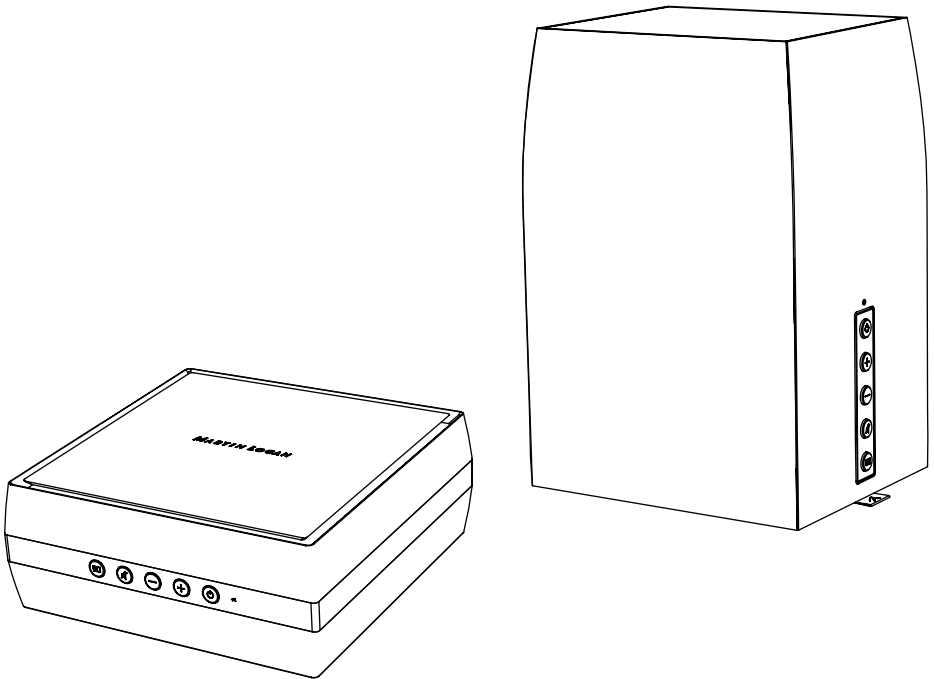


# Bravado™ Forte™

user's manual



  
MARTIN LOGAN®





Do Not Open! Risk of Electrical Shock. Voltages in this equipment are hazardous to life. No userserviceable parts inside. Refer all servicing to qualified service personnel. To prevent fire or shock hazard, do not expose this module to moisture.



The lightning bolt symbol within an equilateral triangle, is intended to alert the user to the presence of potentially "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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



### MOTION VISION X

Tested to comply with FCC standards.  
FOR HOME OR OFFICE USE



### IMPORTANT SAFETY INSTRUCTIONS!

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

- 10 Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. 
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. To completely disconnect this equipment from the AC mains, disconnect the power supply cord plug from the AC receptacle.
16. The mains plug of the power supply cord shall remain readily operable.
17. To prevent overheating, do not cover the apparatus. Install in accordance with the manufacturer's instructions.
18. No naked flame sources, such as candles, should be placed on the product.
19. Do not expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.
20. For apparatus mounted to wall, the apparatus shall be installed on solid wood, bricks, concrete or solid wood columns and battens.
21. DO NOT overload wall outlets or extension cords beyond their rated capacity as this can cause electric shock or fire.
22. Minimum distances around the apparatus for sufficient ventilation.
23. The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc.
24. Do not ingest the battery, Chemical Burn Hazard.
25. Avoid exposure to extreme heat or cold.
26. This equipment is a Class II or double insulated electrical appliance. It has been designed in such a way that it does not require a safety connection to electrical earth. 

**WARNING:** This product is intended to be operated ONLY from the AC Voltages listed on the back panel or included power supply of the product. Operation from other voltages other than those indicated may cause irreversible damage to the product and void the product warranty. The use of AC Plug Adapters is cautioned because it can allow the product to be plugged into voltages in which the product was not designed to operate. If the product is equipped with a detachable power cord, use only the type provided with your product or by your local distributor and/or retailer. If you are unsure of the correct operational voltage, please contact your local distributor and/or retailer.

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.

#### **FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE**

**STATEMENT:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Approved under the verification provision of FCC Part 15 as a Class B Digital Device.

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

**RF EXPOSURE WARNING:** This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at

least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

**5GHz RF DEVICE STATEMENT:** This device operates in the 5.15–5.25GHz frequency range and is restricted to indoor use only.

**CANADA, INDUSTRY CANADA (IC) NOTICES:** This Class B digital apparatus complies with Canadian ICES-003 and RSS-247. 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 (RF) EXPOSURE INFORMATION:** The radiated output power of the Wireless product is below the Industry Canada (IC) radio frequency exposure limits. The Wireless product should be used in such a manner such that the potential for human contact during normal operation is minimized. This device has also been evaluated and shown compliant with the IC RF Exposure limits under mobile exposure conditions. (antennas are greater than 20cm from a person's body).



## WEEE NOTICE

Note: This mark applies only to countries within the European Union (EU) and Norway.

In accordance with the European Union WEEE (Waste Electrical and Electronic Equipment) directive 2002/96/EC effective August 13, 2005, we would like to notify you that this product may contain regulated materials which upon disposal, according to the WEEE directive, require special reuse and recycling processing. For this reason Martin Logan has arranged with our distributors in European Union member nations to collect and recycle this product at no cost to you.

To find your local distributor please contact the dealer from whom you purchased this product, email [info@martinlogan.com](mailto:info@martinlogan.com) or visit the distributor locator at [www.martinlogan.com](http://www.martinlogan.com).

Please note, only this product itself falls under the WEEE directive. When disposing of packaging and other related shipping materials we encourage you to recycle these items through the normal channels.



## WARNING/CAUTION!

- Hazardous voltages exist inside—do not remove cover.
- Refer servicing to a qualified technician.
- To prevent fire or shock hazard, do not expose this module to moisture.
- Unplug speaker should any abnormal conditions occur.
- Turn speaker off before making or breaking any signal connections!
- The power cord should not be installed, removed, or left detached from the speaker while the other end is connected to an AC power source.
- No candles or other sources of open flame should be placed on the speaker.
- No liquids either in glasses or vases should be placed on speaker.
- Speaker should not be exposed to dripping or splashing liquids.
- The terminals marked with the lightning bolt symbol should be connected by an instructed person or by way of ready made terminals.
- The power cord should remain readily operable should any abnormal conditions occur.
- Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

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Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.

For DTS patents, see <http://patents.dts.com>. Manufactured under license from DTS Licensing Limited. DTS, PlayFi, the Symbol, and PlayFi together in combination with the Symbol are trademarks of DTS, Inc. DTS and Play-Fi are registered trademarks of DTS, Inc. © DTS, Inc. All Rights Reserved.

