



Owners Manual For The

Wavelet

DAC/Preamp/Crossover/Correction Processor



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Owners Record

Thank you for selecting a Legacy processor.

The serial number is located on the rear of the unit. Record this number in the space provided below. Refer to this when calling your dealer regarding this product.

Model: Wavelet

Serial No: _____

Date of purchase: _____

Register your product at legacyaudio.com/register

Share your Legacy speakers with the Legacy community. Post your Legacy experience and system photos at facebook.com/LegacyAudio. Like the page to continue receiving the latest Legacy announcements.

Our Commitment

Our Commitment

A great deal of forethought, love and satisfaction is instilled in each piece of Legacy workmanship. We take pride in getting to know many of our customers on a first name basis.

Your purchase of this product is backed by the renowned Legacy warranty.



Warranty

Legacy Audio supports its customers and products with pride. We cheerfully warrant our amplifiers and processors from defects in materials and workmanship for a period of three (3) years. Please register your product with Legacy Audio. Should you require service Legacy will require a proof of purchase in order to honor the warranty - so please keep your receipt.

- The warranty applies to the original owner and is not transferable.
- The warranty applies to products purchased from an “Authorized Legacy Dealer”.
- The warranty on active components such as digital processors or internal amplifiers is limited to three (3) years of coverage.
- The warranty on dealer stock will extend for a maximum of two years from invoice.

The warranty does not cover transportation costs of product to or from the customer, distributor or dealer, or related shipping damage.

Exclusions from Warranty

The following situations or conditions are not covered by the Legacy Audio warranty:

- Accidental damage, electrical abuse or associated equipment failure.
- Use inconsistent with recommended operating instructions and specifications
- Damage caused by modification or unauthorized service
- Costs associated with the removal and reinstallation of defective products. Consequential damage to other products.
- Normal wear such as fading of finishes due to sunlight.

Introduction

Wavelet is a control preamp, a premium DAC, a digital crossover with time alignment for each driver section and an acoustic correction system that will literally 'learn' your room.

True digital flexibility

SPDIF (opticalTosLink, coaxial): up to 96kHz/24bit

USB: All file formats up to 96kHz/24bit are sent directly from the PC to the Wavelet without any conversion. Higher resolution files such as PCM and DXD can be readily played back using software such as J-River (select: Greater than 192kHz under DSP STUDIO.)

Analog Friendly

Already have a favorite DAC with a volume control? How about a big vinyl collection? Analog lovers can take advantage of balanced XLR or unbalanced RCA inputs without concern of digital artifacts. An apodizing circuit corrects for the pre-ringing native to CODECs. Wavelet has adequate headroom to handle these higher level signals while functioning as a crossover and compensating for room resonances. Wavelet processes at 56 bits of depth in a domain more than one trillion times finer in resolution than that of a 16 bit CD.

The Wavelet is by design upgradable. The unit can download firmware updates directly when you choose.

While the **Wavelet** offers high quality/ low noise balanced inputs to accept the analog output from any SACD player, ideally one would instead stream PCM versions of these files to the processor via the USB input. Within software such as J-River, the 1 bit DSD is converted to 64 bit PCM at 1/8 the sample rate. The total amount of data from this conversion grows by 8x, so the process is effectively lossless / perfect. The conversion is necessary as DSD is inefficient for sophisticated DSP operations.

In the J-River software this configuration is located in the Player -> DSP Studio - Output Format section. Setup all sample rates up to and including 96kHz to “No Change”. Then set input 176,400 to output 88,000, 192,000 to 96,000 and greater than 192,000 to 96,000. DSD is converted automatically in the software to PCM. Once you have PCM, it will be 64bit @ 352.8 kHz for DSD, and 64bit @ 705.6 kHz for DSD 2x. The option 'Greater than 192kHz' in DSP Studio > Output Format should be selected.

Why PCM?

This is a format issue and has nothing to do with the **Wavelet** in particular. As professional studios rely on PCM based equipment such as Pro Tools to mix, pan and balance recordings, the vast majority of SACDs are in fact mixed in PCM, or mixed analog and recorded in PCM. They may then be converted to DSD for SACD mastering stages. The PCM format is far more efficient where DSP is in use. Recently a newer studio format, DSD-wide, has been developed to allow DSP operations that can be down-converted to DSD for SACD production. Pro DAWs such as SADiE are now using this technology.

PCM is the universal format of studios and digital signal processing. Most recordings released in other formats were actually recorded in PCM format.



Inside the Wavelet processor carton packaging you'll find a hard-case containing a measurement microphone, a 25 ft. XLR cable and a mic calibration plot. At the opposite end of the carton you will find a power supply with a five pin locking connector and its 115 V AC cable, a compact remote volume control, a Wi-Pi network connector and a SanDisk USB memory stick. Also included is a micro USB cable to connect your computer or media server to the Wavelet.



Connections

The Wavelet comes pre-programmed from the Legacy factory with algorithms for your selected speaker.

If you are using the Wavelet with a Legacy speaker, please consult the respective manual for specific connection information & diagrams.

A quick setup assignment printout is included in the box to assist you in getting started.



Wavelet Preamplifier/DAC/Crossover/Room Correction Processor

Inputs

Analog

- Two pairs of Stereo balanced inputs on XLR connectors.
Input sensitivity without attenuation $0 \text{ dBFS}^*1 = 1 \text{ dBV}^*2$, input impedance 20 kOhm.
Analog attenuation available in three steps of -3 dB, -6 dB and -12 dB for an input sensitivity of respectively $0 \text{ dBFS} = 4 \text{ dBV}$, 7 dBV or 12 dBV .
- Two pairs of Stereo unbalanced inputs on RCA connectors.
Input sensitivity without attenuation $0 \text{ dBFS}^*1 = 1 \text{ dBV}^*2$, input impedance 100 kOhm.
Analog attenuation available in three steps of -3 dB, -6 dB and -12 dB for an input sensitivity of respectively $0 \text{ dBFS} = 4 \text{ dBV}$, 7 dBV or 12 dBV .
- One XLR Measurement microphone input, 48 Vdc Phantom power.

Digital

- Asynchronous USB audio, 24 bit, 44.1 – 96 kHz, PCM up to 352.8 kHz.
- SPDIF, 24 bit, 44.1-96kHz
- TosLink, 24 bit, 44.1-96kHz

Outputs

Analog

- 8 balanced output channels on 8 XLR connectors. $0 \text{ dBFS}^{*1} = 8 \text{ dBV}^{*2}$, 33 Ohm output impedance. An analog output level increase of 6 dB is available through internal jumpers offering $0 \text{ dBFS} = 14 \text{ dBV}$
- 8 unbalanced output channels on 8 RCA connectors. $0 \text{ dBFS}^{*1} = 8 \text{ dBV}^{*2}$, 33 Ohm output impedance.

Digital

- SPDIF, 24 bit, 96 kHz
- TosLink, 24 bit, 96 kHz

Control Interface

- Ethernet, TP-Cable & WLAN

Processing

DSP

- Analog Devices, internal processing sample rate 96kHz, bit depth 56 bits

The Bohmer Correction is a loudspeaker in-room energy-time alignment that optimizes the loudspeaker room acoustic transfer function in both frequency and predominantly time domain. Working with revolutionary new algorithms it starts with a psychoacoustically based measurement method. Alignment errors are then optimized individually, not resorting to the common crude bulk correction over the entire frequency spectra. The Algorithms use psycho acoustic reasoning for alignment and correction of the loudspeaker room transfer function. The correction improves sound quality in the whole room, provides improved transient response, clarity & soundstaging and gives a relaxed sound without rough edges or any booming.

Physical

Dimensions

445 mm W x 301 mm D x 95 mm H / 17.52" W x 11.85" D x 3.74 H

Weight 6.1 kg / 13.5 lbs

Optimizing Analog Outputs

When using the analog inputs it is useful to optimize the input levels according to how they are being used. This will maximize the signal to noise ratio and provide optimal gain while preventing distortion from input overload.

Outboard DAC to Wavelet Analog Inputs Using Wavelet as your Preamplifier

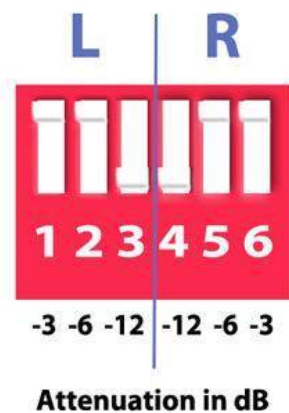
The Wavelet has adequate internal gain for virtually any outboard DAC output. In some cases you may wish to decrease the input sensitivity of the Wavelet to accommodate an external DAC with high output level, especially if you are using one with a volume control. Each stereo pair of analog inputs of the Wavelet can be adjusted downward in -3, -6, or -12dB steps as shown below. The goal is to set the analog channel's input sensitivity so that adequate volume level is achieved from your system without any audible clipping of the inputs. When adjusted properly, the Wavelet's blue front panel display will usually be in the range of 85dB for average listening levels. When using the Wavelet's digital inputs such as the SPDIF from a CD transport, adjustments are not required - thus there are no provisions for such. Some computer hosted media software may introduce an extra level control stage to the USB output. In this case it is best to configure the software settings so a typical listening level is accomplished with Wavelet displaying 85dB.

