INFINITE JETS
RESYNTHESIZER

HOLOGRAM

# USER MANUAL


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# 1 | OVERVIEW

Infinite Jets tracks the dynamics of your playing, samples individual notes and chords, and then reinterprets them as new sounds using two independent channels of sampling and infinite sustain. It offers 4 separate sampling effects in one (**Blur**, **Synth**, **Glitch**, and **Swell**).

Although these effects share a common control system, they allow for the creation of a diverse range of different sounds: lush ambient textures that seamlessly fade from one chord to the next, droning sustain, glitching granular loops, filtered synthesizer sounds, violin-like fuzz and swell effects, drones, distorted delay and vibrato, and much more.

The pedal uses two channels of sampling (**A** & **B**), that can be triggered by your playing automatically. Notes can attack, sustain, and decay on top of each other. This allows for unique harmony, drone, and textural effects.

Each channel of sampling can also be triggered manually by the **A** & **B** footswitches, allowing two separate notes or chords to be held and sustained independent of each other. Footswitches can be set up in **Momentary**, **Latching**, or **Toggle** modes.

The **Dry** control can be used to blend in your original signal and allows you to play on top of any sustained notes or chords.

**Dimension** controls a distinct set of parameters for each preset voice. **Dimension** can also be controlled by the internal **LFO**, the **envelope generator**, or by **recording knob movements**.

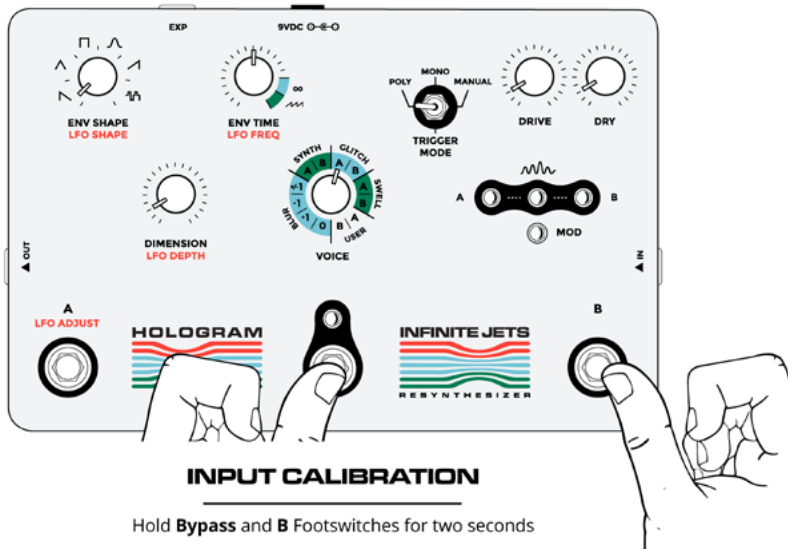
Infinite Jets features a digitally-controlled-analog **Drive**, **Tone**, and **Dry** section. The movements of the **Drive** knob can be recorded and played back to add unique textural effects to your sound. Infinite Jets can save **Drive**, **Tone**, and **Dry** settings as part of a User Preset.

The pedal features two save slots for custom **User Presets**. Recorded knob movements, **LFO** settings, and all other pedal parameters can be saved and recalled later.

## FEATURES

- Two independent channels of sampling, allowing for infinite sustain of two different notes or chords at a time
- Samplers can be triggered automatically by note attack or in manual mode via footswitch
- 4 separate effect styles (Blur, Synth, Glitch, and Swell)
- 10 preset variations
- 2 User Save slots
- Envelope Shape control, for changing the attack and decay characteristics of sampled notes
- Dimension control, for manipulating parameters unique to each effect style
- Record and Save Knob Movements
- Internal LFO and Envelope Generators for control of Dimension and sampling channel volume
- Digitally-Controlled-Analog Drive, Tone, and Dry Mix controls
- Analog Dry Path
- Expression Pedal Input, mappable to many controls
- True Bypass Switching (electromechanical relay)

# 2 | CALIBRATION




In order for Infinite Jets to accurately track the dynamics of your playing, it's necessary to calibrate the pedal to each new instrument that you will be using. It only takes a few seconds and can be done mid set or even mid song.

Simultaneously hold the **Bypass** and **B** footswitches for two seconds. You will see the lights flash to acknowledge that you have entered calibration mode. You can then release the footswitches. Play a few notes/chords, and the pedal will adjust itself to your playing. It will flash the same short animation when it has finished calibrating. These settings will be retained between power cycles, so it is only necessary to perform these steps when switching instruments.

If you wish to lower the sensitivity of the pedal, simply strike the notes harder when in calibration mode. The pedal will look for notes of similar volume before taking a sample. Conversely, if you would like to make the pedal more sensitive to your playing, simply play softly when calibrating.

# 3 | GETTING STARTED

To get started with Infinite Jets, begin by calibrating the pedal as described in the previous section.

For a starting point, set the controls to the following:

| | |
|---|---|
| **Env Shape** | Square Wave |
| **Env Time** | 25% |
| **Drive** | 0% |
| **Dry** | 0% |
| **Dimension** | 0% |
| **Voice** | Blur / 0 |

Set the **Trigger Mode** switch to **Mono**. Mono Trigger mode means that Infinite Jets will alternate between Sampler channels A & B each time it detects that you have played a new note. This means only one sampled note will sound at a time.

Hit a few notes or chords on your instrument. Each new note attack will trigger either Sampler channel A or B. Use the **Envelope Shape** knob to change the contour of the notes being played back. Use the **Envelope Time** control to vary how long each note will sustain.

Set the **Trigger Mode** switch to **Poly**. In this mode, Infinite Jets will still alternate between Sampler channels A & B, but both channels can sustain at the same time. Experiment with different combinations of **Envelope Shape** and **Envelope Time** values to get a feel for the types of sounds you can create in this mode. Shorter envelope times in this mode will provide a small amount of overlap between notes, while longer envelope times will allow the notes to sustain on top of each other.

