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812 DAC Preamplifier

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ABOUT

About Boulder Amplifiers, Inc.

Boulder was founded in 1984 and is the last high-performance audio manufacturer operating in North America to still perform all of its own design, engineering and manufacturing in-house. While this form of production may be more costly than outsourcing, the resulting quality control and reliability of the finished products are never compromised.

In 2016, Boulder moved into a new, purpose-built production facility to increase manufacturing efficiency and offer space for expansion to meet the needs of future growth.

THANK YOU

Congratulations and thank you for selecting the Boulder 812 DAC Pre-Amplifier for your high-performance sound system. We are certain it will provide you with many years of listening pleasure.

The 812 represents the concerted efforts of numerous Boulder designers, engineers, and technicians working to bring you the best audio playback components in the world. Please take a few minutes to read through this instruction manual prior to using your 812. This will help you understand the many functions and capabilities of the device. It will also allow you to maximize the convenience and performance for which it was engineered.

Your Boulder 812 has undergone extensive laboratory tests for safety, functionality and technical excellence. In addition, it has been individually subjected to rigorous listening trials in our sound room utilizing a wide range of musical material. No product ever leaves our factory until we are totally satisfied that it achieves its full potential.

Table of Contents

INTRODUCTION

The 812 embodies years of development and is one of the most advanced audio components available. Here are some of the features that set the 812 apart from the competition:

Analog Features:

- Boulder rotary volume control. (100 dB range)
- 1/8 inch, 1/4 inch, Pentaconn and 4 pin XLR headphone outputs.
- Low power-consumption Standby mode.
- Two pair Analog Inputs.
- One pair of balanced outputs XLR connectors for preamp out.

Digital Features:

- Boulder digital conversion system.
- Ethernet, USB Memory device, USB-B, Coaxial, 2 Toslink digital input connections.
- Bluetooth.
- Roon™ endpoint compatibility.
- Network streaming.
- UPnP renderer.
- AirPlay functionality.

Operational Features:

- Boulder Controller app control.
- Headphone sensitivity adjustments.
- Automatic software updates when connected to the Internet.
- Comprehensive setup configurations.
- Control app for Android and Apple devices.
- IP control with two-way communication for external control systems.
- HTML Control and Setup page for access to additional customizable features.

INTRODUCTION

Unpacking and Care

The 812 is somewhat heavy and features finely finished casework. Please use care when unpacking, lifting, and installing the 812 to avoid personal injury or damage to the casework and furniture. The 812 weighs 18 lbs. (8.16 kg).

Be sure to save all packing materials! The 812 is shipped in a foam wrap to protect the units fine finish. Try not to damage this wrap in the event that the unit must be transported elsewhere in the future.

Before You Start

You should have received a large, heavy box. The pieces included inside the box are:

1. 812 DAC Preamplifier
2. Quick Start Guide
3. Power Cord
4. Headphone Jack Cover

If any of these pieces are missing or damaged, please contact your authorized Boulder dealer immediately before continuing with the installation.

INTRODUCTION

How to Clean the Casework

If the 812 must be cleaned, use only a soft, lint-free cloth moistened with plain water.

Never use any type of chemical cleaner unless recommended by your dealer or the Boulder factory.

Do not use bleach! Bleach will remove the anodized surface of the casework.

Never use any type of abrasive to clean the casework.

If you have any questions, please contact your authorized Boulder dealer.

Placement and Installation

Your Boulder 812 is designed to reduce the effects that external magnetic fields and radio frequencies (RF) have on its circuitry. While placement is not critical, known magnetic fields should be avoided whenever possible.

Because it is somewhat heavy, the 812 must be placed on a sturdy, stable surface.

Be sure to leave access to the AC mains and interconnect cables when installing the 812. Depending on how easy it is to access the back panel of the 812, it may be wise to pre-install the power and interconnect cables before placement.

Apperatus shall not be exposed to dripping or splashing and no objects with liquids, ie vases, should not be placed on the apperatus.

CONNECTIONS

Connecting the Digital Inputs:

The 812 can be connected to many different types of digital sources and will provide excellent sound quality for each. The 812 includes digital input connections for Toslink (optical), USB Memory Devices, USB type B, Coaxial and Ethernet/ Network audio. The 812 is also a Roon endpoint, which enables it to stream from multiple audio subscription services.

Connect each digital source to one of the digital inputs provided on the rear panel of the 812. Later, you will be able to program each input with the source's name and photo (please see **Input Settings** on page 28), so you may want to make a list of each source as you connect them.

NOTE: A NAS hard drive connected to the USB inputs must be self-powered. The USB input connections on the 812 cannot provide enough power for a NAS hard drive.

