

Bloom Infinity Series | Sprout Mod Effects Pedal

# User Manual







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## 1. Introduction

Thank you for choosing the Sprout Modulation by Klowra. Sprout Modulation is a stereo modulation pedal offering nine distinct effects—from classic analog-inspired warmth to realistic physical modeling and imaginative, forward-thinking textures. Powered by high-quality algorithms and open parameter architecture, it delivers a responsive, inspiring modulation experience for creative exploration.

Equipped with the Bloom Infinity Series-exclusive Ramp function and Tap Tempo, Sprout Modulation offers dynamic, expressive control. Paired with an expression pedal or external footswitch, it allows for expressive and dynamic tone shaping. With Analog Dry-Through, selectable True or Buffered Bypass, and multiple stereo output modes, Sprout ensures clean signal integrity and flexibility across a wide range of setups.



## 2 Highlights

- **Bloom Infinity Series** - Original artist hand-painted silkscreen artwork, with individual model stories and concepts, all strung together into a cohesive product line.

- **9 Studio-Quality Modulation Types** - From studio-quality modulation to warm synthesizer sounds, *Sprout* unlocks dreamy effects for crafting genre-defying effects.

- **Tap Tempo** - Three rhythm modes are available. Tap Tempo is a real-time setting RATE synchronized with the BPM. Rhythmic subdivisions of modulation speed include quarter note, dotted eighth note, or eighth-note triplet.

- **Ramp** - The Ramp function provides linear parameter variation, controlling the fading back and forth between settings to create a dynamic, evolving effect.

- **External Control** - You can use an external TS/TRS footswitch and expression pedal for multifunctional continuous control.

- **Analog Dry Through** - Keeps the dry signal analog, never converting it to digital, while mixing with the wet signal.

- **Multiple Stereo Outputs** - Dry/Wet Separation and True Stereo Outputs.

- **Bypass Modes** - Switchable True Bypass and Buffered Bypass, with Analog Dry Through.

- **WildSeed Engine** - Class-leading sound quality with 24-bit AD/DA and 32-bit DSP floating-point processing.

- **Material** - Made from sturdy aluminum alloy, this pedal is designed to withstand the rigors of daily use.



### 3. Knobs and Switches

#### RATE

Sets the speed of the LFO (Low-Frequency Oscillator), determining how fast the modulation cycles.

#### DEPTH

Controls the intensity of the LFO's modulation. Higher values produce more dramatic, sweeping effects.

#### MIX

Controls the mix between the dry and wet signals. At the minimum, it outputs full dry signal; at the maximum, it outputs full wet signal with no dry signal. A 50/50 mix occurs around 2 o'clock on the knob.

*You can choose between two mix modes - **Constant Power Mixer** and **Linear Superposition Mixer** - depending on your tonal preference. For details on how to switch modes, refer to the **\*Power-On Modes\*** section.*

#### MODULATION SELECT

**VIBE** – Inspired by classic LDR/transistor circuits, upgraded with sweep range, MIX, and feedback control. Turning the **TEXTURE** knob clockwise increases feedback and enhances modulation intensity, striking a balance between vintage character and modern depth.

**CHORUS** – Digitally recreates the nuances of vintage BBD-based analog chorus, including clock drift, compression, and textured LFO shaping. **TEXTURE** increases delay time (clockwise), enhancing spatial width and adding 3D depth to the sound.

**MULTI-CH** – A triple-voice chorus with independently modulated layers (timing, depth, and speed). **TEXTURE** expands both delay time and stereo spread. Unlike traditional choruses, this mode emphasizes organic movement over overt modulation cycles.

**FLANGER** – Revives saturated BBD-style flanging with aggressive feedback. Turning **TEXTURE** right increases feedback for a range of tones—from warm, tape-like warble to sharp, metallic sweeps.

**FILTER** – Modeled after ladder-style VCFs found in analog synths. Integrates rich resonance and saturation with a virtual modulation stage, offering deep, expressive tonal shaping.



**PHASER** – A six-stage JFET phaser designed to emulate vintage tones. The **TEXTURE** knob adjusts feedback intensity—turn it clockwise for heightened resonance and shifting textures, from smooth to harmonically rich.

**ROTARY** – Simulates the movement and tone of a rotary speaker, reproducing the rotating horn (high frequencies) and drum (low frequencies) to deliver immersive motion and depth.

**TREMOLO** – A clean, triangle-wave tremolo designed for smooth modulation and precise rhythmic control.

**RING** – A self-modulating digital ring modulator that evolves in real time, generating futuristic, sci-fi-inspired tones.

