



HOLOGRAM

FIRMWARE  
Version 1.1



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# 1 | OVERVIEW

Microcosm rearranges and reinterprets your sound in new and exciting ways using a variety of granular sampling, delay, and looping techniques. Cascading micro loops can be locked into tight tap-tempo synced rhythms, diffused into glacial ambient textures, woven into hypnotic drones, and much more.

11 groundbreaking effects (with a total of 44 preset variations) allow you to slice, stretch, rearrange, and manipulate your playing in musical ways. Tweak the sound further using Microcosm's built-in Pitch Modulation, lush Stereo Reverb (with 4 selectable modes), and Resonant Low-pass Filter.

The pedal features Tap Tempo for synchronizing these rhythms with other musicians, and a "Hold" Sampler section that captures notes or chords to allow for unique harmony and drone effects.

When you've found a sound you like, the built-in stereo Phrase Looper can capture up to 60 seconds of your performance and even allows for layering phrases from different effects. All loops, overdubs, and settings can be saved and recalled later using the pedal's 16 user presets.

## FEATURES

- 4 Separate Effect Styles
- 44 preset Variations
- 16 User Presets - Save Settings & Loops
- Tap Tempo
- 60 second Phrase Looper
- Multiple Looper Playback Speeds
- Hold Sampler
- Envelope Shape Control
- Stereo Reverb
- Resonant Low-Pass Filter and Pitch Modulation
- Mappable Expression Input
- Reverse Loop Playback and/or Effect direction
- MIDI IN/Out/Thru (Firmware updates via MIDI)
- Stereo Input / Output

# 2 | INPUTS & OUTPUTS

## CONNECTIONS

Mono/Stereo TRS Input, Output L, Output R, EXP IN, MIDI In, MIDI Out/Thru, 9vDC

## 9V POWER INPUT

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

The pedal accepts a standard 9v, center-negative, 2.1mm DC barrel connector power supply. For best results, use an isolated power supply.

Using a switching power supply or daisy-chain from another pedal can add extra unwanted noise. The power supply must be capable of providing a minimum of 400 mA to Microcosm.

## 2 | INPUTS & OUTPUTS CONT.

### EXPRESSION PEDAL INPUT

Tip: 0-3v input  
Ring: 3v output  
Sleeve: 0v output  
Recommended pot resistance: >10 kOhm

**Control Parameters:** Activity, Shape, Filter, Mix, Repeats, Space, or Loop Level

If an Expression Pedal is plugged in to the 1/4" "EXP" jack while the pedal is powered on, Indicator Lights will flash blue. While 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. To keep the same assignment, don't touch any controls while the Indicator Lights flash after plugging it in.

### AUDIO INPUT / OUTPUT

Input: Mono / Stereo  
Instrument Level or Line Level  
Output: Mono / Stereo  
Instrument Level or Line Level

#### OUTPUT CONFIGURATIONS:

**Mono In/Out:** Microcosm is ready to receive a mono input by default ([see Global Configuration](#)). Connect a standard instrument cable into the MONO/STEREO TRS input jack, and a standard instrument cable to OUTPUT L.

**Mono In/Stereo Out:** Connect a standard instrument cable into MONO/STEREO TRS input jack. Use standard instrument cables with both output L & R for a stereo image of the mono input.

**Stereo In/ Stereo Out:** First, select the stereo input option in the Global Configuration menu ([see pg. 45](#)) Connect a TRS stereo cable into the MONO/STEREO TRS input jack. Use standard instrument cables to connect from both OUTPUT L & R to your output destination.

**Stereo In/ Mono Out:** When sending a stereo signal into the stereo TRS Input, use only OUTPUT L to sum to mono.

#### BYPASS OPTIONS:

**Buffered Bypass:** Instrument input remains buffered when Microcosm is disengaged, offering a more consistent dry tone and maintaining the stereo image. Effects immediately stop upon bypassing pedal.

**Buffered Bypass / Trails Mode:** The effect and loops will fade out naturally when bypassed, but will not process any new audio until the effect is engaged again.

**True Bypass Switching:** Microcosm uses two electromechanical relays for the left and right channels independently. These switch between the buffered signal (engaged) and unbuffered signal (disengaged). When bypassed, instrument input will pass through unaffected by Microcosm.

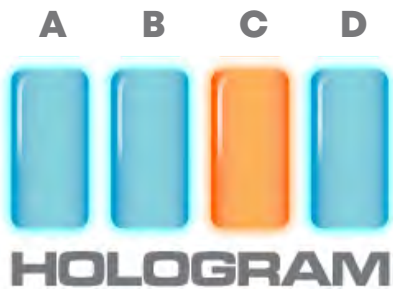
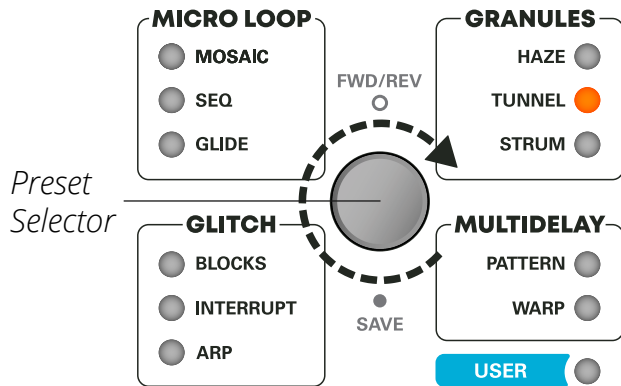
**\*Note:** *Trails Mode unavailable in true bypass mode ([see Global Configuration](#)).*

# 3 | NAVIGATION & CONTROLS

## PRESET SELECTOR

The **Preset Selector** is Microcosm's primary navigation device. Use it to scroll back and forth through various effects and menus. An amber light indicates active effect.

*\*The Selector can be configured to scroll through the effects in a circle or down the two rows in a list format (see [Global Configuration](#)).*



*\*In this example, Tunnel C is selected.*

## INDICATOR LIGHTS

The 4 lights found at the center of the pedal work as a menu system for selecting effects and configurations.

