Since 1984

Boulder
1110 PREAMPLIFIER
Input 1
Boulder DAC
Volume
-25.0
1
2
3
4
5
Option
Mute

1110 Preamplifier

2/1/2018
Rev. 1.0

P/N: 91054

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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 1110 Preamplifier for your high-performance sound system. We are certain it will provide you with many years of listening pleasure.

The 1110 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 1110. This will help you understand the many functions and capabilities of the preamplifier. It will also allow you to maximize the convenience and performance for which it was engineered.

Your Boulder 1110 Preamplifier 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.

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Getting Started

Introduction

The 1110 Preamplifier embodies years of development and is one of the most advanced preamplifiers available. Here are some of the features that set the 1110 apart from the competition:

Analog features:

- Proprietary, fully-balanced Boulder volume control
- Five pairs of balanced inputs on XLR connectors
- Fully-balanced audio path utilizing Boulder’s own 983 gain stages
- Two pairs of balanced outputs for each channel
- Low power-consumption Standby mode

Operational features:

- Large, full-color, 6.2 inch, 640 x 240 LCD front panel display
- Display shows: input source, volume (dB), balance, polarity, mute, options and setup
- Automatic software updates when connected to the Internet
- Comprehensive option and setup configurations
- IP control with two-way communication for external control systems
- HTML setup page for access to additional customizable features

Getting Started

Unpacking and Care

The 1110 preamplifier is heavy and features finely finished casework. Please use care when unpacking, lifting, and installing the preamplifier to avoid personal injury or damage to the casework and furniture. The 1110 Preamplifier weighs 35 lbs. (16 kg). If possible, two people should unpack and place it into position.

Be sure to save all packing materials! The 1110 is shipped in a foam wrap to protect the preamplifier's 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. 1110 Preamplifier

2. Accessory Box #1, containing:

    - AC power cable

3. Accessory Box #2, containing:

    - Handheld IR Remote Control

    - Instruction Manual

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

Getting Started

How to Clean the Casework

If the 1110 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.

Getting Started

Placement and Installation

Your Boulder 1110 Preamplifier 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. Also, the preamplifier must have a visible line-of-sight from the intended listening position to the front panel. This is necessary for the IR remote control to function properly.

Because it is heavy, the 1110 system must be placed on a sturdy, stable surface.

Do not place in an enclosed rack without ventilation. The 1110 must have at least 3 inches (8 cm) of airspace around the chassis for proper cooling and airflow.

Be sure to leave access to the AC mains and interconnect cables when installing the preamplifier. Depending on how easy it is to access the back panel of the 1110, it may be wise to pre-install the power and interconnect cables before placement.

Getting Started

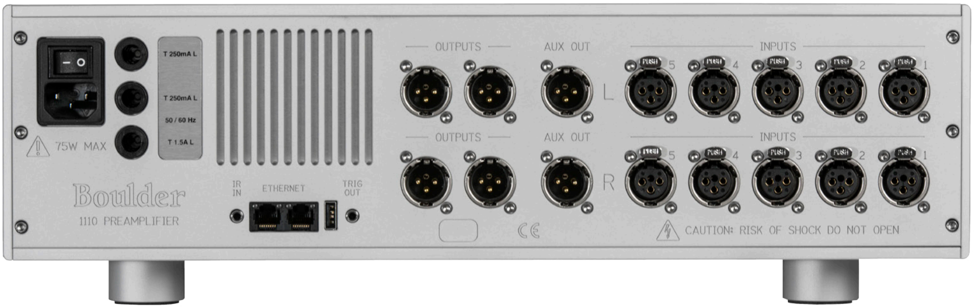
Connecting the Inputs

To get started listening, you only need to connect sources to the 1110 as you would any other preamplifier. Please take note of the following:

WARNING: *The polished volume control is attractive and is optically controlled. It has no stops! It is very tempting to spin it. DO THIS ONLY WITH THE POWER OFF! The volume knob must be given respect as it can rotate quickly and has ability to raise the volume very fast. You should hear music by the time you have turned the volume up to -40.0 dB with a source connected and playing. If not, do not continue to raise the volume until the problem is solved. Please see the troubleshooting section on page 5-4.*

The 1110 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 1110 Preamplifier, use balanced cable connections whenever possible. Balanced cables minimize interference from magnetic and RF sources.t

Connect each source to one of the five inputs provided on the rear panel of the 1110. Later, you will be able to program each input with the source's name (*see HTML Programming: Setup on page 4-11*), so you may want to make a list of each source as you connect them.


T 250mA L
T 250mA L
50 / 60 Hz
T 1.5A L
75W MAX
Boulder
1110 PREAMPLIFIER
IR IN
ETHERNET
TRIG OUT
OUTPUTS
AUX OUT
INPUTS
L
R
PUSH
5
4
3
2
1
CAUTION: RISK OF SHOCK DO NOT OPEN

Getting Started

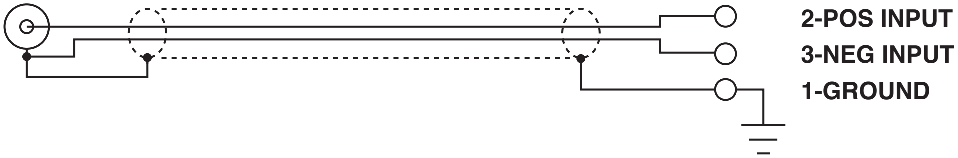
Connecting to an Unbalanced Source

Although the inputs 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 on the 1110 Preamplifier 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 1110 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 a RCA phono input at the rear of the 1110. Like the above cable, the negative input of the 1110 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.

UNBALANCED INPUT CABLE



Getting Started

When connecting various sources, make a list of what component is connected to each input so that you do not forget the order in which they are connected. You will then be able to name the inputs on the front panel display later (*see HTML Programming: Setup on page 4-11*). This list will be very helpful at that time.

Connections from sources such as a D/A Converter, DVD player, phono preamplifier, tuner, or cable/satellite receiver can be made to the analog input connections.

The Ethernet connections are for Internet access in order to program input names or download software updates for the 1110. One of the Ethernet jacks should be connected to a network with an active Internet feed. Because they are switched, it does not matter which jack is used.

Getting Started

Connecting the Outputs to a Balanced Power Amplifier

With your 1110 Preamplifier's balanced outputs driving the balanced input of a power amplifier, you can realize the sonic advantage of having short speaker cables and correspondingly longer interconnect (input) cables. With the low output impedance of the 1110, distances of more than 50 meters between preamplifier and power amplifier are practical.

The 1110 can support connections to more than one amplifier. For a basic, single amplifier system, please follow these instructions:

Connect the Left Analog and Right Analog **MAIN OUTPUT** interconnects from the 1110 to your amplifier. To maintain the best sound quality, Boulder recommends that balanced interconnections always be used.

For systems where more than one amplifier may be connected, please consult your authorized Boulder dealer.

Connecting to an Unbalanced Power Amplifier

A special cable is required to make this connection. This cable connects pin 1 to the shield and pin 2 to the center pin of the RCA. It leaves the negative output (pin 3) unconnected.

Connecting the unused output pin (usually pin 3) to ground will cause excessive ground currents and degrade performance. Use an ohmmeter or continuity checker to determine how your cable is wired.

Polarity

Please note that the 1110 Preamplifier conforms to the standard of Pin 2 as high or “hot” for all analog balanced inputs and outputs. Because input and output polarities are handled through the Setup menu and the remote control, concern for polarity is unnecessary while connecting sources.

Getting Started

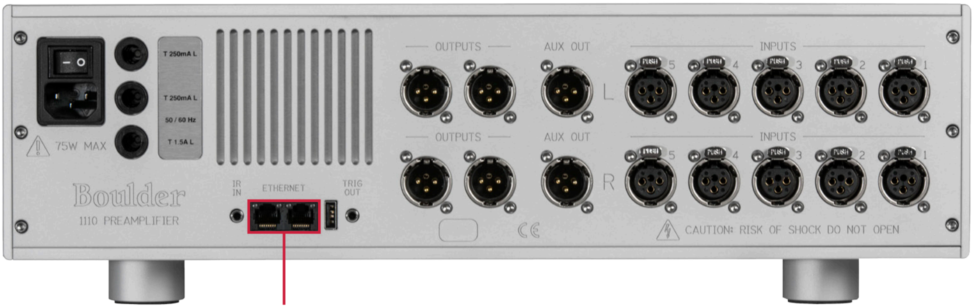
Connecting to a Network:

In order for the 1110 to automatically download software updates, you will need to connect it to a network with an active Internet connection. This will allow the 1110 to download software updates when available and notify you when they are ready for installation.

Connect a network cable between the 1110 and your network router or switch. Use either Ethernet connector on the rear panel of the 1110; it does not matter which one you use.

It is possible to confirm that the 1110 is connected to a network. To do so, press the **Option** button on the front panel, then the **Setup** button, then press the **System Info** button. System Information will be listed, including "**IP Address:**". If an IP address is shown, then the 1110 is properly connected to a network.

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


Boulder
1110 PREAMPLIFIER
ETHERNET
IR IN
TRIG OUT
OUTPUTS
AUX OUT
INPUTS
75W MAX
CAUTION: RISK OF SHOCK DO NOT OPEN

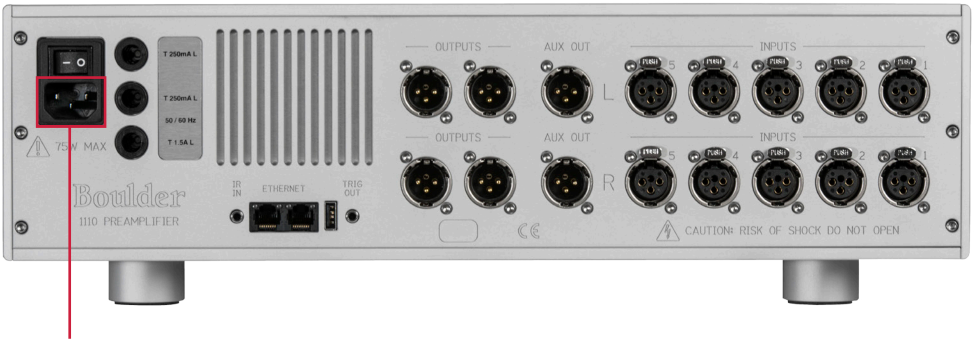
Ethernet

Getting Started

Connection to AC Mains

Your 1110 Preamplifier 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 1110 as shown and plug the other end into AC mains.


T 250mA L
T 250mA L
50 / 60 Hz
T 1.5A L
75W MAX
Boulder
1110 PREAMPLIFIER
IR IN
ETHERNET
TRIG OUT
OUTPUTS
AUX OUT
INPUTS
L
R
PUSH
5
4
3
2
1
CE
CAUTION: RISK OF SHOCK DO NOT OPEN

AC Mains

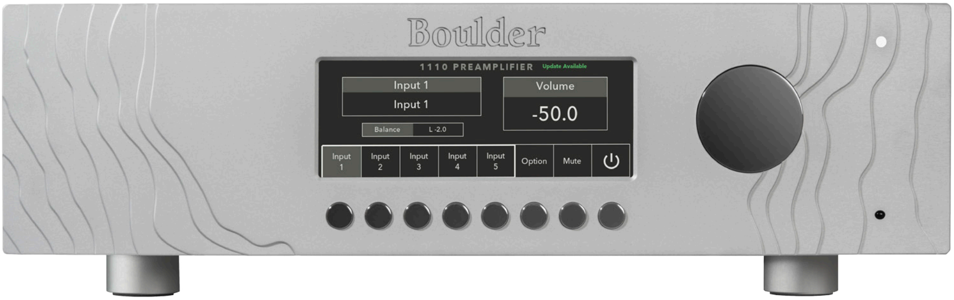
Front Panel Controls and Screen Modes

The 1110 features a full-color LCD display and a large **Control Knob** on the right-hand side of the front panel. The Control Knob will adjust different functions of the 1110, depending on the mode that the preamplifier is in.

The 1110 also has 8 buttons located below the display. These buttons will align with various functions shown on the display. The unit will power on with the **Home Screen** displayed. Different screen modes can be selected by pressing the **Option** and **Setup** buttons.

When Option or Setup modes are selected, some button functions will change and control different operations and some will need to be adjusted with the use of the Control Knob. Other button functions will remain the same if the button does not have a specific role within the selected mode.

Operation


Boulder
1110 PREAMPLIFIER
Update Available
Input 1
Input 1
Volume
-50.0
Balance
L -2.0
Input 1
Input 2
Input 3
Input 4
Input 5
Option
Mute

Control Knob Functions

When the display is showing the Home Screen, the **Control Knob** will control the **Volume** of the 1110. At other times, when the 1110 is in the Option or Setup modes, the Control Knob will adjust programmable features of the 1110's operation.

