



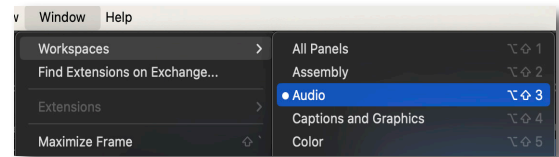
Cleaning Up Audio 1/3

Filtering noise, hum, and rumble from your audio.

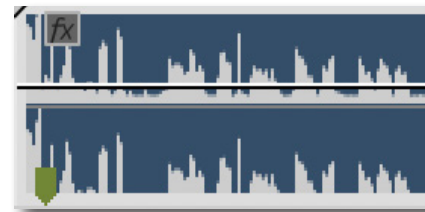
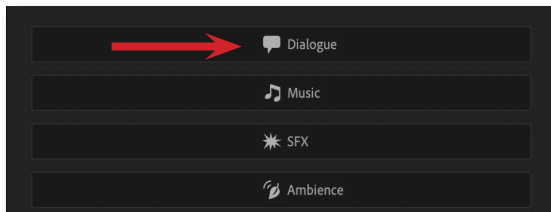
The first step to getting clean audio is making sure that we are recording good clean audio in the first place. There are many preventative measures taken on set to ensure that our recordings are clear. But if you are still encountering intrusive noise during editing, here are some steps you can take to fix that.

Noisy Dialogue (Premiere Pro)

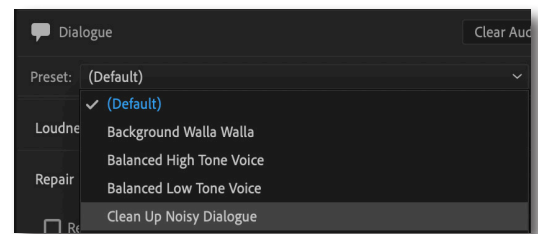
Sometimes you'll encounter air conditioner noise, electromagnetic hum from the film equipment, or intrusive noise from beyond the set. If you're in **Premiere Pro**, navigate to **Window > Workspaces > Audio**.



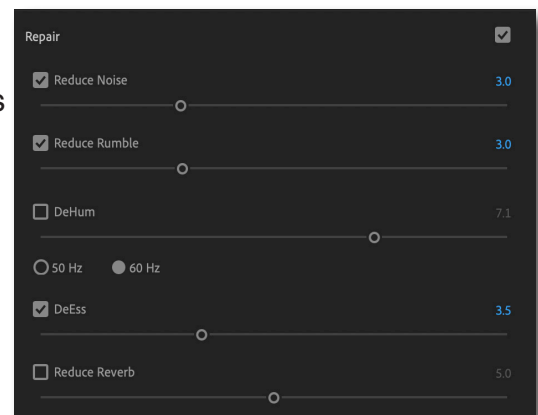
This is the **Essential Sound** panel. There are four major categories, but we'll be interested in just **Dialogue** for now. Select Dialogue and then **select** the audio track that you would like to clean up.



In the Dialogue panel, you'll notice a **Preset** dropdown menu. Click that and read over some of the useful presets there are. Not only can we clean dialogue with these presets, we can actually transform it with effects that make our dialogue sound like it's in different locations! But for now, select **Clean Up Noisy Dialogue**.



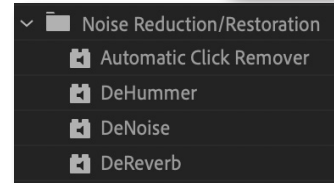
Clean Up Noisy Dialogue usually works very well with its default presets. If it isn't to your liking, take a moment to adjust the sliders. **Reduce Noise** identifies and suppresses background noise, **Reduce Rumble** filters out low-end noise, **DeHum** reduces noise from electromagnetic interference, and **DeEss** reduces harsh hissing sounds.



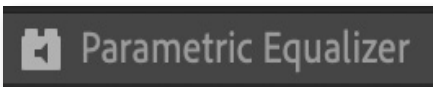


Cleaning Up Audio 2/3

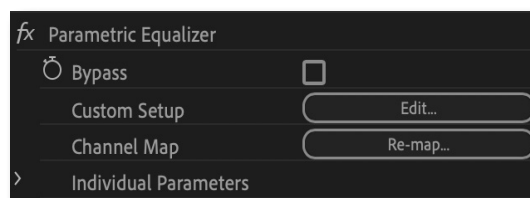
Remember that if you would rather not change workspaces in Premiere or you only need just one parameter, you can find these same effects within the **effects library**.



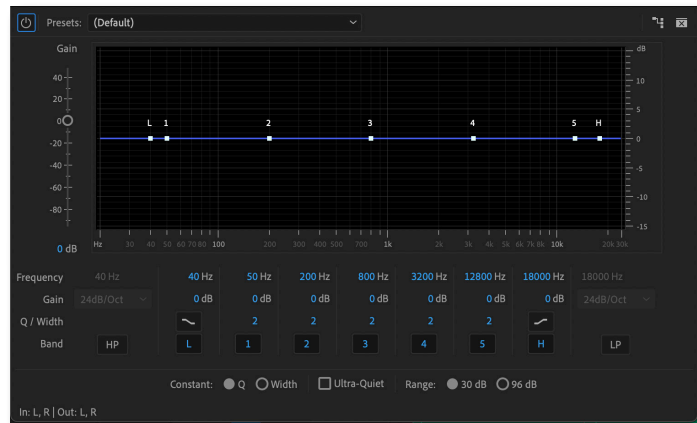
On the topic of the effects library, take a moment to search for the **Parametric Equalizer**. If you are encountering any sort of **low frequency hum or rumble**, but nothing else, take a moment to try this effect for yourself.



In your **Effects Controls** panel, locate the Parametric Equalizer and click on **Edit**.



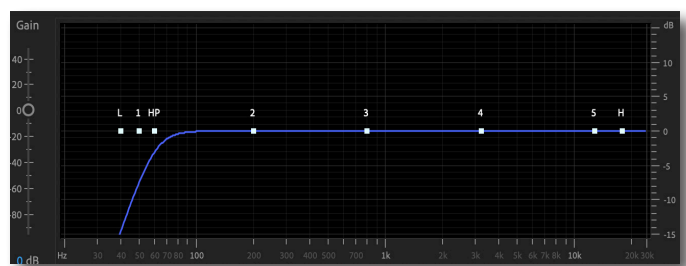
In Sound Design, this was what we call an **EQ Band Filter**, or just **EQ**. In a nutshell, the **X-axis** is **frequency** from low to high. The **Y-axis** is **gain** from muted, up to normal at zero, and extra gain above zero. EQ is primarily made for boosting and filtering out bands of frequencies. Think of it like color corrections where we want to boost certain colors and filter out unwanted ones.



Let's say for example you are trying to filter out some unwanted low frequency hum. Check the lower left corner and **click on the HP** next to **Band**. HP stands for **High Pass filter**. A high pass filter allows higher frequencies to pass the filter while rejecting lower frequencies. The same exact thing can be done with a **Low Pass filter**. Now adjust the **frequency** of your HP to **60 Hz**.



And that's it! You've now **"rolled off"** 60 Hz and below. Adjust your frequency as needed if there is still some **rumble** or **hum**. Remember to not go too high, or you could harm your dialogue. Also remember this trick in case you are working with dozens of tracks that all feature a little rumble or hum. That can add up very fast, so all of those tracks would benefit from a simple High Pass filter.





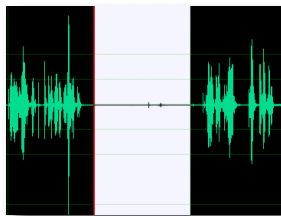
Cleaning Up Audio 3/3

Noisy Dialogue (Adobe Audition)

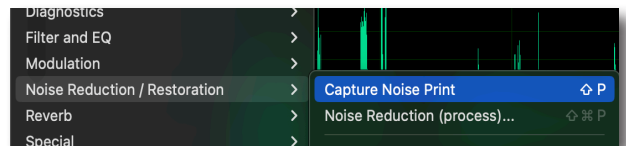
One other way of using powerful adobe plugins to filter out noise is by using Adobe Audition alongside Premiere Pro. While in Premiere pro, **select** an audio clip and **right click** it. Select **Edit Clip in Adobe Audition**.



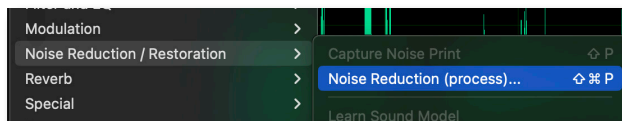
Your audio will now appear in Adobe Audition. Take your selector tool and highlight a section of room tone. Look for any signs of low amplitude in your waveform. Or in other words, anywhere with a flat line.



Now got to **Effects > Noise Reduction / Restoration > Capture Noise Print**. A pop up window will appear. Click **OK**.



The **Noise Print** has been saved in the background. Before doing anything else, **deselect** the region you highlighted earlier. Now go back to **Effects > Noise Reduction / Restoration > Noise Reduction (process)**.



Hit the **spacebar** to playback your audio while this window is open. Adjust the sliders for **Noise Reduction** and **Reduce By**: until you find a good place for the **Threshold** to sit where most of the noise is gone but our primary dialogue is still preserved. When you're happy with your results, select **Apply**. Now hit **Cmd + S** to **save** your new audio. This should save your settings to your original audio clip in Premiere. **Return to Premiere** and listen to your clean audio.

