



Since 1984

# Boulder

# 812

**DAC  
Preamplifier**

812



### Welcome to Versatility

Our new feature laden Boulder 812 is the most versatile DAC Preamplifier ever made. As a starting point for your high performance music reproduction system, it can be used as a DAC, a Balanced Preamplifier, or a Headphone Amplifier. Now you don't have to choose individual products for these three functions. You can easily refit your 812 into a new configuration as your system changes and grows.

As a stand alone DAC, it will improve any digital stream that it receives. Its output can be fed into any balanced or unbalanced input in your existing system. The DAC section or an analog input with the Preamplifier can be connected to your existing amplifier and speakers.

The 812 is perhaps the highest value product Boulder has ever produced. So many features and functions are made possible by clever circuit design and packaging.

### Headphone Listening Becomes a Delight

For small living spaces, perhaps with shared walls, simply plugging your favorite headphones into the high performance headphone amplifier will immediately startle with new musical clarity. Seemingly tiresome listening sessions will become a true joy.

Properly driving both new and old headphones is an engineering challenge. Boulder started with extensive research of popular headphones and defined their technical needs. It was noted that the range of headphone impedances varied widely, some

10 times greater than a typical range of loudspeaker impedances. The solution is to have a cascaded transistor array amplifier dedicated only to the headphone output jacks. It readily adapts to whatever headphone load is connected.

Four highest quality output jacks are provided to satisfy even the most finicky tastes. The Boulder 812 includes the widely used 3.5mm and traditional 1/4 inch jacks. The newer four conductor XLR style, and Pentaconn jacks complete the options. All are mounted in a special jack panel

designed to prevent accidental scratching of the main front panel. With inevitable wear, any of the jacks or the whole jack panel can be easily replaced at your dealer.

No other product gives so much attention to all the demands of headphones. Your private listening enjoyment awaits.

### Digital Design

The versatility doesn't stop at the digital design. With many connections and features, it gives you the ability to play music the way you prefer.

From satellite receivers, USB memory sticks, wireless streaming, or playing music off a laptop, the 812 will also make your music sound its best. Digital audio data is received and asynchronously converted if necessary, before being processed using Boulder's own proprietary software and DSP to optimize the data and send it to the DAC chips which generate the analog audio.

Throughout the entire digital process, the data is up-and-oversampled to maximize the data rate and reduce distortion to the lowest possible levels. The 812 has been equipped to be a Roon® endpoint, making media browsing and sorting easier and simpler than ever before. Artists, albums, songs and even production teams are cataloged and presented in a way that makes finding your music absolutely effortless.



The conversion from digital to analog is completed through a multipole Bessel filter trimmed for the best transient response. This anti-imaging function prevents spurious signals from creating noise in your music and retains all the nuances of musical notes both high and low.

If you don't listen with headphones, or already have a preamp you enjoy, the 812 allows you to set it as a stand alone fixed output DAC.

### App Control

The 812 features plenty of control from the front panel, but with the Boulder controller app, you gain access to all of the unit's features, adjustments and customization.

Simply connect your smartphone or tablet to the 812 Controller app via a common wifi network. From here you will have control to change your inputs, access to volume control, mute, standby and preamplifier or headphone mode. All available from the comfort of your listening position no matter how near or far the 812 is placed.

If you have music on a thumbdrive or a network music server, with the use of our app, you will be able to

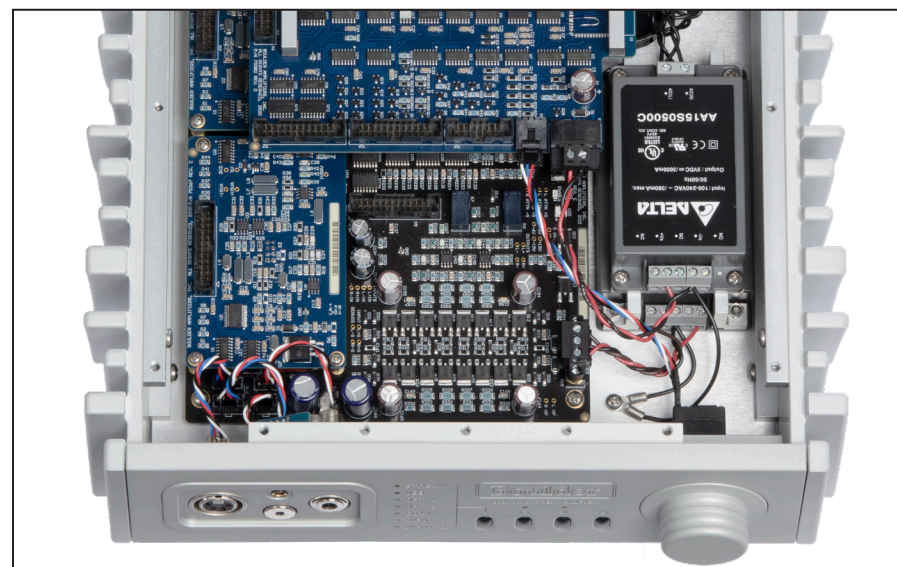
search, select and curate playlists of songs.

