dadurch zu Schäden am Glasdisplay und zum Erlöschen der Garantie kommen kann. Sie müssen die mitgelieferte Schablone verwenden, um die Montagelöcher ordnungsgemäß zu bohren.

#### AVISO

No utilices el sistema estéreo como plantilla al perforar los orificios de montaje, ya que la pantalla de cristal podría dañarse y la garantía quedaría anulada. Debes usar únicamente la plantilla incluida para perforar correctamente los orificios de montaje.

#### AVISO

Não use o sistema estéreo como modelo ao perfurar os furos de montagem, pois isso pode danificar o vidro e anular a garantia. Use apenas o modelo incluído para perfurar os furos de montagem corretamente.

#### LET OP

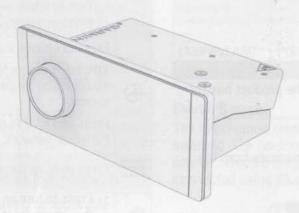
Gebruik de stereo niet als een mal bij het boren van de bevestigingsgaten, omdat dit het glasdisplay kan beschadigen en daardoor de garantie vervalt. Gebruik alleen de meegeleverde mal om de bevestigingsgaten op de juiste plek te boren.







## **GARMIN**®



# FUSION APOLLO™ MS-RA800

Quick Start Manual	2
Manuel de démarrage rapide	8
快速入門手冊1!	5



garmin.com/manuals/ra800/



## Fusion Apollo™ MS-RA800 Quick Start Manual

## **Getting Started**

#### **↑** WARNING

See the Important Safety and Product Information guide in the product box for product warnings and other important information.

#### Getting the Owner's Manual

You can get the latest owner's manual and translations of manuals from the web.

- 1 Go to garmin.com/manuals/ra800.
- 2 Select a manual.

#### Stereo Controls



. Turn to adjust the volume.

Dial

- · When adjusting the volume, press to switch between zones.
- · Turn to move through the menus or adjust a setting.
- · When in a menu, press to select the highlighted option.

Press to change the source.

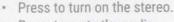


TIP: You can turn the dial to browse, and press the dial to select the source. You can also swipe the screen up and down, and touch a source on the screen.

Press and hold to open the GROUPS menu when connected to a Fusion PartyBus" network.



Press to open the menu.



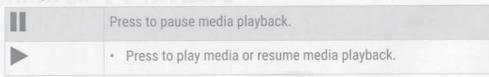


· Press and hold to turn off the stereo or all stereos on the network.

## **Playback Controls**

The on-screen playback controls may change depending on the source selected.

**NOTE:** After about fifteen seconds, the playback controls are hidden by the gesture screen feature. You can swipe down on the screen to view the playback controls. You can disable the gesture screen feature in the POWER OPTIONS settings.



144	<ul> <li>Press to skip to the previous track, when using an applicable source.</li> <li>Press and hold to rewind the track when using an applicable source.</li> <li>AM, FM source:         <ul> <li>Press to tune to the previous station or preset.</li> <li>Press and hold for faster tuning (manual mode only).</li> </ul> </li> <li>DAB source:</li> </ul>
	<ul> <li>Press to return to the previous DAB station in the ensemble. When you reach the beginning of the current ensemble, the stereo automatically changes to the last available station in the previous ensemble.</li> <li>Press and hold to return to the previous DAB ensemble.</li> </ul>
	<ul> <li>Press to skip to the next track, when using an applicable source.</li> <li>Press and hold to fast-forward the track when using an applicable source.</li> <li>AM, FM source: <ul> <li>Press to tune to the next station or preset.</li> <li>Press and hold for faster tuning (manual mode only).</li> </ul> </li> <li>DAB source: <ul> <li>Press to advance to the next DAB station in the ensemble. When you reach the end of the current ensemble, the stereo automatically changes to the first available station in the next ensemble.</li> <li>Press and hold to advance to the next DAB ensemble.</li> </ul> </li> </ul>
(AM and FM sources)	Press to cycle through the tuning modes (auto or manual) and presets.  Press and hold to save the current station as a preset.
M★► (DAB source)	Press to switch between manual tuning mode and presets.  Press and hold to scan for DAB stations.

Press to increase the gain.		
Press to decrease the gain.		
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#### Stereo Screen

The information displayed on the screen varies depending on the source selected. The on-screen playback controls may change depending on the source selected (page 2). This example shows a track playing on a device connected using Bluetooth® wireless technology.



Source name
 Active zone, status icons, and shortcuts
 Track details (if available)
 Album art (if available from a compatible source)
 Elapsed time, track duration, and the current track number out of the total number of tracks in the playlist (if available)

#### Naming the Device

You should provide a unique name for this device so you can easily identify it when viewing devices on the Fusion PartyBus network.

**NOTE:** You can also name and disable unused zones and sources on the stereo. See the owner's manual for more information.

- 1 Select > SETTINGS.
- 2 Select DEVICE NAME, and select an option:
  - Select a pre-defined name from the list.
  - Select CUSTOM NAME, and enter a unique name for the device.

#### Setting the Home Zone

- 1 Select = > SETTINGS.
- Select a zone.

## Adjusting the Volume

- 1 Turn the dial to adjust the volume for the home zone on the stereo.
- 2 If necessary, press the dial to switch between zones.

**NOTE:** If this stereo is part of a group, you can adjust the volume of all stereos in the group or individual zones on each stereo (page 4).

TIP: You can press and hold the dial to adjust the subwoofer level of a zone.

#### Creating or Editing a Group

Before you can create a group, you must connect multiple compatible stereos to the Fusion PartyBus network. See the installation instructions provided with your stereo for installing and configuring the network.

You can combine compatible stereos on the network into groups. Grouped stereos can share available sources and control media playback and volume on all of the stereos in the group, which allows for a synchronized audio experience across the vessel. You can quickly create, edit, and break up groups as needed from any compatible stereo or remote control on the network.

**NOTE:** You can adjust the volume of any zone on any compatible stereo on the network, regardless of whether or not those stereos are in the group.

A zone stereo, such as the Fusion Apollo" SRX400, can create or join a group to control and play sources from other stereos, but it cannot share its sources with the group.

You cannot change the settings when a stereo is part of a group.

For additional considerations about groups and sharing sources, see the owner's manual.

- Select > GROUPS.
  TIP: You can hold from any screen to open the GROUPS menu.
- 2 Select the name of the stereo you want to be the primary stereo in the group, or select the name of an existing group.
- 3 Select the stereos you want to add to or remove from the group.
- 4 Select DONE.

## Selecting a Source

- 1 Select .
- 2 Turn the dial to highlight a source.

**NOTE:** If the device is part of a group, continue turning the dial to access the sources on other devices in the group (page 4).

If a source cannot be shared with the group, it will appear gray and you cannot select it.

3 Press the dial to select the source.

## Adjusting the Backlight and Dial Brightness

**NOTE:** If you connected the dim wire on the wiring harness to the boat's illumination wire, the backlight and dial dim automatically when the boat lights are on. This may affect how you adjust the brightness setting.

- 1 Select = > BRIGHTNESS.
- 2 Adjust the brightness level.

## **Media Player Connection**

#### A WARNING

Minimize interaction with the media player display while operating the vessel, because doing so can cause distraction that could lead to an accident resulting in serious personal injury or death.

#### NOTICE

Always disconnect your media player from the stereo when not in use and do not leave it in your vessel. This can help reduce the risk of theft and damage from extreme temperatures.

The stereo accepts a variety of media players, including smartphones and other mobile devices. If it is supported by your compatible media player, you can connect it using a cable with a USB C connector to the USB port on the stereo. You can purchase an official USB cable from your Garmin dealer or from garmin.comThe stereo can play media from a compatible Apple device connected to the same network using the AirPlay feature.

#### **USB Device Compatibility**

You can use a USB flash drive or the USB cable included with your media player to connect a media player or mobile device to the USB port.

The stereo is compatible with iAP2 Apple devices.

The stereo is compatible with media players and other USB mass storage devices, including USB flash drives. Music on USB drives must meet these conditions:

- · The music files must be formatted as MP3, AAC (.m4a), WAV, or FLAC, files.
- If you connect a portable hard drive, you must connect it to an external power source. The USB port on this stereo cannot provide power for a portable hard drive.
- The USB mass storage device must be formatted using one of the following systems:
  - Microsoft<sup>®</sup>: NTFS, VFAT, FAT<sup>1</sup>, MSDOS

- Apple: HFS, HFSPLUS
  - Linux: EXT2, EXT3, EX4

#### Connecting a USB Device

- Locate the USB port on the back of the stereo.
- 2 Connect the USB device to the USB port.

**NOTE:** If you experience issues reading from a connected USB C device, try rotating the plug and reconnecting it. Some USB C cables perform better in one orientation than the other.

#### Connecting a Compatible Bluetooth Device

You can play media from a compatible Bluetooth device using the Bluetooth wireless connection.

You can control the music playback with the media app on a Bluetooth device or using the Fusion\* Audio remote control app (page 7).

- 1 Select the BLUETOOTH source.
- 2 Select => BLUETOOTH > CONNECTIONS > DISCOVERABLE to make the stereo visible to your compatible Bluetooth device.
- 3 Enable Bluetooth on your compatible Bluetooth device.
- 4 Bring the compatible Bluetooth device within 10 m (33 ft.) of the stereo.
- 5 On your compatible Bluetooth device, search for Bluetooth devices.
- 6 On your compatible Bluetooth device, select the stereo from the list of detected devices.
  - **NOTE:** The stereo appears in the Bluetooth device list as the device name (the default name is MS-RA800 unless it was changed in the settings).
- 7 On your compatible Bluetooth device, follow the on-screen instructions to pair and connect to the discovered stereo.
  - When pairing, your compatible Bluetooth device may ask you to confirm a code on the stereo. If the stereo shows a code, you can compare them

<sup>&</sup>lt;sup>1</sup> FAT includes most types of FAT file systems except exFAT.

- before pairing. If the stereo does not display a code, it should connect correctly when you confirm the message on the Bluetooth device.
- 8 If your compatible Bluetooth device does not immediately connect to the stereo, repeat steps 1 through 7.

**NOTE:** If another Bluetooth device is already playing music on the stereo, connecting a new device will not interrupt playback. You must select the newly-added device if you want to use it instead.

The DISCOVERABLE setting is disabled automatically after two minutes.

NOTE: On some Bluetooth devices, adjusting the volume on the device affects the volume level on the stereo.

#### Connecting to a Garmin Watch

For more information about the watch, see the watch manual at garmin.com /manuals.

- 1 Following the instructions in the watch manual, install the Fusion Audio app from the Connect IQ<sup>®</sup> store onto the watch.
- 2 On the stereo, select the BLUETOOTH source.
- 3 Select 

  ⇒ BLUETOOTH > CONNECTIONS > DISCOVERABLE

The stereo remains discoverable for two minutes.

- 4 Bring the watch within 3 m (10 ft.) of the stereo.
  - NOTE: Stay 10 m (33 ft.) away from other ANT® devices while pairing.
- 5 Open the Fusion Audio app on the watch.
  - The first time you open the app on the watch, the watch automatically pairs with and connects to the stereo. If you need to pair to another stereo, in the Fusion Audio app, select **Settings > Pair new**.
- 6 Control the audio playback using the Fusion Audio app on the watch.

After the devices are paired, they connect automatically when they are turned on, within range, and the app is open on the watch.

#### Connecting to an ARX70 Remote Control

- 1 On the stereo, select the BLUETOOTH source.
- 2 Select = > BLUETOOTH > CONNECTIONS > DISCOVERABLE.

- 3 Bring the ARX70 remote control within 10 m (33 ft.) of the stereo.
  NOTE: Stay 10 m (33 ft.) away from other ANT devices while pairing.

The remote control searches for the stereo. When the remote control pairs successfully, the status LED turns on green briefly and then turns off.

If the remote control cannot find the stereo, the status LED turns on red briefly and then turns off.

#### Connecting an Apple Device Using AirPlay

- 1 From the settings menu on your Apple device, connect to the same wireless network as your compatible Fusion stereo.
  - **NOTE:** You can connect some Apple devices to the network using a wired Ethernet connection, if applicable. Go to the Apple website for more information.
- 2 On your Apple device, open the music app you want to stream to the stereo.
- From the music app or program, select  $\square$  or  $\bigcirc$ , and select the name of the stereo.
- 4 If necessary, start playing music on the app.

The stereo changes to the AirPlay source automatically and plays audio from your Apple device.

**NOTE:** If your Apple device is using AirPlay 2 software, you can connect to multiple stereos on the same network.

**NOTE**: You cannot stream the AirPlay source to other stereos on the network using the Fusion PartyBus network. Using AirPlay 2 software, you can play content on multiple stereos on the network, but the stereos must not be grouped.

NOTE: On some AirPlay devices, adjusting the volume on the device affects the volume level on the stereo.

#### Configuring a Wireless Access Point for Apple AirPlay

For the best results when using Apple AirPlay, you should set up this stereo as a wireless access point and connect to it using your compatible Apple device.

NOTE: By default, Wi-Fi\* is off on the stereo.

- 1 From the stereo screen, select > SETTINGS > NETWORK > WI-FI ACCESS POINT.
- 2 Write down the SSID and PASSWORD.
- 3 Select SAVE.
- 4 Connect your Apple device to the stereo wireless access point using the SSID and PASSWORD.

## **Playing Music**

#### Setting the Tuner Region

You must select the region you are in to receive AM and FM stations properly. You must select the region you are in to receive DAB stations properly.

NOTE: DAB stations are not available in all regions.

- Select > SETTINGS.
- 2 Select TUNER REGION.
- 3 Select the region you are in.

## Changing the Radio Station

- Select an applicable source, such as FM.
- Select MA★ to select a tuning mode.

You can use AUTO mode to scan stations, MANUAL mode to manually tune to a station, and PRESET mode to select the next preset station.

3 Select ◄ or ► to tune to the station.

TIP: You can quickly save the selected station or channel as a preset by holding MA\*.

#### Controlling Music Playback on a USB Source

- Connect a compatible USB device to the stereo.
- 2 Select the appropriate source.

**TIP:** If the USB device has a screen and controls, you can launch a music application on the USB device to begin playback.

- 3 Select ≡> USB
- 4 Select the name of the USB device.
- 5 Browse the music files on the device and begin playback.

## Controlling Music Playback on a Connected Smartphone or Media Player

- 1 Connect a compatible smartphone or media player to the stereo using USB or Bluetooth (if available).
- 2 Select the appropriate source.
- 3 Launch a music application on the connected smartphone or media player, and begin playback.

#### **DSP Settings**

This stereo features digital signal processing (DSP). You can select preconfigured DSP settings for Fusion speakers and amplifiers to optimize audio reproduction in their installed locations.

All DSP settings are configured using the Fusion Audio remote control app (page 7). See the stereo owner's manual for more information.

#### More Information

## **Fusion Audio Wireless Remote Control App**

You can use the Fusion Audio remote control app on your compatible Apple or Android device to adjust the stereo volume, change the source, control playback, select and manage radio presets, and adjust some stereo settings. You can use the app to set up and configure DSP profiles on the stereo. You can use the app to update the stereo software.

The app communicates with the stereo using a wireless connection to the mobile device. You must connect your compatible device to the stereo using Bluetooth or Wi-Fi technology to use the app.

If the stereo is connected to a network with a Wi-Fi access point, the app can communicate with the stereo using the network for greater range than a Bluetooth connection.

**NOTE:** You cannot update the stereo software using a Bluetooth connection. You must connect the app using a Wi-Fi connection to update the stereo software wirelessly.

For information about the Fusion Audio remote control app for compatible Apple or Android devices, go to the Apple App Store™ or the Google Play store.

#### Registering Your Fusion Device

Help us better support you by completing our online registration today.

- · Go to garmin.com/account/register.
- Keep the original sales receipt, or a photocopy, in a safe place.

## Fusion Apollo™ MS-RA800 Manuel de démarrage rapide

## Mise en route

#### **△ AVERTISSEMENT**

Consultez le guide Informations importantes sur le produit et la sécurité inclus dans l'emballage du produit pour prendre connaissance des avertissements et autres informations importantes sur le produit.

#### Téléchargement du manuel d'utilisation

Vous pouvez récupérer le manuel d'utilisation et les traductions des manuels sur le Web.

- 1 Rendez-vous sur garmin.com/manuals/ra800.
- 2 Sélectionnez un manuel.

## Touches du système stéréo



## Molette

- · Tournez la molette pour régler le volume.
- Lorsque vous réglez le volume, appuyez sur la molette pour basculer d'une zone à une autre.
- · Tournez la molette pour parcourir les menus ou configurer un réglage.
- Dans un menu, appuyez sur la molette pour sélectionner l'option mise en évidence.

Appuyez sur ce bouton pour modifier la source.



ASTUCE: vous pouvez faire tourner la molette pour parcourir les options et appuyer dessus pour sélectionner la source. Vous pouvez aussi balayer l'écran vers le haut ou vers le bas, puis appuyer sur une source à l'écran.

Maintenez le bouton enfoncé pour ouvrir le menu GROUPS lorsque vous êtes connecté à un réseau Fusion PartyBus.



Appuyez sur ce bouton pour ouvrir le menu.



- · Appuyez sur ce bouton pour allumer le système stéréo.
- · Appuyez sur cette touche pour désactiver le son.
- Maintenez ce bouton enfoncé pour éteindre la chaîne stéréo ou toutes les chaînes stéréo du réseau.

#### Commandes de lecture

Les commandes de lecture affichées à l'écran peuvent varier en fonction de la source sélectionnée.

## support.garmin.com

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M/N: MS-RA800, A03408/B03408









## **GARMIN**



## FUSION APOLLO™ MS-RA800 INSTALLATION INSTRUCTIONS

## **Important Safety Information**

#### **↑** WARNING

Failure to follow these warnings and cautions could result in personal injury, damage to the vessel, or poor product performance.

See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

This device must be installed according to these instructions.

Disconnect the vessel's DC power supply before making any modifications to it.

Before applying power to this product, make sure it has been correctly grounded according to these instructions.

#### **△** CAUTION

To avoid possible personal injury, always wear safety goggles, ear protection, and a dust mask when drilling, cutting, or sanding.

#### NOTICE

When drilling or cutting, always check what is on the opposite side of the surface to avoid damaging the vessel. Do not use the stereo as a template when drilling the mounting holes because this may damage the glass display and void the warranty. You must only use the included template to correctly drill the mounting holes.

You must read all installation instructions before beginning the installation. If you experience difficulty during the installation, contact Garmin® Product Support.

#### What's In the Box

- · Mounting gasket
- · Four 8-gauge, self-tapping screws
- · Two screw covers
- · Power and speaker wiring harness
- · Auxiliary-in, line-out, and subwoofer-out wiring harnesses
- 2 m (6 ft.) NMEA 2000<sup>®</sup> drop cable
- · Dust cover

#### **Tools Needed**

- Phillips screwdriver
- · Electric drill
- Drill bit (size varies based on surface material and screws used)
- · Rotary cutting tool or jigsaw
- 25 A circuit breaker or inline fuse for the primary power cable
- 1 A inline fuse for the ignition cable
- Silicone-based marine sealant (optional)
- Wire for power and ground cable extension. The required wire gauge depends on the length of the extension and the connected power source (*Power Cable Gauge Guide*, page 9).
- 22 AWG (0.33 mm<sup>2</sup>) wire for ignition cable extension

## **Mounting Considerations**

#### **↑** CAUTION

In high ambient temperatures and after extended use, the rear portion of the device enclosure may reach temperatures deemed dangerous to touch. To avoid possible personal injury, the device must be installed in a location where only the face is accessible to users and the rear portion cannot be touched during operation.

#### NOTICE

This device should be mounted in a location that is not exposed to extreme temperatures or conditions. The temperature range for this device is listed in the product specifications. Extended exposure to temperatures exceeding the specified temperature range, in storage or operating conditions, may cause device failure. Extreme-temperature-induced damage and related consequences are not covered by the warranty.

- You must mount the stereo on a flat surface.
- You must mount the device in a location with adequate ventilation so it does not trap heat.
- When installed properly using optional marine sealant, the stereo is water resistant from the front. The
  connectors on the back are not water resistant, so you must not install the stereo in a location where the
  back may become submerged or regularly exposed to water.
- If you are installing the stereo in a location that may be exposed to water on occasion, you must mount it within 45 degrees below or 15 degrees above the horizontal plane.
- If you are installing the stereo in a location that may be exposed to water on occasion, you must add a drip loop to the cable to allow water to drip off of the cable and avoid damage to the stereo.
- If you need to mount the stereo on the outside of the boat, you must mount it in a location far above the
  waterline, where it is not submerged, and where it cannot be damaged by docks, pilings, or other pieces of
  equipment.
- To avoid interference with a magnetic compass, you should mount the stereo at least 40 cm (15.75 in.) away from a compass.

#### **Mounting the Stereo**

#### NOTICE

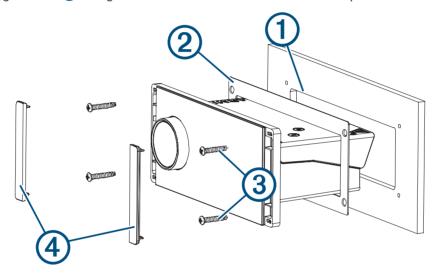
Do not use the stereo as a template when drilling the mounting holes because this may damage the display and void the warranty. You must only use the included template to correctly drill the mounting holes.

Be careful when cutting the hole to mount the stereo. There is only a small amount of clearance between the case and the mounting holes, and cutting the hole too large could compromise the stability of the stereo after it is mounted.

Do not apply grease or lubricant to the screws when fastening the stereo to the mounting surface. Grease or other lubricants can cause damage to the stereo housing.

Before you can mount the stereo in a new location on the mounting surface, you must select a location in accordance with the mounting considerations.

- 1 Adhere the template to the mounting surface.
- 2 Drill a hole inside the corner of the dashed line on the template.
- 3 Cut the mounting surface 1 along the inside of the dashed line on the template.



- 4 Ensure the mounting holes on the stereo line up with the pilot holes on the template.
- 5 Using an appropriately sized drill bit for the mounting surface and screw type, drill the pilot holes.
- 6 Remove the template from the mounting surface.
- 7 Complete an action:
  - If you are installing the stereo in a dry location, place the included mounting gasket ② on the back of the stereo.
  - If you are installing the stereo in a location that is exposed to water, apply silicone-based marine sealant on the mounting surface around the cutout.

#### **NOTICE**

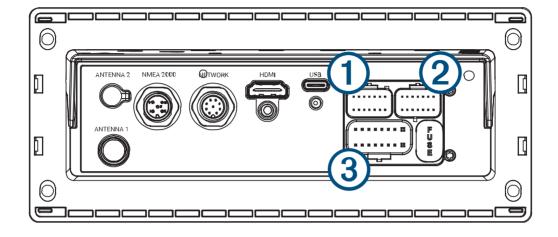
Do not install the included mounting gasket if you applied sealant to the mounting surface. Using sealant and the mounting gasket may reduce water resistance.