Now set the **Trigger Mode** switch to **Manual**. Each channel of sampling can be used independently via the **A** & **B** footswitches. Play a note and step on the **A** footswitch to capture it. This note or chord will sustain until you tap the footswitch again. Play a different note and tap the **B** footswitch to capture it. Turn the **Dry** control up to 50% (equal parts dry and effected signal) to hear your instrument's original signal mixed in. Spend some time using the **Manual** mode to bring combinations of sustained notes in and out. Try changing the **Envelope Shape** and **Envelope Time** controls to hear the dramatic effects that can be created by fading sustained notes in and out. These switches are set to **Toggle** operation (press once to turn on, press again to turn off) by default, but they can also be set to **Latching** or **Momentary** operation *(see Section 8)*. When you've finished, switch **Trigger Mode** back to **Mono**.

**Dimension** controls a different set of parameters for each **Voice** preset. It can be controlled by physically turning the **Dimension** knob, by **recording and looping the movement** of this knob, or by the internal **LFO** (Low Frequency Oscillator).

For **Blur** presets, **Dimension** controls a combination of delay time, feedback and filtering. You may notice a pitch bend effect as the delay time changes when turning the knob. Manipulating this control very slightly can create subtle chorus or tape warble effects, while wide sweeps of the control will create more drastic pitch bends and delay effects. Once you find a range that you like, you can record and loop this knob movement.

To record the movement of the **Dimension** control, hold down the **Bypass** (center) footswitch and twist the **Dimension** knob. When you release the **Bypass** footswitch, Infinite Jets will begin to play back and loop this movement. As you record, you'll see the **MOD** indicator light turn red. When you have finished recording, you will see this light reproduce the motion you just recorded. To stop playback and return the **Dimension** control to its normal function, simply move it again. This technique works across all of the different **Voice** presets, and can be used to create a wide variety of new effects of your own.

Try switching the **Voice** control to **Synth A**. You'll hear your playing reinterpreted as a synthesizer sound. In this mode, **Dimension** controls the cutoff frequency of a lowpass filter. Instead of recording knob movements, this time try controlling **Dimension** with the internal **LFO**. The **LFO** functions of each control are indicated in red text below their primary functions. Hold the **A footswitch** to adjust these parameters. Try turning up the **LFO Depth** by holding down the **A footswitch** and turning the **Dimension** control. When **LFO Depth** is set to 0, the LFO is off. As you turn up the depth, you'll start to hear the LFO acting on the **Dimension** control. To change the speed of the LFO, hold down the **A footswitch** while turning the **LFO Frequency** control. To change the waveform of the LFO, hold down **A** and change the **Shape** control. To turn the LFO off, turn the **LFO Depth** back down to 0.

You'll notice two additional function markers at the furthest end of the **Envelope Time** control: **Infinite** will sustain any incoming note until you play another, and **Repeat Waveform** that repeats the current **Envelope Shape** waveform. When using **Repeat Waveform**, the distance between one wave shape and the next on the **Envelope Shape** control sets the rate.

Use the **Drive** control to add overdrive. Like the **Dimension** control, the movements of the **Drive** control can be recorded and looped. This can be used to create tremolo effects or add interesting textures to the sounds you create. Infinite Jets also contains secondary control functions for adjusting **Tone**, **Master Volume**, and **Gain Mode** *(see Secondary Control Functions, Section 8)*.

Try switching the **Voice** control to **Glitch A**. In this mode, **Dimension** controls the playback length of the looping sample fragments the pedal captures. Automating this control with a recorded knob movement or the internal LFO can add complex textural elements to your playing as loops fade in and out. Put the pedal into **Poly Trigger Mode**, and loops can cascade on top of each other for even more complexity and musical interest.

**Glitch B**, **Swell A**, and **Swell B** have slight differences in their control schemes that are detailed in their respective sections below.

Once you've found a sound you like you can save these settings for later recall. Hold down both the **A** & **B** footswitches until the indicator lights begin to blink, turn the Voice knob to either **User A** or **User B**, and hold down the **A** & **B** footswitches again to save the preset.

Infinite Jets is designed to foster experimentation, creativity, and a nearly limitless level of customization. It is our hope that this getting started guide will serve as a jumping off point for your own explorations.

# 4 | INPUTS & OUTPUTS

## 9V POWER INPUT

9 volt
2.1 mm barrel connector, center negative
200 mA minimum

The pedal accepts a standard 9v, center-negative, 2.1mm DC barrel connector power supply. For best results, use a transformer isolated "wall-wart" power supply, or a pedalboard power supply with multiple isolated outputs. Using a switching power supply or daisy-chain from another pedal can add extra unwanted noise. For best results, we recommend a power supply than can provide a minimum of 200mA.

## EXPRESSION PEDAL INPUT

Tip: *0-5v input*
Ring: *5v output*
Sleeve: *0v output*
Recommended pot resistance: *>10 kOh*

An external Expression Pedal can be used to control the **Envelope Time**, **Envelope Shape**, **Drive**, **Dry**, or **Dimension** controls.

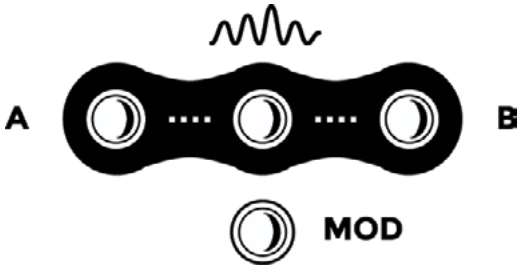
If an Expression pedal is plugged in to the 1/4" "EXP" jack while the pedal is powered on, the Indicator Lights will flash blue. While the lights are flashing, move the control to which you'd like to assign the Expression Pedal.