As you turn the **Preset Selector**, an amber cursor will indicate your location within the active effect bank. Each effect contains 4 presets (A-D). Idle the cursor over the desired preset slot to select. Upon selection, the surrounding bars will animate.

## PRESET SELECTOR FUNCTIONS

### FWD/REV

Press down on the **Preset Selector** to reverse effect playback. Indicator Lights animate to reflect playback direction.



*Reverse (swipes left)*

*Forward (swipes right)*

### SAVING PRESETS

Press & hold Preset Selector to copy current settings and active loop (see [Saving Presets](#)).

*\*In Phrase Looper configuration and Global Configuration modes, use the Preset Selector to make selections.*

### 3 | NAVIGATION & CONTROLS CONT.

## TIME

Controls either the Time Subdivision or Global Tempo.

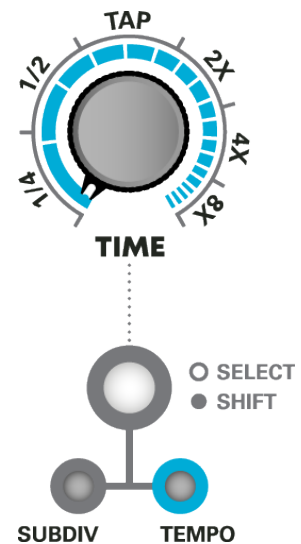
### SELECT (tap) / SHIFT (hold)

Tapping this button will toggle the function of the **Time** knob between Subdivisions or Global Tempo. The corresponding light beneath the button indicates the active setting.

**SUBDIV:** Determines the musical subdivision of the effect.

**TEMPO:** Time knob sets the overall global tempo. This mode offers a manual alternative to Tap Tempo and allows for smooth acceleration/ deceleration of the tempo. In this mode, the effect subdivision is always set to quarter notes.

*\*Note: Tap Tempo will still work while Tempo Mode is active.*



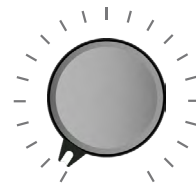
When held, this button functions as a **Shift** control, allowing access to a knob's Secondary Control. Secondary Controls are labeled in gray text beneath the corresponding knob.

**Phrase Looper:** Hold shift and turn Time knob to change looper playback speed (see [Phrase Looper](#)).



### ACTIVITY

Controls the density of the effects. Turn clockwise to add complexity and variety. Activity function varies preset to preset (see [Effects](#)).



### REPEATS

Determines the effect duration or frequency. Works in tandem with Activity knob. Repeats function varies preset to preset (see [Effects](#)).

**Secondary Control:** sets Pitch Modulation depth.

**Activity + Repeats:** the Activity and Repeats controls work together to provide a wide variety of tonal options for each preset. In general, Activity gives you “more” or “less” of what each preset does, and Repeats controls how long the effect goes on for. But rather than controlling any one specific parameter, Repeats and Activity are both sophisticated macro controls that encompass many different parameters to help you control each effect.

For example, in the Tunnel bank of effects, Activity controls the depth of the sample and filter manipulation, while Repeats adjusts the amount of time it takes for the drone to decay.

### 3 | NAVIGATION & CONTROLS CONT.

|   | Secondary Controls   |
|---|--|
| <p><b>SHAPE</b></p> <p>Applies a contour to the volume or filter characteristics of the effect.</p> | <p>Sets the Pitch Modulation rate.</p>   |
| <p><b>FILTER</b></p> <p>Cuts high frequencies with the Low-pass filter.</p>                         | <p>Adjusts the filter resonance.</p>   |
| <p><b>MIX</b></p> <p>Sets the balance between input signal and effect.</p>                          | <p>Adjusts the effect master volume.</p>   |
| <p><b>SPACE</b></p> <p>Mixes in reverberation and delay. When fully clockwise, mix is 100% wet.</p> | <p>Selects 1 of 4 reverb modes. These reverb options vary in length and character.</p> |
| <p><b>LOOP LEVEL</b></p> <p>Sets the playback volume of Phrase Looper.</p>                          | <p>Sets the loop fade time (<i>see Global Configuration to set fade direction</i>)</p> |

### FOOTSWITCHES



**TAP TEMPO:** Tap the left footswitch to set the effect tempo. Microcosm smoothly matches the tempo to the timing of quarter note taps.



**BYPASS:** Engages or disengages Microcosm.



**HOLD SAMPLER:** Press the right footswitch to freeze a recent piece of your playing into a continuous playback cycle (*see Hold Sampler*)

#### PHRASE LOOPER



**REC/PLAY/DUB:** Press to record, play, and overdub loops. Hold to erase Overdub Layer (*see Phrase Looper*)

*\*Activate **Phrase Looper** to change footswitch functionality.*

**STOP / ERASE:** Press to stop loop playback. Hold to erase loop (*see Phrase Looper*)

## 4 | EFFECTS & SIGNAL PATH

*Microcosm offers 11 distinct effects organized into 4 categories:*



### MICRO LOOP

Layers of short loops, played back at various speeds, combine to form new rhythmic phrases and tonal colors.



### GRANULES

Fragments of sound create giant atmospheres and subtle textural effects.



### GLITCH

Real-time rearrangements of your incoming signal play back at random or controlled intervals.



### MULTIDELAY

A delay line with a selectable number of taps creates a wide variety of rhythmic and textural effects.