Outboard Preamp Driving Analog Inputs Using Wavelet for Crossover/Room Correction

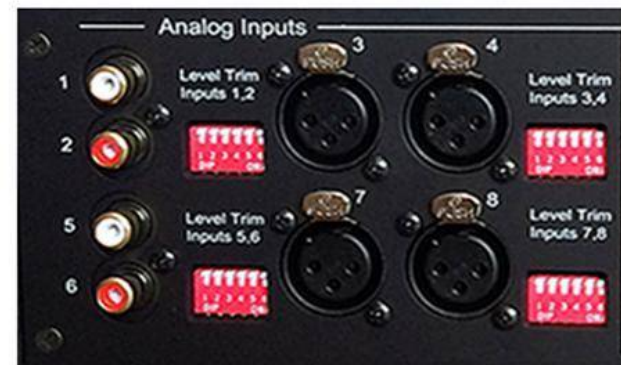
If you are relying on an external preamplifier to provide the both the master gain and level control into the Wavelet, you will need to optimize the inputs sensitivity of the Wavelet's analog inputs. The key is be certain that the highest volume from the preamp does not overload the analog inputs. We recommend beginning

with the -12dB setting initially as shown below. Further attenuation of -3, -6dB is available if needed. While you can also further reduce the volume setting from your preamp, the goal is totally avoid clipping at all levels. Again try to establish a Wavelet level setting of about 85dB for typical listening. With a little care you will have minimized your noise floor and prevented input saturation. Rarely does the Wavelet need to be set above 90dB when optimizing to the volume settings familiar from your preamplifier.

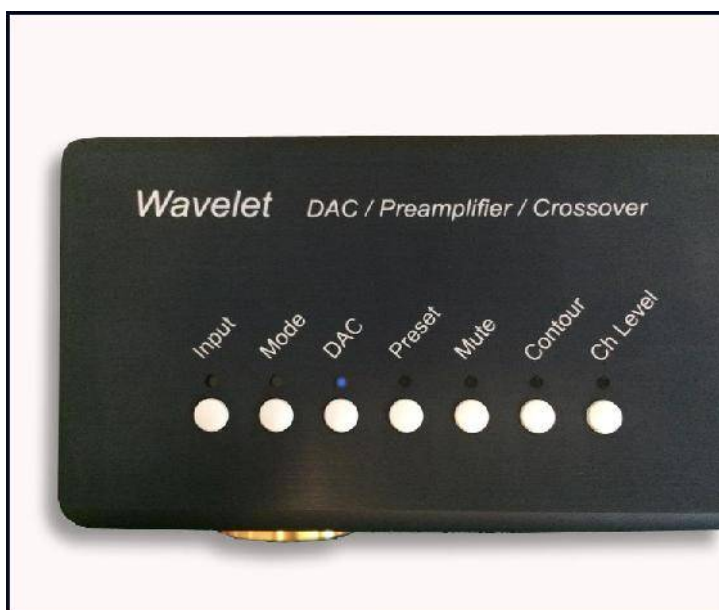
Rear Panel View of Resistive Switches



The settings shown indicate an attenuation of 12dB on both left and right channel inputs for the analog input pair chosen.



Ready to take control of your speakers with Wavelet?



Introduction

Wavelet features can be remote controlled via iPad, iPhone, or other mobile device. In order to perform room correction it is essential that you connect the unit to the internet. To maximize enjoyment, we recommend dedicating one of these handheld devices to your music system, thus keeping your phone calls, and messages from interfering directly with your listening and control experience. If you don't have an extra device, consider picking one up used. We love controlling the system with an iPad Mini sized screen.

What happens if my internet goes out? Don't worry- the Wavelet remote functions continue to work and room correction settings are maintained, even without an internet connection. An internet connection is only necessary for the initial setup and all settings are retained inside of Wavelet- even if the internet is out your system will work as designed.

Wavelet WiFi Internet Setup

1. To connect your Wavelet to the internet, please open a browser on your PC or Mac and visit <http://bohmeraudio.com/setup.html>



Wifi setup

The First step below is only required once to connect your Wavelet to your WiFi network. The Second step is used to find your Wavelet on the network if you're not using a fixed IP address. Perform the second step on the computers, pads and phones you wish to use as remote controls for the Wavelet.

First step

1. Insert the supplied USB memory stick into your computer
2. Enter your WiFi network name (SSID) and your network password in the appropriate fields.
3. **This step is only necessary if you wish to use a fixed IP address for your Wavelet.** Tick the box "Fixed IP address" to set a fixed IP address in your Wavelet. Enter the fixed IP address you want to use in the field for IP address. If you use a different net mask and gateway than the suggested default values you need to edit these fields as well.
4. Press the "Download wifi-conf.txt file" button to download a "wifi-conf.txt" configuration file.

Connect your Wavelet to your WiFi network

SSID:

Password:

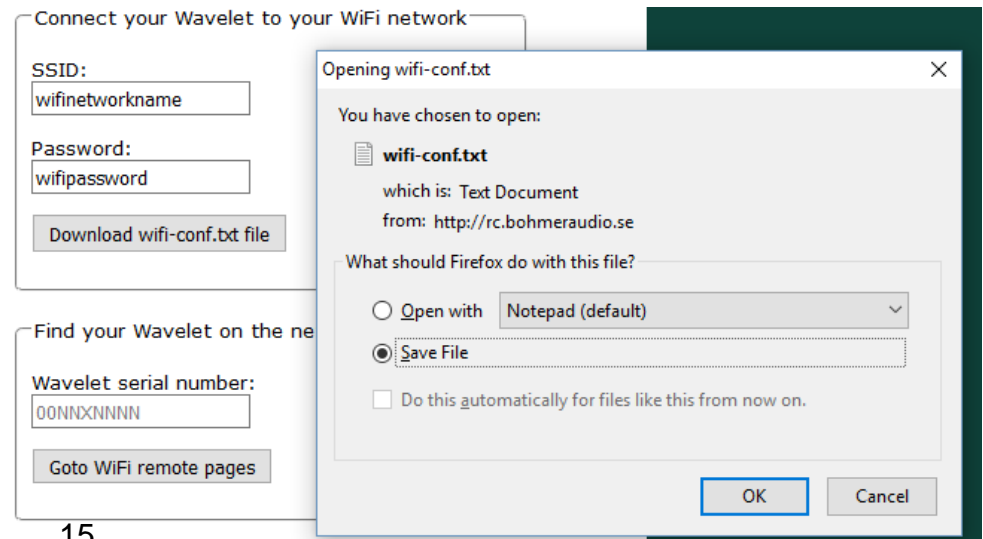
[Download wifi-conf.txt file](#)

Find your Wavelet on the network

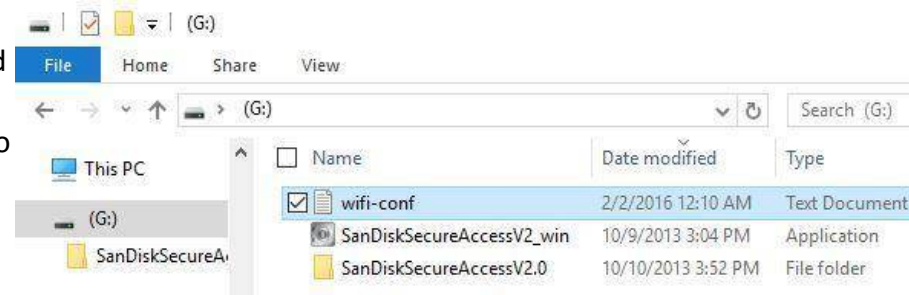
Wavelet serial number:

[Goto WiFi remote pages](#)

- a. Enter your SSID- this is your Wifi Network name.
- b. Enter your Wifi Network Password and click "Download wifi-conf.txt file"
- c. Insert the included SanDisk USB memory stick into your computer.
- d. When prompted to "Open" or "Save File" choose "Save File" click "OK".