This Expression Pedal assignment will persist after cycling power; to skip this step on subsequent uses of the pedal, plug in the Expression Pedal before powering on the pedal. Or to keep the same assignment, don't touch any controls while the Indicator Lights flash after plugging it in.

## AUDIO INPUT / OUTPUT

Input impedance: *>300 kOhm*
Output impedance: *~1.2 kOhm*
Recommended minimum input impedance of next device: *20kOhm (instrument level input)*

# 5 | INDICATOR LIGHTS




**Sampler Channel A** : Indicates the output volume of Sampler Channel A, which can be triggered automatically by your playing or manually via the **A** footswitch.

**Input Signal Indicator** : Indicates the volume of your instrument's signal. This light will also display the automation applied to the **Drive** control if knob movements have been recorded.

**Sampler Channel B** : Indicates the output volume of Sampler Channel B, which can be triggered by either your playing or the **B** footswitch.

**Mod** : Displays either the value of the Dimension control or the value of any modulation sources controlling Dimension (LFO, recorded knob movements, or the internal envelope generator)

**Bypass** : Indicates whether the effect is engaged; a turquoise light indicates the effect is on, while a red light indicates the effect is bypassed. The light will turn blue when recording knob movements.

# 6 | VOICE PRESETS

## BLUR

These presets “freeze” your note or chord, but remove the original attack and decay characteristics, allowing the sample to be reshaped into a new sound. The Blur presets are useful for creating hazy, atmospheric textures, pads underneath lead playing, and many other unique sounds.

When using Blur presets, the **Dimension** knob controls a combination of delay time, filtering, and feedback that drastically changes the perceived “size” and “space” of the sound. Automating the **Dimension** knob with either the internal LFO or recorded knob movements can create flanging, chorus, or vibrato effects. At more extreme settings, changing the **Dimension** control will create a pitch bend while the control is in motion-- capturing and playing back this movement can be used to great creative effect.

The -1 and +1 Blur presets mix in a pitch shifted signal that is either one octave below or above the original signal. The +1/-1 preset mixes in both an octave up and octave down pitch shifted signal and also adds a longer delay time to the **Dimension** control for the creation of massive sounding atmospherics.

All of this adds up to an expressive toolkit for the creation of subtle atmospheric textures, sustain effects, warbly cassette sounds, pitch bending reverbs, and an endlessly tweakable array of combinations in between.

## SYNTH

These presets sample your playing and convert it into one of two different synth sounds. When using the Synth A and B presets, **Dimension** controls the low pass filter’s cutoff frequency. The filter can be automated with recorded knob movements or controlled by the internal LFO or envelope.

**Synth A** transforms your playing into a hard edged digital synthesizer sound, while **Synth B** transforms your signal into an airy, gently chorused synthesizer sound reminiscent of 1980s synth pads.

The combination of these synth sounds with the built in **Drive** control, as well as the low pass filter (accessible via **Dimension** control), can create a wide variety of synth tones. They can be useful as both lead sounds and “pad” accompaniment underneath your playing when mixed with the Dry signal.

## GLITCH

These presets chop the incoming signal into looping fragments and reassemble them in two distinct ways: **Glitch A** creates short loops out of incoming notes or chords and allows the user to choose one of four sample playback lengths. **Glitch B** adds a random element by storing notes or chords in separate chunks of audio and playing them back at random (or controlled) intervals. In both cases, these presets allow the user to manipulate the incoming audio in real time, re-organizing your sound into different stuttering patterns on the fly.

Despite the name "Glitch," these two presets are not limited to abrupt, scratched CD type effects. Using the sine or sawtooth envelope shapes in **Poly** trigger mode, for example, can create complex, swirling textures around the original signal. Shorter envelope times can create interesting delay effects. Automating changes in the **Dimension** control can add an enormous amount of complexity to the sound by varying the playback length of the recorded fragments of sound in real time.

**Glitch A** captures short sample fragments from the incoming signal. Each time a new note or chord is captured, the pedal will begin playing back a short looped section of audio. **Dimension** selects one of four sample lengths to play back when in this mode. Recording and playing back the movement of the **Dimension** control in this mode can yield interesting rhythmic and textural effects as recorded samples change between short and long sample lengths.

**Glitch B** samples each incoming note or chord separately as a short loop and stores it in one of six memory blocks, selected at random. In this mode, **Envelope Time** controls how often the pedal will record and loop a sample; at 0% it will very infrequently record and play back a sample, and at ∞ it will trigger and play back a sample with every new incoming note or chord.

While in **Glitch B** mode, **Dimension** can be used to scroll back through the 6 notes stored in the pedal's memory, organizing the sound into brand new combinations of small looped segments of audio. Automating this control allows for real time reordering of audio into new patterns— while the control is automated it sweeps through the different sample blocks of pre recorded audio and plays them back. Any new notes played while the control is automated will overwrite the existing material in the sample blocks. In this way the pattern can continually evolve as notes are added and subtracted.

When using the **Glitch B** preset, the **Dry** control functions slightly differently. When **Dry** is set to 0% in this mode, the output mix will fully switch between the effected signal and the original instrument signal when the sampler is turned on or off. This allows the looping fragments captured by the pedal to occasionally "interrupt" the dry signal for a more striking effect. Turning the **Dry** control above 15% will return the **Dry** control to normal operation, allowing the original signal to pass through regardless of whether the pedal is sampling.

Because **Glitch B** works slightly differently than the other presets, there is no difference between **Mono** and **Poly** trigger modes when using this preset.

This preset is intended to inject some chaos, unpredictability, and excitement into a piece of music. The loops that the preset creates are ephemeral and cannot be saved; as you create them you are hearing it for both the first and last time.

