Organ-One v. 2

Virtual organ

www.bojo.dk

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This manual was written by Bo Johansen.

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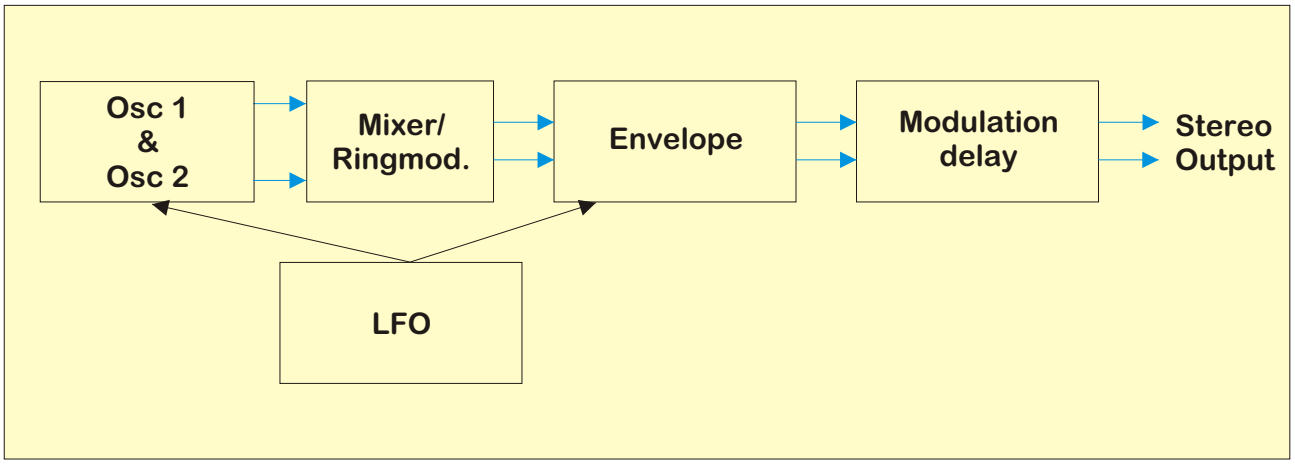
All information in this manual is subject to change without notice.

Organ-One is a virtual organ for Cubase VST® and compatible systems.

Key features

Beautiful, easy to use interface.
BIG and clean sound
16 voice polyphony
9 drawbars
Two oscillators for real stereo
Several modes including ring-modulation
Modulation delay for a variety of Stereo-effects
LFO with 8 different waveforms (incl. Random)
Several MIDI-controllers implemented
Drawbars controllable by MIDI



Host software:
To use Organ-One you need a VST 2.0 compatible host-software.
Since Organ-One is a plugin, it needs to be installed in such a manner that the host-application can find and use it. Normally this is done by installing Organ-One into a specific folder.

Installation:
To start installation run the installation file called “OrganOne100.exe” (the demo is called “OrganOnedemo.exe”) and follow the instructions on the screen. If you have a newer version of Cubase the installationprogram will locate the correct installation folder.

If you’re using an older version of Cubase or if you are using another host-software (f.inst. Logic Audio), you must select the correct installation folder manually.

In older versions of Cubase the installation folder is the folder called “vstplugins”, which is located under the folder in which Cubase is installed..

In Emagics Logic the installation folder is the folder called “vstplugins”, which is located under the folder in which Logic is installed..

Usage
After installation you should be able to select Organ-One as an instrument in your host-software. Please refer to the host-softwares documentation to get general information about using VST instruments.

Uninstallation
There is no automatic uninstallation of Organ-One. To uninstall OrganOne, simply delete the ”OrganOne.dll” file. No other files are installed.

In Organ One you will come across four different types of controls.

Drawbar:

First of all there are the drawbar. You control it by simply *left-clicking* at the position where you want it to be drawn to. You can also drag it up and down by moving the mouse up & down while pressing the *left mouse button*.

The knob:

The most common control is the knob. You control it by simply *left-clicking* at the position where you want it to point to. While still holding down the *left mouse-button* you can drag the mouse around the screen. You will notice the knob turns to point in the mouse cursors position.
Alternatively you can hold down <*Ctrl*> while dragging the mouse up & down to move the knob relatively. Great for those small adjustments.