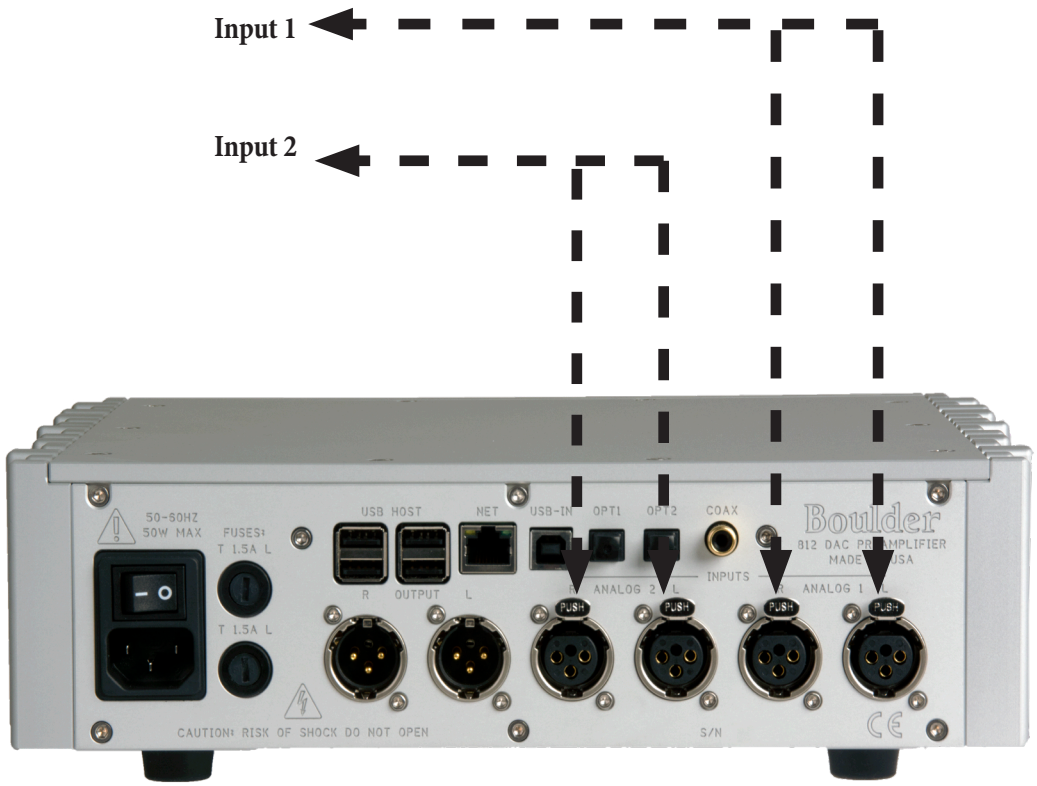
CONNECTIONS

Connecting the Analog Inputs (Back Panel)

To get started listening, you only need to connect sources to the 812 as you would any other preamplifier. Please take note of the following:

The 812 can be connected to many different types of analog sources and will provide excellent sound quality for each. To fully realize the sonic potential of your 812, use balanced cable connections whenever possible. Balanced cables minimize interference from magnetic and RF sources.

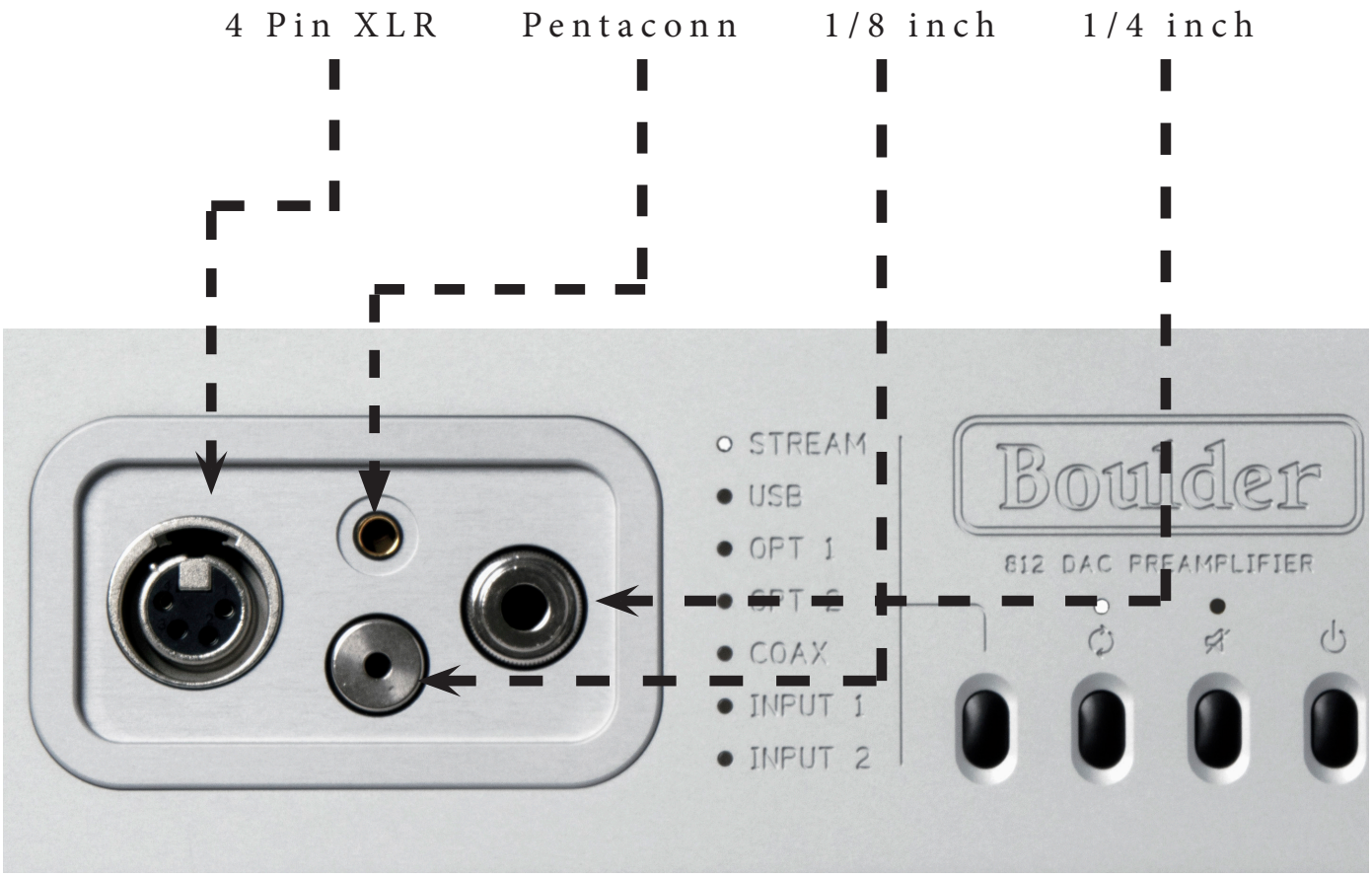
Connect each analog source to one of the two inputs provided on the rear panel of the 812.