## SWELL

Swell presets A & B allow for the use of Infinite Jets' dynamics processing to add dramatic volume effects to your playing. Create volume swells or use **Repeat Waveform** to create tremolo effects. The effected signal is then fed into a delay (controlled by **Dimension**) which can be modulated by LFO, envelope, or recorded knob movement. Automating this control can create a wide range of sounds from subtle tape warble, chorus, or vibrato to extreme pitch shifting feedback sounds.

**Swell A** uses the dynamics of your playing to trigger a volume envelope selectable by the Envelope Shape control.

**Swell B** adds waveshaping to the signal, allowing for violin-like sustained fuzz effects and over the top distorted lead tones.

Because the **Swell** presets do not capture and sample your playing, **Mono**, **Poly**, and **Manual** trigger modes work slightly differently for this effect. In **Poly** mode, Infinite Jets will play the through the entire selected **Envelope Shape** each time a note is triggered for more dramatic volume efffects. In **Mono** mode, it will apply only the attack portion of the selected **Envelope Shape** for a slightly more subtle effect and to allow for faster playing.

Unlike the other preset voices, **Swell A** and **Swell B** are always set to **Momentary** operation when using **Manual** trigger mode. When the footswitch is depressed, signal is allowed to pass into the delay that comes at the end of the signal path. When the footswitch is released, signal is no longer allowed to pass to the delay. This allows for some very interesting creative uses for the **Swell** presets. Consider this example: turning the **Dry** control to 50% allows the signal to pass unchanged. However, when **Footswitch A** or **B** is depressed, signal will pass into the delay and thus the note will jump out from the mix, suddenly occupying a very different space. Releasing the footswitch allows this delayed note to trail off naturally and clearly over the top of whatever the user plays afterwards.

# 7 | CONTROLS

## TRIGGER MODE SWITCH

The **Trigger Mode** switch offers three different ways to control Infinite Jets' samplers: **Mono**, **Poly**, and **Manual**. In **Mono** and **Poly** modes the samplers are triggered by your playing. **Manual** trigger mode is controlled by the **A** and **B** footswitches.

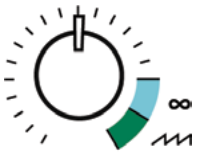

In **Mono** trigger mode, sampling is controlled by your playing, but only one note or chord sustains. Each successive note or chord cancels out the previous note. Because only one channel sustains at a time, this mode can be helpful for playing faster or with more clarity than the **Poly** trigger mode.


In **Poly** trigger mode, Infinite Jets will still alternate between Sampler channels A & B, and both channels sustain at the same time. In this mode it is possible to create very unusual harmonies and textural effects. Shorter envelope times provide a small amount of overlap between notes, while longer envelope times allow the notes to sustain on top of each other. It can take some experimentation to become accustomed to playing this way, as **Poly** mode can create harmonies and stacks of notes not easily achieved by normal playing. With a little practice, however, this mode can unlock some truly inspiring and unusual sounds.

## ENVELOPE SHAPE AND ENVELOPE TIME

ENV SHAPE

**Envelope Shape** selects the type of waveform used to shape the output volume of each sampler channel. The user can choose from one of six waveforms. This control works in tandem with the **Envelope Time** control, which determines the duration of the waveform once the envelope has been triggered.




ENV TIME

You'll notice two additional function markers at the furthest end of the **Envelope Time** control: **Infinite**, which will sustain any incoming note until you play another, and **Repeat Waveform** that loops the current **Envelope Shape** waveform.

SET RATE

ENV SHAPE

When using **Repeat Waveform**, the distance between one wave shape and the next on the **Envelope Shape** control sets the rate at which the waveform repeats. When the pedal is in **Poly** trigger mode, the repeating waveforms for sampler channels A & B are offset by 50% to create an alternating pattern between the two voices. When the pedal is in **Mono** trigger mode, the repeating waveforms are in sync between the two channels.

Similarly, when using the **Random** waveform, the area assigned to the Random waveform on the **Envelope Shape** control can also be used to set how often the pedal chooses a new random value. **Envelope Time** controls the overall duration of the waveform.

**GLITCH B**

When using the **Glitch B** preset voice, **Envelope Time** does not control the duration of the waveform. Rather, **Envelope Time** determines how often the pedal will record and loop a new sample; when set to 0% it will very infrequently record and play back a sample, while at **Infinite** or **Repeat Waveform** it will trigger and play back a sample with every new incoming note or chord.

# 7 | CONTROLS CONTINUED

## VOICE

Voice allows you to choose between one of four sampling effect styles, comprising ten individual presets and two User save locations. *For more on this see Section 6, Voice Presets.*

## DIMENSION

**Dimension** controls a different distinct set of parameters for each preset voice. **Dimension** can also be controlled by the internal LFO, the envelope generator, or by recording knob movements to create a wide variety of sounds. For more about using the LFO and envelope generator to control **Dimension**, *(see Section 8, Secondary Control Functions).*

The value of the Dimension control or the value of any modulation sources controlling Dimension (LFO, recorded knob movements, or the internal envelope generator) is displayed on the **MOD** indicator light.

| Preset Voice | Parameter |
|---|---|
| Blur | Space / Feedback |
| Synth | Lowpass Filter Cutoff |
| Glitch A | Sample Playback Length |
| Glitch B | Sample Selector |
| Swell | Space / Feedback |

When using **Blur** or **Swell** presets, Dimension controls a combination of delay time, filtering, and feedback that drastically changes the perceived “size” and “space” of the sound. Automating the Dimension knob with either the internal LFO or recorded knob movements can create flanging, chorus, or vibrato effects. At more extreme settings, changing the Dimension control will create a pitch bend while the control is in motion-- capturing and playing back this movement can be used to great creative effect.

