AntiBleed User Manual

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1. What AntiBleed does

When several people are recorded with one microphone each, every microphone also picks up the other speakers. This bleed makes the mix sound hollow and roomy, because each voice is heard several times with small delays.

AntiBleed is an automatic mixer for speech. It keeps the microphone of the person speaking open and turns the other microphones down, automatically and continuously. You get a cleaner, more direct sound without cutting or riding faders by hand.

2. How it works

One instance per microphone. You insert AntiBleed on every microphone track. The instances find each other automatically and share their levels in real time. You don't need to set up any routing or sidechains.

Gain sharing. Every instance measures the level of its microphone. Each microphone then gets a share of the gain according to how loud it is compared to all the others together:

- When one person speaks, their microphone stays close to full level and the others are turned down.
- When two people speak at the same level at the same time, they share the gain equally and each is reduced by about 6 dB.
- When nobody speaks, the gain is shared equally between all microphones, so the background stays even.

Bleed rejection. On top of the gain sharing, AntiBleed compares each microphone with the loudest one. A microphone that is clearly quieter than the loudest one is most likely only picking up bleed, and it is turned down further. How strict this is depends on the Bleed Reject control.

One group per session. All AntiBleed instances in a session work together as one group. The plugin window shows the number of the current instance and how many instances are loaded, for example "Instance #1 | 2 active". Use it to check that all your instances see each other.

3. Installation and license

AntiBleed is available as VST3 and AU on macOS and as VST3 on Windows.

System requirements. macOS 12 (Monterey) or later, Intel and Apple Silicon. Windows 10 (64-bit) or later.

Installation. Download the installer from clarumaudio.com (a DMG for macOS, a Setup EXE for Windows), run it, and rescan your plugins in your host if AntiBleed does not appear.

Trial. You can try AntiBleed free for 14 days.

Activation. After your purchase you receive a license key by email. Enter the key directly in the plugin window.

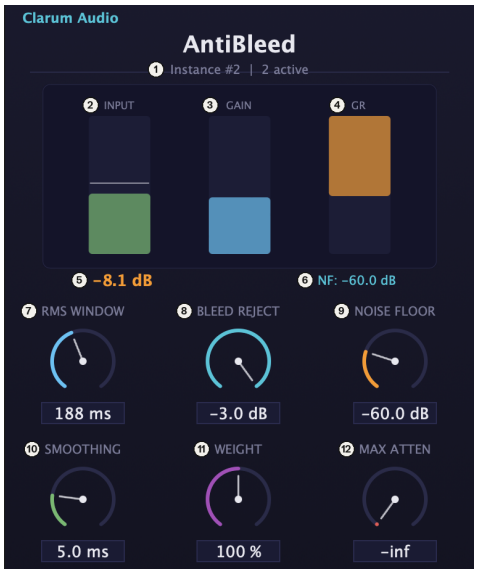
Number of computers. One license can be active on two computers at the same time. Reinstalling the operating system counts as a new activation. If you run out of activations, write to support@clarumaudio.com and we will free one for you.

4. Quick start

1. Insert AntiBleed on every microphone track, one instance per track. Mono and stereo tracks are supported.
2. Open one of the plugin windows and check that the "active" number matches the number of your microphone tracks.
3. Bring all voices to roughly the same level before they reach the plugin, for example with clip gain. AntiBleed compares the microphones with each other, so it works best when the voices are balanced.
4. Place AntiBleed early in the effect chain, before compressors and other dynamics. It should measure the natural level of each voice.
5. Set RMS Window to around 190 ms for a conversation. Leave the other controls at their defaults to begin with.
6. Play the session, listen, and adjust Bleed Reject and Max Atten to taste.

5. Controls

The plugin window



1. **Instance line.** The number of this instance and how many instances are loaded in the session.
2. **INPUT.** The level of this microphone.
3. **GAIN.** The gain AntiBleed is applying to this microphone right now.
4. **GR.** Gain reduction. The bar grows from the top as the microphone is turned down.
5. **Gain reduction readout.** The current gain reduction in dB.
6. **NF.** The current Noise Floor setting.

Numbers 7 to 12 are the six controls, described in the rest of this chapter. The license status is shown at the bottom of the window.

Ranges and defaults

Control	Range	Default
RMS Window	10 to 1000 ms	300 ms
Bleed Reject	-30 to -3 dB	-12 dB
Noise Floor	-80 to 0 dB	-60 dB
Smoothing	0.5 to 100 ms	5 ms
Weight	0 to 200 %	100 %
Max Atten	-inf to 0 dB	-inf

RMS Window

How long the plugin averages the level of each microphone.

Short values react quickly when someone starts speaking. Long values are steadier but slower, and the beginning of a sentence can stay turned down for a moment. For a conversation between two people, around 190 ms is a good starting point. Very long values such as 1000 ms are usually too slow for dialogue.

Bleed Reject

How much quieter than the loudest microphone a microphone must be before it is treated as bleed.

If a microphone is quieter than the loudest one by more than this value, it is turned down further. The further below the value it is, the more it is reduced. At 12 dB below the value it is turned down completely (to the Max Atten limit).

Values close to 0 are strict, values close to -30 dB are gentle:

Setting	Extra reduction starts	Reduced by half	Fully turned down
-3 dB	3 dB below the loudest mic	9 dB below	15 dB below or more
-12 dB	12 dB below the loudest mic	18 dB below	24 dB below or more
-30 dB	30 dB below the loudest mic	36 dB below	42 dB below or more

Tip: with well balanced voice levels, the strictest setting of -3 dB usually gives the cleanest result. If one speaker is much quieter than the others, a strict setting can turn that speaker down while they talk. Balance the levels first, or use a gentler setting.

Noise Floor

The level below which a microphone counts as silent.

A microphone below this level is ignored when the gain is shared, so room noise or a rustling shirt does not open it. Set it just above the background noise of your recording. If quiet speech is being ignored, lower the value.

Smoothing

How quickly gain changes are applied.

Low values are fast and precise. High values make the transitions softer but slower. If you hear the gain changes as abrupt, raise the value. If the beginnings of words sound soft, lower it.

Weight

The priority of this microphone in the gain sharing.

Above 100 % the microphone gets a bigger share of the gain and the others are turned down a little more. Below 100 % it gets a smaller share. This is useful for a host who should always stay slightly more present than the guests. At 0 % the microphone is always turned down to the Max Atten limit.

Max Atten

The most the plugin is allowed to turn this microphone down.

At -15 dB, for example, the microphone is never reduced by more than 15 dB. This keeps some natural room tone and makes the changes less noticeable. At -inf there is no limit and a microphone can be turned down completely.

6. Export and rendering

AntiBleed needs all its instances to run together. This matters whenever you export.

Export the full session. A mixdown of the whole session, with all microphone tracks processed together, is the normal way to export.

Do not render or freeze a single track on its own. When only one track is rendered, the other instances are not running and the plugin has nothing to compare with. If you need one processed track as a separate file, send the other microphone tracks to a muted bus, so they keep being processed without being heard, and render through the master output.

A good habit before every export. Click on an empty spot in the timeline after the end of your tracks, let the session play for a second or two, stop, and then export. This makes sure the export starts from silence and not from the levels left over from where you last stopped playback.

7. Troubleshooting

The "active" number is lower than the number of instances I inserted.
The instances can only see each other when the host runs them together. Some hosts can run every plugin in a separate, isolated process (often called plugin sandboxing). Turn this option off for AntiBleed, or choose the mode that runs all plugins together.

The exported file is quieter than playback, or the beginnings of sentences are turned down.
Use the habit described in chapter 6 before exporting. Also try a shorter RMS Window, around 190 ms.

A quiet speaker is turned down while talking.
Balance the voice levels before the plugin. If that is not possible, use a gentler Bleed Reject setting (closer to -30 dB) or raise the Weight of the quiet microphone.

The background noise goes up and down between sentences.
Set Max Atten to a moderate value such as -15 dB instead of -inf, and raise Smoothing.

The first syllables sound soft or late.
Shorten the RMS Window and lower Smoothing.

The license cannot be activated after reinstalling the system or changing computers.
All activations of your license are in use. Write to support@clarumaudio.com and we will free one for you.

8. Technical details

- Formats: VST3 and AU (macOS), VST3 (Windows)
- Systems: macOS 12 or later (Intel and Apple Silicon), Windows 10 64-bit or later
- Channels: mono and stereo
- Instances per session: up to 16. Additional instances pass the audio through unprocessed.
- Latency: none added