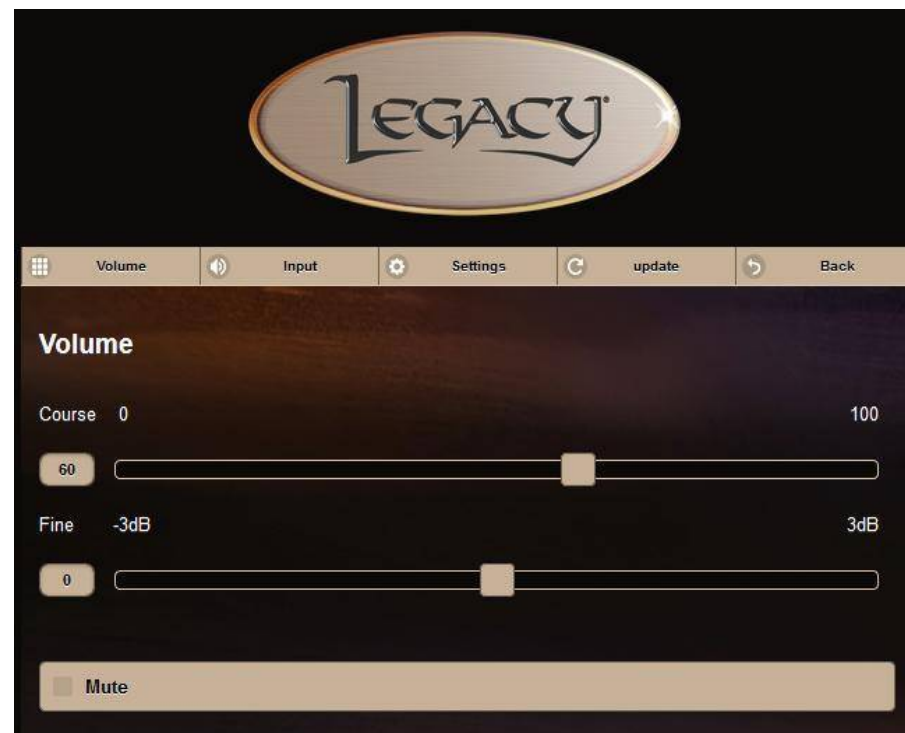


- e. Copy the "wifi-conf.txt" file to the root directory of the SanDisk USB memory stick. Depending on your browser settings, you might find the file downloaded to your Desktop or Downloads folder. After locating it, right click the file and choose copy. Navigate to the SanDisk USB memory stick and paste the file into the main "root directory" so that when you click on the SanDisk USB drive from your computer, the file is visible and *not* placed within another folder. You may now remove the SanDisk USB memory stick from your computer.



- f. Power off your Wavelet. Insert the SanDisk USB memory stick into the port located at the back of Wavelet labeled WLAN USB Stick. Power Wavelet back on and wait 1 minute. The system is saving your wifi network to memory.
- g. After 1 minute, power Wavelet off, remove the SanDisk USB memory stick and insert the WiPi WiFi Stick into the port located at the back of Wavelet labeled WLAN USB Stick.
- h. Turn Wavelet on and wait for 1 minute- confirm that the Blue LED on the WiPi WiFu Stick is lit or lit with occasional flashing.
2. Now we will open the WiFi remote. Please use the device you wish to control Wavelet with- we recommend an iPad or iPhone. Any smart phone or smart device will work.
 - a. First, make sure that your device is connected to the same WiFi network your Wavelet is connected to. (On Apple devices, click Settings, Wi-Fi, and choose the appropriate network)
 - b. In your internet browser (Safari on Apple devices) enter <http://bohmeraudio.com/setup.html> in the address bar.
 - c. Your Wavelet Serial Number is located on the back of the Wavelet, on a sticker near the USB port. Enter it into the box labeled "Wavelet serial number" without any spaces and with capitalized letters. Click ok and click "Goto WiFi remote pages"

-Volume



- d. You will now see the Volume Control Page- please bookmark this page for future use. The bookmark button on Apple devices is the square and arrow at the bottom of the screen that looks like this:



Firefox users can click the Star to bookmark their remote control.

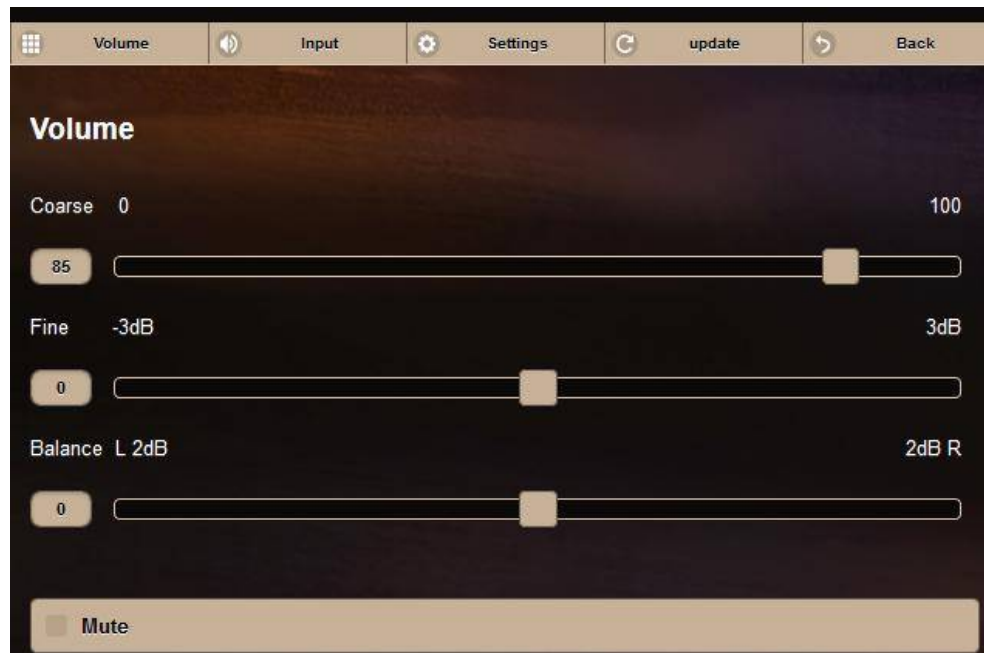
TIP You can always return to your remote by visiting and entering your serial number <http://bohmeraudio.com/setup.html>
You do NOT need to re-enter your Internet information, only the serial number

- e. Confirm your device is talking to Wavelet by adjusting the volume slider from your device and watch the Wavelet volume change remotely. Congratulations! You can also control your Wavelet from additional devices by repeating Step 2 for each device you wish to use.

Volume Adjustments Before Running Room Correction on Your Wavelet

1. To prepare for running room correction, please set the Wavelet volume to 85. The “Fine” slider is useful for making precise adjustments. Touch the “Fine” slider and move it to the far right- notice when you release, the volume increases by 3dB, and when moved slightly to right, increases by .1 dB increments. You can use the Coarse adjustment is useful for making large adjustments. The “Balance” slider can be used to adjust the center image of your speakers. At the extreme left or right, the slider provides a 2dB boost. Please note that the balance should be be set to 0 for running room correction.

-Volume



TIP On any page of the Wavelet, click the “update” button at the top to refresh your handheld device and display the settings that are inside Wavelet.

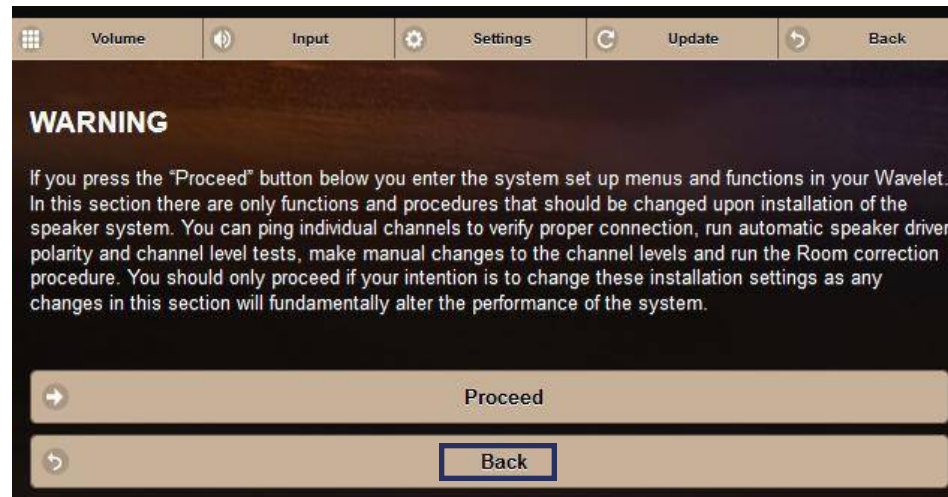
- a. First we will verify that all connections are correct by clicking the “Settings” button at the top. Then choose “Setup” and Click Proceed

