Nasty Manual

Hello and thank you for supporting Magpie Pedals by getting one of my creations!
Feel free to use it with guitar/bass/synths/drums/voice or anything in between (results may vary).
It works on 9VDC (2.1mm) **+ —⊙— -** center negative.

Input is on the right side (black ring) and output is on the left (white ring).

1. Triple Bypass (Right Footswitch):

This pedal uses a unique bypass switching system that I call **"Triple Bypass"**, where you have three different "modes" for turning the pedal on and off:

*Short Press***:** Works like any regular pedal. Press to turn it on and then press to turn it off.

Momentary/Hold: If you press and hold for about 1-2 seconds the pedal will enter a hold mode. Here it will simply stay in the state it entered when pressing down the button, for however long you decide to hold down the button, and then return when you release the button.

So if you press down when the pedal is turned OFF it will stay ON for as long as you hold the button pressed down, and vice versa.

Tap Tempo Bypass: If you quickly double tap the bypass button (either when on or off) the pedal will enter the "Tap Tempo Bypass" mode. Here the pedal automatically turns itself on/off in whichever tempo you tap. So to change tempo you simply tap a new tempo.
It continuously counts time since your last tap. So if you have been in a tempo for some time and just tap a single tap, it will count the time between this tap and the last tap in previous tempo as your new tempo. With a max lenght of around 1min.

To exit "tap tempo bypass" you simply press and hold the button for about 1-2 seconds. Note that when exiting this mode the pedal will be ON (regardless if you exit in a OFF or ON state).

2. info:

Nasty is a kind of synth-fuzz with two square wave oscillators crashing together with your input signal. With a gate circuit you decide how locked they are to your input or if you want to play them freely as a little synthesizer. All while the oscillator chip is being controlled by a *sample and hold (S&H).*
It has three different modes of operation:

1: Manual Mode, where you "*sample*" by either pressing the *black button* or connecting a *5V CV-Clock* to the 3,5mm jack on the back (it will control all the 40106s at once).

2: Auto mode, where the S&H is automatically sampling and holding. You set the rate by either *tapping on the black button* or adjusting the *CLK knob*. It will automatically switch over to whatever you change last but since the circuit is rather chaotic it has a tendancy to prioritize the knob.

3: LFO Mode, whenever entering *manual mode* from *auto mode* the S&H will be in a "open" state of constantly sampling the analog signal. This makes it follow the LFO directly and you can now enjoy massive rising and falling drones in a wide range of tempos.

To change between modes you simply press and hold the left footswitch for about 1-2 seconds.

3. Controls:

1: This is the pitch control for the first square wave oscillator that crashes into your signal. It sets the max pitch but will always be based on where the sample and hold is set. Depending on how you set "2" it can create all kinds of strange sound effects.

2: This pot is the same as "1" but with a significantly wider range of pitch.

G: Sets the input signal gate. By turning clockwise you release the two oscillators from the input signal. So they play freely, turns Nasty into a full on little synthesizer!

C: Speed pot for the clock when in tap tempo mode.

W: Sets the wave speed of the LFO that the sample and hold samples.

Dry/Wet: Individual volume controls for the dry and wet signal when turned on.

Inside Trimpot: On the Nasty PCB there are two trimpots. One is for the max volume the pedal can output when turned on (if you decide I put it too loud). The other is a LFO Shape trimpot. Since the LFO is analog you tune the waveform yourself with a "voltage divider". Sweet spot is between 1-3 o'clock. Too far in any direction and the LFO stops working. Enjoy!