Atlas Compressor User Guide

Welcome

Thank you for purchasing the Source Audio Atlas! The Atlas is an all-in-one compressor pedal that aims to be the ultimate destination for guitar or bass compression and a dive into the deep history of compressor units. On the surface, the Atlas serves up six unique compressor circuits spanning from classic stompbox compressors to expensive studio rack gear to ultra-modern and flexible dual-band compressors.

Connect via USB to the Neuro Mobile App and Neuro Desktop Editors to transform the Atlas into a DAW compression module with real time gain reduction readout displays and enough controls—such as Threshold, Attack, Release, Makeup Gain, Ratio, Soft Knee Width, Clean Blend, and a Side Chain Low-Pass and High-Pass Filters to fine-tune the Atlas Compressor to your exact specifications. Parameter range controls allow you to set a custom range for each control knob so your tones will always be in the usable range.

The Atlas Compressor is our love letter to compression and was a collaborative effort between our trusted engineering duo of Jesse Remignanti (hardware) & Bob Chidlaw (DSP) and Christopher Venter of SHOE Pedals, who has previously contributed on the ZIO and True Spring pedals. Plug in an Atlas and experience the final word in audio compression.

—The Source Audio Team

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Feature Overview

Look Ahead Compression: When engaged, Look Ahead creates an imperceptible latency in the signal that "looks into the future" and allows for an extra quick and smooth attack without any additional distortion or artifacts.

Side Chain Compression: Use the signal going to Input 2 to trigger the compression applied to the signal going into Input 1.

Six Preset Positions: Use the Atlas's three-position toggle switch and two preset banks to save six easily accessible presets.

Stereo Ins and Outs: Create two entirely different compression presets and run them in series, parallel or run each to a separate output.

Bass Optimized Mode: Each of the six onboard compression circuits can be reloaded and optimized for bass guitar with a simple button press.

Growing Library of Published Presets: For quick and easy access to a world of great tones, try sampling sounds from a vast collection of published presets created by the Source Audio team and the ever-growing Neuro Community.

Unprecedented Sound Sculpting Options: The powerful Neuro Desktop Editor (free download for Mac and Windows) and Neuro Mobile App (iOS and Android) offer maximum sound exploration possibilities. Use Neuro's DAW inspired editor to create custom Atlas presets that can be burned directly to the pedal, saved to a private cloud-based library, or shared publicly with other members of the Neuro Community.

128 MIDI Accessible Factory Presets: The addition of a third-party MIDI controller with USB host provides access to any of the pedal's 128 Factory presets.

Compact Design: The extruded anodized aluminum housing, with its slim profile and small footprint, is built for the rigors of the road.

MIDI Capable: Connect the Atlas to the Source Audio Neuro Hub or a USB-MIDI Host and access up to 128 presets with MIDI Program Change (PC) messages. Control many of the pedal's parameters with MIDI Continuous Controller (CC) messages.

USB Port: Class compliant USB-MIDI allows the Atlas to work as a plug-and-play device with recording software running on Mac and Windows. The USB port offers connectivity to the Neuro Desktop Editor as well as the Neuro Mobile App, providing access to deep editing possibilities and pedal firmware updates.

Universal Bypass™: Select between analog buffered and relay-based True Bypass.

External Expression Pedal Control: Make simultaneous, on-the-fly changes of up to three parameters with an external expression pedal.

Connecting the Pedal

Power

To power the unit, connect a 9V DC negative-tipped power supply to the jack labeled **DC 9V** on the back panel. Atlas needs at least 200mA of current to operate as intended. Please note that your Atlas does not include a power supply.

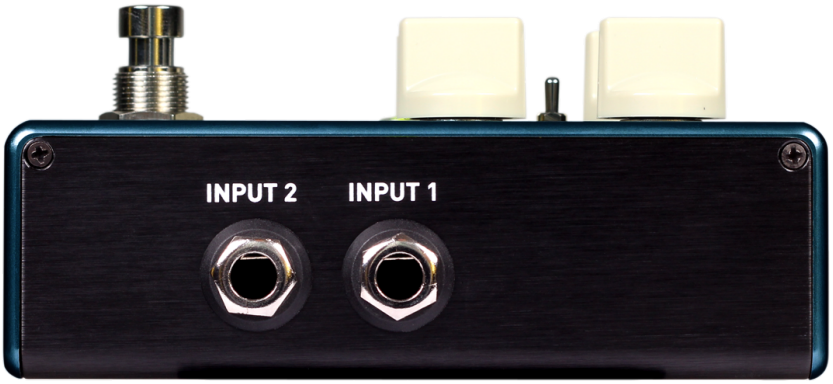
Warning: Using an unregulated supply, could damage the unit. A power supply with insufficient current levels may also cause noise or other unpredictable behavior. Please be very cautious when using a power supply and refer to the power supply requirements in the Specifications section of this guide.

Guitar/Audio Connections

Using standard ¼" mono (TS) cables, connect your guitar, bass, or other instrument to the Input 1 jack and your amp (or the next audio device in the signal chain) to the Output 1 jack. If you have a second amp, connect it to Output 2.

When the power and audio connections have been made, Atlas is ready for use.

Input Side Connections



INPUT 1

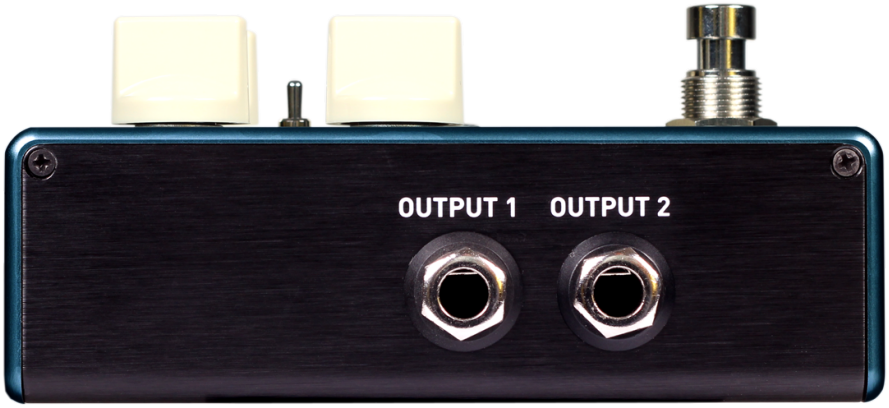
INPUT 1 is the primary input for guitar, bass, or other instruments. It can also accept line-level inputs and will work in your amp's effect loop. Connect it to your instrument or other audio source using a mono (TS) 1/4" cable. Details about the appropriate signal levels are available in the Specifications section.

INPUT 2

Use the secondary audio input for stereo sources or as the data connection to your mobile device when using the Neuro App.

- *INPUT 2 as an Audio Input:* The tip contact on INPUT 2 acts as a secondary input for guitar, bass, or other instruments. Connect your instrument (or the previous effect in the signal chain) using a mono (TS) ¼" cable. The Atlas will automatically configure itself for stereo audio input. Other routing options are available using the Neuro App. For more information about stereo routing, refer to the Stereo Operation section.
- *INPUT 2 as a Neuro App Data Input:* The ring contact on INPUT 2 acts as a data connection for the Neuro Mobile App. The Neuro App sends data to the pedal using your mobile device's headphone jack. Connect it to your mobile device using the included stereo (TRS) 1/8" to 1/4" cable. It can also accept daisy-chained Neuro data from another Neuro-compatible pedal in the chain, provided that a TRS cable is used. The audio signal (if applicable) will be on the tip contact of the plug, and the Neuro App data will be on the ring contact. This allows audio and Neuro data to flow on the same cable.

Output Side Connections



OUTPUT 1

This is the primary audio output. Connect it to your amplifier, recording interface, or the next device in your effects signal chain using a mono (TS) ¼" cable.

OUTPUT 2

OUTPUT 2 can act either as an audio output or a daisy-chain data connection for the Neuro App.

