xVox Harmonic Pitch Shifter Quick Start Guide





Some Basics

xVox is a four-channel pitch shifter with two audio inputs and two audio outputs. The bottom audio input and output jack sockets are assigned to the red and yellow channels, the top audio input and output jack sockets are assigned to the green and blue channels. The top audio jack socket is normalled to the bottom one, so by default the bottom input is sent to all four channels. There is a selectable *down-mix* option that mixes the four channels down to one which is output on both audio output sockets.

The *Volt/Octave* inputs operate in all pitch-shift modes and will cause a pitch change in the audio output. The *Gate/Trigger* inputs only operate when using the internal sample-and-hold, or envelope generator functions.

User Interface

The user interface is page-based. When the module is powered-on the page for the most recently used audio pitch-shift mode is displayed. Press the *Mode* button to see a list of the audio modes, the *Mode* button will start to flash; use the rotary encoder to select an audio mode and press the *Mode* button or click (press down on) the encoder knob to activate that mode. Press the *Func* button to see the most recently used function page, press the Func button again to list the function pages, the *Func* button will start to flash on and off; use the rotary encoder to select a function page and press the *Func* button or click the encoder to view that page. Alternating between pressing the *Mode* and *Func* buttons toggles the display between the currently selected audio mode and function page.

The audio mode and function pages have parameters that can be set using the rotary encoder. To step between parameters, turn the rotary encoder. Parameters that can be set using the encoder are highlighted with a green box. Click the encoder to select the highlighted parameter and the highlight turns yellow to indicate that turning the encoder will change the parameter value; click the encoder to confirm the new value. Parameters that have only two values, for example check-boxes, toggle immediately when the encoder is clicked.

Assignable Controls

The four CV inputs and two knobs can be assigned from the CV Configuration function page to control most of the audio mode and function page parameters. When a parameter is under CV control there will be an orange 1, 2, 3, 4, X, or Y, to the right of the parameter to indicate which CV input is controlling that parameter. Parameters under CV control cannot be selected or changed using the rotary encoder. When xVox is powered on for the first time the X and Y knobs are configured to control two parameters for each of the audio modes.

First Patch

After powering up your new xVox module we suggest a simple patch to get a feel for the module. Press the *Mode* button and turn the encoder knob to select the *7th Chord* mode. Patch an oscillator into the lower audio input socket and patch the two audio output sockets into whatever you use to output audio. If you need to down-mix to a single output, press the *Func* button, navigate to the *Audio Options* page and check the down-mix option.

You should hear a chord, turn the X knob all the way clockwise and you should hear a major chord, turn it a little clockwise and it will shift to a minor chord. Turn the Y knob to change the voicing, the chord will remain the same but various notes will move up or down by an octave.

Tuning

The display will indicate that the root note is a C; this of course will only be true if your oscillator is tuned to a C. Press the *Mode* button and select the *Tuner* page, you will see that the tuner is currently off. There are four tuner options, these are all explained in detail in the xVox User Manual. Select the Automatic tuning function then use the encoder to navigate to the keyboard display, click the encoder to select the keyboard (look for the yellow highlight) and turn the encoder to select C on the keyboard. Press the *Mode* button again and return to the *7th Chord* page, the root note should now actually be a C as advertised.

We should note that the tuner has its limitations, it works best with continuous stable waveforms. If the waveform is being modulated or is a plucked sound, you may need to resort to manually tuning and use the *Tuner* page's manual option to tell xVox what the root note is.

Envelope Generator

xVox has a built-in envelope generator. Assuming that your oscillator is generating a continuous tone you can use the internal envelope generator to shape your sound. Press the *Func* button and navigate to the *Gates* page, the envelope parameter will be set to off; click it and choose ADSR option. You should no longer be hearing anything. Patch an LFO into the red channel *Gate/Trigger* input, you should now be hearing the enveloped sound. Press the Func button again and navigate to the Envelope page. As you turn the encoder knob while on this page you will see you can select the attack and decay waveform shapes, the attack and decay times, and you will also see an orange marker (assuming you selected ADSR not Attack/Decay on the *Gates* page) which moves along the decay curve. The orange marker is the sustain point that will be held while the Gate/Trigger input remains low.

We hope that this was enough to get you started and excited to try out the other features. The full user manual is available on www.gregsbrain.co