The switch:

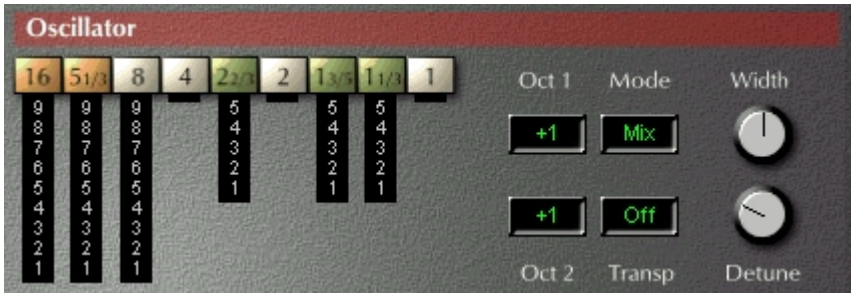
The switch is for turning things on and off. You change the state of the switch simply by *left-clicking* it.

The selector:

The selector looks a lot like the switch, but it can hold numerous values.

To quickly set a new value, *left-click* the selector (a menu pops up) and while holding down the *left-mousebutton*, drag the cursor to the value you want to select. When you release the button the value will be selected.

To increment the selector to the next value *right-click* it. When it reaches the last value it will start over from the first value.



The oscillators use the draw-bars to create a complex waveform.

Draw-bars
Each draw-bar control the volume of an oscillator. The oscillator is sine wave and the volume range from off(0) to max volume(9).

The draw-bars are labelled with organ-pipe lengths and arranged at certain intervals that has become a standard for organs.

White draw-bars control harmonics at the same octave as the fundamental frequency. F.inst.8 is the basic frequency. 4 is one octave higher. 2 is another octave higher and so on.

Green draw-bars control the 3'rd, 5'th & 6'th harmonics.

Brown draw-bars control the sub-harmonics: one octave lower than the fundamental frequency and it's 3'rd harmonic.

By applying different volumes to the different harmonics, very interesting and diverse sounds can be produced.

Oct. 1 & Oct. 2
Sets the octaves of oscillator 1 & 2.

Mode
Sets the oscillator mixing mode.

Single: Only osc 1 plays.
Mix: Osc 1 & 2 are mixed together.
Mix I: Osc 1 is mixed with the inverted draw bar values.
Ring: Osc 1 are ringmodulated with Osc 2:
Ring I: Osc 1 is ringmodulated with the inverted draw bar values.

Transp.
Sets osc 2's transposition in semi-tones.

Width
Controls how far apart in the stereo image osc1 & osc 2 are to each other. Leftmost is mono. Rightmost is full stereo. This control has no function in the Ring/Ring I modes.

Detune
Detunes osc2 (0 - 1 semitone). Has no function in Single mode.

The amplifier shapes the volume over time, by using the envelope.

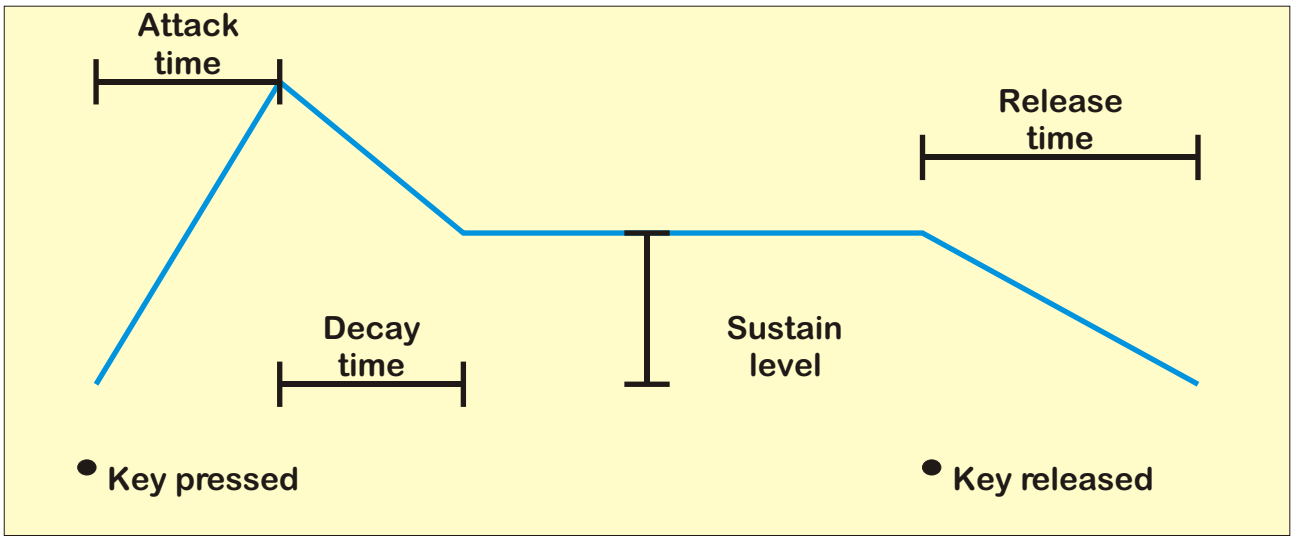
The envelope

Attack
This sets the time(0-10 sec.) it takes for the sound to rise from 0 to maximum volume.