**MOSAIC** : Overlapping loops play back at multiple speeds.

*Activity: determines the number of active loopers*

- |          |   |
|----------|---|
| <b>A</b> | Micro loops play back at normal and double speed for octave up harmonies  |
| <b>B</b> | Loops play back at normal and half speed for an effect one octave below your input  |
| <b>C</b> | All loops play back at double speed   |
| <b>D</b> | Loops play back at half, normal, double, and quad speed. Sounds range from one octave below your input to 2 octaves higher. |

## 4 | EFFECTS & SIGNAL PATH CONT.



**SEQ**: short looping samples are rearranged into new rhythmic sequences.



Live samples are filtered and shuffled into random rhythms

**Activity:** *introduces filter variations*



Sequenced samples alternate between normal and half speed playback

**Activity:** *determines bounce between the two playback speeds. A sustainer layer is introduced when the knob is fully clockwise, allowing for soft pads to sit under the sequence*



Overlapping layers of samples with filter sweeps

**Activity:** *adds layers of samples*



Interlocking layers of rhythmic samples and bit-crushing

**Activity:** *adds layers of rhythmic elements. Bit-crushed sub-octave samples are introduced when the knob is fully clockwise*



**GLIDE**: Short overlapping loops shift in pitch over time.

**Activity:** *controls the rate of pitch-shifting*

**Shape:** *determines the shape of the Glide pattern*



Glides between half speed and normal speed



Glides between double speed and half speed



Glides between normal speed and double speed



Overlapping samples glide in both directions at the same time



## 4 | EFFECTS & SIGNAL PATH CONT.



**HAZE** : Clusters of grains create a wash of sound.

*Activity: controls grain density and spread*

**A**

Short, diffused effect created from stretching overlapping samples

**B**

Many simultaneous randomized grains create diffused textural effects

**C**

A mixture of normal speed and double speed grains creates a diffused texture

**D**

A mixture of normal speed and half speed grains creates a diffused texture



**TUNNEL** : Cyclical micro-loops generate hypnotic drones with unique modifiers.

*Activity: determines the depth of each modifier*

**A**

Drone sample length compresses and lengthens

**B**

Sub-octave drone with filter sweeps

**C**

Drone samples have resonant bandpass filters

**D**

Envelope-triggered compressing and lengthening of drone sample length

## 4 | EFFECTS & SIGNAL PATH CONT.



**STRUM** : Rhythmic chains of recent note onsets create pointillistic textures

*Activity: controls density of pattern*



Repeats the most recent note continuously



Many copies of the most recent note onset overlap to create phasing effects



Cascading chains of recent note onsets



Cascading chains of recent note onsets and double speed grains



**BLOCKS** : Incoming audio triggers predictable glitches or random bursts of notes.

*Activity: controls the amount of variation and sample manipulation*



Rearranges your playing and adds bursts of sequenced runs of recent notes



Rearranges and pitch-shifts incoming signal



Filtered samples overlap and fade out resulting in a softer, less angular glitch sound



Rearranges the incoming signal using pitch-shifts and bit-crushing

## 4 | EFFECTS & SIGNAL PATH CONT.

 **INTERRUPT** : Glitches interrupt dry signal with pitch-shifted bursts, micro-montages, and other modifiers.

**Activity:** controls variation & sample manipulation

**Repeats:** determines how often glitches are triggered

- A** | Glitches and rearranged versions of your playing interrupt live signal
- B** | Interruptions include various pitch-shifted samples
- C** | Interruptions include filter sweeps and delay
- D** | Introduces bit-crushing and more drastic sample manipulations

**Note:** With Mix at 100%, the effect will truly “interrupt” the input by muting the dry signal.

 **ARP** : Sequences samples of recent note onsets into arpeggios

**Activity:** determines the number of steps in the arpeggio

- A** | Basic arpeggios created out of the most recent samples of your playing
- B** | Arpeggios include various playback speeds resulting in a pitch-shifted pattern
- C** | Each sample in the arpeggio is assigned a random filter value
- D** | Introduces bit-crushing to the arpeggios for a complex sound

## 4 | EFFECTS & SIGNAL PATH CONT.



**PATTERN** : Delay taps are arranged into four different rhythmic patterns.

*Activity: controls the number of active delay taps*



**A** Rhythmic pattern 1 - classic, linear delay



**B** Rhythmic pattern 2



**C** Rhythmic pattern 3



**D** Rhythmic pattern 4



**WARP** : Delay taps are manipulated using filters and pitch shifting to create spacious textural effects.

*Activity: controls the number of active delay taps*



**A** Envelope-controlled filter on each delay tap



**B** Resonant bandpass filter on each delay tap

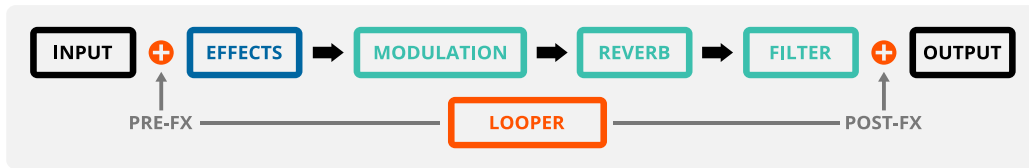


**C** Adds pitch shifting to delay taps



**D** Delay taps cross-fade with double speed grains

## 4 | EFFECTS & SIGNAL PATH CONT.



### PITCH MODULATION

Introduce Pitch Modulation for an effect ranging from subtle chorus to a dramatic detuned wobble. Determine the modulation depth and rate using secondary controls MOD DEPTH and MOD RATE.



### STEREO REVERB

Choose between 4 stereo reverb modes (A-D) by holding shift and adjusting REVERB TIME.

A B C D  
□ □ □ □

(A) Bright Room (B) Dark Medium  
(C) Large Hall (D) Ambient



### FILTER

Microcosm includes a Low-pass filter at the end of the effect chain. At 100% clockwise, the filter is bypassed. Turn to the left to cut high frequencies - killing all effect when fully counter clockwise. Adjust the filter resonance using the secondary control.

**\*Note:** These settings remain persistent through power cycles.

## 5 | HOLD SAMPLER



The Hold Sampler allows you to capture and sustain the most recent segment of your playing indefinitely. Held samples sustain when changing effects and parameters.

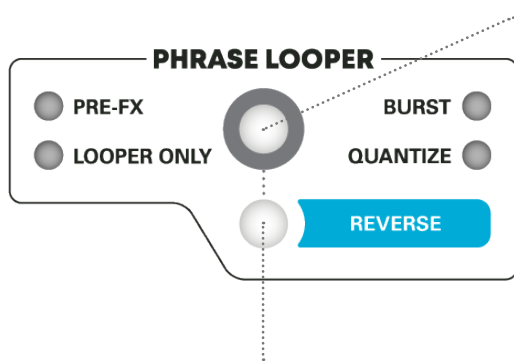
The sampled material is continuously fed back into the effects section. This allows the effects to dynamically process the captured material. Mixing in dry signal will allow you to play on top of these sustained textures.