CONNECTIONS

Connecting Headphone Outputs (Front Panel)

On the front of the 812 there is 4 outputs for different types of headphones. Left is the 4 pin XLR headphone output. Top middle Sony Pentaconn headphone output. Bottom middle is the 1/8 inch jack. On the right is the 1/4 inch headphone jack. You can use up to all 4 headphone outputs simultaneously with no fear of harming the amplifier or headphones.



CONNECTIONS

Output Connections on the back

There is one set of XLR analog output connections on the back of the 812 to go to an amplifier. When used as a preamplifier, these outputs can also serve as a fixed level output in "DAC Mode."

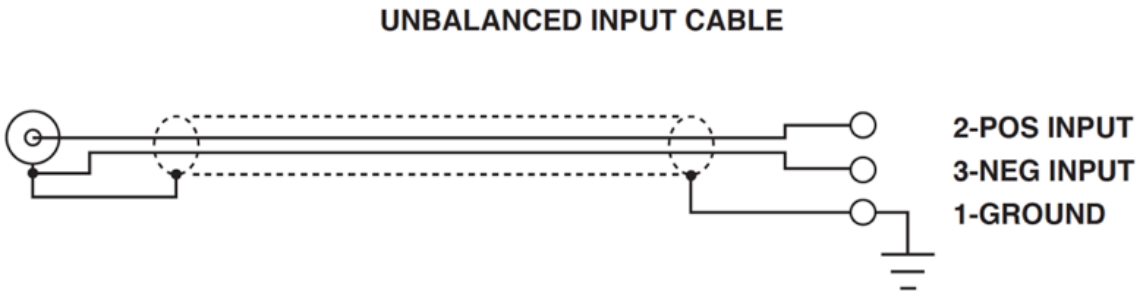
CONNECTIONS

Connecting to an Unbalanced Analog Source

Although the inputs and outputs are all of the 3-pin XLR type, an unbalanced source can easily be accommodated by using a special cable. This cable has an RCA phono-type connector on the source end and a 3-pin XLR connector for the input/output on the 812 end.

The negative input (pin 3) should be wired to ground only at the RCA phono connector. This brings the inverted input reference of the 812 to the unbalanced source ground, thus reducing ground loops.

Another option for connecting unbalanced sources is the Boulder ABL2 input adapter. It converts a balanced input into an RCA phono input at the rear of the 812. Like the above cable, the negative input of the 812 is connected to the ground of the RCA phono. However, this negative side will then share the shield wire with the chassis ground and will not have the best hum rejection.



CONNECTIONS

Connection to AC Mains

Your 812 is supplied with an AC mains power cord appropriate for the location where it was purchased.

Connect the AC power cord to the Master AC Power Switch connection on the rear panel of the 812 as shown and plug the other end into AC mains.

CONNECTIONS

When connecting various sources, make a list of what component is connected to each input so you do not forget the order in which they are connected. You will then be able to name the inputs on the within the Boulder control app. This list will be very helpful at that time.

Connections from sources such as a phono preamplifier, tuner, or cable/satellite receiver can be made to the analog input connections. Sources such as a DVD player, CD transport, music server, or NAS drive can be made to the digital input connections.

The Ethernet connections are for network streaming via a UPnP/DLNA media server, Roon interfacing and streaming, and Internet access to program input names or download software updates for the 812. The Ethernet jack should be connected to a network with an active Internet feed.

CONNECTIONS

Connecting the 812 to Home Network Via Ethernet

To connect the 812 to your home network via Ethernet. Plug an Ethernet cable into the "NET" (Network) port located on the back of the unit. Make sure the other end of the cable is connected to your home router.

If the unit is OFF, turn the unit ON from the AC switch on the back. Wait for boot process and then take it out of Standby. You should automatically be connected to your home network.

If the unit is ON, when ethernet is connected the 812 will place itself in standby. Once you take it out of standby your 812 should automatically be connected to your home network.

