

KIWAMI



Kiwami is a filter pedal with a couple of fun things going on.

It has two resonant bandpass filters, each sweeping in the opposite direction from the other.

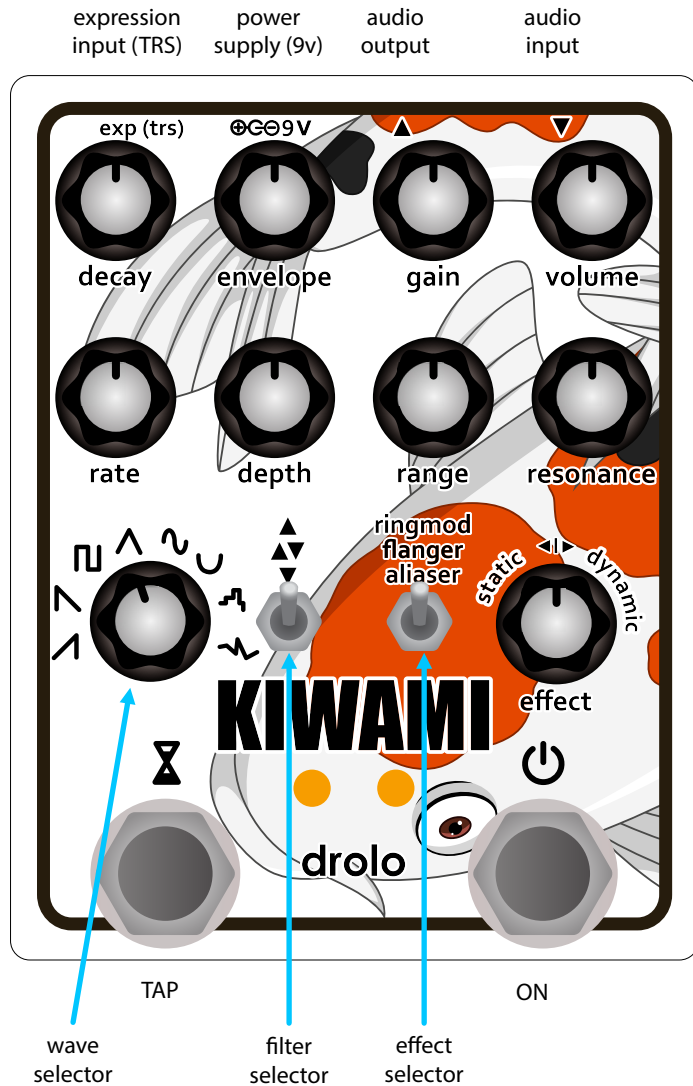
You can use each filter separately, or combined, which gives the filter a very vocal, vowel-like sounding quality.

The filters can be modulated by an LFO, an envelope follower, set manually, or a combination of these three things.

It has a gain stage preceding the filter section, that can add lots of distortion.

There are also three additional effects, ringmod, flanger, aliser, that can be used alongside the filters to create a wide range of unusual sounds.

Controls



decay

Controls how fast the effect fades out after the input signal stops. Also affects the attack.

envelope

Adjusts how sensitive the effect is to your playing dynamics.

gain

At zero, no gain is applied to the signal. Increasing the gain will increase distortion, and volume.

volume

Controls the output volume of the pedal.

rate

Sets the rate of the LFO manually..

depth

Sets the depth of the LFO signal.

range

Sets the frequency range of the filters. This parameter can also be controlled via the EXP input.

resonance

Sets the resonance of the filters. Increasing resonance will yield a more pronounced effect. The filters start self-oscillating at extreme settings.

wave selector

Select one of the LFO's eight wave shapes.

filter selector

Select between the filter that sweeps up, the one that sweeps down, or both combined.

effect selector

Select between the 3 effects, ringmod, flanger and aliaaser.

effect

To the left (static), the given effect parameter will be set manually by the effect knob.

To the right (dynamic), the effect knob will define how much the given effect parameter is controlled by the env, lfo and range signals.