Because the precise feel of the Boulder 1110 volume control may differ from what you are used to, we recommend playing a source device so that an audio signal is fed to the 1110 before increasing the volume.

The **Volume** portion of the display will show "**INF**" to indicate infinite attenuation, or no output.

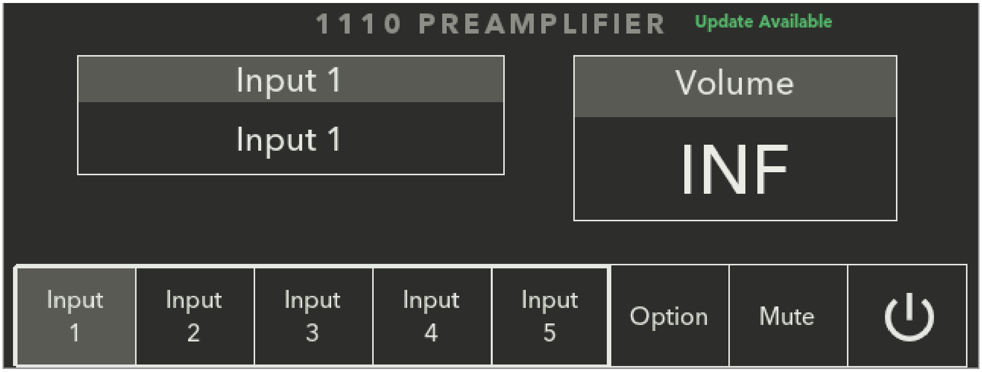
Rotating the **Control Knob** to the **right**, or **clockwise**, will **increase** the volume and an indication such as "**-50.0**" will appear in the Volume portion of the display. At this point you should hear music from the system.

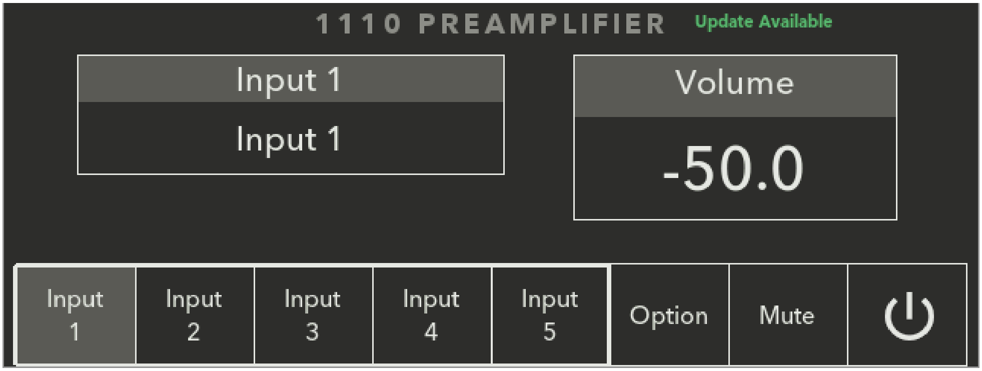
Rotating the **Control Knob** to the **left**, or **counter-clockwise**, will **decrease** the volume.

CAUTION: *The volume control must be adjusted carefully, as it has the ability to get loud very quickly. Never spin the volume control while the 1110 is powered ON!*

WARNING: *If the selected input is programmed for "THEATER MODE," the volume control will have no effect.*

NOTE: *The actual output level is the volume level indicated in addition to the programmed Input Trim level. Input Trim levels can be adjusted during Setup programming (see pages 2-16 or 4-6).*


1110 PREAMPLIFIER
Update Available
Input 1
Input 1
Volume
INF
Input 1
Input 2
Input 3
Input 4
Input 5
Option
Mute


1110 PREAMPLIFIER
Update Available
Input 1
Input 1
Volume
-50.0
Input 1
Input 2
Input 3
Input 4
Input 5
Option
Mute

The 1110 has a large, centrally mounted display located between the buttons and control knob. There are **8** buttons that will each correspond to various functions, depending on whether the unit is showing the Home Screen, Option Screen, or Setup Screen.

Front Panel Button Functions: Home Screen

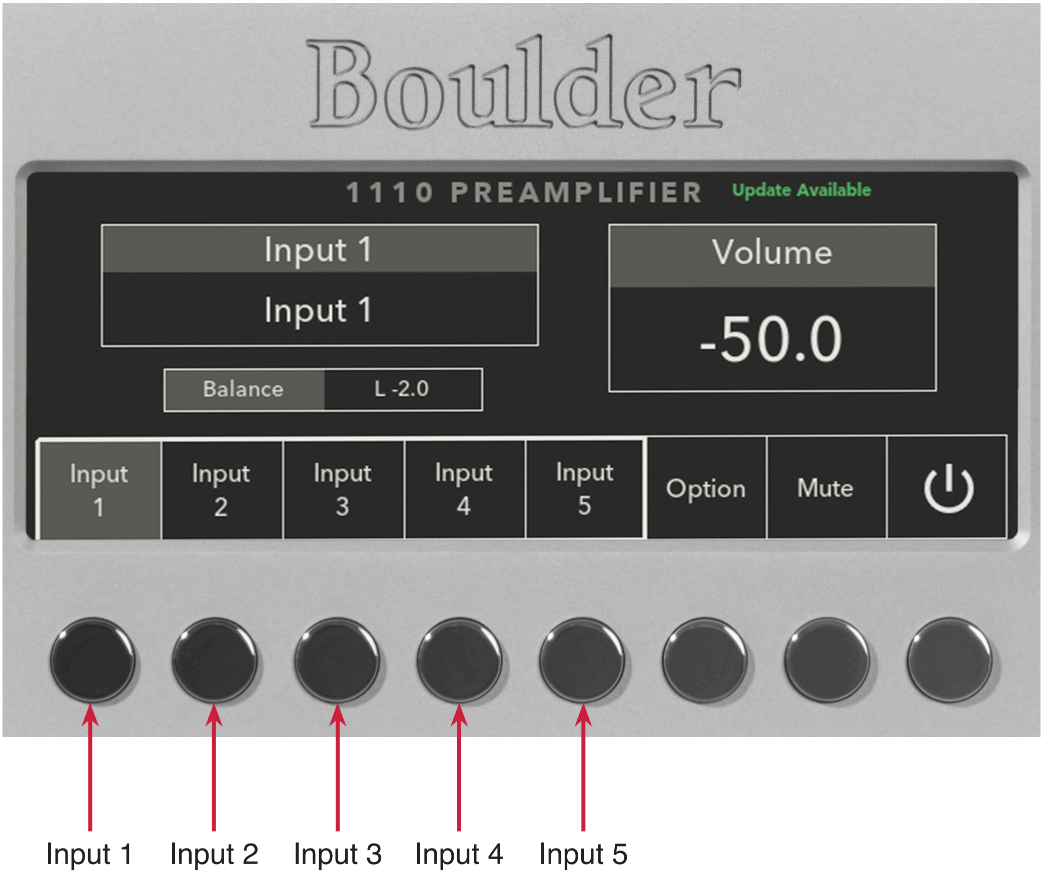
Inputs 1 – 5

The 1110 has five inputs. Each of these inputs can be directly selected by pressing the button that corresponds with the input you wish to select.

To select an input, press one of the push buttons labeled **Input 1 through Input 5** on the front panel. The name of the selected input will be shown in the Input Box in the upper left corner of the Home Screen display and the input signal will be routed to the main outputs. For example, if Input 1 is chosen, "**Input 1**" will show in the Input Box.

If you wish to program a custom name for any of the inputs, please see HTML Programming: Setup on page 4-11.

NOTE: *There will be a slight delay when switching from one source to another. This is necessary to allow the circuitry to adjust to the new input source.*


Boulder
1110 PREAMPLIFIER
Update Available
Input 1
Input 1
Volume
-50.0
Balance
L -2.0
Input 1
Input 2
Input 3
Input 4
Input 5
Option
Mute
Input 1
Input 2
Input 3
Input 4
Input 5

Option

Pressing the **Option** button will change the display from the Home Screen to the Option Screen. When the Option Screen is shown, the function of certain buttons will change and additional features can be accessed.

Mute

The volume level of the 1110's Main Outputs can be temporarily reduced for instances such as a short conversation or telephone call. To temporarily attenuate the volume, press the **Mute** button. Pressing the **Mute** button again will return the output level to the previous volume setting.

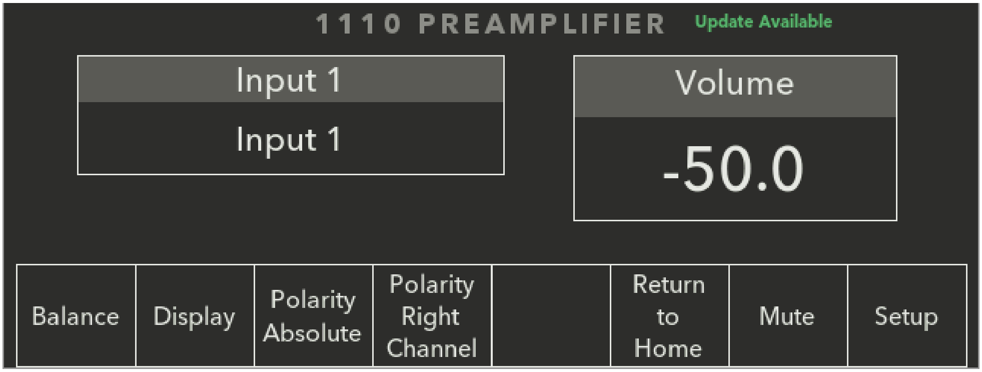
While in Mute mode, the level of all Main Outputs will be reduced to the current volume setting plus the amount programmed into the Mute function.

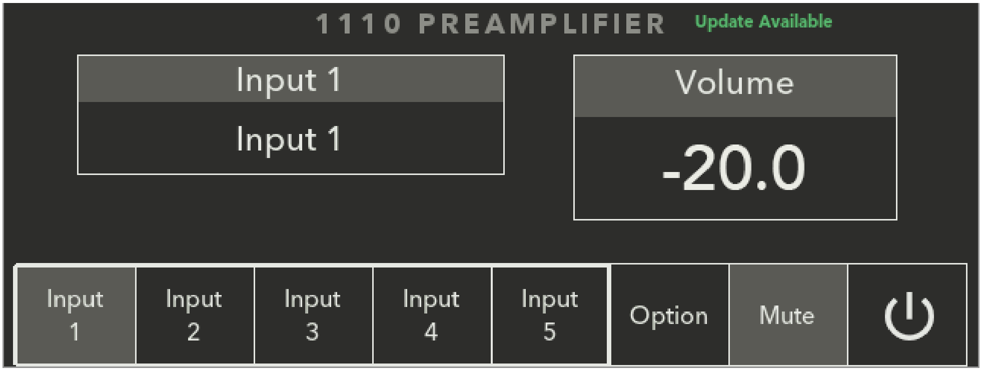
The default level of attenuation when pressing the **Mute** button is **-20.0 dB**. To change the level of Mute attenuation, please *see page 2-25 or 4-17*.

The Volume function will continue to work in Mute mode as long as the volume is decreased. When in Mute mode, rotating the **Control Knob** to the **left** (counter-clockwise) will decrease the volume setting even though the output will remain muted.

Rotating the **Control Knob** to the **right** (clockwise) will immediately bring the 1110 out of Mute mode.

The function of the **Mute** button will always remain the same, regardless of screen mode.


1110 PREAMPLIFIER
Update Available
Input 1
Input 1
Volume
-50.0
Balance
Display
Polarity Absolute
Polarity Right Channel
Return to Home
Mute
Setup


1110 PREAMPLIFIER
Update Available
Input 1
Input 1
Volume
-20.0
Input 1
Input 2
Input 3
Input 4
Input 5
Option
Mute

Standby

Pressing the **Standby** button will put the 1110 into Standby mode. This will turn OFF all circuits except for the processor necessary to wake it up again. Pressing any button on the front panel will also bring the 1110 out of Standby mode and power it ON.

NOTE: *Because the 1110 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 1110 off via the Master AC Switch on the rear panel of the preamplifier. The 1110 was designed for years of operation in this manner and no damage to the unit will occur.*

Front Panel Button Functions: Option Screen

The functions of one of the 8 buttons on the front panel (**Mute**) will remain the same when the display shows the Option Screen. All remaining buttons will have different functions as indicated below.