## TEXTURE

Adjusts the texture of the LFO reflections. Turning the control to the right softens the early reflections and produces a smooth onset of the modulation.

## TONE

Adjust the high frequencies within the wet signal, with the darken BRIGHT at minimum and brighten BRIGHT at maximum.

## Footswitch

Control ON/OFF. Press&Hold to trigger **Tap tempo** or **Ramp**.

*Refer to the **\*Tap Tempo\*** or **\*Ramp\*** section for details.*

## The LED Button

Lit when active, pressed or in combination with other knobs to adjust various functions and Hidden Parameters.

## Hidden Parameters

### ◆ Rhythm

Tap Tempo supports three rhythmic subdivisions. Select the desired subdivision by rotating the knob:

- Quarter-note: Turn the knob **fully counterclockwise (leftmost position)**.
- Eighth-note: Set the knob to the **12 o'clock position**.
- Eighth-note triplet: Turn the knob **fully clockwise (rightmost position)**.



◆ **RampATK**

Controls the attack time of the Ramp modulation, determining how quickly the fade reaches the **Snap-Set**. A shorter attack time results in a quicker transition to the **Snap-Set**, while a longer attack time creates a smoother, more gradual fade.

◆ **RampRLS**

Controls the release time of the Ramp modulation, determining how gradually the transition fades back to the **Panel-Set**. A shorter release time results in a quicker return to the **Panel-Set**, while a longer release time provides a more drawn-out, fluid return to the **Panel-Set**.

*For adjustments to Hidden Parameters, please refer to the **\*Description of the LED Button\*** section.*



## 4. REAR PANEL I/O

### 9V DC

Connect to a 9V DC power supply with a center-negative polarity and a minimum current rating of 250mA.

*Note: If the power supply is insufficient, the pedal may malfunction.*

### IN L (Mono)

1/4" mono (TS) unbalanced left input for mono setups.

### IN R (Stereo)

1/4" mono (TS) unbalanced right input for mono setups.

### OUT L (Mono)

1/4" mono (TS) unbalanced left output for mono setups.

### OUT R (Stereo)

1/4" mono (TS) unbalanced right output for stereo setups.

### Ctrl

1/4" stereo (TRS) balanced input for connecting an expression pedal or external footswitch.

*Note: Please refer to the **\*External Control\*** section for information on how connection is recognized.*