-Settings

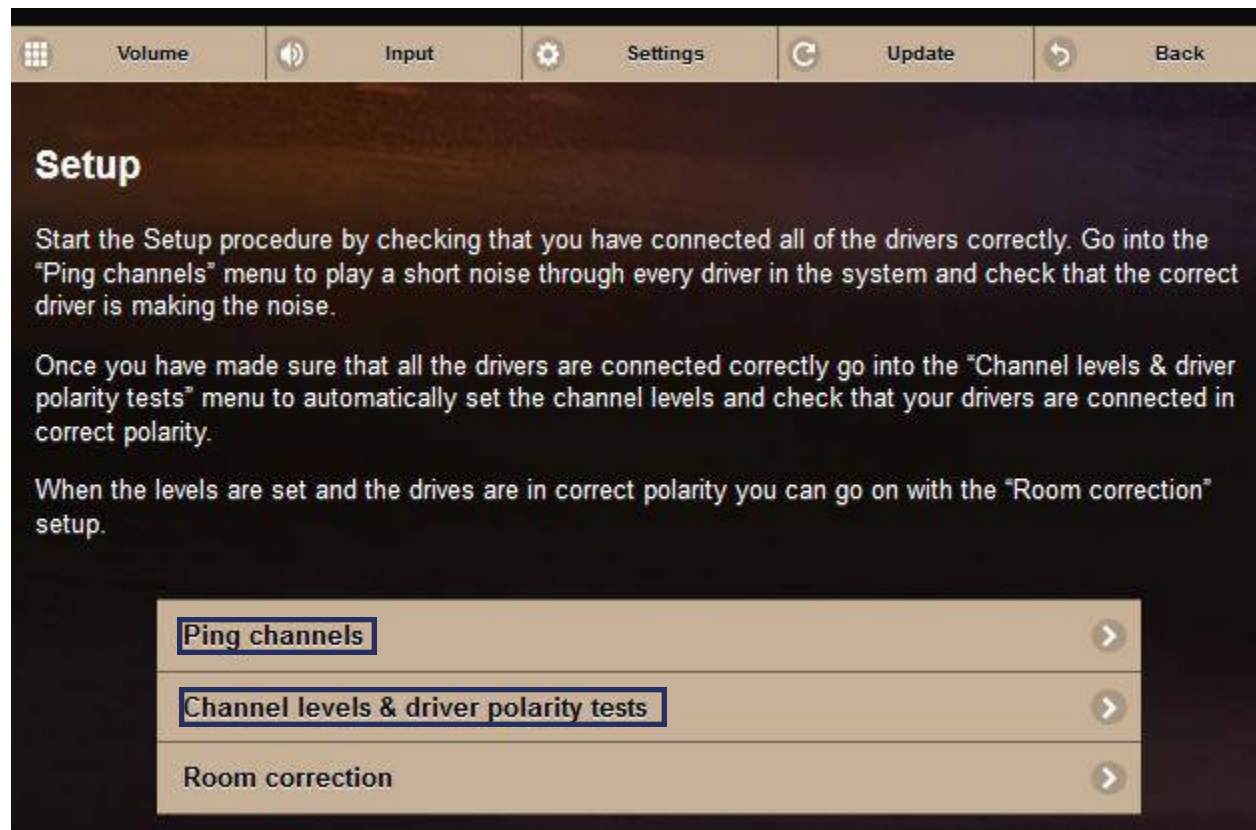


- b. Choose “Setup” and click “Proceed”

-Settings
-Setup

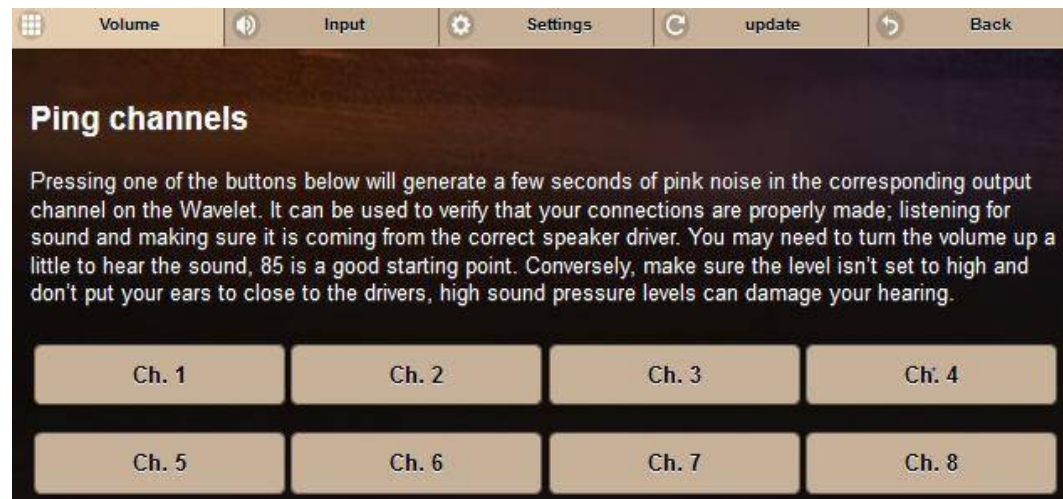


- Settings
- Setup
- Proceed



- c. Select "Ping channels." You can now follow the on screen prompt and click the corresponding channels to confirm that sound is coming from the appropriate drivers. Please refer to the connection section of this manual for appropriate channel connections.

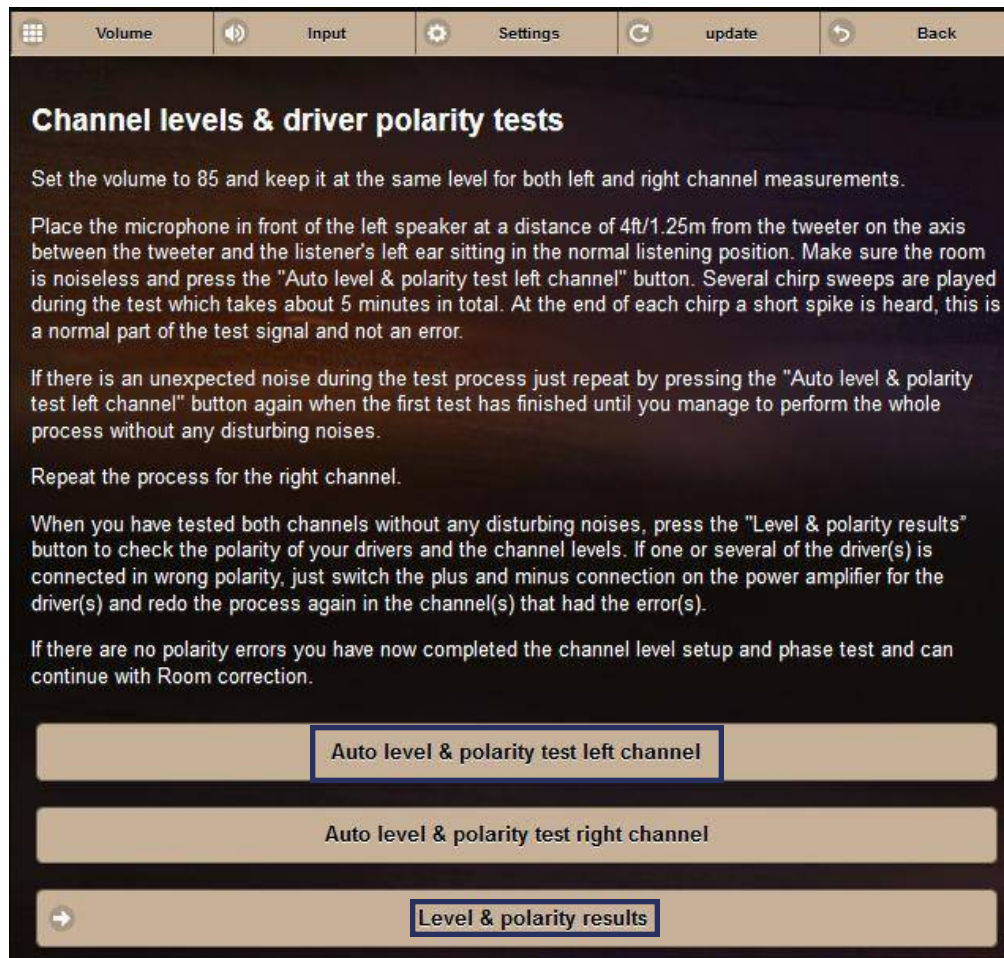
- Settings
- Setup
- Proceed
- Ping channels



- d. Wavelet is capable of setting the channel levels for you- this is useful for balancing your amplifier(s) with the internal amplifier(s). To do so, click the **back button** and choose **"Channel levels & driver polarity tests"**.
- e. Place the microphone that shipped with Wavelet at tweeter center height, 48" away from the left speaker, perpendicular to the speaker baffle.