AirPlay, iPad, iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.

AirPlay works with iPhone, iPad, and iPod touch with iOS 4.3.3 or later, Mac with OS X Mountain Lion, and Mac and PC with iTunes 10.2.2 or later.

iPad mini, iPod touch (3rd through 5th generation), and iPod nano (5th through 7th generation). "Made for iPod," "Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certi-

fied by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.

### Made for:

- iPhone 6 Plus
- iPhone 6
- iPhone 5s
- iPhone 5c
- iPad Air 2
- iPad mini 3

## INTRODUCTION AND OVERVIEW

*Thank you—the MartinLogan owner, for loving what we do, and making it possible for us to do what we love.*

MartinLogan's dedicated in-house engineering and design team developed the Bravado speaker and Forte amplifier to deliver exceptional audio performance for wireless streaming applications, easily integrated and installed in a diverse variety of environments.

The Bravado speaker produces an enveloping field of richly detailed audio incorporating two tweeters (featuring MartinLogan's award-winning Folded Motion technology), a high-performance woofer, and dedicated class-D amplification representing 400 watts (peak) of total system power.

The Forte amplifier features two channels of dedicated class-D amplification providing 2 x 200 watts (peak) allowing you to bring wireless streaming to your existing loudspeakers.

Anthem® Room Correction (ARC) allows you to analyze the acoustic response of your listening environment and adjust output for optimal performance.

Additionally, for a fully authentic audio experience, the Bravado and Forte make connecting a dedicated subwoofer simple.

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## PLACEMENT

We recommend locating the speaker on a surface that provides a wide, level, and stable platform such as a table or audio/video rack. Please note, this speaker is not magnetically shielded and there-

fore should not be placed directly beneath or on top of a CRT (cathode ray tube) television. The magnetic field of the speaker will not affect plasma and LCD style televisions.

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## CONNECTION

**WARNING!** Turn your speaker off before making or breaking any signal connections! **WARNING!** The power cord should not be installed, removed, or left detached from the speaker while the other end is connected to an AC power source.



power supplied in any subsequent location is suitable before connecting and operating the device. Substantially impaired performance or severe damage may occur to the speaker if operation is attempted from an incorrect AC power source.

### AC POWER CONNECTION

The power cord should be firmly inserted into the AC power receptacle on the rear of the wireless product, and then to any convenient AC wall outlet.

If you remove your wireless product from the country of original sale, be certain that the AC

### SIGNAL CONNECTION

Connections are made at the signal input section on the rear electronics panel of the wireless product. Your speaker features the following audio inputs:

- **Ethernet connection:** used for streaming audio from DTS Play-Fi®, Apple® AirPlay® or DLNA.



- **Wi-fi connection:** used for streaming audio from DTS Play-Fi®, Apple® AirPlay® or DLNA.
- **Analog In:** On the Bravado speaker, this input will accept a standard 3.5mm stereo headphone style plug. On the Forte amplifier, this input will accept standard stereo RCA connections.

Please note, when utilizing this speaker to reproduce audio from a television via the speaker's Auxiliary (digital or analog) connection, the television's audio output should be defeated. Some televisions will allow you to turn off the internal speaker via the television's menu system. Other televisions may require you to turn the television's volume to "zero" or "mute." Please refer to your television's manual.

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## NETWORK CONNECTION

To stream audio to your speaker or amp, a LAN (local area network) connection is required. This connection can be established using Wi-Fi or Ethernet. Refer to the wireless setup section of this manual for setup and usage details.

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## SUBWOOFER CONNECTION

You may choose to employ a separate subwoofer to enhance bass performance. Subwoofers can be connected via the speaker's "Sub Out" RCA

connection. We recommend using a superb MartinLogan subwoofer.

Using a high-quality RCA style cable designed for subwoofer connection, connect "Sub Out" from the speaker to the "LFE In/Sub In" on the subwoofer.

Reference your subwoofer's manual to learn how to properly adjust the sub's level and phase controls to achieve proper blending with the speaker. If you are not running ARC™ (Anthem Room Correction) the subwoofer's crossover should be set to 100Hz.

If you will be running ARC, set the subwoofer's crossover to "bypass" or "LFE" and for subwoofers that do not have a "bypass" or "LFE" crossover setting, adjust the crossover to its highest setting. Run ARC after connecting and adjusting the subwoofer.

### Using a MartinLogan Dynamo Subwoofer:

If using a MartinLogan Dynamo family subwoofer, we recommend beginning with the following subwoofer settings:

- **Low-pass:** Bypass
- **Phase:** 0
- **Volume:** Knob set to vertical (12-o'clock to 1-o'clock position)

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## CONNECTING SPEAKERS TO THE FORTE AMPLIFIER

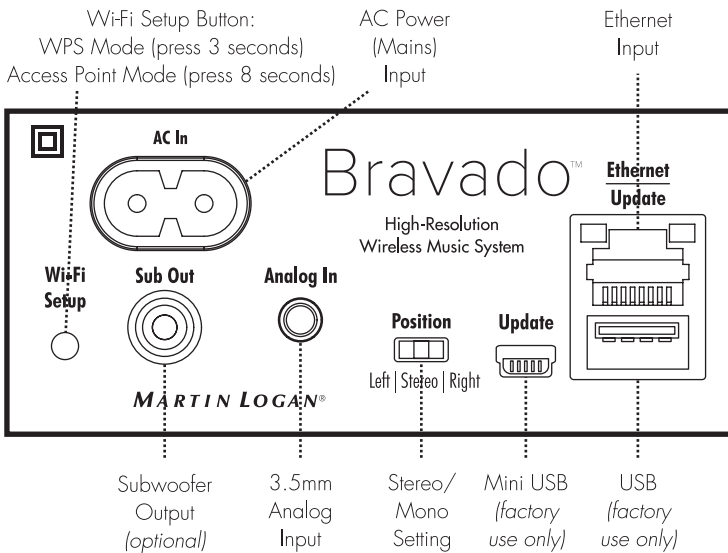
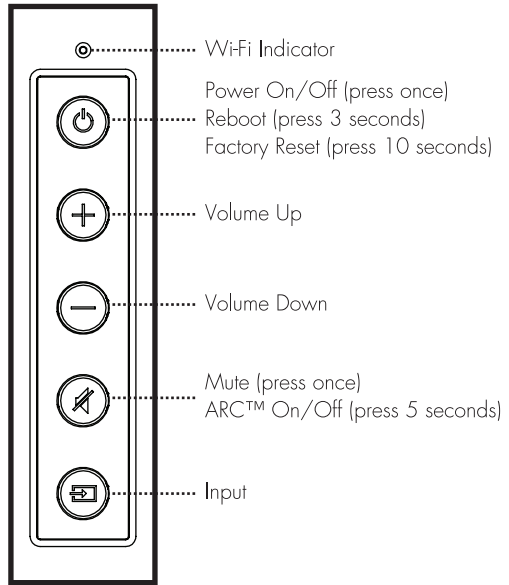
**WARNING!** Use Class 2 wiring only. **CAUTION:** Do not connect speakers, which are rated less than 4 Ohms to the Forte amplifier. **CAUTION:** While making connections with bare wire, ensure that none of your bare wire comes in contact with a an adjacent terminal.