Balance

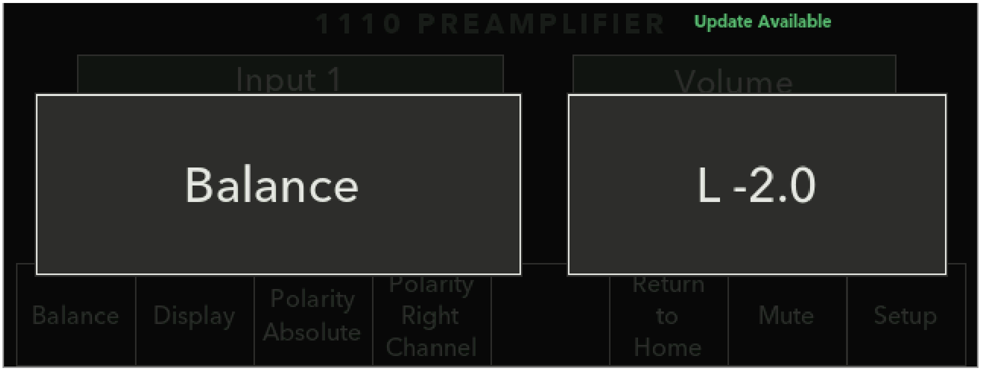
To change the left-to-right level balance, press the **Balance** button on the front panel of the 1110. “**Center**” will show in the Balance portion of the display.

Rotating the control to the **right**, or **clockwise**, will cause an indication such as “**L -2.0**” in the Balance display. This will attenuate the left channel -2.0 dB below the right channel, regardless of volume setting, making the right channel louder.

Rotating the control to the **left**, or **counter-clockwise**, will cause an indication such as “**R -2.0 dB**” in the Balance display. This will attenuate the right channel -2.0 dB below the left channel, regardless of volume setting, making the left channel louder.

The range of balance offset is limited to -20.0 dB. If the control is rotated further, the attenuated channel will be muted.

NOTE: *The actual balance setting is the balance indicated plus the programmed Input Balance Offset. Input Balance Offset is adjusted in Setup mode (see page 2-18).*


1110 PREAMPLIFIER
Update Available
Input 1
Volume
Balance
L -2.0
Balance
Display
Polarity Absolute
Polarity Right Channel
Return to Home
Mute
Setup

Display

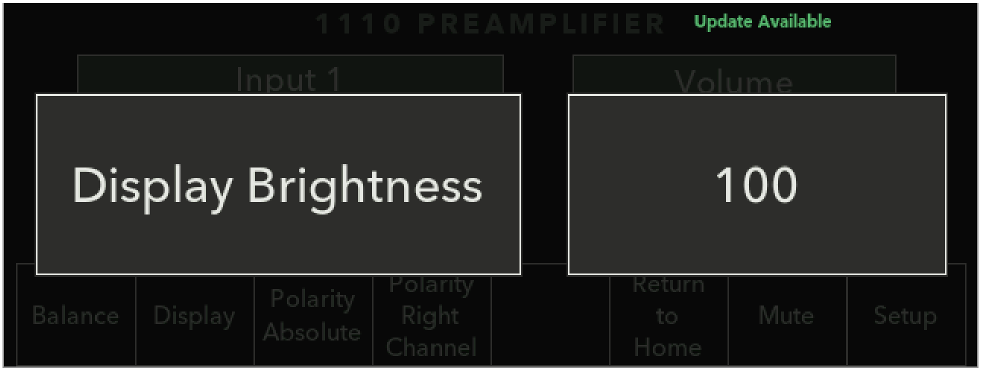
The brightness of the display can be adjusted as well as turning the display completely off. The **Display** setting determines the brightness of the display, from 0% (off) to 100% (full brightness).

To change the brightness level, press the **Display** button. The display will show two boxes, one on the left reading **Display Brightness** and the other on the right side showing the level of display brightness. Rotate the **Control Knob** until the desired brightness is obtained.

The number in the display indicates the display's brightness as a percentage of maximum. For example, rotating the knob until "**75**" appears in the brightness box on the right side of the front panel display will reduce the display's brightness to 75% of maximum.

When the brightness is set to low levels, the screen will temporarily go to a slightly brighter setting for five seconds when any button on the front panel or remote control is pressed. The display will then return to the desired brightness. This ensures that if a function is changed, it will be noticed whether intentional or inadvertent.

After several seconds of inactivity when adjusting the display brightness, the display will automatically return to the Home Screen. You may also return to the Home Screen by pressing any button on the front panel.



Display Brightness 100

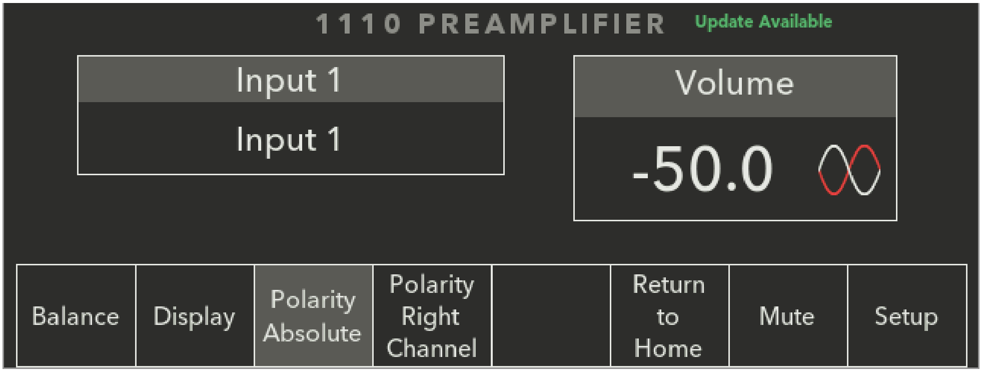
Polarity Absolute

NOTE: *Polarity is often referred to as "phase." However, "phase" indicates any angle between two channels, from 0 to 360 degrees. The term "polarity" is used to indicate 180° phase change, or inversion, as available in the 1110 Preamplifier.*

The polarity of all active Main Outputs can be changed by pressing the **Polarity Absolute** button on the front panel while in **Option** mode.

When the polarity is inverted, it will affect both channels of all outputs and an inverted polarity icon will appear in the Volume box.

To return to normal (non-inverted) polarity, press the **Polarity Absolute** button again. Both channels of all outputs will no longer be inverted and the inverted polarity icon will disappear.



1110 PREAMPLIFIER Update Available

Input 1

Input 1

Volume

-50.0

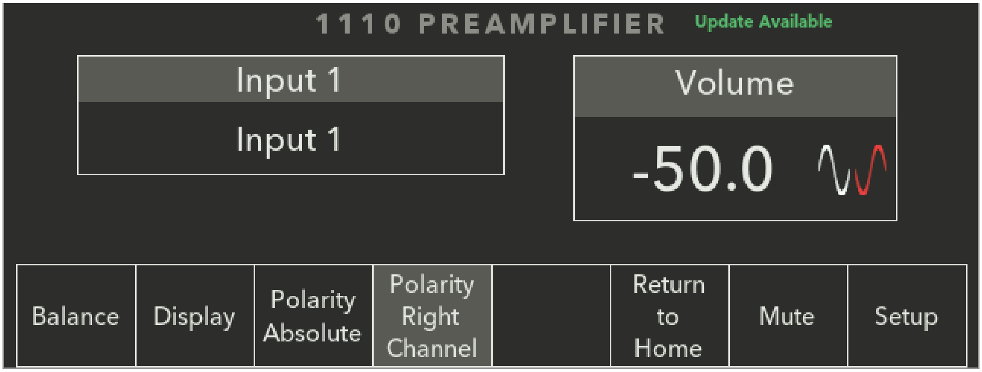
Polarity Right Channel

NOTE: *Polarity is often referred to as "phase." However, "phase" indicates any angle between two channels, from 0 to 360 degrees. The term "polarity" is used to indicate 180° phase change, or inversion, as available in the 1110 Preamplifier.*

The polarity of only the right channel of the outputs can be changed by pressing the **Polarity Right Channel** button on the front panel while in **Option** mode and an inverted polarity icon will appear in the Volume box.

This can be useful when trying to determine if a speaker cable, interconnect cable, or phono leads may be wired incorrectly within the system.

To return to normal (non-inverted) polarity, press the **Polarity Right Channel** button again. The right channel of all outputs will no longer be inverted and the inverted polarity icon will disappear.



1110 PREAMPLIFIER

Update Available

Input 1

Input 1

Volume

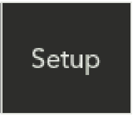
-50.0

Return to Home

Return
to
Home

Pressing the **Return to Home** button will revert the display to the Home Screen mode and return all buttons to their Home Screen functions.

Setup



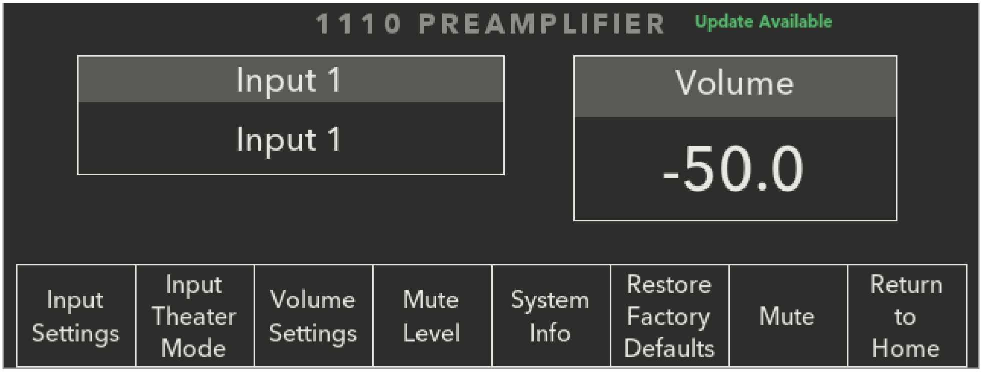
Pressing the **Setup** button will change the display from the Home Screen to the Setup Screen. When the Setup Screen is shown, the function of certain buttons will change and the 1110’s operation can be changed to suit your preferences.

Front Panel Button Functions: Setup Screen

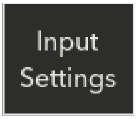
The functions of all buttons on the front panel except for **Mute** will change when the **Setup** button is pressed.

If the Setup button is pressed but no activity takes place, the display will automatically revert to the Home Screen after 30 seconds.

See the following pages for an explanation of these buttons and their functions when the Setup Screen is showing on the front panel display.


1110 PREAMPLIFIER
Update Available
Input 1
Input 1
Volume
-50.0
Input Settings
Input Theater Mode
Volume Settings
Mute Level
System Info
Restore Factory Defaults
Mute
Return to Home

Input Settings


Input Settings

To program various settings for each input, press the Input Settings button while in Setup mode. By doing so, you will be able to adjust the trim, balance, and/or polarity of a specific input.

To select the input for adjustment, you will need to press the Input button to select the specific input you wish to adjust while on the Home Screen.

Input Trim

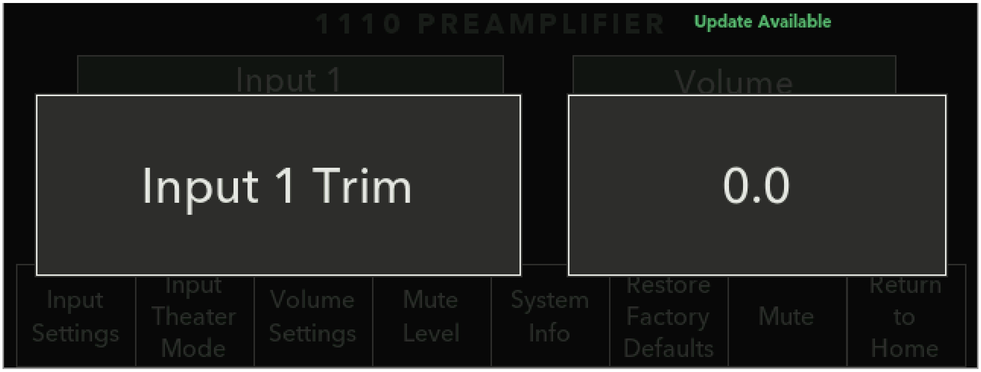
When **Input Settings** button is pressed, two boxes below will appear on the front panel display. On the left side of the display will be a box showing the Input available for adjustment, and on the right side of the display will be a box that indicates the level of **Trim** adjustment (output reduction) in dB.

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**.

To **increase** the level of an input relative to the others, rotate the **Control Knob** to the **right**, or **clockwise**.

To **decrease** the level of an input relative to the others, rotate the **Control Knob** to the **left**, or **counter-clockwise**.