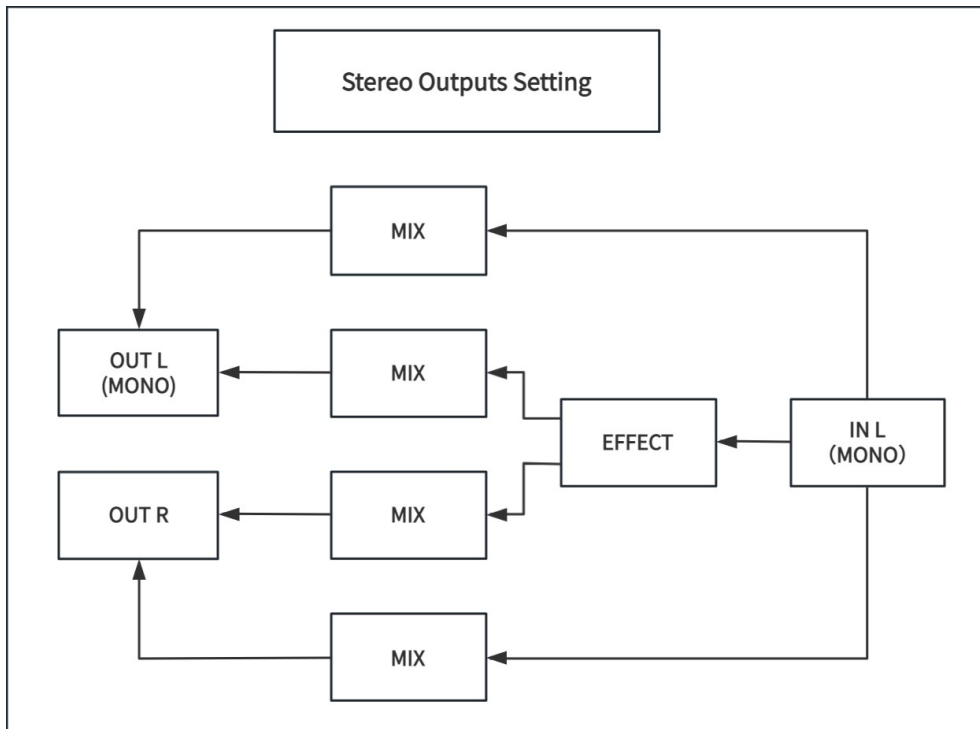
## 5. Signal Path

### Configuring the In/Out Settings

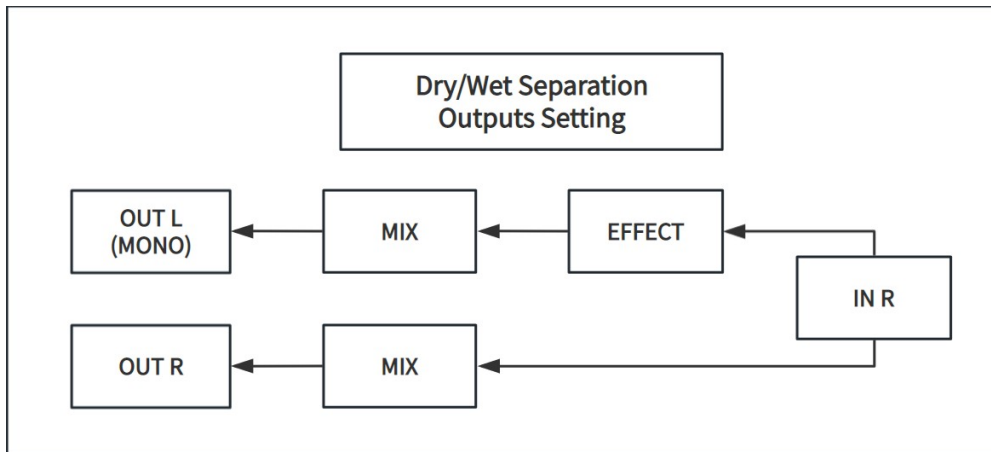
#### 1-in, 1-out

Mono input with mono output. The dry and wet signals are mixed together in the mono output.

#### 1-in, 2-out



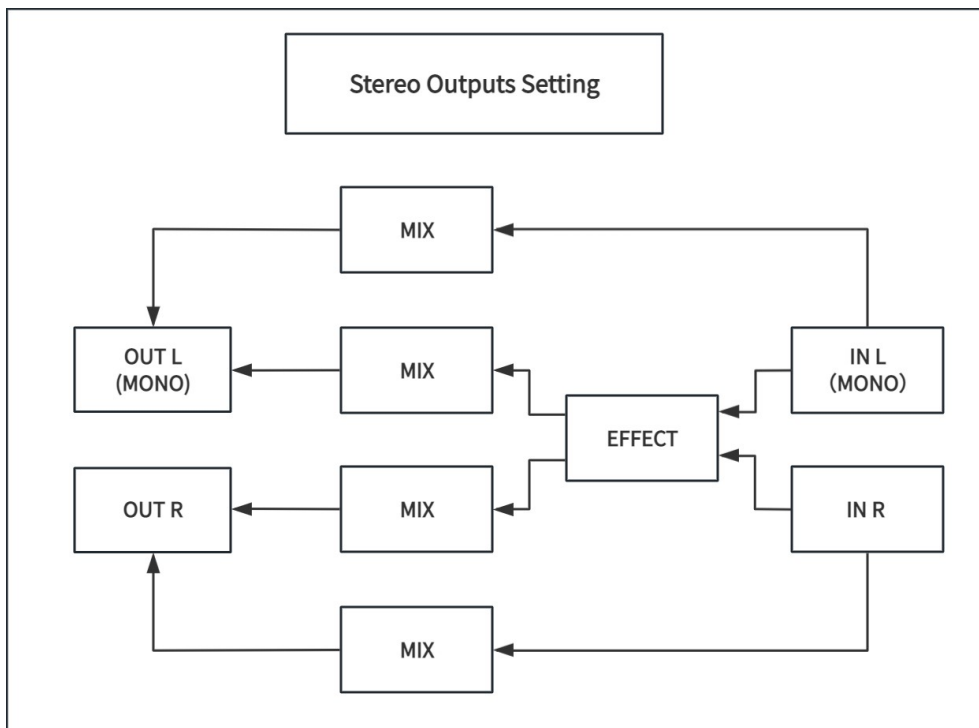
- For the **IN L**, the dry and the wet sounds are mixed when stereo output.



- **Dry/Wet Separation output :** For the **IN R**, **OUT R** carries the dry signal; **OUT L** carries the wet signal.