The speakers to be connected to the Forte amplifier should be rated to handle at least 75 Watts for 8 Ohm speakers and at least 150 Watts for 4 Ohm speakers. Your Forte amplifier's binding posts can be used with banana, plug connectors, and bare wire.

**IMPORTANT!** Correct polarity (or phase) is critical for proper soundstage imaging and bass performance. Connect one speaker at a time to ensure

**Fig. 2** Bravado Controls and Rear Connection Panel





proper connection of every channel. The red (+) amplifier terminal must be connected to the red (+) speaker terminal. The same applies to the black (-) terminals. Make sure all wires are firmly fastened. Repeat this connection procedure for each speaker in your system.

**IMPORTANT!** If you hear a distinct lack of bass and a dislocated stereo image then one or more of your speakers may be connected out of phase (polarity is reversed). Re-check to ensure that each speaker's cable is connected with correct polarity: red (+) to red (+) and black (-) to black (-).

## BARE WIRE CONNECTORS

If you are using speaker wire without banana plugs, simply press in the spring loaded binding post to expose the connection hole. Insert the stripped end of the speaker wire into the hole, then release the binding post. The exposed speaker wire should be securely gripped by the binding post.

## BANANA PLUG CONNECTORS

If you are using banana plugs, remove the end caps from the Forte amplifier's binding posts to expose the banana plug socket; insert the banana plug into the socket.

## CONTROLS



**POWER:** Press and release to turn the product on/off.

Press and hold the power button for 3 seconds to reboot your wireless product.

Press and hold the power button for 10 seconds to reset your wireless product to factory settings and clear the network configuration.

Your wireless product will enter Standby Mode (reduced power consumption) after 20 minutes of no music playing. It will automatically wake-up when it senses music being received. The Power button will stay illuminated whether the unit is powered on or in Standby Mode. If there is a power failure while your wireless product is switched on, it will switch back on once power has been restored.



**VOLUME UP / DOWN:**

Press once to turn volume up/down. Press and hold to ramp the volume up/down.



**MUTE:** Press and release to mute the MartinLogan wireless product. Pressing

this button a second time or pressing either volume button will restore the previous volume setting.

If you are using ARC™ (Anthem Room Correction) press and hold the mute button for 5 seconds to turn off ARC on/off. A 'negative tone' will sound to verify ARC is switched off. A 'positive tone' will sound to verify ARC is switched on.



**INPUT:** Switches to the rear panel analog input. This button illuminates white when streaming mode is enabled and blue when the analog input is enabled. If the wireless product is set to analog input and detects a new audio stream, it will automatically switch to streaming mode.

**WI-FI INDICATOR:** The Wi-Fi Indicator tells you what your wireless product is doing.

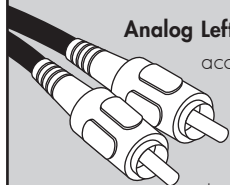
- **Rapid Blinking:** booting up.
- **Blinking:** connecting to a wireless router.
- **Slow Pulse:** Access Point Setup Mode.
- **Two Blinks & Pause:** WPS (Wi-Fi Protected Setup) Mode.
- **Solid:** Connected to a wireless router.
- **Off:** Connected to a router via Ethernet.

## POSITION SWITCH (BRAVADO ONLY):

The rear of the Bravado speaker features a switch that allows you to customize the output of the speaker for specific applications. If the speaker is being

used for stereo output, set this switch to "stereo". If a stereo pair of the speakers are being used in a 2-channel application, set the switch to "left" or "right" depending on the speakers position.

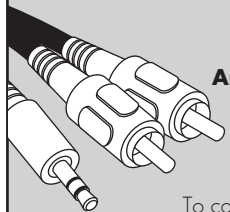
## AN OVERVIEW OF CONNECTIONS



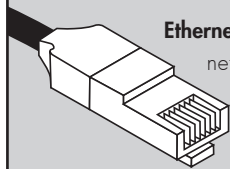
**Analog Left/Right RCA:** [Forte amplifier] The analog input on the Forte amplifier can accept an analog stereo signal through a cable using RCA connectors. An analog RCA cable can only pass a single channel of audio information between a source component and audio output device. To achieve two-channels of audio (left/right), you will find that analog RCA cables come bundled as a stereo pair (two connectors on each end).



**Analog Left/Right 3.5mm Stereo "Headphone Style" Jack:** [Bravado speaker] The analog input on the Bravado speaker can accept an analog stereo signal through a cable using a 3.5mm "headphone style" connector. Users may find source components such as digital media players and docks also utilize a 3.5mm 'headphone style' connector. These devices also have a "volume control" that increases or decreases the level of the output signal.



**Analog Left/Right RCA to Stereo 3.5mm:** [Forte amplifier and Bravado speaker]. Users may find they need to connect an audio source with 3.5mm headphone style jack to the RCA inputs on the Forte amplifier, or connect an audio source with RCA outputs to the 3.5mm input on the Bravado speaker. To connect to these devices use a Left/Right RCA to stereo 3.5mm cable.



**Ethernet:** This cable allows you to physically connect a device to a LAN (local area network). When connected to a LAN, audio information can be sent to this speaker using various protocols (such as DTS® Play-Fi, AirPlay®, or DLNA). If a wireless (Wi-Fi) connection is used to connect to a LAN, there is no need to use an Ethernet connection. However, in some installations, a 'hard-wired' Ethernet connection may prove more desirable than a wireless connection.



**Wi-Fi:** This connection technology wirelessly connects a device to a LAN (local area network). When connected to a LAN, audio information can be sent to this speaker using various protocols (such as DTS Play-Fi, AirPlay®, or DLNA). If an Ethernet connection is used to connect to a LAN, there is no need to use a Wi-Fi connection. In some installations a 'hard-wired' Ethernet connection may prove more desirable than a wireless connection.