1110 PREAMPLIFIER
Update Available
Input 1
Volume
Input 1 Trim
0.0
Input Settings
Input Theater Mode
Volume Settings
Mute Level
System Info
Restore Factory Defaults
Mute
Return to Home

Input Polarity

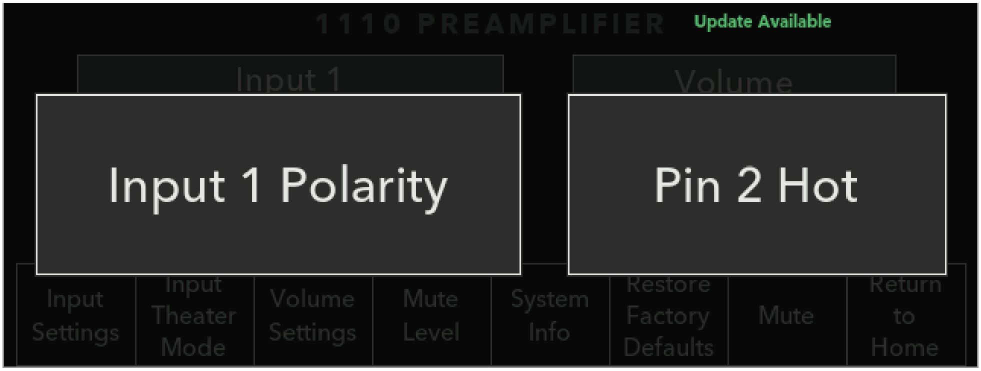
Pressing the Input Settings button a second time will cause the **Input Polarity** box to appear on the left side of the display along with a box showing the Input Polarity setting on the right side of the display.

To adjust the Input Polarity, rotate the **Control Knob** to the left or right until the desired Input Polarity is obtained as indicated in the display. The default polarity is **Pin 2 Hot** or non-inverting.

For example, rotate the Control Knob until “**Pin 3 Hot**” shows in the display. The polarity from the selected input will now be inverted to compensate for a source component that inverts polarity.

NOTE: *Polarity is often referred to as “phase.” However, “phase” indicates any angle between two channels, from 0 to 360 degrees. The term “polarity” is used to indicate 180° phase change, or inversion, as available in the 1110 Preamplifier.*

If you are unsure of the output polarity of your source components, please see their associated instruction manuals.



Input 1 Polarity

Pin 2 Hot

1110 PREAMPLIFIER
Update Available
Input 1
Volume
Input Settings
Input Theater Mode
Volume Settings
Mute Level
System Info
Restore Factory Defaults
Mute
Return to Home

Input Balance

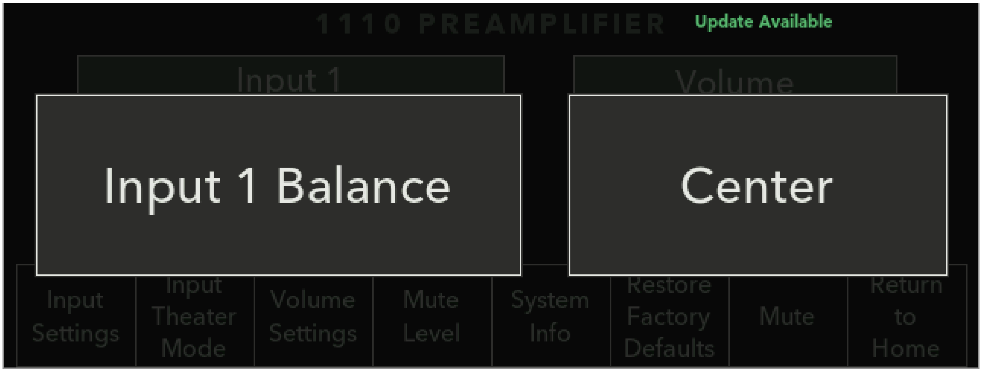
Pressing the Input Settings button a third time will cause the **Input Balance** box to appear on the left side of the display along with a box showing the Input Balance setting on the right side of the display.

To adjust the Input Balance, rotate the **Control Knob** to the left or right until the desired balance offset is obtained as indicated in the display. A maximum of **12.0 dB** of offset may be programmed.

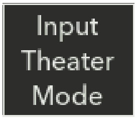
For example, rotate the Control Knob until "**R -2.0 dB**" shows in the display. The level of the right channel will be reduced by 2.0 dB for the selected input after you exit program mode.

After the desired balance is reached, or if no change is desired, press any button on the front panel. The display will now change to the Input Polarity screen.

Pressing the Input Settings button a fourth time will cause the 1110 to return to the Setup Screen.


1110 PREAMPLIFIER
Update Available
Input 1
Volume
Input 1 Balance
Center
Input Settings
Input Theater Mode
Volume Settings
Mute Level
System Info
Restore Factory Defaults
Mute
Return to Home

Input Theater Mode



While in **Setup** mode, pressing the **Input Theater Mode** button will allow you to set a specific input for use in a home cinema or route the signal from a specific input to the Auxiliary output as in a tape loop. To program Input Theater Mode, press the **Input Theater Mode** button while in Setup mode.

Theater Mode

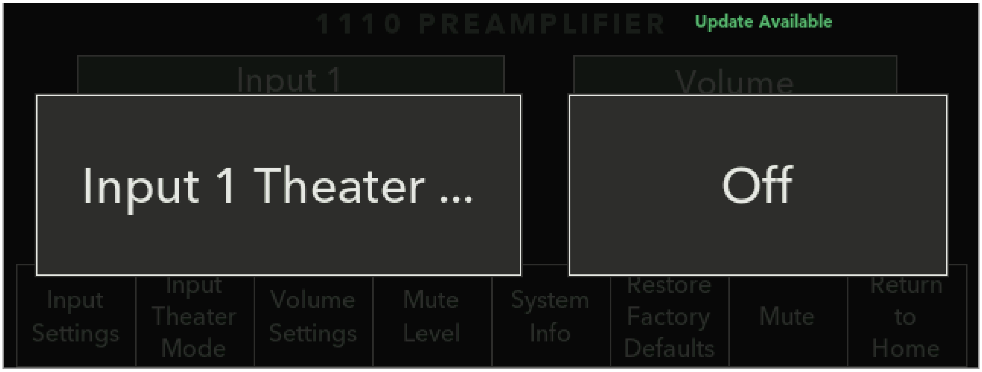
Any of the 1110's inputs can be programmed to unity gain. This is called **Theater Mode**. When an input has been programmed for Theater Mode, the volume and balance controls will have no affect on volume or balance levels and the volume level must be controlled by the surround sound processor. "**UNITY**" will be shown in the Volume display.

WARNING: *Theater Mode should be used with extreme caution, as there is no way to control the volume of the 1110 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!*

WARNING: *If the input is programmed for "THEATER MODE," the balance control will have no effect!*

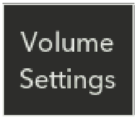
The screen will show a box reading **Input (X) Theater…** on the left side of the display and a box showing **On** or **Off** on the right side of the screen. To set an input to Theater Mode, rotate the **Control Knob** to the **right** (clockwise) until the box on the right side of the display reads, "**On**." The input will now be set to unity gain.

To return the input to normal operation, rotate the **Control Knob** to the **left** (counter-clockwise) until the box on the right side of the display reads, "**Off**." The Volume and Balance controls will return to active operation.



1110 PREAMPLIFIER
Update Available
Input 1
Volume
Input 1 Theater ...
Off
Input Settings
Input Theater Mode
Volume Settings
Mute Level
System Info
Restore Factory Defaults
Mute
Return to Home

Volume Settings



Preferences for the Boulder 1110 volume control can be programmed. The default setting for the 1110's volume scale is a range from -100 dB (maximum attenuation) to 0 dB (no attenuation, +20.0 dB of gain), and the default step resolution is 0.5 dB. Volume Default can also be programmed to automatically determine a volume control setting upon power-up, and Volume Max can be programmed to set a limit on maximum output level.

Volume Scale

To adjust this feature, press the **Volume Settings** button while in **Setup** mode. "**Volume Scale**" will show on the left side of the display along with a selection choice on the right.

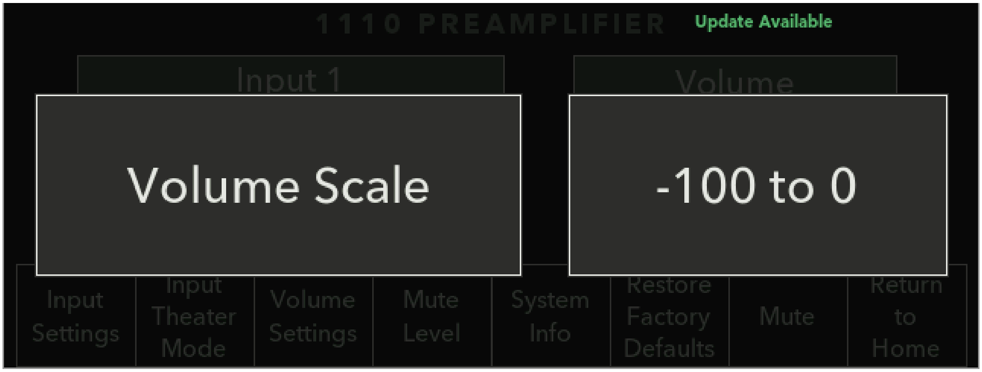
Rotate the **Control Knob** to the **right** (clockwise) to **increase** the display reading for maximum attenuation.

Rotate the **Control Knob** to the **left** (counter-clockwise) to **decrease** the display reading for maximum attenuation.

Rotating the Control Knob to its end points will change the setting from "**-100 to 0**" to "**0 to 100**" or anywhere in between. This feature allows you to set the volume control of the 1110 to the scale of your choice.

For example, one possibility would be to set the scale to "-80 TO 20" indicating the actual gain in decibels (dB) of the Boulder 1110 Preamplifier.

NOTE: *The Volume Scale will always show a range of 100 dB.*


1110 PREAMPLIFIER
Update Available
Input 1
Volume
Input Settings
Input Theater Mode
Volume Settings
Mute Level
System Info
Restore Factory Defaults
Mute
Return to Home

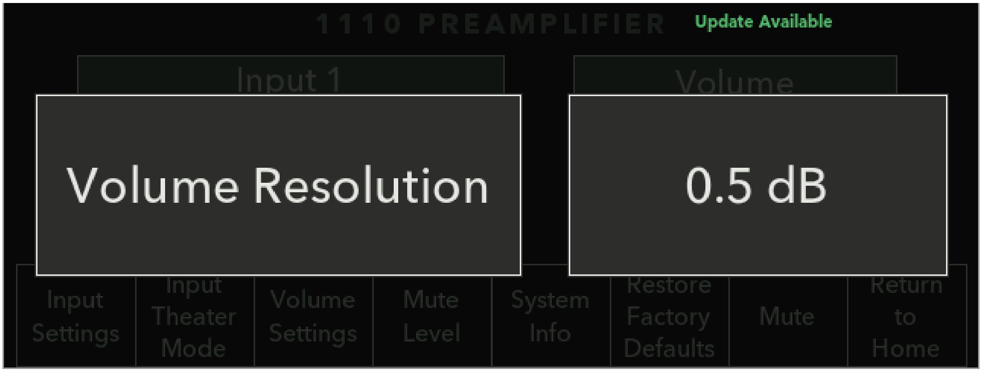
Volume Scale

-100 to 0

Volume Resolution

Once you have chosen a Volume Scale, press the any button on the front panel. “**Volume Resolution**” will appear on the left side of the display along with a selection choice on the right. Volume Resolution will determine the step resolution of the 1110 Preamplifier’s volume control. Steps of 0.5 dB (200 steps) or 1.0 dB (100 steps) can be chosen.

Rotate the **Control Knob** to select “**0.5 dB**” (default), or “**1.0 dB**” per step as shown on the right side of the display.


1110 PREAMPLIFIER
Update Available
Input 1
Volume
Input Settings
Input Theater Mode
Volume Settings
Mute Level
System Info
Restore Factory Defaults
Mute
Return to Home

Volume Resolution

0.5 dB

Volume Default

Once you have chosen a Volume Resolution, press any button on the front panel. “**Volume Default**” will appear on the left side of the display along with a selection choice on the right.

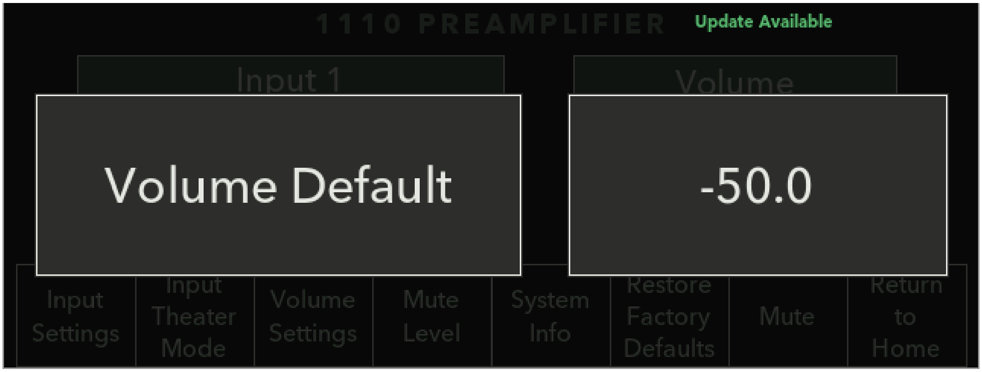
The default output level setting upon power-up can be programmed to prevent loud settings from previous listening sessions. For example, setting the Volume Default level at -60.0 dB will cause the 1110 to always set the volume at -60.0 dB when coming out of Standby.