Decay
Sets the time (0-10 sec.) it takes the volume to fall from maximum to the sustain level .

Sustain
This knob sets the sustain level.

Release
Sets the time it takes the volume to fall to 0, after the key is released.



Example of an envelope

This knob sets the overall volume.

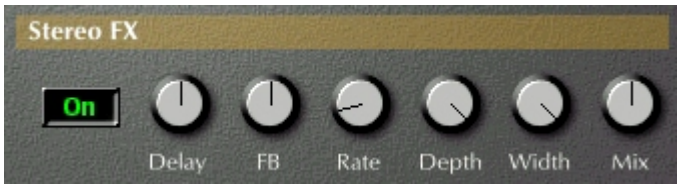
The LFO (Low Frequency Oscillator) repeatedly modulates pitch & volume with the selected waveform.

Waveform
Selects the type of waveform the LFO is using.
Sine, Triangle, Square, Saw up, Saw down, Exp up, Exp down or random.

Freq
Sets the speed of the LFO.
0.01 - 30 Hz.

Vibrato
Sets the amount that the LFO modulates the pitch of the oscillator. In this way vibrato effects can be obtained.

Tremolo
Sets the amount that the LFO modulates the volume of the sound. Use it to produce tremolo effects.



The Stereo FX is basically a stereo modulation delay capable of making chorus, flanger, phasing, delay etc.

On/Off switch
Switches the effect section on/off. The “off” position saves processing power.

Delay
Sets the delay time of the FX.
0.01 - 50 ms.

FB
Sets a percentage of feedback. Positive or negative.

Rate
Sets the frequency of the FX-LFO.
0.01 - 30 Hz.

Depth
Sets the amount that the FX-LFO modulates Delay time.

Width
Changes the phase of modulation between left & right channels. Leftmost position results in mono-output, rightmost position results in the widest possible output.

Mix
When set at the “dry” position only the direct sound is output. At the “wet” position only FX sound is heard.

How to make different effects

	Delay	**FB**	**Rate**	**Depth**	**Mix**
Flanger	low-medium	high	slow	max	wet only
Chorus/leslie	medium	min	slow-medium	medium	50/50
Delay	high	medium	-	min	50/50
Phasing/Jet	very low	very high	very slow	max	wet only

Performance parameters controls the way Organ One reacts to the actual playing.

Voices:

When 2-16 voices are selected

In this mode voices are played polyphonically. When the organ runs out of available voices it "steals" a playing voice. Organ-One's note-stealing algorithms ensure that the note-stealing will be as transparent as possible. *In the demo version of Organ-One you can't set the voice limit. Instead you have the choice between "mono" mode and "poly"(4 voice) mode. In "poly" mode a beep will sound every 15 seconds.*

When "mono" is selected

In this mode only on voice can be heard at a time. If a key is pressed before the previous key is released, the envelopes will not re-trigger! This feature can be used very creatively in solo-playing.

P-bend:

Sets the pitch-bend range in semitones(1-12(oct.).

R.tune:

Sets the amount of random tuning applied to every played note. Can f.inst. make the sound more organic.

Velocity:

Controls how strong velocity influences the volume of the played note. Rightmost position enables

Organ-One has support for the following MIDI controllers.

Controller	1	Modulation
-	7	Volume
-	10	Pan
-	11	Expression (Good for gate effects)
-	21-29	Drawbars 1-9
-	64	Hold pedal
-	120	All sounds off
-	121	Reset controllers
-	123	All notes off

Furthermore Organ-One support pitch-bend messages. Pitch bend is hardwired to +/- 2 semitones.

Program change is also supported. This gives you the possibility to use the same channel to play different sounds. Please note that sound is cut off when a program change is received, so its best to send program change when the channel is silent.

Please note!
Some hosts (f.inst. Emagic's Logic) remaps some of the controllers. Therefore you may need to use another controller number than the above mentioned.