- *OUTPUT 2 as an Audio Output:* The tip contact on OUTPUT 2 acts as the secondary audio output. It carries an audio signal when the Atlas is configured with a signal routing that uses stereo outputs. Connect it to your amplifier, recording interface, or the next device in your effects signal chain using a mono (TS) ¼" cable.
- *OUTPUT 2 as a Neuro App Data Daisy-Chain Output:* The ring contact on OUTPUT 2 acts as a data connection for the Neuro App, passing data from the Atlas to the next Source Audio effect in your signal chain. You can daisy-chain the Neuro App data regardless of whether OUTPUT 2 is configured to output audio or not. Connect OUTPUT 2 to the next device's Neuro App Data input (usually INPUT 2) using a stereo (TRS) 1/4" cable. The audio signal (if applicable) will be on the tip contact of the plug, and the Neuro App data will be on the ring contact. This allows audio and Neuro data to flow on the same cable.

Power and Control Connections

DC 9V (Power)

Please use a regulated 9V DC, center-negative power supply rated for at least 300mA (not included). Unregulated or lower-current supplies may cause noise or unpredictable performance.

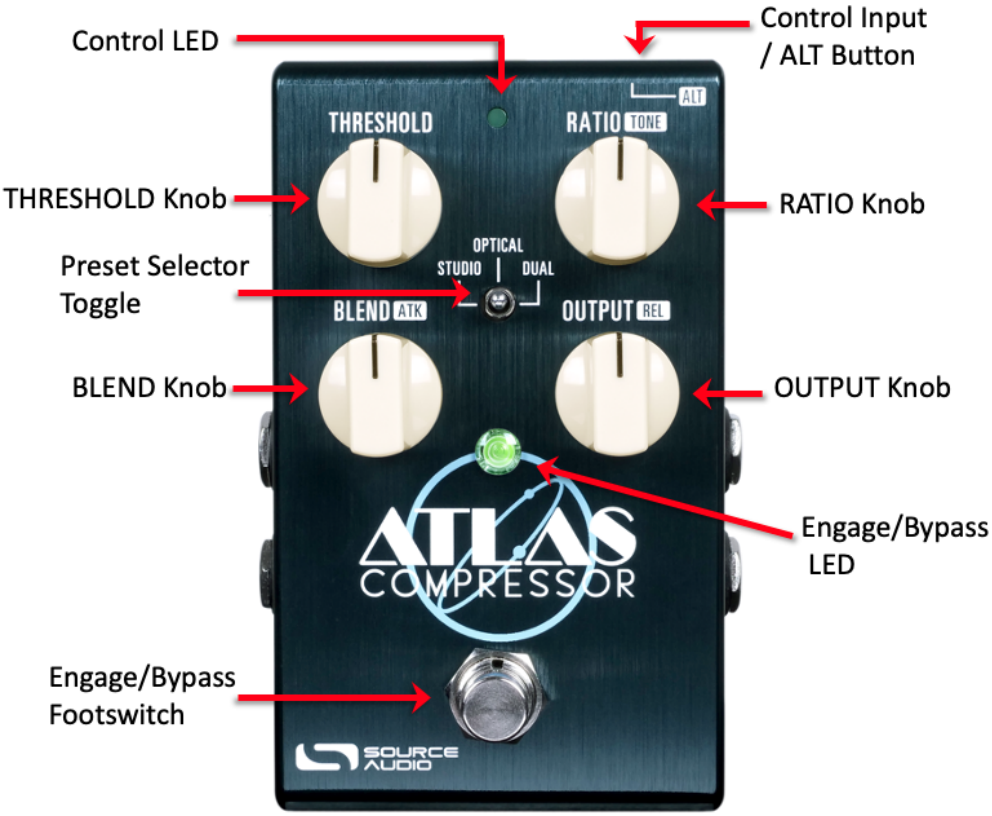
USB

Connect to your computer (Windows or Mac) or mobile device (Android or iOS) to Atlas's USB port (denoted by the icon) using a standard USB mini-B cable. The Atlas is a class compliant USB device, meaning that it does not require any custom drivers.

CONTROL INPUT

The 3.5 mm CONTROL INPUT port connects to external control devices such as the Source Audio Tap Tempo Switch, Source Audio Dual Expression Pedal, and the Neuro Hub. For more information, refer to the Expression Pedal Input and Neuro Hub sections of the User's Guide.

Controls



Footswitch

Click the footswitch to engage or bypass the pedal. Press + hold the footswitch down while the pedal is bypassed to bank to Red LED (ALT) Mode for more presets.

Control Input / ALT Button

This small button located at the top of the pedal is used to enable or disable external control. It also is used to control the ALT parameters on the surface of the pedal. Press + hold the ALT knob while turning any of the control knobs to access their alternate parameters (see next page for ALT Controls).

Engage/Bypass LED

The Engage/Bypass LED indicates whether the effect is bypassed or engaged. In ALT Mode (presets 4-6), the LED becomes red when the pedal is engaged.

Gain Reduction

By default, the Engage/Bypass LED shows gain reduction by changing from green to red. Gain reduction is only shown when threshold and ratio knobs are changed and then stays on for 10 seconds. This feature can be "always on", which is turned on or off on the pedal only by simultaneously pressing the CONTROL INPUT button + Footswitch. This will toggle it on/off.

THRESHOLD Knob

Adjusts the decibel level at which the signal becomes compressed. Turn counterclockwise for a lower threshold (earlier compression), or clockwise for a higher threshold (a hotter signal is needed for compression to occur).

RATIO Knob

Adjusts the overall level of compression. Turn clockwise for a higher (flatter) ratio and ultra-squashed dynamics. Turn counterclockwise for a lower ratio and more subtle compression

BLEND Knob

Adjusts the wet/dry mix of compression. Unlike MIX controls on other Source Audio pedals, the BLEND control blends in clean signal as the knob is turned up. Therefore, 100% wet (compressed) signal is at full counterclockwise on the BLEND knob, and 100% dry is at full clockwise on the knob.

OUTPUT Knob

Adjusts the overall output level (wet/dry mix) of the Atlas.

Preset Selector Toggle

Use the Atlas's three-position toggle switch and two preset banks to easily access six different presets. **First Preset Bank (Indicated by the green center LED):** default the center toggle switch selects between three presets stored in the first bank of presets. **Second Preset Bank (Indicated by the red center LED):** Pressing the ALT button on the topside of the pedal opens access to the second bank of presets. After pressing the ALT button, the small LED at the top of the pedal's face will start to blink, indicating that the second preset bank is accessible with the toggle switch. Upon moving the toggle switch the center LED will turn red indicating the current preset is drawn from the second bank.

ALT Controls

Pressing and holding the ALT button while rotating the control knobs will adjust their ALT parameter instead of their normal parameter. Below are a list of ALT parameters and how they correspond to the normal controls.

Makeup Gain (*ALT THRESHOLD*)

Adjusts the makeup gain within the compression signal. Makeup gain allows you to recover lost output volume caused by heavy compression. The Makeup Gain control only affects your compressed (wet) signal.

Tone (*ALT RATIO*)

Cuts (below noon) or boosts (above noon) the treble control in the parametric equalizer. By default, the Treble frequency is set to about 4461Hz, but this frequency can be changed using the Neuro App or Desktop Editor.

Attack *(ALT BLEND*)

Attack controls how quickly in milliseconds compression is applied to your input signal. Turn clockwise for fast attack times and counterclockwise for slower attack times.

Release (*ALT OUTPUT*)

Release controls how quickly in milliseconds compression "let's go" or stops being applied to your input signal. Turn clockwise for fast release times and counterclockwise for slower release times.

Atlas Factory Presets

The Atlas comes equipped with six hand-tuned presets found on the three toggle switch and three ALT + toggle switch positions. Each preset has already been optimized for sound and feel out of the

box without needing to connect the Atlas to the app or editors. Below is a description of each factory preset.

STUDIO: "***Studio Snap***" - A hard knee VCA style compressor that uses both Peak and RMS detectors to create a dual-stage release and applies a dynamic EQ to enhance attacks.

OPTICAL: "***Optical Rack***" - A gentler and more relaxed compressor based closely on a studio rack mount staple, the LA2A optical compressor.

DUAL: "***Dual Band***" - Based on modern digital processing, this is a two-band compressor that treats frequencies under 333hz differently than those above. This allows for fewer compression artifacts and an enhanced blooming sustain on chords or notes that ring out.

STUDIO (ALT): "***Studio 76***" - Based on the famous 1176, a studio rack mount FET compressor known for its very fast attack times. This version has been optimized for use with guitar.

OPTICAL (ALT): "***Cubic Zirconia***" - A less clean optical compressor based on a popular, discontinued yellow compressor pedal that used an LED to achieve its compression.

DUAL (ALT): "***Dual Jangle***" - A modern style dual band compressor that is aimed at enhancing harmonics above 2000hz, but without adding additional harshness to pick attack. This works very well to enhance 12 string guitars, Jangly strumming patterns, and arpeggiated picking techniques.

Optimized For Bass

The Atlas Compressor features an alternate set of factory presets tuned especially for bass. This mode can be selected by holding down the CONTROL/ALT button while powering on the pedal. The small green LED will blink once to indicate normal (guitar) mode and twice to indicate bass mode. Release the CONTROL/ALT button to select the desired mode.

Most of the factory preset are the same name and description for bass. The noted discrepancies are as follows:

- "***Dual Band***" has a frequency cutoff point at 82Hz for bass compared to 333hz for guitar.
- "***Dual Jangle***" for guitar is named "***Dual Lookahead Bass***" for bass. It is a modern style dual band compressor that is aimed at evening out string to string balance and maintaining dynamic consistency when switching playing techniques. This mode also uses the Atlas' Lookahead feature. This allows for faster reaction by the compressor without the artifacts usually associated with very fast attack times.

Stereo Operation & Signal Routing

The Atlas is flexible for many different use cases due to its stereo INPUT and OUTPUT jacks. By default, the Atlas auto-detects the cables connected to INPUTS and OUTPUTS 1 & 2 and engages the

appropriate Routing Mode. Stereo Routing can also be performed manually with the Neuro Editors, select between "Mono In, Stereo Out" or "Stereo In, Stereo Out."

There are four routing modes available when the Atlas is in its default Auto Detect mode. See detailed descriptions of each Auto Detect mode in the sections below.

- Mono In, Mono Out
- Mono In, Stereo Out
- Stereo In, Stereo Out

Mono In, Mono Out

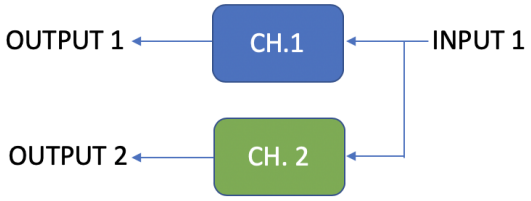
This is the most common use case. Plugging the incoming signal into INPUT 1 with OUTPUT 1 connected to an amp (or the next device in the signal chain) produces a standard mono signal. Dual processing effects are also mixed down a single output.

Mono In, Mono Out

Mono In, Stereo Out

This is a very common use case that allows you to create some nice stereo imaging from a single mono instrument input or use your Atlas as a splitter to send your signal to two separate outputs. When the unit is bypassed in this mode, it will automatically switch to Soft Bypass mode to maintain the bypass signal on the Channel 2 output. When Ch. 1 and Ch. 2 are linked, the output will be the same for both channels. When they are unlinked, you can configure separate settings for Channel 2.

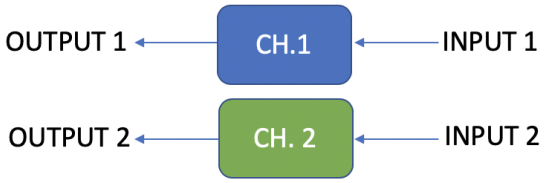
Mono In, Stereo Out



Stereo In, Stereo Out

This mode should be your default selection for Stereo In, Stereo Out applications. Stereo In, Stereo Out allows you to continue your stereo chain of effects. When Ch. 1 and Ch. 2 are linked, the output will be the same for both channels. When they are unlinked, you can configure separate settings for Channel 2.

Stereo In, Stereo Out



Preset Storage and Recall

User Presets store all user editable parameters. This includes the knob positions, parameter settings, frequencies, routing options, external control, and the full list of Neuro/MIDI accessible parameters. Included in every preset are settings for either channel (Channel 1 [Mono] or Channel 2). After a preset is recalled, you can always tweak the top-level controls in a performance situation by turning the knob. The knob parameter will then “jump” to the current knob position as it is rotated.

Recalling Presets

The first six User Presets are accessible via the onboard hardware or with an external footswitch in the following ways:

1. Move the toggle switch to left, center, or right to access presets #1-3.
2. Press the ALT button while moving the toggle switch to access presets #4-6, or press + hold the footswitch when the pedal is OFF for 5 seconds to access the Red LED (presets #4-6).

Recalling MIDI Presets

All 128 available User Presets are accessible with an external MIDI controller. MIDI controllers can be connected via USB port at the top of the pedal, or through a Neuro Hub, which connected to the CONTROL INPUT at the top of the pedal. All 128 User Presets can be recalled with the corresponding MIDI program change (PC) messages.

Note: When recalling presets via MIDI PC messages, you may wish to queue up your preset with effect bypassed. To do this, simply engage the preset, bypass it with the footswitch, then re-save the preset

normally. When recalled, the pedal will load the saved user settings, but the effects will be bypassed until you engage the pedal.

Copying a Preset to a New Location Using the Neuro App

Using the BURN and SAVE AS commands in Neuro Mobile or Desktop Editors, it is possible to copy presets to any location in memory.

Clearing all Presets

All 128 User Presets can be erased using the Factory Reset procedure. Warning: The Factory Reset procedure resets the entire pedal back to the state in which it was originally shipped – this includes all global settings and User Presets. A Factory Reset will not erase any firmware updates.

* * *

External Control Options

There are two main ways the Atlas's Control Input port is utilized. Below are the possible used for the Control Input port. Please note that External Switch Options is a global hardware setting.

Neuro Hub: This configures the Control Input port to receive MIDI code signals from the Neuro Hub, allowing the pedal to be added to Hub Scenes (which are controlled by PC messages) and allowing for MIDI CC (Continuous Controller) control.

Expression: Using the Source Audio Dual Expression pedal, or an expression pedal connected to the Neuro Hub, it is possible to map up to three parameters to be controlled via expression.

Expression Control

Use a Source Audio Dual Expression pedal to control up to three different parameters on the Atlas per preset. Parameters include Threshold level, Output Level, Tone, Ratio, Blend, Attack, Release, and many more.

Connecting the Expression Pedal

Connect a Source Audio Dual Expression pedal using a 3.5mm TRRS cable from the EXP pedal's Sensor Output to the Atlas's CONTROL INPUT port on the pedal's top panel. Press the CONTROL INPUT button to enable External Control.

If you are not getting the desired results from your Expression pedal setup, go to the Hardware Options section of the Neuro software. You'll need to select "Neuro Hub/Expression" under "Control Input Option", and you may also need to calibrate your expression pedal. For more details, visit Hardware Options.

Mapping Parameters

The quickest way to map parameters to your expression pedal is by connecting your Atlas to the Neuro App or Neuro Desktop Editor. The Expression Control section is at the bottom of the Atlas's Sound Editor. Download the Neuro Desktop Editor and go to Devices > Show Offline Device Editor > Atlas to view the full list of expressible parameters.

MIDI

The Atlas can also receive expression signal over MIDI. To do this, you need a MIDI controller that has an expression input and is also compatible with the Atlas (this will be most MIDI controllers). Connect your compatible expression pedal to your MIDI controller, and your MIDI controller to your Atlas via a USB-MIDI Host. You can also achieve this with the Neuro Hub.

Using a Third-Party Expression Pedal

The Atlas's Control Input uses a specific wiring to communicate with both the Dual Expression pedal and the Neuro Hub. To use a third party expression pedal, please refer to the One Series Third Party Expression Pedal Guide.

Neuro Desktop and Mobile Editors

Like all pedals in the Source Audio One Series line, the Atlas Compressor features access to more precise editing parameters, preset sharing, and added functionality via the Neuro Desktop Editor and Mobile App. The Neuro Desktop Editor is available as a free download for Mac or Windows on the Editors & Firmware page of the Source Audio website.

The Neuro Desktop Editor

The Neuro Desktop Editor is an excellent tool for creating and organizing highly customized presets for your Atlas Compressor. The Desktop offers an advanced cataloging system for naming and storing Atlas presets. The Desktop is also a tool for installing the latest updates to your Atlas's firmware.

Downloading and Connecting the Neuro Desktop Editor

The Neuro Desktop Editor is a free download for Mac and Windows PCs. To download the Neuro Desktop, go to the Source Audio Editors & Firmware page. In the Software tab select the appropriate file (you have a choice between the Mac and Windows versions) and download it. You will also want to download the latest One Series Pedal Firmware, which is located directly below the Neuro downloads.

After the download process, connect your Atlas with a USB Type A male to mini type B male data cable (Must be data-capable, not solely a charger cable). Connect the cable from the mini-USB port on the pedal to the USB port on your computer. Once you've made the connection a blue box will appear in the Connections field indicating that the Atlas is ready to be edited.

If a new firmware update is available, the Firmware Update icon (the arrow icon) will be framed in yellow. When you click the arrow icon, you will be instructed on the updating procedure.

Neuro Desktop Editor User Interface

The Neuro Desktop's user interface features three primary sections: Connections, Sound Editor, and Presets.

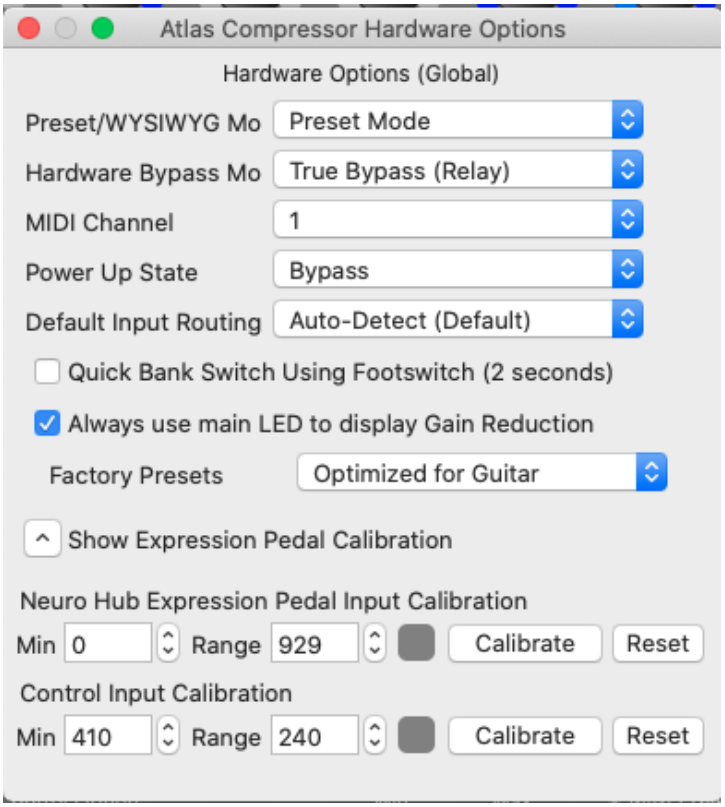
Connections

The Connections section is located on the left side of the Neuro Desktop Editor. This field displays all connected One Series pedals. Each connected pedal offers the three options listed below:

- **Firmware Updates**: The arrow icon checks for any recent firmware updates to the connected pedal. If an update is available, the software will provide instructions on how to proceed.
- **Hardware Options**: The gear icon opens the Hardware Options window. Each Source Audio pedal has its own set of global hardware settings. The attached pedal will retain all hardware option edits until either the option is changed, or a Factory Reset is performed.
- **Open Editing Interface**: The wrench icon opens the Atlas's Sound Editor, revealing a deep set of editing controls for creating custom presets.

Hardware Options

Clicking the gear icon in the Atlas's Connections window opens the Hardware Options menu (see the graphic below). Use the Hardware Options window to choose your pedal's global hardware settings.

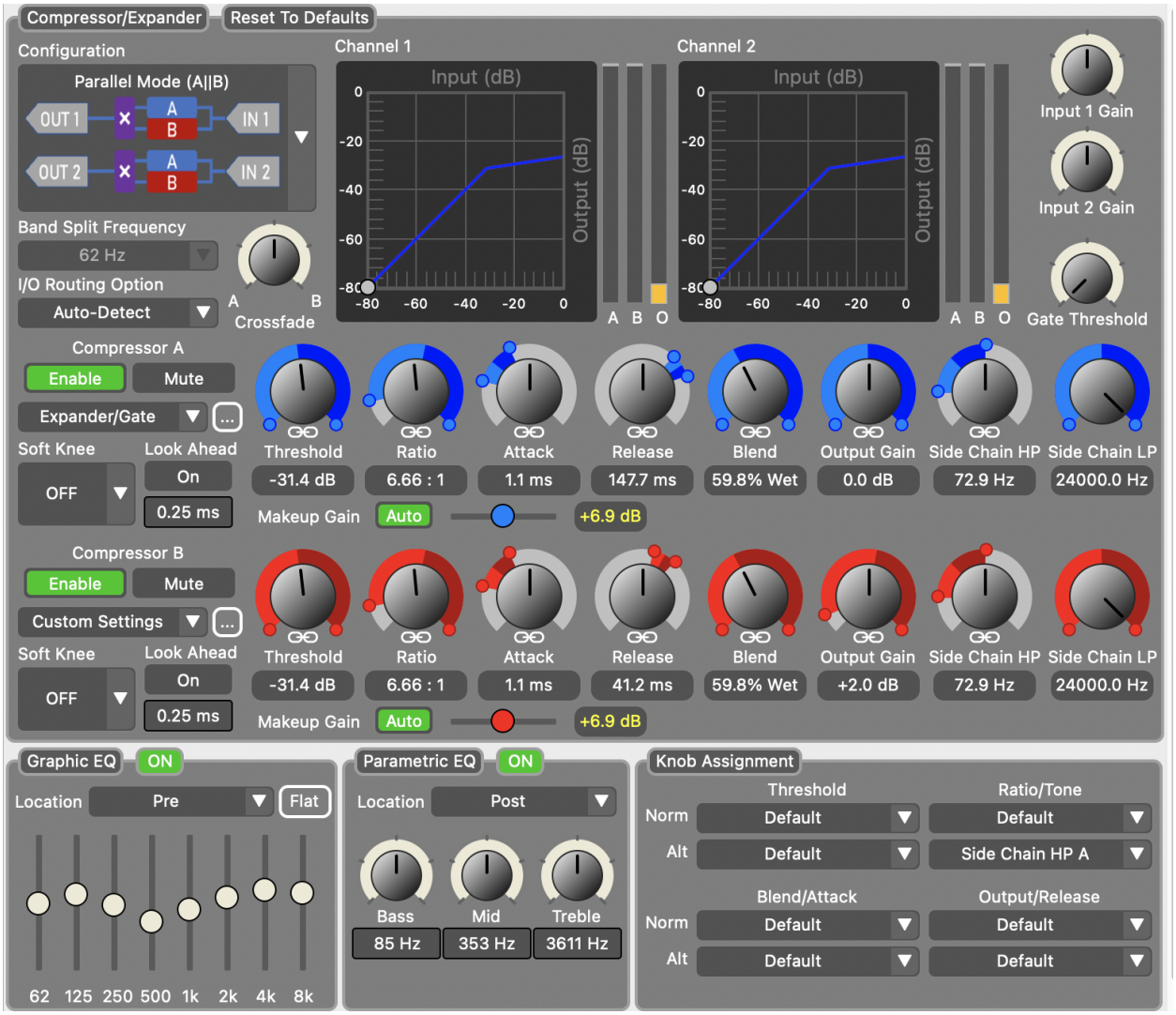


The Atlas's Hardware Options include the following:

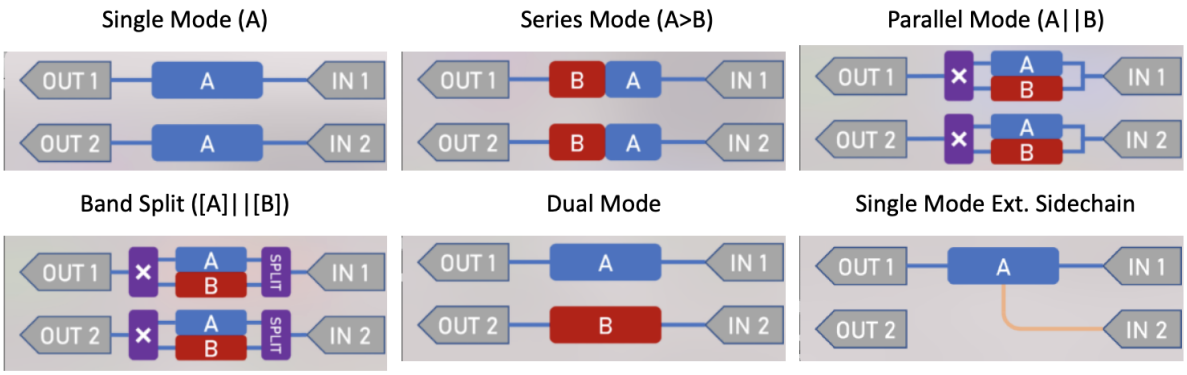
- **Preset/WYSIWYG Mode**: Selects between Preset (all parameters are saved & recalled) and WYSIWYG (the pedal's physical knob positions override where they are set in the preset) modes.
- **Hardware Bypass Mode**: Selects between True or Buffered Bypass.
- **MIDI Channel**: Selects the pedal's MIDI channel (1 through 16).
- **Power Up State:** Selects between engaging or bypassing the effect upon the initial power up of the pedal.
- **Default Input Routing**: Sets the default I/O signal routing mode. Descriptions of the available routing modes are available in the Stereo Operation & Signal Routing section of this manual.
- **Quick Bank Switch Using Footswitch (2 Seconds)**: Enabling this setting allows you to bank to and from the secondary (red LED) bank of presets by pressing + holding down the footswitch for 2 seconds instead of 5 seconds.
- **Always use Main LED to display Gain Reduction**: By default, the Atlas's main (ON/OFF) LED shows gain reduction by flashing red whenever gain reduction (compression) is being applied to your input signal.
- **Factory Presets Dropdown Menu**: By default, the factory presets are tuned and optimized for guitar, but you can also optimize the Atlas's factory presets for bass.
- **Pedal Input & Control Input Calibration** (**Accessible via the Show Expression Pedal Calibration dropdown controls**): In some cases, it might be necessary to adjust the calibration range of an expression pedal to get the desired pedal response when using expression control either through the Neuro Hub, a direct connection to the Source Audio Dual Expression Pedal, or a 3rd-party pedal. To perform the calibration process, connect the pedal and press the "Calibrate" button. Then rock the pedal back and forth to set the minimum value and the range. When complete, press the "Stop and Set" button to retain the new calibration values. Or press "Reset" to return to the default values.

Sound Editor

Selecting the Wrench icon in the Connections tab opens the sound editor for the Atlas Compressor. Within the Atlas editor there are live gain reduction readouts for each channel that interact with each relevant parameter. Additionally, the Atlas has two internal compressors, which doubles to four in Dual mode. Using the Configuration dropdown menu, you can select between a wide variety of configurations for these compressors, including Cascade B->A and Parallel compression.



Configuration: Select how the Atlas's onboard compressors are configured within the signal path. Choose between the options below.



Band Split Frequency: For dual mode only, this is the point on the frequency spectrum at which the two bands in the Dual Band compressor are split.

I/O Routing Option: By default, the Atlas uses an auto-detecting routing system, but you can use this menu to manually put presets into Mono In, Stereo Out or Stereo In, Stereo Out routing.

Crossfade: A pan knob between Compressor A and Compressor B.

Input 1 Gain: Use this control to boost or cut input gain for Input 1.

Input 2 Gain: Use this control to boost or cut input gain for Input 2. These controls are useful if you are planning on using the Atlas's inputs for different instruments with varied signal strengths.

Gate Threshold: Dial in an internal noise gate that cuts any signal noise below the decibel threshold.

Compressor A & B settings

Enable: Switches on this compressor channel. Use "Enable" to use Compressor A, B, or both.

Mute: Mutes this compressor channel.

Compressor Selector Dropdown: Select a premade compressor circuit. Select from a list of options:

Peak, RMS, Optical Rack Peak, Optical Rack RMS, FET Rack, FET Pedal, Vari-Mu, Fast Limit, Slow Limit, Squish, Squeeze, Dual A, Dual B, and Expander/Gate.

Threshold: Adjusts the decibel (dB) level at which compression is applied. A lower threshold means that compression is applied at lower signal levels, meaning that less pick attack is needed to trigger the compression. This point is called the "knee". Any signal lower than the knee will not be compressed, and any signal with a level higher than the knee will be compressed.

Ratio: Adjusts the severity of the compression applied to your signal. As you increase this knob, you will see the line begin to flatten at the knee.

Attack: Adjusts how quickly, in milliseconds, the compression is applied to your signal after playing a note. Turn counterclockwise for fast attack times or turn clockwise for slower attack times.

Release: Adjusts how quickly, in milliseconds, the compression "lets go" of your signal after it has been applied. Turn counterclockwise for fast release times or turn clockwise for slower release times (more sustained compression).

Blend: Acts as a clean blend between the dry and compressed signal. Fully counterclockwise is completely compressed—no clean signal. Fully clockwise is 100% clean, no compressor. Mixing dry signal back into your compressed tone is what is known as "parallel compression" and is often utilized in studios.

Output Gain: Adjusts the level of gain after the compressor. Increase for heightened overall output. Output Gain cuts or boost the gain of both wet and dry (uncompressed) signal levels.

Sidechain LP: Brings in a low-pass filter applied to the compressor's input.

Sidechain HP: Brings in a high-pass filter applied to the compressor's input.

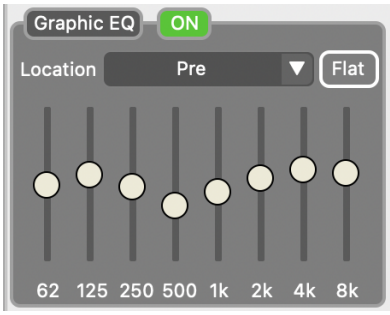
Soft Knee Width: When your signal approaches the point of compression at the threshold, the transition can often sound abrupt. Soft Knee Width adds a smoothness to the knee to ease the transition into compression, with higher values creating an increasingly more subtle feel.

Look Ahead: When enabled, a short delay of 0.25-2 milliseconds is utilized before the compressor kicks in, preventing any potential clipping or unwanted dynamics from reaching the compression part of the circuit.

Makeup Gain: Affects the compressed signal only. Use this gain control to even the levels between your dry and compressed signal, as audio compression typically results in some loss of output that needs to be recouped with a gain control.

> *Auto Makeup Gain:* By default, the Atlas uses an "auto makeup gain" feature that analyzes the level of your input signal and matches the compressed signal so you can edit your compressor's controls without having to worry whether they will be too quiet or too loud compared to when the effect is off.

Graphic Equalizer Module



For ultimate tone-sculpting, we've included an 8-band graphic equalizer within the Atlas Compressor. The Graphic EQ can be switched on or off per preset. Additionally, the graphic EQ can be applied either before (Pre) or after (Post) using the "Location" dropdown menu.

The filters, represented as sliders, are very powerful and will help you make fine tweaks to achieve the precise tone you're searching for. If you would like to start over creating your EQ curve, hit the "Flat" button, and all the sliders will reset back to the middle.

Parametric Equalizer Module

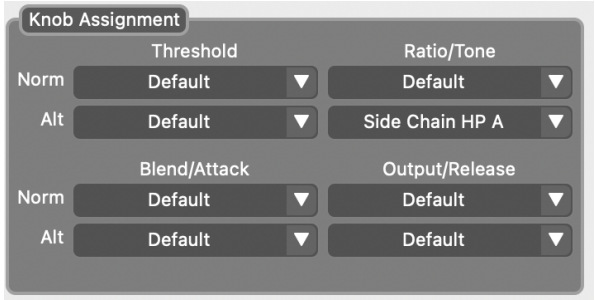
For even more detailed tonal editing, a Parametric Equalizer is also onboard the Atlas's sound editor, and like the Graphic EQ can be applied to the signal path either before or after compression.

Bass: Adjusts the overall low end per preset. The frequency value in Hz can be adjusted by clicking within the readout box and dragging up or down.

Mid: Adjusts the overall mid frequency level per preset. The frequency value in Hz can be adjusted by clicking within the readout box and dragging up or down.

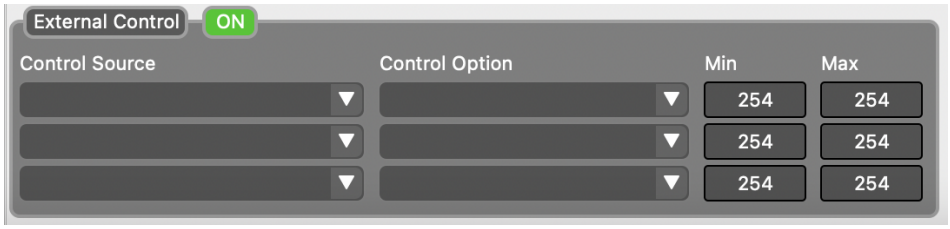
Treble: Adjusts the overall top end per preset. Typically, the "Treble" frequency in the parametric equalizer is the frequency that the "Tone" control cuts or boosts. The frequency value in Hz can be adjusted by clicking within the readout box and dragging up or down.

Knob Assignment Module



Many Source Audio pedals contain knob assignment (or re-assignment) controls for top-level flexibility. The Atlas is no different. Each of the top four knobs and each of the four ALT controls can be reassigned in this module from a list of parameters. The knob assignments are set and stored on a preset-by-preset rather than global basis for ultimate flexibility of control.

External Control

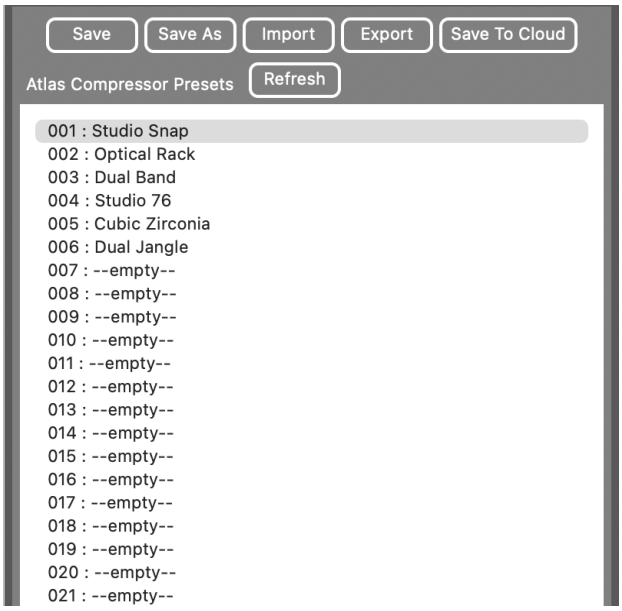


Control up to three parameters with a Source Audio Dual Expression Pedal or Tap Tempo Switch. Use the dropdown menus in the External Control block to select the expression device (Control Source) and controlled parameter (Control Option). Use the Min and Max fields to set the depth of the expression sweep.

Presets

The Presets section is located on the right side of the Neuro Desktop interface. There you will find a list of all the presets and empty preset positions available in your Atlas. The Presets section is also where

you Save, Import, and Export presets. The buttons located at the top of the Presets field perform the functions listed below:



- **Save As Button**: After creating a new preset hit the Save As button and you will be prompted to name it and select the preset or Effect Selector position to which it will be saved.
- **Save Button**: If you have made edits to a pre-existing preset, use the Save button to update the preset without changing its name or preset position.
- **Export Button**: Use the Export button to save a preset on your computer or share it with other musicians. Presets are saved as .pre files and stored anywhere on your computer (we recommend creating a dedicated folder to store your presets). After creating a preset, hit the Export button - a window will pop up, asking you to name, tag, and select a location for the preset. After the preset is saved, the .pre file can be shared via email or any common file sharing method.
- **Import Button**: Use the Import button to upload saved .pre files to your Neuro Desktop Editor. Upon clicking the Import button, you will be asked to find the .pre file. Simply go to your Neuro presets folder, select file, and upload.
- **Refresh Button**: Hit the Refresh button to restore the Neuro Desktop edits to the state immediately after your last save procedure.
- **Hardware Presets**: This is where all your pedal presets are listed. Use the Save As button to select where you would like to store an edited preset—you can choose from any of the 128 preset positions.

The Neuro Mobile App — with New Direct MIDI-USB Support

Like all Source Audio One Series pedals, the Atlas is fully supported in the Neuro Mobile app. The Neuro Mobile app is available for iOS and Android devices and allows access to all the preset parameters and hardware options described in the Neuro Desktop editor section above.

Connecting to the Neuro Mobile App (USB-MIDI)

The Atlas is the fourth Source Audio pedal after the EQ2, Ultrawave and C4 to add two-way communication with the Neuro Mobile app using MIDI over USB. To connect the Atlas to the mobile device you will need the proper cable adapters.

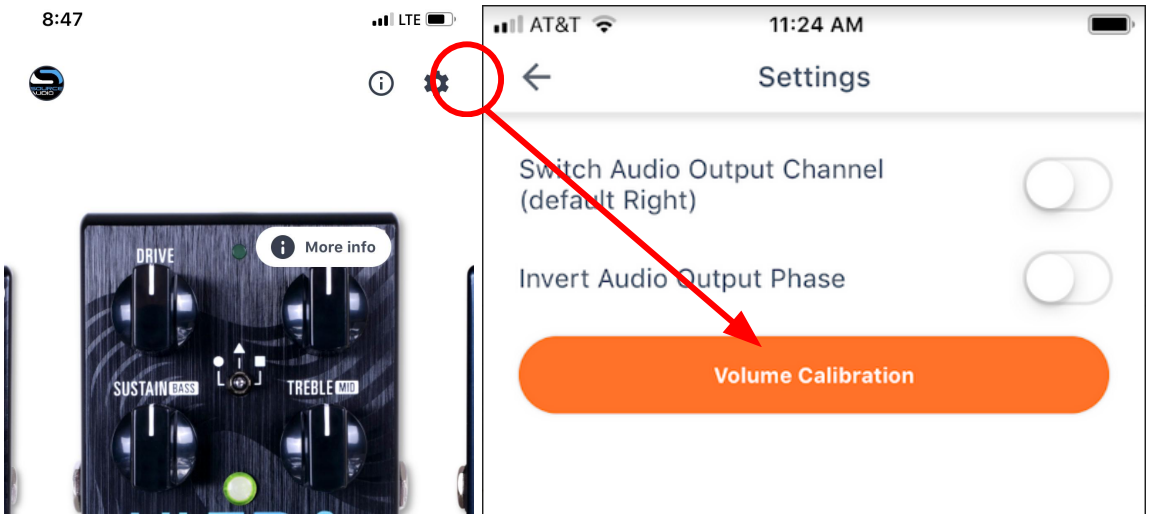
- iOS Devices – Any iOS device with a lightning connector is supported. A "Lightning to USB Camera Adapter" is required. Connect the adapter to the USB A/B-mini cable that was included with your Atlas.

- Android Devices – Android devices may have either USB-micro or USB-C connectors that will support MIDI over USB communication with the Atlas. You will need the appropriate USB B/C (male) to USB A (female) adapter to use with the included USB A/B-mini cable. Note that the USB B-micro to USB A adapter is sometimes called an OTG (On-The-Go) adapter.

Connecting to the Neuro Mobile App (headphone jack – *Legacy Option*)

The Atlas also supports one-way communication between a mobile device and the pedal using the included TRS ¼" to 1/8" cable. Connect the cable to the headphone jack of your mobile device and Input 2 of the Atlas. The cable is a TRS (stereo) connector that uses the "Right" channel to send data over audio signals to the pedal.

When using the headphone jack connection, we recommend using the Volume Calibration features in the Neuro Mobile app to set test and configure the audio output for the most reliable communication between the mobile device and pedal.



Neuro Hub

The Source Audio Neuro Hub (sold separately) unites Source Audio pedals from the Soundblox 2 and One Series families to create a single, stage-ready effects system. It features shared MIDI, passive expression pedal input, Hot Hand connectivity, and USB, and can connect to up to five Source Audio pedals. The Neuro Hub features a powerful scene saving functionality, which allows you to create up to 128 multi-pedal presets known as scenes, each recallable via MIDI program change messages. Connect the Neuro Hub to your computer via USB for updates, saving and editing multi-pedal presets, and more. To connect the Atlas to the Neuro hub, use a 3.5 mm TRRS cable and make a connection

between the Atlas's Control Input jack and any of the Neuro Hub's multi-function outputs. For more information, refer to the Neuro Hub documentation on the Source Audio website.

MIDI

Using a Neuro Hub connected to the pedal's Control Input or a USB connection, the Atlas can be controlled by generic MIDI Continuous Controller (CC) and Program Change (PC) messages. Many of the Atlas's parameters (even those that are not assigned to a control knob) are directly accessible via MIDI continuous controller messages.

MIDI Channel

By default, the Atlas responds to MIDI Channel 1. The Atlas ignores all MIDI messages sent to it that are not on its channel. The input MIDI channel for the Atlas can be changed in the Hardware Options menu of the Neuro Editors. Note that the MIDI Input Channel is a **global** setting that is NOT saved per preset. Note that some manufacturers begin counting MIDI channels at zero (from 0 to 15), while the Source Audio Neuro Editors use the convention of counting from 1 to 16.

Selecting Presets via Program Change (PC) Messages

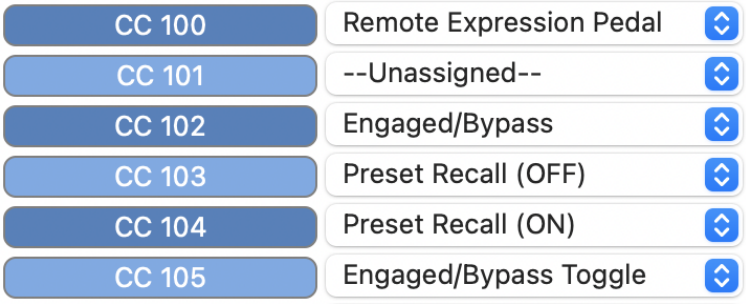
The 128 user presets on the Atlas can be recalled via program change messages. Presets 1 to 128 are mapped to MIDI Program Change messages 1 to 128.

It is possible to save presets with the Atlas bypassed.

Many of the parameters in the Atlas can be controlled via MIDI. For more details, see MIDI Implementation.

Controlling the Atlas with MIDI Continuous Controller (CC) Messages

The Atlas responds to MIDI Continuous Controller (CC) messages, shown below. The pedal comes already mapped to a default set of CC numbers. For a complete list of default MIDI mappings and ranges, connect the Atlas to the Neuro Desktop Editor via USB, select the Atlas as a Device by clicking inside the blue box in the left margin, then go to Device > Edit Device MIDI Map.



Custom CC Mapping

The default MIDI map provides control over parameters using specific Continuous Controller messages. It is also possible to override the default map and create a custom mapping. Custom MIDI CC mappings are global, meaning they are not unique per preset. The CC mapping will apply in all situations, regardless of which preset is active.

To create a custom MIDI CC mapping, follow these steps:

- Connect your Atlas to the Neuro Desktop Editor.
- Select the Atlas as a device by clicking inside the blue box in the left margin.
- In the top bar menu select *Device* then *Edit Device MIDI Map* from the dropdown menu.
- The Atlas *MIDI Map Editor* window will open. Simply scroll to the MIDI CC value you wish to remap and click that CC's dropdown menu. A list of parameter choices will unfold.
- Select the parameter you wish to re-assign to the chosen CC. The process is complete.

USB

The Atlas's USB port is plug-and-play ready for Windows and Mac computers. The Atlas uses class-compliant drivers, so no special drivers are needed. Just power up the Atlas and connect it to the computer using a USB cable. The computer will automatically recognize the Atlas, which will be identified as "One Series Atlas Compressor" in the operating system.

The USB connectivity can also be used to connect to your mobile device and use the Neuro Mobile App with your Atlas Compressor. See The Neuro Mobile App – with New Direct MIDI-USB Support section of this user guide for more details.

USB connectivity brings many benefits, such as the ability to connect with the Neuro Desktop Editor and for downloading Atlas firmware updates, accessing an advanced set of effect editing parameters, and downloading alternate engines. The USB port also provides MIDI connectivity to a DAW.

USB-MIDI

The Atlas will appear as a MIDI device in your computer's operating system. As a result, the Atlas can communicate with audio production software that utilizes MIDI, such as Pro Tools, Ableton Live, Logic Pro, and more. MIDI messages can be sent directly to the Atlas using the USB connection, which allows for full automation of the Atlas within host software such as a DAW.

Specifications

Dimensions

- Length: 11.4 cm (4.5 inches)
- Width: 7.00 cm (2.75 inches)
- Height (not including knobs and footswitches): 3.71 cm (1.46 inches)
- Height (including knobs and footswitches): 5.1 cm (2 inches)

Weight

- 280 grams (0.625 pounds)

Power

- 200mA @ 9V DC
- Center negative, Barrel positive plug, 2.1 mm inner diameter, 5.5 mm outer diameter

Audio Performance

- Maximum Input Level: +6.54 dBV = 8.76 dBu = 2.12 V RMS = 6.0 V p-p

- Full Scale Output Level: +6.54 dBV = 8.76 dBu = 2.12 V RMS = 6.0 V p-p
- Input Impedance: 1 Mega Ohm (1 MΩ)
- Output Impedance: 600 Ohm (600 Ω)
- 110 dB DNR Audio Path
- 24-bit Audio Conversion
- 56-bit Digital Data Path
- Universal Bypass (relay-based true bypass or analog buffered bypass)

Troubleshooting

Restore Factory Settings

To revert the Atlas to its factory settings, clearing all user data, presets, expression mappings, and changes to the MIDI mapping, use either the Neuro Mobile App or Neuro Desktop Editor and choose the Factory Reset option in the Hardware Options menus. It is also possible to perform a factory reset without the Neuro App by following these steps:

- Press and hold the Footswitch.
- Connect the power supply.
- The Control Led will blink rapidly until the reset is complete. You can stop holding the Footswitch once the Control Led starts to blink.

Noise/Hum

Power source: Ensure that the proper power supply is being used.

Near noise source: Move pedal away from power supplies and other equipment.

Other equipment: Remove other effects from signal chain; see if noise persists.

Bad cables: Swap out audio cables.

USB ground loop: When connected to a computer using a USB cable, noise can appear in the audio signal. This usually results from ground loop noise due to the Atlas and computer running on separate power supplies. In the case of laptops, disconnecting the computer's power supply and running it on a battery can often mitigate the noise. External display monitors are often the primary source of noise and powering down monitors can also resolve noise issues.

Ground loop with amp: Make sure your Atlas is running on the same power mains circuit as your guitar amplifier.

Unit Appears Dead / No LEDs Lit

Wrong power supply: Use correct power supply. See the DC 9V (Power) section for more details.

Frequently Asked Questions

What kind of instruments can I connect to the Atlas's inputs?

The Atlas's audio inputs are high impedance (~ 1 MΩ) and they can accept high impedance signal sources like guitars/basses with passive pickups, as well as low impedance sources like line-level audio

circuits, guitars/basses with active pickups, electronic keyboards, or mixer outputs. The input circuit can handle signals ranging up to 6.0 Volts, peak-to-peak.

Can I power the Atlas's directly over USB, without using the 9 Volt supply?

No. USB provides 5 Volts, but the Atlas needs 9 Volts, so the Atlas cannot be powered directly from USB.

When connecting the Atlas to a recording interface or mixer, should I use a Lo-Z (microphone) or Hi-Z (line / instrument) input?

The Atlas's output will be low impedance when the effect is active or in buffered bypass mode, but it will be high impedance when using true bypass mode and a guitar with passive pickups. Therefore, it is recommended that you use a high impedance (Hi-Z) input on your recording interface or mixer to avoid signal loss.

Why doesn't the Atlas respond to MIDI messages being sent to it?

By default, the Atlas should respond to MIDI continuous controller messages on channel 1. The Atlas's MIDI channel can be configured using the Neuro Editors. Channel numbers in MIDI use zero-based counting, so MIDI channel 1 is described as 0 in hexadecimal, MIDI channel 2 is described as 1 in hexadecimal, and so on, concluding with MIDI channel 16, which is described as F in hexadecimal. A continuous controller message starts with a hexadecimal B and is followed by the channel number (0 through F).

So, the command byte from your MIDI controller should be formatted as shown in the following table:

MIDI Channel (Decimal)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
CC Command Byte (Hex)	B0	B1	B2	B3	B4	B5	B6	B7	B8	B9	BA	BB	BC	BD	BE	BF

Each continuous controller command byte is followed by two bytes: the CC number and the value. So, each CC message consists of a total of three bytes. If the Atlas is not responding to MIDI, make sure that your MIDI controller is properly configured and sending messages in the format described above.

Can I use the Atlas in my amp's effects loop?

The Atlas's audio inputs can handle up to 8.76 dBu or 6.0 Volts peak-to-peak, which allows it to work in most amp effects loops. Be sure to check your amp's documentation to verify that the maximum send level is less than the Atlas's maximum input level.

How do I update the firmware?

Firmware updates are available via the Neuro Desktop Editor using the USB port. Power the pedal and connect it to your computer using a mini-USB cable. The Neuro Desktop Editor is available from Source Audio's website: http://www.sourceaudio.net/editorsandfirmware.html. While the pedal is connected, select the Arrow Icon located in the Atlas Compressor square in the Connections field.

Mac isn't letting me download your software?

Mac users may see this warning message when trying to open the Neuro Desktop software: "App can't be opened because it was not downloaded from the Mac App Store." In order to run the Neuro

Desktop, please refer to the steps in this Apple support article: https://support.apple.com/en-us/HT202491.

Rubber Feet

The Atlas comes standard with a flat aluminum bottom, making it easy to apply Velcro and mount to a pedalboard. Additionally, adhesive rubber feet are included in the At box. Applying the rubber feet to the Atlas can help prevent it from sliding on flat surfaces such as a hardwood floor.

Waste Disposal Notes

If possible, dispose of the device at an electronics recycling center. Do not dispose of the device with the household waste.

For full compliance with EN 61000-4-6 standard, input cable must be less than 3 meters in length.

Warranty

Limited Transferrable Warranty

Source Audio, LLC (hereinafter “Source Audio”) warrants that your new Source Audio Atlas Compressor, when purchased at an authorized Source Audio dealer in the United States of America (“USA”), shall be free from defects in materials and workmanship under normal use for a period of two (2) years from the date of purchase by the original purchaser. Please contact your dealer for information on warranty and service outside of the USA.

Under this Limited Warranty, Source Audio’s sole obligation and the purchaser’s sole remedy shall be repair, replacement, or upgrade, at Source Audio’s sole discretion, of any product that, if properly used and maintained, proves to be defective upon inspection by Source Audio. Source Audio reserves the right to update any unit returned for repair and to change or improve the design of the product at any time without notice. Source Audio reserves the right to use reconditioned parts and assemblies as warranty replacements for authorized repairs. Any product repaired, replaced, or upgraded pursuant to this Limited Warranty will be warranted for the remainder of the original warranty period.

This Limited Warranty is extended to the original retail purchaser. This Limited Warranty can be transferred to anyone who may subsequently purchase this product provided that such transfer is made within the applicable warranty period and Source Audio is provided with all of the following information: (i) all warranty registration information (as set forth on the registration card) for the new owner, (ii) proof of the transfer, within thirty (30) days of the transfer, and (iii) a photocopy of the original sales receipt. Warranty coverage shall be determined by Source Audio in its sole discretion. This is your sole warranty. Source Audio does not authorize any third party, including any dealer or sales representatives, to assume any liability on behalf of Source Audio or to make any warranty on behalf of Source Audio.

Warranty Information

Source Audio may, at its option, require proof of the original purchase date in the form of a dated copy of the original authorized dealer's invoice or sales receipt. Service and repairs of Source Audio products are to be performed only at the Source Audio factory or a Source Audio authorized service center. Prior to service or repair under this Limited Warranty, the purchaser must request from Source Audio a return authorization, which is available at:

Source Audio LLC
120 Cummings Park, Woburn, MA 01801
(781) 932-8080 or at www.sourceaudio.net

Unauthorized service, repair, or modification will void this Limited Warranty.

Disclaimer and Limitation of Warranty

Do not open the effects pedal under any circumstance. This will void the warranty.

The foregoing limited warranty is the only warranty given by Source Audio and is in lieu of all other warranties. All implied warranties, including warranties of merchantability and fitness for any particular purpose, exceeding the specific provisions of this limited warranty, are hereby disclaimed and excluded from this limited warranty. Upon expiration of the applicable express warranty period, Source Audio shall have no further warranty obligation of any kind, express or implied. Source Audio shall in no event be liable for any special, incidental, or consequential damages suffered by the purchaser or any third party, including without limitation, damages for loss of profits or business or damages resulting from use or performance of the product, whether in contract or in tort. Source Audio shall not be liable for any expenses, claims, or suits arising out of or relating to any of the foregoing. Some states do not allow the exclusion or limitation of implied warranties so some of the above limitations and exclusions may not apply to you. This Limited Warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state. This Limited Warranty only applies to products sold and used in the USA. Source Audio shall not be liable for damages or loss resulting from the negligent or intentional acts of the shipper or its contracted affiliates. You should contact the shipper for proper claims procedures in the event of damage or loss resulting from shipment.

Version History

May 5, 2022: Initial release

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