At noon, the effects are deactivated (except for flanger, more on that later)

ON footswitch

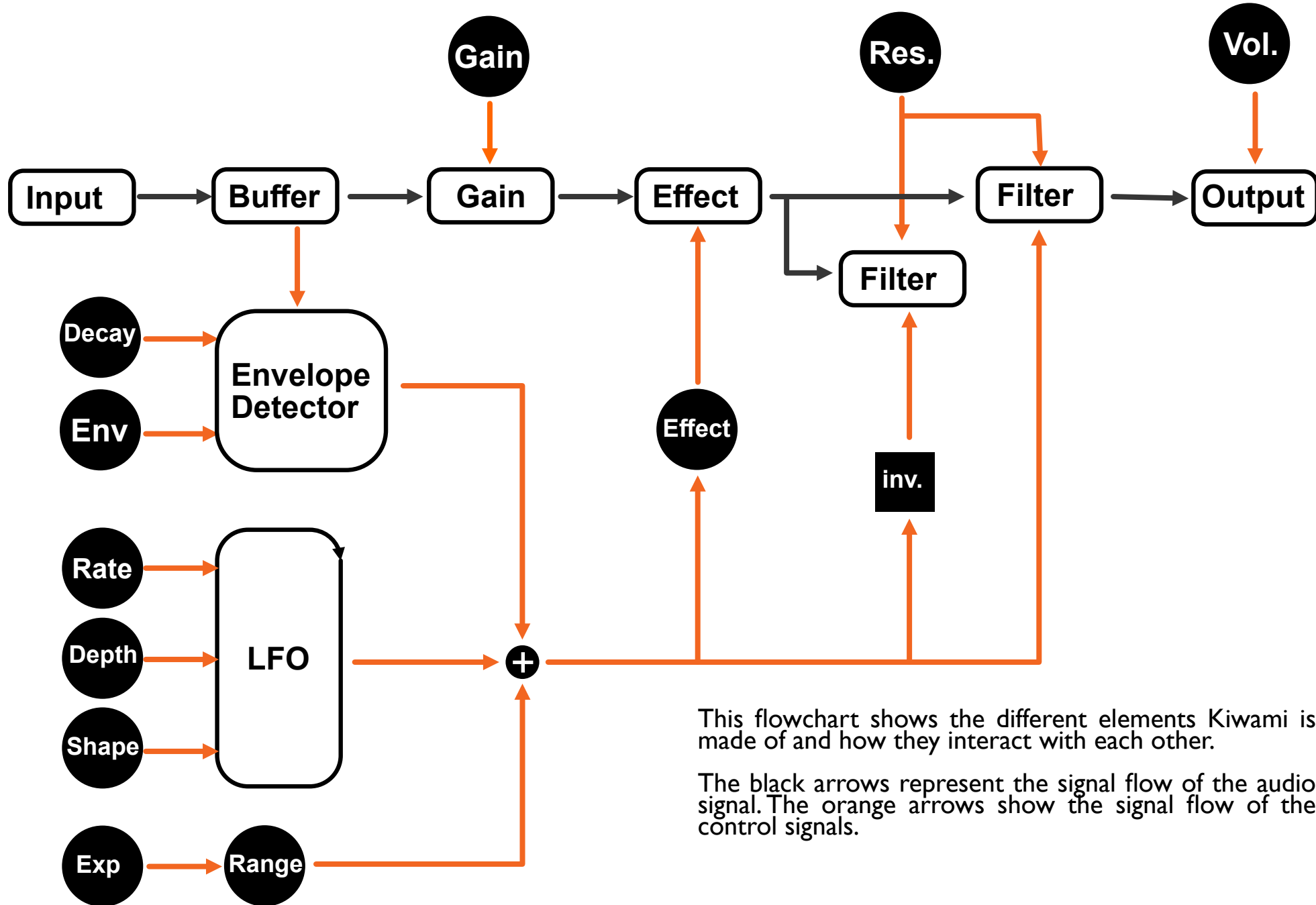
Press to engage the effect. The footswitch can work in momentary or latching mode:

A short tap (< 0.3 seconds) will make the switch act in latching mode.

A longer tap (> 0.3 seconds) will make it act in momentary mode – reverting to its previous state after you release the footswitch.

TAP footswitch

Tap the tempo of the LFO.



This flowchart shows the different elements Kiwami is made of and how they interact with each other.

The black arrows represent the signal flow of the audio signal. The orange arrows show the signal flow of the control signals.

The Filters

The pedal has two bandpass filters. One sweeps up, and the other sweeps down. You can select either of the filters separately or both at once, using the **filter selector** switch.

If neither the LFO nor the envelope follower are used (**depth** and **envelope** turned all the way down), you can set filter's frequency cut off manually with the **range** knob.

Increasing the **resonance** will make the filters sound more pronounced. At high settings it will make the filters oscillate and squeal. Watch out as they can get loud!