- 8 If you will not have access to the back of the stereo after installation, make the necessary wiring connections.
- 9 Secure the stereo to the mounting surface using the included screws 3.
  You should hand-tighten the screws when securing the stereo to the mounting surface to avoid over tightening them.
- 10 Snap the screw covers in place 4.

## **Connection Considerations**

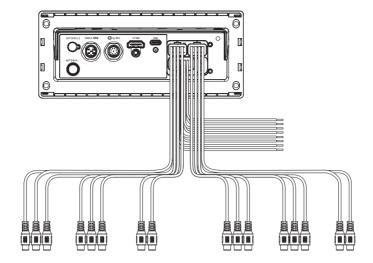
For the stereo to function correctly, you must connect it to power, to speakers, and to input sources. You should carefully plan the layout of the stereo, speakers, and input sources, as well as optional NMEA 2000 network, Fusion PartyBus<sup>™</sup> network, Garmin BlueNet<sup>™</sup> network or Legacy Garmin Marine Network needs before making any connections.

## **Port Identification**



Item	Description
ANTENNA OR ANTENNA 1	Connects the stereo to an AM/FM antenna using a standard DIN plug (not included).  On a European model, you can connect the stereo to a compatible Digital Audio Broadcast (DAB) antenna using a standard DIN plug (not included) to receive DAB stations in regions where available.  If you are installing the stereo on a boat with a metal hull, you must use a ground-dependent antenna. If you are installing the stereo on a boat with a non-metal hull, you must use a ground-independent antenna. See the installation instructions provided with your antenna for more information.
ANTENNA 2	This port is present only on European models.  Connects to a compatible DAB antenna with a male FAKRA connector (not included) to receive DAB stations in regions where available.  Connects to an FM antenna using a male FAKRA connector (not included).  When using this port you must configure it for the type of antenna you are using (Configuring the Antenna Ports for DAB and FM Antennas, page 16).
NMEA 2000	Connects the stereo to a NMEA 2000 network (NMEA 2000 System Wiring Diagram, page 15).
NETWORK	Garmin BlueNet network connector.  Connects the stereo to a Garmin chartplotter or to another Fusion PartyBus stereo, zone stereo, or network ( <i>Fusion PartyBus Networking</i> , page 17).
USB	Connects the stereo to a USB-C® device or USB-C extension cable (not included).
HDMI	Connects the stereo a digital audio source, such as TV or DVD player, using the Audio Return Channel (ARC) over HDMI® (Audio Return Channel, page 16).
FUSE	Contains an internal 25 A fuse for the device. <b>NOTE:</b> This fuse is in addition to the 25 A circuit breaker or fuse needed when connecting the power cable ( <i>Power Connection</i> , page 8).
1	Connects the stereo to the wiring harness for auxiliary input 2, and for the line and subwoofer outputs for zones 3 and 4.
2	Connects the stereo to the wiring harness for auxiliary input 1, and for the line and subwoofer outputs for zones 1 and 2.
3	Connects the stereo to the power and speaker wiring harness.

## Wiring Harness Wire and Connector Identification



Wire or RCA Connector Function	Bare Wire Color or RCA Label Name	Notes
Ground (-)	Black	Connects to the power source (Power Connection, page 8).
Power (+)	Yellow	Connects to the power source (Power Connection, page 8).
Ignition	Red	Connects to the power source (Power Connection, page 8).
		Connects to optional external amplifiers, enabling them to turn on when the stereo turns on.
Amplifier on	Blue	NOTICE
		A connected amplifier must use the same ground (-) as the stereo for this signal wire to function correctly.
Telemute	Brown	Activates when connected to the same ground (-) as the stereo.  For example, when you connect this wire to a compatible, hands-free mobile kit, the audio mutes or the input switches to Aux1 when a call is received and the kit connects this wire to the same ground (-) as the stereo. You can enable this functionality from the settings menu.
Dim	Orange	Connects to the boat's illumination wire to dim the stereo screen when the lights are on.  The gauge of the illumination wire must be suitable for the fuse supplying the circuit it is connected to.  NOTICE  The stereo and the vessel must use the same ground (-) connection for the Dim wire to function correctly.
Speaker zone 1 left (+)	White	
Speaker zone 1 left (-)	White/black	
Speaker zone 1 right (+)	Gray	
Speaker zone 1 right (-)	Gray/black	
Speaker zone 2 left (+)	Green	
Speaker zone 2 left (-)	Green/black	
Speaker zone 2 right (+)	Purple	
Speaker zone 2 right (-)	Purple/black	
Zone 1 line out (left) Zone 1 line out (right) Zone 1 subwoofer out	ZONE 1 ZONE 1 SUB OUT	Provides output to an external amplifier, and is associated with the volume control for zone 1.  Each subwoofer cable provides a single mono output to a powered subwoofer or subwoofer amplifier.
Zone 2 line out (left) Zone 2 line out (right) Zone 2 subwoofer out	ZONE 2 ZONE 2 SUB OUT	Provides output to an external amplifier, and is associated with the volume control for zone 2.  Each subwoofer cable provides a single mono output to a powered subwoofer or subwoofer amplifier.

Wire or RCA Connector Function	Bare Wire Color or RCA Label Name	Notes
Auxiliary in 1 left Auxiliary in 1 right	AUX IN 1	Provides an RCA stereo line input for audio sources, such as a CD or MP3 player.
Zone 3 line out (left ) Zone 3 line out (right) Zone 3 subwoofer out	ZONE 3 ZONE 3 SUB OUT	Provides output to an external amplifier, and is associated with the volume control for zone 3. Each subwoofer cable provides a single mono output to a powered subwoofer or subwoofer amplifier.
Zone 4 line out (left) Zone 4 line out (right) Zone 4 subwoofer out	ZONE 4 ZONE 4 SUB OUT	Provides output to an external amplifier, and is associated with the volume control for zone 4.  Each subwoofer cable provides a single mono output to a powered subwoofer or subwoofer amplifier.
Auxiliary in 2 left Auxiliary in 2 right	AUX IN 2	Provides and RCA stereo line input for audio sources, such as a CD or MP3 player.

#### **Power Connection**

When connecting the stereo to power, you must connect the yellow, red, and black wires to the power source. The yellow and red wires have different functions, and the method you use to connect them to power depends on how you plan to use the stereo on your vessel.

#### Yellow wire

- · This wire provides power to the stereo.
- This wire should be connected through a 25 A circuit breaker, if one is available on the vessel.

#### **↑** WARNING

If a 25 A circuit breaker is not available on the vessel, you must connect this wire to power through a 25 A fuse (not included). Connecting this wire to power without a circuit breaker or a fuse could result in a short on the wire, which may lead to over heating and a possible fire.

- This wire provides power to the stereo at all times, and it will drain the battery even when the stereo is not in use. You should install a manual switch on this wire if a 25 A circuit breaker is not available on the vessel, or if you cannot toggle the breaker to remove power to the stereo when storing the vessel.
- When extending this wire, the required wire gauge depends on the length of the extension and the connected power source (*Power Cable Gauge Guide*, page 9)

#### **Red wire**

- This wire can be connected to the same power source as the yellow wire through the ignition or through a manual switch. This enables you to turn the stereo on and off automatically when you turn the vessel on and off, or when you activate the switch.
- Using this wire to turn the stereo on and off behaves in the same way as using the power button on the
  stereo to turn it on and off. It is not necessary to connect this wire through the ignition or manual switch
  if you plan to toggle the power using the power button on the stereo or using a connected chartplotter or
  remote control, and can instead be tied together with the yellow wire. This wire must be connected to turn
  the stereo on.
- When you turn off the stereo using this switch or the power button, it enters a standby mode that allows
  the stereo to start up again faster than if you switch the power off using the yellow wire. When it is in
  standby mode, the stereo uses up to 350 mA, and you must turn off power to the stereo on the yellow
  wire through the circuit breaker or manual switch when you are not using the vessel to avoid draining the
  battery.

#### **↑** WARNING

You must connect this wire to power through a 1 A fuse (not included), whether or not you connect it to the ignition or manual switch. Connecting this wire to power without a fuse could result in a short on the wire, which may lead to over heating and a possible fire

• If it is necessary to extend this wire, use 22 AWG (0.33 mm<sup>2</sup>) wire.

#### Black wire

- This is the ground wire, and you must connect it to the negative terminal of the power source or to a common ground.
- When extending this wire, the required wire gauge depends on the length of the extension and the connected power source (*Power Cable Gauge Guide*, page 9)

#### **Power Cable Gauge Guide**

The gauge of wire needed to connect the stereo to power and ground depends on the power source and the length of the cable run from the power source to the stereo. Refer to this table to determine the appropriate wire gauge for your installation. This table accounts for terminal connection resistance.

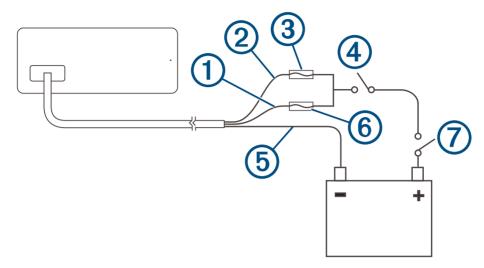
**NOTE:** If you are using aluminum wire, you should use a wire two gauges larger than the gauge listed below to compensate for a potential voltage drop due to the wire material.

Power Source	Less Than 1 m (3.5 ft.)	1 through 5 m (3.5 through 16 ft.)	Greater than 5 m (16 ft.)
24 VDC	14 AWG	12 AWG	8 AWG
	(2 through 3 mm <sup>2</sup> )	(3 through 4 mm <sup>2</sup> )	(8 through 10 mm <sup>2</sup> )
12 VDC	12 AWG	8 AWG	4 AWG
	(3 through 4 mm <sup>2</sup> )	(8 through 10 mm <sup>2</sup> )	(21 through 25 mm <sup>2</sup> )

#### **Connecting to Power Without Using an Ignition Switch**

This method of connection is used most often on larger vessels and on vessels with multiple networked stereos and other marine devices. For these installations, a faster startup time is typically less critical, and it is more effective to use the breaker or a dedicated switch on the electrical panel to turn off the stereo and ensure that no unexpected power drain occurs.

1 Consult this diagram to plan the wire connections.



Item	Description	Notes
1	Yellow wire	You should connect this wire to the red wire before you connect both wires to the manual switch or circuit breaker.
2	Red wire	You should connect this wire to the yellow wire so that it does not act as a physical standby switch.
3	1 A fuse (not included)	You must install this fuse on the red wire before you connect the red wire to the yellow wire.
4	Manual switch (optional)	This switch is needed only if a circuit breaker is not available or if you require a more-convenient method of cutting power to the stereo.
5	Black wire	Ground (-) You must connect this wire to the same ground as the power source, or to a common ground.
6	25 A fuse (not included)	This fuse is required if you are not able to connect to power through a 25 A circuit breaker .
7	25 A circuit breaker	If a circuit breaker is not available, you must connect a 25 A fuse 6 on the yellow wire

2 Route all wires to the stereo wiring harness, the circuit breaker or switch, and the power source as necessary.

Do not connect the wiring harness to the stereo until after you have made all of the bare wire connections.

- 3 Install all of the necessary fuses on the red and yellow wires.
- 4 Connect the wiring harness to the stereo.

When the circuit breaker or manual switch on the combined yellow and red wires is closed, the stereo is always on. You can use the power button on the stereo or a connected chartplotter or remote control to place the stereo in a low-power standby mode if needed.

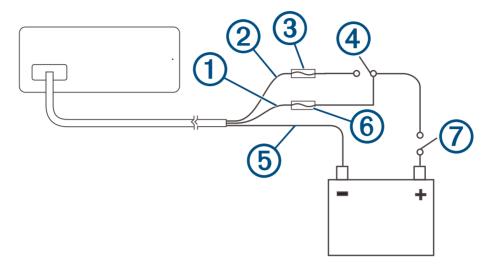
#### NOTICE

When you are not using the vessel, you should remove power to the stereo using the circuit breaker or manual switch to avoid draining the battery.

#### **Connecting to Power Through an Ignition Switch**

This method of connection is used most often on ski boats, wake boats, and similar sport or recreational vessels where power to the engines is toggled often. For these installations, a quick standby and faster startup time is desired so that music can be stopped and begin playing again as quickly as possible after restarting the engines. When in standby mode, the stereo uses up to 350 mA, and you should connect the power wires through a circuit breaker or manual switch to avoid draining the battery when you are not using the boat.

1 Consult this diagram to plan the wire connections.



Item	Description	Notes
1	Yellow wire	You must connect this wire to the same power source as the ignition or ACC switch.
2	Red wire	You must connect this wire to the ignition or ACC switch before you connect it to the same power source as the yellow wire.
3	1 A fuse (not included)	You must install this fuse on the red wire before you connect the red wire to the ignition or ACC switch.
4	Ignition or ACC switch	Connecting the red wire to this switch allows the stereo to enter a low-power standby mode when you turn off the engines, so it can start up faster when you turn on the engines again.
5	Black wire	Ground (-)
6	25 A fuse (not included)	This fuse is required if you are not able to connect to power through a 25 A circuit breaker .
7	25 A circuit breaker or manual switch	If a circuit breaker is not available, you must connect a 25 A fuse 6 on the yellow wire. You should also connect the yellow wire to power using a manual switch, so you can remove power to the stereo when you are not using the boat.

- 2 Route all wires to the stereo wiring harness, the ignition or ACC switch, the circuit breaker, and the power source as necessary.
  - Do not connect the wiring harness to the stereo until after you have made all of the bare wire connections.
- 3 Install all of the necessary fuses on the red and yellow wires.
- 4 Connect the wiring harness to the stereo.

When you turn on the ignition switch, the stereo turns on along with other accessory electronics. When you turn off the ignition switch, the stereo enters a low-power standby mode.

#### NOTICE

When you are not using the vessel for an extended period of time, you should remove power to the stereo using the circuit breaker or other manual switch on the yellow wire to avoid draining the battery.

#### **Speaker Zones**

You can group speakers in one area into a speaker zone. This enables you to control the audio level of the zones individually. For example, you could make the audio guieter in the cabin and louder on deck.

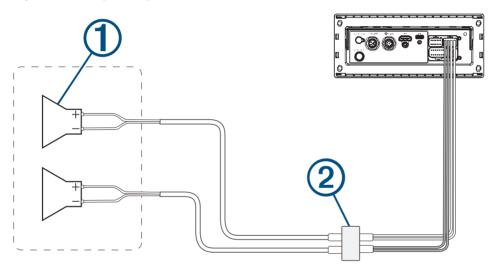
The speaker wires on the wiring harness for zones 1 and 2 are powered by the on-board amplifier. To use the RCA line outputs and the RCA subwoofer outputs for zones 1 and 2, you must connect external amplifiers.

Zones 3 and 4 are available as line-level outputs only. To use the RCA line outputs and the RCA subwoofer outputs for zones 3 and 4, you must connect external amplifiers.

You can set the balance, volume limit, tone, subwoofer frequency, and name for each zone, and configure other zone-specific settings.

**NOTE:** Subwoofer frequency is not adjustable when managed by DSP.

#### **Single-Zone System Wiring Example**

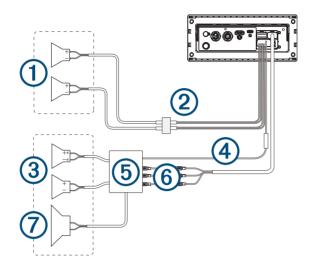


1	Speakers
2	Water-tight connection

#### **Speaker System Wiring Using a Line Out**

This diagram illustrates a system installation with an external amplifier and subwoofer connected to zone 2 on the stereo using a line out. You can connect an amplifier and subwoofer to any or all of the available zones on the stereo.

**NOTE:** You can connect speakers to the speaker wires for the internal stereo amplifier while using the line out on zones 1 and 2, although adjusting the volume affects both the speakers connected to the internal amplifier and the line out. This may result in uneven volume levels.



- Zone 1 speakers
- 2 Water-tight connection
- 3 Zone 2 speakers

Amplifier-on signal wire

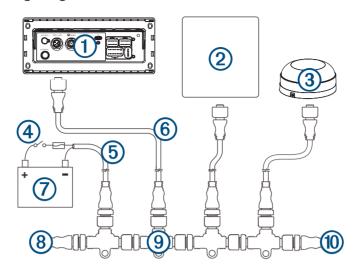
- You must connect this wire to each amplifier connected to a zone line out.

  A connected amplifier must use the same ground (-) as the stereo for this signal wire to function correctly.
- (5) Powered amplifier connected to the zone 2 line out
- Zone 2 line out and subwoofer out

  Each subwoofer cable provides a single mono output to a powered subwoofer or subwoofer amplifier.

  You may need to use an RCA splitter to connect this to an amplifier.
- (7) Subwoofer

## **NMEA 2000 System Wiring Diagram**



- 1 Stereo
- Supported chartplotter, MFD, or compatible Fusion® NMEA 2000 remote control

NMEA 2000 GPS antenna, speed sensor, or wind instrument.

- When the stereo is connected to the same NMEA 2000 network as a compatible engine, a GPS antenna, a chartplotter with a built-in GPS antenna, a wind instrument, or a water speed sensor, it can be configured to automatically adjust the volume according to the engine RPM, the speed over ground, the wind speed, or the speed through water. See the stereo Owner's Manual for more information.
- (4) In-line switch
- MMEA 2000 power cable
- (6) NMEA 2000 drop cable, up to 6 m (20 ft.)
- 7 9 to 16 Vdc power supply
- 8 NMEA 2000 terminator or backbone cable
- 9 NMEA 2000 T-connector
- NMEA 2000 terminator or backbone cable

#### **Audio Return Channel**

The Audio Return Channel (ARC) enables you to play digital audio from a television or other source with HDMI technology over the stereo system speakers.

HDMI version 1.4 or newer cables support ARC. When planning your stereo installation, check whether your devices and cables support ARC. Most devices that support ARC have an ARC or eARC label on the HDMI connector that supports ARC.

You may need to configure your television or other source to output audio over ARC. This stereo supports ARC (but not eARC), CEC 1.4, and PCM stereo audio. See the manual for your source device for configuration instructions if needed.

**NOTE:** There is a limit to the length of the HDMI cable when using ARC functionality. If your source is greater than 5 m (16 ft.) away from the stereo, confirm with the cable manufacturer that it can support ARC at the length needed.

**TIP:** On compatible televisions, you can control the volume of the stereo using the television remote control when using the ARC source.

#### **Configuring the Antenna Ports for DAB and FM Antennas**

**NOTE:** These instructions apply only to European models. DAB stations are broadcast only in select areas of Europe, so not all models support this feature.

There are two antenna ports on the stereo, and you can connect a DAB antenna and an FM antenna to either of them, depending on the type of connector on the antenna. After connecting an antenna, you must configure the stereo to use the antenna properly.

- 1 Select > SETTINGS > SOURCE > DAB.
- 2 Select an option:
  - · To configure an antenna port for a DAB antenna, select **DAB ANTENNA**.
  - To configure an antenna port fo an FM antenna, select FM ANTENNA
- 3 Select the antenna port where you connected the antenna.
- 4 Repeat these steps for the other antenna, if necessary.
- 5 If the connected antenna requires power from the stereo, select > SETTINGS > SOURCE > DAB and select ANTENNA 1 POWER or ANTENNA 2 POWER depending on which port you connected the antenna (Optional).

## **Fusion PartyBus Networking**

The Fusion PartyBus networking feature allows you to connect multiple compatible stereos together on a network, using a combination of wired or wireless connections.

**NOTE:** When you connect a Fusion stereo to Garmin BlueNet network or a Garmin Marine Network, you are limited to using only Garmin and Fusion devices. You may not be able to use third-party routers, storage devices, or other network products with this stereo directly.

**TIP:** When the stereo is connected to a Garmin BlueNet network or a Garmin Marine Network, you can connect a mobile device to a wireless access point on a connected Garmin chartplotter and use the Fusion Audio app to control the stereo.

You cannot use Wi-Fi<sup>®</sup> networking when a stereo is connected to a Garmin network.

You can group a compatible stereo, such as the Fusion Apollo RA800 stereo, with other compatible stereos connected to the Fusion PartyBus network. Grouped stereos can share available sources and control media playback on all of the stereos in the group, which allows for a synchronized audio experience across the vessel. You can quickly create, edit, and break up groups as needed from any compatible stereo or remote control on the network.

**NOTE:** A zone stereo, such as the Fusion Apollo SRX400, can create or join a group to control and play sources from other stereos, but it cannot share its sources with the group.

For additional considerations when sharing sources, see the owner's manual.

You can use compatible stereos and remote controls, whether they are grouped or not, to adjust the volume of the available speaker zones for any stereo on the network.

You can connect up to eight Fusion PartyBus stereos on a network wirelessly.

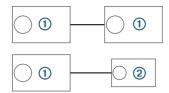
## **Wired Networking Considerations**

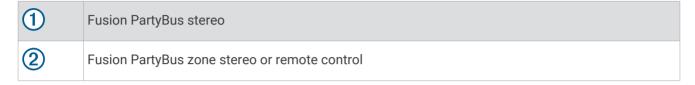
When you are planning your network installation, observe the following considerations for all wired connections.

- This device uses Garmin BlueNet technology for wired network connections. For more information about Garmin BlueNet technology, including best practices for properly constructing a network that contains both Garmin BlueNet devices and legacy Garmin Marine Network devices, go to garmin.com/manuals/bluenet
  - If you are connecting this stereo to another stereo or device that has a Garmin BlueNet network port, you can use standard Garmin BlueNet cables (not included).
  - If you are connecting this stereo to another device that uses Legacy Garmin Marine Network cables, you should use a Garmin Marine Network to Garmin BlueNet network adapter cable (010-12531-11 or 010-13094-00, not included).
  - If you are connecting this stereo to another stereo or device that uses standard Ethernet port, you should use an RJ45 to Garmin BlueNet network adapter cable (010-12531-02, not included).
  - If you multiple chartplotters using a mix of Garmin BlueNet network and legacy Garmin Marine Network connections, you should connect this device to a Garmin BlueNet chartplotter or switch for the best performance.
  - For more information about Garmin BlueNet technology, go to garmin.com/manuals/bluenet
- You can use one network cable to connect the stereo directly to a compatible device.
- You must use wired network switches and wired or wireless network routers when you connect more than two compatible devices to a network.
- If you install a router on the network, it should be configured to be a DHCP server by default. See your router instructions for more information.
- If you do not install a router, and there are no other DHCP servers on the network, you should configure one Fusion PartyBus stereo to be a DHCP server (Setting the Fusion PartyBus Device as the DHCP Server, page 23).

#### **Wired Network Example for Direct Connections**

No network setting changes are needed when connecting two devices together directly, but for the best results, you should configure one device to be a DHCP server (Setting the Fusion PartyBus Device as the DHCP Server, page 23).



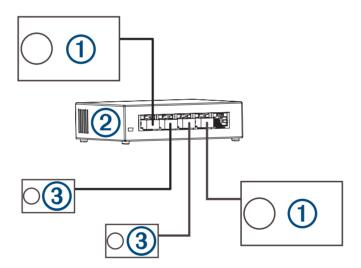


#### **Wired Network Example with a Switch or Router**

You must use wired network switches, a wired network router, or both to connect more than two devices.

