

NNA AudioBridge - User Manual

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Version 1.0 Neutral & Natural Audio

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Introduction

NNA AudioBridge is a pair of audio plugins (Send/Return) enabling real-time audio routing - whether between different DAW instances, VST hosts, or within the same DAW.

Key Features

- **Inter-DAW routing:** Send audio from Ableton Live to Logic Pro, from Cubase to Pro Tools, or any other combination
 - **Intra-DAW routing:** Tap audio from any point in your effect chain and route it anywhere else - no more pre/post fader limitations!
 - **Zero latency:** Automatically compensated by your DAW
 - **16 Returns available:** Organize your routing with a color-coded system
 - **Multi-send:** Multiple Sends can feed the same Return (automatic summing)
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Installation

macOS

1. **Download** the installer from neutralandnaturalaudio.com
2. **Open** the .pkg file and follow the instructions
3. **Restart** your DAW to detect the new plugins

Plugin locations: - AU: ~/Library/Audio/Plug-Ins/Components/ - VST3: ~/Library/Audio/Plug-Ins/VST3/ - CLAP: ~/Library/Audio/Plug-Ins/CLAP/

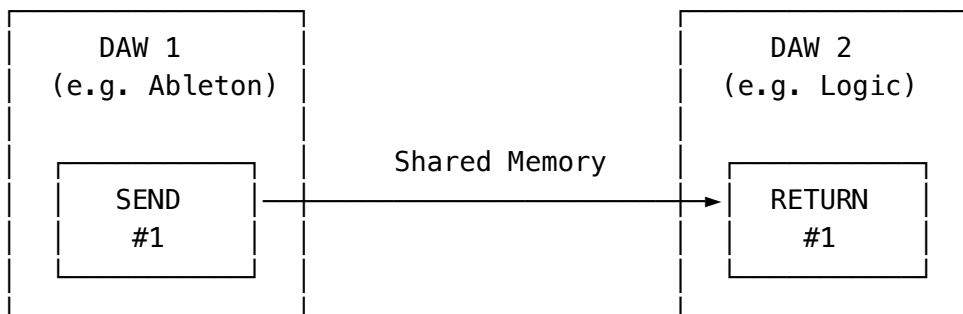
Windows

1. **Download** the installer from neutralandnaturalaudio.com
2. **Run** the .exe file as administrator
3. **Restart** your DAW to detect the new plugins

Plugin location: - VST3: C:\Program Files\Common Files\VST3\ - CLAP: C:\Program Files\Common Files\CLAP\

Basic Concepts

How It Works



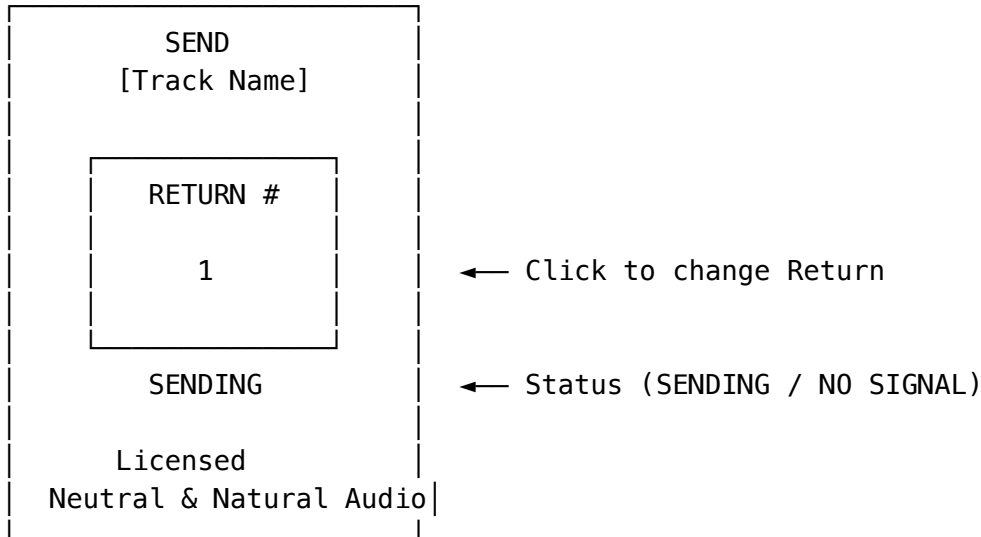
1. **AB Send** captures audio from a track and sends it to a Return
2. Audio travels via the system's shared memory
3. **AB Return** receives audio and outputs it in the other DAW (or the same)