***\*Dry/Wet Separation outputs allows a guitar signal to be split into two distinct paths: one carrying the unaffected (dry) sound, and the other carrying the processed (wet) effect signal. This configuration offers a range of creative and practical applications, particularly useful for live performances, studio setups, and advanced signal routing.\****

## 2-in, 2-out



For the **IN L&R** , the dry signal and wet signal sounds are mixed when **OUT L&R**.



## 6. Description of the LED Button

### The LED button is the heart of the Sprout.

You can determine the current operating status of the Sprout by observing the color of the LED button. The LED button can be pressed briefly or in combination with other knobs to adjust various functions or parameters.

Learning to interpret the LED colors and understanding the different ways the button can be pressed are essential for familiarizing yourself with the Sprout's operation.

### What the LED Colors Mean

- ◆ **White:** Tap tempo function active;
- ◆ **Blue:** Tap tempo is actively being triggered.
- ◆ **Orange:** Ramp function active;
- ◆ **Violet:** Ramp is actively being triggered.

### What the Button Can Adjust

- ◆ **Toggle the Tap tempo or Ramp**  
Press once to switch between **Tap tempo** and **Ramp**.
- ◆ **Save Snap-Set**  
Press&Hold to save the current parameter settings as **Snap-Set**. The LED blinks **violet** to confirm.
- ◆ **Adjustment of Hidden Parameters**  
Press&Hold while rotating the knob above the **hidden parameters**. Successful adjustment is indicated by the LED blinking **yellow**.



## 7. Tap Tempo

*\*Press&Hold the footswitch while the LED is **white**, until the LED turns **blue**, indicating the entry into **Tap Tempo**.\**

**Tap Tempo** lets you set the **RATE** (modulation speed) in real time by tapping the footswitch in sync with your music. This feature locks the modulation to your rhythm, delivering a tight, groove-aligned feel that enhances clarity and musicality.

You can enter **Tap Tempo** mode directly from the main operation. After tapping, the system automatically exits the mode if no input is detected within 5 seconds.

### - How to use Tap Tempo

- (1) **Press and hold the footswitch** while the LED is **white**.
- (2) **Wait for the LED to turn blue**, indicating that Tap Tempo mode is active.
- (3) **Tap the footswitch repeatedly** in time with your desired tempo. Each tap adjusts the delay time to match the BPM.
- (4) **After 5 seconds of inactivity**, the LED will return to **white**, and the pedal will automatically exit Tap Tempo mode.

### Rhythm Subdivisions:

Tap Tempo supports multiple rhythmic subdivisions to shape the modulation feel:

- Quarter-note: Turn the knob **fully counterclockwise (leftmost position)**.
- Eighth-note: Set the knob to the **12 o'clock position**.
- Eighth-note triplet: Turn the knob **fully clockwise (rightmost position)**.

These options let you tailor the LFO timing—from tight, locked-in pulses to syncopated, ambient movement.

*For Rhythm adjustment, please refer to **\*Description of the LED Button\*** section.*



## 8. Ramp

*\*Press and hold the footswitch while the LED is **orange**. When the LED turns **violet**, you've entered **Ramp**.\**

**Ramp allows for smooth, dynamic transitions between two sets of parameters:**

- ◆ **Panel-Set**—Your current front-panel parameter settings.
- ◆ **Snap-Set**—A saved set of parameters stored using the LED button.

This feature creates expressive, evolving fades that add depth, movement, and emotion to your sound. The speed and character of the transition are defined by two parameters:

### **RampATK (Attack Time):**

Controls how quickly the effect fades from the **Panel-Set** to the **Snap-Set**.

- A shorter attack gives a fast, sharp transition.
- A longer attack creates a smoother, more gradual fade.

### **RampRLS (Release Time):**

Controls how quickly the sound returns from the **Snap-Set** to the **Panel-Set**.

- A shorter release results in a quick recovery.
- A longer release provides a more drawn-out, fluid return.

## **Ramp Modes**

Ramp supports two switching modes - **Momentary** and **Latched** — giving you flexibility to match your performance style.

### **Momentary Mode:**

Press&Hold the footswitch to fade into the **Snap-Set** over **RampATK** time. Release the footswitch to return to the **Panel-Set** over **RampRLS** time.

### **Latched Mode:**

Press once to transition to the **Snap-Set (RampATK)**, and press again to return to the **Panel-Set (RampRLS)**.

*To select between Momentary and Latched modes, see the **\*Power-Up Modes\*** section.*





## 9. Power-Up Modes

### How To enter Power-Up Modes

Press & hold the footswitch while powering on the pedal. A flashing LED indicates successful entry.