The Hold Sampler can be configured for either **Toggle** or **Momentary** operation (see [Global Configuration](#)).

**\*Note:** Activating the **Phrase Looper** will clear any material captured by the Hold Sampler. The Hold Sampler is not accessible while Phrase Looper is active.

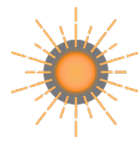
## 6 | PHRASE LOOPER

Use the Phrase Looper to record and play back up to 60 seconds of a performance. You can infinitely record to the Overdub Layer upon loop playback. Clear the Overdub Layer and return to the initial phrase with the undo feature. Customize the looper to your preference with any combination of configuration options. Loops can be saved and recalled within User Presets.



**PHRASE LOOPER ON/OFF** - Press to activate or deactivate the phrase looper. The button will glow when the looper is engaged, and the footswitch functions will change accordingly.

(ready to record)



(loaded loop)



**REVERSE** - Tap to reverse playback of the recorded material. If reverse is enabled while recording your initial phrase, it will be reversed upon playback.

When engaged, a pulsing light indicates that the looper is armed and ready to record. A solid light indicates recorded material is currently stored within the looper.

**\*Press and hold to enter Looper Configuration mode.**

### DEFAULT LOOPER FUNCTIONALITY

When **Phrase Looper** is active, the left and right footswitches allow you to record, play, stop, and erase audio.

**RECORDING A PHRASE** : Press the left footswitch to begin recording a phrase. The Indicator Lights will glow red while the audio is being captured. Press the left footswitch again when you are ready to close the loop and begin playback. The Indicator Lights will glow green and the recorded phrase will immediately begin playback.

**\*Note:** *Maximum recording time for initial phrase is 60 seconds. As a warning, the phrase looper button will blink during the last 5 seconds of available recording time.*

**OVERDUB LAYER** : You can infinitely record on top of your looped phrase by adding to the Overdub Layer. While your loop is playing, press the left footswitch to begin overdubbing (Indicator Lights will glow yellow). Press the left footswitch to return to normal playback.

**UNDO OVERDUB LAYER** : To erase the Overdub Layer *but retain the initial phrase*, press and hold the left footswitch (Indicator Lights will flash yellow).

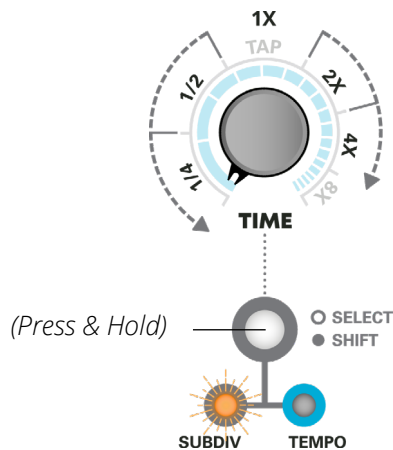
**STOP/ERASE LOOP** : Press the right footswitch to stop loop playback. This action will end playback but retain the recording for recall. Press the left footswitch to return to phrase playback.

To completely erase the recorded phrase, press and hold the right footswitch. The Indicator Lights will flash red and green alternately when the phrase has been deleted from memory.

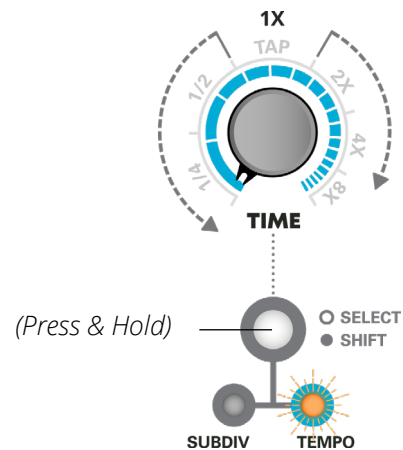
## 6 | PHRASE LOOPER CONTINUED

### LOOPER PLAYBACK SPEED

Determine the looper playback speed by holding **Shift** and turning the **Time** knob.



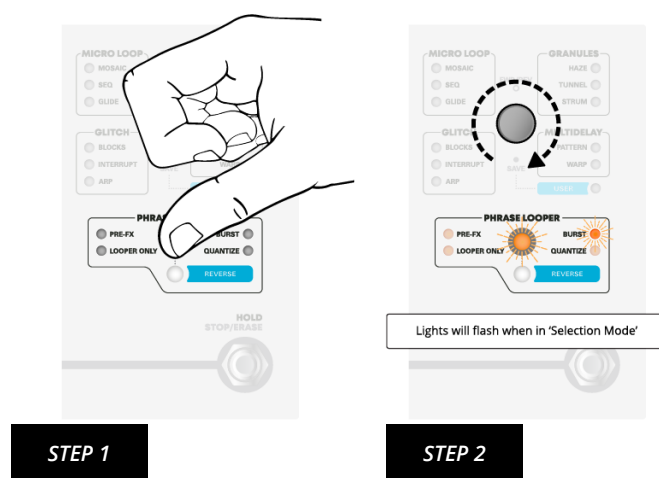
When assigned to **Subdiv**, the knob scrolls through predetermined playback speeds.



When assigned to **Tempo**, turning the knob results in a fluid speed shift anywhere from 1/4 to 4x.

**\*Note:** In both assignments, the “TAP” interval (1X) returns looper playback to normal speed. Looper playback speed maxes out at “4X”.

### ADDITIONAL PHRASE LOOPER CONFIGURATION



(1) Microcosm’s Phrase Looper has several configuration options that change the looper’s default behavior. To access these options, press and hold the **Phrase Looper button**.