When using the **Synth A** and **B** presets, Dimension controls the low pass filter's cutoff frequency. The filter can be automated with recorded knob movements or controlled by the internal LFO or envelope.
**Glitch A** captures short sample fragments from the incoming signal. Each time a new note or chord is captured, the pedal will begin playing back a short looped section of audio. **Dimension** selects one of four sample lengths to play back when in this mode. Recording and playing back the movement of the **Dimension** control in this mode can yield interesting rhythmic and textural effects as recorded samples change between short and long sample lengths.

While in **Glitch B** mode, the **Dimension** control can be used to scroll back through the 6 notes stored in the pedal's memory, organizing the sound into brand new combinations of small looped segments of audio. Automating this control allows for real time reordering of audio into new patterns— while the control is automated it sweeps through the different sample blocks of pre recorded audio and plays them back. Any new notes played while the control is automated will overwrite the existing material in the sample blocks. In this way the pattern can continually evolve as notes are added and subtracted.

## DRIVE

**Drive** controls the amount of overdrive applied. Infinite Jets uses a digitally-controlled, analog overdrive stage at the output. This means that although it is an analog overdrive, the control's value can be saved as part of a User preset, or automated by recording knob movements.

The pedal automatically compensates for the amount of gain introduced by the **Drive** control by reducing the output volume proportionally; although the **Drive** control provides more than 10x gain it will remain at a consistent output level. This feature can be disabled by selecting a different gain mode at startup, and the user can also manually control the digitally controlled analog **Master Volume** and **Tone** controls for extended customization *(see Secondary Controls)*.

## DRY

**Dry** controls the balance between the original instrument signal and the effected signal. It makes use of a digitally-controlled, analog circuit that allows you to save the settings of the analog dry path as part of a User preset. Turning the knob clockwise adds an increasing amount of your original instrument signal to the output. At 50%, both signals will be equal. Above 75%, it also begins to reduce the level of the effected signal, shifting the balance toward the dry signal.

When using the **Glitch B** preset, the Dry control functions slightly differently. When **Dry** is set to 0% in this mode, the output mix will fully switch between the effected signal and the original instrument signal when the sampler is turned on or off. This allows the looping fragments captured by the pedal to occasionally "interrupt" the dry signal for a more striking effect. Turning the **Dry** control above 15% will return the **Dry** control to normal operation, allowing the original signal to pass through regardless of whether the pedal is sampling.

The **Dry** control can also be used to manually adjust the analog **Master Volume** control *(see Secondary Controls)*.

# FOOTSWITCHES

## ■ BYPASS FOOTSWITCH / RECORD KNOB MOVEMENTS

Tapping the center **Bypass Footswitch** toggles Infinite Jets' true-bypass relay switching.

Holding the **Bypass Footswitch** will allow the **Dimension** or **Drive** controls' movements to be recorded and looped. *For more on this, see Knob Recording.*

Holding down the **Bypass Footswitch** while starting up the pedal allows the user to change the pedal's gain mode. *For more on this see Secondary Control Functions.*

## ■ FOOTSWITCH A / LFO ADJUST

When the pedal is in **Manual** trigger mode, the **A** footswitch can be used to sustain individual notes, or fade new notes or chords in or out. By default the footswitches are set to Toggle on/off, but they can also be set to Momentary and Latching operation.
*See Secondary Control Functions.*

Holding **Footswitch A** will allow the user to adjust the controls of the internal LFO, as well as access the secondary functions of the digitally-controlled, analog output section.
*For more on this see Secondary Control Functions.*

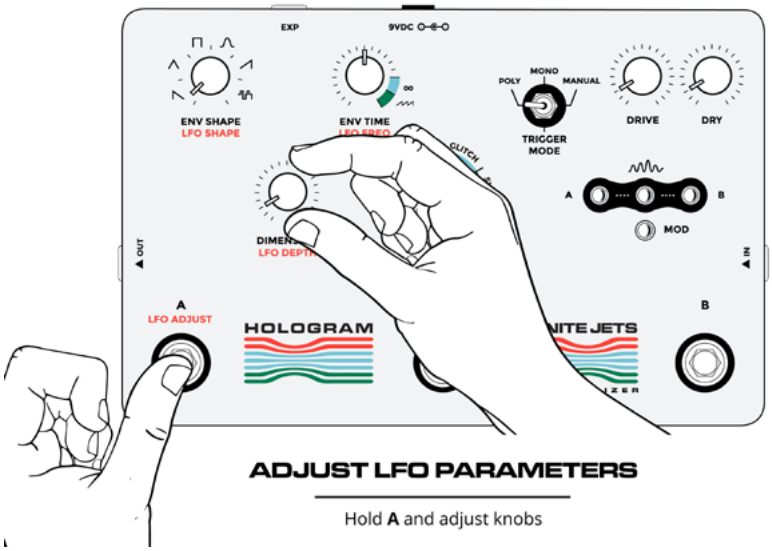
Holding down **Footswitch A** while starting up the pedal allows the user to change the brightness of the indicator lights. *For more on this see Secondary Control Functions.*

## ■ FOOTSWITCH B

When the pedal is in **Manual** trigger mode, **Footswitch B** can be used to sustain individual notes, or fade new notes or chords in or out. By default the footswitches are set to Toggle on/off, but they can also be set to Momentary and Latching operation.
*For more on this, see Secondary Control Fuctions.*

Holding **Footswitch B** while adjusting the **Trigger Mode** switch allows the user to switch between Toggle, Momentary, and Latching modes.

# 8 | SECONDARY CONTROL FUNCTIONS




## INTERNAL LFO (LOW-FREQUENCY OSCILLATOR)

The internal **LFO** provides a continuously sweeping control signal that can be used to modulate the **Dimension** control. You can choose between one of six waveforms for this control signal and can set the rate at which it sweeps. The **LFO** allows you to add great complexity to the preset sounds by constantly shifting the **Dimension** control in a predictable way.