NOTE: Anytime the 812 switches networks, loses, or gains a network connection, it will automatically go into standby.

For the best reliability and performance we recommend bypassing any network switches and running Ethernet directly into the router if possible.

If connecting the 812 via Ethernet, no provisioning is needed to connect to the app. Just connect your mobile device to the same network your 812 is connected to, open the app and select the 812.

CONNECTIONS

Connecting the 812's Internal WiFi to a Home Network (Wireless)

Note: You will need a mobile device or tablet and the Boulder Controller app in order to get the IP address of the unit and to start provisioning process. Location on Boulder Controller app must be on. You can turn it on in the settings on your mobile device, or the initial prompt after downloading the app.

Make sure there is no Ethernet connected to the 812. If there is, disconnect and make sure the 812 is turned **OFF** after disconnecting. Connect the provided WiFi dongle, to the USB host in the back of the unit. The 812 must be connected in a system connected to speakers or headphones.

Turn on the 812 and allow it to boot up. It will go into Standby when boot-up is complete. Turn the 812 **ON** from the front panel or from the Boulder Controller app.

Connect the mobile device or tablet to the 812's network by going into WiFi settings on the mobile device. You will see "Boulder Amplifier- (Your unit's serial number)".

Next open the Boulder Controller app. Select "Setup Wireless Network"

Six numbers will be audibly read from 0-9 through your speakers or headphones. Put those 6 numbers in the proof of possession line of the setup screen. These numbers are unique to your specific unit.

Select the network you wish to connect the 812 to and enter the password for that network.

Once the credentials are entered into the app press "Go." The number sequence should stop and you should have full control of your 812 from your mobile device.

NOTE: For best performance and reliability we recommend using an Ethernet connection. Once connected you should not have to go through the WiFi provisioning unless preforming a factory reset or restoring WiFi defaults. If you are having problems with your network setup, please contact your authorized Boulder dealer.

CONNECTIONS

Connecting an Apple or Android Mobile Device to the 812

The 812 can easily be controlled via a mobile device as long as the 812 and the mobile device are on the same network and you have the Boulder Controller app. The app is available on the Apple App Store or on the Boulder website (www.boulderamp.com) for android users. To connect your mobile device and control the 812, follow these instructions:

1. Using a wired or wireless connection, connect the 812 to a network and then turn it **ON** via the AC mains master switch on the rear panel.

2. Connect the Apple (iPhone, iPod, iPad, and/or OS X computer) or Android device to the same network via a wired or WiFi connection.

3. Open the app on your mobile device select 812 [Your Units Serial number]

4. The "**Go**" button will then turn **blue**. Press the **Go** button on the app and you can control the 812 from your mobile device.

CONNECTIONS

Using the App on the 812 without WiFi or Ethernet (812 in WiFi Direct)

When the 812 is not connected to the internet via WiFi or ethernet, it is in "WiFi direct" mode. Distance from the 812 for control may be slightly limited and the 812 will not be able to download software updates. You can use the app when the 812 is in WiFi direct.

NOTE: For network connection you will need a mobile device or tablet that is running the Boulder app.

Turn on the 812 and allow it to boot up. It will go into Standby when boot-up is complete. Turn the 812 **ON** from the front panel.

Connect the mobile device or tablet to the "**BoulderAmplifiers-([serial number])**" network via settings on the mobile device under WiFi selection, open the Boulder app.

The 812's IP address will then appear on the app under the words "**Server URL**" and the button marked "**GO**" will turn **BLUE**. Press the **GO** button and the app will connect directly to the 812. The app display will then change to the main control screen.

If you are having problems with your network setup, please contact your authorized Boulder dealer.

812 losing Wi-Fi connection/Failover State

If the 812 loses connection to a provisioned WiFi after a period of time it will go into a failover state. The mute LED will be blinking. If you press any button, the unit will continue into "Wifi Direct" mode. You can try to re-establish connection within the app, under network settings with the "Restore Saved Wifi" button.

You can also try to automatically re-establish connection if you power cycle the 812 from the rear AC switch.

Note: The 812 in WiFi direct mode is not connected to the internet. Features will be limited.

OPERATION

Front Panel Controls

The 812 has four buttons on the front panel, they are (L to R) **Input Select, Pre Amp / Headphone Output select, Mute,** and **Standby.**

The the front panel also has a volume knob with (100) 1 dB steps.

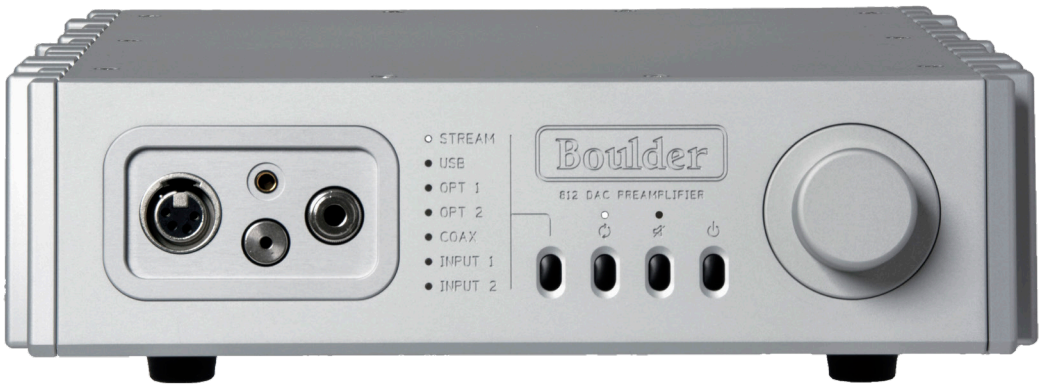
Input select scrolls through the different inputs displayed to its left. When an input is selected the corresponding LED will let you know that input is engaged.