-Settings
 -Setup
 -Proceed
-Channel levels & driver polarity tests

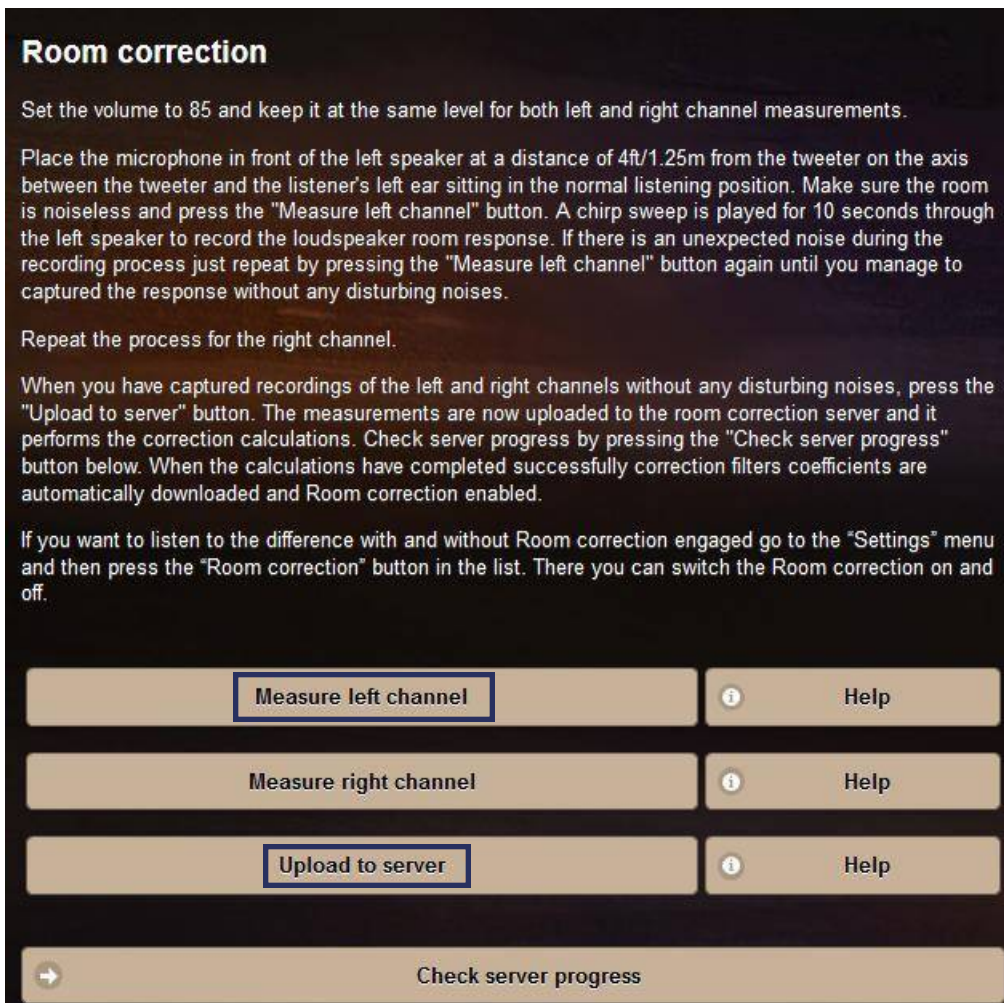
- f. Your microphone has a 4-digit serial number on it, please enter it into the Wavelet app and click **"Download microphone calibration file"**.
- g. Once it is downloaded, click proceed. (Note, if you have already downloaded the microphone calibration file, you will *not* need to download it again.)



- Settings
- Setup
- Proceed
- Channel levels & driver polarity tests

- h. Follow the on screen prompts. With the volume set to 85, select **"Auto level & polarity test left channel."**
- i. If you receive a message that the levels are too low, first check that both ends of the mic cable are firmly docked and repeat the test. Increase volume if necessary.
- j. After completing the left measurements, move the microphone to the right speaker, keep the volume the same, and repeat step i for the right speaker
 Note: this process can take about 5 minutes per channel while Wavelet calculates the settings. Once they are set, Wavelet remembers the settings even after power down, so you do not have to repeat this process.
- k. You can view the results by clicking **"Level & polarity results"**. You have now completed the channel level setup and phase test and can continue with room correction.

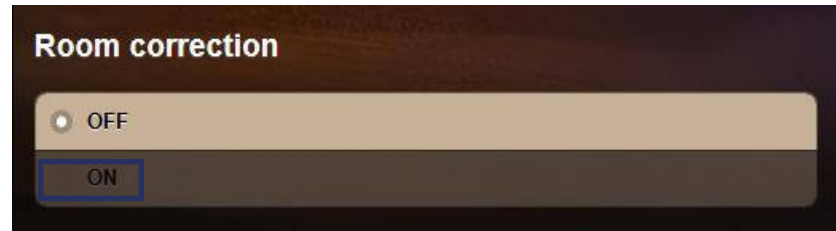
- Settings
- Room correction



2. Click settings at the top of the screen, and choose "Room correction".
 - a. With the microphone at tweeter center height, 48" away from the left speaker, perpendicular to the speaker baffle, choose "Measure left channel".
 - b. Please wait for the process which lasts about 10 seconds. If there is an unexpected noise, please repeat the process by clicking "Measure left channel" again.
 - c. Look at the bottom of the screen- if you see an error such as "Volume too low," please check the connections and/or increase the level and try again.
 - d. This process may take 5-10 minutes. Please be patient, you will be prompted when the process is complete.
 - e. If you receive an error message that the levels are too low, please check that both ends of the microphone cable are firmly docked, and repeat the process, raising the volume if necessary.
 - f. Repeat steps a-e for the right channel
 - g. Click "Upload to server" this sends the measurements to the room correction device which calculates the ideal settings for your speakers and automatically sends them back to your Wavelet. You can observe progress at the bottom of the screen. This process may take 5-10 minutes. You will be prompted when the process is complete.

- f. Upon completion, click the “Back” button at the top. Confirm that Room Correction is set to “ON” You are now ready to enjoy your Wavelet system! You can turn the room correction on and off during your listening. Access the Room Correction by clicking “Settings” at the top of the screen, and choosing “Room Correction”

-Settings
-Room correction



Adjusting your Wavelet

After room correction, you can further tailor the sound of your Legacy speakers in your room via the “Contour” page. Access this page by clicking “Settings” and choosing “Contour”.

-Settings
-Contour



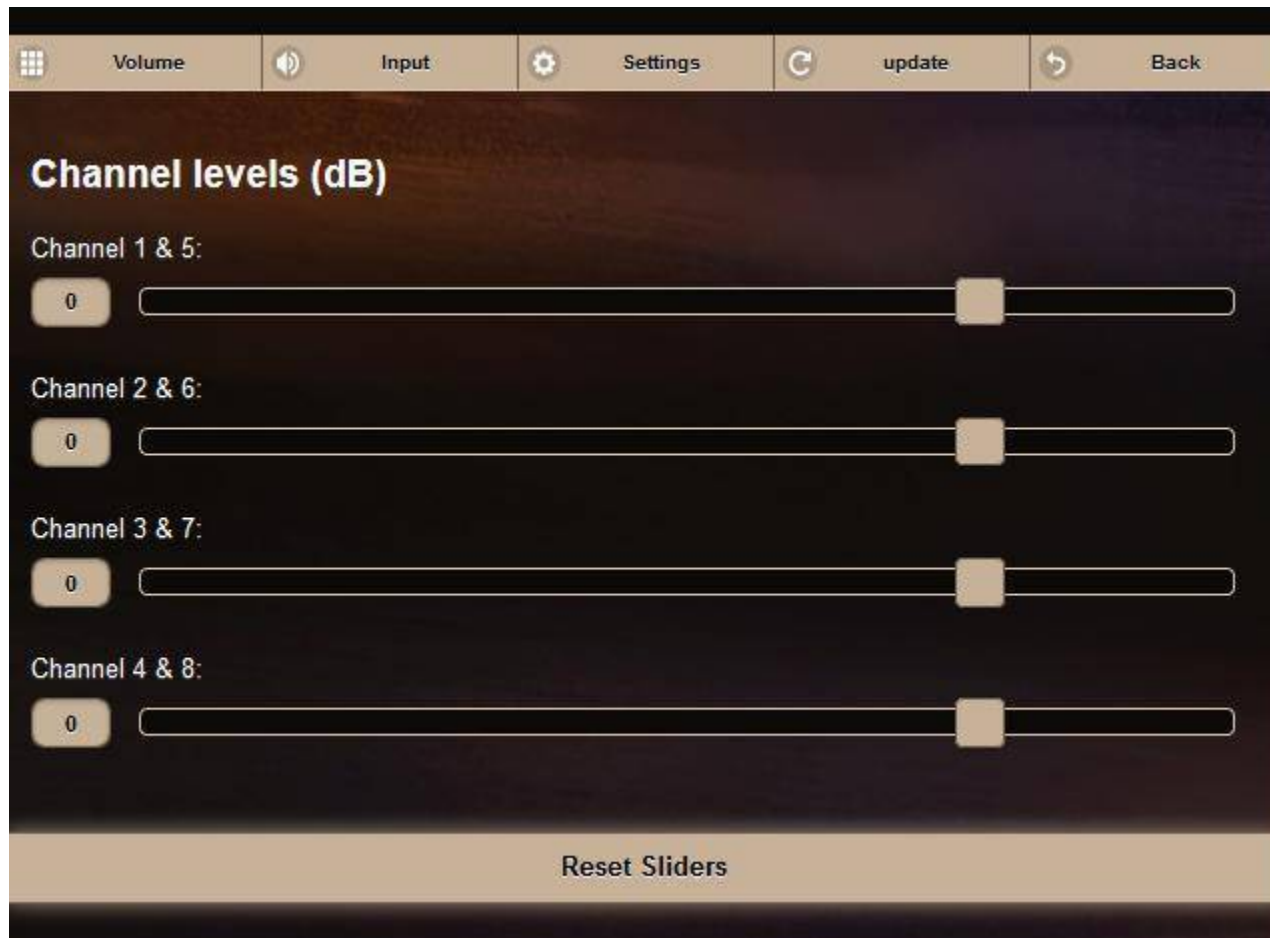
The sliders can be adjusted in the same way as the volume control- by placing a finger on the center slider. Moving to the right creates a boost (more volume) and moving to the left creates a cut (less volume) in the given frequency band. A handy “Reset Sliders” button is available at the bottom to reset the Contour Sliders.