LFO

Depth will let you set how wide the LFO signal will swing. At zero, the LFO will not affect the filters and effects.

With **range**, you can shift the range in which the LFO will operate. If you max out depth, the LFO will sweep across the entire frequency range, and the **range** knob will no longer have any effect.

With the **wave selector** knob, you can choose the shape of the LFO signal. The available shapes are : ramp up, ramp down, square, triangle, sine, lumps, random steps and random slopes.

You can adjust the rate of the LFO with the **rate** knob, or tap it in with the **TAP** footswitch.

Envelope follower

The **envelope** control will allow you to adjust how sensitive the filter is to your playing dynamics. If you set it to zero, the envelope signal will not affect the filter and effects. You can use **range** to shift the envelope follower sweep will start, making the filter sound brighter or darker.

Decay is used to adjust how smooth the envelope signal is. Low settings will have a snappier response and a shorter decay, with more ripple. High settings will have a smoother response with a longer decay.

The Effects

In addition to the filters, Kiwami has an effects section comprised of these three effects: **ringmod**, **flanger**, **aliaser**.

You can choose the effect using the **effect selector** switch. If you don't want to use any effect, only the filters, best is to choose the **ringmod**, and leave the **effect** knob at noon. You can also use the **aliaser** for that, but finding the spot at noon where it is off, is a bit harder to do than with **ringmod**. With **flanger**, the effect is always active, even with the **effect** knob at noon.

The effects can be controlled and modulated in two ways:

- If you turn the **effect** knob to the left past noon (in the static section), it will change the given parameter of the selected effect in a fixed way.

- If you turn the **effect** knob to the right, past noon (in the dynamic section), it will define how much the control signal that goes into the filters (a sum of the LFO, envelope and range signals) changes the given parameter of the selected effect.

When using the **ringmod**, the **effect** knob and the control signals will affect the ringmod frequency.

When using the **flanger**, the **effect** knob and the control signals will affect the flanger's feedback. Unlike with the other two effects, when the **effect** knob is at noon, the flanger is still active and the control signals affect the flanger's delay time, allowing for some funny pitch shifting and vibrato.

When using the **aliaser**, the **effect** knob and the control signals will affect the amount of aliasing.

Gain

If you leave the **gain** knob at zero, no gain is applied to audio signal. As you increase it, you will add distortion. The signal will also become louder, so you might need to compensate by reducing the level with the **volume** knob.

EXP input:

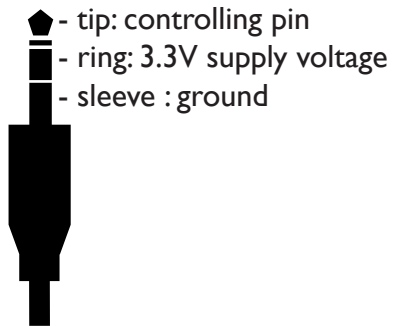
An expression pedal or control voltage (CV) source can be used to control the filter range, if you leave the envelope and LFO depth at zero, you could essentially use this to control the pedal like a wah.

When an external expression source is connected to the pedal, the range knob sets the maximum range of the expression input.

Most commercially available expression pedals that use a standard TRS plug should work with Kiwami. It's best to use one with a resistance value of 10k or higher.

DO NOT use a TS (Mono) plug or cable on the EXP input as it may cause permanent damage. You must use a 1/4-inch TRS (stereo) cable.

The standard TRS connections are:



If you use a control voltage (CV) for expression instead of a resistance-based controller, make sure to consider the required connections, and don't exceed 3.3V. You will need a TRS cable with a floating (unconnected) ring.

If you have any questions about connecting something to the expression input, please send me an email and I'll do my best to help.

Power Supply:



Kiwami requires a 9V DC, minimum 100mA center-negative power supply. This is the most commonly used type of guitar pedal power supply, but it's still important to make sure the voltage (9V DC) and polarity (center-negative) are correct, to avoid damaging the pedal.

DO NOT RUN THE PEDAL AT HIGHER VOLTAGES.

Because this pedal uses a digital processor that operates at high frequencies, you may hear some noise if you use it on the same power supply as other pedals (daisy chained). This can happen even when the pedal is bypassed, as the noise may bleed through the power supply into other pedals.

Noise like this is common for pedals with digital processors, and the best way to avoid it is by using an isolated power supply.

Specs:

Input Impedance: 1M Ω

Output Impedance : 1k Ω

Current : 100mA

Dimensions : 127mm x 95mm x 56mm

Thanks, and enjoy!

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