

**Depth (or Range or Attenuation)**

This determines how much signal and/or noise is let through by the gate when it is in the closed position. There are times when you don't want the gate to be totally shut, but left slightly ajar. Vocals, for example, can sound very choppy if they suddenly go from completely off to on to completely off to on...and so on. Setting this control so there is less of a jump when the vocals turn on gives a smoother, more natural sound.

**Threshold**

This control varies the level that the signal has to reach before the gate opens and lets the signal through. When the signal drops back below the threshold the gate then closes. How fast it closes depends on your Release setting.

**Key Input**

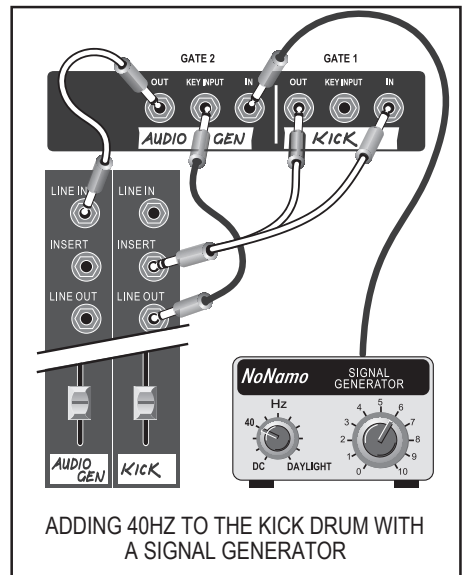
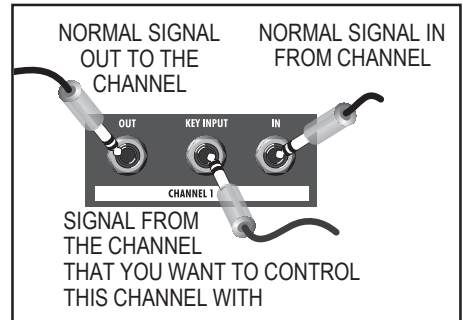
You'll find this on a lot of gates, so here's what it is.

When you plug a signal into the Key Input of a gate, the gate is no longer controlled by the signal plugged into the normal IN socket, but by the signal you have plugged into the Key Input. In other words, you can control one signal with another. Controlling the Bass guitar with the Kick drum signal, for a funky sound, is a popular application, but there are plenty of others.

For example, if the brass section of a band is a bit ragged, you could assign them all to a subgroup, gate it, and key that gate with a line from the lead brass player's channel. Now when he or she plays, they all play!

If you have access to a signal generator you could run a 40 Hz signal into a gate and key it with the Kick drum signal for a really fat sound that no amount of EQ boost could give you. You could also try the same thing with a white noise generator keyed by the Snare drum (or pink noise for a deeper sound).

Using Key inputs can be fun. Just be careful you don't get so involved that the mix falls apart while you work on them!

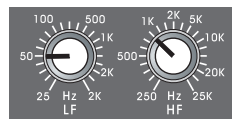


**Tunable filters**

Some gates have tunable Low Pass and High Pass filters, to make the gate not just level sensitive but 'frequency sensitive'. The Drawmer company pioneered this concept with their DS 201 Dual Gate, and now a lot of gates feature it. By using this method you can tune the gate to be 'deaf' to certain frequencies.



For example, on a drum kit, the gate on the Snare drum microphone can often be falsely triggered by the sound of the Hi Hats, which are right next door and can be very loud. On the DS 201 you can adjust the two filters so that the gate rejects the high frequency sound of the Hi Hats and only opens with the lower frequencies present in the Snare drum. If you have a gate on the Hi Hat cymbals you can tune it to do the opposite.



SNARE DRUM



HI HATS