Once your settings are configured, short-press the footswitch again to exit

**Power-Up Modes.**

In this mode, you can adjust the following settings:

### Bypass Modes

Switch between modes by short-press **the LED button.**

#### ◆ True Bypass

The signal is routed directly through the pedal with no buffering or coloration.

**Green LED flashes** to indicate **True Bypass** mode.

#### ◆ Buffered Bypass

The signal is routed through a buffer with **Analog Dry Through.**

**Red LED flashes** to indicate **Buffered Bypass** mode.

### Ramp Lock

Select by rotating the **DEPTH** knob.

- Turn fully left for **Momentary** (LED **yellow** flashes 3x).

- Turn fully right for **Latched** (LED **blue** flashes 3x).

#### ◆ Momentary:

Hold the footswitch to transition to **Snap-Set** over **RampATK** time. Release to return to the current set over **RampRLS** time.

#### ◆ Latched:

The first press transitions to **Snap-Set** over **RampATK** time. The second press returns to the current set over **RampRLS** time.

### MIX Modes

Select MIX Mode by rotating the **MIX** knob.

- Turning it fully left selects the Constant Power Mixer (LED **yellow** flashes 3x).

- Turning it fully right selects the Linear Superposition Mixer (LED **blue** flashes 3x).

#### ● Constant Power Mixer

In this mode, the wet and dry signals are mixed in a way that maintains consistent power across the mix. This means that the volume of the wet signal will increase or decrease in relation to the dry signal to maintain a balanced overall sound, with no excessive gain or loss when blending the signals.

#### ● Linear Superposition Mixer

This mode blends the dry and wet signals using a linear approach, meaning the signals are simply added together at equal strength, without adjusting for



perceived loudness. This results in a more direct, unaltered blend of both signals, which may introduce some dynamic changes depending on the level of the wet signal.

### **LED Brightness**

Adjust by rotating the **TONE** knob.

- Turn fully left for dimmest.
- Turn fully right for brightest.



## 10. External Control

### Connection & Activation

When connecting an **external TS/TRS footswitch or expression pedal**, the LED indicator will flash red. Trigger the footswitch or pedal repeatedly during this state. Once the connection is successfully recognized, the Sprout will return to normal operation.

*Note: If the External Control is not fully activated, it may result in limited functionality.*

### External Footswitch Compatibility

When connecting an external TS/TRS footswitch, there are two specific functional settings, depending on the color of the LED indicator:

- ◆ **LED White** - The current footswitch-specific function is **Tap Tempo**.
  - **TS/RS Footswitch** : Momentary triggers Ramp.
  - **TRS Footswitch**:
    - Tip Position: Momentary triggers Ramp.
    - Ring Position: Momentary triggers Tap Tempo .
- ◆ **LED Orange** - The current footswitch-specific function is **Ramp**
  - **TS/RS Footswitch**: Momentary triggers Tap Tempo.
  - **TRS Footswitch**:
    - Tip Position: Momentary triggers Ramp.
    - Ring Position: Latched triggers Tap Tempo .

### Expression Pedal Compatibility

When an expression pedal is connected, it takes direct control over the **Ramp** by blending between the **Panel-Set** and **Snap-Set**. In this mode:

- ◆ The **RampATK** and **RampRLS** parameters are disabled.
- ◆ Ramp cannot be triggered by Press&Hold the footswitch.
- ◆ The expression pedal locks the Sprout into **LED White (Tap Tempo active)**, and mode switching to **LED Orange (Ramp active)** is disabled.



## 11. Specifications

<b>Inputs</b>	2 x 1/4"TS Instrument jacks	<b>Outputs</b>	2 x 1/4"TS Instrument jacks
<b>Input Impedance</b>	500k Ohm	<b>Output Impedance</b>	100 Ohm
<b>A/D &amp; D/A</b>	24 Bit 44.1K Hz	<b>Max Input Level</b>	+10 dBu
<b>Power Source</b>	9V DC power supply required	<b>Current</b>	250mA
<b>External Control</b>	TS/TRS Momentary footswitch, or TRS expression pedal	<b>Bypass Mode</b>	Switchable: True Bypass, Buffered Bypass(Analog Dry-Through)
<b>Hardware Interface</b>	USB-C	<b>Dimensions</b>	54.7mm H x 124.8mm D x 69.2mm W(2.0"H x 4.9"D x 2.7"W)





Where Every Tone Blooms.