Terminology

Term	Description
Send	Plugin that sends audio to a Return
Return	Plugin that receives audio from Sends (numbered 1 to 16)
Slot	A Send's position on a Return (max 8 per Return)

The Send Plugin

Interface



Features

Return Selection

- **Click** on the central circle (number) to open the selection menu
- Choose a Return from **1 to 16**
- The color automatically changes based on the selected Return

Track Name

- The DAW track name is automatically displayed below the “SEND” title
- **Double-click** to manually edit the name
- This name will appear in the corresponding Return plugin

Signal Indicator

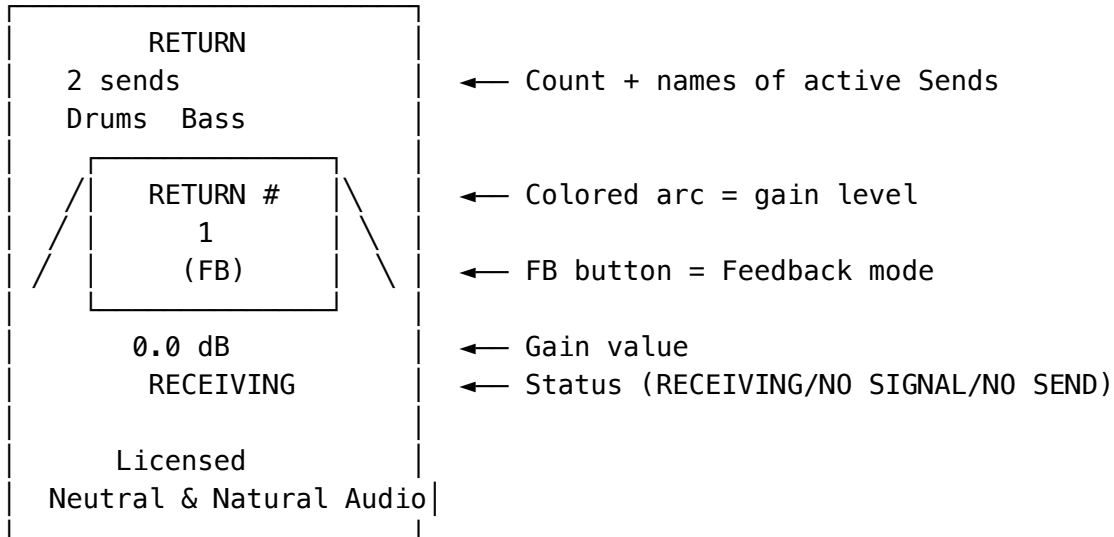
- The central circle border **lights up** when audio signal is detected
- The status displays SENDING (signal sent) or NO SIGNAL (silence)
- Allows visual verification that audio is passing through correctly

License Management

- Click on the license status at the bottom to open the activation window
-

The Return Plugin

Interface



Features

Number Selection

- Same as Send: click on the central circle to choose the number (1-16)
- Must match the Send's number to receive audio

Gain Control

- **Range:** -60 dB to 0 dB (attenuation only, no boost)
- **Control:** Drag vertically on the central circle
- **Reset:** Double-click to return to 0 dB
- **Mouse wheel:** Use the scroll wheel for fine adjustments
- **Visualization:** The colored arc around the circle indicates the gain level
- **-inf:** At -60 dB, the display shows "-inf" (signal muted)

Feedback Mode ("FB" button)

- Small round **FB** button located below the Return number
- **Click** to enable/disable Feedback mode
- Lets you create **same-track feedback loops**: the Return mixes the captured signal with its own track's input, then re-injects it on the next block
- When enabled:
 - Gain is capped at **0 dB maximum** to prevent runaway loops
 - An **extra 1 audio block of latency** is added
 - Gain is automatically reduced by 1 dB on activation (safety)

Active Sends Display

- At the top of the plugin: the **count** of connected Sends (e.g. “2 sends”) followed by their names
- The list turns **red** when all 8 of the Return’s slots are in use
- Status shown: RECEIVING (signal received), NO SIGNAL (Send connected but silent), or NO SEND (no Send connected)

Automation

- The **Gain** parameter is fully automatable in your DAW
 - Record gain movements in your project timeline
-

The 16 Returns

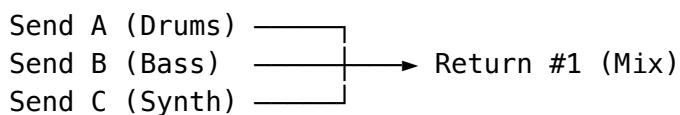
Overview

NNA AudioBridge offers **16 independent Returns**, each identified by a unique color:

#	Color	#	Color
1	 Orange	9	 Red
2	 Green	10	 Violet
3	 Blue	11	 Lime
4	 Purple	12	 Rose
5	 Pink	13	 Sky
6	 Teal	14	 Fuchsia
7	 Yellow	15	 Emerald
8	 Cyan	16	 Amber

Multi-Send

Each Return can receive up to **8 simultaneous Sends**:



- Signals are automatically **summed** (added together)
- Use the Return’s gain to adjust the overall level
- The list of active Sends is displayed in the Return

Best Practices

1. **Organize by type:** Returns 1-4 for drums, 5-8 for instruments, etc.
 2. **Name your tracks:** Names appear in the Return for identification
 3. **One Return per number:** Avoid multiple Returns on the same number
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Latency and Compensation

System Latency

NNA AudioBridge introduces a latency of **1 audio block**:

Buffer Size	Latency at 48 kHz
64 samples	~1.3 ms
128 samples	~2.7 ms
256 samples	~5.3 ms
512 samples	~10.7 ms
1024 samples	~21.3 ms

Note: In **Feedback mode**, the Return adds 1 extra audio block of latency (2 blocks total).

Automatic Compensation

- The **Return** plugin automatically reports its latency to the DAW
- Modern DAWs (Logic, Ableton, Cubase, Pro Tools) **compensate automatically**
- **No action required** on your part

Tips for Minimizing Latency

1. **Use the same buffer size** in all your DAWs
 2. **Synchronize sample rates** between DAWs
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License and Activation

Trial Period

- **14 days** free trial with all features
- Remaining days are displayed in the license window
- After expiration, the plugin no longer processes audio

Activating a License

1. **Open** the license window (click on the status at the bottom of the plugin)
2. **Enter** your email address
3. **Enter** your license key (format: XXXX-XXXX-XXXX-XXXX)
4. **Click** “Activate”

NNA AudioBridge
License

Email:

your@email.com

License Key:

XXXX-XXXX-XXXX-XXXX

Machine ID: ABC123DEF456

[Activate]

Status: Awaiting activation

License Statuses

Displayed label	Description
Licensed	Active, valid license
Trial: X days	Trial period (X days remaining)
EXPIRED	Trial ended, activation required
Offline (Xd left)	Offline mode (X grace days remaining)
Offline - Reconnect	Offline grace exhausted, reconnection required

Offline Mode

- An **activated** license remains valid for **3 days** without internet connection
- After these 3 days, online revalidation is required
- Note: this grace period applies only to activated licenses; an expired trial stays expired even offline

Use Cases

1. Virtual Instruments in a Separate DAW

Problem: Your main DAW is overloaded by virtual instruments.

Solution: 1. Open your heavy VSTi in a **second DAW** (e.g., Vienna Ensemble Pro, Reaper) 2. Insert **AB Send** on each instrument output 3. In your main DAW, create tracks with **AB Return** 4. Mix and record in your main DAW

2. Mixing Between Ableton Live and Logic Pro X

Scenario: Production in Ableton, final mix in Logic.

Ableton Live		Logic Pro X
Drums → Send #1	→	Return #1 → Drums
Bass → Send #2	→	Return #2 → Bass
Synths → Send #3	→	Return #3 → Synths
Vocals → Send #4	→	Return #4 → Vocals

3. External Audio Rendering

Scenario: Using effects from another DAW.

1. **DAW A:** Source audio → Send #1
 2. **DAW B:** Return #1 → Effects (reverb, delay...) → Send #2
 3. **DAW A:** Return #2 = processed audio
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Intra-DAW Use Cases

4. Flexible Routing Within a Single DAW

Problem: Your DAW limits pre/post fader routing.

Solution: - Use AudioBridge to tap audio at any point in the chain - Send audio from any track to any other track

Guitar Track → Send #1 → Return #1 → Reamping Track

5. Creative Sidechain

Scenario: Create complex sidechains impossible with native tools.

- Send multiple signals (using Send) to a single Return
- Useful when the effect plugin doesn't support the DAW's native sidechain

6. Track Summing (Submix)

Scenario: Create subgroups.

Drum Kick → Send #1
Drum Snare → Send #1
Drum HiHat → Send #1



Return #1 → "Drums Submix"

- Sum up to 8 tracks on a single Return
- Each Send's name appears in the Return for easy tracking

Troubleshooting

No Audio Signal

Check	Solution
Same number?	Ensure Send and Return use the same number
Plugin active?	Verify the plugin is not bypassed
Valid license?	Check license status
Incoming signal?	Verify audio is reaching the Send (light indicator)

Crackling or Dropouts

1. **Increase** the audio buffer size
2. **Verify** both DAWs use the same sample rate
3. **Close** resource-hungry applications
4. **Disable** Wi-Fi and Bluetooth if not needed

Plugin Not Showing in DAW

macOS: 1. Open Terminal 2. Run: `auval -a` (for AU) or scan VST3 in your DAW 3. Check permissions in System Preferences > Security

Windows: 1. Verify plugins are in the correct folder 2. Rescan plugins in your DAW 3. Run DAW as administrator

License Error

Message	Solution
"Invalid key"	Verify key entry
"Email not recognized"	Use purchase email
"Network error"	Check internet connection
"Machine not authorized"	Contact support for transfer

Support Contact

- **Email:** contact@neutralandnaturalaudio.com
 - **Website:** neutralandnaturalaudio.com
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Technical Specifications

Plugin Formats

Platform	Available Formats
macOS	AU, VST3, CLAP, Standalone
Windows	VST3, CLAP, Standalone

Audio Specifications

Parameter	Value
Channels	2 (stereo)
Resolution	32-bit float
Sample Rates	44.1, 48, 96, 192 kHz
Max Buffer	8192 samples
Gain range (Return)	-60 dB to 0 dB
Latency	1 audio block (2 blocks in Feedback mode)

System Requirements

macOS: - macOS 10.13 (High Sierra) or later - Intel or Apple Silicon processor - 4 GB RAM minimum

Windows: - Windows 10 or later - x64 processor - 4 GB RAM minimum

Technical Identifiers

Element	Value
Manufacturer	Neutral & Natural Audio
Manufacturer Code	NnAu
Send Code	NABS
Return Code	NABR
Bundle ID (Send)	audio.nna.audiobridge.send
Bundle ID (Return)	audio.nna.audiobridge.return

Keyboard Shortcuts

Within Plugins

Action	Shortcut
Reset gain (0 dB)	Double-click on circle
Fine gain adjustment	Mouse wheel
Change number	Click on central number
Toggle Feedback mode	Click the “FB” button (Return)
Rename track (Send)	Double-click the name

Credits

NNA AudioBridge is developed by **Neutral & Natural Audio**.

- Website: neutralandnaturalaudio.com
- Email: contact@neutralandnaturalaudio.com

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