If you have more than two devices using Garmin BlueNet network technology, you can use a Garmin BlueNet 20 switch to connect them.

If you did not install a router, and there are no other DHCP servers on the network, you should configure one Fusion PartyBus stereo to be a DHCP server (Setting the Fusion PartyBus Device as the DHCP Server, page 23). If you installed a router, you may need to configure it to be a DHCP server. See your router instructions for more information.



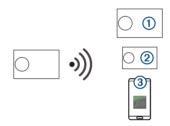
Fusion PartyBus stereo
 Wired network switch, wired network router, or Garmin BlueNet 20 switch
 Fusion PartyBus zone stereo or remote control

#### **Wireless Networking Considerations**

When you are planning your network, observe the following considerations for all wireless connections.

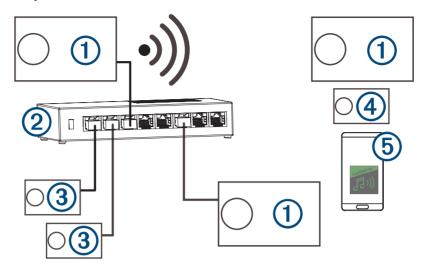
- Wired connections are more reliable than wireless connections. You should plan your network to use network cables, but if it is not possible, many Fusion PartyBus devices are Wi-Fi compatible. You can connect them to wireless routers or access points.
- If you install a wireless router on the network, it should be configured to be the DHCP server by default. See your wireless router instructions for more information.
- If you are not using a wireless router, you can configure this device as a wireless access point, so you can connect other devices within wireless range.
  - **NOTE:** You should not configure this device as a wireless access point if you have a router installed on the network, because it may introduce DHCP conflicts and result in poor network performance.
- If you connect a Fusion PartyBus device to the network as a WI-FI CLIENT, you cannot connect any additional wired Fusion PartyBus devices to that device.
- You can connect a smartphone to the wireless network to control any stereo on the network using the Fusion Audio app.
- You can connect an Apple® device to the wireless network to stream media to multiple stereos on the network using Apple AirPlay® 2.
- Connecting a Bluetooth® device to the stereo may interfere with some Wi-Fi connections.
- Wi-Fi signals may interfere with Bluetooth device connections. You should turn off the Wi-Fi setting on your stereo if you are not using it to connect to a wireless network or to provide a wireless access point.

#### **Wireless Access Point Example**



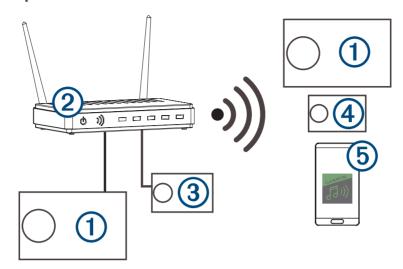
1	Fusion PartyBus stereo
2	Fusion PartyBus zone stereo
3	Mobile device using the Fusion Audio app

## **Wireless Network Example with a Wired Switch or Router**



1	Fusion PartyBus stereo
2	Wired network switch or wired network router
3	Fusion PartyBus zone stereo or remote control
4	Fusion PartyBus zone stereo
5	Mobile device using the Fusion Audio app.

## **Wireless Network Example with a Wireless Router or Access Point**



1	Fusion PartyBus stereo
2	Wireless network router or wireless access point
3	Fusion PartyBus zone stereo or remote control
4	Fusion PartyBus zone stereo
5	Mobile device using the Fusion Audio app

#### **Constructing a Network**

You should have a basic understanding of networking when building a network for Fusion PartyBus devices.

These instructions guide you through the basics of building and configuring a network, and should apply to most situations. If you need to perform advanced networking tasks, such as assigning static IP addresses to devices on the network or configuring advanced settings on a connected router, you may need to consult a networking professional.

- 1 Determine the installation location of the Fusion PartyBus devices you want to connect to the network.
  NOTE: Wired connections are more reliable than wireless connections. When planning your network, you should run network cables instead of using wireless connections when possible.
- 2 Determine the installation location of any needed network routers or switches.
- 3 Route network cable to the installation locations of the stereos, switches, and router.
  - **NOTE:** If you are connecting this stereo only to other stereos or devices with a Garmin BlueNet network port, you can run Garmin BlueNet cables instead of Cat5e or Cat6 cable. If you are connecting to other stereos or devices with a standard RJ45 network port, you must use an RJ45 to Garmin BlueNet adapter cable (010-12531-02, not included) to connect a Cat5e or Cat6 cable to this stereo.
- 4 Connect the network cables to the stereos, switches, and router.

#### **NOTICE**

Do not completely install the stereos yet. You should test the network before you install the stereos.

- 5 Turn on all devices connected to the network, including wireless devices.
- 6 Select an option:
  - If you are using a network router (wired or wireless), consult the documentation provided with your router to configure the router as the DHCP server, if necessary. When using a router as the DHCP server, all stereos on the network should use their default configuration (DHCP client).
  - If you are not using a wireless router, you should configure a stereo as a wireless access point, if
    necessary (Setting the Fusion PartyBus Device as a Wireless Access Point, page 24). Configuring a stereo
    as a wireless access point makes that stereo the DHCP server, and all of the other stereos on the network
    should use their default configuration (DHCP client).
  - If you are not using a network router, not using a stereo as a wireless access point, and there are no other DHCP servers on the network, you should configure one of the stereos as the DHCP server (Setting the Fusion PartyBus Device as the DHCP Server, page 23).
- 7 Test the network by selecting > GROUPS to view a list of devices connected to the on the network, and select an option:
  - If any Fusion PartyBus devices are not available to the network, troubleshoot the network (*Network Troubleshooting*, page 25).
  - If all Fusion PartyBus devices are available on the network, complete the installation for each stereo, if necessary.

## **Network Configuration**

**TIP:** You can select the network status icon from any screen to open the network configuration menu.

#### Setting the Fusion PartyBus Device as the DHCP Server

If you connected more than two network devices together using a network switch or wireless access point but you did not install a router, you should configure only one Fusion PartyBus stereo to be a DHCP server.

#### NOTICE

Having more than one DHCP server on the network causes instability and poor performance for all devices on the network.

**NOTE**: If you have set up this stereo as a WI-FI ACCESS POINT, it is configured as a DHCP server by default, and no further settings changes are needed (*Setting the Fusion PartyBus Device as a Wireless Access Point*, page 24).

- 1 If the device is connected to the network using an Ethernet cable, select > SETTINGS > NETWORK > WI-FI OFF.
- 2 If the device is connected to the network using an Ethernet cable, select STATIC IP > SAVE.
- 3 Select ADVANCED > DHCP SERVER > DHCP ENABLED > SAVE.

#### **Connecting the Stereo to a Garmin Network**

**NOTE:** When you connect the stereo to a Garmin BlueNet network or a Garmin Marine Network, you are limited to using only Garmin and Fusion devices. You will not be able to use third-party routers or other network products with this stereo directly.

You cannot use Wi-Fi networking to connect to a Garmin chartplotter, nor can you use Wi-Fi networking on the stereo when it is connected to a Garmin chartplotter using a wired network connection.

You can connect this stereo to a Garmin BlueNet network or a Garmin Marine Network in order to view and control the stereo using a compatible Garmin chartplotter.

**NOTE:** If a Garmin chartplotter is detected on the network, the stereo automatically switches to GARMIN MARINE NETWORK mode, the stereo reboots, and all other network settings on the stereo are disabled. If this does not happen automatically, reset the stereo network settings and connect it again (*Resetting Network Settings*, page 24). If this still does not happen automatically, perform a factory reset on the stereo and connect it again.

This stereo is compatible with both Garmin BlueNet devices and Garmin Marine Network devices. You can connect the stereo to either type of network, but if you have multiple stereos, they should all be connected to one network type or another.

**NOTE:** If your vessel has a mix of Garmin Marine Network and Garmin BlueNet networks connected through a Garmin BlueNet bridge, all stereos should be connected to the Garmin BlueNet network for the best performance.

For more information about Garmin BlueNet technology, including best practices for constructing a network including both Garmin BlueNet devices and Garmin Marine Network devices, go to garmin.com/manuals /bluenet.

**TIP:** When the stereo is connected to a Garmin network, you can connect a mobile device to a wireless access point on a connected Garmin chartplotter and use the Fusion Audio app to control the stereo.

- 1 Determine the best device on the Garmin BlueNet network or the Garmin Marine Network to which you should connect the stereo.
- 2 Select an option:
  - To connect the stereo to a Garmin BlueNet device, use a Garmin BlueNet cable (not included).
  - To connect the stereo to a Garmin Marine Network device, use a Garmin Marine Network to Garmin BlueNet network adapter cable (010-12531-11 or 010-13094-00, not included).

#### Setting the Fusion PartyBus Device as a Wireless Access Point

Before you can connect additional Fusion PartyBus devices or smartphones to a Fusion PartyBus device wirelessly, you must configure one device as a wireless access point. This is not necessary if you installed a wireless router or other wireless access point on the network.

#### NOTICE

You should not configure this device as a wireless access point if you have a router installed on the network. Doing so may introduce DHCP conflicts and result in poor network performance.

For more detailed configuration instructions, see the owner's manual.

- 1 Select => SETTINGS > NETWORK > WI-FI ACCESS POINT.
- 2 Select **USE DEFAULTS** and wait for the device to save the network settings.
  - **NOTE:** After the default settings are saved, you can scroll down to the bottom of the NETWORK menu to view the default SSID assigned to the access point.
- 3 Select > SETTINGS > NETWORK > ADVANCED > WI-FI AP SETTINGS > PASSWORD and enter a password for the wireless access point.

**NOTE:** When you configure the stereo as a wireless access point, you can also use the wired network connection without changing any additional settings. The wired and wireless networks are bridged.

#### **Connecting the Fusion PartyBus Device to a Wireless Access Point**

You can connect this device to a wireless access point on a router or compatible Fusion PartyBus device on the network. This device can connect using Wi-Fi Protected Setup (WPS), if it is supported by your access point. This device can connect using Apple Accessory Configuration (WAC) using a supported Apple device.

- 1 Select > SETTINGS > NETWORK > WI-FI CLIENT > SSID.

  A list of wireless access points within range appears.
- 2 Select the Fusion PartyBus wireless access point.
- 3 If necessary, select PASSWORD, enter the password, and select ✓.
- 4 Select SAVE.

**NOTE:** After you connect the stereo to a wireless access point, you cannot use the wired network connection.

#### **Resetting Network Settings**

You can reset all network settings for this stereo to the factory default values.

- 1 Select => SETTINGS.
- 2 Select NETWORK > ADVANCED > RESET > YES.

#### **Advanced Network Configuration**

You can perform advanced networking tasks on a Fusion PartyBus device, such as defining DHCP ranges and setting static IP addresses. See the owner's manual for more information.

**NOTE:** When connected to a Garmin Marine Network via ethernet and configured as a DHCP client, the stereo automatically detects and connects to the Garmin Marine Network.

#### **Network Troubleshooting**

If you cannot see or connect to Fusion Apollo devices on the network, perform these steps.

- Verify that all Fusion Apollo stereos, remote controls, network switches, routers, and wireless access points are connected to the network and turned on.
- Verify that wireless Fusion Apollo devices are connected to a wireless router or wireless access point on the network.
  - **NOTE:** Wired connections are more reliable than wireless connections. If possible, you should connect devices to the network using an Ethernet cable.
- Verify that only one device, either a stereo or a router, is configured as a DHCP server. If you are connected
  to a Garmin chartplotter using a wired Garmin BlueNet or Garmin Marine Network connection, it acts as the
  DHCP server for the network and no connected stereo should be configured as a DHCP server.
- Change the channel on your router or wireless access point to test for and correct interference. You may experience wireless interference if there are many nearby wireless access points.
- Disconnect Bluetooth devices to test for and correct interference.
   Connecting a Bluetooth device to a stereo configured as a wireless access point or client may reduce wireless performance.
- If you configured static IP addresses, verify that every device has a unique IP address, that the first three sets of numbers in the IP addresses match, and that the subnet masks on every device are identical.
- If you have made configuration changes that might be causing networking issues, reset all network settings to the factory default values.
- If you connected the Fusion Apollo device to a Garmin chartplotter using a wired Garmin BlueNet or Garmin Marine Network connection, the network settings on the device should change automatically to GARMIN MARINE NETWORK.

If the network settings do not change as expected, reset the network settings on the device (Resetting Network Settings, page 24).

## **Stereo Information**

## **Specifications**

## General

Weight	750 g (26.5 oz.)
Water resistance	IEC 60529 IPX7 (front of stereo only, when properly installed) IEC 60529 IPX2 (rear of stereo, when properly installed)
Operating temperature range	From 0 to 50°C (from 32 to 122°F)
Storage temperature range	From -20 to 70°C (from -4 to 158°F)
Input voltage	From 10.8 to 32 Vdc
Current (max.)	25 A
Current (muted)	Less than 900 mA
Current (off)	Less than 350 mA
Fuse	25 A mini blade-type
NMEA 2000 LEN @ 9 Vdc	2 (100 mA)
Bluetooth wireless range	Up to 10 m (30 ft.)
ANT® wireless range	Up to 3 m (10 ft.)
Wireless frequencies/protocols	Wi-Fi 2.4 GHz @ +19.49 dBm maxiumum Bluetooth 2.4 GHz @ +15.11 dBm maxiumum ANT 2.4 GHz @ 3.22 dBm maxiumum
Compass-safe distance	40 cm (15.75 in.)

## On-board, Class D Amplifier

Output music power per channel	4 x 80 W max. 4 ohm
Total output peak power	320 W
Output power per channel <sup>1</sup>	4 x 40 W RMS less than 1% THD+N, 4 ohm {CTA-2006-D}
Line output level (max.)	5.6 V (peak to peak)
Aux input level (typical)	1 V RMS typical, 2 V RMS max.

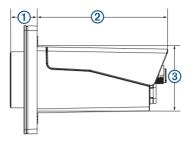
## **Tuner frequencies**

Tuner	Europe and Australasia	USA	Japan
FM radio frequency range	87.5 to 108 MHz	87.5 to 107.9 MHz	76 to 95 MHz
FM frequency step	50 kHz	200 kHz	50 kHz
AM radio frequency range	522 to 1620 kHz	530 to 1710 kHz	522 to 1620 kHz
AM frequency step	9 kHz	10 kHz	9 kHz
DAB frequency	174 to 240 MHz (Band III)	N/A	N/A

<sup>&</sup>lt;sup>1</sup> The stereo may limit the output power to prevent the amplifier from overheating, and to maintain the audio dynamics.

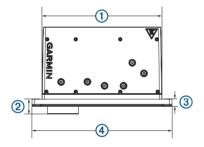
### **Stereo Dimension Drawings**

### **Side Dimensions**



1	20.4 mm (0.8 in.)
2	99 mm (3.9 in.)
3	50 mm (1.97 in.)

### **Top Dimensions**



1	164 mm (6.5 in.)
2	20.4 mm (0.8 in.)
3	10 mm (0.39 in.)
4	192 mm (7.56 in.)

### **Software Updates**

Go to support.garmin.com to find software updates and information for your device.

### 物質宣言

	有毒有害物质或元素									
部件名称	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚	邻苯二甲酸 二(2-乙基 己)酯	邻苯二甲 酸丁苄酯	邻苯二甲 酸二丁酯	邻苯二甲 酸二异丁 酯
印刷电路板组件	×	0	0	0	0	0	0	0	0	0
屏幕/背光	X	0	0	0	0	0	0	0	0	0
金属零件	×	0	0	0	0	0	0	0	0	0
电缆 电缆组件 连接器	×	0	0	0	0	0	0	0	0	0
塑料和橡胶零件	0	0	0	0	0	0	0	0	0	0

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M/N: A04580/B04580 IC: 1792A-A04580

船用音響主機

## **GARMIN**®



# FUSION APOLLO™ MS-RA800

Owner's Manual

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M/N: MS-RA800, A04580/B04580

IC: 1792A-A04580 船用音響主機

Table of Contents	Controlling Music Playback on a USB	
Getting Started 1	Flash Drive or Media Player	11
Stereo Controls1	Controlling Music Playback on a Connected Apple Device	11
Playback Controls2	USB Source Settings	
Gesture Screen	· ·	
Entering Text	Radio	.11
Using the Dial to Select Items3	Setting the Tuner Region	. 11
Stereo Screen	Changing the Radio Station	12
Naming the Device	Annie AirDieu	10
Setting the Home Zone	Apple AirPlay	. 12
Selecting a Source 4	Connecting an Apple Device Using	10
Adjusting the Backlight and Dial	AirPlay Setting an AirPlay Password	
Brightness4	Setting an Airriay Fassword	. 12
Audio Control5	Connecting an Auxiliary Device	. 12
Adjusting the Volume5	Audio Return Channel	. 13
Muting all Connected Stereos 5	Correcting Audio and Video	
Adjusting the Subwoofer Level5	Synchronization Issues on the Audio	
Adjusting the Tone5	Return Channel Source	. 13
Disabling the Loud Setting for a Zone5	DAD DI L	10
Adjusting the Gain for an Auxiliary	DAB Playback	
Device	Setting the Tuner Region	
Speaker Zones6	Scanning for DAB Stations	
DSP Settings6	Changing DAB Stations Selecting a DAB Station from a	14
Configuring the DSP Settings 6	List	. 14
Automatic Volume Adjustment Based on	Selecting a DAB Station from a	
Speed	Category	14
Media Player Connection7	Presets	. 14
Bluetooth Device Playback 7	Saving a Station or Channel as a	
	Preset	
Connecting a Compatible Bluetooth Device	Selecting a Preset from a List	
Bluetooth Range Information 8	Removing Presets	14
Selecting a Different Bluetooth	Fusion PartyBus Networking	15
Device 8	Creating a Group	
Bluetooth Source Menu and Settings 9	Editing a Group	
Disabling Bluetooth Auto	Leaving a Group	
Connection9 Correcting Bluetooth Audio and Video	Grouped Stereo Functions	
Synchronization Issues9	Grouped Stereo Source	
Sylloin Sinzation loudes	Considerations	
USB Device Playback10	Group Synchronization	
USB Device Compatibility10	Enabling Group Synchronization	. 17

Table of Contents

Turning LED Lights On and Off	Setting the Fusion PartyBus Device as a Wireless Access Point
General Settings20	Additional Stereo Control Options30
Speaker Zone Settings	Connecting to a Garmin Watch
Access Point Using Wi-Fi Protected Setup26	Accessing the Stereo Webpage 37 Updating the Stereo from the Stereo Webpage
Connecting the Device to a Wireless Access Point Using Apple Wireless Accessory Configuration 26	Troubleshooting
	F. 2222

ii Table of Contents

The stereo does not receive DAB	
stations	38
My Bluetooth audio is interrupted by	1
short breaks	38
The stereo does not display all song	
information from my Bluetooth	
source	38
Network Troubleshooting	39
Network Status Icons	39
Software Update Troubleshooting	40
The stereo does not update as pa	rt
of a Garmin network update	40
The stereo keeps locking up when	
connected to an Apple device	40
The stereo is not finding my	
connected Apple device	40
My Apple AirPlay audio is interrupted	d
by short breaks	
Specifications	41
Network Interfaces and Services	42
Stereo Dimension Drawings	42
Side Dimensions	42
Top Dimensions	43

Table of Contents iii

### **Getting Started**

#### **MARNING**

See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

### **Stereo Controls**



- Turn to adjust the volume.
- · When adjusting the volume, press to switch between zones.

Dial

- Turn to move through the menus or adjust a setting.When in a menu, press to select the highlighted option.
- Press and hold to activate certain functions such as opening the radio presets or muting all connected stereos from the mute screen (*Muting all Connected Stereos*, page 5).

Press to change the source.

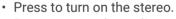


**TIP:** You can turn the dial to browse, and press the dial to select the source. You can also swipe the screen up and down, and touch a source on the screen.

Press and hold to open the GROUPS menu when connected to a Fusion PartyBus<sup>™</sup> network (*Fusion PartyBus Networking*, page 15).



Press to open the menu.





- · Press to mute the audio.
- Press and hold to turn off the stereo or all stereos on the network.
- Press and hold for longer than 10 seconds to reset the stereo.

### **Playback Controls**

The on-screen playback controls may change depending on the source selected.

**NOTE:** After about fifteen seconds, the playback controls are hidden by the gesture screen feature. You can swipe down on the screen to view the playback controls (*Gesture Screen*, page 3).

II	Press to pause media playback.
	Press to play media or resume media playback.
I◀	<ul> <li>Press to skip to the previous track, when using an applicable source.</li> <li>Press and hold to rewind the track when using an applicable source.</li> <li>AM, FM source: <ul> <li>Press to tune to the previous station or preset.</li> <li>Press and hold for faster tuning (manual mode only).</li> </ul> </li> <li>DAB source: <ul> <li>Press to return to the previous DAB station in the ensemble. When you reach the beginning of the current ensemble, the stereo automatically changes to the last available station in the previous ensemble.</li> <li>Press and hold to return to the previous DAB ensemble.</li> </ul> </li> </ul>
▶I	<ul> <li>Press to skip to the next track, when using an applicable source.</li> <li>Press and hold to fast-forward the track when using an applicable source.</li> <li>AM, FM source: <ul> <li>Press to tune to the next station or preset.</li> <li>Press and hold for faster tuning (manual mode only).</li> </ul> </li> <li>DAB source: <ul> <li>Press to advance to the next DAB station in the ensemble. When you reach the end of the current ensemble, the stereo automatically changes to the first available station in the next ensemble.</li> <li>Press and hold to advance to the next DAB ensemble.</li> </ul> </li> </ul>
MA★ (AM and FM sources)	Press to cycle through the tuning modes (auto or manual) and presets.  Press and hold to save the current station as a preset.
(DAB source)	Press to switch between manual tuning mode and presets. Press and hold to scan for DAB stations.
(Aux and ARC sources)	Press to increase the gain.
(Aux and ARC sources)	Press to decrease the gain.

#### **Gesture Screen**

After about fifteen seconds, a screen appears showing media information and album art only. You can use the touchscreen to interact with this screen.

- · You can swipe left or right to change the track or preset.
- You can touch the screen for about one second to pause playback or mute the audio, depending on the source.
- · You can swipe down to return to the playback controls screen.

**NOTE:** You can disable this screen in the settings (*Power Options*, page 24).

### **Entering Text**

- 2 If necessary, select or ▶ to use numerals, symbols, or lower-case letters when available.
- 3 Touch a character to select it.
- 4 Select \( \square\) to save the new text.

### Using the Dial to Select Items

You can use the dial to highlight and select items on the screen.

- · Turn the dial to highlight an item on the screen.
- · Press the dial to select the highlighted option.

#### Stereo Screen

The information displayed on the screen varies depending on the source selected. The on-screen playback controls may change depending on the source selected (*Playback Controls*, page 2). This example shows a track playing on a device connected using Bluetooth® wireless technology.



Source name
 Active zone, status icons, and shortcuts (Status Icons, page 4)
 TIP: Touch an icon to open the applicable page.
 Track details (if available)
 Album art (if available from a compatible source)
 Elapsed time, track duration, and the current track number out of the total number of tracks in the playlist (if available)

### Status Icons

You can touch a status icon to open the relevant screen.