A Volume Default range from -50.0 dB to -100.0 dB is possible. The factory setting for the 1110’s volume default adjustment is “**Off**.” The volume control does not have a maximum volume setting from the factory.

Rotate the **Control Knob** to the **left** (counter-clockwise) to **decrease** the default volume level for that input.

Rotate the **Control Knob** to the **right** (clockwise) to **increase** the default volume level for that input.

Turning the **Control Knob** to the **right** and past the **-50.0** setting will turn the Volume Default function **Off**.



Volume Default

-50.0

1110 PREAMPLIFIER
Update Available
Input 1
Volume
Input Settings
Input Theater Mode
Volume Settings
Mute Level
System Info
Restore Factory Defaults
Mute
Return to Home

Volume Max

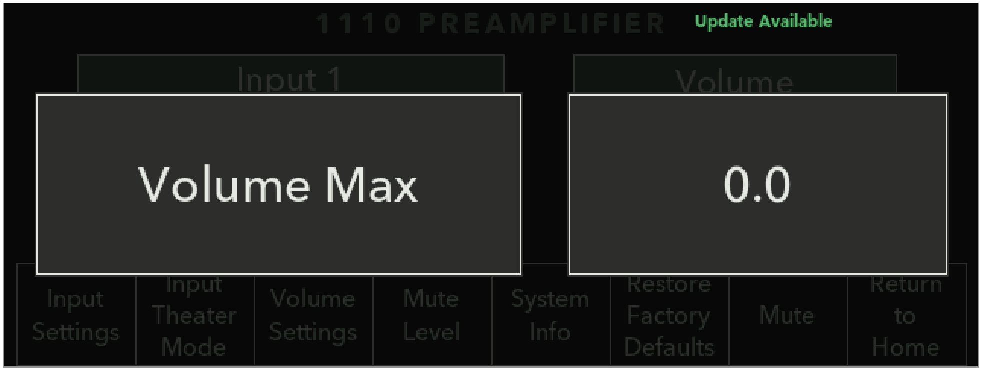
Once you have chosen a Volume Default setting, press any button on the front panel. "**Volume Max**" will appear on the left side of the display along with a selection choice on the right.

The maximum allowable volume setting can be also programmed to prevent children or other users from turning the system up too loud.

Rotate the **Control Knob** to select your desired maximum volume level. A Volume Max range from -20.0 dB to 0.0 dB (no attenuation) is possible.

For example, when the Volume Max is set to -15.0 dB, the volume level can only be turned up to -15.0 dB before the volume control will stop responding.

Press any button on the front panel again to exit the **Volume Settings** screen.



Volume Max

0.0

1110 PREAMPLIFIER
Update Available
Input 1
Volume
Input Settings
Input Theater Mode
Volume Settings
Mute Level
System Info
Restore Factory Defaults
Mute
Return to Home

Mute Level

It is possible to **Mute** the 1110's outputs so that they are reduced by a pre-programmed level.

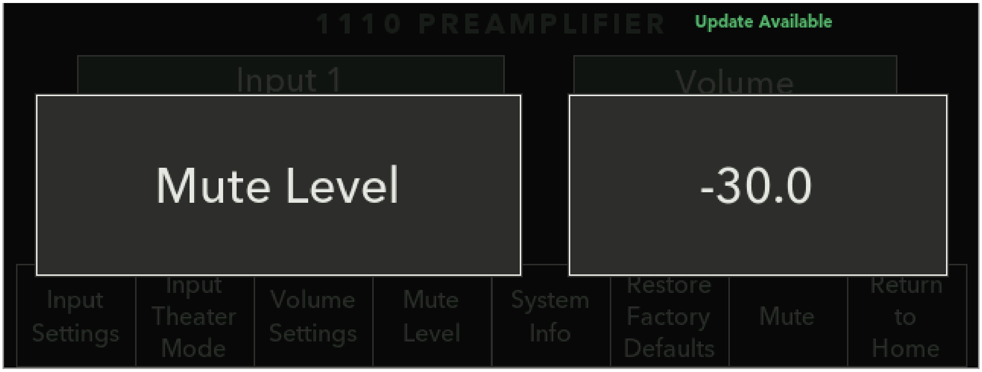
The **Mute** feature allows for temporary volume reduction without losing the original setting. The level of Mute mode attenuation is indicated in dB (decibels). For example, engaging the Mute function will attenuate the output to a level suitable for conversation.

To adjust this setting, press the **Mute Level** button while in **Setup** mode. "**Mute Level**" will show on the left side of the display along with a selection choice on the right. The default Mute Level is **-30 dB**.

Rotate the **Control Knob** to the **right** (clockwise) to **increase** the display reading for Mute Level.

Rotate the **Control Knob** to the **left** (counter-clockwise) to **decrease** the display reading for Mute Level.

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.*



Mute Level

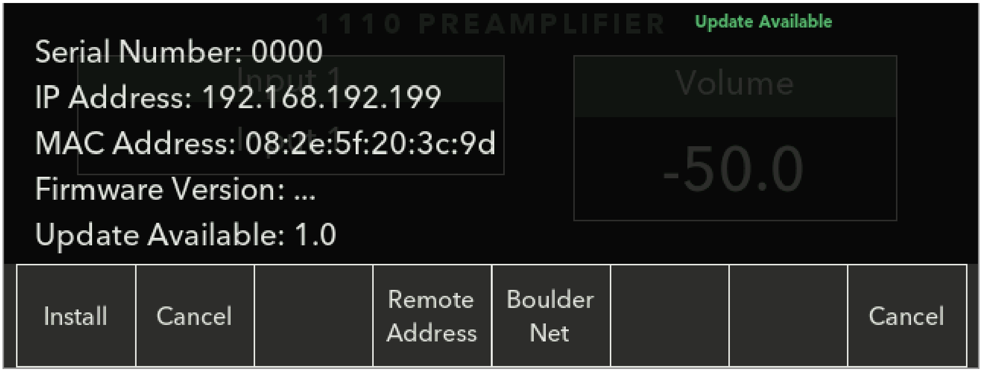
-30.0

1110 PREAMPLIFIER
Update Available
Input 1
Volume
Input Settings
Input Theater Mode
Volume Settings
Mute Level
System Info
Restore Factory Defaults
Mute
Return to Home

System Info

Pressing the **System Info** button while in **Setup** mode will display all non-configurable information about your 1110 Preamplifier, including:

Serial Number:
IP Address:
MAC Address:
Firmware Version:



Serial Number: 0000
IP Address: 192.168.192.199
MAC Address: 08:2e:5f:20:3c:9d
Firmware Version: ...
Update Available: 1.0

If a firmware update is available, you will also see the following: **Update Available:**

Serial Number: The Serial Number of the unit is assigned at the factory and is indicated here. It is permanent and cannot be changed by the user.

IP Address: If the 1110 is attached to an active network, the IP address of the unit will be indicated here. This is useful when accessing the HTML page for programming. *For information regarding programming via the HTML page, please see page 4-1.*

MAC Address: The network MAC address is indicated here. This is useful for networks where specific MAC addresses are given permission to access the network.

Firmware Version: The Firmware Version indicates the firmware revision installed in the 1110.

Update Available: If a new firmware update is available, it will be listed here. In the event that an update is available, it can be installed by pressing the **Install** button on the left side of the front panel. If you do not wish to install the update, press the **Cancel** button and the update will not be installed.

Remote Address

The option to change the **Remote Address** is located on the System Info screen. If you encounter problems where the IR remote control interferes with the operation of other electronic devices in your home, you will need to change the remote address for the 1110 and for the handheld IR remote control.

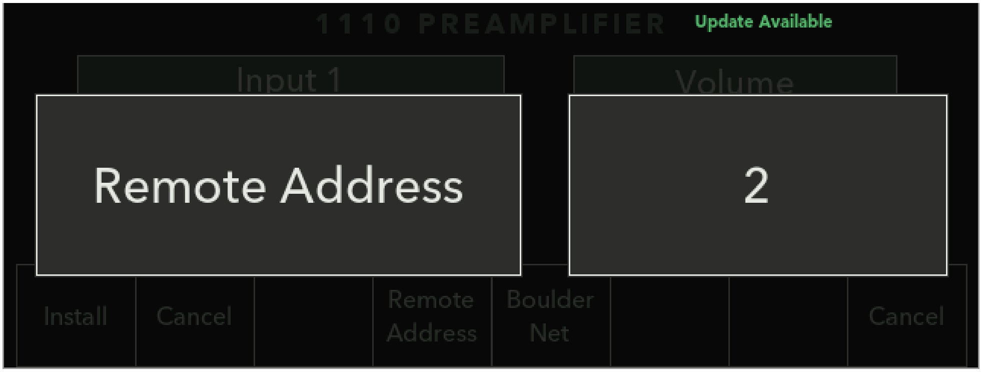
To change the Remote Address, press the **Remote Address** button on the front panel while on the System Info screen in Setup mode. "**Remote Address**" will show on the left side of the display along with a selection choice on the right.

Rotate the **Control Knob** to the **right** (clockwise) to **increase** the Remote Address.

Rotate the **Control Knob** to the **left** (counter-clockwise) to **decrease** the Remote Address.

The default Remote Address is **2**.

NOTE: *You will also need to change the Remote Address in the 1110's handheld IR remote control. See page 3-3.*

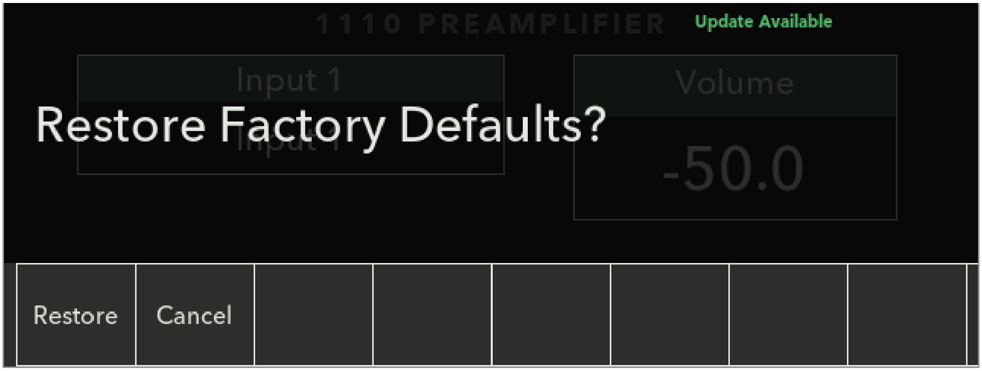

1110 PREAMPLIFIER
Update Available
Input 1
Volume
Remote Address
2
Install
Cancel
Remote Address
Boulder Net
Cancel

Restore Factory Defaults

While in **Setup** mode, it is possible to restore all programming to the original, factory default settings by pressing the **Restore Factory Defaults** button.

To restore the 1110 to the original factory default settings, press the **Setup** button, followed by the **Restore Factory Defaults** button. The front panel display will show "**Restore Factory Defaults?**" To restore the 1110 to the original factory settings, press the **Restore** button. To cancel the factory default restoration, press the **Cancel** button.

NOTE: *When factory default settings are restored, all programmed names and settings will be lost and cannot be retrieved.*



Restore Factory Defaults?

1110 PREAMPLIFIER
Update Available
Input 1
Volume
Input 1
-50.0
Restore
Cancel

Return to Home

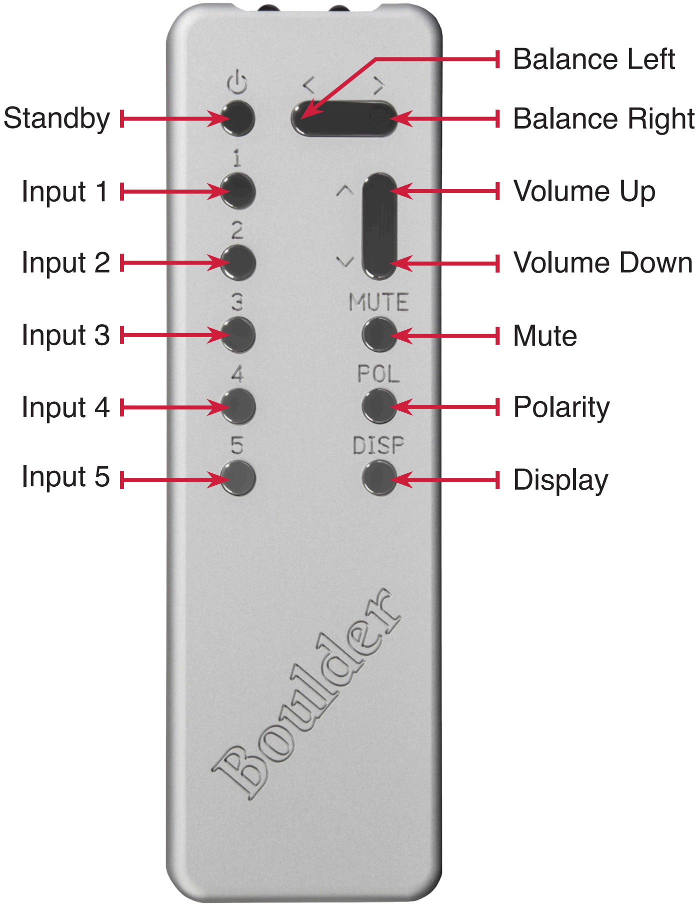
Return
to
Home

Pressing the **Return to Home** button will change the display to the Home Screen mode and return all buttons to their Home Screen functions.