TIP The most recent slider settings are retained permanently in the Wavelet memory- even if you turn the unit off, Wavelet will remember your settings.

You can also adjust the output levels of the individual channels. If you performed automatic channel adjustment (as explained in this manual) you will have settings already applied. You are welcome to further adjust this, if you desire.

TIP This is useful if, for example, you are using stereo Legacy Audio subwoofers with Aeris on channels 3 and 7- you can use this slider to control the volume of your subwoofers!

- Settings
- Setup
- Channel levels



Input Selections

You can wirelessly switch between inputs on your Wavelet by selecting **“Input”** at the top and choosing your desired source. USB allows Wavelet to connect to a computer and play back high resolution audio. USB, SPDIF and Toslink allow for digital connectivity and reduces the need for an extra AD conversion- a valuable performance advantage.

4 pairs of stereo analog inputs allow Wavelet to easily interface with your preamplifier, transport or other devices- making it both flexible and letting you retain all of the color you might enjoy from your gear- tube, solid state or digital.

-Input



Mode & DAC Adjustments

Wavelet allows you to listen in Stereo, Mono and Inverted modes. You can access these settings by choosing “Settings” at the top and selecting “Mode”



-Settings
-Mode

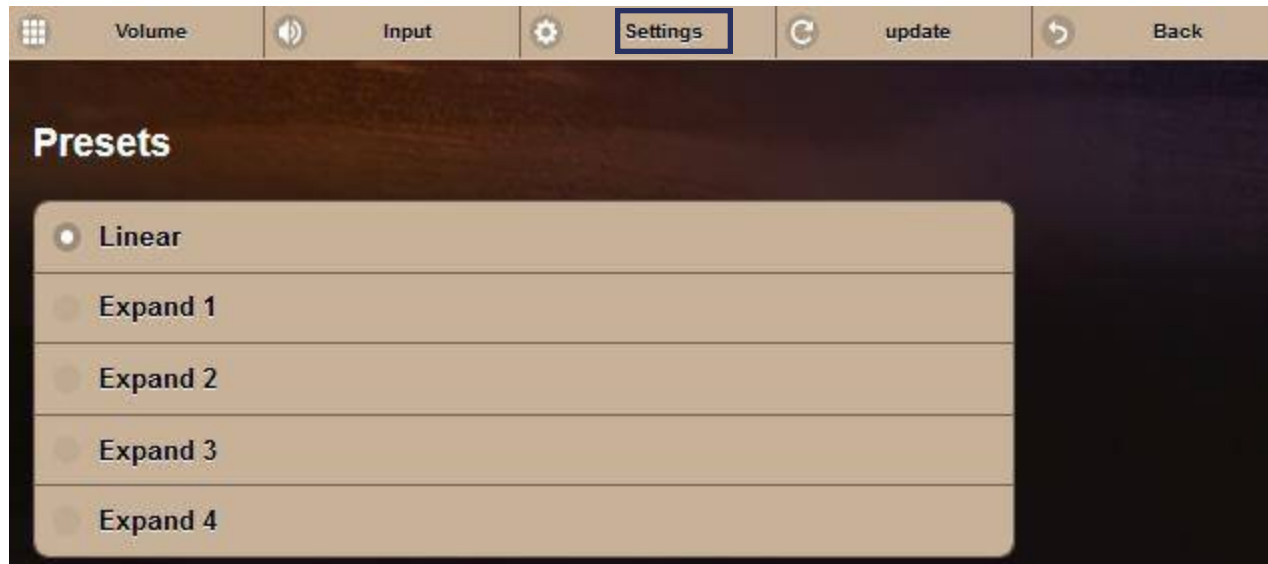


-Settings
-DAC

The Wavelet features an apodizing circuit that corrects for the pre-ringing native to CODECs. Analog lovers can take advantage of balanced XLR or unbalanced RCA inputs without concern of digital artifacts. Turn on the apodization circuit by choosing “Settings” at the top, clicking “DAC” and selecting “Apodizing”. “Linear” bypasses the apodization circuit.

Presets

-Settings
-Presets

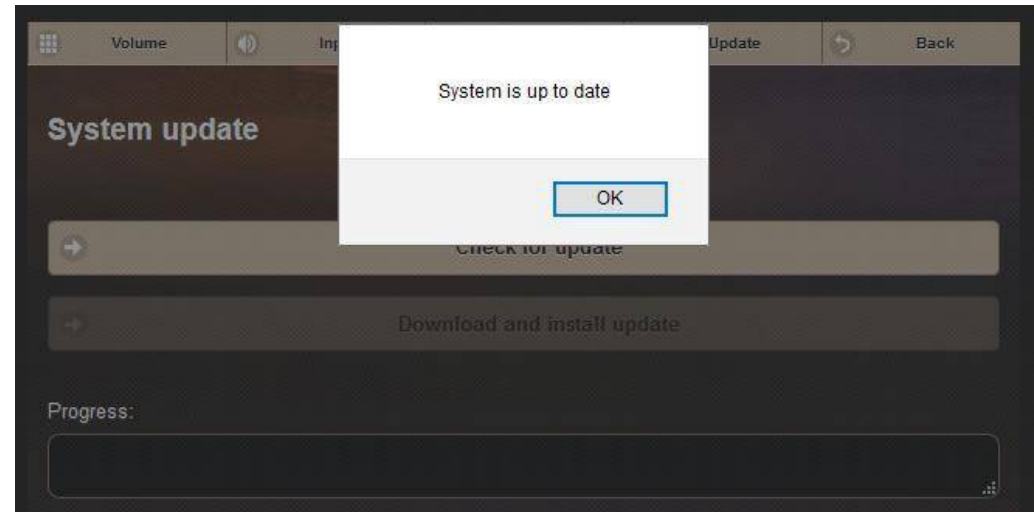
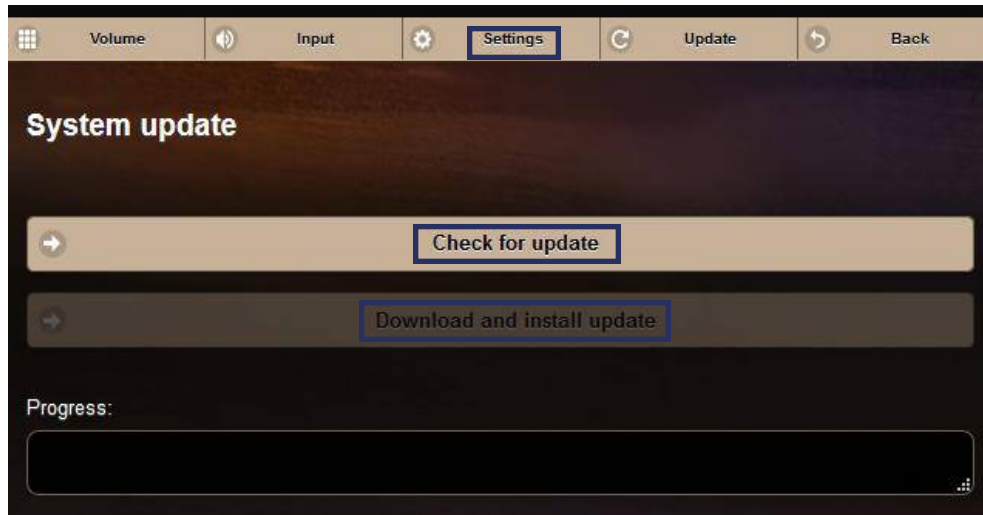


Wavelet features a number of presets to allow you further control of your listening experience. Access these presets by choosing “Setting” at the top of the screen and clicking “Presets”.

Updating the Wavelet System

Wavelet is, by design, easily updated via the app. This allows the device to be updated with new added features as they are requested and developed.

