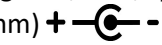
Bit Pirate V.2+ Manual

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:

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 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 from when you entered the last tempo. With a max lenght of around 1min as the longest possible tempo.

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

2. Controls:

Bit Pirate takes your input signal and splits it into four different voices running in parallel through CMOS technology.
It does this by running your signal straight into a *LM386 amplifier*, making the signal hot enough to clock a *4040 Binary Counter* and also "trick" a *4070 OR Gate*.

This gives us a main voice (LM386), a one octave up voice (4070), a square wave octave down voice and a square wave two octaves down voice (4040).

So each knob on the Bit Pirate is simply a volume knob for it's corresponding voice. This way you can blend these signals together into a monophonic synthyfied megavoice.

0: This is your main signal. A distorted main signal.

1: This is your OCTAVE UP volume. Created with a 4070 OR gate.

-1: This is your ONE OCTAVE DOWN volume.

-2: This is your TWO OCTAVES DOWN volume.

Mini Knob: A sort of dry signal mix.

Inside Trimpot: *Inside Bit Pirate there is a trimpot that sets the overall MAX VOLUME when the pedal is ON. I put it at LOUD as standard, but feel free to tweak it.*