(2) The amber cursor will begin to flash within the Phrase Looper section. Rotate the **Preset Selector** to scroll through the configurations. Tap the Preset Selector to toggle an option on or off.

**Hold the Phrase Looper button again to exit looper configuration.**

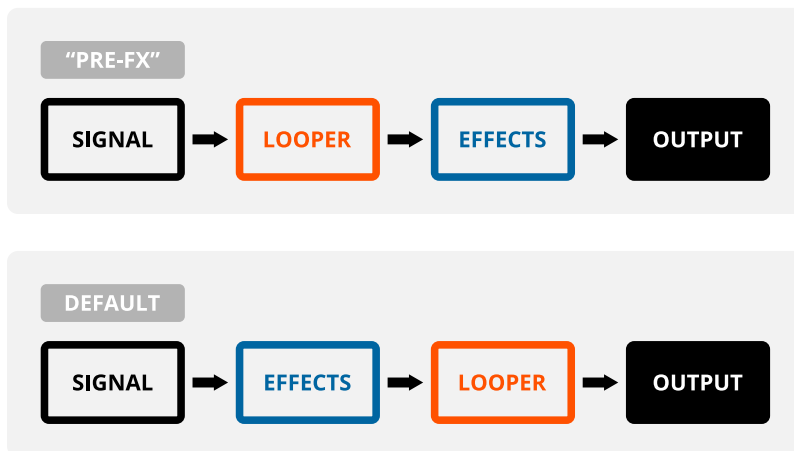
These settings will be preserved when saving a User Preset and persist after power cycling the pedal.

**\*Looper configurations can be toggled at any time without disrupting looper playback.**

## 6 | PHRASE LOOPER CONTINUED

### PRE-FX

With **Pre-FX** selected, the **Phrase Looper** will be routed in front of the effect. This means any recorded material will be sent through effect processing. This allows for manipulation of the phrase without altering the recorded material. The loop will be processed just like the instrument input.



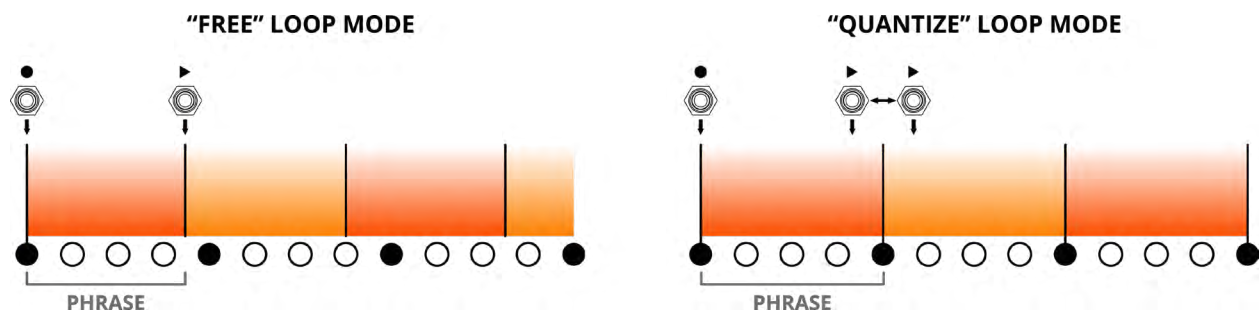
By default the looper is routed post-FX, for recording Microcosm's effects.

*\*Tip: Experiment with the two routing options. Try recording an effect in the default post-FX mode, then sending that loop back through the effects again. Both options offer very different experiences. Routing configuration will be saved within User Presets.*

### QUANTIZE

Quantize synchronizes your loops with the tempo of the effects section. This mode can produce extraordinarily complex compositions, as sequences and interlocking rhythmic elements can be continually layered while remaining in sync.

When the Phrase Looper is set to **Quantize**, Microcosm will trim your loop to the nearest beat in order to synchronize the loop to the effect tempo. The effect tempo must be set before recording starts. Starting a Phrase Looper recording will synchronize the effect and looper start points. When you finish recording the loop, Microcosm will "round" the loop length to the nearest quarter note and trim the loop accordingly.



*\*Note: effect subdivision can be changed freely while Quantize mode is active, but if the global tempo changes, the effect and loop will no longer be in sync. Simply switching presets will reset the global tempo to the quantized loop's tempo while this mode is active, re-syncing the effect and loop tempos.*



## 6 | PHRASE LOOPER CONTINUED

### BURST

Burst allows for the creation of fast, one-layer loops. In Burst mode, the left footswitch will record a loop only while the left footswitch is depressed. Playback begins immediately upon release. Depressing the footswitch again will immediately delete the phrase and begin capturing new audio.

This setting disables overdub recording, but it provides a special immediacy when recording and playing back loops that can be useful for creative performance styles.

*\*Phrases recorded in Burst mode will not be saved within **User Presets** unless Burst is deselected after recording.*

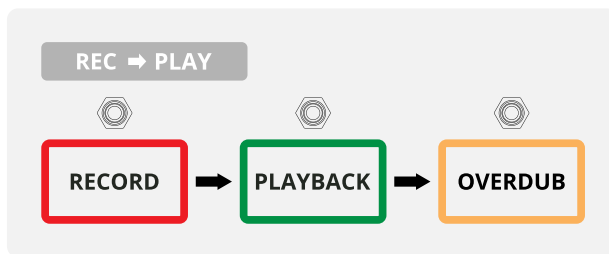
### LOOPER ONLY

Looper Only mode allows you to mute the effects and use the pedal as a traditional looper.

*\*Pitch Modulation, Reverb, and Filter remain active in Looper Only mode. Mix allows you to blend back and forth.*

### LOOPER ORDER OF OPERATION

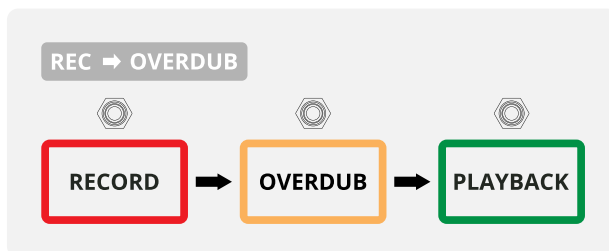
Microcosm offers two common workflows for recording loops. Select the option in Global Configuration Mode.