<del></del>	Opens the volume screen.
*	Opens the PRESET screen.
	Opens the network settings. <b>NOTE:</b> You cannot access the network settings if this stereo is part of a group.

### **Naming the Device**

You should provide a unique name for this device so you can easily identify it when viewing devices on the Fusion PartyBus network.

**NOTE:** You should provide unique names for all of the devices and zones on the network to avoid confusion when grouping, controlling, and setting up stereos and zones. You should also turn off zones that are not in use (*Speaker Zone Settings*, page 21).

For further customization, you can provide unique names for the sources on each stereo and turn off unused sources (*General Settings*, page 20).

- 1 Select => SETTINGS.
- 2 Select **DEVICE NAME**, and select an option:
  - · Select a pre-defined name from the list.
  - Select CUSTOM NAME, and enter a unique name for the device.

### **Setting the Home Zone**

The home zone is the speaker zone that you adjust by default when you turn the dial.

- 1 Select = > SETTINGS.
- 2 Select ZONE > ASSIGN HOME ZONE.
- 3 Select a zone.

### Selecting a Source

- 1 Select €.
- 2 Turn the dial to highlight a source.

**NOTE:** If the device is part of a group, continue turning the dial to access the sources on other devices in the group (*Creating a Group*, page 15).

If a source cannot be shared with the group, it will appear gray and you cannot select it.

3 Press the dial to select the source.

TIP: Alternatively, you can touch the source on the screen to select it.

### Adjusting the Backlight and Dial Brightness

**NOTE:** If you connected the dim wire on the wiring harness to the boat's illumination wire, the backlight and dial dim automatically when the boat lights are on. This may affect how you adjust the brightness setting.

- 1 Select = > BRIGHTNESS.
- 2 Adjust the brightness level.

### **Audio Control**

### **Adjusting the Volume**

Using this stereo, you can control the volume of any zone on any stereo connected to the Fusion PartyBus network.

- 1 Turn the dial to adjust the volume for the home zone on the stereo.
- 2 If necessary, press the dial to switch between zones.

**NOTE:** If this stereo is part of a group, you can adjust the volume of all stereos in the group or individual zones on each stereo (*Creating a Group*, page 15).

### **Muting all Connected Stereos**

You can quickly mute the audio from this stereo or from all stereos connected to the Fusion PartyBus network (Fusion PartyBus Networking, page 15).

1 From any source, press (1).

The mute symbol appears and audio from this stereo is silenced.

**NOTE:** If the stereo is part of a group, the audio from all grouped stereos is silenced.

2 Select MUTE SYSTEM.

Audio from all connected stereos is silenced.

3 Select UNMUTE SYSTEM.

Audio is restored to all connected stereos.

### **Adjusting the Subwoofer Level**

You can adjust the subwoofer level for each zone.

- 1 Press the dial, and select a zone with a connected subwoofer.
- 2 Press and hold the dial.

The SUB LEVEL adjustment for the zone appears.

3 Adjust the subwoofer level and press the dial to set it.

### **Adjusting the Tone**

- 1 Select => AUDIO.
- 2 Select the zone to adjust.
- 3 Press the dial to select a tone.
- 4 Adjust the tone level and press the dial to set it.

You can drag the slider bar to adjust the tone level.

### Disabling the Loud Setting for a Zone

The LOUD setting maintains frequency response at low volumes and increases perceived loudness at high volumes. This setting is enabled by default in all zones.

- 1 Select > AUDIO.
- 2 Select a zone to adjust.
- 3 Select LOUD to clear the check box.

Audio Control 5

### Adjusting the Gain for an Auxiliary Device

You can adjust the gain for a connected auxiliary device to achieve a volume level similar to that of other media sources. You can adjust the gain in 1 dB increments. You can also adjust the gain for ARC sources connected using an HDMI® cable.

- 1 Select an applicable source.
- 2 Select an option:
  - To increase the gain, select \(\frac{1}{2}\).
  - To decrease the gain, select —

**NOTE:** To achieve the best audio quality when using a portable media player with headphone output, it may be necessary to adjust the volume control on the media player, instead of adjusting the gain.

### **Speaker Zones**

You can group speakers in one area into a speaker zone. This enables you to control the audio level of the zones individually. For example, you could make the audio quieter in the cabin and louder on deck.

You can set the balance, volume limit, tone, subwoofer frequency, and name for each zone, and configure other zone-specific settings (*Speaker Zone Settings*, page 21).

**NOTE:** Subwoofer frequency is not adjustable when managed by DSP.

### **DSP Settings**

This stereo features digital signal processing (DSP). You can select pre-configured DSP settings for Fusion® speakers and amplifiers to optimize audio reproduction in their installed locations.

All DSP settings are configured using the Fusion Audio remote control app (*Fusion Audio Wireless Remote Control App*, page 31).

### **Configuring the DSP Settings**

You must download and install the Fusion Audio remote control app on your compatible Apple® or Android™ device before you can configure the DSP settings (Fusion Audio Wireless Remote Control App, page 31).

You can configure the DSP settings to optimize the sound on each zone with the installed speakers, amplifiers, and environment.

- 1 From the settings menu on your Apple or Android device, connect to the stereo using Bluetooth technology or connect to the same wireless network as the stereo.
  - **NOTE:** If you have a compatible Apple device, you can connect a USB sync cable appropriate for your device (sold separately) to the USB port on the stereo and to your Apple device to configure the DSP settings using the Fusion Audio app.
- 2 Open the Fusion Audio remote control app on your compatible Apple or Android device.
- 3 If necessary, select the stereo you want to configure.
- 4 Select O.
- 5 If necessary, select the MUSIC tab.
- 6 Select a zone.
- 7 Select DSP SETTINGS.
- **8** Configure the DSP settings as needed, depending on the models of Fusion speakers and amplifiers connected to the zone.
- 9 Select SEND DSP SETTINGS.

**NOTE:** DSP settings or updates for the zone are not applied on the stereo until you select the button to send the settings.

10 Repeat these steps for each zone.

6 Audio Control

### **Automatic Volume Adjustment Based on Speed**

If your stereo is connected to a NMEA 2000° network with a device that provides speed information such as an engine, chartplotter, GPS antenna, water speed sensor, or wind speed sensor, you can set the stereo to adjust the volume automatically based on the selected speed source (*Enabling Automatic Volume Adjustment Based on Speed*, page 22).

For example, if a chartplotter with an internal GPS antenna or a stand-alone GPS antenna is on the same NMEA 2000 network as the stereo and you set the SPEED SOURCE to SPEED OVER GROUND, the volume increases as your speed increases.

**NOTE:** When the volume increases to adjust for speed, the actual volume output changes, but the volume-level indicator bar and number stays the same.

For more information about connecting the stereo to a NMEA 2000 network, see the installation instructions for your stereo.

### **Media Player Connection**

#### **⚠ WARNING**

Minimize interaction with the media player display while operating the vessel, because doing so can cause distraction that could lead to an accident resulting in serious personal injury or death.

#### **NOTICE**

Always disconnect your media player from the stereo when not in use and do not leave it in your vessel. This can help reduce the risk of theft and damage from extreme temperatures.

The stereo accepts a variety of media players, including smartphones and other mobile devices. If it is supported by your compatible media player, you can connect it using a cable with a USB C connector to the USB port on the stereo. You can purchase an official USB cable from your Garmin® dealer or from garmin.comThe stereo can play media from a compatible Apple device connected to the same network using the AirPlay® feature.

### **Bluetooth Device Playback**

You can pair the stereo to up to eight Bluetooth media devices.

You can control the playback using the stereo controls on all Bluetooth devices, and on some devices you can browse the music collection from the menu on the stereo.

On Bluetooth devices that do not support media browsing, you should select the song or playlist on the media device.

The availability of song information such as song title, artist name, track duration, and album art depends on the capability of the media player and music application.

Media Player Connection 7

### **Connecting a Compatible Bluetooth Device**

You can play media from a compatible Bluetooth device using the Bluetooth wireless connection.

You can control the music playback with the media app on a Bluetooth device or using the Fusion Audio remote control app (Fusion Audio Wireless Remote Control App, page 31).

**NOTE:** Due to Bluetooth standards, connecting a Bluetooth device to the stereo does not create a secure, private connection.

- 1 Select the **BLUETOOTH** source.
- 2 Select > BLUETOOTH > CONNECTIONS > DISCOVERABLE to make the stereo visible to your compatible Bluetooth device.
- 3 Enable Bluetooth on your compatible Bluetooth device.
- 4 Bring the compatible Bluetooth device within 10 m (33 ft.) of the stereo.
- 5 On your compatible Bluetooth device, search for Bluetooth devices.
- 6 On your compatible Bluetooth device, select the stereo from the list of detected devices.
  - **NOTE:** The stereo appears in the Bluetooth device list as the device name (the default name is MS-RA800 unless it was changed in the settings).
- 7 On your compatible Bluetooth device, follow the on-screen instructions to pair and connect to the discovered stereo.
  - When pairing, your compatible Bluetooth device may ask you to confirm a code on the stereo. If the stereo shows a code, you can compare them before pairing. If the stereo does not display a code, it should connect correctly when you confirm the message on the Bluetooth device.
- 8 If your compatible Bluetooth device does not immediately connect to the stereo, repeat steps 1 through 7.

  NOTE: If another Bluetooth device is already playing music on the stereo, connecting a new device will not interrupt playback. You must select the newly-added device if you want to use it instead (Selecting a Different Bluetooth Device, page 8).

The DISCOVERABLE setting is disabled automatically after two minutes.

**NOTE:** On some Bluetooth devices, adjusting the volume on the device affects the volume level on the stereo.

#### **Bluetooth Range Information**

The stereo and Bluetooth wireless devices have a range of 10 m (33 ft.). For optimal performance, the Bluetooth wireless device should also have a clear line of sight to the stereo.

**NOTE:** Wi-Fi® signals may interfere with Bluetooth device connections. You should turn off the Wi-Fi setting on your stereo if you are not using it.

### Selecting a Different Bluetooth Device

When you have more than one Bluetooth device paired to the stereo, you can select a different device when needed. You can pair the stereo with up to eight Bluetooth devices.

- 1 With the **BLUETOOTH** source selected, select => **BLUETOOTH** > **CONNECTIONS** > **PAIRED DEVICES**.
- 2 Select a Bluetooth device.

### **Bluetooth Source Menu and Settings**

With the BLUETOOTH source selected, select == > **BLUETOOTH**.

**NOTE:** The options in this menu vary based on the connected device.

**CONNECTIONS > DISCOVERABLE**: Allows the stereo to be visible to Bluetooth devices. You can turn off this setting to prevent possible interruption to audio after pairing a Bluetooth device to the stereo.

**CONNECTIONS > PAIRED DEVICES**: Shows a list of Bluetooth devices paired with the stereo. You can select a device in the list to connect it to the stereo if it is in range.

**CONNECTIONS > REMOVE DEVICE**: Removes the Bluetooth device from the stereo. To listen to audio from this Bluetooth device again, you must pair the device again.

**NOTE:** You should also remove the stereo from the list of paired devices on your Bluetooth device to avoid connection issues when pairing the device again.

**REPEAT**: Sets the repeat mode for the current selection (Apple devices only). You can repeat the current selection by selecting the REPEAT ONE option. You can repeat all items in the selection by selecting the REPEAT ALL option.

SHUFFLE: Shuffles the tracks in the folder, album, or playlist (Apple devices only).

**PLAYLIST**: Displays the playlists on the device (Apple devices only).

**ARTISTS**: Displays the artists on the device (Apple devices only).

**ALBUMS**: Displays the albums on the device (Apple devices only).

**GENRES**: Displays the genres of music on the device (Apple devices only).

**SONGS**: Displays the songs on the device (Apple devices only).

APPLE MUSIC RADIO: Displays the Apple Music Radio stations on the device (Apple devices only).

### **Disabling Bluetooth Auto Connection**

By default, the stereo automatically reconnects to the last connected Bluetooth device when you turn it on. You can disable this setting.

Select > SETTINGS > SOURCE > BLUETOOTH > AUTO CONNECT.

When the AUTO CONNECT checkbox is clear, the stereo will not attempt to automatically reconnect to a Bluetooth device. When this feature is disabled, you must select a Bluetooth device manually to connect it (Selecting a Different Bluetooth Device, page 8).

#### **Correcting Bluetooth Audio and Video Synchronization Issues**

If you connected a Bluetooth device to the stereo and are watching a video on the device, you may encounter a delay in the audio that does not match the video. This is most likely due to a networking setting, and can be corrected. By default, the Bluetooth source is configured to be available as a streaming source across the network, which may introduce audio synchronization issues when viewing video on the source device (*Grouped Stereo Source Considerations*, page 16).

- 1 From any source, select > SETTINGS > SOURCE > BLUETOOTH.
- 2 Select GROUP ENABLED to clear the checkbox.

The BLUETOOTH source is no longer an option for network streaming, which should reduce or eliminate the audio delay.

Bluetooth Device Playback 9

### **USB Device Playback**

You can connect various USB media players and USB flash drives to the stereo. How you access the USB source depends on the type of connected media player.

Media Player	Source Selections
Apple device	iPod
USB flash drive	USB
MP3 media player (as a mass-storage device)	NOTE: If your MP3 media player does not support mass-storage when connected using USB, you must connect it to the stereo as an auxiliary device (Connecting an Auxiliary Device, page 12).

You can control the playback using the stereo controls on all USB devices, and on some devices you can browse the music collection from the menu on the stereo. On USB devices that do not support media browsing, you should select the song or playlist on the media device.

The availability of song information such as song title, artist name, and track duration depends on the capability of the media player and music application.

### **USB Device Compatibility**

You can use a USB flash drive or the USB cable included with your media player to connect a media player or mobile device to the USB port.

The stereo is compatible with iAP2 Apple devices.

The stereo is compatible with media players and other USB mass storage devices, including USB flash drives. Music on USB drives must meet these conditions:

- The music files must be formatted as MP3, AAC (.m4a), WAV, or FLAC, files.
- If you connect a portable hard drive, you must connect it to an external power source. The USB port on this stereo cannot provide power for a portable hard drive.
- The USB mass storage device must be formatted using one of the following systems:
  - Microsoft<sup>®</sup>: NTFS, VFAT, FAT<sup>1</sup>, MSDOS
  - Apple: HFS, HFSPLUS
  - Linux: EXT2, EXT3, EX4

#### Connecting a USB Device

You can connect a USB device to the USB port on the stereo.

- 1 Locate the USB port on the back of the stereo.
- 2 Connect the USB device to the USB port.

**NOTE:** If you experience issues reading from a connected USB C device, try rotating the plug and reconnecting it. Some USB C cables perform better in one orientation than the other.

10 USB Device Playback

<sup>&</sup>lt;sup>1</sup> FAT includes most types of FAT file systems except exFAT.

### Controlling Music Playback on a USB Flash Drive or Media Player

- 1 Connect a compatible USB flash drive or media player to the stereo.
- 2 Select the USB source.
- 3 Select > USB.
- 4 Select the name of the USB device.
- 5 Browse the music files on the device and begin playback.

You can use the stereo controls to select, play, pause, and skip tracks.

**TIP:** If the USB media player has a screen and controls, you can use the controls on the USB media player to control playback.

### Controlling Music Playback on a Connected Apple Device

- 1 Connect a compatible iAP2 Apple device to the stereo using USB.
- 2 Select the iPod source on the stereo.
- 3 Launch a music application on the connected Apple device, and begin playback.

You can use the music application on the Apple device to control playback, or you can use the stereo controls to select, play, pause, and skip tracks. If you are using the AppleMusic app, you can also browse the music directory using the stereo controls.

### **USB Source Settings**

With a USB device connected and a USB source selected, select == > USB.

**NOTE:** You can also select the name of the connected device to browse the file contents using this menu. The options in this menu vary based on the connected device.

**REPEAT**: For a USB source, select to start playing the tracks in the list from the beginning after the last track has played.

For an iPod source, select REPEAT ONE to repeat the current track, or select REPEAT ALL to start playing the tracks in the current selection from the beginning after the last track has played.

**SHUFFLE**: For a USB source, select to randomly play the tracks in the list.

For an iPod source, select to randomly play the tracks in the current selection.

### Radio

To listen to AM or FM radio, you must have a suitable marine AM/FM antenna properly connected to the stereo and be within range of a broadcasting station. For instructions on connecting an AM/FM antenna, see the stereo installation instructions.

To listen to DAB stations, you must connect a DAB antenna, configure the antenna port if necessary (*Configuring the Antenna Ports for DAB and FM Antennas*, page 25), and set the appropriate tuner region (*Setting the Tuner Region*, page 13).

### **Setting the Tuner Region**

You must select the region you are in to receive AM and FM stations properly.

You must select the region you are in to receive DAB stations properly.

NOTE: DAB stations are not available in all regions.

- 1 Select > SETTINGS.
- 2 Select TUNER REGION.
- **3** Select the region you are in.

Radio 11

### **Changing the Radio Station**

- 1 Select an applicable source, such as **FM**.
- 2 Select MA★ repeatedly to move through the tuning modes, and select an option:
  - Select **AUTO** to scan and stop on the next available station.
  - · Select MANUAL to select a station manually.
  - Select **PRESET** to select a saved station preset.
- 3 Select **!** or **▶** to tune to the station.

When in MANUAL tuning mode, you can hold **I** or **I** to quickly advance through the stations.

### **Apple AirPlay**

### Connecting an Apple Device Using AirPlay

1 From the settings menu on your Apple device, connect to the same wireless network as your compatible Fusion stereo.

**TIP:** You can quickly connect your Apple to the same network as the stereo using Wireless Accessory Configuration (WAC) (Connecting the Device to a Wireless Access Point Using Apple Wireless Accessory Configuration, page 26)

**NOTE:** You can connect some Apple devices to the network using a wired Ethernet connection, if applicable. Go to the Apple website for more information.

- 2 On your Apple device, open the music app you want to stream to the stereo.
- 3 From the music app or program, select  $\neg$  or  $\bigcirc$ , and select the name of the stereo.
- 4 If necessary, start playing music on the app.

The stereo changes to the AirPlay source automatically and plays audio from your Apple device.

**NOTE:** If your Apple device is using AirPlay 2 software, you can connect to multiple stereos on the same network.

**NOTE**: You cannot stream the AirPlay source to other stereos on the network using the Fusion PartyBus network (*Fusion PartyBus Networking*, page 15). Using AirPlay 2 software, you can play content on multiple stereos on the network, but the stereos must not be grouped.

**NOTE:** On some AirPlay devices, adjusting the volume on the device affects the volume level on the stereo.

### Setting an AirPlay Password

You can set a password that a user must enter when connecting to the stereo using the AirPlay feature.

- 1 Select > SETTINGS > SOURCE > AirPlay > AirPlay PASSWORD.
- 2 Enter a password.

**NOTE:** The AirPlay password is case-sensitive.

When connecting to this stereo using the AirPlay feature, the user must enter the password on their Apple device.

### **Connecting an Auxiliary Device**

You can connect various auxiliary devices to the stereo. These devices have either RCA connectors, a line output, or a headphone output jack.

- 1 Locate the auxiliary connectors on the wiring harness.
- 2 If necessary, connect an RCA-to-3.5 mm adapter cable to the auxiliary device.
- 3 Connect the auxiliary device to the AUX IN RCA connectors on the wiring harness.
- 4 Select the Aux source.

12 Apple AirPlay

### **Audio Return Channel**

The Audio Return Channel (ARC) enables you to play digital audio from a television or other source with HDMI technology over the stereo system speakers.

HDMI version 1.4 or newer cables support ARC. When planning your stereo installation, check whether your devices and cables support ARC. Most devices that support ARC have an ARC or eARC label on the HDMI connector that supports ARC.

You may need to configure your television or other source to output audio over ARC. This stereo supports ARC (but not eARC), CEC 1.4, and PCM stereo audio. See the manual for your source device for configuration instructions if needed.

**NOTE:** There is a limit to the length of the HDMI cable when using ARC functionality. If your source is greater than 5 m (16 ft.) away from the stereo, confirm with the cable manufacturer that it can support ARC at the length needed.

**NOTE:** Because streaming audio over the Fusion PartyBus network introduces a slight delay, streaming content from a television or DVD player may not be ideal. By default, the ARC source is disabled in the GROUP source settings (*Source Settings*, page 24).

**TIP:** On compatible televisions, you can control the volume of the stereo using the television remote control when using the ARC source.

# Correcting Audio and Video Synchronization Issues on the Audio Return Channel Source

In some instances, you may find that the stereo audio from the ARC source is not synchronized with the video from the source device. You can adjust the delay to correct this.

- 1 From any source, select > SETTINGS > SOURCE > ARC INPUT AUDIO DELAY.
- 2 Adjust the slider to adjust the delay until the audio is synchronized with the video source.

### **DAB Playback**

DAB functionality is available only on European models of this stereo.

DAB broadcasts are not available in all regions. When the stereo is not set to a compatible region, the DAB source is not available.

See the troubleshooting section if you cannot access the DAB source or if DAB stations are not playing properly. (*The stereo does not receive DAB stations*, page 38)

### **Setting the Tuner Region**

You must select the region you are in to receive DAB stations properly.

- 1 Select == > SETTINGS.
- 2 Select TUNER REGION.
- 3 Select the region you are in.

### **Scanning for DAB Stations**

**NOTE**: Because DAB signals are broadcast in select countries only, you must set the tuner region to a location where DAB signals are broadcast.

When you switch to the DAB source while in a tuner region where DAB signals are broadcast, you should already have access to the available ensembles and stations. If you recently changed location or made any other configuration changes, you can scan for DAB stations to get the most up-to-date list of ensembles and stations for your location.

- 1 Select the DAB source.
- 2 Hold Mt to scan for available DAB stations.

When scanning is complete, the first available station in the first ensemble found begins playing.

Audio Return Channel 13

### **Changing DAB Stations**

- 1 Select the DAB source.
- 2 Select or to change the station.

When you reach the end of the current ensemble, the stereo automatically changes to the first available station in the next ensemble.

TIP: You can hold I or I to change the ensemble.

#### Selecting a DAB Station from a List

- 1 Select the **DAB** source.
- 2 Select > DAB > BROWSE > STATIONS.
- 3 Select a station from the list.

### Selecting a DAB Station from a Category

- 1 Select the DAB source.
- 2 Select > DAB > BROWSE > CATEGORIES.
- 3 Select a category from the list.
- 4 Select a station from the list.

### **Presets**

You can save your favorite AM stations and FM stations as presets for easy access.

You can save your favorite DAB stations if the a DAB antenna is connected to a configured antenna port on the stereo and the stereo is set to the correct tuner region. (DAB Playback, page 13)

### Saving a Station or Channel as a Preset

- 1 With an applicable source selected, tune the stereo to a station or a channel.
- 2 Press and hold the dial, or select  $\bigstar$  and select  $\blacksquare$ .

**TIP:** For the AM or FM source, you can press and hold **MA** to save the current station or channel as a preset.

TIP: You can also select the name of the source, and PRESETS > SAVE CURRENT to save the current station or channel as a preset.