Preamplifier / Headphone Exchange button switches output between preamplifier mode and headphone mode. (Light on is headphone mode)

Mute decreases volume by a selected amount (30 dB standard)

Standby takes the device in or out of standby.

Note: If you wish to use the preamplifier and the headphones simultaneously you can activate both using the HTML page or Boulder app.



OPERATION

Volume

The volume can be adjusted in 100 equal steps.

To adjust volume use the volume knob on the front panel. Or adjust volume using the Boulder Controller app or an RF remote. (Sold separately. Ask your Boulder dealer for more information)

Preamplifier and Headphone Exchange

The preamplifier and headphone exchange button allows you to switch between listening to headphones and activating your preamp to play through speakers.

Note: If you wish to have the output of your preamplifier and the headphone amplifier active at the same time, there is an option for "Preamp Output Always On" under output settings within the Boulder controller app.

OPERATION

Mute

It is possible to Mute the 812's outputs so that they are reduced by a preprogrammed level.

The Mute feature allows for temporary volume reduction without losing the original volume setting. For example, engaging the Mute function will attenuate the output to a level suitable for conversation. This level of attenuation can be adjusted in the Setup menu. The default Mute level is -30.

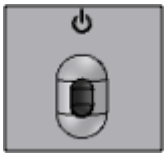
Pressing the Mute button will immediately attenuate the output. Pressing the Mute button again will immediately return the output to the original volume level.

It is also possible to mute output from the Boulder Controller app or RF remote. (Sold Separately)

Note: The Mute output level is relative to the normal listening level. Therefore, if the Mute level is set to -60.0 dB, the volume will be decreased by an additional 60 dB from its current level when "Mute" is engaged.

OPERATION

Standby



Pressing the Standby button will put the 812 into Standby mode. This will turn OFF all circuits except for the logic necessary to wake it up again.

The unit is out of standby and ON when an input LEDs are lit.

NOTE: Because the 812 greatly reduces power consumption when in Standby mode, it is only necessary to place the unit in Standby when not in use. You do not need to turn the 812 off via the Master AC Switch on the rear panel of the unit. The 812 was designed for years of operation in this manner and no damage to the unit will occur.

OPERATION

Bluetooth

To access Bluetooth the 812 must be on the "Stream" input in the Input selection. In the settings of your mobile device, go to Bluetooth, and select the 812. Once it is connected on your mobile device, select any audio from your mobile device, it should play directly to the 812.

Air-Play Functionality

To access the Air-Play functionality if you have an Apple product, access Air-Play on your mobile device and select the 812. Once you see the 812 is selected you should be able to play audio to the 812. Once audio is being sent to the 812 it will automatically switch to the "Stream" input.

If you have an Android device there are apps that will allow for Airplay use, there are many apps such as, AirMusic, Double Twist or All Cast.

Roon

What is Roon?

Roon is a subscription-based music streaming platform and app. It gathers music from other streaming platforms such as Tidal, Qobuz,and Apple Music and combines it with your personal library. Roon organizes your music files to make it easy to enjoy your entire library of music from one device. Music quality has a bit-perfect playback of lossy and lossless files, including DSD and PCM. Roon creates a personalized listening experience and a pathway to find new music with an interface that is built around the listener and is easy to use.

Connecting to Roon on 812

Download the Roon app to your mobile device, tablet or laptop.

Once installed and setup for Roon is complete, open the app.

Go to Settings in Roon. Under the tab "audio," select "enable" for the 812.

In the bottom right section of the screen, check the playback bar and make sure the “Zone” (the device Roon will play through) is the 812. If it is unnamed it will show the 812’s serial number.

Once the Zone is selected for the 812, select the music you want to listen to, press Play, and enjoy.

OPERATION

Setup

All settings for the 812 are managed through the Boulder Controller app.

To access Settings, press the menu icon in the top left corner of the app, then select Settings. When the Settings screen is shown, the Setup menu will be shown, additional features can be accessed by selecting each item in the menu.

Volume Options

The Volume Options drop-down menu for the 812 can be accessed by touching the Volume Options button. Four setup variables for the volume control can be programmed: **Volume Type**, **Max Volume**, **Volume Default**, **Mute Level** and **Balance**.

Standby Volume Behavior

This option allows you to select between the volume on the 812 starting at default volume coming out of standby, or the volume starting at the last volume before it went into standby.

Volume Type

Volume Type refers to the way the volume is indicated on the app screen. There are two options for Volume Type: Show in decibels and Show 0 to 100.