Inside the settings, you have the capability to change the volume options, input settings, output settings, and much more. If you don't like what the input icons are, you have the option to add pictures of your setup so that you can seamlessly change inputs without having to remember which device is connected to each input. The app provides full access to the versatility and customization of the 812.

### Balanced Preamplifier

For over 35 years, Boulder has produced world renowned phono and line preamplifiers. In the mid 1990s the Boulder 2010 was the first all solid state stepped volume control. It provided accuracy, clarity, and low distortion never possible with wiper on carbon potentiometers then used. The 812 counts this superior control style among its many features.

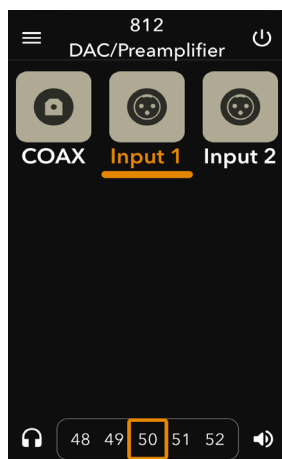
Balanced and unbalanced sources are accepted into a true balanced and differential input stage. Either this or the DAC output is fed to the attenuator and preamplifier output section.

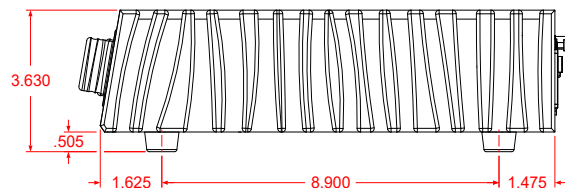
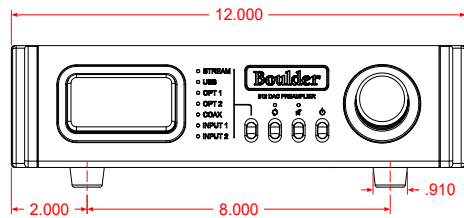
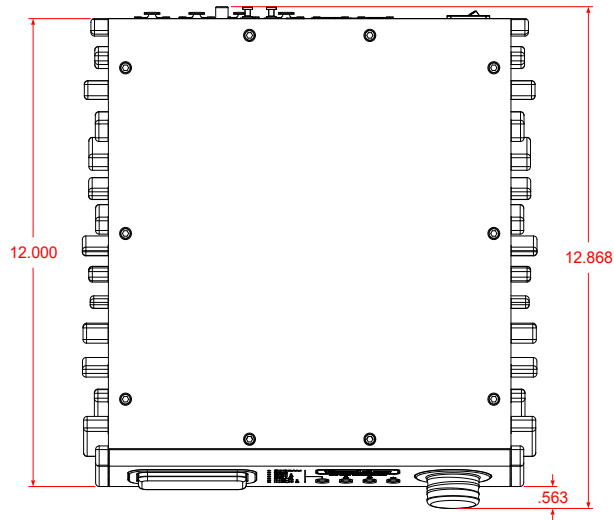


### Many Features, Your Choice

Whether listening to headphones or speakers, the 812 DAC Preamplifier is certain to bring versatility and performance to your personal music enjoyment.

To enhance the beauty of the front panel, a magnetic dust cover is provided to protect the headphone connectors. When the preamplifier outputs are feeding a power amplifier, the headphone outputs are disabled. The exchange button makes it possible to quickly switch between headphone and speaker usage. When you are ready for speakers, the 861 Stereo Power Amplifier can be connected to the Preamplifier outputs. Both the 812 and 861 feature our new convenient size chassis.





### 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             | 0.001% (-95.5 dB) |         |
| Maximum Voltage Gain               | 19.4 dB           |         |
| Volume Range                       | 100 dB            |         |
| Volume Steps                       | 1.0 dB            |         |
| Frequency Response, 20 Hz to 20kHz | +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% |

All measurements taken at 120V, specifications are subject to change without notice or obligation

boulderamp.com  
 sales@boulderamp.com  
 255 S. Taylor Ave. Louisville CO 80027  
 303-495-2267