### Selecting a Preset from a List

- With an applicable source selected, press and hold the dial, or select ★.
   TIP: You can also select the name of the source, and PRESETS > VIEW PRESETS to view the list of
- 2 Select a preset.

presets.

### **Removing Presets**

- 1 With an applicable source selected, press and hold the dial, or select  $\bigstar$ .
- 2 Select .
- 3 Select each preset station or channel you want to remove.

PRESETS to remove preset stations or channels.

- 4 When you are finished removing presets, select **W**.

  TIP: You can also select **■**, the name of the source, and **PRESETS** > **REMOVE PRESETS** or REMOVE ALL
- **5** Press the dial to exit the screen.

14 Presets

### Fusion PartyBus Networking

The Fusion PartyBus networking feature allows you to connect multiple compatible stereos together on a network, using a combination of wired or wireless connections.

**NOTE:** When you connect a Fusion stereo to Garmin BlueNet<sup>™</sup> network or a Garmin Marine Network, you are limited to using only Garmin and Fusion devices. You may not be able to use third-party routers, storage devices, or other network products with this stereo directly.

**TIP:** When the stereo is connected to a Garmin BlueNet network or a Garmin Marine Network, you can connect a mobile device to a wireless access point on a connected Garmin chartplotter and use the Fusion Audio app to control the stereo.

You cannot use Wi-Fi networking when a stereo is connected to a Garmin network.

You can group a compatible stereo, such as the Fusion Apollo RA800 stereo, with other compatible stereos connected to the Fusion PartyBus network. Grouped stereos can share available sources and control media playback on all of the stereos in the group, which allows for a synchronized audio experience across the vessel. You can quickly create, edit, and break up groups as needed from any compatible stereo or remote control on the network.

You can use compatible stereos and remote controls, whether they are grouped or not, to adjust the volume of the available speaker zones for any stereo on the network.

You should refer to the installation instructions provided with your stereo when constructing the Fusion PartyBus network.

You can connect up to eight Fusion PartyBus stereos on a network wirelessly.

### **Creating a Group**

Before you can create a group, you must connect multiple compatible stereos to the Fusion PartyBus network. See the installation instructions provided with your stereo for information about installing and configuring the network.

**NOTE:** There are some limitations and other considerations when using stereos in groups. See *Grouped Stereo Source Considerations*, page 16for more information.

- 1 Select = > GROUPS.
  - **TIP:** You can hold  $\bigcirc$  from any screen to open the GROUPS menu.
- 2 Select the name of the stereo you want to be the primary stereo in the group.
- 3 Select the stereos you want to add to the group.
- 4 Select DONE.

From the source screen, you can select a source from any stereo in the group except a zone stereo, such as the Fusion Apollo SRX400 stereo or any sources that are disabled for use on the Fusion PartyBus network (*General Settings*, page 20).

### **Editing a Group**

- 1 Select => GROUPS.
- 2 Select the group.
- 3 Select the stereos you want to add to or remove from the group.
- 4 Select DONE.

### Leaving a Group

You can leave the Fusion PartyBus group to play local sources on the stereo.

- 1 Select => GROUPS.
- 2 Select the group you want to leave.
- **3** Select the stereos you want to remove from the group.
- 4 Select DONE.

### **Grouped Stereo Functions**

After you create a group of stereos, additional functions and options are available to all stereos in the group.

- After you create a group, all of the stereos in the group share the same synchronized display.
- You can select a source from any stereo in the group, with a few limitations (*Grouped Stereo Source Considerations*, page 16), and the source will play simultaneously on all stereos in the group (*Selecting a Source*, page 4).
- You can control playback (such as pausing and skipping tracks) on any stereo in the group, and it will affect all stereos in the group.
- You can adjust the volume for any zone on any stereo in the group.
   TIP: When adjusting the volume, you can select ALL to adjust the volume of all the stereos in the group at the same time

### **Grouped Stereo Source Considerations**

When selecting sources to play over the network, you should observe these considerations.

- A zone stereo, such as the Fusion Apollo SRX400, can create or join a group to control and play sources from other stereos, but it cannot share its sources with the group.
- You cannot share an AirPlay source with grouped stereos. Using AirPlay 2 software, you can play content on multiple stereos on the network, but the stereos must not be grouped (*Apple AirPlay*, page 12).
- You can disable sharing on most sources by changing the GROUP ENABLED setting for the source. When disabled, the source cannot be selected from a grouped stereo (*General Settings*, page 20).
- When audio sources are streamed over a data network, there is a slight delay in the synchronized audio that may be noticeable if you are also using an external audio source.
  - If you have a television with an HDMI Audio Return Channel (ARC) connection to a stereo and you continue to use the television speakers, there will be a delay between the audio from the television speakers and the optical audio streamed on the grouped stereos.
  - If you synchronize a radio station and tune that same radio station on a non-networked stereo, there will be
    a delay between the audio from the non-networked stereo and the audio from the radio station streamed
    on the grouped stereos.
  - You can remove this delay by changing the GROUP ENABLED setting for the source, but the source cannot be shared with grouped stereos (*General Settings*, page 20).

**NOTE:** You cannot change the settings when a stereo is part of a group. You must remove the stereo from the group before you can change any settings.

16

### **Group Synchronization**

By default, groups you create are not maintained when you turn off stereos in the group. If you turn off a single stereo added to the group, it leaves the group. If you turn off the primary stereo in the group, the group is dissolved. You can enable group synchronization to preserve group membership for a stereo after turning it off. Group synchronization behaves differently based on how you turn the stereos off and on.

• If you turn a synchronized stereo off and on by using either the power button on the stereo or a physical switch on the ignition wire (the red wire), all of the synchronized stereos in the group turn off and on together. This applies to all of the synchronized stereos in the group, whether or not a stereo is the primary stereo in the group.

**NOTE:** Selecting ALL OFF from the power menu on a stereo turns off all stereos on the network, even if they are not in a group or have group synchronization enabled.

- If you turn a synchronized stereo off and on using a physical switch on the power wire (the yellow wire), the other synchronized stereos in the group behave differently:
  - If the synchronized stereo is the primary stereo in the group and you turn it off using a physical switch on the power wire, the other synchronized stereos in the group remain on, but leave the group. When you turn the primary stereo back on again, the other synchronized stereos rejoin the group.
  - If the synchronized stereo is not the primary stereo in the group and you turn it off and on using a physical switch on the power wire, all of the other synchronized stereos in the group remain on and grouped, and the stereo rejoins the group when you turn it on again.

### **Enabling Group Synchronization**

You must remove the stereo from an existing group before you can enable the GROUP SYNC setting. You cannot update settings when a stereo is part of a group.

You must enable this setting on each stereo that you want to retain group settings after a power cycle.

- 1 Select > SETTINGS.
- 2 Select POWER OPTIONS > GROUP SYNC.

The stereo retains group settings after a power cycle.

3 Repeat for additional stereos as needed.

**NOTE**: You must enable GROUP SYNC on all networked stereos for synchronization to work properly.

Fusion PartyBus Networking 17

### **LED Lighting Control**

#### **↑** WARNING

Setting some LED light effects or setting the LED lights to react to music may result in lights flashing at various intervals. Consult your physician if you have epilepsy or are sensitive to bright or flashing lights.

#### NOTICE

Before you can control any connected lights using the stereo, you must first initialize the lights using a compatible chartplotter on the same NMEA 2000 network as the lighting controller and the stereo. See the installation instructions for the Garmin Spectra lighting controller or the owner's manual for the chartplotter for initialization instructions. If you do not have a compatible chartplotter connected, you can also initialize the lights using the ActiveCaptain app on a mobile device.

Using certain LED colors on your vessel, such as red and green, may violate the laws, regulations, and standards related to the use and/or operation of marine navigation lights. It is the user's responsibility to comply with any such applicable laws, regulations, and standards. Garmin is not responsible for any fines, penalties, citations, or damages that may be incurred due to any such lack of compliance.

If you installed a Garmin Spectra lighting controller, you can use the stereo to activate and change limited features on connected LED lights. You can quickly turn LED lights on and off, select preprogrammed lighting effects, activate saved scenes, and use AUDIO SYNC to configure lights to change color and brightness to music played on the stereo. If needed, more advanced control and configuration of the lights can be performed using the ActiveCaptain app or using a compatible chartplotter on the same NMEA 2000 network and marine network as the lighting controller and the stereo. See the owner's manual for the chartplotter for complete instructions.

### **Turning LED Lights On and Off**

- 1 Select > LED CONTROL.
- 2 Select LIGHTS and select the lights or group of lights you want to turn on or off.
- 3 Select ON to turn on the lights.
- 4 Select **ON** again to turn off the lights.

### **Turning on LED Light Effects**

#### **⚠ WARNING**

Selecting some LED light effects may result in lights flashing at various intervals. Consult your physician if you have epilepsy or are sensitive to bright or flashing lights.

The Garmin Spectra lighting controller has a selection of preprogrammed lighting effects that you can turn on using the stereo.

- 1 Select > LED CONTROL.
- 2 Select LIGHTS and select the lights or group of lights you want to use a lighting effect.
- 3 Select EFFECTS and select one of the preprogrammed lighting effects to start it on the connected lights.

### Starting an LED Light Scene

#### **NOTICE**

Before you can start an LED light scene using the stereo, you must use a connected chartplotter to create at least one scene. See the owner's manual for the chartplotter for complete instructions.

- 1 Select > LED CONTROL > SCENES.
  A list of previously-created scenes is shown.
- 2 Select a scene to start.

### **Setting LED Lights to React to Music**

#### **↑** WARNING

Setting LED lights to react to music may result in lights flashing at various intervals. Consult your physician if you have epilepsy or are sensitive to bright or flashing lights.

#### NOTICE

Before you can set connected LED lights to react to music playing on the stereo, you must use a connected chartplotter to associate a light or group of lights with an audio zone on this stereo. See the chartplotter owner's manual for complete instructions.

- 1 Select => LED CONTROL.
- 2 Select LIGHTS, and select the lights or group of lights you want react to music.
- 3 Select AUDIO SYNC, and select an option:
  - If you want the lights to react to the intensity of the music playing, select COLOR BLEND.
  - If you want the lights to react to the bass and treble frequencies of the music playing, AUDIO SPECTRUM.

You must use a connected chartplotter if you want to change the colors used by this feature. See the chartplotter owner's manual for complete instructions.

### LED Light Control and Configuration Using the ActiveCaptain App

You can connect your mobile device to the stereo using the ActiveCaptain app to configure and control lights connected to a Garmin Spectra LED control module. If the stereo and LED control module are connected to the same NMEA 2000 network as a compatible chartplotter, you should connect the ActiveCaptain app to the chartplotter instead of the stereo so you can use the full features included in the app in addition to the lighting controls. See the owner's manual for the chartplotter for instructions.

**NOTE:** Before you can connect your mobile device to the stereo, you must either configure the stereo to act as a wireless access point or connect the stereo to a wireless router using an Ethernet cable.

### **Getting Started with the ActiveCaptain App**

You can connect a mobile device to the stereo using the ActiveCaptain app. The app provides a quick and easy way for you to configure and interact with the lights connected to a Garmin Spectra LED control module.

- 1 If necessary, set up the stereo as a Wi-Fi access point (Setting the Fusion PartyBus Device as a Wireless Access Point, page 26) or connect the stereo to a wireless router using an Ethernet cable.
- **2** From the application store on your mobile device, install and open the ActiveCaptain app.
  - TIP: You can scan this QR code using your mobile device to download the app.
- 3 Log into the ActiveCaptain app using your Garmin account.
- 4 Bring the mobile device within 32 m (105 ft.) of the stereo or the wireless router.
- 5 In the ActiveCaptain app, select **Connect**.
- **6** Select the SSID of the stereo or wireless router and provide the password, if necessary. The app connects to the wireless network and returns to the main screen.

After the app connects to the wireless router or stereo correctly, an option for Lighting is shown on the Boat Apps tab.



LED Lighting Control 19

### Initializing Connected LED Lights Using the ActiveCaptain App

Before you can interact with any connected LED lights using the stereo, you must first initialize the lights by providing information about the type of light source supported by the connected LEDs.

- 1 If necessary, open the ActiveCaptain app and connect it to the stereo or wireless router.
- 2 In the ActiveCaptain app, select **Settings** > **Lighting**.
  - A list of connected LED control modules is shown.
- 3 Select an LED control module with connected LED lights that you want to initialize and select Lights. A list of all available lights is shown. Any light indicated with a yellow circle must be initialized before it's available for use by the system.
- 4 Select a connected LED light from the list.
- 5 Select **Light Types** and select the type of LEDs connected:
  - RGB: The connected dimmable LEDs support a full range of colors.
  - · RGBW: The connected dimmable LEDs support a full range of colors and high quality white light.
  - **CRGBW**: The connected dimmable LEDs support a full range of colors and multiple temperature white light.
  - Single Channel: The dimmable LEDs support one dedicated color.

TIP: You can select Identify to illuminate the selected light to help identify and test the selected LED type.

6 Repeat this procedure for all connected lights until all of the intended LED lights are initialized.

### **General Settings**

**NOTE:** When the stereo is in a group, you cannot change the settings on that stereo.

Select > **SETTINGS**.

NOTE: When a check box is filled, the option is on. When the check box is clear, the option is off.

**DEVICE NAME**: Sets a name for this device.

LANGUAGE: Sets the language used on the device.

TUNER REGION: Sets the region used by the FM and AM sources.

This setting is also needed to configure the DAB source.

**TELEMUTE**: Sets the behavior of the stereo when it detects a signal on the TELEMUTE wire in the wiring harness. This is commonly used to change to the Aux1 source when you hold the button on a Fusion handheld microphone. You can also choose to either mute the audio or change to the Aux1 source when connected to a hands-free mobile phone kit. See your Fusion handheld microphone or hands-free mobile phone kit instructions for more information.

NOTE: This setting does not affect a phone connected to the stereo using Bluetooth technology.

POWER OPTIONS: Adjusts the power settings, such as the GROUP SYNC (Power Options, page 24).

**SEARCHING**: Enables Fusion Alpha Search Technology (FAST), which allows you to quickly search for tracks by letter or number. You can select a number to enable the FAST menu if your music device contains more than the selected number of items.

**ZONE**: Enables you to configure the speaker zones (*Speaker Zone Settings*, page 21).

**SOURCE**: Allows you to enable, disable, and name the sources and groups on the stereo (*Source Settings*, page 24).

**NETWORK**: Enables you to configure the Fusion PartyBus network settings (*Network Settings*, page 25).

**UPDATE**: Updates the stereo or connected devices using the appropriate update file on a connected USB flash drive (*Update Options*, page 30).

**NOTE:** It is not necessary to use this menu if you are updating the software using the Fusion Audio app on a mobile device instead of using an update file loaded onto a USB flash drive (*Updating the Software Using the Fusion Audio App*, page 36).

**UPDATE > FACTORY RESET**: Restores all settings to the factory default values.

ABOUT: Shows the software version information for the stereo and connected accessories.

### **Speaker Zone Settings**

### **Disabling the Internal Amplifier**

If you do not connect speakers directly to zones 1 and 2, you can disable the internal amplifier to reduce power consumption.

- 1 Select => SETTINGS.
- 2 Select ZONE.
- 3 Select INTERNAL AMP ON to clear the check box.

### **Setting the Home Zone**

The home zone is the speaker zone that you adjust by default when you turn the dial.

- 1 Select = > SETTINGS.
- 2 Select ZONE > ASSIGN HOME ZONE.
- 3 Select a zone.

### Synchronizing the Source and Zone Volume Levels

You can synchronize the volume levels on one or all zones with some source devices, such as a Bluetooth, AirPlay, or ARC source.

- 1 Select = > SETTINGS.
- 2 SelectZONE.
- 3 Select an option:
  - To synchronize the volume with a Bluetooth or AirPlay source device, select **PHONE VOLUME SYNC**.
  - To synchronize the volume with an ARC source device, select HDMI VOLUME SYNC.
- 4 Select a zone or ALL.

When you adjust the volume on the connected source, the volume on the selected zone is also adjusted.

#### **Adjusting the Power-On Volume Limit**

By default, when you turn on the stereo, the system automatically reduces the volume to level 12 if it was louder than that when you turned it off. You can adjust this limit if you want to retain a louder volume or limit to a lower volume when you turn on the stereo.

**NOTE:** This setting affects all zones on the stereo.

- 1 Select => SETTINGS.
- 2 Select ZONE > POWER ON VOLUME LIMIT.
- 3 Adjust the volume limit.

### Maintaining Individual Zone Volume Levels

If you adjust the volume levels of individual zones so that some zones are louder than others, the individual zone volume settings are all affected when you adjust the volume for ALL zones. By default, if you adjust the volume for ALL to 00, this sets of the volume levels for all zones to 00 and resets all individual zone volume adjustments. You can enable the KEEP VOLUME RATIOS option to retain individual zone volume adjustments when you adjust the volume for ALL to 00.

**NOTE:** This setting applies to volume adjustments on the stereo or a connected ERX remote control only. If you adjust the volume on the stereo using a connected chartplotter or NRX remote control, the volume levels will still be reset.

**TIP:** For the best results when enabling this setting, you should set the power-on volume limit to 24 (*Adjusting the Power-On Volume Limit*, page 21).

- 1 Select => SETTINGS.
- 2 Select ZONE > KEEP VOLUME RATIOS.

### **Enabling Automatic Volume Adjustment Based on Speed**

- 1 Select > SETTINGS > ZONE > SPEED VS VOLUME > ENABLED.
- 2 If needed, update the settings to select the speed source (Automatic Volume Control Settings, page 22).

#### **Automatic Volume Control Settings**

Select > SETTINGS > ZONE > SPEED VS VOLUME.

**ENABLED**: Enables the automatic volume control feature.

**SPEED SOURCE**: Sets the source that the stereo uses to determine the speed (*Speed Source Information*, page 22).

MAX/MIN SPEED: Sets the expected maximum and minimum speed range for the selected SPEED SOURCE. The MIN setting indicates the speed at which the volume plays at the level you set by turning the dial. The MAX setting indicates the speed at which the volume plays at the highest level set in the VOLUME INCREASE setting.

**TIP:** You should start by setting these values at the speeds you typically expect from your engine or sensor and adjust them as needed.

**VOLUME INCREASE**: Sets the total volume increase for each zone when the selected SPEED SOURCE reaches the set maximum speed set in the MAX/MIN SPEED setting. The higher you set this level, the louder the volume will be as you approach the set maximum speed.

**NOTE:** When the volume increases to adjust for speed, the actual volume output changes but the volume level indicator bar and number stays the same.

CUSTOM UNITS: Changes the measurement unit used to indicate the vessel or wind speed.

#### **Speed Source Information**

Select > SETTINGS > ZONE > SPEED VS VOLUME > SPEED SOURCE.

**ENGINE SPEED**: Uses the RPM reading provided by a supported NMEA 2000 engine. The volume increases as the engine RPM increases from the set MIN speed to the set MAX speed. If multiple supported engines are connected, the stereo uses the average RPM reading from all engines.

**SPEED OVER GROUND**: Uses the speed over ground (SOG) reading provided by a supported NMEA 2000 GPS antenna or chartplotter with an internal GPS antenna. The volume increases as the SOG increases from the set MIN speed to the set MAX speed.

**SPEED THROUGH WATER**: Uses the speed through water (STW) reading provided by a supported NMEA 2000 water-speed sensor. The volume increases as the STW increases from the set MIN speed to the set MAX speed.

**WIND SPEED**: Uses the wind speed reading provided by a supported NMEA 2000 wind-speed sensor. The volume increases as the wind speed increases from the set MIN speed to the set MAX speed.

#### Disabling a Zone

You can disable an unused zone and remove it from the audio level pages. When a zone is disabled, you cannot change any of the settings for that zone. You cannot disable zone 1.

- 1 Select > **SETTINGS**.
- 2 Select ZONE.
- 3 Select a zone.
- 4 Select **ZONE ENABLED** to clear the check box.

### **Setting a Zone Name**

You can set a name for a speaker zone to make it easier to identify.

- 1 Select => SETTINGS.
- 2 Select ZONE.
- 3 Select a zone.
- 4 Select **ZONE NAME**, and select an option:
  - · Select a pre-defined name from the list.
  - Select CUSTOM NAME, and enter a unique name for the zone.

### **Linking Zones**

You can link zones 1 and 2 to keep the volume levels synchronized. Adjusting the volume of either of the linked zones affects both zones.

- 1 Select == > SETTINGS.
- 2 Select ZONE > ZONE 2 > LINK TO ZONE 1.

NOTE: After zones 1 and 2 are linked, you cannot adjust the volume of each zone individually.

### **Enabling Volume Control of Zone 3 or 4 from a Connected Amplifier**

By default the volume of zones 3 and 4 are controlled by the stereo. You can control the volume of these zones using the connected amplifier instead.

- 1 Select = > SETTINGS.
- 2 Select ZONE.
- 3 Select zone 3 or zone 4.
- 4 Select **VOLUME CONTROL** to clear the check box.

The audio signal from the zone is provided to the amplifier as a fixed-line-level output at maximum volume.

### **Adjusting the Subwoofer Filter**

You can use the subwoofer filter setting to control the subwoofer cutoff frequency for each zone, which can enhance the blend of the sound produced by the speakers and the subwoofer. Audio signals above the selected frequency are not passed to the subwoofer.

**NOTE:** If a DSP setting has been applied to the zone using the Fusion Audio app, this setting cannot be changed on the stereo.

- 1 Select = > SETTINGS.
- 2 Select ZONE.
- 3 Select a zone.
- 4 Select SUB. FREQ..
- **5** Select a frequency.

### Adjusting Additional Audio Settings for a Zone

- 1 Select = > SETTINGS.
- 2 Select ZONE.
- 3 Select a zone.
- 4 Select one or more options:
  - To limit the maximum volume output of this zone, select VOLUME LIMIT, and adjust the level.
  - To adjust the right and left speaker balance of this zone, select **BALANCE**, and adjust the balance.
  - To reduce the power output to the external amplifier associated with this zone, select EXT. AMP GAIN, and adjust the gain level.
  - To reduce the power output to the internal amplifier associated with this zone, select **INT. AMP GAIN**, and adjust the gain level.

**NOTE:** This setting is available only for zones associated with an internal amplifier, typically zones 1 and 2

To change the output of this zone from stereo to mono, select MONO.

**NOTE:** The mono setting is useful if a listening position is closer to one speaker than the other and predominantly hear only that channel. The mono setting combines both channels in each speaker in the zone.

### **Power Options**

Select > SETTINGS > POWER OPTIONS.

POWER SAVE: Disables the LCD backlight after one minute of inactivity to save battery power.

**GROUP SYNC**: Enables the stereo to retain group settings after a power cycle (*Group Synchronization*, page 17).

**GESTURE SCREEN**: Enables the screen that hides the playback controls to show track info and album art only when playing media (*Gesture Screen*, page 3).

### **Source Settings**

Select > SETTINGS > SOURCE, and select the name of the source you want to configure.

**NOTE:** This menu contains system-wide source settings. Most sources also have source-specific settings. See the sections of this manual for each source for more information about source-specific settings.

Not all options are available for every source on the stereo.