Show in decibels will show the actual output of the 812 in 100 steps of decibel attenuation from -100 (100 dB of attenuation from maximum output) to 0 (no attenuation from maximum output).Volume readings will be indicated by a negative number, for example -47. This indicates 47 decibels of attenuation from maximum output.

Show 0 to 100 will show the volume in 100 equal steps from 0 (no output) to 100 (maximum output).

The factory default Volume Type setting for the 812 is 0 to 100.

Max Volume

The Max Volume setting allows you to limit the maximum volume output setting. This is useful if you have children who may move the volume knob or if you wish to set a maximum level so that it is not possible to damage your audio system by accidentally raising the volume to high.

To set the Max Volume level, touch the point on the Max Volume slider where you wish to set the maximum allowable volume. The dot on the slider will then move to that point.

Touching the slider towards the **right-hand** end of the slider will set a **higher** maximum allowable volume.

Touching the slider towards the **left-hand** end of the slider will set a **lower** maximum allowable volume.

The number below the center of the slider indicates where the Max Volume adjustment is set.

The factory default Max Volume setting for the 812 is **100**.

Default Volume

Setting the default volume means the volume will be set to the number you choose when coming out of standby or turning on the unit.

Touching the slider towards the **right-hand** end of the slider will set a **higher** default volume.

Touching the slider towards the **left-hand** end of the slider will set a **lower** default volume.

The number below the center of the slider indicates where the default volume is set.

The factory default volume setting for the 812 is **40**.

Mute Level

The volume of the 812 can be temporarily reduced when pressing the mute button. The **Mute Level** setting allows you to set the level of attenuation when the 812 is placed in Mute mode, from a minimum of 6 dB of attenuation to a maximum of 80 dB of attenuation. For example, you may prefer to have the volume set just low enough to carry on a conversation but still have the music audible when the Mute function is engaged, or you may wish to have the output nearly silenced when the Mute function is engaged.

To set the Mute Level, touch the point on the Mute Level slider for the number of volume steps that you wish to have the volume drop when you press the Mute button. The dot on the slider will then move to that point.

Touching the slider towards the **right-hand** end of the slider will set a **higher** Mute Level volume setting.

Touching the slider towards the **left-hand** end will set a **lower** Mute Level setting.

Touching the slider at the **farthest-left** point will mean that the 812 will be nearly **silent** when the Mute function is engaged.

The number below the center of the slider indicates the level of Mute Level attenuation.

The factory default Mute Level setting for the 812 is **30**.

NOTE: The Volume function will continue to work in Mute mode as long as the volume is decreased. When in Mute mode, pressing the Volume Down button will decrease the volume setting even though the output will remain muted.

Balance

The balance slider is in the Settings under the volume drop down. It is to make the audio quieter into the left or right channel.

Sliding the slider to the right decreases the audio into the left speaker or headphone.

Sliding the slider to the left decreases the audio into the right speaker or headphone.

The balance slider default is in the center distributing audio evenly between both channels.

OPERATION

Input Settings

The Input Settings drop-down menu for the 812 can be accessed by touching the Input Settings in the Boulder controller app.

Each input can be renamed and adjusted for **Input Trim**, **Theater Mode**, **Input Balance** and **Input Image**.

Input Trim

Any of the 812's inputs can be programmed to unity gain. Input Trim allows you to **reduce** the volume of a selected input relative to all others so that they can be matched to the same level. For example, this can be useful when trying to match the level of a phono preamplifier with low output to a digital source with high output. The level can be trimmed so that there is no difference in output when switching between the two sources.

The level of Input Trim is indicated in dB (decibels). Trim level adjustments are made in -0.5 dB steps for a total of -25.0 dB. The default trim level for each input is 0.0 dB.

Touching the slider towards the right-hand end of the slider will decrease the level of the selected input relative to the other inputs.

Touching the slider towards the left-hand end will increase the level of the selected input relative to the other inputs.

The number below the center of the slider indicates where the Input Trim adjustment is set.

The factory default Input Trim setting for the 812 is 0.

Input Balance

You can individually balance any input by moving the slider to the left or right.

OPERATION

Theater Mode/DAC Mode

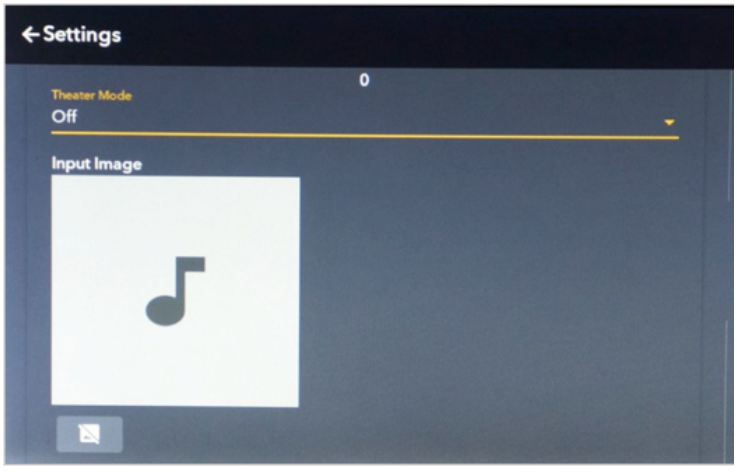
WARNING: Theater Mode/DAC Mode should be used with extreme caution, as there is no way to control the volume of the 812 while in Theater Mode! If it is programmed for an input that does not have externally controlled volume, damage to speakers or other components may occur!

