

Using the Ion's Vocoder

The Ion has a great 40-band vocoder allowing you create all kinds of wonderful and strange (and wonderfully strange) sounds. The most common use of a vocoder is to send a synthesizer signal into the vocoder's "synthesis" input and a voice (recorded or live via a microphone) into the "analysis" input to get a "talking robot" effect. The following step-by-step tutorial will show you how to do this.

1. Plug in a microphone into either input on the Ion. Most dynamic microphones can be plugged directly into the Ion without an additional preamp. Condenser microphones will need a preamp and phantom power to raise the signal to line level for use in the Ion. If the mic has an on/off switch, make sure it's **ON**.
2. Select one of the five "plug and play" presets designed for vocoding. These presets can be found in the Ion's **USER** bank. They are:

122 "** Deep Vocoder"
123 "** Sing 'Coder"
124 "** Goblin Talk"
125 "** 101 Vocoder"
126 "** Hobbitronix"

3. Play the keyboard and speak into the microphone at the same time to get the vocoder effect. Due to the nature of vocoding, you'll get more intelligible results if you speak clearly into the microphone rather than sing.

To use the Vocoder effect with an existing program or your own custom patches, try the following.

1. Scroll through the presets until you find a good sound that you want to use as the "carrier wave", which is what the final sound will be made from - usually you want a sound with lots of harmonics, like sawtooth OSCs with the filter mostly open... but you can use any source you want.
2. Go to the **Part Edit** screen and scroll over to pg 4 of 6, and set the **Out Bal** to 100% AUX, or all the way to the right
3. Once you have that picked out, go to the **Effects Edit** screen and choose effect type 40 band Vocoder.
4. Turn the **Mix Level** all the way to the right, or 100% WET
5. Page over to pg 3 and setup the **E Synthesis Signal** to be aux bus (or external if you are providing the carrier) - then set the **F Analysis Signal** to the input you have your mic plugged in to.
6. Play the keyboard and speak into the microphone at the same time to get the vocoder effect. Again, due to the nature of vocoding, you'll get more intelligible results if you speak clearly into the microphone rather than sing.