The **LFO**'s parameters may be manipulated by holding **Footswitch A (LFO Adjust)** and turning the **Dimension, Envelope Shape, or Envelope Time** controls. The secondary functions are denoted in red text below each each control. All **LFO** parameters can be saved as part of a User preset.

### ▪ LFO DEPTH

**LFO Depth** controls the amount of modulation applied to the **Dimension** control from the LFO. At an **LFO Depth** of 0%, the LFO is "off" and **Dimension** is controlled solely by the knob itself.

To increase **LFO Depth**, hold **Footswitch A** while turning the **Dimension** control. As the depth increases, the **MOD** indicator light will change from its normal turquoise color to a new color, determined by the waveshape of the LFO.

After setting the **LFO Depth**, release **Footswitch A**. While the LFO is engaged, the **Dimension** control knob can then be used to set the offset for the LFO. For instance, if the **LFO Depth** is set to 20%, and then the **Dimension** knob is moved to 50%, the output of the **Dimension** control will swing between 40% and 60%. The depth parameter dictates how far the **Dimension** control will swing in either direction from its current position.

# 8 | SECONDARY CONTROL FUNCTIONS CONTINUED

## ■ LFO FREQ

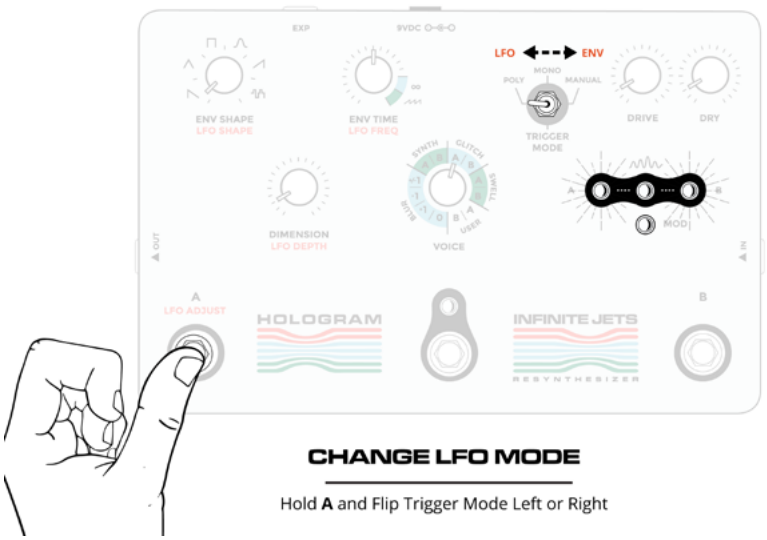
**LFO Frequency** controls the rate of the low frequency oscillator's sweep. To change the **LFO Frequency**, hold **Footswitch A** and turn the **Envelope Time** control. The current value of the **Envelope Time** knob will be retained and will not change until the user moves it again after releasing the footswitch.

## ■ LFO SHAPE

**LFO Shape** allows the user to choose from one of six waveforms for the internal low-frequency oscillator. To change the **LFO Shape**, hold **Footswitch A** and turn the **Envelope Shape** control. The value of the **Envelope Shape** knob will be retained and will not change until the user moves it again after releasing the footswitch.

## ■ LFO MODE / ENVELOPE GENERATOR

Infinite Jets also allows an internal **Envelope Generator** to be used to modify the **Dimension** control instead of the **LFO**. The **Envelope Generator** controls the **Dimension** control in the same manner as the **LFO**, but instead of providing a continuous sweep it only plays once each time a new note is triggered.




To switch between **LFO** and **Envelope Generator**, hold **Footswitch A** and flip the **Trigger Mode** toggle switch left for **LFO** operation or right for **Envelope Generator** operation.

# MANUAL TRIGGER FOOTSWITCH MODES

When using the **Manual** trigger modes, the **A** and **B** footswitches trigger capture of new notes or chords. By default they are set to **Toggle** operation (push once to turn on, push again to turn off). Alternatively, they can be set to **Momentary** or **Latching** operation.

## ■ MOMENTARY

In **Momentary** operation, the **A** and **B** footswitches trigger the capture of a new note when pressed. The note will continue to sustain while the footswitch is depressed, and then decay when the footswitch is released. The combination of **Envelope Time** and **Envelope Shape** will determine how long this decay takes after the footswitch is released. When set to **Momentary** operation, many interesting creative results can be achieved by setting a long **Envelope Time** and varying the choice of **A** or **B** footswitches when capturing notes so that occasionally both channels may sustain or decay on top of each other.

Unlike the other preset voices, **Swell A** and **Swell B** are always set to **Momentary** operation when using **Manual** trigger mode. When the footswitch is depressed, signal is allowed to pass into the delay that comes at the end of the signal path. When the footswitch is released, signal is no longer allowed to pass to the delay. This allows for some very interesting creative uses for the **Swell** presets.

Consider this example case: turning the **Dry** control to 50% allows the signal to pass unchanged. However, when **Footswitch A** or **B** is depressed, signal will pass into the delay and thus the note will jump out from the mix, suddenly occupying a very different space. Releasing the footswitch allows this delayed note to trail off naturally and clearly over the top of whatever the user plays afterwards.