Any of the 812's inputs can be programmed to the equivalent unity gain. This is called Theater Mode. The purpose of Theater Mode is to allow the 812 to be used in home cinema systems where the master volume control will be in the surround sound processor. When an input has been programmed for Theater Mode, the volume controls will be disabled and the volume level **must** be controlled by the surround sound processor.

To set an input to Theater Mode, touch the **Theater Mode Button** within the Boulder Controller app and a drop-down list showing "On" or "Off" will appear. Touch the **On** selection. The input will now be set to the equivilant of unity gain or Theater Mode. (95 on the 0-100 scale, and -5 on the decibls scale)

To return the input to normal operation, touch the Theater Mode Slider and a drop-down list showing "On" or "Off" will appear. Touch the Off selection. The input will now be set to normal operation.

The factory default Theater Mode setting for the 812 is **Off**.



Output Settings

Within the Boulder controller app there is multiple settings for the output of the 812 as listed below.

Headphone Gain

Choose whether you want the headphone gain high or low. The default is low. If you have less efficient headphones, you will likely want to use the high gain feature.

DAC Mode

DAC mode allows the use of the 812 purely as a DAC that goes directly to a preamplifier. In this mode the output is fixed line level output on the XLR jacks on the rear of the unit. The analog inputs are not active in DAC Mode. The default for DAC mode is "Disabled".

WARNING: Theater Mode/DAC Mode should be used with extreme caution, as there is no way to control the volume of the 812 while in Theater Mode/ DAC Mode! If it is programmed for an input that does not have externally controlled volume, damage to speakers, other components and hearing may occur!

Preamp Output Always On

When enabled the 812 will drive both headphones and speakers simultaneously. Default is disabled.

System Settings

The System Settings drop-down menu for the 812 can be accessed by selecting the settings within the Boulder controller app. The System Settings are used to adjust or monitor all of the internal functions of the 812. The following settings can be checked or adjusted from the System Settings menu:

Network Settings Tab
App Version:
Firmware Version:
Update Firmware (Grayed out if no update is available)
Serial number:

App Version:

Displays the current app version.

Firmware Version:

The Firmware Version indicator shows the revision of the 812's main operating software.

Serial Number:

The 812's serial number will be displayed here.

Network Settings

The Network Settings menu will provide you with all network information for the 812.

The following network information is displayed in the Network Settings menu:

MAC Address:
Network Address: (IP Number)
SSID: (Which network the unit is connected to) (Blank if connected via Ethernet)
Status: (How the unit is connected to the Internet)

Note: If the unit isn't connected to the Internet the status will be in "WiFi Direct" mode.

Restore WiFi Defaults

Restoring Wifi Defaults will erase all memorized WiFi passwords and networks. The Restore WiFi Defaults functions should always be used when the 812 will be moved to a new location with a different network or when possession of the unit will transfer.

Note: You can restore the WiFi defaults from the front panel. The 812 must be in standby. You hold the far left button down, the headphone/preamplifier exchange button, for 3 seconds, then take it out of standby. After the standby sequence the units WiFi defaults will be restored.

Restore Saved WiFi

Restoring saved Wifi allows you to re-connect to a previously provisioned WiFi. This is helpful if your router goes out momentarily and comes back on and you wish to re-connect to your WiFi. When WiFi connection is lost, the 812 will go into a fail-over state, the Mute LED will be blinking.

See page 5-19 for fail-over state and WiFi direct mode.

Factory Defaults

The **Factory Defaults** button will restore all parameters of the 812 to the original factory settings, including all custom settings and programmed functions.

When the Factory Defaults button is pressed, a pop-up window will appear on the 812's front panel display that will ask, "**Are you sure you wish to set Factory Defaults (the unit will reset)**?"

If you wish to restore the Factor Defaults, press the **Yes** button. A new pop-up window will appear on the front panel display that will notify you that the unit is resetting. After a short time, the 812 will reboot and all options will be returned to their original factory settings.

If you do not wish to restore the Factory Defaults, press the **No** button.

Note: You can also restore Factory Defaults from the front panel. The unit has to be in standby and you simultaneously press the 4 buttons other than the standby button for 3 seconds and then take the unit out of standby. The unit will momentarily go into the boot process and back into standby after the restore is complete.

Input Defaults

The **Input Defaults** button will return all input option settings, including input icon photos, to their original factory settings only but will **not** change any of the other optional settings for the unit.

If you wish to restore the Input Defaults, press the **Yes** button. A new pop-up window will appear on the front panel display that will ask, "**Are you sure you wish to set the Input Defaults**?" To reset the 812's inputs to their original factory settings, press the **Yes** button.

If you do not wish to restore the Input Defaults, press the **No** button.

PROGRAMMING

HTML Programming

Though it is not necessary to use any of the HTML programming functions, you may find them helpful in setting up and personalizing your 812.

All HTML programming is accomplished by accessing the 812 HTML page while the unit is powered up and connected to a live computer network. Once the page is accessed, the various programming functions can be viewed, changed, and saved.

To access the 812's HTML page, you will need a computer that is connected to the same network as the 812 to enter the 812's network address into a web browser.

