

PHON Quick Start

Software monitor controller for macOS · version 1.0.3

Ten minutes, by ear, no measurement. You will set your two sources, your speakers, and the level you call your reference. That is enough for PHON to do its job. Numbers in brackets point into the full manual, if you want the detail later.

You need	
A Mac	macOS 13 or later. Capturing another application live needs macOS 14.2 or later.
An output	An audio interface, the built-in output, or a virtual device.

1 Install, and allow

Open the package from neutralandnaturalaudio.com/download.html and follow the steps. PHON installs no driver, no kernel extension and no virtual device: nothing changes in your DAW, and your master fader never moves again.

On the first launch macOS asks for permission. **Screen & System Audio Recording** is what lets PHON capture another application's audio; **Microphone** is what lets it read a hardware input or a virtual device. PHON keeps running without them, and the source starts by itself once you grant one. (2.2)

2 Choose your two sources

Open **Settings > Audio Settings** (Cmd+,). The **SOURCES** table has one row per source: a label, the source itself, its channels.

- **Source A**, your mix. Normally your DAW: pick it in the list if it is playing, or the virtual device or hardware input it feeds.
- **Source B**, your reference. Whatever plays it: Spotify, Apple Music, a browser. Nothing to import, nothing to bounce.
- Give each a **label**. It is what the two buttons in the main window will say.

Note. An application appears in the list only while it is actually producing audio. If yours is missing, start playback in it and open the list again. (4.1)

3 Choose your outputs

In the **OUTPUTS** table, set at least **output A**: a device and a channel pair. Add **B** and **C** if you have an alternate pair or headphones; their buttons appear in the main window as soon as they have a device. Each output remembers its own volume, trims, routing and protection. (4.2)

4 Set your reference, by ear

This is the only setting that needs a decision, and it takes a minute. **0 dB on the fader is your reference level** — the level you trust, the one you have made good decisions at.

1. Play something you know well on source A.
2. Put the PHON fader at **0 dB** (the 0 button under the meter).
3. Now set the loudness with **your monitors** — their own volume knob, or your interface's output level — until you are at the level you would normally mix at. Comfortable, not loud.
4. Leave it there. That is your reference, and PHON now measures everything from it.

That is all. You can calibrate properly with an SPL meter later, and then the fader and the meter will read in dB SPL against a broadcast, cinema or mastering standard (chapter 5). It changes none of what follows: the compensation depends on how far you turn **down from your reference**, not on the absolute level in the room.

5 What PHON does from there

Note. At 0 dB, nothing is applied. No EQ, no processing, no colour: exactly the sound you are used to. The compensation exists only below your reference, and it disappears the moment you come back up to 0.

Turn the fader down and your ears stop hearing the low end — that is physiology, not your speakers, and it is why a mix made quietly comes back boomy. PHON gives back exactly what the ear loses at that level, and no more: the difference between the two equal-loudness contours, as one low shelf that follows the fader. (6.2)

So you can mix at a level that lets you work all afternoon, and still hear the balance you would hear at your reference. Drop to 0 whenever you want the raw truth back.

6 Set the dosage, by ear

The **LOUDNESS** fader scales the compensation from 0 to 100 %. ISO 226 describes an average listener; you are not average, and neither is your room. Five minutes settle it.

- Play something you know well and set the volume to **0 dB**, your reference. Listen to the low end. This is the balance you are trying to keep.
- Bring the volume down by **15 to 20 dB**. Not to the bottom: see the note below.
- Move **LOUDNESS** until the low end feels as it did at the reference. Too little and the mix thins out; too much and it swells.
- Go back to 0 dB, then down again, and compare. Adjust once more if you need to.
- **Right-click the LOUDNESS fader to lock it.** A padlock appears in its corner. The dosage is now safe from a stray drag.

Note. Judge at 15 to 20 dB down, not at the bottom of the fader. The shelf follows the ISO 226 difference to within 0.75 dB at -20 dB, but only to 1.47 dB at -35 dB, and down there the room's own noise starts to mask what you are trying to hear. Setting the dosage at the least accurate point would carry that error into every level you work at.

The dosage is stored **per source**. Your mix was balanced at your reference, so its dosage is only about your ears: start at 100 % and come down if the bass feels heavy. The reference track was mastered at a level you do not know, so its own dosage is a separate judgement.

7 Now work

Four controls carry a session. Everything else is set once and forgotten.

Control	What you do with it
VOLUME and LEVEL	The fader reads in dB from your reference. The four LEVEL buttons jump to 0, -3, -6 and -9 dB, and clicking the lit one puts the fader back where it was. Work where it is comfortable; drop to 0 now and then to hear the mix with nothing applied. (7.1)
SOURCE A / B, and MATCH	The reference comparison. MATCH trims the two sources to the same loudness, so the louder one stops winning the argument, then flip between them with the R key. (7.3)
LOUDNESS	The dosage of the compensation, kept separately for each source. Leave it at 100 % and forget it — it does nothing at 0 dB. Reduce it if the low end feels heavy to you as you turn down. (6.3)
LOW CUT	Three presets, 80, 120 and 200 Hz by default, to hear what a small speaker or a phone keeps of your low end. Click again to turn it off. (7.6)

8 Worth knowing

Key	Action	Key	Action
Num 1 / Num 2	Output A / B	Num 0	Mute
Tab	Toggle the outputs	Num .	DIM
Num 3 / Num =	Source A / B	Num + / Num -	Volume ± 3 dB
R	Toggle the sources	B	Loudness on / off

- Any MIDI controller can drive PHON: **Edit > MIDI Learn** (Cmd+M) gives you a physical volume knob in a couple of minutes. (11.2)
- A phone or tablet on the same network can be the remote: **Settings > Web Remote**, then scan the QR code. (11.3)
- The **View** menu has a theme for each DAW, plus Always on Top so the column never hides behind your arrangement. (12)
- A limiter is already on, at -0.3 dBFS on every output. On small monitors at low level, engage the safety low cut as well. (9)
- When you want your reference to be a standard rather than a preference, calibrate: it takes an SPL meter and five minutes. (5)

The full manual, 26 pages, is at neutralandnaturalaudio.com/docs/PHON-User-Manual-EN.pdf · Questions: support@neutralandnaturalaudio.com