**SOURCE ENABLED**: Enables and disables the source on this stereo. You may want to disable sources that will never be used on the stereo so they no longer appear on the source-selection screen.

**GROUP ENABLED**: Enables and disables the sharing of the source when connected to other stereos in a group (*Fusion PartyBus Networking*, page 15). You may want to disable sharing for some sources, such as BLUETOOTH, because streaming over the Fusion PartyBus network introduces a small audio lag that is not desirable in some situations.

**SOURCE NAME**: Changes the name of the source as it appears on this stereo. This also affects how the source appears to other stereos in a group.

### Configuring the Antenna Ports for DAB and FM Antennas

**NOTE:** These instructions apply only to European models. DAB stations are broadcast only in select areas of Europe, so not all models support this feature.

There are two antenna ports on the stereo, and you can connect a DAB antenna and an FM antenna to either of them, depending on the type of connector on the antenna. After connecting an antenna, you must configure the stereo to use the antenna properly.

- 1 Select > SETTINGS > SOURCE > DAB.
- 2 Select an option:
  - To configure an antenna port for a DAB antenna, select **DAB ANTENNA**.
  - To configure an antenna port fo an FM antenna, select FM ANTENNA
- 3 Select the antenna port where you connected the antenna.
- **4** Repeat these steps for the other antenna, if necessary.
- 5 If the connected antenna requires power from the stereo, select > SETTINGS > SOURCE > DAB and select ANTENNA 1 POWER or ANTENNA 2 POWER depending on which port you connected the antenna (Optional).

### **Network Settings**

**NOTE**: If a Garmin chartplotter is detected on the network, the stereo automatically switches to GARMIN MARINE NETWORK mode, and all other network settings are disabled.

**TIP:** You can select the network status icon from any screen to open the network configuration menu.

Select > SETTINGS > NETWORK.

WI-FI OFF: Turns off all Wi-Fi wireless functions.

WI-FI CLIENT: Configures the stereo as the wireless client, allowing it to wirelessly connect to other devices.

**WI-FI ACCESS POINT**: Configures the stereo as the wireless access point (*Setting the Fusion PartyBus Device as a Wireless Access Point*, page 26).

**ADVANCED**: Allows you to set the advanced wireless and wired settings, such as DHCP and SSID (*Advanced Network Configuration*, page 27).

**RESET**: Resets all network settings for this stereo to the factory default values.

### Connecting the Fusion PartyBus Device to a Wireless Access Point

You can connect this device to a wireless access point on a router or compatible Fusion PartyBus device on the network. This device can connect using Wi-Fi Protected Setup (WPS), if it is supported by your access point (Connecting the Device to a Wireless Access Point Using Wi-Fi Protected Setup, page 26). This device can connect using Apple Accessory Configuration (WAC) using a supported Apple device (Connecting the Device to a Wireless Access Point Using Apple Wireless Accessory Configuration, page 26).

- 1 Select > SETTINGS > NETWORK > WI-FI CLIENT > SSID.
  - A list of wireless access points within range appears.
- 2 Select the Fusion PartyBus wireless access point.
- 3 If necessary, select PASSWORD, enter the password, and select ✓.
- 4 Select SAVE.

**NOTE:** After you connect the stereo to a wireless access point, you cannot use the wired network connection.

#### Connecting the Device to a Wireless Access Point Using Wi-Fi Protected Setup

If it is supported by your wireless access point, you can connect this device using Wi-Fi Protected Setup (WPS) instead of manually selecting the SSID and entering the password.

**NOTE:** You may need to see the owner's manual for your wireless access point for information about enabling WPS.

- 1 Select > SETTINGS > NETWORK > WI-FI CLIENT > WPS.
- 2 Enable the WPS connection on your wireless access point.

**NOTE:** When you connect the stereo to a wireless access point, you cannot use the wired network connection.

#### Connecting the Device to a Wireless Access Point Using Apple Wireless Accessory Configuration

If it is supported by Apple device, you can connect this device using Wireless Accessory Configuration (WAC) instead of manually selecting the SSID and entering the password.

NOTE: You may need to see the owner's manual for your Apple device for information about using WAC.

- 1 Select > SETTINGS > NETWORK > WI-FI CLIENT > WAC.
- 2 Use your compatible Apple device to complete the connection.

NOTE: When you connect the stereo to a wireless access point, you cannot use the wired network connection.

### Setting the Fusion PartyBus Device as a Wireless Access Point

Before you can connect additional Fusion PartyBus devices or smartphones to a Fusion PartyBus device wirelessly, you must configure one device as a wireless access point. This is not necessary if you installed a wireless router or other wireless access point on the network.

#### NOTICE

You should not configure this device as a wireless access point if you have a router installed on the network. Doing so may introduce DHCP conflicts and result in poor network performance.

- 1 Select > SETTINGS > NETWORK > WI-FI ACCESS POINT.
- 2 Select an option:
  - To use factory-assigned default access point settings, select **USE DEFAULTS**, and wait for the device to save the network settings.
    - **NOTE:** After the default settings are saved, you can scroll down to the bottom of the **NETWORK** menu to view default SSID assigned to the access point.
  - To customize the access point name and security settings, select ADVANCED > WI-FI AP SETTINGS, and proceed to the next step.
- 3 Select SSID, and change the default SSID, or name, for the wireless access point.
- 4 Select AP SECURITY, and change the security type for the access point.
  - **NOTE:** It is strongly recommended that you use the WPA3 PERSONAL AP SECURITY setting, as it is the most secure protocol. If you encounter connection issues with other devices, you should use WPA2 PERSONAL instead, as it is the most widely-used wireless security protocol.
- **5** Select **PASSWORD**, and change the default password for the access point.
- 6 If necessary, select COUNTRY, and select your region.
- 7 Select CHANNEL, and select a channel range for the access point (optional).
- 8 Select SAVE.

You can adjust the wireless access point configuration at any time (*Wireless Access Point Settings*, page 27).

**NOTE:** When you configure the stereo as a wireless access point, you can also use the wired network connection without changing any additional settings. The wired and wireless networks are bridged.

### **Wireless Access Point Settings**

Select = > SETTINGS > NETWORK > ADVANCED > WI-FI ACCESS POINT.

**NOTE:** You must configure the device to be a wireless access point before you can change the settings (*Setting the Fusion PartyBus Device as a Wireless Access Point*, page 26).

SSID: Sets the SSID, or name, for the network.

AP SECURITY: Sets the type of wireless security protocol used by the access point.

**NOTE:** It is strongly recommended that you set the AP SECURITY using WPA2 PERSONAL. It is the most widely-used and secure wireless security protocol.

**PASSWORD**: Sets the password for the access point. This is not available when the AP SECURITY setting is set to NONE.

**COUNTRY**: Sets the region where the stereo is located. Different regions may use different channels on the wireless spectrum, so you should set this to best accommodate local wireless devices.

**CHANNEL**: Sets the access point to use a group of channels in the high, low, or middle range of the available spectrum for your region. You may experience better performance if you set the channel in a range with fewer broadcasting access points.

**DHCP SERVER**: Sets the device to act as a wireless access point and the DHCP server on the network (*DHCP Settings*, page 28).

**WPS**: Initiates a Wi-Fi Protected Setup (WPS) connection. Devices with a WPS button or setting can connect to the access point on this stereo when the WPS connection is active.

NOTE: It can take up to two minutes to successfully connect to the access point after you select WPS.

### **Advanced Network Configuration**

You can perform advanced networking tasks on a Fusion PartyBus device, such as defining DHCP ranges and setting static IP addresses.

**NOTE:** When connected to a Garmin Marine Network via ethernet and configured as a DHCP client, the stereo automatically detects and connects to the Garmin Marine Network.

Select > SETTINGS > NETWORK > ADVANCED.

**DHCP CLIENT**: Sets the device as a DHCP client. This is the default setting for all devices that are not configured to be a DHCP server or wireless access point.

**STATIC IP**: Allows you to set a static IP address for the device (Setting a Static IP Address, page 29).

**DETAILS**: Shows information about the network configuration.

#### Setting the Fusion PartyBus Device as the DHCP Server

If you connected more than two network devices together using a network switch or wireless access point but you did not install a router, you should configure only one Fusion PartyBus stereo to be a DHCP server.

#### NOTICE

Having more than one DHCP server on the network causes instability and poor performance for all devices on the network.

**NOTE:** If you have set up this stereo as a WI-FI ACCESS POINT, it is configured as a DHCP server by default, and no further settings changes are needed (*Setting the Fusion PartyBus Device as a Wireless Access Point*, page 26).

**NOTE:** Although the Fusion PartyBus devices can communicate with each other without a DHCP server on the network, the devices take longer to connect to each other when you first turn them on. It is highly recommended to have one properly-configured DHCP server on the network for the best results.

- 1 If the device is connected to the network using an Ethernet cable, select > SETTINGS > NETWORK > WI-FI OFF.
  - You must turn off Wi-Fi before you can set the stereo as a wired DHCP server.
- 2 If the device is connected to the network using an Ethernet cable, select **STATIC IP** > **SAVE**. You must set the stereo to use a static IP address before you can set it as a wired DHCP server.
- 3 Select ADVANCED > DHCP SERVER > DHCP ENABLED > SAVE.
  You can configure the IP address range of the DHCP server (DHCP Settings, page 28).

### **DHCP Settings**

Select > SETTINGS > NETWORK > ADVANCED > DHCP SERVER.

**DHCP ENABLED**: Sets the device as the DHCP server on the network.

**START IP**: Sets the first IP address in the IP-address range of the DHCP server.

**END IP**: Sets the final IP address in the IP-address range of the DHCP server.

#### Connecting the Stereo to a Garmin Network

**NOTE:** When you connect the stereo to a Garmin BlueNet network or a Garmin Marine Network, you are limited to using only Garmin and Fusion devices. You will not be able to use third-party routers or other network products with this stereo directly.

You cannot use Wi-Fi networking to connect to a Garmin chartplotter, nor can you use Wi-Fi networking on the stereo when it is connected to a Garmin chartplotter using a wired network connection.

You can connect this stereo to a Garmin BlueNet network or a Garmin Marine Network in order to view and control the stereo using a compatible Garmin chartplotter.

**NOTE:** If a Garmin chartplotter is detected on the network, the stereo automatically switches to GARMIN MARINE NETWORK mode, the stereo reboots, and all other network settings on the stereo are disabled. If this does not happen automatically, reset the stereo network settings and connect it again (*Resetting Network Settings*, page 30). If this still does not happen automatically, perform a factory reset on the stereo and connect it again.

This stereo is compatible with both Garmin BlueNet devices and Garmin Marine Network devices. You can connect the stereo to either type of network, but if you have multiple stereos, they should all be connected to one network type or another.

**NOTE:** If your vessel has a mix of Garmin Marine Network and Garmin BlueNet networks connected through a Garmin BlueNet bridge, all stereos should be connected to the Garmin BlueNet network for the best performance.

For more information about Garmin BlueNet technology, including best practices for constructing a network including both Garmin BlueNet devices and Garmin Marine Network devices, go to garmin.com/manuals /bluenet.

**TIP:** When the stereo is connected to a Garmin network, you can connect a mobile device to a wireless access point on a connected Garmin chartplotter and use the Fusion Audio app to control the stereo.

- 1 Determine the best device on the Garmin BlueNet network or the Garmin Marine Network to which you should connect the stereo.
- 2 Select an option:
  - · To connect the stereo to a Garmin BlueNet device, use a Garmin BlueNet cable (not included).
  - To connect the stereo to a Garmin Marine Network device, use a Garmin Marine Network to Garmin BlueNet network adapter cable (010-12531-11 or 010-13094-00, not included).

#### **Setting a Static IP Address**

If the stereo is configured as a DHCP server, it is automatically assigned the IP address of 192.168.0.1. You can change this IP address.

If the stereo is a client on the network and you do not want the DHCP server to automatically assign an IP address to the stereo, you can set a static IP address.

**NOTE:** Every device on the network must have a unique IP address. If you select a static IP address that is the same as the IP address on the network, the devices will not work properly.

- 1 Select => SETTINGS > NETWORK > ADVANCED.
- 2 Select an option:
  - If the stereo is connected using an Ethernet cable, select ETHERNET IP > STATIC IP.
  - · If the stereo is set as a wireless access point or wireless client, select WI-FI IP.
- 3 Select an option:
  - To set the IP address, select IP, and enter the IP address.
  - To set the subnet mask, select **MASK**, and enter the subnet mask.
    - **NOTE:** The subnet mask must match all other devices on the network to work properly. A typical subnet mask is 255.255.255.0.
  - To set the default gateway IP address, select GATEWAY, and enter the gateway IP address.
     NOTE: The default gateway is typically set as the IP address of the DHCP server on the network.
- 4 Select SAVE.

General Settings 29

#### **Resetting Network Settings**

You can reset all network settings for this stereo to the factory default values.

- 1 Select == > **SETTINGS**.
- 2 Select NETWORK > ADVANCED > RESET > YES.

### **Update Options**

#### NOTICE

Do not turn off the device or disconnect the power during a software update. Turning off the power during a software update may cause the device to become unresponsive.

Depending on your stereo and network connections, you may have multiple software-update options available. Before proceeding with an update, you should examine your devices and connections to determine the most efficient way to proceed (*Software Updates*, page 32).

#### NOTE:

- · The device may restart a few times when updating. This is normal.
- · You can program only newer versions of software on the device.

Select > SETTINGS > UPDATE.

**UPDATE DEVICES**: Updates the stereo using a valid software update file on a connected USB flash drive (*Updating the Software Using a USB Flash Drive*, page 33).

**ACCESSORIES > NRX REMOTE**: Updates an optional NRX remote connected to the NMEA 2000 port or NMEA 2000 network.

ACCESSORIES > ERX REMOTE: Updates an optional ERX remote connected to the ETHERNET port or the Fusion PartyBus network using a valid software update file on a connected USB flash drive (*Updating the Software Using a USB Flash Drive*, page 33).

**SAVE GARMIN DEVICES**: Saves connected device information to a connected USB flash drive. This information is required by the Garmin Express<sup>™</sup> program when preparing the USB flash drive with the proper software update files.

**FACTORY RESET**: Resets default settings.

# **Additional Stereo Control Options**

# Connecting to a Garmin Watch

For more information about the watch, see the watch manual at garmin.com/manuals.

- 1 Following the instructions in the watch manual, install the Fusion Audio app from the Connect IQ<sup>™</sup> store onto the watch.
- 2 On the stereo, select the **BLUETOOTH** source.
- 3 Select => BLUETOOTH > CONNECTIONS > DISCOVERABLE.

The stereo remains discoverable for two minutes.

- 4 Bring the watch within 3 m (10 ft.) of the stereo.
  - NOTE: Stay 10 m (33 ft.) away from other ANT® devices while pairing.
- 5 Open the Fusion Audio app on the watch.
  - The first time you open the app on the watch, the watch automatically pairs with and connects to the stereo. If you need to pair to another stereo, in the Fusion Audio app, select **Settings > Pair New**.
- **6** Control the audio playback using the Fusion Audio app on the watch.

After the devices are paired, they connect automatically when they are turned on, within range, and the app is open on the watch.

### **Connecting to an ARX70 Remote Control**

- 1 On the stereo, select the **BLUETOOTH** source.
- 2 Select => BLUETOOTH > CONNECTIONS > DISCOVERABLE.
- 3 Bring the ARX70 remote control within 10 m (33 ft.) of the stereo.
  - NOTE: Stay 10 m (33 ft.) away from other ANT devices while pairing.
- 4 On the ARX70 remote control, press and hold € until the status LED starts alternating green and red.

  The remote control searches for the stereo. When the remote control pairs successfully, the status LED turns on green briefly and then turns off.

If the remote control cannot find the stereo, the status LED turns on red briefly and then turns off.

### **Fusion Audio Wireless Remote Control App**

You can use the Fusion Audio remote control app on your compatible Apple or Android device to adjust the stereo volume, change the source, control playback, select and manage radio presets, and adjust some stereo settings. You can use the app to set up and configure DSP profiles on the stereo. You can use the app to update the stereo software.

The app communicates with the stereo using a wireless connection to the mobile device. You must connect your compatible device to the stereo using Bluetooth or Wi-Fi technology to use the app.

If the stereo is connected to a network with a Wi-Fi access point, the app can communicate with the stereo using the network for greater range than a Bluetooth connection.

**NOTE:** You cannot update the stereo software using a Bluetooth connection. You must connect the app using a Wi-Fi connection to update the stereo software wirelessly.

For information about the Fusion Audio remote control app for compatible Apple or Android devices, go to the Apple App Store<sup>SM</sup> or the Google Play $^{\text{T}}$  store.

#### **Fusion Stereo Network Connection and Control**

When connected using a supported networking method, you can fully control compatible Fusion entertainment systems on compatible multi-function displays installed at the helm, flybridge, or navigation station of the vessel. This provides integrated entertainment control and a less cluttered console.

The connected multi-function display becomes the portal on which you can control all audio on the vessel, no matter where on the vessel the connected stereo is installed. The compatible Fusion stereo can be installed out of sight if space is an issue and users need to access the stereo only to replace removable media.

This device can communicate with a compatible multi-function display using existing industry-standard network connections including Ethernet and Wi-Fi wireless technology.

**NOTE:** Garmin multi-function displays must be connected via Ethernet.

This device can communicate with a compatible multi-function display using existing industry-standard NMEA 2000 networks.

# **NMEA 2000 Remote Control and Display**

The stereo can be controlled by compatible Fusion wired remote controls installed in the audio zones throughout the vessel. Operating the entertainment system from the remote control is similar to operating it from the main stereo.

Fusion wired remote controls operate over an existing NMEA 2000 network, so wiring the remote controls directly to the stereo is not necessary. All remote controls connected to the same NMEA 2000 network as the stereo can control the stereo.

The Fusion wired remote control can also serve as an NMEA® display showing NMEA navigation data or vessel performance data from other NMEA devices on an existing NMEA 2000 network. See the instructions provided with your remote control for information on supported NMEA 2000 PGN information.

#### NMEA 2000 Information

NMEA 2000 is the most popular marine standard for data communication within vessels. It has become the standard for sending navigation and engine management data within vessels. Fusion introduces an industry-first product by incorporating NMEA 2000 functionality in its audio remote control devices. This enables the user to monitor relevant NMEA 2000 Parameter Group Number (PGN) data available over the NMEA 2000 network on a connected NRX series remote control.

# **Appendix**

### **Registering Your Fusion Device**

Help us better support you by completing our online registration today.

- · Go to garmin.com/account/register.
- · Keep the original sales receipt, or a photocopy, in a safe place.

## Cleaning the Device

- 1 Dampen a soft, clean, lint-free cloth with fresh water.
- 2 Gently wipe the device.

## **Software Updates**

For best results, you should update the software in all Fusion devices regularly. Some features, such as the Fusion PartyBus group functionality may not work properly unless all connected stereos are using the same software version.

Depending on your stereo and network connections, you may be able to use any or all of these update methods:

- If you have one or more stereos with Wi-Fi functionality or connected to a wireless network, you can update
  the software using the Fusion Audio remote control app (Updating the Software Using the Fusion Audio App,
  page 36).
- If you prefer to not use the remote control app, you can update the software using a single-stereo update file loaded onto a USB flash drive (*Updating the Software Using a USB Flash Drive*, page 33).
- If the stereo is connected to a compatible Garmin chartplotter, you can update the stereo using a network full marine package update downloaded from the Garmin website or from Garmin Express and loaded onto a memory card (*Network Update Options*, page 36).

You can use this table to best determine what update methods are available for your stereo or stereos and find additional information about each type of update.

Devices	Available Update Methods	Update Method Details
A Fusion Apollo stereo only	<ul> <li>Fusion Audio remote control app</li> <li>USB flash drive (single- stereo update)</li> </ul>	None
<ul> <li>One or more Fusion Apollo stereos connected to a Garmin chartplotter using a wired Garmin BlueNet or Garmin Marine Network connection.</li> <li>With or without a single or multiple Garmin Spectra lighting controllers connected to the same NMEA 2000 network as at least one of the chartplotters or stereos</li> </ul>	<ul> <li>Memory card using a networked compatible Garmin chartplotter (full marine package network update)</li> <li>Fusion Audio remote control app or USB flash drive (single- stereo update)<sup>2</sup></li> </ul>	<ul> <li>The full marine package update method updates all Garmin devices connected to the wired Garmin BlueNet or Garmin Marine Network and the NMEA 2000 network at one time, including connected stereos and lighting controllers.</li> <li>If you have an NRX remote control connected to the stereo, it is not updated as part of the full marine package update method. You must perform updates to those devices individually (<i>Update Options</i>, page 30).</li> <li>If your stereo or stereos are connected to a Garmin chartplotter, you should perform an update using the full marine package update method on a memory card thorough the chartplotter. It is not recommend to use any other update method with this setup.</li> </ul>

#### **Updating the Software Using a USB Flash Drive**

You can update the device software using a USB flash drive. You can prepare a suitable USB flash drive by manually downloading and loading the update files, or you can use the Garmin Express app.

#### NOTICE

Do not turn off the device or disconnect the power during a software update. Turning off the power during a software update may cause the device to become unresponsive.

#### NOTE:

- You cannot update the software using a USB flash drive formatted using the NTFS file system. If you
  encounter problems updating the device, format the USB flash drive using FAT32 and try the update process
  again.
- The device may restart a few times while updating the software. This is expected behavior.
- You can program only newer versions of software on the device.

**NOTE**: If the stereo you want to update is in a group, you must remove it from the group (*Leaving a Group*, page 15).

- 1 Select an option to prepare the USB flash drive for updating the stereo software:
  - Download the software update manually and load it onto the USB flash drive (*Downloading a Software Update Manually*, page 34).
  - Prepare the USB flash drive using the Garmin Express app (Downloading a Software Update using the Garmin Express App, page 34).
- 2 After you prepare the USB flash drive with the software-update files, insert the USB flash drive into the stereo and use the stereo interface to proceed with the update (*Updating the Software from a Prepared USB Flash Drive*, page 35).

<sup>&</sup>lt;sup>2</sup> Not recommended. You should use a full marine package network update if your stereo or stereos are connected to a Garmin chartplotter.

#### **Downloading a Software Update Manually**

You can download the proper update file for your stereo, stereo accessory, or applicable connected entertainment devices from the Garmin website and manually prepare a USB flash drive to update the stereo.

- 1 Select an option:
  - If you want to download the single-stereo USB software update or an accessory software update file, go to the page for your stereo or stereo accessories on support.garmin.com.
  - If you want to download the entertainment package to update all Fusion Apollo stereos connected as part of an entertainment network using Ethernet cables, and any Garmin Spectra lighting controllers connected to the same NMEA 2000 network as the stereo, go to garmin.com/support/software/marine/.
- 2 Download the stereo update file, the accessory update file, or the entertainment package update file.
- 3 Insert a properly-formatted USB flash drive of sufficient size into your computer.
- **4** Extract the contents of the .zip file to the root of a USB flash drive.

  The contents of the software update are contained in a folder named **Garmin**.
- **5** Eject or safely remove the USB flash drive from the computer. Install the update on the stereo (*Updating the Software from a Prepared USB Flash Drive*, page 35).