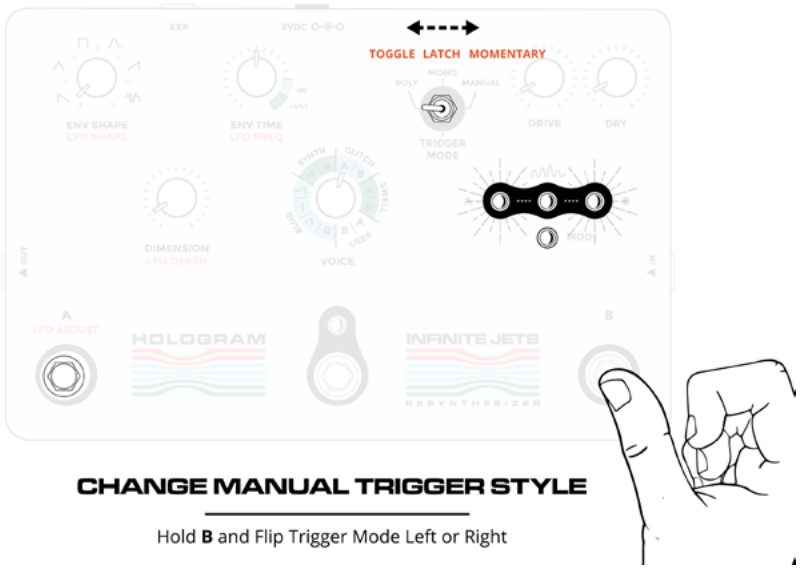
## ■ LATCHING

In **Latching** operation, pressing the **A** or **B** footswitch samples a note or chord and sustains it; pressing the switch again will clear the previous note and sample another note or chord. Double-tap the footswitch in quick succession to clear the note.

## ■ TOGGLE

In **Toggle** operation, pressing the A or B footswitch samples a note of chord and sustains it. Pressing a footswitch again will clear the note. The **Envelope Shape** and **Envelope Time** controls determine the amount of time it takes for a note to decay once it has been cleared.

# 8 | SECONDARY CONTROL FUNCTIONS CONTINUED



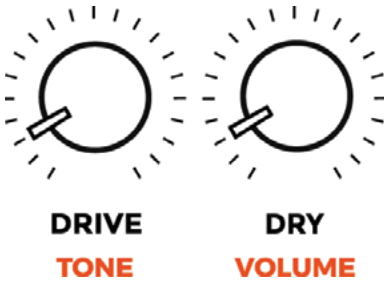

## CHANGING FOOTSWITCH MODES

To switch between **Momentary**, **Latching,** and **Toggle** operation, hold **Footswitch B** while changing the **Trigger Mode** switch. Flip the switch left to **Poly** for **Toggle** operation (yellow lights), to the middle **Mono** setting for **Latch** operation (red lights), or to the right **Manual** setting for **Momentary** operation (blue lights). The animated patterns of the indicator lights are intended to indicate what each mode does so that they may be more easily differentiated later.

Release **Footswitch B** to resume normal operation. If you have changed the **Trigger Mode** switch, it may be necessary to flip back to **Manual** in order to resume manual footswitch triggering. This setting is saved in memory and will persist after cycling power.

# 8 | SECONDARY CONTROL FUNCTIONS CONTINUED

## TONE / MASTER VOLUME




In addition to the **Drive** control, Infinite Jets features a digitally-controlled-analog **Tone** and **Master Volume** section.

**Tone** controls the amount of high frequency rolloff at the output. To adjust the **Tone**, hold **Footswitch A** and turn the **Drive** control. Turning the knob clockwise allows more high frequencies to pass through, fully clockwise representing no high frequency rolloff (much like a guitar's tone knob). Any changes made to the **Tone** setting will be stored when saving presets and can be recalled later. The current value of the **Drive** knob will be retained and will not change until the user moves it again after releasing the footswitch.

By default, the pedal automatically compensates for the amount of gain introduced by the **Drive** control by reducing the output volume proportionally, but for further customization it is possible manually set the output volume. **Master Volume** can be adjusted by holding **Footswitch A** and turning the **Dry** control.

This automatic gain compensation can be disabled, so that **Master Volume** is always set by holding **Footswitch A** and changing **Dry**. To do this, change the **Gain** Mode at startup as described above.

# STARTUP PARAMETERS

## ■ GAIN MODE

To disable the automatic gain compensation normally used by the **Drive** control, hold the **Bypass Footswitch** while starting up the pedal. The indicator lights will begin to blink.

While holding the footswitch, use the **Trigger** Mode switch to change between gain modes. Flipping the switch to the left (**Mono**) will disable gain compensation. The indicator lights will flash turquoise to indicate this change.

Flipping the switch to the right (**Manual**) will enable the default gain compensation. The indicator lights will flash red to indicate this change.

This setting will be saved in memory and will persist after cycling power until the next time it is changed.

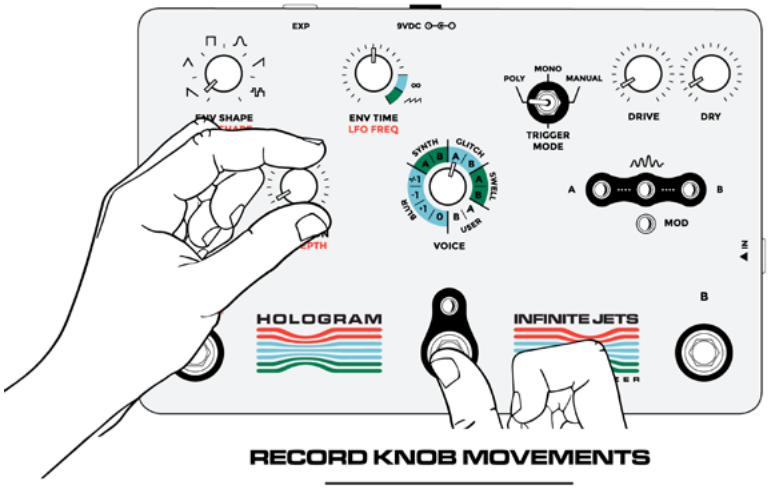
## ■ INDICATOR LIGHT BRIGHTNESS

Holding down **Footswitch A** while powering up **Infinite Jets** allows you to change the brightness of the LED indicator lights. When in this mode, the four indicator lights will turn white. Use the **Envelope Shape** knob to adjust the lights to your desired brightness and then release the footswitch. This setting is saved in memory and will persist after cycling power.