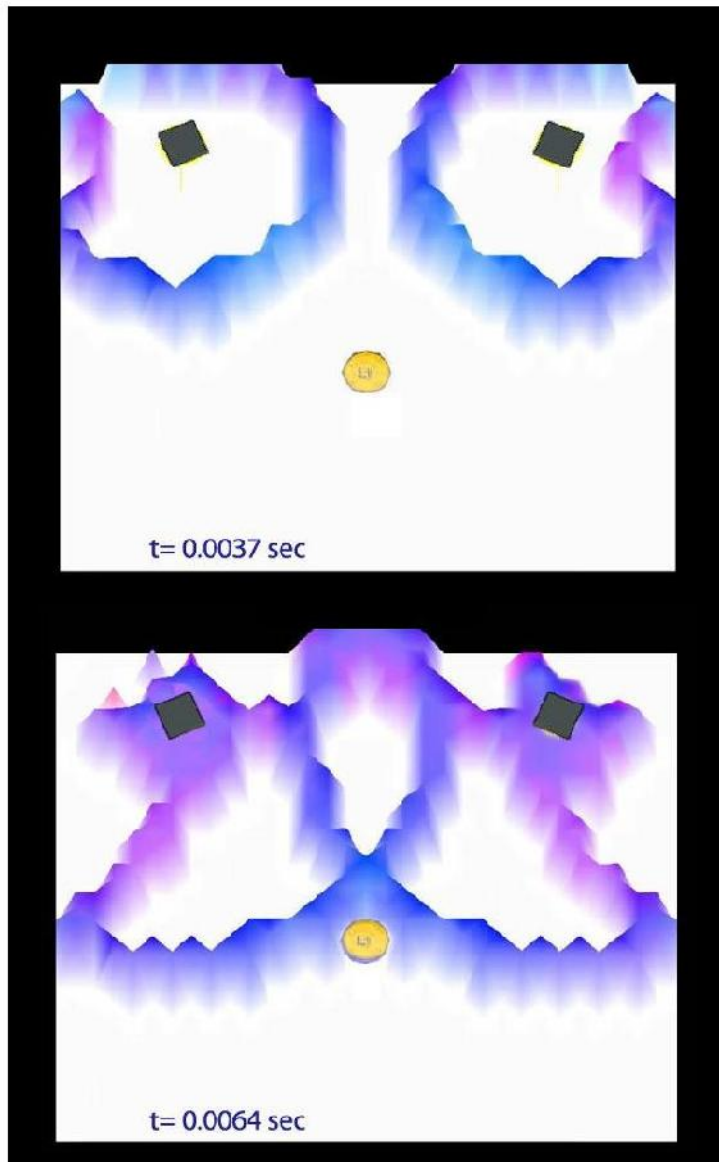
To check for updates, choose “Settings” at the top, select “System update” and click “Check for update”



-Settings
-System update

If an update is available, you can click “Download and install update”. If the system is updated, it will display “System is up to date.”

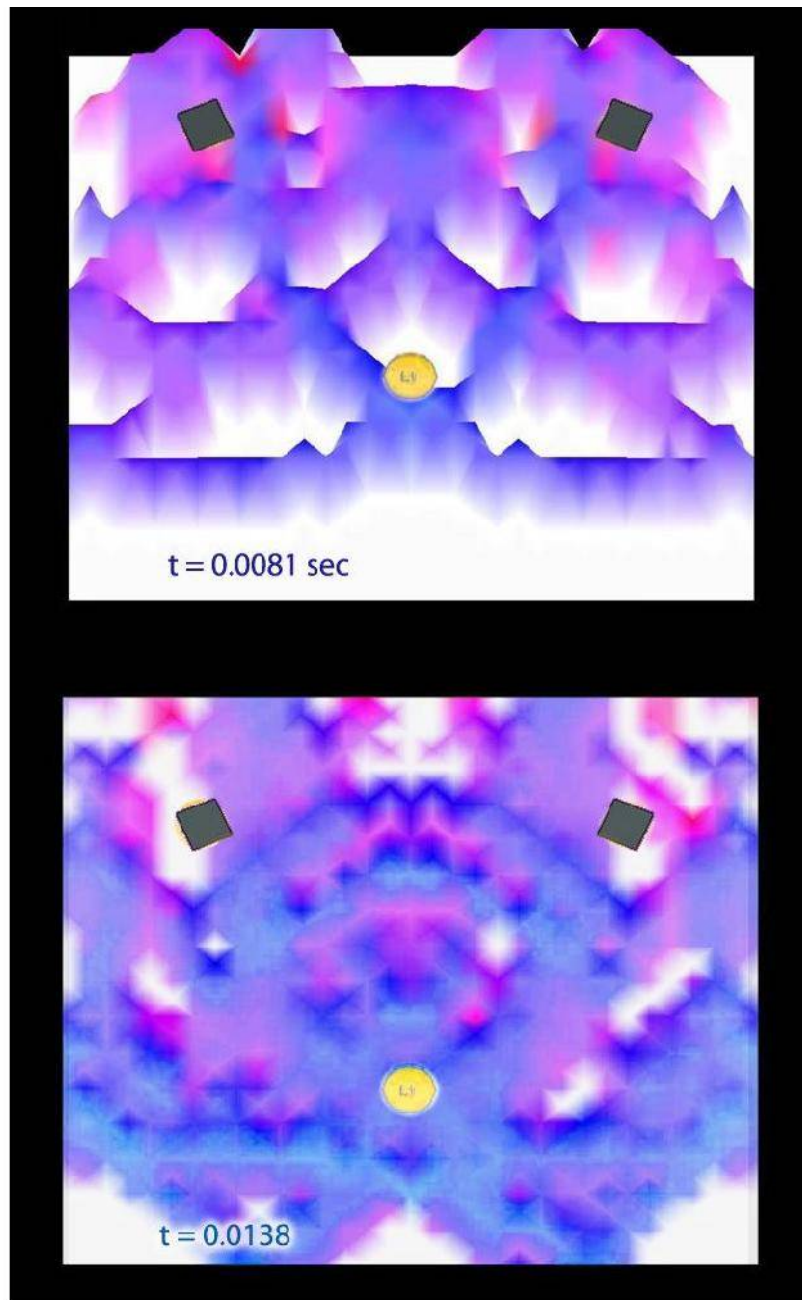
Designer Notes



Why is Room Correction Necessary?

To the left is a 2 dimensional simulation of a 1ms wave pulse from a pair of conventional speakers into a room similar to the above. Because the dispersion exceeds 60 degrees, undesirable energy from each speaker is reflected back into the room within a few thousandths of a second. This reflected energy is out of sync with the original signal.

A few milliseconds later, the first wave-front is about to reach the listener, while the reflected energy is close behind. These early reflections alter the original tonal balance. As they occur within the fusion time window, the brain cannot separate the sounds.