## AUDIO STREAMING USAGE GUIDE

DEVICE	APP	CONTENT	MULTI-ROOM SUPPORT
Apple iOS	DTS® Play-Fi	<ul style="list-style-type: none"> <li>Select music services</li> <li>iTunes music stored on device</li> <li>DLNA server content</li> </ul>	<ul style="list-style-type: none"> <li>Up to eight</li> <li>Multiple simultaneous users</li> <li>Speakers can be zoned</li> </ul>
	Apple® AirPlay®	<ul style="list-style-type: none"> <li>iTunes audio content</li> <li>All iOS music apps</li> </ul>	<ul style="list-style-type: none"> <li>One to one</li> </ul>
Android	DTS® Play-Fi	<ul style="list-style-type: none"> <li>Select music services</li> <li>iTunes music stored on device</li> <li>DLNA server content</li> </ul>	<ul style="list-style-type: none"> <li>Up to eight</li> <li>Multiple simultaneous users</li> <li>Speakers can be zoned</li> </ul>
Mac PC	Apple® AirPlay®	<ul style="list-style-type: none"> <li>All audio content</li> </ul>	<ul style="list-style-type: none"> <li>Up to six</li> </ul>
Windows PC	DTS® Play-Fi	<ul style="list-style-type: none"> <li>All iOS music apps</li> </ul>	<ul style="list-style-type: none"> <li>Up to eight</li> <li>Multiple simultaneous users</li> <li>Speakers can be zoned</li> </ul>
	Apple® AirPlay®	<ul style="list-style-type: none"> <li>iTunes audio content</li> </ul>	<ul style="list-style-type: none"> <li>Up to six</li> </ul>

## DTS PLAY-FI® AND APPLE® AIRPLAY® SETUP

### NETWORK REQUIREMENTS

You must have the following to connect your wireless product to your network:

- A wireless router.
- A high-speed internet connection for reliable playback of internet based music services.
- Have your network password ready before connecting the wireless product to your network.

**TIP!** If wireless connectivity is weak or not available, connect to your router with an Ethernet cable.

**TIP!** Your wireless product communicates with wireless networks that support 802.11g/n. For best performance, a network that supports 802.11n wireless technology is recommended. A network supporting 802.11b may be used, but it will effectively stream to only one device equipped with DTS Play-Fi®. Your wireless product communicates over a 2.4 GHz wireless band,

however, it can become slow in locations, such as apartments, where many routers are in operation. Consequently, your wireless product is capable of jumping onto a 5 GHz band on dual band wireless routers.

### DTS Play-Fi® APP REQUIREMENTS

- An Android device running Android 2.2 or later.
- An iOS device running iOS 6.0 or later.
- A Windows® PC running Windows 7, 8 (32 and 64 bit), or later.

### Apple® AirPlay® REQUIREMENTS

- An iOS device running iOS 4.3.3 or later.
- Mac with OS X Mountain Lion, or later.
- Mac or PC with iTunes 10.2.2, or later.

## WI-FI INDICATOR LIGHT

The Wi-Fi Indicator light tells you what your wireless product is doing (fig. 1 & 2).

- **Rapid Blinking:** booting up.
  - **Blinking:** connecting to a wireless router.
  - **Slow Pulse:** Access Point Setup Mode.
  - **Two Blinks & Pause:** WPS (Wi-Fi Protected Setup) Mode.
  - **Solid:** Connected to a wireless router.
  - **Off:** Connected to a router via Ethernet.
- 

## DOWNLOADING THE DTS PLAY-FI® APP

**Android Device Users:** Download the free DTS Play-Fi app from Google Play or the Amazon App Store.

**iOS Device Users:** Download the free DTS Play-Fi app from the Apple App Store.

**PC Users:** Download and install the free DTS Play-Fi program from <https://playfi.com/apps/windows>

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## CONNECTING TO A WIRELESS NETWORK: ACCESS POINT SETUP

Access Point Setup causes your MartinLogan wireless product to behave as if it were a wireless router. Using your mobile device or Wi-Fi capable PC, you connect directly to your wireless product using Wi-Fi, select your home wireless network, and enter the network password.

1. For optimal setup conditions place your wireless product next to your wireless router. The device can be moved to its final location after wi-fi setup.
2. Plug in your wireless product and press the Power button.
3. The Wi-Fi Indicator light will start rapidly blinking for about 20 seconds while your wireless product is booting up. If your wireless product

is not configured to connect to your network, it will continue to blink. If this is the first time your new wireless product is plugged in, the Wi-Fi Indicator light will start pulsing slowly. If the wireless product is already configured to connect to a wi-fi network, the button will turn solid (connected) or blink rapidly (not connected).

4. Once the Wi-Fi Indicator light starts pulsing slowly, your wireless product is in Access Point Mode and ready to connect to your wireless network. **Note:** If the Wi-Fi Indicator light does not pulse slowly, press and hold the Wi-Fi Setup button for 8 seconds. You will hear two tones—one at 3 seconds and another at 8 seconds. After 20 seconds, the Wi-Fi Indicator light will begin pulsing slowly to indicate Access Point mode is ready. At anytime you can press the button again to cancel the setup mode.
5. Launch the DTS Play-Fi® app.

### Android Device Users:

- a) The app will automatically find your device and provide prompts for setup.
- b) Touch the "Setup" button on the screen.
- c) Enter the password for your wireless network; the app will connect your device to your network. You will notice the Wi-Fi Indicator light will have changed from blinking to solid. This may take up to a minute. If, after a minute, the button continues to blink rapidly, setup failed and you should try again.

### iOS Device Users:

- a) The app will prompt you to set up a new speaker. Click on the screen to view setup instructions. If the app does not prompt you to set up a new device, within the app, go to 'Settings > Add Play-Fi Device'. Follow the on-screen instructions.
- b) You will be prompted to exit the DTS Play-Fi app and open your iOS device's Settings app.

- c) Select Wi-Fi in Settings. Ensure that Wi-Fi is enabled on your device. Select the Wi-Fi network with "Play-Fi" in the name.
- d) Once your wireless product is selected as the Wi-Fi network, exit iOS Settings and open the DTS Play-Fi app. You should now be prompted to select your wireless network and enter your wireless network password.
- e) Once your device is connected, you will notice that the Wi-Fi Indicator light on your wireless product will change from blinking to solid. This may take up to a minute. If, after a minute, the button continues to blink rapidly, setup failed and you should try again.

**PC Users:**

- a) The app will automatically find your device and provide prompts for set up. If the app does not prompt you to set up a new device, within the app go to the settings screen and click 'Setup Play-Fi® Device'. Follow the on-screen instructions.
  - b) Click the "Setup" button on the screen.
  - c) Select the speaker(s) you want to set up.
  - c) Enter the password for your wireless network; the app will connect your device to your network. You will notice the Wi-Fi Indicator light will have changed from blinking to solid. This may take up to a minute. If, after a minute, the button continues to blink rapidly, setup failed and you should try again.
- 6 Your wireless product is now connected to your wireless network. Reconnect your mobile device or PC to your wireless network. You may rename your device using the app.

without needing to enter a password. WPS is not a standard feature on all routers, and only one wireless product can be set up at a time.

Check your router's owner's manual to see if WPS is an available feature, or look for a button on your router marked with the WPS logo (W). If your router does not have WPS, then use Access Point Wireless Setup.

1. For optimal setup conditions place your wireless product next to your wireless router. The device can be moved to its final location after wi-fi setup.
2. Plug in your wireless product and press the Power button.
3. The Wi-Fi Indicator light will start rapidly blinking for about 20 seconds while your wireless product is booting up. If your wireless product is not configured to connect to your network, it will continue to blink. If this is the first time your new wireless product is plugged in, the Wi-Fi Indicator light will start pulsing slowly. If the wireless product is already configured to connect to a wi-fi network, the button will turn solid (connected) or blink rapidly (not connected).
4. To initiate Wi-Fi Protected Setup (WPS), for 3 seconds, press and hold the Wireless Setup button on the back of your wireless product until you hear a tone. The Wi-Fi Indicator light will blink twice in continuous intervals to indicate WPS mode. Now push the WPS button (W) on your router. If you cannot find a WPS button on your router, refer to the router's owner's manual.
5. Once the Wi-Fi Indicator light turns solid (not blinking), this indicates your wireless product is connected to your wireless network. If, after a minute, the button continues to blink rapidly, setup failed and you should try again.

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**CONNECTING TO A WIRELESS NETWORK:  
WI-FI PROTECTED SETUP (WPS)**

Wi-Fi Protected Setup (WPS) is a feature found on most wireless routers that allows your wireless product to securely and automatically connect

6. Connect your mobile device or PC to the same network as your wireless product.
  7. Launch the DTS Play-Fi app. Upon launching, it will automatically detect your wireless product and should prompt you to name your wireless product.
- 

## CONNECTING TO A WIRED NETWORK

1. Using an Ethernet cable, connect your wireless product to your router.
  2. Plug in your wireless product and press the Power button.
  3. The Wi-Fi Indicator light will start rapidly blinking for about 20 seconds while your wireless product is booting up.
  4. The Wi-Fi Indicator light turns off when the wireless product is connected via Ethernet.
  5. Connect your mobile device or PC to the same network as your wireless product.
  6. Launch the DTS Play-Fi® app. Upon launching, it will automatically detect your wireless product and should prompt you to name your wireless product.
- 

## APPLE® AIRPLAY® SETUP (WITHOUT DTS APP)

If you do not want to install and use the DTS Play-Fi app you can still setup the wireless product to work with iTunes and AirPlay on your Mac or Windows PC using the following procedure.

### Alternate Connection for Mac and Windows PC:

1. To avoid a delayed wireless set up, place your wireless product in close proximity to your router during wireless set up.
2. Plug in your wireless product and press the Power button.

3. The Wi-Fi Indicator light will start rapidly blinking for about 20 seconds while your wireless product is booting up. If your wireless product is not configured to connect to your network, it will continue to blink. If this is the first time your new wireless product is plugged in, the Wi-Fi Indicator light will start pulsing slowly. If the wireless product is already configured to connect to a wi-fi network, the button will turn solid (connected) or blink rapidly (not connected).
4. Once the Wi-Fi Indicator light starts pulsing slowly, your wireless product is in Access Point Mode and ready to connect to your wireless network. **Note:** If the Wi-Fi Indicator light does not pulse slowly, press and hold the Wi-Fi Setup button for 8 seconds. You will hear two tones—one at 3 seconds and another at 8 seconds. After 20 seconds, the Wi-Fi Setup and Status button will begin pulsing slowly to indicate Access Point mode is ready. At anytime you can press the button again to cancel the setup mode.
5. Ensure that Wi-Fi is enabled on your computer. Go to your computer's Wi-Fi set up. Select the Wi-Fi network with "Play-Fi " in the name.
6. Once your wireless product is selected as the Wi-Fi network, open your web browser and type <http://192.168.0.1/index.html> in the address bar. You will see a web page from your wireless product.
7. Click on 'Setup'.
8. A list of wireless networks will be displayed. Click on the wireless network you wish to connect to.
9. Enter the password for your wireless network then click 'Next'.
10. Enter a name for your wireless product and then

click 'Next' to connect your wireless product to your network.

11. Your wireless product will attempt to connect to your network. Once the Wi-Fi Indicator light turns solid (not blinking), this indicates your wireless product is connected to your wireless network. If the Wireless button rapidly blinks, setup failed and should be tried again.

# PLAYING AUDIO USING PLAY-FI

## AUTOMATIC INPUT SELECTION

Your speaker may automatically switch to the streaming input if it detects that a new Play-Fi connection has been established with the speaker.

---

## PLAYBACK – FROM THE DTS APP

**Note:** Future updates to the DTS Play-Fi application may change functionality.

1. Launch the DTS Play-Fi app on your mobile device or PC (located in the system tray).
  2. **Android and iOS Device Users:** Within the Play-Fi app, select your music source. You can choose from your personal music library, Internet Radio, or from select internet music services. **PC Users:** Any audio content from your computer can be streamed using Play-Fi.
  3. If you have more than one Play-Fi speaker connected to your network, you will be prompted to select the speaker to which you want to stream.
- 

## CONTROLLING MULTIPLE SPEAKERS

If you have more than one Play-Fi speaker connected to your network, you can simultaneously stream the same audio to multiple speakers.

1. **Android and iOS Device Users:** Within the app, press the Play-Fi logo in the lower corner of the app. **PC Users:** open the Play-Fi program using the icon in your system tray.

2. Select additional devices to play audio from.

**PC Users:** The free version of the Windows app may not allow streaming to multiple speakers. An upgraded version of the DTS Play-Fi app, with this capability, can be purchased from the DTS website.

**Note:** 8 Play-Fi speakers can be synced to play the same audio content at the same time. We recommend up to 32 Play-Fi speakers on a network for the best experience, but the only limit to connected devices is how many your router can support.

## TIP! Primary and Secondary Speakers

When streaming audio content to multiple devices, you will be asked to assign them to two categories: primary and secondary devices. The DTS Play-Fi module requires a primary device be selected. This maximizes synchronization between multiple devices simultaneously streaming the same content.

Select the DTS Play-Fi device with the strongest signal as your primary device. Secondary devices connect to your primary device, so if you disable your primary device, you will need to select a new primary device before audio resumes on your secondary devices.

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## ADDITIONAL PLAY-FI FEATURES

New versions of the Play-Fi app will add features not mentioned in this manual. Please refer to the app and related documentation for details on new and enhanced features such as streaming different audio content to multiple zones and grouping of two discrete speakers for stereo (left/right) playback.



# PLAYING AUDIO USING AIRPLAY

## AUTOMATIC INPUT SELECTION

Your speaker may automatically switch to the streaming input if it detects that a new AirPlay connection has been established with the speaker.

---

## PLAYBACK – FROM AN APPLE iOS DEVICE

1. Open your music application.
  2. Press the AirPlay Icon and choose your speaker from the list.
  3. Play music.
- 

## PLAYBACK – FROM ITUNES ON A MAC OR PC (PERSONAL COMPUTER)

1. Launch iTunes (version 10 or later).
- 

2. Click the AirPlay icon (usually located in the upper left of the iTunes window) and choose your speaker from the list. You can choose multiple speakers if you have more than one speaker on your network.
3. Play music.

## CONTROLLING PLAYBACK USING ITUNES

To control playback (play/pause/volume) from your speaker or remote control, follow these steps:

1. On your computer, launch iTunes (version 10.2.2 or later).
  2. Open "Preferences" and choose "Devices."
  3. Check the box for "Allow iTunes audio control from remote speakers" and click okay.
- 

# UPDATES AND REBOOTING

## DTS PLAY-FI® APP UPDATE

If the DTS Play-Fi app on your mobile device or PC requires an update, you will be notified that an update is available and guided through the update process.

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## DTS PLAY-FI MODULE UPDATE

The DTS Play-Fi module within your speaker will occasionally require an update. If an update is needed, the DTS Play-Fi app will notify you and guide you through the update process.

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## FIRMWARE UPDATE

Your wireless product may occasionally require firmware updates. Please check [www.martinlogan.com](http://www.martinlogan.com) for the latest firmware updates.

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## REBOOTING

Press and hold the power button for 3 seconds to reboot your wireless product.

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## FACTORY RESET

Press and hold the power button for 10 seconds to reset your wireless product to factory settings and clear the network configuration.

# ARC™ (ANTHEM ROOM CORRECTION)

Even when the finest speakers are perfectly positioned, the room itself still has a dramatic impact on any system's sound, an impact more profound than that of any individual component. Various solutions have fallen in and out of favor over the years, but none has solved the problem of "the room." Until ARC.

Using proprietary processes and the power of your PC, the ARC system analyzes each speaker's in-room sound, then computes the required correction to yield optimal performance from every speaker. It's a process that takes approximately 15 minutes. Anthem's approach is a true audiophile solution to the problems of the room.

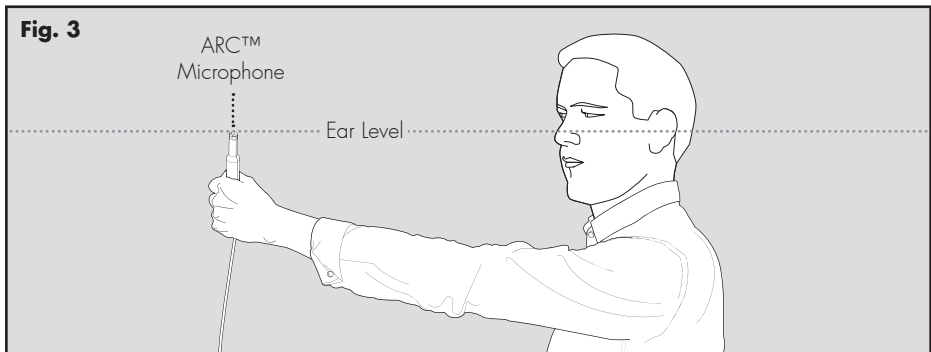
**IMPORTANT!** The listening space must be silent while performing ARC. A noisy computer fan, a dishwasher or microwave running, etc. can negatively affect ARC's measurements.

## How to Use ARC Technology:

1. Ensure that your wireless product is already connected on your home network and is powered "on".
2. Download the ARC-2 software from [www.anthemAV.com](http://www.anthemAV.com) and install it. Once the drivers are installed, follow the on-screen instructions.

3. Using the USB cable, connect the ARC microphone to a Windows® PC running Windows® 7 or 8 (32 and 64 bit). The USB cable and ARC microphone are provided with your wireless product.
4. Look for the icon on your desktop and launch the ARC™ program. Follow the prompts on your computer screen to successfully run the ARC™ software; the entire process should take approximately 15 minutes.
5. Hold the ARC microphone with your arm fully extended, the ARC microphone tip must point towards the ceiling and it must be positioned at ear level (fig. 3).
6. For best results, hold the microphone in 5 different positions around the room.

**TIP!** Once the ARC process is complete, the corrected listening curves will be stored and music will be played back reflecting these corrections. To turn ARC correction on and off, press and hold the mute button for 5 seconds. A 'negative tone' will sound to verify ARC is switched off. A 'positive tone' will sound to verify ARC is switched on.



## CONTACTING CUSTOMER SERVICE

MartinLogan customer service is available Monday–Friday between the hours of 8am–5pm (central time) by calling (785) 749-0133 or by emailing [service@martinlogan.com](mailto:service@martinlogan.com).

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## GENERAL INFORMATION

### WARRANTY INFORMATION

Your wireless product is provided with an automatic Limited 90 Day Warranty coverage. You have the option, at no additional charge, to receive a Limited 2 Year Warranty coverage. To obtain the Limited 2 Year Warranty coverage, please complete and return the Certificate of Registration to MartinLogan within 30 days of purchase. For your convenience, MartinLogan also offers online warranty registration at [www.martinlogan.com](http://www.martinlogan.com).

MartinLogan may not honor warranty service claims unless we have a completed Warranty Registration card on file! If you did not receive a Certificate of Registration with your new wireless product, you cannot be assured of having received new units. If this is the case, please contact your authorized MartinLogan dealer.

### SERIAL NUMBER

The serial number is located on back of the wireless product, near the connection panel. The serial number may also be found on the product carton.

### SERVICE

Should you use your MartinLogan product in a country other than the one in which it was originally purchased, we ask that you note the following:

- 1 The appointed MartinLogan distributor for any given country is responsible for warranty servicing only on units distributed by or through it in that country in accordance with its applicable warranty.
- 2 Should a MartinLogan product require servicing in a country other than the one in which it was originally purchased, the end user may seek to have repairs performed by the nearest MartinLogan distributor, subject to that distributor's local servicing policies, but all cost of repairs (parts, labor, transportation) must be borne by the owner of the MartinLogan product.
- 3 If, after owning your speaker for six months, you relocate to a country other than the one in which you purchased your speaker, your warranty may be transferable. Contact MartinLogan for details.