## ■ FULL FACTORY RESET

If you wish to return the pedal to its original factory settings, erasing any saved presets or automation, hold down the two outside **footswitches A** & **B** while powering on the pedal. **Infinite Jets** will erase any customizations and return to its original preset content. This process may take up to a minute. Do not disconnect from power until this process has finished.

# 9 | RECORDING AND LOOPING KNOB MOVEMENTS




## DIMENSION

To record the movement of the **Dimension** control, hold down the **Bypass** (center) footswitch and twist the **Dimension** knob. When you release the **Bypass** footswitch, Infinite Jets will begin to play back and loop this movement. As you record, you'll see the **MOD** indicator light turn red. When you have finished recording, you will see this light reproduce the motion you just recorded.

The pedal will record your movements for up to 10 seconds or until the **Bypass** footswitch is released. The **MOD** indicator light will change from red to blue as the recording gets closer to the 10 second limit. When the light turns fully blue and blinks, the recording will stop automatically and begin playing back the recording.

To stop playback and return the **Dimension** control to its normal function, simply move it again. This technique works the same across all of the different **Voice** presets, and can be used to create a wide variety of new effects of your own.

## DRIVE

To record the movement of the **Drive** control, hold down the **Bypass** (center) footswitch and twist the **Drive** knob. When you release the **Bypass** footswitch, Infinite Jets will begin to play back and loop this movement. As you record, you'll see the top center indicator light turn red. When you have finished recording, you will see this light reproduce the motion you just recorded.

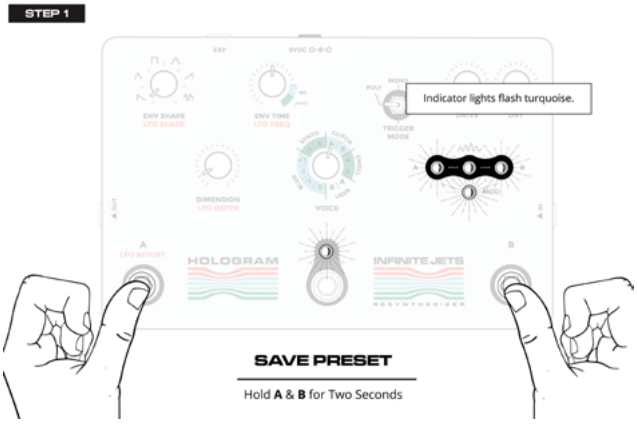
The pedal will record your movements for up to 10 seconds or until the **Bypass** footswitch is released. The top center indicator light will change from red to blue as the recording gets closer to the 10 second limit. When the light turns fully blue and blinks, the recording will stop automatically and begin playing back the recording.

To stop playback and return the **Drive** control to its normal function, simply move it again.

# 10 | SAVING PRESETS

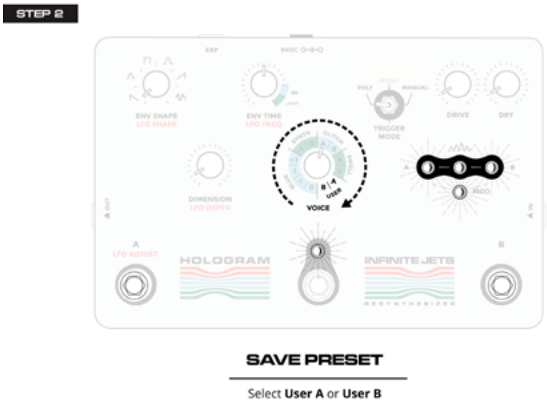
Once you've found a sound you like you can save these settings for later recall. Hold down both the **A** & **B** footswitches, and turn the **Voice** knob to either **User A** or **User B**, and hold down the **A** & **B** footswitches again to save the preset. All of the pedal's current parameters, both digital and analog will be saved for future use.

STEP 1



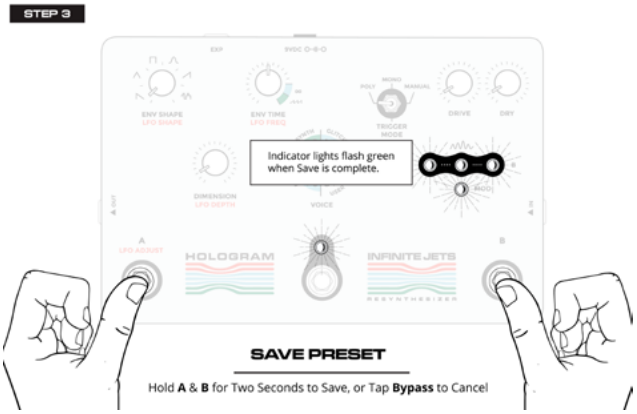

*Hold both outside switches for two seconds. Indicator lights will flash turquoise when ready to save.*

STEP 2




*Flip Voice control to User A or User B to choose your desired save location.*

STEP 3




*Hold both outside switches again for two seconds, or press Bypass to cancel. Indicator lights will flash green when completed.*

# 11 | WARRANTY

Hologram Electronics warrants your product to be free from physical defects in material and workmanship for a period of 1 year from the date of the original retail purchase. If you discover a defect covered by this warranty, we will repair or replace the product.

Not Covered by this Warranty:

This warranty covers manufacturing defects that arise from the correct use of this device. It is limited to defects in materials or workmanship and does not cover damage caused by unauthorized modification, abuse, lightning or power surge damage. The warranty does not cover the normal wear and tear of graphics, knobs, or enclosures.
To request a repair, please email repairs@hologramelectronics.com.

## FCC COMPLIANCE

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications could void your authority to operate the equipment under FCC rules.