Remote Control

The 1110's handheld remote control can be used to control all of the preamplifier's functions. Most of the buttons on the remote control will have the same function as the buttons on the front panel of the 1110.

The following buttons are present on the remote control:


Balance Left
Standby
Balance Right
Input 1
Volume Up
Input 2
Volume Down
Input 3
Mute
Input 4
Polarity
Input 5
Display
1
2
3
4
5
MUTE
POL
DISP
Boulder

Remote Control

Replacing the Remote Control's Batteries

To replace the batteries in the remote control, use a Phillips #1 screwdriver to remove the four screws that secure the back panel of the remote.

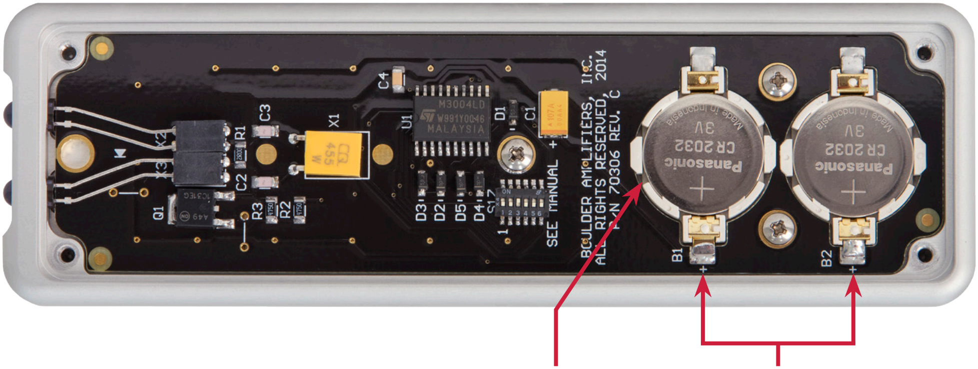
The battery type is a CR2032 “coin” style battery. Insert the tip of a 1/8” slotted screwdriver under the coin cell battery through the most accessible opening on the battery holder.

Carefully pry the battery out of the holder. Repeat the process for the second battery.

CAUTION: *The batteries must be installed at an angle and care must be taken not to bend the battery holder's electrical contacts or damage to the remote control may occur!*

When installing the new battery, insert it at an angle that presses against the positive (+) terminals first. While holding the positive (+) terminals in place, press down until the battery snaps into place. Repeat for the second battery.

Once the batteries have been replaced, replace the remote control back panel and use the Phillips #1 screwdriver to reinstall the four screws.



Remote Address

In the event that the IR remote control interferes with other products in your system, the **Remote Address** can be changed.

The factory default Remote Address number is **2**.

To change the Remote Address, the back panel of the remote control must be removed. Use a Phillips #1 screwdriver to remove the four screws that secure the back panel of the remote. Once the remote control is open, move the switch number that corresponds to the Remote Address number that you selected in the Setup Menu. (*See page 2-27*).

The switch address numbers are offset by 1 and do not match the numbers inside the remote. Make sure that only one of the switches is set to the "**ON**" position. To select ID **6**, all switches must be in the "**OFF**" position.

To Change the Remote Address for the 1110:

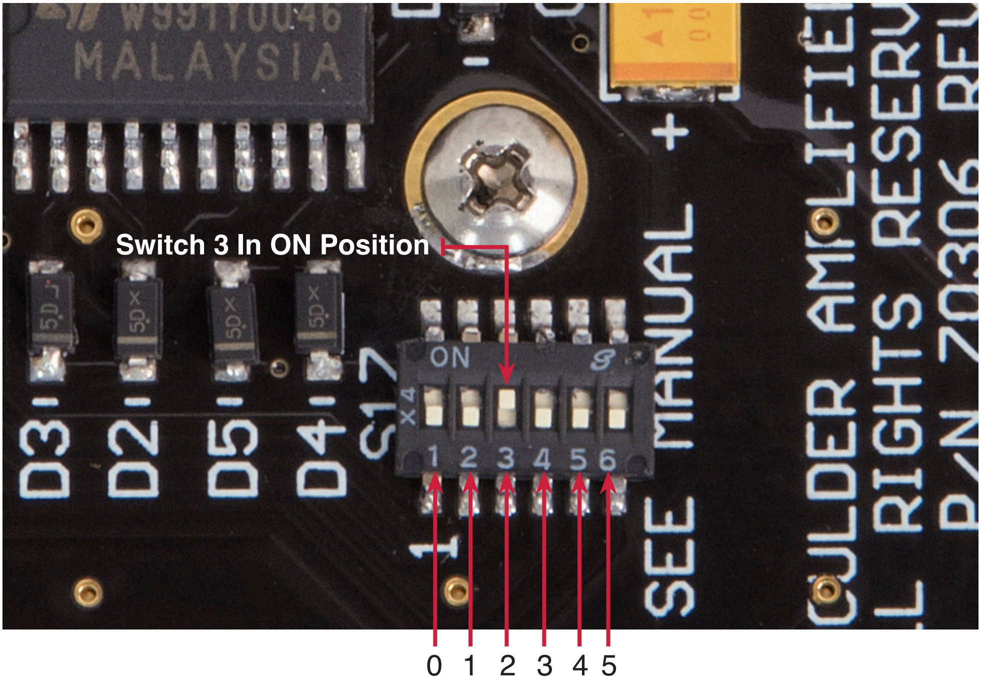
1. Press the **Setup** button, then press the **System Info** button.

2. Press the **Remote Address** button.

3. Rotate the **Control Knob** until the Remote ID number that matches the setting for the remote control is shown in the 1110 display.

4. Press any button on the front panel to exit the Setup menu.

Remote Control


Switch 3 In ON Position
ON
1 2 3 4 5 6
0 1 2 3 4 5

Remote Control Button Functions and Use

Standby

⏻ Pressing the **Standby** button will put the 1110 into Standby mode. Standby will turn off all circuits except for the logic necessary to wake it up again.

NOTE: *Because the 1110 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 1110 off via the Master AC Switch on the rear panel of the preamplifier. The 1110 was designed for years of operation in this manner, so that no damage to the unit will occur.*

Input Selection, 1 – 5

To select an input (source), press the desired **Input** number (**1** through **5**) on the remote control. You will now be listening to the selected source and the input will be shown in the display.

Balance Left and Balance Right

To shift the balance to the **left**, press the button with the **LEFT** arrow (<) and continue holding until the Balance Box on the display shows the desired balance change.

To shift the balance to the **right**, press the button with the **RIGHT** arrow (>) and continue holding until the Balance Box on the display shows the desired balance change.

To center the balance control, press the button with the **LEFT** or **RIGHT** button until the Balance Box on the display shows “**Center**.”

Volume Up and Volume Down

To **increase** the volume of the 1110, press the button next to the **UP** arrow (⌃). Holding the button will continue to raise the volume quickly until the button is released.

To **reduce** the volume, press the button next to the **DOWN** arrow (⌄). Holding the button will continue to lower the volume quickly until the button is released.

Mute

Pressing the **MUTE** button will temporarily reduced the volume for instances such as a short conversation or telephone call. The attenuated Mute level will show in the Volume Box of the display.

Pressing the **MUTE** button again or pressing the Volume Up button on the remote will return the output level to the previous volume setting.

While in Mute mode, the level of all Main Outputs will be reduced to the current volume setting plus the amount programmed into the Mute function.

Polarity

POL

NOTE: *Polarity is often referred to as "phase." However, "phase" indicates any angle between two channels, from 0 to 360 degrees. The term "polarity" is used to indicate 180° phase change, or inversion, as available in the 1110 Preamplifier.*

Pressing the **POL** button on the remote control will reverse or invert the polarity of the Main Outputs.

When the polarity is inverted, it will affect both channels of all enabled outputs and an inverted polarity icon ∞ will appear in the Volume box.

To return to normal (non-inverted) polarity, press the **POL** button again. Both channels of the outputs will no longer be inverted and the inverted polarity icon will disappear.

Display

Pressing the **DISP** button will adjust the brightness of the display as well as turn the display completely off. The Display setting determines the brightness of the display in 20 steps, from 0% (off) to 100% (full brightness).

To change the brightness level, press the **DISP** button. The current display brightness will show in the display. Continue to press the DISP button until the desired brightness is obtained, for example “**Display 75**.” The number in the display indicates the display’s brightness as a percentage of maximum.

When the brightness is set to low levels, the screen will temporarily go two steps brighter than the programmed display brightness setting for five seconds, when any button is pressed on the front panel or remote control, and then return to the desired brightness. This ensures that if a function is changed, it will be noticed whether intentional or inadvertent.

After several seconds of inactivity when adjusting the display brightness, the display will automatically return to the Home Screen.

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 Boulder 1110 Preamplifier.

All HTML programming is accomplished by accessing the 1110 HTML page while the preamplifier 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 1110's HTML page, you will need a computer that is connected to the same network as the 1110 and enter the 1110's IP address into a web browser.

To find the 1110's IP address, press the **Option** button, then the **Setup** button, followed by the **System Info** button. You will see a list of information about the 1110, including:

Serial Number:
IP Address:
MAC Address:
Firmware Version:

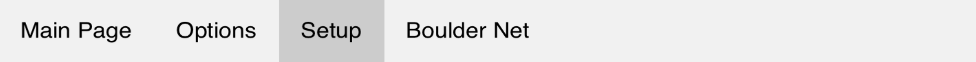
If a firmware update is available, you will also see the following:
Update Available:

IP Address: If the 1110 is attached to an active network, the IP address of the unit will be indicated here. This is where you will find the information to access the HTML page for programming.

This number should be entered into a web browser. The 1110's HTML setup page will then load.

Programming

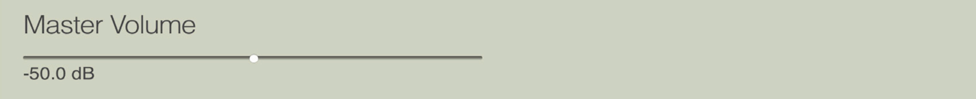
Page Tabs


Main Page
Options
Setup
Boulder Net

The HTML screen is divided into four tabbed pages: **Main Page**, **Options**, **Setup** and **Boulder Net**. The tabs for these pages can be found in the upper left-hand corner of the HTML screen. Clicking on each tab will present a different set of setup and control options.

Main Page Tab

Master Volume



Master Volume

-50.0 dB

The **Master Volume Slider** adjusts the volume control and attenuation of the 1110. When adjusted, the Master Volume Slider will control the level of both outputs simultaneously and has a range from **INF** (infinite attenuation) to **0.0 dB** (+20.0 dB of gain and maximum output). The volume control setting will appear under the left side of the Master Volume Slider.

To **increase** the volume of the 1110, click on the **Master Volume Slider** and move it to the **right**. An indication such as "**-40.0**" will appear in the Volume portion of the front panel display. At this point you should hear music from the system.

Moving the slider as far left as possible will drop the volume to no output and the display will indicate "**INF**."

NOTE: *The Scale and Volume Step resolution may be changed. Please see "Volume Scale and Resolution" in the Setup section of this manual on page 2-21 and 2-22 or page 4-15.*

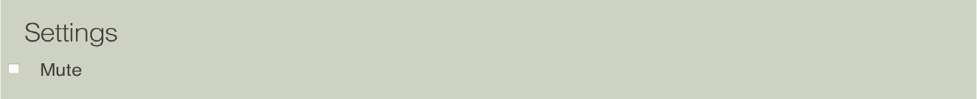
CAUTION: *The volume control must adjusted carefully, as it has the ability to get loud very quickly. Never move the Master Volume Slider quickly while the system is powered ON!*

WARNING: *If the selected input is programmed for "THEATER MODE," the volume control will have no effect.*

NOTE: *The actual output level is the volume level indictated in addition to the programmed Input Trim level. The Input Trim level can be adjusted during Setup programming (see page 2-16 or 4-6).*

Settings

There is one checkbox on the Main Page: **Mute**.



Settings

☐ Mute

Mute

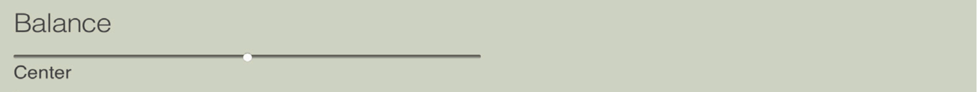
It is possible to **Mute** the outputs so that the 1110's outputs are reduced by a preprogrammed level. The **Mute** feature allows for temporary volume reduction without losing the original setting. The level of **Mute** attenuation is indicated in dB (decibels). For example, engaging the Mute function will attenuate the output to a level suitable for conversation.

To engage the **Mute** function, click on and mark the checkbox marked **Mute**.

To disengage the **Mute** function, click on and unmark the checkbox marked **Mute**.

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

Balance



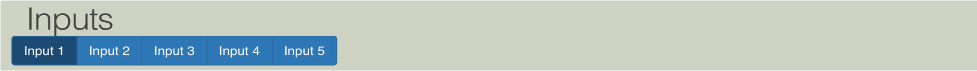
The **Balance Slider** adjusts the left-to-right level balance. When the output from both channels is equal “**Center**” will show in the Balance portion of the front panel display.

To shift the balance to the **right**, click on the **Balance Slider** and move it to the **right**. An indication such as “**L -2.0**” will be displayed. This will attenuate the left channel -2.0 dB below the right channel, regardless of volume setting, making the right channel louder.

To shift the balance to the **left**, click on the **Balance Slider** and move it to the **left**. An indication such as “**R -2.0**” will be displayed. This will attenuate the right channel -2.0 dB below the left channel, regardless of volume setting, making the left channel louder.

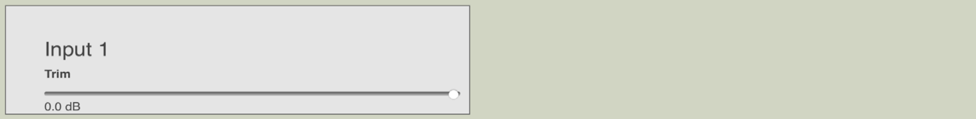
The range of balance offset is limited to **-20.0 dB**. If the slider is moved to the end, the attenuated channel will be muted.

Inputs



Inputs 1 – 5 are grouped in a **blue** Input Bar, with each input occupying a button within the bar. To select an input, click on the button for the desired **input**. When an input is selected for listening, the box color for that input will change to **dark blue**.

Input Trim



Input 1

Trim

0.0 dB

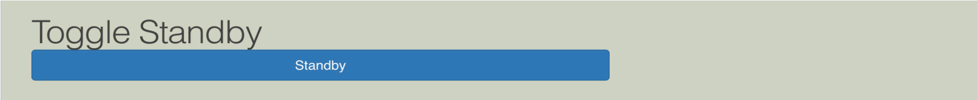
When an input is selected, the box below the Input Bar will show the **Input Trim Slider** for the selected input. The Input Trim Slider allows you to make adjustments to the volume of a selected input relative to all others so that they can be matched to the same level. For example, this can be useful 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.

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**. The level of Trim is indicated in dB (decibels) below the left side of the Input Trim Slider.

To **increase** the level of an input relative to the others, click on the **Input Trim Slider** and move it to the **right**.

To **decrease** the level of an input relative to the others, click on the **Input Trim Slider** and move it to the **left**.

Toggle Standby

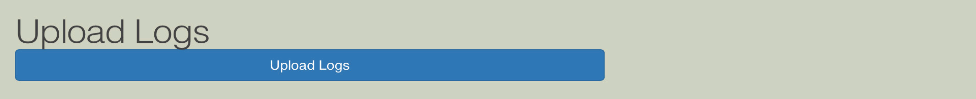


The 1110 can be toggled in and out of **Standby** mode.

To place the 1110 in **Standby**, click on the **button** marked **Standby**.

To bring the 1110 out of Standby mode, click on the **button** marked **Standby** again**.**

Upload Logs

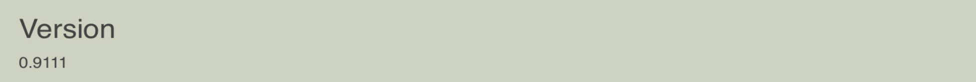


Upload Logs

The 1110 keeps a running log of errors and system faults. At times it may be useful to send these logs to the Boulder factory to help eliminate software bugs or improve development. To do so, the 1110 must be connected to a network with an active Internet feed.

To send the stored logs to the Boulder factory, click on the **button** marked **Upload Logs**. The page will immediately refresh once the logs have been sent.

Version

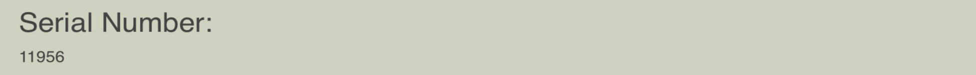


Version

0.9111

The software version of the 1110 will be indicated here. For example, it may be shown as “**1.06**”.

Serial Number



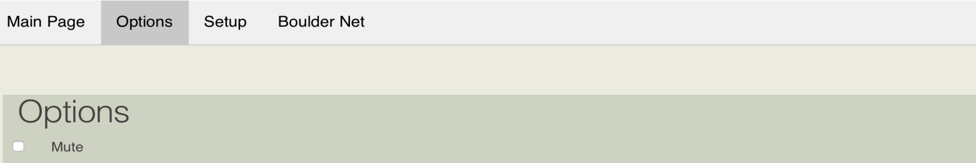
Serial Number:

11956

The serial number of the 1110 will be indicated here. It cannot be changed.

Options Tab

Mute



Options

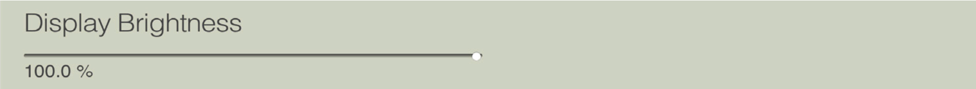
☐ Mute

It is possible to **Mute** the outputs so that the 1110's outputs are reduced to infinite attenuation.

To **mute** the outputs, click on and mark the checkbox marked **Mute**.

To **unmute** the outputs, click on and unmark the checkbox marked **Mute**.

Display Brightness



Display Brightness

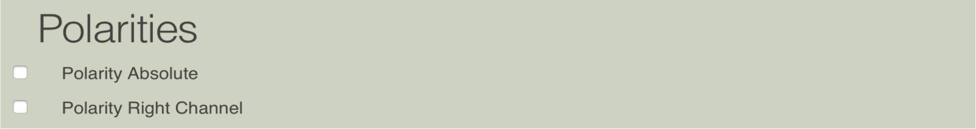
100.0 %

Display Brightness will adjust the illumination of the display as well as turn the display completely off. The Display Brightness setting determines the brightness of the display in **20 steps**, from 0% (off) to 100% (maximum brightness).

To **increase** the **Display Brightness**, click on the **Display Brightness Slider** and move it to the **right**.

To **decrease** the **Display Brightness**, click on the **Display Brightness Slider** and move it to the **left**.

Polarities



Polarities

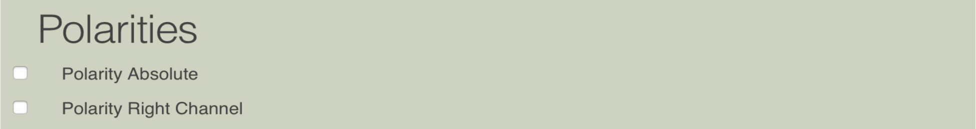
☐ Polarity Absolute

☐ Polarity Right Channel

NOTE: *Polarity is often referred to as "phase." However, "phase" indicates any angle between two channels, from 0 to 360 degrees. The term "polarity" is used to indicate 180° phase change, or inversion, as available in the 1110 Preamplifier.*

The outputs of the 1110 default to Pin 2 "High" or hot. The **Polarities** checkboxes will allow you to adjust the polarity of the outputs.

Polarity Absolute



Polarities

☐ Polarity Absolute

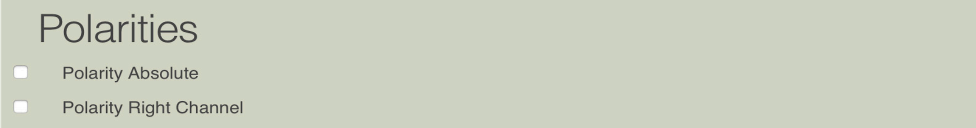
☐ Polarity Right Channel

NOTE: *Polarity is often referred to as "phase." However, "phase" indicates any angle between two channels, from 0 to 360 degrees. The term "polarity" is used to indicate 180° phase change, or inversion, as available in the 1110 Preamplifier.*

To **invert** the polarity of the Main Outputs, click the **Polarity Absolute** checkbox. An inverted phase icon will appear in the Volume box on the front panel display.

To return to normal (non-inverted) polarity, click the **Polarity Absolute** checkbox again. Both channels of the outputs will no longer be inverted.

Polarity Right Channel



Polarities

☐ Polarity Absolute

☐ Polarity Right Channel

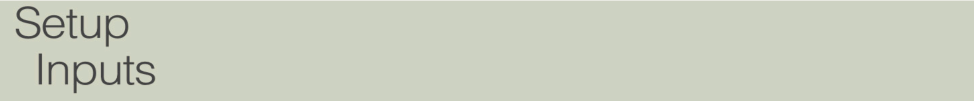
NOTE: *Polarity is often referred to as "phase." However, "phase" indicates any angle between two channels, from 0 to 360 degrees. The term "polarity" is used to indicate 180° phase change, or inversion, as available in the 1110 Preamplifier.*

It is possible to invert the polarity of only the right channel of the Main Outputs. This can be useful when trying to determine if a speaker cable, interconnect cable, or phono leads may be wired incorrectly within the system.

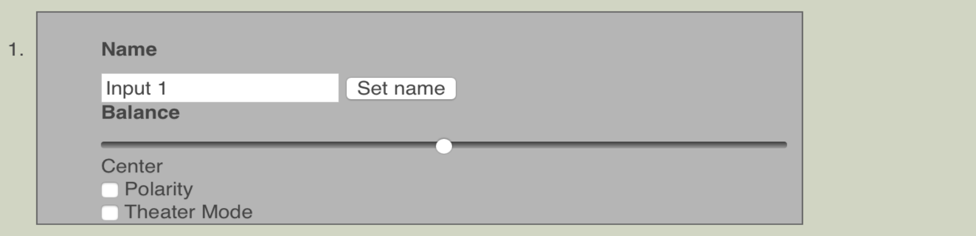
To **invert** the polarity of the **right channel** of the Main Outputs, click the **Polarity Right Channel** checkbox. A Right Channel Inverted Phase icon will appear in the Volume box on the front panel display.

To **return to normal** (non-inverted) polarity, click the **Polarity Right Channel** button again. The right channel of the Main Outputs will no longer be inverted.

Setup Tab


Setup
Inputs

Inputs


1.

Name

Input 1

Balance

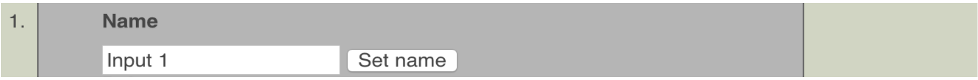
Center

☐ Polarity

☐ Theater Mode

A box is visible for each of the five inputs. This box contains setup controls for the following functions: **Name, Balance, Polarity,** and **Theater Mode**.

Name


1.

Name

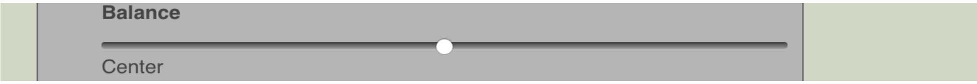
Input 1

It is possible to enter a custom name for each input so that it can easily be identified on the preamplifier’s Home Screen display.

At the top of each input’s section there you will see the word **Name** above a text box containing words such as “**Input 1**” or an existing custom input name. Click on the **Name** text box and type the new input name you would like within the box, then click on the button marked **Set Name**. The new name will now appear on the 1110’s front panel display. It is possible to rename all of the 1110’s inputs this way.

Programming

Balance



The **Balance Slider** adjusts the left-to-right level balance in **0.5 dB** steps.

When the output from both channels is equal “**Center**” will show below the left side of the Balance Slider.

To shift the balance to the **right**, click on the **Balance Slider** and move it to the **right**. An indication such as “**L -3.5**” will be displayed below the left side of the Balance Slider. This will attenuate the left channel -3.5 dB below the right channel, regardless of volume setting, making the right channel louder.

To shift the balance to the **left**, click on the **Balance Slider** and move it to the **left**. An indication such as “**R -3.5**” will be displayed below the left side of the Balance Slider. This will attenuate the right channel -3.5 dB below the left channel, regardless of volume setting, making the left channel louder.