#### **RECORD > PLAY > OVERDUB (default)**

The default order of operations is as follows:

- a.** Press left footswitch to begin recording.
- b.** Press again to close the loop and begin playback.
- c.** Press again to begin recording an overdub.



#### **RECORD > OVERDUB > PLAY**

Alternatively, this option allows you to immediately start recording material the moment you close the loop.

Press the left footswitch again to return to normal playback.

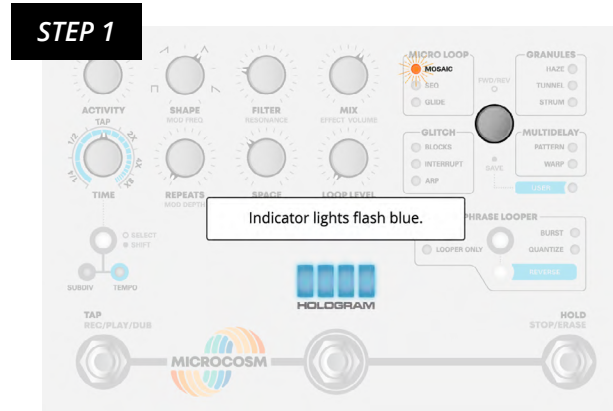
## 7 | SAVING PRESETS

Once you've found a sound you like you can save these settings for later recall.

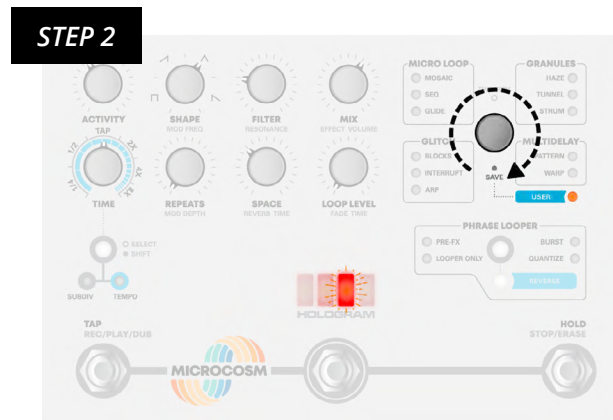
Microcosm's User Preset section has 16 save slots, organized into 4 color coded banks (Red, Yellow, Green, and Blue). User Presets will retain any parameters and loops that were active at the time of saving. Any overdubs will be "mixed down" into a single loop file so that additional overdubs can be layered on top in future performances.

**Global Configuration** settings are not saved with User Presets.

*To save current settings, follow these steps:*

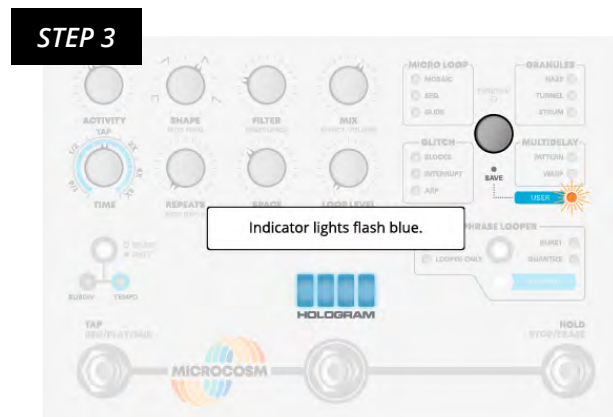


**(1)** Hold down the **Preset Selector** until the Indicator Lights flash blue. This indicates that the settings and recorded phrase have been copied.



**(2)** Cursor will blink to indicate copied material. Turn to the desired **User Preset** slot and hold down the Selector again to save the preset.

To cancel and return to normal operation, click the **Preset Selector**.



**(3)** Indicator Lights will flash blue as information is stored. Once lights stop flashing then all of the pedal's current parameters and any recorded phrases will be saved for future use.

**\*Note:** Longer recording times may take longer to save than presets with shorter loops.

## 7 | SAVING PRESETS CONTINUED

### LOADING USER PRESETS

The User Preset section has 16 save slots in 4 color-coded banks (Red, Yellow, Green, and Blue). Select a User Preset by scrolling to the end of the effects section to the bank labeled **User**. Scroll to the desired slot to load saved parameters and any recorded material.

***\*Note:** Knob position does not necessarily reflect the actual settings when using saved presets. The User presets retain settings from the moment they were saved. If you want to tweak a parameter, simply turn the knob and the setting will be updated to the actual knob position.*

### PREVIEWING & OVERWRITING USER PRESETS

#### PREVIEW USER PRESETS

You might want to preview a User Preset before you overwrite with new material. While your settings are copied (see "Step 1" of Saving Presets) the pedal will still operate and load presets. This allows you to sample saved loops or test saved effects before overwriting the copied effect.

#### OVERWRITE PRESET / SAVE IN PLACE

If the chosen **User** slot is already in use at the time of saving, the new settings will overwrite and replace the previous material. Likewise, any changes made to a User preset can be saved in place by copying the settings and saving to the same slot.

### COPYING LOOPS

You might have a saved loop but want to experiment with other effect options. In this case, you can transfer a loop from within a User Preset back to the effect section. To do this, follow the same pattern as saving presets.

Idle the cursor over the User Preset that contains the loop you want to transfer. Press and hold the Preset Selector until the Indicator Lights flash, indicating the loop has been copied. Navigate out of the user bank, turn to the desired effect, and hold selector again. Once the teal lights stop blinking, the loop will be ready for playback within the effect section.

***\*Note:** User Preset settings will not transfer to live effect section. Additionally, the transferred loop will overwrite any loop present at the time of saving.*

## 8 | MIDI





### CONTROL CHANGE

Microcosm's controls can be accessed and manipulated via MIDI CC messages.

| Function                  | MIDI Msg. | Range   |
|---------------------------|-----------|---|
| Subdiv                    | CC #5     | (0)=1/4, (1)=1/2, (2)=TAP, (3)=2x, (4)=4x, (5)=8x |
| Activity                  | CC #6     | 0-127   |
| Shape                     | CC #7     | 0-31 ▭, 32-63 ↗, 64-95 ▲, 96-127 ↘                |
| Filter                    | CC #8     | 0-127   |
| Mix                       | CC #9     | 0-127   |
| Time                      | CC #10    | 0-127   |
| Repeats                   | CC #11    | 0-127   |
| Space                     | CC #12    | 0-127   |
| Loop Level                | CC #13    | 0-127   |
| Mod Freq.                 | CC #14    | 0-127   |
| Filter Resonance          | CC #15    | 0-127   |
| Effect Volume             | CC #16    | 0-127   |
| Looper Playback Speed     | CC #17    | 0-127   |
| Looper Playback (Stepped) | CC #18    | (0)=1/4, (1)=1/2, (2)=TAP, (3)=2x, (4)=4x, (5)=8x |
| Mod Depth                 | CC #19    | 0-127   |
| Reverb Time               | CC #20    | 0-127   |
| Looper Fade Time          | CC #21    | 0-127   |
| Looper On / Off           | CC #22    | Off: 0-63, On: 64-127                             |
| Looper Playback Dir.      | CC #23    | Fwd: 0-63, Reverse: 64-127                        |
| Looper Routing            | CC #24    | Post-FX: 0-63, Pre-FX: 64-127                     |
| Looper Only               | CC #25    | Looper & Effects: 0-63, Looper Only: 64-127       |
| Looper Burst              | CC #26    | Default: 0-63, Burst: 64-127                      |
| Looper Quantized          | CC #27    | Free: 0-63, Quantize: 64-127                      |
| Looper Record             | CC #28    | 0-127   |
| Looper Play               | CC #29    | 0-127   |
| Looper Overdub            | CC #30    | 0-127   |
| Looper Stop               | CC #31    | 0-127   |
| Looper Erase              | CC #34    | 0-127   |
| Looper Undo               | CC #35    | 0-127   |
| Copy Preset               | CC #45    | 0-127   |
| Save Preset               | CC #46    | 0-127   |
| Reverse Effect            | CC #47    | 0-127   |
| Hold Sampler              | CC #48    | Off: 0-63, On: 64-127                             |
| TAP Tempo                 | CC #93    | 0-127   |
| Bypass                    | CC #102   | 0-63 bypass, 64-127 engage                        |

## PROGRAM CHANGE / PRESET CHART

Sending a Program Change message to the pedal will allow the user to switch between any of the 44 effect variations and 16 user presets.

| Program Change | Effect Preset       |  |
|----------------|---------------------|--|
| PC #1-4        | ARP - (A-D)         |  |
| PC #5-8        | INTERRUPT - (A-D)   |  |
| PC #9-12       | BLOCKS - (A-D)      |  |
| PC #13-16      | GLIDE - (A-D)       |  |
| PC #17-20      | SEQ - (A-D)         |  |
| PC #21-24      | MOSAIC - (A-D)      |  |
| PC #25-28      | HAZE - (A-D)        |  |
| PC #29-32      | TUNNEL - (A-D)      |  |
| PC #33-36      | STRUM - (A-D)       |  |
| PC #37-40      | PATTERN - (A-D)     |  |
| PC #41-44      | WARP - (A-D)        |  |
| PC #45-48      | USER BANK 1 - (A-D) |   |
| PC #49-52      | USER BANK 2 - (A-D) |  |
| PC #53-56      | USER BANK 3 - (A-D) |  |
| PC #57-60      | USER BANK 4 - (A-D) |  |

## CLOCK

Microcosm accepts MIDI clock signals via the MIDI IN jack. When it receives a MIDI Start message, the pedal will switch from its internal clock to the external clock signal. Upon receiving a MIDI Stop message, the pedal will revert to its internal clock. Note that Tap Tempo is not available when synchronized to an external clock. In addition to receiving MIDI clock, Microcosm can also transmit MIDI clock signals via the MIDI OUT jack.

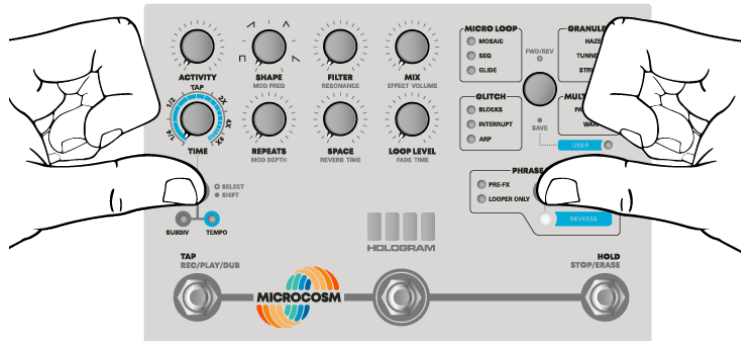
## THRU

Microcosm echoes any messages it receives on its MIDI IN port on the MIDI OUT port by default, so that other devices can be used simultaneously with a single MIDI connection from a MIDI source. The pedal listens for commands on Channel 1 by default, so other devices connected via MIDI OUT/THRU should be configured to listen on another channel. Alternatively, Microcosm's default MIDI channel can be changed in Global Configuration.

## 9 | GLOBAL CONFIGURATION

The Global Configuration mode lets you change the default behavior of Microcosm to suit your needs. In this mode, each of the 8 control knobs is assigned a specific configuration menu (refer to [chart on pg 23](#)).

### STEP 1



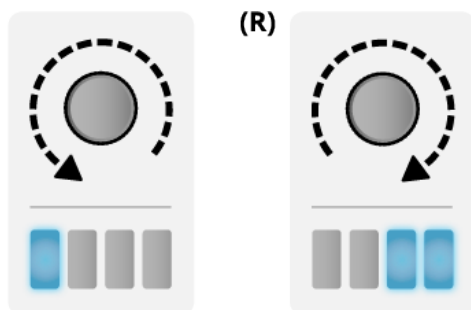
(1) To enter Global Configuration mode, hold both **Shift** and **Phrase Looper** buttons for two seconds until Indicator Lights animate amber. A cyclical light animation will confirm you have entered Global mode.

### STEP 2



(2) In Global Configuration mode, each control knob is assigned to a specific configuration menu. You can access these options by turning any one of the assigned knobs and opening the color-coded menu (In the example for steps 2 & 3, the Activity knob is being used to access the "input mode" configurations).

### STEP 3



(3) Navigate through the options using the **Preset Selector**, pressing to select an option. The cursor will glow white upon selection and save the setting to memory.

Any changes made in the Global Configuration Mode will be retained between power cycles. To choose a new menu, just turn the corresponding knob.

**\*To exit Global Configuration Mode, press the Bypass Footswitch or hold Shift and Phrase Looper buttons.**

## 9 | GLOBAL CONFIGURATION CONT.

### CONFIGURATION MODE MENUS

| <b>Control</b><br><i>(Step 2 - briefly move the knob to select)</i>                                  | <b>Menu</b><br><i>(Step 3 - use the Preset Selector to set)</i>  | <b>Factory Settings</b><br><i>(These are the default settings the pedal ships with)</i>  |
|--|--|--|
| 1. Activity<br>2. Shape<br>3. Filter<br>4. Mix<br>5. Time<br>6. Repeats<br>7. Space<br>8. Loop Level | Input Mode<br>Looper Shape<br>MIDI Thru / Clock<br>Input Level<br>MIDI Channel<br>Hold Style<br>Bypass Style<br>Looper Operation | Mono Input<br>Fade In / Out<br>Send Internal Clock, Transmit MIDI Thru<br>Instrument Level<br>MIDI Channel 1<br>Toggle<br>Buffered Bypass, No Trails<br>Rec > Play > Overdub |

#### 1 | INPUT MODE *(Activity knob)*

| Indicator | Configuration |
|-----------|---------------|
|           | Mono          |
|           | Stereo        |

#### 4 | INPUT LEVEL *(Mix knob)*

| Indicator | Configuration    |
|-----------|------------------|
|           | Instrument Level |
|           | Line Level       |

#### 2 | LOOPER SHAPE *(Shape knob)*

| Indicator | Configuration |
|-----------|---------------|
|           | Fade In / Out |
|           | Fade In Only  |
|           | Fade Out Only |

#### 5 | MIDI CHANNEL *(Time knob)*

| Indicators | Channels       |
|------------|----------------|
|            | Channels 1-4   |
|            | Channels 5-8   |
|            | Channels 9-12  |
|            | Channels 13-16 |

#### 3 | MIDI THRU / CLOCK *(Filter knob)*

| Indicator | Configuration                                 |
|-----------|---|
|           | Send Internal Clock, Transmit MIDI Thru       |
|           | Don't Send Internal Clock, Transmit MIDI Thru |
|           | Send Internal Clock, Don't Transmit Thru      |
|           | Don't Send Clock, Don't Transmit Thru         |

#### 6 | HOLD STYLE *(Repeats knob)*

| Indicator | Configuration |
|-----------|---------------|
|           | Toggle        |
|           | Momentary     |

## 9 | GLOBAL CONFIGURATION CONT.

### 7 | BYPASS STYLE (Space knob)

| Indicator | Configuration              |
|-----------|----------------------------|
| ■ □ □ □   | Buffered Bypass, No Trails |
| □ ■ □ □   | Buffered Bypass, Trails    |
| □ □ ■ □   | True Bypass                |

### 8 | LOOPER OPERATION (Loop Level knob)

| Indicator | Order                |
|-----------|----------------------|
| ■ □ □ □   | Rec > Play > Overdub |
| □ ■ □ □   | Rec > Overdub > Play |

### SCROLL DIRECTION

The Preset Selector can be configured to scroll through the effects in a circle or down the two rows in a list format.

To change the scroll direction:

- (1) Enter Global Configuration Mode.
- (2) Rapidly press the **Preset Selector** 3 times. Lights will animate in the scroll direction. Press 3 times again to change scrolling style.
- (3) Exit Global Configuration. This parameter will be saved and is persistent after power cycle.

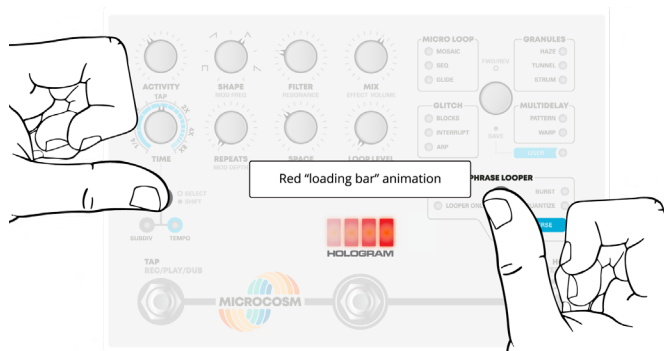
### RESET GLOBAL SETTINGS

If you want to reset all global settings back to the original factory settings, hold both the **Phrase Looper** button and **Reverse** button for 3 seconds.

The Indicator Lights will flash yellow to indicate the return to factory settings. All loops and presets will remain unaltered, but the global parameters will be changed.

### COMPLETE FACTORY RESET

You can also perform a complete Factory Reset from the global configuration mode. The factory reset will clear all User preset banks, erase all loops, and reset the global parameters back to the default settings.



(1) To perform a complete factory reset, hold the **Shift**, **Phrase Looper**, and **Reverse** buttons for 2 seconds. The Indicator Lights will animate red to indicate factory reset request.

(2) To confirm, press the Preset Selector. Do not unplug during reset.

(3) Upon returning to normal operation, power cycle Microcosm to reinitialize its set of configuration parameters.

*\*To cancel, tap the middle footswitch while the red animation plays.*



## 10 | 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](mailto:repairs@hologramelectronics.com).

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.

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