# SLAPBACK

# WARBLY DELAY



**CHORUS** 



ORBIT



# LO FI COMPRESSOR



# TAPE ECHO





## **DELAY USER MANUAL**

### SOUND

Drawing inspiration from our history in tape and bucket brigade echo servicings, our design goal was creating floaty and colorful repeats with a chaotic yet musical degradation. That's the heart of the thing, the whole point.

### RANGE

With a 30ms-1250ms range, the Benson delay goes fast enough to do chorus, vibrato and slapback, and slow enough to create blurred and haunted soundscapes, with a whole spectrum of warbly musical sounds in between.

### **ALIENS**

Hold down the tap knob to boost feedback for some self oscillation! Perfect for holding notes out, and especially for making alien invasion noises in tandem with the time knob (within a toe's reach). Works when the feedback knob is up a bit. Does not introduce unwanted clicking sounds into the signal path. Adjustable via internal trim pot.

### WARBLE

The Low Frequency Oscillator has a tremendous range of both speed and depth, as well as sine, square and random waveforms. Does warble, seasick, tape flutter, all the good sounds.

### TAP

The Benson Delay has the most accurate tap tempo ever applied to the PT2399 thanks to Bontempo, an open source technology concocted by Antoine Ricoux at Electric Canary, which was then refined and implemented by film colorist Octave Zangs (two geniuses). Each pedal CALIBRATES ITSELF IT'S SO COOL.

### SMOOTH

We wanted to avoid the more modern issues of delay design; like the digital jaggedness that can come from adjusting the time control on a digitally clocked device, whether analog or a fully digital simulation (HAS THIS EVER HAPPENED TO YOU?). In other words, let's not assume the aforementioned aliens have glitchy spaceships.

### WOW THE NARRATIVE

The design process was characteristically obsessive and obliquely dysfunctional, so we'll spare you most of it. Lots of bright people in the industry left their mark in one way or another. Special shout outs to Jack Deville, Bryan Sours and John Snyder. Lessee...after dutifully slogging through the modern bucket brigade scene for a while, we found our paradise in the form of the ubiquitous PT2399. Turns out, when you treat it well, you can get a great sounding delay with a massive range out of it. We utilized a combination of gooey compander chip, analog filtering, and careful gain staging (amp designers are decent at that). We hope you love it.

### THE MENU

To access LFO waveform and tap division menu, hold down BYPASS for two seconds, then tap TAP/ HOLD once. BYPASS switch toggles between SINE, SQUARE and RANDOM waveforms, which will blink 1, 2 or 3 times respectively. TAP/HOLD switch toggles through QUARTER, DOTTED EIGHTH, and EIGHTH note tap divisions, and the LED will blink 1, 2 or 3 times (respectively). Hold down BYPASS for two seconds to exit MENU.V

Center Negative 9VDC power supply, 100ma current draw. 2 years warranty excluding modification or damage.