Feedback Organ V.2 Manual - WARNING; IT GETS LOUD!!

Hello and thank you for supporting Magpie Pedals by getting a Feedback Organ!
It works on a single 9V battery (not included) or 9VDC (2.1mm) + -(•)- - center negative.
Output has a *white ring* and input has a *black ring*. The jack with a red ring is an expression control input for the delay time.

It also comes with a 12mm (5m long) tube that you get to cut yourself (shipped separately).

1. Info:

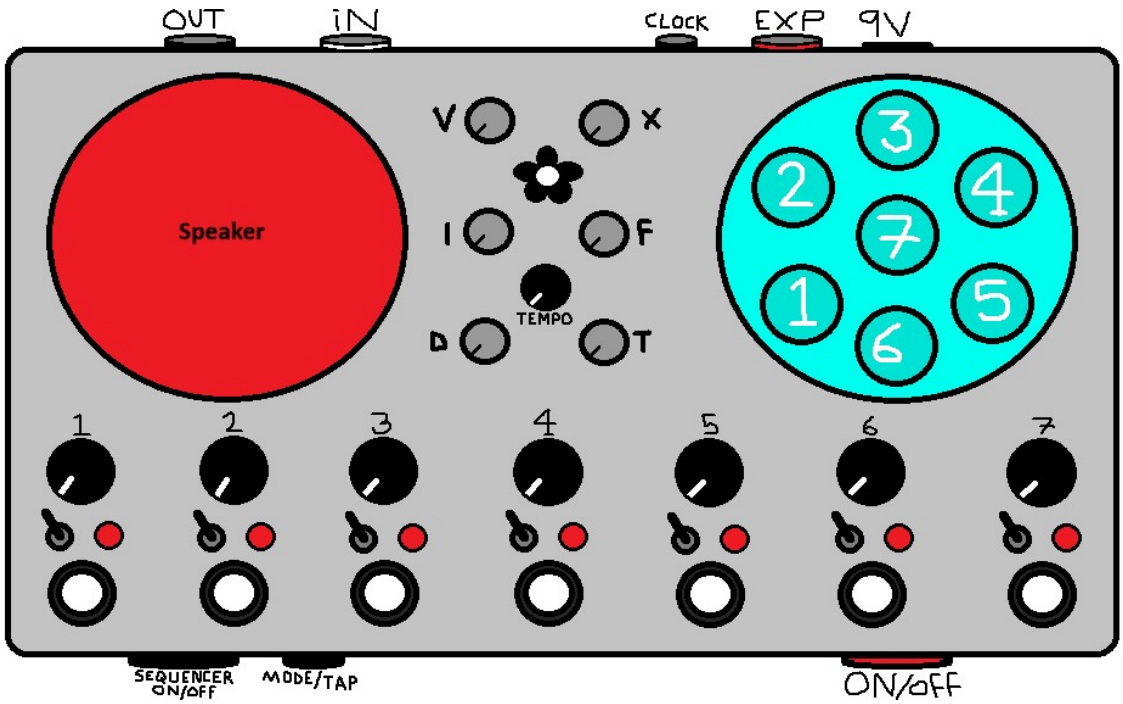
The Feedback Organ V.2 is a result of some of my wild experiments with no-input techniques and talk boxes that I have performed over on youtube. And the improvements comes from the comment section on my original Feedback Organ video.
So the general idea is simply to try and tame the sounds of pointing a microphone towards a speaker through PVC tubes.

I decided to make a very visual design with two 3D printed covers full of holes. These holes are on the one side covering a 2W speaker, and on the other side covering individual microphones. Meaning that you simply connect any microphone to the speaker with a tube and then play around with the feedback.
Each microphone has its own volume knob and button+switch to either play (kinda lika a keyboard) or latch on.
The V.2 now also has a optional sequencer that steps from microphone to microphone and will play the "notes" that are switched on with the switches.

Furthermore I decided to also implement electronic feedback loops in the circuit together with a classic PT2399 delay and drive circuit for the speaker. With a dedicated external input where you can play whatever you want into your Feedback Organ and completely destroy that signal through pvc tubes.

2. Controls:

Each button is a momentary connection for a corresponding microphone hole, and the switches are latching connectors. Above each button/switch there is a dedicated volume knob per microphone.
The layout goes like this:



Grey Knobs:

V: Output Volume. Happens before the delay circuit. Meaning that it will also have an effect on **"I"** that is routed after the delay circuit.

I: Internal feedback knob. Think of it as one of the bottom volume knobs, but for the entire instrument. Sending the output signal back into itself. So expect it to just go completely wild! This also makes the delay go to the speaker and echo through the tubes.

D: Drive knob. This knob overdrives the speaker circuit. Make it scream!

X: Delay *Mix* knob. From 100% dry feedback loops, to introducing delay, to slight overdriving of the delay lines.

F: Delay *Repeats/Feedback* knob. Since the feedback organ already has the possibility to self oscillate. This knob is for the feels.

T: *Delay Time* knob. Counter clockwise for shorter delay times and clockwise for longer delay times. Can also be controlled externally with through the expression jack. The delay time knob will set the absolute max for the expression signal, so I suggest going fully counter clockwise to start since it can go too far, where the signal just stops echoing.

Sequencer Controls:

Black Front Switch: Sequencer on/off.

Black Front Button: Hold for 1-2 to switch between manual and automated mode. In manual mode you step the sequencer by tapping this button (or with CV clock input), and in automated mode you can either set the tempo with the small black potentiometer or by tap tempo on this button.

Small Black Potentiometer: Sequencer tempo.

CV Clock 3.5mm Jack: Set the sequencer in manual mode and sync your Feedback Organ V.2 to other gear with any 5V CV clock signal!