To find the 812's network address, go into settings on the Boulder Controller App, then press the **System Settings** button in the Settings menu, followed by the **Network Settings** button. You will see a list of information about the 812, including:

MAC Address:
Network Address:
SSID: BoulderAmplifiers-(serial number)

Network Address: If the 812 is attached to an active network, the network address or IP address of the unit will be indicated here. This number should be entered in the address bar of a web browser to access the 812's HTML programming page. The HTML page will then load onto your browser.

APPENDIX

Technical Specifications

Balanced Inputs	2 x 3-pin XLR
Balanced Outputs	1 x 3-pin XLR
Maximum Input Level	6.0 Vrms
Maximum Output Level	14.0 Vrms
THD+N, 2V Output, 2khz	0.0017% (-95.5 dB)
Maximum Voltage Gain	19.4 dB
Volume Range	100 dB
Volume Steps	1.0 dB
Frequency Response, 20 Hz to 5kHz	+0.00, -0.03 dB
Frequency Response, -3 dB	0.02 Hz & 250 kHz
Clip to Noise Ratio	116 dB
Input Impedance	100kΩ Balanced
Output Impedance	100Ω Balanced
Power Requirements	90-240V
Power Consumption	50W Max

Headphone Amp Section	2k Hz	20k Hz
32Ω 200mW Output	0.0010%	0.0053%
150Ω 200mW Output	0.0010%	0.0034%
600Ω 80 mW Output	0.0011%	0.0043%

Note: All measurments taken at 120V

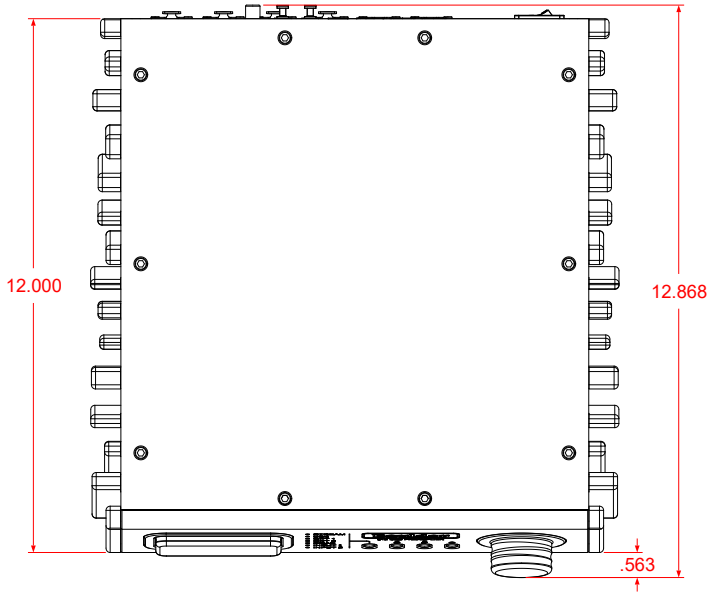
APPENDIX

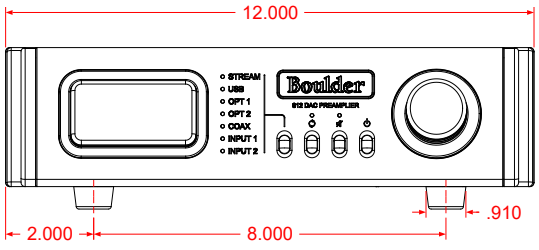
Weights and Dimensions

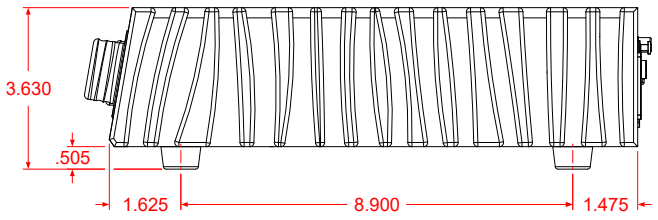
812 Integrated Chassis:	**12” W x 12” D x 3.25” H (12.5 lbs)** **30.5 cm W x 30.5 cm D x 8.3 cm H (5.67 kg)**
Shipping:	**24” W x 23” D x 14” H (18 lbs)** **61 cm W x 59 cm H x 36 cm H (8.2 kg)**

APPENDIX

812 DAC Preamplifier Dimensions







APPENDIX

Troubleshooting

SYMPTOM	CAUSE	REMEDY
No Power Indication	Master AC Power Switch on rear panel is not ON	Turn on Master AC Power Switch
	812 is not plugged in	Connect power cord to AC mains outlet
	812 boot-up is locked	Turn off unit from Master AC switch and back on
	Home circuit breaker is tripped	Reset home circuit breaker
	Low line voltage	Have line voltage checked
	Defective power cable	Have power cable tested or replaced
Power Indication but No Sound	No signal from one channel	Check source controls, cables and connection
	No signal out of 812	Check cables, connections, in preamp or headphone mode and sources
No Response to App	812 is not connected to network	Connect 812 to network
	Mobile device is on a different network than 812	Connect 812 and mobile device to the same network
	812 is unable to receive WiFi signals	Move to a better location or use wired network connection

APPENDIX

Notes: