GHOST NOTE
AUDIO

AMVERB
FIRMWARE REVISION II

USER MANUAL

CONTROLS

To achieve unity gain, set Input to 50% and Output to 100%

To access secondary function on the knobs, hold down the BANK button while turning the knob

Outputs
Stereo output.
Line-level, 1/4" connectors

Input
Controls the input gain.
Ranges from ±12dB, with unity gain of 0dB in the middle.
If the input signal is clipping, the left "Preset" LED will flash to indicate this.

Low
Low shelf EQ with ±6dB range. At noon the the filter is flat

Freq
Sets the corner frequency for the low shelf EQ, from 60 Hz to 600 Hz

Tail
Changes the bypass behaviour of the pedal. When Off, the pedal uses a relay-based true bypass, which cuts the signal instantly. When set to On, the pedal stays permanently engaged, but the input signal to the reverb tank is muted. This lets reverb tails decay naturally when bypassing the effect.

Preset
Switches between two presets (red and blue). When tweaking the controls, the selected preset is automatically updated in realtime.

Mix
Controls the blend of wet and dry signal. At noon, both wet and dry signals are at 100%

Inputs
Stereo Input.
Line-level, 1/4" connectors

Output
Controls the output gain.
Ranges from -30dB at minimum to 0dB (unity gain) at maximum.
If the Output is set too high, the signal will clip, and the "Active" LED will flash to indicate this.

High
High shelf EQ with ±6dB range. At noon the the filter is flat

Freq
Sets the corner frequency for the high shelf EQ, from 1 KHz to 10 KHz

Program
Scrolls through the 8 programs in the selected Bank

Predelay
Adds up to 500ms of additional delay to the wet signal

Stereo
When set to Off, the left and right outputs are mixed together, and the pedal outputs a dual mono signal.
When On, the output produces a wide stereo reverb effect

Active
Activates or bypasses the pedal, using the method determined by the Tails switch.

Bank
Switches between 8 different banks of programs, for a total of 64 programs.

With each bank, the programs get increasingly longer and bigger, with the last two banks dedicated to reverse delays and gated reverbs.

INPUT   MIX   OUTPUT

MIDI   EXP

LOW   PROGRAM   HIGH
FREQ   PREDELAY   FREQ

OFF   OFF
ON   ON
TAILS   BANK   STEREO

AMVERB

PRESET   ACTIVE

GHOST NOTE
AUDIO

MIDI CONTROL

MIDI CC Control

CC #1	Input
CC #2	Mix
CC #3	Output
CC #4	Low
CC #5	Program
CC #6	High
CC #10	Low Freq
CC #12	High Freq
CC #13	Bank
CC #14	Tails
CC #15	Stereo
CC #16	Preset
CC #17	Active

MIDI Setup Mode

To select the active MIDI channel, hold down the MODE button and press the PRESET footswitch. This enters Midi Setup mode.

Press the MODE button to cycle through channels 0-15. The four LEDs indicate, in binary, which channel is selected.

Press the PRESET footswitch again to exit Midi Setup mode.

MIDI Channel Select

- 0 (Channel 1)
- 1 (Channel 2)
- 2 (Channel 3)
- 3 (Channel 4)
- 4 (Channel 5)
- 5 (Channel 6)
- 6 (Channel 7)
- 7 (Channel 8)
- 8 (Channel 9)
- 9 (Channel 10)
- 10 (Channel 11)
- 11 (Channel 12)
- 12 (Channel 13)
- 13 (Channel 14)
- 14 (Channel 15)
- 15 (Channel 16)

EXPRESSION CONTROL

Expression Pedal Setup

To select what the expression pedal controls, hold down the MODE button and press the ACTIVE footswitch. This enters Expression Setup mode.

Press the MODE button to cycle through the various modes. The 4 White LEDs as well as the footswitch LEDs indicate what control mode is active

Press the ACTIVE footswitch again to exit Expression Setup mode.

Expression Pedal Settings

- Toggle Preset - use with momentary switch (light blinks)
- Latch Preset - use with continous controller or latching switch
- Control Input Gain
- Control Mix
- Control Output Gain
- Not Used
- Toggle Active - use with momentary switch (light blinks)
- Toggle Active - use with continuous controller or latching switch

SPECIFICATIONS

Input Impedance	500k Ohm
Output Impedance	150 Ohm
Maximum Input Level	+6.2 dBu
Maximum Output Level	+4.0 dBu
Power Connector	2.1mm Centre Negative
Input Voltage	9V DC (or 5V USB-C power)
Input Current	100mA
Samplerate	48Khz
Bit Depth	24 Bit
Frequency Response	40Hz - 20KHz
Midi Input	3.5mm TRS (Type-A)
Expression Input	3.5mm TRS (T=Out, R=Power, S=GND)
Width	83mm (3.25")
Height	125mm (5")
Thickness (incl. Knobs)	55mm (2.15")
Weight	590 grams (1.3 lbs)

FURTHER INFORMATION

Audio Connections

The pedal has stereo 1/4″ unbalanced inputs and outputs. The inputs can accept both line-level or instrument-level signals. The inputs are normalized, so if only one input is connected, the signal is automatically routed to the second input as well.

USB Power

The pedal can be powered over USB. This can be great for reducing the number of cables, if you're using the unit on your desk, next to a computer. However, the USB power input is unregulated and can introduce additional noise from your computer over the USB power bus and cause unwanted noise on the output.

For the best results, we always recommend using a dedicated, high quality 9v power supply.

Firmware Updates

In order to update the firmware version on your pedal, or to upload a different effect altoghether to your hardware, the procedure is simple.

First, make sure the power supply and USB cables are disconnected and that the pedal is off.

Next, hold down the Shift key, and while still pressing it down, connect the USB cable.

This will set the pedal into "bootloader mode", and it will present itself to your computer as a USB storage device.

From there, we can simply download the firmware file we want to upload, and copy it across to the USB storage device. The transfer should only take a second or two, after which the device resets, and your new firmware will be active.

Faceplate Swap

The faceplate can be reversed, the back side contains the same silkscreen printing, but any gold accents are removed, for a cleaner, more readable interface.

The faceplate is attached using 3mm hex key screws - a hex key is included in the box with every pedal.
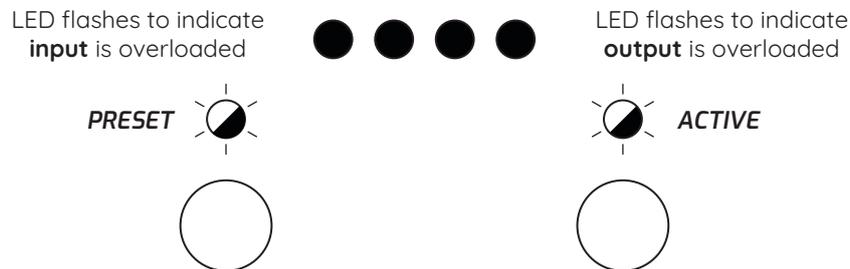
Reprogramming your Pedal

This pedal can be re-programmed to behave as any other pedal in the Daedalus line-up. You do not need to swap out the faceplate in order to test a new effect.

The procedure is the same as when updating the firmware, but you just use the firmware for another effect model. It is perfectly safe (and even encouraged!) to flash your pedal with the firmware of different effect models, if you would like to test them out and see what they sound like.

Input & Output Clipping

The pedal can experience signal clipping, if the input or output signals are too high. This causes unwanted distortion in the sound. **Clipping is indicated by the left and right LEDs flashing.**

To avoid overloading the pedal, reduce the INPUT and/or OUTPUT controls until the LED stops flashing.

LED flashes to indicate **input** is overloaded   LED flashes to indicate **output** is overloaded
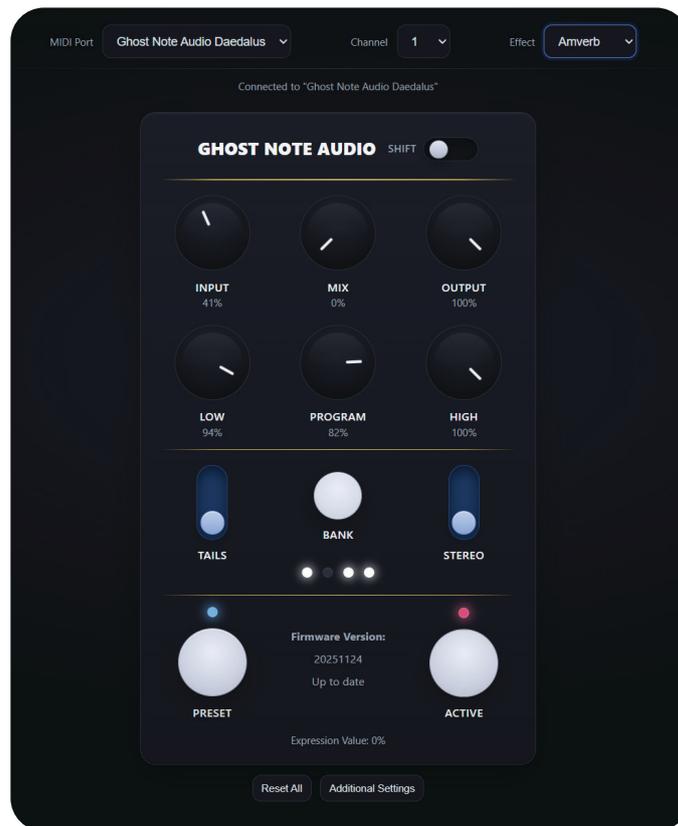
PRESET   *ACTIVE*

WEB-BASED EDITOR

The pedal has a powerful, web-based editor, which uses MIDI to control the pedal in real-time, as well as to access som additional settings not available from the front panel.

Go to https://ghostnoteaudio.uk/products/amverb and click "**Open Web Editor**" to launch it.

Compatible browsers include: Chrome (or another Chromium based browser), Microsoft Edge and Firefox. **Safari is not supported**.

If the pedal is connected via the USB-C port to the computer, the editor will auto-detect the pedal, its firmware and the current settings. When you turn the knobs on the pedal, their position will be updated in real time on the editor. The editor can also be used with the 3.5mm MIDI Input connector, however it will operate in "one-way" mode, as the pedal is not able to send updates back to the computer for real-time feedback, but parameter updates can be transmitted to the pedal.

Clicking the "Additional Settings" button at the bottom of the editor panel will open a dialog with more settings. These are not settings that are meant to be updated in real time, and changing them can result in a short audio dropout. So set these first, before you start using the pedal for playing.

Additional Parameters

Exp Minimum/Maximum Value (Default: 0% 97%)
Set the voltage range for the expression pedal input. If your pedal is not reaching to absolute top/bottom of the value range, try adjusting these sliders to scale up the expression input, until it's able to sweep completely from 0% to 100%

WARRANTY INFORMATION

Ghost Note Audio 2-Year Limited Warranty

Coverage

Ghost Note Audio warrants that your product will be free from defects in materials and workmanship for a period of two (2) years from the original date of purchase. During this period, we will repair or replace (at our discretion) any product found to be defective under normal use.

Exclusions

This warranty does not cover:

- Damage caused by misuse, abuse, accidents, or neglect.
- Unauthorized modifications, alterations, or repairs.
- Damage due to improper power supply, incorrect connections, or unsuitable operating conditions.
- Normal wear and tear (including cosmetic damage such as scratches, finish wear, or worn knobs/switches).
- Loss, theft, fire, flood, lightning, or other natural disasters.

Limits of Liability

Our responsibility is strictly limited to the repair or replacement of defective products as described above. Ghost Note Audio shall not be held liable for any incidental, indirect, or consequential damages, including but not limited to: loss of profits, loss of savings, or damage to other equipment. Liability shall never exceed the original purchase price of the product.

How to Obtain Service

If you believe your pedal is defective and within warranty coverage:

1. If you purchased your unit from a 3rd party retailer or distributor, please contact them directly, and allow them to arrange for warranty services in collaboration with us. All items purchased from authorized Ghost Note Audio Dealers are subject to the Dealer's terms and conditions for Returns. Items purchased from authorized Ghost Note Audio Dealers should not be returned directly to Ghost Note Audio unless you are specifically instructed to do so by us.
2. If you purchased your unit directly from us (via https://ghostnoteaudio.uk) you can contact us through our website's Contact Form to arrange for repairs or replacement.
3. The customer is responsible for shipping the product to Ghost Note Audio. In cases where the fault is clearly the result of a manufacturing defect or a known production issue, we will reimburse your postage cost (subject to a 25 GBP limit). Please discuss the issue with us to determine if you are eligible for refunded postage.
4. If the repair is covered under warranty, return shipping will be covered by us.
5. Non-warranty repairs may be billed for labor and parts, and return shipping will be the customer's responsibility.

Transferability

This warranty is offered only to the original purchaser and is non-transferable.

By using this product, the purchaser accepts all terms outlined in this warranty.

PROGRAM LIST

Bank 1

1 Defeat
2 Small Bright .1 Sec
3 Small Bright .2 Sec
4 Small Bright .3 Sec
5 Medium Bright .6 Sec
6 Medium Bright .6 Sec
7 Medium Bright .8 Sec
8 Medium Bright 1.1 Sec

Bank 2

1 Medium Bright 1.15 Sec
2 Medum Bright 1.65 Sec
3 Medium Bright 1.9 Sec
4 Large Bright 1.2 Sec
5 Large Bright 1.45 Sec
6 Large Bright 1.6 Sec
7 Large Bright 2.4 Sec
8 Large Bright 2.5 Sec

Bank 3

.1 Medium Warm 1.1 Sec
2 Large Warm 1.0 Sec
3 Large Warm 1.1 Sec
4 Large Warm 1.75 Sec
5 Large Warm 2.2 Sec
6 Large Warm 2.3 Sec
7 Xlarge Warm 5.0 Sec
8 Xlarge Warm 15.0 Sec

Bank 4

.1 Large Dark 1.0 Sec
2 Medium Dark .6 Sec
3 Medium Dark .5 Sec
4 Medium Dark 1.0 Sec
5 Large Dark 1.7 Sec
6 Large Dark 2.2 Sec
7 Bloom 1 8 Sec
8 Bloom 2 7 Sec

Bank 5

1 Slow Gate 100 Msec
2 Slow Gate 200 Msec
3 Slow Gate 400 Msec
4 Slow Gate 450 Msec
5 Fast Gate 100 Msec
6 Fast Gate 150 Msec
7 Fast Gate 175 Msec
8 Fast Gate 200 Msec

Bank 6

1 Reverse 150 Msec
2 Reverse 200 Msec
3 Reverse 250 Msec
4 Reverse 400 Msec
5 Reverse 450 Msec
6 Reverse 500 Msec
7 Reverse Regen. 2 Sec
8 Reverse Regen. 8 Sec

Bank 7

1 Light Chorus 1
2 Light Chorus 2
3 Medium Chorus 1
4 Medium Chorus 3
5 Deep Chorus 1
6 Deep Chorus 3
7 2 Tap Ambient
8 3 Tap Pan

Bank 8

1 Multitap
2 Multitap Reverse Pan
3 Thickener/frozen Flange
4 Stereo Generation
5 Stereo Generation Wide
6 Regenerated Delay 2 Sec
7 Regenerated Delay 3 Sec
8 Regenerated Delay 4 Sec