The range of balance offset is limited to **-12.0 dB** per channel. If the slider is moved to its end point, the attenuated channel will be muted.

Polarity

Each input of the 1110 defaults to Pin 2 “High” or hot. The **Polarity** checkbox will allow you to invert the polarity of an input to compensate for a source with inverted output.

To **invert** the polarity of a specific input, click on the **Polarity** checkbox. When the checkbox is selected, the polarity will be inverted or 180 degrees out of phase. To **un-invert** the input, click on the **Polarity** checkbox again.

NOTE: *Polarity is often referred to as “phase.” However, “phase” indicates any angle between two channels, from 0 to 360 degrees. The term “polarity” is used to indicate 180° phase change, or inversion, as available in the 1110 Preamplifier.*

Theater Mode

☐ Theater Mode

Theater Mode sets the selected input’s volume to ‘Unity Gain’. This allows the 1110 to be easily integrated into a surround sound or home cinema system. Theater Mode is only intended for use with a surround sound processor. When operating in Theater Mode the 1110’s Volume and Balance controls are disabled. Therefore, only the surround sound processor can control the volume level.

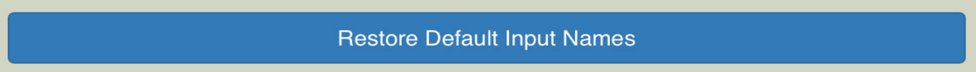
WARNING: *Use Theater Mode with extreme caution! It is important to remember that the 1110 volume control is disabled for this input immediately upon its activation in the programming menu!*

To **enable** Theater Mode for an input, click on the checkbox marked **Theater Mode**.

To **disable** Theater Mode, click on the checkbox again to **uncheck Theater Mode**.

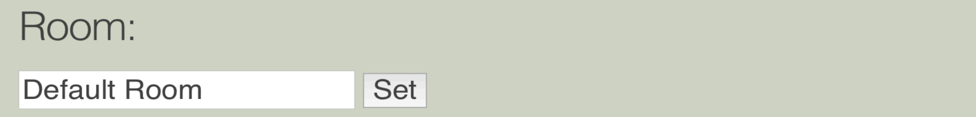
NOTE: *Input level remains inoperative when theater mode is active.*

Restore Default Input Names



To **restore** the name of all inputs to the original factory defaults, click the large **blue** button marked **Restore Default Input Names** located below the input boxes. All custom input names will immediately be deleted and the input names will be returned to the factory defaults.

Room


Room:

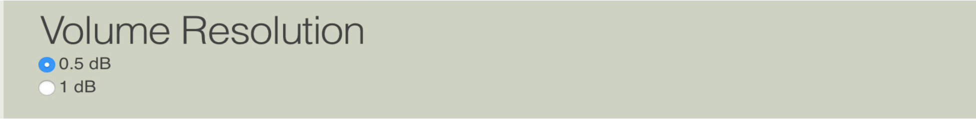
Default Room

The 1110 may be used as a part of a larger, whole-home audio system in an Open Home system and can be named to make identification of the system being used easier.

For example, if your home has separate audio and home cinema systems and each has a 1110, you would be able to name one system “Listening Room” and another system “Home Cinema” so that they appear on your home network under those names. It is also possible to assign various components to different systems using the room naming process.

To assign the 1110 to a particular system, click on the box marked “**Room:**.” Type the name you would like in the box and then click on the button marked **Set**. The new name will now appear on the 1110’s Home Screen.

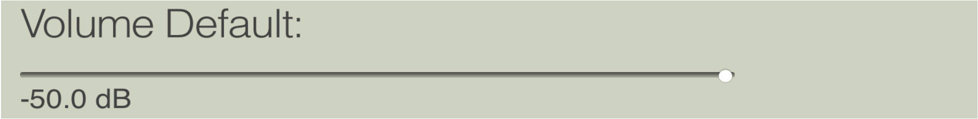
Volume Resolution


Volume Resolution
● 0.5 dB
○ 1 dB

There are two options for the Master Volume control's step resolution. Clicking on one of these options enables you to choose the step rate at which the volume control is raised or lowered.

To adjust the **Volume Resolution**, click on one of the options next to **0.5 dB** or **1.0 dB**. The Master Volume control will immediately change to the selected Volume Resolution.

Volume Default

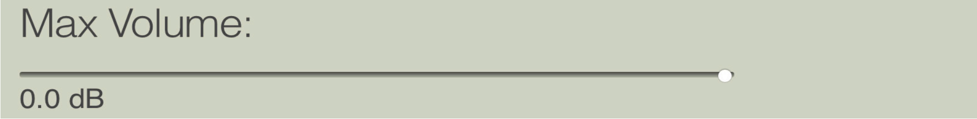

Volume Default:
-50.0 dB

Volume Default determines the volume setting that the 1110 will automatically go to when brought out of Standby mode to prevent loud settings from previous listening sessions. Settings in 1.0 dB steps from **-90.0** to **-50.0** or anywhere in between can be entered. The Volume Default setting from the factory is **-50.0 dB**.

For example, setting the Volume Default level of -60.0 dB will cause the 1110 to always set the volume at -60.0 dB when coming out of Standby.

To enter the Volume Default, click on the **Volume Default** slider and move the slider until the desired Default Volume setting is indicated under the left side of the Volume Default slider.

Max Volume



Max Volume:

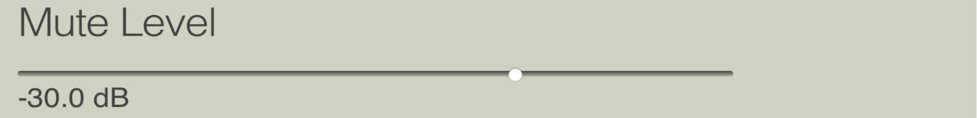
0.0 dB

The maximum allowable volume setting can be programmed to prevent children or other users from turning the system up too loud. Settings in 1.0 dB steps from **-100.0 dB** to **0.0 dB** or anywhere in between can be entered.

For example, when Max Volume level is set to -15.0 dB, the volume control can only be turned up to -15.0 dB before the volume control will stop responding.

To enter the Max Volume, click on the **Max Volume** slider move the slider until the desired Max Volume setting is indicated under the left side of the Max Volume slider.

Mute Level



Mute Level

-30.0 dB

The level of attenuation for the Mute mode can be programmed. Settings in 1.0 dB steps from **-100 dB** to **0.0 dB** or anywhere in between can be entered.

For example, when the Mute Level is set to -15.0 dB, the volume will drop -15.0 dB from its original setting.

To enter the Mute Level, click on the **Mute Level** slider move the slider until the desired Mute Level setting is indicated under the left side of the Mute Level Slider.

NOTE: *The Mute output level is relative to the normal listening level. Therefore, if “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.*

Settings

Restore Factory Defaults

Restore Factory Defaults

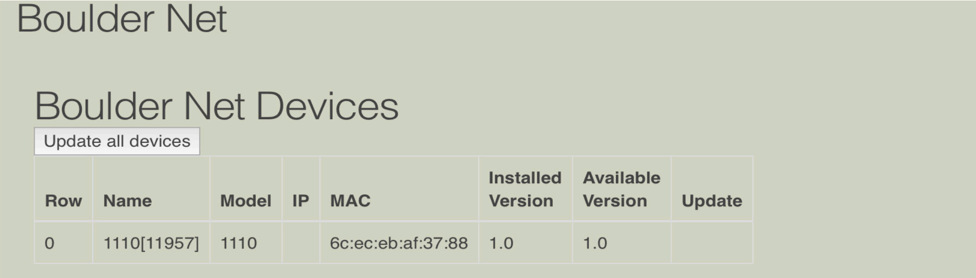
It is possible to restore all programming to the original, factory default settings by pressing the **Reset Factory Defaults** button.

To restore the 1110 to the original factory default settings, click on the **blue Restore Factory Defaults** button. The 1110 will immediately restore the original factory settings.

NOTE: *When factory default settings are restored, all programmed names and settings will be lost and cannot be retrieved.*

Boulder Net

Boulder Net is a control system unique to modern Boulder products. For detailed information about Boulder Net, please consult your authorized Boulder dealer or see the Boulder Net manual. Further information can also be found at www.boulderamp.com.



Row	Name	Model	IP	MAC	Installed Version	Available Version	Update
0	1110[11957]	1110		6c:ec:eb:af:37:88	1.0	1.0	

Technical Specifications

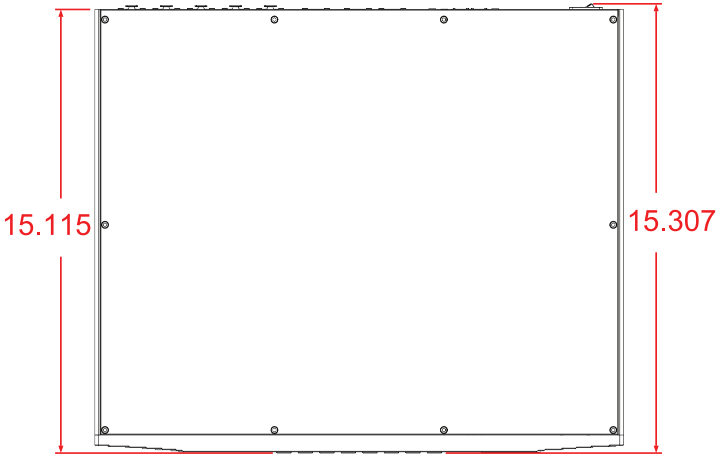
Balanced Inputs	5 x 3-pin XLR
Balanced Outputs	2 x 3-pin XLR
AUX Balanced Outputs	1 x 3-pin XLR
Maximum Input Level	6.0 Vrms
Maximum Output Level	14.0 Vrms
THD+N, 2V Output, from 20 Hz to 20 kHz	0.0015% (-96.5 dB)
Maximum Voltage Gain	20 dB
Volume Range	100 dB
Volume Steps 0.5, 1.0 dB	± 0.01 dB
Aux Path Gain	8.5 dB Balanced 2.5 dB Unbalanced
Frequency Response, 20 Hz to 5kHz	+0.00, -0.03 dB
Frequency Response, -3 dB	0.02 Hz & 250 kHz
Input Impedance	100kΩ Balanced 50kΩ Unbalanced
Output Impedance	100Ω Balanced 50Ω Unbalanced
Power Requirements	90-120V / 200-240V, 50 - 60 Hz
Power Consumption	75W Max

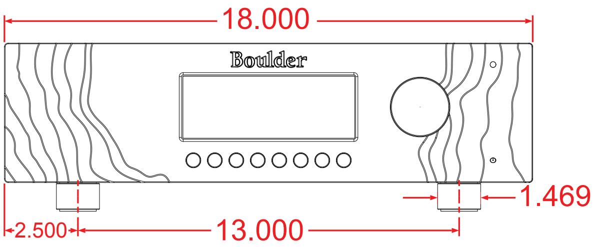
All specifications taken at 240 VAC mains Power

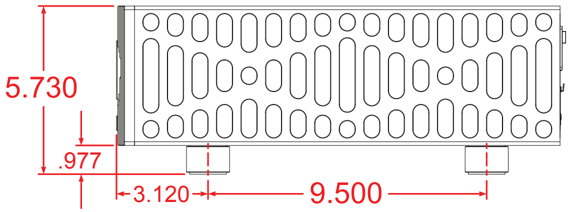
Weights and Dimensions

1110 Preamplifier Chassis:	18.0” W x 15.3” D x 5.7” H (36 lbs.) 45.7 cm W x 38.9 cm D x 14.5 cm H (16.3 kg)
Shipping:	24.0” W x 23.0” D x 16.0” H (49 lbs.) 61.0 cm W x 58.5 cm D x 40.5 cm H (22.2 kg)

1110 Preamplifier Dimensions (Inches)


15.115
15.307


18.000
Boulder
1.469
2.500
13.000


5.730
.977
3.120
9.500

Troubleshooting

SYMPTOM	CAUSE	REMEDY
No power indication	Master AC Power Switch on rear panel is not ON	Turn on Master AC Power Switch
	Preamplifier is not plugged in	Connect power cord to AC mains outlet
	Preamplifier fuse is blown	Replace preamplifier fuse
	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
Red power indication	Preamplifier is booting up	Wait until boot process completes
	Defective power supply	Return Preamplifier to dealer for service
White power indication, but no sound from one channel	No signal from one channel of source	Check source controls, cables, and connection
	One channel is muted by Balance control	Re-center balance on preamplifier
	No signal out to preamplifier	Check cables and connections from preamplifier
No response to remote control	Remote control batteries are dead	Replace remote control batteries
	Remote control IR receiver on preamplifier is obstructed	Clear line-of-sight from remote control to preamplifier

Notes:

Notes:

Notes:

Notes: