

## Do You Need a Mic Preamp On Stage?

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Lots of musicians who use a clip-on mic wonder if they should use a preamp on stage. Is it necessary? No. The venue's mixer and instrument amps have a mic preamp already built in.

Why might you want to use a mic preamp on stage anyway? To add EQ (tone control) and reduce feedback (with a notch filter). Using a preamp's EQ knobs, you can tweak the bass, midrange, and treble of your mic, and feed that EQ'd signal to a venue's sound mixer. Or you might adjust a feedback notch filter to remove the ringing tone of feedback. That lets you turn up a little louder before feedback occurs.

Of course, the EQ that sounds right when you listen to your instrument alone often doesn't work when your instrument is mixed with the others in your band. The venue's sound tech will probably apply some more EQ to make sure that your instrument is heard clearly in the mix.

A feedback notch filter must be adjusted at each gig. It's not set and forget. That's because the frequencies that feed back depend on how far you are from your amp, monitor speakers, and house speakers, as well as the frequency response of the mic, amp and speakers. So be sure to tune the feedback filter once you are situated at the gig. Turn up your instrument's volume until you start to hear the ringing sound of feedback, then adjust the filter frequency until feedback stops.

Another advantage of a feedback filter is that it often removes the "hollow" sound of a sound system near feedback. Some people blame that hollow sound on the mic, but it's actually the ringing sound of low-level feedback.

What other features should you look for in a mic preamp? Phantom power and multiple inputs. Bartlett instrument mics need phantom power to operate (except for the Guitar Mic B, which is battery powered). Here are two mic preamps that provide phantom power, EQ and a feedback notch filter:

[Headway EDB-2](#) preamp. It has an XLR mic input with phantom power.

[Grace Design Felix](#) preamp. It also has an XLR mic input with phantom power, plus 1/4" jacks for pickups.

Side note: Pickups need a preamp on stage but mics don't. A preamp designed for a pickup converts the pickup's high-impedance, unbalanced signal to a low-impedance balanced signal. That lets you run long

cables from the stage back to the mixer without picking up hum or losing high frequencies. A microphone's signal is already low-impedance balanced.

Although a mic preamp on stage isn't necessary, you might want to get one anyway for its EQ and feedback reduction.

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