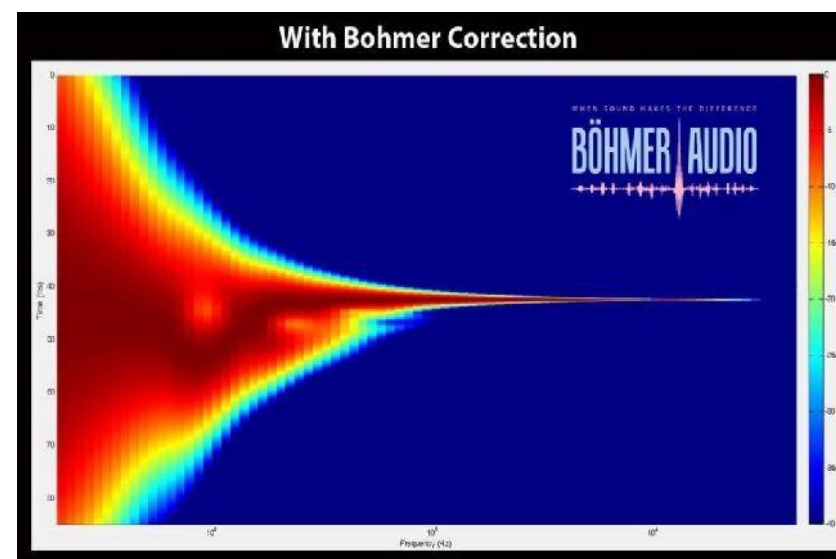
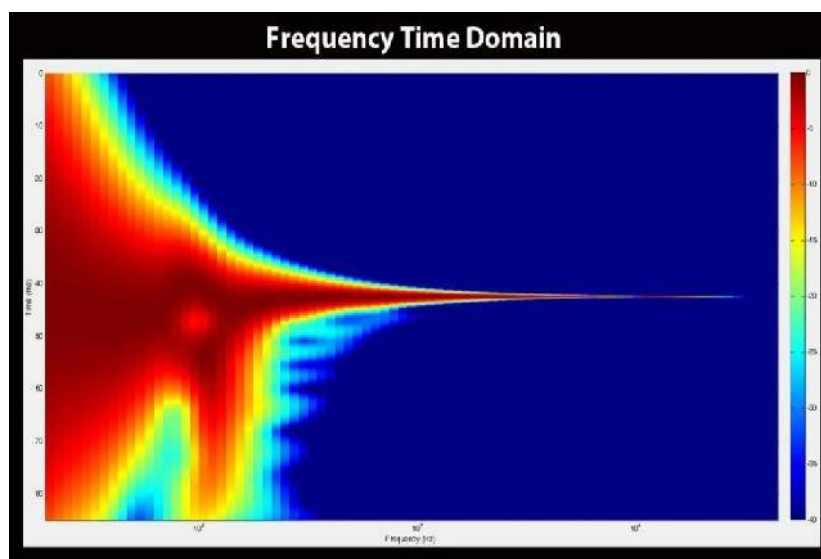
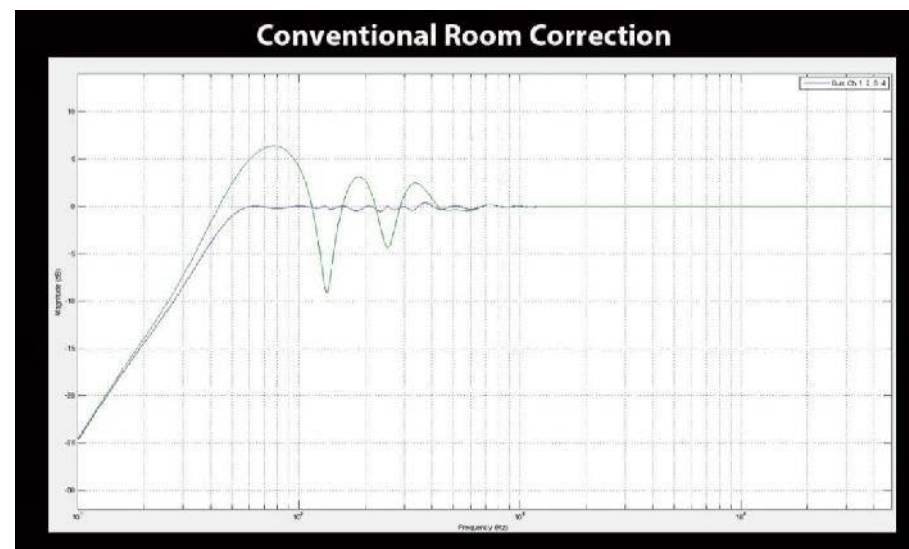
After less than $1/100^{\text{th}}$ of a second, the room has developed a complex wave pattern with energy varying with room position. The listener is now awash in a series of wave-fronts which will soon reflect off the wall behind.

A mere 5 milliseconds later, the initial direct wave-front has now reflected off the rear wall and has made its way back to the listener.

The listener will perceive this reflection as additional bass energy, though a standing wave has not had time to develop.

It is a common misconception that such low frequency excess energy is merely the result of inevitable resonances within the room, when a large portion can be attributed to initial reflections.

To the right is the irregular frequency response of a speaker on axis in the presence of room boundaries. The smoothed curve is the result of applying conventional room correction methods. Below left is the impact of the correction on the Frequency-Time domain. Below right is the same wavelet plot with the Bohmer correction method.



Troubleshooting Guide

Symptom	Cause	Solution
Failed Connection to the Internet	Incorrect Network Information Submitted	Verify SSID and password information is correct on the downloaded .txt file
	Dual Band Network information entered	Make sure to enter the network information for the single band WiFi signal and not the dual band signal. Example : <i>Enter the network information for "georgewifi2.4" and not "georgewifi5.2"</i>
	Incorrect Network Information and installation Failure	Verify that the text file is correctly labeled "wifi-conf.txt" and is transferred onto a blank flash drive then verify the flash drive containing the "wifi-conf.txt" file was inserted into the WLAN USB port for at least two minutes. Sometimes remember to transfer the file to the USB drive but do not create a copy as the copy may create "wifi-conf.txt(1)" and will not download to the Wavelet
	Wavelet and Remote Device (laptop, cellphone etc.) are connected to different Networks	Verify that your Wavelet and remote device are connected to the same Wifi network
<p>NOTE : If WiPi is NOT flashing blue after 2 minutes on startup then the steps above were not completed correctly. If WiPi IS flashing blue and login is still failing then you may have a weak router signal and the wavelet cannot properly connect OR you have entered the incorrect serial number for your unit</p>		
Inconsistent WiFi connection	Weak signal received at the WiPi device	Use the 3ft USB cable and orient the WiPi device for better reception
		Reset your Wireless router to establish new connection
		Hardwire your router directly to the Wavelet via Ethernet to USB adapter into the WLAN USB port and the WiPi device will need to be removed DO NOT use the Ethernet port on the unit when hardwiring for Internet connection
Mobile device cannot connect to the unit	Device is not connected to same network as Wavelet	Insure the mobile device is connected to the same WIFI network as the Wavelet and re-enter your Wavelet's serial into the Bohmer webpage (bohmeraudio.com/setup.html) for remote control
Message: "Error. Volume too Low" during Room Correction or Level Test	Bad Connection in the Microphone input signal	Check connections to Wavelet working backwards from the Microphone, to the Microphone cable and verify the Wavelet Mic cable is plugged into the Mic input on the Wavelet
	Signal volume is set too low	Volume must be at least set to 85.0 for an effective Room Correction test
	Microphone is not at the proper distance of 4ft	Verify with a tape measure the microphone is 4ft away from the front of the speaker, at tweeter height and on axis to the optimal listeners position
	Improper Speaker connections	Review your hardwire connections in the Manual or on your model's quick setup guide and insure your current connections are correct
Left Channel Pings appear on Right Channel or Vice Versa	Incorrect speaker connection	Review your hardwire connections in the Manual or on your model's quick setup guide and insure your current connections are correct

Troubleshooting Guide

Symptom	Cause	Solution
Numerals scroll across display screen shortly after start-up	Unit is just displaying your network IP address for a successful connection to your WIFI network	None required
My Unit will not fully power on/Clicks on for a few seconds then shuts off	Improper shutdown to unit	Press and hold down Standby button to force the unit into a hard reboot
	Wavelet was not allowed to boot fully due to receiving premature digital input	Turn off all sources and streamers or unplug all sources and streamers from the unit then power on unit. Always power on wavelet first <i>before digital sources and Amplifier</i> .
No Audio output through my speakers	Incorrect input source selected	Make sure the intended input source is selected
	Mute function was inadvertently engaged	Disable the mute function. Mute light will illuminate when enabled and will be not be lit if it is disabled.
	Incorrect connections from source or incorrect connections from Wavelet to speaker	Insure all connections are correctly made coming into the unit and coming out of the unit. Please refer to your Quick setup diagram for the correct output connections
Distorted Outputs	Signal input level is too high therefore causing clipping at the input	Trim the input signal by toggling down the attenuator switches on the back panel. Trims can be set at -3dB, -6db, or -12dB these values are additive and can sum up to -21dB per channel.
Loud Pop on Start-up process	Preamplifier, amplifier, streamers and sources were powered on before the Wavelet	Turn off all streamers, sources, preamplifiers and amplifiers before turning on the Wavelet
Output level on a channel is too low/high	Internal Digital gain needs to be increased	Increase the select channel output in the Manual Channel adjustments in the setup page
	Unequal settings engaged on attenuator switches for ANALOG INPUTS ONLY	Verify equal channel adjustments on the corresponding analog input attenuator switches. Is one side being trimmed more than the other?
Stereo Sound is Monophonic	Units Mono setting is engaged	Insure that the unit is set to Stereo and not Mono in the mode settings via Bohmer Wireless control or by scrolling through the playback modes with the mode button on the front panel
LED Display is too Dim/Bright	Display level needs readjusted for your environment	Login to the Bohmer webpage remote and click on the settings page and then click front panel this will bring up a slider to control the brightness for the Wavelet
Unit Displays IP Address but Can't Connect	Wireless Isolation is turned on within your router settings	Go into router settings and verify that your Wireless Isolation function has not been enabled. This function blocks communication from devices within its network

CE Declaration of Conformity

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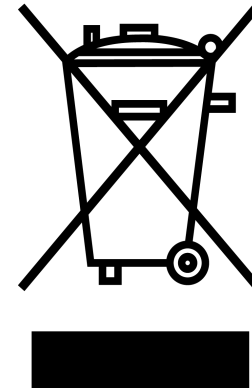
States that this product is in conformity with the
with the essential requirements and other relevant
provisions of:

Low Voltage Directive 2006/95/EC
EMC Directive 2004/108/EC



All information contained in this manual is accurate
to the best of our knowledge at the time of
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product improvement, we reserve the right to
make changes to the design and features of our
products without prior notice.

WEEE Compliance



Product Disposal -
Certain international, national
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Notes:



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