## FREQUENTLY ASKED QUESTIONS

### **How do I connect the wireless product to my television, Blu-Ray/DVD/CD player?**

If your television has analog outputs these can be used instead.

### **How do I clean my wireless product?**

Use a dust free cloth (such as a micro fiber cloth) or a soft brush to remove dust from your speakers.

**Do not spray any kind of cleaning agent on or in close proximity to the drivers.**

### **Could you suggest a list of suitable electronics and cables ideal for MartinLogan speakers?**

We have no favorites and use electronics and cables quite interchangeably. We would suggest listening to a number of brands—and above all else—trust your ears. Dealers are always the best source for information when purchasing additional audio equipment.

### **Can I use other cables other than those provided with the wireless product?**

The cables included with the wireless product are intended to get you started. You may find it necessary to augment your system with additional cables or replace the included cables with cables of different length.

### **Is there likely to be any interaction between my speakers and the television in my A/V system?**

Yes, but only with CRT televisions. This wireless product is not magnetically shielded and should be kept at least 2 feet away from a CRT television. LCD and plasma televisions will not be affected.

### **How can I remove the grille cloth from the wireless product?**

The wireless product grille cover is not removable.

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## TROUBLESHOOTING

### **I'm having trouble using the Play-Fi® app.**

- For information on the DTS Play-Fi app, please visit: <https://play-fi.com/faq>

### **Wireless product does not turn on.**

- Check that the wireless product's AC power cord is firmly attached to the AC Power In input and plugged into a working AC outlet.

### **The Wi-Fi Indicator light does not light up.**

- When connected to a network with an Ethernet cable, this light will turn off.

### **I am unable to connect my wireless product to my network.**

- Verify that your wireless network is functioning.
- Your router's wireless signal may be weak or

your wireless product may be out of the range of your Wi-Fi network. Move the wireless product closer to the router or use an Ethernet connection instead.

- Before connecting to your network, verify that your wireless product's Input button is illuminated in white. This indicates network streaming mode. If the Input button is illuminated in blue your wireless product is in Analog mode. Press the Input button to enter network streaming mode (white).
- Reboot your wireless product. On the wireless product's control panel, press and hold the power button for 3 seconds. The reset tone will sound once. This reboot will cycle the power off and on and force the wireless product to reconnect to your network.

- Reset your wireless product to factory settings. On the wireless product's control panel, press and hold the power button for 10 seconds. The reset tone will sound twice. Once complete, your wireless product will be reset to factory default settings and will clear the network configuration. After a reset has been performed, there is no way to recover the previous user configured settings.

### **The Play-Fi app cannot find my wireless product.**

- If you are trying to setup your wireless product, verify the wireless product is fully powered on and in Access Point Mode (WiFi Indicator light is pulsing slowly). If the WiFi Indicator light does not pulse slowly, press and hold the Wi-Fi Setup button for 8 seconds. You will hear two tones—one at 3 seconds and another at 8 seconds.
- Verify you are within the recommended range of your wireless router.
- Verify your mobile device or PC has its Wi-Fi enabled or is otherwise connected to your network.
- Verify there are no other apps running on your device that might impede wireless connectivity to your network.
- Restart your phone, tablet, or PC.
- If you still can't find the wireless product on your network and are in an office environment, verify with your network administrator that no special permissions are enabled that would prevent external wireless products from communicating with the network.
- If the wireless product is still not found, uninstall, re-download, and re-install the DTS Play-Fi® app on your mobile device or PC.
- Reboot your wireless product. On the wireless product's control panel, press and hold the power button for 3 seconds. The reset tone will sound once. This reboot will cycle the power off and on and force the wireless product to

reconnect to your network.

- Reset your wireless product to factory settings. On the wireless product's control panel, press and hold the power button for 10 seconds. The reset tone will sound twice. Once complete, your wireless product will be reset to factory default settings and will clear the network configuration. After a reset has been performed, there is no way to recover the previous user configured settings.

### **The Play-Fi app reports "Play-Fi Devices Lost."**

- Check that your device is powered on.
- Verify you have a strong network signal.
- Verify the network connection has not been lost.
- Check for other devices that might be causing heavy network traffic.
- Verify that your mobile device or PC has not left the range of your router.
- Verify that your mobile device or PC and your wireless product are connected to the same network.
- Verify that your wireless product's wireless streaming has not been taken over by another app.
- Exit and then restart the DTS Play-Fi app.
- Uninstall, re-download, and re-install the DTS Play-Fi app on your mobile device or PC.
- Reboot your wireless product. On the wireless product's control panel, press and hold the power button for 3 seconds. The reset tone will sound once. This reboot will cycle the power off and on and force the wireless product to reconnect to your network.
- Reset your wireless product to factory settings. On the wireless product's control panel, press and hold the power button for 10 seconds. The reset tone will sound twice. Once complete, your wireless product will be reset to factory default settings and will clear the network configuration. After a reset has been performed, there is no way to recover the previous user configured settings.

**No output from the wireless product.**

- Check that the wireless product is turned on.
- Check that the wireless product is not muted.
- Check that the wireless product's volume is not turned all the way down.
- Check that the wireless product is set to the proper input.
- Check that all system components are turned on and source material is playing.
- Turn the wireless product off and on using the Power button.
- Unplug the wireless product, wait 30 seconds, and plug it back in.
- Check that all interconnecting cables are connected at both ends.
- If necessary, try connecting an alternate source component to make sure the original source component isn't the problem.

**When using the Analog Input, sound is coming from both my wireless product and my connected television.**

- When utilizing the wireless product to reproduce audio, the television's audio output should be defeated. Some televisions will allow you to turn off the internal speaker via the television's menu system. Other televisions may require you to turn the television's volume to "zero" or to "mute" the television.

**When using the Analog Input, the wireless product is too quiet even when the wireless product is turned up.**

- Check that the output on your television or other source components are not connected via a variable level output. Sometimes this option may be configured in your source components menu. Please refer the manual for the source component in question.

**No sound coming from external sub**

- Check that the external sub is turned on.
- Check that the subwoofer cables are attached

to the Sub Out connection on the wireless product and to the appropriate input on the subwoofer.

- Turn the wireless product off and on using the Power button.
- Unplug the wireless product, wait 30 seconds, and plug it back in.

**External sub is too quiet.**

- Turn up the volume on the subwoofer.
- Adjust the bass level setting in the wireless product menu system.
- Try moving the subwoofer to a different location in the listening room.