#### Downloading a Software Update using the Garmin Express App

You should use a blank USB flash drive for updates. The update process erases the content and reformats the USB flash drive.

- 1 Turn on the stereo.
- 2 Insert the USB flash drive into the USB port on the stereo.
- 3 Select > SETTINGS > UPDATE > SAVE GARMIN DEVICES.

The stereo writes a small file on the USB flash drive that is used by the Garmin Express app to identify the stereo and connected devices and download the appropriate update file.

- 4 After about ten seconds or more, remove the USB flash drive from the stereo.
- **5** If necessary, install the Garmin Express app on your computer (*Installing the Garmin Express App on a Computer*, page 34).
- 6 Open the Garmin Express app on your computer.
- 7 Insert the USB flash drive into the computer.
- 8 If available, select your vessel and device or select the option to add a device by reading the USB flash drive.
- 9 If updates are available, select Software Updates > Continue.
- 10 Read and agree to the terms.
- 11 Select the drive letter for the USB flash drive.
- 12 Review the reformat warning, and select OK.
- 13 Wait while the software update is copied to the USB flash drive.

**NOTE:** Copying the update file onto the USB flash drive may take from a few minutes up to a few hours.

- **14** When the process is complete, close the Garmin Express app.
- 15 Eject or safely remove the USB flash drive from the computer.

Install the update on the stereo (Updating the Software from a Prepared USB Flash Drive, page 35).

#### **Installing the Garmin Express App on a Computer**

You can install the Garmin Express app on a Windows or Mac computer.

- 1 Go to garmin.com/express.
- 2 Select Download for Windows or Download for Mac.
- 3 Follow the on-screen instructions.

#### Updating the Software from a Prepared USB Flash Drive

Before you update the software, you must load the software update files onto a suitable USB flash drive either manually (*Downloading a Software Update Manually*, page 34) or by using the Garmin Express app (*Downloading a Software Update using the Garmin Express App*, page 34).

#### NOTICE

Do not turn off the stereo or disconnect the power during a software update. Turning off the power during a software update may cause the stereo to become unresponsive.

**NOTE:** The stereo may restart a few times while updating the software. This is expected behavior.

- 1 Turn on the stereo.
- 2 After the stereo boots fully, insert the USB flash drive into the USB port.
  - **NOTE**: In order for the update prompt to appear automatically, you must allow the device to fully boot before inserting the USB flash drive.
- 3 If you are prompted to update the software automatically, select **Install Now** to start the update and skip the next step.
- **4** If the update prompt does not appear automatically, select an option:
  - To update the stereo software, select == > SETTINGS > UPDATE > UPDATE DEVICES.
  - To update accessories connected to the stereo, select > SETTINGS > UPDATE > ACCESSORIES and select the name of the accessory you want to update.

#### **NOTICE**

To ensure all accessories are updated properly, you should update the stereo software first, then update the accessories.

- 5 Wait several minutes while the update process completes.
  - **TIP:** When using a single-stereo update, if you have multiple stereos of this model connected as part of an entertainment network using Ethernet cables, they are all updated at the same time. If you have multiple stereos of different models, you must update each separately. Using an entertainment package instead updates all connected Fusion Apollo stereos, regardless of model.
- 6 Leave the USB flash drive in place while the stereo updates.
  - The stereo may reboot multiple times during the update process.
- 7 When prompted, select **RESTART** to finalize the update process.
- 8 After the stereo fully boots after restarting, remove the USB flash drive.
  - NOTE: If the USB flash drive is removed before the device restarts fully, the update is not complete.

#### **Updating the Software Using the Fusion Audio App**

If the stereo has a Wi-Fi access point or is connected to a Fusion PartyBus network with a Wi-Fi access point, you can update the stereo software using the Fusion Audio app, available for compatible Apple or Android on the Apple App Store or the Google Play store.

#### NOTICE

Do not turn off the stereo or disconnect the power during a software update. Turning off the power during a software update may cause the device to become unresponsive.

**NOTE**: If the stereo you want to update is in a group, you must remove it from the group (*Leaving a Group*, page 15).

#### NOTE:

- The stereo may restart a few times while updating the software. This is expected behavior.
- You can program only newer versions of software on the stereo.
- 1 If necessary, connect your mobile device to the stereo using one of these methods:
  - · Connect your mobile device to the stereo using a Bluetooth connection.
    - **NOTE:** You can use a Bluetooth connection to access the stereo information and allow the app to download an update, but you must switch to a Wi-Fi connection to transfer the update to the stereo at the appropriate time. You cannot update the stereo using only a Bluetooth connection.
  - Connect your mobile device to the stereo using a Wi-Fi access point on the stereo.
  - · Connect your mobile device to a Wi-Fi access point on the same Fusion PartyBus network as the stereo.
- 2 Open the Fusion Audio app, and verify that you can see the stereo in the app.
- 3 If your mobile device is connected to a Wi-Fi access point on the stereo or the Fusion PartyBus network, disconnect the mobile device from the Wi-Fi access point, and connect it to a different Wi-Fi network with internet access or to the wireless mobile data connection from your carrier.

**NOTE:** You must connect your mobile device to the internet in order to download the necessary software update files.

**TIP:** If your Fusion PartyBus network is presently connected to a router with a modem or SIM card that provides internet access, you can leave your mobile device connected to the network instead of disconnecting and using the wireless mobile data connection from your carrier to download the update files.

- 5 Select the Online Software Update.
  - The app downloads the software update file.
- **6** After the app finishes downloading the update file, reconnect the mobile device to the Wi-Fi access point on the stereo or the Fusion PartyBus network.
- 7 If necessary, in the Fusion Audio app, reconnect to the stereo.
- 8 If necessary, select 🗘 > GENERAL > Software Updates > Online Software Update.

  The app transfers the software update to the stereo over the Wi-Fi connection, the stereo updates the software, and then it restarts.

#### **Network Update Options**

When connected to the same Garmin BlueNet network or Garmin Marine Network as a compatible Garmin chartplotter, you can update your compatible Fusion stereos and accessories from the chartplotter.

You can perform a Garmin network update which updates all of the of Garmin and Fusion devices connected to the network.

#### Updating the Software as Part of a Garmin Network Update

If the stereo is connected to the same Garmin BlueNet network or Garmin Marine Network as a compatible Garmin chartplotter, you can perform a network update on the chartplotter to update all of the connected Garmin devices and Fusion Apollo stereos.

**NOTE**: If you have one or more NRX remote controls connected to the stereo, they are not updated as part a marine network update. You must perform updates to those devices individually (*Update Options*, page 30).

- 1 If needed, go to garmin.com/manuals and locate the latest version of the owner's manual for your connected chartplotter.
- 2 Select an option:
  - · Use the ActiveCaptain app to initiate the software update.
  - Go to garmin.com/support/software/marine/ to download the latest marine update .
     NOTE: If you do not use the ActiveCaptain app, you must download the update and install it using a memory card on the chartplotter.
- **3** Follow the directions in the chartplotter owner's manual for performing a network update. The software is updated on all of your connected devices, including the stereo.

**NOTE:** Depending on the capabilities and software version of your connected chartplotter, it may not include this stereo in the Garmin network update until after the chartplotter is updated to a more-current version. If the stereo is not updated after the network update completes, try performing the network update again. If the stereo is not updated after the chartplotter is up-to-date, perform a manual update on the stereo instead, using the Fusion Audio app or a USB drive (*Software Updates*, page 32).

### Stereo Webpage

When you connect the stereo to a network containing a mobile device or a personal computer, you can use the web browser on the mobile device or personal computer to view selected information about the stereo, adjust a limited collection of settings, and update the stereo software.

### **Accessing the Stereo Webpage**

- 1 Connect the stereo to a network using a wired Ethernet or a Wi-Fi connection.
- 2 If necessary connect a personal computer or a mobile device to the same network as the stereo.
- 3 Locate the IP address of the stereo:
  - If the stereo is connected using a wired Ethernet connection, select > SETTINGS > NETWORK >
    ADVANCED > ETHERNET IP > DETAILS
  - If the stereo is connected through a Wi-Fi connection, select > SETTINGS > NETWORK > ADVANCED > WI-FI IP > DETAILS
- 4 In the address bar of a web browser on the connected personal computer or mobile device, enter "http://" followed by the IP address of the stereo.

The browser on your PC or mobile device opens the stereo webpage.

#### **Updating the Stereo from the Stereo Webpage**

It is recommended to update the stereo using the Fusion app, a USB drive, or the Garmin network. If you prefer not to use one of the recommended update methods, you can update the stereo using the webpage.

- 1 If the connected network does not have internet access, you must download the single-stereo software update or an accessory software update file from the page for your stereo or stereo accessories on support.garmin.com and transfer it to a mobile device or personal computer on the same network as the stereo.
- 2 From the stereo webpage, select the **Device Settings** tab.
- 3 Select an option:
  - If the connected network has internet access, select **Check** under **Check for OTA update** to search for an available software update, then select **Download and install** if a new version is available.
  - If the connected network does not have internet access, select **Browse** under **File**, select the "update.zip" file you downloaded and transferred to the personal computer or mobile device, and select **Submit**

The stereo proceeds with the update and show a message indicating that the update is in progress. When the update is complete, the stereo restarts.

4 After the stereo restarts, on the stereo, select > SETTINGS > ABOUT, and verify the software update was successful.

### **Troubleshooting**

#### The stereo does not respond to key presses

- Hold () until the stereo turns off, and turn it on again to reset the stereo.
- Disconnect power to the stereo for two minutes to reset the stereo.

#### The stereo does not receive DAB stations

**NOTE:** The Fusion Apollo RA800 includes a built-in DAB module and receives DAB signals through a standard AM/FM antenna.

- Ensure the stereo is set to a tuner region where DAB stations are broadcast. (Setting the Tuner Region, page 13)
- Check the antenna port and power settings for the connected antenna (Configuring the Antenna Ports for DAB and FM Antennas, page 25).
- Connect a third-party powered DAB antenna to improve DAB reception.
- For additional information, go to support.garmin.com and contact Product Support.

#### My Bluetooth audio is interrupted by short breaks

- Ensure the media player is not covered or obstructed.
   Bluetooth technology performs best with line-of-sight operation.
- Bring the media player within 10 m (33 ft.) of the stereo.
- Turn off the **DISCOVERABLE** setting after pairing a Bluetooth device to the stereo.
- Wi-Fi signals may interfere with Bluetooth device connections. You should turn off the Wi-Fi setting on your stereo if you are not using it.

#### The stereo does not display all song information from my Bluetooth source

The availability of song information such as song title, artist name, track duration, and album cover artwork depends on the capability of the media player and music application.

#### **Network Troubleshooting**

If you cannot see or connect to Fusion Apollo devices on the network, perform these steps.

- Verify that all Fusion Apollo stereos, remote controls, network switches, routers, and wireless access points are connected to the network and turned on.
- Verify that wireless Fusion Apollo devices are connected to a wireless router or wireless access point on the network.

NOTE: Wired connections are more reliable than wireless connections. If possible, you should connect devices to the network using an Ethernet cable.

- Verify that only one device, either a stereo or a router, is configured as a DHCP server. If you are connected to a Garmin chartplotter using a wired Garmin BlueNet or Garmin Marine Network connection, it acts as the DHCP server for the network and no connected stereo should be configured as a DHCP server.
- Change the channel on your router or wireless access point to test for and correct interference. You may experience wireless interference if there are many nearby wireless access points.
- · Disconnect Bluetooth devices to test for and correct interference. Connecting a Bluetooth device to a stereo configured as a wireless access point or client may reduce wireless performance.
- If you configured static IP addresses, verify that every device has a unique IP address, that the first three sets of numbers in the IP addresses match, and that the subnet masks on every device are identical.
- If you have made configuration changes that might be causing networking issues, reset all network settings to the factory default values.
- If you connected the Fusion Apollo device to a Garmin chartplotter using a wired Garmin BlueNet or Garmin Marine Network connection, the network settings on the device should change automatically to GARMIN MARINE NETWORK.

If the network settings do not change as expected, reset the network settings on the device (Resetting Network Settings, page 30).

#### **Network Status Icons**

A network-status icon is shown on some screens of the stereo. You can refer to this table to understand the appearance of the icon and help diagnose issues with the Fusion PartyBus network.



The stereo is configured for a wired network connection and connected to a wired network using an Ethernet cable.



The stereo is configured for a wired network connection, but cannot detect the wired network. An Ethernet cable may not be connected or there may be other problems with the network.



The stereo is in Wi-Fi accessory configuration (WAC) mode, which allows for an easy connection to Apple devices.



(((•))) The stereo is configured as a wireless access point.



The stereo is configured as a wireless client and connected to a wireless access point. The number of bars indicates the signal strength.



The stereo is configured as a wireless client, but is not connected to a wireless access point. There may be a problem with the connection settings or with the wireless access point.

#### **Software Update Troubleshooting**

If a stereo software update you downloaded from the Garmin website does not complete successfully, perform these steps.

- Make sure the update file you downloaded is intended for the stereo model you are updating. Only software update files intended for the specific stereo will update the stereo.
- Make sure the update file is a newer version than what is presently installed on the stereo. Only newer software update files can be installed on a stereo.
- Make sure the update file was extracted from the .zip file and loaded onto the root of the USB flash drive. When properly prepared, the USB flash drive will have a directory named **Garmin** containing the update file.
- Make sure the USB flash drive is formatted using the FAT32 file system. The stereo will not apply an update from a USB flash drive formatted using the NTFS file system.
- If the stereo is part of a Fusion PartyBus network group, remove it from the group before starting the update.

#### The stereo does not update as part of a Garmin network update

If you are attempting to update a stereo or stereos using a Garmin chartplotter on a network, and the stereo software update does not complete successfully, perform these steps.

- Make sure that the stereo or stereos you want to update over the network are using software verison 6.20 or later. If any connected stereos are using an earlier software version, you must update the stereo individually using a USB flash drive or the Fusion app before it can be included in a network update.
- If the network update fails the first time, try it again before further troubleshooting.
- · Try disconnecting any Bluetooth devices and try the update again.
- Make sure the stereo is connected properly to the Garmin chartplotter using an Ethernet cable. A stereo connected using Wi-Fi technology only cannot be updated with other devices on the network.
- If your network contains both a Garmin BlueNet chartplotter and Legacy Garmin Marine Network devices, make sure the stereo is connected to either the Garmin BlueNet chartplotter or a Garmin BlueNet 20 switch. See garmin.com/manuals/bluenet for more information.
- Make sure that all stereos connected to the network are set to GARMIN MARINE NETWORK as the network type.
- · Make sure that all the stereos connected to the network are set to WI-FI OFF.
- If the network type is not set to **GARMIN MARINE NETWORK**, and you cannot change the network type or set **WI-FI OFF**, reset the network settings on the stereo (*Resetting Network Settings*, page 30).

#### The stereo keeps locking up when connected to an Apple device

- Press and hold the power button to reset the stereo.
- Reset the Apple device. Go to www.apple.com for more information.
- Make sure you have the latest version of iTunes® and the latest operating software on your Apple device.

#### The stereo is not finding my connected Apple device

- Make sure your Apple device supports Interface Accessory Protocol 2 (iAP2). This stereo is not compatible
  with iAP1 devices.
- Make sure you have the latest version of iTunes and the latest operating software on your Apple device.
- Make sure you have the latest version of the Fusion Audio application on your Apple device.
- Try rotating and re-inserting the USB-C cable into the stereo.
- Try using a different cable, preferably an Apple OEM cable.
- If you are using a USB-A to USB-C adapter, try using a different adapter.
- · Reset the Apple device.
  - Go to apple.com for more information.
- · Contact your Fusion dealer or go to support.garmin.com.

### My Apple AirPlay audio is interrupted by short breaks

- Make sure the Apple device is not covered or obstructed.
- Make sure the Apple device has a good connection to the same Wi-Fi network as the stereo.
- Make sure the Apple device is not connected to the stereo using Bluetooth technology and Wi-Fi.
   Using both a Bluetooth and a Wi-Fi connection may cause playback interruptions.

# **Specifications**

#### General

Weight	750 g (26.5 oz.)
Weight	700 g (20.3 02.)
Water resistance	IEC 60529 IPX7 (front of stereo only, when properly installed) IEC 60529 IPX2 (rear of stereo, when properly installed)
Operating temperature range	From 0 to 50°C (from 32 to 122°F)
Storage temperature range	From -20 to 70°C (from -4 to 158°F)
Input voltage	From 10.8 to 32 Vdc
Current (max.)	25 A
Current (muted)	Less than 900 mA
Current (off)	Less than 350 mA
Fuse	25 A mini blade-type
NMEA 2000 LEN @ 9 Vdc	2 (100 mA)
Bluetooth wireless range	Up to 10 m (30 ft.)
ANT wireless range	Up to 3 m (10 ft.)
Wireless frequencies/protocols	Wi-Fi 2.4 GHz @ +19.49 dBm maxiumum Bluetooth 2.4 GHz @ +15.11 dBm maxiumum ANT 2.4 GHz @ 3.22 dBm maxiumum
Compass-safe distance	40 cm (15.75 in)

#### **On-board, Class D Amplifier**

Output music power per channel	4 x 80 W max. 4 ohm
Total output peak power	320 W
Output power per channel <sup>3</sup>	4 x 40 W RMS less than 1% THD+N, 4 ohm {CTA-2006-D}
Line output level (max.)	5.6 V (peak to peak)
Aux input level (typical)	1 V RMS typical, 2 V RMS max.

<sup>&</sup>lt;sup>3</sup> The stereo may limit the output power to prevent the amplifier from overheating, and to maintain the audio dynamics.

#### **Tuner frequencies**

Tuner	Europe and Australasia	USA	Japan
FM radio frequency range	87.5 to 108 MHz	87.5 to 107.9 MHz	76 to 95 MHz
FM frequency step	50 kHz	200 kHz	50 kHz
AM radio frequency range	522 to 1620 kHz	530 to 1710 kHz	522 to 1620 kHz
AM frequency step	9 kHz	10 kHz	9 kHz
DAB frequency	174 to 240 MHz (Band III)	N/A	N/A

#### **Network Interfaces and Services**

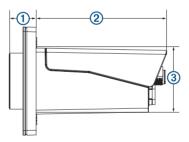
Devices connected to the stereo using a Garmin BlueNet cable, a Garmin Marine Network cable, or other Ethernet cable use these network interfaces and services. These interfaces and surfaces are enabled by default, cannot be disabled, and are required for proper equipment operation.

- · Garmin proprietary services
- DHCP
- HTTP
- LLDP
- NFS
- · RPC Bind
- SSH
- Telnet

**NOTE:** When you connect a new device to the network, private information is synchronized with the newly-added device.

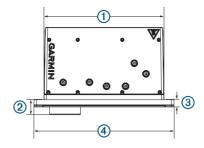
# **Stereo Dimension Drawings**

#### **Side Dimensions**



1	20.4 mm (0.8 in.)
2	99 mm (3.9 in.)
3	50 mm (1.97 in.)

# **Top Dimensions**



1	164 mm (6.5 in.)
2	20.4 mm (0.8 in.)
3	10 mm (0.39 in.)
4	192 mm (7.56 in.)

# support.garmin.com







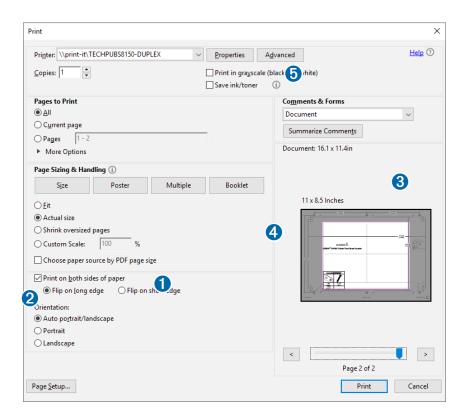
# **Printing a Mounting Template**

#### NOTICE

It is not recommended that you print a mounting template on your own. Use the template that came in the product box.

If you do print the template, you must follow these instructions for printing a mounting template precisely. To print large templates, you need large enough paper and printer. Failure to have the correct sized paper and printer, or a failure to follow these instructions, may result in an incorrectly sized template and therefore an incorrect cutout (too large or too small) on the mounting surface of your boat.

1 Select File > Print.



- 2 Select None for Page Scaling 1.
- 3 Ensure the check mark is next to Auto-Rotate and Center 2.
- 4 Drag the arrow 3 to the right, to view page 2 in the window below.
- 4 Verify that the paper size is larger than the template 4. In this example, the paper is not larger than the template.
- 5 If the paper size is not large enough, select **Properties** 5 and select a **Page Size** that is larger than the template.

#### NOTICE

Fusion is not responsible for any damages or expenses resulting from a miscut mounting surface arising from a failure to follow these instructions.

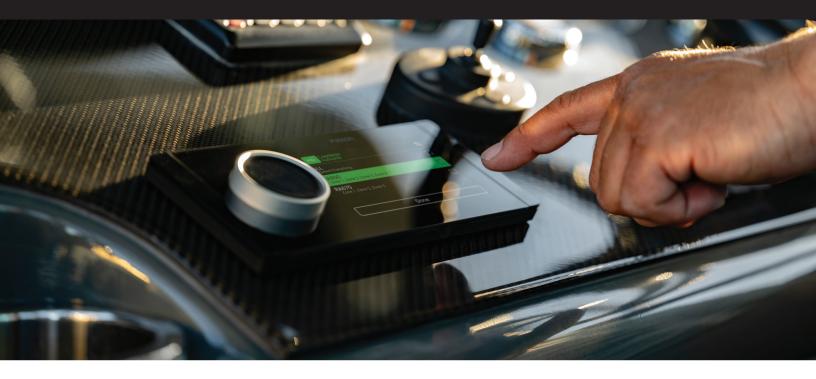
# GARMIN<sub>®</sub>

**Apollo™ RA800 Mounting Template** 52 mm  $(2^{1}/_{16} in.)$ -166 mm (6 9/16 in.)-



• Max. Ø 10.0 mm (13/32 in.)

**MARINE STEREO** 



# **PRODUCT OVERVIEW**

Amplify the moment with RA800 — the most advanced Fusion Apollo marine stereo to date. It features an elegant new look and a faster, more powerful processor to support high-resolution lossless audio and Wi-Fi® connectivity for seamless AirPlay® audio streaming from Apple®. Plus, the unit's Class-D internal amplifier boasts 50% more onboard power output than its acclaimed RA770 predecessor. And with stereo networking via Ethernet or Wi-Fi, you can connect multiple Apollo Series stereos to share audio sources across multiple listening zones on your boat. The sleek black glass source unit features weather-resistant IPX6- and IPX7-rated construction and is flush mountable to blend seamlessly with other modern electronics at your helm. Wired networking capabilities using the NMEA 2000® network let you integrate stereo control with compatible chartplotters and MFDs on board. Plus, the unit's wireless capabilities offer remote audio control via compatible smart devices and Garmin smartwatches along with over-the-air software updates via the Fusion® Audio app.











**MARINE STEREO** 

# **KEY FEATURES**

#### **HIGH-RESOLUTION LOSSLESS AUDIO**

NEW

The RA800 marine stereo's lossless codecs, supported by Wi-Fi® technology, achieves high-resolution audio performance offering superior sound separation and clarity.



#### MORE POWERFUL INTERNAL AMP

NEV

The unit's upgraded internal amplifier produces 50% more power output than its predecessor RA770 model for improved audio clarity in open-air marine environments.



SLEEK MODERN LOOK	With its sleek, edge-to-edge glass faceplate designed to blend in seamlessly with new-generation marine electronics, Fusion Apollo RA800 brings a clean, modern aesthetic to your helm.
FASTER PROCESSOR	A faster processor provides quicker response times for the system's user interface, with 8 times more processing speed than its predecessor RA770 stereo.
AUDIO STREAMING IMPROVED	Built-in Wi-Fi connectivity for AirPlay® audio streaming from Apple®, combined with multiple-input multiple-output (MIMO) technology, offers an enhanced listening experience with seamless high-quality audio streaming.
STEREO NETWORKING	Connect your RA800 marine stereo with other Apollo Series stereos to create a network on board your boat; enjoy advanced features, including stereo grouping, combined volume control, power options and home zone control.
HIGHER-RESOLUTION DISPLAY IMPROVED	The unit's high-resolution 4.3" LCD touchscreen display offers notable improvements in image sharpness, color saturation, viewing angles and readability in bright daylight.
RUGGED DESIGN	Built on the True-Marine <sup>™</sup> design philosophy from Fusion <sup>®</sup> , the unit's IPX6- and IPX7-rated water-resistant front face has been tested to a high level of protection against salt fog, temperature, vibration and UV exposure.
QUICK SWITCH	With the same size and form factor as its predecessor unit, the Fusion Apollo RA800 marine stereo offers an easy plug-and-play upgrade for 12- or 24-volt installations.
MULTIPLE SOURCE OPTIONS	Multiple source options include an AM/FM radio, BLUETOOTH® connectivity, AUX inputs, USB connections and available built-in DAB+ radio tuner.
MFD NETWORKING	Network your Fusion Apollo RA800 stereo with a compatible Garmin MFD for integrated audio control at the helm; or wirelessly control your stereo from a compatible Garmin smartwatch or other smart device.
OVER-THE-AIR SOFTWARE UPDATES	Easily keep your stereo up to date with the latest features via over-the-air software updates.
WARRANTY	Count on marine-grade reliability, backed by a 3-year Garmin warranty.

**MARINE STEREO** 

# PRODUCT CONFIGURATIONS

SCHEDULE B: 8527910000 HTS: 8527.91.6080

#### MS-RA800



AVAILABLE	INCLUDES	COUNTRY OF ORIGIN
AVAILABLE	INCLUDES	COUNTRY OF ORIGIN

Fusion Apollo MS-RA800 marine stereo, mounting gasket, four 8-gauge self-tapping screws, 2 screw covers, power and speaker wiring harness, auxiliary-in, line-out and subwoofer-out wiring harnesses, 6' (2 m) drop cable for the NMEA 2000® network dust cover and documentation

Made in Taiwan. Cables made in China.

 DESCRIPTION
 SKU
 UPC
 MRP

 Fusion Apollo MS-RA800 Marine Stereo
 010-02937-00
 753759330361
 \$999.99 USD \$1,399.99 CAD

# PHYSICAL SPECIFICATIONS

General Specifications	Physical dimensions (height)	3.23" (82 mm)
	Physical dimensions (width)	7.56" (192 mm)
	Physical dimensions (depth)	4.7" (119.4 mm)
	Weight	1.37 lbs (620 g)
	Control surface dust/water rating (when properly installed)	IPX6 and IPX7
	Rear dust/water rating (when properly installed)	IPX3
	Operating temperature range	-20 to 70° C
	Current draw (max)	25 A at 14.4 V; 15 A at 28.8 V
	Warranty	3 years
Networking	NMEA 2000 LEN	2 (65 mA)
	BLUETOOTH® wireless range	up to 30'
	ANT® wireless range	Up to 10'
	Wireless frequencies/protocols	WiFi $^{\circ}$ 2.4Ghz : +12dBm nominal MIMO 2 x 2 BLUETOOTH: 2.4 GHz @ +10 dBm nominal ANT: 2.4 GHz 0 dBm nominal
Audio	Rated continuous (RMS) power (14.4 V input @ 4 ohm < 1% THD)	40 W x 4
Electrical Features	Power Input	10.8 – 32 VDC
	Compass-safe distance	5.9" (150 mm)
Stereo Features	Display size	4.3" (109 mm)
	Display type	Capacitive touchscreen color LCD
	Display resolution	800 x 480
	Optically bonded display	Yes
	Built-in amplifier	Class D (4 Ω)
	Built-in Wi-Fi®	Yes
	Built-in Digital Signal Processing (DSP)	yes (with custom DSP profile setup using Fusion-Link™ app)
	Stereo networking	Yes (wired or wireless)
	Fusion-Link control	Yes (MFD, smart device and Garmin watch)
	Multi-Zone™ technology	4 Zones
	BLUETOOTH® wireless technology	Yes (BLUETOOTH 5.3)
	ANT® wireless technology	Yes
	Multilanguage interface	Bulgarian, Chinese (Simplified), Chinese (Traditional), Croatian, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Italian, Japanese, Korean, Norwegian, Polish, Portuguese (BR), Portuguese (PT), Slovenian, Spanish, Swedish, Thai, Turkish
	Software updates	Over-the-air updates via Fusion-Link app (when connected to wireless network router)/USB

**MARINE STEREO** 

# PHYSICAL SPECIFICATIONS CONTINUED

Sources	Supported sources	AM, FM, BLUETOOTH, Apple AirPlay® 2, HDMI ARC, USB audio, iPhone®, iPod®, AUX x2
	Supported audio formats (USB)	MP3, AAC, M4A, FLAC, WAV
Connections	Auxiliary inputs (RCA)	2
	HDMI ARC ports	1
	Ethernet ports	1
	NMEA 2000® ports	1
	USB 2.0 ports	1 (USB-C®)
	AM/FM ports (Motorola antenna connector)	1
	Speaker connections	4 (2 zone amplified)
	RCA pre-out (left, right and subwoofer; requires external amplification)	4 Zones
	Line out (requires external amplification)	4 (L + R per zone)
	Subwoofer out (requires external amplification)	4 (1 mono output per zone)

# **PACKAGING SPECIFICATIONS**

	MS-RA800	MS-RA800 - OEM
Gift box dimensions (W x H x D)	9.2" x 6.9" x 6.6" (233 x 174 x 168 mm)	9.2" x 6.9" x 5.7" (233 x 174 x 144 mm)
Gift box weight	3.2 lbs (1.45 kg)	2.7 lbs (1.24 kg)
Master carton dimensions (W x H x D)	14.4" x 8.3" x 19.4" (367x 210 x 493 mm)	15.1" x 13.0" x 19.8" (383 x 331 x 503 mm)
Master carton weight	14.5 lbs (6.6 kg)	24.8 lbs (11.2 kg)
Master carton quantity	4	8

# **PRODUCT COPY**

Product copy for Fusion Apollo MS-RA800 can be downloaded from the <u>Dealer Resource Center</u>.

# **FEATURE BENEFIT VIDEO**



**MARINE STEREO** 

# **COMPATIBLE APP**

**FUSION® AUDIO APP** 



Set your DSP profiles and control your audio using the Fusion Audio app.

# **COMPATIBLE PRODUCT OVERVIEW**

#### JL AUDIO® M6 SPEAKERS



M6 marine speakers are acoustically engineered and tuned for open-air boating environments, ensuring phenomenal fidelity at cruising speed or while anchored at your favorite spot.

MRP: \$399.99 USD AND UP

#### FUSION APOLLO™ MARINE AMPLIFIERS



You care about your marine audio system, and you need powerful monoblock, multichannel or zone amplifers that will bring your music to life.

MRP: \$179.99 USD AND UP

See Garmin.com for details and available devices.

# JL AUDIO® M6 TOWER SPEAKERS



You're a boater who wants a serious marine speaker system that delivers phenomenal audio fidelity — with strong projected output from your wake tower or other topside installation.

MRP: \$1,049.99 USD AND UP

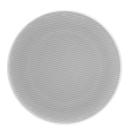
#### GPSMAP® 9000 CHARTPLOTTER SERIES



You want a large touchscreen chartplotter with 4K resolution and advanced technology. Command your helm with this multifunction display engineered with premium design and materials.

MRP: \$9,899.99 USD AND UP

#### JL AUDIO® M6 SUBWOOFERS



Engineered to be the standard in marine subwoofer performance, M6 marine subwoofers are built to produce powerful, low-distortion sub-bass that will transform your boat's audio system.

MRP: \$329.99 USD AND UP

**MARINE STEREO** 

### **COMPATIBLE ACCESSORY OVERVIEW**

#### GARMIN SPECTRA™ LED CONTROL MODULE



You need an easy way to control LED lights on your boat. Set the vibe with Gamrin Spectra, a compact and easy-to-use light control module.

MRP: \$149.99 USD AND UP

	SKU	UPC	MSRP (USD)	DESCRIPTION	IMAGE
DUST COVER	010-12743-01	753759330392	\$16.99	Keep the front of your Fusion Apollo MS-RA800 marine stereo protected and free from dust with this cover.	PUSION
RETROFIT FIT	010-12829-04	753759330408	\$49.99	Easily integrate your Fusion Apollo MS-RA800 marine stereo into an existing DIN-sized cutout with this retrofit kit.	
FLUSH MOUNTED USB-C® PORT, 6' (2 M)	010-13354-00	753759330415	\$29.99	Use this flush mounted USB-C port to extend a USB-C connection on compatible Fusion marine stereos. It features a 6.5' (2 meter) extension cable and a rubber seal cap with IPX7 rating for protection against the elements.	
FUSION PERFORMANCE RCA CABLES 1 CHANNEL	010-13192-00 010-13192-10 010-13192-20	753759288433 753759288440 753759288457	\$19.99 \$24.99 \$39.99	For a superior listening experience, these performance RCA connector cables are designed to deliver a clean, clear and enhanced audio signal from your Fusion stereo to your Fusion amplifier. Key features include directional, shielded twisted pair cables for superior noise rejection and gold-plated connectors to prevent corrosion in the harsh marine environment.	
FUSION® PERFORMANCE RCA CABLES 2 CHANNEL (various lengths available)	010-12613-00 010-12614-00 010-12615-00 010-12616-00	753759177669 753759177676 753759177683 753759177690	\$24.99 \$29.99 \$44.99 \$49.99	For a superior listening experience, these performance RCA connector cables are designed to deliver a clean, clear and enhanced audio signal from your Fusion stereo to your Fusion amplifier. Key features include directional, shielded twisted pair cables for superior noise rejection and gold-plated connectors to prevent corrosion in the harsh marine environment.	10 10
FUSION PERFORMANCE RCA CABLES 4 CHANNEL (various lengths available)	010-12618-00 010-12619-00 010-12620-00	753759177713 753759177720 753759177737	\$64.99 \$69.99 \$84.99	For a superior listening experience, these performance RCA connector cables are designed to deliver a clean, clear and enhanced audio signal from your Fusion stereo to your Fusion amplifier. Key features include directional, shielded twisted pair cables for superior noise rejection and gold-plated connectors to prevent corrosion in the harsh marine environment.	
FUSION PERFORMANCE RCA SPLITTER CABLE FEMALE TO DUAL MALE	010-12621-00	753759177744	\$17.99	For a superior listening experience, these performance RCA connector cables are designed to deliver a clean, clear and enhanced audio signal from your Fusion stereo to your Fusion amplifier. Key features include directional, shielded twisted pair cables for superior noise rejection and gold-plated connectors to prevent corrosion in the harsh marine environment.	. 10
FUSION PERFORMANCE RCA SPLITTER CABLE MALE TO DUAL FEMALE	010-12622-00	753759223786	\$17.99	For a superior listening experience, these performance RCA connector cables are designed to deliver a clean, clear and enhanced audio signal from your Fusion stereo to your Fusion amplifier. Key features include directional, shielded twisted pair cables for superior noise rejection and gold-plated connectors to prevent corrosion in the harsh marine environment.	* **

See Garmin.com for details and available devices.

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AirPlay, Apple, iPhone, iPad and App Store are trademarks of Apple Inc., registered in the U.S. and other countries.

NMEA, NMEA 2000, and the NMEA 2000 logo are registered trademarks of the National Marine Electronics Association.

The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Garmin is under license.

USB-C is a registered trademark of the USB Implementers Forum.

# Fusion RA800

# • Features:

- Dual-band dual-antenna WiFi for extended range
- Internal Amplifier with 4 x 40W RMS <1% 12 THD @4 Ohm
- 12/24v operation
- AirPlay2
- Supports high-resolution audio 24bit
   96khz
- Premium brand ESS HiFi audio DAC



# Same install and software interface as RA770

# Optical port replaced with HDMI:

- Connects the stereo to a digital audio source, such as TV or DVD player, using the Audio Return Channel (ARC) over HDMI®
- Does not work with MFDs for audio output
- Audio Return Channel (ARC)
  - The Audio Return Channel (ARC) enables you to play digital audio from a television or other source with HDMI technology over the stereo system speakers.
  - HDMI version 1.4 or newer cables support ARC. When planning your stereo installation, check whether your devices and cables support ARC. Most devices that support ARC have an ARC or eARC label on the HDMI connector that supports ARC.
  - NOTE: There is a limit to the length of the HDMI cable when using ARC functionality. If your source is greater than 5 m (16 ft.) away from the stereo, confirm with the cable manufacturer that it can support ARC at the length needed.



### GARMIN.



#### IMPORTANT SAFETY AND PRODUCT INFORMATION

#### **↑** WARNING

Failure to heed the following warnings could result in an accident or collision resulting in death or serious injury.

#### **Marine Operation Warnings**

- You are responsible for the safe and prudent operation of your vessel. This device does not relieve you from the responsibility of safely operating your vessel. Avoid navigational hazards and never leave the helm unattended.
- Always be prepared to promptly regain control of the vessel. Use caution near hazards in the water, such as docks, pilings and other vessels.

#### **Hearing Damage Warning**

You can permanently damage your ears and lose hearing if you listen to the stereo at high volume. If you experience ringing in your ears or muffled speech, stop listening and have your hearing checked.

#### **Battery Warnings**

The device uses an internal, non-user-replaceable battery for various purposes, such as the real-time clock.

If these guidelines are not followed, batteries may experience a shortened life span or may present a risk of damage to the device, fire, chemical burn, electrolyte leak, and/or injury.

- Do not force discharge, recharge, disassemble, heat above the temperature ranges specified in the printed manual, or incinerate. Doing so may result in injury due to venting, leakage, or explosion resulting in chemical burns.
- Do not modify, remanufacture, puncture, or damage the device or batteries.
- Do not remove or attempt to remove the non-user-replaceable battery.

#### **NOTICE**

Failure to heed the following notices could result in personal or property damage, or negatively impact the device functionality.

#### **Device Pairing Notice**

Not all wireless connections are secure. You should pair devices in a secure location. For more information, see garmin.com/connectiontypes.

#### **Product Environmental Programs**

Information about the Garmin® product recycling program and WEEE, RoHS, REACH, and other compliance programs can be found at garmin.com/aboutGarmin/environment.

#### **Declaration of Conformity**

Hereby, Garmin declares that this product is in compliance with the Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: garmin.com/compliance.

#### **UK Declaration of Conformity**

Hereby, Garmin declares that this product is in compliance with the relevant statutory requirements. The full text of the declaration of conformity is available at the following internet address: garmin.com/compliance.

#### **FCC Compliance**

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

This equipment 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 may cause harmful interference to radio communications if not installed and used in accordance with the instructions. 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 the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This product does not contain any user-serviceable parts. Repairs should only be made by an authorized Garmin service center. Unauthorized repairs or modifications could result in permanent damage to the equipment, and void your warranty and your authority to operate this device under Part 15 regulations.

# Innovation, Science and Economic Development Canada Compliance

This device contains licence-exempt transmitter(s)/ receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

#### **Radio Frequency Radiation Exposure**

This device is a mobile transmitter and receiver that uses an internal antenna to send and receive low levels of radio frequency (RF) energy for data communications. The device emits RF energy below the published limits when operating in its maximum output power mode and when used with Garmin authorized accessories. To comply with RF exposure compliance requirements, the device should be installed and used with the separation distance as described in the printed manual. The device should not be used in other configurations. This device must not be co-located or operated in conjunction with any other transmitter or antenna.

#### **Software License Agreement**

BY USING THE DEVICE, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

Garmin Ltd. and its subsidiaries ("Garmin") grant you a limited license to use the software embedded in this device (the "Software") in binary executable form in the normal operation of the product. Title, ownership rights, and intellectual property rights in and to the Software remain in Garmin and/or its third-party providers.

You acknowledge that the Software is the property of Garmin and/or its third-party providers and is protected under the United States of America copyright laws and international copyright treaties. You further acknowledge that the structure, organization, and code of the Software. for which source code is not provided, are valuable trade secrets of Garmin and/or its third-party providers and that the Software in source code form remains a valuable trade secret of Garmin and/or its third-party providers. You agree not to decompile, disassemble, modify, reverse assemble, reverse engineer, or reduce to human readable form the Software or any part thereof or create any derivative works based on the Software. You agree not to export or re-export the Software to any country in violation of the export control laws of the United States of America or the export control laws of any other applicable country.

#### **Consumer Limited Warranty**

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER LEGAL RIGHTS, WHICH VARY FROM STATE TO STATE (OR BY COUNTRY OR PROVINCE). GARMIN DOES NOT EXCLUDE, LIMIT OR SUSPEND OTHER LEGAL RIGHTS YOU MAY HAVE UNDER THE LAWS OF YOUR STATE (OR COUNTRY OR PROVINCE). FOR A FULL UNDERSTANDING OF YOUR RIGHTS, YOU SHOULD CONSULT THE LAWS OF YOUR STATE, COUNTRY OR PROVINCE.

Non-aviation products are warranted to be free from defects in materials or workmanship for one year from the date of purchase. Within this period, Garmin will, at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost. This Limited Warranty does not apply to: (i) cosmetic damage, such as scratches, nicks and dents; (ii) consumable parts, such as batteries, unless product damage has occurred due to a defect in materials or workmanship: (iii) damage caused by accident, abuse. misuse, water, flood, fire, or other acts of nature or external causes; (iv) damage caused by service performed by anyone who is not an authorized service provider of Garmin; (v) damage to a product that has been modified or altered without the written permission of Garmin; (vi) damage to a product that has been connected to power and/or data cables that are not supplied by Garmin or damage to a product that has been connected to AC adapters and cables that are not certified by UL (Underwriters Laboratories) and are not labeled as Limited Power Source (LPS). In addition, Garmin reserves the right to refuse warranty claims against products or services that are obtained and/or used in contravention of the laws of any country. Garmin navigation products are intended to be used only as a travel aid and must not be used for any purpose requiring precise measurement of direction, distance, location or topography. Garmin makes no warranty as to the accuracy or completeness of map data.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE WARRANTIES AND REMEDIES CONTAINED IN THIS LIMITED WARRANTY ARE EXCLUSIVE AND IN LIEU OF, AND GARMIN EXPRESSLY DISCLAIMS, ALL OTHER WARRANTIES AND REMEDIES, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, STATUTORY REMEDY OR OTHERWISE. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER LEGAL RIGHTS, WHICH VARY FROM STATE TO STATE AND FROM COUNTRY TO COUNTRY. IF IMPLIED WARRANTIES CANNOT BE DISCLAIMED UNDER THE LAWS OF YOUR STATE OR COUNTRY, THEN SUCH WARRANTIES ARE LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. SOME STATES (AND COUNTRIES AND PROVINCES) DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IN NO EVENT SHALL GARMIN BE LIABLE IN A CLAIM FOR BREACH OF WARRANTY FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE OR INABILITY TO USE THIS PRODUCT OR FROM DEFECTS IN THE PRODUCT. SOME STATES (AND COUNTRIES AND PROVINCES) DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

If during the warranty period you submit a claim for warranty service in accordance with this Limited Warranty, then Garmin will, at its option: (i) repair the device using new parts or previously used parts that satisfy Garmin's quality standards, (ii) replace the device with a new device or a Garmin Recertified device that meets Garmin's quality standards, or (iii) exchange the device for a full refund of your purchase price. SUCH REMEDY SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY. Repaired or replaced devices have a 90-day warranty. If the device sent in is still under its original warranty, then the new warranty is 90 days or to the end of the original 1-year warranty, whichever is longer.

Before seeking warranty service, please access and review the online help resources available on support.garmin.com. If your device is still not functioning properly after making use of these resources, contact a Garmin Authorized service facility in the original country of purchase or follow the instructions on support.garmin.com to obtain warranty service. If you are in the United States, you can also call 1-800-800-1020.

If you seek warranty service outside of the original country of purchase, Garmin cannot guarantee that the parts and products needed to repair or replace your product will be available due to differences in product offerings and applicable standards, laws and regulations. Accordingly, Garmin may, in its sole discretion and subject to applicable laws, repair your product with comparable parts or replace your product with a comparable Garmin product (new or a Garmin Recertified replacement), or require you to ship your product to a Garmin Authorized Service facility in the country of original purchase or to a Garmin Authorized service facility in another country that can service your product, in which case you will be responsible for complying with all applicable import and export laws and regulations and for paying all custom duties, V.A.T., shipping fees and other associated taxes and charges. In some cases, Garmin and its dealers may be unable to service your product in a country outside of the original country of purchase or return a repaired or replaced product to you in that country due to applicable standards, laws or regulations in that country.

Online Auction Purchases: Products purchased through online auctions are not eligible for rebates or other special offers from Garmin warranty coverage. Online auction confirmations are not accepted for warranty verification. To obtain warranty service, an original or copy of the sales receipt from the original retailer is required. Garmin will not replace missing components from any package purchased through an online auction.

International Purchases: A separate warranty may be provided by international distributors for devices purchased outside the United States depending on the country. If applicable, this warranty is provided by the local in-country distributor and this distributor provides local service for your device. Distributor warranties are only valid in the area of intended distribution. Devices purchased in the United States or Canada must be returned to the Garmin service center in the United Kingdom, the United States, Canada, or Taiwan for service.

**Audio Warranty Policy**: Certain Garmin Audio products have a longer warranty period and additional terms and conditions. Go to garmin.com/legal/audio-warranty-policy for more details and to see if your product is covered under the Garmin Audio Warranty Policy.

Marine Warranty Policies: Certain Garmin Marine products in certain areas have a longer warranty period and additional terms and conditions. Go to garmin.com /legal/marine-warranty-policy for more details and to see if your product is covered under the Garmin Marine Warranty Policies.

Australian Purchases: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits under our Limited Warranty are in addition to other rights and remedies under applicable law in relation to the products. Garmin Australasia, 19 Hawthorne Avenue, Marsden Park, NSW 2765, Australia. Phone: 1800 235 822.

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音訊保固政策:特定 Garmin 音訊產品具有較長的保固期限與其他的條款與條件。請前往 garmin.com/legal/audio-warranty-policy 以取得更多詳細資料,並查看您的產品是否在 Garmin 音訊保固政策的涵蓋範圍中。

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