**My wireless product is not behaving as expected.**

- Turn the wireless product off and on using the Power button.
- Unplug the wireless product, wait 30 seconds, and plug it back in.

# BRAVADO SPECIFICATIONS\*

Frequency Response . . . . .	45–20,000 Hz ± 2 dB
Sensitivity . . . . .	91dB
Crossover Frequency . . . . .	3,000 Hz
Amplifier Power . . . . .	1 x 50 Watts (woofer). 2 x 25 Watts (tweeters) 200 Watts (200 Watts peak) combined total output.
High Frequency Drivers . . . . .	Two 0.94" x 1" (2.4cm x 2.5cm) Folded Motion Transducers with 2.8" x 1.25" (7.1cm x 3.2cm) diaphragm.
Low Frequency Drivers . . . . .	5" (12.7cm) fiber cones with extended throw drive assembly. Non-resonant asymmetrical chamber format.
Cabinet . . . . .	Sealed
Components . . . . .	DSP based preamplifier
Wireless Input . . . . .	Apple® AirPlay®, DTS Play-Fi®
Inputs . . . . .	Analog 3.5mm, Ethernet, AC Power
Output . . . . .	Subwoofer Out via Analog RCA
Controls . . . . .	Left/Stereo/Right position switch
Wireless Connectivity . . . . .	2.4 GHz and 5.0 GHz; 802.11 a/g/n
Room Correction . . . . .	ARC™ (Anthem Room Correction) with included cali- brated microphone
Power Draw . . . . .	Max: 120 Watts, Idle: 9 Watts, Standby: < 0.3 Watts
Weight . . . . .	20.5 lbs. (9.3 kg)
Dimensions (HxWxD) . . . . .	5" x 39.9" x 5.85" (12.7cm x 101.3cm x 14.8cm)

\*Specifications are subject to change without notice.

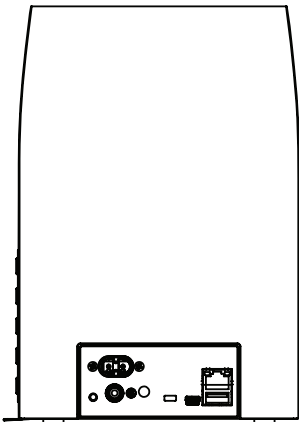
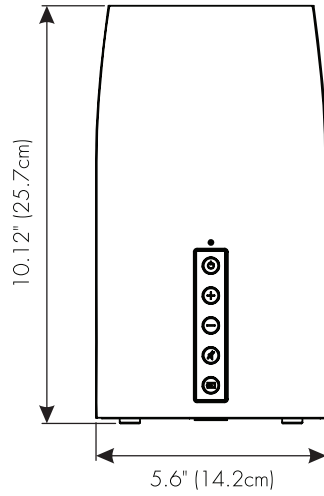
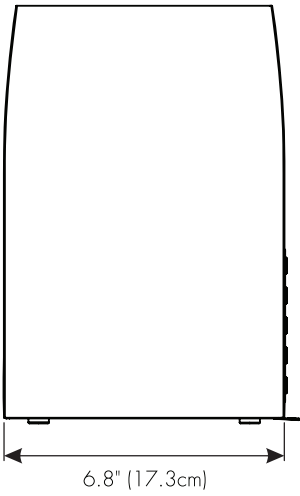
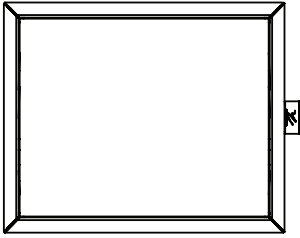
## FORTE SPECIFICATIONS\*

<b>Amplifier Power</b> . . . . .	Class-D Amp; 2 x 100 Watts RMS 4 Ohms (2 x 200 Watts peak)
<b>Wireless Input</b> . . . . .	Apple® AirPlay®, DTS Play-Fi®
<b>Inputs</b> . . . . .	Left/Right RCA Analog Ethernet, AC Power
<b>Output</b> . . . . .	Subwoofer Out via Analog RCA
<b>Wireless Connectivity</b> . . . . .	2.4 GHz and 5.0 GHz; 802.11 a/g/n
<b>Room Correction</b> . . . . .	ARC™ (Anthem Room Correction) with included calibrated microphone
<b>Power Draw</b> . . . . .	Max: 120 Watts, Idle: 9 Watts, Standby: < 0.3 Watts
<b>Weight</b> . . . . .	20.5 lbs. (9.3 kg)
<b>Dimensions (HxWxD)</b> . . . . .	5" x 39.9" x 5.85" (12.7cm x 101.3cm x 14.8cm)

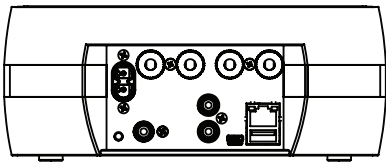
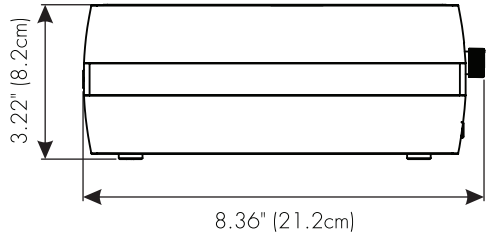
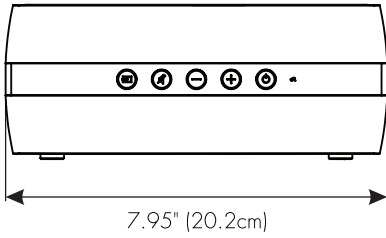
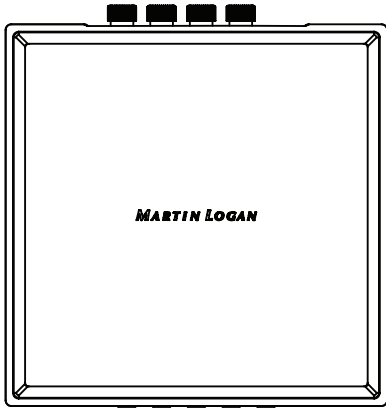
\*Specifications are subject to change without notice.



# DIMENSIONAL DRAWINGS: BRAVADO



## DIMENSIONAL DRAWINGS: FORTE





Lawrence, Kansas, USA tel 785.749.0133 fax 785.749.5320 [www.martinlogan.com](http://www.martinlogan.com)

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Rev. #062515

#### FCC Information and Copyright

Operations in the 5.15~5.25GHz band are restricted to indoor usage only.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates,

uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference

to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does

cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is

encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

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

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.